



Planning & Engineering  
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November 19, 2024

**ADDENDUM NO. 1**

**RE: Item #2, November 20, 2024 Letting - 21005951 ( ), PCN X06M, Moody County -  
Replacement of Sanitary Sewer Crossings, Installation of Sanitary Sewer Services, Water  
Main, Water Services and Ditch Grading for the City of Colman**

**TO WHOM IT MAY CONCERN:**

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

**SPECIAL PROVISIONS:** NO CHANGE

**SDEBS BID PROPOSAL:** NO CHANGE

**PLANS:** Please destroy sheet 12 and replace with the enclosed sheet, dated 11/19/24. Sheet 12a was added.

**Sheet 12:** BORE AND JACK CASING PIPE note was removed. Note placement was adjusted.

**Sheet 12a:** BORE AND JACK STEEL PIPE note was added. Note placement was adjusted.

Sincerely,

Sam Weisgram  
Engineering Supervisor

SW/cj

CC: Travis Dressen, Mitchell Region Engineer  
Harry Johnston, Sioux Falls Area Engineer

**SEDIMENT CONTROL WATTLE**

**Construction Requirements:** The Contractor shall provide certification that the sediment control wattles do not contain noxious weed seeds.

**Maintenance:** Sediment should be removed on a routine basis when the level of sedimentation reaches one-half the height of the exposed wattle. Damaged areas should be repaired immediately until the vegetation is established and growing through the material.

**Measurement:** Sediment control wattles will be measured to the nearest foot.

**Payment:** Sediment control wattles will be paid for at the contract unit price per lineal foot. Payment for all materials, labor and equipment necessary to install, maintain, repair, and remove the sediment control wattles will be included in the contract unit price per lineal foot.

**Materials:** The erosion control wattle will be 12" diameter with biodegradable netting and selected from the Manufacturers listed below, or approved equal:

Manufacturer	Product Name
American Excelsior Company Arlington, TX Phone: 1-800-777-7645 <a href="http://www.amerexcel.com">www.amerexcel.com</a>	Curlex Sediment Log
Western Excelsior Corporation Mancos, CO Phone: 1-800-833-8573 <a href="http://www.westernexcelsior.com">www.westernexcelsior.com</a>	Aspen Fiber Logs and Straw Logs
R.H. Dyck Inc. Winters, CA Phone: 1-530-662-7700 <a href="http://www.earth-savers.com">www.earth-savers.com</a>	Earth-saver Rice Straw Wattles

**EROSION CONTROL BLANKET**

Erosion Control Blanket will be installed as determined in the field by the Engineer. The Contractor will install erosion control blanket according to the Manufacturer's installation instructions.

**Material:** The erosion control blanket will be a Type 2 erosion control blanket according to SDDOT specifications.

**Measurement:** Measurement for the erosion control blanket will be per square yard of the area covered.

**Payment:** Payment for the erosion control blanket will be at the contract unit price per square yard of the area covered. Payment will be full compensation for all materials, labor, equipment, and incidentals required to furnish and install the erosion control blanket and will be included in the bid item "Erosion Control Blanket".

**Maintenance:** Damaged areas should be repaired immediately until the vegetation is established and growing through the material.

**TURF REINFORCEMENT MAT**

Turf Reinforcement Mat will be installed at locations shown in the plans, and at locations determined by the Engineer during construction. The Contractor will use a turf reinforcement mat from the approved products list. The approved product list for turf reinforcement mat may be viewed at the following internet site:

<http://apps.sd.gov/HC60ApprovedProducts/main.aspx>

**BORE AND JACK STEEL PIPE**

The Contractor will install steel pipe at station 372+02 by boring and jacking the pipe through the existing highway embankment. The pipe will be installed by boring and jacking methods as specified herein unless an alternate plan is submitted in writing and approved by the Engineer.

As shown on the appropriate pipe cross section, some excavation of the existing roadway embankment is anticipated in order to reduce the length of the bore and jack pipe installation.

Steel pipe for boring and jacking will meet or exceed the requirements of ASTM A53 Grade B, ASTM A139 Grade B or ASTM A252 Grade 2. Hydrostatic testing will not be required for this application. The pipe will be required to have the minimum wall thickness as shown in the following table:

Pipe Diameter	Wall Thickness
16"	0.282"

For pipe diameters greater than 72", contact the Office of Bridge Design for wall thickness.

The exterior of the steel pipe will be coated with a fusion bonded epoxy coating and an abrasion resistant overcoat or a two-component coal tar epoxy. The coal tar will meet the requirements of Sherwin-Williams Targuard, Tnemec Hi-Build Tneme-Tar, or an approved equal. Applications of the coatings will be in conformance with the manufacturer's recommendations.

The pipe joints will be welded by a certified welder in accordance with Section 410.3 D of the Specifications. After the welding has been completed, the exposed area will be coated with 3M Scotchkote Liquid Epoxy 328 or a two-component coal tar epoxy meeting the requirements of Sherwin-Williams Targuard, Tnemec Hi-Build Tneme-Tar, or an approved equal.

The jacking pit will be constructed of sufficient size to accommodate equipment and workmen. The pit walls will be sloped or shored to comply with all applicable State and Federal regulations. The Contractor will be responsible for the design of the pit floor and jacking thrust restraint wall to carry the cyclic loads and thrust applied by the Contractor's operation. Water will not be allowed to accumulate in the jacking pit. All components of the jacking pit will be removed after installation of the pipe unless otherwise allowed by the Engineer.

**BORE AND JACK STEEL PIPE (CON'T)**

The pipe will be pushed into position from a jacking pit with hydraulic jacks while simultaneously excavating at the forward end of the pipe. Each pipe section will be jacked from the jacking pit as the excavation at the boring head progresses so that the excavation is supported by the boring head or the pipe at all points.

Jacking thrust will be applied to the pipe by means of a yoke or frame designed to distribute the thrust uniformly around the pipe joint. The thrust will be applied to the pipe joint only in the location and only to the maximum force recommended by the pipe manufacturer. The pipe will be jacked into place without visible damage to the pipe or joint.

The boring head excavation will be circular with a maximum diameter equal to the outside diameter of the jacking pipe plus 1 inch. The Contractor will take whatever corrective action is necessary to prevent running, flowing, or squeezing ground conditions at the cutting face from causing large voids or significant loss of soil that may cause surface settlement.

The Contractor will control the alignment and grade of the pipe installation to meet the following tolerances:

1. Maximum horizontal deviation from plan shown alignment will be less than 0.15% of pipe length from the downstream end of pipe to the point of measurement.
2. Maximum vertical deviation from plan shown alignment will be less than 0.075% of pipe length from the downstream end of pipe to the point of measurement.

All material excavated by the boring head for the pipe installation will be disposed of by the Contractor. The excavated material from the boring pit will be used as backfill for the pit and compacted into place to the satisfaction of the Engineer.

Steel casing will be installed horizontally through 125' of embankment. The pipe will be placed through an approximate 16' +/- vertical depth of clay fill material.



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#	REVISIONS	DATE	BY
1	ADDENDUM 3	11/19/24	WDL

**SD HWY 34 - UTILITY IMPROVEMENTS  
SANITARY SEWER AND WATER  
COLMAN, SOUTH DAKOTA**

**ADDENDUM 3  
PCN X06M**

PROJ. NO.	21005951.00
DRAWN BY:	WDL
CHECKED BY:	SLW
DATE:	NOVEMBER 2024

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**BORE AND JACK STEEL PIPE (CON'T)**

Install carrier pipe within the steel casing pipe. The steel casing pipe shall include casing chocks, neoprene rubber liner, and other necessary items will be subsidiary to the carrier pipe installation within the casing. Refer to plan notes for measurement and payment for the carrier pipe.

All costs involved with boring and jacking the pipe including labor, equipment, welding, materials, 16" steel casing pipe, disposal of waste material, constructing and backfilling the jacking pit, and excavating and backfilling the roadway embankment will be incidental to the contract unit price per foot for the corresponding bore and jack pipe contract item.

Provide shop drawings for the steel casing pipe, casing chocks and rubber liner.

Submit the description of proposed jacking equipment and methods for Engineer's review.

**CELLULAR GROUT**

The Contractor will submit a proposed grouting procedure to the Engineer at least two weeks prior to beginning this work.

Bulkheads will be constructed at each end of the pipe. Each bulkhead will be constructed to withstand the pressure of the grouting operation. The bulkhead will extend from the end of the existing pipe inward a minimum depth of 18 inches and will be free from leaks.

Pressure grouting will be done to ensure all the voids are filled including all breaks or holes in and around the existing pipe.

The grout will 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 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, a high-density grout with a minimum of 70 pounds per cubic foot will be used which may include approved sand. The foaming agent used will meet the requirements of ASTM C869 when tested in accordance with ASTM C796.

Both of the cellular grout mix designs will be submitted to the SDDOT Concrete Engineer for approval prior to use. The mix design submittal will 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 will 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 will be checked by the SDDOT Engineer.

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 will document the results of the density checks.

**CELLULAR GROUT (CON'T)**

Cellular grout will 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 measured for payment.

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

The quantity of cellular grout was estimated based on volume of the existing pipe and voids along the existing pipe.

The quantity of base cement slurry ordered will be approved by the Engineer. The quantity of base cement slurry needed will 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 cellular grout including bulkhead construction, inlet bevel construction, and incidentals necessary to satisfactorily complete the work will be included in the contract unit price per cubic yard for "Cellular Grout".

The estimated quantity of Cellular Grout has been calculated to be 3.0 cubic yards.



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