

STATE OF SOUTH DAKOTA  
 DEPARTMENT OF TRANSPORTATION  
 PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	411C428	1	11

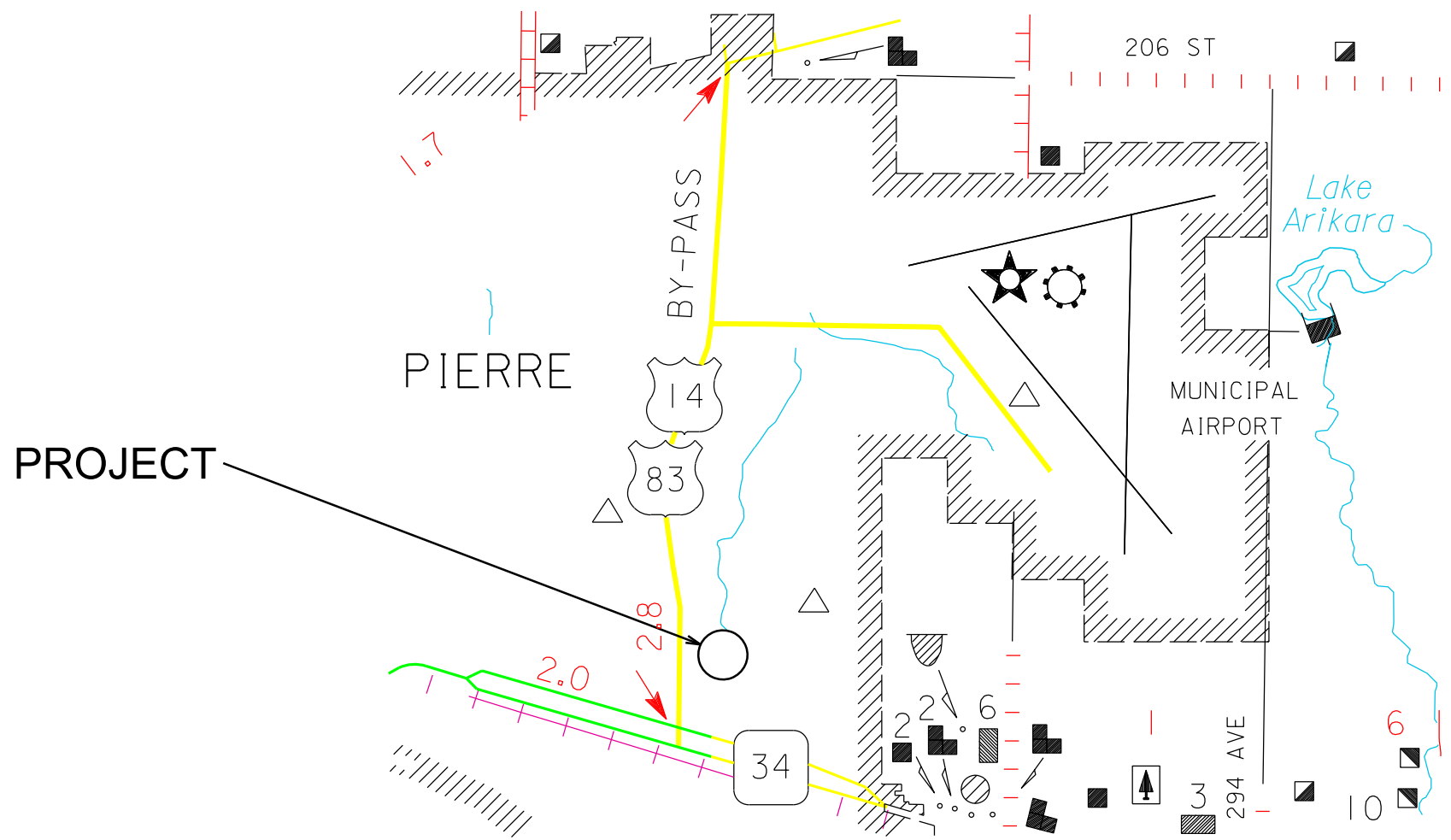
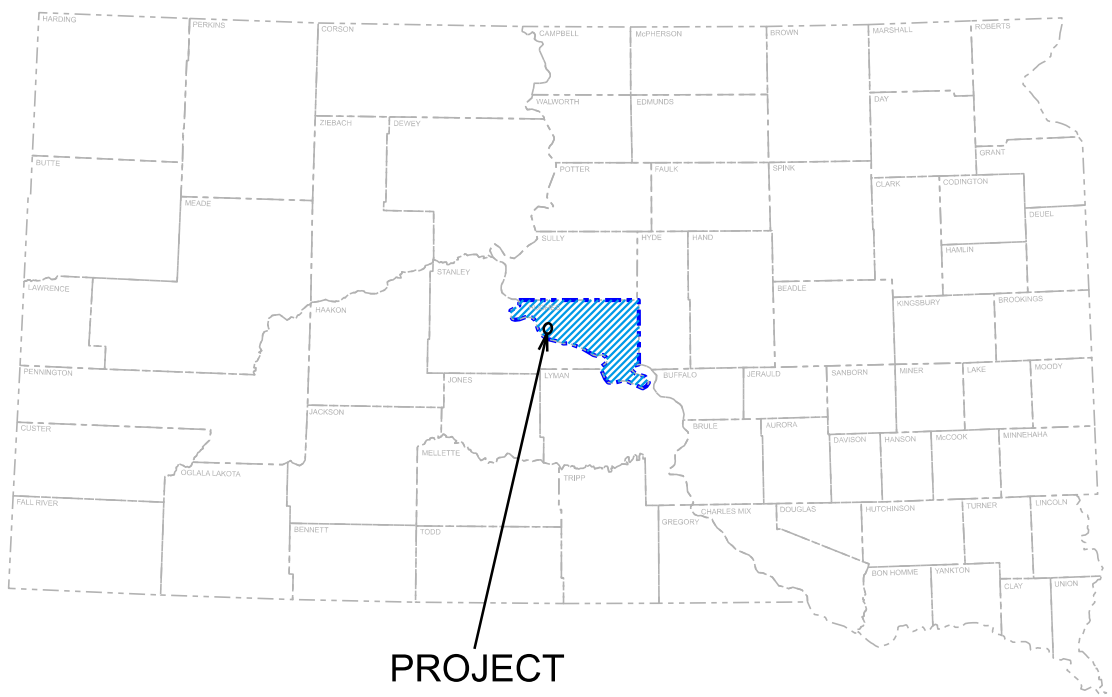
Plotting Date: 04-30-2025

INDEX OF SECTIONS

- Sheet No. 1 Title Sheet
- Sheet No. 2-4 Estimate of Quantities & Plan Notes
- Sheet No. 5 Pierre Yard Layout
- Sheet No. 6-9 Drawings
- Sheet No. 10-11 Standard Plates

**PROJECT 411C428**  
**SDDOT PIERRE REGION YARD**  
**HUGHES COUNTY**

ASPHALT CONCRETE RESURFACING, VALLEY GUTTER, & PIPE WORK  
 PCN i867



STORM WATER PERMIT  
 NO PERMIT REQUIRED

Plot Scale - 1:200

Plotted From - TRPR2NT41

File - ...Documents\lilesseed i867.dgn

## ESTIMATE OF QUANTITIES

### Non-Section Method

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
* 009E0010	Mobilization	Lump Sum	LS
* 120E0010	Unclassified Excavation	43	CuYd
* 320E1200	Asphalt Concrete Composite	1,259.1	Ton
* 421E0100	Pipe Culvert Undercut	1	CuYd
* 450E0122	18" RCP Class 2, Furnish	8	Ft
* 450E0130	18" RCP, Install	8	Ft
* 450E7030	24" High Density Polyethylene Pipe, Install	40	Ft
* 462E0100	Class M6 Concrete	1.4	CuYd
* 480E0100	Reinforcing Steel	262	Lb
* 650E6280	8" Concrete Valley Gutter	379.3	SqYd
* 670E0200	Type A Frame and Grate	1	Each
* 670E1015	3' x 4' Type B Drop Inlet	1	Each
* 670E1025	4' x 4' Type B Drop Inlet	1	Each
* 670E3300	Type E Frame and Grate	1	Each
* 900E2030	Miscellaneous Work	1	Site

\* - Denotes Non-Participating

## SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2025 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

## UTILITIES

Utilities are not expected to be affected on this project. If utilities are identified near the improvement area through SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25, the Contractor shall contact the Engineer to determine modifications that will be necessary to avoid utility impacts.

There is a private power line that runs parallel to the storm sewer in Zone 7 and the Contractor will coordinate working around the power line with the Pierre Area Office.

There is a sensor system in Zone 1 that will be avoided by the SDDOT during the Earthwork phase.

## ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Section A Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified 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.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <http://www.sddot.com/resources/Manuals/EnvironProcManual.pdf>

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Office at 605-773-3098 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

### 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 will 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 Public ROW.

The waste disposal site(s) will be managed and reclaimed in accordance with the following from the General Permit for 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) will 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 Environmental Office and the Project Engineer.

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

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with 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) will be incidental to the various contract items.

### COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

State Historical Preservation Office (SHPO or THPO) concurrence has not been obtained for this project.

#### Action Taken/Required:

All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor will arrange and pay for a record search and when necessary, a cultural resource survey. 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 if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view of 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 will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. 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.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office to determine an appropriate course of action.

**COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES  
(CONTINUED)**

The Contractor is responsible for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

**SEQUENCE OF WORK**

1. Install Drop Inlets and Pipes
2. Place Valley Gutter
3. Place Tack
4. Place Asphalt Concrete Composite

Contractor requests to deviate from the sequence of operations will be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for sequencing of the work. An alternate sequence will be submitted for review a minimum of one week prior to potential implementation.

Work shall be coordinated with Tom Kallemeyn, Engineering Supervisor of the Pierre Area DOT (605-280-3205) to ensure that construction has minimal interference with normal operations for SD DOT and Highway Patrol.

**SCOPE OF WORK**

**Areas 1-3:** Currently this area consists of asphalt concrete. SDDOT forces will remove the existing surface and undercut. SDDOT will place gravel and prime prior to the Contractors paving operation. The Contractor is to install the 8" valley gutter in accordance with the survey. The Contractor is to then place 5 inches of Asphalt Concrete Composite between the North side of the valley gutter and the existing PCC. The Contractor will also tie the South section of the valley gutter 5 feet to the existing asphalt at a 4-inch depth. The Asphalt Concrete Composite shall be placed in two lifts. Care is to be taken to ensure that positive drainage exists as per direction of the Engineer. Areas 1, 2, and 3 contain 3,688 Square Yards of total area. The Contractor will tie into the existing asphalt with new asphalt composite. The Contractor is to install a state furnished 4'x4' drop inlet at the East end of the 8" valley gutter with an 18" RCP connecting the drain to the existing 72" storm sewer pipe.

**Area 4:** Currently this area consists of gravel surfacing. SDDOT will place gravel and prime prior to the Contractors paving operation. The Contractor will place 5 inches of Asphalt Concrete Composite in this area. The Asphalt Concrete Composite will be placed in two lifts. Care is to be taken to ensure that positive drainage exists as per the direction of the Engineer. Area 4 contains 313 Square Yards of total area.

**Areas 5-6:** Currently this area consists of gravel surfacing. SDDOT will place gravel and prime prior to the Contractors paving operation. The Contractor will place 4 inches of Asphalt Concrete Composite in this area. The Asphalt Concrete Composite will be placed in two lifts. Care will be taken to ensure

that positive drainage exists as per direction of the Engineer. Areas 5 and 6 contain 963 Square Yards of total area. The Contractor can remove the chain link fence to make access to these areas as long as the fence is restored.

**Area 7:** Currently this area consists of gravel surfacing. The Contractor is to place an extension on the existing manhole and pour a collar. This will be done with a state furnished RCP that the Contractor will modify. The Contractor is to also install a Contractor furnished 3' x 4' drop inlet in accordance with the survey. The Contractor will furnish and install a Type A Frame and Grate on this drop inlet. This will also come with a state furnished 40 ft 24" polyethylene pipe that connects the drop inlet with the existing 72" storm sewer pipe.

**PIERRE MAINTENANCE YARD**

Pierre maintenance forces will complete the earthwork and grading prior to the placement of the asphalt composite. The Contractor will provide 14 days notice prior to the start of paving or valley gutter operations to ensure the grade preparation and prime application is completed.

The Pierre Area will provide the survey for 8" concrete valley gutter and pipe work.

Any damage to existing utilities in the SDDOT Pierre Region Yard will be repaired by the Contractor at no expense to the State.

Any damage to existing concrete, buildings, etc. will be repaired by the Contractor at no expense to the State.

**ASPHALT CONCRETE COMPOSITE**

In place field densities will not be taken. Specified Roller Coverage will apply.

Placement of Asphalt Concrete Composite will be accomplished with a self-propelled paver in all areas. The Engineer may allow alternate methods in the smaller areas provided a steel faced vibratory roller or vibratory plate compactor is used for compaction.

MC-70 Prime application will be waived from the Asphalt Concrete Composite.

The Contractor will furnish, install and maintain "TRUCK CROSSING" signs. The location for this pair of signs will be determined in the field. Payment for these signs will be incidental to the various contract items.

It is estimated that 1259.1 tons of Asphalt Concrete Composite will be needed overall to complete the paving of the designated areas. The depths and locations of the paving may be changed as per direction of the Engineer. Any additional Asphalt Concrete Composite will be placed at locations as directed by the Engineer.

The asphalt binder used in the mixture will be PG 64-34, PG 58-34, PG 64-28, PG 58H-34, or PG 58V-34.

**UNCLASSIFIED EXCAVATION**

The Unclassified Excavation is approximately 42 cubic yards. This comes from the two pipe installation sites. The 18" RCP site estimates 4 cubic yards of Unclassified Excavation. The 24" polyethylene pipe estimates 38 cubic yards of Unclassified Excavation.

The 18" RCP will require 1 cubic yard of undercut to bring the total excavation to 43 cubic yards for the project. The 24" polyethylene pipe will require no undercut due to an electrical line that runs between the storm sewer and the proposed area drain.

**PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY**

When plan quantities are used for payment, the Unclassified Excavation quantity will be used for final payment and the plans quantity of Topsoil and salvaged surfacing items listed in the Table of Unclassified Excavation will not be adjusted according to field measurements.

The following paragraphs are general earthwork information and information in regard to computing the Unclassified Excavation quantity when final cross sections are taken in the field:

The Excavation quantities from individual balances and the Table of Unclassified Excavation have been reduced by the volume of in place surfacing that will be removed and/or salvaged.

**MISCELLANEOUS WORK**

The Contractor will install the vertical extension of the existing manhole in Zone 7. This work will include the installation of the extension, the collar to connect the extension to the existing pipe, cutting the RCP to the appropriate length, and the earthwork. The State will furnish the RCP for this work. This work will be paid as a lump sum under the bid item "Miscellaneous Work".

**4' X 4' TYPE B DROP INLET**

The State will furnish the 4' x 4' Type B Drop Inlet. The installation of this 4' x 4' drop inlet will be paid under the bid item "4' X 4' Type B Drop Inlet". The Contractor will furnish the Type A Frame and Grate to be installed on the 4' x 4' Drop Inlet. Payment for furnish and installation of the Frame and Grate will be paid under the bid item "Type A Frame and Grate".

**PIPE CONNECTIONS**

Pipe connection work will consist of breaking out a section of the 72" storm sewer to accommodate the 24" polyethylene and 18" RCP. Care will be taken to ensure there will be no damage to the 72" storm sewer when placing the pipe and casting the collar and that the correct sized section is removed to fit the new pipes. Any damage caused will be repaired at no cost to the department. This work will be incidental to the contract unit price for each of the 24" polyethylene and 18" RCP.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	411C428	4	11

**8" CONCRETE VALLEY GUTTER**

The 8" Concrete Valley Gutter will be placed in accordance with SDDOT Standard Plate 650.40. The unit price will include M6 concrete, all reinforcing steel, joint sawing, labor, equipment, dowels, expansion joint filler, and any other items needed to construct the valley gutter. The valley gutter work will be paid for at the contract unit price per Square Yard for "8" Concrete Valley Gutter". The valley gutter is 569 feet long and 6 feet wide. The Contractor will place expansion joints every 7 sawed joints as shown on sheet 6.

It is estimated that 84.3 CUYD is needed for the 8" Concrete Valley Gutter. State forces will grade the area. The Department will pay for a concrete overrun, at the invoice price of the concrete, if the quantity exceeds 10% or more of the estimated volume. The Contractor will provide an invoice to the Department, if this is encountered.

**STATE FURNISHED MATERIAL**

The cost of the 24" polyethylene pipe for tax purposes is \$1,369.86 and the cost of the 4' x 4' Type B Drop Inlet is \$5,903.22. The Contractor is responsible for paying State use tax, applicable City use tax, and excise tax on these materials.

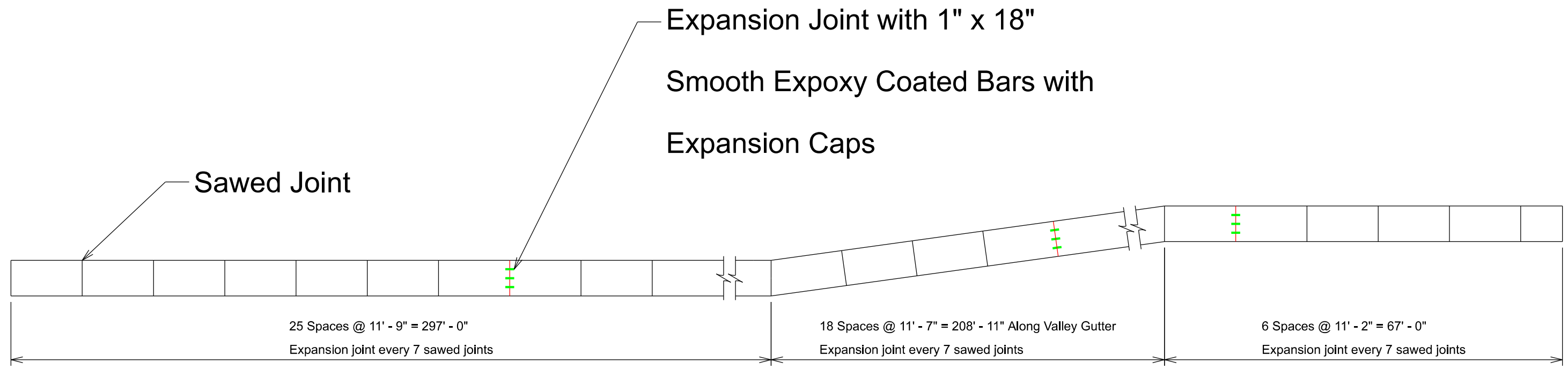
## Pierre Yard Layout



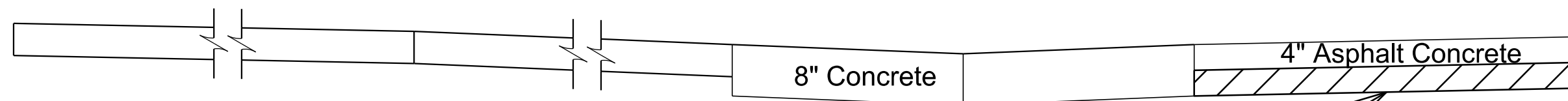
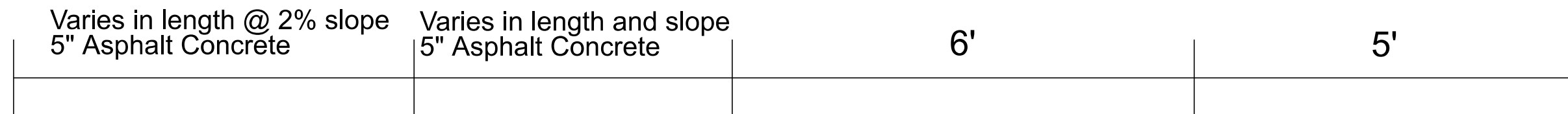
STATE OF SOUTH DAKOTA	PROJECT 411C428	SHEET 6	TOTAL SHEETS 11
-----------------------	--------------------	------------	--------------------

Plotting Date: 04-30-2026

# Valley Gutter



# Typical Section



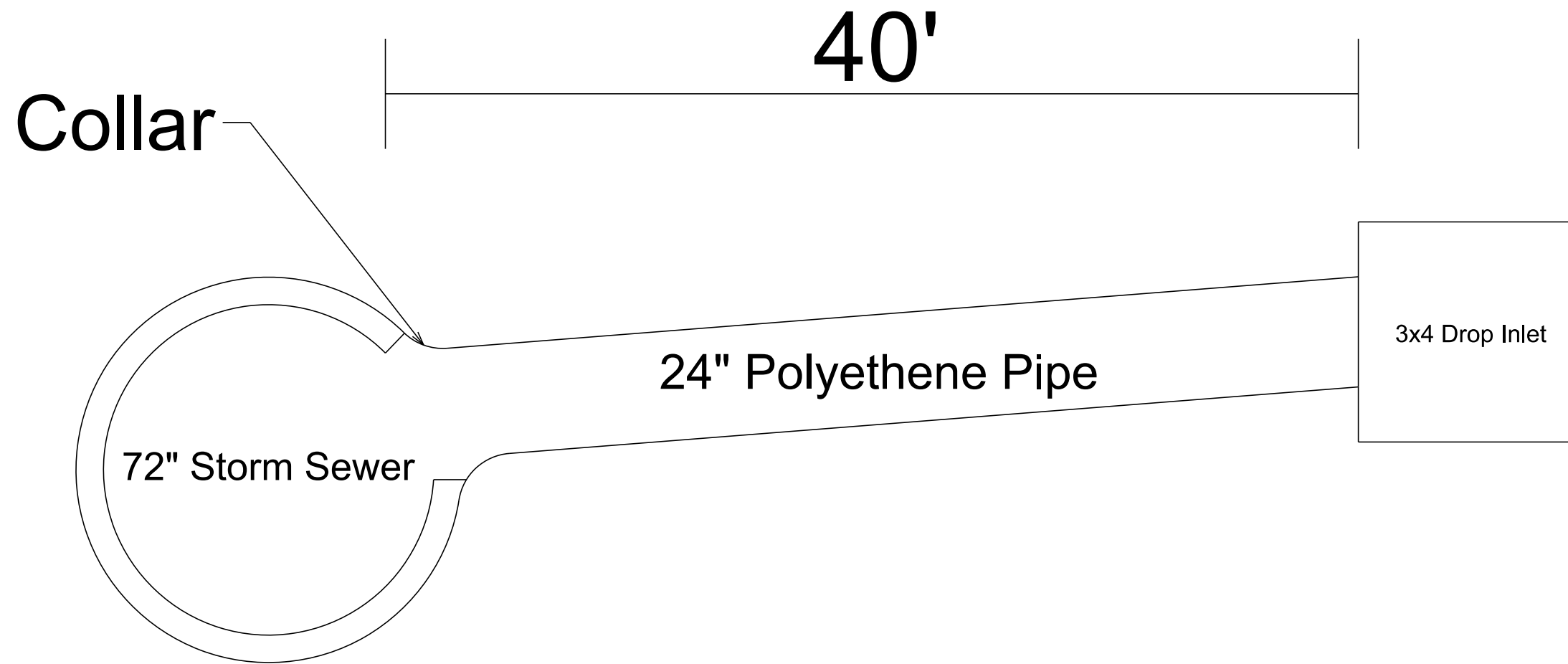
Base Course

\* The Contractor is responsible for recompacting the grade under the 5' section of 4" Asphalt Concrete, to the satisfaction of the Engineer.

STATE OF SOUTH DAKOTA	PROJECT 411C428	SHEET 8	TOTAL SHEETS 11
-----------------------	--------------------	------------	--------------------

Plotting Date: 04-30-2026

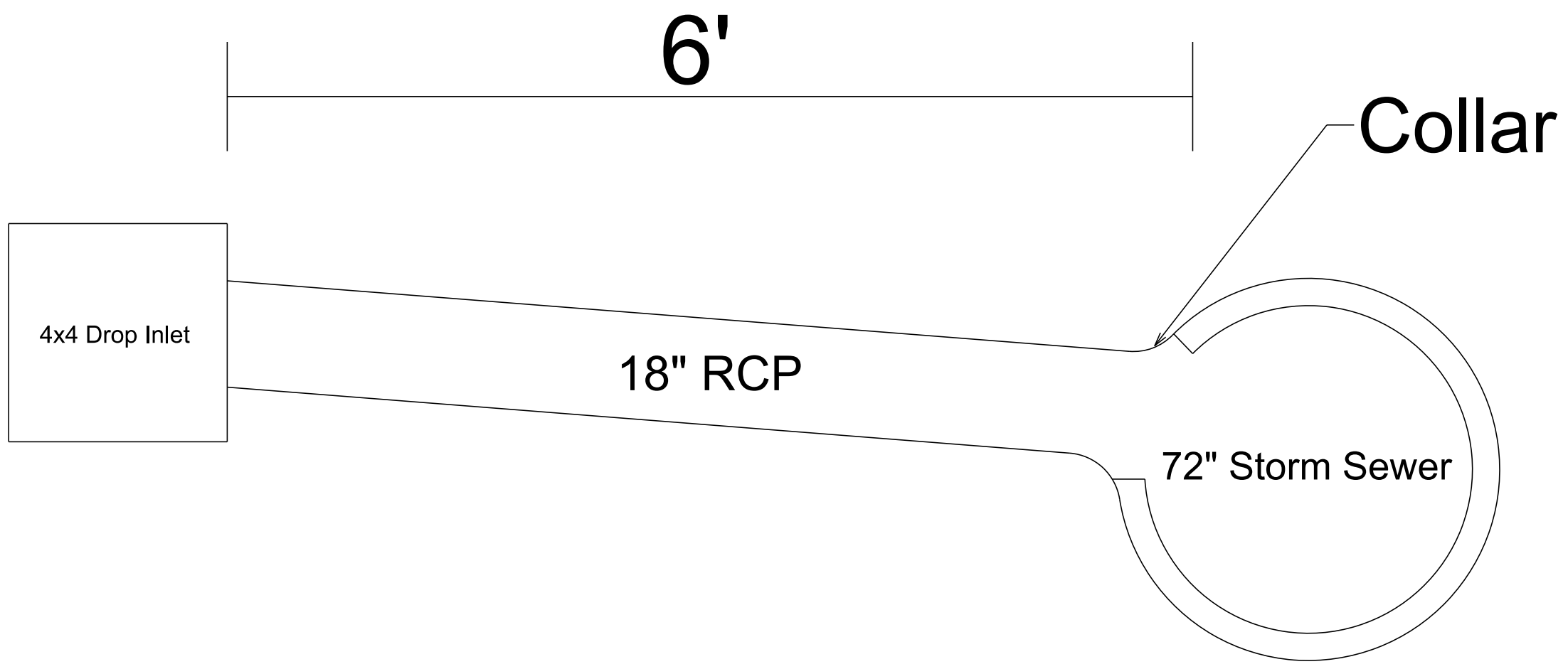
# 24" Polyethene Pipe

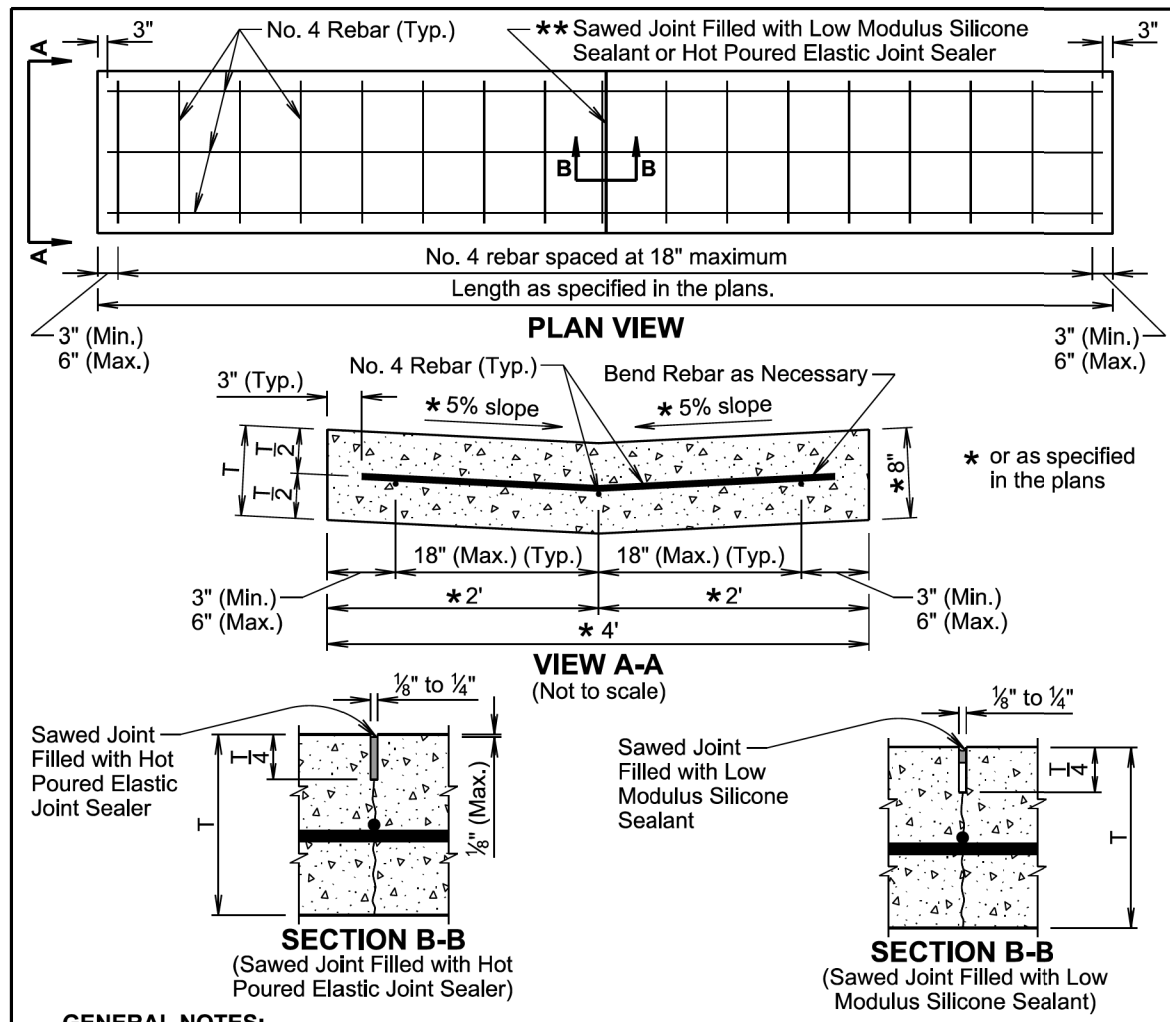


STATE OF SOUTH DAKOTA	PROJECT 411C428	SHEET 9	TOTAL SHEETS 11
-----------------------	--------------------	------------	--------------------

Plotting Date: 04-30-2026

18" RCP





**GENERAL NOTES:**

The concrete will comply with the specifications for class M6 concrete.

The reinforcing steel will comply with the requirements of specification sections 480 and 1010.

If a lap splice is provided the No. 4 rebar will be lapped a minimum of 12 inches.

**\*\*** The sawed joints will be spaced at 12 feet; however, when the length of the valley gutter is 12 feet to 24 feet there will be a joint at the midpoint of the length. The saw cut to control cracking will be a minimum of 1/4 the thickness of the pavement.

All hot poured elastic joint sealer material spilled on the surface of the concrete pavement will be removed as soon as the material has cooled. The extent of removal of material will be to the satisfaction of the Engineer. All costs for removal of the spilled joint sealer material will be borne by the Contractor.

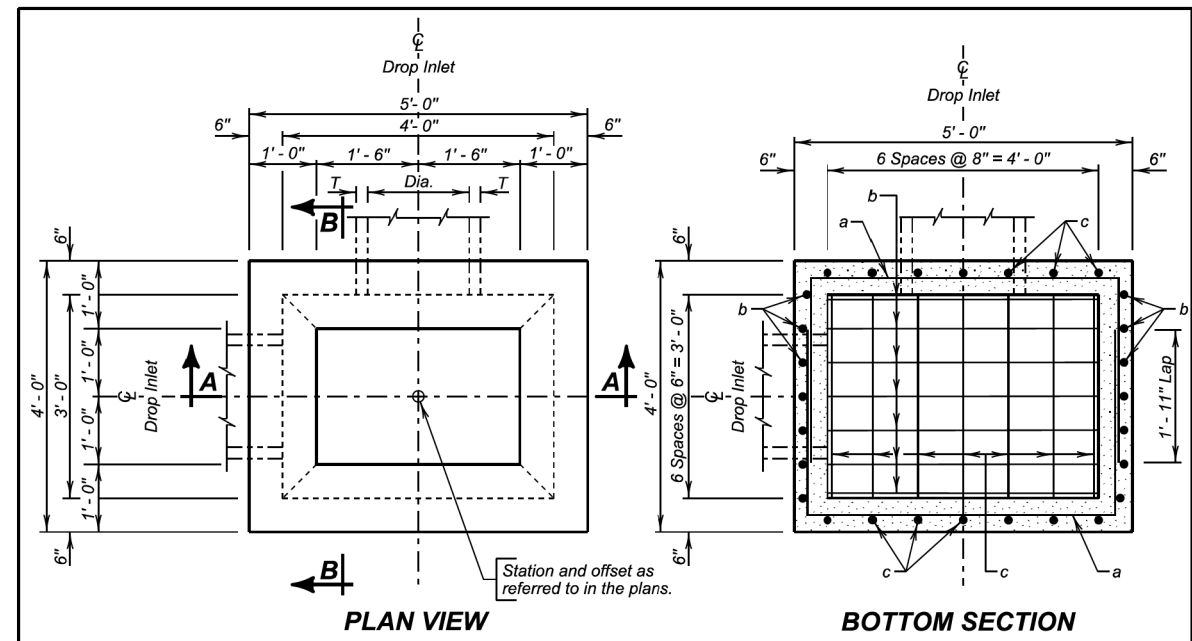
The silicone sealant will be bonded to the sides of a clean joint to completely seal the joint as approved by the Engineer.

All costs for furnishing and installing the valley gutter including materials, equipment, labor, and incidentals will be included in the contract unit price per square yard for the corresponding Valley Gutter contract item.

December 23, 2019

<b>S D D O T</b>	<b>VALLEY GUTTER</b>	PLATE NUMBER 650.40
		Sheet 1 of 1

Published Date: 2027



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	0.72	0.30H
Reinforcing Steel	Lb.	130.93	36.54H
Frame and Grate Assembly	Each	1	

**DROP INLETS FOR 12" TO 36" DIAMETER PIPE**

**SPECIFICATIONS**

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.  
 Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

**GENERAL NOTES:**

Design Live Load: HL-93. No construction loading in excess of legal load was considered.

Reinforcing steel shall conform to ASTM A615 grade 60. The d bars shall be lapped 12 inches with the b and c bars. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.

\* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.

Maximum R.C.P. diameter shall not exceed 24 inches (24 inches for R. C. arch) on the 3-foot wide side and shall not exceed 36 inches (30 inches for R.C. arch) on the 4-foot wide side of the drop inlet.

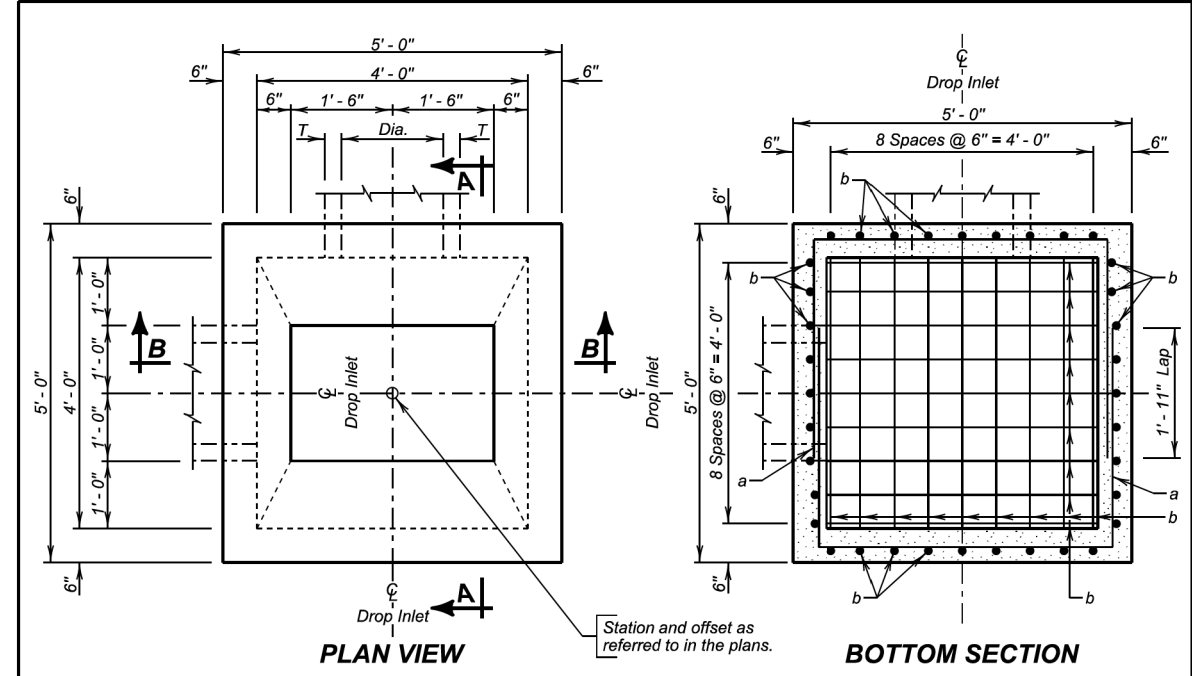
The dimension of H is in feet. Maximum H is 10 feet.

PIPE DISPLACEMENT REDUCTIONS		
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)
12	2	0.03
15	2 1/4	0.04
18	2 1/2	0.05
24	3	0.09
30	3 1/2	0.14
36	4	0.20
18	2 1/2	0.05
24	3 1/2	0.09
30	4	0.14

<b>S D D O T</b>	<b>3' X 4' TYPE B REINFORCED CONCRETE DROP INLET</b>	PLATE NUMBER 670.02
		Sheet 1 of 2

Published Date: 2027

Apr 17, 2026



ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
* Class M6 Concrete	Cu. Yd.	0.98	0.33H
Reinforcing Steel	Lb.	180.69	43.67H
Frame and Grate Assembly	Each	1	

**DROP INLETS FOR 12" TO 36" DIAMETER PIPE**

**SPECIFICATIONS**

Design Specifications: AASHTO LRFD Bridge Design Specifications, 2012 Edition.  
 Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Version, Required Provisions, and Special Provisions as included in the Proposal.

**GENERAL NOTES:**

- Design Live Load: HL-93. No construction loading in excess of legal load was considered.
- Reinforcing steel shall conform to ASTM A615 grade 60. The d bars shall be lapped 12 inches with the b and c bars. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.
- Drop inlet may be precast. If precast drop inlet details differ from this standard plate, submit a checked design done by a SD registered P.E. and shop plans to the Office of Bridge Design for approval.
- \* Reduce total quantities of concrete by the amount of concrete displaced by the pipe(s). The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.
- Drop inlet shown may be modified by the addition or omission of connecting pipes as noted elsewhere in the plans. All pipes entering drop inlet must fit between the inside face of walls and shall not enter through the corners.
- Maximum R.C.P. diameter shall not exceed 36 inches (30 inches for R. C. arch) on the 4-foot wide side of the drop inlet.
- The dimension of H is in feet. Maximum H is 10 feet.

PIPE DISPLACEMENT REDUCTIONS		
Diameter (Inches)	Wall T (Inches)	Class M6 Concrete (Cu. Yd.)
12	2	0.03
15	2 1/4	0.04
18	2 1/2	0.05
24	3	0.09
30	3 1/2	0.14
36	4	0.20
18	2 1/2	0.05
24	3 1/2	0.09
30	4	0.14

<b>S D D O T</b>	<b>4' X 4' TYPE B REINFORCED CONCRETE DROP INLET</b>	APR 17, 2026 <b>PLATE NUMBER</b> <b>670.04</b>
	Published Date: 2027	Sheet 1 of 2