



## **NOTICE TO ALL BIDDERS**

### **TO REPORT BID RIGGING ACTIVITIES, CALL: 1-800-424-9071**

THE U.S. DEPARTMENT OF TRANSPORTATION (DOT) OPERATES THE ABOVE TOLL-FREE "HOTLINE" MONDAY THROUGH FRIDAY, 8:00 A.M. TO 5:00 P.M., EASTERN TIME. ANYONE WITH KNOWLEDGE OF POSSIBLE BID RIGGING, BIDDER COLLUSION, OR OTHER FRAUDULENT ACTIVITIES SHOULD USE THE "HOTLINE" TO REPORT SUCH ACTIVITIES.

THE "HOTLINE" IS PART OF THE DOT'S CONTINUING EFFORT TO IDENTIFY AND INVESTIGATE HIGHWAY CONSTRUCTION CONTRACT FRAUD AND ABUSE AND IS OPERATED UNDER THE DIRECTION OF THE DOT INSPECTOR GENERAL.

ALL INFORMATION WILL BE TREATED CONFIDENTIALLY AND CALLER ANONYMITY WILL BE RESPECTED.

\* \* \* \*

### **PLANS, PROPOSALS AND ADDENDA**

AFTER AWARD OF CONTRACT, THE LOW BIDDER WILL RECEIVE TEN (10) COMPLIMENTARY SETS OF PLANS, PROPOSALS, PROJECT Q & A FORUM, AND ADDENDA FOR FIELD AND OFFICE USE. AN ELECTRONIC COPY WILL ALSO BE PROVIDED. ANY ADDITIONAL COPIES REQUIRED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

\* \* \* \*

## NOTICE TO CONTRACTORS

Bid proposals for this project will be prepared, transmitted, and received electronically by the South Dakota Department of Transportation (SDDOT) via the South Dakota Electronic Bid System until 10 A.M. Central time, on September 18, 2024, at which time the SDDOT will open bids. All bids will be checked for qualifications with results posted on the SDDOT website. The South Dakota Transportation Commission will consider all bids at a scheduled Commission meeting.

The work for which proposals are hereby requested is to be completed within the following requirement(s):

FIELD WORK COMPLETION: **OCTOBER 16, 2026**

The DBE goal for this project is: **NONE**

Work Type for this project is: **Work Type 2 or Work Type 3**

TERO/TECRO REQUIREMENTS AND FEES: See special provision(s) for Indian Employment and contracting.

Bidding package for the work may be obtained at:  
<http://apps.sd.gov/hc65bidletting/ebslettings1.aspx#no-back-button>

An electronic version of the most recent version of the South Dakota Standard Specifications for Roads and Bridges may be obtained at <https://dot.sd.gov/doing-business/contractors/standard-specifications/2015-standard-specifications>

The electronic bid proposal must be submitted by a valid bidder as designated by their company's <http://apps.sd.gov/HC65C2C/EBS/BidAdminAuthorizationForm.pdf>. A bidding administrator will have privileges in the SDEBS to prepare bids, submit bids, and authorize additional company employees to prepare and submit bids. Additionally, a bidding administrator will be responsible for maintaining the list of authorized bidders for the company and will have the ability to add employees, remove employees, and set-up bidder identifications and passwords within the SDEBS. Bidding Administrator authorization will remain in full force and effect until written notice of termination of this authorization is sent by an Officer of the company and received by the Department.

A bidder identification and password, coupled with a company identification previously assigned by the Department, will serve as authentication that an individual is a valid bidder for the company.

Contact information to schedule a preconstruction meeting prior to commencing with the work on this project.

Bruce Schroeder  
PO Box 431  
Custer, SD 57730-0431  
Phone: 605/673-4948



SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION, STATE OF SOUTH DAKOTA:

Ladies / Gentlemen:

The following proposal is made on behalf of the undersigned and no others. It is in all respects fair and is made without collusion on the part of any other person, firm or corporation not appearing in the signature to this proposal.

The undersigned certifies that she / he has carefully examined the plans listed herein, the Specifications hereinbefore referred to, the Special Provisions and the form of contract, both of which are attached hereto. The undersigned further certifies that she / he has personally inspected the actual location of the work, together with the local sources of supply and that she / he understands the conditions under which the work is to be performed, or, that if she / he has not so inspected the actual location of the work, that she / he waives all right to plea any misunderstanding regarding the location of the work or the conditions peculiar to the same.

On the basis of the plans, Specifications, Special Provisions and form of contract proposed for use, the undersigned proposes to furnish all necessary machinery, tools, apparatus and other means of construction, to do all the work and furnish all the materials in the manner specified, to finish the entire project **within the contract time specified** and to accept as full compensation therefore the amount of the summation of the products of the actual quantities, as finally determined, multiplied by the unit prices bid.

The undersigned understands that the quantities as shown in the Bid Schedule are subject to increase or decrease, and hereby proposes to perform all quantities of work, as increased or decreased, in accordance with the provisions of the specifications, and subject to any applicable special provisions, and at the unit prices bid.

The undersigned understands that the "Total or Gross Amount Bid" as immediately hereinbefore set forth is not the final amount which will be paid if this proposal is accepted and the work done, but that such amount is computed for the purpose of comparison of the bids submitted and the determination of the amount of the performance bond.

The undersigned further proposes to perform all extra work that may be required on the basis provided in the specifications, and to give such work personal attention in order to see that it is economically performed.

The undersigned further proposes to both execute the contract agreement and to furnish a satisfactory performance bond, in accordance with the terms of the specifications, within twenty (20) calendar days after the date of Notice of Award from the South Dakota Department of Transportation that this proposal has been accepted.



REV. 1/19/22

INDEX OF SPECIAL PROVISIONS

PROJECT NUMBER(S): 2211 01441( )

PCN: X06L

TYPE OF WORK: REPLACE WATER LINE

COUNTY: UGLALA LAKOTA

The following clauses have been prepared subsequent to the Standard Specifications for Roads and Bridges and refer only to the above described improvement, for which the following Proposal is made. In case of any discrepancy or conflict between said specifications and these Special Provisions, the latter are to govern.

The Contractor's attention is directed to the need for securing from the Department of Environment & Natural Resources, Foss Building, Pierre, South Dakota, permission to remove water from public sources (lakes, rivers, streams, etc.). The Contractor should make his request as early as possible after receiving his contract, and insofar as possible at least 30 days prior to the date that the water is to be used.

Kara Palmer is the official in charge of the Hot Springs Career Center for Oglala Lakota County.

**THE FOLLOWING ITEMS ARE INCLUDED IN THIS PROPOSAL FORM:**

**Instructions for Bidders, dated 7/29/24.**

**Special Provision Regarding Combination Bids, dated 7/29/24.**

**Special Provision Regarding the City Portion for Subletting, dated 7/29/24.**

**Special Provision for Indian Employment and Contracting on the Pine Ridge Reservation, dated 7/15/24.**

**Technical Specifications**

**Division 1 General Requirements**

**Division 31 Earth Work**

**Division 33 Utilities**

**Indian Health Service Specifications**

**Special Provision for Acknowledgment and Certification Regarding Article 3, Section 12 of the South Dakota Constitution, dated 8/24/23.**

**Special Provision for Buy America, dated 5/1/24.**

**Special Provision for Liability Insurance, dated 4/21/22.**

**Special Provision for Responsibility for Damage Claims, dated 4/21/22.**

**Special Provision for Restriction of Boycott of Israel, dated 1/31/20.**

**Special Provision for Contractor Administered Preconstruction Meeting, dated 12/18/19.**

**Fuel Adjustment Affidavit, DOT form 208 dated 7/15.**

**Standard Title VI Assurance, dated 3/1/16.**

**Special Provision For Disadvantaged Business Enterprise, dated 2/9/24.**

Special Provision For EEO Affirmative Action Requirements on Federal and Federal-Aid Construction Contracts, dated 2/5/24.

Special Provision For Required Contract Provisions Federal-Aid Construction Contracts, Form FHWA 1273 (Rev. October 23, 2023), dated 10/18/23.

Required Contract Provisions Federal-Aid Construction Contracts, Form FHWA 1273 (Rev. 10/23/23).

Special Provision Regarding Minimum Wage on Federal-Aid Projects, dated 10/24/19.

Wage and Hour Division US Department of Labor Washington DC. - US Dept. of Labor Decision Number SD20230032, dated 3/10/23.

Special Provision for Supplemental Specifications to 2015 Standard Specifications for Roads and Bridges, dated 9/7/22.

Special Provision for Price Schedule for Miscellaneous Items, dated 12/6/23.



**2211 01441( ), PCN X06L  
REPLACE WATER LINE  
US HIGHWAY 18**

**INSTRUCTIONS FOR BIDDERS**

July 29, 2024

- 1) This Replace Water Line Project will be let and awarded by the South Dakota Department of Transportation.
- 2) South Dakota Department of Transportation Standard Specifications for Roads and Bridges Sections 2 and 3 regarding letting and awarding of contracts shall be followed.
- 3) Bidders submitting a bid on this project shall also submit a bid for Project NH-CR-EM 0018(195)103, P 0407(05)01, PCN 04FC, 06N3, Oglala Lakota County. Award of these projects will be to the same bidder based on the total of the two projects.
- 4) A prospective bidder must request any explanation regarding the meaning or interpretation of the bidding package in adequate time to allow a Department reply to reach all prospective bidders before submission of final bid proposals. The bidder will contact the Department by submitting a request for explanation to the project Q&A forum.
- 5) All bid bonds shall be made out to the Department of Transportation
- 6) The contract completion date for this project will be the same as specified of Project NH-CR-EM 0018(195)103, P 0407(05)01, PCN 04FC, 06N3, Oglala Lakota County. Any delays in completing this contract will not be a basis for an extension of the contract completion time for PCN 04FC, 06N3, Oglala Lakota County.
- 7) After award of contract, the Contractor shall furnish satisfactory proof of coverage of insurance. Copies of Certificates of Insurance shall be furnished to the Department of Transportation AND Oglala Sioux Tribe. The Contractor will be required to provide a performance bond in a sum equal to the total amount of the contract, in a form acceptable to the Tribe. The performance bond shall remain in effect for a period of one year after the Tribe considers the contract to be completed and accepted.
- 8) The contractor is required to schedule and conduct a preconstruction meeting that shall be held jointly with the preconstruction meeting for the state contract. Additionally, the contractor is responsible for contacting the city for a list of required submittals upon receiving Notice of Award of the contract.
- 9) Construction engineering for this contract will be performed by the Oglala Sioux Tribe.
- 10) Payment for this Utilities project will be made to the Contractor by the Oglala Sioux Tribe.

\* \* \* \*



**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION REGARDING  
COMBINATION BIDS**

**2211 01441( ), PCN X06L  
REPLACE WATER LINE  
OGLALA LAKOTA COUNTY**

**JULY 29, 2024**

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Bidders submitting a bid on this project **MUST ALSO** submit a bid on project:

NH-CR-EM 0018(195)103, P 0407(05)01, PCN 04FC, 06N3  
US HIGHWAY 18, SD HIGHWAY 407  
URBAN GRADING, CURB & GUTTER, STORM SEWER,  
LIGHTING, PCC SURFACING , ADA, SIGNAL  
OGLALA LAKOTA COUNTY

Award of both projects will be to the same bidder based on the total of the two projects.

Work on PCN (04FC & 06N3) CANNOT be used to meet the DBE Goal established for this project.

After award, the contracts will be administered as entirely separate contracts.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION REGARDING  
THE CITY PORTION FOR SUBLETTING**

**2211 01441( ), PCN X06L  
OGLALA LAKOTA COUNTY**

**JULY 29, 2024**

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This project is let in combination with State Project Number NH-CR-EM 0018(195)103, P 0407(05)01, PCN 04FC, 06N3. The provisions of section 8.1 of the specifications requiring the Contractor to perform work amounting to not less than 30% of the total contract cost with the Contractor's own organization will not apply to the work on this contract.

\* \* \* \*



**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION FOR  
INDIAN EMPLOYMENT AND CONTRACTING ON THE  
PINE RIDGE RESERVATION**

**PROJECT NO. 2211 01441( ); PCN X06L  
OGLALA LAKOTA COUNTY  
JULY 15, 2024**

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**PURPOSE**

The purpose of the Indian Employment and Contracting Special Provision is to establish the specifications for Indian preference and the responsibilities of contractor and subcontractors for this project.

All of this project is located within the exterior boundaries of the Pine Ridge Reservation.

Title 23 United States Code (USC), Section 140(d), recognizes and permits the preferential employment of Indians living on or near a reservation on projects and contracts on Indian reservations roads. The State of South Dakota and the Department of Transportation, consistent with the intent of Section 140(d), affirms that it is their policy to encourage employment of minorities.

**DEFINITIONS**

For the purposes of this Special Provision, the following definitions will apply:

- A. **Indian:** An enrolled member of a federally recognized Indian tribe.
- B. **Qualified Indian Applicant** is defined as one or more of the following:
  - 1) Applicants approved by the contractor based on job performance on other jobs.
  - 2) Applicants who have demonstrated or are presently demonstrating their work qualifications during a probationary work period on this project.
  - 3) Applicants certified by local referral agencies, including Tribal TERO offices, as having adequate skills and training necessary to perform the duties of the position.
- C. **Core Crew Employee:** A contractor's or subcontractor's core crew is composed of full time employed individuals necessary to satisfy his/her reasonable needs for supervisory or specially experienced personnel to assure an efficient execution of the contract work. Any Indian already employed by a contractor will be included in the core crew, regardless of job function, to avoid the unintended results of having a contractor lay-off or terminate an Indian employee to hire another under this provision.

- D. **Pre-Employment Standards:** Directly related job standards of fitness and ability which indicate that with a reasonable amount of job training a person would be capable of satisfactorily performing an entry level position as well as jobs at a higher level which, with a reasonable amount of training, are normally filled by progression from an entry-level position. This applies to those persons who, at the time of application for employment are not fully qualified for the available job but has general potential of becoming qualified through a reasonable amount of training.

## **DEPARTMENT RESPONSIBILITIES**

The Department (Civil Rights Office or Area Office):

- A. Will monitor contractor and subcontractors for compliance with the requirements of this special provision and will perform necessary reviews of contractors and subcontractors to ensure compliance with the Special Provision.
- D. Will assist the contractor and subcontractor with any disputes with the TERO Office or other Tribal entity.
- E. Will establish on-the-job training opportunities as specified in the On-the-Job Training Special Provision.
- F. Will provide notification to the TERO Office of the name of the successful low bidder.
- G. Will provide notification to the successful low bidder regarding the TERO requirements.
- H. Will invite a representative of the TERO Office to attend the preconstruction meeting and provide a copy of the preconstruction meeting minutes to the TERO Office.
- I. Will not allow a contractor or subcontractor to commence work until the contractor's or subcontractor's compliance plan has been approved and the Department's Area Office has received a copy of the approved compliance plan or verbal or written notification of approval by the TERO Office.

## **CONTRACTOR RESPONSIBILITIES**

- A. The contractor and subcontractor will give preference in employment opportunities under this Agreement to qualified Indian applicants who can perform the work required regardless of race, color, creed, age, sex, religion, national origin, disability, or tribal affiliation to the extent set out in the paragraphs below.
- B. The contractor and subcontractor will not use pre-employment standards, qualifications, criteria, or other personnel requirements as barriers to Indian employment except when such criteria or standards are required by business necessity. The contractor and subcontractor have the burden of showing that such criteria or standards are required by business necessity.



- C. The contractor and subcontractor agree that Indians will be given preference for at least eighty percent (80%) of the project work force provided that sufficient qualified Indian applicants are available. The phrase “work force” will not include “core crew employees”.
- D. The contractor and subcontractor are required to complete a compliance plan and submit the compliance plan to the TERO Office at least two (2) weeks prior to beginning work. Prior to commencing work, contractors and subcontractors must contact the Oglala Sioux Tribe TERO Office concerning an identified core crew, project work force needs, and (sub)contractor/TERO interface. No contractor or subcontractor will begin work until the compliance plan has been approved by the TERO Office. The contractor and any subcontractor must submit a copy of the approved compliance plan to the Department’s Area Office prior to commencing work unless arrangements are made for the TERO Office to provide the copy of the compliance plan directly to the Department’s Area Office. In lieu of a copy of the approved compliance plan, the Department’s Area Office may seek approval directly from the TERO Office.
- E. The contractor will provide the TERO Director at least forty-eight hours’ notice to locate and refer a qualified Indian applicant for any vacancy or new position except when circumstances require that the position be filled within a shorter period of time. If the TERO Office is unable to fill the vacancy, the contractor and subcontractor may recruit and hire workers from whatever sources are available and by whatever process, provided that the contractor and subcontractor notifies the TERO Office of any job vacancies, positions, or any negotiated positions.
- F. The contractor and subcontractor will provide for maintenance of records and be prepared to furnish such periodic reports documenting compliance under this Special Provision as the Department determines necessary. The contractor and subcontractor will submit the following information on a weekly basis to the Tribal TERO Office:
  - 1. Weekly TERO Employment Report which includes the following data (forms for the weekly TERO Employment Report available from the TERO Office):
    - a) Wage and hour reports
    - b) New hires or terminations, and disciplinary action taken
    - c) Promotions
  - 2. Copies of official payrolls.
- G. The contractor and subcontractor agree that all qualified Indian employees will be adequately trained for the position for which they are hired. The contractor and subcontractor will evaluate and pay all Indian employees in accordance with current company policies and contract provisions.
- H. Nothing in this Special Provision will be construed to interfere with the contractor’s ability to dismiss any employee for cause including, but not limited to, lack of adequate skills or training, inability to perform by virtue of state or federal law, or breach of the contractor’s standards of conduct.

## **OTHER PROVISIONS**

This Special Provision supplements but does not replace the existing equal employment opportunity and disadvantaged business enterprise requirements, which may be included in this Agreement.

The Tribal TERO Office will maintain a Job Skills Bank, listing available Indians by job classification based on skill level as indicated on their TERO application. The contractor and all subcontractors agree to utilize the Tribal TERO Office to locate qualified applicants.

The contractor is authorized to include in the bid an amount necessary to cover the four percent (4%) employment rights fee, which is applicable to this project, based on the portion of the project located within the boundaries of the Pine Ridge Reservation. The Department has determined that one hundred percent (100%) of the project is within those boundaries; therefore the contractor is authorized to include a TERO fee amount based on 100% of the total contract dollar amount.

The contractor is authorized to include in the bid an amount necessary to cover the work permit fee of \$250.00 per employee based on the following criteria: 1) The Tribe has the right to dispute individuals listed as a core crew employee and require the prime contractor and subcontractor to provide evidence that the individual meets the definition of a core crew employee; 2) All approved core crew employees are exempt from work permit fees; and 3) All TERO Certified Tribal members are exempt from work permit fees whether considered a core crew employee or not. Contact the Tribal TERO Office for complete details at 605-867-5167.

The Department acknowledges that the Oglala Sioux Tribe issues a business license to contractors working on projects within the exterior boundaries of the Pine Ridge Reservation. The license has to be renewed yearly. If project work extends beyond the one year, the contractor is required to renew the business license each subsequent year. For further information regarding the business license, contact the Tribal Revenue Office at 605-867-8432.

The Oglala Sioux Tribe has an Indian Preference Subcontracting goal, which has been established at the same level as the Department's DBE goal for this project and is concurrent with the Department's DBE goal. The Tribe recognizes that FHWA policy does not permit the Department to extend Indian preference in subcontracting for this project and is satisfied the Department and the contractor will seek qualified and DBE-certified Indian firms for this project. The contractor will make every reasonable effort to inform certified Indian DBE firms of the subcontracting opportunities of the project and to solicit bids from such firms. Contact the Tribal TERO Office at 605-867-5167 or the Department Civil Rights office at 605-773-3540 for assistance.

The Oglala Sioux Tribe Environmental Protection Agency (EPA) has directed that a permit fee of one percent (1%) based on the contract amount be imposed on all prime contractors for waste removal and disposal on the Pine Ridge Reservation. This permit fee is only applicable for the amount of the project within the reservation boundaries and not for the full contract amount. The contractor is authorized to include in the bid an amount necessary to cover the one percent (1%) EPA solid waste disposal permit fee which is applicable to this project, based on the portion of the project which is located within the boundaries of the Pine Ridge Reservation. The Department has determined that one hundred percent (100%) of the project is within those boundaries; therefore the contractor is authorized to include a permit fee amount based on 100% of the total contract dollar amount. Contact the Tribal Environmental Protection Program offices at 605-867-5736.

**ENFORCEMENT**

The contractor and all subcontractors are made aware that this Special Provision is made part of the contract requirements, and that the Department of Transportation will monitor and enforce these provisions in a manner similar to other special provisions, as outlined in Division I, General Provisions of the Standard Specifications for Roads and Bridges, 2015 edition.

For all highway construction contracts which occur wholly or partially within the exterior boundaries of the Pine Ridge Reservation, and for all highway maintenance contracts where the majority of the project is within the reservation boundaries, this Special Provision will apply to the entire contract and not just the portion of the project located within the reservation boundaries. For contracts which occur partially within the reservation boundaries, any TERO fee will be based only on the portion of the project located within the reservation boundaries. For highway maintenance contracts where the majority of the project is outside the exterior boundaries of the Pine Ridge Reservation, this Special Provision will only apply to that portion of the project located within the reservation boundaries. Maintenance refers to work intended to preserve a highway's condition or function. Maintenance includes but is not limited to crack sealing, chip sealing, surface repairs, sign installation, pavement markings, and roadway lighting.

It is the intent of all parties that this Special Provision be implemented on a cooperative basis without regard to jurisdictional issues. Nothing in this Agreement will prevent the Tribe, the Department, or any contractor from instituting any litigation pertaining to any jurisdictional issue with regard to the employment rights code or any other matter.

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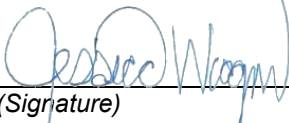
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PLANS AND SPECIFICATIONS  
For  
WATER MAIN IMPROVEMENTS  
PCN X06L

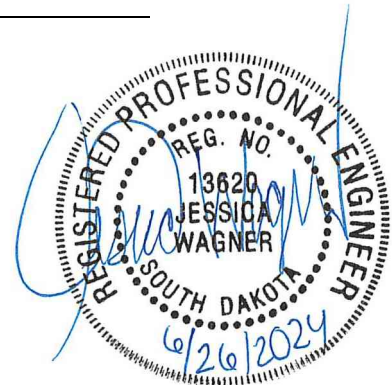
June 2024

**CIVIL/PROCESS ENGINEERING**

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

by  Jessica R. Wagner its Civil Engineer  
(Signature) (Printed Name)

Date 06/26/2024 Reg. No. 13620

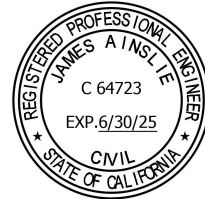


**CIVIL ENGINEERING**

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

by James A. Ainslie -S James Ainslie its Civil Engineer  
Digitally signed by James A. Ainslie  
Date: 2024.06.21 09:29:19 -06'00'  
(Signature) (Printed Name)

Date 6/21/2024 Reg. No. California C64723





**SECTION 01 1000  
SUMMARY OF WORK**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES:**

- A. Project Location
- B. Project Description
- C. Owner Occupancy
- D. Access for Property Owners
- E. Contractor Use of Site and Premises
- F. Coordination
- G. Permits
- H. Pre-Construction Meeting
- I. Working Hours
- J. Work Sequence
- K. Connection to existing Utilities
- L. Startup
- M. Incidentals Items

**1.02 PROJECT LOCATION**

- A. The project is located along East Main Street from the intersection at US HWY 18 and SD-407 to the intersection at Irving Rd. Water main improvements shall be included from the intersection of US HWY 18 and SD-407 north to the intersection at Whitetail Deer Road. Refer to the drawings for project location.

**1.03 PROJECT DESCRIPTION**

- A. Work shall include:
  - 1. Installation of a new meter vault
  - 2. Installation of new water main
  - 3. Abandonment of existing water main
  - 4. Installation of new water services, curb stops and meters.
  - 5. Connection to existing water main
  - 6. Installation of valves and hydrants

**1.04 OWNER OCCUPANCY**

- A. Owner intends to occupy the Project site, as needed, during the entire period of construction.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule the Work to accommodate Owner occupancy.

- D. Contractor shall be responsible for water main bypass to maintain water service for the duration of the project.

**1.05 ACCESS FOR PROPERTY OWNERS**

- A. Contractor shall maintain driveway access or alternative means of access for property owners for the duration of the construction.
- B. Maintain access at all times when construction is stopped due to inclement weather, weekends, holidays, or other reasons.
- C. Provide fencing and barricades for public protection around areas near construction.

**1.06 CONTRACTOR USE OF SITE AND PREMISES**

- A. Construction Operations
  - 1. Limited to areas noted on Drawings.
  - 2. Locate and conduct construction activities in ways that will limit disturbance to site.
- B. Arrange use of site and premises to allow:
  - 1. Owner occupancy.
  - 2. Work by Others
  - 3. Use of site and premises by the Public
- C. Provide access to and from site as required by law and by Owner:
  - 1. Do not obstruct roadways, sidewalks, or other public ways without permit.

**1.07 COORDINATION**

- A. Contractor shall coordinate all work and access to the project site with the Owner.
- B. Contractor shall coordinate with the Owner for staging area.
- C. Contractor shall coordinate all work with the State DOT Project contractor.
- D. Coordinate work with local utilities (i.e. water and sewer, power, telephone). All buried utilities may not be shown on the plans.
- E. Contractor is responsible for having utilities marked prior to construction and field verifying utility location.

**1.08 PERMITS**

- A. Contractor is responsible for acquisition of all required permits.

**1.09 PRE-CONSTRUCTION MEETING**

- A. Shall occur after notice of award of contract and prior to start of construction.
- B. Representatives from the following shall attend.
  - 1. Prime Contractor
  - 2. Subcontractor(s)
  - 3. Project Engineer and/or Technical Representative
  - 4. Owner's Representative
  - 5. Appropriate State/Federal Agencies or other Funding Agencies

- 6. TERO Representative, if applicable
- C. The Tribe will arrange a date that is mutually acceptable to all parties planning to attend.
- D. Contractor shall notify subcontractors of time and date of meeting.

#### **1.10 WORKING HOURS/DAYS**

- A. Perform all work during regularly scheduled working hours, unless approved by Owner.
- B. Working hours shall be defined as 7 AM to 5 PM Monday through Friday, with the exception of holidays.
- C. No work will be allowed on Saturday, Sunday, Federal holidays, and Tribal holidays without the Owner's consent.
  - 1. Holidays include, but are not limited to, New Year's Day, President's Day, Martin Luther King Jr Day, Memorial Day, Juneteenth Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day and Christmas Day, or on any other holidays declared by the Tribe.
  - 2. Holidays that fall on Saturday will be observed on the preceding Friday; holidays that fall on Sunday will be observed on the following Monday. No construction will be permitted on those days.
  - 3. Owner has the option to approve overtime or holiday work upon the Contractor's request not less than 48 hours in advance of the work to be performed. Overtime and holiday requests that exceed a ten (10) hour work shift for a time period exceeding two days will not be approved by the Owner.

#### **1.11 WORK SEQUENCE**

- A. Coordinate construction schedule of work with State DOT project work.
- B. Coordinate construction schedule and operations with Owner to accommodate Owner occupancy requirements.
- C. Construct Work in logical phases as required to accommodate Owner's occupancy and operations.
- D. Contractor shall schedule and conduct construction to insure Owner's continual use of the site.
- E. During the construction period, coordinate construction schedule and operations with the Engineer.

#### **1.12 CONNECTION TO EXISTING UTILITIES**

- A. Coordinate with Owner for temporary shutdown of water service for the installation of the new service, curb stop and meter. The Contractor shall provide a minimum of 1 weeks' notice prior to the commencement of work.
- B. Contractor shall schedule, coordinate, and ensure all materials, manpower, etc are available to complete the work as efficiently as possible.

#### **1.13 STARTUP**

- A. A. Startup services provided by the Contractor shall include the cleaning, disinfecting and pressure testing of the new pipe.

**1.14 INCIDENTALS ITEMS**

- A. All work, materials, and services not expressly listed as being provided by others or not expressly called for in the contract but are necessary for the completion of the work in good faith, shall be furnished, installed, and performed by the contractor.

**PART 2 PRODUCTS**

Not Used

**PART 3 EXECUTION**

Not Used

**PART 4 MEASUREMENT AND PAYMENT**

- 4.01 All work described herein is incidental to other related items of work and no measurement or additional payment will be considered.

END OF SECTION

**SECTION 01 2000  
MEASUREMENT AND PAYMENT**

**PART 1 GENERAL**

1.01 SECTION INCLUDES

- A. Measurement and payment criteria applicable to Work performed under a unit price payment method.
- B. Defect assessment and non-payment for rejected work.
- C. Bid Items Descriptions

1.02 RELATED REQUIREMENTS

- A. Section 01 1000 – Summary of Work

1.03 COSTS INCLUDED

- A. Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

1.04 UNIT QUANTITIES SPECIFIED

- A. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements of actual Work will determine the payment amount.
- B. Items not listed in the measurement and payment section will not be measured and paid for separately and are to be included in the price bid for other items.

1.05 MEASUREMENT OF QUANTITIES

- A. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of the individual specification section govern.
- B. Contractor shall take all measurements and compute quantities. Measurements and quantities will be verified by the Tribe.
- C. Assist by providing necessary equipment, workers, and survey personnel as required.

1.06 PAYMENT

- A. Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities of Work that is incorporated in or made necessary by the Work and accepted by the Engineer, multiplied by the unit price.
- B. Payment will not be made for any of the following:
  - 1. Products wasted or disposed of in a manner that is not acceptable.
  - 2. Products determined as unacceptable before or after placement.
  - 3. Products not completely unloaded from the transporting vehicle.
  - 4. Products placed beyond the lines and levels of the required Work.
  - 5. Products remaining on hand after completion of the Work.
  - 6. Loading, hauling, and disposing of rejected Products.

1.07 DEFECT ASSESSMENT

- A. Replace Work, or portions of the Work, not conforming to specified requirements.

- B. If, in the opinion of Engineer, it is not practical to remove and replace the Work, Engineer will direct one of the following remedies:
  - 1. The defective Work may remain, but the unit price will be adjusted to a new unit price at the discretion of Engineer.
  - 2. The defective Work will be partially repaired to the instructions of the Engineer, and the unit price will be adjusted to a new unit price at the discretion of Engineer.
- C. The authority of Engineer and Owner to assess the defect and identify payment adjustment is final.

#### 1.08 BID ITEMS – BASE BID

- A. MOBILIZATION (009E0010): Measurement shall be lump sum price for complete mobilization.

Mobilization item shall include all work and associated costs for the preparatory work and construction pre-operations, including, but not limited to the necessary movement of personnel, equipment, and incidentals to the project site; for the establishment of office, building, and other facilities necessary for work on the project; for work and operations which must be performed, and for costs incurred before and during work on the various contract items on the project. Mobilization shall also include insurance and permits required for mobilization of equipment, traffic control for the construction period, and other incidentals to the startup and operations of the project work.

- B. ABANDON WATER MAIN (451E6103): Measurement and payment to fill pipe with flowable fill and abandon pipe in place will be by feet of pipe in accordance with the contract documents.

Payment shall include furnishing all material, equipment, and labor required for completion of the work including flowable fill, trench excavation, backfilling, erosion and sediment control and all other work necessary or incidental for completion of the item.

- C. REMOVE MANHOLE (110E0460): Measurement and payment for complete removal of the existing underground vault indicated in the Contract Documents and shown on plan sheet 12.05 is measured by each.

Payment will be made at the contract's unit price that shall constitute full compensation for all clearing all debris from the vault, removal of piping, meter and valves, removal and disposal of concrete vault structure as indicated in the Contract Documents, tools, equipment, labor, and incidentals necessary to satisfactorily complete this item.

- D. METER PIT (451E4750): Measurement of individual underground vault is made shall be for each. Pay limits for this item are as indicated on the plan sheet detail.

Payment shall include furnishing and installing the concrete vault with all internal components as shown on the Water Meter Vault Details (Plan Sheet D-1) in the project plans including meter, appurtenance valving, gauges, piping, and fittings and piping and necessary fittings required to make the meter vault operational. The existing riprap shall be removed and salvaged to be replaced following in the installation of the new water meter vault. Prior to placement of the salvaged riprap being placed landscape fabric shall be placed under the riprap. Includes all excavation, sheeting, shoring, bracing, backfill and special compaction required for the installation. This shall also include all tools, equipment, labor, and incidentals necessary to satisfactorily complete this item.

- E. 1" HIGH DENSITY POLYETHYLENE PIPE (451E0401): Measurement of pipe shall be by lineal foot based on the horizontal length installed and measured over the centerline of the pipe.

Payment includes all pipe, elbows, fittings, labor, tools, equipment and materials required to construct the water service line, including excavation, trenching, laying and jointing pipe, backfill and compaction, flushing, disinfection, pressure testing, protection and/or replacement or repair of utilities which may be impaired by work, disposal of excess excavated material, thrust restraints, and all other incidentals required to complete the work as specified.

- F. PVC WATER MAIN (451E0604, 451E0606 AND 451E0608): Measurement of water main is made in lineal feet along the centerline of pipe through all valves, fittings, and appurtenances.

Payment for this item shall constitute full compensation for all: trench excavation, shoring, sheeting, dewatering, backfill, and compaction; furnishing and installing the water pipe; protecting or supporting existing utilities; providing temporary fencing where required; furnishing and placing Type I pipe bedding, if needed; cleaning, disinfecting, and pressure testing of installed piping; general restoration; tracer wire; detectable warning tape; and for all labor, equipment, tools, couplers, and incidentals necessary to complete these items.

- G. PVC SEWER PIPE (451E1006): Measurement of PVC sewer pipe is made in lineal feet along the centerline of pipe through all fittings, and appurtenances. Connection to drop manhole and service connections are incidental to this bid item.

Payment for this item shall constitute full compensation for all: trench excavation, shoring, sheeting, dewatering, backfill, and compaction; furnishing and installing the sewer pipe; protecting or supporting existing utilities; providing temporary fencing where required; furnishing and placing Type I pipe bedding, if needed; cleaning, disinfecting, and pressure testing of installed piping; general restoration; tracer wire; detectable warning tape; and for all labor, equipment, tools, couplers, and incidentals necessary to complete these items.

- H. PIPE BEND (451E3004, 451E3006 AND 451E3008): Measurement of water components are made by numerical count installed of the sizes of fittings listed in the Contract Documents.

- I. Payment for ductile iron water main fittings shall include furnishing and installing of the components, all excavation, backfill, and special compaction required for the installation, polyethylene encasement, restraint joints, thrust and anchor blocking (if required), and all other work necessary or incidental for completion of the item.

- J. PIPE COUPLING (451E3208): Measurement of water components are made by numerical count installed of the sizes of coupling listed in the Contract Documents.

Payment for ductile iron pipe deflection coupler shall include furnishing and installing of the components, all excavation, backfill, and special compaction required for the installation, polyethylene encasement, restraint joints, thrust and anchor blocking (if required), and all other work necessary or incidental for completion of the item.

- K. PIPE TEE (451E2212, 451E2213 AND 451E2214): Measurement of water components are made by numerical count of the sizes of fittings listed in the Contract Documents.

Payment for ductile iron water main fittings shall include furnishing and installing of the components, all excavation, backfill, and special compaction required for the installation, polyethylene encasement, restraint joints, thrust and anchor blocking (if required), and all other work necessary or incidental for completion of the item.

- L. PIPE REDUCER (451E2412 AND 451E22413): Measurement of water components are made by numerical count installed of the sizes of fittings listed in the Contract Documents.

Payment for ductile iron water main fittings shall include furnishing and installing of the components, all excavation, backfill, and special compaction required for the installation, polyethylene encasement, restraint joints, thrust and anchor blocking (if required), and all other work necessary or incidental for completion of the item.

- M. GATE VALVE WITH BOX (451E4208): Measurement of individual Gate Valve with Box is made by numerical count installed of the sizes listed in the Contract Documents.

Payment for water components shall include furnishing and installing of the gate valve and valve box, all excavation, backfill, and special compaction required for the installation, polyethylene encasement, tracer wire, restraint joints, thrust and anchor blocking (if required), protecting or supporting existing utilities, and all other work necessary or incidental for completion of the item.

- N. FIRE HYDRANTS WITH AUXILIARY VALVE & BOX (451E4585): Measurement of individual Fire hydrants with auxiliary valve and box is made by numerical count installed.

Payment for item includes labor, tools, equipment, excavation, backfill and compaction, hydrant, gate valve and box, tee, thrust blocks, piping, gravel, polyethylene encasement, utility markers, and all other incidentals required to complete the work as specified.

- O. 1" CORPORATION STOPS WITH TAPPING SADDLE (451E2802): Measurement of 1" corporation stops with tapping saddle is made by numerical count installed.

Payment includes all labor, tools, equipment, excavation, backfill and compaction, corporation stop, couplings, service clamps or saddles and all other incidentals required to complete the work as specified.

- P. 1" CURB STOP WITH BOX (451E2902): This item will be measured and paid for based on the numeric count of curb stop, box and meter installed for a 1" service.

Payment shall be made at the contract unit per each and shall include all labor, equipment, tools, curb stop, box, meter pit, meter, piping and fittings, and all materials necessary to complete the Work, as well as surface restoration to return the surface to the original conditions.

- Q. 4" WATER SERVICE (451E1283): This item will be measured and paid for based on the numeric count of 4" water meter and gate valve installed.

Payment shall be made at the contract unit per each and shall include all labor, equipment, tools, meter, meter pit, gate valve, piping and fittings, and all materials necessary to complete the Work, as well as surface restoration to return the surface to the original conditions.

- R. TRACER WIRE ACCESS BOX, TYPE 1 (451E4380): This item will be measured and paid for based on the numeric count of tracer wire access boxes installed.

Payment includes all labor, tools, equipment, excavation, backfill and compaction, tracer wire access box, and all other incidentals required to complete the work as specified. This shall include testing of tracer wire system.

- S. CONNECT TO EXISTING WATER MAIN (451E6105): Measurement and payment for this item shall be on a unit price for each connection.

Payment includes all couplers, modifications to existing pipe; trench excavation, bedding (if required), gravel, shoring, dewatering, couplings, backfill, compaction, testing, furnishing and installing the pipe and all materials, tools, equipment, labor, and performance of all work necessary or incidental for the completion of this item. Any spool pieces or piping of the same diameter required to connect to the existing piping will be considered incidental to the



cost of the reconnection.

- T. RECONNECT WATER SERVICE (451E6100): Measurement and payment for this item shall be on a unit price for each water service reconnection made.

Payment includes modifications to existing pipe; trench excavation, bedding (if required), shoring, dewatering, couplings, backfill, compaction, testing, furnishing and installing the pipe and all materials, tools, equipment, labor, and performance of all work necessary or incidental for the completion of this item. Any spool pieces or piping of the same diameter required to connect to the existing piping will be considered incidental to the cost of the reconnection.

- U. TEMPORARY WATER SERVICE (451E6050): Measurement and payment for this item shall be on a unit price for each temporary water service provided.

Measurement and payment shall include all work and materials needed to install, disinfect, test, monitor and operate temporary water system as needed throughout the duration of the project.

- V. LOCATE UNDERGROUND UTILITY (910E1086): Measurement of this item is made for the actual time, to the nearest one-half hour, for which the equipment and personnel are used and authorized by the Engineer for actual exploratory excavation and backfilling operations, including standby time between excavation and backfilling, to allow the Engineer to survey the underground utility.

Payment is made at the contract unit price bid per hour, which includes providing the equipment on-site, with operator and fuel. Where exploratory excavation is outside of planned excavation limits, payment also includes any time required for compaction of the backfill, if necessary. Surfacing repair will be paid separately, if required.

END OF SECTION

## SECTION 01 3300

### SUBMITTALS

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Submittal procedures, schedules, lists and instructions for proper and prompt submittal and review of construction related documents.

##### 1.02 RELATED REQUIREMENTS

- A. Section 01 4000 – Quality Control.
- B. Section 01 7000 – Execution and Closeout Requirements

##### 1.03 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
  - 1. Product data.
  - 2. Shop drawings.
- B. Submit to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7000 – Execution and Closeout Requirements.

##### 1.04 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
  - 1. Design data.
  - 2. Certificates.
  - 3. Test reports.
  - 4. Inspection reports.
  - 5. Manufacturer's instructions.
  - 6. Manufacturer's field reports.
  - 7. Other types indicated.
- B. Submit for Engineer's knowledge as contract administrator or for Owner.

##### 1.05 NUMBER OF COPIES OF SUBMITTALS

- A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Engineer.
  - 1. After review, produce duplicates.
  - 2. Retained samples will not be returned to Contractor unless specifically so stated.

##### 1.06 SUBMITTAL PROCEDURES

- A. Shop Drawing Procedures:

1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related Work.
  2. Generic, non-project specific information submitted as shop drawings do not meet the requirements for shop drawings.
- B. Transmit each submittal with a copy of approved submittal form.
  - C. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
  - D. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
  - E. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
  - F. Schedule submittals to expedite the Project, and coordinate submission of related items.
  - G. For each submittal for review, allow 21 days excluding delivery time to and from the Contractor.
  - H. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
  - I. Provide space for Contractor and Engineer review stamps.
  - J. When revised for resubmission, identify all changes made since previous submission.
  - K. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
  - L. Submittals not requested will not be recognized or processed.

#### **1.07 PROPOSED PRODUCTS LIST**

- A. Within 10 days after effective date of the Agreement, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

#### **1.08 CONSTRUCTION PROGRESS SCHEDULE**

- A. 10 days prior to Pre-Construction Meeting, submit schedule defining planned operations for the first 30 days of Work, with a general outline for remainder of Work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
  1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- D. Within 10 days after joint review, submit complete schedule.
- E. Submit updated schedule every 30 days or monthly.

#### **1.09 SHOP DRAWINGS**

- A. Submit for review the number of opaque copies that Contractor requires, plus two copies that will be retained by Engineer.

- B. After review, distribute in accordance with Section 1.06 - SUBMITTAL PROCEDURES herein.

**1.10 PRODUCT DATA**

- A. Submit the number of copies that the Contractor requires, plus two copies that will be retained by the Engineer.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this project.
- C. After review distribute in accordance with the submittal procedures herein. Provide copies for record documents to be used in operation and maintenance manual.

**1.11 MANUFACTURER INSTALLATION INSTRUCTIONS**

- A. When required, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to Engineer in quantities specified in product data herein.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

**1.12 TEST REPORTS**

- A. Submit for the Engineer's knowledge as Contract administrator or for Owner.
- B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

**1.13 MANUFACTURER CERTIFICATES**

- A. When specified in individual specification sections, submit certification by manufacturer to Engineer, in quantities specified for product data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product but must be acceptable to Engineer.

**1.14 SUBMITTALS FOR PROJECT CLOSEOUT**

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout:
  - 1. Project record documents.
  - 2. Operation and maintenance data.
  - 3. Warranties.
  - 4. Bonds.
  - 5. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

**PART 2 PRODUCTS - Not Used**

**PART 3 EXECUTION - Not Used**

**PART 4 MEASUREMENT AND PAYMENT – Not Used**

**END OF SECTION**

**SECTION 01 4000**  
**QUALITY CONTROL**

**PART 1        GENERAL**

**1.01    SECTION INCLUDES**

- A.        Instructions and requirements for quality assurance - control of installation.

**1.02    RELATED REQUIREMENTS**

- A.        Section 01 3300 – Submittals.

**1.03    REFERENCES**

- A.        For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B.        Conform to reference standard by date of issue current on date for receiving bids, except where a specific date is established by code.
- C.        Obtain copies of standards where required by product specification sections.
- D.        The contractual relationship, duties, and responsibilities of the parties in the contract nor those of the Engineer will not be altered from the Contract Documents by mention or inference otherwise in any reference document.

**1.04    SUBMITTALS**

- A.        Submit a certified written report of each inspection, test or similar service, to the Engineer, in duplicate.
- B.        Submit additional copies of each written report directly to the governing authority, when the authority so directs.

**1.05    QUALITY ASSURANCE**

- A.        Monitor quality control over Suppliers, Manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B.        Comply with Manufacturer's instructions, including each step in sequence.
- C.        Should Manufacturer's instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D.        Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E.        Perform work by persons qualified to produce workmanship of specified quality.
- F.        Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

**1.06    WARRANTY**

- A.        Provide a minimum one (1) year warranty for all materials and labor, covering defects in the materials or deficiencies resulting from contractor installation.
- B.        Provide additional warranties as required under other sections.
- C.        Warranty takes affect starting the date of substantial completion.

**PART 2**        **Products - Not Used.**

**PART 3**        **EXECUTION**

**3.01**    **INSPECTION AND TESTING LABORATORY SERVICES**

- A.     The Contractor shall employ and pay an independent agency to perform specified quality control services.
- B.     Prior to start of Work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.

**3.02**    **DUTIES OF INDEPENDENT TESTING AGENCY**

- A.     Perform inspections, sampling and testing of materials and construction specified with qualified personnel.
- B.     Cooperate with and notify the Engineer and Contractor promptly of irregularities or deficiencies observed in the work during performance of its services.
- C.     Not authorized to release, revoke, alter or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work or perform any duties of the Contractor.

**3.03**    **ASSOCIATED SERVICES**

- A.     Cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:
  - 1.    Providing access to the Work and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
  - 2.    Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.
  - 3.    Providing facilities for storage and curing of test samples, and delivery of samples to testing laboratories.
  - 4.    Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
  - 5.    Security and protection of samples and test equipment at the project site.

**3.04**    **REPORT DATA**

- A.     Date of issue.
- B.     Project title and number.
- C.     Name, address and telephone number of testing agency.
- D.     Dates and locations of sample and tests or inspections.
- E.     Names of individuals making the inspection or test.
- F.     Designation of the Work and test method.
- G.     Identification of product and specification section.
- H.     Complete inspection or test data.
- I.     Test results and an interpretation of test results.
- J.     Ambient conditions at the time of sample taking and testing.
- K.     Comments or professional opinion as to whether inspected or tested Work complies with

Contract Document requirements.

L. Name and signature of laboratory inspector.

M. Recommendations on retesting.

### **3.05 MANUFACTURER'S FIELD SERVICES AND REPORTS**

A. When specified in individual specification sections, require material or product Suppliers or Manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.

B. Submit qualifications of observer to Engineer in advance of required observations. Observer subject to approval of Engineer.

C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to Manufacturer's written instructions.

D. Submit report within 30 days of observation to Engineer for information.

### **3.06 TOLERANCES**

A. Monitor tolerance control of installed products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with Manufacturer's tolerances.

C. Adjust products to appropriate dimensions; position before securing products in place.

### **3.07 COORDINATION AND SCHEDULING**

A. Coordinate the sequence of activities to accommodate required services with a minimum of delay and avoid the necessity of removing and replacing construction to accommodate inspections and tests.

B. Responsible for scheduling times for inspections, tests, taking samples and similar activities.

### **3.08 RETESTING**

A. The Contractor is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.

B. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.

## **PART 4 MEASUREMENT AND PAYMENT- Not Used**

**END OF SECTION**

**SECTION 01 5000  
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Temporary Facilities
- B. Temporary Controls

**1.02 RELATED REQUIREMENTS**

- A. Section 01 1000 – Summary of Work
- B. Section 01 7000 – Execution and Closeout Requirements
- C. OSHA Publications

**PART 2 PRODUCTS - Not Used**

**PART 3 EXECUTION**

**3.01 TEMPORARY FACILITIES**

- A. Electricity: Contractor is responsible for providing what is necessary to meet electrical needs during construction.
- B. Heat: Provide temporary heating devices and heat as needed to maintain specific conditions for construction and protection of facilities.
- C. Telephone Service: Contractor shall provide and maintain telephone service, if required.
- D. Water Service: Contractor shall provide temporary supply for potable use, sanitation, and construction.
- E. Sanitary Facilities: Contractor shall provide and maintain temporary sanitary facilities for workers.
- F. Safety Barriers: Provide safety barriers to prevent unauthorized entry into construction areas and allow for Owner's use of site if required.

**3.02 SECURITY**

- A. Provide security, as needed, to protect finished work, existing facilities, and adjacent property as well as Owner's operations, from unauthorized entry, vandalism, or theft.

**3.03 FENCING**

- A. Construction: Contractor's option.

**3.04 EXTERIOR ENCLOSURES**

- A. Provide temporary insulated weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.



### **3.05 INTERIOR ENCLOSURES**

- A. Provide temporary partitions as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:

### **3.06 VEHICULAR ACCESS AND PARKING**

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

### **3.07 PROGRESS CLEANING AND WASTE REMOVAL**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition by cleaning up at the end of every working day.
- B. Remove debris and rubbish from all areas and other remote closed spaces prior to enclosing the space or equipment.

### **3.08 FIELD OFFICE AND STORAGE AREA**

- A. If unused space is available on-site Contractor may use it for office and storage space.
- B. Space must be coordinated and approved by Owner.
- C. Areas designated for storage must be secured by contractor. Sensitive or hazardous materials shall not be brought on site without the written consent of Owner.

### **3.09 STAGING AREA**

- A. The Contractor shall utilize area as agreed upon between the Owner and Contractor. Any additional area required will be the responsibility of the Contractor to locate.

### **3.10 ACCESS/HAUL ROADS**

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Contractor shall maintain access/haul roads leading into the site.
- C. Provide means of removing mud from vehicle wheels before entering streets and roads.

### **3.11 SITE DRAINAGE**

- A. Grade site to drain.
- B. Keep excavations free of water. Provide, operate, and maintain pumping equipment as needed.
- C. Provide erosion control and protection as needed.
- D. Sensitive and hazardous materials must be stored away from drainage areas and water ways.

### **3.12 PROTECTION OF FINISHED WORK**

- A. Control activity in work area to prevent damage.

- B. Provide temporary and removable protection for installed products.
- C. Prohibit traffic from landscape areas and other areas that require time to cure.

**3.13 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS**

- A. Remove temporary utilities, equipment, facilities, and materials prior to final application for payment.
- B. Clean and repair damage caused by construction or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

**PART 4 MEASUREMENT AND PAYMENT**

- 4.01** All work described herein is incidental to other related items of work. No measurement or additional payment will be considered.

**END OF SECTION**

**SECTION 01 5713**  
**TEMPORARY EROSION AND SEDIMENT CONTROL**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Prevention of erosion due to construction activities.
- B. Prevention of sedimentation of waterways, open drainage ways, and storm and sanitary sewers due to construction activities.
- C. Restoration of areas eroded due to insufficient preventive measures.
- D. Performance bond.
- E. Compensation of Owner for fines levied by authorities having jurisdiction due to non-compliance by Contractor.

**1.02 RELATED REQUIREMENTS**

- A. Section 31 1000 - Site Clearing
- B. Section 31 2200 – Grading
- C. SDDOT Specifications

**1.03 REFERENCE STANDARDS**

- A. ASTM D4355 - Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture, and Heat in a Xenon Arc Type Apparatus; 2007.
- B. ASTM D4491 - Standard Test Methods for Water Permeability of Geotextiles by Permittivity; 1999a (Reapproved 2009).
- C. ASTM D4533 - Standard Test Method for Trapezoid Tearing Strength of Geotextiles; 2011.
- D. ASTM D4632 - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles; 2008.
- E. ASTM D4751 - Standard Test Method for Determining Apparent Opening Size of a Geotextile; 2012.
- F. ASTM D4873 - Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples; 2002 (Reapproved 2009).
- G. EPA (NPDES) - National Pollutant Discharge Elimination System (NPDES), Construction General Permit; current edition.
- H. FHWA FLP-94-005 - Best Management Practices for Erosion and Sediment Control; Federal Highway Administration; 1995.
- I. USDA TR-55 - Urban Hydrology for Small Watersheds; USDA Natural Resources Conservation Service; 2009.

**1.04 PERFORMANCE REQUIREMENTS**

- A. Comply with all requirements of U.S. Environmental Protection Agency for erosion and sedimentation control, as specified for the National Pollutant Discharge Elimination System (NPDES), Phases I and II, under requirements for the 2003 Construction General Permit (CGP), whether the project is required by law to comply or not.

- B. Comply with requirements of State of South Dakota Department of Environment and Natural Resources and Environmental Protection Agency.
- C. Develop and follow an Erosion and Sedimentation Prevention Plan and submit periodic inspection reports.
- D. Do not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.
  - 1. Obtain and pay for permits and provide security required by authority having jurisdiction.
  - 2. Owner will withhold payment to Contractor equivalent to all fines resulting from non-compliance with applicable regulations.
- E. Provide to Owner a Performance Bond covering erosion and sedimentation preventive measures only, in an amount equal to 100 percent of the cost of erosion and sedimentation control work.
- F. Timing: Put preventive measures in place as soon as possible after disturbance of surface cover and before precipitation occurs.
- G. Storm Water Runoff: Control increased storm water runoff due to disturbance of surface cover due to construction activities for this project.
  - 1. Prevent runoff into storm and sanitary sewer systems, including open drainage channels, in excess of actual capacity or amount allowed by authorities having jurisdiction, whichever is less.
  - 2. Anticipate runoff volume due to the most extreme short term and 24-hour rainfall events that might occur in 25 years.
- H. Erosion On Site: Minimize wind, water, and vehicular erosion of soil on project site due to construction activities for this project.
  - 1. Control movement of sediment and soil from temporary stockpiles of soil.
  - 2. Prevent development of ruts due to equipment and vehicular traffic.
  - 3. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.
- I. Erosion Off Site: Prevent erosion of soil and deposition of sediment on other properties caused by water leaving the project site due to construction activities for this project.
  - 1. Prevent windblown soil from leaving the project site.
  - 2. Prevent tracking of mud onto public roads outside site.
  - 3. Prevent mud and sediment from flowing onto sidewalks and pavements.
  - 4. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.
- J. Sedimentation of Waterways On Site: Prevent sedimentation of waterways on the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
  - 1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.

2. If sediment basins are used as temporary preventive measures, pump dry and remove deposited sediment after each storm.
- K. Sedimentation of Waterways Off Site: Prevent sedimentation of waterways off the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.
- L. Open Water: Prevent standing water that could become stagnant.
- M. Maintenance: Maintain temporary preventive measures until permanent measures have been established.

## **1.05 SUBMITTALS**

- A. Provide submittals of all products to be installed.
- B. Erosion and Sedimentation Control Plan:
1. Submit not less than 30 days prior to anticipated start of clearing, grading, or other work involving disturbance of ground surface cover.
  2. Include:
    - a. Site plan identifying soils and vegetation, existing erosion problems, and areas vulnerable to erosion due to topography, soils, vegetation, or drainage.
    - b. Site plan showing grading; new improvements; temporary roads, traffic accesses, and other temporary construction; and proposed preventive measures.
    - c. Where extensive areas of soil will be disturbed, include storm water flow and volume calculations, soil loss predictions, and proposed preventive measures.
    - d. Schedule of temporary preventive measures, in relation to ground disturbing activities.
    - e. Other information required by law.
    - f. Format required by law is acceptable, provided any additional information specified is also included.
  3. Obtain the approval of the Plan by authorities having jurisdiction.
  4. Obtain the approval of the Plan by Owner.
- C. Certificate: Mill certificate for silt fence fabric attesting that fabric and factory seams comply with specified requirements, signed by legally authorized official of manufacturer; indicate actual minimum average roll values; identify fabric by roll identification numbers.
- D. Inspection Reports: Submit report of each inspection; identify each preventive measure, indicate condition, and specify maintenance or repair required and accomplished.
- E. Silt fence, wattle, erosion control blanket, inlet protection device, filter fabric, seeding and mulching material submittals.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. Mulch: Per SDDOT specifications.
- B. Grass Seed see SDDOT specifications. For Temporary Cover: Select a species appropriate to climate, planting season, and intended purpose. If same area will later be

planted with permanent vegetation, do not use species known to be excessively competitive or prone to volunteer in subsequent seasons.

- C. Silt Fence Fabric: When called for on plans. Polypropylene geotextile resistant to common soil chemicals, mildew, and insects; non-biodegradable; in longest lengths possible; fabric including seams with the following minimum average roll lengths:
  - 1. Average Opening Size: 30 U.S. Std. Sieve, maximum, when tested in accordance with ASTM D4751.
  - 2. Permittivity:  $0.05 \text{ sec}^{-1}$ , minimum, when tested in accordance with ASTM D4491.
  - 3. Ultraviolet Resistance: Retaining at least 70 percent of tensile strength, when tested in accordance with ASTM D4355 after 500 hours exposure.
  - 4. Tensile Strength: 100 lb-f, minimum, in cross-machine direction; 124 lb-f, minimum, in machine direction; when tested in accordance with ASTM D4632.
  - 5. Elongation: 15 to 30 percent, when tested in accordance with ASTM D4632.
  - 6. Tear Strength: 55 lb-f, minimum, when tested in accordance with ASTM D4533.
  - 7. Color: Manufacturer's standard, with embedment and fastener lines preprinted.
- D. Silt Fence Posts: One of the following, minimum 5 feet long:
  - 1. Steel U- or T-section, with minimum mass of 1.33 lb per linear foot.
  - 2. Softwood, 4 by 4 inches in cross section.
  - 3. Hardwood, 2 by 2 inches in cross section.
- E. Erosion Control Blanket: When called for in the plans, erosion control blanket shall be used to prevent erosion in ditches and on roadway slopes. The blanket shall be installed in accordance with the plans. Only designated erosion control blanket on SDDOT Approved Products List or equal will be allowed.
- F. Straw Wattles: Erosion control 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. Only erosion control wattles on SDDOT Approved Products List or equal will be allowed.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Examine site and identify existing features that contribute to erosion resistance; maintain such existing features to greatest extent possible.

#### **3.02 PREPARATION**

- A. Schedule work so that soil surfaces are left exposed for the minimum amount of time.

#### **3.03 SCOPE OF PREVENTIVE MEASURES**

- A. In all cases, if permanent erosion resistant measures have been installed temporary preventive measures are not required.
- B. Construction Entrances: Traffic-bearing aggregate surface.
  - 1. Width: As required; 20 feet, minimum.
  - 2. Length: 50 feet, minimum.

3. Provide at each construction entrance from public right-of-way.
  4. Where necessary to prevent tracking of mud onto right-of-way, provide wheel washing area out of direct traffic lane, with drain into sediment trap or basin.
- C. Linear Sediment Barriers: Made of silt fences or wattles.
1. Provide linear sediment barriers:
    - a. Along downhill perimeter edge of disturbed areas, including soil stockpiles.
  2. Space sediment barriers with the following maximum slope length upslope from barrier:
    - a. Slope of Less Than 2 Percent: 100 feet.
    - b. Slope Between 2 and 5 Percent: 75 feet.
    - c. Slope Between 5 and 10 Percent: 50 feet.
    - d. Slope Between 10 and 20 Percent: 25 feet.
    - e. Slope Over 20 Percent: 15 feet.
- D. Storm Drain Curb Inlet Sediment Trap: Per detail.
1. Manufactured inlet protection approved by Engineer.
- E. Storm Drain Drop Inlet Sediment Traps: As detailed on drawings.
- F. Temporary Splash Pads: Stone aggregate over filter fabric; size to suit application; provide at downspout outlets and storm water outlets.
- G. Soil Stockpiles: Protect using one of the following measures:
1. Cover with polyethylene film, secured by placing soil on outer edges.
  2. Cover with mulch at least 4 inches thickness of pine needles, sawdust, bark, wood chips, or shredded leaves, or 6 inches of straw or hay.
  3. See Section 02200 for additional requirements.
- H. Mulching: Use only for areas that may be subjected to erosion for less than 6 months.
- I. Temporary Seeding: Use where temporary vegetated cover is required.

### **3.04 INSTALLATION**

- A. Traffic-Bearing Aggregate Surface:
1. Excavate minimum of 6 inches.
  2. Place geotextile fabric full width and length, with minimum 12 inch overlap at joints.
  3. Place and compact at least 6 inches of 1.5 to 3.5 inch diameter stone.
- B. Silt Fences:
1. Store and handle fabric in accordance with ASTM D4873.
  2. Where slope gradient is less than 3:1 or barriers will be in place less than 6 months, use nominal 16 inch high barriers with minimum 36 inch long posts spaced at 6 feet maximum, with fabric embedded at least 4 inches in ground.
  3. Where slope gradient is steeper than 3:1 or barriers will be in place over 6 months, use nominal 28 inch high barriers, minimum 48 inch long posts spaced at 6 feet maximum, with fabric embedded at least 6 inches in ground.

4. Where slope gradient is steeper than 3:1 and vertical height of slope between barriers is more than 20 feet, use nominal 32 inch high barriers with woven wire reinforcement and steel posts spaced at 4 feet maximum, with fabric embedded at least 6 inches in ground.
  5. Install with top of fabric at nominal height and embedment as specified.
  6. Do not splice fabric width; minimize splices in fabric length; splice at post only, overlapping at least 18 inches, with extra post.
  7. Fasten fabric to wood posts using one of the following:
    - a. Four 3/4 inch diameter, 1 inch long, 14 gage nails.
    - b. Five 17-gage staples with 3/4 inch wide crown and 1/2 inch legs.
  8. Fasten fabric to steel posts using wire, nylon cord, or integral pockets.
  9. Wherever runoff will flow around end of barrier or over the top, provide temporary splash pad or other outlet protection; at such outlets in the run of the barrier, make barrier not more than 12 inches high with post spacing not more than 4 feet.
- C. Mulching Over Large Areas:
1. See SDDOT Specifications.
- D. Mulching Over Small and Medium Areas:
1. See SDDOT Specifications.
- E. Temporary Seeding:
1. See SDDOT Specifications.

### **3.05 MAINTENANCE**

- A. Inspect preventive measures weekly, within 24 hours after the end of any storm that produces 0.5 inches or more rainfall at the project site, and daily during prolonged rainfall.
- B. Repair deficiencies immediately.
- C. Silt Fences and wattles:
  1. Promptly replace fabric and wattle that deteriorates unless need has passed.
  2. Remove silt deposits that exceed one-third of the height of the fence or wattle.
  3. Repair fences or wattles that are undercut by runoff or otherwise damaged, whether by runoff or other causes.
- D. Clean out temporary sediment control structures weekly and relocate soil on site.
- E. Place sediment in appropriate locations on site; do not remove from site.

### **3.06 CLEAN UP**

- A. Remove temporary measures after permanent measures have been installed, unless permitted to remain by Engineer.
- B. Clean out temporary sediment control structures that are to remain as permanent measures. This includes but is not limited to remove and reset of riprap that contains sediment and removal of sediment from grass swales.
- C. Where removal of temporary measures would leave exposed soil, shape surface to an acceptable grade and finish to match adjacent ground surfaces.



**PART 4 MEASUREMENT AND PAYMENT**

**4.01 TEMPORARY EROSION AND SEDIMENT CONTROL SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, RESETTING, CLEANING, ETC. INCIDENTAL TO PROJECT**

**END OF SECTION**

**SECTION 01 6000**  
**PRODUCT REQUIREMENTS**

**PART 1        GENERAL**

**1.01    SECTION INCLUDES**

- A.     General product requirements.
- B.     Re-use of existing products.
- C.     Transportation, handling, storage and protection.
- D.     Product option requirements.
- E.     Substitution limitations and procedures.

**1.02    RELATED REQUIREMENTS**

- A.     Section 01 3300 – Submittals.
- B.     Section 00700 – General Conditions.
- C.     Section 00800 – Supplementary Conditions.
- D.     Section 01 4000 – Quality Control.

**1.03    SUBMITTALS**

- A.     See Section 01 3300 - for submittal requirements and procedures.

**PART 2        PRODUCTS**

**2.01    EXISTING PRODUCTS**

- A.     Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.
- B.     Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.

**2.02    NEW PRODUCTS**

- A.     Provide new products unless specifically required or permitted by the Contract Documents.
- B.     Provide interchangeable components of the same manufacture for components being replaced.
- C.     Shall comply with specified requirements and reference standards.
- D.     Furnish products of each type by single manufacturer unless specified otherwise.

**2.03    PRODUCT OPTIONS**

- A.     Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B.     Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C.     Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

## **PART 3 EXECUTION**

### **3.01 SUBSTITUTION PROCEDURES**

- A. Section 00200 - Instructions to Bidders specifies time restrictions for submitting requests for Substitutions during the bidding period and the documents required. Any products approved during the bidding period will be identified by Addendum.
- B. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- D. A request for substitution constitutes a representation that the Contractor:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Agrees to provide the same warranty for the substitution as for the specified product.
  - 3. Agrees to coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
  - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
  - 1. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
  - 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
  - 3. The Engineer will notify Contractor in an addendum of decision to accept or reject request.

### **3.02 TRANSPORTATION AND HANDLING**

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.

### **3.03 STORAGE AND PROTECTION**

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive and hazardous products in weather tight, climate-controlled enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Provide off-site storage and protection when site does not permit on-site storage or protection.

- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**PART 4 MEASUREMENT AND PAYMENT**

Not Used

**END OF SECTION**

**SECTION 01 7000**  
**EXECUTION AND CLOSEOUT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Closeout procedures, final cleaning, adjusting, project record documents, warranties, spare parts, and maintenance materials.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 5000 – Construction Facilities and Temporary Controls.
- B. Contract Documents

**1.03 WARRANTY**

- A. Provide duplicate notarized copies.
- B. Execute and assemble transferable warranty documents from Subcontractors, Suppliers, and Manufacturers.
- C. Provide Table of Contents and assemble in binder with durable cover.
- D. Submit prior to final Application for Payment.

**PART 2 PRODUCTS**

Not Used

**PART 3 EXECUTION**

**3.01 PREPARATION**

- A. Execute final facility cleaning prior to final project assessment.
- B. Clean debris from drainage systems.
- C. Clean site, sweep paved areas, rake clean landscaped surfaces, remove applicable erosion control measures.
- D. Remove waste and surplus materials, rubbish, and construction facilities from the site.
- E. Adjust operating products and equipment to ensure smooth and unhindered operation.

**3.02 SCHEDULING AND COORDINATION**

- A. Coordinate with Owner on how project is taken over and operated during transition.

**3.03 TOLERANCES**

- A. Verify that all specified tolerances are being met.

**3.04 PROTECTION OF FINISHED WORK**

- A. Protect all finished work until Owner accepts responsibility.
- B. Protect installed work from damage by construction operations

**3.05 PROJECT RECORD DOCUMENTS**

- A. Provide to Engineer one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.

2. Specifications.
  3. Addenda.
  4. Change Orders and other modifications to the Contract.
  5. Reviewed Shop Drawings, Product Data, and Samples.
  6. Manufacturer's instructions for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
  - C. Store record documents separate from documents used for construction.
  - D. Record information concurrent with construction progress.
  - E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
    1. Manufacturer's name and product model and number.
    2. Product substitutions or alternates utilized.
    3. Changes made by Addenda and modifications.
  - F. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:
    1. Measured depths of foundations in relation to finished first floor datum.
    2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
    3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
    4. Field changes of dimension and detail.
    5. Details not on original Contract Drawings.
  - G. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's review.

### **3.06 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Engineer when work is considered ready for Engineer's Substantial Completion inspection.
- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Engineer's Substantial Completion inspection.
- E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Engineer's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Engineer.
- F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.

- G. Notify Engineer when work is considered finally complete and ready for Engineer's Substantial Completion final inspection.
- H. Complete items of work determined by Engineer listed in executed Certificate of Substantial Completion.

**PART 4 MEASUREMENT AND PAYMENT**

Not Used

**END OF SECTION**

## SECTION 01 7200

### STAKING AND CONSTRUCTION SURVEYING

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. This section outlines the staking and surveying work related to provide reference points in the field. Section clarifies staking provided to the Contractor and Contractor's responsibilities.
- B. Construction Surveys establish "control stakes" for basic line and grade used for project construction.
- C. Control stakes are used to check work for contract compliance.
- D. Set supplemental "working stakes" from control stakes when needed.
- E. Working stakes are used to perform the work and are provided by the contractor.

##### 1.02 STAKING PROVIDED TO THE CONTRACTOR

- A. Water Main and Appurtenance Staking
  - 1. Offset of Horizontal or Centerline staking (approximately every 100 feet).
  - 2. Appurtenance (gate valve, fittings, fire hydrant, etc.) staking on center.
- B. Project Benchmarks
  - 1. Hubs for vertical control will be placed at various points throughout project.
  - 2. Hubs for horizontal control (at least one per project).

##### 1.03 CONTRACTOR'S RESPONSIBILITY

- A. Notify the Owner at least fourteen (14) calendar days in advance of the times and places that staking will be needed.
- B. Set supplementary staking, grade staking, offsets, cut stakes, temporary bench marks, and control points necessary for contractor to complete the work in accordance with the plans and specifications.
- C. Provide all staking materials for contractor supplementary staking to include hubs, lath, flagging, paint and other material needed to provide construction staking.
- D. Request clarification from the Owner regarding conflicts before proceeding with installation of facilities.
- E. Preserve all offset and reference staking, until such time as the pipeline or other facilities are installed.
- F. Reference stakes needing replacement due to Contractor error or negligence must be replaced by Contractor, at no cost to the contract.
- G. All permanent survey points/markers (i.e. property corners) and bench marks not directly in the line of work shall be preserved.
- H. Replace all permanent survey markers disturbed or destroyed using a Professional Land Surveyor, at no cost to the contract.
- I. Provide evidence of reestablishment of permanent survey markers to the Owner and copy of stamped and approved monument re-establishment documentation from the appropriate jurisdiction (state, BIA, etc.).



**PART 2**      **PRODUCTS – Not Used**  
**PART 3**      **EXECUTION – Not Used**  
**PART 4**      **MEASUREMENT AND PAYMENT- Not Used**

**END OF SECTION**

**SECTION 01 7800  
CLOSEOUT SUBMITTALS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Operation and Maintenance Data.
- B. Warranties and bonds.

**1.02 RELATED REQUIREMENTS**

- A. Individual Product Sections: Specific requirements for operation and maintenance data.
- B. Individual Product Sections: Warranties required for specific products or Work.

**PART 2 PRODUCTS - Not Used**

**PART 3 EXECUTION**

**3.01 OPERATION AND MAINTENANCE DATA**

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

**3.02 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS**

- A. For Each Item of Equipment and Each System:
  - 1. Description of unit or system, and component parts.
  - 2. Identify function, normal operating characteristics, and limiting conditions.
  - 3. Include performance curves, with engineering data and tests.
  - 4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- E. Provide servicing and lubrication schedule, and list of lubricants required.
- F. Include manufacturer's printed operation and maintenance instructions.

- G. Include sequence of operation by controls manufacturer.
- H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- I. Additional Requirements: As specified in individual product specification sections.

### **303 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS**

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- H. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- J. Arrangement of Contents: Organize each volume in parts as follows:
  - 1. Project Directory.
  - 2. Table of Contents, of all volumes, and of this volume.
  - 3. Operation and Maintenance Data: Arranged by system, then by product category.
    - a. Source data.
    - b. Operation and maintenance data.
    - c. Field quality control data.
    - d. Photocopies of warranties and bonds.

### **304 WARRANTIES AND BONDS**

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.

- D. Retain warranties and bonds until time specified for submittal.
- E. Include photocopies of each in operation and maintenance manuals, indexed separately on Table of Contents.
- F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.

**PART 4 MEASUREMENT AND PAYMENT – Not Used**

**END OF SECTION**

**SECTION 31 1000  
SITE CLEARING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Clearing and protection of vegetation.
- B. Removal of existing debris.

**1.02 RELATED REQUIREMENTS**

- A. Section 31 2200 - Grading.
- B. Section 31 2323 - Fill.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Fill Material: As specified in Section 31 2323 - Fill

**PART 3 EXECUTION**

**3.01 SITE CLEARING**

- A. Comply with other requirements specified.
- B. Minimize production of dust due to clearing operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

**3.02 EXISTING UTILITIES AND BUILT ELEMENTS**

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits. Existing water and sanitary sewer services shall be abandoned at main per Utility Company requirements. At a minimum sanitary sewer shall be capped with PVC fitting or plugged with concrete, while water service shall have corporation stop shut off and remaining service line disconnected.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Protect existing structures and other elements that are not to be removed.
- E. Utilities to be abandoned shall have concrete grout material placed a minimum of 18-inches or length equal to the diameter whichever is greater into pipe or conduit creating a plug.
- F. Utilities to be removed shall be fully excavated and disposed of at certified landfill. Excavated areas shall be recompacted with suitable fill per section 31 2323 Fill.
- G. Manholes or structures to be abandoned shall have all pipes plugged with concrete grout per above and the upper 4 feet of manhole or lid of structure shall be removed and the manhole or structure filled with compacted granular backfill. Engineer shall inspect pipe plug prior to backfilling.
- H. Saw cut hard surfaces to make clean edge from portions that are to remain. Remove hard surfaces and structures, haul from site and dispose.

**3.03 VEGETATION**

- A. Scope: Remove trees, shrubs, brush, and stumps in areas to be covered by building structure, paving, playing fields, lawns, and planting beds.

- B. Do not begin clearing until vegetation to be relocated or saved has been identified.
- C. Do not remove or damage vegetation beyond the following limits:
  - 1. 40 feet outside the building perimeter.
  - 2. 10 feet each side of surface walkways, patios, surface parking, and utility lines less than 12 inches in diameter.
  - 3. 15 feet each side of roadway curbs and main utility trenches.
  - 4. 25 feet outside perimeter of pervious paving areas that must not be compacted by construction traffic.
- D. Install substantial, highly visible fences at least 3 feet high to prevent inadvertent damage to vegetation to remain:
  - 1. At vegetation removal limits.
- E. In areas where vegetation must be removed but no construction will occur other than pervious paving, remove vegetation with minimum disturbance of the subsoil.
- F. Vegetation Removed: Do not burn, bury, landfill, or leave on site, except as indicated.
  - 1. Chip, grind, crush, or shred vegetation for mulching, composting, or other purposes; preference should be given to on-site uses.
  - 2. Trees: Sell if marketable; if not, treat as specified for other vegetation removed; remove stumps and roots to depth of 18 inches.
  - 3. Sod: Re-use on site if possible; otherwise sell if marketable, and if not, treat as specified for other vegetation removed.
- G. Restoration: If vegetation outside removal limits or within specified protective fences is damaged or destroyed due to subsequent construction operations, replace at no cost to Owner.

### **3.04 DEBRIS**

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

## **PART 4 MEASUREMENT AND PAYMENT**

**4.01 SITE CLEARING SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, HAULING, SAW CUTTING, REMOVALS, DUMPING FEES, BACKFILL MATERIAL, PROTECTION, COORDINATION WITH UTILITIES, ETC. INCIDENTAL TO PROJECT.**

**END OF SECTION**

**SECTION 31 2200  
GRADING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Removal and storage of topsoil.
- B. Rough grading the site for site structures and roadways.
- C. Finish grading.

**1.02 RELATED REQUIREMENTS**

- A. Section 31 1000 - Site Clearing.
- B. Section 31 2316.13 - Trenching.
- C. Section 31 2323 - Fill.

**1.03 SUBMITTALS**

- A. Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

**1.04 QUALITY ASSURANCE**

- A. Perform Work in accordance with these specifications and as specified in the latest specifications from the State of South Dakota Department of Transportation (SDDOT).

**PART 2 PRODUCTS – Not Used**

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that survey bench mark and intended elevations for the Work are as indicated.

**3.02 PREPARATION**

- A. Identify required lines, levels, contours, and datum.
- B. Stake and flag locations of known utilities.
- C. Locate, identify, and protect from damage above- and below-grade utilities to remain.
- D. Notify utility company to remove and relocate utilities.
- E. Protect site features to remain, including but not limited to bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs, from damage by grading equipment and vehicular traffic.

**3.03 ROUGH GRADING**

- A. Remove topsoil from areas to be further excavated, re-landscaped, or re-graded, without mixing with foreign materials.
- B. Do not remove topsoil when wet.
- C. Remove subsoil from areas to be further excavated, re-landscaped, or re-graded.
- D. Do not remove wet subsoil, unless it is subsequently processed to obtain optimum moisture content.
- E. When excavating through roots, perform work by hand and cut roots with sharp axe.

- F. See Section 31 2323 for filling procedures.
- G. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.

### **3.04 SOIL REMOVAL**

- A. Stockpile topsoil to be re-used on site; remove remainder from site.
- B. Stockpiles: Use areas designated on site; pile depth not to exceed 8 feet; protect from erosion.

### **3.05 FINISH GRADING**

- A. Before Finish Grading:
  - 1. Verify building and trench backfilling have been inspected and tested for compaction and moisture.
  - 2. Verify subgrade has been contoured and compacted.
- B. Remove debris, roots, branches, stones, in excess of 1/2 inch in size. Remove soil contaminated with petroleum products.
- C. Where topsoil is to be placed, scarify surface to depth of 6 inches.
- D. In areas where vehicles or equipment have compacted soil, scarify surface to depth of 6 inches.
- E. Place topsoil in areas where seeding are indicated.
- F. Place topsoil to the following compacted thicknesses:
  - 1. Areas to be Seeded with Grass: 6 inches.
- G. Place topsoil during dry weather.
- H. Remove roots, weeds, rocks, and foreign material while spreading.
- I. Near plants spread topsoil manually to prevent damage.
- J. Fine grade topsoil to eliminate uneven areas and low spots. Maintain profiles and contour of subgrade.
- K. Lightly compact placed topsoil.

### **3.06 TOLERANCES**

- A. Top Surface of Finish Grade: Plus or minus 0.04 foot (1/2 inch).

### **3.07 REPAIR AND RESTORATION**

- A. Existing Facilities, Utilities, and Site Features to Remain: If damaged due to this work, repair or replace to original condition.
- B. Trees to Remain: If damaged due to this work, trim broken branches and repair bark wounds; if root damage has occurred, obtain instructions from Architect as to remedy.

### **3.08 FIELD QUALITY CONTROL**

- A. See Section 31 2323 for compaction density testing.

### **3.09 CLEANING**

- A. Remove unused stockpiled topsoil. Grade stockpile area to prevent standing water.
- B. Leave site clean and raked, ready to receive landscaping.



**PART 4 MEASUREMENT AND PAYMENT**

**4.01 GRADING SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, HAULING, WATER, ETC. INCIDENTAL TO PROJECT.**

**END OF SECTION**

**SECTION 31 2316.13**  
**TRENCHING**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. This section includes excavation and trenching necessary for the construction of the facilities as indicated on the plans including, but not limited to water mains and service lines, and concrete structures.

**1.02 RELATED WORK**

- A. Section 31 1000 – Site Clearing
- B. Section 31 2323 - Fill
- C. Section 33 1416 – Underground Water Distribution Pipe and Fittings
- D. Section 33 1417 – Water Service Lines

**1.03 REFERENCES**

- A. Manual on Uniform Traffic Control Devices
- B. ASTM D698 – Test Methods for Moisture Density Relations of Soils and Soil-Aggregate Mixtures Using 5.5 lb. Rammer and 12-in. Drop [Standard Proctor Test]
- C. ASTM D2321 – Underground Installation of Flexible Thermoplastic Sewer Pipe
- D. ASTM D2487 – Classification of Soils for Engineering Purposes [Unified Soil Classification System]

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that survey bench marks and intended elevations for the work are as indicated.

**3.02 PREPARATION**

- A. Identify required lines, levels, contours, and datum locations.

**3.03 GENERAL**

- A. Notify Engineer of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.
- B. Provide suitable sheeting, shoring, and bracing as required in conformance with OSHA regulations.
- C. In accordance with the contract, obtain all permits from appropriate road agency for construction within road right of way.
- D. Repair damage resulting from settlement, slides, cave-ins, water pressure, and other causes.
- E. Provide adequate signs, barricades, fences and amber lights and take all necessary precautions to protect the work and the safety of the public in all construction areas.
  - 1. Placement of construction signs and barricades shall conform to the most current version of the “Manual on Uniform Traffic Control Devices.”

2. Protect barricades and obstructions at night by amber signal lights that burn from sunset to sunrise. Barricades shall also be of substantial construction, painted white or with reflective paint to increase their visibility at night.
  3. Perform work without obstruction to traffic or inconvenience to the general public and the residents in the vicinity of the work.
- F. The maximum open trench allowed during the day at each location shall not exceed 200 feet, with no open trench allowed overnight unless specifically approved.
- G. Road Crossing
1. Comply with all construction and material requirements of roadway authorities having jurisdiction.
  2. Maintain one lane of traffic open at all times.
- H. Slope banks of excavations deeper than 4 feet to angle of repose or less until shored.
- I. Do not interfere with 45 degree bearing splay of foundations.
- J. Cut trenches wide enough to allow inspection of installed utilities.
- K. Hand trim excavations. Remove loose matter.
- L. Remove large stones and other hard matter that could damage piping or impede consistent backfilling or compaction.
- M. Remove excavated material that is unsuitable for re-use from site.
- N. Remove excess excavated material from site.

### **3.04 TRENCHING**

- A. Bottom width:
1. No less than 12 inches or more than 24 inches wider than the outside diameter of the pipe.
  2. Where a chain or wheel trencher is approved for use in a rural area, the trench width shall be 4 to 6 inches greater than the outside diameter of the pipe.
- B. Depth: Provide minimum cover as specified, or depths shown on plans.

### **3.05 PREPARATION FOR UTILITY PLACEMENT**

- A. If existing soil cannot provide uniform, stable bearing support, over-excavate a minimum of 4 inches below bottom of pipe or structure and provide imported bedding material as directed by the Owner.
1. If unsuitable soil is encountered a price for imported bedding material will be negotiated if not included in bid schedule.
- A. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- B. Until ready to backfill, maintain excavations and prevent loose soil from falling into excavation.
- C. Unauthorized over excavation shall be backfilled with acceptable bedding material at the Contractor's expense.

### **3.06 BEDDING AND FILL AT SPECIFIC LOCATIONS**

- A. Utility Piping and Conduits:

1. Bedding: Use granular fill. Granular pit run material 100% passing 1-inch sieve, 0% to 85% passing #4 sieve and 0% to 10% passing #8 sieve.
2. Cover with general fill.
3. Fill up to subgrade elevation.

### **3.07 TOLERANCES**

- A. Top Surface of General Backfilling: Plus or minus 1 inch from required elevations.
- B. Top Surface of Backfilling Under Paved Areas: Plus or minus 1 inch from required elevations.

### **3.08 REMOVAL OF NUISANCE WATER**

- A. Remove nuisance water entering the trenches.
- B. Nuisance water that can be removed through the use of sump or trash pumps is not considered dewatering.
- C. Keep trenches free from water until waterlines, fittings, valves, sewer lines, manholes and other appurtenances are in place and sealed against the entrance of water.
- D. Prevent all water, earth or any foreign material from entering any facility.
- E. Keep trenches free from water until the facilities are in place, sealed against the entrance of water, and backfill has been placed and compacted above the water level.

### **3.09 LOCATE EXISTING UTILITIES**

- A. Field locate all existing underground utilities.
  1. Utilize state "811" or "one-call" hotlines.
  2. Contact all other utility owners not covered by the state "one-call" hotlines.

### **3.10 UTILITY CONFLICTS**

- A. Protect existing utilities from damage during excavation and backfilling operations.
- B. Provide temporary support for existing water, gas, telephone, power, or other utility services that cross the trench until backfilling of trench is complete
  1. Compact backfill to 90% of Standard Proctor Density under disturbed utilities.
  2. Repair or replace any damaged existing utilities, at no additional cost to the project.
- C. Refer to Section 33 1416 for water and sewer main crossing and parallel installation

### **3.11 MOVING FENCES AND MINOR STRUCTURES**

- A. Remove and reset culverts, drainage pipes or other minor structures that fall within the alignment of the new construction, to their original location and grade.
- B. Visit the project site and determine actual conditions with regard to the existence of old car bodies, abandoned houses, fences, driveways, trees, stumps, brush, sidewalks, approaches, and other miscellaneous obstacles to construction.
  1. Unless specifically referenced in a bid item, no separate payment will be made for the removal or replacement of these items.

### **3.12 FIELD QUALITY CONTROL**

- A. See SDDOT Material Testing Requirements, for general requirements for field inspection and testing.

- B. Evaluate results in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D698 ("standard Proctor").
- C. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- D. Frequency of Tests: Compaction and moisture tests daily during backfilling operations and at a minimum 1 per 200 LF and every 3 feet vertically.

**3.13 CLEANING**

- A. Leave unused materials in a neat, compact stockpile.
- B. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- C. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

**PART 4 MEASUREMENT AND PAYMENT**

- 4.01 TRENCHING SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, OVEREXCAVATION, TRENCH STABILIZATION MATERIAL, WATER, DEWATERING, DRYING OF MATERIAL, HAULING, ETC. INCIDENTAL TO PROJECT**

**END OF SECTION**

## SECTION 31 2323

### FILL

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Filling, backfilling, and compacting for paving.
- B. Backfilling and compacting for utilities outside the building to utility main connections.
- C. Filling holes, pits, and excavations generated as a result of removal (demolition) operations.

##### 1.02 RELATED REQUIREMENTS

- A. Section 01 5713 - Temporary Erosion and Sedimentation Control
- B. Section 31 2200 - Grading
- C. Section 31 2316.13 - Trenching

##### 1.03 DEFINITIONS

- A. Finish Grade Elevations: Indicated on drawings.

##### 1.04 REFERENCE STANDARDS

- A. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)); 2012.
- B. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System); 2011.
- C. ASTM D4318 - Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

##### 1.05 SUBMITTALS

- A. Samples: 10 lb sample of each type of fill; submit in air-tight containers to testing laboratory.
- B. Materials Sources: Submit name of imported materials source.
- C. Fill Composition Test Reports: Results of laboratory tests on proposed and actual materials used.
- D. Compaction Density Test Reports.

##### 1.06 QUALITY ASSURANCE

- A. The Contractor shall employ and pay for services of a qualified independent testing laboratory as approved by the Owner/Engineer for tests that are required for compliance. All tests results shall be submitted to the Owner/Engineer.
- B. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.
- C. Copies of Documents at Project Site: Maintain at the project site a copy of each referenced document that prescribes execution requirements.

##### 1.07 DELIVERY, STORAGE, AND HANDLING

- A. When necessary, store materials on site in advance of need.

- B. When fill materials need to be stored on site, locate stockpiles where designated.
  1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
  2. Prevent contamination.
  3. Protect stockpiles from erosion and deterioration of materials.

**1.08 SOURCE QUALITY CONTROL**

- A. See Section 01 4000 - Quality Requirements, for general requirements for testing and analysis of soil material.
- B. Where fill materials are specified by reference to a specific standard, testing of samples for compliance will be provided before delivery to site.
- C. If tests indicate materials do not meet specified requirements, change material and retest.

**PART 2 PRODUCTS**

**2.01 FILL MATERIALS**

- A. General Fill - Fill Type: Subsoil excavated on-site.
  1. Free of lumps larger than 3 inches, rocks larger than 2 inches, and debris.
- B. Pipe Bedding
  1. Utilize existing excavated, sandy soil that does not contain rocks or hard chunks larger than ½-inch, if available. If material is not available on site, provide sand from an outside source meeting the following gradation:

Sieve Size	Percent Passing
1/2"	100%
No. 4	60%-85%
No. 200	0%-10%

- 2. Pipe bedding shall conform to and be installed per manufacturers requirements.
- C. Crushed Rock
  1. Utilize crushed rock under tanks, distribution boxes, manholes and inlets or where the bottom of trenches or excavations is wet or otherwise unsuitable and cannot support loads or provide adequate pipe support, as determined by the Engineer. Crushed Rock shall conform to the following gradation:

Sieve Size	Percent Passing
1-1/2"	100%
1"	95%-100%
1/2"	25%-60%
No. 4	0%-10%
Fractured Faces	85%

**2.02 WARNING TAPE**

- A. Supply detectable warning tape that is a minimum of 3 inches wide, blue or striped blue.
- B. Printed with "Caution Buried Waterline Below."

## **2.03 INSULATION**

- A. Rigid extruded polystyrene insulation board, 2 inches thick, having a minimum compressive strength of 25 psi. . Dow Chemical Styrofoam or approved equal with a minimum R-value of 4.5 per inch.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that survey bench marks and intended elevations for the Work are as indicated.
- B. Identify required lines, levels, contours, and datum locations.
- C. Verify areas to be filled are not compromised with surface or ground water.
- D. See Section 31 2200 for additional requirements.

### **3.02 PREPARATION**

- A. Scarify and proof roll subgrade surface to a depth of 6 inches to identify soft spots.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.
- C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

### **3.03 REMOVAL OF NUISANCE WATER**

- A. Remove nuisance water entering the trenches.
- B. Nuisance water that can be removed through the use of sump or trash pumps is not considered dewatering.
- C. Keep trenches free from water until waterlines, fittings, valves, sewer lines, manholes and other appurtenances are in place and sealed against the entrance of water.
- D. Prevent all water, earth or any foreign material from entering any facility.
- E. Keep trenches free from water until the facilities are in place, sealed against the entrance of water, and backfill has been placed and compacted above the water level.

### **3.04 INITIAL BACKFILL**

- A. Provide complete and uniform bearing and support for the pipe, including allowance for bell holes, or structure.
- B. Work material under and around the pipe to ensure full pipe support.
- C. Prevent movement of the pipe during placement of material.
- D. Avoid contact between the pipe and mechanical compaction equipment.
- E. Where a trencher is approved, backfill the trench from surface with selected material, free from large clods and all stones larger than 3 inches.
- F. No frozen clods, saturated, foreign, or organic materials will be allowed.
- G. Hand compact in 6-inch lifts from the bottom of the trench to 12 inches above the pipe crown.

### **3.05 BACKFILL & COMPACTION**

- A. All buried material shall be inspected by technical representative prior to backfilling.



- B. Fill up to subgrade elevations unless otherwise indicated.
- C. Employ a placement method that does not disturb or damage other work.
- D. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- E. Maintain optimum moisture content of fill materials to attain required compaction density.
  1. Backfill remainder of excavation with native material, free from large clods, stones 8 inches or larger, organic material or frost chunks.
  2. All backfill shall be compacted in the specified lifts utilizing mechanical equipment designed for compaction. Compaction methods utilizing mechanical equipment not designed for compaction will not be approved.
  3. All methods of compaction shall be approved prior to construction.
  4. Compact in 6-inch lifts to a density not less than the density of the surrounding undisturbed soil or not less than 90% of the maximum dry density, determined by ASTM D698.
  5. In cases where the Contractor performs unacceptable methods of compaction, the work on the project will cease until an acceptable method of compaction has been approved. The Owner has the right to delay work until soil samples along the project alignment are taken for the purpose of developing a proctor for testing the compaction of the soil backfilled in the trench.
  6. Compact with mechanical tamper, after initial backfill, to a density not less than 95% of the maximum dry density, determined by ASTM D698 for the entire depth of the trench through a roadway or driveway.
  7. Backfill and compact around manholes, valve boxes, and other appurtenances in 6-inch lifts.
    - a. Compact with a mechanical tamper to a density not less than 90% of the maximum dry density, determined by ASTM D698.
  8. Backfill around septic tanks in 12-inch lifts.
    - a. Compact in a manner that will not produce undue strain on the tank.
  9. Repair any trenches improperly backfilled or where settlement occurs, then refill and compact.
  10. Restore surface to the required grade and compaction. Conform to Section 31 2200 for rough grading, finish grading and site surface drainage.
  11. Remove and dispose of all surplus backfill materials to a location approved by the Owner.

### **3.06 WARNING TAPE INSTALLATION**

- A. Install warning tape over water, sewer or force mains and service lines in trench 2 feet below finished grade.

### **3.07 FROST PROTECTION**

- A. Place insulation in areas where water main, sewer service lines or water service lines cross a road, driveway, traveled path, or as indicated on the plans.
- B. Center insulation over pipe or appurtenance with 1 foot of compacted fill between the pipe and the insulation.
- C. Grade fill so insulation lays flat.

- D. Insulate with a minimum of one 2 inch layer of polystyrene.
  - 1. If a minimum bury depth is specified, install one 2 inch thick layer for each foot of backfill less than the required minimum bury depth.
- E. Install 3 foot wide for pipes up to 6 inches in diameter and 4 feet wide for pipes up to 12 inches in diameter.
- F. Extend insulation a minimum of 5 feet on each side of the road crossing.
- G. Lap insulation by 6 inches or stagger by 6 inches if composed of two layers.
- H. Minimum thickness for the first lift of backfill over the insulation is 8 inches.
  - 1. Do not operate construction equipment directly on insulation. Do not compact first lift with backhoe-mounted compactor or any other large compaction equipment.
  - 2. Compact remaining backfill using normal construction practices.

### **3.08 FIELD QUALITY CONTROL**

- A. See Section 01 4000 - Quality Requirements, for general requirements for field inspection and testing.
- B. Evaluate results in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D698 ("standard Proctor").
- C. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- D. Frequency of Tests:
  - 1. In accordance with SDDOT specifications.

### **3.09 CLEANING**

- A. Leave unused materials in a neat, compact stockpile. Grade stockpile area to prevent standing surface water.
- B. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

### **3.10 RECORD DRAWINGS**

- A. Conform to as-built requirements in Section 01 7000.

## **PART 4 MEASUREMENT AND PAYMENT**

- 4.01 FILL SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, WATER, DEWATERING, DRYING OF MATERIAL, HAULING, ETC. INCIDENTAL TO PROJECT**

**END OF SECTION**

**SECTION 33 0110.58**  
**DISINFECTING OF WATER UTILITY DISTRIBUTION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Disinfection of site domestic water lines and service lines.

**1.02 RELATED REQUIREMENTS**

- A. Section 33 1416 – Underground Water Distribution Pipe and Fittings.
- B. Section 33 1417- Water Service Lines

**1.03 REFERENCE STANDARDS**

- A. AWWA B300 - Hypochlorites; American Water Works Association; 2011 (ANSI/AWWA B300).
- B. AWWA C651 - Disinfecting Water Mains; American Water Works Association; 2005 (ANSI/AWWA C651).

**1.04 SUBMITTALS**

- A. See Section 01 3300 for submittal procedures.
- B. Test Reports: Indicate results comparative to specified requirements.
- C. Disinfection report:
  - 1. Type and form of disinfectant used.
  - 2. Date and time of disinfectant injection start and time of completion.
  - 3. Test locations.
  - 4. Initial and 24 hour disinfectant residuals (quantity in treated water) in ppm for each outlet tested.
  - 5. Date and time of flushing start and completion.
  - 6. Disinfectant residual after flushing in ppm for each outlet tested.
- D. Bacteriological report:
  - 1. Date issued, project name, and testing laboratory name, address, and telephone number.
  - 2. Time and date of water sample collection.
  - 3. Name of person collecting samples.
  - 4. Test locations.
  - 5. Initial and 24 hour disinfectant residuals in ppm for each outlet tested.
  - 6. Coliform bacteria test results for each outlet tested.
  - 7. Certification that water conforms, or fails to conform, to bacterial standards of US EPA.

**1.05 QUALITY ASSURANCE**

- A. Testing Firm: Company specializing in testing potable water systems, certified by governing authorities of the State in which the Project is located.

## **PART 2 PRODUCTS**

### **2.01 DISINFECTION CHEMICALS**

- A. Chemicals: AWWA B300, Hypochlorite.
- B. After disinfection, the water lines must be flushed and the disinfected lines must be sampled. Two consecutive samples of water from the end of the disinfected line must be collected at least 16 hours apart. These samples must be submitted to the State Health Laboratory in Pierre, or other laboratory acceptable to the department. The samples must be free of coliform bacteria before the system is placed into service. When flushing the line, the water used for disinfecting the water line must not reach a stream, river, or other waterway if chlorine is detected in the water.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that piping system and water well has been cleaned, inspected, and pressure tested.
- B. Schedule disinfecting activity to coordinate with start-up, testing, adjusting and balancing, demonstration procedures, including related systems.

### **3.02 DISINFECTION**

- A. Use method prescribed by the applicable state or local codes, or health authority or water purveyor having jurisdiction, or in the absence of any of these follow AWWA C651.
- B. Provide and attach equipment required to perform the work.
- C. Inject treatment disinfectant into piping system.
- D. Maintain disinfectant in system for 24 hours.
- E. Flush, circulate, and clean until required cleanliness is achieved; use municipal domestic water.
- F. Replace permanent system devices removed for disinfection.

### **3.03 FIELD QUALITY CONTROL**

- A. Perform field inspection and testing in accordance with Section 01 4000.
- B. Test samples in accordance with AWWA C651.

## **PART 4 MEASUREMENT AND PAYMENT**

### **4.01 DISINFECTING OF WATER UTILITY DISTRIBUTION SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, HAULING, ETC. INCIDENTAL TO PROJECT**

**END OF SECTION**

**SECTION 33 1416**  
**UNDERGROUND WATER DISTRIBUTION PIPE AND FITTINGS**

**PART 1        GENERAL**

**1.01    SECTION INCLUDES**

- A.     Water Main piping, fittings, accessories, and bedding.

**1.02    REFERENCES**

- A.     Handbook of PVC Pipe – Design and Construction.
- B.     ASTM D-1784 – Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (C PVC) Compounds.
- C.     ASTM D-2152 – Test Method for degree of fusion of extruded poly (Vinyl Chloride) (PVC) Pipe.
- D.     ASTM D-2241 – Poly (Vinyl Chloride) (PVC) Plastic Pipe (SDR - PR).
- E.     ASTM D-2412 – External Loading Properties of Plastic Pipe by Parallel - Plate loading.
- F.     ASTM D-2672 – Bell-End Poly (Vinyl Chloride) (PVC) Pipe.
- G.     ASTM D-2779 – Underground Installation of Thermoplastic Pressure Piping.
- H.     ASTM D-2774 – Standard Practice for Underground Installation of Thermoplastic Pressure Piping.
- I.     ASTM D-3139 – Joints for plastic pressure pipes using flexible Elastomeric Seals.
- J.     ASTM F477 – Rubber Gaskets for PVC pipe.
- K.     ANSI/AWWA C110/A21.1 – Ductile Iron and Gray Iron Fittings.
- L.     ANSI/AWWA C111/21.11 – Rubber Gasket joints for ductile iron and gray iron pressure pipe and fittings.
- M.     AWWA C900 – American Water Works Association Standard for Polyvinyl Chloride (PVC) Water Pipe.
- N.     ANSI/AWWA C151/21.51 – Ductile Iron Pipe.
- O.     AWWA C110/111 – Ductile Iron Fittings/Joints
- P.     ANSI/NSF – All products (treatment chemicals and materials) that may come in contact with water intended for use in a public water system shall meet American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standards 60 and 61, as appropriate. A product will be considered as meeting these standards if so certified by NSF, the Underwriter's Laboratories, or other organizations accredited by ANSI to test and certify such products.

**1.03    SYSTEM DESCRIPTION**

- A.     Pipe, fittings and accessories are specifically manufactured and constructed to make a water distribution system used to convey potable water from the source to individual points of use. Distribution piping includes all piping.

**1.04    PERFORMANCE REQUIREMENTS**

- A.     Pipe and fittings must be able to withstand intermittent surges at least two (2) times the rated pressure of the pipe without any leaks.

**1.05    SUBMITTALS**

- A.     Provide submittals for all products to be used.

## **1.06 QUALITY CONTROL**

- A. Identify all pipe on the exterior with applicable ASTM Standards, name of manufacturer and pressure rating with permanent marking.
- B. Stamp the name of the Manufacturer and the pressure rating on the exterior of all fittings and accessories.
- C. Tag or otherwise certify that any component that is not stamped or marked meets the specifications.

## **1.07 DELIVERY, STORAGE AND HANDLING**

- A. Deliver, store and handle all pipe, fittings and accessories in accordance with manufacturer's specifications and with all labels in place.
- B. Store all materials in a protected area.

## **1.08 ENVIRONMENTAL REQUIREMENTS**

- A. Do not flush high concentrations of disinfectant into the environment.
- B. Properly dispose of all containers for such things as pipe joint lubricants.
- C. Do not bury disposable solid waste in pipe trench.

## **PART 2 PRODUCTS**

### **2.01 GENEAL**

- A. All water distribution piping shall be gasketed, capable of pressures of 235 psi and all pipe 4" thru 8" for this project shall be of the same material unless specifically called for on the plans. Diameters shown on plans are minimum inside diameter required.

### **2.02 PVC PIPE OR EQUAL**

- A. Polyvinylchloride (PVC) specified or equal shall be gasketed bell and spigot of a quality equal to that manufactured by CertainTeed vinyl iron pipe or approved equal. The PVC pipe shall meet the requirements of AWWA C900 "standard for polyvinyl chloride (PVC) pressure pipe", 4-inch through 12-inch and AWWA C905 for 14-inch and 16-inch for water. The pipe shall be furnished in cast iron pipe equivalent outside diameters with rubber gasketed joints.
- B. AWWA C900 PVC Pipe must have a DR 18 (235 psi pressure class) rating unless otherwise specified and be approved by the National Sanitation Foundation (NSF) for potable water service under criteria C-14. Pipe must also be listed by Underwriters Laboratory Inc. (U/L) and be Factory Mutual (FM) approved unless otherwise specified.
- C. Restrained joint PVC shall be manufactured from Type 1, Grade 1,200-psi hydrostatic design stress high impact material. All couplings and fittings shall be specifically manufactured for restrained joint connections. Pipe must have a DR 18 rating unless otherwise specified.
- D. Tracer Wire: Tracer wire shall be installed on PVC mains and services. Tracer wire shall be installed at appropriate depth and shall be detectable at that depth. Tracer wire shall be three inches wide, magnetic detectable, with plastic covering and with "Water Line" printed on it in large letters. Considered incidental to water distribution and service cost.

### **2.03 FITTINGS**

- A. Ductile iron with a pressure rating of no less than 350 psi when tested in accordance with AWWA standards. All fittings used shall be specifically designed for the outside diameter (OD) of the pipe. Fittings shall with push-on gasketed type. Interior: All fittings for watermain shall be lined ductile iron class 350 meeting ASTM A-536 as manufactured by Tyler Pipe or Trinity Valley or equal and shall conform to the listed revision of ANSI/AWWA C153/A21.53 and ANSI/AWWA C104/A21.4.

**2.04 SLEEVES:**

- A. Specifically manufactured for the type, class and diameter of pipe on which it will be used. Utilize PVC, stainless steel, metal sleeves or equal coated with a protective coating approved for use on potable water systems.

**2.05 BOLTS, NUTS AND WASHERS**

- A. Bolt's nuts and washers shall be stainless steel Series 304 grade or equal. CoreTen bolts are not acceptable for buried locations.

**2.06 BEDDING MATERIAL**

- A. Provide granular material from an outside source, meeting the following gradation:

<u>Sieve Size</u>	<u>Percent Passing</u>
1 inches	100
No. 4	0-85
No. 8	0-10

**2.07 VALVES**

- A. Gate Valves
  1. Furnish iron body, bronze mounted, resilient seat or double disc gate valves with non-rising stems with design, push on joints for PVC pipe, construction and pressure rating meeting AWWA C500 or AWWA C509 requirements, 200 psi minimum, epoxy coated meets or exceeds ANSI/AWWA C550, Mueller, Kennedy, Waterous or equivalent and the following:
    - a. Assure stem seals are double "O" ring seals capable of replacing the seal above the stem collar with the valve under pressure in full open position.
    - b. Furnish gate valves for underground installation equipped with a 2-inch square operating nut for key operation. All valves to open counterclockwise. Valves to be equipped with push-on joints or mechanical joints for pipe connections.

**2.08 VALVE BOXES**

- A. Gate Valve Boxes: Furnish cast iron valve boxes or equal, 5-1/4-inch diameter, adjustable valve boxes with the required base for the valve size used. Assure valve boxes are screw type and of the specified length for the pipe bury. Assure the valve box cast iron cover has an arrow indicating the opening direction and stamped with the word "Water". Shall be Tyler or equivalent.

**2.09 POLYETHYLENE ENCASEMENT**

- A. Furnish polyethylene encasement in accordance with AWWA C105, "Polyethylene Encasement for Fray and Ductile Cast – Iron Pipe for Water and other Liquids". 4-mil cross laminated high density polyethylene.

**2.10 FIRE HYDRANT**

- A. Hydrants: AWWA C502, UL 246, dry barrel type. Mueller A-423, American Darling B84B, American AVK Series 27 or Waterous WB-27 Pacer, traffic model 6 foot bury.
  1. Inside dimension: 6 inches minimum, with minimum 5 1/4 inches diameter valve opening.
  2. Minimum net water area of barrel not less than 190 percent of valve opening.
  3. 6 inch bell or mechanical joint inlet connection with accessories, gland bolts, and gaskets.
  4. All internal and external ferrous surfaces shall be coated.
  5. Barrel and upper standpipe shall be ductile iron with breaker flange and operating stem at ground level. A steel breakaway coupling shall be installed on the operating stem so that in case of breakage, no damage will result to the fire hydrant other than safety breakers.

- B. Hydrant Extensions: Fabricate in multiples of 6 inches with rod and coupling to increase barrel length.
- C. Hose and Streamer Connection: Match sizes with utility company, two hose nozzles, one pumper nozzle.
- D. Finish: Primer and two coats of enamel in color red.

#### **2.11 TAPPING SLEEVES**

- A. Shall be ductile iron or stainless steel, flanged branch ends, with test plugs for pressure testing. The sleeve shall be approved for use at pressures equaling or exceeding those of the pipe classification being installed. Ductile iron tapping sleeves shall be mechanical joint with totally confined end gaskets. Stainless steel tapping sleeves shall have a 304 stainless steel shell with SBR gaskets compounded for water service, a stainless steel flange, and shall have 304 stainless steel nuts, bolts and washers.

#### **2.12 JOINT RESTRAINING DEVICES**

- A. In general, solid ring restraints shall be used whenever possible. For PVC pipe to DI push on fittings use EBAA Series 15PF00 or equal. For PVC pipe to DI MJ fittings use EBAA Series 2000PV, Series 2000SV, Series 15PF00 or equal. For PVC to PVC use EBAA Series 2500 or equal. Protective coating per these specifications.
- B. Joint restraint at pipe bells. PVC C900 use EBAA Series 1600 ore equal. For PVC C905 use EBAA Series 2800 or equal. Contractor to verify required lengths. Protective coating per these specifications.
- C. Thrust blocks shall be 4000 psi concrete per plans. Located at all fittings, hydrants, valves and similar locations.

#### **2.13 COATING AND LINING FOR FITTINGS, INCIDENTAL PIPING AND VALVES**

- A. Coat and line all buried metallic (steel, ductile iron, and cast iron) valves, fittings, miscellaneous piping, and hydrants internally and externally. Supply factory coated valves and fittings with linings and coatings.
  1. Internal linings and coatings exposed to water shall be NSF approved for potable water service.
  2. Minimum surface preparation shall be white metal blast (SSPC SP-5) for internal surfaces and near white blast (SSPC SP-10) or better for external surfaces.
  3. Provide tight bonded coating and lining of pipe and fitting joints at maximum thicknesses shall be as recommended by the pipe or fitting manufacturer and shall not impair engagement of pipe or fitting joint or function of fitting.
  4. All ferrous interior mounting faces/surfaces shall be prepared and shop primed with a suitable rust-inhibitive holding primer applied in accordance with this specification and the coating manufacturer's recommendations. Holding rust-inhibitive primer shall be compatible with specified top coats. Apply per coating manufacturer's recommendations to a thickness that will not impair the clearances required for proper installation of the joint or fitting (valve, coupling, flange, etc.) operation.
- B. Liquid Epoxy:
  1. Provide factory applied liquid epoxy lining and coating in accordance with AWWA C210 and AWWA C550 and these specifications. Epoxy material shall meet the performance requirements of the referenced AWWA standards. Epoxy material shall be the product of a coating manufacturer normally engaged in production of such material and shall be for intended service conditions.
  2. Coating in contact with potable water shall conform to NSF Standard 61.
  3. The liquid epoxy coating shall be a two part chemically cured coating or 100-percent material. Coating shall be mixed and applied per coating manufacturer's directions. Liquid-epoxy lining



of metallic pipe and fittings shall be potable grade epoxy coating approved for potable water contact and this type of intended service.

4. Coating shall be a minimum of two or more coat system with a minimum thickness of 14 MDFT.
  5. Acceptable liquid epoxy materials:
    - a. Carboguard as manufactured by Carboline®
    - b. Bar-Rust 233H as manufactured by ICI Devoe
    - c. SherPlate PW Epoxy B62 as manufactured by Sherwin-Williams
    - d. PotaPox Plus Series N140 or L140 manufactured by Tnemec
    - e. Or approved equal
- C. Fusion-Bonded Epoxy:
1. Provide factory applied fusion-bonded epoxy lining and coating in accordance with AWWA C213, AWWA C116, and AWWA C550, and these specifications.
  2. Coating in contact with potable water shall conform to NSF Standard 61.
  3. The fusion-bonded epoxy coating shall be a 100-percent powder epoxy based thermosetting coating. Coating shall be applied by flocking, fluidized bed, or electrostatic method per coating manufacturer's directions.
  4. Fusion-bonded epoxy coating shall be one or two-coat system with a minimum thickness of 8 MDFT.
  5. Acceptable fusion-bonded epoxy materials are listed below
    - a. Scotchkote 206N, 323 or 162 as manufactured by 3M™
    - b. Nap-Gard® 7-2500 pipe coating or 7-4500 for valves and fittings as manufactured by DuPont
    - c. Valspar 1F1947T as manufactured by Valspar General Industrial
    - d. Or approved equal.
- D. Field repair coating shall be compatible with factory coating and linings and be approved by factory coating manufacturer for repair on their products.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that excavated base is ready to receive work and all excavations, dimensions and elevations are as indicated on the drawings or required to properly install pipe or fittings.
- B. Hand trim excavations to required elevations. Provide proper pipe bedding for pipe and bell configuration.
- C. Remove clay lumps, large stones or other hard matter that could damage pipe or impede consistent backfilling or compaction. Backfill shall not contain debris, frozen material, large clods or stones, organic matter or other unstable material. Stones larger than 3-inches in diameter shall not be placed within 2-feet of the top of the pipe.
- D. Place bedding material at trench bottom, cradling pipe and bell joint.
- E. Level material in continuous layers not exceeding 6 inches compacted depth.

#### **3.02 PIPE INSTALLATION**

- A. Install pipe, fittings and accessories in accordance with Manufacturer's instructions and according to the line and grade shown on the drawings or established by the Engineer in the field.
- B. Clean and inspect each section of pipe and gasket before installation.

- C. If necessary, hand trim excavations to required elevations. Provide proper pipe bedding for pipe and bell configuration.
- D. Remove clay lumps, large stones or other hard matter that could damage pipe or impede consistent backfilling or compaction. Backfill shall not contain debris, frozen material, large clods or stones, organic matter or other unstable material. Stones larger than 3-inches in diameter shall not be placed within 2-feet of the top of the pipe.
- E. Hand compact backfill up both sides of pipe to 12 inches (compacted depth) above top of pipe.
- F. If contractor cuts a section of pipe, ream the cut to a smooth surface before using elsewhere.
- G. Prepare pipe connections according to Manufacturer's recommendations and industry standards.
- H. Maintain separation of water lines from sewer piping as follows:
  - 1. Crossings:
    - a. Water mains crossing sewers shall be laid to provide a minimum vertical distance of 18-inches between the outside of the watermain and the outside of the sewer or wastewater force main. This shall be the case where the watermain is either above or below the sewer with preference to the watermain located above the sewer.
    - b. At crossings, one full length of water pipe shall be located so both joints will be as far from the sewer as possible. Special structural support for the water and sewer pipes may be required.
  - 2. Horizontal Separation - Sewers shall be laid at least 10 feet horizontally from any existing or proposed water main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10-foot separation, the Department may allow deviation on a case-by-case basis, if supported by data from the design engineer. Such deviation may allow installation of a sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on one side of the and at an elevation, so the bottom of the water main is at least 18 inches above the top of the sewer.
  - 3. If it is impossible to obtain proper horizontal separation as described above, both the water main and sewer shall be constructed of slip-on or mechanical joint pipe complying with public water supply design standards of the Department and be pressure tested to 150 psi to assure water tightness before backfilling.
  - 4. Vertical Separation
    - a. Sewers Crossing Under Water Mains – The sewer shall be laid to provide a minimum of 18 inches from the top of the sewer to the bottom of the water main. The crossing shall be arranged so the sewer joints will be equidistant and as far as possible from the water main.
    - b. Sewers Crossing Over Water Mains – Either the water main or the sewer main must be encased in a watertight carrier pipe that extends 10 feet on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be PVC, ABS, or HDPE, and the ends sealed with a rubber gasket or boot.
      - 1) Special Conditions – When it is impossible to obtain the proper horizontal and vertical separation as stipulated above, one of the following methods shall be specified
        - a) Water Pipe – The sewer shall be designed and constructed equal to water pipe and shall be pressure tested at 150 psi prior to backfilling to assure watertightness; or;
        - b) Carrier Pipe – Either the water main or the sewer main may be encased in a watertight carrier pipe that extends 10 feet on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be PVC, ABS, or HDPE, and the ends sealed with a rubber gasket or boot.
  - 5. Storm Sewer Separation

- a. A reinforced concrete pipe (RCP) storm sewer may cross below a water main with a separation of less than 18 inches or at any height above a water main provided the joints on the RCP within 10 feet of either side of the water main are assembled with;
  - 1) Preformed butyl rubber sealant meeting federal specifications #SS-S-210A and AASHTO M 198, each of these joints are encased with a minimum 2-foot wide by 6-inch thick concrete collar centered over the joint and reinforced with the equivalent steel area as that in the RCP. Encasement of the water main will not be required when the RCP joints are collared within the 20-foot section.
  - 2) An O-ring that conforms to ASTM C 443 specifications. O-rings are manufactured for concrete pipe with diameters up to 18 inches.
  - 3) A strip of impermeable material held in place with stainless steel bands and tested to 5 psi prior to the storm sewer being put into use.
- I. Bury water piping with a full 6 feet of earth cover over the pipe.
- J. All existing water mains to be connected to shall be tapped under pressure with a stainless steel tapping sleeve and gate valve. All taps must be made under pressure unless otherwise directed by the water utility maintenance department; contractor to coordinate with the owner of the existing main. Follow any hot tap procedural requirements in place with the owner of the existing main.
- K. Polyethylene encasement: Wrap all direct bury case iron or ductile iron pipe and fittings including hydrants, valve boxes, curb boxes, and all other metal parts and surfaces, in two layers of polyethylene encasement.
- L. Thrust Blocking: Provide thrust blocking at all bends, tees, reducers, blow-offs and other similar locations. Place thrust block concrete against undisturbed earth. Thrust block shall be sized for hydrostatic pressure.

### 3.03 HYDROSTATIC TESTING

- A. Provide a minimum of 48 hours of notice to the Engineer prior to performing hydrostatic testing. Hydrostatically test all pressure pipe in the presence of Engineer at a minimum pressure of 150 psi for a period of no less than 3 hours, with pipe section being tested to maintain pressure within 5 PSI of the specified hydrostatic test pressure. Determine allowable leakage per hour by the following equation:

$$Q = \frac{LD\sqrt{P}}{148,000}$$

Where:

Q= quantity of makeup water, in gallons per hour

L= length of pipe section being tested, in feet

D= nominal diameter of the pipe, in inches

P= average test pressure during the hydrostatic test in pounds per square inch (gauge)

- B. Remove all air prior to beginning of test.
- C. Obtain Engineer's approval of testing equipment. Equipment, as a minimum must consist of a volumetrically calibrated water tank with cover, oil filled pressure gage graduated in feet of water or psi, flexible hoses, leak free valves and gas driven pump with capability to develop 200 psi of discharge pressure.
- D. If leakage is greater than allowable, take action to correct the problem(s) and retest the section until leakage limits are met.
- E. If a new section of pipe is connected to an existing main or to a service connection, take appropriate action to prevent damage to the existing main. This may include temporary capping and blocking and leaving trench open for visual leakage inspection by Engineer.

### **3.04 FLUSHING**

- A. Flush in the presence of Engineer to the approval of Engineer immediately after completion of pressure test. Use a minimum flushing velocity 2.5 ft/sec. If no hydrant is installed at the end of the main, provide a tap of adequate size to produce a velocity of 2.5 ft/sec. in the pipe.
- B. Flush away from existing mains or services.
- C. Water for flushing furnished by the Owner.
- D. Provide temporary piping if required.
- E. Disinfect pipe and appurtenances per AWWA C651.

### **3.05 TOLERANCES**

- A. Lay pipe to the following tolerances in reference to the line and grade staked in the field:
  - 1. Vertical Tolerance: Plus or minus 0.1 feet
  - 2. Horizontal Tolerance: Plus or minus 0.5 feet
  - 3. Separation Tolerance: Minimum of 10 feet outside diameter between potable water and sanitary or storm sewer mains except as specifically approved by the Engineer.
- B. If line and grade is not staked in the field, lay pipe straight and have no more than a 1 degree deflection at any joint

### **3.06 FIELD QUALITY CONTROL**

- A. Contact the Engineer prior to placing any fill material over the pipe.
- B. Double check all pipe, fittings and connections prior to backfilling to make sure they are clean, leak free, and correctly assembled.

### **3.07 PROTECTION**

- A. Protect all pipe installed by maintaining a temporary plug in the end of each section until next section is installed.
- B. Protect pipe and bedding from damage or displacement until initial backfilling operation has been completed.

### **3.08 CLEANUP AND PROJECT CLOSEOUT**

- A. Review project with Owner's representative to make certain all areas have been cleaned up satisfactorily.
- B. Verify that main and related components have been pressure tested, disinfected and flushed.

### **3.09 PROJECT RECORD DOCUMENTS**

- A. Accurately record location of pipe runs, connections, and termination points on "as constructed" plans.
- B. Identify and describe and show approximate location and depth of uncharted utilities discovered during excavation.
- C. Provide disinfection and bacteriological reports as required herein.

## **PART 4 MEASUREMENT AND PAYMENT**

- 4.01** See Specification Section 01 2000 for measurement and payment.

**END OF SECTION**

**SECTION 33 1417**  
**WATER SERVICE LINES**

**PART 1        GENERAL**

**1.01    SUMMARY**

- A.     This section includes the installation of water service lines complete with corporation stops, curb stops, curb boxes, meter pits, freezeless risers, and other appurtenances for water systems.

**1.02    RELATED WORK**

- A.     Section 31 2316.13 –Trenching
- B.     Section 31 2323 - Fill
- C.     Section 33 1416 – Underground Water Distribution Pipe and Fittings
- D.     Section 33 0110.58 - Disinfecting of Water Utility Distribution

**1.03    REFERENCES**

- A.     AWWA C901 – Polyethylene (PE) Pressure Pipe and Tubing, ½ inch through 3 Inch, for Water Service
- B.     ASTM B88 – Standard Specification for Seamless Copper Water Tube
- C.     ASTM D1785 – Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
- D.     ASTM D2239 – Standard Specification for Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter
- E.     ASTM D2241 – Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)
- F.     ASTM D3139 – Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals
- G.     NSF/ANSI 14 – Plastics Piping System Components and Related Materials
- H.     NSF/ANSI 61 – Drinking Water System Components – Health Effects

**1.04    SUBMITTALS**

- A.     See Section 01 3300 for submittal procedures.

**1.05    QUALITY CONTROL**

- A.     Identify all pipe on the exterior with applicable ASTM Standards, name of manufacturer and pressure rating with permanent marking.
- B.     Stamp the name of the Manufacturer and the pressure rating on the exterior of all fittings and accessories.
- C.     Tag or otherwise certify that any component that is not stamped or marked meets the specifications.

**1.06    DELIVERY, STORAGE AND HANDLING**

- A.     Deliver, store and handle all pipe, fittings and accessories in accordance with manufacturer's specifications and with all labels in place.
- B.     Store all materials in a protected area.

## **1.07 ENVIRONMENTAL REQUIREMENTS**

- A. Do not flush high concentrations of disinfectant into the environment.
- B. Properly dispose of all containers for such things as pipe joint lubricants.
- C. Do not bury disposable solid waste in pipe trench.

## **PART 2 PRODUCTS**

### **2.01 WATER SERVICE LINE AND APPURTENANCES**

- A. All water service line piping and appurtenances must meet the requirements of NSF/ANSI-61 and NSF/ANSI-14.

### **2.02 Polyethylene Pipe**

- A. AWWA C901 and ASTM D2239.
- B. IPS size pipe: 200 psi pressure rating.
- C. High density, ultrahigh molecular weight polyethylene pipe compound PE-3408 or PE 4710.
- D. Non-flare fittings: Compression type equal to Ford Pack Joint, C66-44-NL or C66-55-NL, or McDonald MAC-PAK with rigid stainless steel stiffeners.
- E. Pipe equal to Cresline HD 200.

### **2.03 Copper Pipe**

- A.  $\frac{3}{4}$ -inch diameter with minimum wall thickness of 0.045 inches.
- B. Type "K" soft annealed seamless copper tubing suitable for installation in public water systems conforming to ASTM B88
- C. Solder or compression type connections as manufactured by A.Y. McDonald or Ford.

### **2.04 Cross-Linked Polyethylene (PEX)**

- A.  $\frac{3}{4}$ -inch with minimum wall thickness of 0.102 inches.
- B. Conform to ASTM F 876.
- C. Mechanical crimp typed connections.

### **2.05 Saddles.**

- A. Minimum pressure rating of 200 psi.
- B. Buna-N rubber gaskets.
- C. Stainless steel nuts and bolts
- D. Minimum 4 inches wide for 3-inch diameter pipe and 5 inches wide for 4-inch diameter pipe.
- E. PVC ASTM D2241 Pipe: Double bolt stainless steel equal to Romac 202BS, Romac 306, PowerSeal 3450AS or Ford FS313.
- F. PVC C900 Pipe: Stainless steel single bolt saddle clamps equal to Ford FS101, or equal.
- G. Ductile Iron, Asbestos Cement or HDPE Pipe: Double bolt stainless steel band equal to Ford FS202.

## **2.06 Corporation Stops**

- A. No-Lead Brass, meeting NSF-61, with pack joint connection.
- B. Non-flare connections for all pipe types, equal to McDonald MAC-PAK with stainless steel stiffeners or Ford pack joint compression couplings with stainless steel stiffeners.
- C. PE Service line: A.Y. McDonald 74701B-33, Ford FB1001-NL, Mueller H15009N, PowerSeal 3450AS or equal.
- D. PVC Service line: Ford FB 1002-NL, A.Y. McDonald 74701B-44, PowerSeal 3450AS, or equal.

## **2.07 Curb Stops**

- A. No-lead Brass, meeting NSF-61, with pack joint connections.
- B. Non-flare connections for all pipe types.
- C. Minneapolis pattern.
- D. IPS polyethylene service line: Ford B66-444M-NL, A.Y. McDonald 76104 – 33, or equal with stainless steel stiffeners.
- E. IPS polyethylene service line greater than 1-inch diameter: Ford B11-555M-NL or A.Y. McDonald 76104-33 with stainless steel stiffeners.
- F. PVC service line: Ford B77-666M-NL or B77-777M-NL, A.Y. McDonald 76104-44, or equal.

## **2.08 Curb Boxes with Stationary Rod**

- A. Cast iron Minneapolis pattern, length to match bury depth.
- B. Stainless steel stationary rod.
- C. Pentagon plug.
- D. A.Y. McDonald 5614, or equal.
- E. Curb box lids: A.Y. McDonald 5607L or equal.
- F. Supply one pentagon wrench and one combination key equal to A.Y. McDonald Catalog #304B, 36 inches long or equal.

## **2.09 FREEZELESS RISERS AND FITTINGS**

- A. Constructed from only no-lead brass
- B. No galvanized fittings are allowed.
- C. Provided with a swing joint and be equal to True–Temp Positive Purge Model 7PP-DB with copper riser pipe.
- D. Non-thermostatically controlled heat tape equal to Frostex.
- E. Foam insulation with adhesive strip equal to Imcolock.
- F. Supply one 25-foot, 14 gauge heavy duty outdoor extension cord with temperature rating down to -40°F.
- G.  $\frac{3}{4}$  inch Inlet ball valve equal to Ford B11-233D-NL with handle.

## **2.10 METER PIT**

- A. Minimum 15-inch diameter.

- B. All no-lead brass appurtenances.
- C. Included with the pit: meter setter, meter, regulator, inlet angle shut off valve, outlet dual check valve, coiled polybutylene tubing, and pressure regulator if required.
- D. Equal to Mueller Thermal-Coil 203 CT 1584 FSBL.
- E. Depth as required for minimum bury of pipe.
- F. Center Locking lid with 4-inch thick foam insulating pad and corrosion resistant bottom plate.
- G. Installed nylon rope as shown on drawings to aid with removal.

#### **2.11 METER**

- A. 5/8-inch x 3/4-inch with thermoplastic, no-lead brass case and frost proof design.
- B. Read in U.S. gallons equipped with an absolute encoder sealed register.
- C. Capable of producing electronic signal and supplied with remote readout.
- D. Must meet the approval of the local water utility.

#### **2.12 REMOTE METER READOUT**

- A. 25 feet of signal transmitting cable.
- B. 4-inch x 4-inch treated wooden post, 5 feet long.
- C. 3/4 - inch rigid PVC conduit with solvent weld fittings.

#### **2.13 INTERIOR METER ASSEMBLY WITH PRESSURE REGULATOR**

- A. No-Lead brass meter setter equal to Ford WS88-233B-NL.
- B. Inlet ball valve equal to Ford B11-233D-NL with handle and drain.
- C. Double check valve equal to Ford HHC11-333-NL.
- D. Ford Pack Joint C86-33 for 3/4 inch copper or C86-34 for 1 inch PE water service, or equal.

#### **2.14 INTERIOR METER ASSEMBLY**

- A. No-Lead brass meter setter equal to Ford PB-2 Plumbhorn.
- B. 3/4 inch Inlet ball valve equal to Ford B11-233D-NL with handle.
- C. Double check valve equal to Ford HHC11-333-NL.
- D. Ford Pack Joint C86-33 for 3/4 inch copper or C86-34-NL for 1 inch PE water service, or equal.

#### **2.15 PRESSURE REGULATOR**

- A. Utilize a 3/4-inch pressure reducing valve with outlet pressure of 60 psi.
- B. Adaptable to 5/8-inchx3/4-inch meter setters.
- C. No-Lead construction with stainless steel seat, adjustment and cage screws as well as an integral strainer screen.
- D. Equal to Watts LFU5B-Z3 for in home installations and Watts LF5M3-Z6 for 15-inch Meter pit installation.



## **2.16 PIPE HANGERS**

- A. Made of a material compatible with piping material.
- B. Sufficient strength to support the pipe at full capacity.
- C. Will not affect pipe integrity by abrading, cutting or bending of pipe.

## **2.17 ACCESSORIES**

- A. Pentagon Wrenches.
  - 1. One shut off key for curb stop used with air release pit.
  - 2. Equal to A.Y. McDonald 304K2.
- B. Combination keys.
  - 1. 36 inches long and suitable for the curb stop.
  - 2. Equal to A.Y. McDonald 304B.

## **PART 3 EXECUTION**

### **3.01 WATER SERVICE LINE AND APPURTENANCES**

- A. Install water service line of the size and material indicated on the Bid Schedule.
- B. Install at the locations shown on the plans.
- C. Provide sufficient slack in the water service line to prevent pulling joints apart and to allow for contraction due to temperature changes.
- D. Refer to Section 31 2316.13 for excavation, trenching.
- E. Refer to Section 31 2323 for backfilling, compaction, and insulation requirements.
- F. Refer to Section 33 1416 for separation requirements.
- G. Install service line:
  - 1. From the main to a location into or near each home.
    - a. Connect to the homes existing water stub out if provided outside the home.
    - b. If sleeve provided, run water line through the sleeve and leave a minimum of 12-inches of piping in the home. Seal space between piping and sleeve to prevent groundwater from entering the home.
    - c. If no stub-out is provided, cap service line and mark with steel post.
    - d. For connecting beneath the home, install pipe hangers at a maximum spacing of 6 feet apart for all horizontal copper tubing and 2 feet apart for all horizontal PE pipe inside the home.
  - 2. Bury line consistent with water main depth. Insulate where installed above recommended frost line.
  - 3. Install warning tape 2 feet below finished grade
  - 4. Use compression couplings for all connections.
  - 5. Use stainless steel insert stiffeners for compression connections to PE pipe.
  - 6. No splices or joints are allowed from the point of connection to the main to a point 10 feet beyond any sewer line crossing.

- H. Install saddle at each corporation stop tapping location.
  - 1. Connections shall be live tapped through the corporation stop with an approved tapping machine, unless specified below.
  - 2. Dry taps are allowed only during new water main installation, before main disinfection.
  - 3. For connections to mains smaller than 3 inch diameter, use saddle with ¾ inch tap and transition for 1 inch diameter water service line.
- I. Curb stops and boxes with stationary rod.
  - 1. Set curb stops on a solid concrete block 4 inches thick by 8 inches wide by 16 inches long placed on undisturbed earth.
  - 2. Install stationary rod on curb stop and secure with stainless steel hardware.
  - 3. Set the top of curb boxes flush with finished grade elevation.
  - 4. Support curb box during the backfilling operation to prevent movement and maintain a vertical position.
  - 5. Provide one curb wrench and one pentagon key.
- J. Install water meter assemblies as shown on the standard details and in accordance with manufacturer's recommendations.

### **3.02 WATER METER PIT INSTALLATION**

- A. Install meter pit in the location designated on the plans or as instructed by the Owner in accordance with manufacturers recommendations.
- B. Level meter pit on three (3) 4"x8"x2" concrete blocks.
- C. Install remote readout as shown in the detail drawing.
- D. Connect remote readout with wires from meter in a rigid 3/4-inch Sch. 80 PVC conduit.
  - 1. Install conduit for the full depth of the meter pit as indicated in the detail drawings.
  - 2. Seal top of conduit and protect wire between the conduit and remote register.

### **3.03 UTILITY CONFLICTS**

- A. Refer to Section 33 1416.

### **3.04 FREEZELESS RISERS**

- A. Install freezeless risers below each mobile home and other homes where required, at the locations established by the Project Engineer.
- B. Install directly below the point of connection to the house plumbing whenever possible.
- C. Set risers vertical except for freezeless riser containing a rigid heating element.
  - 1. Set on two 4x8x8-inch concrete blocks.
  - 2. Set risers at an angle that will allow for the removal of the interior components of the riser without moving or excavating the freezeless riser.
- D. Install copper or PEX tubing from the riser to the house plumbing.
- E. Install elbows or make long radius bends at 90-degree bends.
- F. Kinks in the tubing are not allowed.

- G. Solder copper joints with lead free solder.
- H. Install heat tape and continuous foam insulation on all exposed tubing beneath mobile homes or within a crawl space.
- I. Install ball valve between the freezeless riser and the home connection.

### **3.05 TESTING**

- A. Turn on each corporation stop and apply main pressure to the service line in the presence of the IHS representative before backfilling.
  - 1. Option: If a new water main is pressure tested, test the water service lines at the same time and pressure as the water main.
- B. Repair all visible leaks and retest the line until test is successfully completed at no cost to the contract.

### **3.06 DISINFECTION**

- A. If water service facilities are installed and connected to newly installed water main, disinfect the service line at the same time as the water main.
- B. Refer to Section 33 0110.58 for water main disinfections procedures if water main is depressurized.
- C. If water service facilities are connected to an existing water main by live tap:
  - 1. Disinfect the new water service facilities prior to connecting to the corporation stop and the home. Near the home, at a location approved by the project engineer, the water service line will be extended to the surface and capped with a lead free brass ball valve.
  - 2. Introduce sufficient chlorine solution into the corporation stop end to the water service line to produce a minimum chlorine residual of 200 ppm when filled.
  - 3. After connection to corporation stop and pressurizing, flush the service line at the ball valve after three hours.
  - 4. After service line is sufficiently flushed, obtain a water sample for bacteriological testing. Repeat process until a negative bacteriological report is received.
  - 5. Connect the water service line to the home upon receiving a negative bacteriological report.
- D. Flushing chlorinated water in accordance with AWWA C651.
  - 1. Waste flushed disinfection water in an environmentally safe manner. The method used is subject to the approval of the Owner.
- E. No additional payment will be made for any equipment, material, testing or labor required to disinfect the service line. Include all costs associated with disinfection in the contract bid prices for water service lines.

### **3.07 AS-BUILTS**

- A. Provide as-built information on each system in accordance with Section 01 7000. Use standard forms, if supplied.

## **PART 4 MEASUREMENT AND PAYMENT**

- 4.01** See Specification Section 01 2000 for measurement and payment.

**END OF SECTION**

**SECTION 33 1925  
METER VAULT**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. The meter vault shall include all necessary valves, piping, and meter for a complete and operable system as specified and shown in the Contract Documents.

**1.02 REFERENCES**

ANSI B16.42	Pipe Flanges and Flanged Fittings, Ductile Iron.
ANSI B16.5	Pipe Flanges and Flanged Fittings, Steel Nickel Alloy and other Special Alloys.
ANSI/ASME B1.20.1	General Purpose Pipe Threads (Inches)
AWWA C110	Ductile Iron Fittings
AWWA C151	Ductile Iron Pipe
AWWA C153	Ductile Iron Compact Fittings
AWWA C500	Gate Valves
AWWA C509	Gate Valves
AWWA C651	Disinfecting Water Mains
NEMA ICS 6	Industrial Control and Systems: Enclosures
NFPA 70	Current National Electric Code

**1.03 CONTRACTOR SUBMITTALS**

- A. The information listed below shall be submitted to the Engineer for review in accordance with Section 01 3300 of the Contract Documents. The submittal shall, as a minimum, include the following data drawings and other descriptive materials.
1. Shop drawings indicating the rim elevation, pipe invert elevations, bottom of structure elevation.
  2. Pipe support location and manufacturer information.
  3. Product data sheets and operation manual for all meter vault components.

**1.04 INFORMATION TO BE PROVIDED**

- A. O & M manual information in accordance with manufacturer's requirements. The Contractor shall supply three (3) copies of the manual to the Owner.

**1.05 WARRANTY**

- A. The Contractor shall warrant the meter vault to be of quality construction, free from defects in material and factory workmanship. The meter vault and cover shall be warranted for a period of one (1) year to be free from defects, corrosion, or physical failures occurring in normal service, when installed in accordance with the manufacturer's recommendations.
- B. The interior equipment, valves, piping, meter and apparatus shall be warranted for a period of one (1) year, excepting only those items normally consumed in service, such as gaskets, or O-rings. The Contractor shall be solely responsible for the meter vault and all related components; warranties and guarantees by the suppliers of various components will not be accepted.
- C. Major components, which fail to perform as specified by the Engineer or prove defective in service during the warranty period, shall be replaced, repaired, or satisfactorily modified by the Contractor without cost of parts or labor to the Owner.

## **PART 2 PRODUCTS**

### **2.01 METER VAULT STRUCTURE**

- A. The meter vault shall be constructed of precast concrete, meeting the requirements of ASTM C858.
- B. If the meter vault is located within a roadway, the vault shall be constructed to meet the wheel load rating of AASHTO H-20.
- C. All pipe protrusions into the vault shall be sealed with link seal and non-shrink grout.
- D. Vault steps shall be non-corrosive type, 12 inches in width, of ½ inch steel rod encased with polypropylene. Assure steps withstand 400-pound vertical loads and 1,000-pound pull-out resistance. The maximum spacing of steps is 16 inches with 10 inches as the maximum distance from the top of the manhole section to the first step.

### **2.02 PIPING**

- A. All piping associated with the installation of the meter vault shall be CL 52 ductile iron. Piping shall be flanged pipe within the vault. The piping sizes are indicated in the Contract Documents.

### **2.03 CHECK VALVES:**

- A. Manufacturer:
  - 1. Flomatic
  - 2. Mueller
  - 3. Val-Matic
  - 4. DeZurick
  - 5. Or Approved Equal
- B. Type of Valve: swing check valve with adjustable weight and lever meeting ANSI/AWWA C508. Working pressure of 250 psi.
- C. Valve shall include a removable cover for removal of internal working parts without removal of valve from process line.
- D. Full flow body equal to nominal pipe diameter area at all points, flanged, ASME/ANSI B16.1, Class 250.
- E. Design:
  - 1. Body and Cover: Ductile Iron.
  - 2. Disc: Resilient seated Buna-N (NBR).
  - 3. Interior and Exterior coating shall be fusion bonded epoxy.
  - 4. Exterior Hardware: Stainless steel bolts, nuts, and washers.

### **2.04 PIPE FITTINGS**

- A. All pipe fittings shall meet AWWA C153 Standards. The fittings shall have flanged ends meeting the requirements of ASME/ANSI B16.1 Class 125.

### **2.05 DISMANTLING JOINT**

- A. Contractor shall supply a Romac DJ400 or approved equal.

- B. Flange Spool (3-12 inch): compatible with ANSI Class 125 and 150 bolt circles. Pipe is STD Weight Class per ASTM A53.
- C. End Ring and Body (3-12 inch): The end ring and body are made from ASTM A536 65-45-12 Ductile Iron.
- D. Gaskets: NBR Gaskets in accordance with ASTM D 2000.
- E. Bolts and Nuts: ASTM A588 HSLA bolt material. Stainless Steel, Types 304.
- F. Tie-Rods: High tensile steel per ASTM A193 grade B7. Stainless steel, type 304.
- G. Coatings: Fusion bonded epoxy.
- H. Pressure (3-12 inch): Working pressures up to the maximum rating of the flange.

## **2.06 PIPE STANCHIONS AND SUPPORTS**

- A. Contractor shall supply and install pipe stanchions and supports at all fittings, valves, and other locations necessary to vertically support the pipe and fittings.
- B. Stanchions shall be ANVIL International Figure 63, Type P Hot-Dip Galvanized stanchions or approved equal.
- C. Pipe supports shall be ANVIL International Figure 258, Hot-Dip Galvanized or approved equal.
- D. Pipe support and stanchion sizes are indicated in the Contract Documents.

## **2.07 MAGNETIC FLOW METER**

- A. Approved Manufacturers
  - 1. Rosemount Model M2000
  - 2. Approved Equal
- B. General Specifications:
  - 1. Low frequency electromagnetic induction type.
  - 2. Produces a pulsed DC signal directly proportional to and linear with the liquid flow rate.
- C. Performance:
  - 1. Accuracy: Magnetic flow meters installed shall achieve a standards system accuracy of +/- 0.4% if rate for all flow rates greater than 1.9 feet per second.
  - 2. Repeatability: +/- 0.1 %
- D. Metering tube:
  - 1. Constructed of 304 stainless steel.
  - 2. Mount directly in the pipe between ANSI Class 250 flanges.
  - 3. Interior: Polyurethane liner.
  - 4. Provide with electrodes made of 316 SS.
  - 5. Housing: Carbon Steel
  - 6. Grounding Rings and accessories.
- E. Transmitter:

1. Power: 10-36V DC, 50-60 Hz
  2. Meter housing: NEMA 4X, epoxy coated.
  3. Display: 4x20 Character display with backlight.
  4. Bi-directional flow: Forward and reverse flow indication.
- F. Contractor shall supply certifications that the meter has been pressure tested prior to installation, and certification that it meets NSF 61 approval.

## **2.08 ALUMINUM ACCESS HATCHES**

- A. Hatch shall be a single leaf access frames and covers as manufactured by Halliday Products, Inc., or approved equal.
- B. Hatches shall have a 1/4 inch (7mm) thick, one-piece, mill finish, extruded aluminum frame, incorporating a continuous concrete anchor.
- C. The inside of the frame shall have a door-support ledge on two (2) sides. Both frame and ledge must be supported by a full bed of concrete.
- D. The door panels shall be 1/4" (7mm) aluminum diamond plate, reinforced to withstand a live load of the H-20, Uniform live load.
- E. Doors shall open to 90 degrees and automatically lock with a T-316 stainless steel hold open arms with release handles. Door shall incorporate enclosed stainless-steel compression spring assists.
- F. Door shall close flush with the frame. Hinges and all fastening hardware shall be T-316 stainless steel.
- G. Unit shall lock with a T-316 stainless steel slam lock with removable keys and have a non-corrosive handle.
- H. Protective grating panel shall be 3 inch (76mm) aluminum "I" bar grating with Safety Orange powder-coated finish. Grating shall be hinged with tamper proof stainless steel bolts, and shall be supplied with a positive latch to maintain unit in an upright position. Grating shall have a 6-in. (152mm) viewing area on each lateral unhinged side for visual observation and limited maintenance.

## **PART 3 EXECUTION**

### **3.01 GENERAL**

- A. This work includes all excavation, backfill, installation of the meter vault, installation of all meter vault components.
- B. The Contractor will be responsible for connecting power to all instrumentation. The Contractor shall also coordinate with power supplier to have the meter and all electrical service provided.

### **3.02 METER VAULT INSTALLATION**

- A. The Contractor shall excavate area for vault in accordance with the specifications.
- B. If groundwater is present, Contractor shall remove all water in the trench during pipe laying and vault placement and maintain a dry trench until the pipe ends are sealed and the vault is sealed. Do not permit the pipe or vault to float. Do not allow any groundwater to enter the pipe or vault.
- C. If groundwater is present, Contractor shall provide buoyancy calculations to the Engineer and Owner that prove the vault will not float in groundwater conditions.

- D. If groundwater is present or if groundwater is seasonally within 3' of the bottom of the vault, the Contractor shall coat the outside of the vault with Bituminous coating.
- E. The Contractor shall connect to the existing water main with appropriately sized ductile iron sleeves and restrained mechanical joints.
- F. All water main piping installation shall meet the requirements of the specification in Section 33 1416.
- G. Contractor shall backfill above the pipe bedding with native material.
- H. Contractor shall restore landscaping with landscaping fabric and salvaged rip rap.

### **3.03 INSTALLATION OF ELECTRICAL COMPONENTS**

- A. The Contractor shall install all electrical components per the Manufacturers recommendation.
- B. All electrical wiring shall be housed in electrical conduit. All electrical wiring shall be labeled.
- C. All wiring sizing shall meet the electrical components Manufacturer's Recommendation.
- D. All wiring and electrical work shall meet all NEC requirements.

### **3.04 METER VAULT START-UP**

- A. The PRV station shall be tested after installation. Testing will be conducted by the Contractor and if necessary the manufacturer's representative and will consist of simulating flow demand requirements by operating a fire hydrant in the system. Normal sequencing of PRVs shall be simulated.

## **PART 4 MEASUREMENT AND PAYMENT**

- 4.01 See Section 01 2000 for information on measurement and payment.

**END OF SECTION**



## SECTION 02530 – SANITARY SEWER

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This section includes the construction of sanitary sewer mains, sewer main cleanouts, sewer line testing, and connection to existing sewage collection systems.

#### 1.2 RELATED WORK

- A. Section 01720 – Staking and Construction Surveying
- B. Section 02315 – Excavation, Trenching and Backfill
- C. Section 02531 – Sanitary Sewer Service Lines
- D. Section 02532 – Sanitary Sewer Manholes
- E. Section 02705 – Road Restoration
- F. Section 02920 – Topsoiling, Seeding, Fertilizing, and Mulching

#### 1.3 REFERENCES

- A. ANSI/AWWA C110 / A21.10 – Ductile-Iron and Gray-Iron Fittings, 3 Inch Through 48 Inch, for Water and Other Liquids
- B. ANSI / AWWA C111 / A21.11 – Rubber Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe Fittings
- C. ANSI / AWWA C151 / A21.51 – Ductile Iron Pipe, Centrifugally Cast, for Water or Other Liquids
- D. ASTM D2239 – Polyethylene (PE) Plastic Pipe Based on Controlled Inside Diameter.
- E. ASTM D2321 – Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
- F. ASTM D3034 – Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings
- G. ASTM D3212 – Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
- H. ASTM D3261 – Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing
- I. ASTM D3350 – Polyethylene Plastic Pipe and Fittings Material
- J. ASTM F477 – Elastomeric Seals (Gaskets) for Joining Plastic Pipe

- K. ASTM F1417 – Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air

#### 1.4 SUBMITTALS

- A. Sewer Main Pipe
- B. Ductile Iron Sewer Pipe, Coating and Liner
- C. Frame and Cover for Sewer Main Cleanouts
- D. Sewer Main Cleanout Female Adaptor and Threaded Plug
- E. Sanded Manhole Adaptors

#### 1.5 ACCEPTANCE

- A. The Work will not be accepted until satisfactory pipe installation, backfilling, testing, and cleanup is complete.
- B. If the Work does not meet the specified requirements of this section and related sections, remove, replace, and retest at no additional cost to the Contract.

### **PART 2 - PRODUCTS**

#### 2.1 SEWER PIPE

- A. Polyvinyl Chloride (PVC) Sewer Pipe.
  - 1. Conform to ASTM D3034.
  - 2. Pipe Class: SDR-35 unless otherwise specified on the design drawings.
  - 3. Bell ended joints conforming to ASTM D3212.
  - 4. Elastomeric gaskets conforming to ASTM F477.
  - 5. Each length of pipe shall be clearly marked with the following:
    - a. Manufacturer.
    - b. Nominal Pipe Size.
    - c. The PVC Cell Classification.
    - d. Type PSM PVC Sewer Pipe.
    - e. ASTM Designation.
    - f. Pipe Class.
- B. Ductile Iron Sewer Pipe.
  - 1. Conform to AWWA C151.
  - 2. Pipe Thickness Class: 50 unless otherwise specified on the design drawings.
  - 3. Exterior Coating: asphaltic coating, 1 mil thick, minimum.
  - 4. Rubber gasket, push on joints conforming to ASTM C111.
  - 5. Interior Lining: Calcium aluminate mortar (minimum 125 mils thick) equal to SewperCoat or ceramic epoxy (minimum 40 mils thick) fusion bonded equal to Protecto 401.

6. Each length of pipe shall be clearly marked with the following:
    - a. Manufacturer.
    - b. Nominal Pipe Size.
    - c. ASTM Designation.
    - d. Pipe Class.
- C. Polyethylene Pipe and Fittings
1. Conform to ASTM D2239 and ASTM D3350
  2. Pipe Thickness Class: SDR-11 unless otherwise specified on the design drawings.
  3. Polyethylene Material: Conform to standard PE code designations PE 3408/3608.
  4. Fusion bonded joints and fittings conforming to ASTM D3261.
  5. Each length of pipe shall be clearly marked with the following:
    - a. Manufacturer.
    - b. Nominal Pipe Size.
    - c. Dimension Ratio.
    - d. Pressure Rating.
    - e. AWWA Designation.
    - f. Material Classification.
    - g. Green Striping designating Sanitary Sewers
  6. PVC Manhole Adapter
    - a. Gasketed PVC sleeve.
    - b. Abrasive exterior.
    - c. GPK Sanded manhole adapter or equal
    - d. Grout: Non-Shrink equal to Sikagrout 212.

## 2.2 SEWER APPURTENANCES

- A. Manholes: Refer to Section 02532.
- B. Sewer Main Cleanouts.
1. Riser Pipe:
    - a. Conform to ASTM D3034.
    - b. Pipe Class: SDR-35.
    - c. Elastomeric gasket joints conforming to ASTM D3212.
    - d. Same diameter as main unless otherwise specified.
    - e. Gasketed air-tight plug, same diameter as riser.
  2. Concrete Collar: Refer to Section 03100 for cast-in place concrete requirements.
  3. Frame and Cover:
    - a. Heavy duty slab type.
    - b. Machined bearing surfaces.
    - c. Neoprene gasket seal.
    - d. Lockable with stainless steel bolts.
    - e. Neenah R-6461-CH or approved equal.

4. Sewer Main Cleanout
  - a. PVC Female Adaptor with threaded plug
  - b. SDR-35 PVC riser sleeve.
  - c. Sewer wye with non-structural concrete
- C. Sewer Transition Coupling
  1. Conform to ASTM A536, ASTM D2000 MBA719, and AWWA C111
  2. Stainless steel bolts
  3. Ductile iron end and center ring
  4. Gasket for sewer conforming to ASTM D 2000
  5. Minimum body length of 10 inches
  6. Equal to Romac Industries 501 Straight and Transition Coupling for Sewer

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Verify that dimensions and elevations are as indicated on the plans.
- B. Inspect pipe and fittings for defects.
- C. Remove materials from the site that are defective, damaged, used, unsound, or that otherwise do not meet the specifications.

#### **3.2 UTILITY CONFLICTS**

- A. Refer to Section 02315.

#### **3.3 STAKING FOR LINE AND GRADE**

- A. Refer to Section 01720.

#### **3.4 SEWER MAIN INSTALLATION**

- A. Pipe Installation.
  1. Adhere to the excavation, trenching and backfill requirements of Section 02315.
  2. Install pipe and fittings in accordance with these specifications and the manufacturer's recommendations.
  3. Dewater trench as necessary to prevent the accumulation of groundwater or other unacceptable water in trench.
  4. Lay pipe of the size, material, pressure class and to the line and grade indicated on the drawings.
    - a. Ensure vertical alignment does not deviate more than ½ inch from the design grade as shown on the plans.
    - b. Ensure horizontal alignment does not deviate more than 1 inch from the design as shown on the plans.
  5. Install pipe beginning at the lowest elevation and proceeding to the highest elevation.

6. Point the spigot end in the direction of flow.
  7. Protect pipe interior from soil, trench water and foreign objects.
  8. Temporarily plug the exposed end of pipes whenever the trench is left unattended or when trench conditions necessitate. Open trenches may not be left overnight without approval from the Owner.
  9. Wrap ductile iron pipe with 8 mil polyethylene encasement, according to manufacturer's recommendations.
  10. Water Main Crossing Requirements: Refer to Section 02315.
- B. Connections to Manholes:
1. New: Make connection in conformance with Section 02532.
  2. Existing: See "Connection to Existing Manhole" this Section.
- C. Pipe Cutting
1. When cutting is required do so in a manner approved by pipe manufacturer.
  2. Produce smooth ends at right angles to the axis of pipe.
  3. Bevel pipe to produce a smooth end without sharp edges.
  4. Welding, flame cutting or flame tapping are not allowed.

### 3.5 SEWER MAIN CLEANOUTS

- A. Install sewer wye encased in nonstructural concrete with 24-inch length of gravity main stub, female adaptor and threaded plug.
- B. Install 45 degree long sweep and PVC riser to within 12-inches of finished ground surface.
- C. Place larger PVC diameter sleeve over riser pipe. Mount frame and cover on sleeve and set in 30-inch square by 6-inch thick concrete pad.

### 3.6 CONNECTION TO EXISTING MANHOLE

- A. Core or hammer drill opening in existing manhole wall to the size recommended by the manhole adapter manufacturer.
- B. Grout adapter into opening with non-shrink Grout to accommodate invert elevations shown on the drawings.
- C. Remove existing channel as required and form, re-shape and provide a smooth channel in the manhole floor in conformance with Section 02532.
- D. Fill any existing flow channels and pipe to be abandoned with concrete.

### 3.7 SEWER MAIN TESTING

- A. General.
1. Furnish all materials, labor and equipment to perform the required tests.
  2. Perform all tests in the presence of the Owner or his/her representative.
  3. Repair all sections not passing the tests, at no cost to the contract.
  4. Retest sewer until tests pass the requirements, at no cost to the contract.

B. Alignment.

1. Perform lamping and/or camera after the sewer line has been backfilled.
2. Contractor to provide lamping and camera equipment.
3. Sewer main out of alignment with respect to line or grade, by more than 1 inch or ½ inch, respectively, shall be reinstalled at no expense to the contract.

C. Air Test.

1. All gravity sewers and appurtenances shall successfully pass a low-pressure air test prior to acceptance.
2. Preparation: Clean all sewer pipe before the test.
3. Testing Equipment:
  - a. Plugs: mechanical or pneumatic type. One shall have an inlet tap for adding air to the sewer line.
  - b. Air Compressor.
  - c. Main Shutoff Valve.
  - d. Pressure Relief Valve: 9 psig relief.
  - e. Input Pressure Gauge.
  - f. Continuous Monitoring Pressure Gauge: Minimum divisions of 0.10 psi with an accuracy of +/- 0.04 psi.
4. Testing Procedure: Test according to the Time-Pressure Drop Method outlined in ASTM F1417.
  - a. Plug all pipe outlets with test plugs capable of holding under the test pressures.
  - b. Install plugs and brace as necessary to ensure that the plugs will not blow out when the main is under pressure.
  - c. Inspect sewer main pipe integrity in the area that will not be tested due to the plug, and report any possible defects to the Owner.
  - d. Ensure test apparatus and gauges are accessible to Owner's representative without entry into the manhole.
  - e. Pressurize Pipe:
    - 1) Introduce air slowly until air pressure reaches 4.0 psig greater than any backpressure resulting from groundwater over the pipe, where the pressure equals:
    - 2)  $4.0 \text{ psi} + (0.43 \text{ psi} \times \text{Depth of Groundwater over Pipe Invert in Feet})$ .
    - 3) Never exceed a pressure of 9.0 psig.
  - f. Do not enter manhole once pipe is pressurized.
  - g. Maintain pressure for at least two (2) minutes.
  - h. Disconnect air supply after the initial two (2) minutes have passed.
  - i. Adjust pressure to test pressure.
    - 1) Decrease air pressure to 3.5 psig greater than any pressure resulting from groundwater over the pipe, where the test pressure equals:
    - 2)  $3.5 \text{ psi} + (0.43 \text{ psi} \times \text{Depth of Groundwater over Pipe Invert in Feet})$ .
  - j. Determine elapsed time for the pressure to drop 1.0 psig and use Table 1, or determine the elapsed time for the pressure to drop 0.5 psig from the test pressure and use Table 2.

TABLE 1: Minimum Specified Time Required for a 1.0 psig Pressure Drop

Pipe Dia. (in.)	Min. Time (min:sec)	100 Feet	150 Feet	200 Feet	250 Feet	300 Feet	350 Feet	400 Feet	Time for Longer Pipe Lengths (Seconds)
4	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46	.380*L
6	5:40	5:40	5:40	5:40	5:40	5:40	5:40	5:42	.854*L
8	7:34	7:34	7:34	7:34	7:34	7:36	8:52	10:08	1.520*L
10	9:26	9:26	9:26	9:26	9:53	11:52	13:51	15:49	2.374*L
12	11:20	11:20	11:20	11:24	14:15	17:05	19:56	22:47	3.418*L
15	14:10	14:10	14:10	17:48	22:15	26:42	31:09	35:36	5.342*L
18	17:00	17:00	19:13	25:38	32:03	38:27	44:52	51:16	7.692*L

TABLE 2: Minimum Specified Time Required for a 0.5 psig Pressure Drop

Pipe Dia. (in.)	Min. Time (min:sec)	100 Feet	150 Feet	200 Feet	250 Feet	300 Feet	350 Feet	400 Feet	Time for Longer Pipe Lengths (Seconds)
4	1:53	1:53	1:53	1:53	1:53	1:53	1:53	1:53	.190*L
6	2:50	2:50	2:50	2:50	2:50	2:50	2:50	2:51	.427*L
8	3:47	3:47	3:47	3:47	3:47	3:48	4:26	5:04	.760*L
10	4:43	4:43	4:43	4:43	4:57	5:56	6:55	7:54	1.187*L
12	5:40	5:40	5:40	5:42	7:08	8:33	9:58	11:24	1.709*L
15	7:05	7:05	7:05	8:54	11:08	13:21	15:35	17:48	2.671*L
18	8:30	8:30	9:37	12:49	16:01	19:14	22:26	25:38	3.846*L

- k. The time interval recorded in the field must be greater than the time listed for the length and pipe diameter being tested and for the pressure drop recorded.
  - l. If the pressure drop time is less than that in the appropriate table, for the pipe diameter and the length being tested, the test shall be considered failed.
  - m. No variance in the time allowances shall be granted for the fact that sewer service lines have been installed.
5. Individual service lines need not be tested unless otherwise specified. If Contractor elects to install sewer service line saddles and riser pipes on the sewer main prior to low pressure air testing, it is the Contractors responsibility to ensure that the ends of the sewer service line connection stub out are adequately capped and thrust blocked to conduct the air testing for the entire main.
  6. In lieu of low-pressure air testing of the sewer system, the Owner may approve a hydrostatic exfiltration testing procedure to test the lines.
    - a. Approval of the procedure, equipment and basis of acceptance for this testing method will be sent in writing by the Engineer prior to the initiation of testing.

### END OF SECTION

## **SECTION 02531 – SANITARY SEWER SERVICE LINES**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. This section includes installation of sewer service lines, connection to sewer mains (wyes and saddles), riser pipe, cleanouts, and house sewer connections.

#### **1.2 RELATED WORK**

- A. Section 02315 – Excavation, Trenching and Backfill
- B. Section 02530 – Sanitary Sewer
- C. Section 02540 – Septic Tank Systems
- D. Section 01720 – Staking and Construction Surveying

#### **1.3 REFERENCES**

- A. ASTM D2665 – Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings
- B. ASTM D3034 – Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings
- C. ASTM D3212 – Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
- D. ASTM F477 – Standard Specifications for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
- E. ASTM F1336 – Standard Specification for Poly(Vinyl Chloride) (PVC) Gasketed Sewer Fittings
- F. ASTM D2855 – Standard Practice for Making Solvent-Cemented Joints with Poly(Vinyl Chloride) (PVC) Pipe and Fittings

#### **1.4 SUBMITTALS**

- A. Sewer Service Line Pipe and Fittings
- B. Sewer Wyes and Saddles
- C. Sewer Service Line Cleanout Adaptor and Flush Plug

#### **1.5 ACCEPTANCE**

- A. The work will not be accepted until satisfactory pipe installation, backfilling and cleanup is complete.



- B. If the work does not meet the specified requirements of this section and related sections, remove, and replace at no additional cost to the contract.

## **PART 2 - PRODUCTS**

### **2.1 SEWER SERVICE LINE PIPE AND FITTINGS**

A. Conform to ASTM D3034 as indicated:

1. Pipe Class: SDR 35.
2. Bell ended joints conforming to ASTM D3212.
3. Elastomeric gaskets conforming to ASTM F477.
4. 4-inch nominal diameter unless otherwise indicated.
5. Each length of pipe shall be clearly marked with the following:
  - a. Manufacturer.
  - b. Nominal Pipe Size.
  - c. The PVC Cell Classification.
  - d. Type PSM PVC Sewer Pipe.
  - e. ASTM Designation.
  - f. Pipe Class.

B. Conform to ASTM D2665 as indicated:

1. Pipe Class: Schedule 40
2. Solvent weld joints conforming to ASTM D2855.
3. 4-inch nominal diameter unless otherwise indicated.
4. Each length of pipe shall be clearly marked with the following:
  - a. Manufacturer.
  - b. Nominal Pipe Size.
  - c. The PVC Cell Classification.
  - d. Type PSM PVC Sewer Pipe.
  - e. ASTM Designation.
  - f. Pipe Class.

### **2.2 SEWER WYES**

A. Connection to New Sewers:

1. In-line gasketed fittings conforming to ASTM F1336.

B. Connection to Existing Sewers:

1. PVC Sewer Mains:
  - a. PVC conforming to ASTM D3034 or ASTM D2665.
  - b. Solvent weld skirt with watertight gasket branch.
  - c. Two stainless steel bands and connectors for securing to the main.
  - d. GPK Products of Fargo, ND, or approved equal.
2. Asbestos-Cement, Cast Iron, Concrete, or Vitrified Clay Sewers:
  - a. Sewer saddle with watertight gasket, stainless steel bands and connector for securing to the main.

- b. Equal to Sealtite wye sewer saddle manufactured by General Engineering Company.

## 2.3 CLEANOUTS

### A. Single or Double Cleanout:

1. Schedule 40 PVC DWV pipe and fittings conforming to ASTM D2665.
2. Supply 4-inch slip on cap or threaded female adapter with 4-inch diameter threaded slotted white flush plug with threaded brass insert as manufactured by Sioux Chief or approved equal.

### B. Trailer House Cleanout:

1. Solvent weld Schedule 40 PVC DWV 45 degree wye.
2. Solvent weld female iron pipe threaded adapter with threaded plug.

## 2.4 PIPE HANGERS

- A. Shall be made of a material compatible with piping material.
- B. Shall be of sufficient strength to support the pipe at full capacity.
- C. Shall not affect pipe integrity by abrading, cutting or bending of pipe.

## **PART 3 - EXECUTION**

### 3.1 EXAMINATION

- A. Verify that dimensions and elevations are as indicated on the plans.
- B. Inspect pipe and fittings for defects.
- C. Remove materials from the site that are defective, damaged, used, unsound, or that otherwise do not meet the specifications.

### 3.2 UTILITY CONFLICTS

- A. Refer to Section 02315.

### 3.3 SEWER SERVICE LINE INSTALLATION

#### A. Sewer Wyes and Saddles:

1. Connection to New PVC:
  - a. Furnish and install wyes at the locations indicated by the plans.
  - b. Install a solvent weld cap or a plug and leave in place until service line construction begins.
  - c. Properly reference, record and stake wye locations to permit ready relocation, in accordance with Section 01781.

2. Connection to Existing PVC:
    - a. Install saddle wyes at the locations indicated by the plans.
    - b. Repair damage caused during the tapping process at no additional cost.
  3. Rotate the branch or wye of the saddle no more than 45 degrees from horizontal.
- B. Sewer Service Line Risers:
1. Extend riser from sanitary wye to an elevation that will allow for a service line to be laid at specified grades.
  2. Install riser pipe in the sewer trench.
  3. Install riser pipe approximately vertical.
  4. Encase the bottom of riser, wye and 1/8 bend in crushed rock or sand.
  5. Extend bedding the full width of the trench as excavated and not less than 18 inches in length from either side of the center of the riser.
  6. Place bedding material to a point 12 inches above centerline of the sewer main at the location of the wye.
  7. Install 3/8" diameter rebar staples as shown in detail drawing.
- C. Service Lines:
1. Furnish and install sewer service lines at the locations on the plans.
  2. Connect to the existing home sewer stub out if present underground outside the home.
  3. For connecting beneath the home, place pipe hangers at a maximum distance of 4-feet apart for horizontal PVC pipe.
  4. Cap sewer service, and stake if no connection is made.
  5. Follow general pipe installations requirements of Section 02315.
  6. Minimum slope for sewer service lines is 1/8-inch per foot (1%).
  7. Maximum slope for sewer service lines is 1/2-inch per foot (4 %), unless otherwise specified.
  8. Ninety-degree bends are not allowed between the house and the sewer main.
  9. Connection of new sewer main connection to an existing sewer service line shall be made with a ROMAC series 501 coupler or equivalent.
  10. Connection of Sewer Service Lines to Manholes:
    - a. Connect to manholes only where permitted and approved by the Owner.
    - b. Conform to Section 02532 for channel shape and radius.
- D. Sewer Service Line Cleanouts.
1. Double Cleanouts: Install at the locations indicated on the plans.
  2. Single Cleanouts:
    - a. Install one-way cleanouts at a spacing not to exceed 100 feet.
    - b. Install one-way cleanouts so that the service can be rodded or snaked in the direction of flow.
  3. Construct as shown on the standard details.
  4. Install a 4-inch sewer wye in the sewer service line and connect risers of the same material from the wye to the ground surface.
    - a. Attach a schedule 40 PVC DWV slip-on cap or female adapter to the end of the riser.

b. Install cleanout so cap is flush with finished grade.

E. Trailer House Cleanout

1. Install on vertical drop under trailer and as indicated on drawings.

F. House Sewer Connection:

1. Install sewer service line pipe and fittings to a trailer house, modular home, or frame built home with a crawl space and/or multiple sewer drops coming from the home creating a confined space environment.

3.4 AS-BUILTS

A. Provide as-built information on each system in accordance with Section 01781. Use standard forms (if supplied) by the Owner.

**END OF SECTION**

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
ACKNOWLEDGEMENT AND CERTIFICATION REGARDING  
ARTICLE 3, SECTION 12  
OF THE SOUTH DAKOTA CONSTITUTION**

**AUGUST 24, 2023**

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In accordance with the State of South Dakota Office of the Governor Executive Order 2023-13, the following will apply to all contracts:

The Contractor acknowledges and certifies that the following information is correct:

**CERTIFICATION OF NO STATE LEGISLATOR INTEREST:**

Contractor (i) understands neither a state legislator nor a business in which a state legislator has an ownership interest may be directly or indirectly interested in any contract with the State that was authorized by any law passed during the term for which that legislator was elected, or within one year thereafter, and (ii) has read South Dakota Constitution Article 3, Section 12 and has had the opportunity to seek independent legal advice on the applicability of that provision to this contract. By signing this contract, Contractor hereby certifies that this contract is not made in violation of the South Dakota Constitution Article 3, Section 12.

It is understood and agreed that, if this certification is false, such false certification will constitute grounds for the Department to terminate the contract.

The Contractor further agrees to provide immediate written notice to the Department if during the term of the contract it no longer complies with this certification and agrees such noncompliance may be grounds for contract termination.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
BUY AMERICA**

**MAY 1, 2024**

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**Section 6.9 – Page 46 – Delete and replace with the following:**

**6.9 BUY AMERICA** – Iron & steel, manufactured (composite) products, and construction materials must be produced in the United States in accordance with these Buy America requirements. Buy America preference applies to articles, materials, and supplies required to be consumed in, permanently incorporated into, or affixed to the completed project. Buy America preference does not apply to tools, equipment, and supplies such as temporary works and other temporary items brought to the project and removed at or before the final completion of the project. Temporary items are items that are not part of contract specifications, items that are not required in the design or final working drawings, and items that are removed or could be removed but allowed to remain in place if requested by the Contractor and approved by the Engineer.

**A. Certification:** The following category-based requirements will apply for each article, material, or supply.

- 1. Iron & Steel:** A statement will be included on the certification stating whether the iron or steel is of domestic or foreign origin. The Department will consider iron & steel that does not require separate certification in accordance with the Department’s Materials Manual as miscellaneous iron & steel. The Contractor will provide the Department a completed and signed Miscellaneous Materials Buy America Certificate stating the miscellaneous iron & steel required to be consumed in, permanently incorporated into, or affixed to the completed project complies with the Buy America requirements specified herein.
- 2. Manufactured (Composite) Products:** Due to an existing nationwide waiver, manufactured (composite) products currently have no specific requirements.
- 3. Construction Materials:** Construction materials and construction materials currently on the Department’s Approved Products List will be treated as “Tier 1” items in accordance with the Required Samples, Tests, and Certificates (RSTC) section of the Department’s Materials Manual. The

Contractor will provide the Department a completed and signed Miscellaneous Materials Buy America Certificate stating the construction materials required to be consumed in, permanently incorporated into, or affixed to the completed project complies with the Buy America requirements specified herein.

**B. Determination of Material Category:** The Department, in the Department's sole discretion, will classify an article, material, or supply into one of the following categories, (1) Iron & Steel, (2) Manufactured (Composite) Product, (3) Construction Material, or (4) Excluded Material. Articles, materials, and supplies will be considered to fall into only one single category of Buy America requirements. Some contract items are composed of multiple components that may fall into different categories. Individual components and composite items will be classified based on their nature when they arrive on the work site.

**1. Iron & Steel:** The Department will classify items wholly or predominantly composed of iron or steel or a combination of both as iron & steel.

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50% of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components.

**2. Manufactured (Composite) Products:** The Department will classify items not specifically classified as iron & steel, construction materials, or excluded materials which are fabricated, combined, or manufactured through a manufacturing process into a commercially available composite item as manufactured (composite) products. The Department will classify items consisting of 2 or more of the listed construction materials combined through a manufacturing process as a manufactured (composite) product. The Department will classify items consisting of 1 of the listed construction materials combined with a material not listed through a manufacturing process as a manufactured (composite) product.

**3. Construction Materials:** The Department will classify only the materials specifically listed as construction materials as construction materials.

Minor additions of articles, materials, supplies, or binding agents to a construction material will not change the categorization of the construction material.

**4. Excluded Materials:** The Department will classify cement and cementitious materials; aggregates such as stone, sand, or gravel; and aggregate binding agents or additives as excluded materials.



**C. Iron & Steel:** Structural steel and other iron and steel products will be produced in the United States. To be considered produced in the United States, all manufacturing processes, from the initial melting stage through the application of coatings, must occur in the United States. The application of a coating is interpreted to mean all processes that protect or enhance the value of material or product to which it is applied; examples are epoxy coatings, galvanizing, and painting.

Buy America does not apply to iron ore, scrap, pig iron, and processed, pelletized, and reduced iron ore.

If iron ingots or steel billets produced in the United States are sent out of the country for a subsequent manufacturing process and then are brought back into the United States, the full value of the iron or steel as it reenters the country (including the original billet cost and any coatings) will be considered foreign.

If foreign iron or steel components are combined with other components into a fabricated or assembled manufactured (composite) product, the foreign iron or steel content of the manufactured (composite) product is not only the value of the foreign iron or steel components, but also the pro-rata value of the fabrication and assembly labor and overhead used in the combining the foreign iron or steel and other components into the finished manufactured (composite) product, including coatings.

**D. Manufactured (Composite) Products:** Iron and Steel components of manufactured (composite) products will comply with the Buy America requirements for iron & steel. Due to an existing nationwide waiver, manufactured (composite) products without iron and steel components currently have no specific requirements.

**E. Construction Materials:** Construction materials will be produced in the United States. Each construction material is followed by a standard for the material to be considered produced in the United States.

A construction material is an article, material, or supply that is one of the following:

1. Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.
2. Plastic and polymer-based products including polyvinylchloride, composite building materials, and polymers used in fiber optic cables. All manufacturing processes, from initial combination of constituent plastic or

polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.

3. Glass including optic glass. All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.
  4. Fiber optic cable including drop cable. All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.
  5. Optical fiber. All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.
  6. Lumber. All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.
  7. Engineered wood. All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.
  8. Drywall. All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.
- F. Unavailability of Compliant Items:** If the Contractor discovers a Buy America compliant item or items does not exist or an item becomes unavailable, the Contractor will immediately notify the Department. The Contractor will furnish written documentation of the Contractor's complete efforts to obtain a compliant item. This documentation will include a complete contact log with dates and times of the Contractor's efforts to obtain a compliant item, the responses received, and any correspondence between the Contractor and potential suppliers of the item which demonstrate efforts to obtain a compliant item. If, based on review of the documentation provided, the Department determines all potential options to obtain a compliant item have been exhausted; the Department will determine the appropriate course of action.
- G. Non-Compliant Items:** If the Engineer, in the Engineer's sole discretion, determines an article, material, or supply provided to the project does not comply with these Buy America requirements but is available; the following will apply:

1. If the non-compliant item is not permanently incorporated into the completed work, the Contractor will not permanently incorporate the item and will replace the non-compliant item with an item that complies with the Buy America requirements specified herein at the Contractor's expense.
2. If the non-compliant item has been permanently incorporated into the completed project; the Engineer, in the Engineer's sole discretion, will determine if the non-compliant item must be removed and replaced including any completed work at the Contractor's expense or if the non-compliant item may remain in place in accordance with both of the following requirements:
  - a. Minor quantities of non-compliant iron & steel may be incorporated in the Department's sole discretion based on the Department's review of the Contractor's documented invoiced material costs, provided the invoiced material costs of all non-compliant iron & steel do not exceed 0.1% of the total contract amount or \$2,500, whichever is greater.
  - b. Minor quantities of non-compliant iron & steel and construction materials may be incorporated in the Department's sole discretion based on the Department's review of the Contractor's documented invoiced material costs, provided the total value of the non-compliant items does not exceed 5.0% of the total applicable costs for the project or \$1,000,000, whichever is less.

The total value of the non-compliant items will include non-compliant iron & steel and non-compliant construction materials. The total value of the non-compliant items will not include excluded materials, manufactured (composite) products, or other items within the scope of an existing Buy America waiver.

The total value of an item includes the cost of the material plus the cost of transportation to the project site, as evidenced by delivery receipt, but does not include the labor costs to assemble and install at the project site.

The total applicable project costs will be defined as the total value of materials used in the project that are subject to a domestic preference requirement, including the total value of any iron & steel, construction materials, manufactured (composite) products, and other items within the scope of an existing Buy America waiver. The total applicable project costs will not include excluded materials.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
LIABILITY INSURANCE**

**APRIL 21, 2022**

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**Section 7.15 – Page 50 – Delete and replace with the following:**

**7.15 LIABILITY INSURANCE** - The Contractor will procure and maintain at the Contractor's expense, during duration of the contract, liability insurance with an insurance company authorized to do business in the state of South Dakota, for damages imposed by law. The insurance will cover all operations under the contract, whether performed by the Contractor or by subcontractors, and will name the State of South Dakota, the Department, and the Department's officers and employees as additional insureds, but liability coverage is limited to claims not barred by sovereign immunity. The State of South Dakota, the Department, and the Department's officers and employees do not hereby waive sovereign immunity for discretionary conduct as provided by law. Before commencing the work, the Contractor will furnish certificates of insurance, certifying that the policies will not be changed or cancelled until 30 calendar days' written notice has been given to the Department.

The certificates of insurance will provide evidence that the Contractor carries sufficient liability insurance to protect the public from injuries sustained by reason of pursuing the work, and that Workers' Compensation Insurance meets the requirements of the South Dakota Workers' Compensation Law.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
RESPONSIBILITY FOR DAMAGE CLAIMS**

**APRIL 21, 2022**

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**Section 7.14 – Page 50 – Delete and replace with the following:**

**7.14 RESPONSIBILITY FOR DAMAGE CLAIMS** - The Contractor will indemnify the State of South Dakota, the Department, and the State's officers and employees, from all suits, actions, or claims of any character, including suits in which the State, Department, or the State's officers and employees are sued, brought because of any injuries or damages received or sustained by any person, persons, or property arising at least in part from the Contractor's operations; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workers' Compensation Act", or any other law, ordinance, order, or decree. The Contractor's obligation to indemnify will include the payment of reasonable attorney fees and other costs of defense. So much of the money due the Contractor under and by virtue of the contract as may be considered necessary by the Department for such purpose may be retained for the use of the State; or in case no money is due, the Contractor's surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid will have been settled and suitable evidence to that effect furnished to the Department. Money due the Contractor will not be withheld when the Contractor produces satisfactory written confirmation from the Contractor's insurer that adequate public liability insurance and property damage insurance providing coverage for such particular claims as may be made is in force, and the Contractor provides evidence the claim has been submitted to the Contractor's insurer. A copy of a certificate of insurance, without further confirmation of coverage for the particular claim being made, will not be sufficient to satisfy the requirement of written confirmation.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
RESTRICTION OF BOYCOTT OF ISRAEL**

**JANUARY 31, 2020**

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In accordance with the State of South Dakota Office of the Governor Executive Order 2020-01 the following will apply to all contracts unless the amount being bid is less than \$100,000:

By submitting a bid proposal for this contract, the bidder certifies and agrees the following information is correct for the bidder and all subcontractors (all tiers) and suppliers with five (5) or more employees:

The bidder, in preparing the bid proposal or in considering proposals submitted from qualified potential suppliers and subcontractors, or in the solicitation, selection, or commercial treatment of any supplier or subcontractor; has not refused to transact business activities, has not terminated business activities, and has not taken other similar actions intended to limit its commercial relations, related to the subject matter of the bid proposal, with a person or entity on the basis of Israeli national origin, or residence or incorporation in Israel or its territories, with the specific intent to accomplish a boycott or divestment of Israel in a discriminatory manner. It is understood and agreed that, if this certification is false, such false certification will constitute grounds for the Department to reject the bid proposal submitted by the bidder on this contract and terminate any contract awarded based on the bid. The bidder agrees to provide immediate written notice to the Department if, during the term of the contract awarded to the bidder, the bidder no longer complies with this certification. The bidder further agrees such noncompliance may be grounds for contract termination.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
CONTRACTOR ADMINISTERED PRECONSTRUCTION MEETING**

**DECEMBER 18, 2019**

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**I. DESCRIPTION**

This work consists of the Contractor scheduling and conducting a preconstruction meeting prior to beginning work on this contract. Additionally, this work consists of the Contractor providing the Area Engineer a completed list of required submittals.

**II. MATERIALS (Not Specified)**

**III. CONSTRUCTION REQUIREMENTS**

The Area Engineer will provide the Contractor the Authorization Form for Preconstruction Meeting (Form DOT-270) and the Contractor's Required Submittals Form (Form DOT-272) after the date of the Notice of Award and no later than 10 business days after the date of the Notice to Proceed.

The Contractor's authorized representative as indicated on the Signature Authorization Form (Form DOT-209) will complete, in its entirety, the first page of the Authorization Form for Preconstruction Meeting and will initial each proceeding section. By initialing each section, the Contractor is confirming comprehension of each section.

The Contractor's Required Submittals Form is a document outlining information required prior to the completion of the project. This list will include two types of submittals; 1) information required before scheduling a preconstruction meeting and 2) information required before the Contractor begins related work. The Department reserves the right to request additional information not included in the original list of required submittals. The list of required submittals will include, but is not limited to, proposed sequence changes, shop drawings, permits, certifications, mix designs, labor compliance, equal employment opportunity, and disadvantaged business enterprise documents. The Area Engineer will update the Contractor's Required Submittals Form with any project specific requirements and cross out or delete those that do not apply prior to providing the document to the Contractor.

Prior to scheduling the preconstruction meeting, the Contractor will complete and provide the Area Engineer all items on the list of required submittals that are

required as described in 1) above. If the Contractor cannot complete and provide a submittal item required prior to scheduling the preconstruction meeting, the Contractor will contact the Area Engineer to establish a mutually agreed upon date when the required submittal will be completed and provided to the Area office.

The Contractor will not begin work on an item until the Contractor has provided the Area Engineer with all required information for the applicable work item and the appropriate office has approved the information, if necessary. The Contractor will make every reasonable effort to deliver the required submittals at the earliest possible time.

When the Contractor has provided the Area Engineer all required submittals, except those mutually agreed upon to be provided at a later date or dates, the Contractor will schedule a preconstruction meeting with the Area Engineer.

Within 2 business days following the Contractor scheduling the preconstruction meeting, the Area Engineer will prepare and send the Contractor a meeting confirmation and the Preconstruction Meeting Outline (Form DOT-271).

The Area Engineer will edit and amend the Preconstruction Meeting Outline, as necessary, to meet the specific needs of the project. The Area Engineer will complete the project information and the Department information prior to furnishing the form to the Contractor.

The Contractor will complete the Contractor's portion of the Preconstruction Meeting Outline and will add additional discussion items as needed. The Contractor will send the meeting notice and final Preconstruction Meeting Outline to the Area Engineer, all subcontractors, utility companies, railroad companies (if applicable), and all suppliers at least 5 business days prior to the preconstruction meeting.

The Area Engineer will send the notice of the meeting and the final Preconstruction Meeting Outline of discussion items to any other government entities and other principle stakeholders involved in the project at least 3 business days prior to the preconstruction meeting.

At the discretion of the Area Engineer, the preconstruction meeting may be held in person, videoconference, or over the phone. The Contractor's competent superintendent who will be working on this project, as required by Section 5.5, or the Contractors Project Manager, as required by the Special Provision for Cooperation by Contractor and Department (if applicable), is required to attend the preconstruction meeting.

The Contractor will lead the meeting discussion as described in the Preconstruction Meeting Outline. The Area Engineer will prepare the meeting minutes including any unresolved items and distribute the minutes to all attendees

and principle stakeholders within 5 business days following the preconstruction meeting.

**IV. METHOD OF MEASUREMENT**

The Department will not make a separate measurement for the preconstruction meeting.

**V. BASIS OF PAYMENT**

The Department will not make a separate payment for the preconstruction meeting. All costs associated with the preconstruction meeting will be incidental to other contract items.

\* \* \* \* \*



**FUEL ADJUSTMENT AFFIDAVIT**

Project Number \_\_\_\_\_  
PCN \_\_\_\_\_  
County \_\_\_\_\_

*For project let using the SDEBS) and in accordance with Section 9.12, the bidder is not required to notify the Department at the time of submitting bids whether the Contractor will or will not participate in the fuel cost adjustment program. Prior to execution of the contract, the successful bidder must submit this completed form to the Department for approval. The Fuel Adjustment Affidavit shall include the anticipated fuel cost of subcontractors.*

Does your company elect to participate in a fuel adjustment for this contract for the fuels that do not have a fixed price? No adjustments in fuel prices will be made if "No" is checked.

Yes                       No

If yes, provide the total dollars for each of the applicable fuels. No adjustments in fuel price will be made for the fuel types that are left blank or completed with a \$0.00 value.

Diesel (x) \$ \_\_\_\_\_

Unleaded (y) \$ \_\_\_\_\_

Burner Fuel (z) \$ \_\_\_\_\_ Type of Burner Fuel Used: \_\_\_\_\_

Sum (x + y + z) = \$ \_\_\_\_\_

**Note:** The sum of the x, y, and z may not exceed 15% of the original contract amount.

**The following must be completed regardless of whether the Contractor elects to participate in the fuel adjustment affidavit**

Under the penalty of law for perjury or falsification, the undersigned, \_\_\_\_\_,  
*(Printed Name)*  
\_\_\_\_\_ of \_\_\_\_\_,  
*(Title)* *(Contractor)*

hereby certifies that the documentation is submitted in good faith, that the information provided is accurate and complete to the best of their knowledge and belief, and that the monetary amount identified accurately reflects the cost for fuel, and that they are duly authorized to certify the above documentation on behalf of the company.

I hereby agree that the Department or its authorized representative shall have the right to examine and copy all Contractor records, documents, work sheets, bid sheets, and other data pertinent to the justification of the fuel costs shown above.

Dated \_\_\_\_\_ Signature \_\_\_\_\_

**Notarization is required only when the Contractor elects to participate in the fuel adjustment affidavit**

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
*Notary Public*

\_\_\_\_\_  
*My Commission Expires*





**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**STANDARD TITLE VI / NONDISCRIMINATION ASSURANCES  
APPENDIX A & E**

**MARCH 1, 2016**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
  - a. withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or

is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

**Pertinent Non-Discrimination Authorities:**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

\*\*\*\*\*

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
DISADVANTAGED BUSINESS ENTERPRISE**

**FEBRUARY 9, 2024**

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

**I. Definitions**

- A. Specified Goal:** A DBE participation goal for a contract as indicated by a specific numerical percentage of the total dollar amount of the contract in the bidding documents.
- B. Not Specified:** No specific DBE participation goal is specified for a contract.
- C. Disadvantaged Business Enterprise (DBE):** A for-profit small business that is certified by the Department and is listed in the DBE Directory available on the Department's web site.
- D. Good Faith Effort (GFE):** Efforts to achieve a DBE goal which; by their scope, intensity, and appropriateness to the objective; can reasonably be expected to meet the objective of the Department's DBE program pursuant to 49 CFR 26.1.
- E. Positive Contact:** Communication between the bidder and the DBE in which the bidder receives an oral or written response from the DBE stating the DBE's intention to quote or not quote a project.
- F. Commitment:** The dollar amount of work to be subcontracted to DBEs, according to the bidder's bid. The commitment may be compared to the dollar amount of all contract items in the bidder's bid and expressed as a percentage of the total bid amount.
- G. Reasonable Effort:** For projects when goals are not specified, bidders are encouraged to solicit all certified DBEs listed in the appropriate work classifications in the DBE directory that have indicated in the directory they are

willing to work in the project's geographic area and also those that are listed on the plan holders list.

## **II. Bidding Requirements**

A bidder must not discriminate on the basis of race, color, national origin, or sex in the solicitation or award to subcontractors and material suppliers. Bidders who demonstrate a pattern of possible discrimination through consistent and repeated under-utilization of DBEs may be subject to investigation and sanctions allowed by regulation, administrative rule, or law.

The Bidder's failure to carry out the requirements of this special provision will be treated as a non-responsive bid.

On contracts that specify a specific DBE contract participation goal, all bidders must include their DBE commitment for the contract in the bidding files provided by the Department.

If the contract indicates "Not Specified," all bidders are encouraged to include their anticipated DBE utilization for the contract in the bidding files provided by the Department.

Each bidder must submit a list of all subcontractors and suppliers (DBEs and non-DBEs) the bidder received quotes from for that contract with the bid files.

A Contractor must make reasonable efforts to provide opportunities for DBEs to participate on Federal-aid contracts throughout the life of the contract.

On contracts let with a specified DBE contract participation goal, where the low bidder has not met or exceeded that goal, upon request from the Department all bidders who did not meet or exceed the goal must provide GFE documentation as indicated in Section III of this special provision.

When the DBE participation is "Not Specified" on a contract, each bidder is encouraged to use DBE Contractors; however no bidder will be required to furnish GFE documentation.

Bidders must submit GFE documentation, when requested by the Department, within 2 business days from the date bidders are contacted by the Department. Section III of this special provision provides information on the types of action bidders should make as part of their GFE to obtain DBE participation. Bidders may submit documentation with the bidding files provided all pertinent information is included. Bidders must submit any missing documentation within 2 business days from the date the Department contacts the bidder. If the bidder fails to comply with this requirement, the Department will consider the bid proposal irregular and may reject the bid proposal.

If the apparent low bidder does not provide documentation showing GFE as required by this special provision, the Department will consider that bid nonresponsive and may either award the contract to the next lowest responsible bidder with a responsive bid, or reject all bids. Subsequent to the DBE committee's decision that the apparent low bidder's efforts do not establish GFE, the apparent low bidder will be notified that the bid is not responsive. The apparent low bidder will have 2 business days from the date of notification to contact the Bid Letting Engineer to arrange a meeting with the Department Secretary, or the Secretary's designee, to present documentation and argument about why the bid should not be rejected. The Department Secretary or the Secretary's designee will issue a written decision on responsiveness of the bid within 2 business days after the meeting.

If the apparent low bid is rejected for failure to meet the GFE or other requirements, the next apparent low bidder's GFE will be reviewed, unless all bids are rejected. Unless all bids are rejected, award of the contract will be made to the lowest bidder with a responsive bid.

The lowest responsive bidder on a project with a specified goal will be required to complete form DOT-289B, as included in the contract documents, when the contract is sent for signature. This form requires a signature from each DBE identified in the low bidder's DBE commitment. A separate form will be supplied for each DBE and will be included in the contract documents.

Bidders are encouraged to assist interested DBEs in obtaining bonding, lines of credit, insurance, necessary equipment, supplies, materials, or other related services.

### **III. Good Faith Efforts**

If a GFE package is requested on a contract with a specified goal, the bidders must submit documentation showing compliance with the following requirements:

- A.** The bidders will submit a contact log of all solicitation efforts including:
- Name of the DBE firm
  - Name and phone number of the individual with whom contact was made
  - Date, time, and manner of each and every contact (by phone, in person, fax, mail, e-mail, etc.)
  - The DBE's response to the solicitation
  - Result of the solicitation effort

An example of a solicitation log is available on the Department's Bid Letting website. When bidding utilizing the South Dakota Department of Transportation Electronic Bid System (SDEBS), SDEBS may be used to document the log of solicitation efforts for the project.

- B.** The bidders will also submit documentation that shows GFE in relation to the following requirements:
- 1.** The bidder must select contract work items to encourage DBE participation. This includes breaking out contract work items into economically feasible units to facilitate DBE participation, even when the bidder might otherwise prefer to perform these work items with its own forces.
  - 2.** The bidder must solicit all certified DBEs that are listed in the appropriate work classifications in the DBE directory and that have indicated in the directory they are willing to work in the project's geographic area. Without exception, all DBEs who are listed on the plan holders list by 10 AM central time 7 calendar days prior to the bid letting must be solicited in accordance with Section III.B.3 of this special provision. If the bidder has not solicited any DBE meeting these requirements, the bidder will provide a detailed written explanation showing why the DBE was not solicited.
  - 3.** To provide adequate time for the DBE to respond with a quote in the normal course of business, the bidder must make the initial solicitation at least 6 calendar days by mail or 5 calendar days by phone, fax, or e-mail prior to the letting date. Without exception, all DBEs who are listed on the plan holders list by 10 AM central time 7 calendar days prior to the bid letting must be solicited.
  - 4.** If the bidder does not receive a positive contact from a DBE, the bidder must follow up the initial solicitation with a second solicitation by phone, fax, or e-mail to determine whether the DBE is interested in quoting. The bidder must make this second solicitation at least 2 business days prior to the letting.
  - 5.** The bidder will provide interested DBEs with adequate and timely information about plans, specifications, and requirements of the contract to assist DBEs in responding to a solicitation.
  - 6.** If a bidder rejects a DBE quote because of previous problems with a particular DBE, the bidder must prepare a detailed written explanation of the problem. Additional cost involved in finding and using DBEs is not, in itself, sufficient reason for a bidder to reject a quote. A bidder must not reject a DBE as being unqualified without sound reasons based on a thorough investigation of the DBE's capabilities.
  - 7.** Any additional information requested by the Department.
- C.** The bidder must consider qualified DBEs whose quotes are reasonably competitive. If the bidder rejects any quote because it is considered not to be "reasonably competitive," the bidder must provide copies of all DBE and non-

DBE quotes, and a work item price spreadsheet comparing DBE quotes to non-DBE quotes. The spreadsheet must show which quote was included in the bid for the work items being compared. The ability or desire of a bidder to perform the work with its own forces does not relieve the bidder of the responsibility to make GFE. In the event a bidder elects to use its own forces over a DBE, the bidder must include, on the spreadsheet, documentation of the costs of using the bidder's own forces. This can be shown in a number of ways, which may include submitting portions of the bidder's work sheets used to prepare the bid.

- D. The bidder must explain why the specified goal could not be met.
- E. The bidder must identify any additional efforts the bidder made to secure DBE participation.

#### **IV. Counting DBE Participation**

On projects with a specified goal, the contract commitment, as submitted with the bid, will be documented on form DOT-289R/C as included in the contract documents.

If the project is shown as "Not Specified," the anticipated DBE utilization, as submitted with the bid, will be documented on form DOT-289 R/N – DBE Utilization Form, as included in the contract documents. The DBE utilization shown on this form is not a commitment to use the DBE. This information will be used by the Department to track anticipated DBE usage.

Only the portion of a contract performed by the DBE's own forces will count toward DBE participation. Included is the cost of supplies and materials obtained by the DBE for the contract, including supplies purchased or equipment leased by the DBE. Supplies and equipment the DBE subcontractor purchased or leased from the Contractor or its affiliate is not allowed to be included.

When a DBE performs as a participant in an approved joint venture, only the portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces will count toward DBE participation.

A bidder may count toward its DBE participation only that percentage of expenditures to DBEs that perform a commercially useful function (CUF) in the performance of a contract. A DBE performs a CUF when the DBE is responsible for execution of the work of a contract and is carrying out the DBE's responsibilities by actually performing, managing and supervising the work involved. To perform a CUF, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating prices, determining quality and quantity, ordering and installing (where applicable) the materials, and paying for the material itself. To determine whether a DBE is performing a CUF, the Department will

evaluate the amount of work subcontracted, the industry practice, and whether the amount the DBE is to be paid is commensurate with the work it is actually performing, DBE credit claimed for performance of the work, and other relevant factors.

A DBE is not performing a CUF if the DBE performs less than 30% of the total cost of its contract with its own work force, or if its role is limited to that of an extra participant in a transaction, project, or contract through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is simply an extra participant, the Department will examine similar transactions, particularly those in which DBEs do not participate.

DBE participation will be counted for trucking services as follows:

The bidder/Contractor will receive credit toward DBE participation for the total value of the transportation services the DBE provides on the contract using trucks the DBE owns, insures, and operates and which are driven by drivers the DBE employs.

A DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. When a DBE leases trucks from another DBE, the bidder/Contractor can count the total value of the transportation services the lessee DBE provides on the contract toward DBE participation.

The DBE may also lease trucks from a non-DBE firm, including an owner-operator. When a DBE leases trucks from a non-DBE, the bidder/Contractor can count toward DBE participation only the fee or commission the DBE receives as a result of the lease arrangement. The bidder/Contractor does not receive credit toward DBE participation for the total value of the transportation services, since all services are not provided by a DBE.

The bidder may count toward DBE participation expenditures to DBE firms for materials, supplies, or services as follows:

If the materials or supplies are obtained from a DBE manufacturer, count 100% of the cost of the materials or supplies toward DBE participation. A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of general character described by the specifications.

If the materials or supplies are purchased from a DBE regular dealer, count 60% of the cost of the materials or supplies toward DBE participation. A regular dealer is a firm that owns, operates, or maintains a store, warehouse or other establishment in which the materials, supplies, articles, or equipment are



bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

If the materials or supplies are purchased from a DBE which is neither a manufacturer nor a regular dealer, count only the amount of fee or commission charged for assistance in the procurement of the materials or supplies or fee or transportation charges for the delivery of materials or supplies required at the job site toward DBE participation. In order to be counted, the Department must determine the fee to be reasonable and not excessive as compared to fees customarily allowed for similar services. The cost of the materials and supplies themselves will not count toward DBE goals.

The Department will not count toward DBE participation materials or services provided by a DBE who is not currently certified prior to and including the date of the Notice of Award. Additionally, the Department will not count toward DBE participation materials or services provided by a DBE who loses certification at any time after the date of the Notice of Award except in the case of a DBE whose ineligibility is caused solely by having exceeded the size standard.

No intended or actual subcontracting arrangement which is contrived to artificially inflate DBE participation is allowed. This includes, but is not limited to, DBE middlemen which serve no commercially useful function, or arrangements where a DBE is acting essentially as a broker of goods or services, but has been counted as a manufacturer, regular dealer, or subcontractor.

The Department will review and monitor projects for compliance with the bidder's intended DBE participation. Failure by the Contractor to fulfill the contract commitment constitutes a breach of contract. The Department may also investigate the form and substance of particular business arrangements between and among DBE and Contractors with regard to specific contracts. If, as a result of an investigation, the Department determines a particular business arrangement is not allowable, the dollar amount of the unallowable DBE participation will be subtracted from the Contractor's DBE participation on that project. The Contractor will be notified if the apparent DBE participation is not adequate to meet the DBE participation stated on the form DOT-289R/C. The Contractor will be directed to seek additional participation from other DBEs to meet the unallowable portion on that contract.

All Contractors and DBEs shall cooperate fully and promptly with the Department in compliance reviews, investigations, and other requests for information. If the Department determines a Contractor was a knowing and willing participant in an unallowable business arrangement, or in the event of repeated violations, falsification, or misrepresentation, the Department will impose sanctions. Sanctions may include, but are not limited to one or more of the following:

- Assessment of liquidated damages as stated in Section VII of this special provision
- Suspension of bidding privileges or debarment
- Withholding progress payments
- Securing additional DBE participation on future Federal-aid contracts sufficient to make up for the DBE participation found to be unallowable
- Referral of the matter for criminal prosecution

## **V. Joint Checks to DBEs**

A joint check is a check issued by a prime Contractor to a DBE subcontractor and to a material supplier or another third party for items or services to be incorporated into a project. For a prime Contractor to receive DBE credit, the DBE must perform a commercially useful function and be responsible for negotiating price, determining quality and quantity, ordering materials and installing (where applicable) and paying for materials.

To ensure that the DBE is independent of the prime Contractor and in compliance with the regulation, use of joint checks will be reviewed and allowed only under following conditions:

- Issued for valid reasons only, not simply for the convenience of the prime Contractor
- Used for a specific contract or specific time frame and not long-term or open ended
- Payment is made to the DBE and not directly to the supplier
- Requested and received prior written approval from the DBE Compliance Officer.

The request must include the following:

- Name of the DBE
- The DOT contract number(s)
- The DOT PCN number(s)
- The work the DBE will be performing on each contract
- Name of the supplier(s) used by the DBE
- The specific reason(s) for issuing joint checks

The Department will review the request and verify the circumstances indicated in the request with the DBE. A copy of the request and approval will be provided to the prime Contractor and the DBE.

## **VI. Certification of DBE Performance and Payments**

Within 30 calendar days of the date of the Acceptance of Field Work the Contractor is required to submit form DOT-289 (Certification of DBE Performance and

Payments), listing all DBEs that participated in the contract, and the total dollar amount paid (and anticipated to be paid) to each. DBE attainments are compared to commitments on form DOT-289R/C and any payments less than 90% of that commitment, without proper justification and documentation, will have liquidated damages assessed against the contract. The Contractor's final payment is not released until receipt of the form DOT-289.

Contractors are required to maintain a running tally of payments to DBEs. For reports of payments not being made in accordance with the prompt payment provision, alleged discrimination against a DBE or other similar complaint, the tally may be requested for review by the Department. The Department may perform audits of contract payments to DBEs to ensure that the amounts paid were as reported on the form DOT-289. All Contractors participating in Federal-aid contracts are expected cooperate fully and promptly with the Department in compliance reviews, investigations and other requests for information regarding payments to DBEs. Their failure to do so is grounds for appropriate sanctions or action against the Contractor.

The Department will monitor the running tally on a program basis and if reporting issues are identified, additional reporting requirements may be implemented.

The Contractor is required to report payments to DBEs twice a year from the date of the Notice to Proceed until the date of the Acceptance of Field Work. Reporting periods and deadlines for payment reporting submittals will be in accordance with the following:

<b>Reporting Period:</b>	<b>Reporting Deadline:</b>
October 1 to March 31	April 30
April 1 to September 30	October 31

For each reporting period, the Contractor is required to submit form DOT-289 listing all DBEs that participated in the contract, the payments to DBEs for that reporting period, and the total dollar amount paid to each DBE. For each reporting period after the Notice to Proceed, the Contractor will mark the form DOT-289 as "On-Going" when reporting payments to DBEs prior to the Date of the Acceptance of Field Work. Within 30 calendar days of the date of the Acceptance of Field Work and all DBE payments have been made, the Contractor is required to submit form DOT-289 and the Contractor will mark the form DOT-289 as "Final".

Each form DOT-289 must be provided to the Engineer by the reporting deadline stated above.

DBE payment are compared to commitment on form DOT-289R/C and any payment less than 90% of that commitment, without proper justification and documentation, will result in the Department assessing liquidated damages

against the contract. The Contractor's final payment will not be released until receipt of the form DOT-289 marked "Final".

## **VII. Liquidated Damages**

**A.** If the Contractor does not meet its contract commitment documented on form DOT-289 R/C, the Department will assess liquidated damages according to the following schedule:

1. For the first \$1,000 DBE deficiency, 100% of the deficiency.
2. For the next \$9,000 DBE deficiency, 50% of the deficiency.
3. For the next \$10,000 DBE deficiency, 25% of the deficiency.
4. For any remaining DBE deficiency in excess of \$20,000, 10% of the deficiency.

This liquidated damage provision will not be applicable where actual payment to a DBE is within 90% of the commitment or where there are good and sufficient reasons, properly documented, for the deficiency such as quantity under-runs, project changes, or other unexpected occurrences.

**B.** If a Contractor finds it impossible, for reasons beyond its control, to meet the contract commitment on form DOT-289R/C, the Contractor may, at any time prior to completion of the project, provide a written request to the DBE Compliance Officer for a complete or partial waiver of liquidated damages. No request for a waiver will be accepted after Acceptance of Field Work has been issued.

## **VIII. Termination or Substitution of a DBE**

The Contractor will not be allowed to terminate or substitute a DBE without the Department's prior verbal consent followed by written approval. This includes, but is not limited to, instances in where the Contractor desires to perform work originally committed to a DBE with its own forces, with an affiliated company, with a non-DBE, or with another DBE. Department approval is required when the contract contains a "specified goal" on form DOT-289R/C and the DBE to be terminated or substituted is listed as a commitment on the form DOT-289R/C.

The Department will provide written consent only if the Department agrees the Contractor has good cause to terminate the DBE listed on the form DOT-289R/C. Good cause includes the following:

- The DBE fails or refuses to execute a written contract

- The DBE fails or refuses to perform the work of the DBE subcontract in a manner consistent with normal industry standards or Department specifications unless the failure or refusal by the DBE is a result of unfair or discriminatory actions by the Contractor
- The DBE fails or refuses to meet the Contractor's reasonable nondiscriminatory bond requirements
- The DBE becomes bankrupt, insolvent, or exhibits credit unworthiness
- The DBE is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR Parts 180, 215, and 1,200 or applicable state law
- The Department has determined that the DBE is not a responsible Contractor
- The DBE voluntarily withdraws from the project and provided the Department with a written notice of withdrawal
- The DBE is found to be ineligible to receive DBE credit for the type of work required
- A DBE owner dies or becomes disabled with the result that the DBE is unable to complete its work on the contract
- Other documented good cause that the Department determines to substantiate the termination of the DBE.

Good cause does not exist if the Contractor seeks to terminate a DBE so the Contractor can self-perform the work for which the DBE was committed, or so the Contractor can substitute another DBE or non-DBE Contractor after the contract award.

Before submitting a request to terminate or substitute a DBE to the Department, the Contractor must first provide written notice to the DBE, with a copy of the notice to the DBE Compliance Officer, of the Contractor's intent to request to terminate or substitute, and the reason for the request.

The Contractor must give the DBE 5 calendar days to respond to the notice and advise the Department and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Department should not approve the Contractor's action. If required in a particular case as a matter of public necessity (e.g. safety), the Department may provide a response period shorter than 5 calendar days.

When a DBE is terminated or fails to complete its work on the contract for any reason, the Contractor must make good faith efforts to replace the committed DBE with another DBE. The Contractor must make efforts to find another DBE to perform the same amount of work under the contract as the DBE that was terminated. The letter to the Department requesting termination or substitution must include the name of the DBE and dollar amount of the replacement DBE. If the Contractor is unable to find another DBE, the Contractor must provide the

names of the DBEs it contacted and reason why they were unable to use those DBEs.

If the Contractor does not utilize or pay DBEs as required, liquidated damages will be assessed as specified in Section VII of this special provision. In addition, if the Contractor is found to have knowingly and willingly attempted to circumvent the DBE contract provisions, the Department will not make payment for the work that was originally committed to a DBE and the Department may impose sanctions referred to in Section IV of this special provision.

The Contractor does not need Department approval to terminate or substitute a DBE under the following circumstances:

- The DBE is being used on a contract with a “Specified Goal” however the DBE was not listed as a DBE commitment on form DOT-289R/C.
- The DBE was listed as an anticipated utilization on a “Not Specified” DBE goal contract on form DOT-289R/N.

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**SPECIAL PROVISION FOR EEO AFFIRMATIVE ACTION REQUIREMENTS ON  
FEDERAL AND FEDERAL-AID CONSTRUCTION CONTRACTS**

**FEBRUARY 5, 2024**

**Notice of Requirement for Affirmative Action To Ensure Equal Employment Opportunity  
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

**Goals for minority participation for each trade**

Aurora	0.8%	Fall River	7.9%	Marshall	1.3%
Beadle	0.8%	Faulk	1.3%	Meade	3.4%
Bennett	7.9%	Grant	1.3%	Mellette	7.9%
Bon Homme	1.2%	Gregory	0.8%	Miner	0.8%
Brookings	0.8%	Haakon	7.9%	Minnehaha	1.2%
Brown	1.3%	Hamlin	1.3%	Moody	0.8%
Brule	0.8%	Hand	0.8%	Oglala Lakota	7.9%
Buffalo	7.9%	Hanson	0.8%	Pennington	3.4%
Butte	7.9%	Harding	7.9%	Perkins	7.9%
Campbell	7.9%	Hughes	7.9%	Potter	7.9%
Charles Mix	0.8%	Hutchinson	0.8%	Roberts	1.3%
Clark	1.3%	Hyde	7.9%	Sanborn	0.8%
Clay	1.2%	Jackson	7.9%	Spink	1.3%
Codington	1.3%	Jerauld	0.8%	Stanley	7.9%
Corson	7.9%	Jones	7.9%	Sully	7.9%
Custer	7.9%	Kingsbury	0.8%	Todd	7.9%
Davison	0.8%	Lake	0.8%	Tripp	7.9%
Day	1.3%	Lawrence	7.9%	Turner	0.8%
Deuel	1.3%	Lincoln	0.8%	Union	1.2%
Dewey	7.9%	Lyman	7.9%	Walworth	7.9%
Douglas	0.8%	McCook	0.8%	Yankton	1.2%
Edmunds	1.3%	McPherson	1.3%	Ziebach	7.9%

**Goals for female participation in each trade**

Statewide 6.9%

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

second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in [41 CFR part 60-4](#) shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in [41 CFR 60-4.3\(a\)](#), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in [41 CFR part 60-4](#). Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is shown by county designation on the Title Sheet of the plans.

**Standard Federal Equal Employment Opportunity Construction Contract Specifications  
(Executive Order 11246)**

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and



(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to [41 CFR 60-4.5](#)) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall

document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

D. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under [41 CFR part 60-3](#).

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the

Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with [41 CFR 60-4.8](#).

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION FOR  
REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS  
FHWA 1273 (OCTOBER 23, 2023)**

**OCTOBER 18, 2023**

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The following are amendments to the above contract provisions.

**Section I.4.**

Delete this section and replace with the following:

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a Federal-aid construction project unless it is labor performed by convicts who are on parole, supervised release, or probation.

**Section IV.**

Delete the first three sentences of the first paragraph and replace with the following:

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway and to all portions of Transportation Alternatives Program (TAP) funded projects.

**Section IV.3.b.(1)**

Delete this section and replace with the following:

The Contractor and each related subcontractor must submit weekly, for each week in which any contract work is performed, an electronic certified weekly payroll report. The Contractor is responsible for the submission of certified payroll reports by all subcontractors. The payroll report must be submitted electronically to the Elation System website. The Contractor must submit a legally valid electronic signature. The Elation System website can be accessed by logging onto the State of South Dakota's single sign-on website at <https://mysd.sd.gov/> or can also be accessed at <https://elationsys.com/>. First time users will need to use the Promotion Code SDDOT-19. The payroll report must be submitted within fourteen (14) calendar days after the end of the workweek.

**Section IV.3.b.(2)**

Delete the third sentence.

**Section IV.3.b.(3)**

Delete the first paragraph and replace with the following:

Each certified weekly payroll report must include the most recent South Dakota Department of Transportation (SDDOT) Statement of Compliance Form, signed by the Contractor or related subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract. The Instructions for the SDDOT Statement of Compliance Form are found at <https://dot.sd.gov/doing-business/contractors/labor-compliance/certified-payrolls-let-after-6/5/19>. The SDDOT will not accept any payroll report which does not include the most recent SDDOT Statement of Compliance Form. The SDDOT Statement of Compliance Form must certify the following:

**Section IV.3.b.(4)**

Delete this paragraph and replace with the following:

The weekly submission of a properly executed SDDOT Statement of Compliance Form shall satisfy the requirement for submission of the “Statement of Compliance Form” required by paragraph 3.b.(3) of this section.

**Section IV.4.a.(1)**

Delete the first sentence and replace with the following:

Apprentices will be permitted to work at less than the predetermined rate for the work they perform, but not less than the Common Laborer wage rate contained in the bid documents, when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA.

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

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

**ATTACHMENTS**

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

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

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

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

**II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)**

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

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

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

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

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

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

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action



within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

#### **6. Training and Promotion:**

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

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

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

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

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

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

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

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

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

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

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

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

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

#### **10. Assurances Required:**

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

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

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

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

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

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

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

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

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

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

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

#### 1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

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

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

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

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

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

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

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov). The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

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

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

## 2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

### 3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker ( e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

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

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

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature*. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification*. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention*. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents*. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements*. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures*. Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

#### **4. Apprentices and equal employment opportunity (29 CFR 5.5)**

a. *Apprentices* (1) *Rate of pay*. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits*. Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio*. The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates*. Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity*. The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

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

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

**6. Subcontracts.** The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

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

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.** a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

**11. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)\* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

\* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

### 3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

**4. Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

**5. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

### VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

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

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

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

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

## **VII. SAFETY: ACCIDENT PREVENTION**

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

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

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

## **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

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

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

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

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

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

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

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



**IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)**

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

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

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

**1. Instructions for Certification – First Tier Participants:**

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

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

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

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

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

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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**3. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

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

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

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

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#### **4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

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

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#### **XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

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

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

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

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

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

#### **XII. USE OF UNITED STATES-FLAG VESSELS:**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

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

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

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

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

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

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

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

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

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

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION REGARDING  
MINIMUM WAGE ON FEDERAL-AID PROJECTS**

**OCTOBER 24, 2019**

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This proposal contains a copy of the most recent United States Department of Labor (USDOL) Davis-Bacon Act Wage Decision.

The Contractor and each related subcontractor will pay their respective employees not less than the USDOL minimum wage for each work classification an employee actually performs at the site of the work.

The Contractor and each related subcontractor must submit weekly, for each week in which any contract work is performed, an electronic certified weekly payroll report. The payroll report must be submitted electronically to the Elation System website. The Elation System website can be accessed by logging onto the State of South Dakota's single sign-on website at <https://mysd.sd.gov/> or can also be accessed at <https://elationsys.com/>. First time users will need to use the Promotion Code SDDOT-19. The payroll report must be submitted within fourteen (14) calendar days after the end of the workweek. The payroll reports submitted shall set out accurately and completely all the information required to be maintained under 29 C.F.R. 5.5(a)(3)(i). Weekly transmittals must include an individually identifying number for each employee, such as the last four digits of the employee's social security number, but these weekly transmittals must not include full social security numbers or home addresses. The Contractor is responsible for the submission of certified payroll reports by all subcontractors.

Each certified weekly payroll report must include the most recent South Dakota Department of Transportation (SDDOT) Statement of Compliance Form, signed by the Contractor or related subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract. The Instructions for the SDDOT Statement of Compliance Form are found at <https://dot.sd.gov/doing-business/contractors/labor-compliance/certified-payrolls-let-after-6/5/19>. The SDDOT will not accept any payroll report which does not include the most recent SDDOT Statement of Compliance Form.

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**Wage and Hour Division  
U.S. Department of Labor (DOL)  
200 Constitution Avenue, N.W.  
Washington, DC 20210**

**Davis-Bacon Act Wage Decisions**  
**State: South Dakota**  
**Construction Types: Heavy and Highway**  
**Counties: South Dakota Statewide**

**Agency:** U.S. DOL  
**Wage Decision Number:** **SD20230032 SD1**  
**Counties:** SD Statewide  
**Wage Decision Date:** **03/10/2023 (Mod-0)**

\*SUSD2023-001 01-11-2023

**LABORERS**

**GROUP GL1**

Air Tool Operator; Common Laborer; Landscape Worker; Flagger; Pilot Car Driver;  
Trucks under 26,000 GVW; Blue-top Checker; Materials Checker

**GROUP GL2**

Mechanic Tender (Helper); Pipe Layer (except culvert); Form Builder Tender;  
Special Surface Finish Applicator; Striping

**GROUP GL3**

Asphalt Plant Tender; Pile Driver Leadsman; Form Setter; Oiler/Greaser

**GROUP GL5**

Carpenter; Form Builder

**GROUP GL6**

Concrete Finisher; Painter; Grade Checker

**POWER EQUIPMENT OPERATORS**

**GROUP G01**

Concrete Paving Cure Machine; Concrete Paving Joint Sealer; Conveyor; Tractor (farm type with  
attachments); Self Propelled Broom; Concrete Routing Machine; Paver Feeder; Pugmill; Skid Steer

**GROUP G02**

Bull Dozer 80 HP or less; Front End Loader 1.25 CY or less; Self Propelled Roller (except Hot Mix);  
Sheepsfoot/50Ton Pneumatic Roller; Pneumatic Tired Tractor or Crawler (includes Water Wagon and  
Power Spray units); Wagon Drill; Air Trac; Truck Type Auger; Concrete Paving Saw

**GROUP G03**

Asphalt Distributor; Bull Dozer over 80 HP; Concrete Paving Finishing Machine; Backhoes/ Excavators  
20 tons or less; Crusher (may include internal screening plant); Front End Loader over 1.25 CY;  
Rough Motor Grader; Self Propelled Hot Mix Roller; Push Tractor; Euclid or Dumpster; Material Spreader;  
Rumble Strip Machine

**GROUP G04**

Asphalt Paving Machine Screed; Asphalt Paving Machine; Cranes/Derricks/Draglines/Pile Drivers/Shovels  
30 to 50 tons; Backhoes/Excavators 21 to 40 tons; Maintenance Mechanic; Scrapers; Concrete Pump Truck

**GROUP G05**

Asphalt Plant; Concrete Batch Plant; Backhoes/Excavators over 40 Tons; Cranes/ Derricks/Draglines/Pile  
Drivers/Shovels over 50 tons; Heavy Duty Mechanic; Finish Motor Grader; Automatic Fine Grader;  
Milling Machine; Bridge Welder

**TRUCK DRIVERS**

**GROUP GT1**

Tandem Truck without trailer or pup; Single Axle Truck over 26,000 GVW with Trailer

**GROUP GT2**

Semi-Tractor and Trailer; Tandem Truck with Pup

**ELECTRICIANS**

**GROUP E01**

Electrician

<u>Rates</u>	<u>Fringes</u>
<b>22.38</b>	<b>0.00</b>
<b>23.16</b>	<b>0.00</b>
<b>24.41</b>	<b>0.00</b>
<b>31.94</b>	<b>0.00</b>
<b>26.45</b>	<b>0.00</b>
<b>24.57</b>	<b>0.00</b>
<b>24.68</b>	<b>0.00</b>
<b>26.07</b>	<b>0.00</b>
<b>27.18</b>	<b>0.00</b>
<b>30.01</b>	<b>0.00</b>
<b>24.52</b>	<b>0.00</b>
<b>25.88</b>	<b>4.28</b>
<b>29.78</b>	<b>5.04</b>

**WELDERS – Receive rate prescribed for craft performing operation to which welding is incidental.**

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award, pursuant to 29 CFR 5.5(a)(1)(ii); contractors are responsible for requesting SDDOT to secure necessary additional work classifications and rates.

\*Classifications listed under an "SU" identifier were derived from survey data and the published rate is the weighted average rate of all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates.

Survey wage rates are not updated and will remain in effect until a new survey is conducted.

**A COPY OF THIS DOCUMENT, COLORED TAN, MUST BE CONSPICUOUSLY POSTED AT THE PROJECT SITE**

**Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210**

**Davis-Bacon Act Wage Decisions  
State: South Dakota  
Construction Types: Heavy and Highway  
Counties: South Dakota Statewide**

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In the listing above, the "SU" identifier indicates the rates were derived from survey data. As these weighted average rates include all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of the survey on which these classifications and rates are based. The next number, 007 in this example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

For SDDOT Defined Work Classifications, please visit: <https://dot.sd.gov/doing-business/contractors/labor-compliance>

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**WAGE DETERMINATION APPEALS PROCESS**

1.) Has there been an initial decision in the matter? This can be:

- an existing published wage determination
- a survey underlying a wage determination
- a Wage and Hour Division letter setting forth a position on a wage determination matter
- a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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**END OF GENERAL DECISION**



**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
SUPPLEMENTAL SPECIFICATIONS TO  
2015 STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES**

**SEPTEMBER 7, 2022**

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The Supplemental Specifications dated September 7, 2022 are in effect for and made a part of this contract.

The Supplemental Specifications may be obtained from the Department website or the local Area Office or by contacting the Operations Support Office.

Department Website:

<https://dot.sd.gov/doing-business/contractors/standard-specifications/2015-standard-specifications>

Operations Support:

605-773-3571

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
PRICE SCHEDULE FOR MISCELLANEOUS ITEMS**

**DECEMBER 6, 2023**

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The following unit bid prices have been established by the South Dakota Department of Transportation Commission.

These prices will be pre-entered in the bidding package for each project or will establish a standard price to be used whenever no project contract unit price exists for that item.

Each unit price listed is considered full compensation for the cost of labor, material, and equipment to provide the item of work and/or material, complete in place, including (but not limited to) royalty, waste of unsuitable materials, equipment rental, overhead, profit, and incidentals.

Items specified in this document may be paid for on progressive estimates without the benefit of a prior approved Construction Change Order.

<b>Specification Section Number</b>	<b>Specification Section Name</b>	<b>Item Name</b>	<b>Price per Item</b>
5.8	Construction Stakes, Lines, and Grades	Engineer Directed Surveying/Staking	\$175.00/hour
7.7	Public Convenience and Safety	Water for Dust Control	\$35.00/M.Gal
7.7	Public Convenience and Safety	Dust Control Chlorides	\$0.70/lb
9.3	Payment for extra haul of Materials	Extra Haul	\$0.25/ton mile (Truck) or \$0.10/ cubic yard station (Scraper)
120.5 A.5.	Roadway and Drainage Exc. & Emb.	Unclassified Excavation, Digouts	\$15.00/cu.yd.
120.5 H.	Roadway and Drainage Exc. & Emb.	Extra Haul	\$0.25/ton mile (Truck) or \$0.10/cubic yard station (Scraper)
120.5 I.	Roadway and Drainage Exc. & Emb.	Water for Embankment	\$35.00/M.Gal
421.5	Undercutting Pipe & Plate Pipe	Undercutting Culverts	\$20.00/cu.yd.

510.5 D.	Timber, Prestressed, and Steel Piles	Timber Pile Splice	\$850.00/each
		Steel Pile Splices (*All Weights)	Splice made before either of the pieces has been driven.
		8 HP*	\$200.00/each
		10 HP*	\$250.00/each
		12 HP*	\$275.00/each
		14 HP*	\$300.00/each
		Steel Pile Splices (*All Weights)	Splice made after one of the pieces has been driven.
		8 HP*	\$400.00/each
		10 HP*	\$525.00/each
		12 HP*	\$650.00/each
		14 HP*	\$750.00/each
510.5 E.	Timber, Prestressed, and Steel Piles	Pile Shoes (Timber Pile)	\$190.00/each
510.5 H.	Timber, Prestressed, and Steel Piles	Pile Tip Reinforcement (Steel Pile)	
		10" HP Tip Reinforced	\$200.00/each
		12" HP Tip Reinforced	\$225.00/each
		14" HP Tip Reinforced	\$275.00/each
601.5	Haul Roads	Granular Material	\$28.00/ton
601.5	Haul Roads	Asphalt Concrete (including asphalt)	\$160.00/ton
601.5	Haul Roads	Cover Aggregate	\$55.00/ton
601.5	Haul Roads	Asphalt for Prime	\$1200.00/ton
601.5	Haul Roads	Asphalt (Tack, Flush & Surface Treatment)	\$800.00/ton
601.5	Haul Roads	Water	\$35.00/M.Gal
601.5	Haul Roads	Dust Control Chlorides	\$0.70/lb
634.5	Temporary Traffic Control	Flagging	\$36.03/hour
634.5	Temporary Traffic Control	Pilot Car	\$52.75/hour

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