



Department of Transportation

Rapid City Region Design Office

2300 Eglin Street

P.O. Box 1970

Rapid City, SD 57709-1970

Phone: 605/394-2244

FAX: 605/394-1904

December 4, 2015

ADDENDUM NO. 1

RE: December 8, 2015 Rapid City Region Office Informal Letting
044-452, Pennington County, PCN i3yy
Ditch Grading and Pipe Cleanout

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made part of your proposal for the referenced project.

PROPOSAL:

- Please replace the DOT-123 with the attached DOT-123.

PLANS:

- The Slipline 48" Pipe quantity was revised. Clarification of pipe cleanout prior to slipling pipe was added. The location of the box culvert cleanout was revised. The diameter of the pipe cleanout was added. Replace sheet 2, 3 and 4 with the attached.

Sincerely,

John Rehorst
Region Design Engineer

**SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION
CONTRACT PROPOSAL**

DOT-123
(5/05)

CODE	PRE	PROJECT ROUTE	AGR	MAINT UNIT	CONTROL REFERENCE	AFE	FUNCTION	BEGIN MRM	END MRM
		044		452		l3yy	2290	0499	0504

CITY AND /OR COUNTY Pennington BUDGET SOURCE FY16 Cont. Maint.
 FINALS ENGINEER REVIEW REQUIRED YES NO
 REGION MATERIALS CERTIFICATION REQUIRED YES NO
 CERTIFIED INSPECTORS/TESTERS REQUIRED YES NO
 TO BE INSTALLED ON THE CM&P YES NO
 TYPE, PURPOSE AND LOCATION OF WORK Ditch Grading and Pipe Cleanout on Hwy 44 east of RC
 PREQUALIFICATION WORK TYPE: _____ PROJECT DBE GOAL: _____

ESTIMATE OF QUANTITIES AND COST

BID ITEM NUMBER	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
009E0010	Mobilization	Lump Sum	LS		
120E0010	Unclassified Excavation	43	CuYd		
230E0100	Remove and Replace Topsoil	Lump Sum	LS		
250E0020	Incidental Work, Grading	Lump Sum	LS		
450E8900	Cleanout Pipe Culvert	2	Each		
450E9232	Slipline 48" Pipe	80	Ft		
462E0250	Cellular Grout	4.2	CuYd		
634E0010	Flagging	20.0	Hour	\$23.55	\$471.00
634E0110	Traffic Control Signs	106	SqFt		
634E0120	Traffic Control Miscellaneous	Lump Sum	LS		
634E0420	Type C Advance Warning Arrow Panel	1	Each		
730E0210	Type F Permanent Seed Mixture	2	Lb		
731E0100	Fertilizing	123	Lb		
734E0104	Type 4 Erosion Control Blanket	387	SqYd		
734E0154	12" Diameter Erosion Control Wattle	24	Ft		
				TOTAL	

This document is for information only. Do not use for bidding purposes.

CONTRACTORS PROPOSAL STATEMENT

The undersigned does hereby agree to furnish the labor and/or material in the quantities, at the unit price, for the purpose and in the place all in accordance with attached provisions upon approval of this Proposal by the State Transportation Commission. This document becomes the contract when signed by the Contractor and a Department of Transportation Representative. The Contractor agrees to provide services in compliance with the Americans with Disabilities Act of 1990. The Contractor agrees to provide a certificate of insurance prior to commencing work, for liability coverage for the duration of the work as per the current edition of the SDDOT Standard Specifications for Roads and Bridges.

PROPOSED START DATE Dec. 29, 2015

SUBSTANTIAL COMPLETION REQUIREMENT _____

FIELD WORK COMPLETION REQUIREMENT March 31, 2016

SUBSCRIBED AND SWORN TO BEFORE ME THE _____
DAY OF _____, 20____

SIGNATURE _____
COMPANY _____
ADDRESS _____

NOTARY – My Commission Expires _____ FED. TAX ID NUMBER _____

RECOMMENDED FOR APPROVAL:

CONSTRUCTION/MAINTENANCE ENGR. DATE

REGION ENGINEER DATE

DIRECTOR OF OPERATIONS DATE

APPROVED FOR THE TRANSPORTATION COMMISSION

NAME _____ TITLE _____ DATE _____

APPROVED as per Federal Highway Stewardship Provisions this _____ day of _____, 20____

PROJECT DEVELOPMENT ENGINEER _____

This document is for information only. Do not use for bidding purposes.

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
120E0010	Unclassified Excavation	43	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
250E0020	Incidental Work, Grading	Lump Sum	LS
450E8900	Cleanout Pipe Culvert	2	Each
450E9232	Slipline 48" Pipe	80	Ft
462E0250	Cellular Grout	4.2	CuYd
634E0010	Flagging	20.0	Hour
634E0110	Traffic Control Signs	106	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Board	1	Each
730E0210	Type F Permanent Seed Mixture	2	Lb
731E0100	Fertilizing	123	Lb
734E0104	Type 4 Erosion Control Blanket	387	SqYd
734E0154	12" Diameter Erosion Control Wattle	24	Ft

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

COMMITMENT C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the State ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".
2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all designated option borrow sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

COMMITMENT K: RAPID CITY AREA AIR QUALITY CONTROL ZONE

Administrative Rule of South Dakota (ARSD) 74:36:18:03 states that "no state facility or state contractor may engage in any construction activity or continuous operation activity within the Rapid City air quality control zone which may cause fugitive emissions of particulate to be released into the ambient air without first obtaining a permit issued by the board or the secretary."

Construction activity is defined as any temporary activity at a state facility, which involves the removal or alteration of the natural or pre-existing cover of one acre or more of land. One acre of surface area is based on a cumulative area of disturbance to be completed for the entire project. Construction activity shall include, but not be limited to, stripping of topsoil, drilling, blasting, excavation, dredging, ditching, grading, street maintenance and repair, or earth moving. Construction activity is generally completed within one year. It also includes stockpiles, access roads, and disposal areas. An off-site disposal area of excess material will require an additional permit.

Action Taken/Required:

In order to be considered eligible for authorization to conduct a construction activity under the terms and conditions of this permit, the owner operator must submit a Notice of Intent (NOI) form. The form must be submitted to the address below at least seven business days prior to the anticipated date of beginning the construction activity.

South Dakota Department of Environment and Natural Resources Air Quality Program

523 East Capitol, Joe Foss Building
 Pierre, SD 57501-3181
 Phone: 605-773-3151

The permit requires the Contractor to use reasonably available technology to control fugitive dust emissions. The Contractor is required to use control measures for track out, paved areas, unpaved roads, unpaved parking lots, disturbed areas, and for material handling and storage. The control measures that the Contractor is required to use are listed in the permit.

SEQUENCE OF OPERATIONS

1. Set up traffic control
2. Remove topsoil.
3. Grade ditch area.
4. Replace topsoil
5. Seed and fertilize.
6. Place erosion control measures.
7. Slipline Pipes
8. Remove traffic control.

UTILITIES

The Contractor shall contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It shall be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities.

The contact for Rapid Valley Sanitary District is Rusty Schmidt – Telephone 605-381-2904

TABLE OF UNCLASSIFIED EXCAVATION

Location	Unclassified Excavation
Highway 44 Ditch	43.0 CuYd
Total	43.0 CuYd

Excavation will not be measured in the field. Plans quantity shall be the basis of payment.

Unclassified Excavation shall be handled as waste in accordance with the note for Waste Disposal Site.

ALIGNMENT DATA

Type	Station			Northing	Easting
POB	0+00.00			641259.899	1228237.466
		TL= 324.15	S 50°00'25" E		
POE	3+24.15			641051.572	1228485.802

HORIZONTAL AND VERTICAL CONTROL POINTS				
POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP04	Rebar and cap along railroad.	638297.899	1231396.753	3091.790
ML100	Chisel maRK nw corner of box culvert	642036.878	1227336.335	3110.357
ML101	3" PK nail 3.3 ft east of plater in culded sac.	643282.239	1225915.199	3121.725

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone (NAD 83/2011); Geoid 12B; SF = 1.0

CLEANOUT PIPE CULVERT

This work shall consist of cleaning out, removing and disposing of sediment and debris within the existing culvert.

The Contractor shall inspect the locations and determine the necessary method for cleaning out the culverts.

Wattles shall be used to catch any pipe cleanout material from leaving the projects limits. Placement of the wattles shall be as directed by the Engineer.

Cleaning method shall be approved by the Engineer. The culvert shall be cleaned to the satisfaction of the Engineer. The Contractor shall be responsible for repairing any damage caused by the cleaning process. These repairs, if required, shall be the responsibility of the Contractor.

All sediment and debris removed from the culvert shall be disposed of as waste. The Contractor shall shape the ditches in the area of the culvert ends to restore ditch flow. All costs associated with cleaning out the existing culvert, the removal of debris and shaping of the ditches shall be incidental to the contract unit price per each for Cleanout Pipe Culvert.

Table of Pipe Cleanout		
Station	Cleanout Pipe Culvert Each	Notes
0+23	1	18" RCP - 100% Silted - Clean pipe thoroughly and ensure positive drainage at the outlet.
3+23	1	18" RCP - 100% Silted - Clean pipe thoroughly and ensure positive drainage at the outlet.
Total	2	

INCIDENTAL WORK GRADING

The bid item Incidental Work, Grading is for the cleanout of the 4' x 8' twin box culvert at MRM 49.90. The box culvert is approximately 75% plugged.

This work shall consist of cleaning out, removing and disposing of sediment and debris within the existing box culvert.

The Contractor shall inspect the locations and determine the necessary method for cleaning out the box culvert.

Wattles shall be used to prevent sediment from leaving the projects limits. Placement of the wattles shall be as directed by the Engineer.

Cleaning method shall be approved by the Engineer. The box culvert shall be cleaned to the satisfaction of the Engineer. The Contractor shall be responsible for repairing any damage caused by the cleaning process. These repairs, if required, shall be the responsibility of the Contractor.

All sediment and debris removed from the culvert shall be disposed of as waste. All costs associated with cleaning out the existing box culvert and disposal of the material shall be incidental to the contract unit price per each for Incidental Work, Grading.

SLIPLINE PIPE

Twin 40' - 48" pipes in the irrigation ditch at MRM 50.41 R shall be sliplined.

Any steel from previous repair efforts within the pipes that would interfere with the sliplining process shall be removed prior to sliplining. All costs for this work shall be incidental to the contract unit price per foot for Slipline 48" Pipe.

The Contractor shall furnish and install slipliner pipe at locations specified in the Table of Slipline Pipe. This work consists of slipping high density polyethylene (HDPE) or polyvinyl chloride (PVC) pipe liner inside existing pipe and grouting the void between the liner and the existing pipe.

The Contractor shall submit a proposed procedure for sliplining pipes, including the grouting procedure, to the Engineer at least two weeks prior to beginning this work.

Slipliner pipe shall conform to one of the following types:

1. **Closed Profile HDPE:**

Closed profile HDPE pipe shall meet the requirements of ASTM F894 and shall have a cell classification of 345464C in accordance with ASTM D3350. The pipe shall have a minimum Ring Stiffness Constant (RSC) classification of 160 lb/ft as defined in ASTM F894. Pipe joints shall be in accordance with the pipe manufacturer's recommendations and as approved by the Engineer.

2. **Solid Wall HDPE:**

Solid wall HDPE pipe shall meet the requirements of ASTM F714 (SDR 32.5) and shall have a cell classification of 445574C in accordance with ASTM D3350. Pipe joints may be grooved press-on joints or heat fused as approved by the Engineer. Heat fused joints shall be fused in accordance with the pipe manufacturer's recommendations by an experienced operator of the heat fusion equipment.

3. **PVC:**

PVC pipe shall meet the requirements of ASTM F949 or ASTM D1784 with a cell classification of 12454. Pipe joints shall be elastomeric seals (gaskets) in accordance with the requirements of ASTM F477.

4. **Spirally Wound PVC:**

Spirally wound PVC slipliner shall meet the requirements of ASTM F949 with minimum pipe stiffness of 46 psi. Pipe joints shall be in accordance with the pipe manufacturer's recommendations and as approved by the Engineer.

5. **Polypropylene Pipe (PP):**

Polypropylene pipe shall meet or exceed the requirements of ASTM F2736 (12 inch to 30 inch diameter) or shall meet or exceed the requirements of ASTM F2764 (30 inch to 60 inch diameter) with minimum pipe stiffness of 46 psi. Pipe joints shall be in conformance with ASTM D3212.

6. **Steel Reinforced Polyethylene:**

Steel reinforced polyethylene pipe shall meet the requirements of ASTM F2562. Pipe joints shall be in accordance with the pipe manufacturer's recommendations and as approved by the Engineer.

The diameter specified in the bid item description is the diameter of the existing pipe to be sliplined. The Contractor shall provide the largest diameter slipliner pipe that will fit into the existing pipe to maximize flow capacity.

Slipliner pipe shall have a smooth interior surface.

Slipliner pipe shall be joined into a continuous length with joints that are adequate for pushing, pulling, or winding the liner pipe through the existing pipe. The joints shall not allow seepage during pressure grouting. To allow for unrestricted insertion of the liner, the outside diameter of the liner pipe shall not be increased at the joints.

Prior to sliplining, the Contractor shall clean the existing pipe of all debris, silt, and obstructions to ensure that the slipliner pipe can be inserted, the grout will flow to all voids, and the inserted slipliner pipe will not be set upon or irregularly supported by such material. Cleaning shall be accomplished by the use of jet rodding equipment or other approved methods.

The slipliner pipe shall be inserted into the existing pipe by pushing, pulling, or winding methods that do not damage the slipliner pipe. The slipliner pipe shall be clean and substantially dry before insertion.

To minimize the change in flowline, slipliner pipe shall be held down during the grouting operation. This may be accomplished by attaching fasteners or blocks at the top of the pipe, adding weight to the inside of the slipliner pipe, placing multiple grout lifts, or other means as approved by the Engineer.

Bulkheads shall be constructed at each end of the pipe. Each bulkhead shall be constructed to withstand the pressure of the grouting operation. The bulkhead shall extend from the end of the existing pipe inward a minimum depth of 18 inches. The bulkhead shall be free from leaks and the exterior surface shall be given a smooth trowel finish. The bulkhead at the inlet end shall be finished with a 45 degree mitered bevel transition between the existing pipe and the inside of the slipliner pipe with the slipliner pipe face pushed inside the existing pipe face.

Pressure grouting shall be done to ensure all the voids are filled between the slipliner pipe and the existing pipe including all breaks or holes in and around the existing pipe. Grouting pressures used shall ensure all voids are filled, but do not collapse or deform the slipliner pipe more than 5 percent of the diameter. Multiple grout lifts may be necessary to minimize pipe deflection for 60-inch diameter and larger pipe in accordance with the pipe manufacturer's recommendations.

The grout shall be a cellular grout (grout with pre-generated foam) with a minimum 28 day compressive strength of 100 pounds per square inch. If water is not present within the sliplined pipe a low density grout with a minimum of 30 pounds per cubic foot wet density may be used. When it is not possible to dewater the existing pipe or keep water out of the annular space during grouting, a high density grout with a minimum of 70 pounds per cubic foot shall be used which may include approved sand. The foaming agent used shall meet the requirements of ASTM C869 when tested in accordance with ASTM C796.

Both of the cellular grout mix designs shall be submitted to the SDDOT Concrete Engineer for approval prior to use. The mix design submittal shall include the base cement slurry mix per cubic yard, expansion factor from the foaming agent, and the cellular grout wet density (pounds per cubic foot).

The Contractor shall install a bypass valve adjacent to the location where the pressure grouting hose is attached for obtaining samples to be checked for wet density. The wet density of the cellular grout shall be checked by the Contractor to verify the proper minimum wet density before the cellular grout filling operations begin and at a minimum once every two hours during production. The SDDOT shall document the results of the density checks.

Cellular grout shall be wasted until the cellular grout meets the minimum wet density required; however, if 0.5 cubic yards or more of base cement slurry is wasted trying to meet density requirements, then that quantity will not be included for payment.

If grout holes are utilized, cylindrical wooden plugs or other approved plugs shall be inserted to plug holes until the grout has set. After the plugs are removed the holes shall be filled with concrete.

The quantity of cellular grout was estimated based on void quantity between the slipliner pipe and the existing pipe, and an additional quantity if necessary was estimated for the void volume outside the existing pipe.

The quantity of base cement slurry ordered shall be approved by the Engineer. The quantity of base cement slurry needed shall be calculated to the nearest tenth of a cubic yard using the approved mix design, expansion factor of the foaming agent, and estimated amount of cellular grout. The quantity for payment to the nearest tenth of a cubic yard of "Cellular Grout" is a calculated quantity based on the amount of base cement slurry used on the project to the nearest tenth of a cubic yard, expansion factor of the foaming agent, and approved mix design.

All costs for furnishing and installing the slipliner pipe, including work area excavation, backfilling, pipe cleaning, and incidentals necessary to satisfactorily complete the work shall be included in the contract unit price per foot for the corresponding bid item for Slipline 48" Pipe.

All costs for furnishing and installing the cellular grout including bulkhead construction, inlet bevel construction, and incidentals necessary to satisfactorily complete the work shall be included in the contract unit price per cubic yard for Cellular Grout.

TABLE OF SLIPLINE PIPE

Table of Slipline Pipes			
	Slipliner		
	Minimum		
	Inside	Slipline	Cellular
	Diameter	48" Pipe	Grout
MRM	(In)	(Ft)	(CuYd)
50.41	40	80	4.2