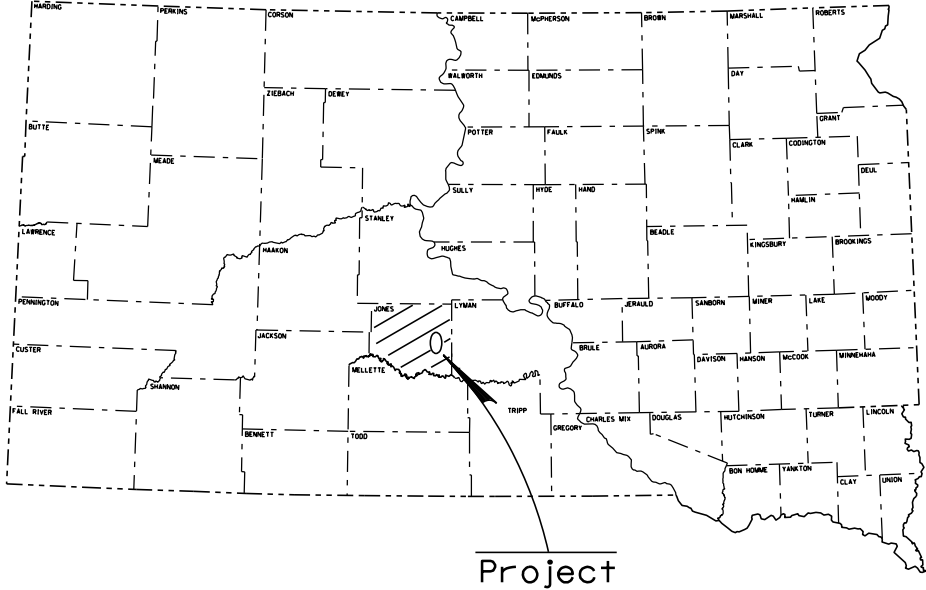


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STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT NO. 090WF-391
SD 090WF
JONES COUNTY
FULL DEPTH RECLAMATION (FDR)
PCN i4Y2

INDEX OF SHEETS

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Sheet Nos. 11-12	Typical Sections
Sheet No. 13	Sign Tabulation
Sheet No. 14	Fixed Location Sign Layout
Sheet No. 15-18	Standard Plates

To Draper

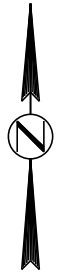
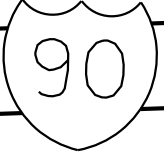
To Murdo

BEGIN 090WF-391
Sta. 0+00
MRM 201.10

END 090WF-391
Sta. 24+30
MRM 202.00

EXCEPTION (Between Ramps)
Sta. 14+80 to 22+65

Exit 208



To Vivian

STORM WATER PERMIT

Receiving Waters: Medicine Creek
Area Disturbance: 2.64 Acres
Total Project Area: 8.37 Acres
Latitude: 43.91472 (Google Maps)
Longitude: -100.4069 (Google Maps)

GROSS LENGTH	2,430.00 FEET	0.460 MILES
LENGTH OF EXCEPTIONS	785.00 FEET	0.149 MILES
NET LENGTH	1,645.00 FEET	0.311 MILES

DESIGN DESIGNATION

ADT (2017)	27
ADT (2042)	32
DHV	3
D	50%
T DHV	4.6%
T ADT	10.0%
V	35 MPH

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ESTIMATE OF QUANTITIES

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BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E0135	Remove Delineator	2	Each
110E1690	Remove Sediment	10.0	CuYd
110E1700	Remove Silt Fence	600	Ft
120E0100	Unclassified Excavation, Digouts	100	CuYd
120E6200	Water for Granular Material	34.0	MGal
230E0100	Remove and Replace Topsoil	Lump Sum	LS
260E1010	Base Course	190.0	Ton
280E0010	Full Depth Reclamation	7,077	SqYd
632E3520	Remove, Salvage, Relocate, and Reset Traffic Sign	2	Each
634E0010	Flagging	120.0	Hour
634E0020	Pilot Car	60.0	Hour
634E0110	Traffic Control Signs	412.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	1	Each
734E0010	Erosion Control	Lump Sum	LS
734E0154	12" Diameter Erosion Control Wattle	450	Ft
734E0165	Remove and Reset Erosion Control Wattle	110	Ft
734E0604	High Flow Silt Fence	600	Ft
734E0610	Mucking Silt Fence	42	CuYd
734E0620	Repair Silt Fence	150	Ft

SPECIFICATIONS

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

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ENVIRONMENTAL COMMITMENTS

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 B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pit, or staging site associated with the project, cease construction activities in the affected area until the Whooping Crane departs and contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

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 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://www.sddot.com/business/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>

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ENVIRONMENTAL COMMITMENTS

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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 be disposed of within the Public ROW.

The waste disposal site(s) shall 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) 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 Public 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 Public 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 department designated sources and designated option material sources, stockpile sites, storage areas, and waste 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: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

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 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 shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

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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** 8.37 Acre **(4.2 1.b.)**
- **Total Area To Be Disturbed** 2.64 Acre **(4.2 1.b.)**
- **Existing Vegetative Cover (%)** 65%
- **Soil Properties:** AASHTO Soil Classification: A-7-6
USDA Soil Texture: Silty Clay **(4.2 1. d.)**
- **Name of Receiving Water Body/Bodies** Medicine Creek **(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 stabilized construction entrance(s).**
- **Remove and restore topsoil.**
- **Stabilize disturbed areas.**
- **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)
 - ☐ Fiber Mulching (Wood Fiber Mulch)
 - ☐ Soil Stabilizer
 - ☐ Bonded Fiber Matrix
 - ☐ Fiber Reinforced Matrix
 - ☐ Erosion Control Blankets
 - ☐ Vegetation Buffer Strips
 - ☐ Surface Roughening (e.g. tracking)
 - ☐ Dust Control
 - ☒ Other: Windrow Topsoil/Utilize Existing Vegetation for Control Barrier

➤ **Structural Temporary Erosion and Sediment Controls**

- ☐ Silt Fence
- ☐ Floating Silt Curtain
- ☐ Erosion Bales
- ☐ Temporary Berm (Windrow)
- ☐ Temporary Slope Drain
- ☒ Erosion Control Wattles
- ☐ Temporary Sediment Barriers
- ☐ Turf Reinforcement Mat
- ☐ Riprap
- ☐ Gabions
- ☐ Rock Check Dams
- ☐ Sediment Traps/Basins
- ☐ Culvert Inlet Protection
- ☐ Transition Mats
- ☐ Median/Area Drain Inlet Protection
- ☐ Curb Inlet Protection
- ☒ Stabilized Construction Entrances
- ☐ Entrance/Exit Equipment Tire Wash
- ☐ Interceptor Ditch
- ☐ Concrete Washout Facility
- ☐ 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 Erosion Control Supervisor 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: Organic Fertilizer

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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 facilities on the site. These areas must be self-contained and not connected to any storm water outlet of the site. Upon completion of construction, the area at the washout facility 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 cleanup 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 cleanup 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.

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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.

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 6.9.1.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: _____
- _____
- City: _____ State: _____ Zip: _____
- Office Phone: _____ Field: _____
- Cell Phone: _____ Fax: _____

- **Erosion Control Supervisor**

- Name: _____
- 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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STATE OF SOUTH DAKOTA	PROJECT	SHEET 8	TOTAL SHEETS 18
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SCOPE OF WORK

This project consists of the full depth reclamation of the existing asphalt surface for the cross road connecting Interstate 90 to SD Highway 248 at the Interstate 90, MRM 208 Exit. The final surface will be a base course – asphalt blend material. Contractor will reclaim 165 feet south the eastbound ramp intersection with this cross road, skip the section between the eastbound and westbound ramps, and reclaim 1,480 feet between the westbound ramp and SD Highway 248.

The work required for this project includes, but is not limited to, the following items, not listed in order of execution.

1. Install Fixed Location Signing Prior to Construction Activities Commencing
2. Remove/Salvage Existing Signs and Delineators
3. Place Wattles for Temporary Erosion Control
4. Remove Topsoil on Inslopes Throughout Project
5. Full Depth Reclamation
6. Replace Topsoil on Inslopes Throughout Project
7. Replace Existing Signs Which Were Salvaged
8. Remove Project Temporary Signing
9. Complete Any Remaining Project Cleanup

The Contractor is encouraged to inspect the project site prior to bidding to evaluate the extent of work that will be required for construction.

GENERAL NOTES

The Contractor shall remove and salvage all existing in-place delineators, barricades, and permanent signs from the project. The Contractor shall re-install these delineators, signs, and barricades after the completion of permanent seeding operations. Any signs and markers that are damaged or lost shall be replaced by the Contractor at no cost to the State.

At the end of each day's full depth processing, the Contractor shall be required to construct 20:1 transitions for the facilitation of traffic. Additional processing and 20:1 transitions may be required in the field by the Engineer at the intersecting roads. No separate payment will be made for this work.

SEQUENCE OF OPERATIONS

The Contractor shall submit a proposed sequence of operations for the Engineer's review and approval at least two weeks prior to the preconstruction meeting.

The Contractor will be allowed to close the work zone to all traffic, except local traffic, during daylight working hours. The Contractor shall work with the public to allow traffic through the work zone on an individual vehicle basis. The Contractor may perform work on the roadway during daylight hours only, unless additional hours are approved by the Engineer. Traffic shall be returned to two-way traffic during non-working hours.

Windrows from the full depth reclamation will not be allowed throughout the roadway limits during non-working hours.

The Contractor shall accommodate all over width traffic for the duration of the project.

SHOULDER PREPARATION

Prior to the Full Depth Reclamation operation, the shoulders shall be bladed and broom cleaned of all vegetation and loose/accumulated material to the satisfaction of the Engineer. Shoulder preparation shall not be measured for payment, and no separate payment will be made for this work.

All costs associated with shoulder preparation shall be incidental to the various contract items.

The Contractor shall notify the Winner Area Office (605) 842-0810 at least two weeks prior to beginning work on this project so SDDOT personnel can mow or spray along the shoulder in-slopes. The Department will not be responsible for the effectiveness of the mowing or spraying.

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.

Utilities are not planned to be affected on this project. If utilities are identified near the improvement area through the 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.

WATER FOR GRANULAR MATERIAL

The moisture content for compaction of the Full Depth Reclamation material shall be approximately optimum moisture for the material or as directed by the Engineer. The quantity for Water for Full Depth Reclamation material is based on 4% of the quantity of the aforementioned material. All costs for furnishing and placing the water shall be paid for at the contract unit price per MGal for "Water for Granular Material".

EXCAVATION OF UNSTABLE MATERIAL

The locations and extent of digout areas will be determined in the field by the Engineer. The backfilling material for the digouts shall be Base Course paid for at the contract unit price per ton.

Included in the Estimate of Quantities are 100 cubic yards of Unclassified Excavation – Digouts for the removal of unstable material throughout the project.

The digout shall be extended to the shoulder and the granular material backfill shall daylight to the inslope to allow water to escape the subgrade.

BASE COURSE

Base Course shall be furnished by the Contractor and be utilized for backfilling digouts.

Included in the Estimate of Quantities are 190 tons of Base Course for the backfilling of digout of unstable material.

Base Course shall be compacted to the satisfaction of the Engineer.

FULL DEPTH RECLAMATION (FDR)

The Contractor may perform initial rolling with a sheepsfoot roller until the roller pads walk out of the reclaimed mix. The sheepsfoot roller shall weigh at least 25,000 pounds. The processed material shall be placed in a minimum of two (2) lifts. The maximum lift thickness shall not exceed five and one-half (5-1/2) inches.

The density requirements of Section 280.3.C Compaction and Density requirements shall be waived and density shall be to the satisfaction of the Engineer.

Moisture requirements throughout the full depth of processing as required in Section 280.3 C shall be adhered to; moisture testing shall be completed behind the processing unit and prior to compaction.

Shaping of the surface to repair ruts, potholes, wash-boarding, sheepsfoot roller marks, and other distortions shall be accomplished by scarifying to a depth of 2 inches below the deepest distortion and shaped and compacted to the typical section.

Repeated reclaiming and rolling may be required within two calendar days after the initial processing and rolling to achieve the target density on the completed in-place recycled surface. The Contractor shall discontinue any type of rolling that results in cracking, movement, or other types of distress until such time that the problem can be resolved. If there is a significant change in mix proportions, weather conditions, or other controlling factors, the Engineer may require construction of test strips to check target density.

All other requirements for Full Depth Reclamation shall apply.

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RATE OF MATERIAL

Station 0+00 to 13+50 is computed at the rate of 422 SqYd per Station, applied 38 feet width x 9.5 inch depth.

Station 13+50 to 14+80 and Station 22+65 to 24+30 is computed at the rate of 467 SqYd per Station, applied 42 feet width x 9.5 inch depth.

REMOVE AND REPLACE TOPSOIL

Prior to beginning resurfacing operations, a 4" depth of topsoil shall be bladed down the respective inslope and left in a windrow 16'+/- from the subgrade shoulder. Following completion of resurfacing operations, topsoil shall be bladed back up the inslope to the point indicated on the typical section.

The estimated amount of topsoil to be removed and replaced is 725 CuYd.

All costs associated with removing and replacing the topsoil along areas to be resurfaced shall be incidental to the contract lump sum price for "Remove and Replace Topsoil".

EROSION CONTROL

The estimated area requiring erosion control is 65,340 square feet. All costs for the erosion control work for furnishing, placing, and maintaining erosion control including equipment, labor, seeding, fertilizing, and mulching shall be incidental to the contract lump sum price for "Erosion Control".

The limits of erosion control work will be determined by the Engineer during construction.

PERMANENT SEEDING

All disturbed areas as a result of work on this project shall be restored, reshaped, and seeded to the satisfaction of the Engineer. Disturbed areas anticipated on this project include the inslope topsoil removal along with all other areas disturbed as a result of the Contractor's operations.

Type F Permanent Seed Mixture shall consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
Green Needlegrass	Lodorm, AC Mallard Ecovar	4
Sideoats Grama	Butte, Pierre	3
Blue Grama	Bad River	2
Oats or Spring Wheat: April through May; Winter Wheat: August through November		10
Total:		26

It is estimated that 1.5 acres of disturbed area will require seeding. Limits of the work shall be determined by the Engineer at the time of construction.

MYCORRHIZAL INOCULUM

Mycorrhizal inoculum shall consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier shall provide certification of the fungal species claimed and the live propagule count. The inoculum shall include the following fungal species:

<i>Glomus intraradices</i>	25%
<i>Glomus aggregatu</i>	25%
<i>Glomus mosseae</i>	25%
<i>Glomus etunicatum</i>	25%

All seed shall be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. All costs of inoculating the seed shall be incidental to the contract lump sum price for "Erosion Control".

The mycorrhizal inoculum shall be as shown below or an approved equal:

Product	Manufacturer
MycoApply	Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 www.mycorrhizae.com

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 4-4-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 2.07%, a minimum of 4% (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 fertilizer shall be applied at a rate of 1,500 pounds per acre in accordance with the manufacturer's recommended method of application.

The all-natural slow release fertilizer shall be as shown below or an approved equal:

Product	Manufacturer
Sustane	Sustane Corporate Headquarters Cannon Falls, Minnesota Phone: 1-800-352-9245 www.sustane.com
Perfect Blend	Perfect Blend, LLC Bellevue, WA Phone: 1-866-456-8890 www.perfect-blend.com

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MULCHING (GRASS HAY OR STRAW)

Grass Hay or Straw Mulch shall be required throughout disturbed areas as directed by the Engineer on this Contract.

EROSION CONTROL WATTLE

Erosion control wattles for restraining the flow of runoff and sediment shall be installed at locations determined by the Engineer during construction. Special attention shall be provided to the right ditch from station 0+00 to station 3+50 to protect Medicine Creek. Refer to Standard Plate 734.06 for details.

The Contractor shall provide certification that the erosion control wattles do not contain noxious weed seeds.

Erosion control wattles shall remain on the project to decompose.

REMOVE AND RESET EROSION CONTROL WATTLE

The estimated quantity of "Remove and Reset Erosion Control Wattle" shall is 110 feet.

HIGH FLOW SILT FENCE

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

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

High 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 734.05 for details.

An additional 100 feet of high flow silt fence has been added to the Estimate of Quantities for temporary sediment control.

TABLE OF HIGH FLOW SILT FENCE

Station	L/R	Location	Quantity (Ft)
0+00 to 5+00	Left	Along Medicine Creek	500
Additional Quantity:			100
Total:			600

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TRAFFIC CONTROL

The Contractor shall designate an employee to be responsible for the maintenance of traffic. The Engineer must approve the employee selected. The name and phone number of person(s) shall be provided to the SD Department of Transportation (605-842-0810), SD Highway Patrol (Rapid City/Pennington County ESCC (605-3938121)), and Jones County Sheriff Department (605-669-7111).

All traffic control devices shall be in “like new” condition.

GENERAL MAINTENANCE OF TRAFFIC

All traffic control sign locations shall be set in the field by the Contractor and verified by the Engineer prior to installation.

Channelizing devices in a series shall be of the same type.

Contractor shall inventory and mark the existing delineators, permanent signs, and delineators which are in the way of construction. These items will be salvaged and reset by the Contractor.

REMOVE, SALVAGE, RELOCATE, AND RESET TRAFFIC SIGN

The Contractor shall remove the existing sign, barricade, and posts for reset as shown in the below table. The plan quantities are per assembly. Payment for resetting the sign and barricade will be paid for, per assembly, at the contract unit price per each for “Remove, Salvage, Relocate, and Reset Traffic Sign”. All cost for labor and equipment necessary to reset the sign, barricade, and posts shall be incidental to the contract unit price per each for “Remove, Salvage, Relocate, and Reset Traffic Sign”.

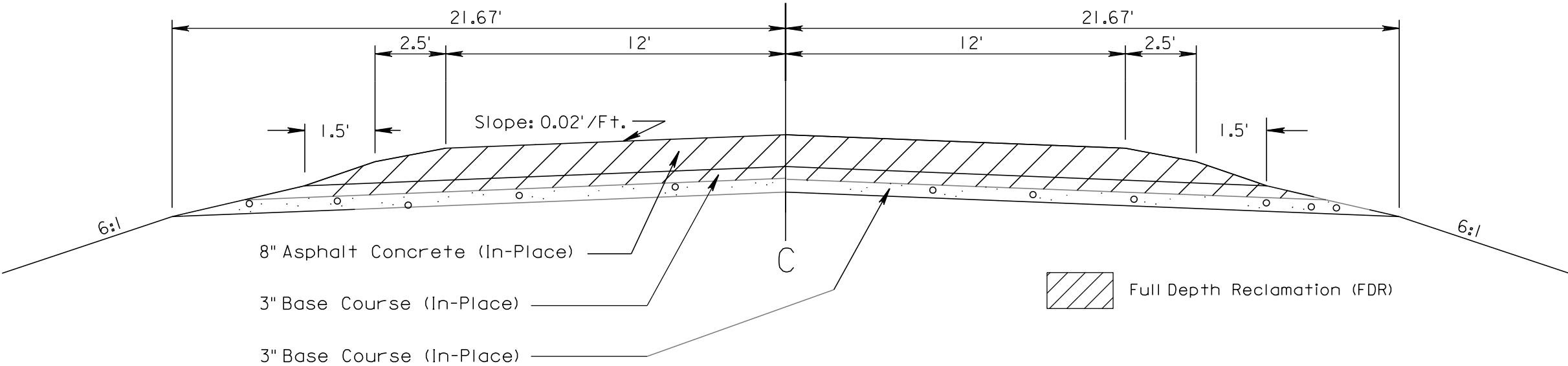
Station	Description
Sta. 8+45 Left	Stop Ahead sign
Sta. 8+45 Left	Type 3 Barricade

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TYPICAL SECTIONS

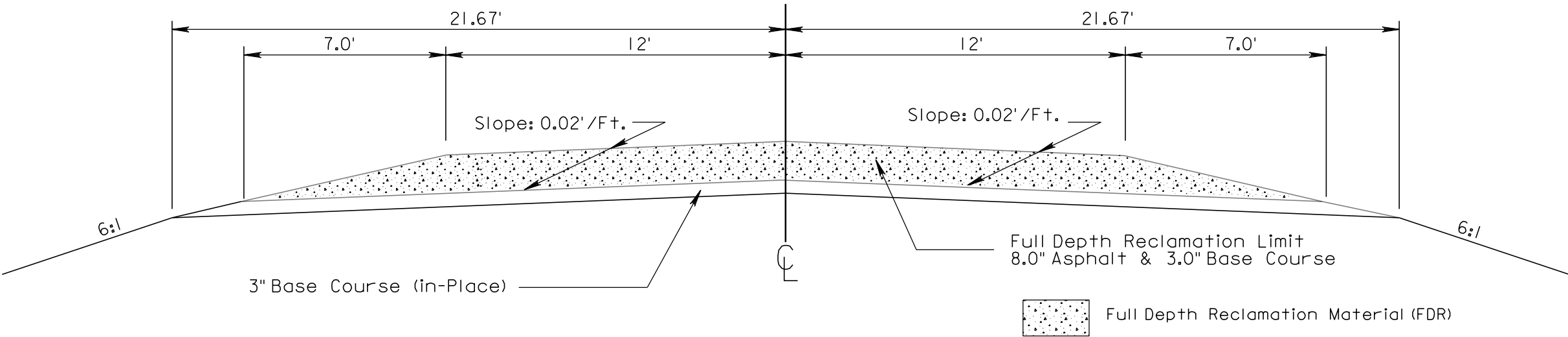
In Place and FDR Section

Sta. 0+00 to Sta. 13+50



Full Depth Reclamation Section

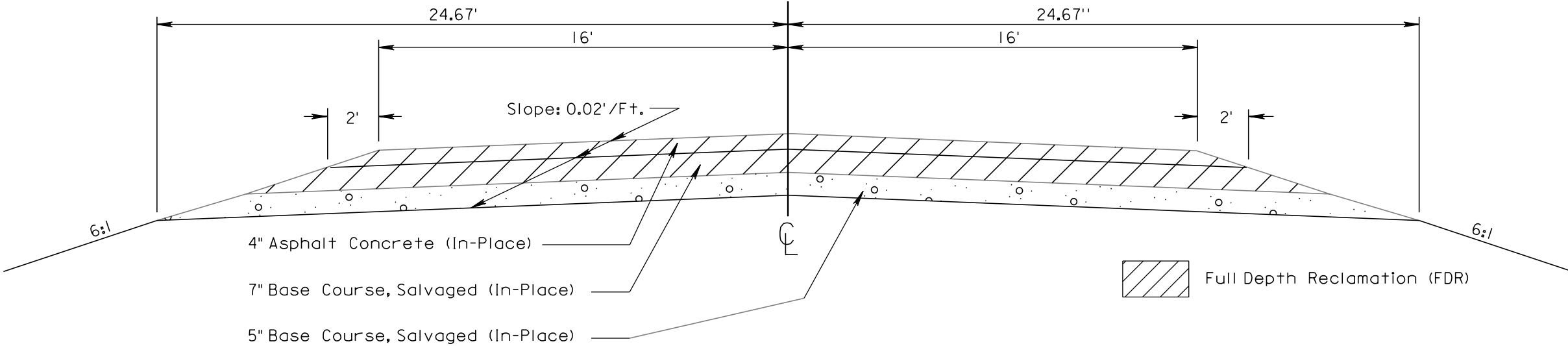
Sta. 0+00 to Sta. 13+50



TYPICAL SECTIONS

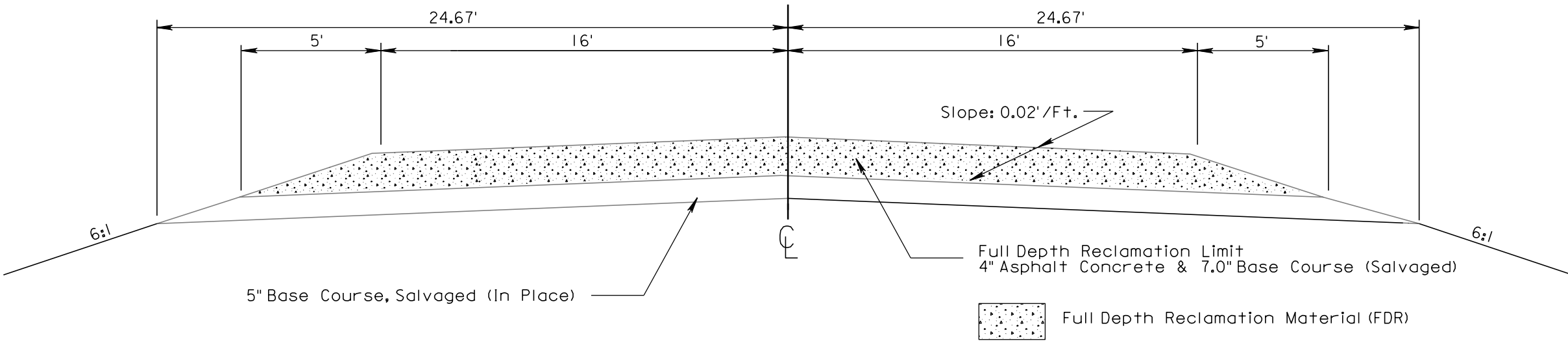
In Place and FDR Section

Sta. 13+50 to Sta. 14+80
Sta. 22+65 to Sta. 24+30



Full Depth Reclamation Section

Sta. 13+50 to Sta. 14+80
Sta. 22+65 to Sta. 24+30



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SIGN TABULATION

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD				EXPRESSWAY / INTERSTATE			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R4-7	KEEP RIGHT (symbol)	2	24" x 30"	5.0	10.0		36" x 48"	12.0	
W3-1	STOP AHEAD (symbol)	1	48" x 48"	16.0	16.0		48" x 48"	16.0	
W8-7	LOOSE GRAVEL	4	48" x 48"	16.0	64.0		48" x 48"	16.0	
SPECIAL	WINDROW	2	48" x 48"	16.0	32.0		48" x 48"	16.0	
W20-1	ROAD WORK AHEAD	4	48" x 48"	16.0	64.0	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0		48" x 48"	16.0	
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0	2	48" x 48"	16.0	32.0
W21-3	ROAD MACHINERY AHEAD	4	48" x 48"	16.0	64.0		48" x 48"	16.0	
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0	2	48" x 24"	8.0	16.0
TRAFFIC CONTROL SIGNS TOTAL 412 SQFT		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 332.0				EXPRESSWAY / INTERSTATE TRAFFIC CONTROL SIGNS SQFT 80.0			

TYPE 3 BARRICADES

ITEM DESCRIPTION	QUANTITY
Type 3 Barricade, 8' Double Sided	1 Each

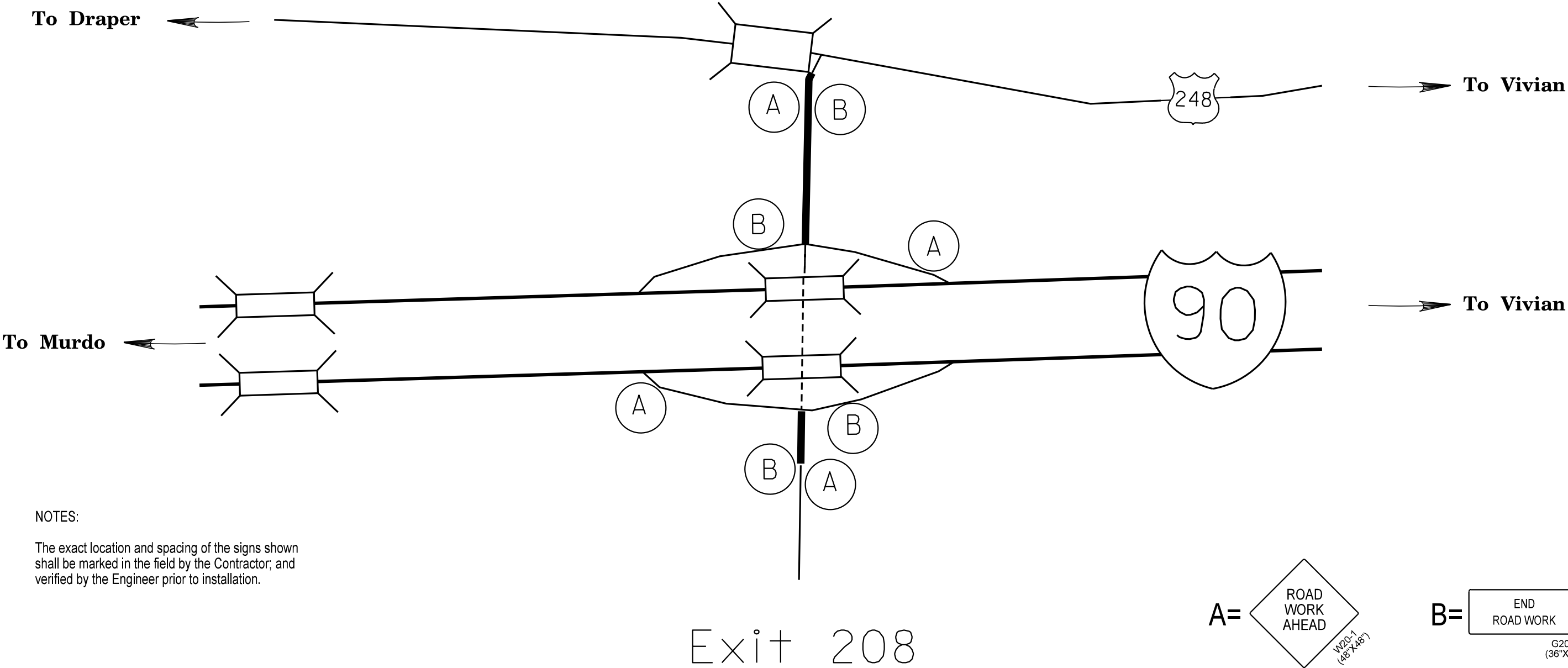
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FIXED LOCATION SIGN LAYOUT
SD 090WF
JONES COUNTY



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Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	25
35 - 40	350	25
45	500	25
50	500	50
55	750	50
60 - 65	1000	50

-  Flagger
 Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

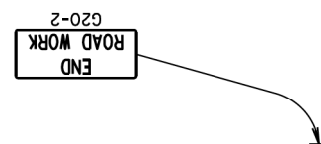
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices shall be drums or 42" cones.

Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.

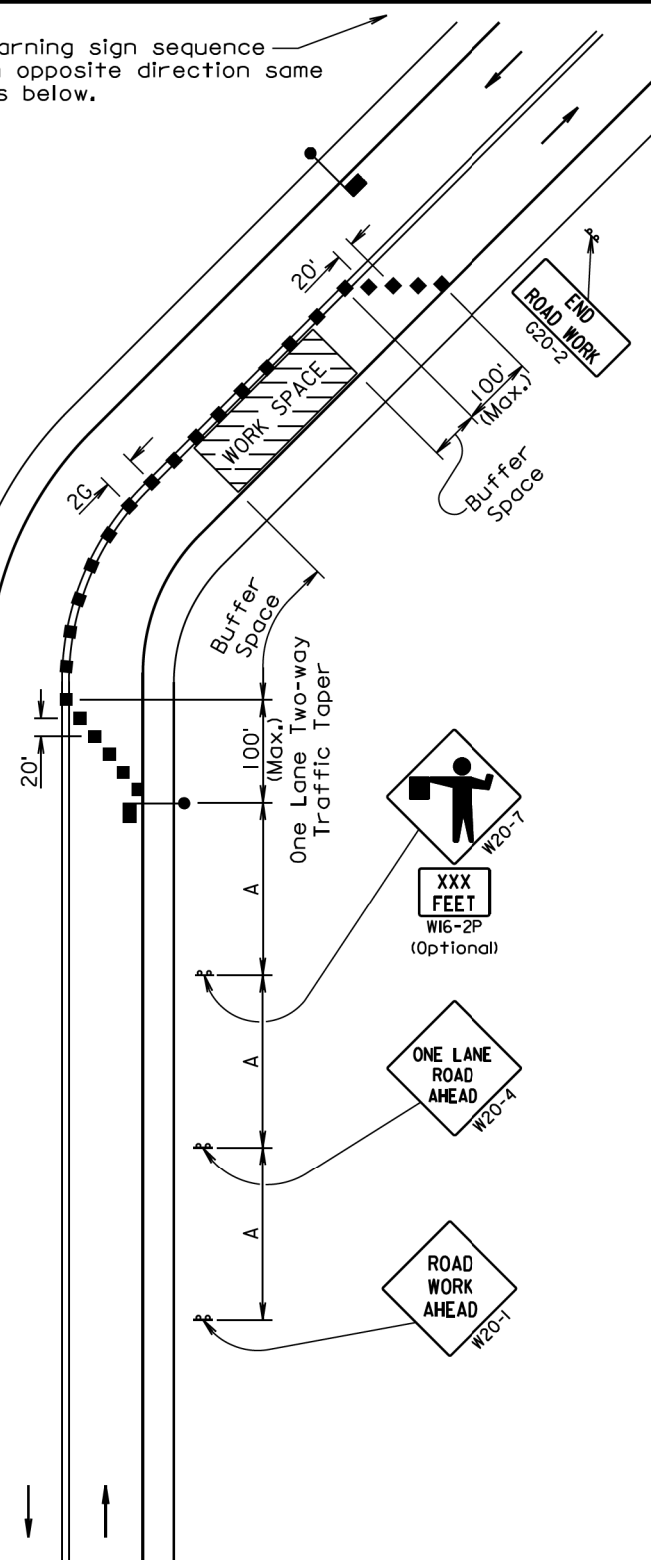


Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

The length of A may be adjusted to fit field conditions.

Warning sign sequence —
in opposite direction same
as below.



June 3, 2016

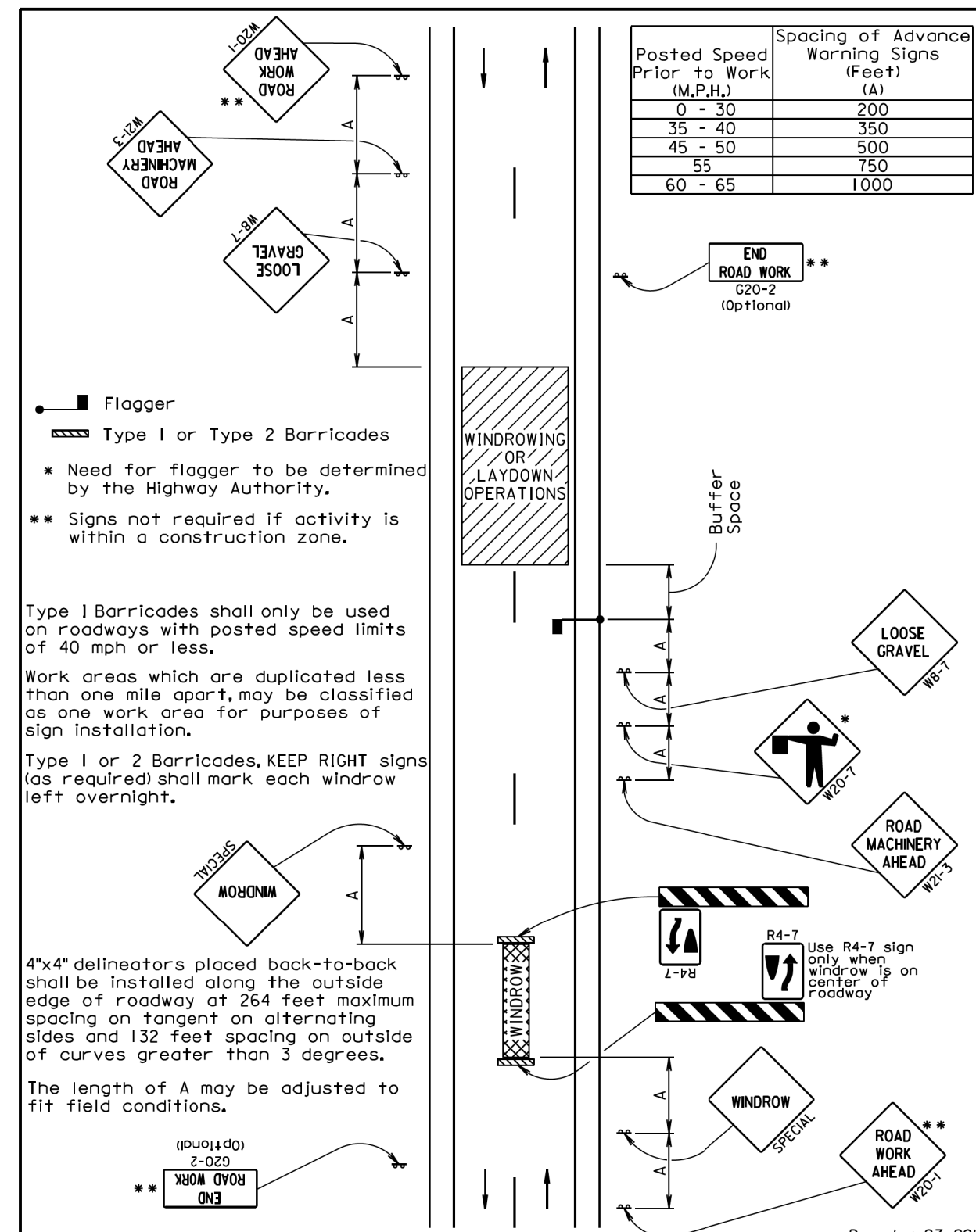
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GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED

PLATE NUMBER
634.23

Sheet 1 of 1

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December 23, 2017

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GUIDES FOR TRAFFIC CONTROL DEVICES WINDROWING OR LAYDOWN OPERATION

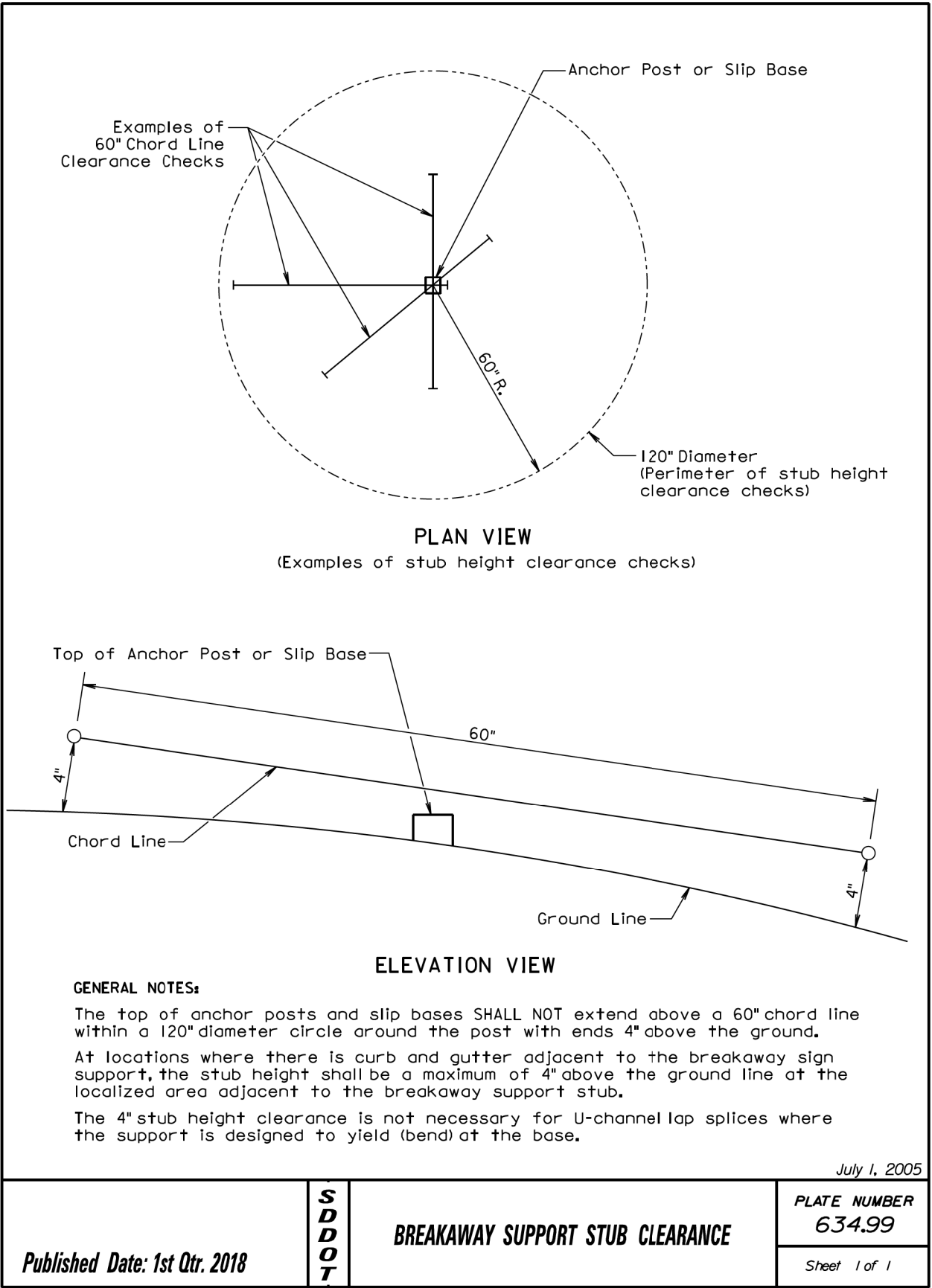
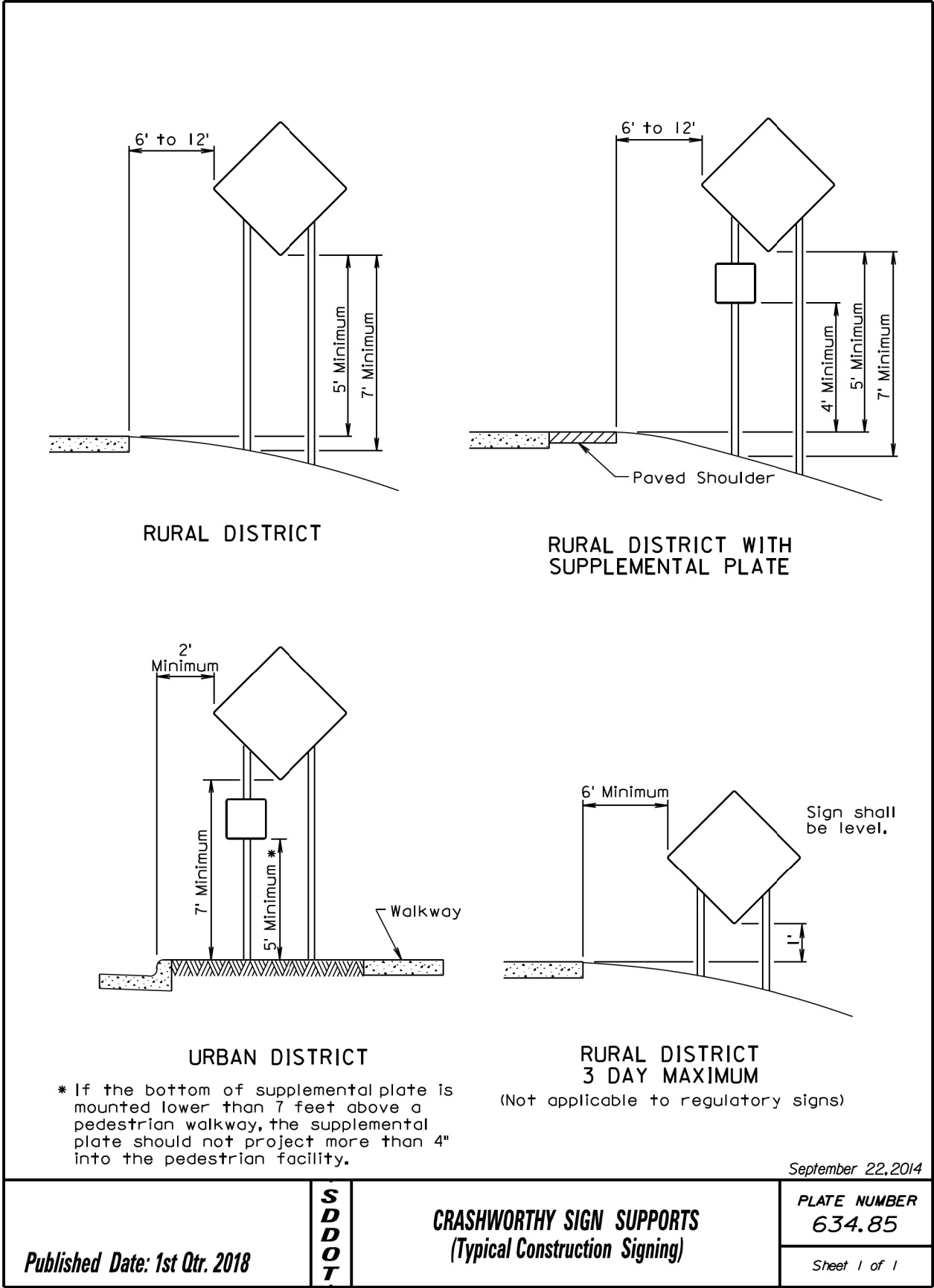
PLATE NUMBER
634.27

Sheet 1 of 1

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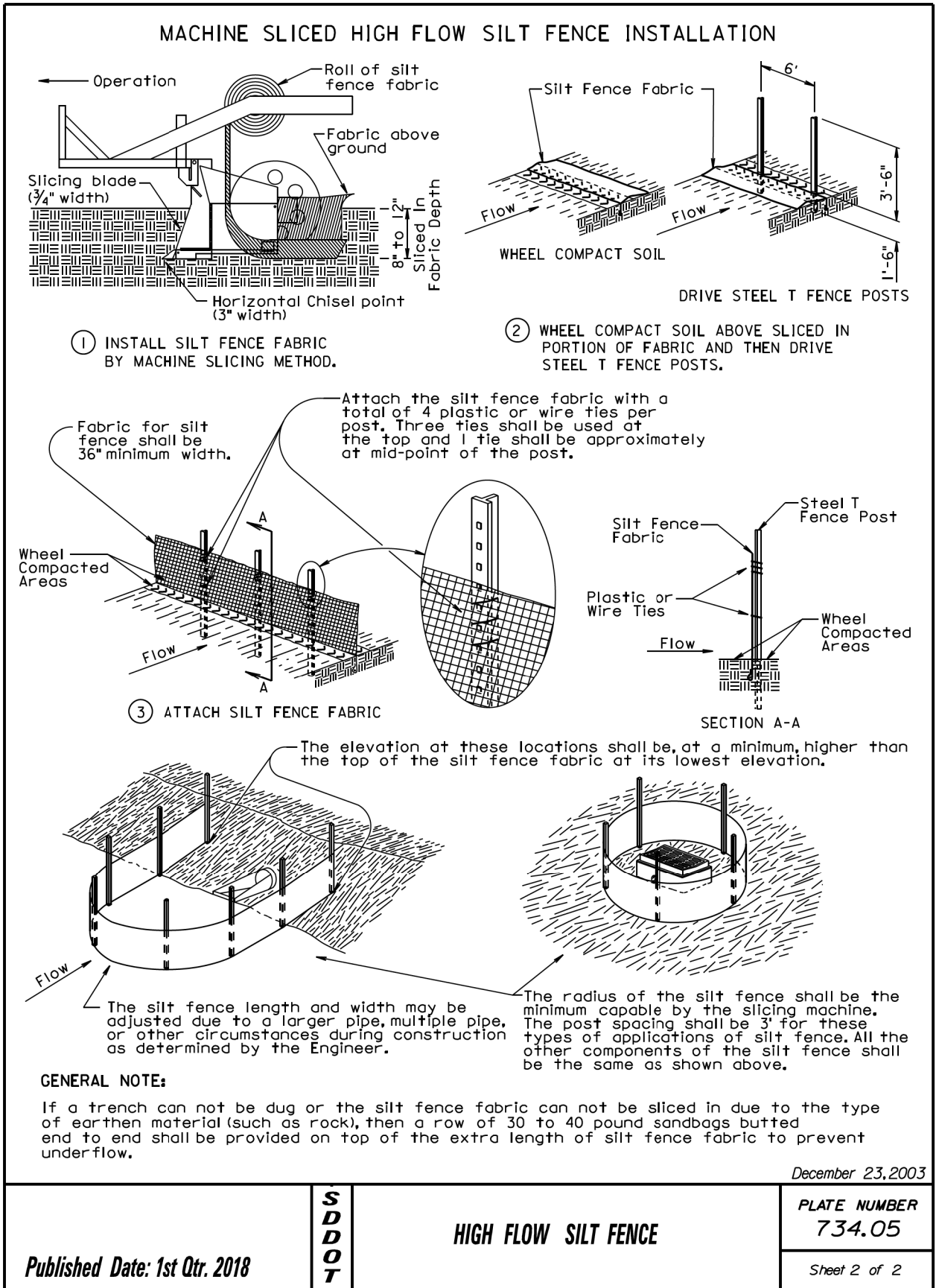
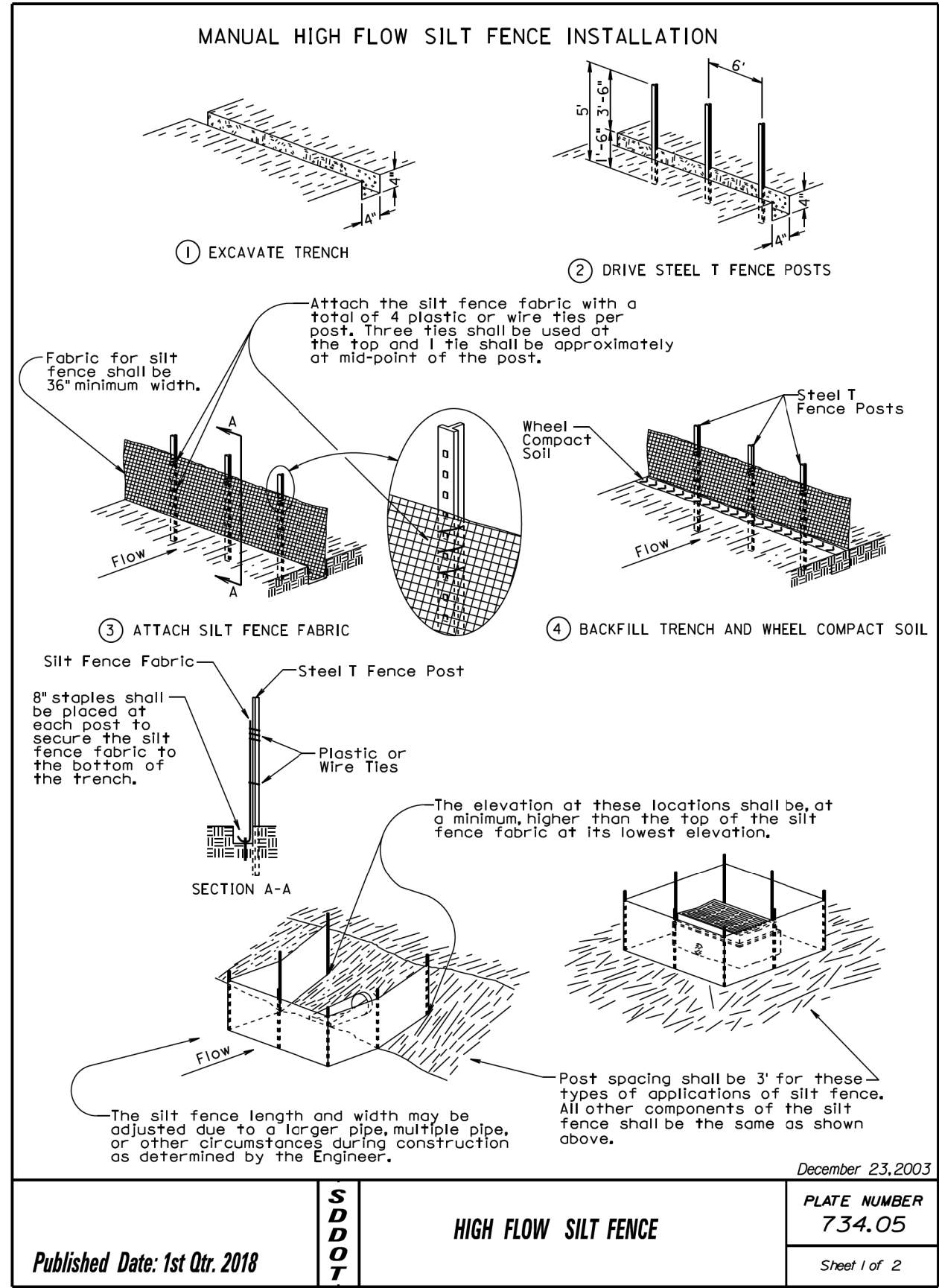
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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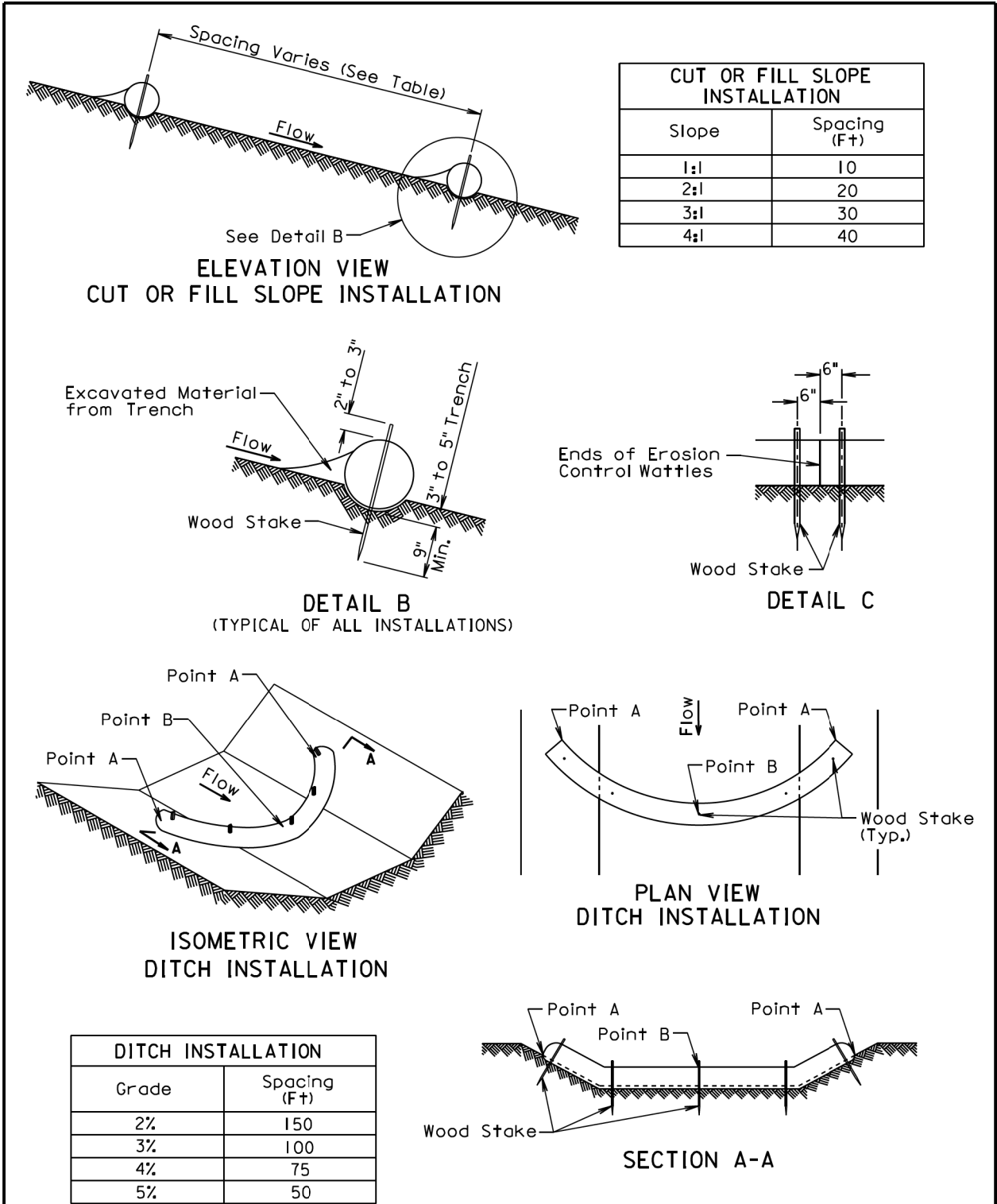
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December 23, 2004

<i>Published Date: 1st Qtr. 2018</i>	S D D O T	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 1 of 2

GENERAL NOTES:

At cut or fill slope installations, wattles shall be installed along the contour and perpendicular to the water flow.

At ditch installations, point A must be higher than point B to ensure that water flows over the wattle and not around the ends.

The Contractor shall dig a 3" to 5" trench, install the wattle tightly in the trench so that daylight can not be seen under the wattle, and then compact the soil excavated from the trench against the wattle on the uphill side. See Detail B.

The stakes shall be 1"x2" or 2"x2" wood stakes, however, other types of stakes such as rebar may be used only if approved by the Engineer. The stakes shall be placed 6" from the ends of the wattles and the spacing of the stakes along the wattles shall be 3' to 4'.

Where installing running lengths of wattles, the Contractor shall butt the second wattle tightly against the first and shall not overlap the ends. See Detail C.

The Contractor and Engineer shall inspect the erosion control wattles once every week and within 24 hours after every rainfall event greater than 1/2". The Contractor shall remove, dispose, or reshape the accumulated sediment when necessary as determined by the Engineer.

Sediment removal, disposal, or necessary shaping shall be as directed by the Engineer. All costs for removing accumulated sediment, disposal of sediment, and necessary shaping shall be incidental to the contract unit price per cubic yard for "Remove Sediment".

All costs for furnishing and installing the erosion control wattles including labor, equipment, and materials shall be incidental to the contract unit price per foot for the corresponding erosion control wattle bid item.

All costs for removing the erosion control wattle from the project including labor, equipment, and materials shall be incidental to the contract unit price per foot for "Remove Erosion Control Wattle".

December 23, 2004

<i>Published Date: 1st Qtr. 2018</i>	S D D O T	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 2 of 2