

**SPECIFICATIONS
AND
CONTRACT DOCUMENTS
FOR
2nd STREET IMPROVEMENTS**

PRESHO, SD

SPN #16586

NOVEMBER 2024

SPN

& Associates

ENGINEERS-PLANNERS- SURVEYORS

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2ND STREET IMPROVEMENTS

PRESHO, SOUTH DAKOTA

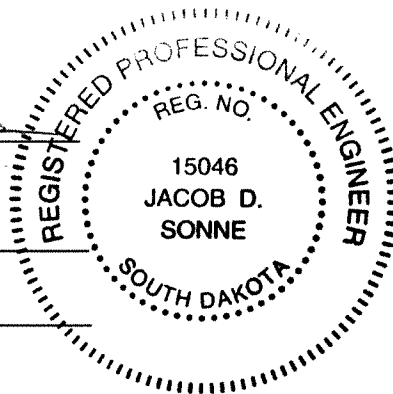
SPN #16586

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

By *Jacob D. Sonne*
Jacob D. Sonne, P.E.

Registration Number 15046

Date 12-2-2024



SCHMUCKER, PAUL, NOHR & ASSOCIATES
CONSULTING ENGINEERS - SURVEYORS
2100 NORTH SANBORN BLVD, PO BOX 398
MITCHELL, SOUTH DAKOTA 57301

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SECTION 00020 INVITATION TO BID

The City of Presho, South Dakota, will receive sealed bids for their 2nd Street Improvements Project until Thursday, January 9, at 2:00 p.m. local time. Mailed bids can be sent to the Finance Office at PO Box 100, Presho, SD 57568. Received sealed bids will be publicly opened and read aloud at the Finance Office located at 322 N. Main Street, Presho, SD 57568 at the above date and time.

Bids are invited upon the general items of work as follows:

1. 245 SqYd Asphalt Concrete Pavement Removal
2. 780 CuYd Unclassified Excavation and Embankment
3. 70 Ton Gravel Surfacing
4. 770 Ton Gravel Base Course
5. 250 Ton Asphalt Surfacing
6. 502 Ft Concrete Curb and Gutter
7. Miscellaneous Seeding, Erosion Control, Traffic Control, and Fencing

The approximate quantities mentioned above are subject to increase or decrease. It will be agreed by bidders that all quantities of work will be performed in accordance with the provisions of the specifications and at the unit price bid. Bidders agree to furnish all labor, material, and equipment necessary to complete all the work as shown in the plans and specifications.

The complete set of Contract Documents and specifications, is on file with the Finance Officer, Presho, South Dakota and/or at the office of Schmucker, Paul, Nohr and Associates, 2100 North Sanborn Blvd, Mitchell, South Dakota 57301. A paper copy of the contract documents and plans can be ordered with a non-refundable payment of \$35 plus applicable sales taxes. The contract documents and plans will also be made available at the SPN web site www.spn-assoc.com with a non-refundable payment of \$20. Upon request, one copy of the contract documents and plans will be furnished at no charge as required by SDCL 5-18B-1 to each contractor who is a South Dakota resident and who intends to bid the project.

Each bid must be accompanied by a certified check or bank draft payable to the order of the City of Presho, South Dakota, in an amount equal to five percent (5%) of the total bid. A bid bond in an amount equal to ten percent (10%) of the total bid will be accepted in lieu of a certified check or bank draft. Surety for bid bond must be authorized to do business in the State of South Dakota.

Pursuant to State Law, a copy of the bidder's sales and use tax license and a copy of the bidder's excise tax license as issued by the State of South Dakota must accompany the bid. In lieu of a copy of the license, the bidder shall submit appropriate evidence that the bidder and all affiliates have the appropriate licenses.

Bids may be held by the City Council for a period of not more than thirty (30) days from the date of opening of bids for the purpose of reviewing the bids, investigating the qualifications of the bidders and completing financial arrangements prior to awarding the Work. The Owner reserves the right to reject any or all bids and to waive any informalities in the bidding and make awards in the Owner's best interest.

By _____
Del Rae Diedrich, Finance Officer
City of Presho, South Dakota

Date: _____, 2024

Published two times at a total cost of _____

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INSTRUCTIONS TO BIDDERS

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INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT

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ARTICLE 1—DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office*—The office from which the Bidding Documents are to be issued, and which registers plan holders shall be Schmucker, Paul, Nohr and Associates located at 2100 North Sanborn Boulevard with a mailing address of PO Box 398, Mitchell, South Dakota, 57301.

ARTICLE 2—BIDDING DOCUMENTS

- 2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.
- 2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.
- 2.03 ~~Owner~~ Engineer has established a Bidding Documents Website as indicated in the Advertisement or invitation to bid. Owner recommends that Bidder register as a plan holder with the Issuing Office at such website, and obtain a complete set of the Bidding Documents from such website. Bidders may rely that sets of Bidding Documents obtained from the Bidding Documents Website are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.04 Bidder may register as a plan holder and obtain complete sets of Bidding Documents, in the number and format stated in the Advertisement or invitation to bid, from the Issuing Office. Bidders may rely that sets of Bidding Documents obtained from the Issuing Office are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.05 Plan rooms (including construction information subscription services, and electronic and virtual plan rooms) may distribute the Bidding Documents, or make them available for examination. Those prospective bidders that obtain an electronic (digital) copy of the Bidding Documents from a plan room are encouraged to register as plan holders from the Bidding Documents Website or Issuing Office. Owner is not responsible for omissions in Bidding Documents or other documents obtained from plan rooms, or for a Bidder's failure to obtain Addenda from a plan room.
- 2.06 *Electronic Documents*
- A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.

1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf) that is readable by Adobe Acrobat Reader ~~Version or later~~. It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.
- B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.06.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt, printing issues, scale of drawings, or assembly of pages of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

ARTICLE 3—QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within five (5) working days of Owner's request, Bidder must submit the following information:
 - A. Written evidence establishing its qualifications such as ~~financial data~~, previous experience, and present commitments.
 - B. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.
 - C. Bidder's state or other contractor license number, if applicable.
 - ~~D. Subcontractor and Supplier qualification information.~~
 - ~~E. Other required information regarding qualifications.~~
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

ARTICLE 4—PRE-BID CONFERENCE

- 4.01 A pre-bid conference will not be conducted for this Project.

ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

5.01 *Site and Other Areas*

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

5.02 *Existing Site Conditions*

A. *Subsurface and Physical Conditions; Hazardous Environmental Conditions*

1. The Supplementary Conditions identify the following regarding existing conditions at or adjacent to the Site:
 - a. ~~Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data.~~
 - b. ~~Those drawings known to Owner of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data.~~
 - c. ~~Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.~~
 - d. ~~Technical Data contained in such reports and drawings.~~
2. ~~Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.~~
3. ~~If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.~~
4. ~~Geotechnical Baseline Report/Geotechnical Data Report: The Bidding Documents contain a Geotechnical Baseline Report (GBR) and Geotechnical Data Report (GDR).~~
 - a. ~~As set forth in the Supplementary Conditions, the GBR describes certain select subsurface conditions that are anticipated to be encountered by Contractor during construction in specified locations ("Baseline Conditions"). The GBR is a Contract Document.~~
 - b. ~~The Baseline Conditions in the GBR are intended to reduce uncertainty and the degree of contingency in submitted Bids. However, Bidders cannot rely solely on the Baseline Conditions. Bids should be based on a comprehensive approach that includes an independent review and analysis of the GBR, all other Contract~~

~~Documents, Technical Data, other available information, and observable surface conditions. Not all potential subsurface conditions are baselined.~~

- ~~c. Nothing in the GBR is intended to relieve Bidders of the responsibility to make their own determinations regarding construction costs, bidding strategies, and Bid prices, nor of the responsibility to select and be responsible for the means, methods, techniques, sequences, and procedures of construction, and for safety precautions and programs incident thereto.~~
- ~~d. As set forth in the Supplementary Conditions, the GBR is a Contract Document containing data prepared by or for the Owner in support of the GBR.~~

B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A of these Instructions to Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

5.03 *Other Site-related Documents*

~~A. In addition to the documents regarding existing Site conditions referred to in Paragraph 5.02.A, the following other documents relating to conditions at or adjacent to the Site are known to Owner and made available to Bidders for reference:~~

~~1. —~~

~~Owner will make copies of these other Site-related documents available to any Bidder on request.~~

~~B. Owner has not verified the contents of these other Site-related documents, and Bidder may not rely on the accuracy of any data or information in such documents. Bidder is responsible for any interpretation or conclusion Bidder draws from the other Site-related documents.~~

~~C. The other Site-related documents are not part of the Contract Documents.~~

~~D. Bidders are encouraged to review the other Site-related documents, but Bidders will not be held accountable for any data or information in such documents. The requirement to review and take responsibility for documentary Site information is limited to information in (1) the Contract Documents and (2) the Technical Data.~~

E. No other Site-related documents are available.

5.04 *Site Visit and Testing by Bidders*

A. Bidder is required to visit the Site and conduct a thorough visual examination of the Site and adjacent areas. During the visit the Bidder must not disturb any ongoing operations at the Site.

~~B. A Site visit is scheduled following the pre-bid conference. Maps to the Site will be available at the pre-Bid conference.~~

~~C. A Site visit is scheduled for. Maps to the Site will be made available upon request.~~

D. Bidders visiting the Site are required to arrange their own transportation to the Site.

- ~~E. All access to the Site other than during a regularly scheduled Site visit must be coordinated through the following Owner or Engineer contact for visiting the Site: . Bidder must conduct the required Site visit during normal working hours.~~
- F. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- G. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.
- H. Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- I. Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

5.05 *Owner's Safety Program*

- ~~A. Site visits and work at the Site may be governed by an Owner safety program. If an Owner safety program exists, it will be noted in the Supplementary Conditions. No Owner safety Program exists for this project.~~

5.06 *Other Work at the Site*

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

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Express Representations and Certifications in Bid Form, Agreement*

- A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.
- B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

ARTICLE 7—INTERPRETATIONS AND ADDENDA

- 7.01 ~~Owner~~ Engineer on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.
- 7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer ~~in writing. Contact information and submittal procedures for such questions are as follows:~~
- A. —
- 7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than seven days prior to the date for opening of Bids may not be answered.
- 7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

ARTICLE 8—BID SECURITY

- 8.01 ~~A Bid must be accompanied by Bid security made payable to Owner in an amount of percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents. A Bid must be accompanied by Bid security made payable to Owner. Bid security in the form of a certified check or bank money order shall be in an amount of not less than five percent (5%) of Bidder's maximum Bid price or in the form of a Bid bond (on the form included in the Bid Documents or other such form as approved by Owner) in an amount of not less than ten percent (10%) of Bidder's maximum Bid price issued by a surety meeting the requirements as set forth in the following paragraphs and Paragraph 6.01 of the General Conditions.~~
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within ~~15-21~~ days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the

Contract or 30 ~~61~~ days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

ARTICLE 9—CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.
- 9.02 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 10—SUBSTITUTE AND “OR EQUAL” ITEMS

- 10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those “or-equal” or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an “or-equal” or substitute unless written request for approval has been submitted by Bidder and has been received by Engineer within 10 days of the issuance of the Advertisement for Bids or invitation to Bidders. Each such request must comply with the requirements of Paragraphs 7.05 and 7.06 of the General Conditions, and the review of the request will be governed by the principles in those paragraphs. The burden of proof of the merit of the proposed item is upon Bidder. Engineer’s decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all registered Bidders. Bidders cannot rely upon approvals made in any other manner.
- 10.02 All prices that Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder’s sole risk.

ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 11.01 ~~A Bidder must be prepared to retain specific Subcontractors and Suppliers for the performance of the Work if required to do so by the Bidding Documents or in the Specifications. If a prospective Bidder objects to retaining any such Subcontractor or Supplier and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.~~
- 11.02 The apparent Successful Bidder, and any other Bidder so requested, must submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work within five days after Bid opening-
- 11.03 If requested by Owner, such list must be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor or Supplier. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor or Supplier, Owner may, before the Notice of Award is given,

request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder will submit a substitute, ~~Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.~~

- 11.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors and Suppliers. ~~Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder.~~ Any Subcontractor or Supplier, so listed and against which Owner or Engineer makes no ~~written~~ objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.

ARTICLE 12—PREPARATION OF BID

- 12.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
 - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words “No Bid” or “Not Applicable.”
- 12.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.
- 12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.
- 12.04 A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.
- 12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.
- 12.06 A Bid by an individual must show the Bidder's name and official address.
- 12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.
- 12.08 All names must be printed in ink below the signatures.

- 12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.
- 12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.
- 12.11 The Bid must contain evidence of items ~~required in Article 3. Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.~~
- 12.12 ~~If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.~~

ARTICLE 13—BASIS OF BID

13.01 *Lump Sum*

A.—~~Bidders must submit a Bid on a lump sum basis as set forth in the Bid Form.~~

13.02 *Base Bid with Alternates*

A.—~~Bidders must submit a Bid on a lump sum basis for the base Bid and include a separate price for each alternate described in the Bidding Documents and as provided for in the Bid Form. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate.~~

B.—~~In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form.~~

13.03 *Sectional Bids*

A.—~~Bidders may submit a Bid on any individual section or any combination of sections, as set forth in the Bid Form.~~

B.—~~Submission of a Bid on any section signifies Bidder's willingness to enter into a Contract for that section alone at the price offered.~~

C.—~~If Bidder submits Bids on individual sections and a Bid based on a combination of those sections, such combined Bid need not be the sum of the Bids on the individual sections.~~

D.—~~Bidders offering a Bid on one or more sections must be capable of completing the Work covered by those sections within the time period stated in the Agreement.~~

13.04 *Cost-Plus-Fee Bids*

A.—~~Bidders must submit a Bid on the Contractor's fee, which must be in addition to compensation for Cost of the Work. Such fee must be either (1) a fixed fee, (2) percentages of specified categories of costs, or (3) a percentage applicable to the Cost of the Work as a whole, as set forth in the Bid Form.~~

B.—~~If the Contractor's fee, as set forth in the Bid Form, is to be based on percentages of categories of cost, or on a percentage applicable to the Cost of the Work as a whole, then~~

~~Bidders must enter a maximum amount limiting the total fee if required by the Bid Form to do so.~~

- ~~C. Bidders must submit a Bid on the Guaranteed Maximum Price, setting a maximum amount on the compensable Cost of the Work plus Contractor's fee, if required by the Bid Form to do so.~~

13.05 *Unit Price*

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

13.06 *Allowances*

- A. For cash allowances the Bid price must include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

13.07 *Price Plus Time Bids*

- ~~A. The Owner will consider the time of Substantial Completion commitment made by the Bidder in the comparison of Bids.~~
- ~~B. Bidder must designate the number of days required to achieve Substantial Completion of the Work and enter that number in the Bid Form as the total number of calendar days to substantially complete the Work.~~
- ~~C. The total number of calendar days for Substantial Completion designated by Bidder must be less than or equal to a maximum of, but not less than the minimum of. If Bidder purports to designate a time for Substantial Completion that is less than the allowed minimum, or greater than the allowed maximum, Owner will reject the Bid as nonresponsive.~~
- ~~D. The Agreement as executed will contain the Substantial Completion time designated in Successful Bidder's Bid, and the Contractor will be assessed liquidated damages at the rate stated in the Agreement for failure to attain Substantial Completion within that time.~~
- ~~E. Bidder must also designate the time in which it will achieve Milestones, and achieve readiness for final payment. Such time commitments must be consistent with the "Time of Substantial Completion" to which Bidder commits. The Agreement as executed will contain, as binding Contract Times, Successful Bidder's time commitments regarding Milestones, as applicable, and readiness for final payment.~~

ARTICLE 14—SUBMITTAL OF BID

- 14.01 ~~The Bidding Documents include one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 2 of the Bid Form. Bidder shall submit Bid Form.~~ Bidders shall submit Bid Form, Bid Security and other documents as listed in Article 7 of the Bid Form. Refer to Article 7.01 of the Bid Form for a list of documents required to be submitted with the Bid.
- 14.02 A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or invitation to bid and must be enclosed in a plainly marked package with the Project title, and, if applicable, the designated portion of the Project for which the Bid is submitted, the name and address of Bidder, and must be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid must be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid must be addressed to the location designated in the Advertisement.
- 14.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.
- 14.04 The Bid Schedule as shown on the Bid Form may be reproduced electronically and submitted with the Bid Form included as part of this document. Conflicts and errors in the reproduced Bid Schedules between item Descriptions, Quantities and Units shall be resolved and governed by the Bid Form as bound herein.

ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID

- 15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 15.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid,

and the Bid security will be returned. ~~Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.~~

ARTICLE 16—OPENING OF BIDS

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

ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form. Should there be any reason why the contract cannot be awarded within the period of time stated in the Bid Form, the time may be extended by mutual agreement. ~~but~~, Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period

ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.

18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.

18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.

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

18.05 *Evaluation of Bids*

A. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

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

~~C. For determination of the apparent low Bidder(s) when sectional bids are submitted, Bids will be compared on the basis of the aggregate of the Bids for separate sections and the Bids for combined sections that result in the lowest total amount for all of the Work.~~

- D. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.
- ~~E. For the determination of the apparent low Bidder when cost-plus-fee bids are submitted, Bids will be compared on the basis of the Guaranteed Maximum Price set forth by Bidder on the Bid Form.~~
- ~~F. Bid prices will be compared after adjusting for differences in time of Substantial Completion (total number of calendar days to substantially complete the Work) designated by Bidders. The adjusting amount will be determined at the rate set forth in the Agreement for liquidated damages for failing to achieve Substantial Completion, or such other amount that Owner has designated in the Bid Form.~~
- ~~1. The method for calculating the lowest bid for comparison will be the summation of the Bid price shown in the Bid Form plus the product of the Bidder specified time of Substantial Completion in calendar days times the rate for liquidated damages in dollars per day.~~
 - ~~2. This procedure is only used to determine the lowest bid for comparison and contractor selection purposes. The Contract Price for compensation and payment purposes remains the Bid price shown in the Bid Form.~~

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

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

ARTICLE 19—BONDS AND INSURANCE

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

19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.

ARTICLE 20—SIGNING OF AGREEMENT

20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within ~~15~~ 21 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful

Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 21— SALES AND USE TAXES

21.01 The Project has been classified primarily as a municipal street improvement project and as such is subject to the Contractor's 2 percent Excise Tax on gross receipts according to SDCL 10-46-A.

ARTICLE 22— WAGE RATE DETERMINATION

22.01 This article is not applicable to this project.

ARTICLE 23— NONDISCRIMINATION IN EMPLOYMENT

23.01 This article is not applicable to this project.

ARTICLE 24— GOALS FOR DBE/MBE AND WBE PARTICIPATION

24.01 This article is not applicable to *this project*.

ARTICLE 25—AMERICAN IRON AND STEEL

25.01 This article is not applicable to this project.

ARTICLE 26—BUILD AMERICA, BUY AMERICA

26.01 This article is not applicable to this project.

ARTICLE 27— PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

27.01 This article is not applicable to this project.

BIDDING DOCUMENTS

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BID FORM
2ND STREET IMPROVEMENTS
PRESHO, SOUTH DAKOTA

SPN #16586

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BID FORM FOR CONSTRUCTION CONTRACT

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

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

City of Presho
322 N Main Street
Presho SD 57568

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

ARTICLE 2—ATTACHMENTS TO THIS BID

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

- A. Required Bid security
- B. Non-Collusion Affidavit
- C. Statement of Qualifications
- D. Certification of State Sales Tax License

ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

3.01 *Unit Price Bids*

- A. The Bidder will perform the following Work at the indicated unit prices.

Bid Schedule A

Item #	Description	Quantity	Unit Price	Total Price
1	Mobilization	1 LS		
2	Remove Asphalt Surfacing	245 SY		
3	Remove Concrete Surfacing	46 SY		
4	Full Depth Asphalt Sawcut	95 LF		
5	Full Depth Concrete Sawcut	25 LF		
6	Remove, Salvage, and Reset Vinyl Fence	283 LF		
7	Unclassified Excavation and Embankment	780 CY		
8	Emankment from City Borrow Pit	166 CY		
9	Remove, Salvage, and Place Topsoil	580 SY		
10	Gravel surfacing (6" Depth)	70 TN		
11	Base Course (8" Depth)	770 TN		
12	Asphalt Surfacing (3" Depth)	250 TN		
13	Geotextile Fabric Separator	1,594 SY		
14	Concrete Curb and Gutter	502 LF		
15	6" Concrete Approach Pavement	15 SY		
16	Adjust Manhole to Grade	2 EA		
17	Adjust Valve Box to Grade	1 EA		
18	Seed and Fertilize	83 SY		
19	Seed, Fertilize, and Hydromulch	580 SY		
20	Sediment Control at Inlet with Frame and Grate	2 EA		
21	Type 1 Turf Reinforcement Mat	83 SY		
22	Traffic Control Signage	200 SF		
23	Traffic Control Barricade	15 EA		
24	Miscellaneous Traffic Control	1 LS		

Total For Bid Schedule A Items 1 - 24 Inclusive _____

B. Bidder acknowledges that:

1. each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
2. estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 4—DELETED

ARTICLE 5—DELETED

ARTICLE 6—TIME OF COMPLETION

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

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

ARTICLE 7—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

7.01 *Bid Acceptance Period*

- A. This Bid will remain subject to acceptance for ~~60~~ 30 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

7.02 *Instructions to Bidders*

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

7.03 *Receipt of Addenda*

- A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 8—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

8.01 *Bidder's Representations*

- A. In submitting this Bid, Bidder represents the following:

1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

8.02 *Bidder's Certifications*

- A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 - c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
 - d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

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

Attest: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

Address for giving notices:

Bidder's Contact:

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Phone: _____

Email: _____

Address: _____

Bidder's Contractor License No.: (if applicable) _____

BID BOND (PENAL SUM FORM)

Bidder Name: Address	Surety Name: Address
Owner Name: Address	Bid Project: Bid Due Date:
Bond Penal Sum: Date of Bond:	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder	Surety
_____ <i>(Full formal name of Bidder)</i>	_____ <i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <i>(Signature)</i>	By: _____ <i>(Signature) (Attach Power of Attorney)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____ <i>(Signature)</i>	Attest: _____ <i>(Signature)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
<i>Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.</i>	

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation will be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

SECTION 00431 NON-COLLUSION AFFIDAVIT

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He is _____ of _____,
(Title) (Firm)

the Bidder that has submitted the attached Bid.

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly with any other Bidder, firm, or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm, or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit, or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the Owner or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

Title

Subscribed and sworn to before me

this ____ day of _____, 20____.

Title

My commission expires _____

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SECTION 00436 STATEMENT OF QUALIFICATIONS

To: **City of Presho, South Dakota**

Project: **2ND Street Improvements**

At: **Presho, South Dakota**

Date Submitted: _____ Bid Letting Date _____

The following statements of qualifications and experience are current for:

Name of Organization	Address
----------------------	---------

We are incorporated in the State of _____

Our principal work is _____

EXPERIENCE RECORD

A. Completed projects: (List several from past two years.)

Location and Description of Work	Owner	Contract Amount	Date Completed
-------------------------------------	-------	--------------------	-------------------

B. Work in Progress

Location and Description of Work	Owner	Contract Amount	Date Completed
-------------------------------------	-------	--------------------	-------------------

C. Major Equipment

The following list of major equipment is proposed for use on this Project:

Description	Manufacturer	Size & Class	Capacity	Year	Mfd.
-------------	--------------	--------------	----------	------	------

D. Superintendent

Our superintendent or foreman of this project will be:

His experience includes: _____

General statement of experience and qualification of this organization

includes: _____

E. Bonding Company

Our Bonding Company is: _____

Address: _____ Phone No. _____

F. Subcontractors and Suppliers

Proposed Sub-Contractors: Identify and give brief narrative on each subcontractor including name, address, work to be performed and qualifications. (Indicate which firms are MBE or WBE)

G. Certification

I certify that all of the statements outlined above are true representations.

FIRM NAME _____

Prepared by _____
Signature

Title _____

Address _____

Telephone No. _____

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SECTION 00440 CERTIFICATION OF STATE TAX LICENSE

CERTIFICATION OF STATE TAX AND EXCISE TAX LICENSE

State of _____)
County of _____)SS

_____, being first duly sworn, deposes and says that:

(1) He is _____ of _____,
(Title) (Firm)
the Bidder that has submitted the attached Bid.

(2) The following tax license numbers are those issued by the South Dakota Department of Revenue on behalf of the State of South Dakota:

Sales and Use Tax License Number: _____

Contractor's Excise Tax License Number: _____

(Signed) _____

Title

Subscribed and sworn to before me

this ____ day of _____, 20 ____.

Title

My commission expires: _____

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CONTRACT DOCUMENTS

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NOTICE OF AWARD

Date of Issuance: _____
Owner: City of Presho Owner's Project No.: _____
Engineer: SPN and Associates Engineer's Project No.: 16586
Project: 2nd Street Extension
Contract Name: Schedule A
Bidder: _____
Bidder's Address: _____

You are notified that Owner has accepted your Bid dated [_____] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

[_____]

The Contract Price of the awarded Contract is \$[_____]. Contract Price is based upon the Bid Form and Unit Prices as set forth thereon.

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

Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within ~~15~~21 days of the date of receipt of this Notice of Award:

1. Deliver to Owner five counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any): [Describe other conditions that require Successful Bidder's compliance]

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

Within 10 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: _____
By (*signature*): _____
Name (*printed*): _____
Title: _____

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**AGREEMENT
BETWEEN OWNER AND CONTRACTOR FOR
CONSTRUCTION CONTRACT**

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AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

This Agreement is by and between _____ **City of Presho, South Dakota,** _____ (“Owner”) and
_____ (“Contractor”).

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

Owner and Contractor hereby agree as follows:

ARTICLE 1—WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

2nd Street Improvements

ARTICLE 2—THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

Bid Schedule A

ARTICLE 3—ENGINEER

3.01 The Owner has retained **Schmucker, Paul, Nohr and Associates** (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

~~3.02 The part of the Project that pertains to the Work has been designed by “Engineer”.~~

ARTICLE 4—CONTRACT TIMES

4.01 *Time is of the Essence*

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

4.02 *Contract Times: Dates*

A. Bid Schedule A

The Work will be substantially complete on or before **August 12, 2025**, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 30 days of the Date of Substantial Completion.

Work can not proceed until the 2024-2025 school year ends, which is anticipated to be May 21, 2024.

4.04 *Milestones*

A. None

4.05 *Liquidated Damages*

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

1. *Substantial Completion:* Contractor shall pay Owner for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete. The payments shall be: \$900.
2. *Completion of Remaining Work:* After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner for each day that expires after such time until the Work is completed and ready for final payment. The payments shall be: \$450.
3. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.

B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

C. ~~*Bonus:* Contractor and Owner further recognize the Owner will realize financial and other benefits if the Work is completed prior to the time specified for Substantial Completion. Accordingly, Owner and Contractor agree that as a bonus for early completion, Owner shall pay Contractor \$ for each day prior to the time specified above for Substantial Completion (as duly adjusted pursuant to the Contract) that the Work is substantially complete. The maximum value of the bonus will be limited to \$.~~

4.06 ~~Special Damages~~

- A. ~~Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.~~
- B. ~~After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.~~
- C. ~~The special damages imposed in this paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.~~

ARTICLE 5—CONTRACT PRICE

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

- A. ~~For all Work other than Unit Price Work, a lump sum of \$.~~

~~All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.~~

- B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual estimated quantity of that item as indicated on the Bid Form as submitted by the Contractor for contracts that have been awarded which is attached hereto as an Exhibit).

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

- C. ~~Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) \$.~~
- D. ~~For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.~~

ARTICLE 6—PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

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

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on the basis of Contractor's Applications for Payment ~~on or about the day of each month~~ during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. Each monthly payment period shall end 11 days prior to the City Council's monthly meeting. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.
- a. **90** percent of the value of the Work completed (with the balance being retainage).
~~If 50 percent or more of the Work has been completed, as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and~~
- b. **90** percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion Owner shall pay an amount sufficient to increase total payments to Contractor to **95** percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **200** percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

6.04 *Consent of Surety*

- A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.05 *Interest*

- A. All amounts not paid when due will bear interest at the rate of **12** percent per annum.

ARTICLE 7—CONTRACT DOCUMENTS

7.01 *Contents*

- A. The Contract Documents consist of the following:

Notice of Award

This Agreement.

Notice to Proceed
Performance Bond.
Payment Bond.
General Conditions.
Supplementary Conditions.
Drawings.
Addenda.

Exhibits to this Agreement (enumerated as follows):

- a. Contractor's Bid.
- b. Documentation submitted by Contractor prior to Notice of Award.

The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:

- a. Work Change Directives.
 - b. Change Orders.
 - c. Field Orders.
- B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 Contractor's Representations

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
1. Contractor has examined and carefully studied the Contract Documents, including Addenda.
 2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.

5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:
 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

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

8.03 *Standard General Conditions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or “track changes” (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

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

Owner:

CITY OF PRESHO, SOUTH DAKOTA

(typed or printed name of organization)

By:

(individual's signature)

Date:

(date signed)

Name:

(typed or printed)

Title:

(typed or printed)

Attest:

(individual's signature)

Title:

(typed or printed)

Address for giving notices:

Contractor:

(typed or printed name of organization)

By:

(individual's signature)

Date:

(date signed)

Name:

(typed or printed)

Title:

(typed or printed)

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

Attest:

(individual's signature)

Title:

(typed or printed)

Address for giving notices:

NOTICE TO PROCEED

Owner: City of Presho

Engineer: SPN and Associates Inc Engineer's Project No.: 16586

Contractor: _____

Project: 2nd Street Improvements

Contract Name: Schedule A

Effective Date of Contract: _____

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on _____ pursuant to as identified in Paragraph 4.01 of the General Conditions. On or before that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement:

The date by which Substantial Completion must be achieved ~~is~~ and the date by which readiness for final payment must be achieved ~~is~~ are identified in the Agreement.

Before starting any Work at the Site, Contractor must comply with the following: None

Owner: City of Presho

By (*signature*): _____

Name (*printed*): Angela Ehlers

Title: Mayor

Date Issued: _____

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PERFORMANCE BOND

Contractor Name: Address:	Surety Name: Address:
Owner Name: Mailing address:	Contract Description: Contract Price: Effective Date of Contract:
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
_____ <i>(Full formal name of Contractor)</i>	_____ <i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <div style="text-align: center;"><i>(Signature)</i></div>	By: _____ <div style="text-align: center;"><i>(Signature)(Attach Power of Attorney)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>	Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
 - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
 - 3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
 - 5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
 - 5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
 - 5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

- 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
 - 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
- 6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
- 7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
 - 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
 - 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
 - 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- 8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
- 9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
- 10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
- 11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
- 12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
- 13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such

statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

- 14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
 - 14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
 - 14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
 - 14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. Modifications to this Bond are as follows: None.

PAYMENT BOND

Contractor Name: Address	Surety Name: Address
Owner Name: Mailing address	Contract Description: Contract Price: Effective Date of Contract:
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <i>(Signature)</i>	By: _____ <i>(Signature)(Attach Power of Attorney)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____ <i>(Signature)</i>	Attest: _____ <i>(Signature)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
 - 5.1. Claimants who do not have a direct contract with the Contractor
 - 5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2. Pay or arrange for payment of any undisputed amounts.
 - 7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. Definitions
 - 16.1. *Claim*—A written statement by the Claimant including at a minimum:
 - 16.1.1. The name of the Claimant;
 - 16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;
 - 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 - 16.1.4. A brief description of the labor, materials, or equipment furnished;

- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 - 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 - 16.1.7. The total amount of previous payments received by the Claimant; and
 - 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic’s lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of “labor, materials, or equipment” that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor’s subcontractors, and all other items for which a mechanic’s lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
18. Modifications to this Bond are as follows: None.

GENERAL CONDITIONS

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*
 - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

- requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
 12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 17. *Cost of the Work*—See Paragraph 13.01 for definition.
 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *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.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *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.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *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 of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - 1. does not conform to the Contract Documents;
 - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
 - 1. The word “furnish,” when used in connection with services, materials, or equipment, means 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, means 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, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 - 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. 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 Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

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

2.05 *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 the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
 - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

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

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

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

3.04 *Requirements of the Contract Documents*

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

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

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

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

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

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

5.02 *Use of Site and Other Areas*

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

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
 - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

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

5.03 *Subsurface and Physical Conditions*

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

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

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

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
- a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions*: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities*: Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

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

- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

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

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

- of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

- Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
 - F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
 - G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
 - H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
 - I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
 - J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
 - K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is 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; and
 - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. 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 all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights 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 insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *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.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *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 maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. 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 will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will 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 must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 *Substitutes*

- A. *Contractor's Request; Governing Criteria:* Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

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

7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *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.

7.11 *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. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

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

7.13 *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.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. 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.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. 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.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

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

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent 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 by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. 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, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
1. abuse, or improper modification, 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.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
1. Observations by Engineer;
 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. Use or occupancy of the Work or any part thereof by Owner;
 5. Any review and approval of a Shop Drawing or Sample submittal;
 6. The issuance of a notice of acceptability by Engineer;
 7. The end of the correction period established in Paragraph 15.08;
 8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (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 from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will 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.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. 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.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, 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.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

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

9.03 *Furnish Data*

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

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

- 9.05 *Lands and Easements; Reports, Tests, and Drawings*
- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
 - B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
 - C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.
- 9.06 *Insurance*
- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.
- 9.07 *Change Orders*
- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.
- 9.08 *Inspections, Tests, and Approvals*
- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.
- 9.09 *Limitations on Owner's Responsibilities*
- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- 9.10 *Undisclosed Hazardous Environmental Condition*
- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.
- 9.11 *Evidence of Financial Arrangements*
- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).
- 9.12 *Safety Programs*
- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
 - B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

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

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

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

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

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

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will 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 Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

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

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
 - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

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

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. *Change Proposal Procedures*

1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

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

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will 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 in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will 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 accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will 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, which 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 will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
 5. Other costs consisting of 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, 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.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
- 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
- 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed 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 builder's risk or other property insurance established in accordance with Paragraph 6.04), 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 include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

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

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general 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 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
- 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 5. 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.
- 6. Expenses incurred in preparing and advancing Claims.
- 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

- 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
- 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 Allowances

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

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

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

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction 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 with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

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

- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

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

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

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

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

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

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 - 2. 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 must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

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

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.
- D. *Payment Becomes Due*
1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.
- E. *Reductions in Payment by Owner*
1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

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

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. 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. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

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

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all 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). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. 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.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

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

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

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

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

- attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
 - G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
 2. agree with the other party to submit the dispute to another dispute resolution process; or
 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

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

18.03 *Cumulative Remedies*

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

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Assignment of Contract*

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

18.09 *Successors and Assigns*

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

18.10 *Headings*

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

SUPPLEMENTARY CONDITIONS

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SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

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SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

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

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added—for example, "Paragraph SC-4.05."

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

SC-1.01.A.51 Add the following new Paragraph after Paragraph 1.01.A.50:

Final Completion - The date as determined by the Owner and Engineer when no further portion of the Work remains to be done, including all paperwork such as but not limited to payroll forms if required, lien waivers, etc., and all work is acceptable under the Contract Documents. The ~~Owner and~~ Engineer shall then issue a Statement of Final Acceptance effective that date and Owner will issue final payment.

ARTICLE 2—PRELIMINARY MATTERS

2.02 *Copies of Documents*

SC-2.02 Amend the first sentence of Paragraph 2.02.A. to read as follows:

Owner shall furnish to Contractor up to five printed copies of the Contract Documents (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF).

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.03 *Reporting and Resolving Discrepancies*

SC-3.03.B.1 The following shall be added to Paragraph 3.03.B.1 as Paragraph 3.03.B.1.c:

c. In resolving conflicts, errors or discrepancies within the Contract Documents, the various elements will be given precedence in the following order:

1. Agreement with Change Orders, Work Change Directives or Field Orders
2. Supplementary Conditions
3. General Conditions
4. Specifications (Part 2)
5. South Dakota Department of Transportation Standard Specifications for Roads and Bridges
6. Drawings

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.01.A – Delete the last sentence of paragraph.

4.05 *Delays in Contractor's Progress*

SC-4.05 Amend Paragraph 4.05.C by adding the following subparagraphs:

5. *Weather-Related Delays*

- a. If “abnormal weather conditions” as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled.

ARTICLE 5—SITE, SUBSURFACE AND PHYSICAL CONDITIONS, HAZARDOUS ENVIRONMENTAL CONDITIONS

5.06 *Hazardous Environmental Conditions*

SC-5.06 Add the following new paragraphs immediately after Paragraph 5.06.A.3:

4. ~~No tests or reports of hazardous environmental conditions at or adjacent to the site are known to the Owner or Engineer. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) upon which Contractor may rely:~~
5. ~~The following table lists the drawings known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and Technical Data (if any) contained in such Drawings upon which Contractor may rely:~~

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. *Required Performance Bond Form:* The performance bond that Contractor furnishes will be in the form of EJCDC® C-610, Performance Bond (2010, 2013, or 2018 edition).
2. *Required Payment Bond Form:* The payment bond that Contractor furnishes will be in the form of EJCDC® C-615, Payment Bond (2010, 2013, or 2018 edition).

6.03 *Contractor's Insurance*

SC-6.03 Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

- D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional

insureds (in addition to Owner and Engineer) the following: The Engineer’s consultants, the Engineer’s officers, agents and employees.

- E. *Workers’ Compensation and Employer’s Liability:* Contractor shall purchase and maintain workers’ compensation and employer’s liability insurance, including, as applicable, United States Longshoreman and Harbor Workers’ Compensation Act, Jones Act, stop-gap employer’s liability coverage for monopolistic states, and foreign voluntary workers’ compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

Workers’ Compensation and Related Policies	Policy limits of not less than:
Workers’ Compensation	
State	Statutory
Applicable Federal (e.g., Longshoreman’s)	Statutory
Foreign voluntary workers’ compensation (employer’s responsibility coverage), if applicable	Statutory
Employer’s Liability	
Each accident	\$500,000
Each employee	\$500,000
Policy limit	\$500,000

- F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor’s employees,
 2. damages insured by reasonably available personal injury liability coverage, and
 3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- G. *Commercial General Liability—Form and Content:* Contractor’s commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage.
 - a. Such insurance must be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, including but not limited to coverage of Contractor’s contractual indemnity obligations in Paragraph 7.18.
 3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
 4. Underground, explosion, and collapse coverage.

5. Personal injury coverage.
 6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
 7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 “Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured” or its equivalent.
- H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:
1. Any modification of the standard definition of “insured contract” (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
 2. Any exclusion for water intrusion or water damage.
 3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
 4. Any exclusion of coverage relating to earth subsidence or movement.
 5. Any exclusion for the insured’s vicarious liability, strict liability, or statutory liability (other than worker’s compensation).
 6. Any limitation or exclusion based on the nature of Contractor’s work.
 7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.
- I. *Commercial General Liability—Minimum Policy Limits*

Commercial General Liability	Policy limits of not less than:
General Aggregate	\$2,000,000
Products—Completed Operations Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Bodily Injury and Property Damage—Each Occurrence	\$1,000,000

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

Automobile Liability	Policy limits of not less than:
Bodily Injury	
Each Person	\$1,000,000
Each Accident	\$1,000,000

Automobile Liability	Policy limits of not less than:
Property Damage	
Each Accident	\$1,000,000
[or]	
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	\$1,000,000

- K. *Umbrella or Excess Liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer’s liability, commercial general liability, and automobile liability insurance described in the Paragraphs above. The coverage afforded must be at least as broad as that of each and every one of the underlying policies.

Excess or Umbrella Liability	Policy limits of not less than:
Each Occurrence	\$2,000,000
General Aggregate	\$2,000,000

- L. *Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements:* Contractor may meet the policy limits specified for employer’s liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy’s policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein. ~~If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of \$ after accounting for partial attribution of its limits to underlying policies, as allowed above.~~

6.04 *Builder’s Risk and Other Property Insurance*

SC-6.04 Delete Paragraph 6.04.A of the General Conditions and substitute the following in its place:

A. *Installation Floater*

1. Contractor shall provide and maintain installation floater insurance on a broad form or “all risk” policy providing coverage for materials, supplies, machinery, fixtures, and equipment that will be incorporated into the Work (“Covered Property”). Coverage under the Contractor’s installation floater will include loss from covered “all risk” causes (perils) to Covered Property:
 - a. of the Contractor, and Covered Property of others that is in Contractor’s care, custody, and control;
 - b. while in transit to the Site, including while at temporary storage sites;
 - c. while at the Site awaiting and during installation, erection, and testing;
 - d. continuing at least until the installation or erection of the Covered Property is completed, and the Work into which it is incorporated is accepted by Owner.
2. The installation floater coverage cannot be contingent on an external cause or risk, or limited to property for which the Contractor is legally liable.

3. The installation floater coverage will be in an amount sufficient to protect Contractor's interest in the Covered Property. The Contractor will be solely responsible for any deductible carried under this coverage and claims on materials, supplies, machinery, fixture, and equipment that will be incorporated into the Work while in transit or in storage.
4. ~~This policy will include a waiver of subrogation applicable to Owner, Contractor, Engineer, all Subcontractors, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them.~~

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.07 Concerning Subcontractors and Suppliers

SC-7.07.F – Delete paragraph in its entirety and insert “Deleted”.

7.10 Taxes

SC 7.10 Add a new paragraph immediately after Paragraph 7.10.A:

- B. The Project has been classified primarily as a municipal street improvement project and as such is subject to the Contractor's 2 percent Excise Tax on gross receipts according to SDCL 10-46A.

ARTICLE 8—OTHER WORK AT THE SITE

No suggested Supplementary Conditions in this Article.

ARTICLE 9—OWNER'S RESPONSIBILITIES

No suggested Supplementary Conditions in this Article.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.03 Resident Project Representative

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.B:

- C. The Resident Project Representative (RPR) will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:
 1. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
 2. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.

3. *Liaison*
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for Contractor's proper execution of the Work.
 4. *Review of Work; Defective Work*
 - a. Conduct on-Site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Observe whether any Work in place appears to be defective.
 - c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.
 5. *Inspections and Tests*
 - a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.
 - b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.
 6. *Payment Requests: Review Applications for Payment with Contractor.*
 7. *Completion*
 - a. Participate in Engineer's visits regarding Substantial Completion.
 - b. Assist in the preparation of a punch list of items to be completed or corrected.
 - c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
 - d. Observe whether items on the final punch list have been completed or corrected.
- D. The RPR will not:
1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.

- 5 Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 11—CHANGES TO THE CONTRACT

No suggested Supplementary Conditions in this Article.

ARTICLE 12—CLAIMS

No suggested Supplementary Conditions in this Article.

ARTICLE 13—COST OF WORK; ALLOWANCES, UNIT PRICE WORK

13.03 Unit Price Work

SC-13.03 E. 1. a. Note that “significantly” shall be defined as 50% or greater.

SC-13.03 E. 1. b. Note that “significantly” shall be defined as 10% or greater.

Add SC 13.03 E. 1. c.: The total price of the item of unit price work amounts to 5% or more of the Contract Price based on the estimated quantities at the time of the bid.

Add SC 13.03 E. 1. D.” If a change to the unit price is due, the change shall be accomplished by Change Order meeting Bid Law and Article 11.

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

No suggested Supplementary Conditions in this Article.

ARTICLE 15—PAYMENTS TO CONTRACTOR, SET OFFS; COMPLETIONS; CORRECTION PERIOD

15.01 Progress Payments

SC-15.01.B.4 – Add the following language at the end of paragraph:

No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage or invest the retainage for the benefit of the Contractor.

15.03 Substantial Completion

SC-15.03 Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, will be

paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this Article 15.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

No suggested Supplementary Conditions in this Article.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

No suggested Supplementary Conditions in this Article.

ARTICLE 18—MISCELLANEOUS

No suggested Supplementary Conditions in this Article.

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PART II

**TECHNICAL
SPECIFICATIONS**

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SECTION 01 11 00 SUMMARY OF WORK

1.01 GENERAL AND SUPPLEMENTARY CONDITIONS

- A. The General Conditions and the Supplementary Conditions which are attached to the specifications shall govern the work of all persons engaged in the performance of the contract and shall form a part of the contract.

1.02 DEFINITIONS

- A. The definitions shall be as presented in the General Conditions, Special Project Requirements, Supplementary Conditions and as supplemented herein.
- B. "Project Engineer," "Engineer," - Schmucker, Paul, Nohr & Associates located at 2100 North Sanborn Blvd, Mitchell, South Dakota, with a mailing address of PO Box 398, Mitchell SD 57301; telephone number: (605) 996-7761; and web site: www.spn-assoc.com.
- C. "Owner" or "City" - The City of Presho, South Dakota, as represented by its proper authorities and with the mailing address of 322 N. Main Avenue, Presho, SD 57568.
- D. "Written Notice" - Written notice or order shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm, or to an officer of the corporation for whom it is intended or if delivered at or sent by registered mail to the last known address of the addressee.

1.03 ARRANGEMENTS OF DETAILED SPECIFICATIONS AND DRAWINGS

- A. This project shall be completed following the South Dakota Department of Transportation Standard Specifications for Roads and Bridges, 2015 Edition. These specifications are supplemented by special provisions. The detailed special provisions arrangement is based upon the 2018 CSI format and incorporates the following Divisions:
 - 1. Division 01 00 00 - General Requirements
 - 2. Division 02 00 00 - Existing Conditions
 - 3. Division 31 00 00 - Earthwork
 - 4. Division 32 00 00 - Exterior Improvements
 - 5. Division 33 00 00 - Utilities
- B. The contract drawings or plans (where applicable) which depict the contract work of the project and upon which the contract is based are those drawings or sheets listed on Sheet 1 of the drawings. Each sheet bears the following general title:

2nd Street Improvements
Presho, South Dakota
- C. The drawings referred to above are supplemented by drawings bound in this book of specifications and by additional shop and dimension drawings to be prepared by the Contractor as set forth in the specifications.

- D. Division of Work as made by the contract drawings and specifications is for the purpose of specifying all work which is required. There is no attempt to make complete classification according to trade or any agreements which may exist between Contractors or groups of contractors and trade unions. Such division and classification of the work shall be the Contractor's responsibility. Refer to the General Conditions.

1.04 LOCATION OF THE WORK

- A. The work under this contract is located within the city limits of Presho, Lyman County, South Dakota, on properties for which easements and/or title have been obtained by the Owner.

1.05 WORK COVERED BY CONTRACT DOCUMENTS

- A. The broad scope of the project covered under these contract documents includes, but is not limited to: street improvements on 2nd Street in the City of Presho.

1.06 CONTRACTS

- A. The work shall be performed under one Contract awarded by the Owner.

1.07 WORK BY OTHERS

- A. Refer to the General and Supplementary Conditions. ‘

1.08 CONSTRUCTION SEQUENCING

- A. The Contractor shall notify the Engineer 5 days prior to closing any streets. Access to streets and homes must be maintained to allow for undisturbed traffic travel when not closed for adjacent construction activities. This access may involve temporary grading and/or gravel surfacing in some locations. The Contractor must follow phasing plans unless otherwise approved by the Owner and Engineer. The Contractor shall complete their work in such a manner as to reduce street closures, especially as they pertain to access to the adjacent grain elevator.
- B. Mandatory weekly progress meetings will be held at a time and location agreed upon by the Owner, Engineer and Contractor. The Contractor shall provide a schedule every week notifying work to be completed during the next two weeks. The construction schedule outlining the duration of the project shall be updated when requested by the Engineer. The frequency of meetings may be reduced if approved by the Owner and Engineer.
- C. The Contractor shall conform to the traffic control requirements discussed in the plans and specifications.
- D. Each Contractor shall schedule their work with the Owner, the other Contractors and Subcontractors on the project so that the respective completion dates can be obtained.

1.09 CONTRACTOR'S RESPONSIBILITIES AND DUTIES

- A. General:
 - 1. Each Contractor must satisfy himself by personal examination of each site as to all local conditions affecting the performance of his contract. The Contractor is deemed to accept such conditions as found to exist.

2. All construction activities shall be confined within the areas shown in the drawings. Construction easements, as needed, have been obtained by the Owner. If additional area is needed, it shall be the Contractor's responsibility to obtain said area.

B. Continuous Operation:

1. The Contractor must receive the approval of the Owner prior to any scheduled intermittent, partial or complete shut-down of the existing facilities.
2. Each Contractor shall note that the Owner must continue the operation of the existing wastewater collection and water distribution systems.
3. Each Contractor shall schedule all required work so as to minimize the interruption of the continuous operation of the existing facilities and functions.
4. When it is necessary to take a certain portion of the existing facilities or systems out of service, the Contractor shall submit to the Engineer a description of the procedure and schedule of the work proposed. The schedule and procedure shall be reviewed and approved by the Engineer, and the Owner prior to commencement of these operations.
5. Under any emergency condition or where partial shutdown of the existing facilities is involved, the modifications and connections shall be pursued on a 24-hour-per-day basis and 7 days per week schedule to minimize disruption of service unless otherwise provided in the technical specifications. The contractor shall provide at no additional cost to the Owner all temporary connections, parallel temporary lines or bypasses as may be required.
6. All materials shall be on the job and ready for installation for these items. All arrangements, measurements and planning shall be done in advance of taking existing facilities out of service.

C. Existing Conditions:

1. Refer to Section 02 01 00 of the Specifications.

D. Existing Structures:

1. The requirements relating to existing structures shall be as per the General Conditions and as supplemented herein.
2. Each Contractor shall take complete field measurements affecting all existing construction, wiring, piping, and equipment in this contract, and he shall be solely responsible for proper fit between his work and existing structures and other equipment. He shall examine all work to which he will connect; and if any misalignment is found, he shall so arrange his work that the misalignment is corrected to the satisfaction of the Engineer.
3. Dimensions given on the drawings related to the existing structures are based on existing construction drawings, and it shall be the responsibility of the Contractor to verify the accuracy of these dimensions. Any discrepancies shall be brought to the attention of the Engineer prior to start of new construction.
4. Each Contractor will be held responsible for any damage to existing structures, work, materials, or equipment because of his operations and shall repair or replace any damaged structures, work, materials, or equipment to the satisfaction of, and at no additional cost to the Owner.

5. Each applicable Contractor shall be responsible for all damage to streets, curbs, sidewalks, ditches, lawns, culverts or other public or private property, which may be caused by transporting equipment, materials, or men to or from work. The Contractor shall make satisfactory and acceptable arrangements with the agency having jurisdiction over the damaged property concerning its repair or replacement.

E. Unfavorable Construction Conditions:

1. During unfavorable weather, wet ground, or other unsuitable construction conditions, the Contractor shall confine his operations to work which will not be affected adversely thereby. No portion of the work shall be constructed under conditions which would affect adversely the quality efficiency thereof, unless special means or precautions are taken by the Contractor to perform the work in a proper and satisfactory manner.

F. Preservation of Monuments and Stakes

1. Refer to the General Conditions and the Supplementary Conditions.
2. In case of his destruction thereof, the Contractor will be charged with the expense of replacement and shall be responsible for any mistake or loss of time that may be caused. The Contractor shall furnish materials and assistance for the proper replacement of such monuments or bench marks.

G. Methods of Operation:

1. Each Contractor shall inform the Engineer in advance concerning his plans for carrying on each part of the work, but the contractor alone shall be responsible for the safety, adequacy, and efficiency of his plant, equipment, and methods.
2. Any method of work suggested by the Owner or Engineer, but not specified, shall be used at the risk and responsibility of the Contractor. The Engineer and Owner will assume no responsibility therefor.
3. Review by the Owner or Engineer of any plan or method of work proposed by the Contractor shall not relieve the Contractor of any responsibility therefor, and such review shall not be considered as an assumption of any risk or liability by the Owner, Engineer, or any officer, agent, or employee thereof. The Contractor shall have no claim on account of the failure or inefficiency of any plan or method so reviewed.

H. Conduct of Work:

1. Each Contractor shall observe that the Owner reserves the right to do other work in connection with the project or adjacent thereto by contract or otherwise, and he shall at all times conduct his work so as to impose no hardship on the Owner or others engaged in the work, nor cause any unreasonable delay or hindrance thereto.
2. Each Contractor shall be responsible to others engaged in the work or work adjacent thereto for all damage or injury to work, to persons or property, or for loss caused by failure to finish the work within the specified time for completion. He shall adjust, correct, and coordinate his work with the work of others so that no discrepancies shall result in the whole work.

3. The work of this contract includes the furnishing and necessary installation of all tools, machinery, scaffolds, false work, forms and centers for the execution of the work, except as may be otherwise specified. Equipment provided shall be adequate. The Contractor shall obtain all necessary measurements for the work and shall check dimensions, levels, and construction and layout and supervise the construction for correctness of all of which he shall be responsible.
4. Where work of one trade joins to, or is on other work, there shall be no discrepancy when the work is completed. The Contractor must anticipate relation of all parts of the work, and at the proper time provide and set required anchors and blocking. Anchors, blocking, sleeves, and inserts necessary for each trade shall be a part of same except where stated otherwise. Assistance required by the Engineer in obtaining measurements or information on the work shall be furnished accurately and fully by the Contractor without additional cost to the Owner.

1.10 PARTIAL OWNER OCCUPANCY

- A. It is anticipated that portions of the facilities will be in operation before final construction is completed. The Owner, therefore, reserves the right to operate the installed equipment following startup. This continued operation shall in no way indicate final acceptance prior to completion of the project.
- B. Refer also to the General Conditions and the Supplementary Conditions.

1.11 PERMITS AND REGULATIONS

- A. Refer to the General Conditions, the Supplementary Conditions and Section 01 35 13 - Special Project Procedures.

*** END OF SECTION ***

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SECTION 01 25 13 PRODUCT SUBSTITUTION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to the Work covered in this Section.

1.02 SCOPE

- A. This section provides a description of the general requirements for the submission, review and acceptance of substitute items of material and equipment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL

- A. The procedures for requesting and reviewing substitute items of material and equipment shall be as required by the Instructions to Bidders, General Conditions and as supplemented herein.
- B. The Contractor shall be responsible for all costs that will result directly and indirectly from the acceptance of the substitute.

* * * END OF SECTION * * *

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SECTION 01 29 00 MEASUREMENT AND PAYMENT

PART I GENERAL

1.01 GENERAL

- A. The General Provisions of the Contract, including General and Supplementary Conditions shall apply to the Work covered in this Section.
- B. The intention of the Bid Form is to include full compensation for all labor, materials, equipment, supervision, and other incidental items necessary for the performing and completion of the items of work in place, in accordance with the Contract Documents for payment therefor, and also to include all work which may be reasonably inferable from the Contract Documents as being necessary to produce the intended results. All items of work NOT specifically contained in the Bid Form but necessary to produce the intended results shall be considered incidental work without allowance for separate, additional compensation.
- C. All cost of all work described in Division 1, unless otherwise specified shall be considered incidental with no separate measurement or payment.
- D. Related requirements specified elsewhere:
 - 1. Progress Schedules and Reports – Section 01 32 16

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 MEASUREMENT

- A. The determination of final quantities of Work performed under the Contract will be made by the Engineer, based upon measurements made by him or his assistants. Measurement of completed work shall be in units as shown on the Bid Form for unit price items or completion of Work items listed and shown on the accepted schedule of values for lump sum items.
- B. The Contractor shall participate in the measurement of completed Work unless otherwise agreed.
- C. Specific differences in measurement or classification of Work are to be resolved at the time of measurement.
- D. All measurements shall be completed on a regular basis.

3.02 APPLICATION FOR PAYMENT

- A. The Contractor shall prepare and submit progress payment requests on forms provided by or approved by the Owner.
- B. All submissions shall be made in accordance with the requirements of the General Conditions and Supplementary Conditions.

3.03 PAYMENT

- A. All payments shall be made in accordance with the requirements of the Contract Documents, General Conditions and Supplementary Conditions.
- B. Payment will be made in accordance with the respective unit or lump sum prices as shown on the Bid Form and/or the accepted Schedule of Values.

3.04 PAYMENTS TO BE WITHHELD

- A. All payments due the Contractor including payment for stored material shall be subject to retainage and withholding due to uncompleted work in accordance with the provisions of the Contract Documents, General Conditions and Supplementary Conditions.

3.05 PAYMENT ITEMS

- A. Payment items shall be as listed on the Bid Form.

* * * END OF SECTION * * *

SECTION 01 31 13 PROJECT COORDINATION

PART I GENERAL

1.01 RELATED DOCUMENTS

- A. The General Provisions of the contract, including General and Supplementary Conditions, shall apply to the work covered in this Section.
- B. Related requirements specified elsewhere.
 - 1. Summary of Work – Section 01 11 00
 - 2. Project Meetings and Job Site Administration - Section 01 31 19
 - 3. Progress Schedules and Reports - Section 01 32 16
 - 4. Cutting and Patching - Section 01 73 29

1.02 SCOPE AND DESCRIPTION

- A. This section describes the general coordination required between each of the Contractors and the Owner. This section is not intended to cover every item or aspect of the necessary coordination.

1.03 MEASUREMENT AND PAYMENT

- A. Coordination is considered incidental Work with no separate measurement or payment to be made.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL

- A. All Contractors or subcontractors working on specific portions of the project shall so schedule and conduct their Work so as to not impede unnecessarily any Work being done by others on or adjacent to his Work.
- B. Each Contractor and Subcontractor shall be responsible for coordinating his Work with the appropriate representative of the Owner so as to avoid or minimize any interruption of the functions and facilities of said agency.

3.02 SITE WORK COORDINATION

- A. The location of all facilities, structures, piping and related appurtenances, both temporary and final shall be coordinated among Contractors, the Owner and the Engineer.
- B. It shall be the responsibility of each Contractor to initiate the procedures necessary to coordinate his work with that of other Contractors and the Owner.
- C. Contractors completing initial Work shall temporarily cap piping and mark the location of all buried piping to facilitate completion of final Work.

* * * END OF SECTION * * *

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SECTION 01 31 19 PROJECT MEETINGS AND JOB SITE ADMINISTRATION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to the Work covered in this Section.
- B. Related requirements specified elsewhere:
 - 1. Project Coordination - Special Provision 01 31 13
 - 2. Progress Schedules and Reports - Special Provision 01 32 16

1.02 SCOPE

- A. The intent of this Section is to provide a general description of the project meetings required of the Contractor.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL

- A. All meetings shall be coordinated among the respective Contractors, Owner, Engineer and governmental agencies.
- B. The individual requesting the meeting shall contact the persons to be in attendance in writing providing the following:
 - 1. Date, time and place of the meeting
 - 2. Purpose of the meeting
 - 3. Names of people invited to the meeting
 - 4. Additional information as necessary

3.02 PRECONSTRUCTION CONFERENCE

- A. The Engineer will arrange and schedule a pre-construction conference with the representatives of the contractors, subcontractors, together with representatives of all agencies and utilities that will be involved with the proposed Work in order to assure an efficient and workable method of scheduling the project.

B. General topics to be covered are as follows:

1. Contract-Legal Documents and Specifications
2. Drawings
3. General construction requirements
4. Coordination of different contractors
5. Pay request procedure
6. Shop drawing submittal
7. Project observation and inspection
8. Coordination with affected governmental agencies and utility companies.

3.03 PROGRESS MEETINGS

A. Routine progress meetings will be scheduled on a basis and time to be selected by mutual agreement between the Owner, the Contractors, the Engineer, and affected governmental agencies. These meetings shall be to discuss the progress and the planning of the Work of the various parties. This meeting shall be under the direction of the Engineer and shall be attended by representatives of the various contractors and subcontractors whose Work may be in progress at the time or whose presence may be required for any purpose. Contractors shall be represented at these meetings as appropriate to assist in the necessary project scheduling and discussion of related problems. Scheduling of required attendance shall meet with the approval of the Engineer.

3.04 JOB SITE ADMINISTRATION

- A. All job site administration for the Owner and Engineer will be handled through the office of Schmucker, Paul, Nohr & Associates.
- B. All review of payrolls, compliance reports and compliance requirements of the Federal agencies involved shall be administered by and are the responsibility of the Owner.

* * * END OF SECTION * * *

SECTION 01 32 16 PROGRESS SCHEDULES AND REPORTS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions as supplemented herein, shall apply to the Work covered in this Section.
- B. Related requirements specified elsewhere:
 - 1. Project Coordination - Section 01 31 13
 - 2. Progress Meetings and Job Site Administration - Section 01 31 19
 - 3. Cutting and Patching - Section 01 73 29

1.02 DESCRIPTION OF WORK

- A. This section is intended to provide a description of the general requirements for the preparation and submittal of:
 - 1. A list of proposed subcontractors and suppliers
 - 2. A proposed construction schedule
 - 3. Monthly progress reports

PART 2 PRODUCTS - None

PART 3 EXECUTION

3.01 LIST OF SUBCONTRACTORS AND SUPPLIERS

- A. Prior to the execution and delivery of the Agreement, the successful bidder, if requested, shall comply with Article 12 of C-00200, Instructions to Bidders.
- B. In any event, the Contractor shall submit, prior to moving on the site, a complete list of all subcontractors and suppliers with whom he proposes to contract. The list shall be in addition to the list submitted as part of the bid and shall be divided into sections corresponding to the specification divisions and shall state name, address, and telephone numbers together with work or items to be furnished.
- C. This list is subject to approval of the Engineer and Owner. After approval is given, the list cannot be revised without written approval. This approval does not relieve the Contractor of responsibility for compliance with specified requirements.

3.02 SCHEDULE OF OPERATIONS

- A. Refer to the requirements of the General Conditions Article 2.03.
- B. If conditions beyond the control of the Contractor justify and an extension of time is approved, the Contractor shall revise the construction schedule in accordance with the approved extensions.

3.03 MONTHLY PROGRESS REPORTS

- A. Upon request, the Contractor shall submit a written monthly progress report according to Article 2.05 of the General Conditions.

*** END OF SECTION ***

SECTION 01 32 23 SURVEY AND LAYOUT DATA

PART 1 GENERAL

1.01 GENERAL

- A. The requirements and provisions for engineering and layout of grades, lines and levels are as per the General Conditions and as supplemented herein.
- B. Topography and profiles showing existing ground elevations and features were obtained by topographic survey where applicable.
- C. The Engineer will furnish construction staking to prosecute the Work as described below. The Contractor shall make timely demands of the Engineer for such staking. A notice of not less than five working days will be required in advance of setting stakes. The Contractor shall not proceed with the Work until construction stakes have been provided.
 - 1. Stakes for curb and gutter and fillet sections will be provided at beginning and end of sections and all grade breaks at an offset as agreed to by the Contractor and at intervals of not less than 25 feet.
 - 2. Stakes to indicate subgrade surface elevations and base course surface elevations will be furnished by the Engineer for the construction of the street surfacing and related improvements. Stakes will be furnished on the centerline of the street at all changes in grade and at intervals of not more than 25 feet.
 - 3. The boundary lines of the project limits will be staked where required. The Contractor will be required to remain within the project limits.
 - 4. Should the Contractor request the setting of stakes in excess of those described above, the Contractor shall be responsible for the extra cost, which will be prorated on the basis of the total number of stakes set.
- D. The Contractor shall be responsible for transferring from the grade and line stakes all distances and elevations necessary for the execution of the Work including but not limited to establishing limits of embankments and excavations, slopes, etc.
- E. The Contractor shall preserve all construction stakes, reference points, and other survey points. In case of their loss or destruction, the Contractor shall be liable for and charged with the cost of their replacement and of any expense resulting from their loss or disturbance. Such surveys shall constitute instruction from the Engineer, and the Contractor shall not proceed with the Work until construction stakes have been provided.
- F. Should the Engineer be required to reset construction stakes, the cost for such resetting will be at the then current per diem rates. The charges for such Work will be deducted by the Owner from the progress payments to the Contractor for the month in which the surveying Work is done by the Owner and thereon paid to the Engineer.

* * * END OF SECTION * * *

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SECTION 01 33 23 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions as supplemented herein, shall apply to the work covered in this Section.

1.02 SCOPE

- A. This Section covers the submission, review and distribution requirements of shop drawings, product data and samples.

1.03 PAYMENT

- A. Refer to Section 01 29 00 - Measurement and Payment.

PART 2 PRODUCTS

2.01 SHOP DRAWINGS

- A. The shop drawings submitted for review shall contain at a minimum all information as required by the General Conditions and as hereinafter required:
 - 1. Additional information as specified in the individual technical specifications.
 - 2. All shop drawings and materials shall be identified by reference to specification section and/or drawing detail number.
 - 3. Minimum drawing size shall be 8-1/2" x 11".

2.02 PRODUCT DATA

- A. Manufacturer's standard schematic drawings shall be identified by reference to Special Provision number and modified to delete information which is not applicable to the Work. Standard information shall be supplemented to provide additional information applicable to the Work.
- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data that are submitted for review shall be clearly marked to identify pertinent materials, products or models, show dimensions and clearances required, show performance characteristics and capacities, and show wiring diagrams and controls.

2.03 SAMPLES

- A. All samples submitted for review shall be identified by reference to Special Provision number and shall provide all information as required by the General Conditions of the Contract Documents.

PART 3 EXECUTION

3.01 SHOP DRAWINGS AND PRODUCT DATA

- A. The review and submittal process for shop drawings and product data shall be in accordance with the requirements of the General Conditions.
- B. The Contractor shall submit all shop-drawing submittals to the Engineer digitally in PDF format.
- C. All shop drawings shall be submitted through the prime Contractor and be accompanied by a letter of transmittal. The prime Contractor shall approve all shop drawings before transmitting them for approval.
- D. All shop drawings shall be submitted and approved prior to installation with no exceptions.
- E. Engineer shall return to the Contractor approved shop drawings submittals with instructions for further action.

3.02 SAMPLES

- A. Submit in accordance with the requirements of the General Conditions a minimum of four (4) samples of materials, finishes, colors, etc., as identified in the technical specifications for review.
- B. If the Contractor requires more than two (2) samples of material to be returned, additional samples shall be submitted.

* * * END OF SECTION * * *

SECTION 01 35 13 SPECIAL PROJECT PROCEDURES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions apply to the Work specified in this Section.
- B. The provisions of the Storm Water Discharge Permit for Construction Activities issued by the South Dakota Department of Agriculture and Natural Resources (SD DANR) under Surface Water Discharge General Permit in compliance with the Clean Water Act shall apply to all portions of the work.

1.02 SCOPE

- A. This Section identifies the special project conditions and procedures required by the above referenced permits.
- B. The Contractor shall be responsible for implementing and conforming to all special project procedures and requirements as identified herein.

1.03 MEASUREMENT AND PAYMENT

- A. Refer to Section 01 29 00.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL PERMITS

- A. The Contractor shall comply with all Federal, State, County and local laws, ordinances, rules and regulations relating to the performance of the work.
- B. The Contractor shall, at his own expense, procure all other permits, certificates and licenses required of him by law for the execution of the Work.

3.02 STORM WATER DISCHARGE PERMIT REQUIREMENTS

- A. The Owner's Storm Water Discharge Permit for Construction Activities for this project as issued by the South Dakota Department of Agriculture and Natural Resources will be made available to the contractor upon request and in conjunction with the Notice of Award of Contract for the Project.
- B. A Storm Water Pollution Prevention Plan has been prepared for this project and is included in the plans.
- C. The Contractor shall complete the Contractor Authorization Form for coverage under the Storm Water Discharge Permit prior to proceeding with the Work.

*** END OF SECTION ***

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SECTION 01 45 00 QUALITY CONTROL

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions shall apply to the Work covered in this Section.
- B. Specific requirements are also presented in the detailed sections of these specifications.

1.02 SCOPE

- A. This Section is intended to describe the Contractor's responsibilities regarding quality control.

1.03 PAYMENT

- A. Refer to Section 01 29 00 - Measurement and Payment

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 TESTING LABORATORY SERVICES

- A. Unless otherwise specified, the Owner's Engineer will provide all the necessary field testing services for soils, granular materials and concrete. Where tests or inspections by an independent testing laboratory are required by these specifications, the Contractor shall employ and arrange for, at his expense, the services of an approved independent testing laboratory, satisfactory to the Owner and Engineer, to perform the tests or inspections utilizing recognized standard procedures and criteria.
- B. The Contractor shall submit reports and certificates of all inspections and tests in triplicate to the Engineer. The reports and certificates shall become the property of the Owner.
- C. The Contractor shall furnish all sample materials required for these tests and shall deliver same to the testing laboratory or other designated agency when and where directed by them.
- D. Any additional tests necessary beyond these required under this specification may be ordered by the Engineer to settle disagreements with the Contractor regarding quality of work done. If the Work is defective, the Contractor shall pay all costs of the extra tests and shall correct the Work. If Work is satisfactory, Owner will pay for extra tests.

3.02 FACTORY TESTS

- A. Factory tests of mechanical and electrical equipment relative to performance, capacity, rating, efficiency, function, or special requirements shall be conducted in the factory or shop for each item when this type of test is specified and/or required by the Engineer. These tests shall be performed in accordance with applicable standards and test codes.

- B. Factory tests shall be set up and accomplished by the equipment manufacturer who shall provide all shop space, tools, equipment, instruments, personnel, and other facilities required for the satisfactory completion of each test.
- C. Factory tests may be witnessed by representatives of the Owner and such witnessing, unless otherwise specified in the technical specifications, will be paid for by the Owner.
- D. Where factory tests are required or specified for process equipment under other headings of this specification, reports of the test results shall be submitted to the Engineer for review prior to shipment of the equipment.

3.03 FIELD TESTS

- A. Refer to the General Conditions, Supplementary Conditions and the Technical Specifications.

* * * END OF SECTION * * *

SECTION 01 50 00 TEMPORARY FACILITIES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions shall apply to the Work covered in this Section.

1.02 SCOPE

- A. This section describes the temporary facilities to be provided by the Contractor during the Work.

1.03 PAYMENT

- A. Refer to Section 01 29 00 - Measurement and Payment

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 TEMPORARY ELECTRICAL

- A. It will be the Contractor's responsibility to make arrangements for, provide, obtain and pay for temporary construction power as required for lighting and construction needs.

3.02 TEMPORARY WATER

- A. It will be the Contractor's responsibility to provide, obtain and pay for all water required for potable consumption and construction, flushing, testing, disinfection and other needs as may be required.
- B. All potable water facilities shall conform to the Federal, State and local health regulations.

3.03 TEMPORARY SANITARY FACILITIES

- A. The Contractor shall provide and maintain in a sanitary condition, suitable temporary toilet facilities on the site for use by all persons. Temporary sanitary facilities shall be removed from the site when no longer necessary.
- B. Each temporary toilet shall be equipped, constructed and maintained in a manner that will conform to the applicable Federal, State and local regulations and requirements.
- C. Provisions for routinely servicing and cleaning all toilets and disposing of the sewage shall be established before placing toilet facilities into operation. The method of sewage disposal and location selected shall be in accordance with Federal, State, and local health regulations.

3.04 ROADS

- A. Each Contractor shall maintain the existing roads in usable condition during his construction of the facilities.
- B. The Contractor shall obtain the approval of the appropriate township, county, state or federal officials prior to constructing any temporary roads. All construction shall conform to the requirements of said officials.

3.05 SIGNS

- A. No signs, billboards, or other advertisements shall be erected on the premises by the General Contractor or the subcontractors without Engineer's permission. Each General Contractor shall furnish and maintain all necessary temporary signs required for the prosecution of the Work such as "Office," "Men Working," "Danger," "High Voltage," etc.

3.06 TEMPORARY POTABLE WATER SERVICE

- A. The Contractor shall be responsible for furnishing and installing all equipment, piping, fitting, materials and other items required to provide potable water to the affected customers as shown on the plans and as directed by the Owner and Engineer.
- B. The Contractor shall provide qualified supervision at all times during the period that temporary potable water service is required to insure that continuous service is provided on an uninterrupted basis.

3.07 TEMPORARY ENCLOSURES, LIGHTING, AND HEAT

- A. Each Contractor shall provide temporary enclosures and closures in order to retain heat so that specified temperatures can be maintained and the Work can proceed. He shall provide temporary closures over wall and floor openings, etc., to enclose the Work. Temperature inside the enclosures and/or enclosed part or parts of the structure shall be: not less than 60 degrees F for 48 hours prior to and during the time when and where concrete work, cement finish, or masonry work are being done or cured. Not less than 50 degrees F where only other trades, such as electricians, plumbers, etc., are working.
- B. Each contractor shall pay for any additional temporary heating facilities necessary to meet the above requirements, and the fuel, and the attendance required, until the structure is enclosed.
- C. Each Contractor shall provide all temporary lighting as may be required to illuminate the Work area. The lighting shall meet all safety codes and regulations. Lighting shall be not less than 20 footcandles. Additional light shall be installed for hazardous areas, for security applications, and for construction processes where visual acuity is required.
- D. All temporary lighting and power shall use U.L. approved devices and all systems shall meet safety requirements of the National Electrical Code and other applicable ordinances.

3.08 TEMPORARY FENCES/GATES

- A. The Contractor shall be required to utilize all existing gates and fence openings so far as practical during the construction process.

- B. All existing fences which interfere with the Work shall be maintained by the Contractor unless permission is obtained in writing from the tenant to dismantle the fence for any agreed period of time. Where temporary gates are required, they shall be kept closed at all times.
- C. On completion of the Work across any tract of land, the Contractor shall restore all fences to their original or to a better condition and quality as approved by the Owner and the tenant. New material to replace all materials lost, damaged or destroyed shall be purchased and installed as required at no additional cost to the Owner.
- D. Temporary gates installed by the Contractor in any fence line may be left in place with permission of the Owner and tenant of such fence.
- E. All gates shall be left in the condition found, open or closed. If any doubt arises, gates shall be closed.

3.09 TEMPORARY OPERATIONS

- A. When it becomes necessary to utilize temporary pumping or other mechanical arrangements during construction, the Contractor shall provide qualified supervision at the construction site at all times. The Contractor shall be fully responsible for the operation and maintenance of all temporary equipment and all associated costs shall be included in the prices bid.

3.10 SITE CLEAN-UP

- A. Each Contractor shall clean the working area each day, shall remove all trash and waste materials, and shall maintain the site in a neat and orderly condition throughout the construction period.
- B. At the completion of the project, each Contractor shall clean out all pits, pipes, chambers, or conduits; shall remove all temporary structures built by him; and shall remove all rubbish from the areas which he has occupied, leaving them in a clean condition.

* * * END OF SECTION * * *

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SECTION 01 55 26 TRAFFIC CONTROL

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to the Work in this Section.

1.02 SCOPE

- A. This Section describes the Contractor's responsibilities for controlling vehicular and pedestrian traffic in and around the construction sites.

1.03 MEASUREMENT AND PAYMENT

- A. Traffic barricades and warning signs shall be furnished by the Contractor. The Contractor is responsible for furnishing, setting up, maintaining and removing traffic control after work is complete. Furnishing, setting, maintaining and removing the traffic control will be measured by the square feet of the sign for payment when the sign is installed. Moving the traffic control to a different location shall not be paid for separately but shall be paid under miscellaneous traffic control.
- B. Measurement and payment for setting up and maintaining Type III barricades shall be on a per each basis as indicated on the Bid Form.
- C. Miscellaneous Traffic Control will not be measured for separate payment. Payment shall be at the contract lump sum basis. Payment for miscellaneous traffic control shall be based on the percentage of project completed. Payment for miscellaneous traffic control shall be considered full compensation for maintaining, relocating, sequencing and mobilization of signs and personnel to and from the site.
- D. Measurement and payment for setting up and maintaining additional signs beyond the amount called for on the plans due to the Contractor's sequence of operations shall be paid on a lump sum basis as miscellaneous traffic control and will be paid for by the percentage of the project completed.
- E. Measurement and payment for incidental items such as but not including Type I and Type II barricades, cones, tubular markers, vertical panels, drums, flags, delineators and other items required for the proper direction, safety and convenience of vehicular and/or pedestrian traffic will not be made but will be considered incidental to the Project.
- F. Measurement and payment for flagging persons will not be made but will be considered incidental to the Project.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL

- A. Refer to Construction Sequencing in Section 01 11 00 for information on the restrictions to construction activities.
- B. The Contractor shall keep that portion of the project being used by public traffic, whether it be through or local traffic, in such condition that traffic will be adequately accommodated.
- C. All requirements of this section are minimum requirements and shall not relieve the Contractor of his responsibility under the contract.

3.02 FLAG PERSONS

- A. In areas where operation or movement of construction equipment interferes with the movement of or presents a hazard to public traffic, the Contractor shall provide flag persons with adequate equipment as may be required to properly insure the public safety.

3.03 BARRICADES, WARNINGS, AND SIGNS

- A. The Contractor, in advance of closing any roadway or causing any obstruction to traffic or of undertaking any operation which may interfere with pedestrian or vehicular traffic, shall provide, erect, and maintain necessary and effective barricades, warning signs, danger signals, lights, and other traffic control devices. The Contractor shall also take all necessary precautions for the protection of the work and the safety of the public.
- B. All construction signing for work on or immediately adjacent to the right-of-way of all state and federal highways and public streets, shall conform to the requirements as presented in the Federal Highway Administration Manual on Uniform Traffic Control Devices for Streets and Highways.
- C. The barricades shall be neat in appearance, firmly constructed of good lumber or metal and gilded with a reflective surface so as to be visible at night. The barricade coating shall be renewed as often as necessary to keep the barricade entirely visible. Barricades in a poor state of repair shall be replaced.
- D. The warning and detour signs shall be neat in appearance, well constructed and firmly attached to a barricade or supporting member. The signs shall be reflectorized by means of paint, tape, or buttons.
- E. The Contractor shall furnish, place, and maintain warning lights or electric flashers placed in front of and around all excavations, obstructions or construction areas so as to clearly define such areas to both drivers of vehicles and pedestrians. All-night illumination warning devices shall be kept in operation from sunset to sunrise.
- F. Barricades, warning signs, detour signs, and danger signals, wherever practicable, shall be placed within 5 to 10 feet of the excavation or obstruction and so placed that headlight beams of approaching vehicles will strike the barricades and reflecting devices head on. All aforementioned safeguards shall be moved, changed, increased, or removed as required during the progress of the work to meet changing conditions.

3.04 GENERAL MAINTENANCE OF TRAFFIC

- A. Traffic shall be maintained in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).
- B. Flagger(s) will be required where work activity and/or equipment encroaches into a lane open to traffic.
- C. Removing, relocating, covering, salvaging and resetting of permanent traffic control devices, including delineation, shall be the responsibility of the Contractor. The cost of this work shall be incidental to the various contract bid items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the Owner.
- D. Non-applicable traffic control devices shall be removed and stored as near as possible to the right-of-way line.
- E. Storage of vehicles and equipment shall be as near the right-of-way as possible. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work. Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the Owner, and to the satisfaction of the Engineer.
- F. Traffic control devices shall meet the crashworthy requirements of the National Cooperative Highway Research Program Report 350 (NCHRP 350) for Category III. Category III traffic control devices include barriers or other fixed or high mass devices, including portable sign trailers.
 - 1. Portable Sign Trailers must be crash tested and have received an acceptance letter from the Federal Highway Administration (FHWA).
 - 2. It shall be the responsibility of the Contractor to ensure that all devices meet the applicable NCHRP 350 requirements.
- G. The following Traffic control devices: reflectorized drums, cones, tubular markers and detour signs (M4-8, M4-9 or M4-10 series) shall be sheeted with micro-cube corner prismatic material. Orange colored material shall be fluorescent.
- H. Work activities during non-daylight hours are subject to prior approval.

3.05 HAUL ROUTES

- A. The use of public roadways by the Contractor, his subcontractors, and his suppliers to transport equipment and other materials to and from the job site shall be in compliance with applicable State and County highway requirements, including seasonal legal load and speed limits.
- B. The Contractor shall be responsible for contacting the appropriate officials for definition of seasons, specific limitations and specific haul routes.

*** END OF SECTION ***

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SECTION 01 57 00 TEMPORARY CONTROLS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to the Work covered on this Section.

1.02 SCOPE

- A. This section is intended to describe the temporary controls to be provided by the Contractor.

1.03 MEASUREMENT AND PAYMENT

- A. The temporary controls are considered incidental work with no separate measurement and payment to be made.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall be responsible for maintaining the site and environment at an acceptable standard throughout the duration of the project.

3.02 NOISE CONTROL

- A. Each Contractor shall maintain all equipment, particularly the muffling systems on internal combustion engines, so that acceptable noise levels are not exceeded. Each Contractor shall make every effort to locate noise producing equipment in areas where the sound will be least offensive. Sound barriers are to be provided if needed.

3.03 DUST CONTROL

- A. Each Contractor will provide dust control operations at the time, location, and in such manner that will prevent, or at least minimize, the production of dust in a harmful or annoying amount. Water or dust preventative shall be used for dust control as required.

3.04 WATER CONTROL

- A. Each Contractor shall make the appropriate provisions for the proper drainage of the site. Standing pools of surface water and excavations shall be drained as soon as practical. Disposal of said water shall be in accordance with all applicable local, state, and federal laws and regulations.

- B. Flushing water or water pumped from dewatering of various elements of the Work which may be necessary during construction shall be conducted by temporary pipelines away from the work area to natural drainageways. Flushing or drainage shall not be conducted in such a manner as to cause erosion or flooding of adjacent land not owned or controlled by the Owner, except by special permission in writing by the Owner and affected landowner.
- C. The Contractor shall assure that water discharged to any location during construction does not damage the natural environment or wildlife. The Contractor shall be responsible for any environmental damage which results from his activities.
- D. The Contractor shall follow the requirements of the Storm Water Discharge Permit for Construction Activities. Refer to Section 01 35 13.

3.05 EROSION AND SEDIMENT CONTROL

- A. The Contractor shall be familiar with and follow the Storm Water Pollution Prevention Plan and erosion control details presented in the plans.
- B. Each Contractor shall be responsible for taking such measures as may be appropriate for the control of erosion and sediment from the project site. Such measures may include but are not limited to the following temporary and permanent measures:
 - 1. Topsoil should be removed and stockpiled for later use whenever possible before grading begins.
 - 2. The exposure of the soil should be minimized in both terms of area and time.
 - 3. Use temporary vegetation to protect cleared, graded, or disturbed areas that will otherwise be exposed to erosion for prolonged periods before the permanent vegetation and landscaping can be established. Apply needed ground cover on exposed areas within 15 days of exposure except on those sites where construction will begin within 30 days. If construction plans are suspended, areas should be seeded or mulched without delay. When it is not practical to plant temporary vegetation, spread mulch materials (such as grain straw) on the soil surface to provide desired protection.
 - 4. Natural vegetation should be retained whenever feasible.
 - 5. Appropriate structural or agronomic practices to control runoff and sedimentation should be provided during and after construction.
 - 6. Early completion of stabilized drainage system (temporary and permanent systems) will substantially reduce erosion potential.
 - 7. Clearing and grading should not be started until a firm construction schedule is known and can be effectively coordinated with the grading and clearing activity.

3.06 SOLID WASTE CONTROL

- A. Each Contractor shall be responsible for taking such measures as may be appropriate for the control and disposal of solid wastes through the duration of the project.
- B. All solid waste generated by construction related activities shall be disposed at an appropriately permitted solid waste disposal facility.

3.07 FIRE PREVENTION

- A. The Contractor shall perform all work in a fire safe manner.
- B. The Contractor shall furnish and maintain on site adequate fire fighting equipment capable of extinguishing incipient fires.
- C. It is recommended that the Contractor install spark arrestors on muffler systems on construction equipment to reduce the risk of fire.

* * * END OF SECTION * * *

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SECTION 01 57 26 SITE WATERING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, apply to the work specified in this section.
- B. Related Work Specified Elsewhere:
 - 1. Excavation, Filling and Grading - Section 31 23 16
 - 2. Trenching, Backfilling and Compacting - Section 31 23 33
 - 3. Flushing and Disinfection of Water Distribution - Section 33 01 10.53 & 10.58

1.02 DESCRIPTION OF WORK

- A. This item shall consist of furnishing and applying water required in the compaction of embankments, subgrades, sewer cleaning and for other purposes in accordance with the requirements of these specifications or as directed. Also included is water used for flushing, dust control or any other use related to the proposed construction.

1.03 MEASUREMENT AND PAYMENT

- A. Potable water from the Owner's distribution system will be provided at no cost to the Contractor. Water provided will be measured in units of 1,000 gallons. When not directly measured by load counts or a flow meter, measurement shall be agreed upon at the time of use by the Engineer and Contractor.

PART 2 PRODUCTS

2.01 WATER SOURCE

- A. The Contractor shall obtain water from the Owner's water distribution system where directed by the Utility Manager. The water use must be measured. Measurement can be by water meter, counting loads, timing flow rate, or other methods approved by the Engineer. If a water meter is used, it shall be approved by the City.

PART 3 EXECUTION

3.01 CONSTRUCTION METHODS

- A. The Contractor shall be responsible for all measures necessary to protect the health and safety of all personnel with access to the site.
- B. Water, when required, shall be applied at the locations, in the amounts, and during the hours, including nights, as required. An adequate water supply shall be provided by the Contractor.
- C. The equipment used for watering shall be of ample capacity and of such design as to assure uniform application of water in the amounts required.

*** END OF SECTION ***

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SECTION 01 66 00 PRODUCT STORAGE AND HANDLING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to the Work covered in this Section.

1.02 SCOPE

- A. This Section is intended to describe the Contractor's general responsibilities for the handling, storage and protection of materials and equipment as well as the Contractor's options in the selection of products and manufacturers.
- B. Specific procedures for handling and storage of materials and equipment are presented in the appropriate section of the technical specifications.

1.03 MEASUREMENT AND PAYMENT

- A. All costs incurred by the contractor for the execution of the Work specified herein is considered incidental Work with no separate measurement or payment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 TRANSPORTATION AND HANDLING

- A. Each Contractor shall have a representative at the site to accept delivery of equipment and material. Material shall be shipped with adequate protection to prevent damage due to handling and reasonable storage procedures.
- B. Pipe shall be transported from the factory to the job site with front ends tarped and covered. Pipe shall be delivered on pallets with protective boards to prevent damage from banding. Bands and boards shall be placed according to the manufacturer's standard arrangement so as to provide adequate support for material.

3.02 PROTECTION OF WORK AND EQUIPMENT

- A. The requirements shall be as per the General Conditions and Supplementary Conditions as supplemented herein.
- B. Loose granular materials for concrete or mortar are to be stored on solid surfaces such as paved areas, plywood or sheet materials to prevent mixing with foreign matter. Provide surface drainage to prevent flow or ponding of rainwater. Mixing of refuse or chemically injurious materials or liquids with the stored material shall be prevented.
- C. All storage shall be arranged in a manner to provide easy access for inspection.

- D. A periodic inspection of stored products on a scheduled basis shall be conducted to assure that:
1. State of storage facilities is adequate to provide required conditions;
 2. Required environmental conditions are maintained on a continuing basis;
 3. Surfaces of products exposed to elements are not adversely affected. Any weathering of products, coatings, and finishes is not acceptable under requirements of Contract Documents.
- E. Equipment which requires servicing during long term storage shall have complete manufacturer's instructions for servicing accompanying each item, with notice of enclosed instructions shown on exterior of package. Comply with manufacturer's instructions on a scheduled basis.

* * * END OF SECTION * * *

SECTION 01 71 13 MOBILIZATION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to the Work covered in this Section.

1.02 SCOPE

- A. This item shall consist of preparatory work and operations, including, but not limited to, the necessary movement of personnel, equipment, and incidentals to the project site; for the establishment of offices, buildings and other facilities necessary for work on the project; and for work and operations which must be performed, and for cost incurred before starting work on the various contract items on the project site.

1.03 PAYMENT

- A. When an item for Mobilization is included in the proposal, payment will be made at the contract lump sum price, and be considered full compensation for costs incidental thereto. Based on the lump sum contract price for Mobilization, partial payments therefor will be made on the basis of the following schedule:
1. When the contract has been fully executed by parties thereto, an amount not greater than ten (10) percent of the amount bid for mobilization may be paid.
 2. When five (5) percent, or more, of the total contract amount is earned, an additional amount will be paid to bring the total payment for mobilization to twenty-five (25) percent of the amount bid.
 3. When ten (10) percent, or more, of the total contract amount is earned, an additional amount will be paid to bring the total payment for mobilization to fifty (50) percent of the amount bid.
 4. When twenty-five (25) percent, or more, of the total contract amount is earned, an additional amount will be paid to bring the total payment for mobilization to sixty (60) percent of the amount bid.
 5. When fifty (50) percent, or more, of the original contract amount is earned, an additional amount will be paid to bring the total payment for mobilization to seventy-five (75) percent of the amount bid.
 6. When eighty (80) percent, or more, of the original contract amount is earned, an additional amount will be paid to bring the total payment for mobilization to one hundred (100) percent of the amount bid.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

* * * END OF SECTION * * *

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SECTION 01 73 29 CUTTING AND PATCHING

PART I GENERAL

1.01 RELATED DOCUMENTS

- A. The general requirements of the Contract including General and Supplementary Conditions and as supplemented herein shall apply to the Work covered by this Section.
- B. Related requirements specified elsewhere:
 - 1. Summary of Work - Section 01 11 00
 - 2. Project Coordination - Section 01 31 13

1.02 SCOPE AND DESCRIPTION

- A. This section describes the necessary coordination, materials and labor associated with cutting and patching of completed Work or connection of specified Work to existing facilities.

1.03 SUBMITTALS

- A. Prior to cutting which may affect the structural integrity of any structure, facility or portion of the project, or Work of another Contractor, or completed Work or existing facilities, the Contractor shall submit written notice to the Engineer requesting consent to proceed with the cutting. The notice shall designate the location, date and time the Work will be exposed for observation and cutting will be initiated and completed.

1.04 PAYMENT FOR COSTS

- A. The cost of cutting and patching to complete Work as specified and shown on the Drawings shall not be measured and paid directly but shall be considered incidental to the project as bid.
- B. The costs of cutting and patching, including the cost of additional Engineering costs, resulting by defective or ill-timed Work, or Work not conforming to the Contract Documents shall be the responsibility of the Contractor.
- C. Additional Work not covered by the Contract Documents that was done without the approval of the Owner shall be borne by the Contractor.

PART 2 PRODUCTS

2.01 MATERIALS

- A. All materials for cutting and patching shall comply with the Specifications for the type of Work to be done.

PART 3 EXECUTION

3.01 GENERAL

- A. Cutting (including excavating), fitting or patching of Work shall be executed as required to:
 - 1. Uncover Work to provide for installation of ill-timed Work.
 - 2. Remove and replace defective Work
 - 3. Install and properly fit specified Work in existing construction, facilities or structures.
 - 4. Remove and replace Work not conforming to requirements of Contract, Legal Documents, Specifications or Drawings.
 - 5. Remove samples of installed Work as specified for testing.
- B. The Work of another Contractor, Work already completed, or existing facilities shall not be cut without the consent of the Engineer.

3.02 INSPECTION

- A. Representatives of the Contractor, Owner and Engineer shall, before starting Work on that portion of the project, inspect and record the existing conditions of Work, including elements subject to movement or damage during:
 - 1. Cutting and patching
 - 2. Excavating and backfilling
- B. After uncovering the Work, the Contractor and Engineer shall inspect Work and note all conditions affecting installation of new products.

3.03 PREPARATION

- A. The Contractor shall be responsible for providing shoring, backing and support as required to maintain structural integrity of the Work, protect other work, and provide protection from the elements.

3.04 PERFORMANCE

- A. The fitting and adjustment of products and material shall be executed to provide a finished installation that will comply with specified tolerances and finishes.
- B. All cutting and demolition shall be executed by methods which will prevent damage to other Work, and will provide the proper surfaces to receive installation of repairs and new Work.

* * * END OF SECTION * * *

SECTION 01 77 00 CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to the Work covered in this Section.

1.02 SCOPE

- A. This Section is intended to describe the procedures and Contractor's responsibilities for substantial and final completion of the Work and final closeout of the Project.

1.03 PAYMENT

- A. Refer to Section 01 29 00 - Measurement and Payment

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 CLEANUP

- A. The requirements shall be as per requirements of the General Conditions and as supplemented herein.
- B. The Contractor shall leave the site clean and ready for occupancy by the Owner. Early acceptance of process equipment shall not waive cleanup prior to final acceptance.
- C. Flushing water or water pumped from dewatering of various elements of the Work which may be necessary during construction shall be conducted by temporary pipelines or ditches away from the work area to natural drainageways. Flushing or drainage shall not be conducted in such a manner as to cause erosion or flooding of adjacent land not owned or controlled by the Owner, except by special permission in writing by the Owner and affected land owner.
- D. The Contractor shall assure that water discharged to any location during construction does not damage private property. The Contractor shall be responsible for any environmental damage which results from his activities.
- E. Each Contractor shall provide cleaning of all surfaces, systems, and fixtures, including removal of labels, tags, grease, oil, dirt stains, etc., prior to final acceptance of the work.

3.02 PROJECT RECORDS

- A. One copy of all project notations and sketches showing all changes made during the construction process shall be delivered to the Engineer for the Owner upon completion of the project. Quality and completeness of all drawings and records must be such that the Engineer may accurately transfer the information to a complete set of drawings of construction records.

3.03 FINAL INSPECTION

- A. After the cleaning up of the work, premises, manholes, and all other areas and structures connected with the performance of the contract, the work as a whole shall be inspected by the Engineer, and any workmanship or materials found not meeting the requirements of the specifications shall be removed by and at the expense of the Contractor and good and satisfactory workmanship or material substituted therefor. All settlement, defects, or damage upon any part of the work shall be remedied and made good by the Contractor.
- B. Refer also to the General Conditions and Supplementary Conditions for the procedures covering requests for final inspection, application for payments, etc.
- C. The final inspection shall be scheduled at a time such that the Engineer, Contractor, Owner, representatives of all applicable governing agencies and the Resident Project Representative shall have an opportunity to be in attendance.
- D. Any costs and expenses incurred by the Engineer or Resident Project Representative in conducting additional inspections due to the Contractor's knowingly misrepresenting the project or any portion thereof as being ready for final inspection shall be compensated for by the Contractor prior to final payment.
- E. Any deficiencies identified after the final inspection and acceptance, such as backfill settlement, shall be considered after the fact and shall be recognized as maintenance under the Contractor's maintenance requirements.

3.04 GUARANTEE

- A. Refer to the Contract Documents, General Conditions and Supplementary Conditions.
- B. Guarantee on equipment placed into operation prior to final acceptance shall start from the date of written acceptance by the Engineer and Owner.
- C. The Contractor shall warrant all trenches against settlement for a period of one (1) year and shall promptly repair any settlement reported to him during this period.
- D. The Contractor shall be responsible for any and all damage claims filed with, or court actions brought against, the Owner for an on account of any damage(s) directly or indirectly caused by his actions.
- E. The Contractor shall make or cause to be made all necessary backfill replacement and repairs or replacement appurtenant thereto, within seven (7) days from and after due notification by the Owner or Engineer of backfill settlement or erosion and resulting damage at any designated location(s). Such replacements and repairs shall be made immediately upon due notification by the Engineer or Owner if the settlement or erosion is of a nature to endanger life or property.
- F. It is understood the repairs, due to faulty workmanship or materials, shall be covered by the Performance Bond. However, certain emergencies must be repaired immediately.

3.05 LIENS

- A. Refer to the General Conditions, Supplementary Conditions and Specific Project Requirements.
- B. Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall deliver to the Owner a complete release of all liens arising out of this Contract, or receipts in lieu thereof; and, if required in either case, an affidavit that so far as he has knowledge or information, the releases and receipts include all the labor and materials for which a lien can be filed. But Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner to indemnify the Owner against any claim by lien or otherwise. If any lien and/or claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such lien and/or claim, including all costs and attorney's fees.

* * * END OF SECTION * * *

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SECTION 02 01 00 EXISTING CONDITIONS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the contract, including General and Supplementary Conditions, shall apply to Work covered in this Section.

1.02 SCOPE

- A. This Section describes, but is not limited to, the relationship of the Project to existing underground utilities and the Work associated with the location, adjustment and repair of such utilities.
- B. The information and data relative to existing underground utilities are provided to assist the Contractor with the preparation of his bid. This information should not be used by the Contractor for reference during construction of the Work.

1.03 MEASUREMENT AND PAYMENT

- A. The cost to relocate or repair any utilities or other obstructions damaged by the Contractor's activities shall be considered incidental Work with no separate measurement or payment to be made.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.01 GENERAL

- A. Existing utilities, as shown on the drawings, are located in accordance with available data, but locations may vary and cannot be guaranteed. The exact locations shall be determined by each Contractor as the Work proceeds. All work shall be done carefully so as to avoid damaging the existing utilities and Work. The Contractor shall be responsible for locating, or having located, all utilities, whether shown or not on the plans or in these specifications.
- B. Each Contractor shall provide for protection, temporary removal and replacement or relocation of obstructions as required for the performance of this Work required in these contract documents.
- C. Other obstructions not shown on the plans and requiring relocation shall be exposed by the Contractor without injury; or if injured, shall be repaired by Contractor at his expense. Removal of such obstruction or its relocation shall be made by the Contractor at no cost to the Owner.

3.02 UTILITY CONTACT

- A. In accordance with South Dakota state law, no excavator may begin any excavation without first notifying the One-Call Notification Center at 1-800-781-7474 of any proposed excavation. For your convenience the local "One Call Center" can be reached by dialing 811.

B. Prior to Work in a specific area affecting underground utilities, the following individuals shall be notified as appropriate:

1. TELEPHONE/CABLE TV

(Name of Company) Kennebec Telephone Co
(Mailing Address) PO BOX 158
(City, State, Zip Code) Kennebec, SD, 57544
Contact Person: Matt Collins
Telephone Number: (605) 869-2220

2. ELECTRIC:

(Name of Company) West Central Electric
(Mailing Address) 204 Main Street
(City, State, Zip Code) Murdo, SD, 57559
Contact Person: Seth Geigle
Telephone Number: (605) 669-2472

3. WATER / SEWER/STREETS:

(Name of Company) City of Presho
(Mailing Address) PO BOX 100
(City, State, Zip Code) Presho, SD, 57568
Contact Person: John Uthe
Telephone Number: (605) 280-8527

C. The failure of any utility to be present for any reason, at the Preconstruction Conference, if held, or the failure to be included in the listing of Paragraph 'B' above shall not relieve the Contractor of any responsibility described herein.

3.03 UTILITY REPAIR

A. When an existing utility is exposed or damaged, the Contractor shall comply with the repair requirements of the affected utility.

B. When an underground utility is exposed, the Contractor shall compact the backfill beneath the exposed utility before completion of the backfill operation.

3.04 SEWER AND WATER MAIN SEPARATION

A. Sewers and manholes shall be separated at least 10 feet horizontally from any existing or proposed water main, measured edge to edge, unless the water main is laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer line and at such an elevation that the bottom of the water main is at least 18 inches vertical from outside of pipe to outside of pipe.

B. If it is impossible to obtain proper horizontal or vertical separation as described above, the sewer main shall be pipe equivalent to water main standards of construction and shall be pressure-tested to assure water tightness before back-filling.

C. Water mains shall be laid to provide a horizontal distance of at least 25 feet from any septic tank, seepage pit, absorption field, stabilization pond or lagoon.

1. When conditions prevent this separation, the water line must be encased in PVC, Ductile iron or cast iron for the 25 feet of separation. If PVC, ductile iron or cast iron is used as encasement material, the ends shall be adequately sealed with a flexible end seal.
- D. Water mains crossing any sewers shall be on top of the sewer and provide a separation of at least 18 inches between the outside of pipes. One full length of water pipe must be located so both joints will be at least 10 feet from the sewer.
- E. When conditions prevent such a vertical separation, the following conditions shall apply:
1. A non-perforated sewer main may cross above a water main if a minimum vertical separation of 18 inches between the bottom of the sewer and the top of the water main is provided. The water main material shall be a continuous piece at least 20 feet in length and the length of water pipe is located so both joints are as far as possible from the sewer main. Adequate structural support must be provided for the sewers to prevent excessive deflection of joints and settling on and breaking the water mains.
 2. A water main may cross either above or below a non-perforated sewer line with a vertical separation of less than 18 inches if either the water or sewer line is encased for at least 10 feet each side of the crossing. Adequate structural support must be provided for the sewers to prevent excessive deflection of joints and settling on and breaking the water mains.
- F. Storm sewer lines may be installed closer to water mains than the required 18 inch vertical separation and the 10 foot horizontal separation as set forth by the DANR provided the storm sewer line is constructed as follows:
1. In lieu of the encasement of the water main as specified in Paragraph E, each joint of the storm sewer within ten (10) feet of the water main may be sealed using a butyl rubber sealant meeting AASHTO M-198, and each joint is encased with a two (2) foot wide by six (6) inch thick concrete collar centered on the joint. The band shall be reinforced with the equivalent steel area as that in the RCP.
 2. Each joint of the storm sewer within ten (10) feet of the water main is sealed using a rubber "O"-ring gasketed joint capable of passing a low pressure (10 psi) air test.

* * * END OF SECTION * * *

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SECTION 31 11 00 CLEARING AND GRUBBING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to the work covered in this section.

1.02 DESCRIPTION

- A. This Section describes the work related to clearing, grubbing and disposal of materials from the project work sites. Each Contractor shall accept all sites in their present condition.
- B. Clearing and grubbing will consist of the removal and disposal of trees, stumps, brush, roots, vegetation, logs, rubbish, and other objectionable natural or manmade material, on or next to the site of the work. All grubbing shall be limited to those areas where new construction is shown.

1.03 MEASUREMENT AND PAYMENT

- A. No field measurement for the item of clearing and grubbing will be required. Clearing, grubbing, stripping, etc., will not be measured for direct payment.
- B. All completed work must be approved by the Owner and/or the Owner's representative before payment. Payment will be made based on lump sum price, if shown on the bid form. If no item is shown on the bid form, the work shall be considered incidental to the project.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor will be responsible to find a suitable site to stockpile any materials generated from the work prior to proper disposal.

3.02 PROTECTION

- A. Trees, shrubs and brush designated for preservation by the Owner's representative, shall be carefully trimmed to reduce the damaged surface to a clean cut as directed. Trees, shrubs, etc., so designated shall be protected from scarring, barking, or other injuries during construction operations.

3.03 CLEARING

- A. The entire project site shall be cleared of all trees, stumps, brush, logs, and rubbish only as required to complete construction except such trees and brush as may be designated by the Owner to be left in place. The landowner must be notified before any tree is removed from the premises.

3.04 GRUBBING

- A. On areas required for construction of embankments, all stumps, roots, etc., shall be removed to a depth of at least one foot below the existing ground surface.
- B. On areas required for borrow sites and material sources, stumps, roots, etc., shall be removed to the complete extent necessary to prevent such objectionable matter becoming mixed with the material to be used on construction.
- C. Stump holes and other holes from which obstructions have been removed shall be backfilled and compacted in accordance with the requirements of the applicable sections of those specifications dealing with the excavation, backfill, embankment and compaction in the areas affected.

3.05 CLEANING OF THE WORK SITE

- A. All materials cleared and grubbed shall be disposed of as outlined in these specifications or as directed by the Engineer or Owner.
- B. All trees, shrubs, brush, and other vegetation shall be removed and disposed of on a daily basis.
- C. Before the work will be considered complete, the Contractor must remove all surplus materials, tools, equipment, weeds, brush, rubbish, stumps, or other objectionable materials, leaving the site of the work and all portions of the finished work clean, unobstructed and ready for use.

3.06 WASTE DISPOSAL

- A. Materials and debris shall be removed from the project site. The Contractor shall be responsible for finding a proper disposal site. The Contractor shall comply with all applicable federal, state, and local laws, ordinances, and regulations governing the disposal of solid wastes.
- B. All perishable material shall be removed from the site. If burned, it shall be under the constant care of competent workmen and in such a manner that the surrounding vegetation and adjacent property is not jeopardized. The Contractor will be responsible for compliance with all federal, state, and local laws and regulations applicable to burning and controlling fires.
- C. If the Contractor locates and uses a disposal site at his own expense, the Contractor shall, prior to certification of project completion, obtain and furnish to the Owner a lien waiver or a letter of satisfaction written by the property owner of the disposal area and addressed to the Owner.

* * * END OF SECTION * * *

SECTION 31 24 13 ROADWAY EMBANKMENT

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, apply to work specified in this section.
- B. Related Work Specified Elsewhere:
 - 1. Temporary Controls - Section 01 57 00
 - 2. Site Watering - Section 01 57 26
 - 3. Existing Conditions - Section 02 01 00
 - 4. Clearing and Grubbing - Section 31 11 00
 - 5. Shoring - Section 31 41 00
 - 6. Bases and Paving - Section 32 10 00
 - 7. Seeding and Fertilizing - Section 32 92 19

1.02 DESCRIPTION OF WORK

- A. The Work covered by this section of the specifications shall consist of performing all operations associated with the excavation, embankment, compaction, and grading required for the construction of the roadways and other related work in accordance with these specifications and in conformity with the dimensions and typical sections shown on the plans and with the lines and grades established by the Engineer.
- B. All suitable material taken from excavation shall be used in the formation of the embankment and for backfilling as indicated on the plans.
- C. The Owner or the Owner's designated representative shall provide grade stakes as outlined in Section 01 32 23. The Contractor shall be responsible for providing all additional slope and grade staking and other staking as may be necessary to complete construction.

1.03 QUALITY ASSURANCE

- A. The Owner will conduct such tests, observations and measurements as may be deemed appropriate by the Owner for his own information and use to determine general conformance and compliance with the general intent of the plans and specifications. The results of the tests, observations and measurement made by the Owner shall not relieve the Contractor from any responsibility for completing the work in conformance with the plans and specifications.
- B. The Contractor is responsible for controlling the quality of his work and product and may conduct quality control tests as desired for his own information and use at no additional cost to the Owner.

1.04 CLASSIFICATION OF EXCAVATION

- A. All excavation shall include the excavation performed under this section regardless of the material encountered unless in the Bid Form prices are asked for and bids are taken for "solid rock excavation."

- B. "Solid rock excavation" shall include all solid rock in ledges, imbedded deposits in unstratified masses, also conglomerate deposits so firmly cemented as to present all characteristics of solid rock and which cannot be removed without drilling and blasting. All boulders containing a volume of more than one cubic yard will be classified as "solid rock excavation." The responsibility and cost of satisfactorily demonstrating to the Engineer that the material being considered for rock excavation cannot be removed by means other than drilling and/or blasting shall be the obligation of the Contractor.
- C. Shale, regardless of the nature of deposit, will not be considered as rock excavation unless so designated on the plans.
- D. The frozen condition for any of the different classified materials taken from excavation shall not constitute a basis for a claim for extra compensation for extra work on the part of the Contractor.
- E. Should rock (solid material not removable without blasting or power hammer) be encountered, one of the following procedures will be followed upon agreement between the Owner, Contractor and Engineer:
 - 1. The lines and grades will be adjusted; or
 - 2. Excavation will continue at a negotiated price.

1.05 MEASUREMENT AND PAYMENT

- A. The volume of excavation and embankment required for the construction of the roadways shall not be measured. The volume of excavation and embankment has been estimated by computer aided design software comparing the existing surface elevation to the proposed subgrade elevation. For the Contractor's information and use in preparing his Bid, the following approximate quantities are offered; however, it shall be the Contractor's sole responsibility to perform his own investigations and earthwork calculations. The Contractor's Bid for each part of the work shall not be altered unless there is a change, directed by the Engineer, in the design elevations of the finished grade lines. Payment for the excavation and embankment for the roadways shall be based on an established quantity of cubic yards at the contract price as shown on the Bid Form. Payment shall include dirt work, including all subgrade preparation, scarifying, excavation, embankment and related work required to construct the embankments; all material removal, stockpiling and replacement of materials; and other related work.

Bid Schedule A:

Unclassified and Embankment = 780 CY*

Embankment from City Borrow Pit = 166 CY*

*35% Shrinkage assumed

The above volumes represent the quantity of material compacted in place.

- B. If any unsuitable material is encountered during construction and the Contractor has requested, in writing, measurement of the additional amount of excavation required, payment for excavation, removal and disposal of said unsuitable material shall be at the unit price bid for excavation. Payment for the tonnage shall be full compensation for material excavation, disposal, replacement and compaction. The measurement for the excavation of unsuitable material as defined hereinafter shall be determined by the volume in cubic yards of material excavated and hauled off of the site.

- C. The measurement for rock excavation shall be by cross section and calculated by the average end area method or other method as directed by the Engineer. Payment for rock excavation, as defined herein, shall be made at a negotiated unit price determined prior to the start of the excavation and removal.
- D. The volume for excavation, stockpiling and replacement of topsoil material shall not be measured. The removal, stockpiling and placement of topsoil shall be considered incidental to the contract.
- E. No direct measurement or payment shall be made for work performed for the preparation of the embankment area.
- F. Refer to Section 01 57 26 for measurement and payment of water.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall inform and satisfy himself as to the character, quantity and distribution of all material to be excavated. Excavation operations shall be conducted so that materials outside the limits of construction will not be disturbed.
- B. Those areas outside of the embankment areas in which the top layer of soil material becomes compacted due to hauling or to any other activity of the Contractor shall be scarified and disked to a minimum depth of 4 inches, or as directed by the Owner, to loosen and pulverize the soil.
- C. The Contractor shall supervise the excavation, moving, placing and deposition of all material. During the construction of the embankment, the Contractor shall route his equipment at all times when loaded and when empty over the layers as they are placed and shall distribute the travel evenly. The equipment shall be operated in such a manner that hardpan cemented gravel, clay, or other chunky soil material will be broken up into small particles and become incorporated with the other material.
- D. The Contractor shall conduct his operations in such a manner that any required measurements and tests may be taken from the excavated, backfilled and embankment areas. Measurements and/or tests may be taken either during operations or immediately upon completion of operations.
- E. Borrow material shall not be placed until after all material from the roadway excavation has been placed in the fill. If the Contractor places more borrow than is required and causes a waste of excavation, the amount of waste shall be deducted from the volume as measured in the borrow area.
- F. Prior to beginning excavation, grading and embankment operations in any area, all necessary clearing and grubbing in that area shall have been completed in accordance with the requirements of Section 31 11 00.

3.02 TOPSOIL

- A. Enough topsoil shall be stripped and stockpiled from the regular grading areas; or, when not available from regular grading areas, from areas selected by the Contractor and approved by the Engineer, to place a minimum of 6 inches compacted depth, perpendicular to the slope, on all disturbed areas designated to be covered by topsoil.
- B. Areas from which topsoil is to be excavated shall be cleared of objectionable vegetation and all litter such as brush, rocks and other foreign material of objectionable size or quantity.
- C. Areas designated to be covered with salvaged topsoil shall be undercut or underfilled so that the finished lines will conform to the lines and grades shown on the plans after the topsoil has been placed. The areas on which topsoil is to be placed shall be smoothed to a condition satisfactory for the placement of topsoil. Topsoil shall be placed at areas shown to be seeded as indicated on the plans or as directed by the Owner or his representative.
- D. Topsoil shall be spread evenly and uniformly over the designated areas to the depth indicated on the plans. The Contractor shall place the proper depth of replacement topsoil.
- E. If topsoil is not available in sufficient quantities to cover the designated areas to the depth as specified, the Contractor shall spread the available topsoil to a lesser depth if allowed by the Owner.
- F. That portion of the topsoil removed from the project site not required for topsoil replacement shall be stockpiled in an area designated by the Owner at no additional cost to the Owner.

3.03 UNSUITABLE MATERIALS

- A. Saturated mixtures of organic matter and soils, unstable subgrade material, bentonite, excess sod or topsoil that cannot be used in the embankment or topsoil placement, and other material which, in the opinion of the Engineer cannot be used in the construction of embankments, shall be considered unsuitable material.
- B. The Contractor shall notify the Engineer prior to the excavation of the unsuitable material. All excavated unsuitable material shall be measured and paid for in accordance with these specifications.
- C. Where excavation to the finished graded section results in a subgrade or slopes of unsuitable soil, the Contractor shall, when directed by the Engineer, remove the unsuitable materials and backfill to the finished graded section with suitable material. The replacement material shall be obtained from the grading operations or borrow area and thoroughly compacted in accordance with the requirements as specified under "Formation of Embankment." The Contractor shall conduct operations in such a way that the Engineer can take the necessary cross-sectional measurements before the fill material is placed.
- D. Materials designated as unsuitable materials for embankments or fill shall be disposed of at locations designated by the Engineer at no cost to the Owner.

3.04 EXCAVATION OF SUITABLE MATERIAL

- A. Excavation shall be performed to the lines, grades, and elevations as indicated on the plans or as directed by the Engineer; and material shall be handled so that the requirements for formation of embankments can be followed. No excavation or stripping shall be started until the Engineer has taken cross sectional elevations and measurements of the existing ground surface, if required, and has provided control stakes for the proposed work. During the process of excavation, the grade shall be maintained so that it will be properly drained at all times.
- B. Should the Contractor, through negligence or other fault, excavate below the designated lines or elevations, he shall replace the excavation with suitable materials and properly compact and control the moisture content in a manner as specified herein under "Formation of Embankments". All replacement work shall be at the Contractor's expense.
- C. The Contractor shall distribute the excavated material as indicated in the plans. Widening or narrowing of the section and raising or lowering of the grade to avoid haul will not be permitted. The Engineer may make minor adjustments or revisions in lines or grades if necessary as the work progresses to obtain satisfactory construction.
- D. All loose or protruding rocks on the back slopes in cut areas shall be removed to a point below the finished grade of the slope. Blasting, when necessary, will be permitted only when precautions are taken for the protection and safety of all persons, the work and the property. All damage done to the work or any property shall be repaired at the Contractor's expense. All operations of the Contractor in connection with the transportation, storage, and use of explosives shall be in accordance with all applicable federal, state, and local laws and regulations.
- E. All slopes shall be uniformly dressed to the slope, cross section, and alignment as shown in the plans.
- F. Any removal, manipulation, aeration, replacement, and recompaction of suitable materials necessary to obtain the required density shall be considered as incidental to the excavation and embankment operations and shall be performed by the Contractor at no additional compensation.

3.05 STOCKPILING

- A. If at the time of excavation it is not possible to place any material in its proper section of the permanent construction, it shall be stockpiled in approved areas for later use.
- B. The stockpiled material shall be handled and placed as specified in the section of these specifications covering excavation, embankment, and topsoil.
- C. Stockpiles of topsoil or any other material shall be located within the project limits as near the final placement site as practicable. When stockpiling within the project limits is not possible, it shall be the Contractor's obligation to arrange for and maintain stockpile sites at his own expense. Stockpiles of topsoil shall not be placed within 50 feet of embankment areas and shall not be placed on areas which subsequently will require any excavation or embankment.
- D. If materials are stockpiled on property other than that of the Owner the Contractor shall, prior to Substantial Completion of the Work, obtain and furnish to the Owner a lien waiver or a letter of satisfaction written by the owner of the stockpile area property and addressed to the Owner.

3.06 BORROW EXCAVATION

- A. Borrow excavation shall consist of excavation made from borrow areas within the limits of the property outside the normal grading limits or from areas outside the property when specified. Borrow area(s) within the project limits from which borrow may be obtained will be as designated on the plans.
- B. When borrow areas are not designated it shall be the Contractor's responsibility to locate and obtain the borrow supply. The Contractor shall notify the Engineer sufficiently in advance of the beginning of excavation so that necessary measurements can be made. All objectionable material shall be disposed of by the Contractor. All borrow areas shall be opened up immediately to expose the vertical face of various strata of acceptable material to enable obtaining a uniform product. Borrow pits shall be excavated to regular lines to permit accurate measurements and shall be drained and left in a neat and presentable condition with all slopes dressed uniformly and topsoiled.
- C. Prior to Substantial Completion of the Work, the Contractor shall obtain and furnish to the Owner a lien waiver or a letter of satisfaction written by the owner of the borrow area property and addressed to the Owner.
- D. The borrow excavation shall be handled and placed as specified in these specifications for excavation and embankment.

3.07 PREPARATION OF EMBANKMENT AREA

- A. Prior to the placement of any fill material, the entire layer of topsoil upon which the embankment is to be placed, except where limited by solid rock, shall be removed for its entire depth to the bottom of the natural existing topsoil.
- B. A minimum of six (6) inches of material below the bottom of the natural existing topsoil or to the depth as previously described shall be scarified for the entire width of the embankment. The area shall be scarified in furrows uniformly spaced so that at least 50% of the surface will be broken to the required depth. All roots, debris, large stones, or objectionable material that would cause interference with the compaction of the foundation for fill shall be removed from the area and disposed of as specified.
- C. When a compacted road surface containing granular material lies within three (3) feet of the proposed subgrade surface, such old road surfacing shall be scarified to a depth of at least six (12) inches. The area shall be scarified in furrows uniformly spaced so that at least 50% of the surface will be broken to the required depth.
- D. After removal of topsoil and scarifying of the material under the embankment areas, the area will be examined by the Owner's representative for the existence of unsuitable materials. The area of unsuitable material shall be removed to a depth as shown in the plans or as directed by the Owner's representative.
- E. A thin layer (approximately 3 inches) of the fill material shall be uniformly spread over the scarified foundation and the whole area compacted to 95% of maximum density as determined by standard proctor ASTM Test Designation D698 at a moisture content between 2% below optimum and 4% over optimum.

- F. When embankment is to be placed and compacted on hillsides, against existing embankments, or when embankment is built one-half (1/2) width at a time, the slopes that are steeper than 4:1 when measured at right angles to the roadway centerline shall be continuously benched as the work is brought up in horizontal layers. Benching shall be of sufficient width to permit operations of placing and compacting equipment. Each horizontal cut shall begin at the intersection of the original ground and the vertical sides of the previous cuts. Suitable material thus cut out shall be recompacted along with the new embankment material at the Contractor's expense.

3.08 FORMATION OF EMBANKMENTS

- A. Embankments shall be formed of satisfactory materials placed in successive horizontal layers of not more than eight (8) inches loose depth for the full width of the cross section. Lifts of greater than eight (8) inches may be placed provided it is satisfactorily demonstrated that the compacting equipment in use has the ability to achieve the required density for the entire depth of the lift. All materials entering the embankment shall be reasonably free of organic matter such as leaves, grass, roots, and other objectionable material.
- B. The grading operations shall be conducted and the various soil strata shall be placed to produce a soil structure as shown in the typical cross section or as directed.
- C. Well pulverized sod and topsoil may not be used in the embankment under the roadbed area.
- D. Operations on earthwork shall be suspended at any time when satisfactory results cannot be obtained because of rain, freezing weather, or other unsatisfactory conditions of the field. The Contractor shall drag, blade, or slope the embankment to provide proper surface drainage. Frozen material shall not be placed in the embankment nor shall embankments be placed over frozen material.
- E. The material in the layers shall be of the proper moisture content before rolling to obtain the prescribed compaction. The Contractor shall manipulate the moisture content of the material by wetting or drying when necessary to secure a uniform moisture content throughout the layer. Should the material be too wet to permit proper compaction or rolling, all work on all portions of the embankment thus affected shall be delayed until the material has dried to the required moisture content. Sprinkling shall be done in accordance with the requirements of this Section. Samples of embankment materials for testing, both before and after placement and compaction, will be taken. From these tests, corrections, adjustments, and modifications of methods, materials, and moisture content will be made to construct the embankment.
- F. Where a large portion of the materials excavated consist of rock, the rock may be used in the construction of the embankment as hereinafter specified:
 - 1. The maximum dimension of any rock used shall not exceed four (4) inches.
 - 2. Rocks shall be carefully distributed throughout the embankment and imbedded with earth or other fine material so that the interstices between the large particles are filled and a dense, compact, uniform embankment is secured.
 - 3. No rock will be allowed in the upper eight (8) inches of any embankment. This portion of the embankment shall be composed solely of earth or other suitable material.
- G. The Contractor shall be responsible for the stability of all embankments made under the contract and shall replace any portion which in the opinion of the Engineer has become displaced due to carelessness or negligence on the part of the Contractor.

3.09 COMPACTION

- A. Compaction and watering shall be continued on all areas of the embankment until it has been compacted to 95% of maximum density in accordance with ASTM D698 (standard proctor). Moisture content of the compacted soil shall be $\pm 3\%$ of optimum.
- B. In the event there is a loss of density or moisture in the upper six (6) inches of the subgrade prior to the application of base course material, the following corrective procedures shall be taken: Soils with liquid limits greater than thirty (30) shall be recompacted to the specified density at the stipulated moisture content prior to placement of gravel. Soils with a liquid limit of thirty (30) or less shall be recompacted to the specified density prior to placement of gravel; however, moisture requirements will not apply.
- C. Except as hereinafter specified, compaction may be accomplished with any type of equipment which will give uniform satisfactory results. A rolling procedure is to be established by the Contractor which will produce densities conforming to those specified above. Sufficient density tests will be taken to insure that the required density is being obtained with the equipment, soil and procedure being used. Each layer under construction must be satisfactorily compacted before the next layer is placed. Rolling work shall also be extended to cover the subgrade width in completed cut-sections under the same general requirements, and without any additional compensation. Cut-sections excavated below grade and refilled with the removed excavation or with selected soils shall be compacted in the same manner as embankments.
- D. Material which will not break down to one hundred (100) percent passing a three-fourths (3/4) inch sieve when soaked in water for twenty-four hours will be considered durable material. Embankment containing durable material passing an eight (8) inch square opening and retained on a three-fourths (3/4) inch sieve in amounts in excess of forty (40) percent by weight, which tends to cause unreliable in-place density test results, shall be compacted with sheepsfoot or other satisfactory rollers as specified above.

3.10 DIVERSION DITCHES AND DRAINAGE PROVISIONS

- A. If it is necessary, in the prosecution of the work, to interrupt the natural drainage of the surface, or the flow of artificial drains, the Contractor shall provide temporary drainage facilities that will prevent damage to public or private interests and shall restore the original drains as soon as the work will permit. The Contractor shall, at his own expense, take all measures necessary to properly drain the work site. The Contractor shall prevent water from flowing into fresh mortar or concrete. The Contractor shall be held liable for all damages which may result from neglect to provide for either natural or artificial drainage which his work may have interrupted. All temporary diversion ditches shall be of adequate size to handle any anticipated flow.
- B. Diversion ditches which are to be permanent shall conform to the shape required in the plans. There shall be no areas of standing water allowed in the finished product.
- C. Unless otherwise shown a minimum of six (6) inches of topsoil shall be placed on the bottom, on all slopes, and on all disturbed areas of permanent diversion ditches.

3.11 TOLERANCES

- A. The subgrade shall be finished to within minus 0.04 feet to plus 0.08 feet from the design grade and typical section shown in the plans. The quarter crown within any 12 foot transverse length shall not exceed the specified limits when measured with a straight edge, string line, or by other suitable equipment.
- B. The roadbed shall be constructed within the tolerances specified above for centerline and shall have the proper crown and present a neat appearance. Blading shall be continued until the roadbed is consolidated, smooth and free from clods, sod and other material considered unsatisfactory for the surface. Ditches and slopes shall be finished to the section shown on the plans within the right-of-way provided, and to the grades provided.

3.12 WATERING

- A. Refer to Section 01 57 26 for the use of water for construction purposes.

3.13 EXCESS MATERIAL

- A. Materials shall not be wasted without the permission of the Engineer. No payment will be made for any excavated material which is used for purposes other than those designated. All spoil areas shall be leveled or shaped to:
 - 1. the designated uniform line and section as directed by the Owner;
 - 2. provide for proper drainage of the spoil area and surrounding area;
 - 3. a condition and slope to allow maintenance by the Owner; and
 - 4. present a neat appearance before project acceptance by the Owner.
- B. The contractor shall be responsible for securing and maintaining an adequate area where excess material can be stockpiled for future use or waste.
- C. The Owner's approval of the site selection shall be required.
- D. The Contractor shall be responsible for the final cleanup of the site chosen. The site shall be cleaned to the satisfaction of the property owner, and a lien waiver or a letter of satisfaction written by the property owner and addressed to the Owner.
- E. Excess material not required for embankment shall be removed from the project site. Such removal and disposal shall be at the Contractor's expense.

3.14 CLEAN-UP

- A. Loose rock, two (2) inches in diameter or larger, within the limits of construction which would interfere with mechanical mowing shall be picked up and satisfactorily disposed of.

* * * END OF SECTION * * *

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SECTION 31 25 00 EROSION CONTROL

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, apply to the work specified in this section.
- B. Related Work Specified Elsewhere:
 - 1. Trenching, Backfilling and Compacting - Section 31 23 33
 - 2. Seeding and Fertilizing - Section 32 92 19

1.02 DESCRIPTION OF THE WORK

- A. This section includes all labor, materials, equipment and services necessary to furnish and install the types and kinds of slope protection and erosion control to the lines, grades, and thicknesses shown on the drawings.

1.03 SUBMITTALS

- A. The Contractor shall submit for review copies of shop drawings for materials specified herein in accordance with the requirements of Section 01 33 23 and the requirements as hereinafter specified.

1.04 MEASUREMENT AND PAYMENT

- A. Measurement and payment for general slope protection and erosion control not shown in the plans such as silt fence, straw wattles, sand bag barriers in gutters and temporary seeding will not be measured for payment but shall be considered incidental to the project. Included incidental items are to furnish, install and maintain the best management practices as necessary to limit erosion and sediment from leaving the construction site.
- B. Measurement and payment for sediment control at inlet with frame and grate shall be paid for on a per protection of inlet basis. Payment shall include full compensation to furnish and install the protection materials, maintain the protection materials, and remove the materials upon established vegetation.
- C. Measurement for erosion control blanket, complete in place, shall be on the basis of square yards installed. Measurement shall be to the nearest square yard. Payment for erosion control blanket shall be on the basis of the Contract Unit Price bid. Payment shall include compensation for all materials, equipment, labor and incidentals necessary to furnish and install the control materials. No allowance shall be made for overlaps, anchorages, etc.

PART 2 PRODUCTS

2.01 SILT FENCE

- A. Silt fence material shall consist of a temporary vertical barrier of fabric attached to and supported by woven wire and wood or steel posts and entrenched into the ground.
- B. The silt fence material shall be "high flow" and conform to the following:

Physical Property	Test Method	Acceptable Roll Value Typical Test Results
Grab Strength, lbs	ASTM D-4632	200 Minimum
UV Resistance at 500 Hrs	ASTM D-4355	90%
Water Permittivity, sec ⁻¹	ASTM D-4491	2.1
Pore Size – AOS, mm	ASTM D-4751	0.425

- C. Woven wire shall be 26-inch wide, 14½-gage and have six horizontal wires with six-inch or 12-inch spacing of vertical stay wires.
- D. Posts shall be T line posts with five-foot minimum length or wood posts with five-foot minimum length and three-inch minimum diameter.

2.02 HYDRAULICALLY APPLIED MULCH

- A. Bonded fiber matrix shall be from the approved products list as provided by the South Dakota Department of Transportation.
- B. Tackifier used in the hydraulic application of grass seed, mulch and fertilizer shall be natural vegetable gum, blended with gelling and hardening agents. This material, when mixed with water becomes a tackifier/binder to act as an agent for erosion control and provides a stable bed for seed germination. This material shall be like or equal to Terra Tack I of 424 Cottage Place, Plainfield, New Jersey.

2.03 STRAW WATTLES

- A. Straw wattles shall consist of weed free straw, excelsior, or coconut husk encased in ultraviolet degradable or biodegradable netting. Anchors for erosion control wattles shall be wooden or other biodegradable stakes.
- B. Straw wattles shall have a minimum diameter of 6 inches and a length of 25 feet.

2.04 TEMPORARY EROSION CONTROL BLANKET (TYPE 3)

- A. Erosion control blanket shall consist of coconut fiber or wood fiber mechanically bound and covered on both sides by netting. The fiber shall be homogeneously blended and evenly distributed throughout the blanket. The netting is UV stabilized polypropylene with mesh openings of approximately 1-in by 2-in or smaller.

2.05 TURF REINFORCEMENT MAT

- A. Turf reinforcement mat shall be Type 1 and shall be selected from the SD DOT approved products list, or approved equal.

PART 3 EXECUTION

3.01 SILT FENCE INSTALLATION AND MAINTENANCE

- A. Silt fencing shall be installed in accordance with the manufacturer's recommendations.
- B. The Contractor shall remove muck from the silt fencing when the muck reaches a depth of approximately 1/3 the height of the fencing. The Contractor shall dispose of the removed muck at

an approved location. Mucking and repair shall be performed when necessary or when directed by the Engineer in conformance with the Storm Water Pollution Prevention Plan as contained in the plans.

3.02 HYDRO-MULCHING

- A. As an option to protection with erosion control fabric/blanket, the Contractor may elect to accomplish slope erosion control by hydraulically applying mulch.
- B. Wood cellulose fiber mulch, in the amounts specified above, shall be combined with water and the tackifier/binding agents at the rates recommended by the manufacturer of the specific fiber mulch used. The resulting slurry shall be applied hydraulically. The hydraulic application shall be performed in such a manner that the liquid carrier will uniformly distribute the slurry material over the entire area to be protected at rates as specified herein.

3.04 STRAW WATTLE

- A. Straw wattles shall be installed in accordance with the manufacturer's recommendations.
- B. Repair shall be performed when necessary or when directed by the Engineer in conformance with the Storm Water Pollution Prevention Plan as contained in the plans.

3.08 EROSION CONTROL BLANKET AND TURF REINFORCEMENT MAT

- A. Install temporary erosion control blankets and turf reinforcement mat where indicated in the plans and in accordance with manufacturer's recommendations.
- B. Orient temporary erosion control blankets and turf reinforcement mat in vertical strips and anchored with staples, as indicated. Abut adjacent strips to allow for installation of a common row of staples. Overlap horizontal joints sufficiently to accommodate a common row of staples with the uphill end on top.
- C. Where exposed to overland sheet flow, locate a trench at the uphill termination. Staple the temporary erosion control blanket or turf reinforcement mat to the bottom of the trench. Backfill and compact the trench as required.
- D. Where terminating in a channel containing an installed blanket, the erosion control blanket shall overlap installed blanket sufficiently to accommodate a common row of staples.
- E. Prior to placement of erosion control blankets and turf reinforcement mat, the areas shall be properly prepared, shaped, seeded and fertilized.
- F. Erosion control blanket and turf reinforcement mat shall be unrolled in the direction of the flow of water when placed in ditches and slopes. The upslope end of the erosion control blanket shall be buried in a trench 6" wide by 6" deep. There shall be at least a 6" overlap wherever one roll of erosion control blanket and turf reinforcement mat ends and another begins, with the upslope erosion control blanket places on the top of the down slope erosion control blanket.
- G. The erosion control blanket and turf reinforcement mat shall be pinned to the ground according to the manufacturer's installation recommendations.
- H. After the placement of erosion control blanket and turf reinforcement mat, the contractor shall fine grade along all edges of the blanket to maintain a uniform slope adjacent to the blanket and level any low spots which might prevent uniform and unrestricted flow of side drainage directed onto the erosion control blanket.

- I. All ditch sections shall be shaped when installing the erosion control blanket and turf reinforcement mat. All cost for shaping the ditches shall be incidental to the contract unit price of erosion control blanket and turf reinforcement mat.

* * * END OF SECTION * * *

SECTION 31 34 19 GEOTEXTILE FABRICS

PART I GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the contract, including General and Supplementary Conditions, shall apply to work covered in this section.
- B. Related requirements specified elsewhere:
 - 1. Roadway Embankment - Section 31 24 13
 - 2. Bases and Paving - Section 32 10 00

1.02 DESCRIPTION OF WORK

- A. This section includes the requirements for furnishing and installing geotextile fabric as shown on the plans.

1.03 QUALITY ASSURANCE

- A. When geotextile meeting or exceeding the required property values have been submitted and approved, the properties used for quality control shall be properties established by geotextile manufacturer for this type of product and not the values specified herein.

1.04 DELIVERY, HANDLING, AND STORAGE

- A. Geotextile shall be provided in rolls wrapped in relatively impermeable and opaque protective covers with the following clearly marked on each roll.
 - 1. Manufacturer's name.
 - 2. Product identification.
 - 3. Lot and roll number.
 - 4. Roll dimensions.
- B. Geotextile shall be stored in a dry location above the ground surface. Geotextile shall not be stored directly on the ground.
- C. Geotextile shall be handled in accordance with the manufacturer's recommendations to prevent damage to material during unloading, handling, and installation operations.

1.05 SUBMITTALS

- A. The Contractor shall submit for review copies of shop drawings for materials specified herein in accordance with the requirements of Section 01 33 23 and the requirements as hereinafter specified.

1.06 MEASUREMENT AND PAYMENT

- A. Measurement for woven separator fabric shall be for the area covered as shown on the plans or as adjusted in the field. Measurement shall be on a square yard basis to the nearest whole number.

- B. Payment for geotextile fabric shall be at the Contract Unit Price, as indicated in the Bid Form, for all work and material required to furnish and install fabric as shown on the plans. Overlaps of fabric rolls are not included in quantities for payment.

PART 2 PRODUCTS

2.01 GEOTEXTILE FABRIC

- A. The woven separator fabric used shall be Mirafi HP370 by Tencate or approved equal.

2.02 STAPLES

- A. Staples for the filter fabric, if used, shall be made of 11-gauge or heavier steel wire. The staples shall be "U" shaped with a 1-inch crown, and legs with a minimum of 8-inches in length.
- B. Installation shall be in accordance with the manufacturer's recommendations.

PART 3 EXECUTION

3.01 GEOTEXTILE INSTALLATION

- A. The Contractor shall install all geotextile fabrics according to the manufacturer's recommendations and as specified herein.
- B. The geotextile fabric shall be installed over the finished subgrade after final grading and shaping has been completed. The fabric shall be rolled onto the subgrade surface in a tight condition and without wrinkles. The geotextile shall not overlap the drain pipe, drainage aggregate, or drainage fabric.
- C. All overlaps of geotextile fabrics shall be oriented in a direction to shed water to the downstream gradient.
- D. The Contractor shall repair all tears in geotextile prior to installation of granular materials. The repair procedures shall be as recommended by manufacturer.
- E. Geotextile shall be installed around all appurtenances protruding through geotextile as recommended by manufacturer.

* * * END OF SECTION * * *

SECTION 31 41 00 SHORING

PART I GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the contract, including General and Supplementary Conditions, shall apply to work covered in this section.
- B. Related requirements specified elsewhere:
 - 1. Trenching, Backfilling and Compacting - Section 31 23 33
 - 2. Water Distribution Piping - Section 33 14 13

1.02 DESCRIPTION OF WORK

- A. Furnish and install all necessary sheeting, shoring, and bracing to adequately protect all new and existing structures, all existing piping as may be required during construction period, and all new piping.

1.03 MEASUREMENT AND PAYMENT

- A. Sheeting, shoring, and bracing left in place to protect footings, structures, or piping shall be incidental to the contract unit prices as shown on the Bid Form.

PART 2 PRODUCTS

2.01 MATERIALS

- A. All sheeting, shoring, and bracing shall be in good or new condition and shall conform to the requirements of current safety codes and guidelines.

PART 3 EXECUTION

3.01 METHODS

- A. Contractor shall be responsible for the design, installation and maintenance of all sheeting, shoring and bracing as necessary to furnish safe working conditions conforming to the current codes, regulations, and guidelines; to prevent any shifting and movement of material which may endanger personnel; to prevent damage to structures, or other work; and to avoid delay to the work.
- B. Bracing shall be so arranged as not to place any strain on portions of existing structures or utilities or completed work until the general construction has proceeded far enough to provide ample strength.
- C. Trench sheeting shall remain in place until proposed materials have been placed, tested for defects, and repaired if necessary, and the earth around it compacted as required by the specifications.

- D. In general, the sheeting and bracing shall be removed as the excavation is refilled in such a manner as to avoid the caving in of the bank or disturbance to adjacent areas or structures. The voids left by the withdrawal of the sheeting shall be carefully filled and compacted in accordance with the specifications.
- E. No sheeting, shoring, and bracing which is within three feet of the surface of the finished grade may be left in place without the written permission of the Engineer.
- F. It shall be the duty and responsibility of the Contractor to be familiar with all local, state, and federal regulations relating to this type of work and to comply with those regulations.
- G. Contractor shall have "competent person(s)" as defined by OSHA standards 29 CFR 1926.650, 1926.651 and 1926.652; Subpart P – Excavations, on the job site whenever trenching is in progress or open trenches are within the project site.

* * * END OF SECTION * * *

SECTION 32 10 00 BASES AND PAVING

PART 1 GENERAL

1.01 GENERAL

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to Work covered in this Section.
- B. Related requirements specified elsewhere:
 - 1. Site Watering - Section 01 57 26
 - 2. Trenching, Backfilling and Compaction - Section 31 23 33
 - 3. Roadway Embankment - Section 31 24 13

1.02 SCOPE

- A. This section covers the labor, materials, plant, equipment and related services necessary to furnish and install gravel surfacing and cushion, pavement and surfacing in accordance with these specifications and in conformity with the dimensions, typical sections, lines and grade as shown on the plans and as established by the Engineer.

1.03 QUALITY ASSURANCE

- A. The Owner will conduct such tests, observations and measurements as he may deem appropriate for his own information and use to determine general conformance and compliance with the general intent of the plans and specifications. The results of the tests, observations and measurements made by the Owner shall not relieve the contractor from any responsibility for completing the work in conformance with the plans and specifications.
- B. The Owner will conduct in-place moisture and density tests of the roadway gravel cushion and surfacing.
- C. The Contractor shall be responsible for the testing and process control in the production of the mineral aggregate materials.
- D. The Contractor shall be responsible for the testing of the asphalt material.
- E. The Contractor shall be responsible for the preparation of the asphalt concrete mix design for the material to be furnished. A new mix design shall be prepared when the mineral aggregate source or quality changes or when the asphalt material is changed.
- F. The Contractor shall be responsible for obtaining the services of a professional testing firm as may be required to assure compliance with the requirements of these specifications.
- G. The Owner will be responsible for conducting in-place density tests of the asphaltic concrete mix after it has been placed and compacted using nuclear density testing machines.
- H. The Contractor will be responsible for collecting the core samples, the cost of testing and all costs associated with the core sampling as described in Paragraph 3.04 of these specifications.
- I. The procedures for asphalt density testing shall be as set forth in Paragraph 3.04 of these specifications.

- J. The Contractor shall be responsible for the preparation of the concrete mix design for the material to be furnished.
- K. The Owner will collect samples, prepare cylinders and conduct such tests as may be deemed necessary to determine air content, slump and compressive strength of the concrete being placed. Tests will be made of each 50 cubic yards of concrete placed or fraction thereof. The number of tests and frequency of testing may be modified at the Owner's discretion.

1.04 SUBMITTALS

- A. The Contractor shall submit for review copies of shop drawings for materials specified herein in accordance with the requirements of Section 01 33 23 and the requirements as hereinafter specified.
- B. The asphalt concrete mix design(s) for the materials to be furnished and placed as part of this project shall be furnished to the Engineer for review.
- C. The Portland cement concrete mix design shall be submitted to the Engineer for review. The mix design shall be previously approved by the South Dakota Department of Transportation and using the same aggregates as the approved mix design.
- D. Provide copies of all reports and test results completed by the Contractor's independent testing service, if used.

1.05 MEASUREMENT AND PAYMENT

- A. Gravel base course and surfacing measurement and payment shall be based on the number of tons of material placed on the areas as shown on the plans and as directed by the Engineer at the contract unit price. The quantity shall be established by scale tickets from a certified scale. All scale tickets for granular materials shall be given to the on-site Engineer at time of delivery or by end of the working day. Payment shall include loading and hauling material, placing, moisture conditioning, compacting, and blading to the proper grade.
- B. Any excavation, removal or replacement of paving or other surfaces by the Contractor beyond the limits shown in the plans without prior written notice and approval of the Engineer and Owner shall be deemed incidental to trenching and backfilling operations without additional compensation by the Owner.
- C. Asphalt Pavement measurement and payment shall be based on the number of tons of material placed on the areas as shown on the plans and as directed by the Engineer at the contract unit price. Payment shall include asphalt binder, mineral aggregate and asphalt for tack. Asphalt shall be placed in more than one lift when the thickness to be placed is greater than three inches.
 - 1. The contract unit price for asphalt concrete composite surfacing shall be reduced for the failure to achieve the specified density requirements. For each percentage point that the arithmetic average in a given test area is below the specified density, the contract unit price shall be reduced by five percent (5%).
- D. Asphalt cores shall be taken for testing by the Contractor at locations randomly selected by the Engineer. Payment shall be considered incidental to the asphalt paving.

- E. Testing for theoretical maximum specific gravity by the Rice Method will be considered incidental to the project.

PART 2 PRODUCTS

2.01 GRANULAR BASE COURSE AND SURFACING

- A. The aggregate for granular bases and surfacing shall conform to the following gradations:

	Base Course	Gravel Surfacing
Processing Required	Crushed	Crushed
	PASSING PERCENT BY WEIGHT	
2" Sieve	----	-----
1" Sieve	100	-----
¾" Sieve	80-100	100
½" Sieve	68-91	-----
No. 4 Sieve	46-70	50-78
No. 8 Sieve	34-58	37-67
No. 40 Sieve	13-35	13-35
No. 200 Sieve	3-12	3-15
Liquid Limit Max	25	-----
Plasticity Index	0-6	4-12
L.A. Abrasion Test Loss Maximum	40	40

* From Section 882.2 of the South Dakota DOT Standard Specifications for Roads and Bridges – 2015 Edition

- B. The amount of crushed particles in the crushed rock shall consist of not less than 25% of the total weight. A crushed particle shall be defined to be a fragment of stone showing at least one freshly fractured face. The crushed rock produced for use in making the mineral aggregate shall contain at least 30% but not more than 50% by weight of air-dried material retained on a ¼ inch square opening sieve.
- C. The sampling and testing of the materials shall be done in accordance with the following methods and procedures:

	Test Procedure
Sampling	SD 201
Gradation	SD 202
Liquid Limit and Plasticity Index	SD 207
L.A. Abrasion Test	ASSHTO T96
Crushed Particle Test	SD 211

2.02 PORTLAND CEMENT CONCRETE

- A. Concrete shall conform to the requirements for Class A40 for paving and M6 concrete for all non-paving applications as per Section 462 of the latest edition of the South Dakota Department of Transportation Standard Specifications for Roads and Bridges or as approved by the Engineer.
- B. The materials to be used for the Portland cement concrete shall conform to Section 750 through Section 821, Section 860, Section 870 and Section 1010 of the South Dakota Department of Transportation Standard Specifications for Roads and Bridges, 2015 Edition and latest revisions thereto.

C. The 28-day compressive strength shall not be less than 4,000 psi.

2.03 ASPHALTIC CONCRETE

- A. The aggregate used for asphalt concrete shall be free of clay balls and organic debris. All particles shall be free from coatings of clay or dust that prevents thorough coating with asphalt. The physical characteristics and quality of the aggregate material shall conform, to Class E, Type 1 (Bottom Lift) and Type 2 (Top Lift), as specified in Table 1 of *Section 880 – Aggregate for Asphalt Concrete in South Dakota Department of Transportation Standard Specifications for Roads and Bridges*, latest revision.
- B. A tolerance of three (3) percent in the amount passing the maximum size screen will be permitted providing all material passes a screen having one-fourth (1/4) inch larger opening.
- C. The aggregate retained on the No. 4 sieve shall contain at least fifty (50) percent by dry weight of crushed pieces having two (2) or more surfaces produced by fracture.
- D. The filler that is to be furnished in place as a part of the mineral aggregate by the contractor shall consist of fine inert silt or stone dust which will meet the following requirements:
1. The material shall be such that 90% will pass a No. 40 mesh sieve, and at least 60% thereof by weight will pass a No. 200 mesh sieve.
 2. The linear shrinkage shall not exceed 4% and the plasticity index shall not exceed 6.
 3. The material shall be of such a nature that not more than 25% by volume will separate from bitumen in the presence of water.
 4. Filler will be used only where required to meet the mix gradation requirements.
- E. Sampling and testing for Asphaltic Concrete Aggregate shall be done in conformance with the following procedures:

	Test Procedure
Sampling	SD 201
Gradation	SD 202
Liquid Limit and Plasticity Index	SD 207
Stripping Test	AASHTO T182
L.A. Abrasion Test	ASSHTO T 96
Linear Shrinkage (Filler)	SD 303
Soundness Test (Sodium Sulfate Solution) (Five Alternations)	AASHTO T104
W.A.P. Test (Filler)	SD 304
Crushed Particle Test	SD 211

- F. Asphalt used for tack coat shall be SS-1h or CSS-1h according to *Section 890 – Asphalt Material in the South Dakota Department of Transportation Standard Specifications for Roads and Bridges*, latest edition.
- G. The asphalt cement shall be non-poly-modified 64-22. The material shall meet the requirements as specified *Section 890 – Asphalt Material in the South Dakota Department of Transportation Standard Specifications for Roads and Bridges*, latest revision.

2.04 REINFORCING

- A. Dowel bars shall have an epoxy coating. The coating shall conform to AASHTO M254 Type B except the film thickness shall be 5 to 13 mils (0.13 to 0.34) after cure. Dowel bars shall be plain round bars, free from burring or other deformation restricting slippage in the concrete as per the 2015 Edition of the South Dakota Department of Transportation Standard Specifications for Roads and Bridges or latest revision thereto.

2.05 JOINT SEALING COMPOUND

- A. Joint sealing compound shall be hot poured elastic joint sealant conforming to the requirements of Section 870.1, Concrete Joint Sealer of the latest edition of the South Dakota Department of Transportation Standard Specifications for Roads and Bridges.

2.06 CURING COMPOUND

- A. Curing compound shall conform to the requirements of Section 821, Concrete Curing Materials according to the latest edition of the South Dakota Department of Transportation Standard Specifications for Roads and Bridges.

PART 3 EXECUTION

3.01 GENERAL

- A. A flush, smooth transition shall be provided to adjoining surfaces.
- B. Existing paved surfaces shall be scored along a straight line by a concrete saw for the full depth of the existing surface. All exposed faces shall be adequately cleaned to ensure bonding between new and existing surfaces and cut to a vertical face immediately prior to placement of the new surfacing.
- C. Placement of gravel base course or asphalt material on frozen surfaces will not be permitted.

3.02 GRAVEL BASE COURSE AND SURFACING

- A. After completing the preparation of the subgrade discussed in Section 31 24 13, the Contractor shall place the gravel base course and surfacing material to the dimensions, elevation, grades and lines as shown on the plans or as directed by the Engineer.
- B. The gravel base course and surfacing shall be shaped to a tolerance not over five hundredths (0.05) of a foot plus or minus from the established elevation for the base course at any point in the section except that the deviation shall not vary more than five hundredths (0.05) of a foot (algebraic difference) between successive stations. The grades and cross sections lines referred to herein shall be that shown on the plans, or as revised by the Engineer.
- C. The Contractor shall install and maintain temporary gravel surfacing after installation of the utilities if there is a waiting period longer than 10 days to allow for multiple blocks to be surfaced at once. Maintaining gravel surfacing will include but not be limited to shaping and grading streets, maintaining access to residents and providing a safe route for residents. Required maintenance will be as directed by the Engineer or Owner.

- D. The cross slope of any section shall be finished to within plus or minus 0.2% of the section as shown on the plans or as directed by the Engineer.
- E. Compaction and watering shall be continued on all areas of the base course material until it has been compacted to 97% of maximum density in accordance with ASTM D698 (standard proctor) at a moisture content between 2% below optimum and 2% over optimum.

3.03 GRAVEL SURFACING

- A. In those areas designated by the Owner and/or Engineer, where the existing gravel surfacing has been disturbed by the construction procedures, the contractor shall replace the gravel surfacing after repairs to the subgrade has been completed.
- B. The Contractor shall blade and shape any adjacent gravel surfaces removed or disturbed during the progress of the work to the condition existing prior the beginning of Work.

3.04 ASPHALTIC CONCRETE SURFACE

- A. The Contractor shall blade and shape all gravel base course surfaces prior the beginning of the placement of the asphalt concrete composite material.
- B. Unless otherwise approved by the Engineer, the bituminous tack coat shall be applied at a rate of 0.05 gallon per square yard.
- C. The construction requirements and material handling shall conform to the requirements of *Section 320.3 and Section 890 of the South Dakota Department of Transportation Standard Specifications for Roads and Bridges*, latest edition except as modified with the approval of the Engineer.
- D. Compaction shall be continued on all areas of the asphalt surfacing material until it has been compacted to not less than 92% of maximum density as determined by the Rice Method (Test Procedure SD 312). The Contractor shall obtain samples of hot mix asphalt as per Procedure 312 during the paving operation.
- E. In place densities shall be determined by the use of nuclear density testing machines. The nuclear density testing machine will be calibrated to core samples collected at locations to be randomly selected by the Engineer. Not less than one (1) core sample will be collected for each block (centerline to centerline) or on intervals of not greater than 400 lineal feet of roadway constructed.
- F. The Owner or his representative will determine and mark the core locations after the mix is placed and compacted. The cores will be taken the next working day after the asphalt pavement is placed. The Contractor shall perform the coring under observation by the Owner or his representative. The Contractor shall patch all core holes with hot asphalt concrete to the satisfaction of the Owner or his representative. In the event the Contractor elects to obtain and test core samples in excess of the number as specified herein, the Contractor shall be responsible for all costs associated therewith.
- G. The results of all nuclear density tests within the length of one block (centerline to centerline) or for distances of not greater than 400 feet shall be used to determine the arithmetic average of the in-place densities of the asphalt concrete composite material placed. The arithmetic average shall be used to determine adjustments to the contract unit prices.
- H. The asphalt concrete composite material shall be placed so the finished surface at the centerline, or other designated location in the section as shown on the plans or directed by the Engineer shall

be within plus or minus four hundredths (0.04) feet of the elevation as shown on the plans or as directed by the Engineer.

3.05 PORTLAND CEMENT CONCRETE SURFACING

- A. Existing concrete surfaces shall be removed to the nearest full panel or as directed by the Engineer.
- B. Concrete surfaces shall be cured and protected for a sufficient period of time (not less than 3 days) to prevent damage to concrete and insure required compressive strength requirements.
- C. Concrete pavement shall be replaced with non-reinforced concrete unless otherwise shown on the plans.
- D. The concrete shall be of the thickness as shown on the plans.
- E. If an expansion or scored joint is within six (6) feet of the edge of the trench the existing concrete surface shall be removed and replaced to the joint.
- F. The surface of the new concrete surface shall be finished with a heavy broom finish.
- G. The alignment and grade of the new surface shall match that of the existing surface unless otherwise directed.
- H. Expansion joints shall be filled just concave to the surface with bituminous expansion joint material. Dowels shall be placed across the expansion joint as required.
- I. Contraction joints and construction joints shall be doweled as indicated in the SD DOT standard plate.
- J. Contraction joints shall be at intervals shown in the plans or as directed by the Engineer but may not be more than twelve (12) feet. Contraction joints shall consist of a groove of at least one-third (1/3) the depth of the pavement sawed in green concrete or a plane of weakness formed by inserting a removable metal template.
- K. All expansion and contraction joints shall be filled flush to the surface with joint sealing compound. The joint sealing compound shall be furnished slightly concave, and shall not be allowed to overflow the joint.
- L. Concrete surfaces shall be cured and protected for a sufficient period of time (not less than 3 days) to prevent damage to concrete and insure required compressive strength requirements.
- M. Concrete curing compound shall be applied to all exposed concrete surfaces according to Section 380, Portland Cement Concrete Pavement, of the South Dakota Department of Transportation, Standard Specifications for Roads and Bridges, 2015 Edition or latest revision thereto.

* * * END OF SECTION * * *

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SECTION 32 16 00 CURBS, GUTTERS, SIDEWALKS AND DRIVEWAYS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to Work covered in this Section.
- B. Related requirements specified elsewhere:
 - 1. Clearing and Grubbing - Section 31 11 00
 - 2. Trenching, Backfilling and Compacting - Section 31 23 33
 - 3. Roadway Embankment - Section 31 24 13
 - 4. Bases and Paving - Section 32 10 00

1.02 SCOPE

- A. This section covers the labor, materials, equipment and related services necessary to install sidewalks, curb & gutter, fillet sections, valley gutters and related structures.

1.03 QUALITY ASSURANCE

- A. The Owner will conduct such tests, observations and measurements as he may deem appropriate for the Owner's own information and use to determine general conformance and compliance with the general intent of the plans and specifications. The results of the tests, observations and measurements made by the Owner shall not relieve the Contractor from any responsibility for completing the work in conformance with the plans and specifications.
- B. The Owner will collect samples, prepare cylinders and conduct such tests as may be deemed necessary to determine air content, slump and compressive strength of the concrete being placed. Tests will be made of each 50 cubic yards of concrete placed or fraction thereof. The number of tests and frequency of testing may be modified at the Owner's discretion.
- C. The Contractor shall be responsible for conducting such tests, observations and measurements as necessary to demonstrate conformance with the requirements of the plans and specifications.

1.04 SUBMITTALS

- A. The Contractor shall submit for review copies of shop drawings for materials specified herein in accordance with the requirements of Section 01 33 23 and the requirements as hereinafter specified.
- B. The Portland cement concrete mix design shall be submitted to the Engineer for review. The mix design shall be previously approved by the South Dakota Department of Transportation and using the same aggregates as the approved mix design.
- C. All reports and test results completed by an independent testing service, if used, shall be submitted directly to the Engineer.

1.05 MEASUREMENT AND PAYMENT

- A. The removal and disposal of concrete sidewalk, concrete pavement, concrete fillets, and concrete valley gutters shall be field measured to the nearest square yard of concrete surface removed. Payment for concrete removal shall be on the basis of the contract unit price(s) as shown on the Bid Form.
- B. The removal and disposal of concrete curb and/or gutter shall be field measured to the nearest foot of curb and gutter removed. Payment for curb and/or gutter removal shall be based on the contract unit price as shown on the Bid Form.
- C. Measurement for all types of concrete curb and/or gutter shall be on a per lineal foot basis. Measurement shall be to the nearest lineal foot and shall be made along the front face of the curb section. Payment for concrete curb and/or gutter shall be based on the contract unit price as shown on the Bid Form. Measurement and payment of base course to be placed under the curb and/or gutter shall be as detailed on the plans and paid for by the ton.
- D. Measurement and payment for concrete valley gutter and PCC fillet section shall be on a square yard basis. Measurement and payment shall be made to the nearest square yard. Measurement and payment of gravel base course to be placed under the concrete valley gutter and fillet sections will be as detailed on the plans and paid for by the ton.
- E. Payment for reinforcing steel and other incidentals required for the construction of concrete fillet sections and concrete valley gutter sections shall be included in the unit price bid for each item with no separate measurement or compensation made.
- F. Measurement and payment for concrete sidewalk shall be on a square foot basis. Cushion material shall be as detailed on the plans. Measurement and Payment for furnishing, installing, grading, and compacting the Cushion material shall be on a per ton basis.
- G. All joint sealing and curing shall be considered incidental to the contract.
- H. Any excavation, removal, or replacement of paving or other surfaces beyond the above limits shown in the plans without notice and approval of the Engineer or Owner shall be deemed incidental to trenching and backfilling operations without additional compensation by the Owner.

PART 2 PRODUCTS

2.01 GRAVEL BASE, SUB-BASE AND SURFACING

- A. The aggregate for granular bases and surfacing shall conform to the requirements of Section 32 10 00.
- B. Cushion material shall conform to Section 651 of the *South Dakota Department of Transportation, Standard Specifications for Roads and Bridges*, latest revision.

2.02 EXPANSION JOINT FILLER

- A. Expansion joint filler shall be bituminous type, 1/2 inch thick conforming to ASTM C1751.

2.03 JOINT SEALING COMPOUND

- A. Joint sealing compound shall be low modulus silicone sealant conforming to the requirements of Section 870.1, Concrete Joint Sealer of the latest edition of the *South Dakota Department of*

Transportation Standard Specifications for Roads and Bridges. Silicone sealant shall be used against all building and any type of foundations needing sealing.

- B. Reference Section 32 10 00 for all other sealing compound requirements for joints which need sealing.

2.04 CURING COMPOUND

- A. Curing compound shall conform to the requirements of Section 821, Concrete Curing Materials according to the latest edition of the *South Dakota Department of Transportation Standard Specifications for Roads and Bridges.*

PART 3 EXECUTION

3.01 GENERAL

- A. Specifications to be used for this division shall be the South Dakota Department of Transportation Standard Specifications for Roads and Bridges, latest revision, with the following modifications and/or special provisions.
- B. After completing proper compaction of the backfill, the Contractor shall install the surfaces to the proper grade.
- C. A flush, smooth, adjoining surface transition shall be provided.
- D. Placement of concrete or asphalt on frozen surfaces will not be permitted.
- E. Concrete surfaces shall be cured and protected for a sufficient period of time (not less than 3 days) to prevent damage to concrete and insure required compressive strength requirements.
- F. Concrete curing compound shall be applied to all exposed concrete surfaces according to Section 380, Portland Cement Concrete Pavement, of the *South Dakota Department of Transportation, Standard Specifications for Roads and Bridges*, latest revision.
- G. All expansion joints shall be filled flush to the surface with joint sealing compound. The joint sealing compound shall be finished slightly concave and shall not be allowed to overflow the joint.

3.02 CONCRETE CURB AND GUTTER OR STRAIGHT GUTTER

- A. Curb and gutter shall be as detailed on the plans.
- B. In the event a joint is encountered within 5 feet of the new curb and gutter, the existing curb and gutter shall be removed to the joint.
- C. Dowels shall be placed across expansion joints as shown on the drawings or as directed.
- D. Expansion joints shall be placed at changes in direction and at intervals not greater than 150 feet. Expansion joints shall be 1/2 inch wide, filled concave to the surface with bituminous expansion joint material cut to the shape of the curb section. All expansion joints shall be filled flush to the surface with joint sealing compound. The joint sealing compound shall be finished slightly concave, and shall not be allowed to overflow the joint.
- E. Contraction joints shall be provided at intervals of not more than 10 feet when adjacent to asphalt surfacing. Contraction joints adjacent to concrete pavement shall be the lesser of 10' or in line with

the pavement joints. Contraction joints shall consist of a groove at least 1/4 the thickness of the section sawed in the green concrete or a plane of weakness formed by inserting a removable metal template.

- F. All exposed edges of curbs and gutter shall be rounded with a suitable edging tool. Exposed surfaces shall be finished smooth and even with a steel trowel, and then given a light broom finish.

3.03 CONCRETE VALLEY GUTTERS

- A. Concrete valley gutter sections shall be installed at the locations and with the dimensions as shown on the plans or as designated by the Engineer.
- B. Expansion joints shall be placed at ends of the valley gutter between the valley gutter and concrete fillet section and at intervals not to exceed 150 feet. Expansion joints shall be ½ inch wide, filled concave to the surface with bituminous expansion joint material cut to the shape of the concrete section. Smooth Dowels shall be placed across expansion joints as shown on the drawings or as directed. One end of the dowels shall be smooth and greased or furnished with a plastic sleeve to allow lateral movement of the valley gutter.
- C. Contraction joints shall be provided at intervals of not more than 10 feet when adjacent to asphalt surfacing. Contraction joints adjacent to concrete pavement shall be the lesser of 10' or in line with the pavement joints. Contraction joints shall consist of a groove with a depth of at least ¼ of the thickness of the concrete section sawed in the green concrete or formed by inserting a removable metal template.
- D. The surface of the concrete valley gutter shall be finished to a light broom finish.

3.04 CONCRETE FILLET SECTIONS

- A. Concrete curb and fillet sections shall be installed at locations and with the dimensions as shown on the plans or as designated by the Engineer. The concrete section shall be reinforced as shown on the plans and placed on a compacted gravel base.
- B. The surface of the concrete fillet sections shall be finished to a light broom finish.
- C. Dowels shall be placed across expansion joints as shown on the drawings or as directed. One end of the dowels shall be smooth and greased or furnished with a plastic sleeve to allow lateral movement of the curb and gutter.

* * * END OF SECTION * * *

SECTION 32 21 00 FENCES AND GATES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions shall apply to the Work covered in this section.

1.02 DESCRIPTION OF WORK

- A. This item shall cover the furnishing and installing fencing of new fence or removing and resetting existing fencing of the type indicated on the plans and in the amount necessary.

1.03 SUBMITTALS

- A. The Contractor shall submit for review copies of shop drawings and samples for materials specified herein in accordance with the requirements of Section 01340 and the requirements as hereinafter specified.

1.04 MEASUREMENT

- A. Measurement for fence shall be by the lineal foot.

1.05 PAYMENT

- A. Payment for removing and resetting fencing shall be by the lineal foot of the type of fence indicated on the Bid Form. Payment shall include removal, disassembly, if necessary, cleaning to the extent of reuse, and resetting fencing. Posts shall be set with 1 bag of fence post mix or equivalent per post. Should the existing fence, after careful attempts of removal, not be salvageable. The Contractor shall inform the Engineer immediately and provide prices for removal and disposal of existing fencing and installation of new fencing.
- D. The tie-ins to the existing fences and all other appurtenances shall be considered incidental to the fencing unit price bid.

PART 2 MATERIALS

2.01 VINYL FENCING

- A. Vinyl fencing shall be of the design and quality of the existing fencing and shall be approved by the Engineer.

PART 3 EXECUTION

3.01 REMOVAL, SALVAGING, AND INSTALLATION OF EXISTING VINYL FENCE

- A. The fence shall be constructed at the locations and to the details shown on the plans with new materials, and all work shall be performed in a workmanlike manner satisfactory to the Engineer.

- B. The site of the fence shall be sufficiently cleared of obstructions. Surface irregularities shall be graded so that the bottom of the fence may be placed a uniform distance above the ground as shown on the plans.
- C. Care shall be taken to remove the fence components without damage. Damage caused due to the carelessness of the Contractor must be corrected at the Contractor's expense. Should the fence be in such a condition that it can not be reused, at no fault of the Contractor, new fence shall be installed at a negotiated price through change order.
- D. Fence posts shall be cleaned of debris including existing concrete anchors. New concrete anchors shall be made using post setting mix, or similar. Concrete mix shall have a minimum 3,000 psi compressive strength.
- E. Posts and rail shall be set in a straight line. Tolerance for horizontal alignment shall be 1.5 inches, as determined by string line.

* * * END OF SECTION * * *

SECTION 32 92 19 SEEDING AND FERTILIZING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. The general provisions of the Contract, including General and Supplementary Conditions, shall apply to Work covered in this Section.
- B. Related Work specified elsewhere:
 - 1. Erosion Control - Section 31 25 00
 - 2. Trenching, Backfilling and Compacting - Section 31 23 33
 - 3. Roadway Embankment - Section 31 24 13
 - 4. Water Distribution Piping - Section 33 14 13

1.02 DESCRIPTION OF WORK

- A. This section covers all labor, materials, equipment and services necessary to prepare the ground surfaces, furnish and apply fertilizer, furnish and sow seed in those areas shown on the plans and in accordance with the specifications.

1.03 QUALITY ASSURANCE

- A. All seed shall be tested by a State Seed Lab or a Commercial Seed Testing Lab within eighteen (18) months prior to the planting date. Seed not planted within the eighteen (18) month period shall be retested for dormant seed, hard seed and germination.

1.04 SUBMITTALS

- A. Upon request, prior to the start of seeding operations, the vendor's certified analysis for the grass seed mixture shall be submitted for the Engineer's review. The information submitted shall state botanical and common name of each seed in the mixture; percentage of each by weight; percentage of purity and germination; and weed seed content.
- B. Upon request, during the seeding operation, the Contractor shall furnish to the Engineer the tag from each bag of seed planted. Each tag shall contain the following information: Name and address of supplier; Suppliers lot number for each kind of seed in the mixture; Purity, germination and other information required by South Dakota Seed Law for each kind of seed; Pounds of bulk seed of each kind of seed in each bag; Total pounds of bulk seed mixture in each bag; Pounds of pure live seed of each kind of seed in each bag; Total pounds of pure live seed mixture in each bag; and Dormant Seed and Hard Seed.
- C. Upon request, the manufacturer's certified analysis and delivery tickets for all commercial fertilizer shall be submitted stating quantity, source and date of delivery.

1.05 MEASUREMENT AND PAYMENT

- A. Seeding, fertilizing and hydro mulch of the disturbed areas will be measured on the basis of pounds of seed, fertilizer and bonded fiber matrix placed. Measurement will be to the nearest tenth of a pound. Payment shall be at the Contract unit price as shown in the Bid Form.

- B. Temporary seeding or erosion control will not be measured or paid for directly and shall be incidental to the items included in the Bid Form.

PART 2 PRODUCTS

2.01 GRASS SEED

- A. Provide fresh, clean, new crop seed, complying with the tolerances for purity and germination established by the Official Seed Analysis of North America and the South Dakota Seed Law. Seed shall not exceed 1% weed content. Provide seed of the grass species and proportions as follows:

DOT Type D Mix	
<u>Grass Variety</u>	<u>% Mix (By Weight/P.L.S.)</u>
Kentucky Bluegrass	20
Perennial Ryegrass	20
Creeping Red Fescue	20
Alkali grass	20
Chewings Fescue	20

Apply at seven pounds of Pure Live Seed (P.L.S.) per one thousand (1,000) square feet

2.02 COMMERCIAL FERTILIZER

- A. Commercial fertilizer shall be complete formula, uniform in composition, dry and free flowing, pelleted or granular with 50% of total nitrogen derived from natural organic material in a slowly available form. The fertilizer shall be delivered to the site and stored prior to incorporation, in original, unopened containers, bearing the manufacturer's guaranteed analysis.
- B. Fertilizer shall contain the following percentages of available plant nutrients by weight.

Nitrogen	20% (N)
Phosphoric Acid	10% (P)
Potassium	5% (K)

- C. All fertilizer shall conform to the South Dakota Fertilizer Laws and shall be registered with the South Dakota Department of Agriculture.

2.03 BONDED FIBER MULCH

- A. Bonded fiber matrix which shall consist of a continuous layer of elongated fiber strands held together by a water resistant bonding agent. The product shall be 100 percent biodegradable and composed of 90 percent wood fiber, 9 percent natural binder and 1 percent organic and mineral activators (all by weight).
- B. Fiber mulch shall be hydraulically applied at the rate of 2,000 pounds per acre on all areas seeded and other areas deemed necessary by the engineer. Fiber mulch shall be applied in a separate operation following permanent seeding and fertilizing.

2.04 HYDRAULICALLY APPLIED MULCH

- A. Wood cellulose Fiber Mulch for use with hydraulic application of grass seed and fertilizer shall consist of specially prepared wood cellulose fiber or a combination of wood cellulose and recycled newsprint fibers, processed to contain no growth or germination-inhibiting factors and dyed an appropriate color to facilitate visual metering of the application of materials. On an air-dry weight basis, the wood cellulose fiber shall contain a maximum of 12 percent moisture, plus or minus 3 percent at the time of manufacture. The combination of wood cellulose and recycled newsprint fibers shall contain a maximum of 10 percent moisture plus or minus 3 percent at the time of manufacture. The pH range for either mix shall be between 4.5 and 6.5. The wood cellulose fiber shall be manufactured so that:
1. After addition and agitation in slurry tanks with fertilizers, grass seeds, water, and other approved additives, the fibers in the material will become uniformly suspended to form a homogeneous slurry.
 2. When hydraulically sprayed on the ground, the material will form a blotter like cover impregnated uniformly with grass seed.
 3. The cover will allow the absorption of moisture and allow rainfall or applied water to percolate to the underlying soil.
- B. Tackifier used in the hydraulic application of grass seed, mulch and fertilizer shall be natural vegetable gum, blended with gelling and hardening agents. This material, when mixed with water becomes a tackifier/binder to act as an agent for erosion control and provides a stable bed for seed germination.

PART 3 EXECUTION

3.01 PREPARATION FOR PLANTING

- A. Before seeding or fertilizing, remove stones, sticks, roots, rubbish, and other extraneous matter over one (1) inch in any dimensions.
- B. If weeds are a problem, apply a glyphosate herbicide (Roundup®) and allow weeds to burn down for at least 7 days. The soil shall be tilled to a depth of at least 4 inches by disking, harrowing, by the use of roto-tillage machinery or other approved operation until a finely pulverized seed bed is obtained.
- C. On slopes flatter than 2 horizontal to 1 vertical, the soil shall be tilled to a depth of at least 4 inches by disking, harrowing, by the use of rototillage machinery or other approved operation until a finely pulverized seed bed is obtained. Grade areas to smooth, even surface with loose, uniformly fine texture. Firm up the seedbed by dragging and/or roll packing. Roll and rake and remove ridges and fill depressions as required to meet finish grades. Limit fine grading to areas which can be planted immediately after grading.
- D. Moisten prepared areas before planting if soil is dry. Water thoroughly and allow surface moisture to dry before planting. Do not create a muddy soil condition.
- E. Restore areas to specified condition if eroded or otherwise disturbed after fine grading and prior to planting.

3.02 FERTILIZING

- A. Fertilize at the rate shown in the plans or at the seed supplier's recommended rate.
- B. Fertilizer shall be incorporated into the soil to a depth of at least two (2) inches and may be incorporated as a part of the tillage operation.

3.03 PLANTING AND SEEDING

- A. Apply grass seed mixture at a rate of application which assures a minimum of seven (7) pounds of Pure Live Seed (P.L.S.) per 1,000 square feet.
- B. Seeding shall be done with a press drill equipped with a seed box with positive feed seeding mechanism with agitator, individually mounted double disk furrow openers and packer wheels spaced approximately three (3) inches apart, and a separate box for small seeded grasses ("Brillion") mechanical seeder or equal). Each drill shall be equipped with an accurate meter to measure the area covered by the drill.
- C. Seed shall be sown 1/2 in one direction and 1/2 at right angles to the direction of the first sowing. The direction of the final sowing shall be at right angles to the direction of the slope or parallel to the direction of the contour lines. Seed shall be sown at a final compacted depth of approximately three-fourths (3/4) to one (1) inch.
- D. Seeding shall not be done between Just 1 and August 1. Full advantage shall be taken of favorable weather conditions.

3.04 EROSION CONTROL

- A. Seeded slope areas, as shown on the plans, shall be protected against erosion by spreading the erosion control material immediately after completion of the seeding operation.
- B. The erosion control material and installation shall conform to the requirements of Section 01 35 13, the Storm Water Pollution Prevention Plan and the associated Storm Water Discharge Permit.

3.05 HYDRO MULCHING

- A. Seed and fertilizer may be applied, in the amounts specified above, in conjunction with the hydro-mulching process.
- B. Bonded fiber matrix rate of application shall be 3,900 pounds per acre and the mix shall consist of 50 pounds bonded fiber matrix to 125 gallons water unless otherwise specified by the Engineer. The bonded fiber matrix shall be uniformly applied and shall have no gaps between the product and the seeded soil. The treatment shall be installed with hydraulic seeding equipment. Bonded fiber matrix shall be placed on a given area as soon as possible, or within 48 hours after seeding.
- C. No additional payment will be allowed for application by this method of seeding and fertilizing.
- D. Additional compensation for coverage of areas not requiring erosion control will not be allowed.

3.06 MAINTENANCE AND RESEEDING

- A. Maintenance of seeding will begin immediately after each area is planted and will continue until acceptance of the Contract. Maintenance shall consist of the repair of eroded areas and reseeding.
- B. Any area which fails to show a "catch" or uniform stand, for any reason whatsoever shall be reseeded with the original mixture and such reseeding shall be repeated until final acceptance.
- C. The Contractor shall properly mow and control weeds and otherwise maintain all seeded areas until final acceptance.

* * * END OF SECTION * * *

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