STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	1	49

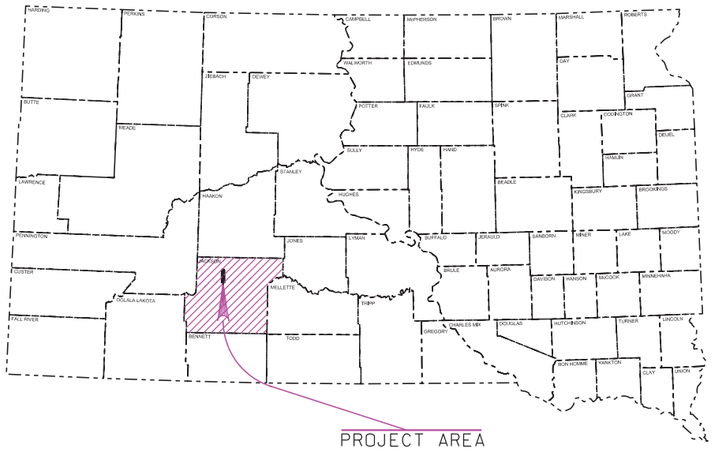
Plotting Date: 07/18/2025

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
PROJECT NH 0073(80)78
SD HWY 73
JACKSON COUNTY

MILL, AC RESURFACING, PIPE WORK

PCN 07Y4



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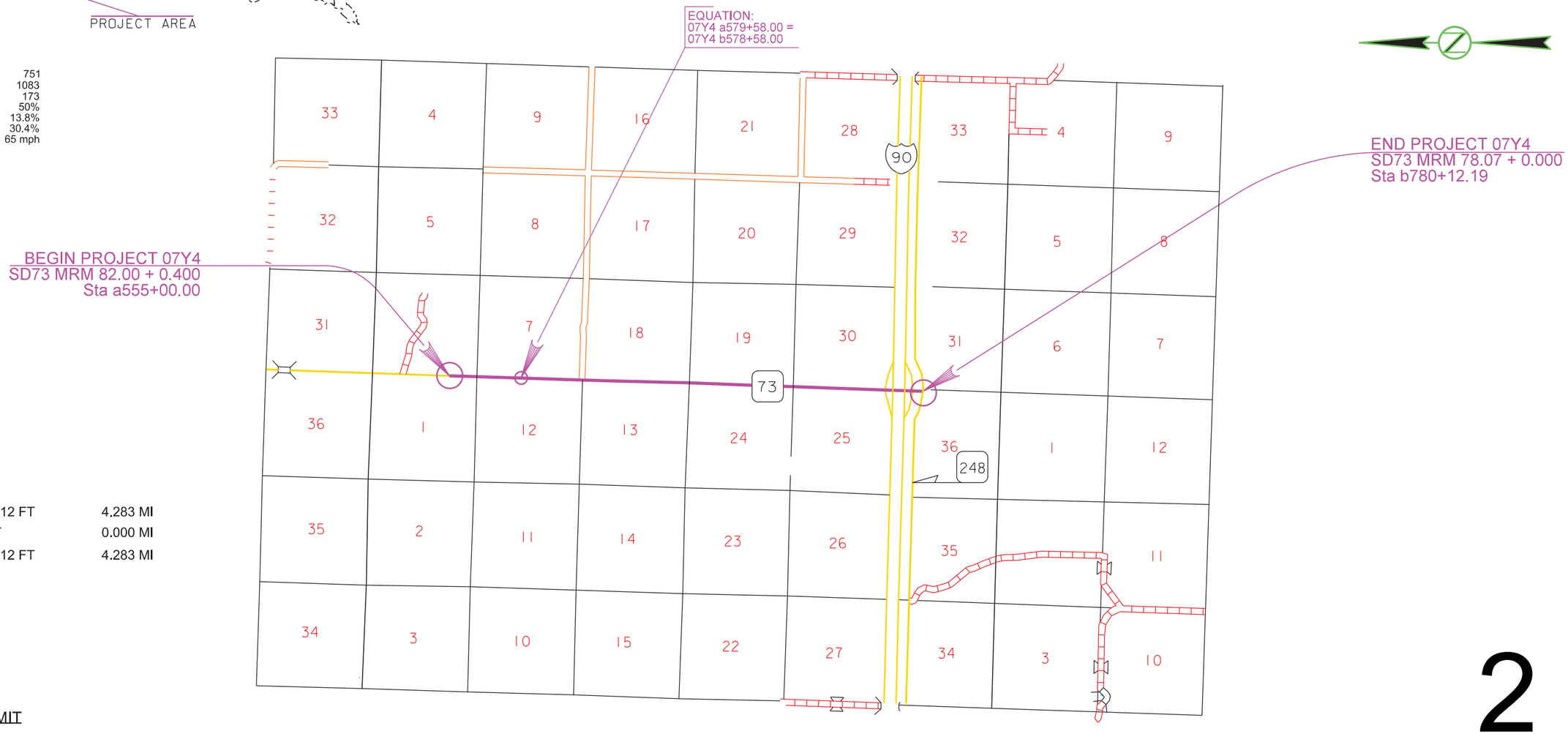
DESIGN DESIGNATION

AADT (2023)	751
AADT (2043)	1083
DHV	173
D	50%
DHV T%	13.8%
AADT T%	30.4%
V	65 mph



Gross Length:	22,612 FT	4.283 MI
Exception Length:	0 FT	0.000 MI
Net Length:	22,612 FT	4.283 MI

STORM WATER PERMIT

Major Receiving
Body of Water: Wetlands
Area Disturbed: 0.42 Acres
Total Project Area: 0.42 Acres
Approx. Lat: 43.868059°
Approx. Long: -101.661173°

2

November 19, 2025

PLOT SCALE - 1:200

PLOTTED FROM - TRPR25584

PLOT NAME - 1

FILE - ...\07Y4_TITLE.DGN

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3210	Construction Staking	4.283	Mile
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E3320	Checker	Lump Sum	LS
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E0510	Remove Pipe End Section	14	Each
110E0595	Remove Cattle Pass End Section	2	Each
110E0600	Remove Fence	260	Ft
110E1010	Remove Asphalt Concrete Pavement	321.2	SqYd
110E7500	Remove Pipe for Reset	84	Ft
110E7510	Remove Pipe End Section for Reset	5	Each
120E0100	Unclassified Excavation, Digouts	215	CuYd
120E0600	Contractor Furnished Borrow Excavation	4	CuYd
120E4100	Reprofiling Ditch	7.3	Sta
120E6200	Water for Granular Material	3.1	MGal
210E0100	Shoulder Clearing	8.6	Mile
260E1010	Base Course	728.3	Ton
320E1200	Asphalt Concrete Composite	107.1	Ton
320E7008	Grind 8" Rumble Strip or Stripe in Asphalt Concrete	7.8	Mile
320E7028	Grind Centerline Rumble Stripe in Asphalt Concrete	4.1	Mile
330E0100	SS-1h or CSS-1h Asphalt for Tack	54.8	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	20.5	Ton
330E2000	Sand for Flush Seal	225.5	Ton
332E0010	Cold Milling Asphalt Concrete	4,476	SqYd
450E2016	24" RCP Flared End, Furnish	6	Each
450E2017	24" RCP Flared End, Install	6	Each
450E2024	30" RCP Flared End, Furnish	4	Each
450E2025	30" RCP Flared End, Install	4	Each
450E2028	36" RCP Flared End, Furnish	3	Each
450E2029	36" RCP Flared End, Install	3	Each
450E2040	54" RCP Flared End, Furnish	1	Each
450E2041	54" RCP Flared End, Install	1	Each
450E8910	Cleanout for Culvert Treatment	2	Each
450E9000	Reset Pipe	84	Ft
450E9001	Reset Pipe End Section	5	Each
450E9528	36" Cured in Place Pipe	138	Ft
462E0250	Cellular Grout	87.4	CuYd
600E0300	Type III Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	260	Ft
620E0515	Type 1A Temporary Fence	748	Ft
620E1030	3 Post Panel	10	Each
633E1200	High Build Waterborne Pavement Marking Paint, White	181	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	46	Gal
634E0010	Flagging	280.0	Hour
634E0020	Pilot Car	120.0	Hour
634E0110	Traffic Control Signs	425.7	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0630	Temporary Pavement Marking	17.1	Mile
720E1010	PVC Coated Bank and Channel Protection Gabion	40.0	CuYd
734E0010	Erosion Control	Lump Sum	LS
734E0102	Type 2 Erosion Control Blanket	3,293	SqYd
831E0110	Type B Drainage Fabric	120	SqYd
900E1980	Storage Unit	1	Each

ALTERNATE A

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	594.5	Ton
320E1203	CLASS Q3R HOT MIXED ASPHALT CONCRETE	13,056.0	Ton
320E4000	Hydrated Lime	128.0	Ton

ALTERNATE B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	492.6	Ton
320E1203	CLASS Q3R HOT MIXED ASPHALT CONCRETE	13,398.2	Ton
320E4000	Hydrated Lime	132.2	Ton

FLEXIBLE PAVEMENT SMOOTHNESS PROVISION

All sections not excluded by the Special Provision for Flexible Pavement Smoothness will be evaluated as 2 opportunities.

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 10-1-25 Version, Required Provisions, and Special Provisions as included in the Proposal. The Standard Specifications for Roads and Bridges are available for download and viewing at https://dot.sd.gov/doing-business/contractors/standard-specifications.

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf >

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

COMMITMENT A: AQUATIC RESOURCES

COMMITMENT A1: WETLANDS

All efforts to avoid and minimize wetland impacts from the project have resulted in approximately 0.19 acres of wetlands (includes temporary and permanent) becoming impacted.

Table of Impacted Wetlands

Wetland No.	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
1	704	0.00	0.00	0.03	0.00	0.03
2	675	0.00	0.00	0.026	0.00	0.026
3	645	0.00	0.00	0.038	0.018	0.056
4	626	0.00	0.00	0.025	0.05	0.075
Totals		0.00	0.00	0.119	0.068	0.187

Action Taken/Required:

Mitigation is not required in accordance with the "*Statewide Finding Regarding Wetlands for South Dakota Federal-Aid Highway Projects (February 2018)*".

Temporary impacts identified in the Table of Impacted Wetlands will not be mitigated as original contours and elevations will be re-established as designated in project plans. Prior to initiating temporary work in wetlands, the Contractor will submit a plan to the Project Engineer in accordance with Section 7.21 D of the Specifications.

The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any wetland. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any wetlands beyond the work limits and easements shown in the plans.

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 pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT C: WATER SOURCE

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species (AIS) positive waters within South Dakota without prior approval from the SDDOT Environmental Office. To prevent and control the introduction and spread of invasive species into the project vicinity, all equipment will be power washed with hot water (≥140 °F) and completely dried for a minimum of 7 days prior to subsequent use. South Dakota administrative rule 41:10:04:02 forbids the possession and transport of AIS; therefore, all attached dirt, mud, debris and vegetation must be removed and all compartments and tanks capable of holding standing water must be drained. This includes, but is not limited to, all equipment, pumps, lines, hoses and holding tanks.

Action Taken/Required:

The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Agriculture and Natural Resources (DANR) and the United States Army Corps of Engineers (USACE) prior to water extraction activities.

Additional information and mapping of water sources impacted by Aquatic Invasive Species in South Dakota can be accessed at:
< https://sdleastwanted.sd.gov/maps/default.aspx >

< South Dakota Administrative Rule 41:10:04 Aquatic Invasive Species: https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04 >

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

This project may be in the vicinity of multiple streams and wetlands. These waters are considered waters of the state and are protected under Administrative Rules of South Dakota (ARSD) Chapter 74:51. Special construction measures may have to be taken to ensure that this water body is not impacted.

Action Taken/Required:

The Contractor is advised that the South Dakota Surface Water Quality Standards, administered by the South Dakota Department of Agriculture and Natural Resources (DANR), apply to this project. Special construction measures will be taken to ensure the above standard(s) of the surface waters are maintained and protected.

COMMITMENT D2: SURFACE WATER DISCHARGE

The DANR General Permit for Temporary Discharge is required for temporary dewatering and discharges to waters of the state. The effluent limit for total suspended solids will be 90 mg/L 30-day average. The effluent limit applies to discharges to all waters of the state except discharges to waters classified as cold water permanent fish life propagation waters according to the ARSD 74:51:01:45. For discharges to waters of the state classified as cold water permanent fish life propagation waters, the effluent limit for total suspended solids will be 53 mg/L daily maximum.

The permittee has the option of completing effluent testing or implementing a pollution prevention plan for compliance with this permit. If the permittee develops a pollution prevention plan instead of total suspended solids sampling, the plan must be developed and implemented prior to discontinuing total suspended solids sampling. Refer to Section 4.0 of the permit. If any pollutants are suspected of being discharged, a sample must be taken for those parameters listed in Section 3.4 of the permit.

Refer to Commitment D1: Surface Water Quality for stream classification.

Action Taken/Required:

If construction dewatering is required and this project is currently covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the contractor will need to submit the dewatering information to the SDDANR using the following form:
< https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_AddTempInfoFillable.pdf >

The Contractor will provide a copy of the approved permit or the submitted dewatering information to the Project Engineer prior to proceeding with any dewatering activities. The approved permit or submitted dewatering information must be kept on-site and as part of the project records.

Effluent monitoring, as a result of dewatering activities, will be summarized for each month and recorded on a separate Discharge Monitoring Report (DMR) and submitted to DANR monthly. Additional information can be found at:
< https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/swdpermitting/Ereporting.aspx >

COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance and/or work in a waterway.

Action Taken/Required:

The DANR General Permit for Stormwater Discharges Associated with Construction Activities is required for construction activity disturbing one or more acres of earth and work in a waterway. The SDDOT is the owner of this permit and will submit the NOI to DANR 15 days prior to project start in order to obtain coverage under the General Permit. Work can begin once the DANR letter of approval is received.

The Contractor must adhere to the “Special Provision Regarding Storm Water Discharges to Waters of the State.”

The Contractor will complete the DANR Contractor Certification Form prior to the pre-construction meeting. The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the permit for this project. Work may not begin on this project until this form is signed and submitted to DANR.

The form can be found at:
<https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_CGPAppendixCCA2023Fillable.pdf >

The Contractor is advised that permit coverage may also be required for off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

Storm Water Pollution Prevention Plan

The Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to the submittal of the NOI and will be implemented for all construction activities for compliance with the permit. The SWPPP must be kept on-site and updated as site conditions change. Erosion control measures and best management practices will be implemented in accordance with the SWPPP.

The DOT 298 Form will be used for site inspections and to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents and retained for a minimum of three years.

The inspection will include disturbed areas of the construction site that have not been finally stabilized, areas used for storage materials, structural control measures, and locations where vehicles enter or exit the site. These areas will be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWPPP will be observed to ensure that they are operating correctly, and sediment is not tracked off the site.

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

SDDOT: < https://dot.sd.gov/doing-business/environmental/stormwater >

DANR:< https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/default.aspx >

EPA: < https://www.epa.gov/npdes >

COMMITMENT H: WASTE DISPOSAL SITE

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

Action Taken/Required:

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

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

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

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

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding

COMMITMENT H: WASTE DISPOSAL SITE (CONT.)

recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with fences, gates, and placement of a sign or signs at the entrance to the site stating, “No Dumping Allowed”.

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period not to exceed the duration of the project. Prior to project completion, the waste will be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.
Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

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

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic 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 a cultural resource review prior to scheduling the pre-construction meeting. This work includes but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

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

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

The Contractor will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 150 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery 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 will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

COMMITMENT N: SECTION 404 PERMIT

The SDDOT has obtained a Section 404 Permit from the USACE for the permanent actions associated with this project.

Action Taken/Required:

The Contractor will comply with all requirements contained in the Section 404 Permit.

The Contractor will also be responsible for obtaining a Section 404 Permit for any dredge, excavation, or fill activities associated with material sources, storage areas, waste sites, and Contractor work sites outside the plan work limits that affect wetlands, floodplains, or waters of the United States.

UTILITIES

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

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 will contact the Engineer to determine modifications that will be necessary to avoid utility impacts.

SCOPE OF WORK

Project NH 0073(80)78 will consist of pipe repairs, plugging a reinforced concrete cattle pass, drainage channel reprofiling, digouts and backfill operations, and asphalt concrete milling and paving operations.

SEQUENCE OF OPERATIONS

The Contractor will submit a sequence of operations for approval two weeks prior to the preconstruction meeting. If changes to the sequence of operations are proposed during the project, these must be submitted for review a minimum of one week prior to potential implementation. Approval for changes to the sequence of operations will only be allowed when the proposed changes meet with the Department’s intent for traffic control and sequencing of the work.

EROSION CONTROL

The estimated area requiring erosion control is 18,050 square feet. This area includes all areas with minor grading work. All costs for the erosion control work for furnishing, placing, and maintaining erosion control including equipment, labor, seeding, and mulching will be incidental to the specific erosion control-related bid items.

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

Permanent Seeding

The areas to be seeded consist of all newly graded areas.

Type C Permanent Seed Mixture will consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	16
Canada Wildrye	Mandan	2
	Total:	18

Mycorrhizal Inoculum

Mycorrhizal inoculum will 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 will provide certification of the fungal species claimed and the live propagule count. The inoculum will include a minimum 25% the fungal species *Rhizophagus intraradices*. The remaining 75% may include other endomycorrhizal fungal species.

All seed will be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre.

The mycorrhizal inoculum will 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
AM 120 Multi Species Blend	Reforestation Technologies Int. Gilroy, CA Phone: 1-800-784-4769 www.reforest.com
LALRISE Prime and Max WP	Lallemand Specialties Inc. Milwaukee, WI Phone: 1-844-590-7781 www.lallemandplantcare.com

Fertilizing

Application of fertilizer will not be required on this project.

EROSION CONTROL BLANKET

Erosion control blanket will be installed on all minor grading areas up to 5 feet beyond the border of at the locations noted in the table and at locations determined by the Engineer during construction.

The erosion control blanket provided will be from the approved product list. The approved product list for erosion control blanket may be viewed at the following internet site:

https://apps.sd.gov/HC60ApprovedProducts/main.aspx

An additional quantity of Type 2 Erosion Control Blanket has been added to the Estimate of Quantities for temporary erosion control.

TABLE OF EROSION CONTROL BLANKET

Station	Location	Type	Quantity (SqYd)
b618+55 R	RCP Inlet	2	45
b626+41 L	Ditch	2	489
b626+41 R	Ditch	2	389
b634+15 L	Ditch	2	195
b634+15 R	Ditch	2	817
b645+89 L	Ditch	2	334
b645+89 R	Ditch	2	334
b675+16 L	Ditch	2	367
b690+98 R	Ditch	2	67
b704+75 L	Ditch	2	156
	Additional Quantity:	2	100
	Total Type 2 Erosion Control Blanket:		**3293**

TABLE OF PVC COATED BANK AND CHANNEL PROTECTION GABIONS AND DRAINAGE FABRIC

Station	L/R	PVC Coated Bank and Channel Protection Gabion (CuYd)	Type B Drainage Fabric (SqYd)
b594+61	L	6.0	19.0
b618+55	L	10.0	29.0
b626+41	L	12.0	34.0
b634+15	L	6.0	19.0
b704+75	L	6.0	19.0
	Totals:	**40.0**	**120.0**

TEMPORARY FENCE

The Contractor will verify the location of the temporary fence with the landowner prior to installation of the fence. Type 1A Temporary Fence will be left on the project for at least three (3) years following construction completion.

BRACE PANELS FOR ROW FENCE

The E-Z Brace or an approved equal may be utilized as an alternate horizontal brace in the brace panels if approved by the Engineer. The E-Z Brace will be attached to each wood post utilizing two 5/16" x 3" lag screws. Holes of appropriate diameter, based on wood post condition, will be drilled before placement of lag screws. The following is the contact regarding the E-Z Brace:

Charlie Mack
Macksteel E-Z Braces
415 20th Ave. SE.
Watertown, SD 57201
605-882-2177

CONTRACTOR FURNISHED BORROW EXCAVATION

The Contractor will provide a suitable site for Contractor furnished borrow excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site. The borrow material will be approved by the Engineer. The plans quantity for "Contractor Furnished Borrow Excavation" as shown in the Estimate of Quantities will be the basis of payment for this item.

Restoration of the Contractor furnished borrow excavation site will be the responsibility of the Contractor.

CELLULAR GROUT (REINFORCED CONCRETE CATTLE PASS)

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

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

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

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

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

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

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

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

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

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

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

TABLE OF CELLULAR GROUT

Station	Quantity (CuYd)
b615+29	87.4
Total:	**87.4**

The quantity includes an additional 15% to account for void volume outside the existing RCCP.

CLEANOUT FOR CULVERT TREATMENT

Cleanout of pipe culvert will be done in advance of the cured-in-place pipe liner.

Material in the existing pipe culvert will be cleaned out by water flushing or other approved methods.

Material removed from the pipe culvert will become property of the Contractor for disposal.

The Contractor will implement appropriate sediment control measures prior to water flushing to prevent discharges from the project boundaries.

The pipe culvert will be cleaned to the satisfaction of the Engineer.

All costs to dewater, clean pipe, and dispose of removed materials will be incidental to the contract unit price per each for "Cleanout For Culvert Treatment".

REPROFILING DITCH

The Contractor will reprofile and shape the ditch around culvert ends to restore drainage profile into and out of designated mainline pipe culvert locations. Ditch reprofiling will also be completed in roadside drainage channels in service of the drainage profile into and out of designated mainline pipe culvert locations.

This work will require removing sedimentation along with hauling the removed material to mainline pipe culvert locations as fill needed around the installed end sections as determined by the Engineer. The quantities and locations of reprofiling may have changed depending on the degree of erosion and sedimentation that has taken place from the time of the inspection to the time of construction. Refer to the “Table of Pipe Work” for locations of reprofiling.

Field measurement of ditch reprofiling will not be made. All costs associated with clearing and reshaping existing drainage channels and areas around end sections, labor, excavation, hauling and placing material, equipment, and incidentals will be paid for at the contract unit price per station for “Reprofiling Ditch”.

Any remaining excess material upon project completion will become the property of the Contractor for disposal.

GENERAL PIPE NOTES

The Contractor is responsible for verifying the size of each pipe prior to ordering any pipe or pipe ends. The Contractor will obtain the approval of the Engineer before ordering any pipe or pipe end section.

Refer to the “Table of Pipe Work” for work pertaining to pipe culverts throughout the project.

All pipe culvert end sections that are removed will become the property of the Contractor. They will be disposed of as per the Environmental Commitment Notes and will not be in view from the project upon completion of the project.

GENERAL TRAFFIC CONTROL

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

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

All temporary speed limit signs will have a minimum mounting height of 5 feet in rural locations, even when mounted on portable supports.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

Unless otherwise stated in these plans, work will not be allowed during hours of darkness.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

All fixed location signs, sign posts, and breakaway bases will be removed within 7 calendar days following pavement marking.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract items.

At no time will a vertical drop-off of greater than 3 inches be left overnight adjacent to the traveled way. The Contractor will utilize embankment material to ensure a 3-inch vertical drop-off is not exceeded. The slope of the embankment material will not be steeper than a 4:1 within 30 feet of the traveled way.

Traffic will be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor’s equipment will be repaired at no expense to the Department.

The Contractor will furnish, install, maintain, and remove TRUCK CROSSING (W8-6) signs daily. The TRUCK CROSSING signs will be displayed always when haul vehicles are hauling material. When hauling conditions no longer exist, the signs will be covered or removed from view. The exact number and location will be determined during construction. Payment for additional signs will be based on the contract unit price per square foot for “Traffic Control Signs”.

GROOVED PAVEMENT (W8-15) signs with MOTORCYCLE (W8-15P) plaques are required in advance of areas that have been cold milled and are not resurfaced the same day, should the Contractor elect to use cold milling. The GROOVED PAVEMENT sign assemblies will be installed a minimum of 1000 feet in advance of cold milled sections and remain in place until the sections have been resurfaced.

The Contractor will notify businesses/homeowners a minimum of two weeks prior to construction to inform them of upcoming construction and again a minimum of 48 hours prior to any blocked access to make appropriate arrangements.

A mobile work operation will be allowed provided the rumble strip or rumble stripe grooving, flush sealing, and pavement marking can be completed satisfactorily by a continuously moving work operation. A mobile work operation will require approval by the Engineer.

FLAGGING

Operations will be conducted so that the traveling public will not have to wait longer than 15 minutes at the flagger station.

Included in the Estimate of Quantities are WAIT FOLLOW PILOT CAR signs for use on low volume intersecting roads as determined by the Engineer. WAIT FOLLOW PILOT CAR signs will not block the view of the stop sign.

It is required that the flaggers and pilot car operators be able to communicate with one another. If an emergency vehicle needs to pass through the project, the Contractor will be required to expedite traffic movement. All costs associated with this will be incidental to the contract unit price per hour for “Flagging”.

TEMPORARY PAVEMENT MARKING

The total length of no passing zone on this project is estimated to be 0.895 miles.

It is estimated that **6** DO NOT PASS (R4-1) and **5** PASS WITH CARE (R4-2) signs will be required to mark the no passing zones, should the Contractor elect to use these signs.

Temporary flexible vertical markers (tabs) will be used to mark dashed centerline, No Passing Zones, and applicable lane lines. Paint will not be allowed for temporary pavement marking on the asphalt concrete wear course or after application of the flush seal.

Temporary pavement marking paint will not be allowed on the final lift of asphalt surfacing. Temporary pavement marking paint will not be allowed on the chip seal, fog seal, or flush seal. Temporary flexible vertical markers (tabs) must be used on the final lift of asphalt surfacing. The Contractor may use tabs with covers, uncovering them for the chip seal, fog seal, or flush seal. As an alternative, the Contractor may install new tabs for the fog seal or flush seal.

Covers on the tabs will be sufficiently secured to prevent traffic from dislodging the cover and when removed, the covers will be properly disposed of. The Contractor will remove and properly dispose of the tabs after permanent pavement marking is applied. Method of removal will be nondestructive to the road surface and will be accomplished within one week of completion of the permanent pavement marking.

Full reflectivity of all temporary flexible vertical markers (tabs) is required at all times. The Contractor will be required to replace any missing or non-reflective tabs after each installation as detailed below at no additional cost to the State.

Quantities of Temporary Pavement Markings consist of:

- One pass on top of the milled or existing surface
- One pass on top of the final lift of asphalt concrete
- One pass prior to the flush seal, length as determined by the Engineer
- One pass after the flush seal

TEMPORARY PAVEMENT MARKING (CONT.)

If the Engineer determines that an additional pass prior to the flush seal is not required, this application of the temporary pavement marking will be eliminated. If the flush seal is eliminated for the project, the application of the temporary pavement marking on top of the flush seal as well as the additional pass prior to the flush seal will be eliminated.

No adjustment in the contract unit price for “Temporary Pavement Marking” will be made because of a variation in quantities.

In the absence of a signed lane closure or pilot car operation, FLAGGER (W20-7) symbol signs and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights will be positioned on the shoulder in advance of workers for both directions of traffic during the installation and removal of the temporary flexible vertical markers (tabs). The traffic control device used will be moved intermittently to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1) sign, a WORKER (W21-1) symbol sign or a BE PREPARED TO STOP (W3-4) sign will be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work must be approved by the Engineer.

Prior to nightfall, tabs will be required to mark centerline on segments of roadway where existing centerline markings have been removed and new markings have not been installed.

TRAFFIC CONTROL FOR ASPHALT CONCRETE RESURFACING

The Contractor will need to install LOOSE GRAVEL (W8-7) signs with advisory speed plaques (W13-1P) in areas where loose sand is present during the flush seal operation. LOOSE GRAVEL signs have been included in these plans for this.

TRAFFIC CONTROL FOR ASPHALT CONCRETE CORING

Coring operations will be completed during daylight hours only. Traffic control for coring operations will follow the “Special Detail for Mobile Operations for Asphalt Coring” sheet in these plans.

INCIDENTS

An incident is an emergency road user occurrence, a natural disaster, or other unplanned event that affects or impedes the normal flow of traffic such as a crash, hazardous materials spill, or other event.

The Contractor will set up a meeting prior to start of work to plan and coordinate responses to an incident. The Contractor will invite the Department of Transportation, the South Dakota Highway Patrol, the Jackson or Haakon County Sheriff and local emergency response entities to the meeting.
The Contractor will assist to maintain traffic as required by these plan notes and as agreed to at that meeting.

Emergency vehicle access through the project will be considered and discussed at the meeting.

The Contractor may be required to modify messages on portable changeable message signs or relocate portable changeable message signs, and to provide flaggers to direct or detour traffic. The Contractor should be prepared to relocate advance warning signs if determined to be necessary for a major traffic incident lasting more than two hours. Fixed location ground mounted signs may be covered and additional portable signs provided.

No additional payment will be made for the modification of portable changeable message sign messages or the relocation of portable changeable message signs. Cost for the relocation of an advance warning sign due to an incident will be 50% of the designated sign rate. Flaggers will be paid for at the contract unit price per hour for “Flagging”.

PRESS RELEASE ANNOUNCEMENTS

The SDDOT will prepare a press release to be released 5 days prior to any phase change or any other major change that affects traffic flow. The SDDOT will be responsible to keep law enforcement, emergency services, and the traveling public notified of changes in project access. The Contractor will provide the Engineer with pertinent information 7 days prior to any phase change or any other major change that affects traffic flow.

TYPE III FIELD LABORATORY

The lab will be equipped with an internet connection such as DSL, cable modem, or other approved service. The internet connection will be provided with a multi-port wireless router. The internet connection will be a minimum speed of 5 Mbps unless limited by job location and approved by the DOT. Prior to installing the wireless router, the Contractor will submit the wireless router’s technical data to the Area Office to check for compatibility with the state’s computer equipment. The internet connection is intended for state personnel usage only. The Contractor’s personnel are prohibited from using the internet connection unless pre-approved by the Project Engineer. These items will be incidental to the contract unit price per each for “Type III Field Laboratory”.

STORAGE UNIT

The Contractor will provide a storage unit such as a portable storage container or a semi-trailer meeting the minimum size requirements from the table below:

Project Total Asphalt Concrete Tonnage	Minimum Internal Size (Cu Ft)	Minimum External Size (L x W x H)
Less than 50,000 ton	1,166	20’ x 8’ x 8.6’ std
More than 50,000 ton	2,360	40’ x 8’ x 8.6’ std
All Gyratory Controlled QC/QA Projects	2,360	40’ x 8’ x 8.6’ std

The storage unit is intended for use only by the Engineer for the duration of the project. The QC lab personnel or the Contractor will not be allowed to use the storage container while it is on the project, without permission of the Engineer.

The storage unit will be on site and operational prior to asphalt concrete production. Upon completion of asphalt concrete production, the Engineer will notify the Contractor when the storage unit can be removed from the project. The storage unit use will not exceed 30 calendar days from the completion of asphalt concrete production. The storage unit will remain the property of the Contractor.

The storage unit will be weather proof and will be set in a level position. The storage unit will be able to be locked with a padlock.

The storage unit will be placed adjacent to the QA lab, as approved by the Engineer.

The following will apply when the storage unit provided on the project is a portable storage container:

1. The portable storage container will be constructed of steel.
2. The portable storage container will be set such that it is raised above the surrounding ground level to keep water from ponding under or around the storage container.

The following will apply when the storage unit provided on the project is a semi-trailer:

1. A set of steps and hand railings will be provided at the exterior door.
2. If the floor of the semi-trailer is 18 inches or more above the ground, a landing will be constructed at the exterior door. The minimum dimensions for the landing will be 4 feet by 5 feet. The top of the landing will be level with the threshold or opening of the doorway.
3. The semi-trailer may be connected to the QA lab by a stable elevated walkway. The walkway will be a minimum of 48 inches wide and contain handrails installed at 32 inches above the deck of the walkway. The walkway will be constructed such that it is stable and the deck does not deform during use and allows for proper door operation. Walkway construction will be approved by the Engineer.

All cost for furnishing, maintaining, and removing the storage unit including labor, equipment, and materials including any necessary walkways, landings, stairways, and handrails will be included in the contract unit price per each for “Storage Unit”.

UNCLASSIFIED EXCAVATION, DIGOUTS

The locations and extent of digout areas will be determined in the field by the Engineer. The backfilling material for the digouts will be Asphalt Concrete Composite and Base Course, Salvaged or Base Course, Salvaged, State Furnished. The depth of asphalt will match the in-place thickness.

Included in the Estimate of Quantities are 50 cubic yards of Unclassified Excavation, Digouts and 75 square yards of Remove Asphalt Concrete Pavement per mile for the removal of asphalt and unstable material.

The digouts will be extended through the shoulder and backfilled with granular material that will daylight to the inslope to allow water to escape the subsurface.

Included in the Estimate of Quantities are 100 tons of Base Course and 25 tons of Asphalt Concrete Composite per mile for backfill of Unclassified Excavation, Digouts.

SHOULDER CLEARING

Prior to mainline paving, the shoulders will be bladed and broomed of all vegetation and loose/accumulated material to the satisfaction of the Engineer.

Each shoulder will be measured for payment. Costs associated with this work will be included in the contract unit price per mile for Shoulder Clearing.

Any remaining windrows of accumulated material will be re-spread evenly on the inslope adjacent to the asphalt shoulder to the satisfaction of the Engineer prior to the application of the flush seal.

The Contractor will notify the Pierre Area Office at (605) 773-5294 minimum of two weeks prior to beginning work on this project so that SDDOT personnel can mow or spray along the shoulder inslopes. The Department will not be responsible for the effectiveness of the mowing or spraying.

GRIND RUMBLE STRIPS/STRIPES IN ASPHALT CONCRETE

Asphalt concrete rumble strips will be constructed on the shoulders and centerline. Rumble strips will be paid for at the contract unit price per mile for "Grind 8" Rumble Strip or Stripe in Asphalt Concrete" and "Grind Centerline Rumble Stripe in Asphalt Concrete". It is estimated that 7.8 miles of asphalt concrete rumble strips will be required on the shoulders and 4.1 miles of asphalt concrete rumble stripes will be required on centerline.

Rumble strip installation will be completed prior to application of the flush seal and permanent pavement markings. In the event the flush seal is eliminated from the contract, the Contractor will still be required to apply a flush seal to the newly installed 8" edgeline rumble strips at a width of 12" and at the same rate as specified in this plan set. No adjustment in payment will be made, and SS-1h or CSS-1h Asphalt for Flush Seal will be incidental to "Grind 8" Rumble Strip or Stripe in Asphalt Concrete".

GRIND CENTERLINE RUMBLE STRIPE IN ASPHALT CONCRETE

Rumble stripes (12") will be constructed on the centerline, as detailed in the plans. Centerline rumble stripe installation will be completed prior to application of the flush seal and permanent pavement markings. Rumble stripes will be paid for at the contract unit price per mile for "Grind Centerline Rumble Stripe in Asphalt Concrete". It is estimated that 4.1 miles of centerline rumble stripes will be required.

Centerline rumble stripes will be constructed according to the details of Standard Plate 320.18.

In the event the flush seal is eliminated from the contract, the Contractor will still be required to apply asphalt for flush seal to the newly installed centerline rumble stripes at a width of 24" and a rate of 0.10 Gal/SqYd. No adjustment in payment will be made and SS-1h or CSS-1h Asphalt for Flush Seal will be incidental to "Grind Centerline Rumble Stripe in Asphalt Concrete".

EDGELINE RUMBLE STRIPS

The Engineer will provide the exact start and stop locations for the rumble strip installation. Rumble strips will not be installed on bridge decks or through intersecting roads. They also will not be placed within 50 feet of any railroad crossing.

Rumble strip installation gaps at intersecting roads, as shown in the standard installation details, have been included in the measurement for the estimate of quantities.

The Contractor is responsible for inspecting project locations prior to letting to identify potential problems for installing the rumble strips. Any damage to the new roadway during the construction of rumble strips will be repaired by the Contractor at no cost to the State of South Dakota.

The Contractor will construct rumble strips in a uniform position according to the dimensions and at locations shown in the plans. Indentations must comply with the specified dimensions in the plans within +/- 0.06 inches in depth and 10 percent in length and width. The depressions must have well-defined edges and not snag or tear the existing pavement. The Contractor will not construct rumble strips on structures or approach slabs.

All costs associated with grinding rumble strips will be incidental to the contract unit price per mile for "Grind 8" Rumble Strip in Asphalt Concrete".

RUMBLE STRIP ROADWAY CLEANING

The Contractor will be required to remove loose material from the driving surface and/or asphalt shoulders of the roadway. It will be the Contractor's responsibility to ensure that loose material does not enter any vegetated areas.

All costs associated with cleaning work will be incidental to the contract unit price per mile for "Grind 8" Rumble Strip or Stripe in Asphalt Concrete" or "Grind Centerline Rumble Stripe in Asphalt Concrete".

TABLE OF 8" EDGELINE RUMBLE STRIPS

BEG. STATION	END STATION	L/R	QUANTITY (MI)
a555+00	b590+13	L	0.684
b590+95	b616+41	L	0.482
b617+27	b629+54	L	0.232
b630+04	b664+46	L	0.652
b665+39	b669+27	L	0.073
b670+03	b700+57	L	0.578
b701+15	b722+08	L	0.396
b722+73	b765+23	L	0.805
a555+00	a556+44	R	0.027
a557+19	b590+14	R	0.643
b590+89	b612+35	R	0.406
b613+19	b616+60	R	0.065
b617+30	b629+54	R	0.232
b630+06	b669+23	R	0.742
b670+17	b681+66	R	0.218
b682+31	b700+56	R	0.346
b701+15	b722+06	R	0.396
b722+76	b733+42	R	0.202
b734+09	b765+16	R	0.588

TOTAL: 7.8 MI

TABLE OF 12" CENTERLINE RUMBLE STRIPES

BEG. STATION	END STATION	QUANTITY (MI)
a555+00	b769+34	4.078

TOTAL: 4.1 MI

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Asphalt concrete aggregates will consist of reclaimed asphalt pavement (RAP) and virgin aggregate.

Virgin mineral aggregate for Class Q3R Hot Mixed Asphalt Concrete- Alternate A will conform to the requirements of Class Q3.

Virgin mineral aggregate for Class Q3R Hot Mixed Asphalt Concrete- Alternate B will consist of a minimum of 80 percent crushed limestone ledge rock and will conform to the requirements of Class Q3.

The Class Q3R Hot Mixed Asphalt Concrete will include 20 percent RAP in the mixture.

2365-2448 tons of RAP will be obtained from the stockpiled salvaged asphalt mix material produced from project PCN 05HV for PCN 07Y4. **10,100 – 10,500 tons of RAP** will be used from the stockpiled salvaged asphalt mix material produced from project PCN 05HV for PCN 05U4. The total amount of stockpiled salvaged asphalt mix material produced from PCN 05HV, estimated at **14,500 tons**, is located at the Kadoka SDDOT Maintenance Yard in the NW ¼ of Section 32 – Township 2 South – Range 22 East, Jackson County, South Dakota. The RAP produced from PCN 05HV was planned to be removed and stockpiled the year prior to this project. The RAP was processed to meet the requirements of Section 884.2 C.1 prior to stockpiling. There is potential that some of the RAP has clumped or gummed together since the time it was processed and stockpiled. The Contractor may be required to re-process the material to meet the requirements of Section 884.2 C.1 prior to incorporation into the mixture. This determination will be made by the Engineer during construction. All costs to process the material will be incidental to "Class Q3R Hot Mixed Asphalt Concrete".

Mix Design Criteria:

Gyratory Controlled QC/QA Mix Design requirements for the Class Q3R Hot Mixed Asphalt Concrete will conform to the requirements of Class Q3 except as modified by the following:

Gyratory Compactive Effort:

	$N_{initial}$	N_{design}	$N_{maximum}$
Class Q3R	6	50	75

Mix Design Criteria – Alternate B:

Gyratory Controlled QC/QA Mix Design requirements for the Class Q3R Hot Mixed Asphalt Concrete will conform to the requirements of Class Q3 except as modified by the following:

Voids in Mineral Aggregate (VMA):

	Minimum VMA (%):
Class Q3R	13.0

CLASS Q3R HOT MIXED ASPHALT CONCRETE (CONT.)

Pay Factor Attributes – Alternate B:

Air Voids:

	Air Voids (%):
Class Q3R	3.5 ± 1.0

All remaining requirements for Class Q3 will apply.

COLD MILLING ASPHALT CONCRETE

The Los Angeles Abrasion Loss value on the aggregate used for the in-place asphalt concrete was 22. This value was obtained from testing during construction of the in-place asphalt concrete.

Cold milling asphalt concrete will be done according to the typical section(s).

Cold milling asphalt on PCN 07Y4 is estimated to produce **480 tons** of cold milled asphalt concrete material. Millings produced on this project will become the property of the Contractor for disposal.

FLUSH SEAL

Application of the flush seal will be completed within 10 working days following completion of the asphalt concrete surfacing.

Application of the flush seal may be eliminated by the Engineer. If the paved surface remains tight, the Engineer will notify the Contractor as soon as possible that the flush seal is unnecessary.

SAND FOR FLUSH SEAL

The sand application will be placed 11’ wide in each lane, leaving 12” on centerline and 6” on each edgeline free of sand.

ASPHALT CONCRETE LEVELING LIFT

The Asphalt Concrete Leveling Lift on Typical Sections 1, 2, 3, & 4 will be compacted by the Specified Roller Coverage Method. All remaining requirements for Class Q3 Hot Mixed Asphalt Concrete will apply.

CHECKING SPREAD RATES

The Contractor will be responsible for checking the Class Q3R Hot Mixed Asphalt Concrete spread rates and taking the weigh delivery tickets as the surfacing material arrives and is placed on the roadway/

The Contractor will compute the required spread rates for each typical surfacing section as shown in the plans and create a spread chart prior to the start of material delivery and placement. The Engineer will review and check the Contractor’s calculations and spread charts. The station-to-station spread will be written on each ticket as the surfacing material is delivered to the roadway.

At the end of each work day, the Contractor will verify the following:

- All tickets are present and accounted for;
- The quantity summary for each item is calculated;
- The amount of material wasted, if any;
- Each day’s ticket summary is marked with the corresponding “computed by”, and;
- The ticket summary is initialed and certified that the delivered and placed quantity is correct.

All daily tickets and summaries by item will be given to the Engineer no later than the following morning.

If the checker is not properly and accurately performing the required duties, the Contractor will correct the problem or replace the checker with an individual capable of performing the duties to the satisfaction of the Engineer. Failure to do so will result in suspension of the work.

The Department will perform depth checks on newly laid surfacing. The Contractor will be responsible for placement of material to the correct depth unless otherwise directed by the Engineer. If the placed material is not within a tolerance of +/- ½ inch of the depth shown in the plans, the Contractor will correct the problem at no additional cost to the Department. Excess material above the tolerance will not be paid for.

Achieving the correct depth may require picking up and moving material or other actions as required by the Engineer. All costs for providing the Contractor-furnished checker and performing all related duties will be incidental to the contract lump sum price for “Checker”. No allowances will be made to the contract lump sum price for “Checker” due to authorized quantity variations unless the quantities for the material being checked vary above or below the estimated quantities by more than 25 percent. Payment for the Checker will then be increased or decreased by the same proportion as the placed material quantity bears to the estimated material quantity.

ADDITIONAL QUANTITIES

Included in the Estimate of Quantities are **428.3 tons** of Class Q3R Hot Mixed Asphalt Concrete, **4.3 tons** of Hydrated Lime, **15.8 – 19.7 tons** of PG 58-34 Asphalt Binder, and **1.0 ton** of SS-1h or CSS-1h Asphalt for Tack (Rate = 0.09 gal/SqYd) for spot leveling, strengthening, and repair of the existing surface throughout the project.

PAVEMENT MARKING PAINT

The Contractor will advise the Engineer a minimum of 3 weeks prior to the application of the permanent pavement marking to allow the State to check and mark the location of no passing zones.

Cold weather waterborne paint will not be required after October 15th per Supplemental Specification Section 633.3 B.

The application of permanent pavement marking will begin no sooner than 7 calendar days following completion of the fog or flush seal. Application of permanent pavement marking will be completed within 14 calendar days following completion of the final surfacing.

HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

All materials will be applied as per manufacturer’s recommendations. High build waterborne pavement marking paint will conform to the supplemental specifications for Section 980.1 B.

Reflective media will consist of glass beads. Reflective media will require a Certificate of Compliance for Certification for each source and lot. Acceptance sampling will not be required.

RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

Solid 4” line = 22.5 Gals/Mile
Dashed 4” line = 6.2 Gal/Mile
Glass Beads = 8 Lbs/Gal.

All cost for materials, labor, and equipment necessary to furnish and install the pavement markings will be incidental to the contract unit price for the respective High Build Waterborne Pavement Marking Paint items.

RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

The Department may take retroreflectivity readings on the pavement marking lines after 14 days and within 42 days of the line application using either a portable or mobile retroreflectometer that conforms to 30-meter geometry. If the Department chooses to take retroreflectivity readings, three retroreflectivity readings will be taken on each line at each test location. The three readings will be averaged and become the reading for that test location.

If the Department chooses to take retroreflectivity readings, three readings will be taken on the edge lines and lane lines in the direction of application. For combination solid yellow and skip yellow lines for turn lanes and for centerline markings on two-way roadways, three readings will be taken in one direction, the reflectometer will be turned 180 degrees and three more readings will be taken. The six readings for the centerline markings will be averaged and become the test reading for that test location.

If the Department chooses to take readings, the minimum retroreflectivity values will be 275 mc/m^2/lux for white and 170 mc/m^2/lux for yellow.

Revised 07/30/2025 JDC

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	10	49

ITEMIZED LIST OF TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	CONVENTIONAL ROAD SIGN SIZE	CONVENTIONAL ROAD SQFT PER SIGN	CONVENTIONAL ROAD SQFT	EXPRESSWAY / INTERSTATE NUMBER	EXPRESSWAY / INTERSTATE SIGN SIZE	EXPRESSWAY / INTERSTATE SQFT PER SIGN	EXPRESSWAY / INTERSTATE SQFT
W3-4	BE PREPARED TO STOP	2	48" x 48"	16.0	32.0		48" x 48"	16.0	
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0		48" x 48"	16.0	
W8-7	LOOSE GRAVEL	2	48" x 48"	16.0	32.0		48" x 48"	16.0	
W8-11	UNEVEN LANES	2	48" x 48"	16.0	32.0		48" x 48"	16.0	
W8-15	GROOVED PAVEMENT	2	48" x 48"	16.0	32.0		48" x 48"	16.0	
W8-15P	MOTORCYCLE (plaque)	2	24" x 18"	3.0	6.0		30" x 24"	5.0	
W8-17	SHOULDER DROP-OFF (symbol)	2	48" x 48"	16.0	32.0		48" x 48"	16.0	
W13-1P	ADVISORY SPEED (plaque) (45 MPH)	2	30" x 30"	6.3	12.6		30" x 30"	6.3	
W16-2P	1000 FEET (supplemental distance plaque)	2	30" x 24"	5.0	10.0		30" x 24"	5.0	
W16-8P	SD73 (plaque)	2	24" x 12"	2.0	4.0	2	36" x 18"	4.5	9.0
W20-1	ROAD WORK AHEAD	3	48" x 48"	16.0	48.0	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		48" x 48"	16.0	
SPECIAL	WAIT FOLLOW PILOT CAR	2	30" x 18"	3.8	7.6				
G20-1	ROAD WORK NEXT 4 MILES	3	36" x 18"	4.5	13.5		48" x 24"	8.0	
G20-1	ROAD WORK NEXT 2 MILES	2	36" x 18"	4.5	9.0		48" x 24"	8.0	
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0		48" x 24"	8.0	
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			384.7	EXPRESSWAY / INTERSTATE TRAFFIC CONTROL SIGNS SQFT			41.0

TABLE OF FENCE

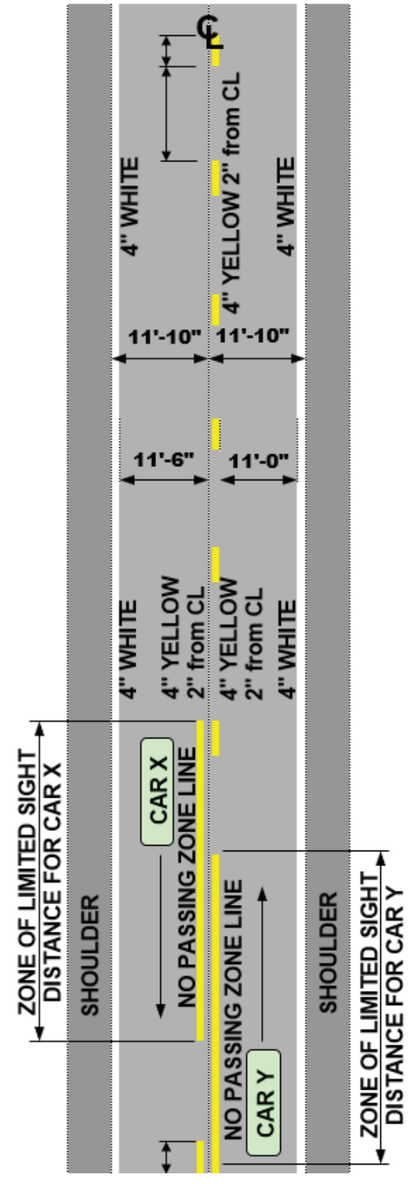
Station to Station		Side (L/R)	Remove Right-of-Way Fence (Ft)	Right-of-Way Fence Type 2 (Ft)	Temporary Fence Type 1A (Ft)	Post Panels 3PP (Each)
b626+12.85	b626+67.85	R	55	55	147	2
b645+64.18	b646+14.18	L	50	50	144	2
b645+64.18	b646+14.18	R	50	50	144	2
b674+92.08	b675+41.71	L	50	50	163	2
b704+50.52	b705+05.51	L	55	55	150	2
	TOTALS:		**260**	**260**	**748**	**10**

TABLE OF CONSTRUCTION STAKING

Roadway and Description	Begin Station	End Station	Number of Lanes	Length (Ft)	Length (Mi)	Lane Factor	Sets of Stakes	Construction Staking Quantity (Mi)
SD Hwy 73	a555+00.00	b780+12.19	2	22612	4.283	1	1	4.283

PAVEMENT MARKING DETAIL

TWO LANE ROADWAY



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	11	49

TABLE OF PROJECT STATIONING

ROUTE AND TYP. SECTION	STATION	TO	STATION		EXISTING DESCRIPTION	SEGMENT GROSS LENGTH	EXCEPTION LENGTH	SEGMENT NET LENGTH
SD73 - Typ. Section 1	**Begin Route** a 555+00.00	to	a 578+50.00		Rural 2-Lane, Asphalt	2,350.00'	00.00'	2,350.00'
SD73 - Typ. Section 1	a 578+50.00	to	a 579+50.00		Rural 2-Lane, Asphalt	100.00'	00.00'	100.00'
Equation	*Equation: 579+50.00 Bk = 578+50.00 Ah*							
SD73 - Typ. Section 2	b 578+50.00	to	b 642+50.00		Rural 2-Lane, Asphalt	6,400.00'	00.00'	6,400.00'
SD73 - Typ. Section 3	b 642+50.00	to	b 725+00.00		Rural 2-Lane, Asphalt	8,250.00'	00.00'	8,250.00'
SD73 - Typ. Section 4	b 725+00.00	to	b 769+28.91		Rural 2-Lane, Asphalt	4,428.91'	00.00'	4,428.91'
SD73 - Typ. Section 5	b 769+28.91	to	b 770+75.41		Rural 2-Lane, Asphalt	146.50'	00.00'	146.50'
SD73 - Typ. Section 6	b 770+75.41	to	b 777+28.81		Rural 2-Lane, Gravel	653.40'	00.00'	653.40'
SD73 - Typ. Section 5	b 777+28.81	to	b 780+12.19	**End Route**	Rural 2-Lane, Asphalt	283.38	00.00'	283.38'
					TOTALS	**22,612.19'** **4.283 Miles**	**00.00'** **0.000 Miles**	**22,612.19'** **4.283 Miles**

TABLE OF APPROACHES

ROUTE	STATION	L/R	CLASSIFICATION, SURFACING TYPE
SD73	a556+83	R	Farm/Field Entrance, Gravel to R.O.W.
SD73	b590+48	R	Farm/Field Entrance, Gravel to R.O.W.
SD73	b590+56	L	Farm/Field Entrance, Gravel to R.O.W.
SD73	b612+80	R	Private Entrance, Asphalt to Radius, Gravel to R.O.W.
SD73	b616+91	L	Intersecting Road (CS33A), Gravel to R.O.W.
SD73	b616+91	R	Private Entrance, Gravel to R.O.W.
SD73	b629+80	L	Farm/Field Entrance, Gravel to Radius, Asphalt to End
SD73	b629+80	R	Farm/Field Entrance, Gravel to R.O.W.
SD73	b664+96	L	Farm/Field Entrance, Gravel to R.O.W.
SD73	b669+66	L	Farm/Field Entrance, Gravel to R.O.W.
SD73	b669+66	R	Farm/Field Entrance, Gravel to R.O.W.
SD73	b682+00	R	Farm/Field Entrance, Gravel Radii, Asphalt to End
SD73	b700+84	L	Farm/Field Entrance, Gravel to R.O.W.
SD73	b700+84	R	Farm/Field Entrance, Gravel Radii, Asphalt to End
SD73	b722+44	L	Farm/Field Entrance, Gravel to R.O.W.
SD73	b722+44	R	Farm/Field Entrance, Gravel to R.O.W.
SD73	b733+76	R	Farm/Field Entrance, Gravel to R.O.W.
SD73	b765+68	L	Farm/Field Entrance, Gravel to R.O.W.
SD73	b765+68	R	Farm/Field Entrance, Gravel to R.O.W.

RATES OF MATERIALS

TYPICAL SECTION 1

Sta. a555+00.00 to Sta. a578+50.00

NET LENGTH: 2,350 FT = 0.445 MI

- SS-1h/CSS-1h Asphalt for Tack (prior to leveling) applied at 0.09 gal/SqYd and 31' wide = **3.1 TON**

- SS-1h/CSS-1h Asphalt for Tack (prior to mainline) applied at 0.06 gal/SqYd and 39' wide = **2.6 TON**

- Class Q3R Asphalt Concrete
  - 1" leveling lift, 30' bottom width, 28' top width
  - 1.5" mainline lift, 38' bottom width, 35' top width

Alternate A
- Contractor-Furnished Aggregate (80%), 721 Ton/mile on leveling lift and 1520 Ton/mile on mainline lift
- Salvaged Asphalt Concrete (20%), 180 Ton/mile on leveling lift and 380 Ton/mile on mainline lift
- PG 58-34 binder (4.6%), 43 Ton/mile on leveling lift and 92 Ton/mile on mainline lift
- Hydrated Lime (1%), 9 Ton/mile on leveling lift and 20 Ton/mile on mainline lift

Alternate B
- Contractor-Furnished Aggregate (80%), 748 Ton/mile on leveling lift and 1576 Ton/mile on mainline lift
- Salvaged Asphalt Concrete (20%), 187 Ton/mile on leveling lift and 394 Ton/mile on mainline lift
- PG 58-34 binder (3.7%), 36 Ton/mile on leveling lift and 76 Ton/mile on mainline lift
- Hydrated Lime (1%), 10 Ton/mile on leveling lift and 20 Ton/mile on mainline lift

	Aggregate, Contractor Furnished (Ton)	Salvaged Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Total Class Q3R AC Mix	Hydrated Lime (Ton)	Total Class Q3R AC Mix (Ton)
Alt A Leveling	321.3	80.1	19.1	420.5	4.0	**424.5**
Alt B Leveling	332.9	83.2	16.0	432.1	4.5	**436.6**
Alt A Mainline	676.4	169.1	40.9	886.4	8.9	**895.3**
Alt B Mainline	701.3	175.3	33.8	910.4	8.9	**919.3**
Total Alt A	997.7	249.2	**60.0**	1306.9	**12.9**	**1319.8**
Total Alt B	1034.2	258.5	**49.8**	1342.5	**13.4**	**1355.9**

- SS-1h/CSS-1h Asphalt for Flush Seal applied at 0.05 gal/SqYd and 38' wide = **2.1 TON**

- Sand for Flush Seal applied at 8 lbs/SqYd and 22' wide = **23.0 TON**

TYPICAL SECTION 2

Sta. a578+50.00 to Sta. a579+58.00
Sta. b578+50.00 to Sta. b642+50.00

NET LENGTH: 6,500 FT = 1.231 MI

- SS-1h/CSS-1h Asphalt for Tack (prior to leveling) applied at 0.09 gal/SqYd and 31' wide = **8.6 TON**

- SS-1h/CSS-1h Asphalt for Tack (prior to mainline) applied at 0.06 gal/SqYd and 39' wide = **7.2 TON**

- Class Q3R Asphalt Concrete
  - 1" leveling lift, 30' bottom width, 28' top width
  - 1.5" mainline lift, 38' bottom width, 35' top width

Alternate A
- Contractor-Furnished Aggregate (80%), 721 Ton/mile on leveling lift and 1520 Ton/mile on mainline lift
- Salvaged Asphalt Concrete (20%), 180 Ton/mile on leveling lift and 380 Ton/mile on mainline lift
- PG 58-34 binder (4.6%), 43 Ton/mile on leveling lift and 92 Ton/mile on mainline lift
- Hydrated Lime (1%), 9 Ton/mile on leveling lift and 20 Ton/mile on mainline lift

Alternate B
- Contractor-Furnished Aggregate (80%), 748 Ton/mile on leveling lift and 1576 Ton/mile on mainline lift
- Salvaged Asphalt Concrete (20%), 187 Ton/mile on leveling lift and 394 Ton/mile on mainline lift
- PG 58-34 binder (3.7%), 36 Ton/mile on leveling lift and 76 Ton/mile on mainline lift
- Hydrated Lime (1%), 10 Ton/mile on leveling lift and 20 Ton/mile on mainline lift

	Aggregate, Contractor Furnished (Ton)	Salvaged Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Total Class Q3R AC Mix	Hydrated Lime (Ton)	Total Class Q3R AC Mix (Ton)
Alt A Leveling	888.8	221.6	52.9	1163.3	11.1	**1174.4**
Alt B Leveling	920.8	230.2	44.3	1195.3	12.3	**1207.6**
Alt A Mainline	1871.1	467.8	113.3	2452.2	24.6	**2476.8**
Alt B Mainline	1940.1	485.0	93.6	2518.7	24.6	**2543.3**
Total Alt A	2828.9	689.4	**166.2**	3615.5	**35.7**	**3651.2**
Total Alt B	2860.9	715.2	**137.9**	3714.0	**36.9**	**3750.9**

- SS-1h/CSS-1h Asphalt for Flush Seal applied at 0.05 gal/SqYd and 38' wide = **5.8 TON**

- Sand for Flush Seal applied at 8 lbs/SqYd and 22' wide = **63.6 TON**

TYPICAL SECTION 3

Sta. b642+50.00 to Sta. b725+00.00

NET LENGTH: 8,250 FT = 1.563 MI

- SS-1h/CSS-1h Asphalt for Tack (prior to leveling) applied at 0.09 gal/SqYd and 31' wide = **10.9 TON**

- SS-1h/CSS-1h Asphalt for Tack (prior to mainline) applied at 0.06 gal/SqYd and 39' wide = **9.1 TON**

- Class Q3R Asphalt Concrete
  - 1" leveling lift, 30' bottom width, 28' top width
  - 1.5" mainline lift, 38' bottom width, 35' top width

Alternate A
- Contractor-Furnished Aggregate (80%), 721 Ton/mile on leveling lift and 1520 Ton/mile on mainline lift
- Salvaged Asphalt Concrete (20%), 180 Ton/mile on leveling lift and 380 Ton/mile on mainline lift
- PG 58-34 binder (4.6%), 43 Ton/mile on leveling lift and 92 Ton/mile on mainline lift
- Hydrated Lime (1%), 9 Ton/mile on leveling lift and 20 Ton/mile on mainline lift

Alternate B
- Contractor-Furnished Aggregate (80%), 748 Ton/mile on leveling lift and 1576 Ton/mile on mainline lift
- Salvaged Asphalt Concrete (20%), 187 Ton/mile on leveling lift and 394 Ton/mile on mainline lift
- PG 58-34 binder (3.7%), 36 Ton/mile on leveling lift and 76 Ton/mile on mainline lift
- Hydrated Lime (1%), 10 Ton/mile on leveling lift and 20 Ton/mile on mainline lift

	Aggregate, Contractor Furnished (Ton)	Salvaged Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Total Class Q3R AC Mix	Hydrated Lime (Ton)	Total Class Q3R AC Mix (Ton)
Alt A Leveling	1128.5	281.3	67.2	1477.0	14.1	**1491.1**
Alt B Leveling	1169.1	292.3	56.3	1517.7	15.6	**1533.3**
Alt A Mainline	2375.8	593.9	143.8	3113.5	31.3	**3144.8**
Alt B Mainline	2463.3	615.8	118.8	3197.9	31.3	**3229.2**
Total Alt A	3504.3	875.2	**211.0**	4590.5	**45.4**	**4635.9**
Total Alt B	3632.4	908.1	**175.1**	4715.6	**46.9**	**4762.5**

- SS-1h/CSS-1h Asphalt for Flush Seal applied at 0.05 gal/SqYd and 38' wide = **7.4 TON**

- Sand for Flush Seal applied at 8 lbs/SqYd and 22' wide = **80.7 TON**

RATES OF MATERIALS (CONT.)

Revised 07/29/2025 JDC

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	13	49

TYPICAL SECTION 4

Sta. b725+00.00 to Sta. b769+28.91

NET LENGTH: 4,429 FT = 0.839 MI

- SS-1h/CSS-1h Asphalt for Tack (prior to leveling) applied at 0.09 gal/SqYd and 31’ wide = **5.9 TON**

- SS-1h/CSS-1h Asphalt for Tack (prior to mainline) applied at 0.06 gal/SqYd and 39’ wide = **4.9 TON**

- Class Q3R Asphalt Concrete
  - 1” leveling lift, 30’ bottom width, 28’ top width
  - 1.5” mainline lift, 38’ bottom width, 35’ top width

Alternate A
  - Contractor-Furnished Aggregate (80%), 721 Ton/mile on leveling lift and 1520 Ton/mile on mainline lift
  - Salvaged Asphalt Concrete (20%), 180 Ton/mile on leveling lift and 380 Ton/mile on mainline lift
  - PG 58-34 binder (4.6%), 43 Ton/mile on leveling lift and 92 Ton/mile on mainline lift
  - Hydrated Lime (1%), 9 Ton/mile on leveling lift and 20 Ton/mile on mainline lift

Alternate B
  - Contractor-Furnished Aggregate (80%), 748 Ton/mile on leveling lift and 1576 Ton/mile on mainline lift
  - Salvaged Asphalt Concrete (20%), 187 Ton/mile on leveling lift and 394 Ton/mile on mainline lift
  - PG 58-34 binder (3.7%), 36 Ton/mile on leveling lift and 76 Ton/mile on mainline lift
  - Hydrated Lime (1%), 10 Ton/mile on leveling lift and 20 Ton/mile on mainline lift

	Aggregate, Contractor Furnished (Ton)	Salvaged Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Total Class Q3R AC Mix	Hydrated Lime (Ton)	Total Class Q3R AC Mix (Ton)
Alt A Leveling	605.8	151.0	36.1	792.9	7.6	**800.5**
Alt B Leveling	627.6	156.9	30.2	814.7	8.4	**823.1**
Alt A Mainline	1275.3	318.8	77.2	1671.3	16.8	**1688.1**
Alt B Mainline	1322.3	330.6	63.8	1716.7	16.8	**1733.5**
Total Alt A	1881.1	469.8	**113.3**	2464.2	**24.4**	**2488.6**
Total Alt B	1949.9	487.5	**94.0**	2531.4	**25.2**	**2556.6**

- SS-1h/CSS-1h Asphalt for Flush Seal applied at 0.05 gal/SqYd and 38’ wide = **3.9 TON**

- Sand for Flush Seal applied at 8 lbs/SqYd and 22’ wide = **43.6 TON**

TYPICAL SECTION 5

Sta. b769+28.91 to Sta. b770+75.41
Sta. b777+28.81 to Sta. b780+12.19

NET LENGTH: 430 FT = 4.30 STA

- Cold Milling Asphalt Concrete at 2” depth and 32’ wide = **1529 SqYd**

- SS-1h/CSS-1h Asphalt for Tack (prior to mainline) applied at 0.09 gal/SqYd and 33’ wide = **0.6 TON**

- Class Q3R Asphalt Concrete
  - 2” mainline lift, 32’ top & bottom width

Alternate A
  - Contractor-Furnished Aggregate (80%), 30.12 Ton/Sta
  - Salvaged Asphalt Concrete (20%), 7.53 Ton/Sta
  - PG 58-34 binder (4.6%), 1.82 Ton/Sta
  - Hydrated Lime (1%), 0.39 Ton/Sta

Alternate B
  - Contractor-Furnished Aggregate (80%), 31.22 Ton/Sta
  - Salvaged Asphalt Concrete (20%), 7.81 Ton/Sta
  - PG 58-34 binder (3.7%), 1.50 Ton/Sta
  - Hydrated Lime (1%), 0.41 Ton/Sta

	Aggregate, Contractor Furnished (Ton)	Salvaged Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Total Class Q3R AC Mix	Hydrated Lime (Ton)	Total Class Q3R AC Mix (Ton)
Alt A	129.5	32.4	**7.8**	169.7	**1.7**	**171.4**
Alt B	134.3	33.6	**6.5**	174.4	**1.8**	**176.2**

- SS-1h/CSS-1h Asphalt for Flush Seal applied at 0.05 gal/SqYd and 33’ wide = **0.3 TON**

- Sand for Flush Seal applied at 8 lbs/SqYd and 22’ wide = **4.2 TON**

TYPICAL SECTION 6

Sta. b770+75.41 to Sta. b777+28.81

NET LENGTH: 654 FT = 6.54 STA

- Cold Milling Asphalt Concrete at 2” depth and 32’ wide = **2325 SqYd**
-
  - SS-1h/CSS-1h Asphalt for Tack (prior to mainline) applied at 0.09 gal/SqYd and 33’ wide = **0.9 TON**

  - Class Q3R Asphalt Concrete
    - 2” mainline lift, 32’ top & bottom width

Alternate A
    - Contractor-Furnished Aggregate (80%), 30.12 Ton/Sta
    - Salvaged Asphalt Concrete (20%), 7.53 Ton/Sta
    - PG 58-34 binder (4.6%), 1.82 Ton/Sta
    - Hydrated Lime (1%), 0.39 Ton/Sta

Alternate B
    - Contractor-Furnished Aggregate (80%), 31.22 Ton/Sta
    - Salvaged Asphalt Concrete (20%), 7.81 Ton/Sta
    - PG 58-34 binder (3.7%), 1.50 Ton/Sta
    - Hydrated Lime (1%), 0.41 Ton/Sta

	Aggregate, Contractor Furnished (Ton)	Salvaged Asphalt Concrete (Ton)	PG 58-34 Asphalt Binder (Ton)	Total Class Q3R AC Mix	Hydrated Lime (Ton)	Total Class Q3R AC Mix (Ton)
Alt A	197.0	49.3	**11.9**	258.2	**2.6**	**260.8**
Alt B	204.2	51.1	**9.8**	265.1	**2.7**	**267.8**

- SS-1h/CSS-1h Asphalt for Flush Seal applied at 0.05 gal/SqYd and 33’ wide = **0.5 TON**

- Sand for Flush Seal applied at 8 lbs/SqYd and 22’ wide = **6.4 TON**

TABLE OF ADDITIONAL QUANTITIES

Revised 07/29/2025 JDC

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	14	49

Description / Location	Water For Granular Material (MGal)	Cold Milling Asphalt Concrete (SqYd)	Remove Asphalt Concrete Pavement (SqYd)	Unclassified Excavation, Digouts (CuYd)	Base Course (Ton)	ALTERNATE A: Class Q3R Hot Mixed Asphalt Concrete (Ton)	ALTERNATE A: PG 58-34 Asphalt Binder (Ton)	ALTERNATE A: Hydrated Lime (Ton)	ALTERNATE B: Class Q3R Hot Mixed Asphalt Concrete (Ton)	ALTERNATE B: PG 58-34 Asphalt Binder (Ton)	ALTERNATE B: Hydrated Lime (Ton)	Asphalt Concrete Composite (Ton)	SS-1h or CSS-1h Asphalt For Tack (Ton)	SS-1h or CSS-1h Asphalt For Flush Seal (Ton)	Sand For Flush Seal (Ton)
Granular Material to R.O.W.															
13 ~ Farm & Field Entrances	1.9	-	-	-	195.0	-	-	-	-	-	-	-	-	-	-
1 ~ Private Entrances	0.1	-	-	-	15.0	-	-	-	-	-	-	-	-	-	-
1 ~ Intersecting Road	0.1	-	-	-	15.0	-	-	-	-	-	-	-	-	-	-
Asphalt Concrete + Granular Material to R.O.W. (see Table of Approaches)															
3 ~ Farm & Field Entrances	0.3	-	-	-	22.5	30.0	1.4	0.3	30.0	1.1	0.3	-	-	0.3	3.0
1 ~ Private Entrances	0.1	-	-	-	7.5	10.0	0.5	0.1	10.0	0.4	0.1	-	-	0.1	1.0
Typ. Section 1 & 4 End Tapers	-	622	-	-	-	-	-	-	-	-	-	-	-	-	-
Spot Leveling, Strengthening, and Repair	-	-	-	-	-	428.3	19.7	4.3	428.3	15.8	4.3	-	1.0	-	-
Remove Asphalt Concrete Pavement & Unclassified Excavation for Digouts	-	-	321.2	215	-	-	-	-	-	-	-	-	-	-	-
Asphalt Concrete Composite & Base Course for Digout Repair	-	-	-	-	428.3	-	-	-	-	-	-	107.1	-	-	-
Project Totals	**3.1**	**622**	**321.2**	**215**	**728.3**	**528.3**	**24.3**	**5.3**	**528.3**	**19.5**	**5.3**	**107.1**	**1.0**	**0.5**	**4.0**

SUMMARY OF ASPHALT CONCRETE

Description / Location	ALTERNATE A: Compaction WITH Specified Density for Class Q3R Hot Mixed Asphalt Concrete (Ton)	ALTERNATE A: Compaction WITHOUT Specified Density for Class Q3R Hot Mixed Asphalt Concrete (Ton)	ALTERNATE B: Compaction WITH Specified Density for Class Q3R Hot Mixed Asphalt Concrete (Ton)	ALTERNATE B: Compaction WITHOUT Specified Density for Class Q3R Hot Mixed Asphalt Concrete (Ton)
Typ. Section 1 - 1" Leveling + 1.5" Mainline Lifts				
28' Finished Roadway Surface	615.0	410.1	631.8	421.3
4' Shoulders with 1.5' Bevel	-	294.7	-	302.8
Typ. Section 2 - 1" Leveling + 1.5" Mainline Lifts				
28' Finished Roadway Surface	1,701.5	1,134.4	1,747.9	1,165.4
4' Shoulders with 1.5' Bevel	-	815.3	-	837.6
Typ. Section 3 - 1" Leveling + 1.5" Mainline Lifts				
28' Finished Roadway Surface	2,160.3	1,440.4	2,219.3	1,479.7
4' Shoulders with 1.5' Bevel	-	1,035.2	-	1,063.5
Typ. Section 4 - 1" Leveling + 1.5" Mainline Lifts				
28' Finished Roadway Surface	1,159.7	773.2	1,191.4	794.3
4' Shoulders with 1.5' Bevel	-	555.7	-	570.9
Typ. Section 5 - 2" Mainline Lift				
24' Finished Roadway Surface	128.5	-	132.1	-
4' Shoulders	-	42.9	-	44.1
Typ. Section 6 - 2" Mainline Lift		-		-
32' Finished Roadway Surface	260.8	-	267.8	-
Subtotals:	6,025.8	6,501.9	6,190.3	6,679.6
Table of Additional Quantities:	-	528.3	-	528.3
Totals =	**6,025.8**	**7,030.2**	**6,190.3**	**7,207.9**

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	15	49

TABLE OF PIPE WORK

Culvert Inventory No.	MRM	Disp	Station	Side	In-Place Culvert Size and Type	Culvert Length (Ft)	End Type	Remove Pipe/Cattle Pass			Furnish + Install Flared RCP Ends				Cleanout for Culvert Treatment	36" Cured-in-Place Pipe	Cellular Grout	Contractor Furnished Borrow Exc	Ditch Reprofiling	PVC-Coated Bank and Channel Protection Gabion	Type B Drainage Fabric
								For Reset (& Reset)	End Section for Reset (& Reset)	End Section	24"	30"	36"	54"							
								(Ft)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Each)	(Ft)	(CuYd)	(CuYd)	(Sta)	(CuYd)	(SqYd)
3733	78.21	0.596	b741+67	L	36" Twin RCP	69	Flared								2	138					
				R																	
3735	79.00	0.554	b704+75	L	36" RCP	76	Flared	12		1			1						0.3	6	19
				R				12		1			1								
3736	79.00	0.814	b690+98	L	24" RCP	59	Flared	6		1	1										
				R				6		1	1								0.2		
3737	80.00	0.100	b675+16	L	30" RCP	69	Flared	12		1		1							1.0		
				R				12		1		1									
3738	80.00	0.446	b657+16	L	24" RCP	111	Flared			1	1										
				R						1	1										
3740	80.00	0.665	b645+89	L	120" RCBC	57	Winged												0.9		
				R															0.9		
3741	80.00	0.768	b640+16	L	18" RCP	77	Flared		1												
				R					1												
3742	80.00	0.904	b634+15	L	30" RCP	75	Flared	6		1		1							0.4	6	19
				R				6		1		1							2.0		
3743	81.00	0.037	b626+41	L	54" RCP	62	Flared	6	1										0.7	12	34
				R				6		1				1					0.9		
3744	81.00	0.159	b618+55	L	42" RCP	102	Flared		1											10	29
				R														3.7			
3745	81.00	0.241	b615+29	L	5' x 7' RCCP	58	N/A			1							87.4				
				R						1											
3746	81.00	0.632	b594+61	L	36" RCP	106	Flared		1											6	19
				R						1			1								
3747	81.00	0.812	b585+05	L	24" RCP	75	Flared			1	1										
				R						1	1										
							TOTALS:	**84**	**5**	**16**	**6**	**4**	**3**	**1**	**2**	**138**	**87.4**	**3.7**	**7.3**	**40**	**120**

STORMWATER POLLUTION PREVENTION PLAN CHECKLIST

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

5.3 (2): STAFF TRAINING/SWPPP IMPLEMENTATION

To promote stormwater management awareness specific for this project, the Contractor's Erosion Control Supervisor should provide correspondence of how the SWPPP will be implemented. The Contractor's Erosion Control Supervisor is responsible for providing this information at the preconstruction meeting, and subsequently completing an attendance log, which should identify site-specific implementation of the SWPPP and the names of the personnel who attended the preconstruction meeting. Documentation of the preconstruction meeting will be filed with the SWPPP documents.

5.3 (3): DESCRIPTION OF CONSTRUCTION ACTIVITIES

- **5.3 (3a): Project Limits** (See Title Sheet)
- **5.3 (3a): Project Description** (See Title Sheet)
- **5.3 (4): Site Map(s)** (See Title Sheet and Plans)
- **Major Soil Disturbing Activities** (check all that apply)
  - ☐ Clearing and grubbing
  - ☒ Excavation/borrow
  - ☒ Grading and shaping
  - ☐ Filling
  - ☐ Other (describe):
- **5.3 (3b): Total Project Area** 0.42 Acres
- **5.3 (3b): Total Area to be Disturbed** 0.42 Acres
- **5.3 (3c): Maximum Area Disturbed at One Time** 0.42 Acres
- **5.3 (3d): Existing Vegetative Cover (%)** 100
- **5.3 (3d): Description of Vegetative Cover**
- **5.3 (3e): Soil Properties:**
- **5.3 (3f): Name of Receiving Water Body/Bodies** Wetlands
- **5.3 (3g): Location of Construction Support Activity Areas**

5.3 (3h): ORDER OF CONSTRUCTION ACTIVITIES

The Contractor will enter the Estimated Start Date.

Description	Estimated Start Date
Install perimeter protection where runoff may exit site.	
Install channel and ditch bottom protection.	
Remove and stockpile topsoil.	
Stabilize disturbed areas.	
Install inlet and culvert protection after completing storm drainage and other utility installations.	
Final paving.	
Removal of protection devices.	
Reseed areas disturbed by removal activities.	

5.3 (5): DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES

All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report. Include the technical reasoning for selecting each control. (check all that apply)

Perimeter Controls (See Detail Plan Sheets)

Description	Estimated Start Date
☐ Natural Buffers (within 50 ft of Waters of State)	
☐ Silt Fence	
☐ Erosion Control Wattles	
☐ Temporary Berm / Windrow	
☐ Floating Silt Curtain	
☐ Stabilized Construction Entrances	
☐ Entrance/Exit Equipment Tire Wash	
☐ Other:	

Structural Erosion and Sediment Controls

Description	Estimated Start Date
☐ Silt Fence	
☐ Temporary Berm/Windrow	
☐ Erosion Control Wattles	
☐ Temporary Sediment Barriers	
☐ Erosion Bales	
☐ Temporary Slope Drain	
☐ Turf Reinforcement Mat	
☐ Riprap	
☒ Gabions	
☐ Rock Check Dams	
☐ Sediment Traps/Basins	
☐ Culvert Inlet Protection	
☐ Transition Mats	
☐ Median/Area Drain Inlet Protection	
☐ Curb Inlet Protection	
☐ Interceptor Ditch	
☐ Concrete Washout Facility	
☐ Work Platform	
☐ Temporary Water Barrier	
☐ Temporary Water Crossing	
☐ Permanent Stormwater Ponds	
☐ Permanent Open Vegetated Swales	
☐ Natural Depressions to allow for Infiltration	
☐ Sequential Systems that combine several practices	
☐ Other:	

Dust Controls

Description	Estimated Start Date
☐ Tarps & Wind impervious fabrics	
☐ Watering	
☐ Stockpile location/orientation	
☐ Dust Control Chlorides	
☐ Other	

Dewatering BMPs

Description	Estimated Start Date
☐ Sediment Basins	
☐ Dewatering bags	
☐ Weir tanks	
☐ Temporary Diversion Channel	
☐ Other:	

Stabilization Practices (See Detail Plan Sheets)

(Stabilization measures will begin the following work day whenever earth disturbing activity on any portion of the site has temporarily or permanently ceased. Temporary stabilization will be completed as soon as practicable but no later than 14 days after initiating soil stabilization activities (**3.18**))

Description	Estimated Start Date
☐ Vegetation Buffer Strips	
☐ 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	
☐ Surface Roughening (e.g. tracking)	
☐ 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.

5.3 (6): PROCEDURES FOR INSPECTIONS

- Inspections will be conducted at least once every 7 days.
- 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 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 ½ 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 and 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.

5.3 (7): POST CONSTRUCTION STORMWATER MANAGEMENT

Stormwater management will be handled by temporary controls outlined in "DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES" above, and any permanent controls needed to meet permanent stormwater management needs in the post construction period will be shown in the plans and noted as permanent.

5.3 (8): POLLUTION PREVENTION PROCEDURES

5.3 (8a): Spill Prevention and Response Procedures

➢ **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/or 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.

- Hazardous Materials
  - Products will be kept in original containers unless the container is not resealable and provide secondary containment as applicable.
  - 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 stormwater system or stormwater 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 stormwater runoff.

➢ **Spill Control Practices**

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.

➢ **Spill Response**

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize migration into stormwater runoff and conveyance systems. If the release has impacted on-site stormwater, it is critical to contain the released materials on-site and prevent their release into receiving waters. If a spill of pollutants threatens stormwater 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 SDDANR.
- Personnel with primary responsibility for spill response and cleanup 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.

5.3 (8b): WASTE MANAGEMENT PROCEDURES

➢ **Waste Disposal**

- All liquid waste materials will be collected and stored in approved sealed containers. 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. The Contractor is responsible for ensuring 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 Contractor 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 which must be secured to prevent tipping and serviced in a timely manner by a licensed waste management Contractor or as required by any local regulations.

5.3 (9): CONSTRUCTION SITE POLLUTANTS

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 heading “POLLUTION PREVENTION PROCEDURES” (check all that apply).

- ☐ Concrete and Portland Cement
- ☐ Detergents
- ☐ Paints
- ☐ Metals
- ☒ Bituminous Materials
- ☐ Petroleum Based Products
- ☐ Diesel Exhaust Fluid
- ☐ Cleaning Solvents
- ☐ Wood
- ☐ Cure
- ☐ Texture
- ☐ Chemical Fertilizers
- ☐ Other:

Product Specific Practices

- **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 stormwater. 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 stormwater outlet of the site. Upon completion of construction, the area at the washout facility will be properly stabilized.

5.3 (10): NON-STORMWATER DISCHARGES

The following non-stormwater 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.

5.3 (11): INFEASIBILITY DOCUMENTATION

If it is determined to be infeasible to comply with any of the requirements of the Stormwater Permit, the infeasibility determination must be thoroughly documented in the SWPPP.

7.0: 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 SDDANR immediately **if any one of the following** conditions exists:
  - The release or spill threatens or is able to threaten waters of the state (surface water or ground water)
  - The release or spill causes an immediate danger to human health or safety
  - The release or spill exceeds 25 gallons
  - The release or spill causes a sheen on surface water
  - The release or spill of any substance that exceeds the ground water quality standards of ARSD Chapter 74:54:01
  - The release or spill of any substance that exceeds the surface water quality standards of ARSD Chapter 74:51:01
  - The release or spill of any substance that harms or threatens to harm wildlife or aquatic life
  - The release or spill is required to be reported according to Superfund Amendments and Reauthorization Act (SARA) Title III List of Lists, Consolidated List of Chemicals Subject to Reporting Under the Emergency Planning and Community Right to Know Act, US Environmental Protection Agency.

- To report a release or spill, call SDDANR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central Standard Time). To report the release after hours, on weekends or holidays, call South Dakota Emergency Management at 605-773-3231. Reporting the release to SDDANR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, you must also contact local authorities to determine the local reporting requirements for releases. A written report of the unauthorized release of any regulated substance, including quantity discharged, and the location of the discharge will be sent to SDDANR within 14 days of the discharge.

5.4: SWPPP 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 7.4 (1))

➢ **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

The following personnel are duly authorized representatives and have signatory authority for modifications made to the SWPPP:

➢ **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: _____

➢ **SDDANR Contact Spill Reporting**
- Business Hours Monday-Friday (605) 773-3296
- Nights and Weekends (605) 773-3231

➢ **SDDANR Contact for Hazardous Materials.**
- (605) 773-3153

➢ **National Response Center Hotline**
- (800) 424-8802.

➢ **SDDANR Stormwater Contact Information**
- SDDANR Stormwater (800) 737-8676
- Surface Water Quality Program (605) 773-3351

5.5: REQUIRED SWPPP MODIFICATIONS

➢ **5.5 (1): Conditions Requiring SWPPP Modification**

The SWPPP must be modified, including the site map(s), in response to any of the following conditions:

- When a new operator responsible for implementation of any part the SWPPP begins work on the site.
- When changes to the construction plans, sediment and erosion control measures, or any best management practices on site that are no longer accurately reflected in the SWPPP. This includes changes made in response to corrective actions triggered by inspections.
- To reflect areas on the site map where operational control has been transferred (including the date of the transfer) or has been covered under a new permit since initiating coverage under this general permit.
- If inspections by site staff, local officials, SDDANR, or U.S. EPA determine that SWPPP modifications are necessary for compliance with the Stormwater Permit.
- To reflect any revisions to applicable federal, state, or local requirements that affect the control measures implemented at the site.
- If approved by the Secretary, to reflect any changes in chemical water treatment systems or controls, including the use of a different water treatment chemical, age rates, different areas, or methods of application.

➢ **5.5 (2): Deadlines for SWPPP Modification**

Any required revisions to the SWPPP must be completed within 7 calendar days following any of the items listed above.

➢ **5.5 (3): Documentation of Modifications to the Plan**

All SWPPP modification records are required to be maintained showing the dates of when the modification occurred. The records must include the name of the person authorizing each change and a brief summary of all changes.

➢ **5.5 (4): Certification Requirements**

All modifications made to the SWPPP must be signed and certified as required in Section 7.4.

➢ **5.5 (5): Required Notice to Other Operators**

If there are multiple operators at the site, the Contractor's Erosion Control Supervisor must notify each operator that may be impacted by the change to the SWPPP within 24 hours.

When modifications as described above occur, the SWPPP will be modified to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SDDOT Project Engineer will modify the SWPPP using the DOT 298 form and drawings on the plan will be modified to reflect the needed changes. Copies of the DOT 298 forms and the SWPPP will be retained on site in a designated place for review throughout the course of the project. A copy of the DOT 298 form will be given to the Contractor Erosion Control Supervisor and a copy will be emailed to the SDDOT Environmental Section in accordance with the DOT 298 Form.

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	20	49

Plotting Date: 07/18/2025

Section 1

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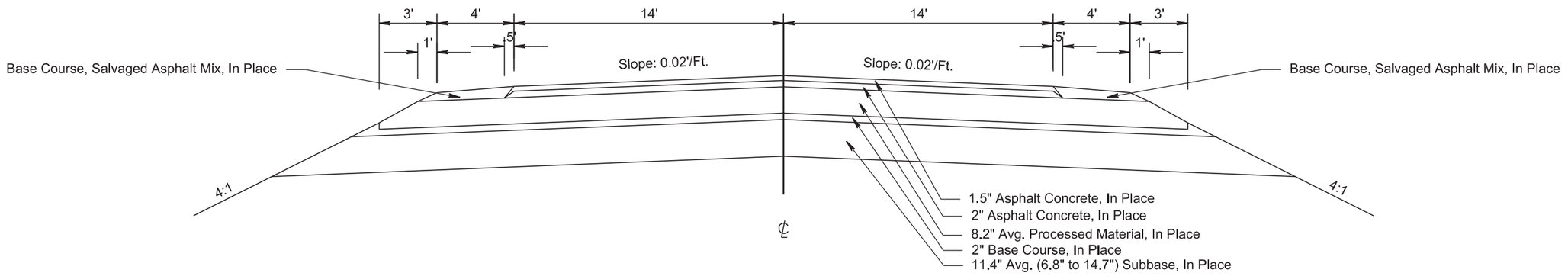
In Place Section



Section 1

SD HWY 73
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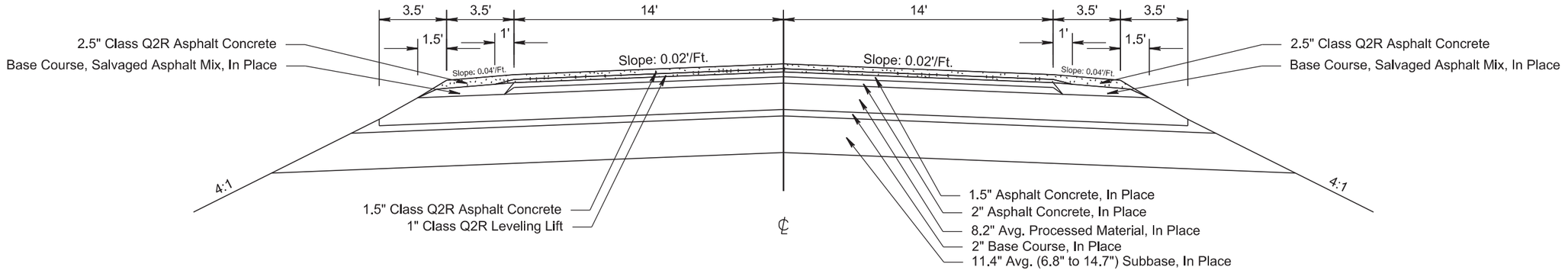
Surfacing Section



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PLOT SCALE - 1:6.00001

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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Plotting Date: 07/18/2025

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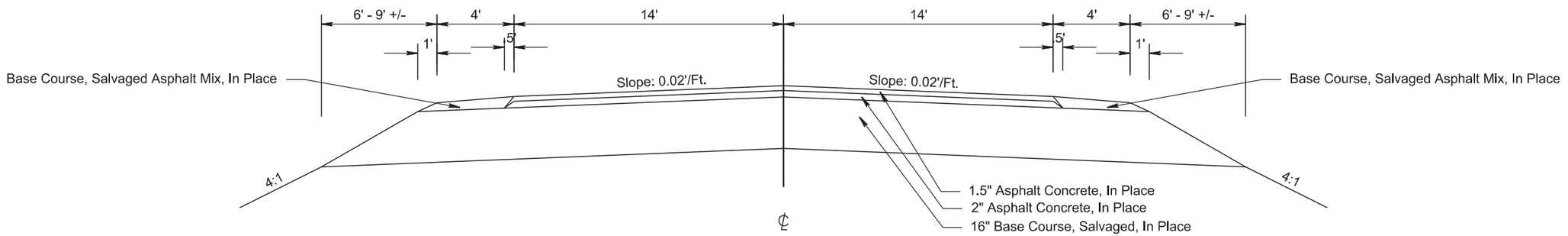
In Place Section



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Section 2

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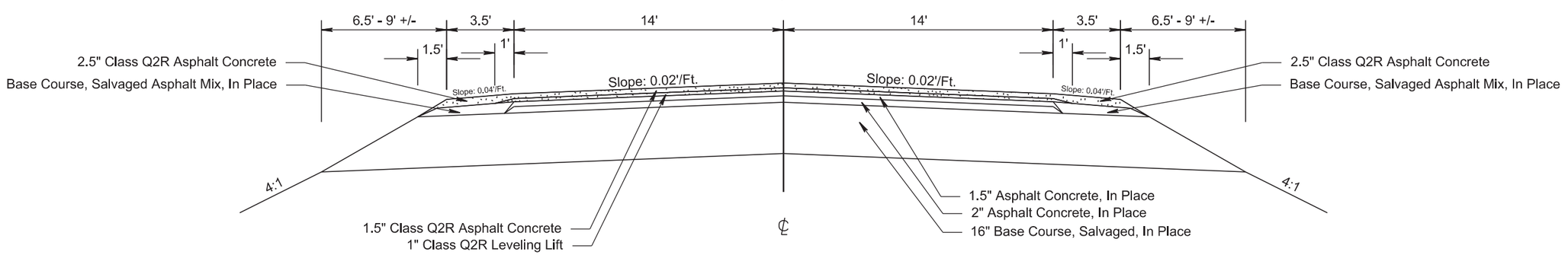
Surfacing Section



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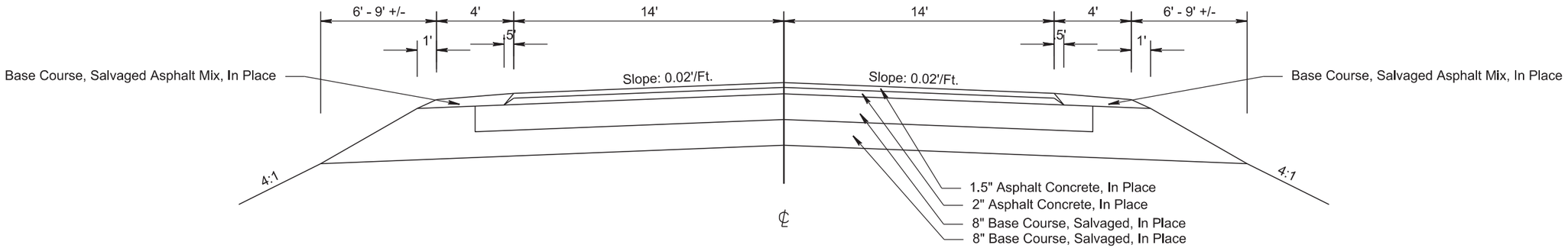
TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	22	49

Plotting Date: 07/18/2025

Section 3

SD HWY 73
Sta. b642+50.00 to Sta. b725+00.00
In Place Section



Section 3

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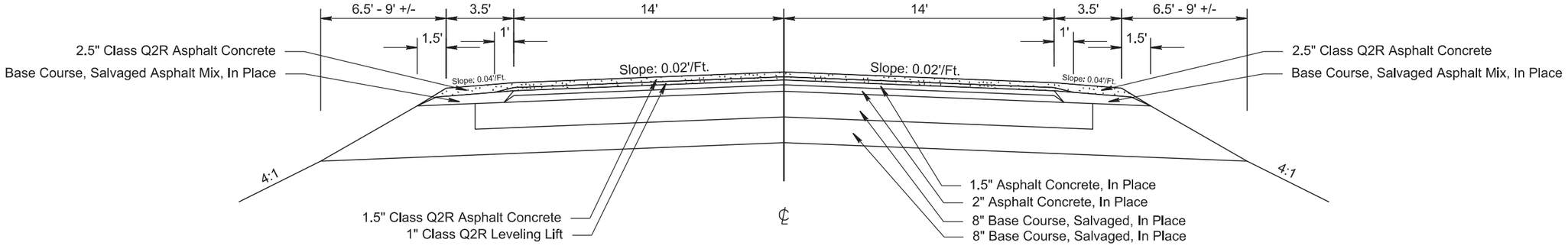
Surfacing Section



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TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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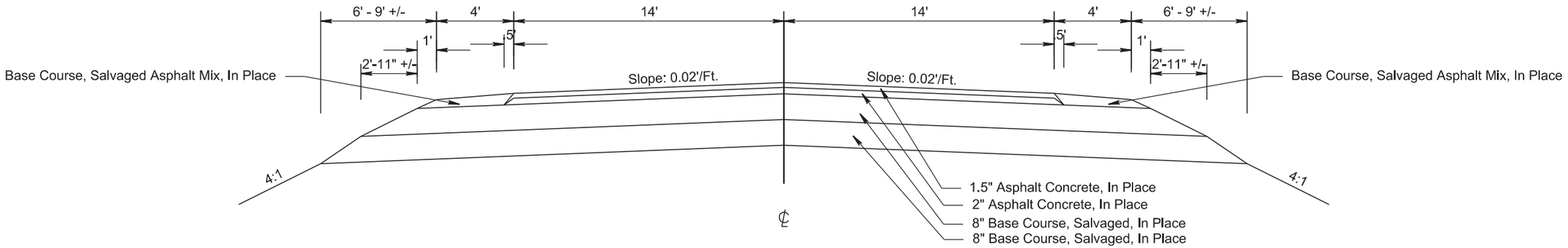
Plotting Date: 07/18/2025

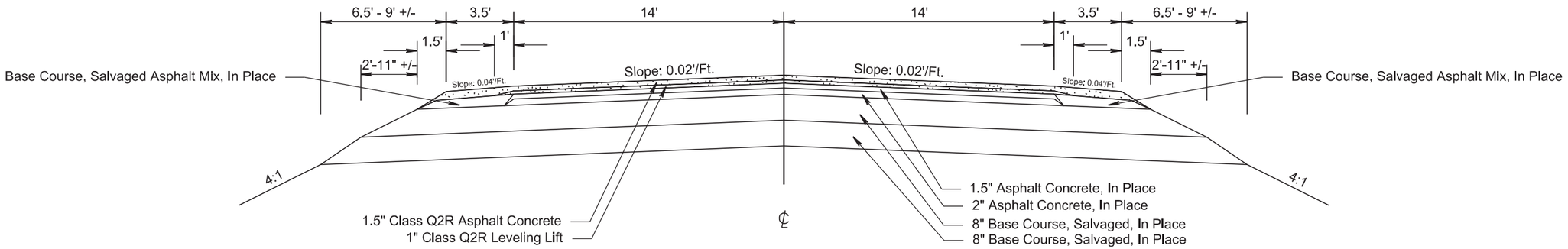
Section 4

SD HWY 73
Sta. b725+00.00 to Sta. b769+28.91
In Place Section



Section 4

SD HWY 73
Sta. b725+00.00 to Sta. b769+28.91
Surfacing Section



PLOT SCALE - 1:6.00001
PLOTTED FROM - TRPR25584
PLOT NAME - 4
FILE - ...\07Y4_TYPSECT_1.DGN

TYPICAL SURFACING SECTIONS

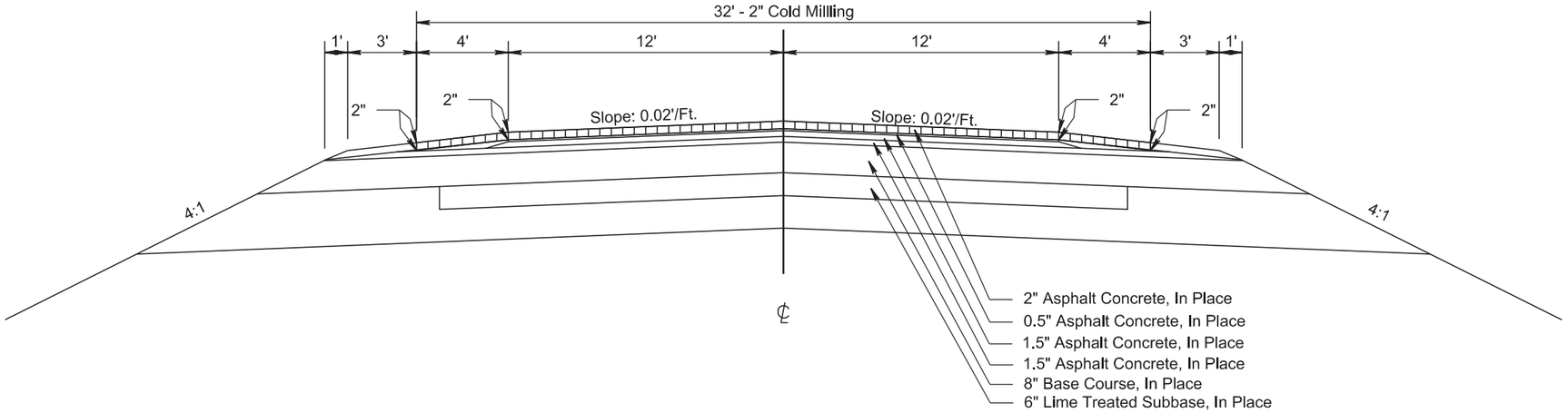
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	24	49

Plotting Date: 07/18/2025

2" Mill Asphalt Concrete

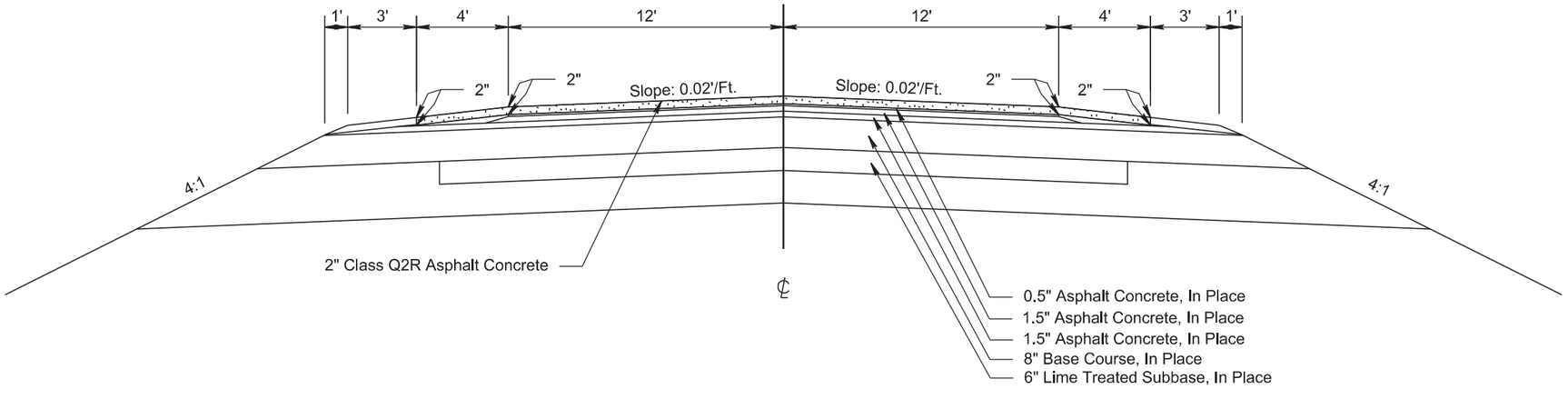
Section 5

SD HWY 73 (At Exit 143 Interchange)
Sta. b769+28.91 to Sta. b770+75.41
Sta. b777+28.81 to Sta. b780+12.19
In Place Section



Section 5

SD HWY 73 (At Exit 143 Interchange)
Sta. b769+28.91 to Sta. b770+75.41
Sta. b777+28.81 to Sta. b780+12.19
Surfacing Section



PLOT SCALE - 1:6.00001

PLOTTED FROM - TRPR25584

PLOT NAME - 5

FILE - ...\07Y4_TYPSECT_2.DGN

TYPICAL SURFACING SECTIONS

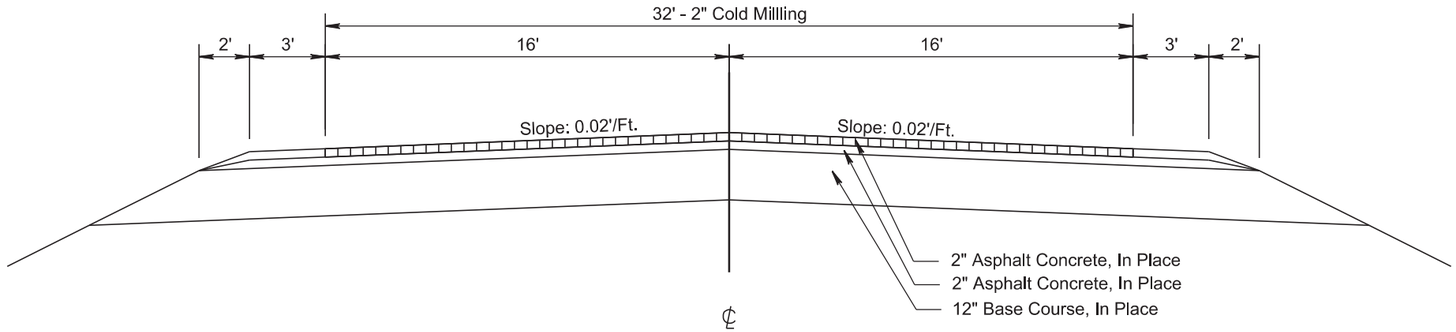
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	25	49

Plotting Date: 07/18/2025

2" Mill Asphalt Concrete

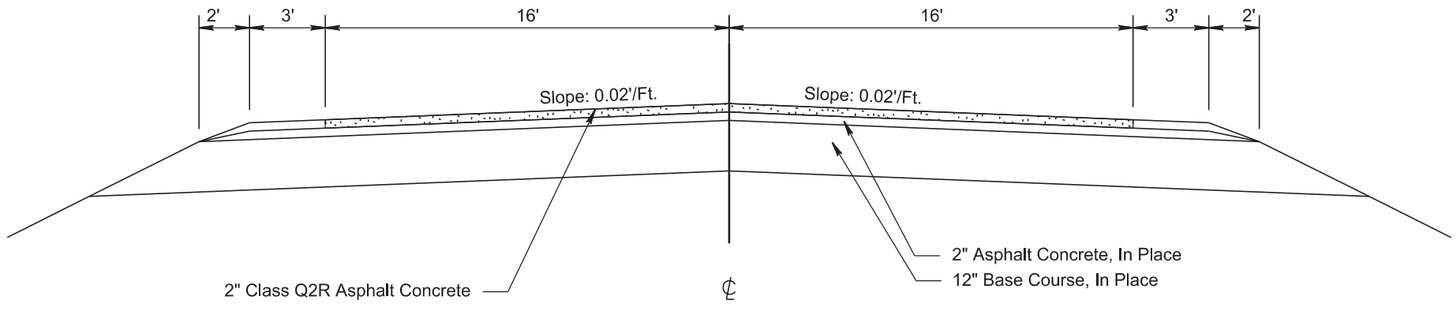
Section 6

SD HWY 73 (At Exit 143 Interchange)
Sta. b770+75.41 to Sta. b777+28.81
In Place Section



Section 6

SD HWY 73 (At Exit 143 Interchange)
Sta. b770+75.41 to Sta. b777+28.81
Surfacing Section



PLOT SCALE - 1:6.00001

PLOTTED FROM - TRPR25584

PLOT NAME - 6

FILE - ...\07Y4_TYPSECT_2.DGN

New Class 03R Asphalt Concrete

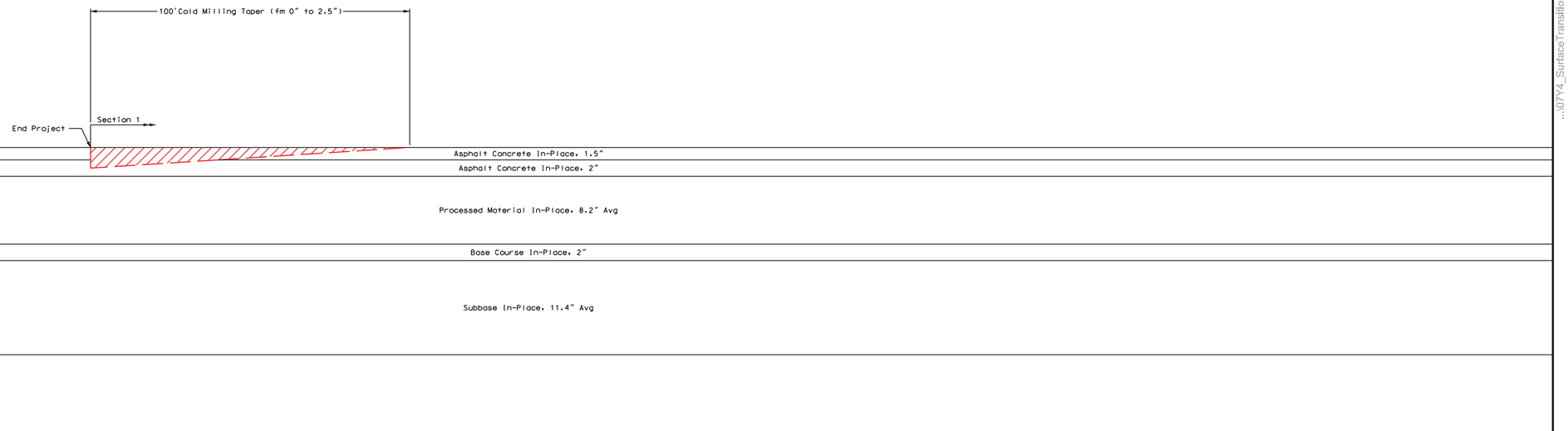
END PROJECT TAPER DETAILS

TYP. SECTION 1

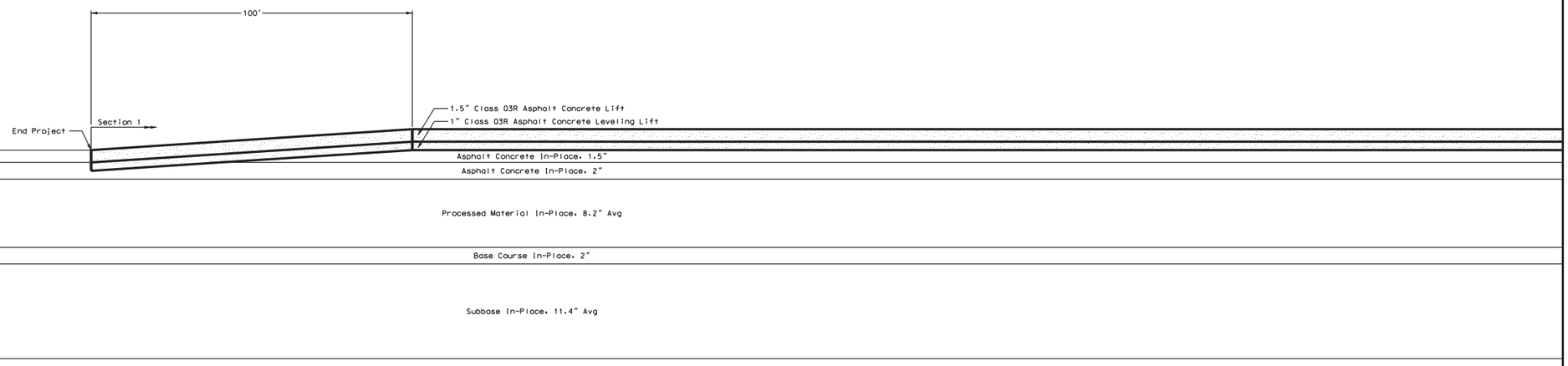
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	26	49

Plotting Date: 07/18/2025

COLD MILLING ASPHALT CONCRETE DETAIL



RESURFACING DETAIL



DRAWING NOT TO SCALE

Plot Scale - 1:6.47263
Plotted From - TRPR25584
...\07Y4_SurfaceTransitions.dgn

New Class 03R Asphalt Concrete

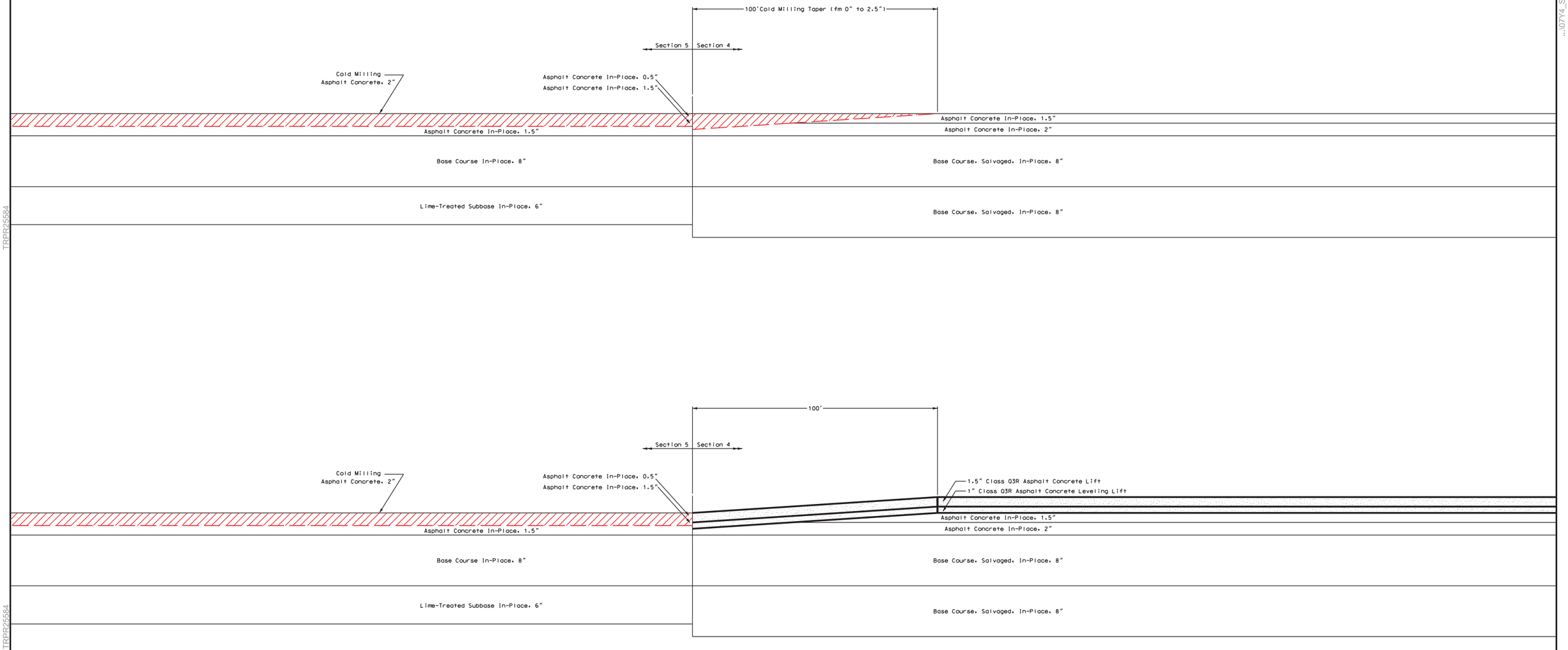
Cold Milling

MID PROJECT TAPER DETAILS

TYP. SECTION 4 TO TYP. SECTION 5

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	27	49

Plotting Date: 07/18/2025



DRAWING NOT TO SCALE

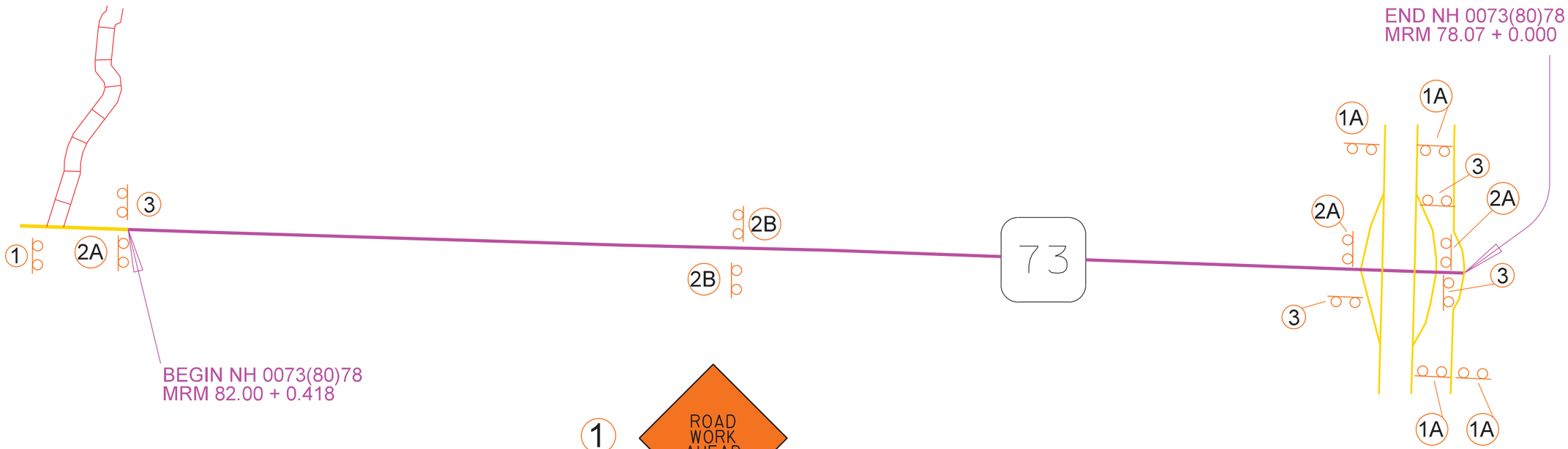
Plot Scale - 1:6.47263
TRPR25584
TRPR25584
Plotted From -
...\07Y4_SurfaceTransitions.dgn

FIXED LOCATION SIGN LAYOUT

NOT TO SCALE

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	28	49

Plotting Date: 07/18/2025



1 — ROAD WORK AHEAD — W20-1 (48" x 48")

1A — ROAD WORK AHEAD — W20-1 (48" x 48")

SD73 — W16-8P (36" x 18" INTERSTATE) (24" x12" STATE HWY)

2A — ROAD WORK NEXT 4 MILES — G20-1 (36" x 18")

2B — ROAD WORK NEXT 2 MILES — G20-1 (36" x 18")

3 — END ROAD WORK — G20-2 (36" x 18")

All fixed location signing will remain in place until permanent pavement marking is completed.

Exact location and spacing of signs shown will be determined by the Engineer in the field.

Fixed location signing will not obscure existing signs.

PLOT SCALE - 1:200
PLOTTED FROM - TRPP25584
PLOT NAME - 4
FILE - ...\0?Y4_FIXEDSIGN.DGN

CONTROL DATA

HORIZONTAL AND VERTICAL CONTROL POINTS

POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP10	b773+94.95	126.88’ R	REBAR/BARCAP	550528.163	1618032.350	2503.113’

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone (NAD83/2011); Epoch 2010.00; Geoid 18; SF = 1.0002022371. The elevations shown on this sheet are based on NAVD 88.

LEGEND

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	30	49

Plotting Date: 09/15/2020

- Anchor
- Antenna
- Approach
- Assumed Corner
- Azimuth Marker
- BBQ Grill/ Fireplace
- Bearing Tree
- Bench Mark
- Box Culvert
- Bridge
- Brush/Hedge
- Buildings
- Bulk Tank
- Cattle Guard
- Cemetery
- Centerline
- Cistern
- Clothes Line
- Concrete Symbol
- Control Point
- Creek Edge
- Curb/Gutter
- Curb
- Dam Grade/Dike/Levee
- Deck Edge
- Ditch Block
- Doorway Threshold
- Drainage Profile
- Drop Inlet
- Edge Of Asphalt
- Edge Of Concrete
- Edge Of Gravel
- Edge Of Other
- Edge Of Shoulder
- Electric Transformer/Power Junction Box
- Fence Barbwire
- Fence Chainlink
- Fence Electric
- Fence Miscellaneous
- Fence Rock
- Fence Snow
- Fence Wood
- Fence Woven
- Fire Hydrant
- Flag Pole
- Flower Bed
- Gas Valve Or Meter
- Gas Pump Island
- Grain Bin
- Guardrail
- Gutter
- Guy Pole
- Haystack
- Highway ROW Marker
- Interstate Close Gate
- Iron Pin
- Irrigation Ditch
- Lake Edge
- Lawn Sprinkler
- Mailbox
- Manhole Electric
- Manhole Gas
- Manhole Miscellaneous
- Manhole Sanitary Sewer
- Manhole Storm Sewer
- Manhole Telephone
- Manhole Water
- Merry-Go-Round
- Microwave Radio Tower
- Miscellaneous Line
- Miscellaneous Property Corner
- Miscellaneous Post
- Overhang Or Encroachment
- Overhead Utility Line — OH —
- Parking Meter
- Pedestrian Push Button Pole
- Pipe With End Section
- Pipe With Headwall
- Pipe Without End Section
- Playground Slide
- Playground Swing
- Power And Light Pole
- Power And Telephone Pole
- Power Meter
- Power Pole
- Power Pole And Transformer
- Power Tower Structure
- Propane Tank
- Property Pipe
- Property Pipe With Cap
- Property Stone
- Public Telephone
- Railroad Crossing Signal
- Railroad Milepost Marker
- Railroad Profile
- Railroad ROW Marker
- Railroad Signs
- Railroad Switch
- Railroad Track
- Railroad Trestle
- Rebar
- Rebar With Cap
- Reference Mark
- Retaining Wall
- Riprap
- River Edge
- Rock And Wire Baskets
- Rockpiles
- Satellite Dish
- Septic Tank
- Shrub Tree
- Sidewalk
- Sign Face
- Sign Post
- Slough Or Marsh
- Spring
- Stream Gauge
- Street Marker
- Subsurface Utility Exploration Test Hole
- Telephone Fiber Optics — T/F —
- Telephone Junction Box
- Telephone Pole
- Television Cable Jct Box
- Television Tower
- Test Wells/Bore Holes
- Traffic Sign Double Face
- Traffic Sign One Post
- Traffic Sign Two Post
- Traffic Signal
- Trash Barrel
- Tree Belt
- Tree Coniferous
- Tree Deciduous
- Tree Stumps
- Triangulation Station
- Underground Electric Line — P —
- Underground Gas Line — G —
- Underground High Pressure Gas Line — HG —
- Underground Sanitary Sewer — S —
- Underground Storm Sewer — S —
- Underground Tank
- Underground Telephone Line — T —
- Underground Television Cable — TV —
- Underground Water Line — W —
- Water Fountain
- Water Hydrant
- Water Meter
- Water Tower
- Water Valve
- Water Well
- Weir Rock
- Windmill
- Wingwall
- Witness Corner

- State and National Line
- County Line
- Section Line
- Quarter Line
- Sixteenth Line
- Property Line
- Construction Line
- ROW Line
- New ROW Line
- Cut and Fill Limits
- Control of Access
- New Control of Access
- Proposed ROW (After Property Disposal)

- Drainage Arrow

- Remove Concrete Pavement
- Remove Concrete Driveway Pavement
- Remove Asphalt Concrete Pavement
- Remove Concrete Sidewalk
- Remove Concrete Median Pavement
- Remove Concrete Curb and/or Gutter

- Detectable Warning
- Pedestrian Push Button Pole and 30" x 48" Clear Space with 1.5% slope

Plot Scale - 1:200

Plotted From - TRPR14419

C:\Work\Legend.dgn

File -

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	31	49

Plotting Date: 07/18/2025

b585+05 L
Remove 24" RCP Flared End

b585+05 L
Furnish + Install 24" RCP Flared End

b585+05 R
Furnish + Install 24" RCP Flared End

b585+05 R
Remove 24" RCP Flared End

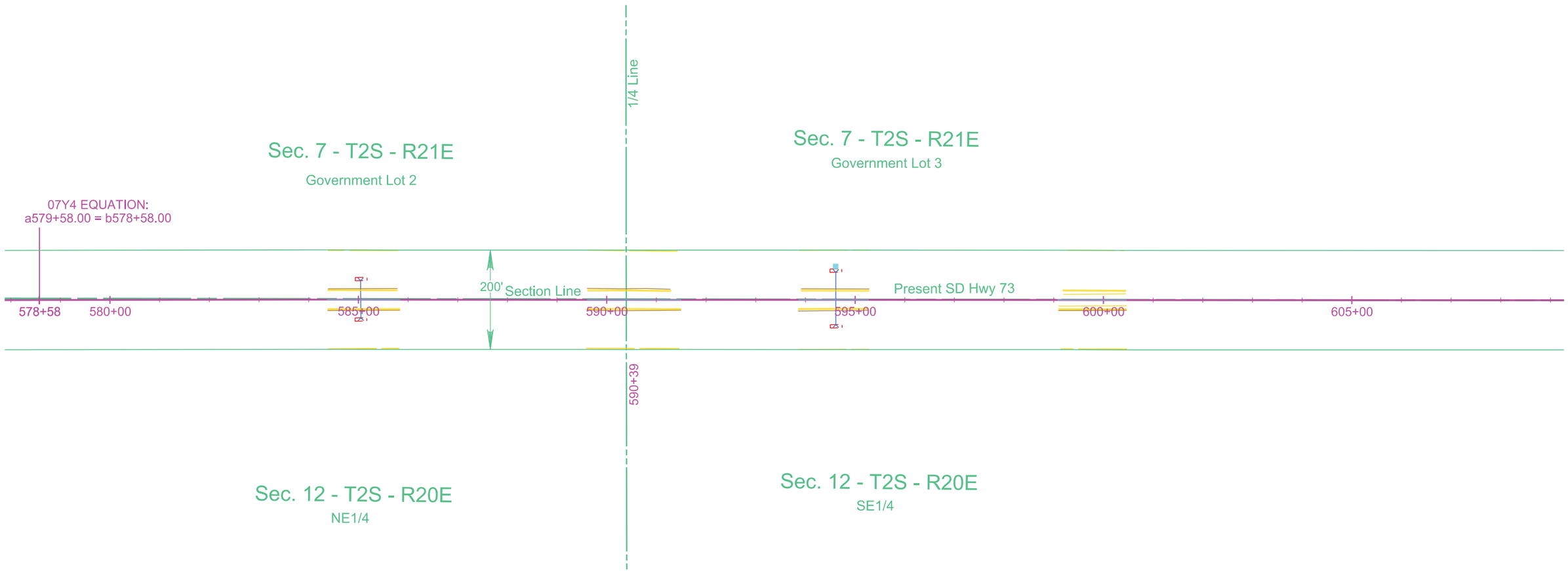
b594+61 L
Remove 36" RCP Flared End for Reset

b594+61 L
Reset 36" RCP Flared End

b594+61 L
Install Bank and Channel Protection Gabions (6.0 CuYd) and Type B Drainage Fabric (19.0 SqYd)

b594+61 R
Furnish + Install 36" RCP Flared End

b594+61 R
Remove 36" RCP Flared End



PLOT SCALE - 1:200

PLOT NAME - 5

FILE ...\07Y4_1.DGN

PLOTTED FROM - TRPR25584

PLOT SCALE - 1:200

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	32	49

Plotting Date: 07/18/2025

b615+29 L/R
Remove Cattle Pass
End Sections

b615+29 L/R
Plug Cattle Pass
(Cellular Grout, 87.4
CuYd)

b618+55 L
Remove 42" RCP Flared
End for Reset

b618+55 L
Reset 42" RCP Flared End

b618+55 L
Install Bank and Channel
Protection Gabions (10.0 CuYd)
amd Type B Drainage Fabric
(29.0 SqYd)

b626+41 L
Ditch Reprofiling
(0.7 Sta x 0.45 Sta)

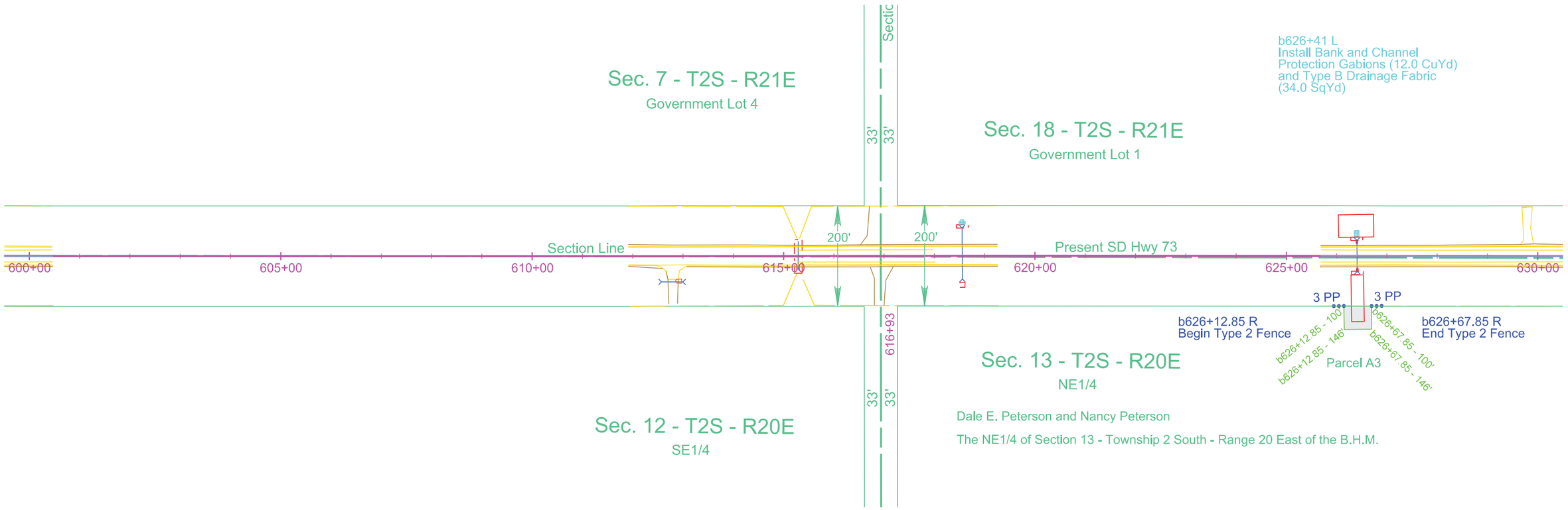
b626+41 L
Remove 54" RCP Flared
End for Reset

b626+41 L
Remove 6" 54" RCP for
Reset

b626+41 L
Reset 54" RCP Flared End

b626+41 L
Reset 6' 54" RCP

b626+41 L
Install Bank and Channel
Protection Gabions (12.0 CuYd)
and Type B Drainage Fabric
(34.0 SqYd)



Dale E. Peterson and Nancy Peterson

The NE1/4 of Section 13 - Township 2 South - Range 20 East of the B.H.M.

b626+41 R
Furnish + Install 54" RCP
Flared End

b626+41 R
Remove 54" RCP Flared
End

b626+41 R
Reset 6' 54" RCP

b618+55 R
Fill Scour Hole (Contractor
Furnished Borrow Excavation,
3.7 CuYd)

Parcel A3
b626+12.85 to b626+67.85 R
Temporary Easement containing
0.06 ac, more or less

b626+41 R
Ditch Reprofiling
(0.9 Sta x 0.25 Sta)

b626+41 R
Remove 6' 54" RCP for
Reset

PLOTTED FROM - TRPR25584
PLOT NAME - 6
FILE - ...\07Y4_2.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	33	49

Plotting Date: 07/18/2025

b634+15 L
Ditch Reprofiling
(0.4 Sta x 0.25 Sta)

b640+16 L
Remove 18" RCP Flared
End for Reset

b645+89 L
Ditch Reprofiling
(0.9 Sta x 0.2 Sta)

b657+16 L
Remove 24" RCP Flared
End

b634+15 L
Remove 30" RCP Flared
End

b634+15 L
Remove 6' 30" RCP
for Reset

b640+16 L
Reset 18" RCP Flared End

b657+16 L
Furnish + Install 24" RCP
Flared End

b634+15 L
Furnish + Install 30" RCP
Flared End

b634+15 L
Reset 6' 30" RCP

b634+15 L
Install Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric
(19.0 SqYd)

Jean Weller

Government Lot 3 in Section 18 - Township 2 South - Range 21 East
of the B.H.M. except Lot H-1 in the SW1/4

Sec. 18 - T2S - R21E
Government Lot 2

b645+64.18 L
Begin Type 2 Fence

b646+14.18 L
End Type 2 Fence

Sec. 18 - T2S - R21E
Government Lot 3

Government Lot 4

1/4 Line

b645+64.18 - 147'
b645+64.18 - 100'
Parcel A4
b646+14.18 - 147'
b646+14.18 - 100'

3 PP
3 PP

Present SD Hwy 73

630+00
635+00
640+00
200'
645+00
650+00
Section Line
655+00
660+00

3 PP
3 PP

b645+64.18 - 100'
b645+64.18 - 147'
Parcel A5
b646+14.18 - 100'
b646+14.18 - 147'

b646+14.18 R
End Type 2 Fence

Sec. 13 - T2S - R20E
SE1/4

b645+64.18 R
Begin Type 2 Fence

Dale E. Peterson and Nancy Peterson

The SE1/4 of Section 13 - Township 2 South - Range 20 East of the B.H.M.
except Lot H-1 therein

643+29

Sec. 13 - T2S - R20E
NE1/4

b634+15 R
Furnish + Install 30" RCP
Flared End

b634+15 R
Reset 6' 30" RCP

b634+15 R
Remove 30" RCP Flared
End

b634+15 R
Remove 6' 30" RCP
for Reset

b640+16 R
Reset 18" RCP Flared End

Parcel A4
b645+64.18 to b646+14.18 L
Temporary Easement containing
0.05 ac, more or less

b657+16 R
Furnish + Install 24" RCP
Flared End

b634+15 R
Ditch Reprofiling
(2.0 Sta x 0.25 Sta)

b640+16 R
Remove 18" RCP Flared
End for Reset

b645+89 R
Ditch Reprofiling
(0.9 Sta x 0.2 Sta)

Parcel A5
b645+64.18 to b646+14.18 R
Temporary Easement containing
0.05 ac, more or less

b657+16 R
Remove 24" RCP Flared
End

PLOT SCALE - 1:200

PLOT NAME - 7

PLOTTED FROM - TRPR25584

FILE - ...\07Y4_3.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	34	49

Plotting Date: 07/18/2025

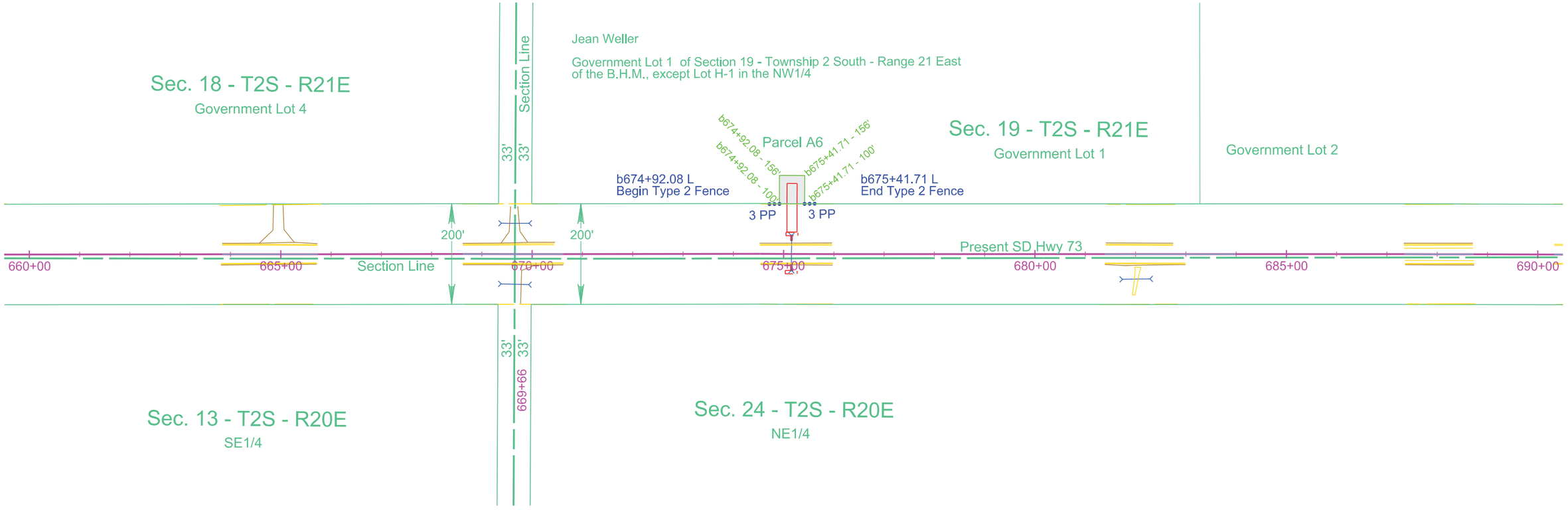
b675+16 L
Ditch Reprofiling
(1.0 Sta x 0.2 Sta)

b675+16 L
Remove 30" RCP Flared End

b675+16 L
Remove 12' 30" RCP for Reset

b675+16 L
Furnish + Install 30" RCP Flared End

b675+16 L
Reset 12' 30" RCP



b675+16 R
Furnish + Install 30" RCP Flared End

b675+16 R
Reset 12' 30" RCP

b675+16 R
Remove 30" RCP Flared End

b675+16 R
Remove 12' 30" RCP for Reset

Parcel A6
b674+92.08 to b675+41.71 L
Temporary Easement containing
0.06 ac, more or less

PLOT SCALE - 1:200

PLOT NAME - 8

FILE - ...\0714_4.DGN

PLOTTED FROM - TRPR25584

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	35	49

Plotting Date: 07/18/2025

b690+98 L
Remove 24" RCP Flared End

b690+98 L
Remove 6' 24" RCP for Reset

b690+98 L
Furnish + Install 24" RCP Flared End

b690+98 L
Reset 6' 24" RCP

b704+75 L
Ditch Reprofiling (0.3 Sta x 0.25 Sta)

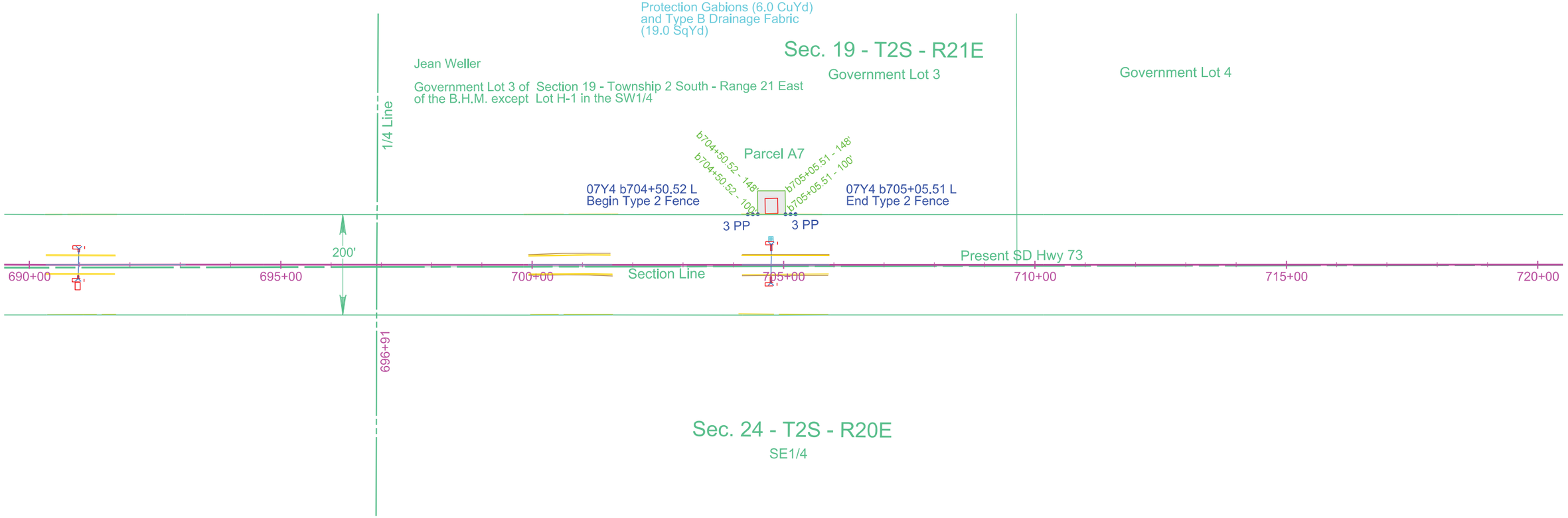
b704+75 L
Remove 36" RCP Flared End

b704+75 L
Remove 12' 36" RCP for Reset

b704+75 L
Furnish + Install 36" RCP Flared End

b704+75 L
Reset 12' 36" RCP

b704+75 L
Install Bank and Channel Protection Gabions (6.0 CuYd) and Type B Drainage Fabric (19.0 SqYd)



b690+98 R
Furnish + Install 24" RCP Flared End

b690+98 R
Reset 6' 24" RCP

b690+98 R
Remove 24" RCP Flared End

b690+98 R
Remove 6' 24" RCP for Reset

b690+98 R
Ditch Reprofiling (0.2 Sta x 0.1 Sta)

b704+75 R
Furnish + Install 36" RCP Flared End

b704+75 R
Reset 12' 36" RCP

b704+75 R
Remove 36" RCP Flared End

b704+75 R
Remove 12' 36" RCP for Reset

Parcel A7
b704+50.52 to b705+05.51 L
Temporary Easement containing 0.06 ac, more or less

PLOT SCALE - 1:200
PLOT NAME - 9
PLOTTED FROM - TRPP25584
FILE - ...\07Y4_5.DGN

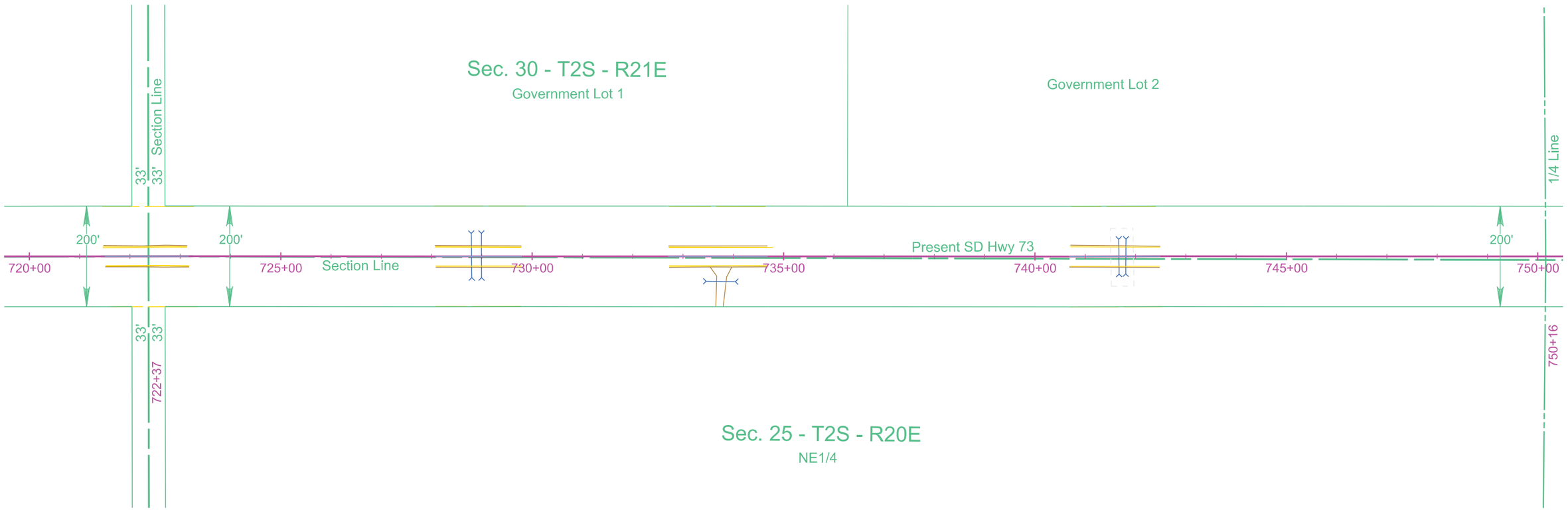
b728+89 L/R
Retain Twin Arch RCPs
and Flared End Sections

b741+67 L/R
Cleanout 36" RCPs
for Culvert Treatment

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	36	49

Plotting Date: 07/18/2025 Revised 07/29/2025 JDC

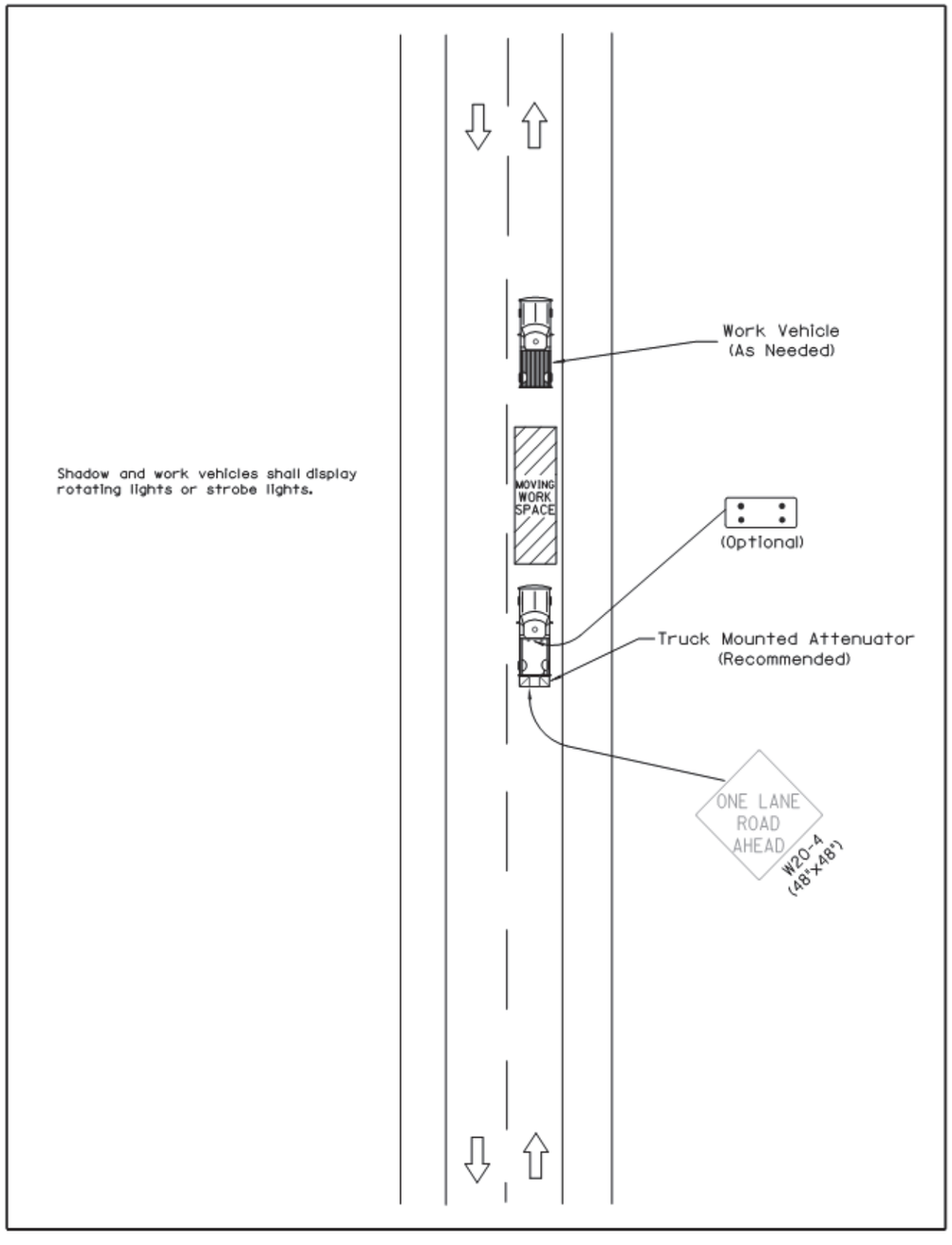
b741+67 L/R
36" Cured-in-Place Pipe
(138 Ft)

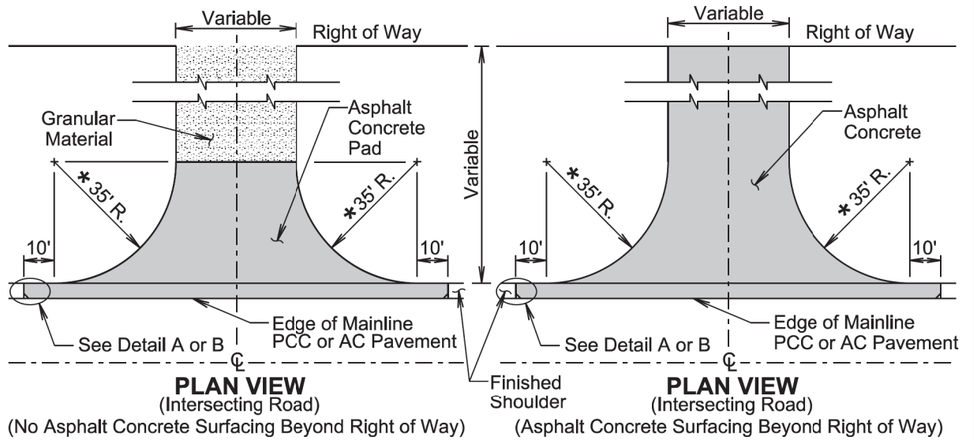


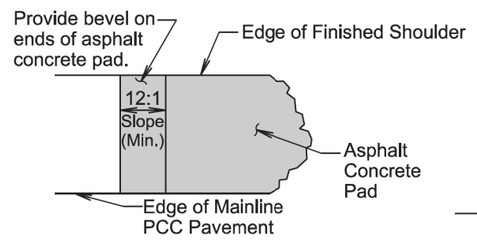
PLOT SCALE - 1:200
PLOT NAME - 1
PLOTTED FROM - TRPR25584
FILE - ...\0714_6.DGN

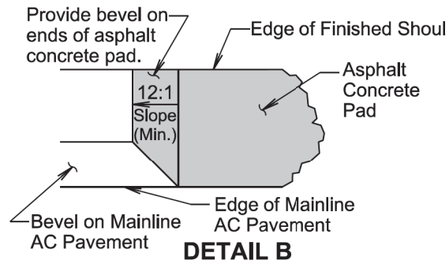
SPECIAL DETAIL FOR MOBILE OPERATION FOR ASPHALT CORING

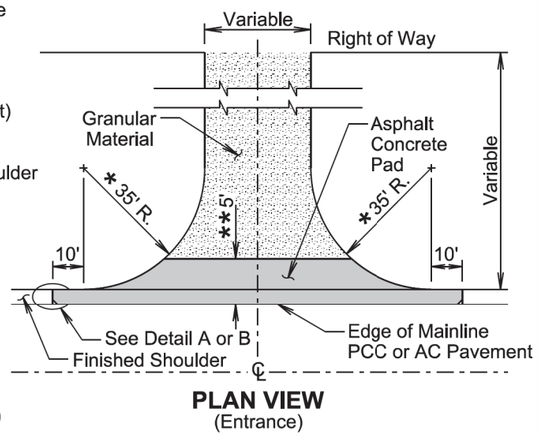
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0073(80)78	37	49











GENERAL NOTES:

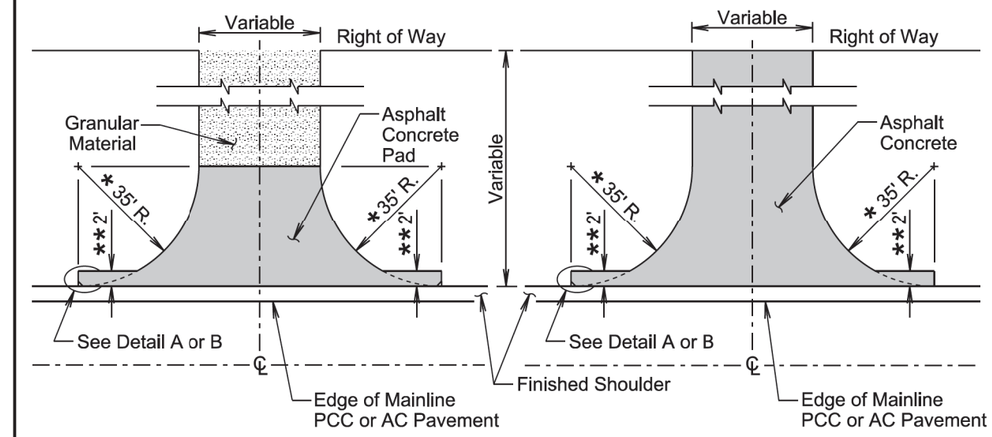
The precise construction limits for situations other than shown above will be determined by the Engineer during construction.

* For new construction, 35' radius typical or as specified in the plans. For resurfacing projects, radius is variable depending on existing conditions.

** For shoulder widths < 4', the Asphalt Concrete Pad width must be 5'. For shoulders widths of 4' or more, pave the full width of the shoulder only.

August 27, 2020

Published Date: 2026	SDDOT	SURFACING OR RESURFACING OF INTERSECTING ROADS AND ENTRANCES (SHOULDERS: GRANULAR MATERIAL OR COLD RECYCLED MATERIAL)	PLATE NUMBER 320.01 Sheet 1 of 1



GENERAL NOTES:

The precise construction limits for situations other than shown above will be determined by the Engineer during construction.

* For new construction, 35' radius typical or as specified in the plans. For resurfacing projects, radius is variable depending on existing conditions.

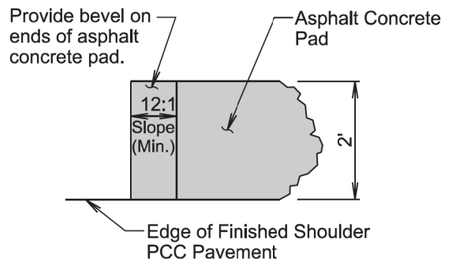
** The Contractor may adjust the screed of the paver during mainline paving operations to provide the 2-foot asphalt concrete pad or the Contractor may provide the 2-foot asphalt concrete pad during paving of the intersecting roads as shown above. The Engineer may eliminate the 2-foot asphalt concrete pads if the Engineer, in the Engineer's sole discretion, determines the pads are infeasible to construct due to site specific reasons including, but not limited to; existing inslope configuration, borrow and material availability, and right-of-way constraints.

August 27, 2020

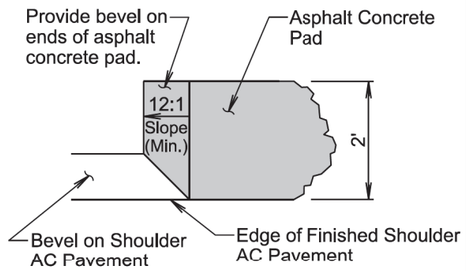
Published Date: 2026	SDDOT	SURFACING OR RESURFACING OF INTERSECTING ROADS AND ENTRANCES (MAINLINE AND SHOULDERS: PCC OR AC PAVEMENT)	PLATE NUMBER 320.04 Sheet 1 of 2

PLOT SCALE - 1:200
PLOT NAME - 7
FILE - ...\0714_STDPLATES.DGN
-PLOTTED FROM - TRPR25584

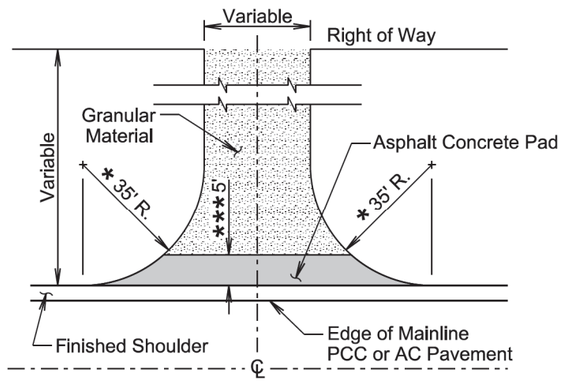
PLOT SCALE - 1:200



DETAIL A
(Typ. for Projects with PCC Pavement on Shoulder)



DETAIL B
(Typ. for Projects with AC Pavement on Shoulder)

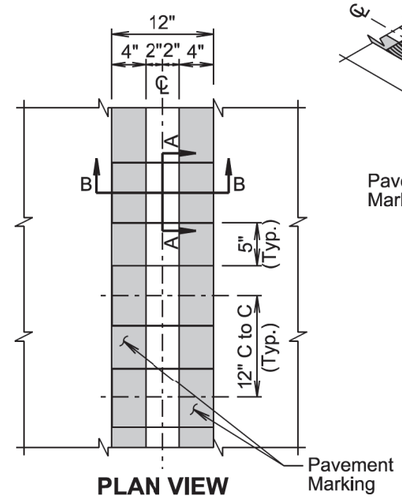


PLAN VIEW
(Entrance)

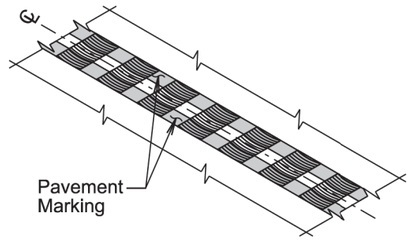
*** Not required if finished shoulder width is 4' or greater.

August 27, 2020

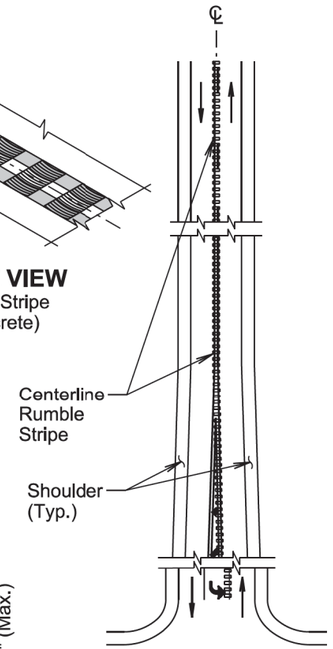
Published Date: 2026	SDDOT	SURFACING OR RESURFACING OF INTERSECTING ROADS AND ENTRANCES (MAINLINE AND SHOULDERS: PCC OR AC PAVEMENT)	PLATE NUMBER 320.04
			Sheet 2 of 2

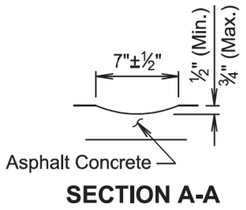


PLAN VIEW
(Typical Rumble Stripe in Asphalt Concrete)

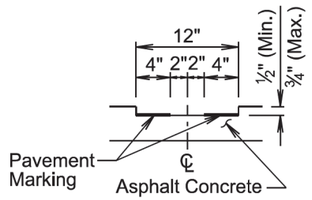


PERSPECTIVE VIEW
(Typical Rumble Stripe in Asphalt Concrete)





SECTION A-A



SECTION B-B

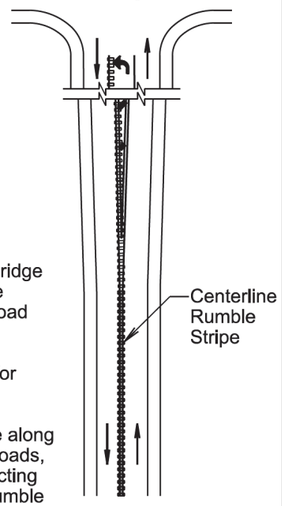
GENERAL NOTES:

A rumble stripe will be constructed on the centerline of the roadway by grinding continuous indentations in the asphalt concrete. The rumble stripe will receive a flush seal or asphalt surface treatment as specified in the plans.

A rumble stripe will not be constructed through intersecting roads, bridge decks, bridge approach slabs, and railroad crossings. The beginning and ending locations of the rumble stripe at intersecting roads, bridge decks, bridge approach slabs, and railroad crossings will be adjusted as approved by the Engineer.

Prior to constructing the rumble stripe the Contractor will submit to the Engineer, for approval, the proposed method of constructing the rumble stripe.

Measurement and payment of the rumble stripe will be to the nearest 0.1 of a mile along the centerline and will include segments without the rumble stripe at intersecting roads, bridge decks, bridge approach slabs, and railroad crossings. Payment for constructing the rumble stripe will be at the contract unit price per mile for "Grind Centerline Rumble Stripe in Asphalt Concrete".

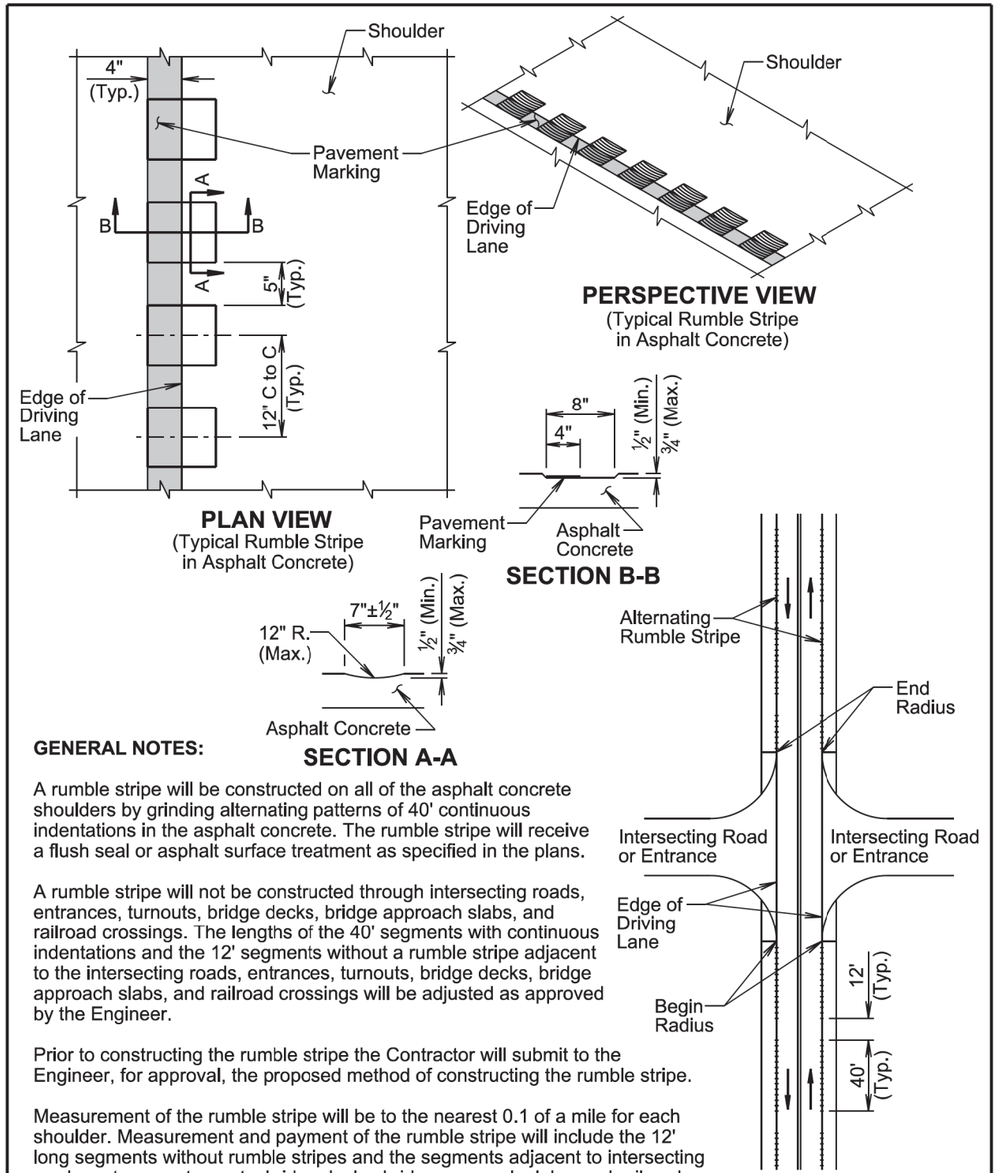


PLAN VIEW

November 19, 2020

Published Date: 2026	SDDOT	12" CENTERLINE RUMBLE STRIPE IN ASPHALT CONCRETE	PLATE NUMBER 320.18
			Sheet 1 of 1

PLOT NAME - 8
FILE - ...\0714_STDPLATES.DGN
-PLOTTED FROM - TRPR25584



GENERAL NOTES:

A rumble stripe will be constructed on all of the asphalt concrete shoulders by grinding alternating patterns of 40' continuous indentations in the asphalt concrete. The rumble stripe will receive a flush seal or asphalt surface treatment as specified in the plans.

A rumble stripe will not be constructed through intersecting roads, entrances, turnouts, bridge decks, bridge approach slabs, and railroad crossings. The lengths of the 40' segments with continuous indentations and the 12' segments without a rumble stripe adjacent to the intersecting roads, entrances, turnouts, bridge decks, bridge approach slabs, and railroad crossings will be adjusted as approved by the Engineer.

Prior to constructing the rumble stripe the Contractor will submit to the Engineer, for approval, the proposed method of constructing the rumble stripe.

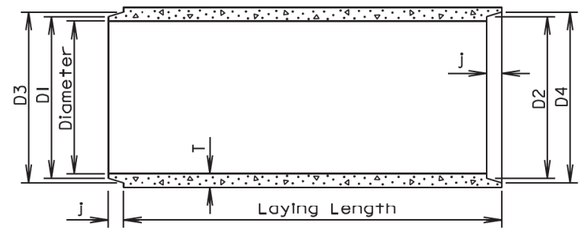
Measurement of the rumble stripe will be to the nearest 0.1 of a mile for each shoulder. Measurement and payment of the rumble stripe will include the 12' long segments without rumble stripes and the segments adjacent to intersecting roads, entrances, turnouts, bridge decks, bridge approach slabs, and railroad crossings without rumble stripes. Payment for constructing the rumble stripe will be at the contract unit price per mile for "Grind 8" Rumble Strip or Stripe in Asphalt Concrete".

September 14, 2019

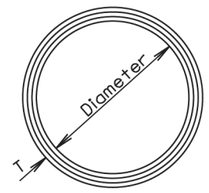
Published Date: 2026	SDDOT	8" RUMBLE STRIPE IN ASPHALT CONCRETE ON NONDIVIDED HIGHWAY SHOULDERS	PLATE NUMBER 320.20
			Sheet 1 of 1

TOLERANCES IN DIMENSIONS

Diameter: ±1.5% for 24" Dia. or less and ±1% or 3/8" whichever is more for 27" Dia. or greater.
Diameters at joints: ± 3/16" for 30" Dia. or less and ± 1/4" for 36" or greater.
Length of joint (j): ± 1/4".
Wall thickness (T): not less than design T by more than 5% or 3/16", whichever is greater.
Laying length: shall not underrun by more than 1/2".



LONGITUDINAL SECTION



END VIEW

GENERAL NOTES:

Construction of R.C.P. shall conform to the requirements of Section 990 of the Specifications.

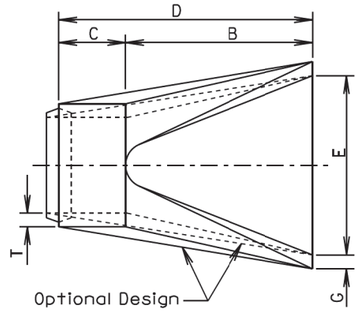
Not more than 2 four-foot sections shall be permitted near the ends of any culvert. Four-foot lengths shall be used only to secure the required length of culvert.

Diam. (in.)	Approx. Wt. /Ft. (lb.)	T (in.)	J (in.)	D1 (in.)	D2 (in.)	D3 (in.)	D4 (in.)
12	92	2	1¾	13¼	13⅝	13⅞	14¼
15	127	2¼	2	16½	16⅞	17¼	17⅝
18	168	2½	2¼	19⅝	20	20⅜	20¾
21	214	2¾	2½	22⅞	23¼	23¾	24⅛
24	265	3	2¾	26	26⅜	27	27⅜
27	322	3¼	3	29¼	29⅝	30¼	30⅝
30	384	3½	3¼	32⅜	32¾	33½	33⅞
36	524	4	3¾	38¾	39¼	40	40½
42	685	4½	4	45⅛	45⅝	46½	47
48	867	5	4½	51½	52	53	53½
54	1070	5½	4½	57⅞	58⅜	59⅜	59⅞
60	1296	6	5	64¼	64¾	66	66½
66	1542	6½	5½	70⅝	71⅛	72½	73
72	1810	7	6	77	77½	79	79½
78	2098	7½	6½	83⅜	83⅞	85⅝	86⅛
84	2410	8	7	89¾	90¼	92⅛	92⅝
90	2740	8½	7	95¾	96¼	98⅛	98⅝
96	2950	9	7	102⅛	102⅝	104½	105
102	3075	9½	7½	109	109½	111½	112
108	3870	10	7½	115½	116	118	118½

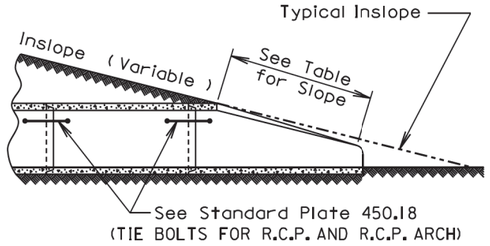
June 26, 2015

Published Date: 2026	SDDOT	REINFORCED CONCRETE PIPE	PLATE NUMBER 450.01
			Sheet 1 of 1

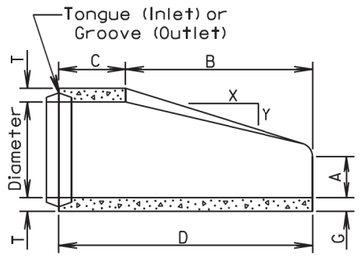
PLOT SCALE - 1:200
PLOT NAME - 9
FILE - ...\07Y4_STDPLATES.DGN
-PLOTTED FROM - TRPR25584



TOP VIEW



SLOPE DETAIL

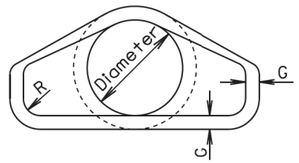


LONGITUDINAL SECTION

GENERAL NOTES:

Lengths of concrete pipe shown on plan sheets are between flared ends only.

Construction of R.C.P. Flared End shall conform to the requirements of Section 990 of the Specifications.



END VIEW

Dia. (in.)	Approx. Wt. of Section (lbs.)	Approx. Slope (X to Y)	T (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	G (in.)	R (in.)
12	530	2.4:1	2	4	24	48⅞	72⅞	24	2	1½
15	740	2.4:1	2¼	6	27	46	73	30	2¼	1½
18	990	2.3:1	2½	9	27	46	73	36	2½	1½
21	1280	2.4:1	2¾	9	36	37½	73½	42	2¾	1½
24	1520	2.5:1	3	9½	43½	30	73½	48	3	1½
27	1930	2.5:1	3¼	10½	49½	24	73½	54	3¼	1½
30	2190	2.5:1	3½	12	54	19¾	73¾	60	3½	1½
36	4100	2.5:1	4	15	63	34¾	97¾	72	4	1½
42	5380	2.5:1	4½	21	63	35	98	78	4½	1½
48	6550	2.5:1	5	24	72	26	98	84	5	1½
54	8240	2:1	5½	27	65	33¼	98¼	90	5½	1½
60	8730	1.9:1	6	35	60	39	99	96	5	1½
66	10710	1.7:1	6½	30	72	27	99	102	5½	1½
72	12520	1.8:1	7	36	78	21	99	108	6	1½
78	14770	1.8:1	7½	36	90	21	111	114	6½	1½
84	18160	1.6:1	8	36	90½	21	111½	120	6½	1½
90	20900	1.5:1	8½	41	87½	24	111½	132	6½	6

June 26, 2015

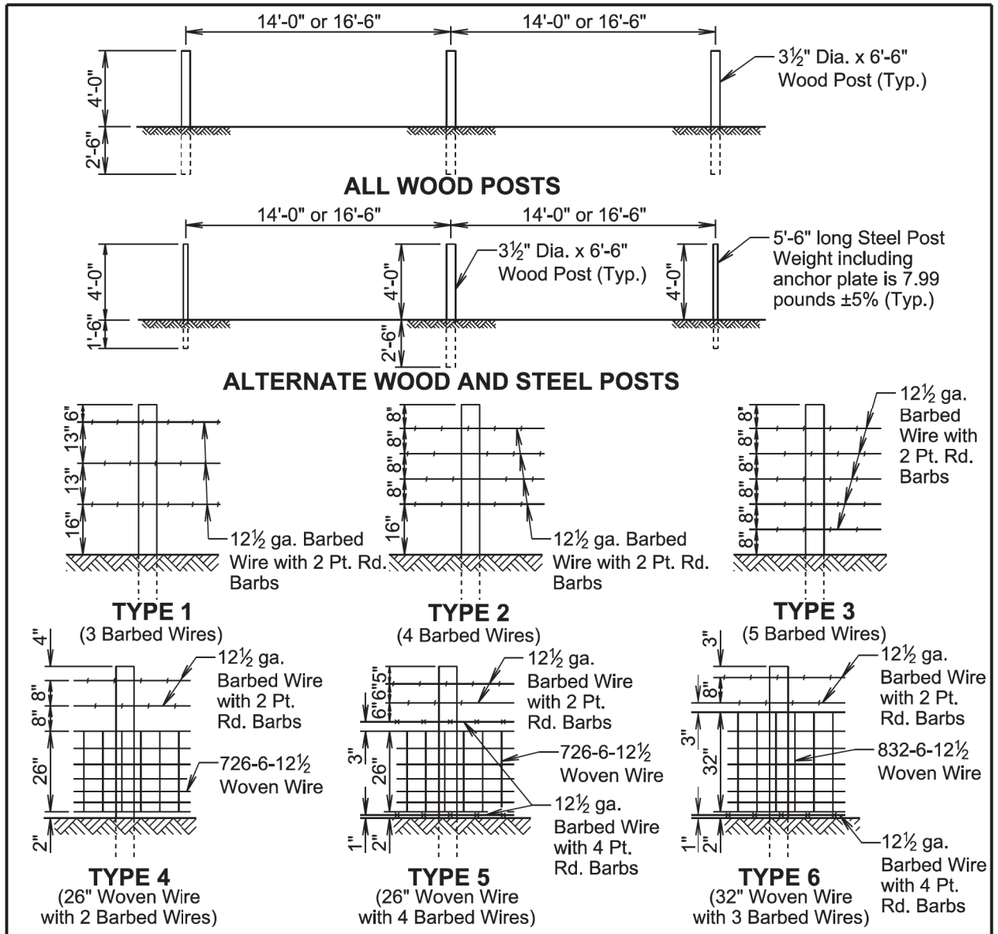
Published Date: 2026

SDDOT

R. C. P. FLARED ENDS

PLATE NUMBER 450.10

Sheet 1 of 1



TYPE	DESCRIPTION	LINE POST SPACING	BARBED WIRE: WIRE GAGE	BARBED WIRE: NUMBER AND SHAPE OF BARBS	WOVEN WIRE: STYLE OR DESIGN NO.
1	3 Barbed Wires	16'-6"	12½	2 Point Round	—
2	4 Barbed Wires	16'-6"	12½	2 Point Round	—
3	5 Barbed Wires	16'-6"	12½	2 Point Round	—
4	26" Woven Wire with 2 Barbed Wires	14'-0"	12½	2 Point Round	726-6-12½
5	26" Woven Wire with 4 Barbed Wires	14'-0"	12½	2 wires with 2 Pt. Rd. 2 wires with 4 Pt. Rd.	726-6-12½
6	32" Woven Wire with 3 Barbed Wires	14'-0"	12½	2 wires with 2 Pt. Rd. 1 wire with 4 Pt. Rd.	832-6-12½

GENERAL NOTES:

Fence types designated on the plans that are followed by the letter S will have smooth (barbless) wires.

When type 5S or 6S is designated the bottom wire may be barbed, smooth, or left off.

All radius of curvature stated for fence are at centerline of roadway.

April 8, 2025

Published Date: 2026

SDDOT

RIGHT-OF-WAY FENCE

PLATE NUMBER 620.01

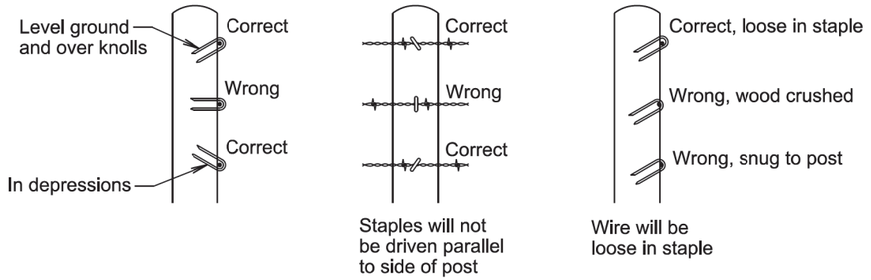
Sheet 1 of 1

PLOT SCALE - 1:200

PLOT NAME - 10

FILE - ...\07Y4_STDPLATES.DGN

PLOTTED FROM - TRPR25584



STAPLE INSTALLATION

GENERAL NOTES:

The Right-of-Way fence will consist of barbed wire or a combination of woven wire and barbed wire. The barbed wire and/or woven wire will be fastened to all wood posts or fastened to alternating wood and steel posts. Only wood posts will be used for brace panels. Gates will be of the type designated in the plans or as otherwise directed by the Engineer. Fence will be constructed conforming to the details on the standard plates and in the plans unless otherwise directed by the Engineer.

Right-of-Way fence on Interstate Projects will be constructed one foot within the Interstate Right-of-Way lines except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

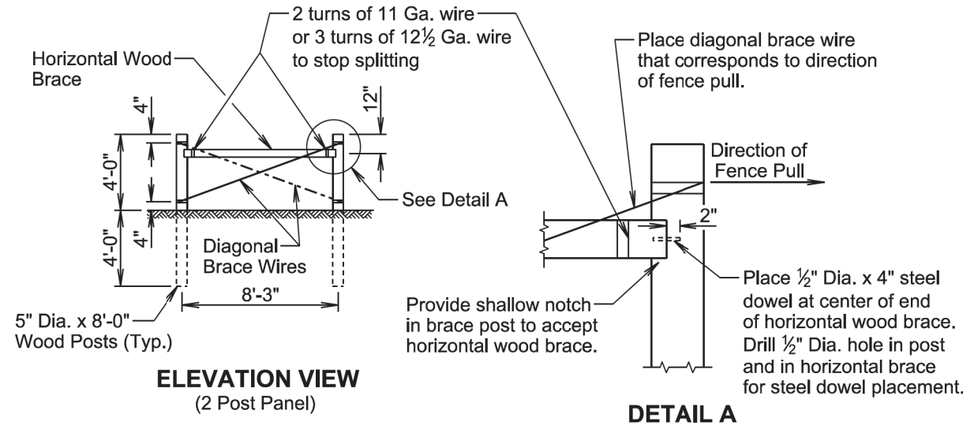
Right-of-Way fence other than on Interstate Projects will be constructed within one foot of the Right-of-Way on the Landowner's side except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

Barbs will be fabricated from zinc coated 14 ga. wire. Two point barbs will be wrapped twice around one main strand at four-inch spacings and the four point barbs will be interlocked and wrapped around both main strands at five-inch spacings.

The gages of wire and wood post lengths and sizes are the minimum acceptable unless otherwise specified in the plans. The tolerances for steel posts will be as stated in AASHTO M281. Woven wire will conform to design and specifications of ASTM A116 and barbed wire will conform to ASTM A121.

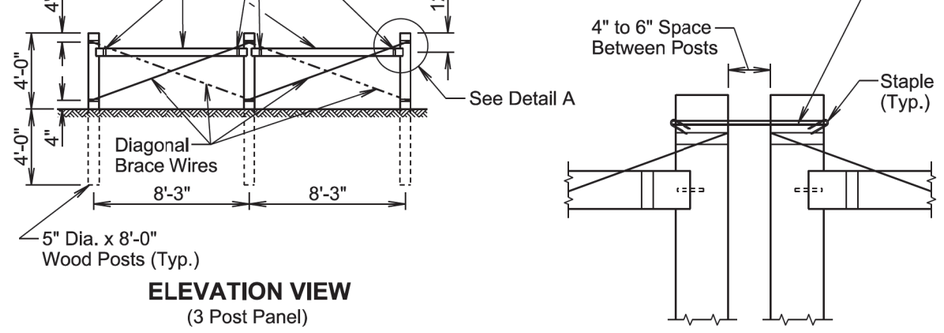
June 26, 2019

Published Date: 2026	SDDOT	STAPLE INSTALLATION AND GENERAL RIGHT-OF-WAY FENCE NOTES	PLATE NUMBER 620.02
			Sheet 1 of 1



ELEVATION VIEW
(2 Post Panel)

DETAIL A



ELEVATION VIEW
(3 Post Panel)

DETAIL B

GENERAL NOTES:

Two Post Panels will be installed at least every 1320' between corners.

Two Post Panels will be installed at any sharp vertical angle crest points and as directed by the Engineer.

Horizontal wood braces will consist of 4" dia. x 8' wood posts or rough 4" x 4" x 8' timbers.

Diagonal brace wires will be fabricated with 4 strands of 9 Ga. galvanized wire twisted tight. The diagonal brace wires will be installed in accordance with the direction of the fence pull. Two diagonal brace wires are required if fence pull is in both directions.

March 31, 2024

Published Date: 2026	SDDOT	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03
			Sheet 1 of 3

PLOT SCALE - 1:200
PLOT NAME - 15
FILE - ...\0714_STDPLATES.DGN
-PLOTTED FROM - TRPR25584

SPACING OF 2 POST PANELS WITHIN CURVES	
RADIUS OF CURVE	SPACING OF 2 POST PANEL
Greater than 1800 Ft.	** 1320'
Less than 1800 Ft.	** At P.C., P.T., and at every 1320' between P.C. and P.T.

** Fence lengths greater than 1320' and less than 2640' place 2 Post Panel approximately at midpoint.

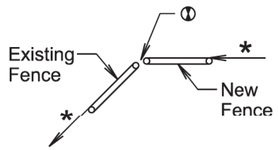
① See Detail B on Sheet 1 of 3.

GENERAL NOTE:

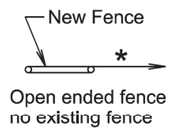
All radius of curvature stated for fence are at centerline of roadway.

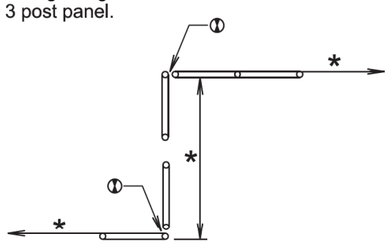
If fence length is less than 600' to next corner use a 2 post panel.

* If fence length is greater than 600' to next corner use a 3 post panel.

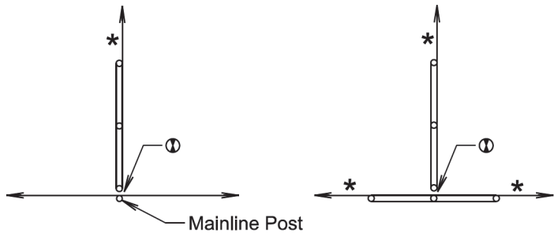


BEGIN OR END FENCE
(Where new fence ties into existing fence)

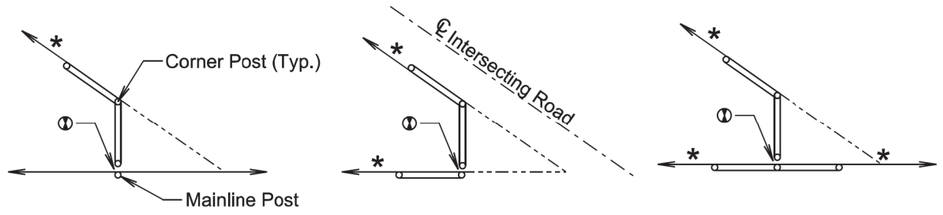




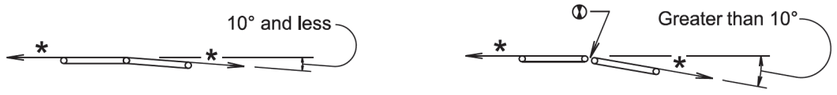
SHORT JOGS IN FENCE



CROSS FENCE



SHARP ANGLES IN CROSS FENCE



Additional fence panel is NOT required when an angle in the mainline fence is 10° and less.

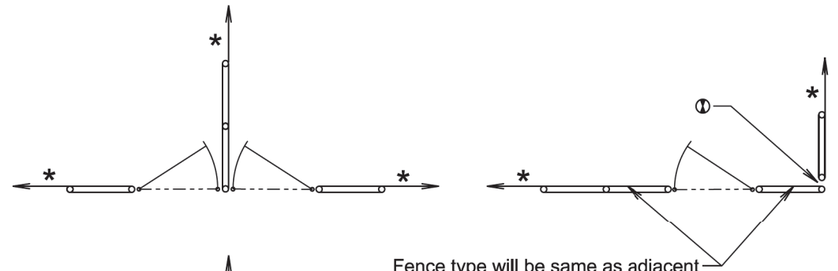
Additional fence panel is required when an angle in the mainline fence is greater than 10°.

ANGLES IN MAINLINE FENCE

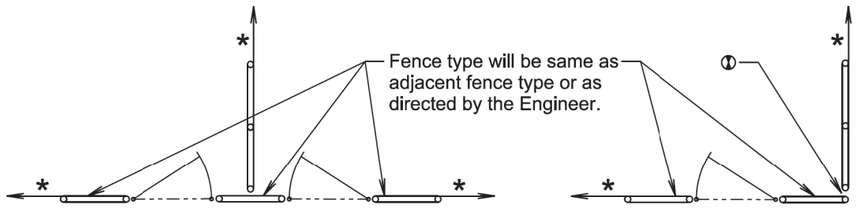
March 31, 2024

Published Date: 2026	SDDOT	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03 Sheet 2 of 3

ENTRANCE
(Not on corner)



Fence type will be same as adjacent fence type or as directed by the Engineer.



DOUBLE ENTRANCES

ENTRANCES AT CORNERS

GATES

* If fence length is less than 600' to next corner use a 2 post panel.
If fence length is greater than 600' to next corner use a 3 post panel.

① See Detail B on Sheet 1 of 3.

March 31, 2024

Published Date: 2026	SDDOT	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03 Sheet 3 of 3

PLOT SCALE - 1:200
PLOT NAME - 16
FILE ...\07Y4_STDPLATES.DGN
-PLOTTED FROM - TRPR25584

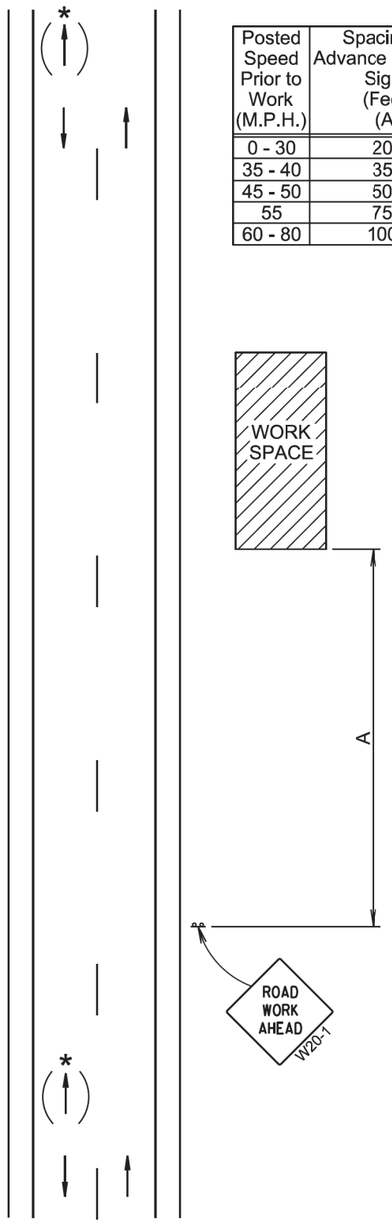
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

The signs illustrated will be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 80	1000

January 22, 2021

Published Date: 2026

SDDOT

WORK BEYOND THE SHOULDER

PLATE NUMBER 634.01

Sheet 1 of 1

* Messages on signs will vary depending on the operation being conducted.

Vehicle-mounted signs will be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs will be covered or turned from view when work is not in progress.

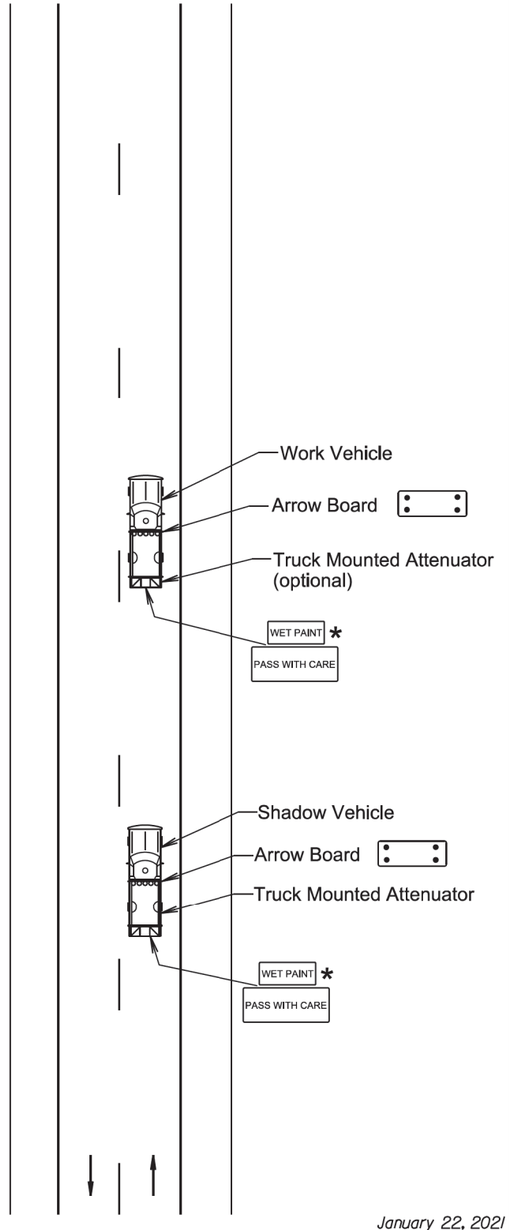
Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

Vehicle hazard warning signals will not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

When an arrow board is used, it will be used in the caution mode. Marching Diamonds are acceptable.

Arrow boards will, as a minimum, be Type B, with a size of 60" x 30".

All costs associated with the traffic control for mobile operation including signs, arrow boards and equipment will be incidental to the contract lump sum price for “Traffic Control, Miscellaneous”.



January 22, 2021

Published Date: 2026

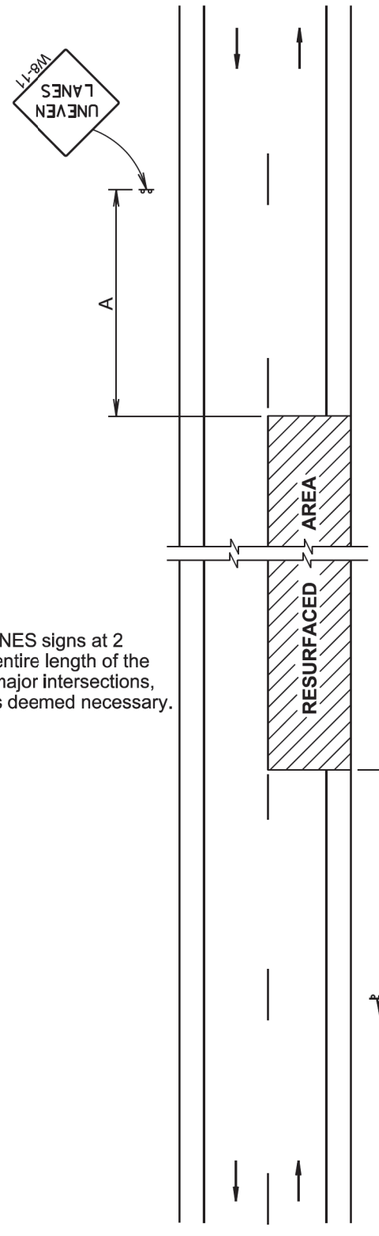
SDDOT

MOBILE OPERATIONS ON 2-LANE ROAD

PLATE NUMBER 634.06

Sheet 1 of 1

PLOT SCALE - 1:200
PLOT NAME - 17
FILE - ...\07Y4_STDPLATES.DGN
PLOTTED FROM - TRPR25584



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 75	1000

Install additional UNEVEN LANES signs at 2 mile intervals throughout the entire length of the uneven area and at affected major intersections, edge of towns, and other sites deemed necessary.

January 22, 2021

Published Date: 2026	SDDOT	UNEVEN ROAD SURFACE	PLATE NUMBER 634.22
			Sheet 1 of 1

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.

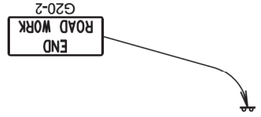
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) will 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 will be drums or 42" cones.

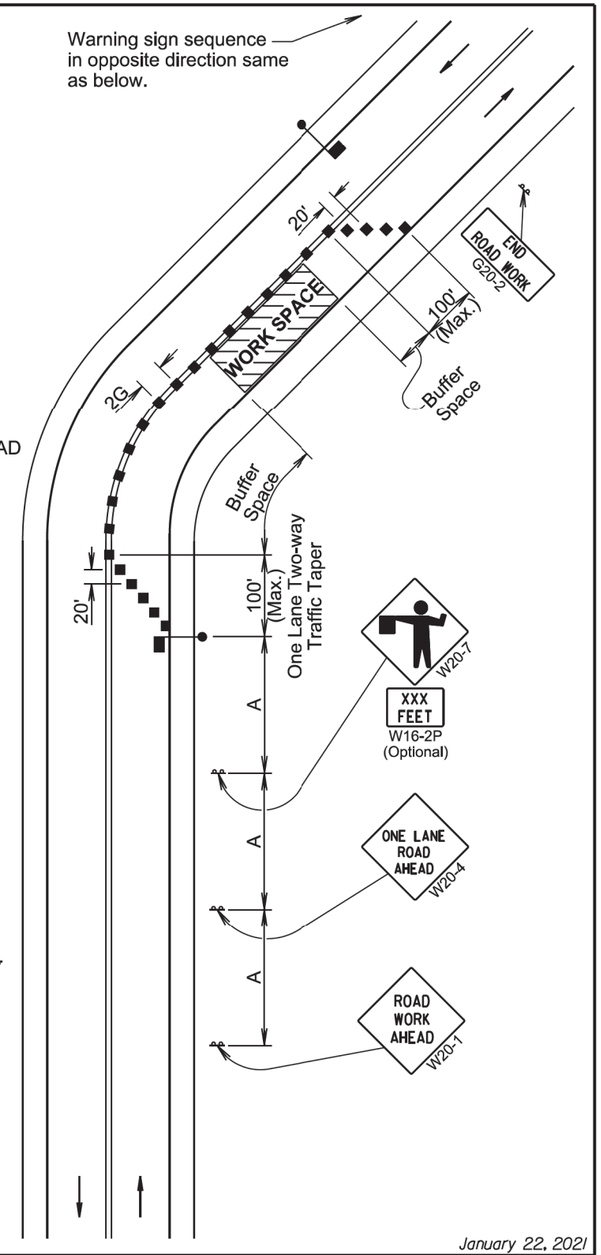
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



Channelizing devices and flaggers will 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.

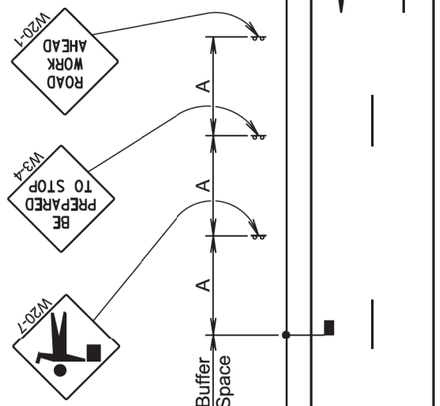
The length of A may be adjusted to fit field conditions.



January 22, 2021

Published Date: 2026	SDDOT	LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
			Sheet 1 of 1

PLOT SCALE - 1:200
PLOT NAME - 11
FILE - ...\07Y4-STDPLATES.DGN
-PLOTTED FROM - TRPR25584



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

Flagger

END ROAD WORK
G20-2
(Optional)

Posted Speed Prior to Work (M.P.H.)	Length of Longitudinal Buffer Space (Feet)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

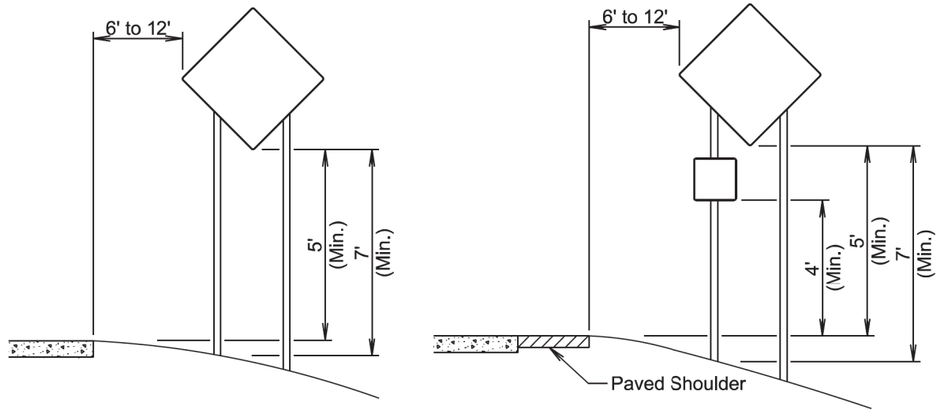
Buffer space dependent on work site limitations.

Conditions represented are for work that requires closings during daytime hours only.

This application is intended for a planned temporary closing not to exceed 15 to 20 minutes.

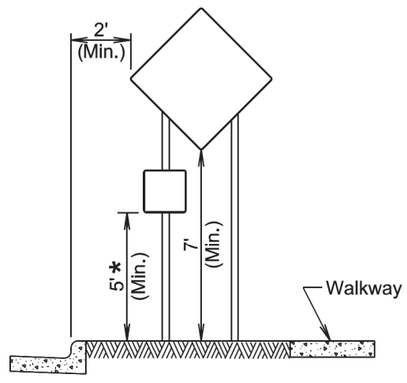
January 22, 2021

Published Date: 2026	SDDOT	TEMPORARY ROAD WORK	PLATE NUMBER 634.30
			Sheet 1 of 1

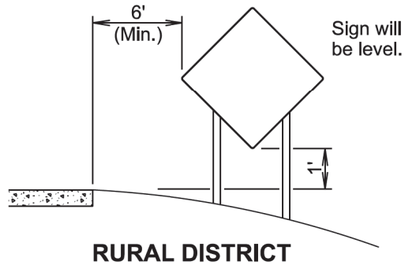


RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT



RURAL DISTRICT 3 DAY MAXIMUM
(Not applicable to regulatory signs)

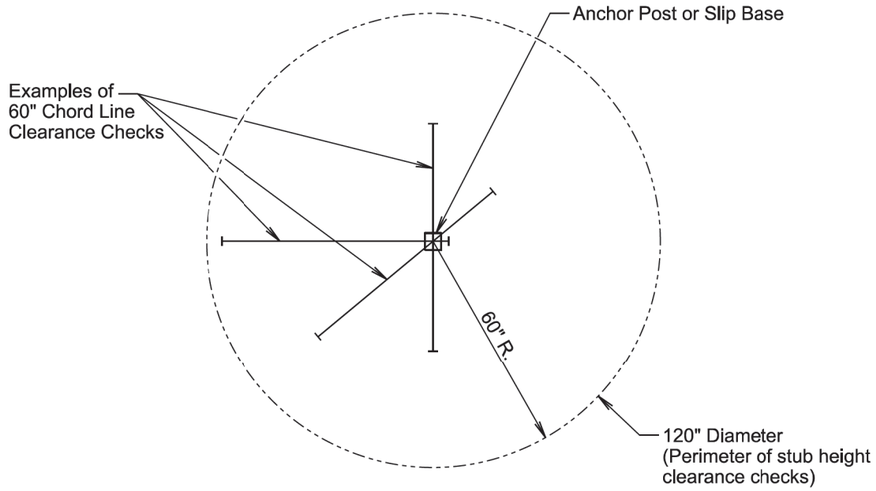
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

January 22, 2021

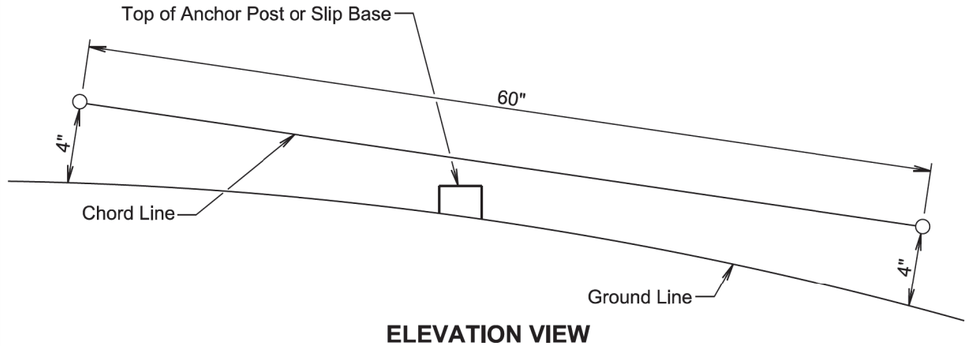
Published Date: 2026	SDDOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1

PLOT SCALE - 1:200
PLOT NAME - 12
FILE - ...\07Y4_STDPLATES.DGN
PLOTTED FROM - TRPR25584

PLOT SCALE - 1:200



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

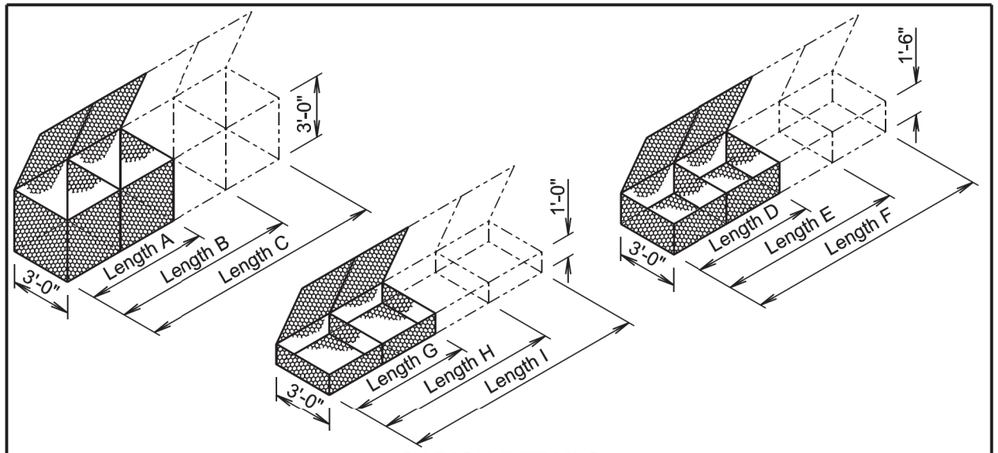
The top of anchor posts and slip bases WILL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height will be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

January 22, 2021

Published Date: 2026	SDDOT	**BREAKAWAY SUPPORT STUB CLEARANCE**	PLATE NUMBER 634.99 Sheet 1 of 1



GABION DETAILS

STANDARD SIZES					
SIZE	LENGTH	WIDTH	HEIGHT	NUMBER OF CELLS	CAPACITY (Cu. Yd.)
A	6'-0"	3'-0"	3'-0"	2	2.0
B	9'-0"	3'-0"	3'-0"	3	3.0
C	12'-0"	3'-0"	3'-0"	4	4.0
D	6'-0"	3'-0"	1'-6"	2	1.0
E	9'-0"	3'-0"	1'-6"	3	1.5
F	12'-0"	3'-0"	1'-6"	4	2.0
G	6'-0"	3'-0"	1'-0"	2	0.7
H	9'-0"	3'-0"	1'-0"	3	1.0
I	12'-0"	3'-0"	1'-0"	4	1.3

GENERAL NOTES: Above dimensions subject to mill tolerances.

Lacing and internal connecting wire will be 0.0866 inch diameter steel wire ASTM A641, Class 3 soft temper measured after galvanizing and for PVC coated gabions will be 0.0866 inch diameter steel wire measured after galvanizing but before PVC coating.

The lacing procedure is as follows:

1. Cut a length of lacing wire approximately 1½ times the distance to be laced but not exceeding 5 feet.
2. Secure the wire terminal at the corner by looping and twisting.
3. Proceed lacing with alternating single and double loops at a spacing not to exceed 6 inches.
4. Securely fasten the other lacing wire terminal.

Wire lacing or interlocking type fasteners will be used for gabion assembly and final construction of gabion structures. Interlocking fasteners for galvanized gabions will be high tensile 0.120 inch diameter galvanized steel wire measured after galvanizing. The galvanizing will conform to ASTM A641-92, Class 3 coating. Fasteners will also be in accordance with ASTM A764, Class II, Type III.

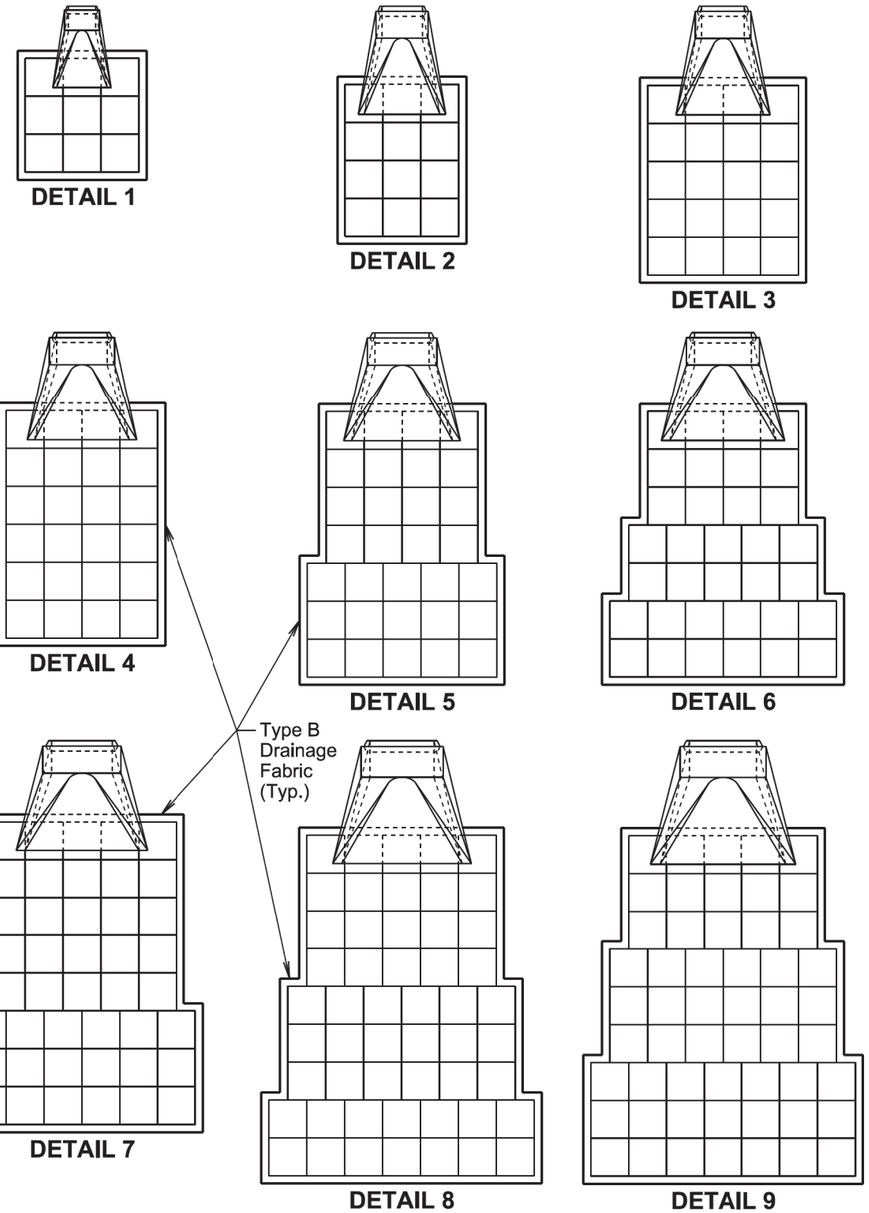
Interlocking fasteners for PVC coated gabions will be high tensile 0.120 inch diameter stainless steel wire conforming to ASTM A313, Type 302, Class 1. The spacing of the interlocking fasteners during all phases of assembly and construction will not exceed 6 inches.

All fasteners will be placed where the mesh weaves around the selvage wire at the vertical and horizontal joints.

February 14, 2020

Published Date: 2026	SDDOT	**BANK AND CHANNEL PROTECTION GABIONS**	PLATE NUMBER 720.01 Sheet 1 of 1

PLOTTED FROM - TRPR25584
PLOT NAME - 13
FILE - ...\07Y4_STDPLATES.DGN



February 14, 2020

Published Date: 2026	SDDOT	BANK AND CHANNEL PROTECTION GABION PLACEMENT UNDER PIPE END SECTIONS	PLATE NUMBER 720.03 Sheet 1 of 2

*** ESTIMATED QUANTITIES**

	Detail	Pipe Diameter (Inches)	Gabion (Cu. Yd.)	Type B Drainage Fabric (Sq. Yd.)
RCP, RCP Arch, CMP, and CMP Arch	1	12, 18, and 24	4.5	15
	2	30 and 36	6.0	19
	3	42	10.0	29
	4	48 and 54	12.0	34
	5	60	15.5	43
	6	66	17.0	47
	7	72	21.5	57
	8	78	26.0	68
	9	84	27.0	70

GENERAL NOTES:

Gabions at outlets of CMP and RCP will be placed under the end section a distance of 2 feet from the outlet end. For CMP end section installations, the upper fabric of the gabions will be modified to accommodate the metal end section as approved by the Engineer.

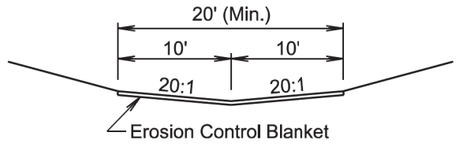
* Gabion and type B drainage fabric quantities on this standard plate are based on standard gabion sizes D, E, and F as depicted on standard plate 720.01.

Type B drainage fabric will be placed under the gabions and around the exterior sides (perimeter) of the gabions as approved by the Engineer. The type B drainage fabric will be in conformance with Section 831 of the Specifications. Measurement and payment of the type B drainage fabric will be in conformance with Section 720 of the Specifications.

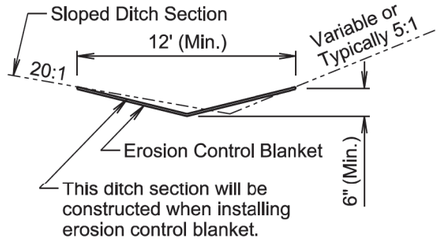
February 14, 2020

Published Date: 2026	SDDOT	BANK AND CHANNEL PROTECTION GABION PLACEMENT UNDER PIPE END SECTIONS	PLATE NUMBER 720.03 Sheet 2 of 2

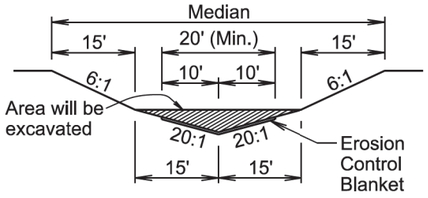
PLOT SCALE - 1:200
PLOT NAME - 14
FILE - ...\0714_STDPLATES.DGN
-PLOTTED FROM - TRPR25584



STANDARD DITCH SECTION

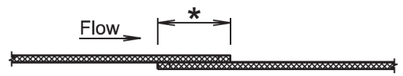


SLOPED DITCH SECTION



The median will be shaped to the limits shown in this detail where the erosion control blanket will be placed.

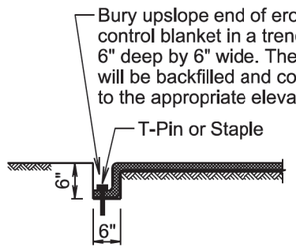
MEDIAN SECTION



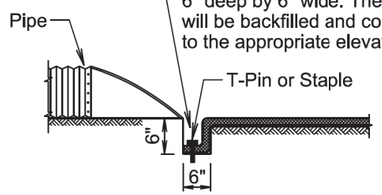
* Use a 4" (Min.) overlap wherever two widths of erosion control blanket are applied side by side.

* Use a 6" (Min.) overlap wherever one roll of erosion control blanket ends and another begins.

OVERLAP DETAIL



TRENCH DETAIL



PIPE END DETAIL

GENERAL NOTES:

Prior to placement of the erosion control blanket, the areas will be properly prepared, shaped, seeded, and fertilized.

Erosion control blanket will be unrolled in the direction of the flow of water when placed in ditches and on slopes. The upslope end of the erosion control blanket will be buried in a trench 6" wide by 6" deep. There will be at least a 6" overlap wherever one roll of erosion control blanket ends and another begins, with the upslope erosion control blanket placed on top of the downslope erosion control blanket.

The erosion control blanket will be pinned to the ground according to the manufacturer's installation recommendations.

After the placement of the erosion control blanket, the Contractor will fine grade along all edges of the blanket to maintain a uniform slope adjacent to the blanket and level any low spots which might prevent uniform and unrestricted flow of side drainage directly onto the erosion control blanket.

All ditch sections will be shaped when installing the erosion control blanket. All costs for shaping the ditches will be incidental to the contract unit price per foot for "Shaping for Erosion Control Blanket".

February 14, 2020

Published Date: 2026	SDDOT	***EROSION CONTROL BLANKET***	*PLATE NUMBER* 734.01
			Sheet 1 of 1

PLOT SCALE - 1:200
PLOT NAME - 18
FILE - ...\0714_STDPLATES.DGN
-PLOTTED FROM - TRPR25584