

STATE OF SOUTH DAKOTA
 DEPARTMENT OF TRANSPORTATION
 PLANS FOR PROPOSED

PROJECT P 0ENH(221)
 DAKOTA DUNES COMMUNITY IMPROVEMENT DISTRICT
 UNION COUNTY

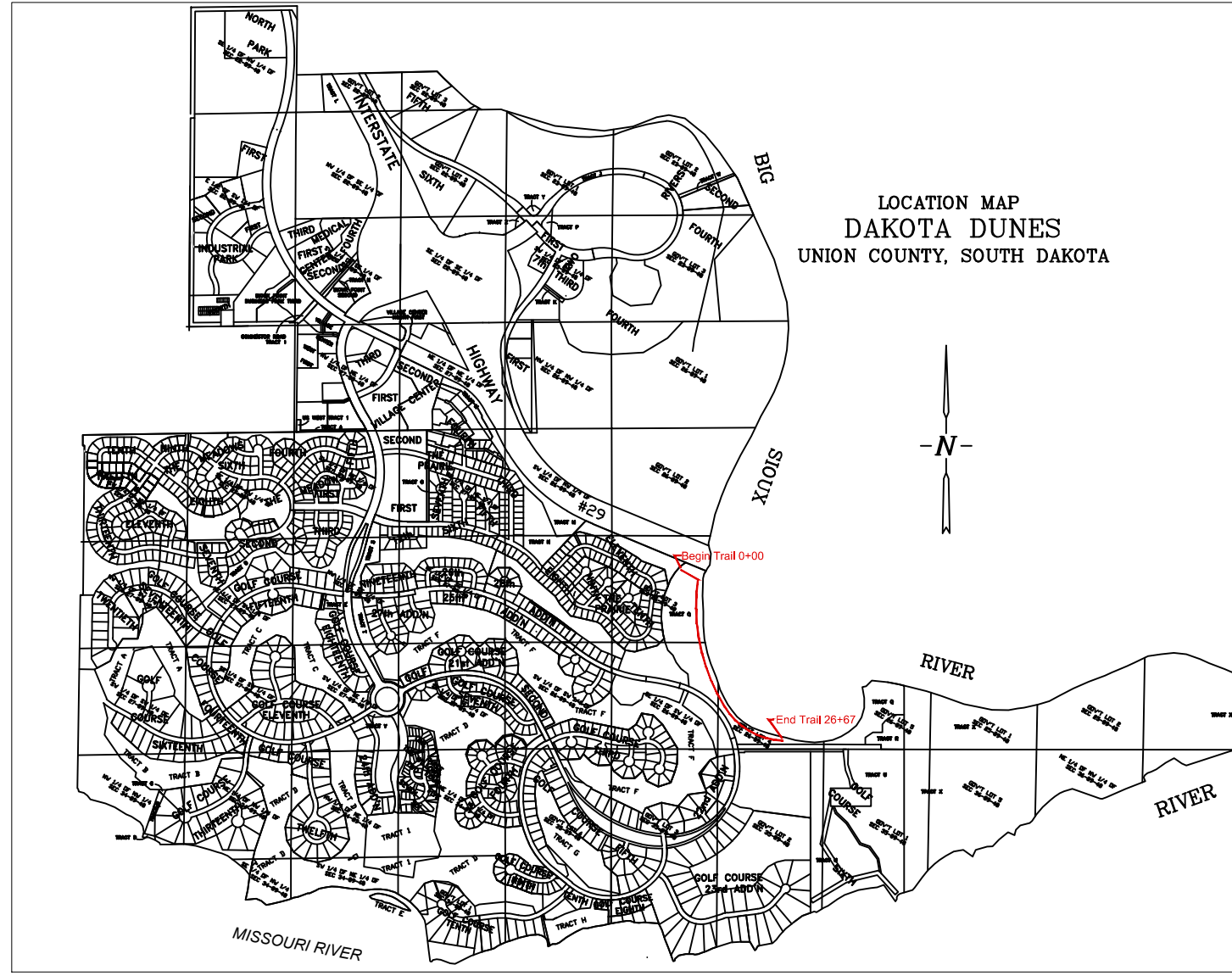
DAKOTA DUNES MULTI-USE TRAIL
 CONSTRUCTION PROJECT
 PCN 04C2

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 0ENH(221) PCN 04C2	1	12

This document originally issued and sealed by Ryan P. Callaghan, PE, License #10374, on May 19, 2014. The original is on file in the Dakota Dunes Community Improvement District office.

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SURVEY BY:
 MLS & ASSOCIATES PC
 705 DOUGLAS ST, SIOUX CITY, IA, 51101
 Ph: 712.258.6844

ENGINEERING BY:
 CIVIL ENGINEERS & CONSTRUCTORS, LLC
 600 STEVENS PORT DR. SUITE 102,
 DAKOTA DUNES, SD 57049
 Ph: 866.990.2242 Fx: 866.990.8676



SCALES

	RURAL	SUBURBAN	URBAN
PLAN	1:200	1:200	1:200
PROFILE	{HORIZONTAL:	1:100	1:100
	{VERTICAL:	1:10	1:10

STORM WATER PERMIT
 Major Stream: Big Sioux River
 Area Disturbed: 1.3 Acres
 Project Area: 1.5 Acres
 Approx. Begin Lat./Long. 42°29'43.28"N, 96°28'45.36"W

Estimate of Quantities

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	1	LS
110E1010	Remove Asphalt Concrete Pavement	114	SqYd
120E0020	Unclassified Excavation	1	LS
210E3510	Heavy Roadway Shaping	3,556	SqYd
320E1200	Asphalt Composite Concrete	875	Ton
634E0120	Traffic Control, Miscellaneous	1	LS
730E0204	Type C Permanent Seed Mixture	37	Lb
731E0200	Fertilizing	0.8	Ton
732E0100	Mulching	2.6	Ton
734E0602	Low Flow Silt Fence	2,600	Ft
734E0610	Mucking Silt Fence	181	CuYd
734E0620	Repair Silt Fence	100	Ft

SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

SCOPE OF WORK

Miscellaneous grading, miscellaneous sawcut and trail removal, and construction of a 5-inch Asphalt trail that was destroyed during the flood of 2011.

SEQUENCE OF OPERATION

1. Install safety signing.
2. Install erosion control devices.
3. Sawcut and remove existing trail as noted.
4. Grading and Heavy Roadway Shaping.
5. Construct then backfill trail. Waste excess dirt.
6. Seeding and final erosion control.
7. Remove closure and open to traffic.
8. Project cleanup.

MISCELLANEOUS NOTES

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State or Owner.

Storage of vehicles and equipment shall be as near the right-of-way as possible. Contractor's employees should mobilize at a location in the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work. Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators, and existing signs resulting from such indiscriminate use shall be repaired and or restored by the Contractor at no expense to the State, County or Owner, and to the satisfaction of the Engineer.

The Contractor shall take all necessary precautions to minimize the disturbance to the environment.

ASPHALT CONCRETE COMPOSITE

Mineral aggregate for the Asphalt Concrete Composite shall conform to the requirements for Class E, Type 1. All other requirements in the Standard Specifications for Asphalt Concrete Composite shall apply. The asphalt binder used in the mixture shall be PG 64-22 or PG 64-28 Asphalt Binder.

HEAVY ROADWAY SHAPING

Per a geotechnical report recommendation, the top 12-inches of subgrade under the proposed trail (and 1 ft minimum beyond each edge) shall be reworked and recompact in a minimum of two lifts to a minimum standard proctor density of 95% with moisture content of 0 - +4% of optimum per ASTM D698. Proctor and field testing are the responsibility of the Contractor and all associated costs shall be included in the unit price for HEAVY ROADWAY SHAPING. Two field tests shall be completed at minimum every 500 LF of trail, one at minus 6-inches and one at top of subgrade (total of 10 passing tests). The contractor shall be responsible for the maintenance of the embankment material once in place, particularly with respect to moisture. Any erosion of the embankment material occurring prior to surfacing placement shall be repaired by the Contractor at no cost to the State or Owner. Include cost for water for embankment in this item. An estimated 14 gallons of water per cubic yard of embankment minus waste is estimated by the geotechnical engineer based on testing completed.

UNCLASSIFIED EXCAVATION

There is a net surplus of material along the trail alignment. See breakdown below. Contractor shall waste excess material along project per detail. Place costs for shouldering trail and wasting excess material in this item.

All volumes are embankment (compacted).

Net Excess Material Along Profile to Achieve Elevation 1098.00		+ 325 CY
Volume of Asphalt Trail		+ 411 CY
Shrinkage Loss Due to HEAVY ROADWAY SHAPING (assumed 30%)	- 355 CY	
Minimum Required To Backfill (Shoulder) Trail Assuming A 10:1 Slope for 5 feet	-220 CY	
TOTALS	-575 CY	+ 736 CY

Net Surplus of Material of 161 CY to be Wasted

TRAFFIC CONTROL

The project areas shall be closed to the public during construction. The Contractor shall furnish, install, maintain and then remove temporary traffic control to protect their work while construction is ongoing, to the satisfaction of the Engineer. Costs for this work shall be placed under item TRAFFIC CONTROL, MISCELLANEOUS. It is anticipated Road Closed signage at each end, as well as Road Construction Ahead signage along East Pinehurst Trail is all that is required. Note East Pinehurst Trail in the area of this project may have construction operations ongoing during the course of this project, and the contractor shall coordinate the multi-use trail construction with this contractor as necessary.

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. The Contractor shall not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the SDDOT Environmental Office. Water is available for purchase from the Dakota Dunes CID. An estimated 14 gallons of water per cubic yard of embankment minus waste is estimated by the geotechnical engineer based on testing completed.

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 1 acre or more of earth disturbance.

Action Taken/Required:

The DENR and the US Environmental Protection Agency (EPA) have issued separate general permits for the discharge of storm water runoff. The DENR permit applies to discharges on state land and the EPA permit applies to discharges on federal or reservation land. The Contractor is advised this project is regulated under the Phase II Storm Water Regulations and must receive coverage under the General Permit for Construction Activities. A Notice of Intent (NOI) will be submitted to DENR a minimum of 15 days prior to project start by the DOT Environmental Office. A letter must be received from DENR that acknowledges project coverage under this general permit before project start. The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

The Contractor shall adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State".

A major component of the storm water construction permits is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which is a joint effort and responsibility of the SDDOT and the Contractor. Erosion control measures and best management practices will be implemented in accordance with the SWPPP. The SWPPP is a dynamic document and is to be available on-site at all times.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT: <http://sddot.com/transportation/highways/environmental/stormwater/Default.aspx>

DENR: <http://www.denr.sd.gov/des/sw/stormwater.aspx>

EPA: http://cfpub.epa.gov/npdes/home.cfm?program_id=6

Contractor Certification Form:

The "Department of Environmental and Natural Resources – Contractor Certification Form" (SD EForm – 2110LDV1-ContractorCertification.pdf) shall be completed by the Contractor or their certified Erosion Control Supervisor after the award of the contract. Work may not begin on the project until this form is signed.

The form certifies under penalty of law that the Contractor understands 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.

The online form can be found at: <http://denr.sd.gov/des/sw/eforms/E2110LDV1-ContractorCertification.pdf>

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

Action Taken/Required:

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](tel: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](tel: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.

UTILITY COMPANY POINTS OF CONTACT

Dakota Dunes C.I.D.
Contact Jeff Dooley, Manager 605.232.4211

Dakota Dunes Country Club
Contact: Doug Hausman 712.898.5091

Century Link
Contact: Wayne Johnson 877.548.0586

FiberComm
Contact: Michael Massey 712.224.6000

Long Lines Metro
Contact: Jill Thornton 712.244.5556

MidAmerican Energy
Contact: 888.427.5632

AT&T
Contact: Waunete Brown 210.821.4105

CableOne
Contact: 877.692.2253

Clay Rural Water
Contact: 605.267.2088

IBP, Inc. (Tyson Fresh Meats, Inc.)
Contact: 605.235.2061

REMOVAL OF EXISTING ASPHALT PAVEMENT

Existing asphalt concrete and/or existing asphalt concrete trail at the beginning and ending of the project is included in the quantity for "Remove Asphalt Concrete Pavement". Sawcut existing trail full depth to create smooth joint and include this cost in the removal unit price. The Contractor shall dispose of the pavement at a site approved by the Engineer, provided by Owner or recycle at their option.

FERTILIZING

The Contractor shall apply an all-natural slow release fertilizer prior to seeding or placing sod. The all-natural fertilizer shall have a minimum guaranteed analysis of 4-6-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 3.2%, a minimum of 6% (P2O5) available phosphate, a minimum of 4% (K2O) soluble potash, and a maximum carbon to nitrogen ratio (C:N ratio) of 5:1. The all-natural fertilizer shall be free of weed-seed and pathogens accomplished through thermophilic composting, and not mechanical or chemical sterilization, to assure presence of beneficial soil microbiology. The fertilizer shall have a near neutral pH, a low salt index, a low biological oxygen demand, contain organic humic and fulvic acids, and have high aerobic organism counts. The fertilizer shall also be stable, free of bad odors, and be unattractive as a food source for animals. It should also be in a granular form that is easily spread.

The all-natural slow release fertilizer shall be applied according to the manufacturer's application recommendations. The application rate is 1,250 pounds per acre. The all-natural slow release fertilizer shall be from the list below or an approved equal:

Product	Manufacturer
Sustane	Sustane Corporate Headquarters Cannon Falls, Minnesota Phone: 1-800-352-9245 http://www.sustane.com/

PERMANENT SEEDING

All permanent seed shall be planted in the topsoil at a depth of ¼" to ½".

All seed broadcast must be raked or dragged in (incorporated) within the top ¼" to ½" of topsoil when possible. This requirement may be waived by the Engineer during construction when raking or dragging is deemed not feasible by conventional methods.

The varieties listed for the seed mixture are preferred varieties.

Type C Permanent Seed Mixture shall consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Flintlock, Rodan, Rosana	16
Canada Wildrye	Mandan	2
Cover Crop		10
Total:		28

MULCHING (GRASS HAY OR STRAW)

Bales with noxious weed contamination will be rejected and the Contractor will be required to remove the contaminated bales from the project.

TABLE OF LOW FLOW SILT FENCE

Station	L/R	Location	Quantity (Ft)
1+00 to 27+00	L	East Work Limit	2,600
Total:			2,600

LOW SILT FENCE

The low flow silt fence fabric provided shall be from the approved product list. The approved product list for low flow silt fence may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>.

Low flow silt fence shall be placed at the locations noted in the table and at locations that will minimize siltation of adjacent streams, lakes, dams, or drainage areas as determined by the Engineer during construction. Refer to Standard Plate 734.04 for details.

MUCKING SILT FENCE

Mucking silt fence shall consist of removing muck trapped by the silt fence and spreading the material evenly over the adjacent area to conform to the existing grade.

SURVEY CONTROL

CP	NORTHING	EASTING	ELEVATION
34	49808.309	53157.577	1096.928
35	50866.554	52092.360	1093.551
36	51958.140	52172.006	1096.393

CP 34, Set Mag nail in centerline of existing asphalt trail at the Southeasterly end of project by a reflector post approximately 200' Northeasterly of trail and maintenance road intersection. See Plan.

CP 35, Set 1/2" rod on Southerly side of RCP culvert draining the Dakota Dunes Greenway which drains into the Big Sioux River and at the Westerly toe of the trail levee approximately 30' South of the centerline of said RCP. See Plan.

CP 36, Set Mag nail in asphalt trail in the centerline and 3' Northerly of the end of the asphalt trail at the Northerly end of the project. See Plan.

SURVEY STAKEOUT INFORMATION

Points correspond to the PROFILE GRADE/ALIGNMENT (river side edge of trail, top of asphalt) per the alignment and typical detail.

STATION	NORTHING	EASTING	ELEVATION
2+00	51819.600	52142.290	1098.000
10+80	50969.145	52081.190	1098.000
11+30	50923.351	52101.230	1098.000
16+60	50477.427	52384.85	1098.000
17+50	50409.742	52444.163	1098.000
24+50	49908.184	52925.392	1098.000

Table below shows PROFILE GRADE/ALIGNMENT (riverside edge of trail, top of asphalt) per the above table and plan and profile.

BEGIN	END	DISTANCE EDGE OF TRAIL FROM TOB RIVER SIDE
0+00	2+00	Varies
2+00	10+80	7 ft
10+80	11+30	Varies
11+30	24+50	5 ft
24+50	26+67	Varies

STORM WATER POLLUTION PREVENTION PLAN CHECKLIST

(The numbers right of the title headings are **reference numbers** to the GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES)

❖ **SITE DESCRIPTION (4.2 1)**

- **Project Limits: See Title Sheet (4.2 1.b)**
- **Project Description: See Title Sheet (4.2 1.a.)**
- **Site Map(s): See Title Sheet and Plans (4.2 1.f. (1)-(6))**
- **Major Soil Disturbing Activities** (check all that apply)
 - Clearing and grubbing
 - Excavation/borrow
 - Grading and shaping
 - Filling
 - Cutting and filling
 - Other (describe):
- **Total Project Area 1.5 ac (4.2 1.b.)**
- **Total Area To Be Disturbed 1.3 ac (4.2 1.b.)**
- **Existing Vegetative Cover (%) 25**
- **Soil Properties: AASHTO Soil A-7-6 Classification (4.2 1. d.)**
- **Name of Receiving Water Body/Bodies Big Sioux River (4.2 1.e.)**

❖ **ORDER OF CONSTRUCTION ACTIVITIES (4.2 1.c.)**

- (Stabilization measures shall be initiated as soon as possible, but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Initiation of final or temporary stabilization may exceed the 14-day limit if earth disturbing activities will be resumed within 21 days.)
- **Install perimeter protection where runoff sheets from the site.**
 - **Clearing and grubbing.**
 - **Complete final grading.**
 - **Complete final paving.**
 - **Complete traffic control installation and protection devices.**
 - **Reseed areas disturbed by removal activities.**

❖ **EROSION AND SEDIMENT CONTROLS (4.2 2.a.(1)(a)-(f))**

- (Check all that apply)
- **Stabilization Practices (See Detail Plan Sheets)**
 - Temporary Seeding (Cover Crop Seeding)
 - Permanent Seeding
 - Sodding
 - Planting (Woody Vegetation for Soil Stabilization)
 - Mulching (Grass Hay or Straw)
 - Hydraulic Mulch (Wood Fiber Mulch)
 - Soil Stabilizer
 - Bonded Fiber Matrix
 - Erosion Control Blankets or Mats
 - Vegetation Buffer Strips
 - Roughened Surface (e.g. tracking)
 - Dust Control
 - Other:
 - **Structural Temporary Erosion and Sediment Controls**
 - Silt Fence
 - Floating Silt Curtain
 - Straw Bale Check
 - Temporary Berm
 - Temporary Slope Drain
 - Straw Wattles or Rolls
 - Turf Reinforcement Mat

- Rip Rap
- Gabions
- Rock Check Dams
- Sediment Traps/Basins
- Inlet Protection
- Outlet Protection
- Surface Inlet Protection (Area Drain)
- Curb Inlet Protection
- Stabilized Construction Entrances
- Entrance/Exit Equipment Tire Wash
- Interceptor Ditch
- Concrete Washout Area
- Temporary Diversion Channel
- Work Platform
- Temporary Water Barrier
- Temporary Water Crossing
- Other:

➤ **Wetland Avoidance**

Will construction and/or erosion and sediment controls impinge on regulated wetlands? Yes No If yes, the structural and erosion and sediment controls have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

➤ **Storm Water Management (4.2 2.b., (1) and (2))**

Storm water management will be handled by temporary controls outlined in "EROSION AND SEDIMENT CONTROLS" above, and any permanent controls needed to meet permanent storm water management needs in the post construction period. Permanent controls will be shown on the plans and noted as permanent.

➤ **Other Storm Water Controls (4.2 2.c., (1) and (2))**

- **Waste Disposal**
All liquid waste materials will be collected and stored in sealed metal containers approved by the project engineer. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal, and notices stating proper practices will be posted in the field office. The general contractor's representative responsible for the conduct of work on the site will be responsible for seeing waste disposal procedures are followed.
- **Hazardous Waste**
All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Site personnel will be instructed in these practices, and the individual designated as the contractor's on-site representative will be responsible for seeing that these practices are followed.
- **Sanitary Waste**
Portable sanitary facilities will be provided on all construction sites. Sanitary waste will be collected from the portable units in a timely manner by a licensed waste management contractor or as required by any local regulations.

❖ **Maintenance and Inspection (4.2 3. and 4.2 4.)**

➤ **Maintenance and Inspection Practices**

- Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater.

- All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report.
- Silt fence will be inspected for depth of sediment and for tears in order to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches 1/3 of the height of the silt fence.
- Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
- Check dams will be inspected for stability. Sediment will be removed when depth reaches 1/2 the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
- The SDDOT Project Engineer and contractor's site superintendent are responsible for inspections. Maintenance, repair activities are the responsibility of the contractor. The SDDOT Project Engineer will complete the inspection and maintenance reports and distribute copies per the distribution instructions on DOT 298.

❖ **Non-Storm Water Discharges (3.0)**

- The following non-storm water discharges are anticipated during the course of this project (check all that apply).
- Discharges from water line flushing.
 - Pavement wash-water, where no spills or leaks of toxic or hazardous materials have occurred.
 - Uncontaminated ground water associated with dewatering activities.

❖ **Materials Inventory (4.2. 2.c.(2))**

- The following materials or substances are expected to be present on the site during the construction period. These materials will be handled as noted under the headings "EROSION AND SEDIMENT CONTROLS" and "SPILL PREVENTION" (check all that apply).
- Concrete and Portland Cement
 - Detergents
 - Paints
 - Metals
 - Bituminous Materials
 - Petroleum Based Products
 - Cleaning Solvents
 - Wood
 - Cure
 - Texture
 - Chemical Fertilizers
 - Other:

❖ **Spill Prevention (4.2 2.c.(2))**

- **Material Management**
 - **Housekeeping**
 - Only needed products will be stored on-site by the contractor.
 - Except for bulk materials the contractor will store all materials under cover and in appropriate containers.

- Products must be stored in original containers and labeled.
- Material mixing will be conducted in accordance with the manufacturer's recommendations.
- When possible, all products will be completely used before properly disposing of the container off site.
- The manufacturer's directions for disposal of materials and containers will be followed.
- The contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
- Dust generated will be controlled in an environmentally safe manner.
- Vegetation areas not essential to the construction project will be preserved and maintained as noted on the plans.

▪ **Hazardous Materials**

- Products will be kept in original containers unless the container is not resealable.
- Original labels and material safety data sheets will be retained in a safe place to relay important product information.
- If surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
- Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.
- Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any storm water system or storm water treatment system.
- Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, residuals from concrete saw cutting (either wet or dry), and mixer washout waters will be collected on site and managed to prevent contamination of storm water runoff.

➤ **Product Specific Practices (6.8)**

▪ **Petroleum Products**

All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

▪ **Fertilizers**

Fertilizers will be applied only in the amounts specified by the SDDOT. Once applied, fertilizers will be worked into the soil to limit the exposure to storm water. Fertilizers will be stored in an enclosed area. The contents of partially used fertilizer bags will be transferred to sealable containers to avoid spills.

▪ **Paints**

All containers will be tightly sealed and stored when not required for use. The excess will be disposed of according to the manufacturer's instructions and any applicable state and local regulations.

▪ **Concrete Trucks**

Contractors will provide designated truck washout areas on the site. These areas must be self contained and not connected to any storm water outlet of the site. Upon completion of construction washout areas will be properly stabilized.

➤ **Spill Control Practices (4.2 2 c.(2))**

In addition to the previous housekeeping and management practices, the following practices will be followed for spill prevention and cleanup if needed.

- For all hazardous materials stored on site, the manufacturer's recommended methods for spill clean up will be clearly posted. Site personnel will be made aware of the procedures and the locations of the information and cleanup supplies.
- Appropriate cleanup materials and equipment will be maintained by the contractor in the materials storage area on-site. As appropriate, equipment and materials may include items such as brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for clean up purposes.
- All spills will be cleaned immediately after discovery and the materials disposed of properly.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- After a spill a report will be prepared describing the spill, what caused it, and the cleanup measures taken. The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring, as well as clean up instructions in the event of reoccurrences.
- The contractor's site superintendent, responsible for day-to-day operations, will be the spill prevention and cleanup coordinator. The contractor is responsible for ensuring that the site superintendent has had appropriate training for hazardous materials handling, spill management, and cleanup.

➤ **Spill Response (4.2 2 c.(2))**

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize migration into storm water runoff and conveyance systems. If the release has impacted on-site storm water, it is critical to contain the released materials on-site and prevent their release into receiving waters. If a spill of pollutants threatens storm water or surface water at the site, the spill response procedures outlined below must be implemented in a timely manner to prevent the release of pollutants.

- The contractor's site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
- If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
- Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the contractor at the site.
- If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to remove the material causing the sheen. The contractor will use appropriate materials to contain and absorb the spill. The source

of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.

- If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SD DENR.
- Personnel with primary responsibility for spill response and clean up will receive training by the contractor's site superintendent or designee. The training must include identifying the location of the spill kits and other spill response equipment and the use of spill response materials.
- Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

❖ **Spill Notification**

In the event of a spill, the contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:

- A release or spill of a regulated substance (includes petroleum and petroleum products) must be reported to DENR immediately if **any one of the following** conditions exists:
 - The discharge threatens or is in a position to threaten the waters of the state (surface water or ground water).
 - The discharge causes an immediate danger to human health or safety.
 - The discharge exceeds 25 gallons.
 - The discharge causes a sheen on surface water.
 - The discharge of any substance that exceeds the ground water quality standards of ARSD (Administrative Rules of South Dakota) chapter 74:51:01.
 - The discharge of any substance that exceeds the surface water quality standards of ARSD chapter 74:51:01.
 - The discharge of any substance that harms or threatens to harm wildlife or aquatic life.
 - The discharge of crude oil in field activities under SDCL (South Dakota Codified Laws) chapter 45-9 is greater than 1 barrel (42 gallons).

To report a release or spill, call DENR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central time). To report the release after hours, on weekends or holidays, call State Radio Communications at 605-773-3231. Reporting the release to DENR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, the responsible person must also contact local authorities to determine the local reporting requirements for releases. DENR recommends that spills also be reported to the National Response Center at (800) 424-8802.

❖ **Construction Changes (4.4)**

When changes are made to the construction project that will require alterations in the temporary erosion controls of the site, the Storm Water Pollution Prevention Plan (SWPPP) will be amended to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SDDOT Project Engineer will modify the SWPPP plan (DOT 298) and drawings to reflect the needed changes. Copies of changes will be routed per DOT 298. Copies of forms and the SWPPP will be retained in a designated place for review over the course of the project.

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❖ **CERTIFICATIONS**

➤ **Certification of Compliance with Federal, State, and Local Regulations**

The Storm Water Pollution Prevention Plan (SWPPP) for this project reflects the requirements of all local municipal jurisdictions for storm water management and sediment and erosion control as established by ordinance, as well as other state and federal requirements for sediment and erosion control plans, permits, notices or documentation as appropriate.

➤ **South Dakota Department of Transportation**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Authorized Signature (See the General Permit, Section 6.7.1.C.)

➤ **Prime Contractor**

This section is to be executed by the General Contractor after the award of the contract. This section may be executed any time there is a change in the Prime Contractor of the project.

I certify under penalty of law that this document and all attachments will be revised or maintained under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Signature

❖ **CONTACT INFORMATION**

➤ **Contractor Information:**

- Prime Contractor Name:
- Contractor Contact Name:
- Address:
- Address:
- City: State: Zip:
- Office Phone: Field:
- Cell Phone: Fax:

➤ **Erosion Control Supervisor**

- Name:
- Address:
- Address:
- City: State: Zip:
- Office Phone: Field:
- Cell Phone: Fax:

➤ **SDDOT Project Engineer**

- Name:
- Business Address:
- Job Office Location:
- City: State: Zip:
- Office Phone: Field:
- Cell Phone: Fax:

➤ **SD DENR Contact Spill Reporting**

- Business Hours Monday-Friday (605) 773-3296
- Nights and Weekends (605) 773-3231

➤ **SD DENR Contact for Hazardous Materials.**

- (605) 773-3153

➤ **National Response Center Hotline**

- (800) 424-8802.

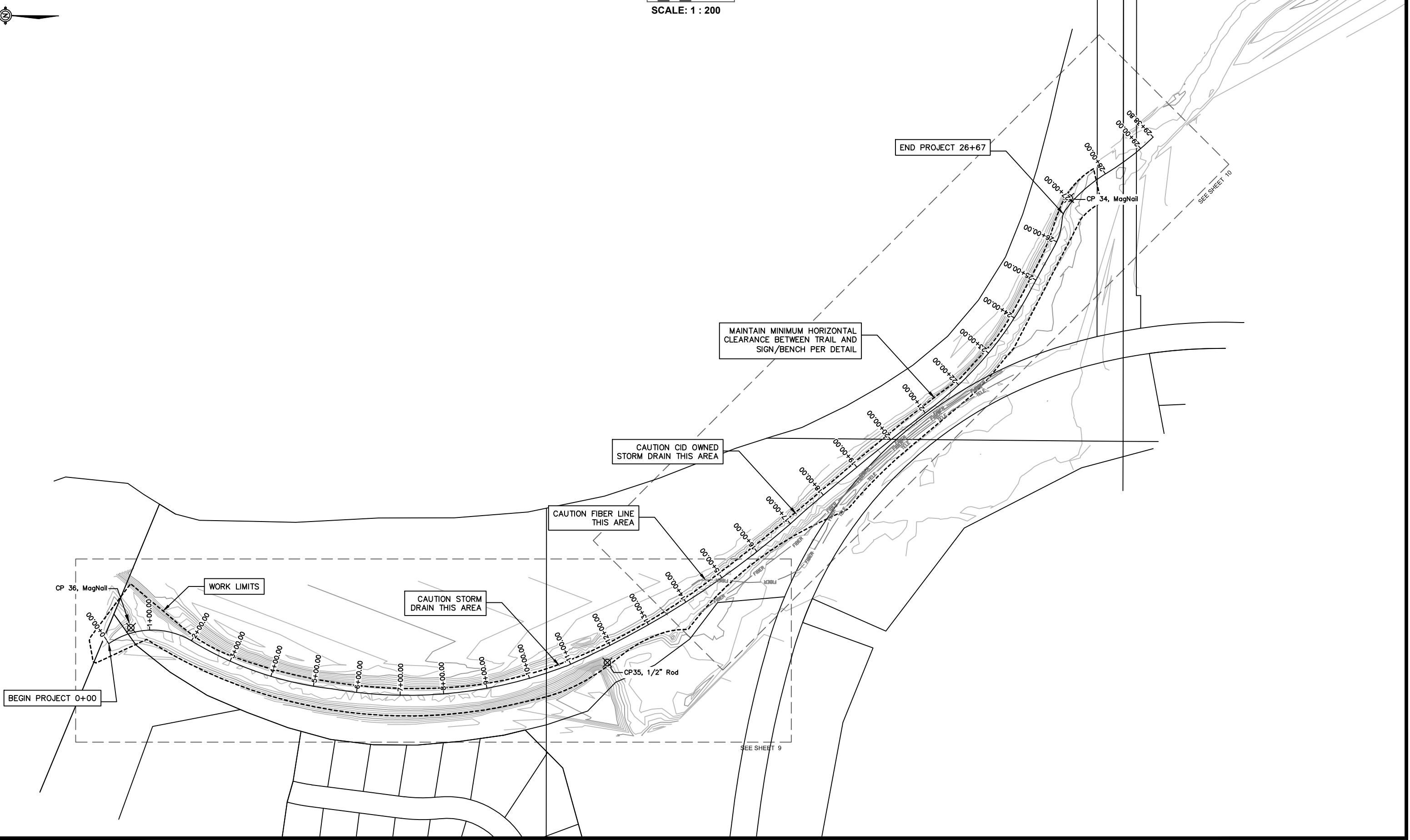
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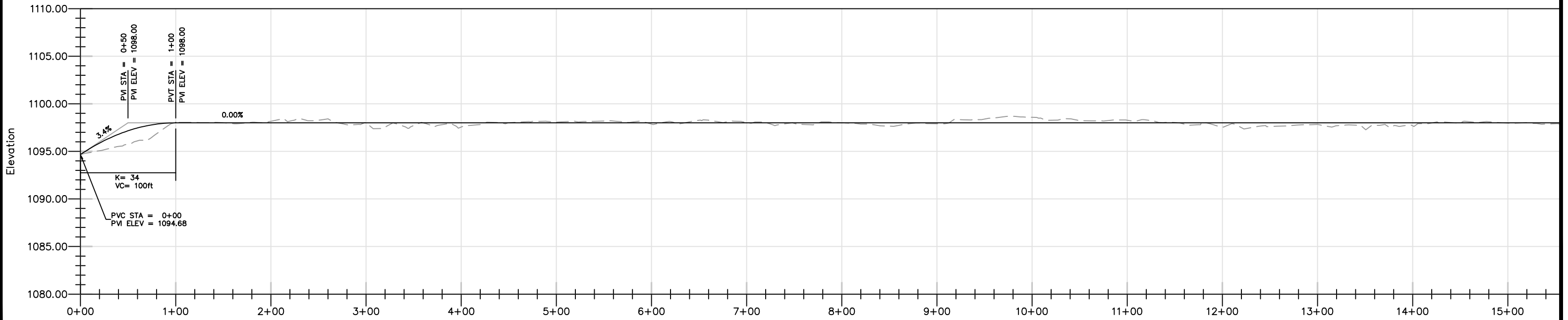
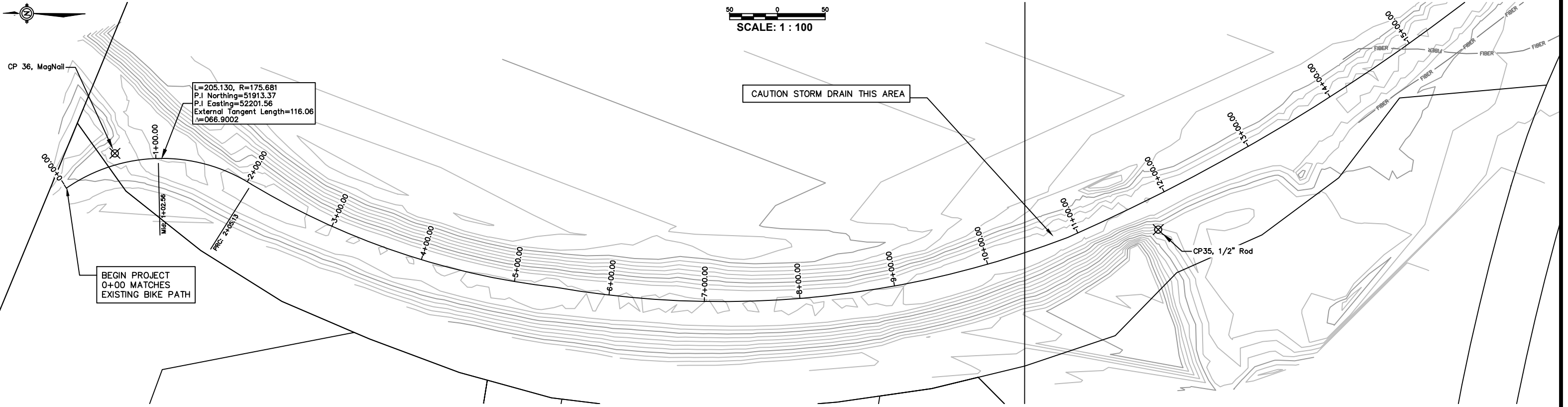




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STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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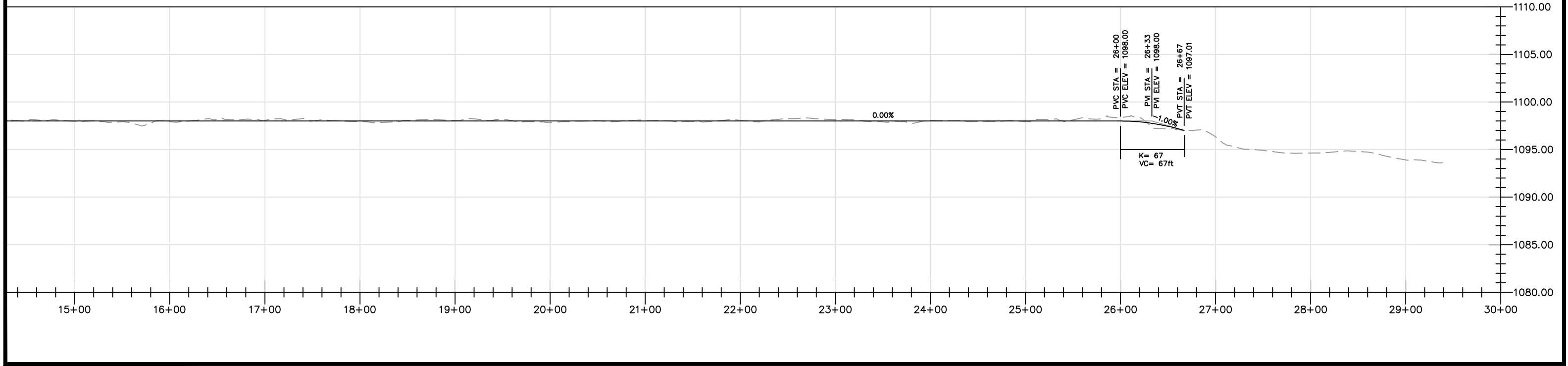
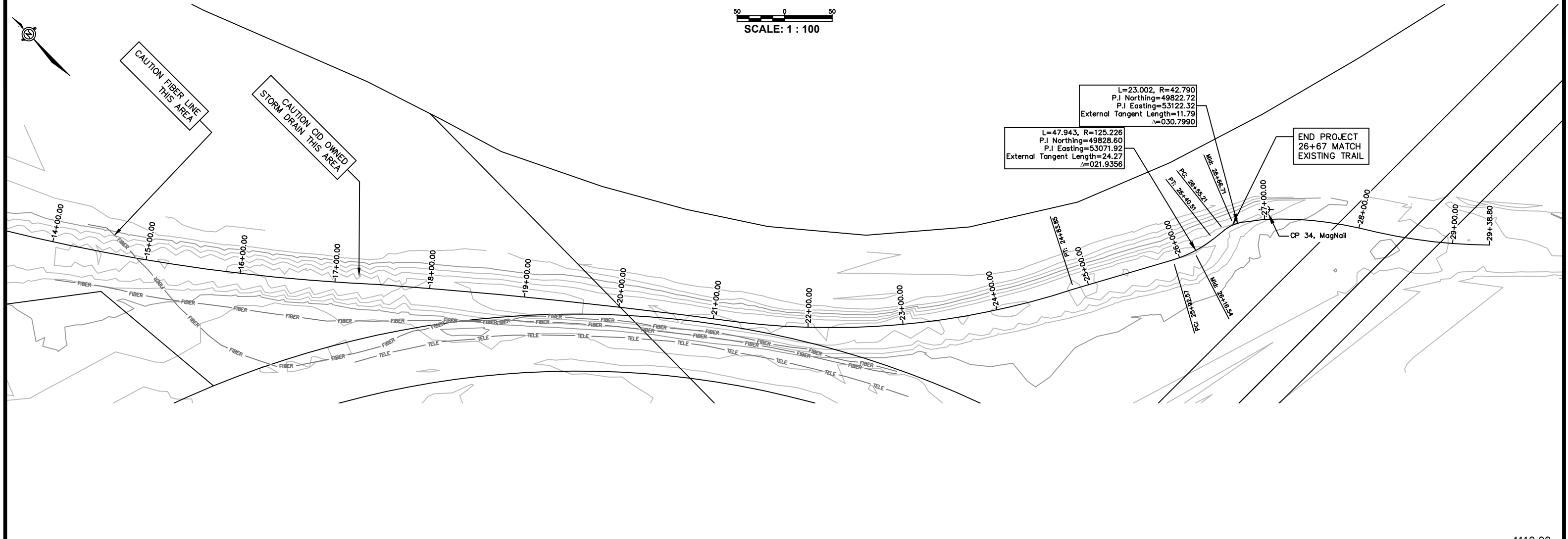
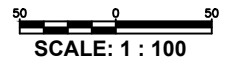




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STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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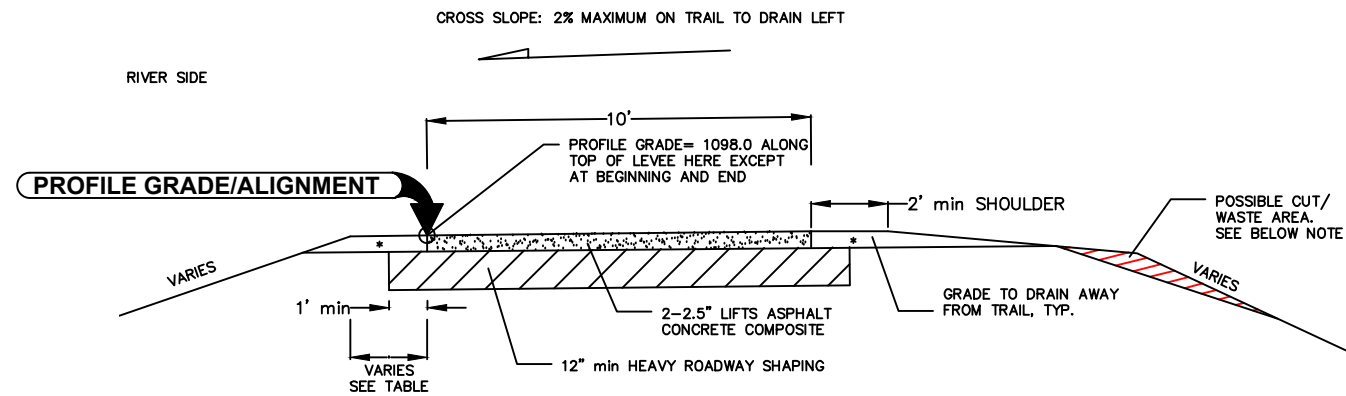
TYPICAL CROSS SECTION

TRAIL STATIONS 0+00 TO 26+67

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MAINTAIN 3 FT HORIZONTAL CLEARANCE TO FACE OF OBSTACLE (Min.)
MAINTAIN 10 FT VERTICAL CLEARANCE (Min.)

- * MAINTAIN DRAINAGE AWAY FROM TRAIL BOTH SIDES
- * 2 FT MINIMUM SHOULDERS (BOTH SIDES) AS SHOWN MAXIMUM 1V:6H SLOPE

GENERAL NOTES

See Plan and Profile sheets for proposed trail grades. Contractor shall use grades provided on Plan and Profile sheets. Contractor shall provide a smooth profile throughout the length of the trails.

Top edge of asphalt trail shall be elevation 1098.0 as shown above except at beginning and end of trail. See Profile.

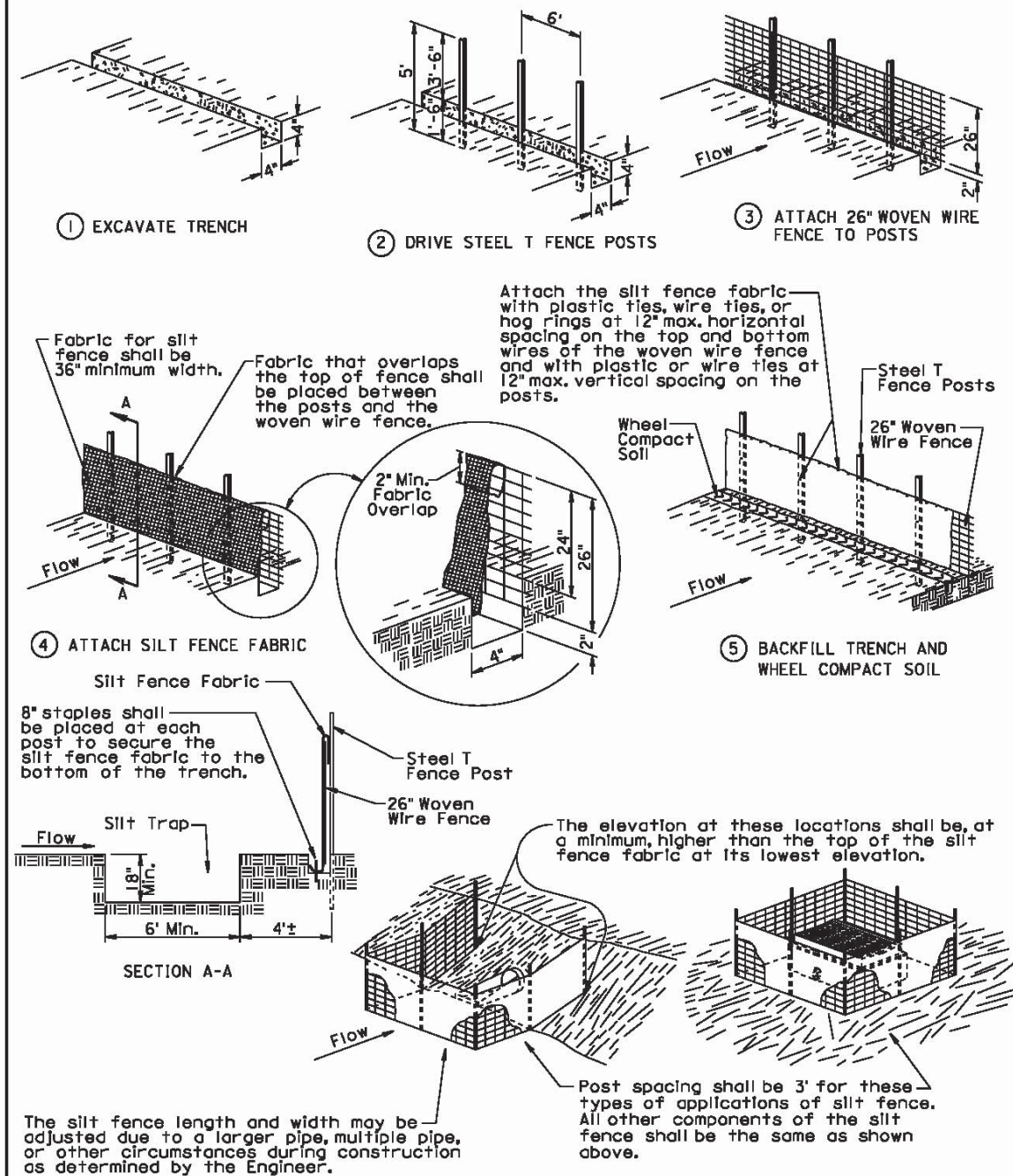
Asphalt concrete for trail surfacing shall be Asphalt Concrete Composite.

Fertilize, seed, and mulch all disturbed areas.

The use of a paver feeder is not required.

Possible cut/fill areas only allowed between Station 1+00 and 16+50. Do not exceed a slope (after or before cut) of 3:1.

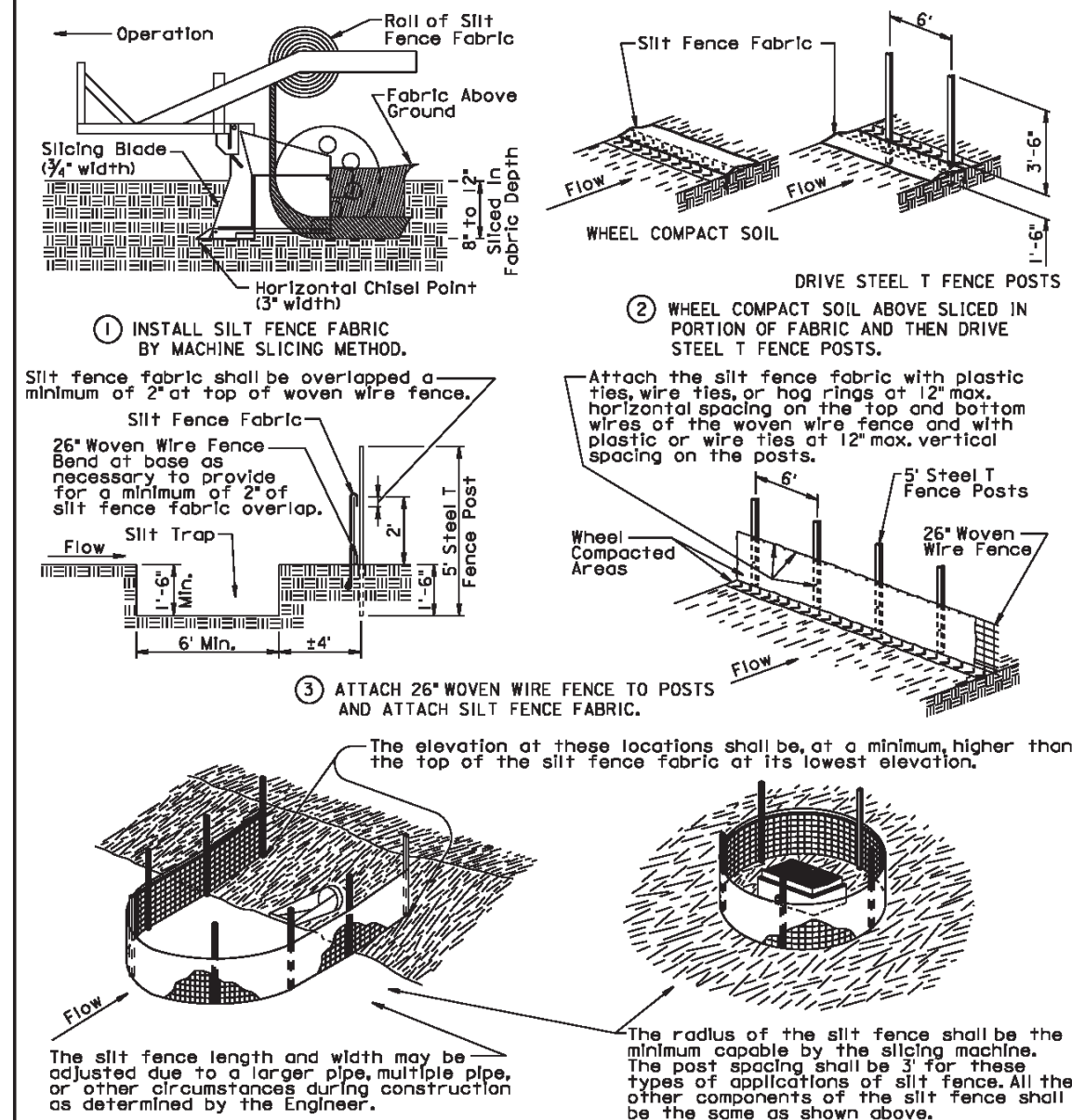
MANUAL LOW FLOW SILT FENCE INSTALLATION



December 23, 2003

S D D O T	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER 734.04
	Published Date: 2nd Qtr. 2014	Sheet 1 of 2

MACHINE SLICED LOW FLOW SILT FENCE INSTALLATION



GENERAL NOTES:

A silt trap shall be provided when specified by a plan note. All costs for constructing the silt trap shall be incidental to the contract unit price per cubic yard for "Silt Trap".

If a trench can not be dug or the silt fence fabric can not be sliced in due to the type of earthen material (such as rock), then a row of 30 to 40 pound sandbags butted end to end shall be provided on top of the extra length of silt fence fabric to prevent underflow.

December 23, 2003

S D D O T	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER 734.04
	Published Date: 2nd Qtr. 2014	Sheet 2 of 2