

Department of Transportation

Mitchell Region Office

PO Box 1206
Mitchell, SD 57301-7206 605/995-8129
FAX: 605/995-8135

June 30, 2020

June Hansen
Civil Rights Officer
Department of Transportation
700 Broadway Avenue East
Pierre, South Dakota 57501

RE: IM 0908(106)362, McCook County – PCN 082T
Sewage Lagoon Grading and Lift Station
I90 WB Salem Rest Area

June,

Enclosed are a Contract Proposal and Plans for the above referenced project that is being let to contract in the Mitchell Region on July 21, 2020.

We have sent a bid invitation letter to the DBE/WBE Contractors listed below:

BX Civil & Construction Inc. **Grangaard Construction Inc.**

If you know of any other interested Contractors, please advise us.

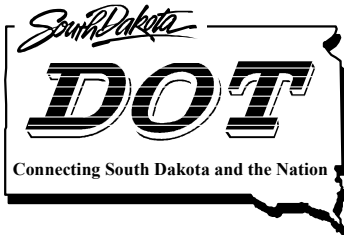
Very truly yours,

DEPARTMENT OF TRANSPORTATION
Travis Dressen, Region Engineer

Monte Rice, Region Design Engineer

cc: Ondricek – Construction and Maintenance
Leiferman – Project Development
Peppel/Holthaus/Brandner – Mitchell Area

NOTICE TO CONTRACTORS



Department of Transportation

Mitchell Region Office

PO Box 1206
Mitchell, SD 57301-7206 605/995-8129
FAX: 605/995-8135

June 30, 2020

TO: Interested Bidders

RE: **IM 0908(106)362, McCook County – PCN 082T**
Sewage Lagoon Grading and Lift Station
190 WB Salem Rest Area

The South Dakota Department of Transportation (SDDOT) desires to solicit bids for Sewage Lagoon Grading & Lift Station at 190 WB Salem Rest Area. Refer to the proposal and plans (in the link below) for location and details of the work to be done.

A Contract Proposal (DOT 123) form, a Disadvantaged Business Enterprise (DBE) Assurance and Intended DBE Utilization form and a Contractor's Affidavit/Declaration form are enclosed for submission of your bid. Be sure to have the forms signed and notarized as indicated on the forms. FAX bids will not be accepted.

The DBE goal for this project is: Not Specified.

The Department of Transportation in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, religion, national origin, sex, age or disability in consideration for an award.

If bidding \$200,000 or more, bidders must be prequalified in accordance with the Special Provision for Prequalification of Bidders contained in this Proposal for: Work Type 2 – Minor Grading or Work Type 12 – Underground & Utilities.

The required application form for prequalification of bidders can be accessed at the following link:

https://www.state.sd.us/eforms/secure/eforms/S_E0945V3-ContractorsPrequalificationStatement.pdf Submit the application to the Classification and Rating Committee in accordance with the Special Provision for Prequalification of Bidders.

The successful bidder will need to submit the DOT-208 Fuel Adjustment Affidavit (Attachment A) prior to the contract being awarded; therefore, all bidders are encouraged to submit the Fuel Adjustment Affidavit prior to or at the time of bidding.

If you submit a bid for this project, a bid bond, certified check, cashier's check, or bank draft will be required for NOT LESS THAN FIVE (5) PERCENT OF THE TOTAL AMOUNT OF THE BID. If an electronic bid bond is used, the Contractor is required to submit the bid bond identification number with the bid. Except for the lowest bidder on the project, all guarantees will be returned immediately following the receipt and checking of all bids.

The successful bidder will furnish a performance bond in a sum equal to the full amount of the contract, prior to contract award. Therefore, please provide the performance bond as soon as possible after letting. The performance bond will not be returned for one (1) year after the completion of the project.

A Certificate of Insurance will be required from the successful bidder prior to beginning work.

Sealed bids will be received by the SDDOT through the US Postal Service at PO Box 1206 until **8:00 A.M. on Tuesday, July 21, 2020** or may be hand delivered (in person or by a package delivery service) to the Department of Transportation, Mitchell Regional Office located at 1300 S Ohlman St, Mitchell, SD 57301 until **1:30 P.M. on Tuesday, July 21, 2020**. Bid must be submitted in an envelope clearly indicating that the contents are a bid and the letting for which the bid applies.

If hand delivering, address the envelope to:

Monte Rice, Region Design Engineer
Department of Transportation
1300 S Ohlman St
Mitchell, SD 57301

If using the US Postal Service, address the envelope to:

Monte Rice, Region Design Engineer
Department of Transportation
PO Box 1206
Mitchell, SD 57301

The SDDOT Mitchell Region Office has been closed to the public by executive order of Governor Noem, in response to the Covid-19 Pandemic. SDDOT offices are minimally staffed during this time with staff working from home whenever possible.

As our office is closed, there will be no entry by anyone into the building to drop off bids or observe bid openings. A minimum of two SDDOT employees will be present to witness, open and record the bid results.

Bid results will continue to be posted on the Regional Letting Web site
<https://apps.sd.gov/hc65bidletting/RegionDefault.aspx>

A Locked Drop Box has been installed in the vestibule at the East entrance of the SDDOT Mitchell Region Office Building. Hand delivered bids may be placed in the Locked Drop Box.

PLACE BIDS DELIVERED BY CONTRACTORS, FEDEX AND UPS IN THIS BOX

Since our offices are locked, we are uncertain as to what procedures courier delivery services like FedEx or UPS will be using to make delivery. You are encouraged to provide instructions with the courier services to leave the bids in the Locked Drop Box. We also encourage you to submit your bids early to make sure the bids are received in time for the bid opening.

Proposal and Plans (and Addenda, when applicable) can be accessed at the following link:
<https://apps.sd.gov/HC65BidLetting/RegionDefault.aspx> Prior to submitting a bid, it is the bidder's responsibility to examine the project in accordance with Section 2.5 of the specifications. It is also the bidder's responsibility to acknowledge and account for any addenda issued prior to bid opening.

Questions regarding the plans and/or proposal should be directed to:
[Jay Peppel at 605-995-3340](mailto:jay.peppel@sddot.sd.gov), [Travis Holthaus at 605-995-3341](mailto:travis.holthaus@sddot.sd.gov), [Becky Hoffman at 605-773-8386](mailto:becky.hoffman@sddot.sd.gov) or [Monte Rice at 605-995-3302](mailto:monte.rice@sddot.sd.gov).

The SDDOT reserves the right to reject any or all bids.

Please verify that all required information is complete prior to mailing bid documents.

Very truly yours,

DEPARTMENT OF TRANSPORTATION

Travis Dressen, Region Engineer

Monte Rice, Region Design Engineer

cc: Ondricek – Construction and Maintenance
B. Hoffman – Bid Letting
R. Johnson/Kruger – Operations Support
Hight - Environmental
Schaefer – Certification
Hansen – Civil Rights
Reiss – Planning & Programs
Peppel/Holthaus/Brandner – Mitchell Area
Gustafson – Operations
Weisz – Materials
[Leiferman – Project Development](#)
J. Larson/R. Murtha – McLaury Engineering

**SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
CONTRACT PROPOSAL**

DOT-123
July 2018
1 of 2

CODE	PROJECT			MAINT UNIT	CONTROL REFERENCE	AFE	FUNCTION	BEGIN MRM	END MRM
	PRE	ROUTE	AGR						
	IM	0908	106		362	082T			

CITY AND/OR COUNTY McCook County

BUDGET SOURCE: Construction Program

REGION MATERIALS CERTIFICATION REQUIRED: YES NO **WIP #:** _____
CERTIFIED INSPECTORS/TESTERS REQUIRED: YES NO
TO BE INSTALLED ON CM&P: YES NO

TYPE, PURPOSE AND LOCATION OF WORK: Sewage Lagoon Grading & Lift Station at I90 WB Salem Rest Area.

ESTIMATE OF QUANTITIES AND COST

BID ITEM NUMBER	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
009E0010	Mobilization	Lump Sum	LS	Lump Sum	
100E0020	Clear and Grub Tree	40	Each		
110E0460	Remove Manhole	5	Each		
110E0520	Remove Sewer Pipe	540	Ft		
110E0605	Remove Chain Link Fence	564	Ft		
110E1700	Remove Silt Fence	386	Ft		
120E0010	Unclassified Excavation	6290	CuYd		
120E0600	Contractor Furnished Borrow Excavation	11007	CuYd		
230E0010	Placing Topsoil	1082	CuYd		
250E0020	Incidental Work, Grading	Lump Sum	LS	Lump Sum	
451E1006	6" PVC Sewer Pipe	45	Ft		
451E1008	8" PVC Sewer Pipe	401	Ft		
451E1600	Lift Station	1	Each		
451E3412	6" Pipe Plug	6	Each		
480E0200	Epoxy Coated Reinforcing Steel	240	Lb		
451E4208	8" Gate Valve with Box	1	Each		
451E4944	6" Sewer Pipe Bedding Material	45	Ft		
451E4945	8" Sewer Pipe Bedding Material	401	Ft		
451E7016	Connect to Existing Sewer Main	1	Each		
451E7017	Abandon Sewer Main	808	Ft		
451E7020	Sewer Bypass Pumping	Lump Sum	LS	Lump Sum	
460E0100	Class A45 Concrete, Miscellaneous	5	CuYd		
621E0160	6' Chain Link Fence with Tension Wired Top	1365	Ft		
621E0420	Single Vehicular Swing Gate	1	Each		
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	10.1	SqFt		
634E0120	Traffic Control Miscellaneous	Lump Sum	LS	Lump Sum	
635E6200	Miscellaneous, Electrical	Lump Sum	LS	Lump Sum	
671E1048	48" Manhole	1	Each		
671E5502	2" Adjusting Ring for Manhole	2	Each		
671E6007	Type A7 Manhole Frame and Lid	1	Each		
700E0210	Class B Riprap	1716	Ton		
730E0202	Type B Permanent Seed Mixture	9	Lb		
730E0212	Type G Permanent Seed Mixture	48	Lb		
731E0200	Fertilizing	1.43	Ton		
732E0100	Mulching	4.3	Ton		
734E0010	Erosion Control	Lump Sum	LS	Lump Sum	
734E0602	Low Flow Silt Fence	1542	Ft		
734E0610	Mucking Silt Fence	107	CuYd		
734E0620	Repair Silt Fence	386	Ft		
831E0110	Type B Drainage Fabric	3019	SqYd		
TOTAL					

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
CONTRACT PROPOSAL

DOT-123
July 2018
2 of 2

CODE	PROJECT			MAINT UNIT	CONTROL REFERENCE	AFE	FUNCTION	BEGIN MRM	END MRM
	PRE	ROUTE	AGR						
	IM	0908	106		362	082T			

CONTRACTOR'S PROPOSAL STATEMENT

The undersigned agrees to offer the labor and material in the quantities, at the unit price, for the purpose, in the place, and in accordance with attached provisions. The Contractor will provide services in compliance with the Americans with Disabilities Act of 1990 and any amendments.

SUBSTANTIAL COMPLETION DATE N/A

FIELD WORK COMPLETION DATE November 20, 2020

SUBSCRIBED AND SWORN TO BEFORE ME THE

DAY OF _____, 20__

NOTARY _____

My Commission Expires:

DATE _____

PROPOSED START DATE _____

SIGNATURE _____

PRINTED NAME _____

COMPANY _____

STR. ADDRESS _____

CITY, STATE, ZIP _____

DATE _____ **(SEAL)** **FEDERAL TAX ID NUMBER** _____

TO BE FILLED OUT BY STATE PERSONNEL:

RECOMMENDED FOR APPROVAL:	_____	CONSTRUCTION & MAINTENANCE ENGINEER	_____	DATE
_____	_____	_____	_____	_____
AREA / REGION / OPS ENGINEER	DATE	DIRECTOR OF OPERATIONS	_____	DATE
_____	_____	_____	_____	_____
_____	_____	INTERNAL SERVICES / AUDITS	_____	DATE

ACCEPTED BY SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

NAME _____ **TITLE** _____ **DATE** _____

IF FEDERAL FUNDS WILL BE EXPENDED UNDER THIS AGREEMENT, ACCEPTANCE BY PROJECT DEVELOPMENT IS REQUIRED

PROJECT DEVELOPMENT ENGINEER _____ **DATE** _____

BIDDERS MUST COMPLETE & EXECUTE THE FOLLOWING

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

**Disadvantaged Business Enterprise (DBE) Assurance and
Intended DBE Utilization**

PROJECT: IM 0908(106)362 **PCN 082T**

COUNTY: McCOOK

Contractor/Bidder DBE Obligation: This contract is financed with federal-aid highway funds so the requirements of 49 CFR Part 26 (Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs) apply. The contractor/bidder is required to follow the Special Provision for Disadvantaged Business Enterprise for the selection and utilization of DBEs in this contract.

THE FOLLOWING SECTION IS TO BE USED TO LIST ALL INTENDED DBE UTILIZATION FOR THIS CONTRACT:

List each DBE by name. Provide the bid item numbers and a general description of the work performed, or materials to be furnished. For DBE trucking companies, list only the amount of hauling to be performed with each DBE's own trucks. DBE prime contractors are to list the work you will perform with your own forces, and any work subcontracted or materials purchased from another DBE.

The successful bidder will be required to obtain a signed Form 289B (DBE Notification of Intent to Subcontract) to the Department from each DBE listed below. The 289B for each DBE listed below will be provided to the successful bidder, and must be signed for inclusion into the contract documents.

DBE _____

Bid Item(s) _____

Work Description _____

\$ value =	\$ _____
If regular dealer (supplier) x 60%	\$ _____

DBE _____

Bid Item(s) _____

Work Description _____

\$ value =	\$ _____
If regular dealer (supplier) x 60%	\$ _____

DBE _____
Bid Item(s) _____
Work Description _____
\$ value = \$ _____
If regular dealer (supplier) x 60% \$ _____

DBE _____
Bid Item(s) _____
Work Description _____
\$ value = \$ _____
If regular dealer (supplier) x 60% \$ _____

DBE _____
Bid Item(s) _____
Work Description _____
\$ value = \$ _____
If regular dealer (supplier) x 60% \$ _____

(Add all DBE dollar values) **Total dollar value of DBE** \$ _____
Total bid amount \$ _____
Percent DBE participation _____ %

(Copy additional pages if necessary)

Assurance:

For this contract, and each subcontract signed with a subcontractor, I, acting in my capacity as an officer of the undersigned bidder, assure the Department that I shall not discriminate on the basis of race, color, national origin or sex in the performance of the contract. I shall carry out applicable requirements of 49 CFR Part 26 and the Special Provision for Disadvantaged Business Enterprise in the award and administration of this federally-assisted contract. Failure to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or other remedy as the Department deems appropriate.

Name of Company (print or type)

Date

By _____
Signature of Company Official

Title

BIDDER MUST EXECUTE THE FOLLOWING:

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

CONTRACTOR'S AFFIDAVIT / DECLARATION

PROJECT: IM 0908(106)362 PCN 082T

COUNTY: McCOOK

(an individual)
(a partnership)
(a corporation)

do hereby certify that I, We or any owner or partner holding a controlling interest, director or officer of the bidder; principal investigator, project director or other position involved in management of the project for which this bid is submitted, have not directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for the project, and that within the last 3 years none of the above have been suspended, debarred, voluntarily excluded or determined ineligible by any federal or state agency, been indicted, convicted, or had a civil judgment rendered against any of the above or the business entity described herein by a court of competent jurisdiction in any matter involving fraud or official misconduct for which we are currently under suspension or debarment. Nor is a proposed suspension or debarment pending against any of the above for any of the above listed reasons.

* * * *

COMPLETE SIGNATURE BLOCK **A. or B.** BELOW:

A. Signed _____ (an individual)
(a partnership)
(a corporation)
By _____
Title _____
County of _____)
State of _____):SS

Subscribed and sworn to before me this _____ day of _____, 20_____.

(SEAL) _____
Notary Public My Commission Expires _____.

* * * *

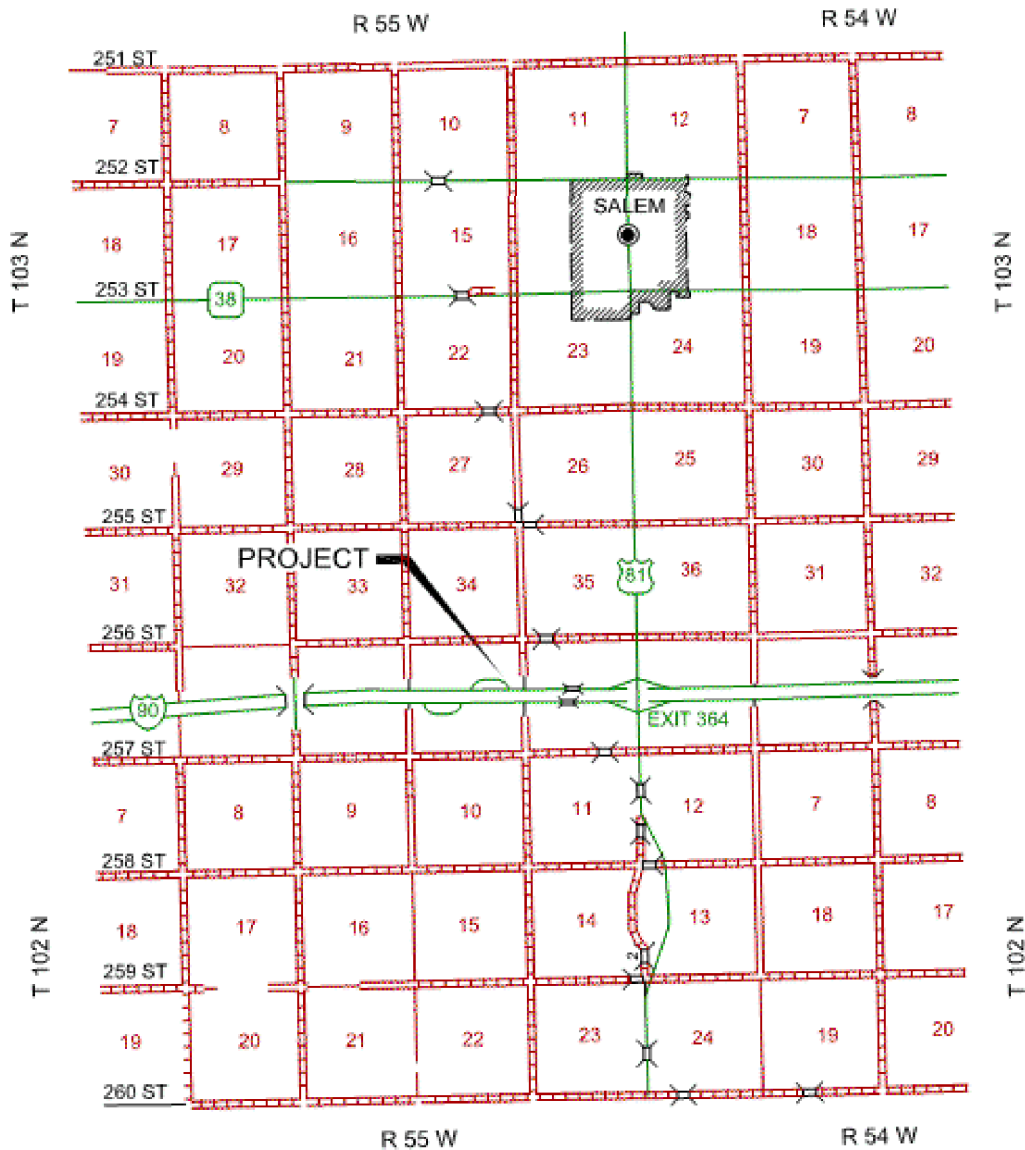
B. Under the penalty of perjury under the laws of the United States, I hereby certify that the above statement is true and correct.

Signed _____ (an individual)
(a partnership)
(a corporation)
By _____
Title _____

**SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
MITCHELL REGION**

PROPOSAL FOR

**IM 0908(106)362
McCOOK COUNTY
190 WB SALEM REST AREA
SEWAGE LAGOON GRADING &
LIFT STATION
PCN 082T**



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.

* * * *

CERTIFICATION REGARDING LOBBYING

I certify, to the best of my knowledge and belief, that: 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 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 a Federal contract, grant, loan, or cooperative agreement. If any funds other than Federal appropriated funds have been paid or will be paid to any of the above mentioned parties, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. 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 section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty or not less than \$10,000 and not more than \$100,000 for each such failure.

INDEX OF SPECIAL PROVISIONS

PROJECT: IM 0908(106)362 PCN 082T

COUNTY: McCOOK

TYPE OF WORK: SEWAGE LAGOON GRADING AND LIFT STATION

THE FOLLOWING ITEMS ARE INCLUDED IN THIS PROPOSAL FORM:

Geotechnical Report and Technical Provisions for Lagoon and Lift Station, dated 6/25/20.

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 8/14/18.

Special Provision For EEO Affirmative Action Requirements on Federal and Federal-aid Construction Contracts, dated 9/1/97.

Special Provision for Required Contract Provisions Federal-Aid Construction Contracts FHWA 1273 (May/1/12) dated 10/21/19.

Required Contract Provisions - Federal-aid Construction Contracts, Form FHWA 1273 (Rev. 5/1/12).

Special Provision for Cargo Preference Act, dated 1/20/16.

Special Provision Regarding Minimum Wage on Federal-Aid Projects, dated 5/1/19.

Wage and Hour Division US Department of Labor Washington DC.

- US Dept. of Labor Decision Number SD180001, dated 4/6/18.

Special Provision for Supplemental Specifications to 2015 Standard Specifications for Roads and Bridges, dated 11/20/19.

Special Provision for Errata to 2015 Standard Specifications for Roads and Bridges, dated 11/20/19.

Special Provision for Price Schedule for Miscellaneous Items, dated 6/6/18.

Special Provision Regarding Storm Water Discharge to Waters of the State, dated 5/8/18.

General Permit for Storm Water Discharges Associated with Construction Activities, dated 4/1/18.

<http://denr.sd.gov/des/sw/IPermits/ConstructionGeneralPermit2018.pdf>

Plans for Project – Sheets 1 through 46.

* * * *

PROJECT MANUAL

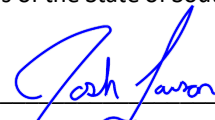
FOR

**PROJECT IM 0908(106)362
190 WB SALEM REST AREA LAGOON**

McCOOK COUNTY, SOUTH DAKOTA

PCN082T

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



Dated 6-25-2020 Reg. No 8161



THE ELK POINT OFFICE
PO BOX 1130, ELK POINT, SOUTH DAKOTA 57025
TELEPHONE (605) 356-2308

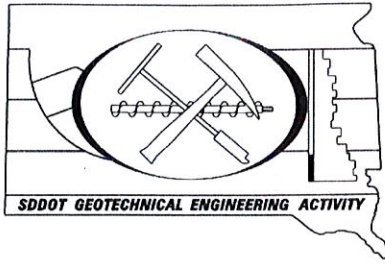
THE PARKSTON BRANCH OFFICE
P.O. BOX 916, PARKSTON, SOUTH DAKOTA 57366
TELEPHONE (605) 928-7676

THE SIOUX FALLS BRANCH OFFICE
5032 S BUR OAK PLACE SUITE 110
SIOUX FALLS, SOUTH DAKOTA 57108
TELEPHONE (605) 271-8998

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GEOTECHNICAL REPORT

TECHNICAL PROVISIONS



Department of Transportation
Division of Planning/Engineering
Office of Materials and Surfacing
Geotechnical Engineering Activity
700 E Broadway Avenue
Pierre, South Dakota 57501-2586 605.773.3401
FAX: 605.773.5867

MEMORANDUM

TO: Mitchell Region Operations Engineer – Jeff Gustafson
FROM: Geotechnical Engineering Activity – Blaise Hansen *BH*
SUBJECT: Salem Rest Area Lagoon Expansion
DATE: June 27, 2019
RE: M 090W-252, McCook County, PCN I5JN
 Salem Rest Area Lagoon Expansion

This memorandum documents the field work performed by Geotechnical Engineering Activity on June 25-26, 2019. Table 1 is a summary of the data regarding each drill location.

On June 25, four holes were drilled within the limits of the proposed lagoon bottom area. These holes were located by measuring from the southwest corner of the fence surrounding existing Pond 2. Survey elevations were established from the rim elevation of the manhole located along the fence at the northeast corner of Pond 2 as shown on McLaury Engineering Plan Sheets: Sheet 5 – Lagoon Layout & Install Locations. The bottom of the clay liner was estimated to be at an elevation of 1456.5, therefore the three holes designated for the percolation tests, P1 – P3, were drilled to this depth. A fourth hole, P4, was drilled to approximately 25.0 feet below this elevation to determine subsurface soil characteristics and depth to groundwater. All sidewalls of the holes remained intact during drilling with no evidence of caving. Hole P2 was dry and the other three locations initial water levels were measured by 1735 hours. Two of the holes, P1 & P2, were backfilled with water to 50% of their capacity by 1800 hours. Hole P3 was not backfilled because groundwater had filled it to approximately 50% of its depth. All the holes were covered to prevent surface infiltration of water.

On June 26, no overnight rainfall was evident and no caving of the holes had occurred. **Static groundwater levels were measured** by 0800 hours **with an average elevation 1462.4 for the site.** In accordance with SD Administrative Rule 74:53:01:30 the percolation test begins when the water level has reached the lower 25% of the hole depth. This would be at an average elevation of 1458.3 for the site. Since the average static groundwater elevation exceeded that, a valid percolation test was not possible at the proposed bottom of pond elevation.

Table 1. Summary of Test Hole Data for the Proposed Lagoon at the Salem Rest Area.

Hole	Location from Pond 2 SW Fence Corner		Elevation	Depth (ft)	Material Description	GWS ¹ Initial Elevation (6/25)	GWS Backfilled Elevation (6/25)	GWS Static Elevation (6/26)
	North (ft)	West (ft)						
P1	100	60	1465.7	11.0	12 inches of topsoil overlying sandy clay with silt and minor gravel	1455.6	1460.2	1462.7
P2	65	160	1466.4	11.0		Dry	1460.9	1462.2
P3	100	260	1466.9	11.0		1441.5	n/a	1460.9
P4	135	160	1467.0	34.7		1461.8	n/a	1463.8

¹ GWS: Ground Water Surface

cc: File

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SUMMARY OF WORK

1.1 SCOPE

- 1.1.1 The GENERAL, SUPPLEMENTAL and other CONDITIONS of the Contract are hereby made part of this Section.
- 1.1.2 This Section presents a summary of the intended Work and the Contractor's duties and use of premises.

1.2 TRENCHING

1.2.1 General

Trenches shall be excavated by a mechanical means, except in locations where hand trenching is required. Banks of trenches shall be vertical from the bottom of the trench to a point one foot above the top of the pipe.

1.2.2 Trench Bottom

In all cases, the Contractor shall be responsible for protecting and maintaining the trench bottom as a stable pipe bedding foundation. The Contractor shall remove any water which collects in trenches while pipes are being laid. In no case shall water be allowed to run over the invert or foundations or through pipes without the permission of the Engineer. Water encountered shall be disposed of by the Contractor in a manner so as to not damage adjacent property.

If the bottom of the trench becomes an unstable foundation for the pipe bedding through the neglect of the contractor to adequately protect or dewater the trench, the Contractor will be required to remove the unstable material and backfill the trench to the proper grade with compacted material in accordance with ASTM Designation D2321. No extra compensation will be granted for the material or work. If the trench is inadvertently excavated deeper than necessary, it shall be backfilled to the proper grade with compacted bedding material at the Contractor's expense.

If the material encountered at grade depth constitutes an unstable foundation for the pipe bedding, the Contractor will be required to remove such unstable material and backfill the trench to the proper grade with compacted material in accordance with ASTM Designation D2321. The material and work required will not be directly measured for payment and will be considered incidental to the project.

The bottom of the trench for all underground utilities shall be carefully and accurately formed and graded to the lines and grades as furnished by the Engineer. The bell holes and depressions for joints shall be dug after the trench bedding has been graded and shall be only of such length, depth, and width as required for properly making the particular type joints. The bedding material shall be graded so as to provide uniform bearing and support for each section of the pipe at every point along its entire length.

1.2.3 Rock

In rock, excavation shall be carried eight (8) inches below the bottom of the pipe, and loose earth or gravel, conforming to ASTM Designation C12-72, thoroughly tamped, shall be used for backfill to grade. After testing and inspection of pipe lines have been finished in any completed portion of the work, the trench may be backfilled.

1.3 PROTECTION OF ADJACENT STRUCTURES AND UTILITIES

It will be the Contractor's responsibility to contact all utility companies for the location of their respective underground services prior to any excavation.

Prior to commencing an excavation in the immediate vicinity of any building or other structure (i.e. fences, walls, water or sewer lines, gas mains, etc.), the safety of which may be endangered thereby, the Contractor shall serve written notice upon the owner of such building, structure, or utility, or his agent, naming the date of commencement of such work and allotting a reasonably sufficient length of time for the property owner to take steps to protect his property. Throughout the course of the work adjacent to such property, the Contractor shall exercise due precaution and care, and, at his own expense, shall furnish and place such extra timbering, bracing,

and sheathing as may be necessary to insure against the loss of ground adjacent to the excavation. The Contractor shall also take necessary precautions in his work operations to prevent the loss or settlement of such adjacent grounds and avoid the use of equipment which would tend to encourage property damage or loss of ground. The Contractor shall be responsible for any injuries to persons or property, for all damages to any pipe, conduit, sewer, or other structures injuriously affected by the work, and shall save harmless the Owner and Engineer from any liability thereof.

1.4 CROSSINGS TO BE KEPT OPEN

At such road and all other crossings as may be designated by the Engineer, the trenches are to be mechanically tamped and filled in such a manner as to prevent any serious interruption of traffic upon the roadway or crossing, the cost thereof to be borne by the Contractor. Not more than one street crossing may be obstructed by the same trench at any one time except by permission of the Engineer.

1.5 PROTECTION OF UNFINISHED WORK

Before leaving work for the night or during a storm, or at other times, care must be taken to securely protect the end of the pipe and all portions of exposed pipe. Any earth or other materials that may find entrance into the pipe through any open or unplugged end of the pipe must be removed at the Contractor's expense.

1.6 LIGHTS AND GUARDS

The Contractor must provide and maintain adequate detours around the work under construction. Barricades and warnings must be provided. It shall be the Contractor's responsibility to provide sufficient lights, warning signs, and watchmen to provide adequately for the safety of the public.

1.7 SHEATHING

Whenever necessary to prevent caving of banks or injury to persons, adjacent buildings, pipes, or other property, and to satisfy current federal, state, and local rules and regulations, the Contractor shall, at his own expense, properly and adequately brace and sheath trenches. If any such bracing or sheathing is left permanently in the trench, it shall be cut off at least 12 inches below the surface before backfilling, and the cost shall be incidental to the contract and not a pay item.

1.8 PUMPING

Where water is encountered in a trench, water shall be removed by pumping to lower the water level to such elevation that the pipe may be laid dry at the grade shown on the plans. All water pumped from the trench shall be disposed of in such a manner so as not to cause any damage to adjacent property.

1.9 DEWATERING

A permit is required when discharge from dewatering, pumping, disinfection, or pressure testing could reach waters of the State. To obtain information on the general permit, contact DENR's Surface Water Quality Program at (605) 773-3351.

When dewatering is paid for, it shall be considered as dewatering only when a manifold or pump and system of well points is installed to lower ground water such that excavation and construction can take place. The process of pumping water out of the trench with suction hose and pump will not be considered as dewatering. Where seepage of water into the trench occurs that can be removed using standard pumping procedures, it shall not be deemed sufficient cause for installing a system of manifolds and well points and classified as dewatering in order to obtain remuneration under this bid item - dewatering.

1.10 BACKFILLING TRENCHES

1.10.1 General

The trenches shall not be backfilled until all required tests are performed and until the system as installed conforms to the requirements specified in the section covering the installation of underground utility lines. Backfilling materials and the method of placing and compacting these materials shall comply with the plans and specifications. Any trenches improperly backfilled or showing settlement shall be reopened to a depth required for proper compaction. No backfilling shall take place in freezing weather except with written permission. Backfill shall not contain debris, frozen material, large clods or stones, organic matter or any unstable material. Stones larger than 3 inches in diameter shall not be placed within 2 feet of the top of any pipe. no backfill shall be made with frozen materials.

1.10.2 Backfilling Unpaved Areas

Backfill material shall be placed in uniform layers not exceeding one (1) foot and tamped. It shall be the Contractor's responsibility to compact each layer throughout its entire depth to a degree of compaction at least equal to that of the surrounding earth. The Contractor shall moisten or aerate the backfill materials to obtain the required compaction at his expense. The Contractor shall provide a final cover of topsoil. Any additional settlement of the trench shall be brought back to grade with additional topsoil. The trench shall be left in a condition so as to present a neat appearance.

1.10.3 Backfilling Surfaced or Gravel Areas

Open trenches under existing and proposed road surfacing shall be backfilled as described in the preceding section, "Backfilling Unpaved Areas", except that the entire depth of the trench shall be backfilled in 6" layers. Each layer shall be spread uniformly and an approved device until thoroughly compacted to at least 95% of the maximum density obtainable at optimum moisture content or as specified in the plans. Density of backfill shall be determined by the Engineer based on Standard Proctor Test, ASTM Test Designation D698-91.

The Contractor shall also blade and shape any adjacent gravel surfaces removed or disturbed during the trenching and backfilling operation to the condition existing prior to the beginning of work.

1.11 CONTRACTOR'S RESPONSIBILITY

Any settling of ditches throughout the period of construction and for a period of one year after written acceptance of the entire project by the Owner shall be repaired by the Contractor at his expense which will include repairs and replacement of surface materials and/or seeding if necessary.

1.12 CLEANUP SCHEDULE

The Contractor shall complete all cleanup within thirty (30) days after completing major construction. Uncompleted cleanup shall be cause for withholding on Contractor's pay estimates.

1.13 MEASUREMENT AND PAYMENT

No direct payment shall be made for Trenching and Backfilling, as it is considered incidental to the contract.

2 SANITARY SEWER MAIN

2.1 SCOPE OF WORK

This work shall consist of furnishing all labor, materials, equipment, tools and supplies to install the sanitary sewer, sewer services and appurtenances at the locations shown on the plans and in accordance with the requirements of these specifications and the plans. The unit price for sanitary sewer shall also include the cost for dewatering of the trench when necessary.

2.2 MATERIALS

2.2.1 Polyvinyl Chloride (PVC) Pipe

This specification designates general requirements for unplasticized polyvinyl chloride (PVC) Plastic Gravity Sewer Pipe with integral wall bell and spigot joints for the conveyance of domestic sewage. Sewer pipe shall be PVC unless otherwise stated.

Pipe and fittings shall meet the requirements of ASTM Specification D3034 for SDR35 and be installed per ASTM Specification D2321.74. The pipe shall be colored green for in-ground identification as sewer pipe.

Pipe shall be suitable for use as a gravity sewer conduit. Provisions must be made for contraction and expansion at each joint with a rubber ring. The bell shall consist of an integral wall section with a solid cross-section rubber ring, factory assembled, securely locked in place to prevent displacement during assembly. Standard laying lengths shall be 20 feet and 12.5 feet ± 1 inch. At manufacture's option, random lengths of not more than 15% of total footage of each size may be shipped in lieu of standard lengths.

Pipe (6" long section) shall be subject to impact from a free falling tup (20-lb Tup A.) in accordance with ASTM Method of Test D2444. No shattering or splitting (denting is not a failure) shall be evident when the following energy is impacted:

Nominal Size	
Inches	Ft-Lbs.
4	150
6	210
8	210
10	220
12	220
15	220

All fittings and accessories shall be as manufactured and furnished by the pipe supplier or approved equal and have bell and/or spigot configurations compatible with that of the pipe.

Pipe shall be designed to pass all tests at 73°F ($\pm 3^\circ\text{F}$).

Minimum "pipe stiffness" at 5% deflection shall be 46 PSI for all sizes when tested in accordance with ASTM Method of Test D2412, "External Loading Properties of Plastic Pipe by Parallel-Plate Loading."

Two sections of pipe shall be assembled in accordance with the manufacturer's recommendation. Joint shall be tested in accordance with ASTM D3212, "Joints for Drain and Sewer Plastic Pipe Using Flexible Elastomeric Seals."

There shall be no evidence of splitting, cracking, or breaking when the pipe is tested as follows:

Flatten specimen of pipe, six inches long between parallel plates in a suitable press until the distance between the plates is forty percent of the outside diameter of the pipe. The rate of loading shall be uniform and such that the compression is completed within two to five minutes.

2.2.2 Force Main

All pipes for sanitary sewer pressure piping (force mains) shall conform insofar as appropriate to the Technical Provisions Sections 3.2.2, 3.2.3, 3.3.12, and 3.3.15 for water main.

2.2.3 Manholes

Manholes shall be pre-cast as shown on the plans or called for within the bid schedule. All manholes shall be 48 inch inside diameter, unless otherwise shown, with manhole access a minimum of 24 inches in diameter. All manholes are to be built to the dimensions shown in the plans, special information, detail plates, or cut sheets furnished by the Engineer. All manhole sections shall be numbered and/or measured by the Contractor prior to installation to assure that the finished manhole will be to the grade specified on the plan sheets.

Pre-cast manhole sections shall meet the requirements of ASTM Specification C-478. Pre-cast manhole sections shall have tongue and groove joints with the tongue end pointing upwards from the base. Joints shall be sealed with RAM-NEK preformed plastic gaskets, as manufactured by K.T.Snyder Company, Inc., Houston, Texas, or approved equal.

Manhole bottoms for all manholes shall be constructed by the following method:

The precast base-barrel section shall also contain watertight gaskets, adaptors, or sealers to ensure a leak-proof connection between the manhole and the sewer pipes entering the manhole. Manhole boots for connecting pipes to the manholes shall be a watertight flexible connection meeting the requirements of ASTM C923. Such connections shall be flexible and/or pliable enough to allow for deflection from shifting or settling of the manholes and to accommodate the pipe on grade. The connections shall also be capable of adapting to the various sizes and types of sewer pipe that may be used. The manhole boot shall be a PSX gasket, as manufactured by the Press Seal Gasket Corporation, or approved equal. The rubber boots shall be supplied with two stainless steel clamps for attaching the boot to the pipe. A stainless steel "power sleeve" shall be supplied for connecting the boot to the manhole. When futures are specified, a short pipe length with a cap shall be installed and sealed. This section of pipe will need to be removed and replaced when the pipe is extended from the manhole.

In projects where existing manholes are not replaced, the existing pipe shall be removed from the manhole and the new pipe shall be inserted into the manhole wall to the same extent and grouted in place. This connection shall be included in the price bid per foot for sewer main, complete in place.

2.2.4 Manhole Frames and Lids

All manholes shall be equipped with cast iron manhole frames and lids. Manhole frame and lid shall be Neenah Foundry No. R-1733 or approved equal with machined bearing surface or as specified in the plans. The frame and lid shall have a minimum weight of 300 pounds, and a minimum opening through the frame of 24 inches. Rings shall be secured to the precast manhole sections by grouting or with concrete adhesive.

The manholes shall terminate flush with street grades and three inches below existing grade for other areas, except cultivated fields where they shall be 17 inches below grade, unless otherwise specified in the Plans.

2.2.5 Manhole Adjusting Rings

Manhole adjusting rings may be concrete or plastic. Concrete adjusting rings shall be in accordance with ASTM C478. The inside diameter or the ring shall be 24 inches. The mortar shall be Standard Portland Cement Type I, hydrated lime, and clean, sharp, well-graded sand, free from foreign materials. The minimum design compressive strength shall be no less than 4,000 psi.

The installation for concrete adjusting rings shall be in accordance with the Standard Specifications for Roads and Bridges produced by the SDDOT unless otherwise specified. The manhole frame and adjusting rings where concrete adjusting rings are used shall be set in a full bed of mortar to the elevation set by the Engineer as shown on the grade sheet. The mortar shall be tuck-pointed between rings and shall not be applied to the inside diameter surface of the adjusting rings. The mortar placed between adjusting rings shall not be greater than 3/4 inch in thickness.

Plastic adjusting rings shall be injection molded HDPE as manufactured by Ladtech, Inc. or approved equal. The adjusting rings shall be manufactured from polyethylene plastic as identified in ASTM D-1248 (Standard Specification for Polyethylene Plastic Molding and Extrusion Materials). Material properties shall be tested and qualified for usage in accordance with the ASTM Test Methods referenced in ASTM D-1248. The plastic adjusting rings shall be manufactured utilizing the injection molding process as defined by SPE (Society of Plastic Engineers). The adjusting rings shall be tested to assure compliance with impact and loading requirements in accordance with the AASHTO Standard Specification for Highway Bridges. The adjusting rings shall meet and exceed the static load requirements of ASSHTO highway Bridge Specification HS-25 (21,280 lbs). The rings must withstand 1,000,000 plus full load cycles of 10 seconds or less duration. The rings must perform without failure to a minimum of 150 percent of these load values. The adjusting rings shall be sized to conform to the standard 24-inch manhole opening.

The plastic adjusting rings shall be installed as recommended by the manufacturer. No shims or other leveling devices, other than leveling rings provided by the manufacturer, will be permitted with use of the plastic adjusting rings. The annular space between the adjusting rings shall be sealed using an approved butyl rubber sealant. The first plastic adjusting ring on existing manholes may require leveling with concrete mortar, and therefore the first plastic ring may be set in mortar.

2.2.6 Pipe Couplings

Clamp style couplings on all Sanitary Sewer Mainline shall be "Power Seal Model 3541" as manufactured by Power Seal Pipeline Products Corporation, Adjustable Repair Coupling with 300 series stainless steel shear ring as manufactured by Mission Rubber Company, Inc., "Strong Back RC Series Repair Coupling," as manufactured by Fernco, Inc., or approved equal. All couplings shall bear the manufacturer's identifying mark and size.

2.2.7 Cleanouts

Cleanouts shall be used only in approved locations. Cleanouts shall be covered at finished grade with a Neenah R1976, or approved equal, frame and cover except for cleanouts located adjacent (within 5 feet) to the structure it services. The cleanout shall be constructed as shown on the Standard Plates.

The furnishing and installing of clean-outs shall be paid for at the contract unit price for each sewer clean-out assembly unless otherwise noted. Payment for the sewer clean-out assembly will be full compensation for furnishing and installing of the piping, fittings, protective covers, and all appurtenances necessary for the proper installation of the cleanout.

2.2.8 Insulation

Type IV Styrofoam Brand—"Square Edge" as manufactured by Dow Chemical Company or approved equal shall be used for insulating sewer pipes where required. The thickness and dimensions shall be specified on the drawings or in the Special Provisions.

Approved equal products from other manufacturers shall be Extruded Polystyrene Board Insulation formed from polystyrene base resin by an extrusion process using hydro chlorofluorocarbons as blowing agent to comply with ASTM C578, Type IV, with 1.60 lb/cu ft minimum density and a compressive strength of 25 lb/sq in as specified in ASTM D1622 and ASTM D1621 respectively. The maximum thermal conductivity of the insulation shall conform with ASTM C518, C177, and C578. The maximum water absorption percentage by volume shall be 1 percent in accordance with ASTM D2842. The range of water vapor permeance shall be 0.4 to 1.0 perm in accordance with ASTM E96.

2.2.9 Casing Pipe and Boring Materials

- Casing Pipe: Steel seamless casing pipe, Grade B ASTM A53. With joints butt welded around the entire pipe. Wall thickness shall be designed and specified with each individual project.
- Casing Spacers: Shall be as specified on the Standard Plates.
- End Seals: Shall be as specified on the Standard Plates.
- Carrier pipe: Shall be as specified in the Supplemental Standard Specifications, Special Provisions, or drawings.

2.2.10 Boring, Casing Pipe, and Carrier Pipe

The basis of measurement shall be by the lineal foot for casing pipe, linear foot for carrier pipe, linear foot for boring and incidental for end seals and casing spacers. The measured length of carrier and casing pipe shall be rounded up to the nearest 1-foot increment.

The furnishing and installing of casing pipe and carrier pipe shall be paid for at the contract unit price per linear foot for the types, classes, and sizes furnished and accepted.

Payment for boring will be full compensation for boring to allow for the installation of the casing pipe, disposal of material excavated by boring, excavation and backfilling of bore pits, trench dewatering (unless otherwise specified), and all appurtenances necessary for the proper completion of the boring. Boring shall be completed in accordance with the Technical Provisions for "Directional Boring". Where boring is not necessary for the installation of casing pipe, all cost for installation of the casing pipe, as previous defined, shall be incidental to the contract unit price per linear foot for the casing pipe. No separate payment shall be made for installation.

Payment for casing pipe will be full compensation for furnishing and installing of the casing pipe, welding, end seals and all appurtenances necessary for the proper installation of the casing pipe.

Payment for carrier pipe will be full compensation for furnishing and installing of the carrier pipe, gaskets, casing spacers, and all appurtenances necessary for the proper installation of the carrier pipe.

2.2.11 Manhole External Frame Seal

Manhole external frame seals shall be Wrapid Seal as manufactured by CANUSA-CPS, Infi-Shield Uni-Band as manufactured by Sealing Systems Inc., Internal/External Frame Seal as manufactured by Adaptor Inc., or approved equal. Infi-Shield manhole external frame seals manufactured by Sealing Systems will only be allowed in street pavement areas. The seal (for the Sealing Systems, Inc. product) shall be a continuous band made of high quality EPDM (Ethylene Propylene Diene Monomer) rubber with a minimum thickness of 60 mils. Each unit shall have a 2-inch-wide mastic strip on the top and bottom of the band. The mastic shall be a nonhardening butyl rubber sealant with a minimum thickness of 3/16 inch and shall seal to the cone/top of the manhole section and over the flange of the casting. The manhole external frame seal shall extend onto the casting and the cone section a minimum of 2 inches. Manhole external frame seals shall be installed in accordance with the manufacturer's recommendations.

2.2.12 Manhole External Joint Seal

Manhole external joint seals shall meet the requirements of ASTM C877 Type III and are required on all manhole joints. The wrap must provide a minimum seal width of 9 inches and a minimum thickness of 60 mils. Approved manhole external joint seals shall be:

- Infi-Shield Gator Wrap as manufactured by Sealing Systems Inc.
- EZ-Wrap as manufactured Press Seal Gasket Corporation wrap.
- Mar Mac Seal Wrap as manufactured by Mar Mac.
- Approved equal

2.3 CONSTRUCTION

2.3.1 Alignment

The Engineer will stake all sanitary sewer alignment initially, and it shall be the Contractor's responsibility to protect the stakes. If restaking of all or a portion of the sewer is required, it shall be done at the Contractor's expense.

2.3.2 Separation of Sewer and Water Lines

- **Horizontal Separation** – Sewers shall be laid at least 10 feet (3.0m) horizontally from any existing or proposed watermain. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot (3.0 m) 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 the sewer closer to a watermain, provided that the watermain is in a separate trench or on an undisturbed earth shelf located on one side of the sewer and at an elevation so the bottom of the watermain is at least 18 inches (450mm) above the top of sewer. If it is impossible to obtain proper horizontal separation as described above, both the watermain 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 (1034 kPa) to assure water tightness before backfilling.
- **Vertical Separation** – The pipes shall be laid to provide a minimum of 18 inches (450mm) between the sewer and the watermain pipes. The crossing shall be arranged so that a full length piece of sewer pipe and a full length pipe of water pipe shall be used at the location and the pipe joints will be equidistant and as far as possible from the crossing point.
- **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:
 - Water Pipe – the sewer shall be designed and constructed equal to water pipe and shall be pressure tested a 150 psi (1034 kPa) prior to backfilling to assure water tightness; or;
 - Carrier Pipe – Either the watermain or the sewer main may be encased in a watertight carrier pipe that extends 10 feet (3.0 m) on both sides of the crossing, measured perpendicular to the watermain. The carrier pipe shall be PVC, ABS, or HDPE, and the ends sealed with a rubber gasket or boot.

2.3.3 Underground Interference

The location of underground public or private utilities as reported by the various utility companies and the Owner may be shown on the plans, but this does not relieve the Contractor of the responsibility of determining the accuracy or completeness of said locations. It shall be the Contractor's responsibility to contact all utilities for the location of their respective underground services before any excavation, and the Contractor shall take steps necessary to support, protect, remove or relocate said structures by any means suitable to the owners of the structures involved. In those instances where their relocation or reconstruction is impracticable, a deviation from line and grade may be ordered by the Owner. The Contractor shall be responsible for notifying the various utility companies if his work will expose, affect or endanger any existing utility. All cost of investigation and any necessary protection, support, removal or relocation of said structures shall be included in the contract bid price for sanitary sewer.

2.3.4 Excavation and Backfill - General

The Contractor shall do all excavation of whatever substances are encountered to the depth shown on the plans. Excavated materials not required for fill or backfill shall be removed from the site and disposed of by the Contractor.

Excavation for manholes and other accessories shall have 12-inch minimum and 24-inch maximum clearance on all sides.

Excavation below required level shall be backfilled at the Contractor's expense with earth, sand, gravel, or concrete, and thoroughly tamped.

Ground adjacent to all excavation shall be graded to prevent drainage into excavated area. The Contractor shall remove, by pumping or other means, any water accumulated in the excavation.

2.3.5 Trench Excavation

Trench banks shall be vertical. Width of trench shall be six-inch minimum, twelve-inch maximum, on each side of the pipe bell.

In addition, it is the intent of the foregoing to limit the width of the trench from the bottom to a point approximately one foot above the pipe to a width of not more than three times the diameter of the pipe.

2.3.6 Bracing and Shoring

The Contractor shall do all bracing, sheeting and shoring necessary to perform and protect all excavations.

2.3.7 Dewatering

It is the Contractor’s responsibility to determine if dewatering will be necessary and any such cost of dewatering shall be included in the unit bid price for the pipe or manhole installation unless a bid item is included in the proposal.

A permit is required when discharge from dewatering, pumping, or testing could reach waters of the State. To obtain information on the general permit, contact DENR’s Surface Water Quality Program at (605) 773-3351.

2.3.8 Pipe Bedding

Pipe bedding for PVC pipe shall be in accordance with ASTM Specification 2321 as per the following table, or sand if approved by owner.

<u>Gradation</u>	<u>Percent Passing</u>
1 inch	100
3/4 inch	90 - 100
1/2 inch	...
3/8 inch	20 - 55
No. 4	0 - 10
No. 8	0 - 5

2.3.9 Backfill, Compaction, Moisture Control and Testing

Backfill material shall be placed evenly and carefully around and over the pipe in six (6) inch maximum layers. Each layer shall be thoroughly and carefully tamped to a depth of 12 inches above the top of the pipe. The Contractor, after obtaining one foot of cover over the pipe, shall place the succeeding material in 12-inch maximum lifts for pipes not located in street right of ways, and 8-inch maximum lifts for pipes located in street right of ways, with each lift mechanically tamped.

The Contractor shall compact the backfill material from the bottom of the trench to a plane 24 inches below the existing ground surface, to not less than 95 percent of the maximum dry density. In areas where the ground will be covered with Portland Cement or asphalt concrete pavement, the top 24 inches of backfill material in the subgrade shall be compacted to 98 percent of the maximum dry density. In areas where the ground will have sidewalks construction, the top 24 inches of backfill material shall be compacted to 98 percent of maximum dry density. However, in no case shall the degree of compaction of the trench backfill be less than the density of the original soil. Crushed rock pipe bedding, or granular pipe bedding, where specified or used, shall be compacted to 70 percent relative density, as determined by ASTM D2049. This requirement is not a bid item, but shall be included in the bid on the piping. Compaction tests will be made in accordance with ASTM D2167 or ASTM D2922.

The maximum dry density and optimum moisture content of the backfill material will be determined in accordance with ASTM D698. The Contractor shall adjust the moisture content of the backfill material to not more than 4 percent above, or 2 percent below the optimum moisture content.

It will be the Contractor's option as to the type of mechanical tamping equipment he uses to attain the specified soil densities; however, the tamping equipment shall be sized and used in such a manner as to not disturb or damage the

pipe. Use of high force hammer equipment, gravity or hydraulic type, will not be permitted until compacted backfill is in place to a minimum of three and one-half feet above the top of the pipe.

2.3.10 Crushed Rock Bedding for Sewer Pipes

It may be necessary to bed some of the sewer lines with crushed rock, due to the possibility of encountering wet soil conditions during excavation. Granular bedding shall extend the full width of the trench and shall extend upward from the bottom of the pipe to such level as will assure full support of the lower one-half of the pipe circumference or as specified in the plans. The minimum depth between the bottom of the trench and the lowest point of the pipe shall be as required to achieve adequate pipe support. Bedding material will be crushed rock or crushed gravel meeting the requirements of ASTM C33, Gradation 67.

2.3.11 Trench Stabilization Material

When the foundation material is not suitable to provide a uniform base for the pipe, the trench shall be undercut to sufficient depth to build an acceptable base. Such areas shall be backfilled with trench stabilization and/or geotextile fabric material to build a uniform foundation. The trench stabilization material shall be brought up to the bottom of the bedding material specified for the pipe and the bedding material shall be used up to the height indicated in the plans.

2.3.12 Laying Pipe

All sewers shall be laid in accordance with the requirements of ASTM's recommended practice for installing sewer pipe. The sewer shall be laid true to line and grade so that, when complete, the sewer will have a smooth and uniform surface. The pipe shall be inspected and rung before incorporation into the work. No water shall be allowed in the trench without approval of the Owner. To prevent earth or other material from entering the pipe, excavation shall be kept ahead of the pipe laying, and the exposed end of the pipe shall be closed with a board or other stopper. Not more than 100 feet of ditch may be opened ahead of pipe laying.

The Contractor shall be required to use one of the following two methods to establish proper line grades:

2.3.12.1 Laser Equipment

The Contractor shall be required to furnish and use laser equipment for installation of all sewer mains as a means of establishing proper line grade.

The laser beam projector is to be rigidly mounted. Units using the laser beam coaxially through the center of the pipe should maintain control of the atmospheric conditions in the pipe to assure proper line and grade. Units other than through the pipe should provide adequate control sufficient to produce acceptable standards of construction.

Horizontal and vertical control for all structures in the form of bench marks or reference points will be furnished by the Owner. In addition, the Owner will provide one offset stake for establishing line and two offset stakes for establishing grade at each structure. (Staking beyond that initially provided by the Owner will be the responsibility of the Contractor at his cost).

2.3.12.2 Overhead Grade Boards

The Contractor may use an overhead grade line or top line method for establishing grade or sighting of the grade pole over parallel double lines. The contractor shall have in position a minimum of three grade or batter boards while laying pipe; any discrepancies or irregularities in the line or grade stakes should be corrected before pipe laying proceeds.

If the Contractor elects to use "Overhead Grade Boards" for installation of the sewer mains, the required surveying and staking beyond the horizontal and vertical control bench marks and reference points shall be the Contractor's responsibility and at his cost.

2.3.13 Testing

The Contractor shall be required to perform infiltration, exfiltration, leakage, pipe televising and/or deflection tests on all of the sewer system. At the discretion of the Engineer, pressure testing shall not be required if televised pipe shows no problems. The Contractor shall include the cost of testing, including testing equipment, in the bid.

The type of test to be performed shall be selected by the Owner from the tests specified herein. In addition, more than one of the specified tests may be required depending on the pipe material and subsoil conditions.

The Contractor shall furnish all required test equipment and conduct the test(s) at his own expense. Testing will be observed by the Owner and the Contractor shall notify the Owner 48 hours in advance of conducting the test.

Any corrective work required shall be performed at the Contractor's expense and retested until satisfactory results are obtained.

2.3.13.1 Infiltration Test

Infiltration test shall be performed if the ground water level is at least two feet above the top of the pipe at the highest point in the section being tested.

Maximum infiltration in any section of sanitary sewer, including manholes, shall not exceed 200 gallons per inch of pipe diameter per day per mile of sewer.

Test head shall be maintained at least 24 hours prior to measuring infiltration.

Infiltration shall be measured using a V-notch weir or other flow-measuring device in the downstream manhole of the section being tested.

Locate and repair leaks and retest until requirements of this section are met.

2.3.13.2 Exfiltration Test

Exfiltration test shall be performed if the ground water is less than two feet above the top of the pipe.

Maximum exfiltration in any section of sanitary sewer, including manholes, shall not exceed 200 gallons per inch of pipe diameter per day per mile of sewer.

Plug the inlet of the upstream and downstream manholes using watertight plugs.

Sewer and upstream manhole shall be filled with water to an elevation two feet above the top of the pipe being tested, or two feet above the existing ground water level, whichever is greater.

Measure exfiltration for a period of one hour starting one hour after filling.

Locate and repair leaks and retest until requirements of this section are met.

2.3.13.3 Low Pressure Air Test

Air test may be used in lieu of infiltration/exfiltration test, and shall be conducted in accordance with ASTM Standard F1417-92 or Uni-B-6-98. Plug the ends of the section to be tested with airtight plugs. Brace plugs to prevent slippage due to internal pressure. One plug must have provisions for connecting an air hose.

Connect air hose to plug and to portable air control equipment consisting of valves and pressure gauges to control the rate of air flow into the test section and monitor air pressure inside the pipe.

Supply air to test section such that internal pressure in the pipe section does not exceed 5 psig. When pressure reaches 4.0 psig, throttle air supply to maintain internal pressure between 3.5 and 4.0 psig for minimum of two minutes.

Disconnect air supply and allow pressure to drop to 3.5 psig. At 3.5 psig start a stop watch and determine the time required for the pressure to drop to 2.5 psig.

Minimum allowable time for pressure drop to occur and maximum length of sewer line that can be tested by air test shall be as follows:

Pipe Size	Minimum Time	Length For Minimum Time	
6"	5 min. 40 sec.	398	ft
8"	7 min. 34 sec.	298	ft
10"	9 min. 26 sec.	239	ft
12"	11 min. 20 sec.	199	ft
15"	14 min. 10 sec.	159	ft
18"	17 min. 00 sec.	133	ft
21"	19 min. 50 sec.	114	ft

Locate and repair leaks and retest until requirements of this section are met.

2.3.13.4 Alignment Test

Completed sewers shall be checked for alignment using either a laser beam or lamping. Completed sewers that do not show sufficient artificial light from manhole shall be corrected by the Contractor.

2.3.13.5 Deflection Test

Conduct deflection test on sanitary sewers constructed of plastic pipe (PVC). Conduct deflection test after final backfill has been in place at least 30 days. Maximum deflection shall not exceed five percent of the inside diameter of the pipe being tested. Conduct deflection test using Go No Go deflection testing gauge or mandrel. Outside diameter of mandrel shall not be less than 95 percent of the specified inside diameter of the pipe being tested.

Thoroughly flush line prior to testing to remove mud and debris. Float pull rope from upstream manhole to downstream manhole of section being tested and attach mandrel to pull rope. Attach a second rope to back of mandrel to retrieve mandrel if blockage is encountered. Mark pull rope so that if blockage is encountered, the location of blockage can be determined.

Pull mandrel through the sewer line. Mechanical pulling devices shall not be used. If resistance to pulling or blockade is encountered, remove mandrel and reflush or clean sewer line, if necessary. If blockage remains, locate and determine cause of blockage and make necessary repairs. Repeat test until requirements of this section are met.

2.3.13.6 Manhole Exfiltration Test

The manhole vacuum test shall be used for testing manholes for leakage defects. The manhole water exfiltration test shall only be allowed where specified. To perform this test, the inlet and outlet of the manhole shall be plugged and the manhole filled with water to a depth equal to that used for the sanitary line water test, or in the case when the air test was run on the line, a minimum depth of 2 feet above the top of the sewer line or 2 feet above the existing ground water—whichever is the higher. Allow the water to stabilize for one-half hour and refill the manhole to the original elevation. Mark the initial depth of the water, and after one hour record the drop in the water level in the manhole. The maximum allowable drop in vertical water height in the manhole shall be 1/4 inch for all diameter sizes of manholes. If the water level in the manhole drops below the allowable drop amount, the Contractor shall repair the leak and retest.

2.3.13.7 Manhole Vacuum Test

The manhole vacuum test shall be performed in accordance with ASTM C1244. The following procedure is summarized from ASTM C1244 and shall be followed in conjunction with ASTM C1244 unless modified by the Engineer. The vacuum test shall include testing the top of the manhole, excluding the adjusting rings and manhole frame and cover. Testing will be allowed after backfilling has occurred or as specified

in the Special Provisions. Manhole vacuum tester assembly and vacuum pumps shall be as manufactured by Cherne Industries, Inc. or approved equal. Repair of leaks may require the removal and replacement of manhole sections. The use of grout to repair leaks will not be allowed.

Procedure

1. All lift holes shall be plugged.
2. All pipes entering the manhole shall be temporarily plugged, taking care to securely brace the pipes and plugs to prevent them from being drawn into the manhole.
3. The test head shall be placed at the top of the manhole in accordance with the manufacturer's recommendations.
4. A vacuum of 10 inches of mercury shall be drawn on the manhole, the valve on the vacuum line of the test head closed, and the vacuum pump shut off. The time shall be measured for the vacuum to drop to 9 inches of mercury.
5. The manhole shall pass if the time for the vacuum reading to drop from 10 inches of mercury to 9 inches of mercury meets or exceeds the values indicated in Table 3.17.12.
6. If the manhole fails the initial test, necessary repairs shall be made by an approved method. The manhole shall then be retested until a satisfactory test is obtained.

Minimum Test Times for Various Manhole Diameters in Seconds

Depth (ft)	Time (seconds)		
	48 in. Diameter	60 in. Diameter	72 in. Diameter
8	20	26	33
10	25	33	41
12	30	39	49
14	35	46	57
16	40	52	67
18	45	59	73
20	50	65	81
22	55	72	89
24	59	78	97
26	64	85	105
28	69	91	113
30	74	98	121

2.3.14 Cleanup

When the installation of the sanitary sewer system is completed, the Contractor shall remove all material, equipment, temporary structures, trash, and debris resulting from the construction of the project. The construction area shall be left in a neat and uncluttered condition. All sewer lines shall be flushed with water, removing all dirt, trash and debris from the sewers and manholes. The Contractor shall furnish all water and flush the sewer line and force mains until lamping of the lines show that the pipe is clean.

2.4 MEASUREMENT

Sanitary sewer main will be measured by the lineal foot along the centerline of the sewer main pipe which is in place in accordance with the plans and specifications, and accepted.

Manholes will be measured in units of one each, manhole covers will be measured in units of one each, in place and accepted.

Service lines will be measured in units of linear foot and wyes will be measured in units of one each, in place and accepted.

2.5 PAYMENT

All payment will be based on completed and accepted work performed in strict accordance with the drawings and specifications. No separate payment will be made for tests or for excavation, trenching, and backfilling for items of work covered under this section of the specifications and all such costs pertinent to these items shall be included in the applicable unit prices therefore.

- Payment for sewer main lines will be made at the contract unit price per linear foot. Payment for manholes will be made at the contract unit price per each.
- Payment for manhole rings and covers will be made at the contract unit price per each.
- Payment for service lines will be made at the contract unit price per linear foot.
- Payment for wyes will be made at the contract unit price per each.
- No separate payment will be made for incidental items, including bends necessary for reconnect of sewer services, and their cost shall be included in the unit price bid for sanitary sewer.

Payments described above will be full compensation for all material, labor, equipment, excavation, backfill and incidentals necessary to complete the item.

3 WATERMAINS

3.1 SCOPE OF WORK

The Contractor shall furnish all necessary labor, materials, equipment, tools and supplies to install the watermain and specified appurtenances at the locations shown on the plans and in accordance with the requirements of these specifications and the plans. The unit price for watermain shall also include the cost for dewatering of trench when necessary.

3.2 MATERIALS

3.2.1 Polyvinyl Chloride Pipe

All pipe shall be polyvinyl chloride pipe (PVC) conforming to the requirements of C900 AWWA Class 150, unless otherwise specified. The pipe size shall be as noted on the plans.

Each length of pipe shall be marked with nominal size, manufacturer's trademark, pressure classification, date, and shift of manufacture with appropriate designation code, SDR, etc. Provision must be made for expansion and contraction at each joint with a rubber gasket seal conforming to ASTM 3139 and ASTM F477. The bell section of each pipe shall be integral with the pipe and shall be designed to be at least as strong as the pipe wall.

Installation shall be as per manufacturer recommendations.

3.2.2 Ductile Iron Pipe

Ductile Iron Pipe shall sustain a working pressure of 150 pounds per square inch (psi) with a minimum cover of 6 feet. Pipe classes shall be as follows:

Pipe Size (Inches)	Ductile Iron Pressure Class
4	350
6	350
8	350
12	350
16	250
20	250

All ductile iron pipe shall be manufactured in full conformance with the most current edition of AWWA C150 and C151 standards. All ductile iron pipe shall meet NSF/ANSI Standard 61—Drinking Water System Components, Health Effects and NSF/ANSI 61 Annex G, NSF/ANSI 372.

Ductile iron pipe shall be lined with cement mortar (Portland cement) and shall be manufactured in full conformance with the most current edition of AWWA C104 standards. The thickness of linings shall be not less than the following: 1/16 inch for 6- to 12-inch pipe, 3/32 inch for 16- to 24-inch pipe and 1/8 inch for 30- to 60-inch pipe.

A plus tolerance of 1/8 inch in thickness will be permitted. Linings shall be full thickness to the end of the spigot and to the seat of the bell, or shall be tapered for a length of not more than 2 inches. Ductile iron pipe shall be coated on the outside with bituminous coating at least one nominal mil in thickness.

Gaskets for all ductile iron pipe shall meet the requirements of the pipe manufacturer. All gaskets shall meet NSF/ANSI Standard 61—Drinking Water System Components, Health Effects.

Where ductile iron restrained joint pipe is shown on the plans, pipe shall be furnished with boltless, flexible, push-on restrained joints such as Flex-Ring by American Ductile Iron Pipe, Snap-Lok by Griffin, or Engineer approved equal.

3.2.3 Fittings

Fittings for use with PVC pressure pipe shall be ductile iron mechanical joint, except as noted, with a minimum working pressure of 250 pounds per square inch (PSI). All fittings shall be bid complete with gaskets, glands, bolts, and other appurtenances. Fittings, gaskets, glands, and cement linings shall meet NSF/ANSI Standard 61—Drinking Water System Components, Health Effects and NSF/ANSI 372. Fittings shall be manufactured in full conformance with the most current edition of AWWA C110 Standards. All fittings shall be cement lined on the interior and 1-mil nominal thickness bituminous coated on the exterior. Cement lining shall be at least 1/16 inch in thickness and shall be manufactured in full conformance with the most current edition of AWWA C104. Joints shall conform to the most current edition of the requirements of AWWA C111.

Where used, compact ductile iron fittings shall be manufactured in full conformance with the most current edition of AWWA C153. Compact ductile iron fittings shall only be allowed for fittings that are 30 inches in size and smaller provided such fittings do not interfere with the correct installation of reaction blocking. All fittings shall be cement lined on the interior and 1-mil nominal thickness bituminous coated on the exterior as specified for cast iron fittings. Fittings shall be bid with gaskets, glands, bolts, and other appurtenances.

Ductile Iron fittings shall be U.S. Pipe, Tyler, American, Star or approved equal.

3.2.4 Gate Valves

3.2.4.1 General

The Resilient-Seated Gate Vales and Tapping Valves shall conform to the requirements of AWWA C509-01. The valve seat shall be able to withstand 200 pounds of pressure and the body shall withstand 400 psi.

Construction

Size:	4" to 12" inclusive
Joint:	Mechanical or flanged w/accessories
Gaskets:	Rubber
Bolts:	Bonnet and stuffing box bolts shall be stainless steel
Operation:	Open Left (counter-clockwise) w/2" operating nut
Seating:	The valve gate seating material shall be either bonded or mechanically attached to the gate, and shall provide a watertight seal. The seating material shall not become deformed after several cycles of operation or after a prolonged period of being in the closed position.
Seals:	The stem shall be made of bronze or stainless steel and shall have three o-rings to provide sealing.
Coating:	All internal and external ferrous surfaces shall have a fusion bonded epoxy coating applied electrostatically prior to assembly meeting the requirements of AWWA C550. Valves shall have a ductile iron wedge encapsulated with nitrile rubber or an EPDM rubber compound.

Acceptable manufacturers are: American, Waterous, American AVK or approved equal.

3.2.5 Fire Hydrants

3.2.5.1 General

Fire Hydrants shall conform to AWWA Standard Specification C-502. Hydrants shall meet the requirements of NSF/ANSI Standard 61: Drinking Water System Components—Health Effects and NSF/ANSI 372. They shall be open left, dry barrel style. They shall have bell type connections and shall be designed for 150 psi working pressure and the rated test pressure shall be 300 psi. Fire hydrants shall be constructed in a manner permitting withdrawal of internal working parts without disturbing barrel or casing. The barrel section shall be bolted, not screwed, to the lower section. There will be no chattering of operation. Fire hydrants shall be of proper length to provide 6'0" cover of their service mains. Fire hydrants shall have an epoxy primer and red polyurethane top coat one shop coat of red lead paint and two finish coats of an approved brand of the color selected by the Owner.

Before installing the ground rod or tracer wire, the fire hydrant barrel shall be encased in polyethylene up to the ground surface. The weep holes shall not be covered by the polyethylene. A 60-inch ground rod shall be taped to the fire hydrant barrel at a minimum of four locations and be extended to the bottom of the breakaway flange. Tracer wire shall be attached to the bottom of the ground rod.

3.2.5.2 Fire Hydrant Valves

Valves, when shut, shall be reasonably tight when upper portions of barrel is broken off. Valve openings shall be at least 5-1/4" in diameter, with net area of waterway at smallest part, with valves wide open not less than 120% of valve opening. The direction of the opening shall be to the left and markings shall be cast on the head thereof to so indicate.

3.2.5.3 Drain Holes

Each hydrant shall have one or more drain holes to drain the barrel. Construction shall be such that the drain holes will be closed when the main valve is open, and open when the main valve is closed. Each hydrant shall be tested to hydrostatic pressure of 300 psi with valves in both open and closed positions.

3.2.5.4 Nozzles

Fire hydrants shall be furnished with two 2-1/2" hose nozzles and one 4-1/2" pumper nozzle. The Contractor shall be responsible for furnishing fire hydrants with thread pattern, operating nuts, and nozzle cap lugs or nuts that match the size and shape of those now used by the Owner. If special patterns are not required by the Owner, thread patterns, operating nuts and lugs shall conform to the National Standard thread patterns and dimensions.

3.2.6 Copper Service Pipe

Copper service pipe, where specified in the work, shall be type K soft, conforming to ASTM B88 and AWWA C800 and sized according to the plans. Flared connections shall be required for all copper service piping fitting connections. Manufacturer shall be Cerro, Mueller Copper Company, Cambridge-Lee Copper, Halstead, Wolverine, or approved equal.

Water services shall have a minimum of 6 feet of cover unless otherwise noted on the plans.

3.2.7 High Density Polyethylene Service Pipe

Polyethylene service pipe, where specified in the work, shall be meeting the requirements of ACCA c901 250 PSI, SIDR-7. PE 4710 pipe compounds shall conform to ASTM D3350 and minimum cell class PE 445574C CC3. The outside diameter shall be based on the Iron Pipe Size (IPS) sizing system. Stainless steel insert stiffeners are required for all polyethylene service piping compression style fitting connections. The stiffeners shall be Ford Meter Box 70 Series or approved equal.

3.2.8 Service Saddles

Service saddles where required shall be double banded with stainless steel bolts and constructed of bronze material, Ford Meter Box or approved equal. Service saddles for PVC shall provide full support around the

circumference of the pipe and have a bearing area of sufficient width along the axis of the pipe so that the pipe will not be distorted when tightened.

3.2.9 Corporation Stops

Corporation stops shall be Ford Meter Box or approved equal. They shall conform to AWWA c900, with no lead. They shall be of the ball valve type and shall be the same size as the service piping.

3.2.10 Couplings

Couplings, straight or reducing, for making connections to existing watermains shall be Ford cast couplings with Low Alloy Steel bolts or approved equal as per ASTM A325, ASTM A563, or AWWA C219 of the appropriate size as specified in the plans. The gaskets of the coupling shall be composed of a crude or synthetic rubber base compounded with other products to produce a material that will not deteriorate from age, heat, or exposure to air under normal storage conditions. It shall also possess the quality of resilience and ability to resist cold flow of the material so that the joint will remain sealed and tight indefinitely when subjected to shock, vibration, pulsation, and temperatures or other adjustments of the pipeline. The couplings shall be assembled on the job in a manner to insure permanently tight joints under all reasonable conditions of expansion, contraction shifting and settlement, unavoidable variations in trench gradient, etc.

3.2.11 Service Couplings

Service Couplings shall be Ford flared end straight couplings or approved equal of the appropriate size as specified on the plans.

3.2.12 Flanged Coupling Adapters

Flanged Coupling Adapters shall be McDonald or approved equal of the appropriate size as specified on the plans.

3.2.13 Curb Boxes and Ball Valves

The curb boxes shall be extension type curb boxes with a Minneapolis pattern base and shall be McDonald or Ford or approved equal with a 1-1/4 inch upper section. Ball valves shall be McDonald, Ford or approved equal.

3.2.14 Valve Boxes

Valve boxes shall two or three piece, cast iron, screw type valve boxes, adjustable from 48 inch to 72 inch, or approved equal. Covers shall be standard drop covers marked "WATER". Valve boxes shall be Tyler, Star, or approved equal.

3.2.15 Tracer Wire

The tracer wire system shall be installed with cast iron, ductile iron and PVC water mains to the satisfaction of the Engineer.

Tracer wire shall be No. 12 solid single strand type TW or THHN, or approved equal.

The conductor shall be solid or stranded copper per ASTM B-1, B-3, or B-8. The ground rod shall be a 3/8-inch diameter, 60-inch long steel rod uniformly coated with metallurgically bonded electrolytic copper. Blackburn Catalog No. 3755, or equal.

Ground rod clamps shall be high strength, corrosion resistant copper alloy. Blackburn Catalog No. G3, or equal. Splice kits shall be Scotchlok DBY Y Connectors or equal.

The cost of the tracer wire system is considered to be a part of the cost of the water main installation.

The wire shall be installed along the lower quadrant of the pipe, but the pipe shall not be laid directly on the wire. Ground rods shall be installed adjacent to connections to existing piping and in the locations specified on the plans. The tracer wire shall be brought to each fire hydrant and connected to a ground rod that extends up to the bolted flange just above the ground surface or a minimum distance of 3" above the ground surface. The ground rod shall

be taped to the fire hydrant barrel below the ground surface. The tracer wire shall be spliced only if approved by the Engineer and all underground splices shall be inspected by the Engineer prior to backfilling.

As a condition of project acceptance, all newly installed watermain shall be able to be successfully electronically traced. The Contractor shall be responsible for testing the tracer wire system for conductivity. Testing for conductivity shall be completed prior to finish surfacing activities. If the tracer wire does not function as intended, the Contractor shall repair the system to the satisfaction of the Engineer.

3.2.16 Mechanical Joint Restrainer Devices

Mechanical joint restrainer devices shall be used on all new mechanical joint fittings, valves, hydrants, and at all connections made to existing water main.

Restraining mechanisms shall provide wedges or full circle contact and support of the pipe wall. Restraint shall be accomplished by a series of ring or wedge segments mechanically retained inside the gland housing and designed to grip the pipe wall in an even and uniform manner. Restraining devices shall be actuated by bolts featuring twist off heads to ensure proper installation torque is applied. All components of the restrainer, including the gland, bolts, and restraint segments, shall be of high-strength ductile iron, ASTM A536. Bolts shall be fluorocarbon coated cor-ten steel t-bolts and nuts equal to NSS cor-blue or approved equal low alloy corrosion-resistant high-strength steel in accordance with ANSI/AWWA C111/A21.11. Appropriate restrainer devices shall be supplied for the specific type of piping material being used on the project. Restrainer devices shall be EBBA Iron Megabond, Star Products Starbond, Tyler, or approved equal.

3.2.17 Bolts

All T-Bolts and nuts installed for hydrants, valves, couplings, or other fittings shall be fluorocarbon coated cor-ten steel t-bolts and nuts equal to NSS cor-blue or approved equal low alloy corrosion-resistant high-strength steel in accordance with ANSI/AWWA C111/A21.11.

3.2.18 Polyethylene Encasement

All buried ductile iron water main, fittings, valves, rods, hydrants, and appurtenances shall be encased in polyethylene in full conformance with the most current edition of AWWA C105, Method A for tube-type installation.

Polyethylene encasement shall be installed in accordance with AWWA C600 and ANSI/AWWA C105/A21.5 and also in accordance with all recommendations and practices of the AWWA M41, Manual of Water Supply Practices – Ductile Iron Pipe and Fittings. Specifically, the wrap shall be cut 2 feet longer than the pipe section and shall overlap the ends of the pipe by 1 foot. The polyethylene shall be gathered and lapped to provide a snug fit and shall be secured at quarter points and each end with polyethylene tape. The polyethylene shall prevent contact between the pipe and bedding material but is not intended to be a completely airtight and watertight enclosure.

Any wrap at tap locations shall be taped tightly prior to tapping and inspected for any needed repairs following the tap.

Damaged polyethylene shall be repaired in a workmanlike manner using polyethylene tape or shall be replaced.

Polyethylene encasement shall meet all the requirements for ANSI/AWWA C105/A21.5 and ASTM A674. Polyethylene shall be V-bio as manufactured by DIPRA, or approved equal.

In addition, polyethylene encasement shall consist of three layers of co-extruded linear low density polyethylene (LLDPE), fused into a single thickness of not less than 8 mils.

3.3 CONSTRUCTION

3.3.1 Separation of Water and Sewer Lines

- **Horizontal Separation** – Sewers shall be laid at least 10 feet (3.0m) horizontally from any existing or proposed watermain. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot (3.0 m) 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 the sewer closer to a watermain, provided that the watermain is in a separate trench or on an undisturbed earth shelf located on one side of the sewer and at an elevation so the bottom of the watermain is at least 18 inches (450mm) above the top of sewer. If it is impossible to obtain proper horizontal separation as described above, both the watermain and sewer shall be constructed of slop-on or mechanical joint pipe complying with public water supply design standards of the Department and be pressure tested to 150 psi (1034 kPa) to assure water tightness before backfilling.
- **Vertical Separation** – The pipes shall be laid to provide a minimum of 18 inches (450mm) between the sewer and the watermain pipes. The crossing shall be arranged so that a full length piece of sewer pipe and a full length pipe of water pipe shall be used at the location and the pipe joints will be equidistant and as far as possible from the crossing point.
- **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:
 - Water Pipe – the sewer shall be designed and constructed equal to water pipe and shall be pressure tested a 150 psi (1034 kPa) prior to backfilling to assure water tightness; or;
 - Carrier Pipe – Either the watermain or the sewer main may be encased in a watertight carrier pipe that extends 10 feet (3.0 m) on both sides of the crossing, measured perpendicular to the watermain. The carrier pipe shall be PVC, ABS, or HDPE, and the ends sealed with a rubber gasket or boot.

3.3.2 Interruption of Service

No valve or other control on the existing system shall be operated for any purpose by the Contractor. The Contractor shall notify all consumers affected by any interruption of water service and contact the City Water Department for any valve operation. All requirements of continuous operation will be met.

3.3.3 Alignment

The Engineer will stake all watermain alignment and inspect all watermain installation. All fittings, valves, hydrant extensions, etc. will be left open until inspected and measured by the Engineer.

The Contractor shall furnish help when requested to stake and measure watermain.

3.3.4 Underground Interference

The location of underground public or private utilities may be shown on the plans, as reported by the various utility companies and the Owner, but this does not relieve the Contractor of the responsibility of determining the accuracy or completeness of said locations. The Contractor shall determine the location of all underground ducts, conduits, pipes or structures which will be affected by his excavation, and shall take steps necessary to support, protect, remove or relocate said structures by any means suitable to the owners of the structure involved, and the Engineer. In those instances where their relocation or reconstruction is impracticable, a deviation from line and grade may be ordered by the engineer. The Contractor shall be responsible for notifying the various utility companies if his work will expose, affect or endanger any existing utility. All cost of investigation any necessary protection, support, removal or relocation of said structures shall be included in the contract bid price for laying pipe.

3.3.5 Earth Excavation

All watermains shall be built in open cut, except that where conditions warrant, the Engineer may permit the use of short tunnels. In unstable soil the trench shall be supported by shoring or sheeting as required to prevent caving. Sheeting shall be withdrawn after the pipe has been properly covered. If deemed advisable, the Engineer may direct that sheeting be left in place, in which case it shall be paid for as an "extra".

Wherever, in the opinion of the Engineer, the bottom of the trench does not afford a reliable or suitable foundation, the trench shall be excavated to such additional depth, as is required and replaced with other suitable earth material, sand or gravel.

3.3.6 Dewatering

The cost of any dewatering of the trench shall be included in the unit bid price for the pipe installation unless a bid item is included in the proposal.

A permit is required when discharge from dewatering, pumping, disinfection, or pressure testing could reach waters of the State. To obtain information on the general permit, contact DENR's Surface Water Quality Program at (605) 773-3351.

3.3.7 Laying of PVC Pipe

Pipes and fittings shall be laid in the location as shown on the plans in accordance with AWWA C605-94, the exact location being designated by the Engineer during construction.

Concrete blocks shall be used when required under fittings to insure proper alignment. All fittings, valves, and hydrants shall be wrapped in plastic prior to placement of thrust blocks.

Before laying any pipe, it shall be cleaned of all foreign matter and kept clean thereafter. Open ends shall be protected at all times to prevent the entrance of dirt, trench water, animals or foreign matter into the pipe. The bell and spigot shall be wiped clean and sufficient lubrication placed on the gasket and spigot before the pipe is pushed fully into the bell. Field cut spigot ends of push-on joints shall be beveled prior to being pushed into the bell. Every pipe shall be bedded uniformly throughout its length and care shall be taken to not have any part of the pipe bearing on rocks or stones. The pipe shall have a minimum of six feet (6') of cover unless otherwise noted on the plans.

All pipe and fittings shall be installed in accordance with the manufacturer's recommendations. Special cleaners or solvents as required by laying conditions to obtain watertight joints shall be furnished at no extra cost. All pipe shall be field tested in accordance with these specifications.

3.3.8 Valves

The Contractor shall install valves, and special fittings at locations indicated on plans or as directed by the Engineer. All fittings and valves shall be wrapped in plastic prior to placement of thrust blocks.

3.3.9 Setting Hydrants

Hydrants shall be installed where shown on the plans. There shall be six and one-half feet (6-1/2') from the top of the connecting pipe to the finished grade and two feet (2') from the finish grade to the center of the outlet nozzles. All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the street centerline, with the pumper nozzle facing the street.

Each hydrant shall be connected to the main with a six-inch (6") (C900 AWWA Class 150 PVC) pipe controlled by a six-inch (6") gate valve which shall be located a minimum of ten feet (10') from the hydrant or the valve shall be rodded with 3/4" threaded rods to the tee. Use of retainer glands will be required on all vertical bends and on hydrant tees.

Each hydrant shall be set on concrete block and blocked behind with concrete block of sufficient size to prevent settling and horizontal movement. All fittings, valves, and hydrants shall be wrapped in plastic prior to placement of thrust blocks.

Hydrant bases shall be backfilled with at least one-third cubic yard of one and one-half inches (1-1/2") to two inches (2") crushed rock to facilitate drainage. The crushed rock shall extend to six inches (6") above the weep hole and be covered with two layers of heavy construction plastic.

3.3.10 Block Fittings

The Contractor shall brace all fittings by means of poured concrete or concrete thrust blocks. No wood will be allowed to be used with the concrete blocks. All fittings, valves, and hydrants shall be wrapped in plastic prior to placement of thrust blocks.

Poured concrete blocking shall be 3000 psi concrete poured against undisturbed earth. Care shall be taken not to cover up joints, bolts and fittings with concrete.

3.3.11 Disinfection

Any connection of new water main to the active distribution system prior to receipt of satisfactory bacteriological samples may constitute a cross-connection. Therefore, the new main must be isolated until two (2) passing bacteriological tests taken 24 hours apart as described in AWWA C651-99/Sec 5 are satisfactorily completed. 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 and must meet the State sanitary bacteriological testing standards before the system is placed into service.

All newly installed pipeline shall be flushed prior to disinfection in accordance with AWWA C600-94. Heavy particulates generally contain bacteria and prevent even very high chlorine concentrations from contacting and killing the organisms. It is, therefore, essential that the procedures outlined in AWWA C651-99/Sec 4 be observed to assure that a water main and its appurtenances are thoroughly clean for the final disinfection by chlorination. The chlorinated water used for disinfection shall not be discharged to a stream, river or other waterway where danger to aquatic life may occur. Dechlorination may be necessary prior to discharge. Any questions regarding disposal of chlorinated water can be directed to the Surface Water Quality program at (605)773-3351.

All water mains installed shall be chlorinated as set forth by the ANSI/AWWA C651-99 or as directed by the Engineer.

Sufficient chlorine tablets or chlorine powder shall be placed in each pipe to furnish a resultant solution of 50 to 10 parts per million of available chlorine.

The chlorinated water shall remain in the pipe line at least 24 hours and after this time have a residual chlorine content of at least five (5) parts per million. The main will then be flushed until the system level chlorine concentration is reached.

A water sample will be taken after the main is flushed and shall show the absence of bacteria before any taps may be made to the main.

Any additional costs for placing the chlorine tablets shall be included in the unit bid price for pipe.

If a bacteria count is found in the water sample taken, the main will be re-chlorinated and retested.

Testing of water quality samples is incidental to the project.

3.3.12 Hydrostatic Testing

These testing methods are specific for water pressure testing only.

3.3.12.1 Test Restrictions

- Test pressure shall be mechanically raised to 80% of the rated pressure or no less than 1.25 times the working pressure at the highest point along the test section whichever is greater.
- Test pressure shall not exceed pipe or thrust-restraint design pressures.
- The hydrostatic test shall be of at least 2-hour duration.
- After two hours, if pressure has dropped, the system shall be raised back to beginning test pressure. The amount of water used to refill the line shall be measured.

- Test pressure shall not vary by more than +5 psi (35 MPa or 0.35 bar) for the duration of the test.
- Valves shall not be operated in either direction at differential pressure exceeding the rated valve working pressure. Use of a test pressure greater than the rated valve pressure can result in trapped test pressure between the gates of a double-disc gate valve. For tests at these pressures, the test setup should include provision, independent of the valve, to reduce the line pressure to the rated valve pressure on completion of the test. The valve can then be opened enough to equalize the trapped pressure with the line pressure, or fully opened if desired.
- Test pressure shall not exceed the rated pressure of the valves with the pressure boundary of the test section includes closed, resilient-seated gate valves or butterfly valves.
- The Contractor shall furnish the pump, pipe connections, gauges, and measuring equipment and shall perform the testing under the direct supervision of the Engineer.
- Where permanent air vents are not provided, the Contractor shall provide and install corporation cocks at the high points as needed for release of air as the line is filled with water.

3.3.12.2 Pressurization

After the pipe has been laid, all newly laid pipe or any valved section thereof shall be subjected to a hydrostatic pressure of at least 1.5 times the working pressure at the point of testing. Each valved section of pipe shall be slowly filled with water, and the specified test pressure, based on the elevation of the lowest point of the line of section under test and corrected to the elevation of the test gauge, shall be applied by means of a pump connected to the pipe in a manner satisfactory to the owner. Valves shall not be operated in either the opening or closing direction at differential pressures above the rated pressure. It is good practice to allow the system to stabilize at the test pressure before conducting the leakage test.

3.3.12.3 Air Removal

Before applying the specified test pressure, air shall be expelled completely from the pipe, valves and hydrants. If permanent air vents are not located at all high points, the contractor shall install corporation cocks at such points so that the air can be expelled as the line is filled with water. After all the air has been expelled, the corporation cocks shall be closed and the test pressure applied. At the conclusion of the pressure test, the corporation cocks shall be removed and plugged or left in place at the discretion of the owner.

3.3.12.4 Examination

Any exposed pipe, fittings, valves, hydrants, and joints shall be examined carefully during the test. Any damaged or defective pipe, fittings, valves, hydrants, or joints that are discovered following the pressure test shall be repaired or replaced with sound material, and the test shall be repeated until it is satisfactory to the owner.

3.3.12.5 Leakage Defined.

Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe or any valved section thereof to maintain pressure within 4 psi (35 MPa or 0.35 bar) of the specified test pressure after the pipe has been filled with water and the air has been expelled. Leakage shall not be measured by a drop in pressure in a test section over a period of time.

3.3.13 Allowable Leakage

No pipe installation will be accepted if the leakage is greater than that determined by the following formula in AWWA C605-13:

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

Q = Quantity of makeup water in gallons per hour

L = Length of pipe tested, in feet;
 D = Nominal diameter of the pipe, in inches
 P = average test Pressure during the leakage test, in pounds per square inch gauge.

In metric units,

$$Q_m = \frac{LD \sqrt{P}}{3,129}$$

Q_m = Quantity of makeup water in in liters per hour;
 L = Length of pipe tested, in meters;
 D = Nominal diameter of the pipe, in inches; and
 P = test Pressure, in Bars.

These formulas are based on an allowable leakage of 10.48 gpd/mile/in of nominal diameter at a pressure of 150 psi.

Allowable Leakage per 1000 Ft (305 m) of Pipe Length --gph

Ave. Test Pressure psi (Bar)	Nominal Pipe Diameter (Inches)												
	3	4	6	8	10	12	14	16	18	20	24	30	36
4450(31)	0.43	0.57	0.86	1.15	1.43	1.72	2.01	2.29	2.58	2.87	3.44	4.30	5.16
400(28)	0.41	0.54	0.81	1.08	1.35	1.62	1.89	2.16	2.43	2.70	3.24	4.05	4.86
350(24)	0.38	0.51	0.76	1.01	1.26	1.52	1.77	2.02	2.28	2.53	3.03	3.79	4.55
300(21)	0.35	0.47	0.70	0.94	1.17	1.40	1.64	1.87	2.11	2.34	2.81	3.51	4.21
275(19)	0.34	0.45	0.67	0.90	1.12	1.34	1.57	1.79	2.02	2.24	2.69	3.36	4.03
250(17)	0.32	0.43	0.64	0.85	1.07	1.28	1.50	1.71	1.92	2.14	2.56	3.21	3.85
225(16)	0.30	0.41	0.61	0.81	1.01	1.22	1.42	1.62	1.82	2.03	2.43	3.04	3.65
200(14)	0.29	0.38	0.57	0.76	0.96	1.15	1.34	1.53	1.72	1.91	2.29	2.87	3.44
175(12)	0.27	0.36	0.54	0.72	0.89	1.07	1.25	1.43	1.61	1.79	2.15	2.68	3.22
150(10)	0.25	0.33	0.50	0.66	0.83	0.99	1.16	1.32	1.49	1.66	1.99	2.48	2.98
125(9)	0.23	0.30	0.45	0.60	0.76	0.91	1.06	1.21	1.36	1.51	1.81	2.27	2.72
100(7)	0.20	0.27	0.41	0.54	0.68	0.81	0.95	1.08	1.22	1.35	1.62	2.03	2.43

When testing against closed metal-seated valves, an addition leakage per closed valve of 0.0078 gal/h/in (1.2 mL/h/mm) of nominal valve size shall be allowed.

When hydrants are in the test section, the test shall be made against closed hydrant valves.

All visible leaks shall be repaired, regardless of the amount of leakage.

3.3.14 Acceptance of Installation

Acceptance shall be determined on the basis of allowable leakage. If any test of laid pipe discloses leakage greater than that specified in the previous section, the contractor shall, at his own expense, locate and make approved repairs as necessary until the leakage is within the specified allowance.

All visible leaks are to be repaired, regardless of the amount of leakage.

3.3.15 Rock Bedding for PVC Pipe

It may be necessary to bed some of the PVC pipe with rounded rock, due to the possibility of encountering wet soil conditions during excavation. Granular bedding shall extend the full width of the trench and shall extend upward from the bottom of the pipe to such level as will assure full support of the lower one-half of the pipe circumference. The minimum depth between the bottom of the trench and the lowest point of the pipe shall be as required to achieve adequate pipe support. Bedding material will be rounded rock or gravel meeting these requirements:

<u>Gradation</u>	<u>Percent Passing</u>
1 inch	100
3/4 inch	90-100
1/2 inch	---
3/8 inch	20-55
No. 4	0-10
No. 8	0-5

3.3.16 Backfilling

All water pipe laid in an open trench shall be backfilled and hand tamped or mechanically tamped in two (2) lifts to a height of 18 inches above the pipe. The first lift shall not exceed the centerline of the pipe being laid. Material for this portion of the backfilling shall be sand and gravel.

The backfill from 18 inches above the pipe to the street surface subgrade elevation shall consist of approved excavated material. (The street surface repair will be as indicated on the plans.) The top 6 inches of backfill to existing street grade shall be crushed gravel as approved by the Engineer. The backfill shall be placed in lifts (6 inch maximum lifts for areas under paving and 12 inch maximum lifts for all other areas) and compacted by the ordinary compaction method in a manner approved by the Engineer to a density of at least 95 percent of Standard Proctor Density, unless otherwise specified.

A passing test must be obtained at each location tested.

If the material encountered in the trench excavations is unsuitable to be used as backfill material it will be replaced with selected backfill, as approved by the Engineer.

When compacting water service trenches, the maximum depth of lift compacted shall be 12 inches. The above density and testing requirements apply to all water service trenches.

During freezing weather, the Contractor shall remove and dispose of frozen material and replace it with sand or gravel.

3.3.17 Cleanup

Site restoration at the completion of watermain installation will be done in a workmanlike manner. Backfilling and compaction shall be done in accordance with these specifications. Traveled streets shall be kept open and maintained by the Contractor after backfilling and before final inspection.

Surplus pipe and material shall be removed from the site immediately after completion of the job. No payment will be made until excess materials have been removed.

3.4 MEASUREMENT

The length of mains and service lines to be paid for will be determined by measurement along the centerline of the various types and sizes of pipe furnished and installed from center of fitting to center of fitting, from center of main to end of service connection, and from center of main to center of hydrant. No deduction will be made for the space occupied by valves or fittings. Gate valves, fire hydrants, service stops, valve manholes, and similar watermain related items will be paid for as separate items measured by units of one each, in place and accepted at location shown on the plans and in accordance with these specifications.

3.5 PAYMENT

All payment will be based on completed and accepted work performed in strict accordance with the drawings and specifications. No separate payment will be made for tests or for excavation, trenching, and backfilling for items of work covered under this section of the specifications and all such costs pertinent to these items shall be included in the applicable unit prices therefore.

Payment for water lines measured as set forth above will be made at the contract unit price per lineal foot for the various types and sizes of water pipe line. Payment for fire hydrants, gate valves and valve boxes, service stops, and service boxes, standard valve manholes and all other watermain related items will be made at the unit price bid for each applicable item. Payments described above will be full compensation for all material, labor, equipment, excavation, backfill and incidentals necessary to complete the item.

4 MANHOLE / LIFT STATION LINERS

4.1 GENERAL

HDPE manhole liners shall be used in locations indicated in plans. PVC T-Lock liner will only be allowed when adjusting existing structures lined with PVC T-Lock liner and where it is determined by the Engineer to be acceptable. Specifications for the PVC T-Lock liner shall be supplied for each individual project. The manhole liner specifications shall apply to PVC T-Lock liner where applicable when specified.

Manhole liners shall be "GSE Studliner" as manufactured by GSE Lining Technologies, Inc., "AGRU Sure-Grip" as manufactured by AGRU America or approved equal.

The manhole liner specified in this section shall be furnished by a manufacturer who is fully experienced, reputable, and qualified in the manufacturing of the materials and who has in their employ a full-time field service representative with at least five years field experience. The manhole liner shall be designed, constructed, and installed using techniques recommended by the manufacturer.

The manufacturer of the lining shall attest to the successful use of its product as a lining for sewer pipes, manholes or pump stations in sewage conditions, or other chemical environments recognized as corrosive or otherwise detrimental to concrete.

4.2 MATERIALS AND DIMENSIONS

The material used in the embedment liner and in all welding strips shall be a made from 97–98 percent virgin high-density polyethylene and 2–3 percent carbon black or pigmentation for the purpose of an otherwise specified color. Plasticizers shall not be added to the resin formulation. The material color shall be yellow, white, or off-white. Dark colors will not be acceptable.

Embedment sheets for field installation shall be produced in rolls that are a minimum of 6.5 feet (2 m) in width with 2.0 mm thickness for precast concrete pipe and manholes.

Locking studs of the same material as that of the liner shall be integrally extruded with the sheet and have a minimum height of 0.40 inches (10 mm). The maximum distance between studs shall be 2.127 inches. A minimum of 39 studs per square foot shall be installed on the liner.

4.3 LINER PHYSICAL PROPERTIES

The All plastic embedment sheets and welding strips shall have the following physical properties when tested in accordance with the following table.

Nominal Properties for Manhole Liner		
Property	Test Method	Value
Thickness (Min)	ASTM D 751	+/- 10%
Density g/cm ³ (Min)	DIN 53479 / ASTM D 792	0.94
Tensile Properties	DIN 53455 / ASTM D 638	
Tensile Strength at Yield, lb/in ² (Min)		2,200
Elongation at Break, % (Min)		600
Tensile Strength at Break, lb/in ² (Min)		3,600
Carbon Black Content % (Max)	ASTM D 1603	2-3
Dimensional Stability, %	DIN 53515	+/-2
Linear Coefficient, in/in/°C	ASTM D 696	1.2x10-4
Service Temperature		-70 to 176 °F
Stud Pull Out Strength (Min)		>4,300 psf

Embedment sheets and welding strips shall be free of cracks, cleavages, or other defects adversely affecting the protective characteristics of the material. The Engineer may reject any materials which may be defective.

Liner shall have demonstrated good chemical resistance via testing in accordance with EPA 9090.

Weld strips shall have good impact resistance, be flexible, and have an elongation sufficient to bridge up to 0.5-inch settling cracks, which may occur in the manhole/pipe or in the joint after installation without damage to the strip. The lining shall be repairable at any time after installation in pipe, manholes, or structures by methods approved and recommended by the manufacturer.

4.4 SUPPLY OF MATERIAL

Manhole/pipe embedment sheets shall be supplied as pipe size sheets or tubes fabricated by shop welding the basic size sheets together. For tank containment structures, either roll goods or prefabricated panels shall be supplied. Shop welds shall be made by a butt weld and fusing the sheets together by a thermal process such as an extrusion weld, fusion weld, or equal so as to produce continuous welded seams. Specimens taken from shop welded seams shall show no cracks or separations and shall be tested in tension. Each specimen shall withstand a minimum shear strength of 60 percent of parent tensile yield strength.

During installation of the embedment sheet onto the forms, there shall be no cuts made within the liner for purposes such as strapping of sheet. If straps are utilized they shall be placed so that the straps are positioned between embedment studs. Sheets may be supplied in prefabricated, pipe sized tubular shaped sheets, ready to install onto the inner form, or roll goods having specified dimensions listed in the Materials and Dimensions section.

Joint strips for pipe seaming shall be approximately 4 inches wide with a minimum width of 3.75 inches. Thickness of joint strips shall be 3.0 mm.

HDPE plastic adjusting rings shall be used on all lined manholes where necessary. Concrete adjusting rings will not be allowed unless otherwise specified.

4.5 SUBMITTALS

Submit to the Engineer for review, as provided in the General Conditions, complete shop drawings showing liner materials and typical installation details of all liner work and details of materials of construction and installation. The shop drawings shall include manufacturer's detailed drawings, directions, and specifications for construction and all special and typical installations.

Included with shipment of liner, submit certified test reports that the liner and material were manufactured in accordance with standards specified herein.

4.6 JOINTS IN LINING FOR CONCRETE STRUCTURES

No lining of joints shall be made until after the trench has been backfilled and the joints pressure tested. Lining at joints shall be free of all mortar and other foreign material and shall be clean and dry before joint are made.

Field joints in the lining shall be of the following types used as prescribed:

1. **STRIP TYPE:** The joint shall be made with a separate 4-inch-wide joint strip and two welding strips. The 4-inch joint strip shall be centered over the joint, and then extrusion welded to the liner. The width of the space between adjacent sheets shall not exceed 1 inch. The 4-inch joint strip shall lap over each sheet a minimum of 1.5 inch. It may be used at any transverse or longitudinal joint
2. **LAP TYPE:** The joint shall be made by lapping sheets not less than 1 inch. The upstream sheet shall

overlap the one downstream. The lap shall be tack-welded into place, and then welded with an extrusion bead over the adjoined materials.

3. BUTT TYPE: Butt-type welds will not be allowed for field welding of joints.

All welding is to be in strict conformance with the instruction of the liner manufacturer. Welding shall fuse both sheets together to provide a continuous joint equal in corrosion resistance and permeability to the liner plate.

Installation:

1. GENERAL: Field seaming involves bonding of adjacent panels using approved thermal methods such as extrusion welding. Testing and verification of the resulting welds will be required prior to the acceptance of sanitary sewage in the lined manhole or as approved by the City Engineer

2. TRIAL SEAMS:

- a. General – Prior to any field welding of lined surface, trial seams shall be performed to ensure that the technician and method is adequate. Trial seams shall be performed on materials from the current project, a minimum of 3 feet in length. Trial weld seams shall then be tested to ensure equipment settings are sufficient to produce quality welds. Testing shall consist of both nondestructive and destructive methods.
- b. Nondestructive Seam Testing – Nondestructive testing shall consist of spark testing. Spark testing of the finished seams is required; a copper wire may be set into the weld joint prior to welding. This will allow for spark testing for the welded seam for determination of the presence of possible leaks in the weld. This process is not necessary but may provide an alternative method for nondestructive testing of the welds. Spark testing can be performed with approved instrumentation when set at approximately 20,000 to 35,000 volts depending upon apparatus.

Any defects found should be marked and repaired according to approved repair methods.

Repairs of pinholes and defective areas shall be performed by extruding a bead of molten plastic over the surface, or if too large, a patch shall be utilized. Once complete, retest using the spark tester when applicable.

- c. Destructive Seam Testing – When job requirements mandate destructive seam testing of trial seams, an appropriate number of samples should be determined by the Engineer. Weld seams should then be tested for shear strength according to standard industry guidelines. When proper welding techniques are followed, the weld shall exhibit approximately 80 percent of the parent tensile yield strength in shear when tested in accordance to ASTM D 4437.

3. FIELD SEAMS:

- a. Nondestructive Seam Testing – Nondestructive testing shall consist of spark testing. Spark testing allows for the welded seam to be tested for determination of the presence of possible leaks in the weld. Spark testing may be performed over the entire surface of the weld and liner sheet. Spark testing shall be performed with approved instrumentation set at approximately 20,000 to 35,000 volts depending upon apparatus. Any defects found shall be marked and repaired according to approved repair methods. The spark testing device shall be equipped with an audible alarm indicator for signaling any defects

Repairs of pinholes and defective areas shall be performed by extruding a bead of molten plastic over the surface, or if too large, a patch shall be utilized. Once complete, retest using the spark tester when applicable.

4.7 PAYMENT

The furnishing and installing of lined manholes shall be paid for at the contract unit price per each for the types and sizes furnished and accepted. Payment for lined manholes will be full compensation for furnishing and installing of the lined manhole sections, gaskets or butyl rubber rope sealant, external joint seals, lining, welding lining, testing lining, and all appurtenances necessary for the proper installation of the lined manhole.

5 CLAY LINING

5.1 GENERAL

5.1.1 Work Included

The work shall consist of constructing clay linings to control seepage.

5.1.2 General

Cleaning, surface preparation, coating application, and thicknesses shall be as specified herein and shall meet or exceed the coating manufacturer's recommendations. When the Manufacturer's minimum recommendations exceed the specified requirements, Contractor shall comply with the Manufacturer's minimum recommendations.

5.1.3 Materials

All fill material shall be obtained from required excavation and borrow areas. The selection, blending, routing and disposition of materials shall be subject to approval of the Engineer/Inspector. Material used for the clay lining must be either Unified Class CL or CH or other material meeting seepage requirements. Fill materials must not contain frozen material, ice, snow, rocks larger than 4 inches diameter, sod, vegetation or other perishable material.

5.1.4 Foundation Preparation

The foundation shall be stripped as specified. Except as otherwise specified, foundation surfaces must be flattened to 1:1 or flatter.

If in-place material is not suitable for lining, the material must be excavated to the depth needed to place lining below final design lines and grades. If in-place material is suitable for the lining, excavate to the depth needed to permit mixing and compaction of the first layer of the lining.

Areas that are too low after stripping and shaping must be filled to base grade with compacted fill equal to that used in other parts of the project.

After the (above) foundation surface is created, no fill areas must be loosened to a depth of 6 inches by scarifying or plowing, and then be compacted to the density and moisture specified for the clay lining.

5.1.5 Lining Placement

Foundation preparation must be completed prior to lining construction. Liner materials shall not be placed on a frozen surface.

Lining fill must be placed in approximately equal thickness, uniform layers that are free of lenses, pockets, streaks, or layers differing substantially from other lining material. After placement, fill materials must be spread and blended by motor grader or similarly effective equipment.

Fill layer thickness shall not exceed 6 inches for compaction by large machines or 4 inches for small hand directed power tampers. Placement and compaction methods must prevent damage to structures and allow the structure to assume backfill loads gradually and uniformly. Within 2 feet of any structure, fill layer thickness must not exceed 4 inches and equipment loads must not exceed 400 pounds.

5.1.5.1 FILL MOISTURE CONTENT

1. Except as otherwise specified, at the time of compaction lining fill moisture content shall be uniformly at 0-+3% of optimum moisture (ASTM D698). Control moisture content by adding water, drying, mixing, or grading as appropriate.
2. If the top surface of the preceding layer or foundation is not at optimum or higher moisture at the time additional fill is placed, the surface shall be scarified and moisture added.

5.1.5.2 FILL COMPACTION

1. Except as otherwise shown on the drawings, lining fill shall be compacted to at least 97 percent of Standard Proctor Density (ASTM D698).
2. Compaction of fill adjacent to concrete structures shall not be started for at least the following number of days after placement of the concrete.

<u>Concrete Structure</u>	<u>Days After Concrete Placement</u>
Vertical or near-vertical walls with earth load on one side only	14
Walls backfilled on both sides simultaneously	7
Conduits and spillway risers, cast-in-place (with inside forms in place)	7
Conduits and spillway risers, cast-in-place (forms removed)	14
Conduits, pre-cast, cradled	2
Conduits, pre-cast, bedded	1
Anti-seep Collars and Cantilever Pipe Supports (backfill both sides simultaneously)	3

5.1.6 Certification and Testing

Except as otherwise specified, the contractor will be responsible for supplying adequate documentation to the inspector to certify that compaction requirements have been met. Optimum moisture, maximum density and associated test data must be furnished as described in ASTM D698 with adequate in-place density testing and documentation following ASTM D1556, D2167 or equivalent methods. Liner tests must be random and distributed over the liner bottom and side slopes.

5.1.6.1 PROCTOR CURVES

1. At least one ASTM D698 moisture and density curve with associated data must be prepared for each type of material used in the lining

5.1.6.2 IN-PLACE DENSITY TESTS

1. At least 2 in-place moisture and density tests are required for each acre of each 6 inch thick lift, except that the minimum number of tests is 4 per lift.

5.1.6.3 PERMEABILITY TESTING ALTERNATIVE

1. Where the above tests are not performed and reported, at least one permeability test (ASTM D3385, D5093 or equivalent) on the completed liner must be conducted per acre of liner, except the minimum number of permeability tests is two. These tests must demonstrate that the pond, when full, will have a seepage rate less than 1.8×10^{-6} cm/sec.

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

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

JANUARY 31, 2020

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

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**

AUGUST 14, 2018

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.

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 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 cause 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:

Reporting Period:	Reporting Deadline:
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 a commitment 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**

SEPTEMBER 1, 1997

APPENDIX A

Notice or 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 Opportunity Construction Contract 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%	Pennington	3.4%
Buffalo	7.9%	Hanson	0.8%	Perkins	7.9%
Butte	7.9%	Harding	7.9%	Potter	7.9%
Campbell	7.9%	Hughes	7.9%	Roberts	1.3%
Charles Mix	0.8%	Hutchinson	0.8%	Sanborn	0.8%
Clark	1.3%	Hyde	7.9%	Shannon	7.9%
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 established for the geographical area where the contract resulting from this solicitation is to be performed. 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 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 when requesting permission to sublet shall provide written notification to the Department of Transportation as specified in Section 8.1 of the Standard Specifications for Roads and Bridges. When the subcontract is in excess of \$10,000, the request for permission to sublet shall list the name, address and telephone number of subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed. The Department of Transportation will then provide written notification to the Director of the Office of Federal Contract Compliance Programs through proper channels.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is as shown by county designation on the Title Sheet of the plans.

APPENDIX B

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 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 7a 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, from Federal procurement contracting officers or from the South Dakota Department of Transportation. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, 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 union have employment opportunities available, and maintain a record of the organization's 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 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 thereof, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union 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 complied 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 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 workforce.
 - 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 obligation.
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 goal 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, 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, 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 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 (MAY 1, 2012)**

OCTOBER 21, 2019

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 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 the first six sentences 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 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 mysd.sd.gov or can also be accessed at 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.

Section IV.3.b.(2)

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 dot.sd.gov. 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.(3)

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.(2) of this section.

Section IV.3.b.(4)

Delete this section and replace with the following:

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 3729 of title 31 of the United States Code.

Section IV.4.a

Delete the first sentence of the third paragraph and replace with the following:

Every apprentice must be paid the higher of the Common Laborer wage rate contained in the bid documents or the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination.

* * * * *

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

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

ATTACHMENTS

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

I. GENERAL

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

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

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

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

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

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

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

II. NONDISCRIMINATION

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

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

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

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

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

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

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

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

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

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

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

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

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

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

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

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

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

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

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

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

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

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

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

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

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

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

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

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

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

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

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

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

1. Minimum wages

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

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

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

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

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

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

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

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

will notify the contracting officer within the 30-day period that additional time is necessary.

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

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

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

2. Withholding

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

3. Payrolls and basic records

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

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

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

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

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

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

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

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

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

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

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

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

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

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

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

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

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

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

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

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

10. Certification of eligibility.

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

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

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

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

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

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

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

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

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

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

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

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

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

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

VII. SAFETY: ACCIDENT PREVENTION

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

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

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

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

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Instructions for Certification – First Tier Participants:

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

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

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

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

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

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

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

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

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

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

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

* * * * *

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

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

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

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

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

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

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

2. Instructions for Certification - Lower Tier Participants:

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

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

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

this transaction originated may pursue available remedies, including suspension and/or debarment.

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

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

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

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

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

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

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

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

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

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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
FOR
CARGO PREFERENCE ACT**

JANUARY 20, 2016

In accordance with the Cargo Preference Act of 1954 and 46 CFR 381.7 the following shall apply:

A. Agreement Clauses - Use of United States-flag vessels:

1. Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50% of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.
2. Within 20 business days following the date of loading for shipments originating within the United States or within 30 business 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 A.1 of this special provision shall be furnished to both the Engineer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

B. Contractor and Subcontractor Clauses - Use of United States-flag vessels, the Contractor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50% 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.
2. To furnish within 20 business days following the date of loading for shipments originating within the United States or within 30 business 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 special provision to both the Department

(through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

3. To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

* * * * *

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION REGARDING
MINIMUM WAGE ON FEDERAL-AID PROJECTS**

MAY 1, 2019

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 mysd.sd.gov or can also be accessed at 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 sddot.com. The SDDOT will not accept any payroll report which does not include the most recent SDDOT Statement of Compliance Form.

* * * * *

**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

General Decision Number: SD180001 Mod-1 04/06/2018 SD1

Agency: U.S. DOL
Wage Decision Number: SD180001 SD1
Counties: SD Statewide
Wage Decision Date: 04/06/2018 (Mod-1)

*SUSD2018-001 03-20-2018

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>
18.86	0.00
17.51	0.00
18.95	0.00
27.96	0.00
21.41	0.00
20.62	0.00
20.66	0.00
22.02	0.00
23.79	0.00
24.77	0.00
21.46	0.00
21.66	4.22
26.42	3.85

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 only as provided in the labor contract clauses (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 based on all 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 PURPLE, 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

General Decision Number: SD180001 Mod-1 04/06/2018 SD1

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/defined-work-classifications-wage-requirements

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.

END OF GENERAL DECISION

**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
FOR
SUPPLEMENTAL SPECIFICATIONS TO
2015 STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES**

NOVEMBER 20, 2019

The Supplemental Specifications dated November 20, 2019 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
SUPPLEMENTAL SPECIFICATIONS FOR
ERRATA
TO 2015 STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES**

NOVEMBER 20, 2019

The Supplemental Specifications for Errata dated November 20, 2019 are in effect for and made a part of this contract.

The Supplemental Specifications for Errata 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**

JUNE 6, 2018

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.

Specification Section Number	Specification Section Name	Item Name	Price per Item
5.8	Construction Stakes, Lines and Grades	Three-Man Survey Crew	\$160.00/hour
7.7	Public Convenience and Safety	Water	\$15.00/M.Gal
9.3	Payment for extra haul of Materials	Extra Haul	\$0.15/ton mile
120.5 A.5.	Roadway and Drainage Exc. & Emb.	Unclassified Excavation Digouts	\$8.00/cu.yd.
120.5 H.	Roadway and Drainage Exc. & Emb.	Extra Haul	\$0.05/cu.yd. station
120.5 I.	Roadway and Drainage Exc. & Emb.	Water for Embankment	\$15.00/M.Gal
421.5	Undercutting Pipe & Plate Pipe	Undercutting Culverts	\$12.00/cu.yd.
510.5 D.	Timber, Prestressed, and Steel Piles	Timber Pile Splice	\$550.00/each

		Steel Pile Splices (*All Weights)	Splice made after one of the pieces has been driven.
		8 HP*	\$220.00/each
		10 HP*	\$300.00/each
		12 HP*	\$360.00/each
		14 HP*	\$420.00/each
			Splice made before either of the pieces has been driven.
		8 HP*	\$105.00/each
		10 HP*	\$125.00/each
		12 HP*	\$140.00/each
		14 HP*	\$160.00/each
510.5 E	Timber, Prestressed, and Steel Piles	Pile Shoes (Timber Pile)	\$110.00/each
510.5.H	Timber, Prestressed, and Steel Piles	Pile Tip Reinforcement (Steel Pile)	
		10" HP Tip Reinforced	\$120.00/each
		12" HP Tip Reinforced	\$140.00/each
		14" HP Tip Reinforced	\$170.00/each
601.5	Haul Roads	Granular Material	\$12.00/ton
601.5	Haul Roads	Asphalt Concrete (including asphalt)	\$80.00/ton
601.5	Haul Roads	Cover Aggregate	\$25.00/ton
601.5	Haul Roads	Asphalt for Prime	\$700.00/ton
601.5	Haul Roads	Asphalt (Tack, Flush & Surface Treatment)	\$450.00/ton
601.5	Haul Roads	Water	\$15.00/M.Gal
601.5	Haul Roads	Dust Control Chlorides	\$0.35/lb
634.5	Temporary Traffic Control	Flagging	\$28.99/hour
634.5	Temporary Traffic Control	Pilot Car	\$41.88/hour

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**STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION
REGARDING
STORM WATER DISCHARGES
TO WATERS OF THE STATE**

MAY 8, 2018

In compliance with the provisions of the South Dakota Water Pollution Control Act and the Administrative Rules of South Dakota (ARSD), Article 74:52, the State of South Dakota has been issued Permit No. SDR10##### "GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES". This permit authorizes the discharge of storm water in accordance with the conditions and requirements set forth in the permit.

The Contractor, by signing the CONTRACTOR AUTHORIZATION FORM and submitting a bid or proposal, certifies the following:

"I certify under penalty of law that I understand and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the project identified above."

A copy of the full version of the General Permit for Storm Water Discharges Associated with Construction Activities, dated 04/01/2018, must be posted on the job site. The General Permit for Storm Water Discharges Associated with Construction Activities is available for downloading and printing from the SD DENR website:

<http://denr.sd.gov/des/sw/IPermits/ConstructionGeneralPermit2018.pdf>

The Contractor may also obtain a printed copy of the permit from the SDDOT Project Development office or from the SDDOT Area Office assigned to this project.

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