

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECTS NH 0034(207)96 &
NH 0073(81)160
SD HIGHWAYS 34 & 73
MEADE COUNTY

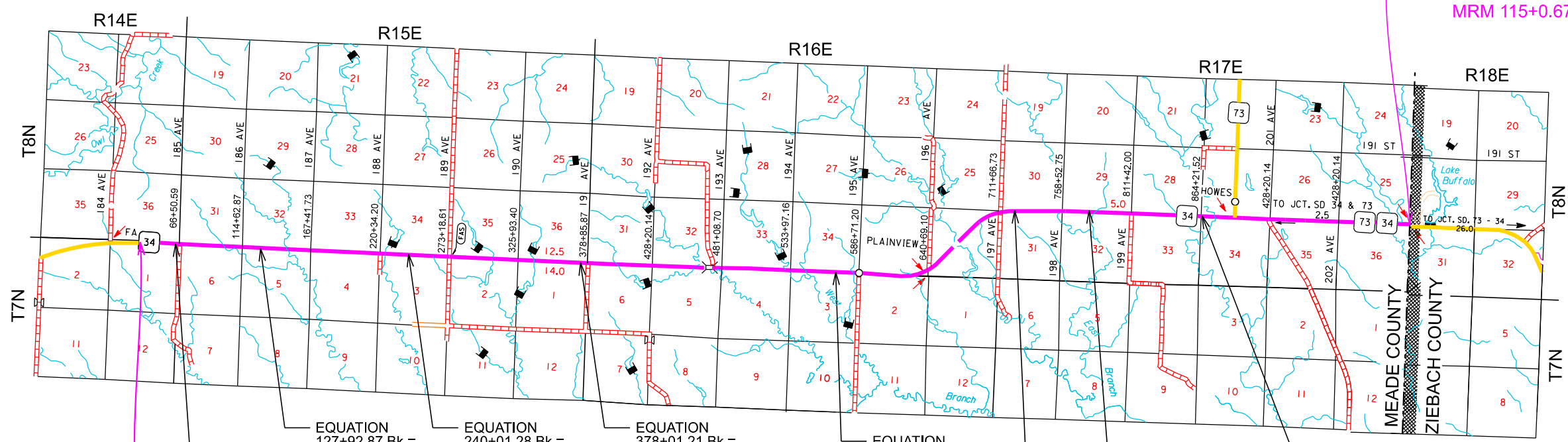
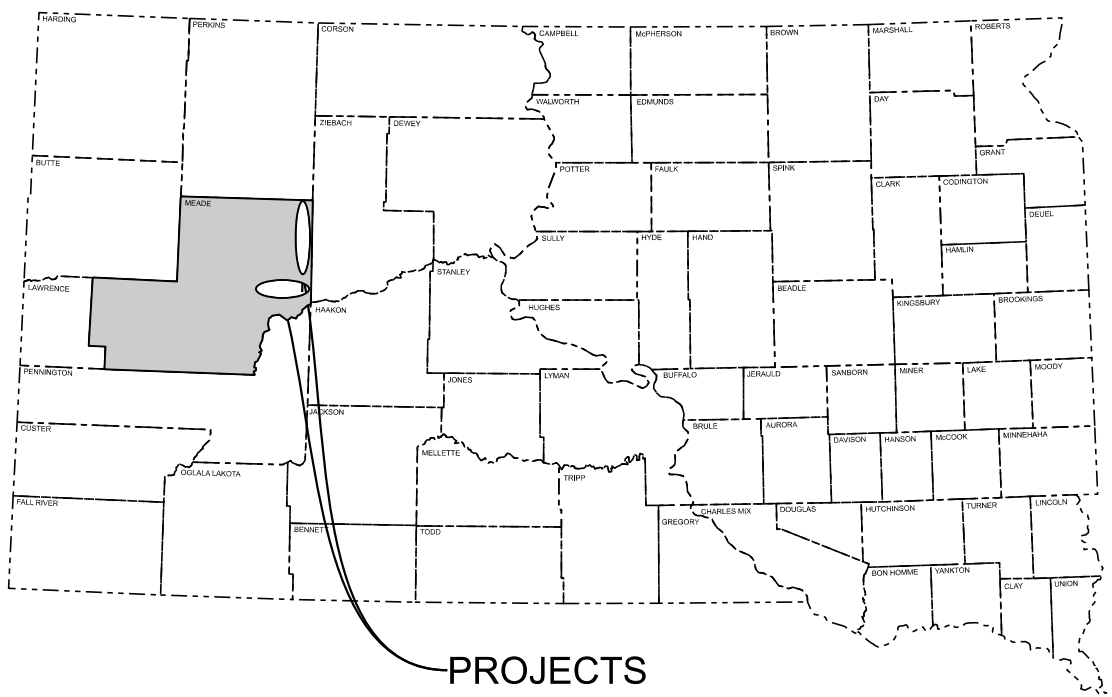
COLD MILL & AC RESURFACING, PIPE WORK
PCNs 079F & 06PH

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	1	86
Plotting Date: 10/28/2025		Revised 10/28/2025 NJT	

INDEX OF SHEETS

1-2	General Layout with Index
3-29	Estimate with General Notes & Tables
30-38	Typical Sections
39-42	Horizontal Alignment Data
43	Control Data
44	Legend
45-52	Plan Sheets
53-55	Conduit Layout
56-59	Typical Underdrain Sections
60	Surfacing Transition Layout
61-62	Pavement Marking Layout
63-64	Special Details for Luminaire Poles
65-82	Standard Plates
83-86	Cross Sections

End NH 0034(207)96
Station 159+96 = Station 159+96 on
F 028-2(3). At southeast corner of
Section 25 - Township 8 North -
Range 17 East on the Meade/Ziebach
County Line.
MRM 115+0.670



DESIGN DESIGNATION

AADT (2020)	637
AADT (2040)	854
DHV	96
D	50%
DHV T%	10.4%
AADT T%	22.8%
V	65 mph

STORM WATER PERMIT

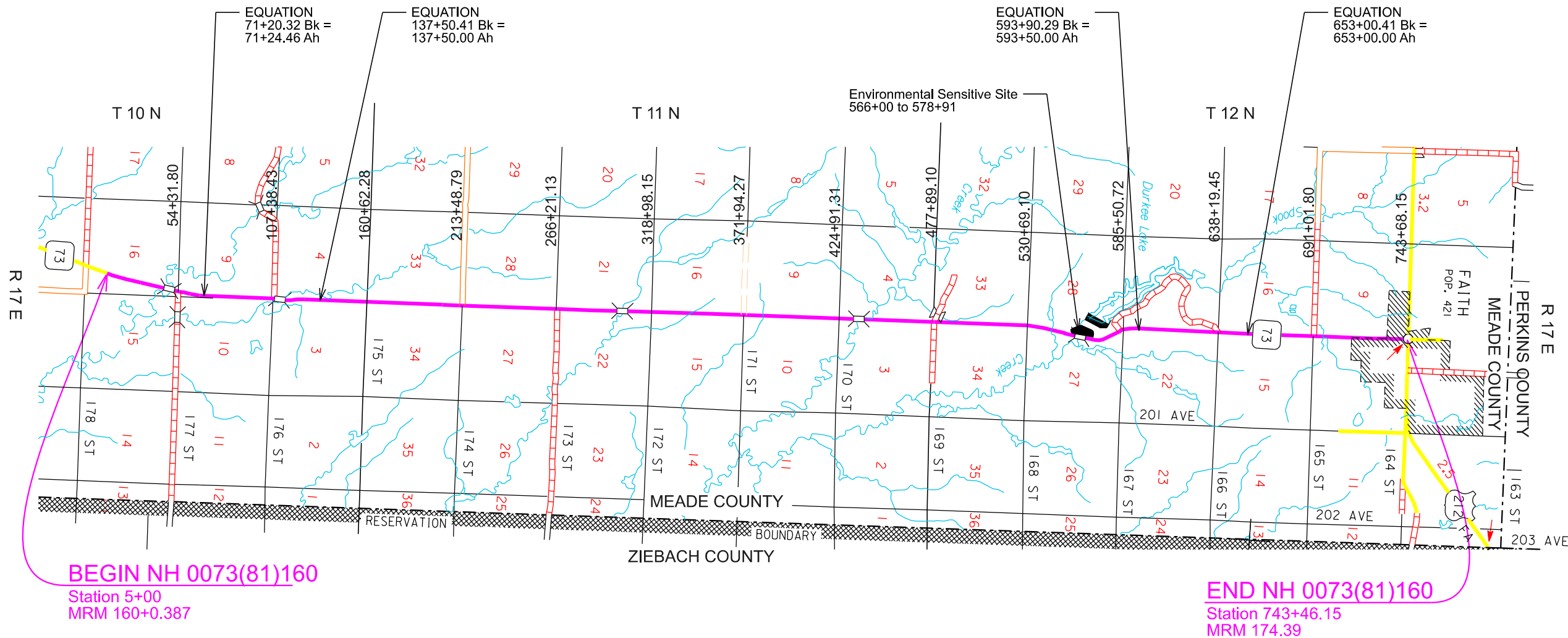
Major Receiving
Body of Water: Unnamed Streams
Area Disturbed: 3.0 acres
Total Project Area: 24.2 acres
Approx. Begin Lat,Long: 44.604672, -102.370878

BEGIN NH 0034(207)96

Station 40+13 = Station 40+13 on
F 0034(46)96. At the north one-quarter
corner of Section 7 - Township 7 North -
Range 14 East.
MRM 96+0.546

EQUATION 64+01.22 Bk = 64+00.77 Ah	EQUATION 127+92.87 Bk = 127+91.96 Ah	EQUATION 240+01.28 Bk = 240+00.83 Ah	EQUATION 378+01.21 Bk = 378+00.77 Ah	EQUATION 553+01.27 Bk = 553+00.95 Ah	EQUATION 771+73.87 Bk = 771+72.60 Ah	EQUATION 864+21.52 Bk = 0+00 Ah
--	--	--	--	--	--	---------------------------------------

Gross Length	98,439 Feet	18.644 Miles
Length of Exceptions	0 Feet	0.000 Miles
Net Length	98,439 Feet	18.644 Miles



DESIGN DESIGNATION

ADT (2022)	815
ADT (2042)	1299
DHV	207
D	50%
T DHV	12.2%
T ADT	26.8%
V	65 mph

STORM WATER PERMIT

Major Receiving
Body of Water: Unnamed Streams
Area Disturbed: 3.0 acres
Total Project Area: 17.86 acres
Approx. Begin Lat,Long: 44.822810, -102.049498

Gross Length	73,882 Feet	13.993Miles
Length of Exceptions	0 Feet	0.000Miles
Net Length	73,882 Feet	13.993Miles

ESTIMATE OF QUANTITIES – PCN 079F

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E0300	Remove Concrete Curb and/or Gutter	245	Ft
110E0500	Remove Pipe Culvert	2	Ft
110E0510	Remove Pipe End Section	6	Each
110E0600	Remove Fence	106	Ft
110E1010	Remove Asphalt Concrete Pavement	8,280.7	SqYd
110E1130	Remove Concrete Driveway Pavement	40.0	SqYd
110E5451	Salvage Riprap	150.0	Ton
110E7510	Remove Pipe End Section for Reset	8	Each
120E0010	Unclassified Excavation	377	CuYd
120E0100	Unclassified Excavation, Digouts	934	CuYd
120E2000	Undercutting	2,527	CuYd
120E6200	Water for Granular Material	214.0	MGal
210E0100	Shoulder Clearing	37.2	Mile
230E0100	Remove and Replace Topsoil	Lump Sum	LS
250E0010	Incidental Work	Lump Sum	LS
260E1010	Base Course	3,009.9	Ton
260E1050	Base Course, Salvaged Asphalt Mix	4,551.5	Ton
280E0020	Full Depth Reclamation, Shoulder	109,924	SqYd
320E0005	PG 58-34 Asphalt Binder	209.3	Ton
320E1200	Asphalt Concrete Composite	476.1	Ton
320E1800	Asphalt Concrete Blade Laid	3,360.6	Ton
320E4000	Hydrated Lime	33.5	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	37.2	Mile
330E0010	MC-70 Asphalt for Prime	130.3	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	213.6	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	83.6	Ton
330E2000	Sand for Flush Seal	974.9	Ton
332E0010	Cold Milling Asphalt Concrete	296,534	SqYd
450E5211	18" CMP Flared End, Furnish	2	Each
450E5212	18" CMP Flared End, Install	2	Each
450E5219	30" CMP Flared End, Furnish	4	Each
450E5220	30" CMP Flared End, Install	4	Each
450E8910	Cleanout for Culvert Treatment	2	Each
450E9001	Reset Pipe End Section	8	Each
450E9518	18" Cured in Place Pipe	72	Ft
450E9526	30" Cured in Place Pipe	128	Ft
600E0300	Type III Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	106	Ft
620E0510	Type 1 Temporary Fence	270	Ft
620E1020	2 Post Panel	2	Each

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
632E2510	Type 2 Object Marker Back to Back	3	Each
633E0010	Cold Applied Plastic Pavement Marking, 4"	5,380	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	396	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	6	Each
633E1200	High Build Waterborne Pavement Marking Paint, White	845	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	303	Gal
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	5,380	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	396	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	6	Each
633E5100	Grooving for Durable Pavement Marking, 4"	198,265	Ft
634E0010	Flagging	2,500.0	Hour
634E0020	Pilot Car	1,000.0	Hour
634E0110	Traffic Control Signs	1,471.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0560	Remove Pavement Marking, 4" or Equivalent	2,000	Ft
634E0630	Temporary Pavement Marking	74.9	Mile
680E0204	4" Perforated PVC Drain Pipe with Sleeve	260	Ft
680E0224	4" PVC Outlet Pipe	60	Ft
680E2000	Concrete Headwall for Underdrain	3	Each
680E2500	Porous Backfill	300.0	Ton
700E0310	Class C Riprap	298.2	Ton
700E2010	Place Riprap	150.0	Ton
720E1010	PVC Coated Bank and Channel Protection Gabion	96.5	CuYd
730E0210	Type F Permanent Seed Mixture	45	Lb
731E0200	Fertilizing	1.25	Ton
732E0200	Fiber Mulching	1.6	Ton
734E0154	12" Diameter Erosion Control Wattle	480	Ft
831E0110	Type B Drainage Fabric	822	SqYd
900E0010	Refurbish Single Mailbox	8	Each
900E0012	Refurbish Double Mailbox	1	Each
900E1980	Storage Unit	1	Each

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 is available for download and viewing at <https://dot.sd.gov/doing-business/contractors/standard-specifications>.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	3	86

Revised 9/18/2025 NJT

Alternate A – PCN 079F

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	2,286.2	Ton
320E1203	CLASS Q3R HOT MIXED ASPHALT CONCRETE	50,216.9	Ton
320E4000	Hydrated Lime	494.7	Ton

Alternate B – PCN 079F

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	1,898.6	Ton
320E1203	CLASS Q3R HOT MIXED ASPHALT CONCRETE	51,509.2	Ton
320E4000	Hydrated Lime	510.4	Ton

ESTIMATE OF QUANTITIES – PCN 06PH

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	4	86

Revised 10/28/2025 NJT

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E1010	Remove Asphalt Concrete Pavement	1,049.4	SqYd
110E1140	Remove Concrete Sidewalk	22.4	SqYd
110E1540	Remove Luminaire Pole Footing	4	Each
110E7510	Remove Pipe End Section for Reset	8	Each
120E0100	Unclassified Excavation, Digouts	700	CuYd
120E6200	Water for Granular Material	186.9	MGal
210E0100	Shoulder Clearing	28.0	Mile
230E0100	Remove and Replace Topsoil	Lump Sum	LS
250E0020	Incidental Work, Grading	Lump Sum	LS
260E1010	Base Course	1,399.3	Ton
260E1050	Base Course, Salvaged Asphalt Mix	3,320.3	Ton
280E0020	Full Depth Reclamation, Shoulder	96,117	SqYd
320E0005	PG 58-34 Asphalt Binder	155.3	Ton
320E1200	Asphalt Concrete Composite	349.8	Ton
320E1800	Asphalt Concrete Blade Laid	2,098.9	Ton
320E4000	Hydrated Lime	21.1	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	27.3	Mile
330E0010	MC-70 Asphalt for Prime	114.0	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	159.8	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	63.0	Ton
330E2000	Sand for Flush Seal	722.4	Ton
332E0010	Cold Milling Asphalt Concrete	217,928	SqYd
450E8300	Culvert Joint Cleaning	12.0	Ft
450E8305	Repair Culvert Joint	12.0	Ft
450E8310	Chemical Grout Void Fill	9.0	Gal
450E9001	Reset Pipe End Section	8	Each
633E1200	High Build Waterborne Pavement Marking Paint, White	629	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	197	Gal
633E5100	Grooving for Durable Pavement Marking, 4"	147,682	Ft
634E0010	Flagging	2,225.0	Hour
634E0020	Pilot Car	1,000.0	Hour
634E0110	Traffic Control Signs	925.9	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0560	Remove Pavement Marking, 4" or Equivalent	2,000	Ft
634E0630	Temporary Pavement Marking	55.9	Mile
635E5020	2' Diameter Footing	28.0	Ft
635E5301	Type 1 Electrical Junction Box	2	Each
635E7500	Remove and Reset Luminaire Pole	4	Each
635E8120	2" Rigid Conduit, Schedule 40	120	Ft
635E9016	1/C #6 AWG Copper Wire	560	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
651E0040	4" Concrete Sidewalk	200	SqFt
720E1010	PVC Coated Bank and Channel Protection Gabion	94.0	CuYd
730E0210	Type F Permanent Seed Mixture	27	Lb
731E0200	Fertilizing	0.72	Ton
732E0200	Fiber Mulching	0.9	Ton
831E0110	Type B Drainage Fabric	279	SqYd
900E0010	Refurbish Single Mailbox	6	Each
900E0012	Refurbish Double Mailbox	1	Each
900E1080	Orange Plastic Safety Fence	1,300	Ft

Alternate A – PCN 06PH

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	1,719.5	Ton
320E1203	CLASS Q3R HOT MIXED ASPHALT CONCRETE	37,774.0	Ton
320E4000	Hydrated Lime	370.7	Ton

Alternate B – PCN 06PH

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0005	PG 58-34 Asphalt Binder	1,420.9	Ton
320E1203	CLASS Q3R HOT MIXED ASPHALT CONCRETE	38,754.2	Ton
320E4000	Hydrated Lime	384.7	Ton

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 0.003 acre(s) 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	164+24 L	0.003	0.00	0.00	0.00	0.003

Action Taken/Required:

Permanent impacts to wetlands do not exceed the 0.01 ac. threshold and thus do not require mitigation required by 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 the 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](https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04) >

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

Red Scaffold Creek is classified as warmwater, marginal fishery with a total suspended solids standard of less than 150 mg/L 30-day average, less than 263 mg/L daily maximum.

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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	5	86

Revised 10/28/2025 NJT

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 not required to be covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the Contractor will obtain the General Permit for Temporary Discharge Activities from the DANR Surface Water Program, 605-773-3351.

< https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_TemporaryDischargeNOI2018Fillable.pdf >

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_CGPApp endixCCA2018Fillable.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.

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 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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	6	86

Revised 10/28/2025 NJT

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic Preservation Office 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 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 M: SECTION 4(f)/6(f) RESOURCES

COMMITMENT M1: SECTION 4(f) PROPERTY
Table of Adjacent Section 4(f) Property

Station	Section 4(f) Property
566+00 – 83’ L (MRM 170+0.77) to 578+91 – 78’ L (MRM 171+0.02)	Environmentally Sensitive Site 1

Action Taken/Required:

The following measures are required to minimize harm to the above Section 4(f) property:

The contractor will notify the Project Engineer if additional temporary or permanent easement is necessary to construct the project. Temporary occupancy and permanent incorporation of, and restriction of access to, the Section 4(f) property must be avoided unless there are no feasible or prudent alternatives to use of the land and the action includes all possible planning to minimize harm to the property. The Project Engineer will notify the Environmental Office as Section 4(f) use must be approved by the Federal Highway Administration.

COMMITMENT Q: ARCHAEOLOGICAL COORDINATION

As a result of a Cultural Resources Survey, historic properties have been identified within and/or adjacent to the project rights-of-way.

The following historic properties have been identified that require avoidance of construction activities:

Table of Historic Properties

Station	Offset (Ft.)	L/R	Environmental Sensitive Site	Action
566+00 – 578+91	78’	L	ESS 1	Do Not Disturb & Orange Fencing

The locations and boundaries of the site(s) for avoidance are shown in the plans.

Action Taken/Required:

If evidence for cultural resources is uncovered 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 consult with the Archaeological Research Center (ARC), the SHPO, and FHWA, to determine the appropriate course of action.

All artifacts, features, or other items of interest uncovered by project construction activities will not be displaced unless the landowner and the SHPO consent to it.

Prior to the pre-construction meeting, the Contractor will contact the ARC (Phone: 605-394-1936) to coordinate the installation schedule of orange plastic safety fence around the perimeter of the sensitive site(s) listed in the Table of Historic/Archeological Sites to ensure proper location, quality, and visibility of the orange safety fence. The exact location of the safety fence will be determined later in the field by the ARC representative.

The Contractor will give written notice to the Engineer seven (7) days prior to the commencement of earth disturbing activities near listed sites identified in the Table of Historic/Archaeological Site so the Engineer may notify ARC of the day work will start and schedule the installation of orange safety fence. ARC is to be present during earth disturbing activities to monitor the removal of topsoil, ensure avoidance of the fenced sites, and identify any culturally sensitive sites that may be uncovered.

Work within the vicinity of the site(s) will not begin until the safety fence is installed. All costs associated with furnishing and installing the orange safety fence will be incidental to the contract unit price per foot for “Orange Plastic Safety Fence”. These identified sites cannot be used for material sources, storage areas, waste sites, and/or any other project related activities outside the plan work limits.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	7	86

Revised 10/28/2025 NJT

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

PCN 079F, SD34

Ryan Cuny
Golden West
525 E 4th St.
Dell Rapids, SD 57022
ryancuny@goldenwest.com
605-428-1125

Matt Schmahl
West River Electric
3250 East Highway 44
Rapid City, SD 57709
Matt.schmahl@westriver.coop
605-393-1500

PCN 06PH, SD73

Mike Lemburg
Grand Electric
PO Box 39
Bison, SD 57620-0039
mdlemburg@wrctc.coop
605-244-5211

Tucker Stocklin
Tri-County Water
228 E Prairie Rd
Eagle Butte, SD 57625
tuckerstocklin@lakotanetwork.com
605-964-8778

GRADING OPERATIONS

Water for Embankment is estimated at the rate of 15 gallons of water per cubic yard of Embankment minus Waste. No separate payment will be made for the Water for Embankment and all costs associated will be incidental to the contract unit price per cubic yard of “Unclassified Excavation”.

TYPE III FIELD LABORATORY

One field laboratory will be used for both project sections (SD34 and SD73). 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".

SHOULDER CLEARING

Vegetation and accumulated material on or adjacent to the existing roadway edge will be removed by the Contractor, to the satisfaction of the Engineer, prior to cold milling or placement of the mainline surfacing. Any remaining windrow of accumulated material will be spread evenly on the inslope adjacent to the asphalt shoulder, to the satisfaction of the Engineer, following application of the flush seal.

All clumps of dirt and vegetation will be eliminated to produce a smooth and uniform in-slope.

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.

INCIDENTAL WORK – PCN 079F, SD34

Station	MRM	L/R	Remarks
10+63	112+0.582	R	Remove Exposed Rebar on Wingwall

INCIDENTAL WORK, GRADING – PCN 06PH, SD73

Station	MRM	L/R	Remarks
102+44	161.21+0.782	R	Clean Out End Pipe Sections
411+75	167+0.830	L	Shape Channel
675+30	172+0.851	R	Shape Channel

UNCLASSIFIED EXCAVATION – PCN 079F, SD34

Unclassified Excavation is provided on the project for ditch grading from Sta. 731+00 to Sta. 737+00 across from the cemetery. The excess material will be used on the project, if needed, at no additional cost to the Department. The estimate of quantities provides 377 cubic yards of Unclassified Excavation for performing this work. Any excess material will be handled as waste, becoming the property of the Contractor, and hauled off the project at no additional cost to the Department.

Plans quantity will be the basis of payment for the Unclassified Excavation quantity. If changes are made in the field during construction, measurements will be taken and the quantity will be adjusted accordingly.

TABLE OF CONCRETE CURB AND/OR GUTTER REMOVAL – PCN 079F, SD34

Station	to	Station	L/R	Quantity (Ft)
732+58		732+95	R	37
733+27		734+39	R	112
734+77		735+73	R	96
Total:				245

TABLE OF CONCRETE DRIVEWAY PAVEMENT REMOVAL – PCN 079F, SD34

Station	to	Station	L/R	Quantity (SqYd)
732+95		733+27	R	20.0
734+39		734+77	R	20.0
Total:				40.0

TABLE OF SIDEWALK REMOVAL – PCN 06PH, SD73

Station	to	Station	L/R	Quantity (SqYd)
737+82		737+92	R	5.6
*742+80		742+90	R	5.6
*747+66		747+76	R	5.6
752+57		752+67	R	5.6
Total:				22.4

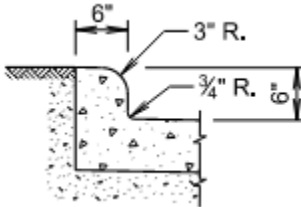
*Remove existing curb adjacent to sidewalk removal. Removal of the curb will be incidental to the contract unit price for Sidewalk Removal.

TABLE OF 4" CONCRETE SIDEWALK – PCN 06PH, SD73

Station	to	Station	L/R	Quantity (SqFt)
737+82		737+92	R	50
*742+80		*742+90	R	50
*747+66		*747+76	R	50
752+57		752+67	R	50
Total:				200

*Install 6" curb on outside edge of sidewalk to match existing.

All costs associated with the curb will be incidental to the contract unit price for Concrete Sidewalk.



CORRUGATED METAL PIPE

Corrugated metal pipes will have 2 3/8-inch x 1/2-inch corrugations for 42-inch and smaller round pipe and 48-inch and smaller arch pipe unless otherwise stated in the plans. Corrugated metal pipes will have 3-inch x 1-inch or 5-inch x 1-inch corrugations for 48-inch and larger round pipe and 54-inch and larger arch pipe unless otherwise stated in the plans.

The gauge of the corrugated metal ends will match the thickest gauge of corrugated metal pipe it is connected to.

Metal pipe end sections connected to polymer coated CMP will be aluminum-coated (Type 2) in accordance with AASHTO M36 as specified in the Table of Pipe Quantities. All costs associated for gauge, coating, and connections will be incidental to the corresponding CMP End Section contract items.

PIPE END SECTIONS

The Contractor will tie each section to the adjacent sections with tie bolts conforming to Standard Plate 450.18. All cost for furnishing and installing the tie bolt assembly shall be incidental to the contract unit price per each for various pipe end sections.

For pipe extensions that are outside the new surfaced shoulder as shown in the pipe sections, acceptance tests in the lower one-half of pipe 48" or less in diameter may be performed by visual inspection to the satisfaction of the Engineer. All other MSTR pipe density testing requirements shall apply.

Remove and reset type 2 object markers at the end of the pipe end sections. All cost for removing and resetting the type 2 object markers shall be incidental to the contract unit price per each for the various pipe end sections.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	8	86

Revised 10/28/2025 NJT

FAULT-HEAVE REPAIR – PCN 079F, SD34

The earthen subgrade will be undercut 3 feet below the earthen subgrade surface at the fault-heave areas specified in the table below. The undercut material or other suitable material, as directed by the Engineer, will then be replaced and compacted to the density specified for the section being constructed. The undercut will utilize a 4:1 taper from the top of the subgrade to the bottom of the undercut.

MRM	to	MRM
108.09±		108.14±
109.38±		109.41±

Compaction of the earth embankment will be governed by the Specified Density Method.

For embankment soil with an optimum moisture of 20% or greater, the Density Specification (Percent of Maximum Dry Density) will be 92% to 98% and the Moisture Specification (Percent of Optimum Moisture) will be -2% to +3%.

Estimated application rate of water for compaction is 15 gallons per cubic yard of embankment plus a shrinkage factor of 20% for the area. No separate payment will be made for the Water for Embankment and all costs associated will be incidental to the contract unit price for the respective bid items for fault-heave repair.

Experience with similar soil types plus allowance for other factors indicate a shrinkage factor of embankment plus 20% for the generalized areas.

In addition to undercutting the road, fault traces were noted in the ditches at the areas specified above. The ditches should be reshaped to correct the distortions caused by the fault traces and reestablish proper drainage, at no additional cost to the Department.

UNDERCUTTING

The existing surfacing and granular base material salvaged in the fault-heave areas will be incorporated into the subgrade during undercut operations. Excess subgrade material will be handled as waste and removed from the project. All costs associated with this work will be incidental to the contract unit price per cubic yard for Undercutting.

UNDERDRAIN – PCN 079F, SD34

After excavating the subgrade material during undercut operations, an underdrain will be installed through the fault trace.

The underdrain will be installed in a trench 8 feet wide by 2 feet deep. The trench will be graded to maintain a minimum of .01ft/ft or 1% drop. At MRM 108.11, the trench will be graded to drop from the south shoulder to the north ditch. At MRM 109.39, the trench will be graded to drop from centerline to both ditches (see underdrain detail sheets). Place 4-inch Perforated PVC Drain Pipe with a filter fabric drain sleeve in the center of the trench bottom. Using SDR solvent weld PVC coupling, connect 4-inch PVC Outlet Pipe to the end of the Perforated PVC Drain Pipe and place in the center of the trench. The outlet tubing will daylight at a headwall placed above the ditch bottom to provide positive drainage from the outlet and blend into the inslope. The depth of the trench may be adjusted to maintain the minimum grade needed to maintain positive drainage and proper placement of the headwalls. Backfill the trench containing 4-inch Perforated PVC Drain Pipe and Porous Backfill. The remainder of the trench from the edge of the subgrade top to the headwall will be backfilled with compacted soil. The 4-inch diameter Perforated PVC Drain Pipe will be PS 46 Solvent Weld PVC pipe conforming to ASTM F758 or SD35 Solvent Weld PVC Pipe conforming to ASTM D3034 with perforations in accordance with ASTM F758. The 4-inch diameter PVC Outlet Pipe will be Schedule 40 PVC Pipe conforming to ASTM D1785 designated as PVC 1120, PVC 1220, or PVC 2120. Pipe sections will be connected using a PVC Solvent Cement conforming to ASTM D2564. The Drain Sleeve will conform to ASTM D6707.

The estimated quantities for the underdrain system are as follows:

MRM 108.11			
4" Perforated PVC Drain Pipe with Filter Fabric Drain Sleeve	140	Ft	
4" PVC Outlet Pipe	20	Ft	
Porous Backfill	160	Ton	
Headwalls (See Standard Plate 430.50)	1	Each	

MRM 109.39			
4" Perforated PVC Drain Pipe with Filter Fabric Drain Sleeve	120	Ft	
4" PVC Outlet Pipe	40	Ft	
Porous Backfill	140	Ton	
Headwalls (See Standard Plate 430.50)	2	Each	

Total Estimate of Quantities			
4" Perforated PVC Drain Pipe with Filter Fabric Drain Sleeve	260	Ft	
4" PVC Outlet Pipe	60	Ft	
Porous Backfill	300	Ton	
Headwalls (See Standard Plate 430.50)	3	Each	
Type 2 Object Marker (installed at each headwall)	3	Each	

The SDDOT Geotechnical Engineering Activity will be contacted a minimum of one week prior to pavement removal for assistance in locating the fault trace underdrains and outlet locations.

Care must be taken to ensure that the drainage tubing is not damaged during construction.

The drain location and depth given are based on the best information available to the Geotechnical Engineering Activity. The actual field conditions may require that adjustments be made by the Project Engineer to provide for sufficient drainage. The Geotechnical Engineering Activity will be available for onsite assistance as necessary.

Outlet headwalls will be cleared of topsoil, straw, or other debris after seeding operations have been completed. The as-built headwall locations will be recorded and submitted to the Engineer. Each headwall location will be identified by GPS Coordinates and Station and Offset. The headwall locations will be catalogued in the Belle Fourche Area office for future reference in post-construction maintenance.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	9	86

PAVEMENT PROFILE CORRECTION

The pavement profile will be corrected as shown on the Typical Pavement Profile Correction Section by placing a Class Q3R Hot Mised Asphalt Concrete pavement profile correction lift(s) on both sides of the apex of the heave. The Contractor may be required to place multiple paving lifts at each location to correct the pavement profile. Plans tonnage may be varied at locations where material must be placed to achieve an acceptable profile.

Pavement profile correction lifts should be placed prior to cold milling operations. Areas where pavement profile correction lifts have been placed will not be cold milled unless necessary to correct the profile as determined by the Engineer. Cold Milling Asphalt Concrete at the apex of the heave could result in a thinner, inadequate pavement section and not be allowed.

Base Course placement may be required on the shoulder/inslope area to eliminate drop offs greater than 3” and to make sure the inslope does not exceed 4:1. Base Course placement on the shoulder/inslope will be at locations directed by the Engineer and will not be done until after mainline paving operations have been completed. Base Course will be compacted to the satisfaction of the Engineer.

The pavement profile correction lifts will be compacted by the Specified Roller Coverage Method. All remaining requirements for Class Q3R Hot Mixed Asphalt Concrete will apply.

The height between uneven roadway lanes cannot be greater than 3” within a lane closure boundary. The lane closures and paving operations will alternate between lanes until the pavement profile has been corrected to the satisfaction of the Engineer. The Contractor will allow sufficient cooling time of each lift of asphalt prior to opening the lane to traffic.

The final lift of asphalt will be 2” of Class Q3R Asphalt Concrete placed with the mailing lift at the apex elevation and extended across the low area of the heave. It will then be tapered at a rate of 1” per 60’.

Reflectorized drums will be placed on the edge of the asphalt shoulder at a spacing of 100’ where a shoulder drop off is greater than 3” before opening the lane to traffic.

MRM	to	MRM	Station to	Station
102.90±			362+00	364+00
105.78±			514+00	516+00
111.00±			789+00	791+50
111.60±			814+50	816+00
111.87±			841+00	843+50
112.33±	112.45		864+00	4+00

TABLE OF PVC COATED BANK AND CHANNEL PROTECTION GABIONS AND DRAINAGE FABRIC – PCN 079F, SD34

Station	MRM	L/R	Coated Bank and Channel Protection Gabion (CuYd)	Type B Drainage Fabric (SqYd)
204+12	99+0.867	R	6.0	19
224+50	100+0.252	R	24.0	68
553+92	106+0.531	R	6.0	19
582+40	107+0.071	R	26.0	68
589+00	107+0.199	R	6.0	19
712+18	109+0.504	R	4.5	15
*778+00	110+0.755	R	6.0	19
849+64	112+0.104	R	12.0	34
38+50	113+0.147	R	6.0	19
Totals:			96.5	280

*Existing gabions will be removed and reset (incidental to above bid items).

TABLE OF PVC COATED BANK AND CHANNEL PROTECTION GABIONS AND DRAINAGE FABRIC – PCN 06PH, SD73

Station	MRM	L/R	PVC Coated Bank and Channel Protection Gabion (CuYd)	Type B Drainage Fabric (SqYd)
34+04	160+0.704	R	24.0	68
102+44	161.21+0.782	R	6.0	19
150+20	162+0.850	R	12.0	38
164+24	163+0118	L	10.0	29
183+75	163+0.490	R	24.0	68
217+72	164+0.137	L	6.0	19
393+44	167+0.483	R	6.0	19
675+30	172+0.851	L	6.0	19
Totals:			94.0	279

TABLE OF RIPRAP AND DRAINAGE FABRIC – PCN 079F, SD34

MRM	Station	Approx. Size	L/R	Class C Riprap (Ton)	Type B Drainage Fabric (SqYd)
110+0.380	758+10	27’x20’	R	56.0	81
112+0.582	10+63	30’x65’	R	202.2	259
112+0.582	10+63	10’x15’	R	40.0	
Totals:				298.2	340

TABLE OF RIPRAP – PCN 079F, SD34

MRM	Station	Approx. Size	L/R	Salvage Riprap (Ton)	Place Riprap (SqYd)	Type B Drainage Fabric (SqYd)
112+0.582	10+63	30’x50’	R	150	150	202
Totals:				150	150	202

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	10	86

Revised 9/18/2025 NJT

TABLE OF REINFORCED CONCRETE PIPE JOINT REPAIR AND VOID GROUTING – PCN 06PH, SD73

MRM	Station	Type	No. Joints to Repair	Culvert Joint Cleaning (Ft)	Repair Culvert Joint (Ft)	Chemical Grout Void Fill (Gal)
162+0.411	87+00	12’x12’ RCBC (Inside Centerline Joint)	1	12	12	9
Totals:				12	12	9

TABLE OF PIPE QUANTITIES

MRM Station Offset (L/R)							Corrugated Metal		CIPP Liner		Cleanout for Culvert Treatment
							#Circular Flared End				
			Remove Pipe End Section	Remove Pipe End Section for Reset	Reset Pipe End Section	Remove Pipe Section	18"	30"	18"	30"	
Each	Each	Each	Ft	Each	Each	Ft	Ft	Each			
SD Highway 34, PCN 079F											
99+0.867	204+12	R		1	1						
100+0.252	224+50	R		2	2						
106+0.531	553+92	R		1	1						
107+0.071	582+40	R		1	1						
107+0.199	589+00	R		1	1						
109+0.504	712+18	R		1	1						
112+0.104	849+64	R		1	1						
113+0.147	38+50	R	2				2		128	1	
114+0.076	88+00	L	2			2	2	72		1	
114+0.220	95+60	L/R	2				2				
TOTAL (PCN 079F):			6	8	8	2	2	4	72	128	2
SD Highway 73, PCN 06PH											
160+0.704	34+04	R		1	1						
161.21+0.782	102+44	R		1	1						
162+0.850	150+20	R		1	1						
163+0.118	164+24	L		1	1						
163+0.490	183+75	R		1	1						
164+0.137	217+72	L		1	1						
167+0.483	393+44	R		1	1						
172+0.851	675+30	L		1	1						
TOTAL (PCN 06PH):				8	8						

(#) Aluminum Coated (type 2) in accordance with AASHTO M36. See notes for additional information.

MAILBOXES

The Contractor will reset the existing mailboxes on new posts with the necessary support hardware for single or double mailbox assemblies. The local Postmaster will determine the recommended mounting height of the mailboxes throughout the project. The Contractor will coordinate with the Engineer on the proper postal representative to contact.

If large mailboxes are located at double mailbox installations, a single post may need to be used for the large mailbox.

All costs for removing existing mailboxes, providing temporary mailboxes, and resetting mailboxes with new posts and necessary support hardware will be incidental to the contract unit price per each for “Refurbish Single Mailbox” or “Refurbish Double Mailbox”. New posts will be wood.

TABLE OF REFURBISH MAILBOX – PCN 079F, SD34

MRM	L/R	Single (Each)	Double (Each)
97+0.281	R	1	
98+0.081	R		1
99+0.926	R	1	
100+0.182	R	1	
101.19+0.009	R	1	
103+0.224	R	2	
106+0.190	L	1	
108+0.188	L	1	
Totals:		8	1

TABLE OF REFURBISH MAILBOX – PCN 06PH, SD73

MRM	L/R	Single (Each)	Double (Each)
162+0.030	R		1
165+0.282	R	3	
169+0.309	R	1	
173+0.793	L	2	
Totals:		6	1

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	11	86

Revised 9/18/2025 NJT

TEMPORARY FENCE

The Contractor will verify the location of the temporary fence with the landowner prior to installation of the fence.

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 are contacts regarding the E-Z Brace:

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

TABLE OF FENCE QUANTITIES – PCN 079F, SD34

Station to Station		Side (L/R)	Right-of-Way Fence		Temporary Fence		Post Panels	
			Type 2 (Ft)		Type 1 (Ft)		2 Post Panel (Each)	Remove Fence (Ft)
10+09	11+15	R	106		270		2	106
TOTALS:			106		270		2	106

Post Type and Sequence:

Right-of-w ay fence will be constructed using wood posts.

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. 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 throughout the project.

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.

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.

FULL DEPTH RECLAMATION, SHOULDER

Prior to placing asphalt concrete on the shoulder it is anticipated that the Contractor will be required to add approximately 50 tons of Base Course, Salvaged Asphalt Mix per mile per shoulder to the existing shoulders to meet the cross slope and inslope requirements shown in the typical sections.

Base Course, Salvaged Asphalt Mix and in-place shoulder material will be processed in place so that a uniform blend is obtained. The material will be handled to ensure that salvaged material is not lost down the inslope. The final rolling of the top surface of the materials will embed as many loose stones as possible. The finished surface will be smooth and free from waves and the Contractor will finish the surfacing materials to within 0.5% of the typical section cross slope. The final shaping of the granular material on the shoulder must be completed after the Cold Milling Asphalt Concrete operation.

If additional granular material is needed to meet the shape of the typical section the Contractor will use the salvaged asphalt concrete produced from Cold Milling Asphalt Concrete and place it prior to the Full Depth Reclamation, Shoulder.

The requirements of Specifications 280.3.B will not apply. All other requirements of Section 280, Full Depth Reclamation (FDR) will apply.

Included in the Estimate of Quantities are 13.7 MGal of Water for Granular Material per mile for compaction.

BASE COURSE, SALVAGED ASPHALT MIX

Base Course, Salvaged Asphalt Mix estimated at 7,872 tons will be obtained from the cold milled material produced on this project (4,552 tons on PCN 079F and 3,320 tons on PCN 6PH).

The Base Course, Salvaged Asphalt Mix will be crushed to meet the requirements of Section 884.2 D.3 prior to placement.

The shaping and compaction of the material will be incidental to Full Depth Reclamation, Shoulder.

COLD MILLING ASPHALT CONCRETE

The Los Angeles Abrasion Loss value on the aggregate used for the in-place asphalt concrete was 24 for SD73 and 25 for SD34. 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). In areas where maintenance patches have raised and/or widened the road, additional asphalt concrete will be milled to provide a uniform typical section from centerline to the edge of the finished shoulder. These areas also include farm, residential, field entrances and intersecting roads. Milling will be daylighted to the outside edge of the roadway. Any additional costs associated with this additional cold milling will be incidental to the contract unit price per square yard for “Cold Milling Asphalt Concrete”.

The initial lift of asphalt paving will be completed within 14 days after the pavement has been cold milled. The blade laid asphalt will be considered the initial lift of asphalt. If any pavement repairs or digouts are required by the Engineer after that time frame they will be repaired by the Contractor at their own expense.

Cold milling asphalt is estimated to produce 27,693 tons of cold milled asphalt concrete material (15,745 tons from PCN 079F and 11,948 tons from PCN 06PH). An estimated 7,872 tons of cold milled asphalt concrete material will be used on this project as Base Course, Salvaged Asphalt Mix prior to the Full Depth Reclamation, Shoulder treatment and placement on intersecting roads and approaches (4,552 tons for PCN 079F and 3,320 tons for PCN 06PH). An estimated 9,535 tons of cold milled asphalt concrete material will be used on this project as RAP in the Class Q3R Hot Mixed Asphalt Concrete mixture for Alternate A on PCN 079F and an estimated 9,864 tons on Alternate B. An estimated 7,163 tons of cold milled asphalt concrete material will be used on this project as RAP in the Class Q3R Hot Mixed Asphalt Concrete mixture for Alternate A on PCN 06PH and an estimated 7,415 tons on Alternate B. The Contractor is responsible to assure enough asphalt concrete salvage is available for the Class Q3R Hot Mixed Asphalt Concrete.

The remainder of the salvaged asphalt concrete material will become the property of the Contractor for disposal.

RAP achieved for project use and/or other uses is based on the dimensions given in the typical section(s). Field conditions will vary from that given in the typical section(s). Therefore, the Contractor may be required to adjust the mill depth, as necessary, to provide the quantity of RAP specified by the plans, if approved by the Engineer.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	12	86

ASPHALT CONCRETE BLADE LAID

Included in the Estimate of Surfacing Quantities are 150 tons of Asphalt Concrete Blade Laid, 1.5 tons of Hydrated Lime, and 11.1 tons of PG 58-34 Asphalt Binder per mile and will be tight bladed on the existing surface 24 feet wide prior to the overlay of Sections 1-5. Gaps at centerline will not be permitted.

Included in the Estimate of Surfacing Quantities are 300 tons of Asphalt Concrete Blade Laid, 3.0 tons of Hydrated Lime, and 33.3 tons of PG 58-34 Asphalt Binder per mile and will be tight bladed on the existing surface 48 feet wide prior to the overlay of Section 6.

Mineral Aggregate for tight bladed material will use only the fine aggregate components combined in the same proportions as the Class Q3R Hot Mixed Asphalt Concrete mix. Mineral Aggregate for tight bladed material will meet the gradation requirements of the Job Mix Formula. Fine Aggregate Angularity and Sand Equivalent requirements will be the same as the Class Q3R Hot Mixed Asphalt Concrete mix. Quality testing is not required on the coarse aggregate (+No. 4 sieve) in this mixture.

The Asphalt Concrete Blade Laid Lift will be designed using an N_{design} Gyratory Compactive Effort of 65. The asphalt binder content will be determined so that the air voids of Asphalt Concrete Blade Laid Lift are between 3.0% and 5.0%.

Included in the Estimate of Surfacing Quantities are 184 tons of SS-1h or CSS-1h Asphalt for Tack (105 tons for PCN 079F and 79 tons for PCN 06PH) for use prior to the application of the Blade Laid lift. (Rate = 0.09 Gal./SqYd)

ASPHALT CONCRETE COMPOSITE

The asphalt binder used in the mixture will be PG 58-34.

Section 324 will apply except that Class Q3R Hot Mixed Asphalt Concrete as specified elsewhere in the plans may be used as Asphalt Concrete Composite.

Plans specified locations for Asphalt Concrete Composite will be paid for at the contract unit price per ton for “Asphalt Concrete Composite” regardless of the class of asphalt concrete used at such locations.

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Mineral Aggregate:
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. RAP will be obtained from the material produced by cold milling on this project.

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 and Production 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

Pay Factor Attributes – Alternate B:

Air Voids:	
	Air Voids (%):
Class Q3R	3.5 ±1.0

All remaining requirements for Class Q3 will apply.

ADDITIONAL QUANTITIES

Included in the Estimate of Surfacing Quantities are 100 tons of Class Q3R Hot Mixed Asphalt Concrete, 1.0 tons of Hydrated Lime, and 4.6 tons of PG 58-34 Asphalt Binder per mile for Alternate A, and 100 tons of Class Q3R Hot Mixed Asphalt Concrete, 1.0 tons of Hydrated Lime, and 3.7 tons of PG 58-34 Asphalt Binder per mile for Alternate B for spot leveling, strengthening, and repair of the existing surface for the entire project.

Included in the Estimate of Surfacing Quantities are 4.7 tons of SS-1h or CSS-1h Emulsified Asphalt for Tack for repair and leveling areas for PCN 079F.

Included in the Estimate of Surfacing Quantities are 3.5 tons of SS-1h or CSS-1h Emulsified Asphalt for Tack for repair and leveling areas for PCN 06PH.

FLUSH SEAL

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

Application of 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 center line and 6" on each edge line free of sand.

BLOTTING SAND FOR PRIME

Included in the Estimate of Quantities are 5 tons of Blotting Sand for Prime to be used where necessary for maintenance of traffic as directed by the Engineer. (Rate = 10 pounds per square yard)

SURFACING THICKNESS DIMENSIONS

The plans shown spread rates will be applied even though the thickness may vary from that shown in the plans.

At those locations where material must be placed to achieve a required elevation, the depth/quantity may be varied to achieve the required elevation.

A copy of the surfacing/subgrade investigations for these projects are available from the Rapid City Region and Belle Fourche Area offices.

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". One storage unit will be used for both project sections.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	13	86

CHECKING SPREAD RATES

The Contractor will be responsible for checking the Base Course, Salvaged and Asphalt Concrete spread rates and taking the weigh delivery tickets as the surfacing material arrives on the project and is placed onto the roadway.

The Contractor will compute the required spread rates for each typical surfacing section 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 day’s shift, 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’,
- The ticket summary is initialed and certified that the delivered and placed quantity is correct.

All daily tickets and the summary 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. 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 ±1/2 inch of the plan shown depth, 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 action 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 the “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.

RATES OF MATERIALS

Rates of asphalt concrete will not be provided for Section 4, due to its short length.

The Estimate of Surfacing Quantities is based on the following quantities of materials **per mile**.

SECTIONS 1 & 3

CLASS Q3R HOT MIXED ASPHALT CONCRETE – 2” Mainline Lift

	Alt A	Alt B	
Aggregate: 80%	1927	1998	Tons
Salvaged Asphalt Concrete: 20%	482	500	Tons
PG 58-34 Asphalt Binder	116	96	Tons
Total Mix	2525	2594	Tons
Hydrated Lime	25	26	Tons
Total Mix with Hydrated Lime	2550	2620	Tons

The exact proportions of these materials will be determined on construction.

PRIME

MC-70 Asphalt for Prime at the Rate of 4.17 ton applied 6 feet wide per shoulder (Rate = 0.30 gallon per square yard). Applied after FDR and prior to paving.

TACK

SS-1h or CSS-1h Emulsified Asphalt for Tack at the rate of 5.61 tons applied 25 feet wide (Rate = 0.09 gallon per square yard). Prior to the Asphalt Concrete Blade Laid.

SS-1h or CSS-1h Emulsified Asphalt for Tack at the rate of 5.54 tons applied 37 feet wide (Rate = 0.06 gallon per square yard). Prior to the mainline lift.

FLUSH SEAL

SS-1h or CSS-1h Emulsified Asphalt for Flush Seal at the rate of 4.49 tons/mile applied 36 feet wide (Rate = 0.05 gallon per square yard).

Sand for Flush Seal at the rate of 51.63 ton applied 22 feet wide (Rate = 8 lbs. per square yard).

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	14	86

The Estimate of Surfacing Quantities is based on the following quantities of materials **per station**.

SECTION 2

CLASS Q3R HOT MIXED ASPHALT CONCRETE – 2” Mainline Lift

	Alt A	Alt B	
Aggregate: 80%	37.66	39.04	Tons
Salvaged Asphalt Concrete: 20%	9.41	9.76	Tons
PG 58-34 Asphalt Binder	2.27	1.88	Tons
Total Mix	49.34	50.68	Tons
Hydrated Lime	0.49	0.51	Tons
Total Mix with Hydrated Lime	49.83	51.19	Tons

The exact proportions of these materials will be determined on construction.

TACK

SS-1h or CSS-1h Emulsified Asphalt for Tack at the rate of 0.11 tons applied 25 feet wide (Rate = 0.09 gallon per square yard). Prior to the Asphalt Concrete Blade Laid.

SS-1h or CSS-1h Emulsified Asphalt for Tack at the rate of 0.12 tons applied 40 feet wide per side (Rate = 0.06 gallon per square yard). Prior to the mainline lift.

FLUSH SEAL

SS-1h or CSS-1h Emulsified Asphalt for Flush Seal at the rate of 0.10 tons/station applied 40 feet wide (Rate = 0.05 gallon per square yard).

Sand for Flush Seal at the rate of 0.97 ton applied 22 feet wide (Rate = 8 lbs. per square yard).

RATES OF MATERIALS (Continued)

The Estimate of Surfacing Quantities is based on the following quantities of materials **per mile**.

SECTION 5

CLASS Q3R HOT MIXED ASPHALT CONCRETE – 2” Mainline Lift

	Alt A	Alt B	
Aggregate: 80%	1579	1637	Tons
Salvaged Asphalt Concrete: 20%	395	409	Tons
PG 58-34 Asphalt Binder	95	79	Tons
Total Mix	2069	2125	Tons
Hydrated Lime	21	21	Tons
Total Mix with Hydrated Lime	2090	2146	Tons

The exact proportions of these materials will be determined on construction.

TACK

SS-1h or CSS-1h Emulsified Asphalt for Tack at the rate of 5.61 tons applied 25 feet wide (Rate = 0.09 gallon per square yard). Prior to the Asphalt Concrete Blade Laid.

SS-1h or CSS-1h Emulsified Asphalt for Tack at the rate of 5.24 tons applied 35 feet wide (Rate = 0.06 gallon per square yard). Prior to the mainline lift.

FLUSH SEAL

SS-1h or CSS-1h Emulsified Asphalt for Flush Seal at the rate of 4.24 tons/mile applied 34 feet wide (Rate = 0.05 gallon per square yard).

Sand for Flush Seal at the rate of 51.63 ton applied 22 feet wide (Rate = 8 lbs. per square yard).

The Estimate of Surfacing Quantities is based on the following quantities of materials **per station**.

SECTION 6

CLASS Q3R HOT MIXED ASPHALT CONCRETE – 2” Mainline Lift

	Alt A	Alt B	
Aggregate: 80%	51.83	53.73	Tons
Salvaged Asphalt Concrete: 20%	12.96	13.43	Tons
PG 58-34 Asphalt Binder	3.12	2.58	Tons
Total Mix	67.91	69.74	Tons
Hydrated Lime	0.68	0.70	Tons
Total Mix with Hydrated Lime	68.59	70.44	Tons

The exact proportions of these materials will be determined on construction.

TACK

SS-1h or CSS-1h Emulsified Asphalt for Tack at the rate of 0.22 tons applied 49 feet wide (Rate = 0.09 gallon per square yard). Prior to the Asphalt Concrete Blade Laid.

SS-1h or CSS-1h Emulsified Asphalt for Tack at the rate of 0.17 tons applied 57 feet wide per side (Rate = 0.06 gallon per square yard). Prior to the mainline lift.

FLUSH SEAL

SS-1h or CSS-1h Emulsified Asphalt for Flush Seal at the rate of 0.13 tons/station applied 56 feet wide (Rate = 0.05 gallon per square yard).

Sand for Flush Seal at the rate of 1.95 ton applied 44 feet wide (Rate = 8 lbs. per square yard).

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	15	86

GRIND RUMBLE STRIPS/STRIPES IN ASPHALT CONCRETE

Asphalt concrete rumble strips will be constructed on the shoulders. Rumble strips will be paid for at the contract unit price per mile for Grind 12” Rumble Strip or Stripe in Asphalt Concrete. It is estimated that 37.2 miles (SD34, PCN 079F) and 27.3 miles (SD73, PCN 06PH) of asphalt concrete rumble strips will be required.

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 12” rumble strips at a width of 18” 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 paid at the contract unit price per ton.

TABLE OF SURFACING QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	16	86

Revised 9/18/2025 NJT

																		Alt A			Alt B				
Section	Station to	Station	Length	Cold Milling Asphalt Concrete	Full Depth Reclamation (FDR), Shoulder	Undercutting	Water for Granular Material	Unclassified Excavation, Digouts	Base Course, Salvaged Asphalt Mix	Remove Asphalt Concrete Pavement	Base Course	Asphalt Concrete Composite	SS-1h or CSS-1h Asphalt for Tack	Asphalt Concrete Blade Laid	Hydrated Lime	PG 58-34 Asphalt Binder	MC-70 Asphalt for Prime	PG 58-34 Asphalt Binder	Class Q3R Hot Mixed Concrete	Hydrated Lime	PG 58-34 Asphalt Binder	Class Q3R Hot Mixed Asphalt Concrete	Hydrated Lime	SS-1h or CSS-1h Asphalt for Flush Seal	Sand for Flush Seal
			Ft	SqYd	SqYd	CuYd	Mgal	CuYd	Ton	SqYd	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton
SD34 (PCN 079F)																									
3	40+13.0	64+01.22	2388.22	6,899	3,184		6.2	23	45.2	33.9	45.2	11.3	5.0	67.8	0.7	5.0	3.8	52.5	1,153.4	11.3	43.4	1,185.1	11.8	2.0	23.4
Equation	64+01.22	64+00.77																							
3	64+00.77	127+92.87	6392.10	18,466	8,523		16.6	61	121.1	90.8	121.1	30.3	13.5	181.6	1.8	13.4	10.1	140.4	3,087.1	30.3	116.2	3,171.8	31.5	5.4	62.5
Equation	127+92.87	127+91.96																							
3	127+91.96	240+01.28	11209.32	32,383	14,946		29.1	106	212.3	159.2	212.3	53.1	23.7	318.4	3.2	23.6	17.7	246.3	5,413.6	53.1	203.8	5,562.2	55.2	9.5	109.6
Equation	240+01.28	240+00.83																							
3	240+00.83	378+01.21	13800.38	39,868	18,401		35.8	131	261.4	196	261.4	65.3	29.1	392.1	3.9	29.0	21.8	303.2	6,665.0	65.3	250.9	6,847.9	68.0	11.7	134.9
Equation	378+01.21	378+00.77																							
3	378+00.77	553+01.27	17500.50	50,557	23,334		45.4	166	331.4	248.6	331.4	82.9	36.9	994.3	9.9	36.8	27.7	384.5	8,451.9	82.9	318.2	8,684.0	86.2	14.9	171.1
Equation	553+01.27	553+00.95																							
3	553+00.95	720+22.45	16721.50	48,307	22,295		43.4	158	316.7	237.5	316.7	79.2	35.3	475.0	4.8	35.2	26.4	367.4	8,075.7	79.2	304.0	8,297.4	82.3	14.2	163.5
Equation	720+22.45	719+92.06																							
3	719+92.06	732+12.0	1219.94	3,524	1,627		3.2	12	23.1	17.3	23.1	5.8	2.6	34.7	0.3	2.6	1.9	26.8	589.2	5.8	22.2	605.3	6.0	1.0	11.9
4	732+12.0	735+27.0	315.00	1,085	420		0.8	3	6.0	424.5	6.0	1.5	0.7	8.9	0.1	0.7	0.5	7.1	156.1	1.5	5.9	160.3	1.6	0.3	3.1
3	735+27.0	771+73.87	3646.87	10,535	4,862		9.5	35	69.1	4914.3	69.1	17.3	7.7	155.4	1.6	7.7	5.8	80.1	1,761.3	17.3	66.3	1,809.6	18.0	3.1	35.7
Equation	771+73.87	771+72.6																							
3	771+72.6	864+21.52	9248.92	26,719	12,332		24.0	88	175.2	131.4	175.2	43.8	19.5	262.8	2.6	19.4	14.6	203.2	4,466.8	43.8	168.2	4,589.4	45.5	7.9	90.4
Equation	864+21.52	0+00.0																							
5	0+00.0	15+75.0	1575.00	5,250				15		22.4	29.8	7.5	3.2	44.7	0.4	3.3		28.3	623.4	6.3	23.6	640.1	6.3	1.3	15.4
6	15+75.0	21+10.0	535.00	3,329				5		7.6	10.1	2.5	2.0	30.4	0.3	3.4		16.7	367.0	3.6	13.8	376.9	3.7	0.7	10.5
5	21+10.0	159+96.0	13886.00	46,287				131		197.2	263.0	65.7	28.5	394.5	3.9	29.2		249.8	5,496.5	55.2	207.8	5,643.8	55.2	11.2	135.8
Additional Quantities					3,325	0	2,527		0	2,990.0	1,600.0	1,145.5	9.9	5.9	0.0	0.0	0.0	179.9	3,909.9	39.1	154.3	3,935.4	39.1	0.4	7.1
	PCN 079F	Totals:	98438.75	296,534	109,924	2,527	214.0	934	4,551.5	8,280.7	3,009.9	476.1	213.6	3,360.6	33.5	209.3	130.3	2,286.2	50,216.9	494.7	1,898.6	51,509.2	510.4	83.6	974.9
SD73 (PCN 06PH)																									
1	5+00.00	71+20.32	6620.32	19,125	8,827		17.2	63	125.4	94.0	125.4	31.3	14.0	188.1	1.9	13.9	10.5	145.4	3,197.3	31.3	120.4	3,285.1	32.6	5.6	64.7
Equation	71+20.32	71+24.46																							
1	71+24.46	137+50.41	6625.95	19,142	8,835		17.2	63	125.5	94.1	125.5	31.4	14.0	188.2	1.9	13.9	10.5	145.6	3,200.0	31.4	120.5	3,287.9	32.6	5.6	64.8
Equation	137+50.41	137+50.00																							
1	137+50.00	593+90.29	45640.29	131,850	60,854		118.3	432	864.4	648.3	864.4	216.1	96.3	1,296.6	13.0	96.0	72.1	1,002.7	22,042.2	216.1	829.8	22,647.3	224.7	38.8	446.3
Equation	593+90.29	593+50.00																							
1	593+50.00	653+00.41	5950.41	17,190	7,934		15.4	56	112.7	84.5	112.7	28.2	12.6	169.0	1.7	12.5	9.4	130.7	2,873.8	28.2	108.2	2,952.7	29.3	5.1	58.2
Equation	653+00.41	653+00.00																							
1	653+00.00	725+50.00	7250.00	20,944	9,667		18.8	69	137.3	103.0	137.3	34.3	15.3	206.0	2.1	15.2	11.5	159.3	3,501.4	34.3	131.8	3,597.5	35.7	6.2	70.9
2	725+50.00	743+46.15	1796.15	7,983				17		25.5	34.0	8.5	4.1	51.0	0.5	3.8		40.8	895.0	8.8	33.8	919.4	9.2	1.7	17.5
Additional Quantities					1,694	0	0	0	1,955.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	95.0	2,064.3	20.6	76.4	2,064.3	20.6	0.0	0.0
	PCN 06PH	Totals:	73883.12	217,928	96,117	0	186.9	700	3,320.3	1,049.4	1,399.3	349.8	159.8	2,098.9	21.1	155.3	114.0	1,719.5	37,774.0	370.7	1,420.9	38,754.2	384.7	63.0	722.4

TABLE OF ADDED SURFACING QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	17	86

Revised 9/18/2025 NJT

																	Alt A			Alt B				
			Cold Milling Asphalt Concrete SqYd	Full Depth Reclamation (FDR), Shoulder SqYd	Undercutting CuYd	Water for Granular Material Mgal	Unclassified Excavation, Digouts CuYd	Base Course, Salvaged Asphalt Mix Ton	Remove Asphalt Concrete Pavement SqYd	Base Course Ton	Asphalt Concrete Composite Ton	SS-1h or CSS-1h Asphalt for Tack Ton	Asphalt Concrete Blade Laid Ton	Hydrated Lime Ton	PG 58-34 Asphalt Binder Ton	MC-70 Asphalt for Prime Ton	PG 58-34 Asphalt Binder Ton	Class Q3R Hot Mixed Asphalt Concrete Ton	Hydrated Lime Ton	PG 58-34 Asphalt Binder Ton	Class Q3R Hot Mixed Asphalt Concrete Ton	Hydrated Lime Ton	SS-1h or CSS-1h Asphalt for Flush Seal Ton	Sand for Flush Seal Ton
SD34 (PCN 079F)																								
Spot Leveling, Strengthening, and Repair of Existing Surface												4.7					85.8	1,864.4	18.6	69.0	1,864.4	18.6		
Fault-Heave Repair Locations																								
MRM 108.09 to MRM 108.14					1,579.4				1,000.0	715.9	6.2													
MRM 109.38 to MRM 109.41					947.7				600.0	429.6	3.7													
Profile Correction																								
Sta. 362+00 to 364+00 (MRM 102.90±)																	4.7	101.8	1.0	4.8	104.5	1.0		
Sta. 514+00 to 516+00 (MRM 105.78±)																	4.7	101.8	1.0	4.8	104.5	1.0		
Sta. 789+00 to 791+50 (MRM 111.00±)																	5.9	127.2	1.3	6.0	130.6	1.3		
Sta. 814+50 to 816+00 (MRM 111.60±)																	3.5	76.3	0.8	3.6	78.4	0.8		
Sta. 841+00 to 843+50 (MRM 111.87±)																	5.9	127.2	1.3	6.0	130.6	1.3		
Sta. 864+00 to 4+00 (MRM 112.33± to MRM 112.45)																	9.9	214.4	2.1	10.1	220.2	2.1		
Turn Lane Transitions (Section 5)																								
Sta. 9+25 to Sta. 15+75			867									0.6					4.4	97.2	1.0	4.5	99.8	1.0	0.2	3.5
Sta. 21+10 to Sta. 27+90			907									0.6					4.6	101.6	1.0	4.8	104.4	1.0	0.2	3.6
Intersecting Roads and Entrances																								
Gravel Entrances (79)								2,765.0									32.7	711.0	7.1	26.3	711.0	7.1		
Asphalt Entrances (3)			150					105.0									1.2	27.0	0.3	1.0	27.0	0.3		
Intersecting Gravel Roads (8)			1,401					120.0									12.9	280.0	2.8	10.4	280.0	2.8		
Mailbox Turnouts (10)																	3.7	80.0	0.8	3.0	80.0	0.8		
(PCN 079F, SD34) Totals:			3,325		2,527.1			2,990.0	1,600.0	1,145.5	9.9	5.9					179.9	3,909.9	39.1	154.3	3,935.4	39.1	0.4	7.1
SD73 (PCN 06PH)																								
Spot Leveling, Strengthening, and Repair of Existing Surface												3.5					64.4	1,399.3	14.0	51.8	1,399.3	14.0		
Intersecting Roads and Entrances																								
Gravel Entrances (49)								1,715.0									20.3	441.0	4.4	16.3	441.0	4.4		
Asphalt Entrances (6)			796					210.0									2.5	54.0	0.5	2.0	54.0	0.5		
Intersecting Asphalt Roads (2)			416														4.6	100.0	1.0	3.7	100.0	1.0		
Intersecting Gravel Roads (2)			482					30.0									3.2	70.0	0.7	2.6	70.0	0.7		
(PCN 06PH, SD73) Totals:			1,694.0					1,955.0				3.5					95.0	2,064.3	20.6	76.4	2,064.3	20.6		

TABLE OF CLASS Q3R ASPHALT CONCRETE COMPACTION

				Alt A		Alt B	
Section	Station to	Station	Length	Asphalt Concrete Class Q3R with Specified Compaction Ton	Asphalt Concrete Class Q3R without Specified Compaction Ton	Asphalt Concrete Class Q3R with Specified Compaction Ton	Asphalt Concrete Class Q3R without Specified Compaction Ton
SD34 (PCN 079F)							
3	40+13.0	64+01.22	2388.22	706.9	446.5	726.0	459.1
Equation	64+01.22	64+00.77					
3	64+00.77	127+92.87	6392.10	1,892.1	1,195.0	1,943.2	1,228.6
Equation	127+92.87	127+91.96					
3	127+91.96	240+01.28	11209.32	3,318.0	2,095.6	3,407.6	2,154.6
Equation	240+01.28	240+00.83					
3	240+00.83	378+01.21	13800.38	4,084.9	2,580.1	4,195.3	2,652.6
Equation	378+01.21	378+00.77					
3	378+00.77	553+01.27	17500.50	5,180.1	3,271.8	5,320.2	3,363.8
Equation	553+01.27	553+00.95					
3	553+00.95	720+22.45	16721.50	4,949.6	3,126.1	5,083.3	3,214.1
Equation	720+22.45	719+92.06					
3	719+92.06	732+12.0	1219.94	361.1	228.1	370.9	234.4
4	732+12.0	735+27.0	315.00	93.2	62.9	95.8	64.5
3	735+27.0	771+73.87	3646.87	1,079.5	681.8	1,108.6	701.0
Equation	771+73.87	771+72.6					
3	771+72.6	864+21.52	9248.92	2,737.7	1,729.1	2,811.7	1,777.7
Equation	864+21.52	0+00.0					
5	0+00.0	15+75.0	1575.00	466.2	157.2	478.8	161.3
6	15+75.0	21+10.0	535.00	158.4	208.6	162.6	214.3
5	21+10.0	159+96.0	13886.00	4,110.3	1,386.2	4,221.3	1,422.5
Add Quantities				2,811.9	1,098.0	2,837.4	1,098.0
SD34 (PCN 079F)		Total	98,438.8	31,949.9	18,267.0	32,762.7	18,746.5
SD73 (PCN 06PH)							
1	5+00.00	71+20.32	6620.32	1,959.6	1,237.7	2,012.6	1,272.5
Equation	71+20.32	71+24.46					
1	71+24.46	137+50.41	6625.95	1,961.3	1,238.7	2,014.3	1,273.6
Equation	137+50.41	137+50.00					
1	137+50.00	593+90.29	45640.29	13,509.5	8,532.7	13,874.6	8,772.7
Equation	593+90.29	593+50.00					
1	593+50.00	653+00.41	5950.41	1,761.3	1,112.5	1,808.9	1,143.8
Equation	653+00.41	653+00.00					
1	653+00.00	725+50.00	7250.00	2,146.0	1,355.4	2,204.0	1,393.5
2	725+50.00	743+46.15	1796.15	531.7	363.3	546.0	373.4
Add Quantities				1,399.3	665.0	1,399.3	665.0
SD73 (PCN 06PH)		Total	73,883.1	23,268.7	14,505.3	23,859.7	14,894.5

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.

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.

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. 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.

If inappropriate or conflicting pavement markings exist, the markings will be removed and replaced with applicable temporary pavement markings when the work duration is more than 3 days. When the work duration is less than 3 days, the channelizing devices in the area where the pavement markings conflict will be placed at one-half of the normal channelizing device spacing. Pavement marking removals will be incidental to the contract unit price per foot for “Remove Pavement Marking, 4” or equivalent”. Temporary pavement marking will be paid for at the contract unit price per mile/foot for “Temporary Pavement Marking”. The additional channelizing devices will be incidental to the contract lump sum price for “Traffic Control, Miscellaneous”.

A minimum lane width of 12’ will be maintained on existing roadway through work areas. The Contractor will adjust traffic control items to accommodate over width vehicles when necessary, up to 16’ wide.

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS – PCN 079F, SD34

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	4	30"	5.2	20.8
W1-4	REVERSE CURVE (R)	2	48" x 48"	16.0	32.0
W3-1	STOP AHEAD (symbol)	4	48" x 48"	16.0	64.0
W3-4	BE PREPARED TO STOP	1	48" x 48"	16.0	16.0
W8-1	BUMP	8	48" x 48"	16.0	128.0
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W8-7	LOOSE GRAVEL	14	48" x 48"	16.0	224.0
W8-3	PAVEMENT ENDS	4	48" x 48"	16.0	64.0
W8-11	UNEVEN LANES	2	48" x 48"	16.0	32.0
W8-15	GROOVED PAVEMENT	10	48" x 48"	16.0	160.0
W8-15P	MOTORCYCLE (plaque)	10	24" x 18"	3.0	30.0
W13-1P	ADVISORY SPEED (plaque)	26	30" x 30"	6.3	163.8
W20-1	ROAD WORK AHEAD	12	48" x 48"	16.0	192.0
W20-4	ONE LANE ROAD AHEAD	6	48" x 48"	16.0	96.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-1	WORKERS (symbol)	2	48" x 48"	16.0	32.0
W21-2	FRESH OIL	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	4	30" x 18"	3.8	15.2
G20-1	ROAD WORK NEXT 19 MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
-	TYPE 1 ORANGE OBJECT MARKER	24	18" x 18"	2.3	55.2
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		1471.0			

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS – PCN 06PH, SD73

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W3-4	BE PREPARED TO STOP	1	48" x 48"	16.0	16.0
W8-1	BUMP	4	48" x 48"	16.0	64.0
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W8-7	LOOSE GRAVEL	7	48" x 48"	16.0	112.0
W8-11	UNEVEN LANES	2	48" x 48"	16.0	32.0
W8-15	GROOVED PAVEMENT	7	48" x 48"	16.0	112.0
W8-15P	MOTORCYCLE (plaque)	7	24" x 18"	3.0	21.0
W13-1P	ADVISORY SPEED (plaque)	11	30" x 30"	6.3	69.3
W20-1	ROAD WORK AHEAD	17	48" x 48"	16.0	272.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-1	WORKERS (symbol)	1	48" x 48"	16.0	16.0
W21-2	FRESH OIL	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	4	30" x 18"	3.8	15.2
G20-1	ROAD WORK NEXT 14 MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
-	TYPE 1 ORANGE OBJECT MARKER	8	18" x 18"	2.3	18.4
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		925.9			

TRAFFIC CONTROL AT MRM 108.00+0.110 AND MRM 109+0.390 – PCN 079F, SD34

The traffic control for work to install underdrains at MRM 108.00+0.110 and MRM 109+0.390 will be completed by a use of a lane closure using stop signs according to standard plate 634.25.

TABLE OF FIXED TRAFFIC CONTROL SIGNS – PCN 06PH, SD73

Location	MRM	L/R	Description
SD73	160.37	R	Road Work Ahead (1)
SD73	160.39	R	Road work Next 14 Miles (1)
SD73	160.39	L	End Road Work (1)
Red Scaffold Rd	161.31(SD73)	R	Road Work Ahead (1)
Brushi Creek Rd	162.26(SD73)	L	Road Work Ahead (1)
173 St	165.29(SD73)	R	Road Work Ahead (1)
Yachting Lp	171.34(SD73)	L	Road Work Ahead (1)
Yachting Lp	172.37(SD73)	L	Road Work Ahead (1)
165 St	173.38(SD73)	L	Road Work Ahead (1)
W 6 th St	174.04(SD73)	R	Road Work Ahead (1)
W 5 th St	174.07(SD73)	R	Road Work Ahead (1)
W 4 th St	174.19(SD73)	R	Road Work Ahead (1)
W 3 rd St	174.26(SD73)	R	Road Work Ahead (1)
W 2 nd St	174.33(SD73)	R	Road Work Ahead (1)
W 1 st St	174.39(SD73)	R	Road Work Ahead (1)
US 212	174.39(SD73)	L	Road Work Ahead (1)
W 5 th Ave	114.07(US212)	L	Road Work Ahead (1)
SD73	174.39	L	Road Work Next 14 Miles (1)
SD73	174.39	R	End Road Work (1)

All signs will be spaced according to the posted speed or as directed by the Engineer.

TABLE OF FIXED TRAFFIC CONTROL SIGNS – PCN 079F, SD34

Location	MRM	Description
SD34	108.11	Road Work Ahead (2) Pavement Ends (45 MPH Plaque) (2) Loose Gravel (25 MPH Plaque) (2) One Lane Road Ahead (2) Stop Ahead (symbol) (2) Stop (2) Reverse Curve/Turn (Right) (1) Bump (2) Bump Markers (4)

Location	MRM	Description
SD34	109.39	Road Work Ahead (2) Pavement Ends (45 MPH Plaque) (2) Loose Gravel (25 MPH Plaque) (2) One Lane Road Ahead (2) Stop Ahead (symbol) (2) Stop (2) Reverse Curve/Turn (Right) (1) Bump (2) Bump Markers (2)

Location	MRM	L/R	Description
SD34	96.53	R	Road Work Ahead (1)
SD34	96.55	R	Road work Next 19 Miles (1)
SD34	96.55	L	End Road Work (1)
Avance Rd	101.19(US34)	L	Road Work Ahead (1)
39 S Rd	105.03(US34)	L	Road Work Ahead (1)
Plainview Rd	107.16(US34)	R	Road Work Ahead (1)
SD73	112.88(US34)	L	Road Work Ahead (1)
Four Corners Rd	113.42(US34)	R	Road Work Ahead (1)
SD34	115.67	L	Road Work Next 19 Miles (1)
SD34	115.67	R	End Road Work (1)
SD34	115.69	L	Road Work Ahead (1)

All signs will be spaced according to the posted speed or as directed by the Engineer.

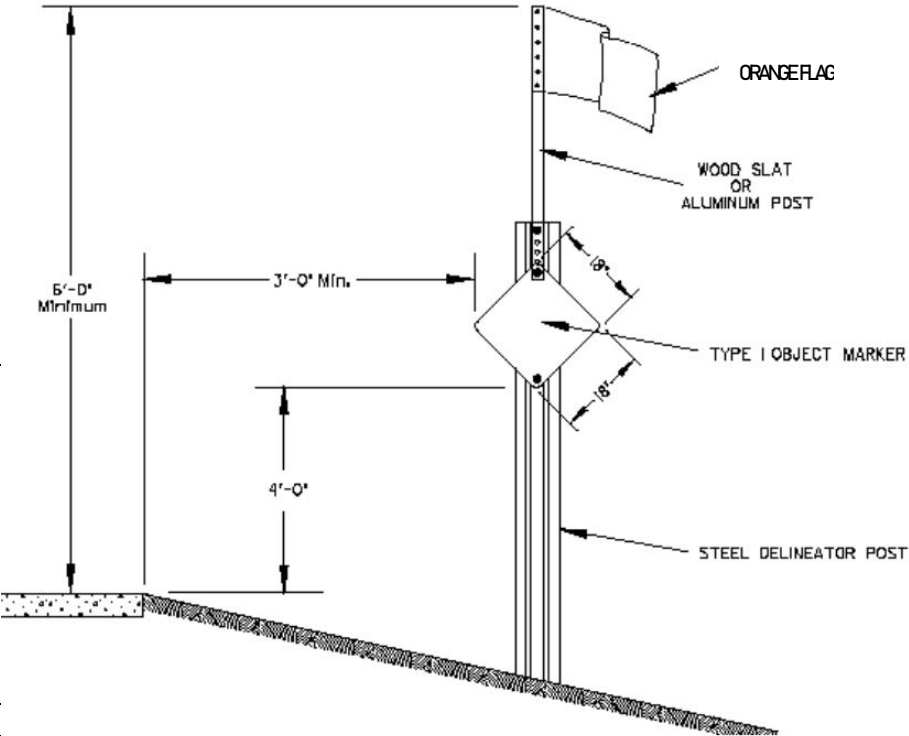
W20-1 signs are also to be used per the applicable standard plate(s).

BUMP MARKERS

Orange bump markers will be placed adjacent to the bump location. The bump marker details are shown in the following drawing. The steel delineator post will be a 1.12 lb/ft flanged channel steel post for ground mounted installation. If the duration is less than 3 days, the Type 1 Object Marker can be installed on temporary supports.

BUMP (W8-1) signs with appropriate ADVISORY SPEED (W13-1P) plaques will be placed 500 feet in advance of the bump or as approved by the Engineer for adequate sight distance.

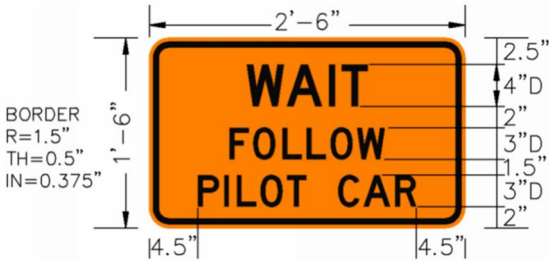
All costs for bump markers, bump signs, and advisory speed plaques will be incidental to the contract unit price per square foot for "Traffic Control Signs".



FLAGGING

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

Additional flagger warning signs and flagger hours have been included in the Estimate of Quantities for use on intersecting roads. These flaggers will be used as directed by the Engineer and will be used primarily during daytime hours. Also 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 3.6 miles on SD34 (PCN 079F) and 2.1 miles on SD73 (PCN 06PH).

It is estimated that 34 DO NOT PASS (R4-1) and 34 PASS WITH CARE (R4-2) signs will be required to mark the no passing zones along SD34 (PCN 079F), should the Contractor elect to use these signs.

It is estimated that 17 DO NOT PASS (R4-1) and 17 PASS WITH CARE (R4-2) signs will be required to mark the no passing zones along SD73 (PCN 06PH), should the Contractor elect to use these signs.

Temporary flexible vertical markers (tabs) may be used as detailed in the specifications.

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 Department.

Quantities of Temporary Pavement Markings consist of:

- One pass on top of the milled 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

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.

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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	21	86

REMOVE AND REPLACE TOPSOIL

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

The estimated amount of topsoil to be removed and replaced is 9,450 CuYd for PCN 079F and 9,400 CuYd for PCN 06PH.

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

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. All costs of inoculating the seed will be incidental to the contract unit price per pound for the corresponding permanent seed mixture.

FERTILIZING

The Contractor will apply an all-natural slow release fertilizer prior to seeding or placing sod. The all-natural fertilizer will have a minimum guaranteed analysis of 4-4-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 2.07%, a minimum of 4% (P2O5) available phosphate, a minimum of 4% (K2O) soluble potash, and a maximum carbon to nitrogen ratio (C:N ratio) of 5:1. The all-natural fertilizer will be free of weed-seed and pathogens accomplished through thermophilic composting, and not mechanical or chemical sterilization, to assure presence of beneficial soil microbiology. The

fertilizer will have a near neutral pH, a low salt index, a low biological oxygen demand, contain organic humic and fulvic acids, and have high aerobic organism counts. The fertilizer will also be stable, free of bad odors, and be unattractive as a food source for animals. It should also be in a granular form that is easily spread.

The fertilizer will be applied at a rate of 1,500 pounds per acre in accordance with the manufacturer's recommended method of application.

The Fertilizer provided will be from the approved product list. The approved product list may be viewed at the following internet site:

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

PERMANENT SEEDING

The areas to be seeded consist of all newly graded areas within the project limits except for the top of roadways and temporary easements under cultivation.

Type F Permanent Seed Mixture will consist of the following:

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

FIBER MULCHING

Fiber mulch will be applied in a separate operation following permanent seeding.

An additional 2% by weight of tackifier will be added to the fiber mulch product selected from the approved product list. If the product selected has guar gum tackifier included, then the additional 2% of tackifier will be guar gum. If the product selected has synthetic tackifier included, then the additional 2% of tackifier will be synthetic.

Fiber mulch will be applied at the rate of 2,000 pounds per acre.

The Contractor will allow the fiber mulch to cure a minimum of 18 hours prior to watering or any storm event to ensure proper cohesion between the soil and fiber particles.

All costs for the additional tackifier added to the fiber mulch including labor, equipment, and materials will be incidental to the contract unit price per ton for "Fiber Mulching".

The fiber mulch provided will be from the approved product list. The approved product list for fiber mulch may be viewed at the following internet site:

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

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	22	86

TABLE OF SEEDING, FIBER MULCHING, & FERTILIZING

Location		Area	Seeding	Fiber Mulching	Fertilizing
Station	MRM	(Acre)	(Lb)	(Ton)	(Ton)
SD34 - PCN 079F					
204+12	99+0.867	0.1	3	0.1	0.08
224+50	100+0.252	0.1	3	0.1	0.08
553+92	106+0.531	0.1	3	0.1	0.08
582+40	107+0.071	0.1	3	0.1	0.08
589+00	107+0.199	0.1	3	0.1	0.08
712+18	109+0.504	0.1	3	0.1	0.08
849+64	112+0.104	0.1	3	0.1	0.08
10+63	112+0.582	0.2	5	0.2	0.15
38+50	113+0.147	0.1	3	0.1	0.08
88+00	114+0.076	0.1	3	0.1	0.08
95+60	114+0.220	0.1	3	0.1	0.08
Ditch Regrading					
733+00	109+0.900	0.4	10	0.4	0.30
PCN 079F TOTALS:			45	1.6	1.25
SD73 - PCN 06PH					
34+04	160+0.704	0.1	3	0.1	0.08
102+44	161.21+0.782	0.1	3	0.1	0.08
150+20	162+0.850	0.1	3	0.1	0.08
164+24	163+0.118	0.1	3	0.1	0.08
183+75	163+0.490	0.1	3	0.1	0.08
217+72	164+0.137	0.1	3	0.1	0.08
393+44	167+0.483	0.1	3	0.1	0.08
411+75	167+0.830	0.1	3	0.1	0.08
675+30	172+0.851	0.1	3	0.1	0.08
PCN 06PH TOTALS:			27	0.9	0.72

EROSION CONTROL WATTLE

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	23	86

Erosion control wattles for restraining the flow of runoff and sediment will be installed at locations noted in the table and at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

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

Erosion control wattles will remain on the project to decompose.

An additional quantity of 12” Diameter Erosion Control Wattles has been added to the Estimate of Quantities for temporary erosion and sediment control in highway ditch channels or as directed by the Engineer.

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

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

TABLE OF EROSION CONTROL WATTLE – PCN 079F, SD34

MRM	L/R	Description	Diameter (Inch)	Quantity (Ft)
109+0.900	R	Perimeter/Ditch Control	12	60
112+0.582	R	Perimeter Control (Riprap)	12	200
113+0.147	L	Inlet End of Pipe (CIPP)	12	60
114+0.076	L	Inlet End of Pipe (CIPP)	12	60
		Additional Quantity:	12	100
		Total:		480

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 90 acres (PCN 079F); 64 acres (PCN 06PH)
- 5.3 (3b): Total Area to be Disturbed 24 acres (PCN 079F); 18 acres (PCN 06PH)
- 5.3 (3c): Maximum Area Disturbed at One Time 3 acres
- 5.3 (3d): Existing Vegetative Cover (%) 70%
- 5.3 (3d): Description of Vegetative Cover Grassland
- 5.3 (3e): Soil Properties: AASHTO Classification (A-4, A-6, or A-7-6)
- 5.3 (3f): Name of Receiving Water Body/Bodies
- 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 stabilized construction entrance(s).	
Install perimeter protection where runoff may exit site.	
Install perimeter protection around stockpiles.	
Install channel and ditch bottom protection.	
Clearing and grubbing.	
Remove and stockpile topsoil.	
Stabilize disturbed areas.	
Install utilities, storm sewers, curb and gutter.	
Install inlet and culvert protection after completing storm drainage and other utility installations.	
Final grading.	
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 1/2 the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
- The SDDOT Project Engineer and Contractor’s Erosion Control Supervisor are responsible for inspections. Maintenance 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.

SUPPLYING AS BUILT PLANS

If the roadway lighting system is constructed differently than what is stated in the plans, the Contractor will supply as built plans to the Engineer and a copy will be sent to the Traffic Design Engineer. The as built plans may include conduit layouts, wiring diagrams, or other drawings depicting the changes from the original plans.

SHOP DRAWING AND CATALOG CUTS SUBMITTALS

The Contractor will submit shop drawings and catalog cuts in accordance with Section 985 of the Specifications.

PDF submittals will be sent to the following email addresses:

Stacy.Bartlett@state.sd.us
Evelyn.Dalldorf@state.sd.us

REMOVE LUMINAIRE POLE FOOTING

The footings of existing luminaire poles EL1-EL4 will be removed by the Contractor to a minimum of 2 feet below the ground surface. Restoration of the disturbed area will be to the satisfaction of the Engineer.

All costs for removing the footings of the existing luminaire poles will be incidental to the contract unit price per each for "Remove Luminaire Pole Footing".

TABLE OF FOOTING DATA

Site Designation	Footing Diameter	* Footing Depth	**Spiral Diameter	**Spiral Length	Vertical Reinforcement
REL1-REL4	2' - 0"	7' - 0"	1' - 8"	49' - 6"	8-#7 x 6' - 6"

* Footing depth will be below ground level.

** The size of all spirals will be #3.

SUBSURFACE

During construction of the cylindrical footings, concrete placement operations should closely follow excavation procedures. The longer the excavations are left open, the more likely caving will occur.

Concrete will not be dropped through standing water. If water is present in the excavation it will be removed prior to concrete placement or the concrete will be tremied.

ELECTRICAL JUNCTION BOXES

Junction box JL1 will be placed to intercept the existing 2-inch lighting system conduit. The existing wires will be disconnected at EL1 and pulled back to EJL1. The existing conduit will be exposed and modified to properly enter the new junction box JL1. Wires will be re-pulled through junction box JL1 and back to REL1 and reconnected.

Junction box JL2 will be placed to intercept the existing 2-inch lighting system conduit. The existing wires will be disconnected at EL4 and pulled back to EJL5. The existing conduit will be exposed and modified to properly enter the new junction box JL2. Wires will be re-pulled through junction box JL2 and back to REL4 and reconnected.

All costs associated with disconnecting and pulling back existing wires, exposing the existing conduit, modifying the existing conduit, placing the new junction box, and re-pulling and connecting wires, and making REL1 and REL4 operational will be incidental to the contract unit price per each for "Type 1 Electrical Junction Box."

REMOVE AND RESET LUMINAIRE POLE

Existing luminaire poles EL1-EL4 will be removed and reset as REL1-REL4 as shown on the plan sheets.

The poles were originally installed with Project P 0073(00)174. See Special Details for the shop drawings.

Millerbernd Manufacturing
P.O. Box 98
Winsted, MN 55395
Phone: (320) 485-2111

Shop drawing records show that the existing anchor bolts have a 1-inch diameter, 40-inch length, a 15-inch bolt circle diameter, and a 4-inch bolt projection. The replacement anchor bolts will be in conformance with the Specifications.

Luminaire poles and luminaires damaged during removal or resetting will be repaired or replaced by the Contractor at no cost to the State.

Luminaire pole REL2 will be placed to intercept the existing 2-inch lighting system conduit. The existing wires will be disconnected at EL2 and pulled back to EJL3. The existing conduit will be exposed and modified to properly enter the luminaire pole REL2. Wires will be re-pulled back to REL2 and reconnected.

Luminaire pole REL3 will be placed to intercept the existing 2-inch lighting system conduit. The existing wires will be disconnected at EL3 and pulled back to EJL3. The existing conduit will be exposed and modified to properly enter the luminaire pole REL3. Wires will be re-pulled back to REL3 and reconnected.

All costs involved with removing and resetting the existing luminaire poles including new anchor bolts with associated hardware, will be incidental to the contract unit price per each for "Remove and Reset Luminaire Pole".

All costs associated with disconnecting and pulling back existing wires, exposing the existing conduit, modifying the existing conduit, placing the new junction box, and re-pulling and connecting wires, and making REL2 and REL3 operational will be incidental to the contract unit price per each for "Remove and Reset Luminaire Pole".

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	28	86

WIRE SPLICING FOR LIGHTING

All wire splices for lighting will be made using TE Connectivity GTAP connectors, NSI Industries Polaris Blue connectors, or an approved equal.

TABLE OF PAVEMENT MARKINGS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	29	86

Location		Length	Cold Applied Plastic Pavement Marking, 4" White	Cold Applied Plastic Pavement Marking, 4" Yellow	Cold Applied Plastic Pavement Marking, 24" Yellow	Cold Applied Plastic Pavement Marking, Arrow	High Build Waterborne Pavement Marking Paint, 4" White	High Build Waterborne Pavement Marking Paint, 4" Yellow	Grooving for Cold Applied Plastic Pavement Marking, 4"	Grooving for Cold Applied Plastic Pavement Marking, 24"	Grooving for Cold Applied Plastic Pavement Marking, Arrow	Grooving for Durable Pavement Marking, 4"
Station to	Station	Ft	Ft	Ft	Ft	Each	Gal	Gal	Ft	Ft	Each	Ft
40+13	13+78	84966					724	241				169,932
13+78	37+46	2368	1,393	3,987	396	6	16	16	5,380	396	6	3,676
37+46	159+96	12329					105	47				24,658
	PCN 079F	Totals:	1,393	3,987	396	6	845	303	5,380	396	6	198,265
37+46	159+96	73883					629	197				147,682
	PCN 06PH	Totals:					629	197				147,682

COLD APPLIED PLASTIC PAVEMENT MARKING

All materials will be applied as per the manufacturer’s recommendations.

Cold Applied Plastic Pavement Markings will be 3M Series 380 IES or an approved equal.

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/m²/lux for white and 170 mc/m²/lux for yellow.

GROOVING FOR COLD APPLIED PLASTIC PAVEMENT MARKING

The Contractor will establish a positive means for the removal of the grinding and/or grooving residue. Residue from dry grooving will be vacuumed. Solid residue will be removed from the pavement surfaces before being blown by traffic action or wind. The Contractor will conduct this work to control and minimize airborne dust and similar debris that may become a hazard to motor vehicle operation or nuisance to property owners. Residue from wet grooving will not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, will be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state. The cleaning of the residue for grooving will be to the satisfaction of the Engineer and may require more than one pass to adequately remove material. All costs for removal of grinding and/or grooving residue will be included in the contract unit price per foot, or each for “Grooving for Cold Applied Plastic Pavement Marking” contract items.

GROOVING FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

The Contractor will establish a positive means for the removal of the grinding and/or grooving residue. Residue from dry grooving will be vacuumed. Solid residue will be removed from the pavement surfaces before being blown by traffic action or wind. The Contractor will conduct this work to control and minimize airborne dust and similar debris that may become a hazard to motor vehicle operation or nuisance to property owners. Residue from wet grooving will not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, will be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state. All costs for removal of grinding and/or grooving residue will be included in the contract unit price per foot for “Grooving for Durable Pavement Marking” contract items.

Unless otherwise specified in the plans, the Contractor will groove the surface for High Build Waterborne Pavement Marking Paint as specified in these plans and as per the manufacturer’s instructions.

The grooving will be completed within the following tolerances:

Description	Specification	Tolerance
Depth of Groove	Marking Thickness ¹ + 15 mils	+ 5 mils
Width of Groove	5 to 6 inches	
Length of Skip Lines ²	10 foot 6 inches	± 3 inch
Tapers at ends of lines	6 to 9 inches	
Between Double Lines	4 inches	± 1/2 inch

¹ Marking thickness will include the thickness of marking material and reflective media.
² Additional length may be required as specified in the plans.

The equipment will be capable of the following:

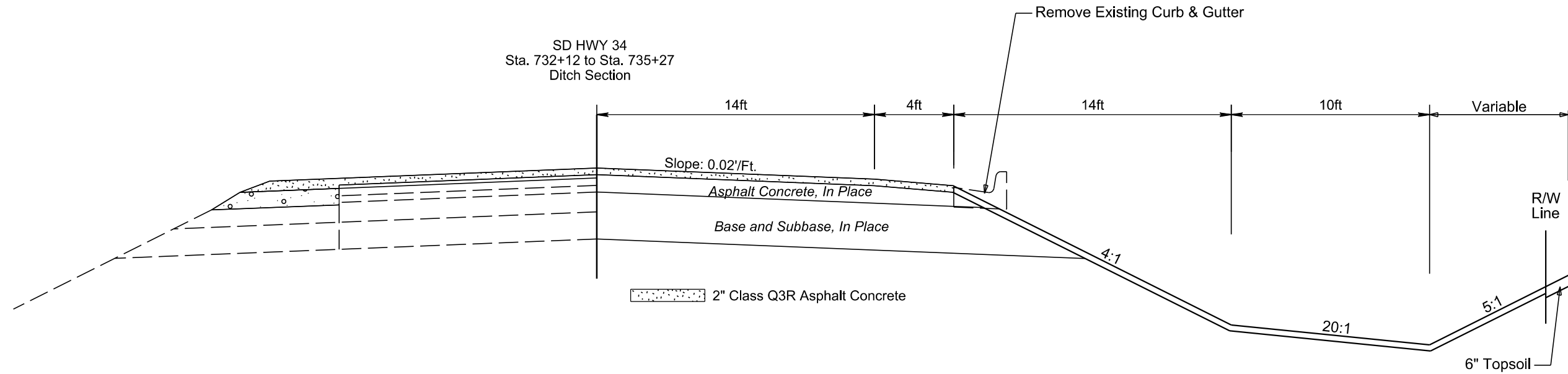
- Grooving the total width of the groove in one pass or uniform depths with multiple passes.
- Grooving without causing damage to the pavement joints or joint sealant material.
- Provide uniform alignment and depth.
- Moving continuously to permit a mobile traffic work operation.

If damage occurs, including, but not limited to, joints, joint sealant material, and backer rod, the grooving operation will be stopped and modifications will be made to the grooving operation to prevent further damage. The Contractor will be required to use specially prepared circular diamond blade cutting heads to prevent damage at the joints. Damage caused will be repaired or replaced by the Contractor, as directed by the Engineer. No additional payment will be made for the repair work or any reapplication of the pavement marking in the area of the repair.

TYPICAL GRADING SECTION

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	30	86

Plotting Date: 09/16/2025



Plot Scale - 1:200

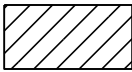
Plotted From - TRRC11626

PLOT SCALE - 1+6.00001

PLOTTED FROM - TRRC11626

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160		
Plotting Date: 09/16/2025		31	86



7" Full Depth Reclamation (FDR)

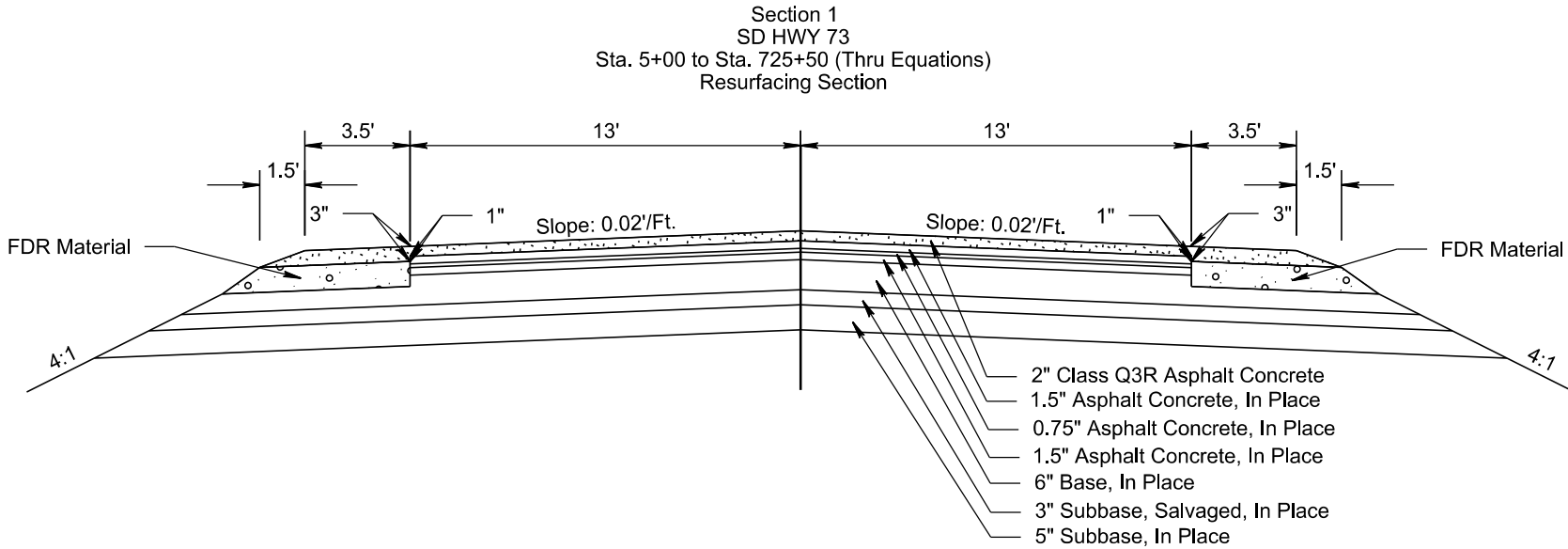
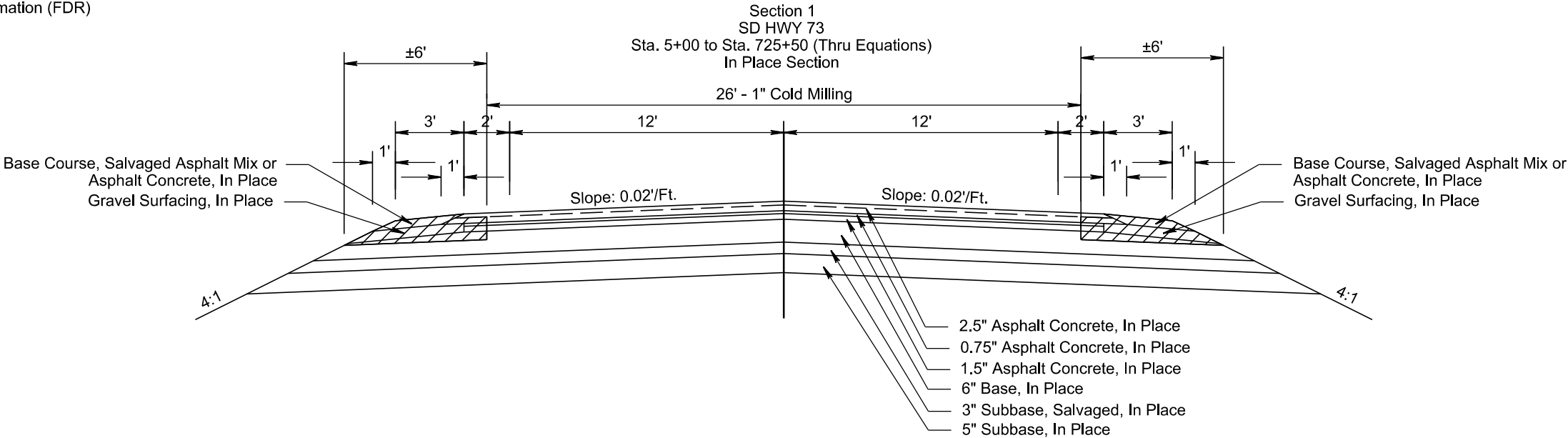
Equations:

Sta. 71+20.32 Bk =
Sta. 71+24.46 Ah

Sta. 137+50.41 Bk =
Sta. 137+50.00 Ah

Sta. 593+90.29 Bk =
Sta. 593+50.00 Ah

Sta. 653+00.41 Bk =
Sta. 653+00.00 Ah



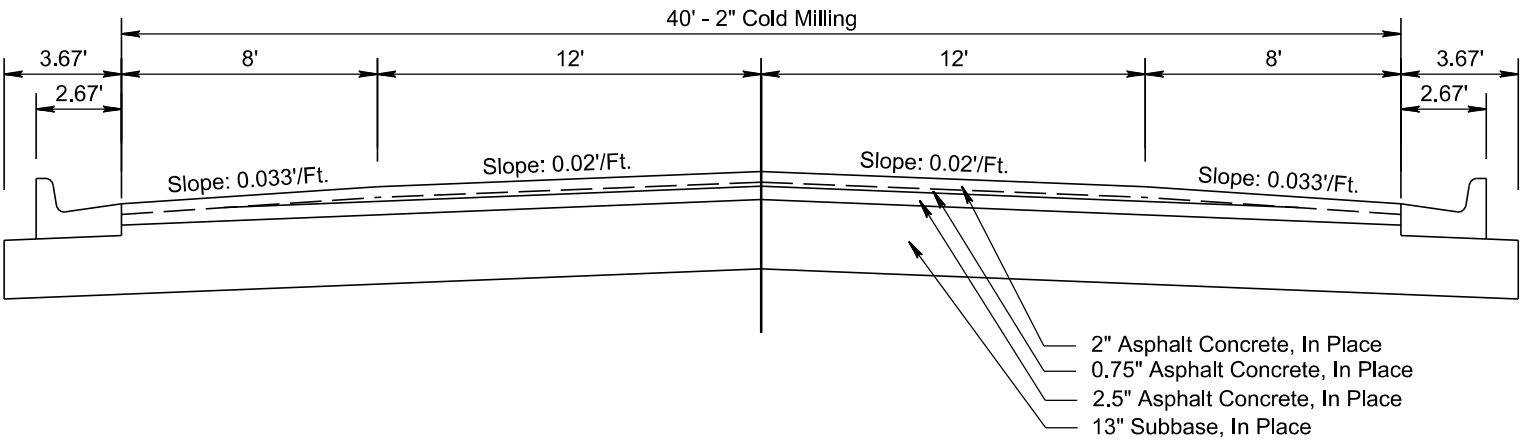
PLOT NAME - 3

FILE - ... \MEAD079F\06PH_TYPSCT_1.JDL.DGN

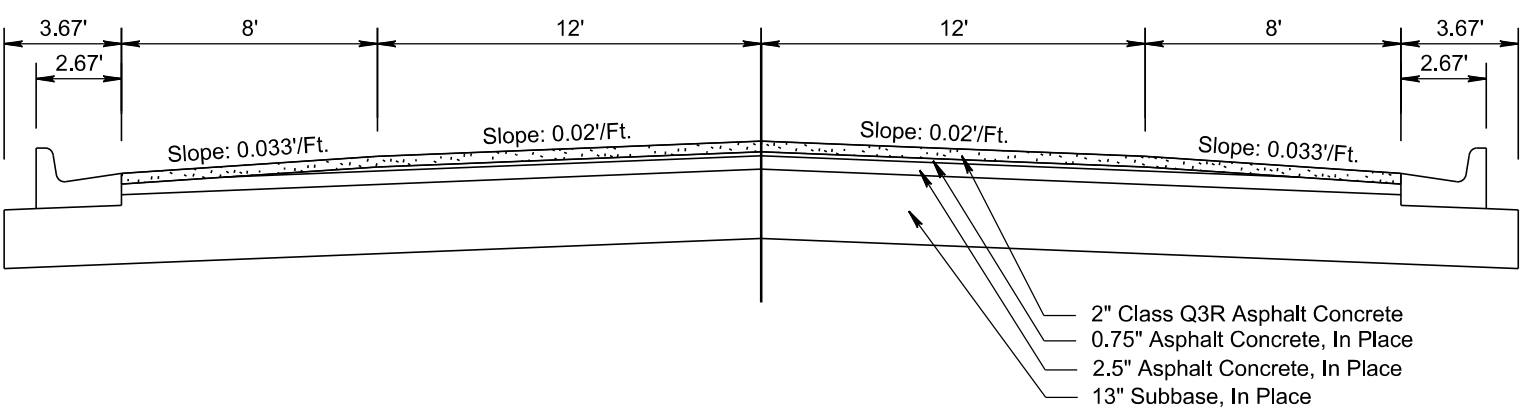
TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160		
Plotting Date: 09/16/2025		32	86

Section 2
SD HWY 73
Sta. 725+50 to Sta. 743+46.15
In Place Section



Section 2
SD HWY 73
Sta. 725+50 to Sta. 743+46.15
Resurfacing Section



PLOT SCALE - 1+6.00001

PLOTTED FROM - TRRC11626

PLOT NAME - 4

FILE - ... \MEAD079F\06PH_TYPSECT_TJDI.DGN

PLOT SCALE - 1+6.00001

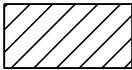
PLOTTED FROM - TRRC11626

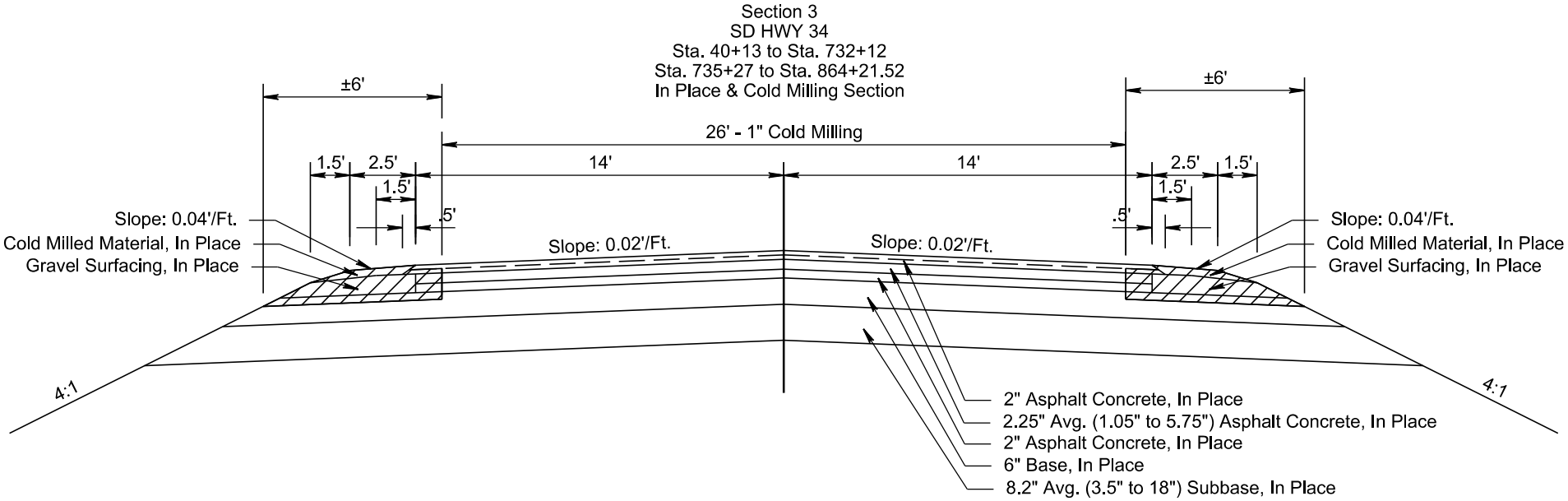
TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	33	86

Plotting Date: 09/16/2025

Do not cold mill at the following locations
identified for Profile Correction:
± Sta. 362+00 to 364+00
± Sta. 514+00 to 516+00
± Sta. 789+00 to 791+50
± Sta. 814+50 to 816+00
± Sta. 841+00 to 843+50
± Sta. 864+00 to 4+00 (thru equation)

 8" Full Depth Reclamation (FDR)



Equations:

Sta. 64+01.22 Bk =
Sta. 64+00.77 Ah

Sta. 127+92.87 Bk =
Sta. 127+91.96 Ah

Sta. 240+01.28 Bk =
Sta. 240+00.83 Ah

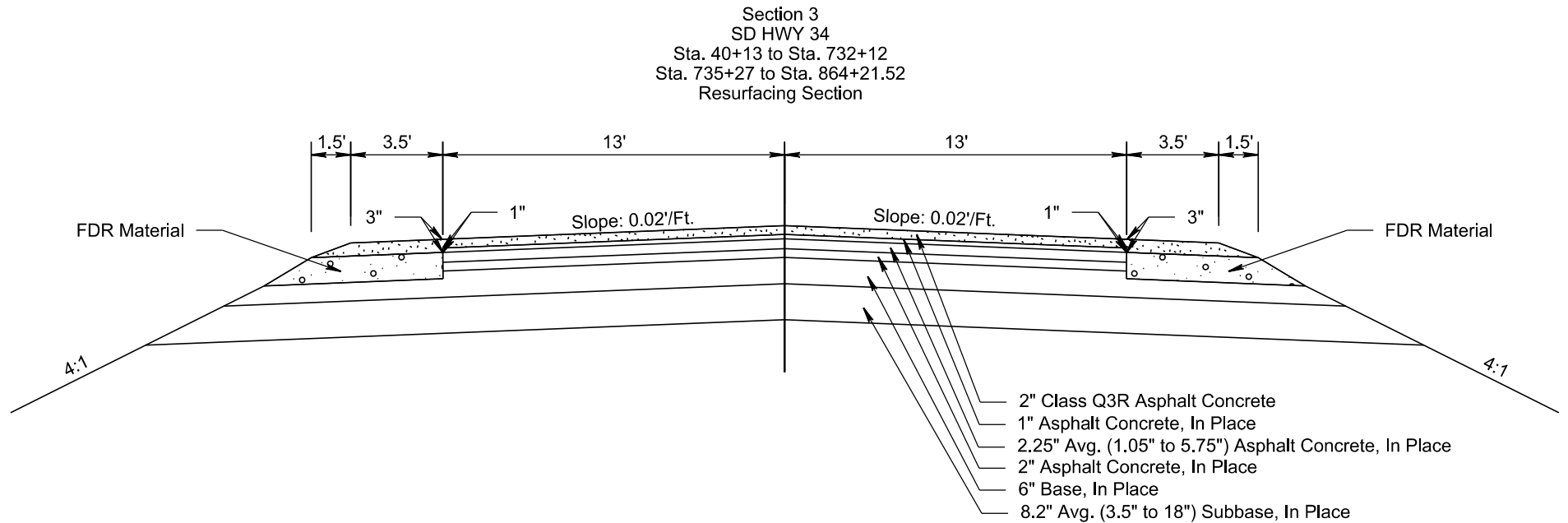
Sta. 378+01.21 Bk =
Sta. 378+00.77 Ah

Sta. 553+01.27 Bk =
Sta. 553+00.95 Ah

Sta. 720+22.45 Bk =
Sta. 719+92.06 Ah

Sta. 771+73.87 Bk =
Sta. 771+72.60 Ah

Sta. 864+21.52 Bk =
Sta. 0+00 Ah



PLOT NAME - 5

FILE - ... \MEAD079F\06PH_TYPSCT_TJDI.DGN

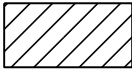
PLOT SCALE - 1+6.00001

PLOTTED FROM - TRRC11626

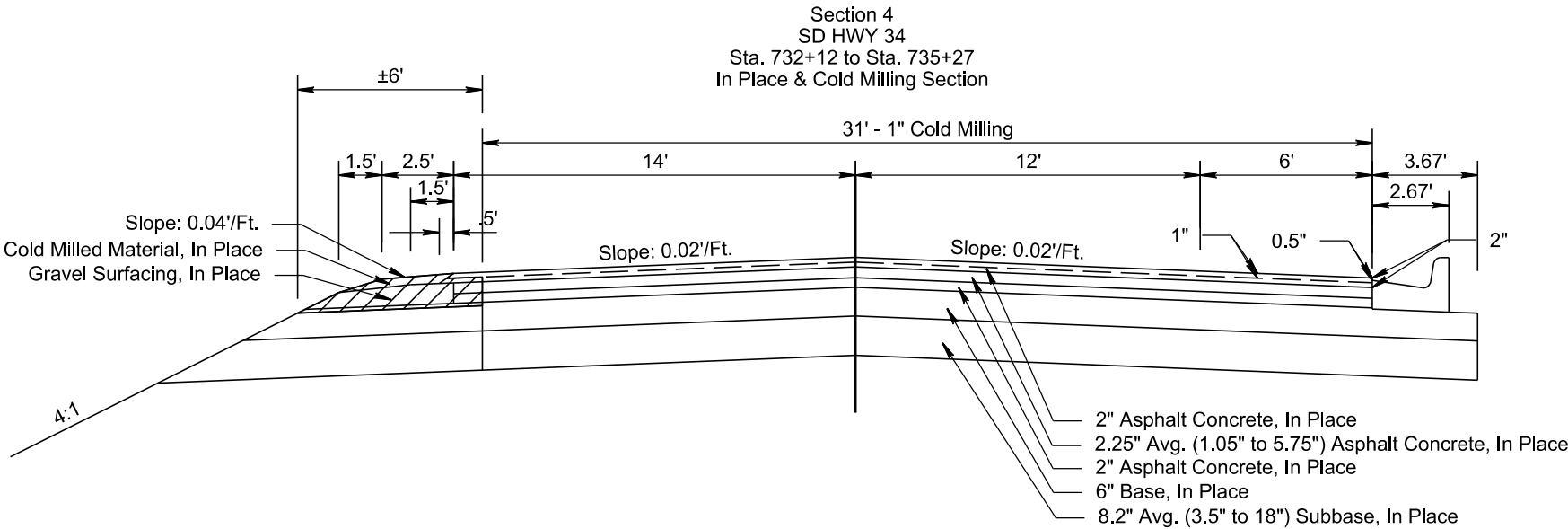
TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	34	86

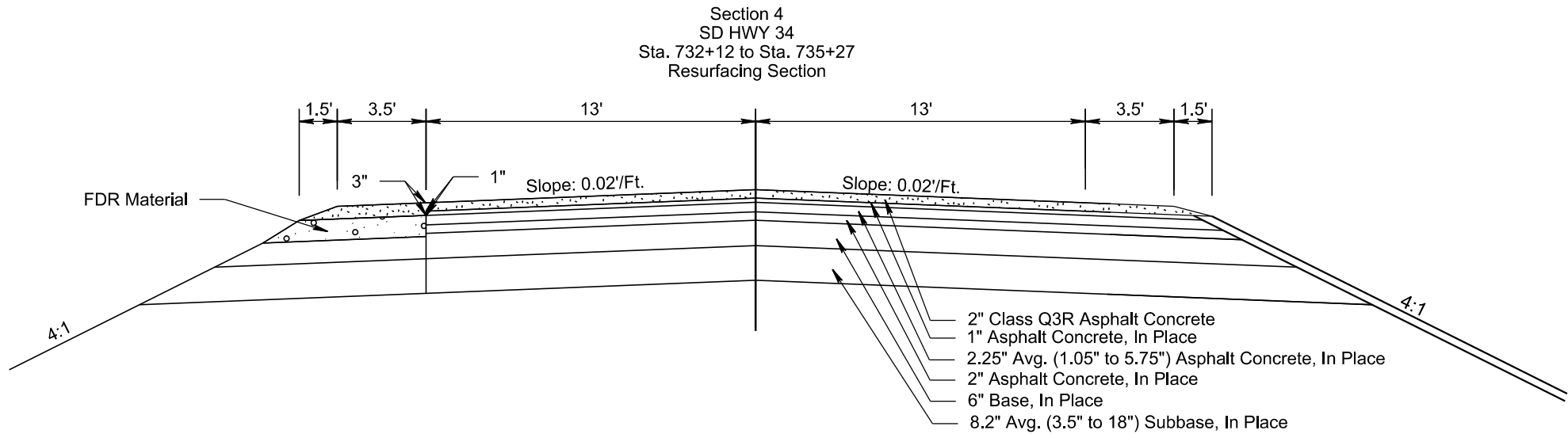
Plotting Date: 09/16/2025



8" Full Depth Reclamation (FDR)



Remove Curb and Gutter and Driveway Pavement from
Sta. 732+58 to Sta. 735+75



PLOT NAME - 6

FILE - ... \MEAD079F\06PH_TYPSCT_TJDI.DGN

PLOT SCALE - 1+6.00001

PLOTTED FROM - TRRC11626

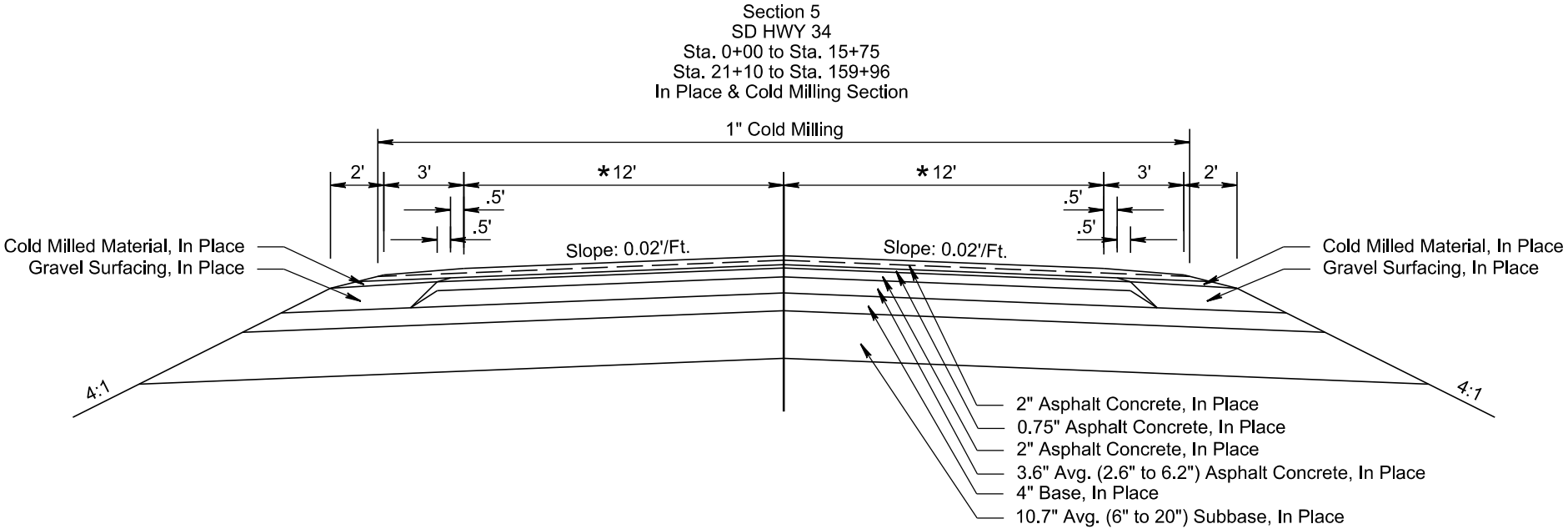
TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160		
Plotting Date: 09/16/2025		35	86

Do not cold mill at the location
identified for Profile Correction:
± Sta. 864+00 to 4+00 (thru equation)

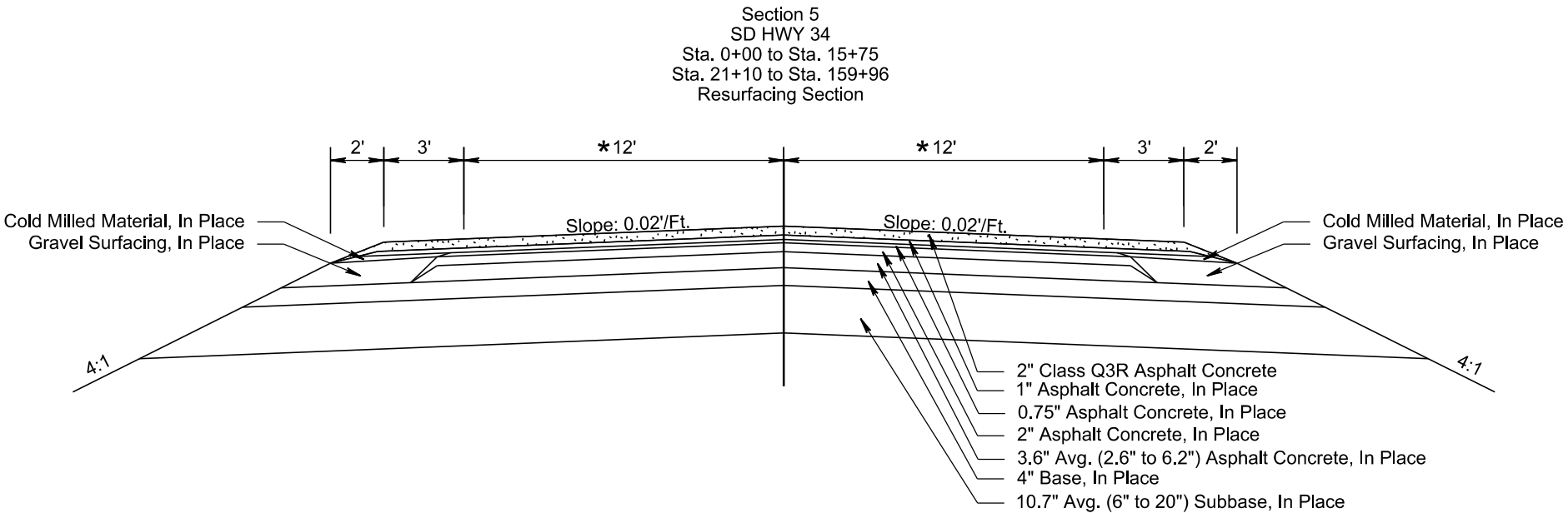
Transitions:
Sta. 9+25 to Sta. 15+75
* 12' to 24'

Sta. 21+10 to Sta. 27+90
* 24' to 12'



Transitions:
Sta. 9+25 to Sta. 15+75
* 12' to 24'

Sta. 21+10 to Sta. 27+90
* 24' to 12'



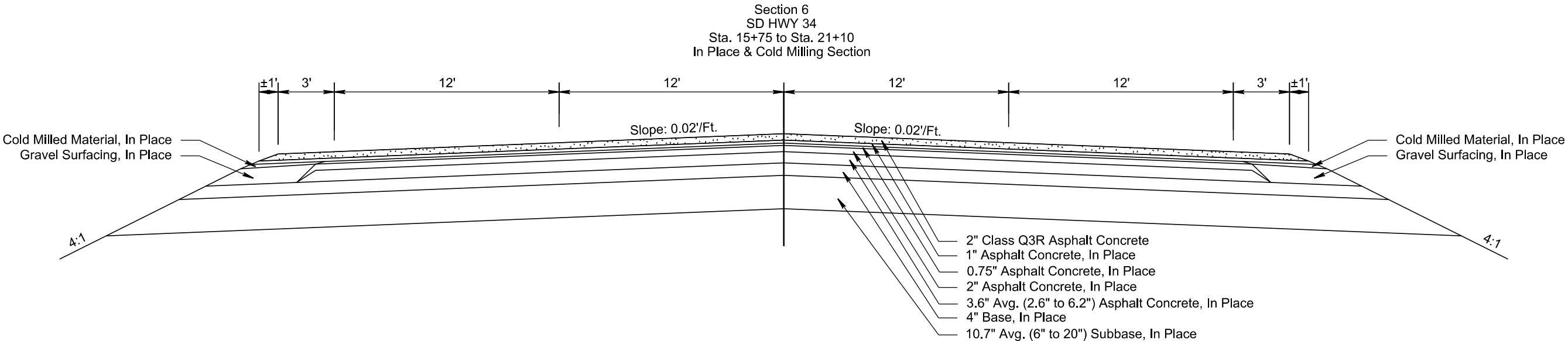
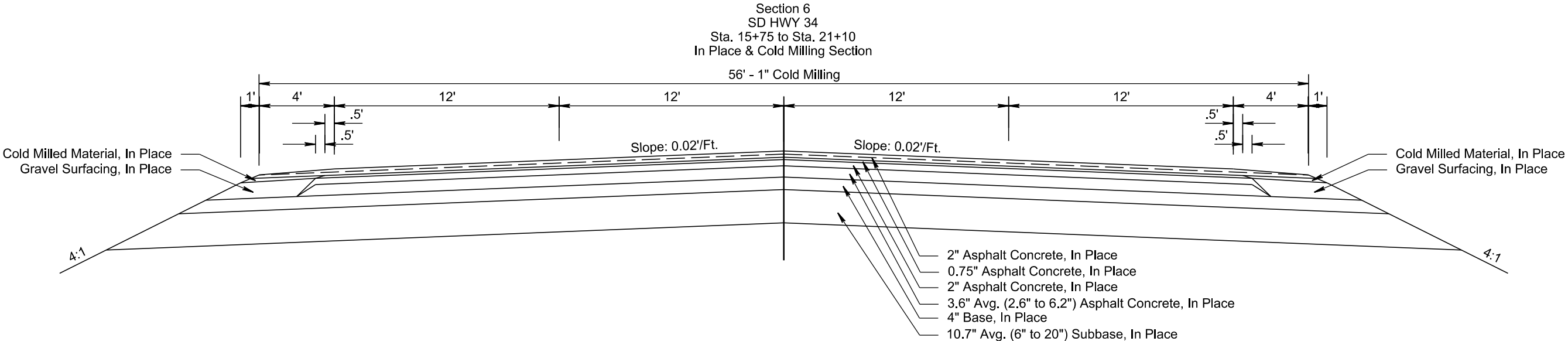
PLOT NAME - 7

FILE - ... \MEAD079F\06PH_TYPSCT_TJDI.DGN

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	36	86

Plotting Date: 09/16/2025

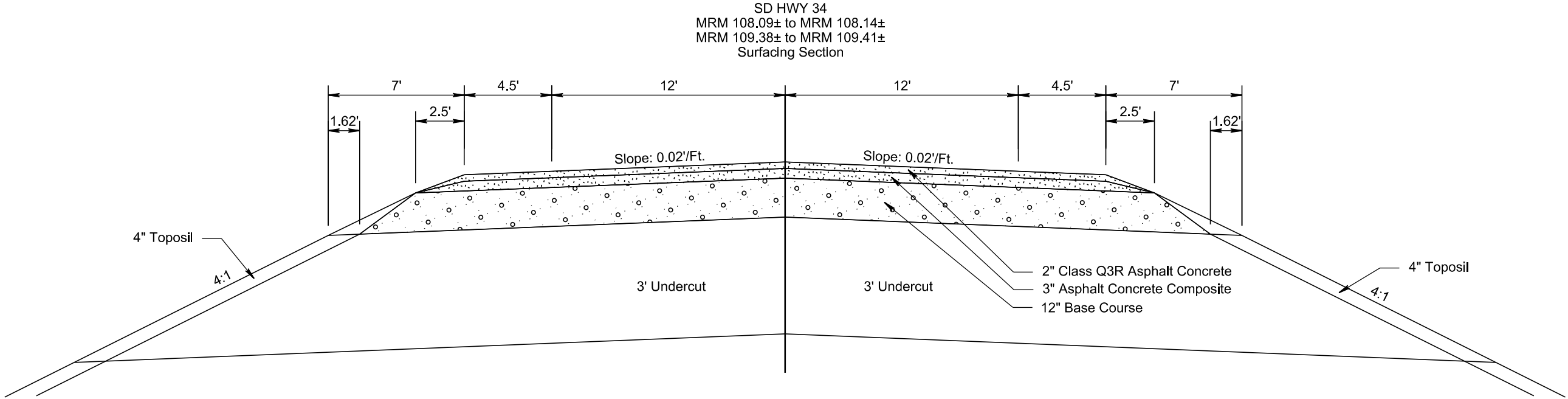
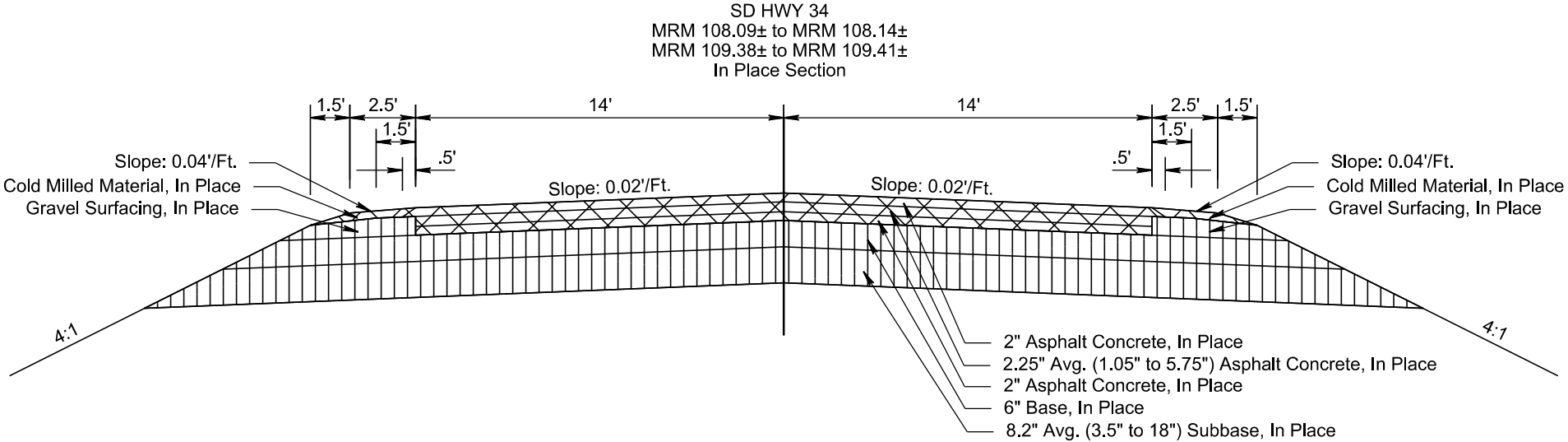


FAULT HEAVE REPAIR

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160		
		37	86

Plotting Date: 09/16/2025

-  Remove Asphalt Concrete Pavement
-  Unclassified Excavation



PLOT SCALE - 1+6.00001

PLOTTED FROM - TRRC11626

PLOT NAME - 13

FILE - ... \079F_SURFACE_CORRECTION_DETAILS.DGN

PLOT SCALE - 1:9,00002

PLOTTED FROM - TRRC11626

TYPICAL PAVEMENT PROFILE CORRECTION SECTION

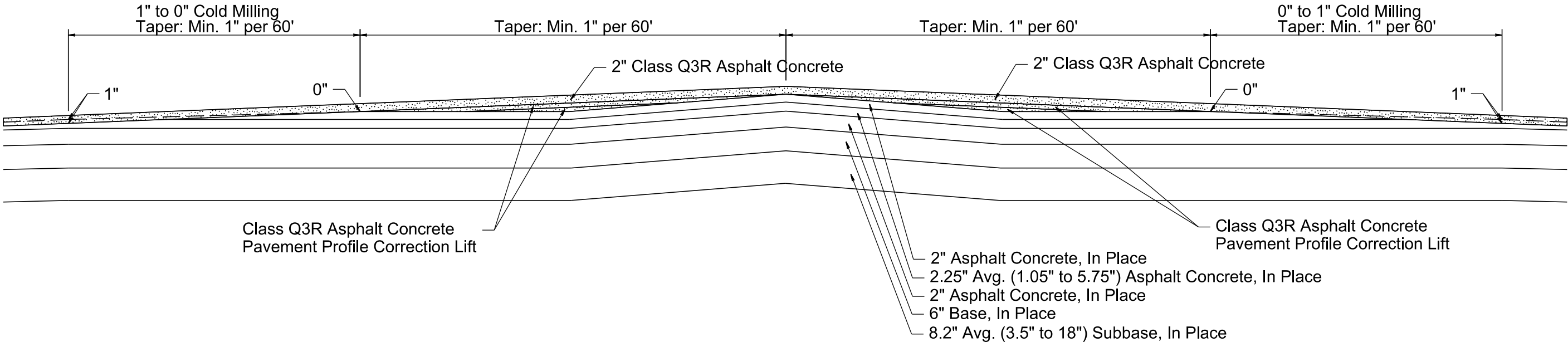
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	38	86

Plotting Date: 09/16/2025

PLOT NAME - 14

FILE - ... \079F_SURFACE_CORRECTION_DETAILS.DGN

SD HWY 34
Sta. 362+00 to Sta. 364+00
Sta. 514+00 to Sta. 516+00
Sta. 789+00 to Sta. 791+50
Sta. 814+50 to Sta. 816+00
Sta. 841+00 to Sta. 843+50
Sta. 862+00 to Sta. 4+00 (Through Equ.)
Surfacing Section



NOTE: NOT TO SCALE

HORIZONTAL ALIGNMENT DATA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	39	86

SD34 (PCN 079F)									
Type	Station			Northing	Easting				
POB	0+00.00			290381.374	1347019.606	PI	c 253+43.94	TL= 664.99 91°55'25"	289506.346 1372349.090
		TL= 4012.96 91°49'09"				PI	c 265+99.39	TL= 1255.45 92°01'51"	289461.854 1373603.752
PI	40+12.96			290253.976	1351030.542	PI	c 273+19.03	TL= 719.63 92°00'21"	289436.665 1374322.945
		TL= 2273.06 91°12'42"				PI	c 299+57.23	TL= 2638.21 91°58'33"	289345.705 1376959.585
PI	62+86.02			290205.911	1353303.093			TL= 2399.62 92°05'56"	289257.826 1379357.596
EQNBK	64+01.22			290202.500	1353418.245	PI	c 323+56.86	TL= 908.21 92°10'32"	289223.348 1380265.149
EQNAHD	a 64+00.77			290202.500	1353418.245	EQNBK	c 378+01.21		289091.298 1384799.373
		TL= 364.94 91°41'49"				EQNAHD	d 378+00.77		289091.298 1384799.373
PI	a 66+50.50			290195.105	1353667.870			TL= 6704.64 91°40'05"	289028.171 1386966.951
		TL= 1885.72 91°53'26"				PI	d 399+69.27	TL= 102.55 92°02'35"	289024.515 1387069.440
PI	a 85+36.22			290132.891	1355552.559			TL= 1232.59 91°55'14"	288983.207 1388301.340
		TL= 1149.14 93°08'30"				PI	d 400+71.82	TL= 635.98 91°54'11"	288681.283 1397790.132
PI	a 96+85.36			290069.915	1356699.973			TL= 2238.97 92°46'14"	288660.164 1398425.764
		TL= 1776.73 92°22'23"				PI	d 514+33.99		288551.945 1400662.121
PI	a 114+62.09			289996.347	1358475.181	PI	d 536+72.96		288505.704 1402289.770
EQNBK	a 127+92.87			289976.010	1359805.803	EQNBK	d 553+01.27		288505.704 1402289.770
EQNAHD	b 127+91.96			289976.010	1359805.803	EQNAHD	e 553+00.95		
		TL= 1598.56 90°52'32"						TL= 1670.65 91°37'38"	288504.502 1402332.098
PI	b 130+59.75			289971.918	1360073.557	PI	e 553+43.29	TL= 103.15 91°59'10"	288500.927 1402435.186
		TL= 1044.08 91°59'31"						TL= 1051.24 91°52'29"	288466.538 1403485.862
PI	b 141+03.82			289935.626	1361117.002	PI	e 554+46.44		288433.725 1404503.469
		TL= 2057.83 92°04'59"				PI	e 564+97.68	TL= 1018.14 91°50'49"	288414.510 1405173.827
PI	b 161+61.65			289860.823	1363173.475			TL= 670.63 91°38'31"	288410.824 1405288.067
		TL= 579.55 91°59'53"				PI	e 575+15.82		288396.778 1405640.515
PI	b 167+41.20			289840.617	1363752.672			TL= 114.30 91°50'53"	
		TL= 1750.95 92°01'23"				PI	e 583+00.75	TL= 352.73 92°16'56"	
PI	b 184+92.15			289778.805	1365502.529				
		TL= 1203.53 91°55'49"				PI	e 586+53.48	TL= 1149.02 91°36'51"	
PI	b 196+95.68			289738.264	1366705.372				
		TL= 671.03 91°49'48"							
PI	b 203+66.70			289716.836	1367376.055				
		TL= 80.46 92°02'19"							
PI	b 204+47.16			289713.974	1367456.462				
		TL= 1959.61 92°01'34"							
PI	b 224+06.77			289644.691	1369414.842				
		TL= 87.15 92°29'24"							
PI	b 224+93.91			289640.905	1369501.908				
EQNBK	b 240+01.24			289563.493	1371007.248				
EQNAHD	c 240+00.83			289563.493	1371007.248				
		TL= 2185.45 92°56'38"							
PI	c 246+78.95			289528.667	1371684.475				

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone NAD 83(2011); epoch 2010.00; Geoid18; SF = 0.9998503057 (SD34, PCN 079F); SF = 0.9998231401 (SD73, PCN 06PH)

HORIZONTAL ALIGNMENT DATA

SD73 (06PH)									
Type	Station			Northing	Easting				
POB	10+00.000			366352.593	1436373.846	PI	276+99.494	TL= 2509.336	01°33'58"
								392820.510	1438595.620
		TL= 1371.333	20°30'35"			PI	302+44.647	TL= 2545.153	01°26'07"
								395364.864	1438659.371
PC	23+71.333			367637.001	1436854.315	PI	329+52.833	TL= 2708.186	01°27'09"
PI	28+89.898	R = 7650.000	Delta = 7.756 L	368122.696	1437036.003			398072.180	1438728.024
PT	34+06.880			368628.467	1437150.483	PI	342+25.936	TL= 1273.103	01°25'21"
		TL= 2928.537	12°45'14"					399344.890	1438759.632
PI	63+35.417			371484.751	1437796.995	PI	355+82.583	TL= 1356.647	01°27'04"
		TL= 298.108	12°27'02"					400701.102	1438793.988
PC	66+33.525			371775.847	1437861.267	PI	368+41.464	TL= 1258.882	01°26'05"
PI	73+63.350	R = 7639.440	Delta = 10.914 L	372488.509	1438018.616			401959.589	1438825.509
PT	80+88.759			373218.071	1438038.184	PI	392+96.437	TL= 2454.973	01°27'56"
		TL= 886.481	01°32'11"					404413.759	1438888.292
PI	89+75.240			374104.234	1438061.952	PI	393+44.400	TL= 47.962	01°37'51"
		TL= 1259.348	01°25'14"					404461.702	1438889.657
PI	102+34.588			375363.195	1438093.171	PI	393+91.670	TL= 47.270	01°14'42"
		TL= 1414.563	01°28'57"					404508.961	1438890.684
PI	116+49.151			376777.284	1438129.768	PI	411+69.284	TL= 1777.614	01°24'12"
		TL= 668.790	01°19'07"					406286.042	1438934.216
PC	123+17.941			377445.897	1438145.157	PI	412+14.923	TL= 45.639	02°06'16"
PI	126+30.767	R = 20000.000	Delta = 1.792 R	377758.640	1438152.356			406331.650	1438935.892
PT	129+43.542			378071.005	1438169.332	PI	420+86.257	TL= 871.335	01°23'37"
		TL= 8.760	03°06'39"					407202.727	1438957.083
PI	129+52.302			378079.753	1438169.808	PI	447+14.098	TL= 2627.840	01°25'28"
		TL= 1833.324	02°33'24"					409829.756	1439022.404
PC	147+85.626			379911.251	1438251.586	PI	460+68.689	TL= 1354.591	01°27'22"
PI	149+99.452	R = 22918.310	Delta = 1.069 L	380124.865	1438261.124			411183.909	1439056.828
PT	152+13.266			380338.619	1438266.675	PI	474+82.571	TL= 1413.882	01°28'01"
		TL= 1213.611	01°29'15"					412597.327	1439093.025
PI	164+26.877			381551.822	1438298.180	PI	488+00.373	TL= 1317.803	01°26'43"
		TL= 1912.147	01°31'14"					413914.711	1439126.262
PI	183+39.024			383463.295	1438348.918	PI	501+44.510	TL= 1344.137	01°23'31"
		TL= 1513.750	01°34'00"					415258.451	1439158.911
PI	198+52.775			384976.480	1438390.306	PI	501+69.984	TL= 25.474	01°17'12"
		TL= 1246.742	01°27'40"					415283.919	1439159.483
PI	210+99.516			386222.816	1438422.095	PI	513+92.470	TL= 1222.486	01°22'41"
		TL= 716.559	01°29'29"					416506.052	1439188.880
PI	218+16.075			386939.132	1438440.745	PI	524+19.420	TL= 1026.949	01°26'45"
		TL= 2019.163	01°27'59"					417532.674	1439214.792
PI	238+35.238			388957.634	1438492.418	PI	536+45.363	TL= 1225.944	01°21'19"
		TL= 1354.920	01°27'52"					418758.274	1439243.790
PI	251+90.158			390312.111	1438527.044			TL= 495.327	01°19'44"

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone NAD 83(2011); epoch 2010.00; Geoid18; SF = 0.9998503057 (SD34, PCN 079F); SF = 0.9998231401 (SD73, PCN 06PH)

HORIZONTAL ALIGNMENT DATA

PC	541+40.691			419253.468	1439255.278					
PI	550+01.369	R = 5729.580	Delta = 17.086 R	420113.915	1439275.240		PI	754+75.777	TL= 310.447	01°12'38"
PT	558+49.272			420930.521	1439547.123				TL= 238.000	01°08'38"
		TL= 1374.873	18°24'53"				POE	757+13.777		
									440355.936	1439758.637
PC	572+24.145			422234.993	1439981.438					
PI	581+01.471	R = 2120.000	Delta = 44.963 L	423067.395	1440258.580					
PT	588+87.812			423852.217	1439866.462					
		TL= 410.015	333°27'07"							
PC	592+97.827			424219.000	1439683.207					
PI	598+60.701	R = 2278.732	Delta = 27.750 R	424722.525	1439431.632					
PT	604+01.482			425285.275	1439443.440					
		TL= 2071.020	01°12'07"							
PI	624+72.502			427355.839	1439486.885					
		TL= 546.853	01°36'34"							
PI	630+19.355			427902.476	1439502.243					
		TL= 1119.381	01°17'51"							
PI	641+38.736			429021.570	1439527.591					
		TL= 1785.828	00°12'54"							
PI	659+24.563			430807.385	1439534.288					
		TL= 1545.546	01°06'59"							
PI	674+70.110			432352.638	1439564.398					
		TL= 114.354	01°02'09"							
PI	675+84.463			432466.973	1439566.465					
		TL= 3385.334	01°21'50"							
PI	709+69.797			435851.348	1439647.039					
		TL= 1067.997	01°27'06"							
PI	720+37.794			436919.002	1439674.095					
		TL= 877.087	01°32'32"							
PI	729+14.881			437795.771	1439697.702					
		TL= 564.553	01°17'31"							
PI	734+79.434			438360.181	1439710.432					
		TL= 45.769	01°40'31"							
PI	735+25.203			438405.930	1439711.770					
		TL= 374.678	01°21'06"							
PI	738+99.881			438780.504	1439720.608					
		TL= 264.893	01°25'01"							
PI	741+64.774			439045.316	1439727.158					
		TL= 39.711	02°04'26"							
PI	742+04.485			439085.001	1439728.595					
		TL= 924.849	01°25'02"							
PI	751+29.334			440009.567	1439751.470					
		TL= 35.996	00°58'04"							
PI	751+65.330			440045.558	1439752.078					

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone NAD 83(2011); epoch 2010.00; Geoid18; SF = 0.9998503057 (SD34, PCN 079F); SF = 0.9998231401 (SD73, PCN 06PH)

CONTROL DATA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	43	86

SD34
PCN 079F

POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
AB9163	Ref Mark	293046.106	1434724.731	2408.007
AB9172	Ref Mark	290000.350	1356659.590	2669.35
K127 RESET	Ref Mark	289507.121	1374476.599	2575.445
MARCUS 2	Ref Mark	289237.538	1383523.824	2620.547
PLAINVIEW 2	Ref Mark	288500.909	1408324.611	2521.143
B127 RESET	Ref Mark	292912.547	1431678.951	2396.201

SD73
PCN 06PH

POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
AC7875	CP	442296.220	1447473.650	2590.580
CP10	CP	437658.795	1439608.981	2539.896
FAITH1	CP	437291.014	1439439.474	2534.095
PU2412	CP	343316.843	1434751.064	2270.209
U125 RESET	CP	403460.640	1438762.585	2453.029
73-164.98	1995 CP	391200.029	1438477.607	2449.523
CP12	CP	437327.145	1439468.698	2536.057

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone NAD 83(2011); epoch 2010.00; Geoid18; SF = 0.9998503057 (SD34, PCN 079F); SF = 0.99982314017 (SD73, PCN 06PH). The elevations shown on this sheet are based on NAVD 88.

LEGEND

Anchor		Hedge		Septic Tank		State and National Line	
Antenna		Highway ROW Marker		Shrub Tree		County Line	
Approach		Interstate Close Gate		Sidewalk		Section Line	
Assumed Corner		Iron Pin		Sign Face		Quarter Line	
Azimuth Marker		Irrigation Ditch		Sign Post		Sixteenth Line	
BBQ Grill/ Fireplace		Lake Edge		Slough Or Marsh		Property Line	
Bearing Tree		Lawn Sprinkler		Spring		Construction Line	
Bench Mark		Mailbox		Stream Gauge		ROW Line	
Box Culvert		Manhole Electric		Street Marker		New ROW Line	
Bridge		Manhole Gas		Subsurface Utility Exploration Test Hole		Cut and Fill Limits	
Brush		Manhole Misc		Telephone Fiber Optics		Control of Access	
Buildings		Manhole Sanitary Sewer		Telephone Junction Box		New Control of Access	
Bulk Tank		Manhole Storm Sewer		Telephone Pole		Proposed ROW	
Cattle Guard		Manhole Telephone		Television Cable Jct Box		(After Property Disposal)	
Cemetery		Manhole Water		Television Tower			
Centerline		Merry-Go-Round		Test Wells/Bore Holes			
Cistern		Microwave Radio Tower		Traffic Signal		Drainage Arrow	
Clothes Line		Misc. Line		Trash Barrel			
Control Point		Misc. Property Corner		Tree Belt			
Commercial Sign Double Face		Misc. Post		Tree Coniferous		Remove Concrete Pavement	
Commercial Sign One Post		Overhang Or Encroachment		Tree Deciduous		Remove Concrete Driveway Pavement	
Commercial Sign Overhead		Overhead Utility Line		Tree Stumps		Remove Asphalt Concrete Pavement	
Commercial Sign Two Post		Parking Meter		Triangulation Station		Remove Concrete Sidewalk	
Concrete Symbol		Pedestrian Push Button Pole		Underground Electric Line		Remove Concrete Median Pavement	
Creek Edge		Pipe With End Section		Underground Gas Line		Remove Concrete Curb and/or Gutter	
Curb/Gutter		Pipe With Headwall		Underground High Pressure Gas Line			
Curb		Pipe Without End Section		Underground Sanitary Sewer			
Dam Grade/Dike/Levee		Playground Slide		Underground Storm Sewer			
Deck Edge		Playground Swing		Underground Tank			
Ditch Block		Power And Light Pole		Underground Telephone Line			
Doorway Threshold		Power And Telephone Pole		Underground Television Cable			
Drainage Profile		Power Meter		Underground Water Line			
Drop Inlet		Power Pole		Warning Sign One Post			
Edge Of Asphalt		Power Pole And Transformer		Warning Sign Two Post			
Edge Of Concrete		Power Tower Structure		Water Fountain			
Edge Of Gravel		Propane Tank		Water Hydrant		Detectable Warning	
Edge Of Other		Property Pipe		Water Meter		Pedestrian Push Button Pole	
Edge Of Shoulder		Property Pipe With Cap		Water Tower		and 30" x 48" Clear Space	
Elec. Trans./Power Jct. Box		Property Stone		Water Valve		with 1.5% slope	
Fence Barbwire		Public Telephone		Water Well			
Fence Chainlink		Railroad Crossing Signal		Weir Rock			
Fence Electric		Railroad Milepost Marker		Windmill			
Fence Misc.		Railroad Profile		Wingwall			
Fence Rock		Railroad R.O.W. Marker		Witness Corner			
Fence Snow		Railroad Signs					
Fence Wood		Railroad Switch					
Fence Woven		Railroad Track					
Fire Hydrant		Railroad Trestle					
Flag Pole		Rebar					
Flower Bed		Rebar With Cap					
Gas Valve Or Meter		Reference Mark					
Gas Pump Island		Regulatory Sign One Post					
Grain Bin		Regulatory Sign Two Post					
Guardrail		Retaining Wall					
Guide Sign One Post		Riprap					
Guide Sign Two Post		River Edge					
Gutter		Rock And Wire Baskets					
Guy Pole		Rockpiles					
Haystack		Satellite Dish					

Plot Scale - 1:200

Plotted From - TRR011626

204+12 R
Remove for Reset
& Reset 30" RCP Sloped End

204+12 R
Install PVC Coated Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric (19 SqYd)

224+50 R
Remove for Reset
& Reset 2-54" RCP Flared Ends

224+50 R
Install PVC Coated Bank and Channel
Protection Gabions (12.0 & 12.0 CuYd)
and Type B Drainage Fabric (34 & 34 SqYd)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	45	86

Plotting Date: 09/16/2025



Sec 33 - T8N - R15E

Sec 34 - T8N - R15E

Sec 4 - T7N - R15E

Sec 3 - T7N - R15E

Sec 34 - T8N - R16E

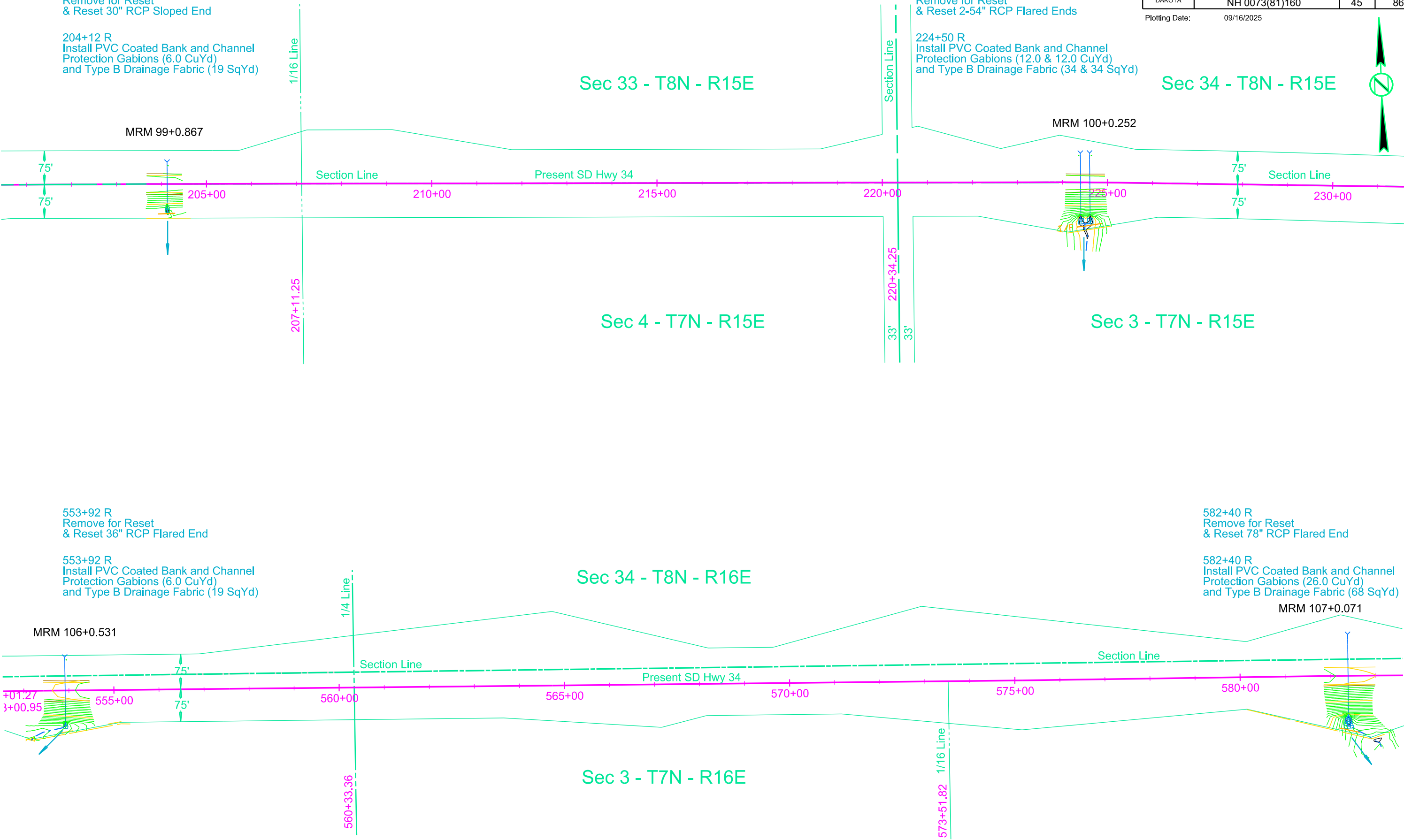
Sec 3 - T7N - R16E

553+92 R
Remove for Reset
& Reset 36" RCP Flared End

553+92 R
Install PVC Coated Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric (19 SqYd)

582+40 R
Remove for Reset
& Reset 78" RCP Flared End

582+40 R
Install PVC Coated Bank and Channel
Protection Gabions (26.0 CuYd)
and Type B Drainage Fabric (68 SqYd)



Plot Scale - 1:200

Plotted From - TRR011626

712+18 R (Ahead)
Remove for Reset
& Reset 24" RCP Sloped End

712+18 R (Ahead)
Install PVC Coated Bank & Channel
Protection Gabions (4.5 CuYd)
and Type B Drainage Fabric (15 SqYd)

Remove Curb and Gutter
at the following locations:
732+58 to 732+95
733+27 to 734+39
734+77 to 735+73

Remove Concrete Driveway Pavement
at the following locations:
732+95 to 733+27
734+39 to 734+77

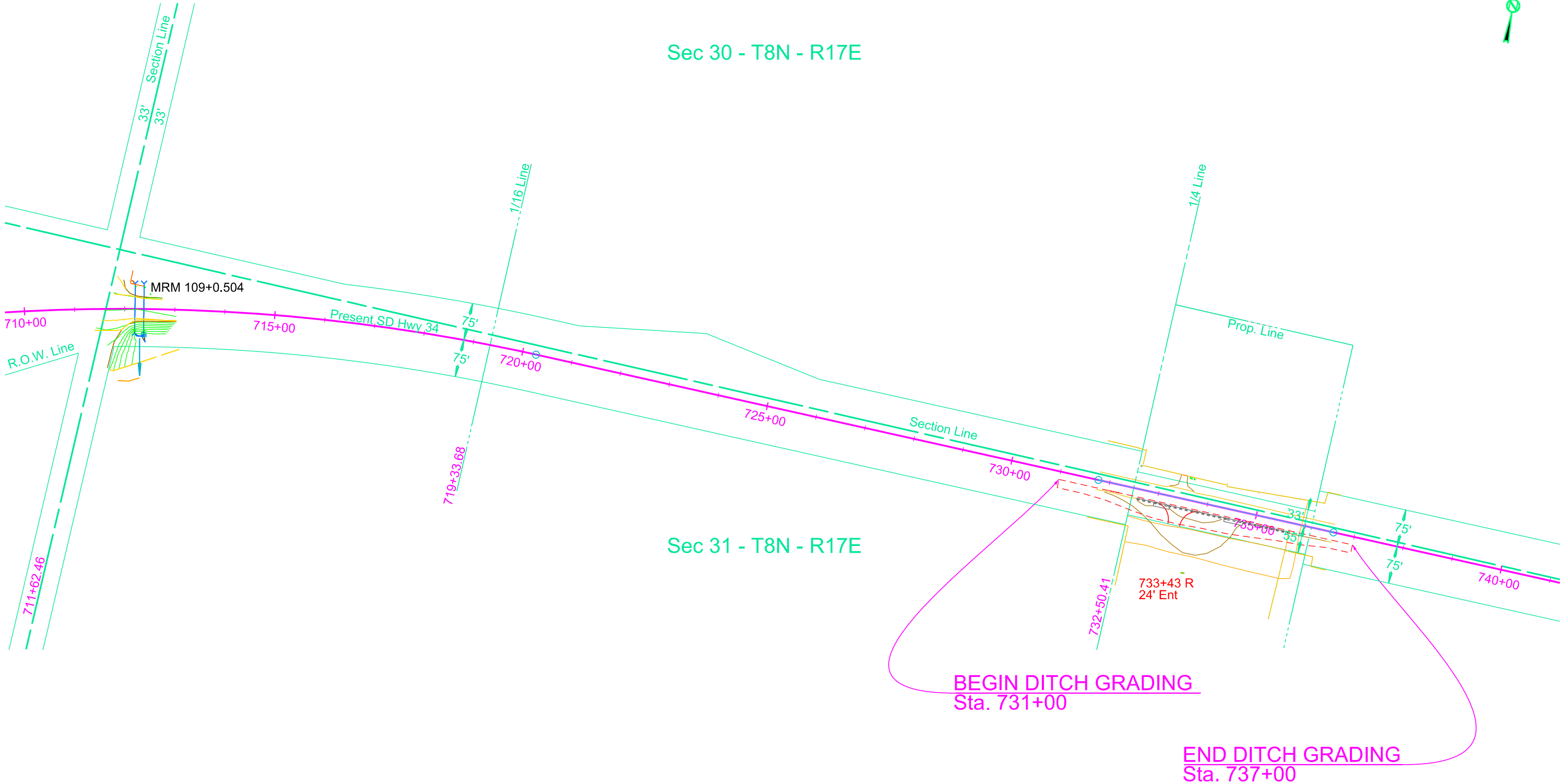
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	46	86

Plotting Date: 09/16/2025



Sec 30 - T8N - R17E

Sec 31 - T8N - R17E



1:200
Plot Scale -

Plotted From - TRR011626

849+64 R
Remove for Reset
& Reset 54" RCP Flared End

849+64 R
Install PVC Coated Bank and Channel
Protection Gabions (12.0 CuYd)
and Type B Drainage Fabric (34 SqYd)

Sec 28 - T8N - R17E

Sec 27 - T8N - R17E

10+63 R
Remove Exposed Rebar on Wingwall
(Incidental Work)

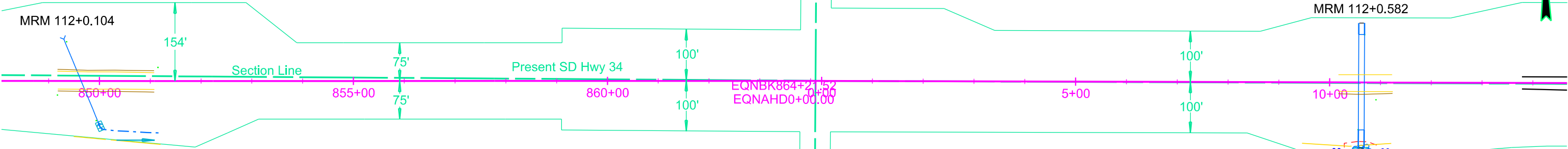
10+63 R
Salvage Riprap (150 ton)
Replace Riprap (150 ton)

10+63 R
Install Class C Riprap (30'x65') (202.2 ton)
and Type B Drainage Fabric (259 SqYd)

10+63 R
Install Class C Riprap (10'x15') (40 ton)
(around southeast wingwall)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	47	86

Plotting Date: 09/18/2025 Revised 9/18/2025



Sec 33 - T8N - R17E

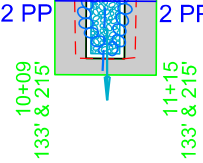
Sec 34 - T8N - R17E

Wink Ranch, LLC

The NW1/4 of Section 34 - Township 8 North -
Range 17 East of the B.H.M.

Parcel 1
0.06 ac, Permanent Easement
(2,600 sq ft) more or less

10+09 R
Begin type 2 fence



11+15 R
End type 2 fence

38+50 L & R
Remove CMP Flared Ends

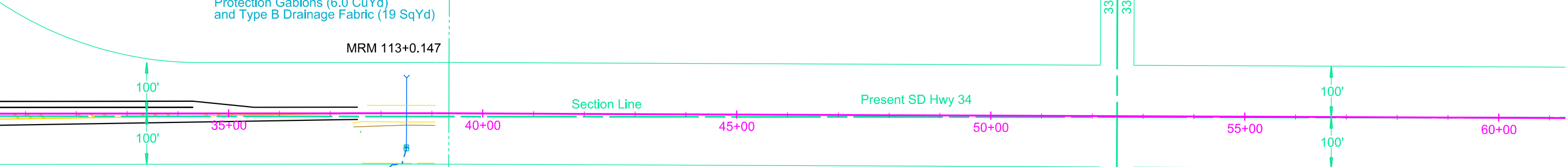
38+50
Cleanout for Culvert Treatment
Install 30"-128" CIPP Liner
& 2-30" CMP Flared Ends

38+50 R
Install PVC Coated Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric (19 SqYd)

MRM 113+0.147

Sec 27 - T8N - R17E

Sec 26 - T8N - R17E



Sec 34 - T8N - R17E

Sec 35 - T8N - R17E

Parcel 1
10+09 to 11+15 R
Temporary Easement containing
0.1 ac, more or less



PROJECT		SECTION	SHEET
NH 0034(207)96 & NH 0073(81)160		48	86

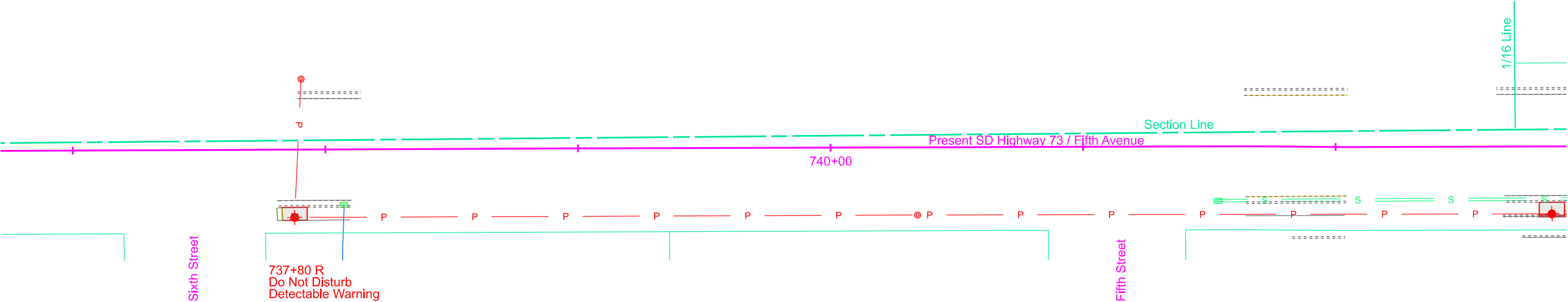
Plotting Date: 9/16/2025



Sec 10 - T12N - R17E

737+82 to 737+92 R
Remove Sidewalk
(5'x10')

737+82 to 737+92 R
Install 4" Sidewalk (5' wide)



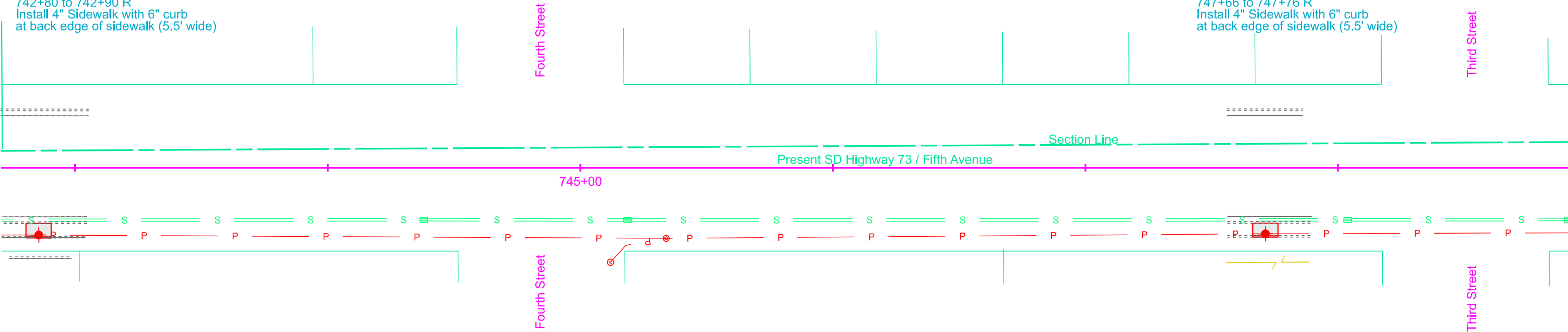
Sec 10 - T12N - R17E

742+80 to 742+90 R
Remove Sidewalk
(5'x10')

742+80 to 742+90 R
Install 4" Sidewalk with 6" curb
at back edge of sidewalk (5.5' wide)

747+66 to 747+76 R
Remove Sidewalk
(5'x10')

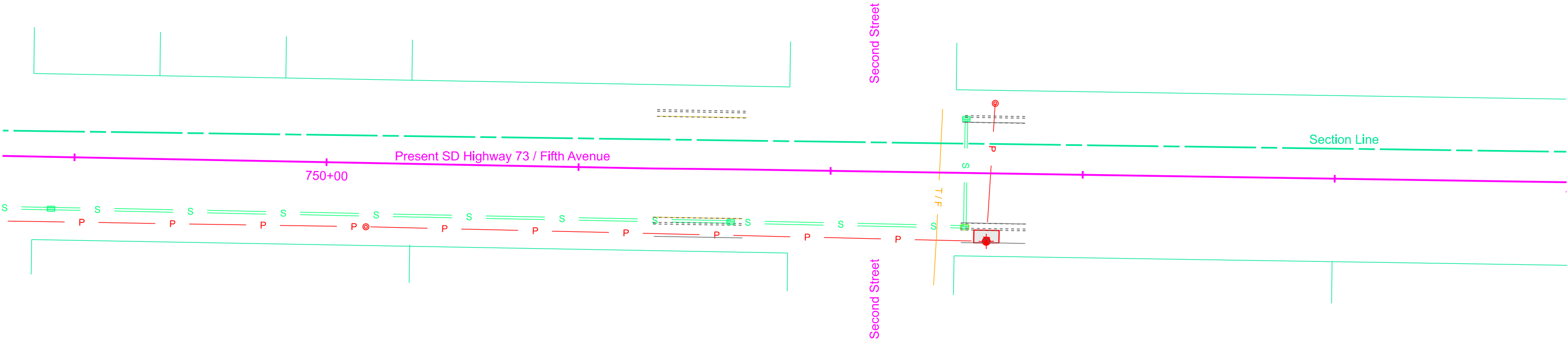
747+66 to 747+76 R
Install 4" Sidewalk with 6" curb
at back edge of sidewalk (5.5' wide)



752+57 to 752+67 R
Remove Sidewalk
(5'x10')

752+57 to 752+67 R
Install 4" Sidewalk (5' wide)

Sec 10 - T12N - R17E



34+04
Retain Twin 48" RCP

34+04 R
Remove for Reset
& Reset 2-48" RCP Flared Ends

34+04 R
Install PVC Coated Bank and Channel
Protection Gabions (24.0 CuYd)
and Type B Drainage Fabric (68 SqYd)

102+44
Retain 36" RCP

102+44 R
Remove for Reset
& Reset 36" RCP Flared End

102+44 R
Install PVC Coated Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric (19 SqYd)

102+44 R
Clean Out Pipe End Sections
(Incidental Work, Grading)

150+20 R
Retain Twin 30" RCP

150+20 R
Remove for Reset
& Reset 2-30" RCP Flared Ends

150+20 R
Install PVC Coated Bank and Channel
Protection Gabions (12.0 CuYd)
and Type B Drainage Fabric (38 SqYd)

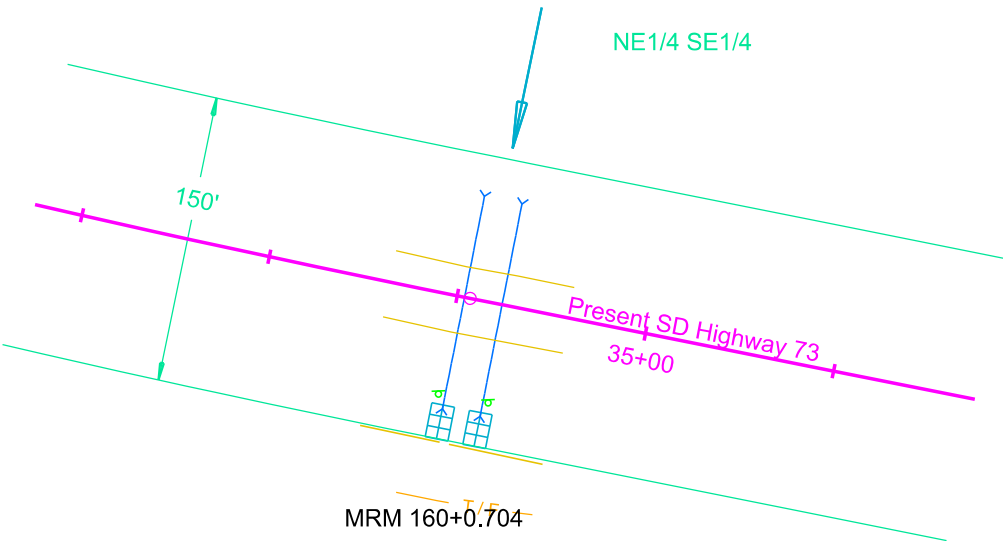


Plotting Date: 9/18/2025 Revised 9/18/2025 NJT

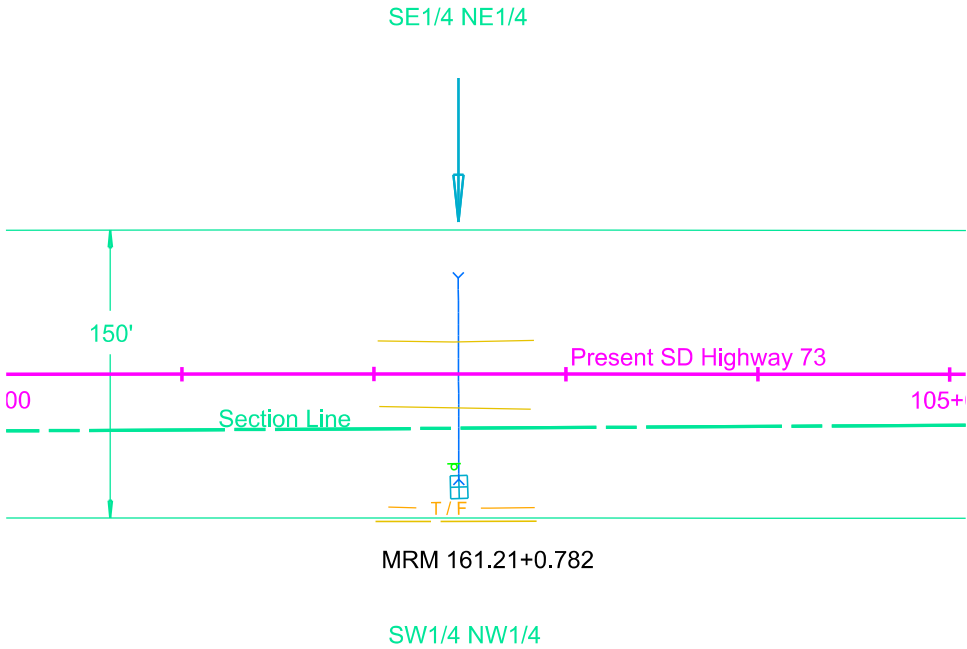
PROJECT		SECTION	SHEET
NH 0034(207)96 & NH 0073(81)160		50	86



Sec. 16 - T10N - R17E

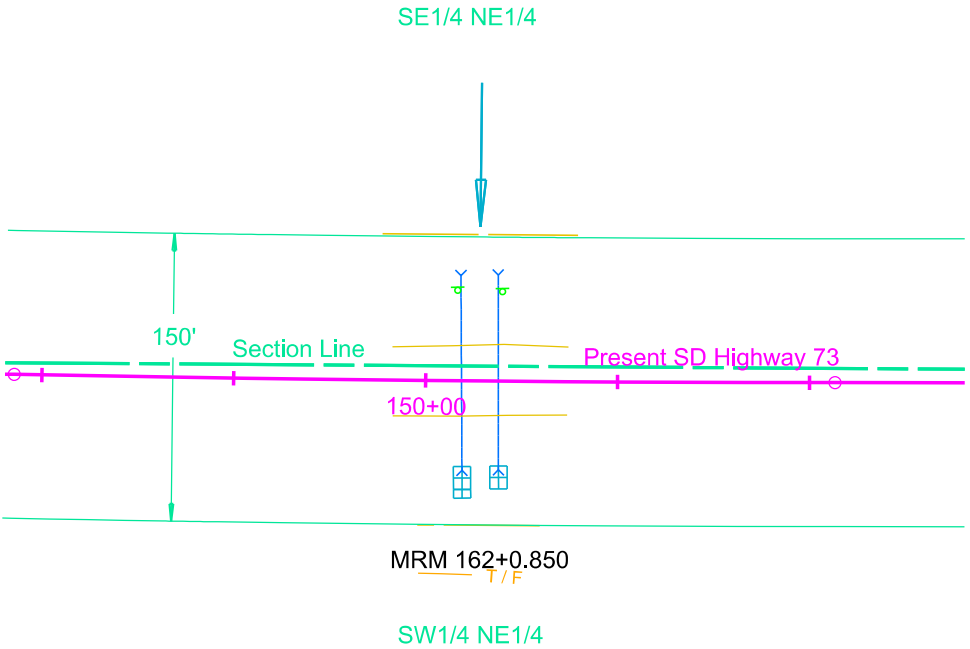


Sec. 9 - T10N - R17E



Sec. 10 - T10N - R17E

Sec. 4 - T10N - R17E



Sec. 3 - T10N - R17E

164+24
Retain 42" RCP

164+24 L
Remove for Reset
& Reset 42" RCP Flared End

164+24 L
Install PVC Coated Bank and Channel
Protection Gabions (10.0 CuYd)
and Type B Drainage Fabric (29 SqYd)

183+75
Retain Twin 48" RCP

183+75 R
Remove for Reset
& Reset 2-48" RCP Flared End

183+75 R
Install PVC Coated Bank and Channel
Protection Gabions (24.0 CuYd)
and Type B Drainage Fabric (68 SqYd)

217+72
Retain 30" RCP

217+72 L
Remove for Reset
& Reset 30" RCP Flared End

217+72 L
Install PVC Coated Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric (19 SqYd)



Plotting Date: 9/16/2025

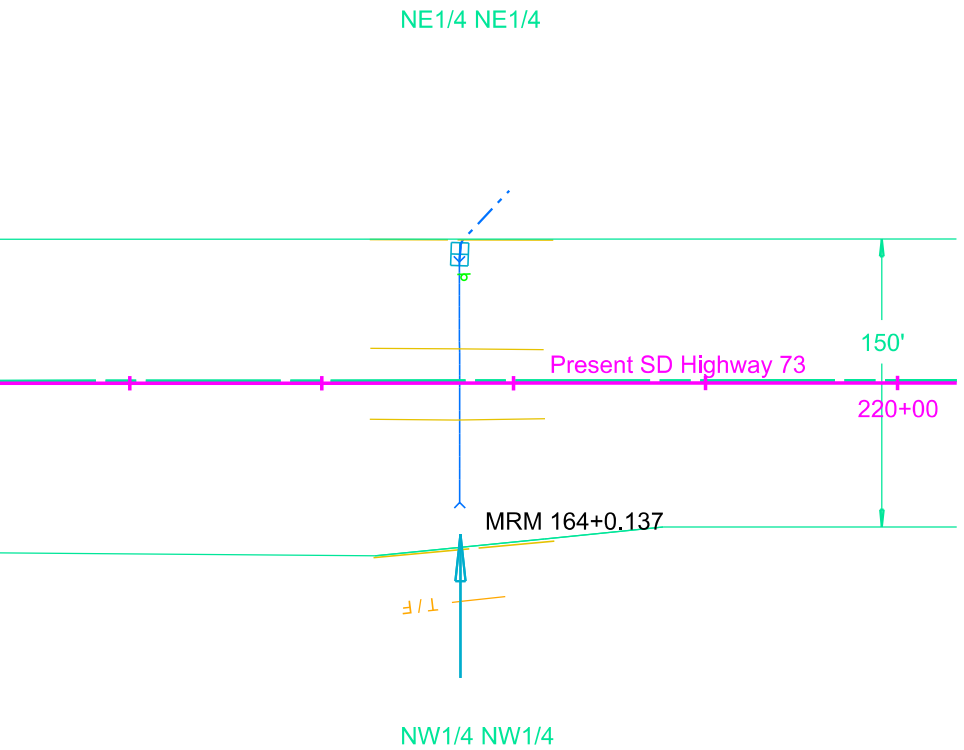
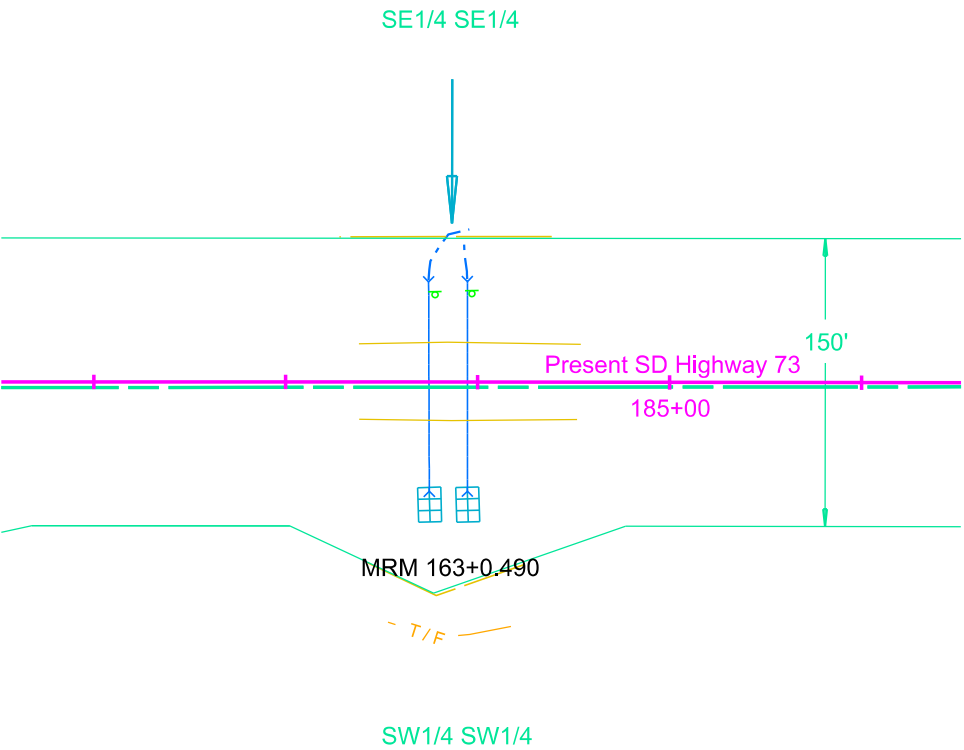
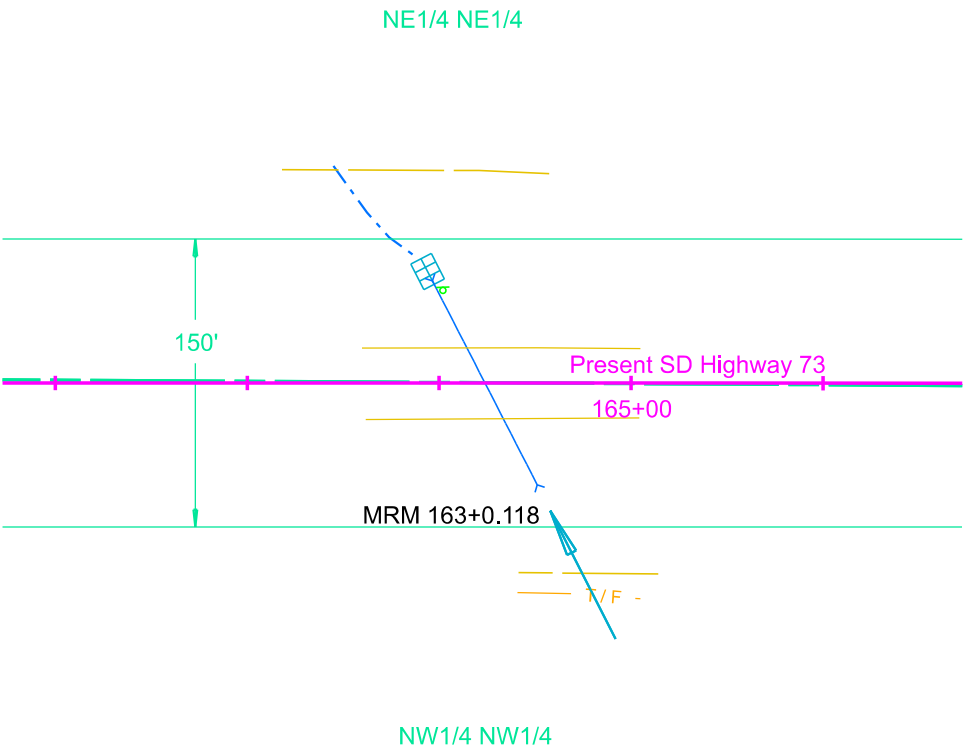
PROJECT		SECTION	SHEET
NH 0034(207)96 & NH 0073(81)160		51	86



Sec. 4 - T10N - R17E

Sec. 33 - T11N - R17E

Sec. 33 - T11N - R17E



Sec. 3 - T10N - R17E

Sec. 34 - T11N - R17E

Sec. 34 - T11N - R17E

393+44
Retain 36" RCP

393+44 R
Remove for Reset
& Reset 36" RCP Flared End

393+44 L
Install PVC Coated Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric (19 SqYd)

411+75 L
Shape Channel
(Incidental Work, Grading)

675+30
Retain 30" RCP

675+30 L
Remove for Reset
& Reset 30" RCP Sloped End

675+30 L
Install PVC Coated Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric (19 SqYd)

675+30 L
Shape Channel
(Incidental Work, Grading)

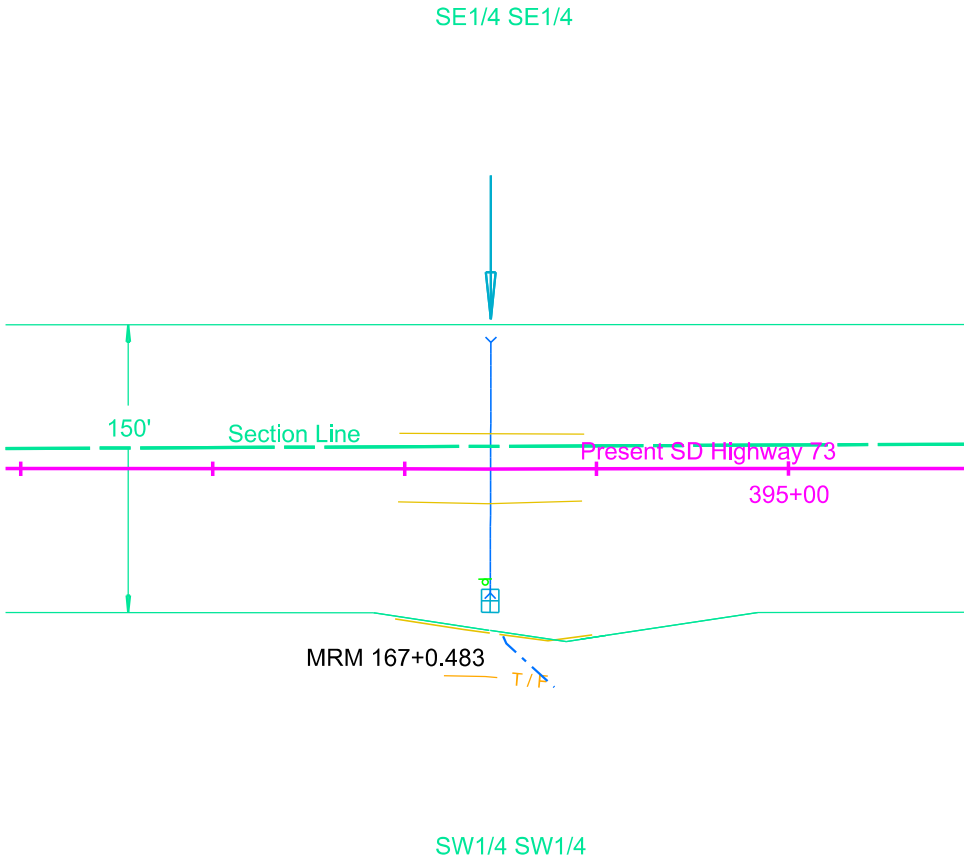


Plotting Date: 9/18/2025 Revised 9/18/2025 NJT

PROJECT		SECTION	SHEET
NH 0034(207)96 & NH 0073(81)160		52	86

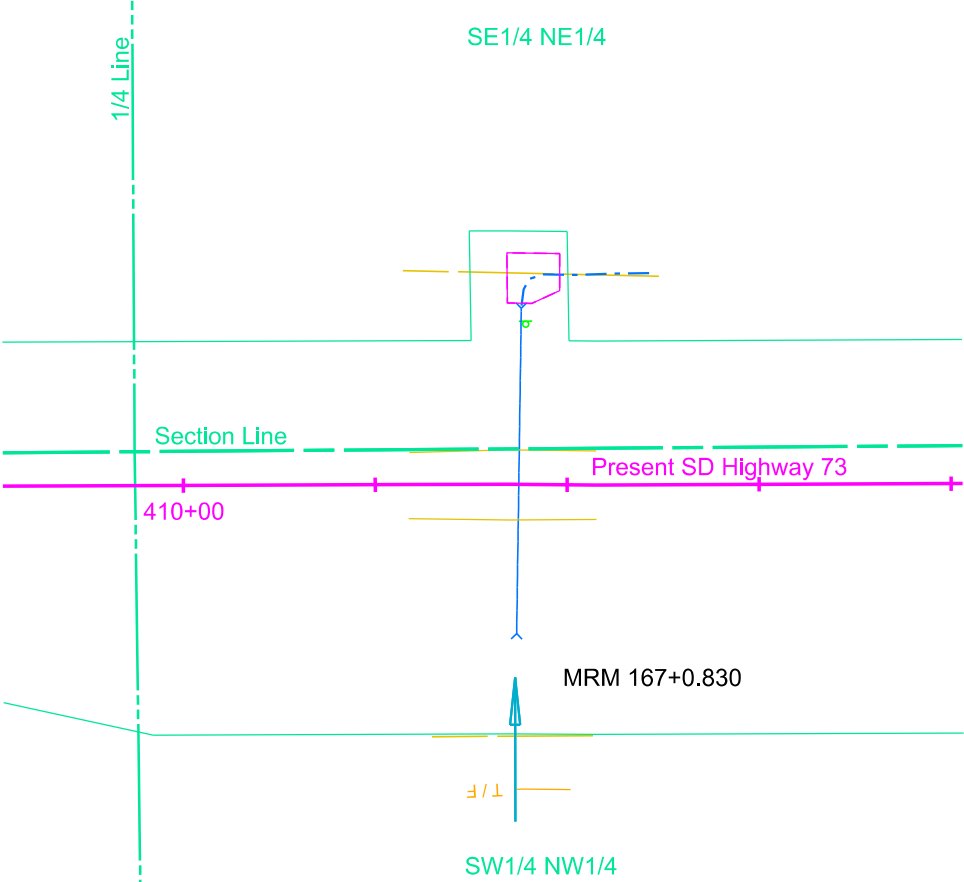


Sec. 9 - T11N - R17E



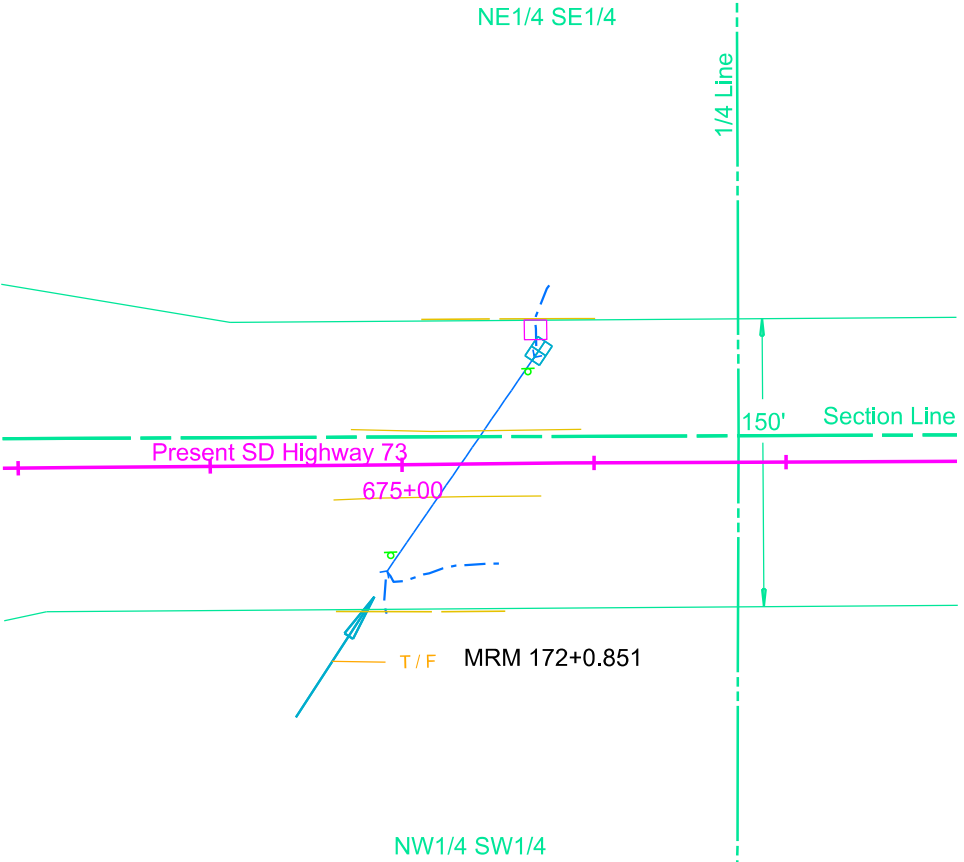
Sec. 10 - T11N - R17E

Sec. 9 - T11N - R17E



Sec. 10 - T11N - R17E

Sec. 16 - T12N - R17E



Sec. 15 - T12N - R17E

CONDUIT LAYOUT

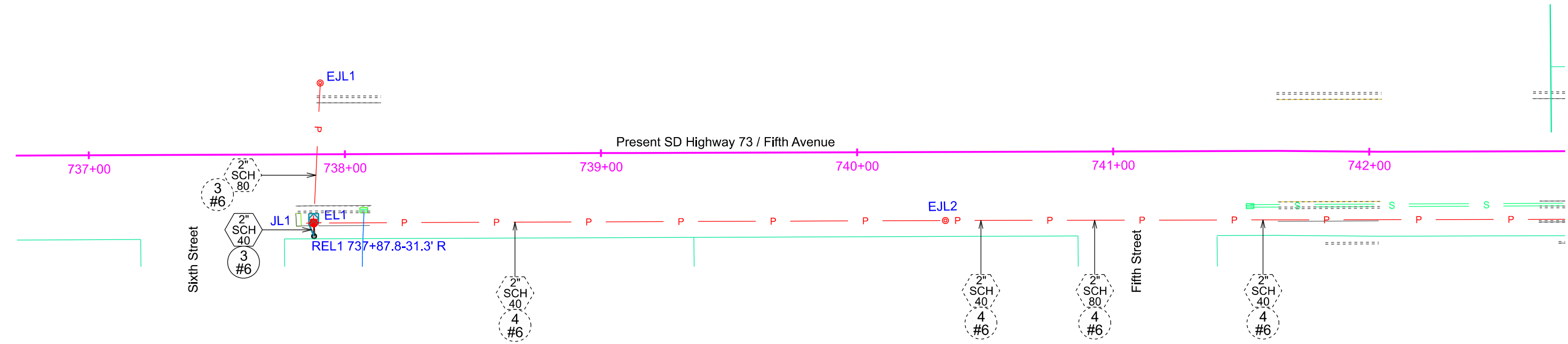
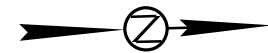
SD HWY 73

	PROJECT	SECTION	SHEET
	NH 0034(207)96 & NH 0073(81)160	53	86

Plotting Date: 9/16/2025

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Remove Luminaire Pole Footing (EL1-EL4)	4	EACH
	Remove and Reset Luminaire Pole (REL1-REL4)	4	EACH
	2' Diameter Footing (REL1-REL4)	28	FT
	Type 1 Electrical Junction Box (JL1, JL2)	2	EACH
	2" Rigid Conduit, Schedule 40	120	FT
	1/C #6 AWG Copper Wire	560	FT

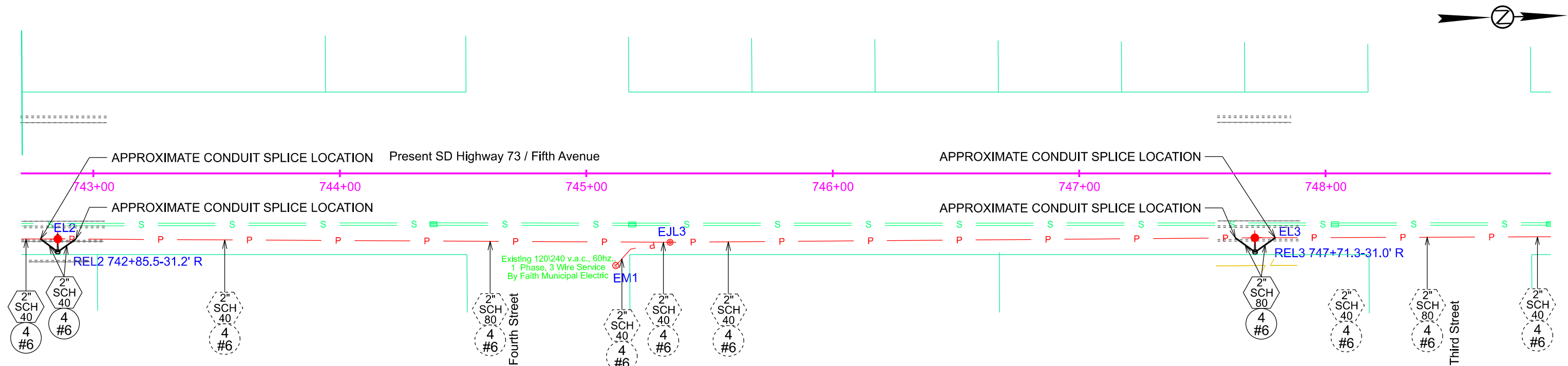
EXISTING ITEMS	
KEY	ITEM
	Roadway Luminaire (EL1-EL4)
	Type 1 Electrical Junction Box (EJL1-EJL5)
	Electrical Service Cabinet (EM1)
	2" Rigid Conduit, Schedule 40
	2" Rigid Conduit, Schedule 80
	1/C #6 AWG Copper Wire



CONDUIT LAYOUT

SD HWY 73

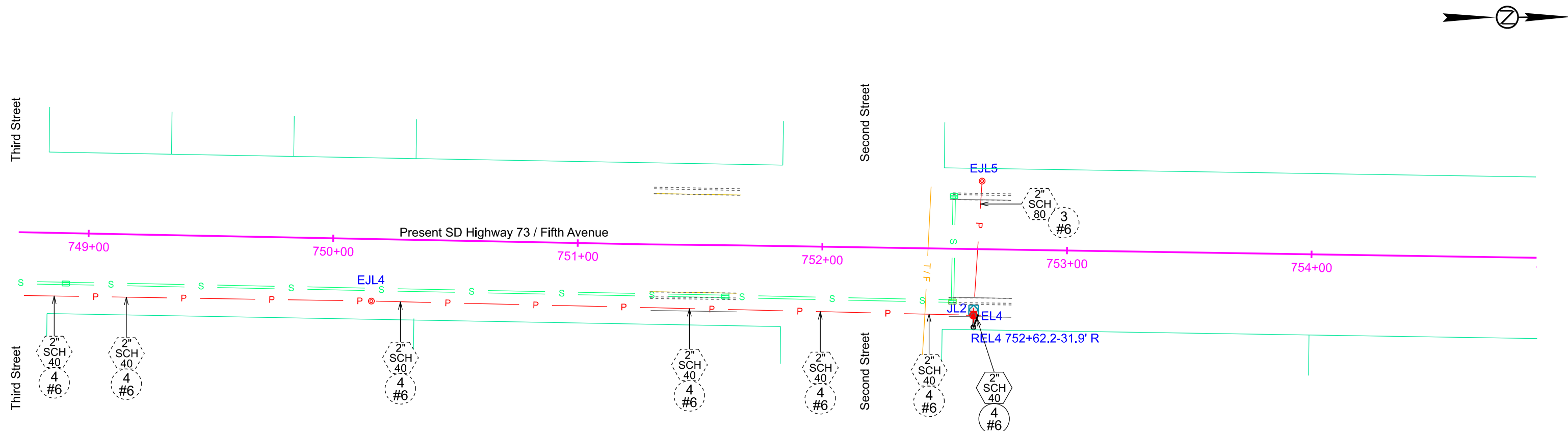
SD DOT	PROJECT	SECTION	SHEET
	NH 0034(207)96 &		
	NH 0073(81)160	54	86
Plotting Date: 9/16/2025			



CONDUIT LAYOUT

SD HWY 73

 Plotting Date: 9/16/2025	PROJECT	SECTION	SHEET
	NH 0034(207)96 & NH 0073(81)160	55	86



1:24780.8
Plot Scale -

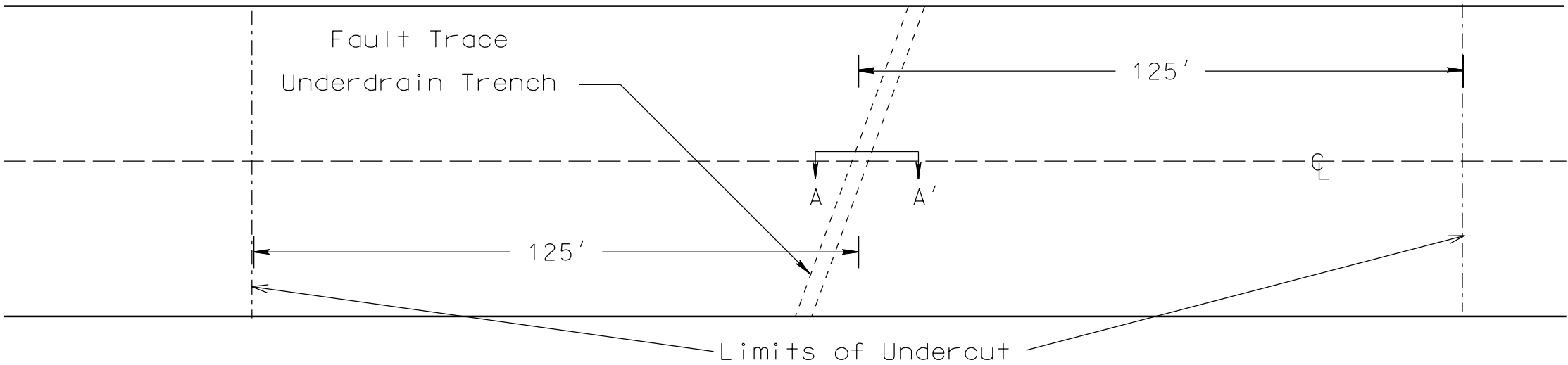
Plotted From - TRRC11626

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	56	86

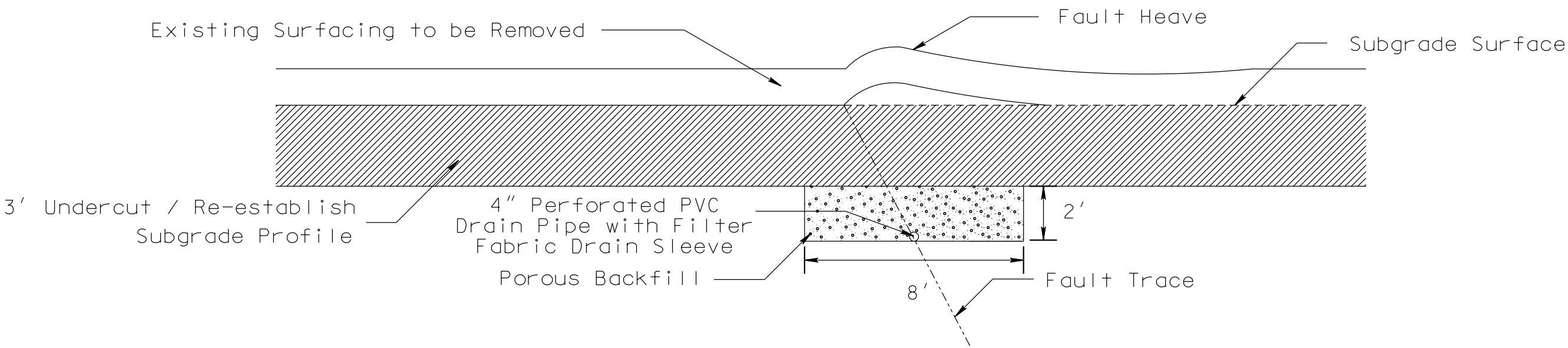
Plotting Date: 09/16/2025

TYPICAL UNDERDRAIN SECTIONS

FAULT TRACE UNDERDRAIN PLAN VIEW - MRM 108.11



TYPICAL FAULT TRACE UNDERDRAIN SECTION A - A'



File - ...Plan view underdrain-fault trace details.dgn

1:24780.8
Plot Scale -

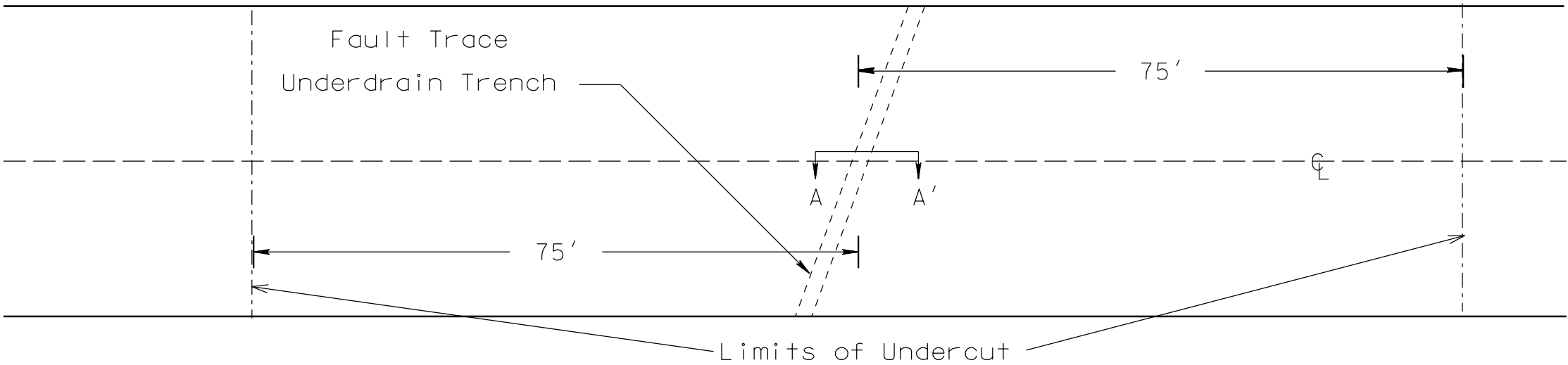
Plotted From - TRRC11626

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	57	86

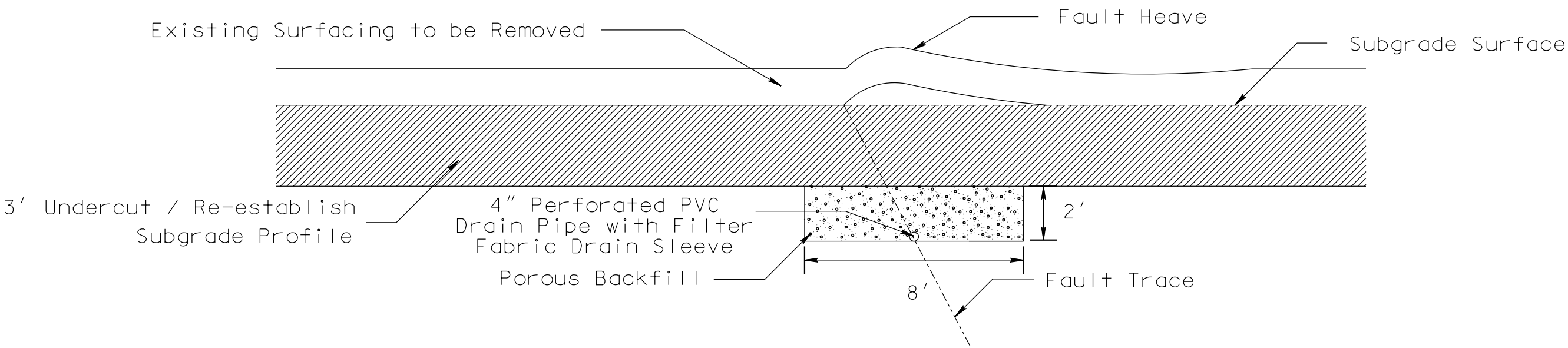
Plotting Date: 09/16/2025

TYPICAL UNDERDRAIN SECTIONS

FAULT TRACE UNDERDRAIN PLAN VIEW - MRM 109.39



TYPICAL FAULT TRACE UNDERDRAIN SECTION A - A'



File - ...Plan view underdrain-fault trace details.dgn

1:24/780.8
Plot Scale -

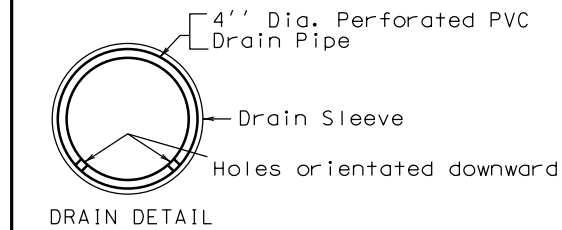
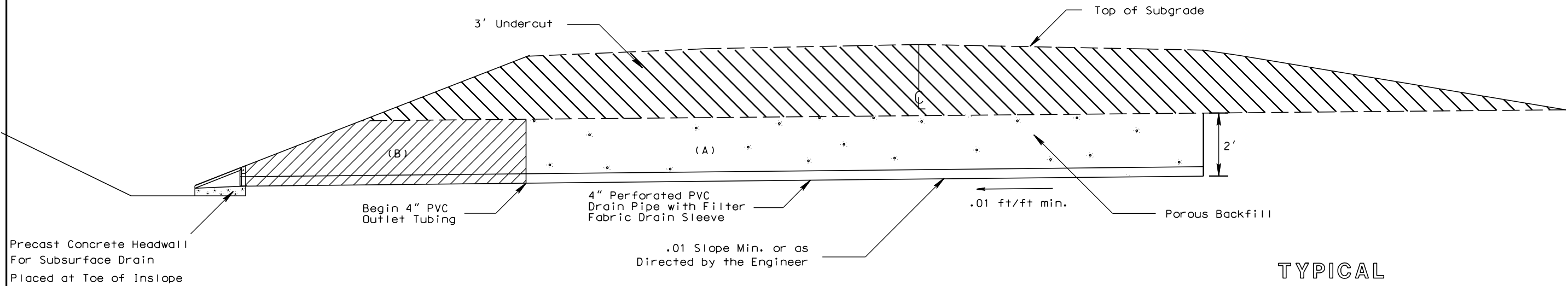
Plotted From - TRRC11626

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	58	86

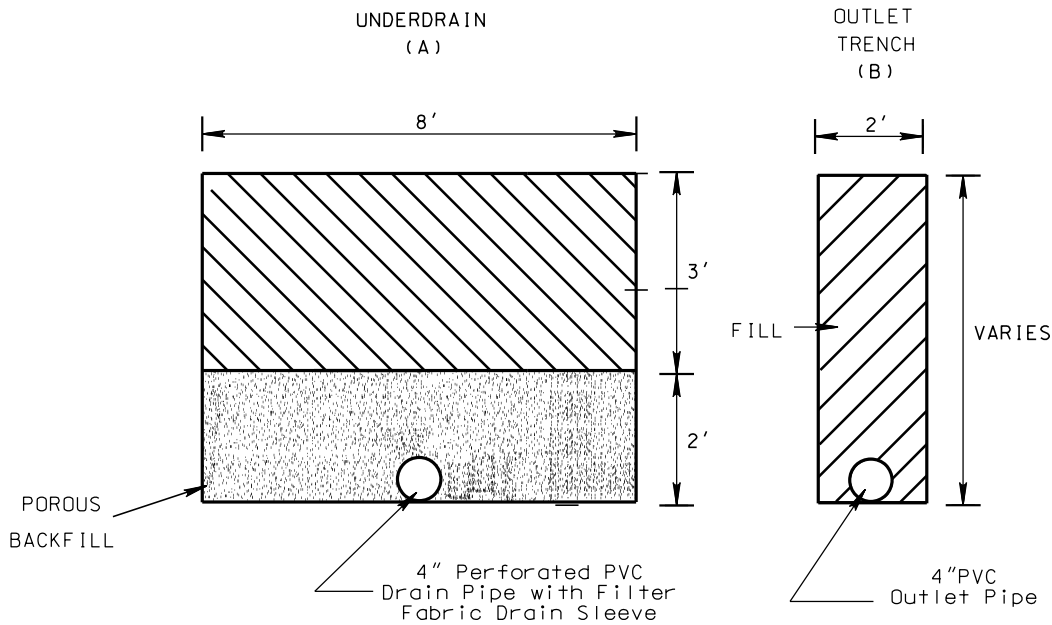
Plotting Date: 09/16/2025

TYPICAL UNDERDRAIN SECTIONS

TYPICAL FAULT TRACE UNDERDRAIN INSTALLATION - MRM 108.11



TYPICAL UNDERDRAIN INSTALLATION



1:24/780.8
Plot Scale -

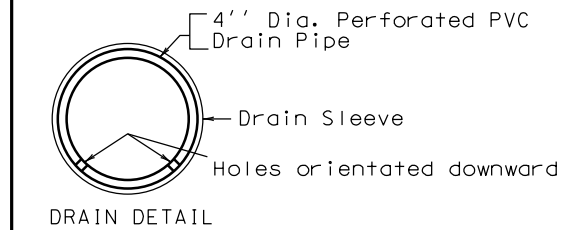
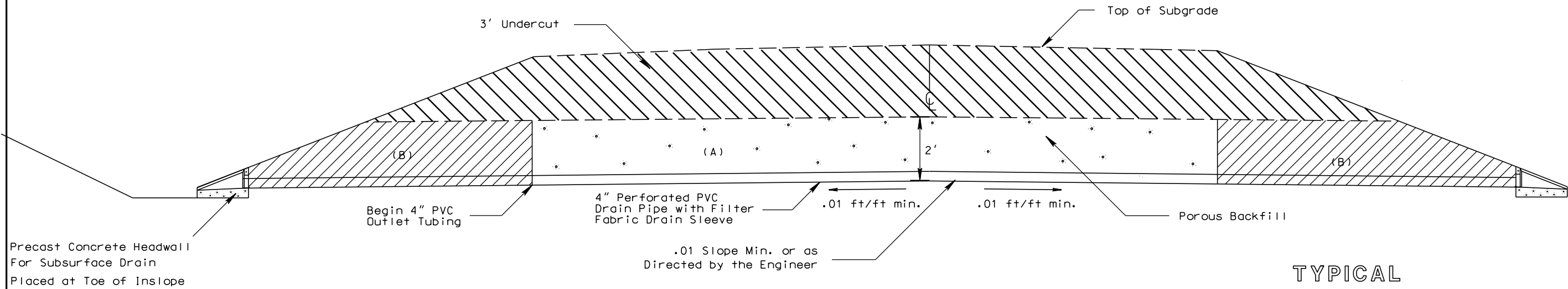
Plotted From - TRRC11626

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	59	86

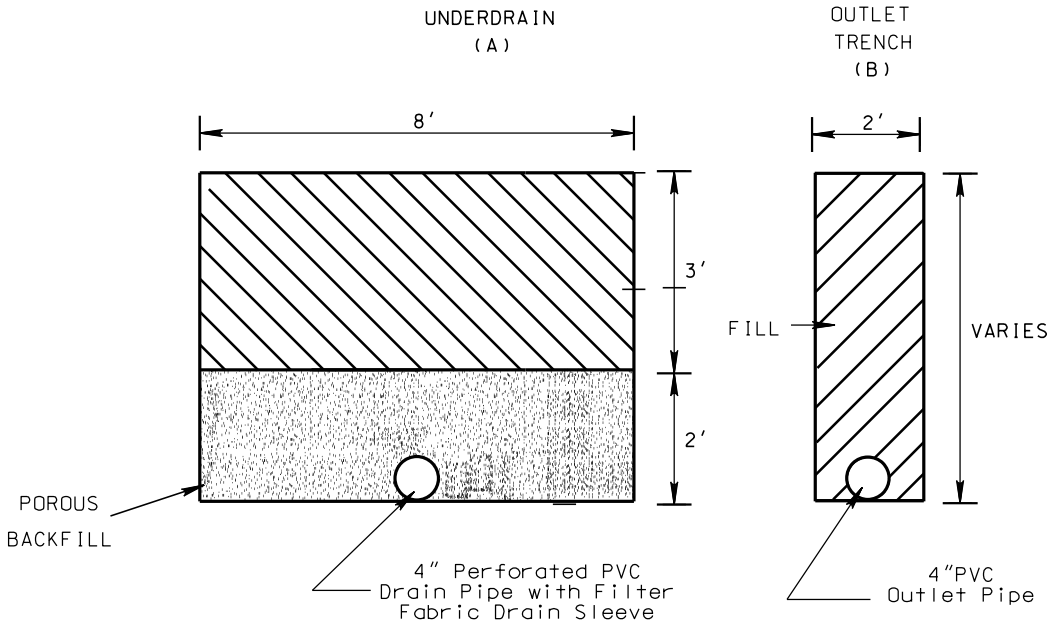
Plotting Date: 09/16/2025

TYPICAL UNDERDRAIN SECTIONS

TYPICAL FAULT TRACE UNDERDRAIN INSTALLATION - MRM 109.39



TYPICAL UNDERDRAIN INSTALLATION

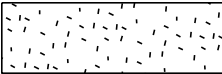


SURFACING TRANSITION LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	60	86

Plotting Date: 09/16/2025

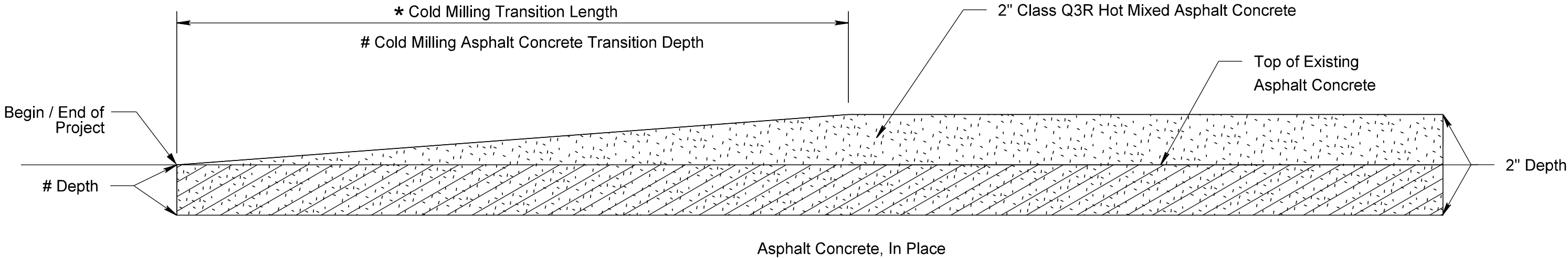
1:24
Plot Scale -

- 

2" Class Q3R Hot Mixed Asphalt Concrete
- 

Cold Milling Asphalt Concrete

- * ≤ 65 mph Transition length = 40' per inch of elevation change
- * > 65 mph Transition length = 60' per inch of elevation change



- # SD73 Section 1 = 1"
- # SD73 Section 2 (curb and gutter) = 2"
- # SD34 Sections 3, 4, 5 & 6 = 1"

Plotted From - TRRC11626

File - ...Cold milling transition.dgn

TYPICAL PAVEMENT MARKING LAYOUT



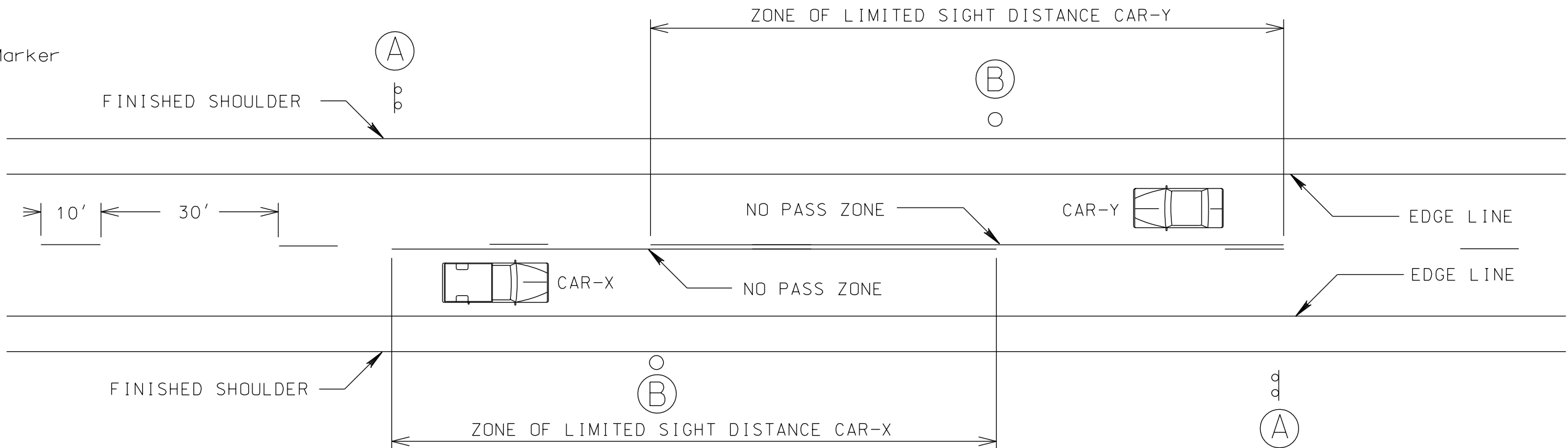
PROJECT
NH 0034(207)96 &
NH 0073(81)160

SECTION SHEET
61 86

Plotting Date: 9/16/2025



(B) End of Zone Marker



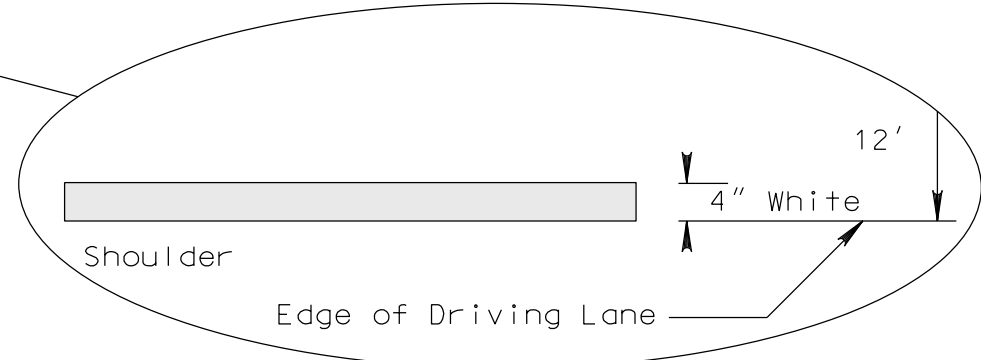
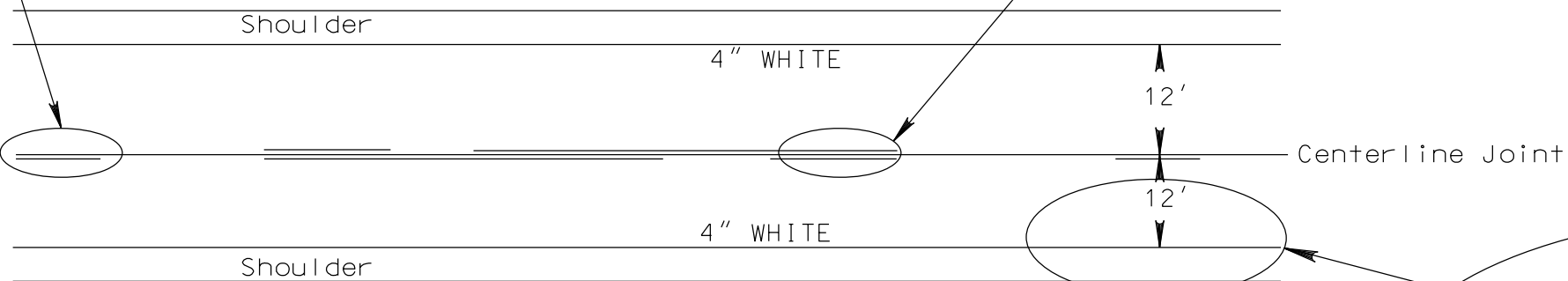
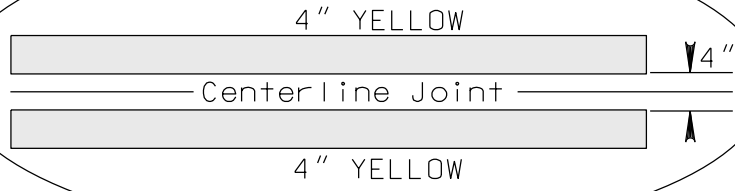
Centerline Detail



NOTE: A TWO "GUN" SYSTEM WILL BE USED TO OBTAIN THIS PATTERN.

WHEN A SINGLE SKIP LINE EXISTS, THE SKIP WILL BE PLACED TO THE SOUTH OR EAST OF THE CENTERLINE JOINT.

Centerline Detail

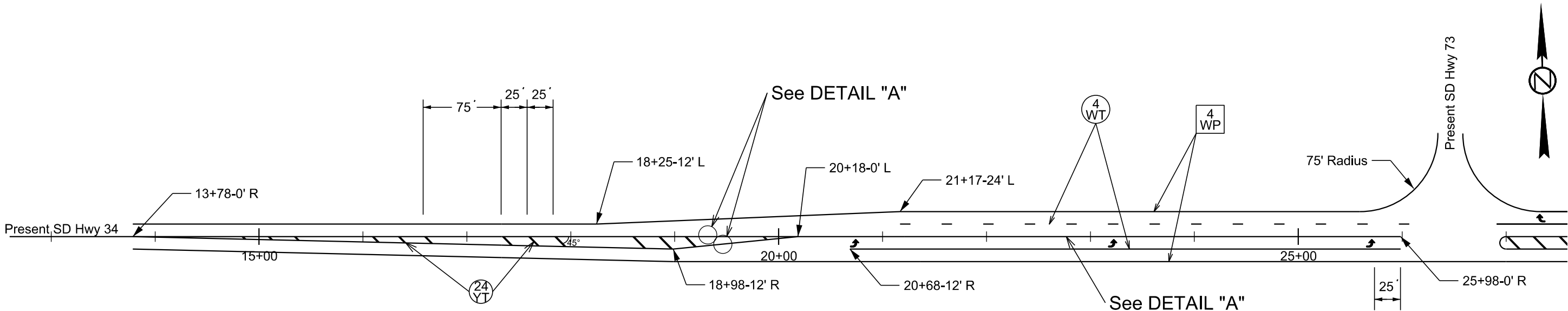


PAVEMENT MARKING LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	62	86

Plotting Date: 09/16/2025

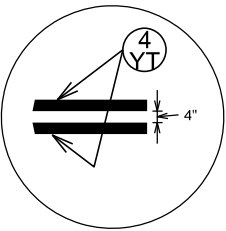
Plot Scale - 1:100



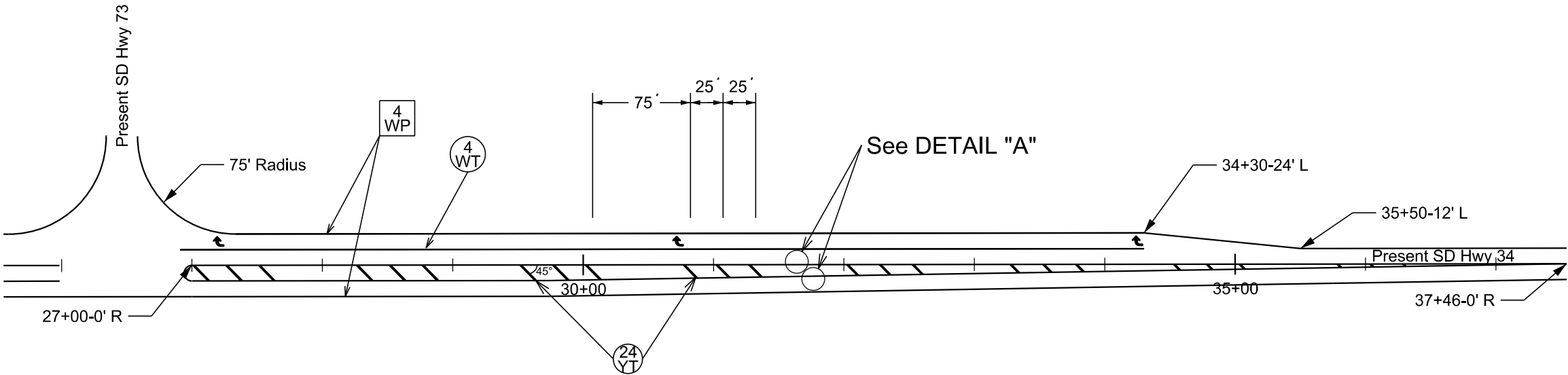
ESTIMATE OF QUANTITIES

KEY	ITEM	EST QUANT	UNIT
4 WP	Waterborne Pavement Marking Paint with High Grade Polymer, 4" White	16	GAL
4 WT	Cold Applied Plastic Pavement Marking, 4" White	1393	FT
4 YT	Cold Applied Plastic Pavement Marking, 4" Yellow	3987	FT
24 WT	Cold Applied Plastic Pavement Marking, 24" Yellow	396	FT
→	Cold Applied Plastic Pavement Marking, Arrow (Right)	6	EACH
	Grooving For Cold Applied Plastic Pavement Marking, 4"	5380	FT
	Grooving For Cold Applied Plastic Pavement Marking, 24"	396	FT
	Grooving For Cold Applied Plastic Pavement Marking, Arrow (Right)	6	EACH

DETAIL "A"

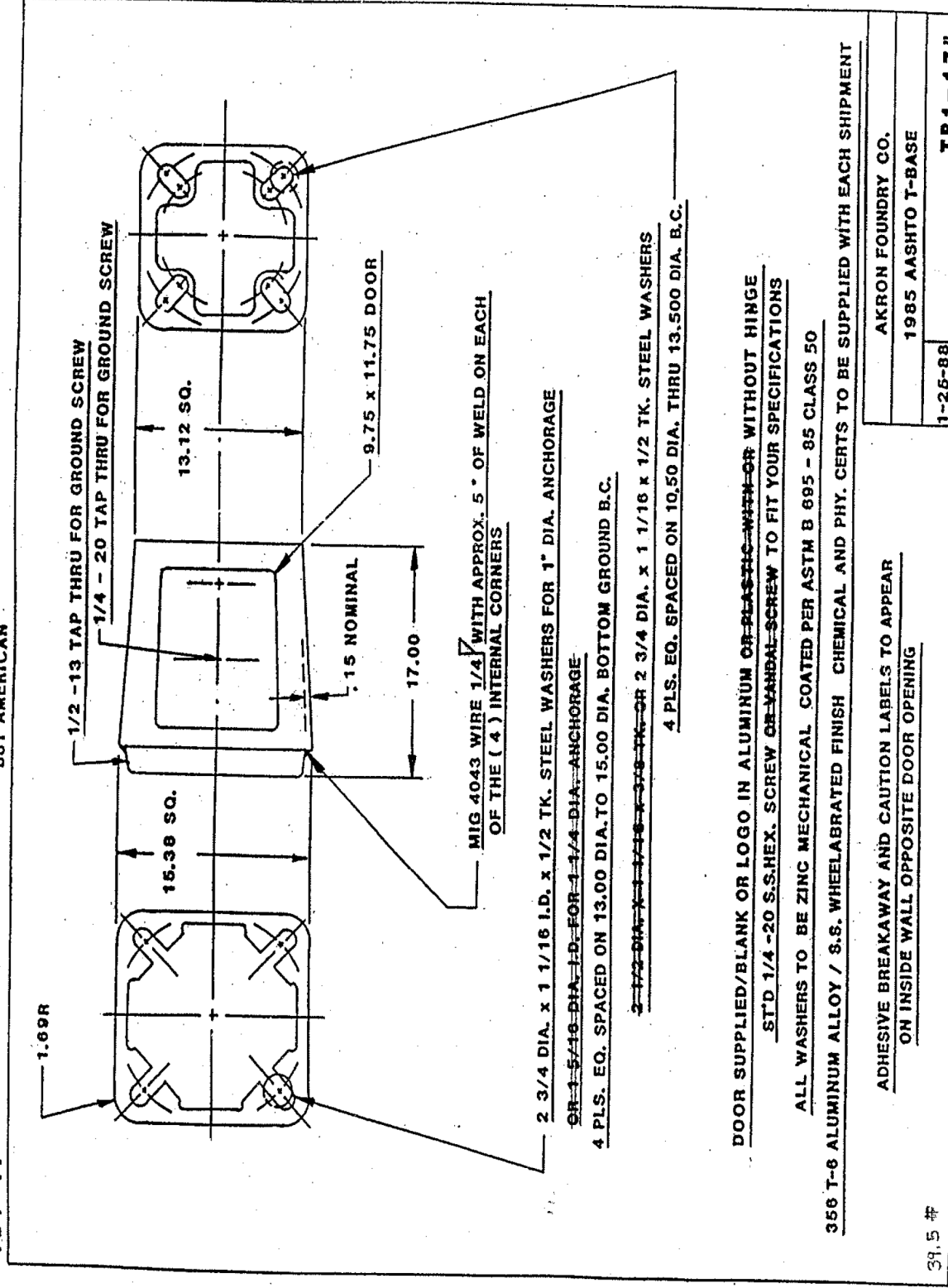


Plotted From - TRRC11626



TB1-17"

"BUY AMERICAN"



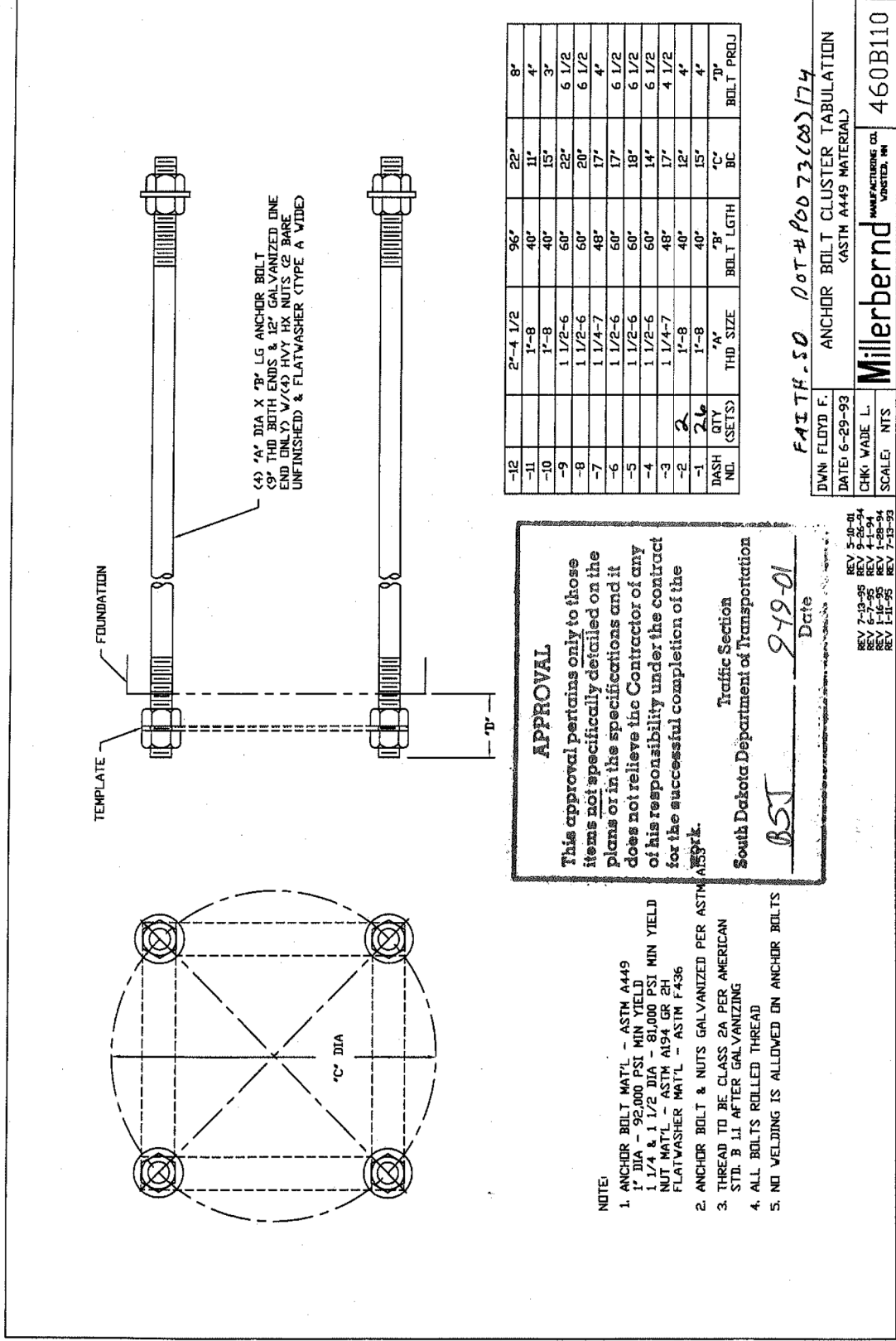
SPECIAL DETAIL FOR REMOVE AND RESET LUMINAIRE POLE



Plotting Date: 9/16/2025

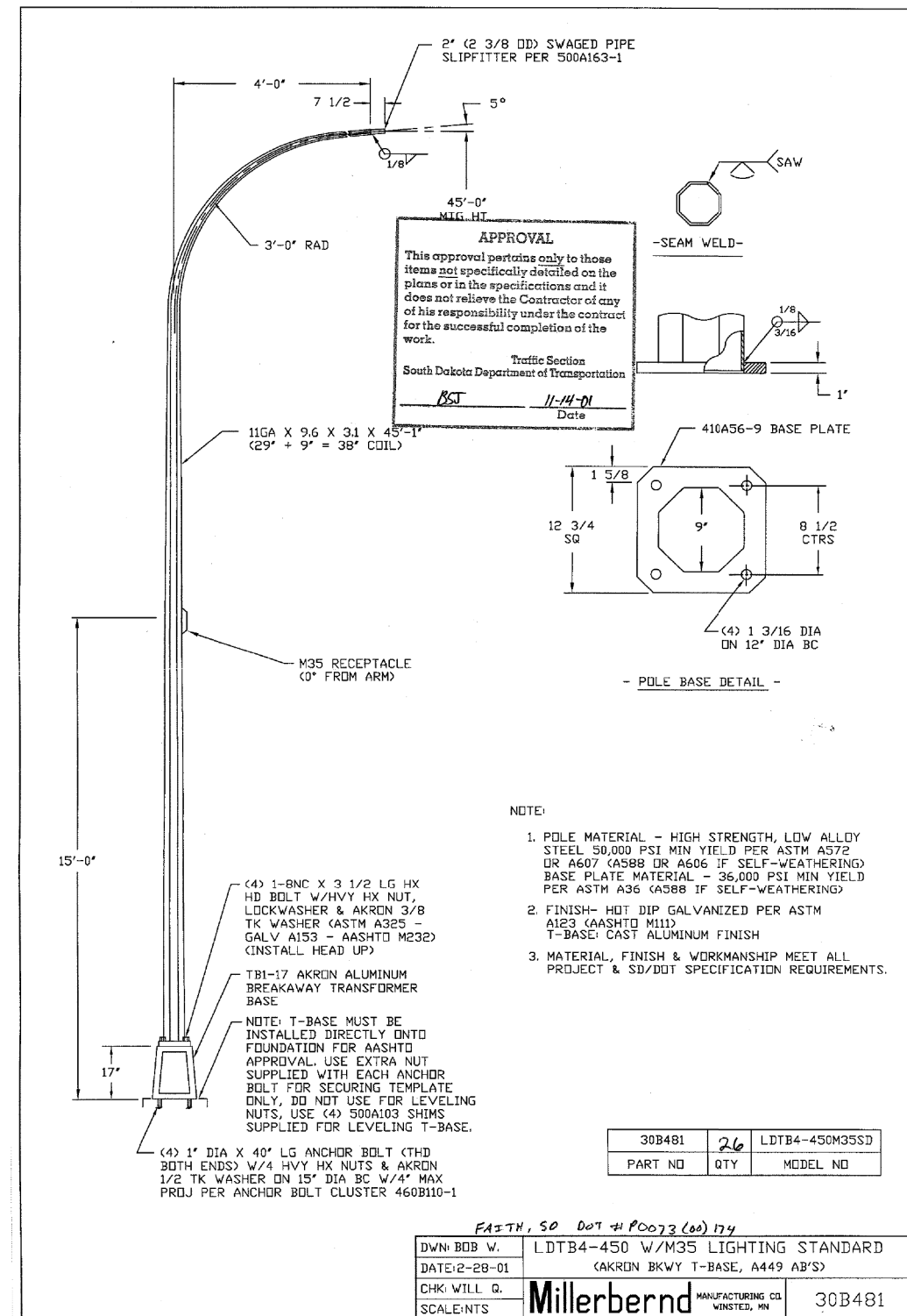
PROJECT
NH 0034(207)96 &
NH 0073(81)160

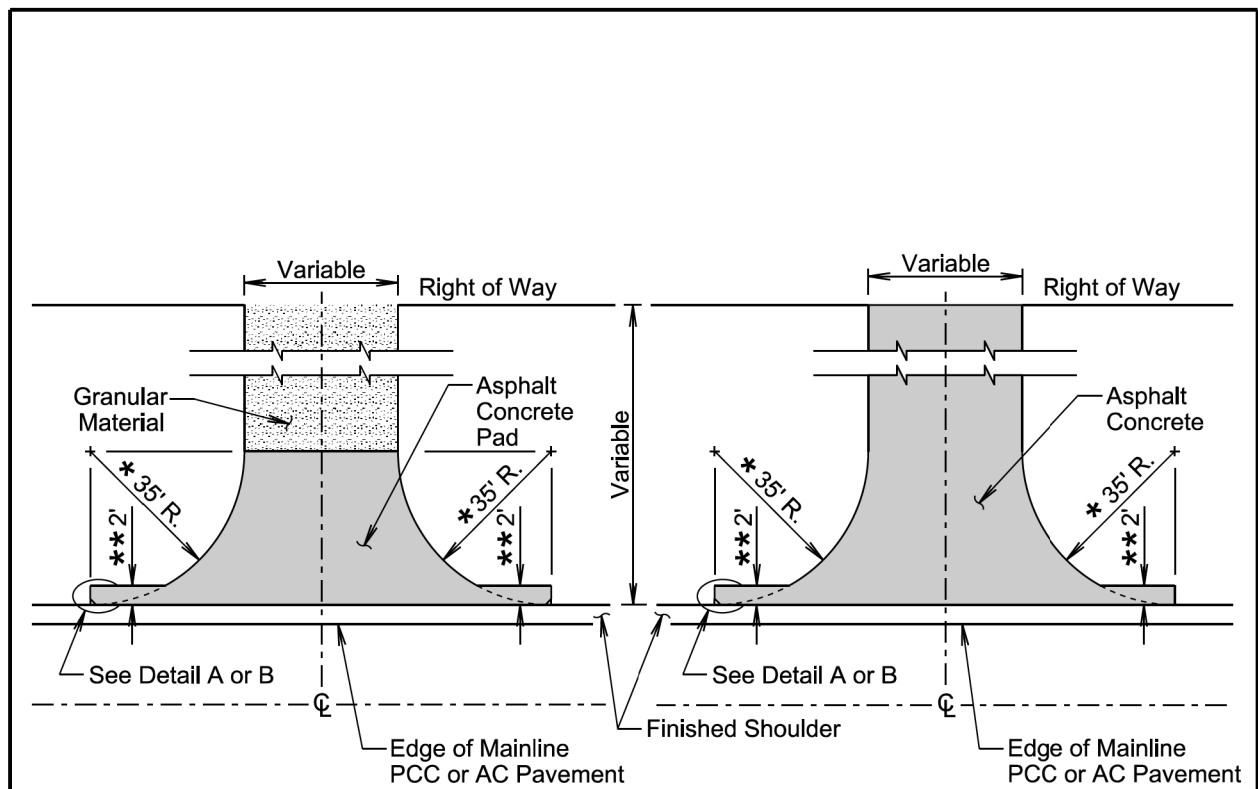
SECTION SHEET
63 86



	PROJECT	SECTION	SHEET
	NH 0034(207)96 & NH 0073(81)160	64	86

Plotting Date: 9/16/2025





PLAN VIEW
(Intersecting Road)
(No Asphalt Concrete Surfacing
Beyond Right of Way)

PLAN VIEW
(Intersecting Road)
(Asphalt Concrete Surfacing
Beyond Right of Way)

GENERAL NOTES:

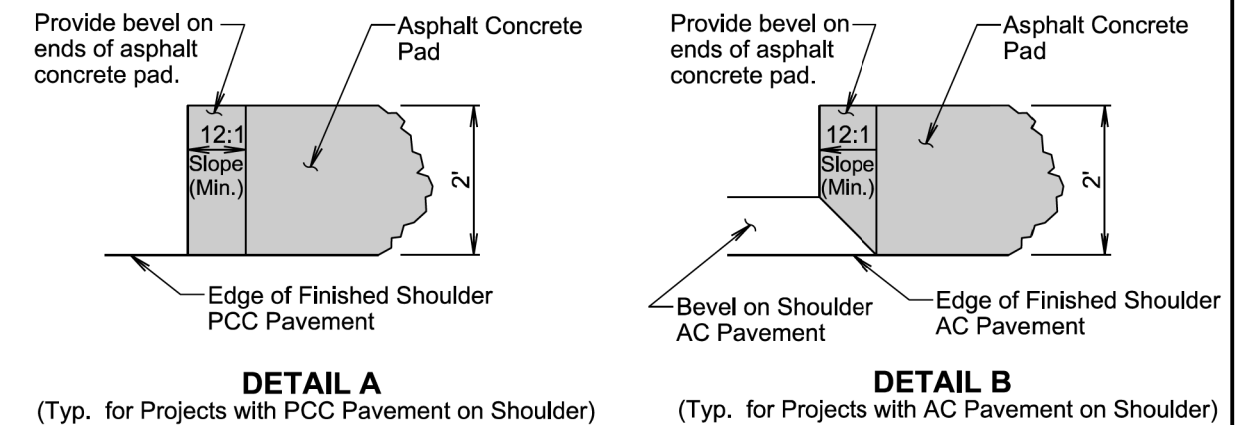
The precise construction limits for situations other than shown above will be determined by the Engineer during construction.

* 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.

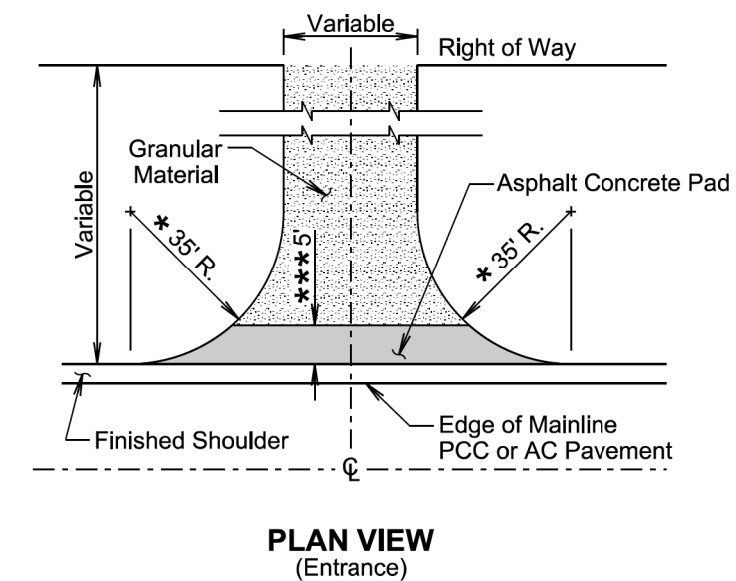
August 27, 2020

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



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

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

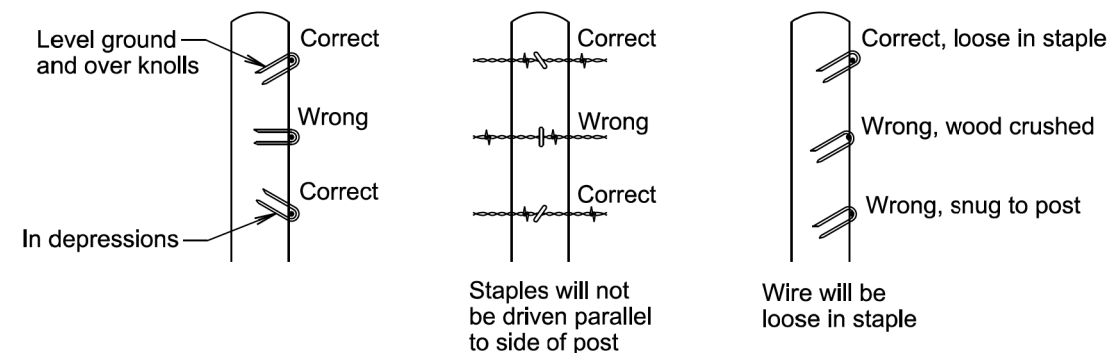


PLAN VIEW
(Entrance)

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

August 27, 2020

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



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.

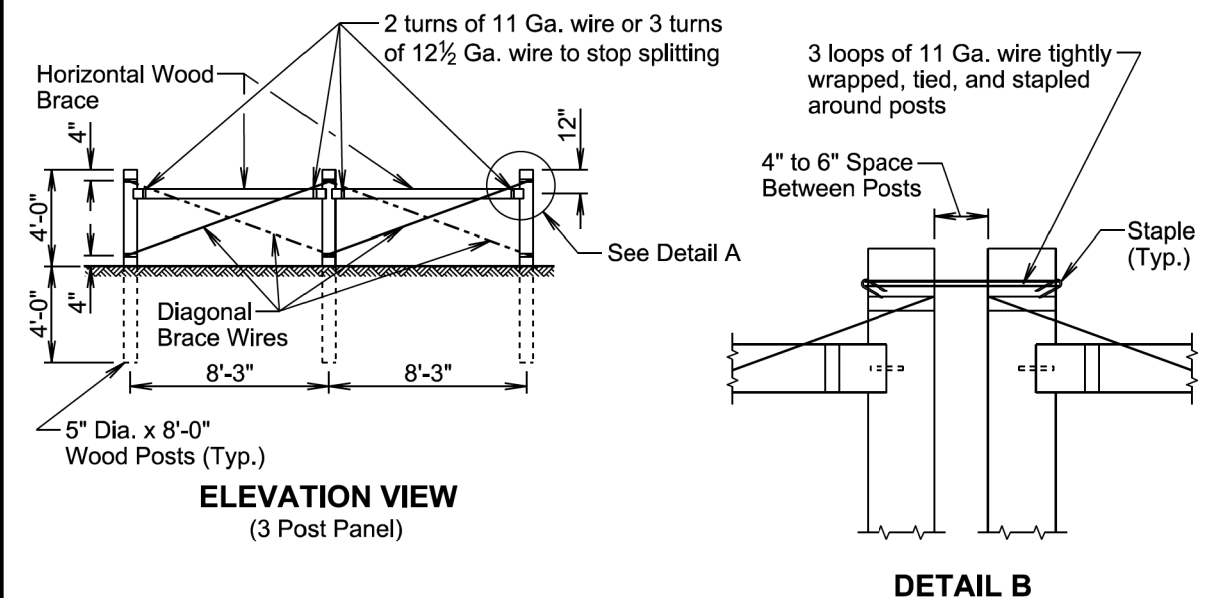
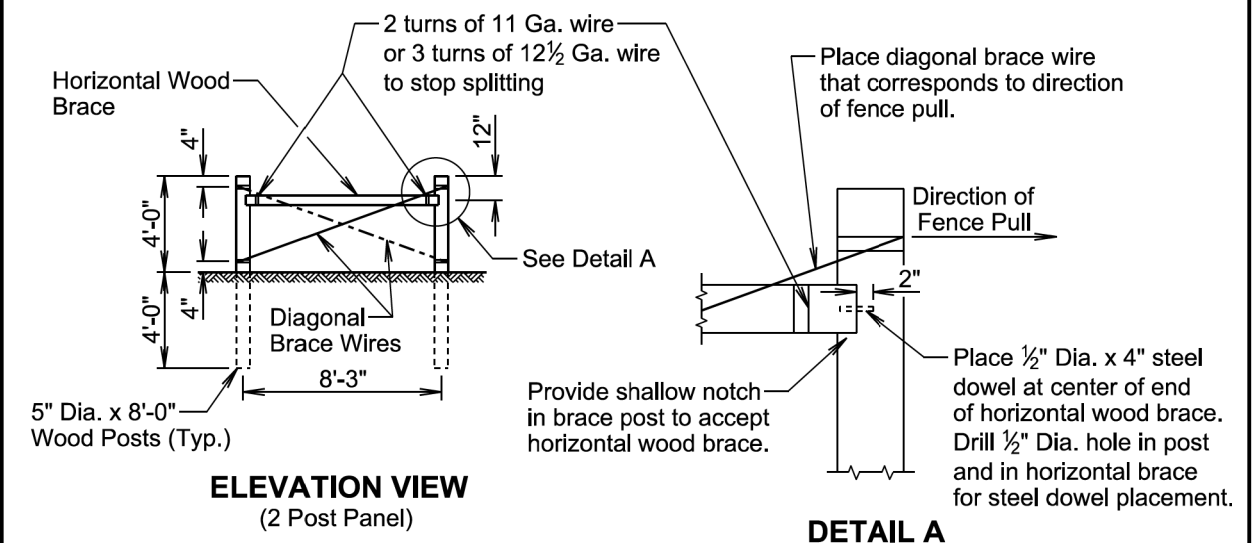
Right-of-Way fence other than on Interstate Projects will be constructed within one foot of the Right-of-Way on the Landowner's side except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

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	SD DOT	STAPLE INSTALLATION AND GENERAL RIGHT-OF-WAY FENCE NOTES	PLATE NUMBER 620.02
			Sheet 1 of 1



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	SD DOT	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03
			Sheet 1 of 3

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.

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.

** 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.

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

SHORT JOGS IN FENCE

CROSS FENCE

SHARP ANGLES IN CROSS FENCE

ANGLES IN MAINLINE FENCE

Published Date: 2026

SD
DOT

BRACE PANELS AND
APPLICATIONS OF BRACE PANELS

PLATE NUMBER
620.03

Sheet 2 of 3

March 31, 2024

ENTRANCE
(Not on corner)

DOUBLE ENTRANCES

ENTRANCES AT CORNERS

GATES

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

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

* 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.

Published Date: 2026

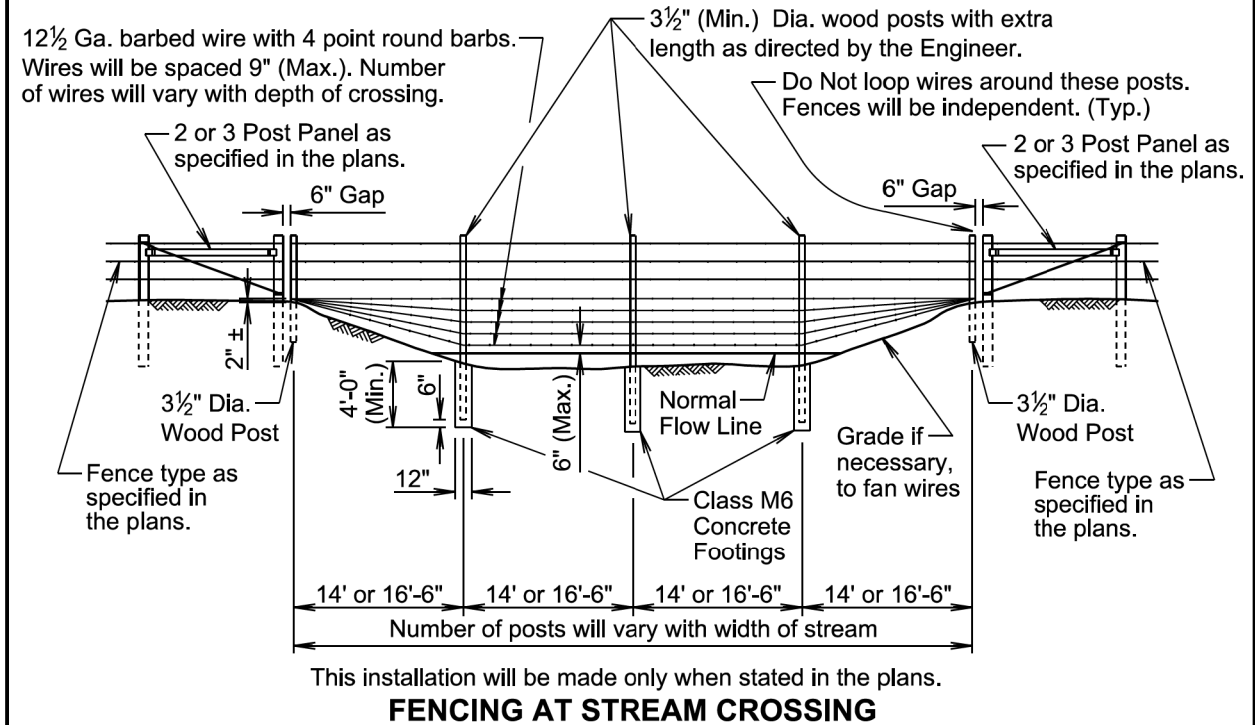
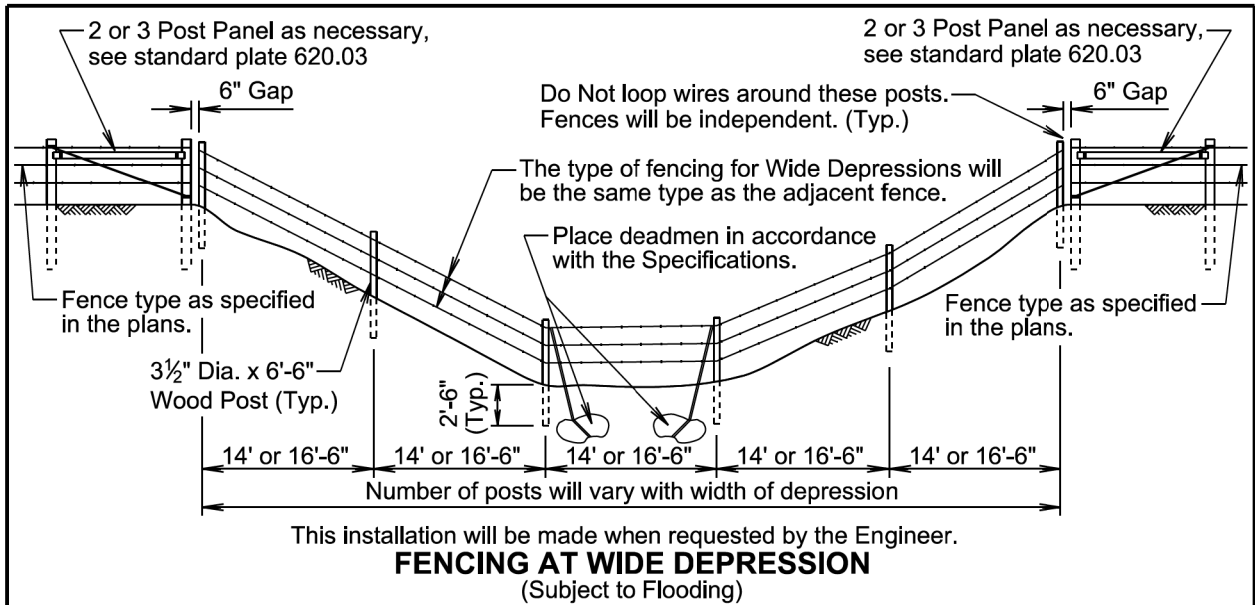
SD
DOT

BRACE PANELS AND
APPLICATIONS OF BRACE PANELS

PLATE NUMBER
620.03

Sheet 3 of 3

March 31, 2024



GENERAL NOTES:

There will be no extra payment for the additional work and materials required to construct the fencing at the wide depression(s) and/or the fencing at the stream crossing(s). The deadmen will be paid for in accordance with 620.5 A of the Specifications.

Measurement and payment for the fencing at the wide depression(s) and/or the fencing at the stream crossing(s) will be at the contract unit price per foot for the corresponding Right-of-Way fence contract item.

June 26, 2019

Published Date: 2026	SD DOT	FENCING AT WIDE DEPRESSION(S) AND STREAM CROSSING(S)	PLATE NUMBER 620.10
			Sheet 1 of 1

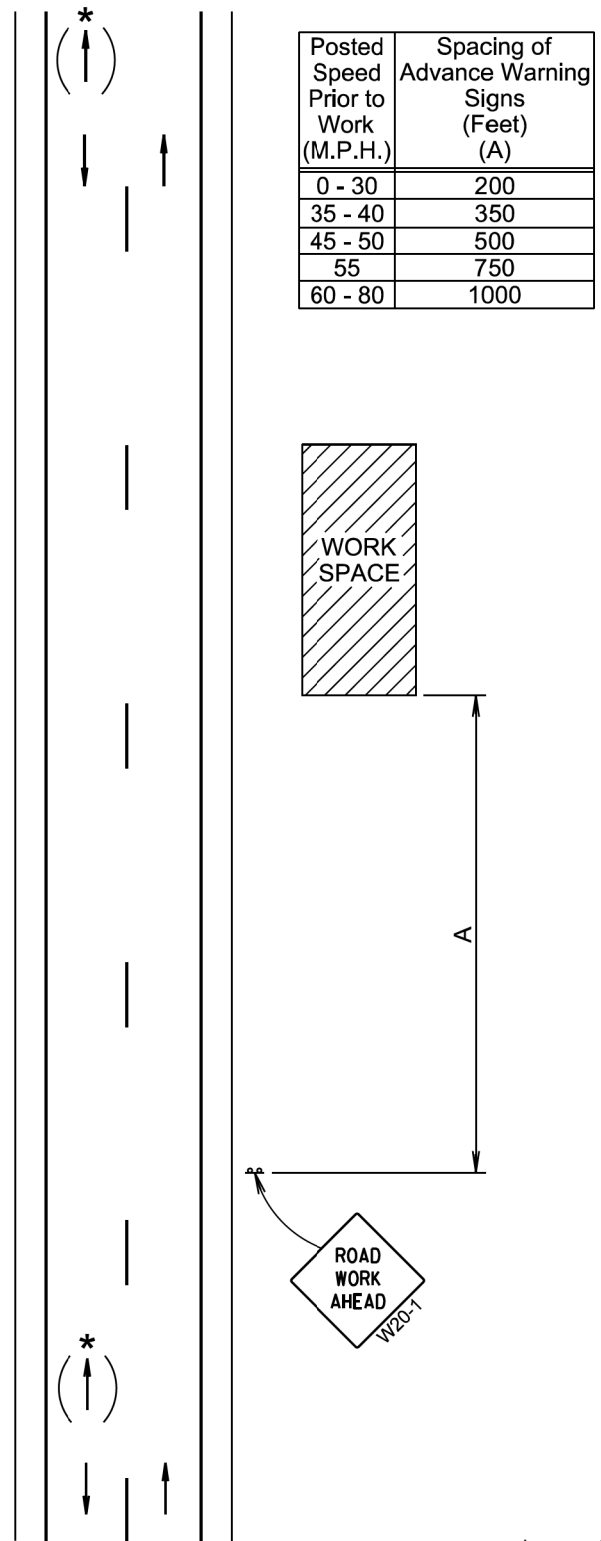
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

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	SD DOT	WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
			Sheet 1 of 1

UNEVEN LANE

WB-11

A

RESURFACED AREA

A

UNEVEN LANE

WB-11

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 LANE 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.

SD

DOT

UNEVEN ROAD SURFACE

PLATE NUMBER
634.22

Published Date: 2026

Sheet 1 of 1

January 22, 2021

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.

Warning sign sequence in opposite direction same as below.

ROAD WORK

G20-2

20'

2G

Buffer Space

100' (Max.)

One Lane Two-way Traffic Taper

XXX FEET

W16-2P (Optional)

ONE LANE ROAD AHEAD

W20-4

ROAD WORK AHEAD

W20-1

Flagger

Channelizing Device

UNEVEN LANE

WB-11

SD

DOT

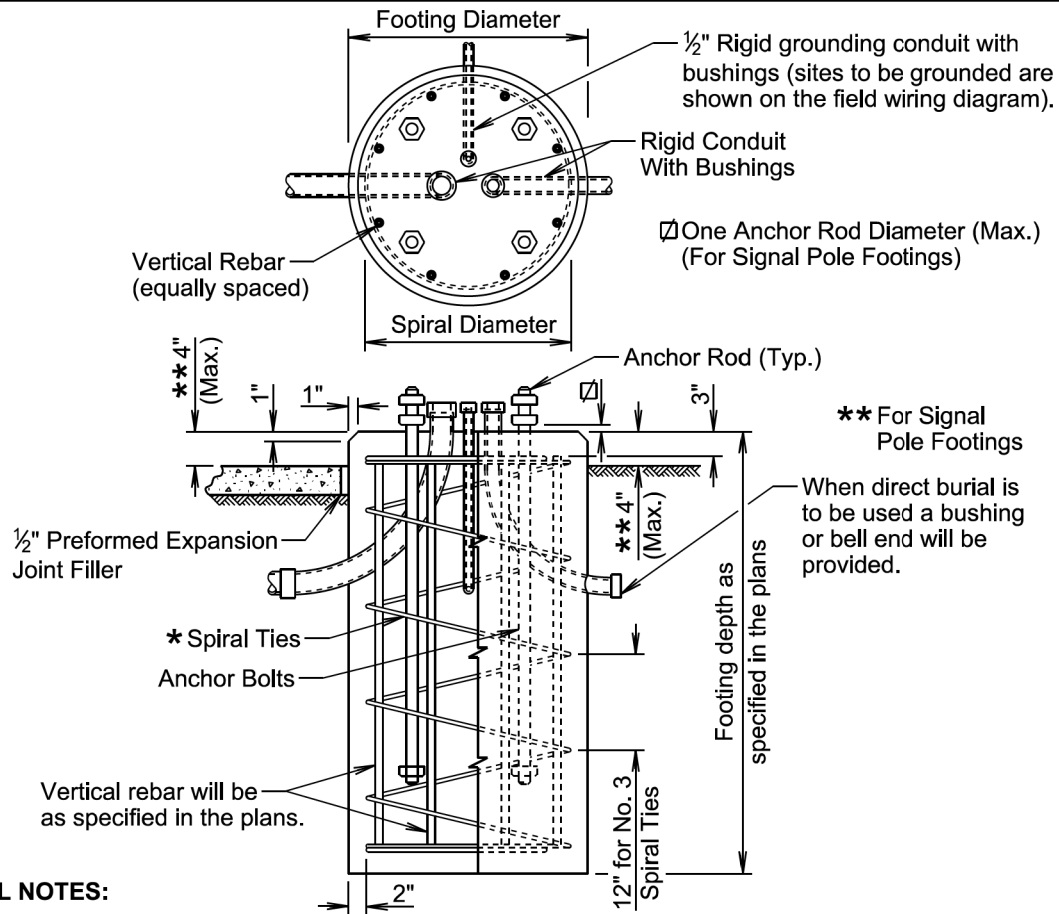
LANE CLOSURE WITH FLAGGER PROVIDED

PLATE NUMBER
634.23

Published Date: 2026

Sheet 1 of 1

January 22, 2021

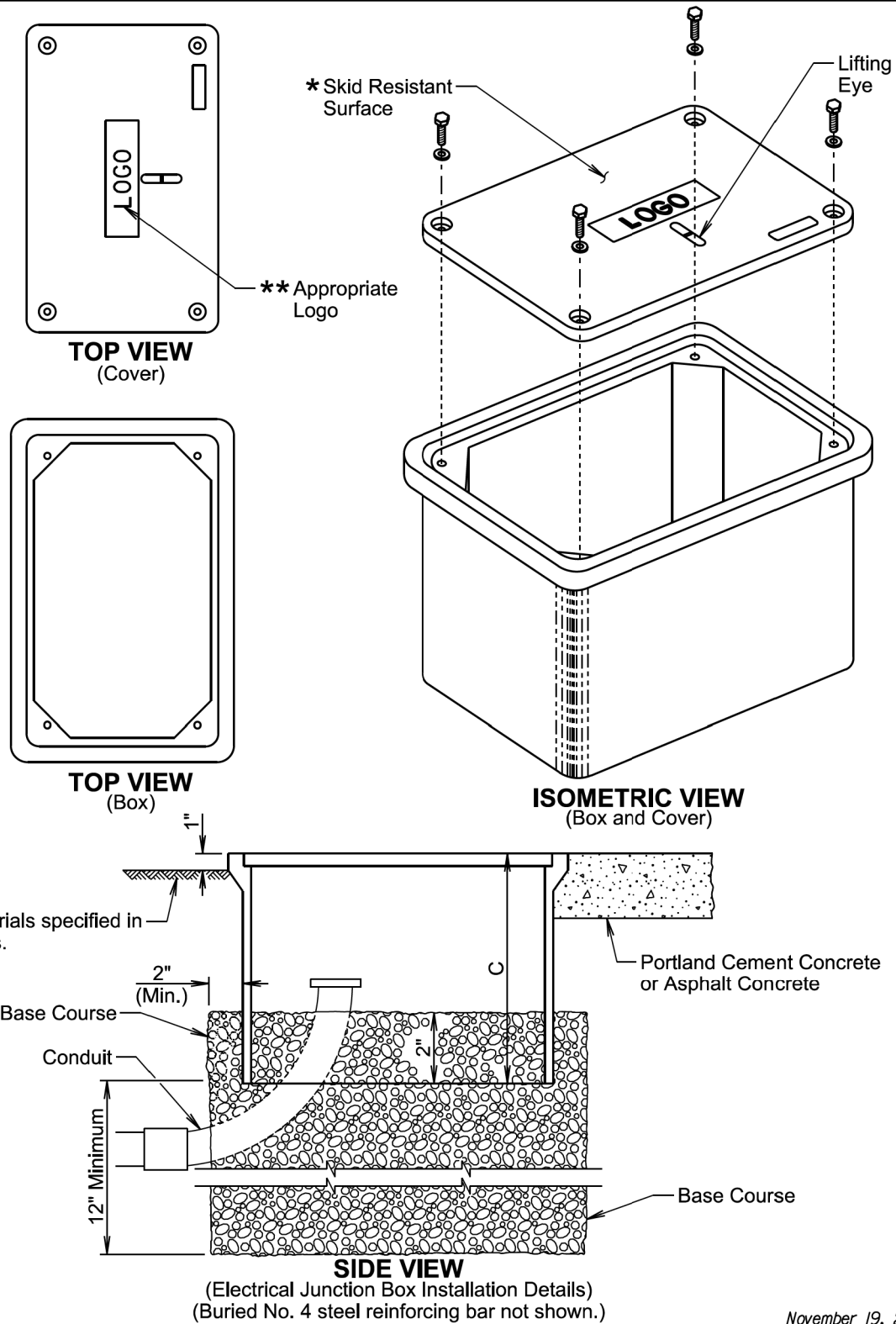


GENERAL NOTES:

- * Circular ties may be used in lieu of the spiral ties. The No. 3 ties will be spaced 12 inches apart except for the top two which will be spaced 6 inches apart. The ties will be lapped 18 inches and the laps will be staggered around the cage.
- Spiral ties will have 1-1/2 extra turns at each end.
- See Section 985 of the Specifications for footing materials.
- Conduits and bushings may project 2 1/2 inches to 6 inches above footing for fixed base poles but will not project above the slip plane or fracture plane for breakaway poles.
- Conduits will be sealed water-tight during all phases of construction until poles are in place.
- The anchor rods will fit inside the reinforcing steel cage. If the anchor rods designed by the Pole Manufacturer do not fit, contact the Office of Bridge Design for footing redesign. No additional payment will be made for the redesigned footing.
- Costs of conduit and conduit bushings shown on footing detail will be incidental to the footing bid item(s).
- The pole will not be installed until the concrete has attained design strength (4000 psi).
- The contour of the area surrounding the breakaway pole will be flat, though not necessarily level for a distance of 5 feet in all directions. The Contractor may be required to provide finish grading at some breakaway pole locations.

November 19, 2022

Published Date: 2026	SD DOT	POLE FOOTING	PLATE NUMBER 635.55
			Sheet 1 of 1



November 19, 2020

Published Date: 2026	SD DOT	ELECTRICAL JUNCTION BOXES TYPE 1 THROUGH TYPE 4	PLATE NUMBER 635.65
			Sheet 1 of 2

ELECTRICAL JUNCTION BOX			
TYPE	DESCRIPTION	APPROXIMATE COVER SIZE	MINIMUM DEPTH (C)
1	Open Bottom with Gasket	11"x18"	18"
2	Open Bottom with Gasket	13"x24"	18"
3	Open Bottom with Gasket	17"x30"	18"
3A	Open Bottom with Gasket	24"x36"***	24"
4	Open Bottom with Gasket	30"x48"***	24"

GENERAL NOTES:

The cover will be gasketed with a minimum of two stainless steel bolts and washers.

The cover will have a lifting eye.

* The surface of the cover will have a minimum wet and dry coefficient of friction value of 0.5 as determined by ASTM F609.

** The cover of the junction box will have the appropriate logo in one inch size letters and will be recessed. When the junction box contains cables or wires for a traffic signal then the logo will be "Signal". When the junction box contains lighting conductors then the logo will be "Lighting".

*** Two piece covers will be used for Type 3A and Type 4 junction boxes.

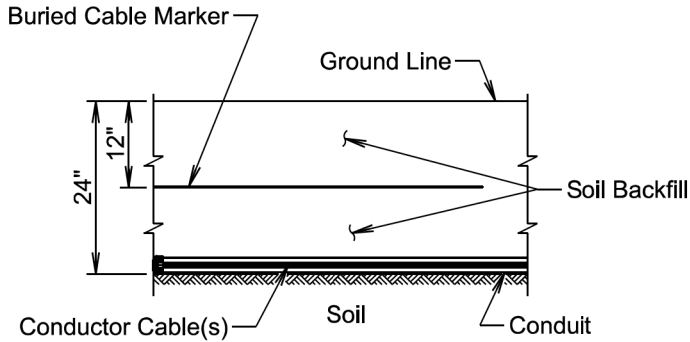
The electrical junction boxes will comply with the American National Standards Institute (ANSI)/Society of Cable Telecommunications Engineers (SCTE) 77 2007 Specification for Underground Enclosure Integrity. The loading requirement for all electrical junction boxes and covers will be Tier 22 of ANSI/SCTE 77 2007.

The electrical junction boxes will be UL listed.

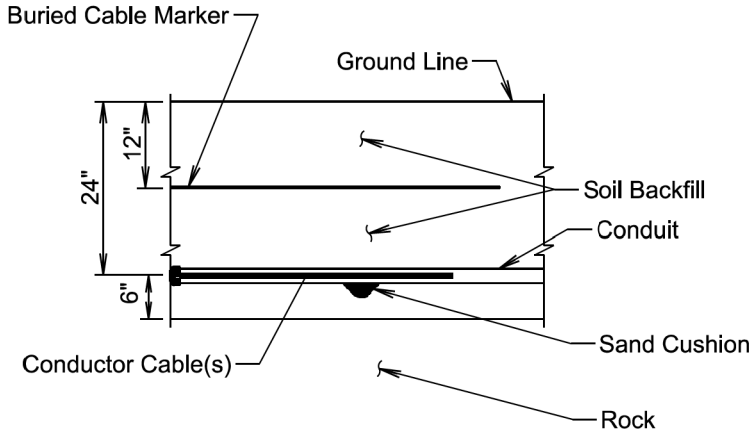
For junction boxes located outside of pavement, a No. 4 steel reinforcing bar with a minimum length of 18" will be buried adjacent to the long side of the junction box. All costs associated with furnishing and placing the steel reinforcing bar will be incidental to the contract unit price per each for "Type _ Electrical Junction Box".

November 19, 2020

Published Date: 2026	SD DOT	ELECTRICAL JUNCTION BOXES TYPE 1 THROUGH TYPE 4	PLATE NUMBER 635.65
			Sheet 2 of 2



SECTION VIEW



SECTION VIEW

GENERAL NOTE:

The Buried Cable Marker will be plastic, approximately 6" wide, and will be capable of sustaining a minimum of a 350% tolerance of elongation without tearing. The Buried Cable Marker will have a life expectancy approximately equal to that of the conductor(s) beneath it. A phrase indicating the presence of a buried electric circuit below will be printed in a contrasting color on the cable marker. The Buried Cable Marker will be subject to approval by the Engineer. All costs associated with furnishing and installing the Buried Cable Marker will be incidental to the contract unit price per foot for the bid item used for the electrical conductor.

November 19, 2022

Published Date: 2026	SD DOT	CONDUIT INSTALLATION	PLATE NUMBER 635.76
			Sheet 1 of 1

* 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:

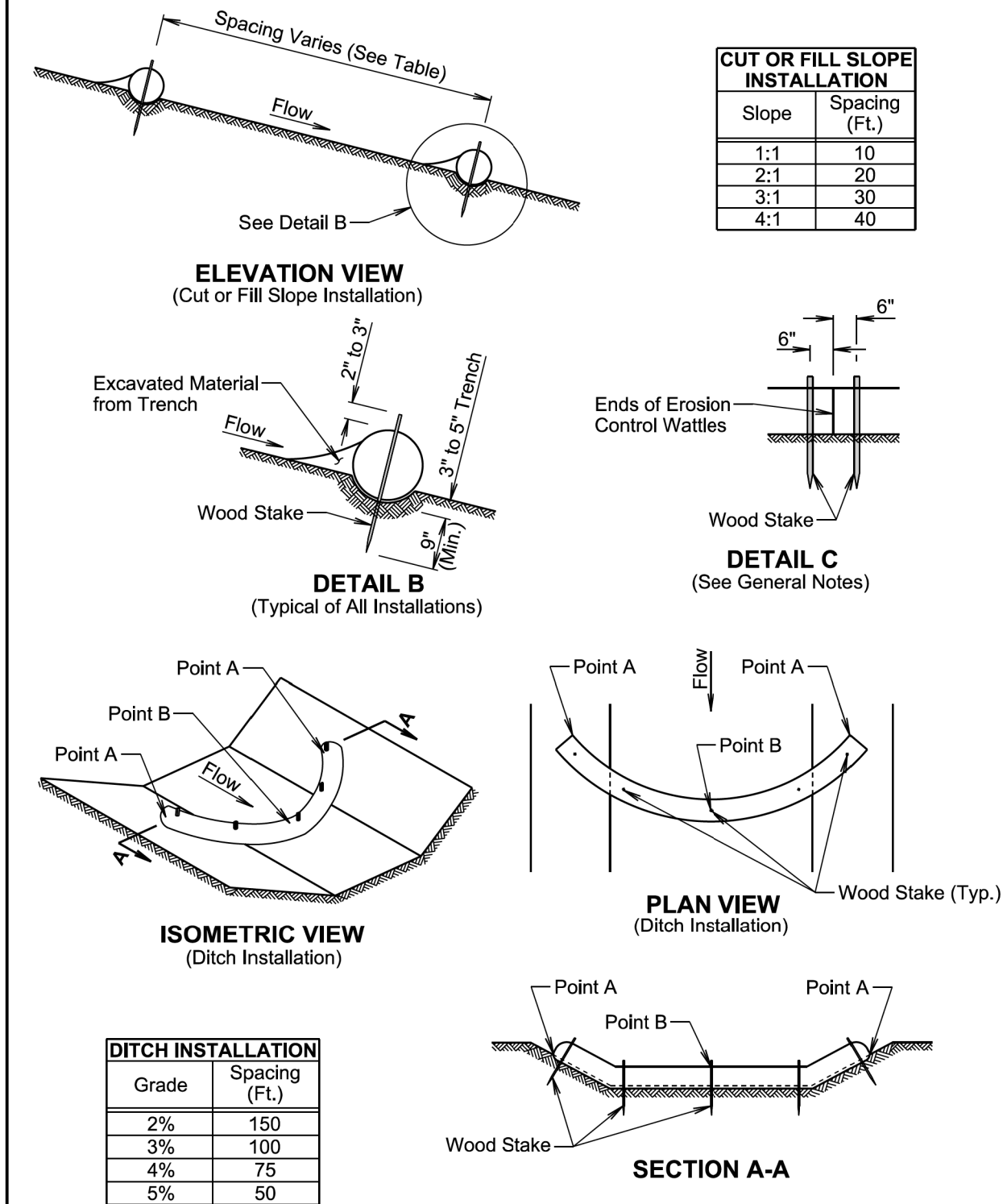
Gabions at outlets of CMP and RCP will be placed under the end section a distance of 2 feet from the outlet end. For CMP end section installations, the upper fabric of the gabions will be modified to accommodate the metal end section as approved by the Engineer.

* 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	SD DOT	BANK AND CHANNEL PROTECTION GABION PLACEMENT UNDER PIPE END SECTIONS	PLATE NUMBER 720.03
			Sheet 2 of 2



February 14, 2020

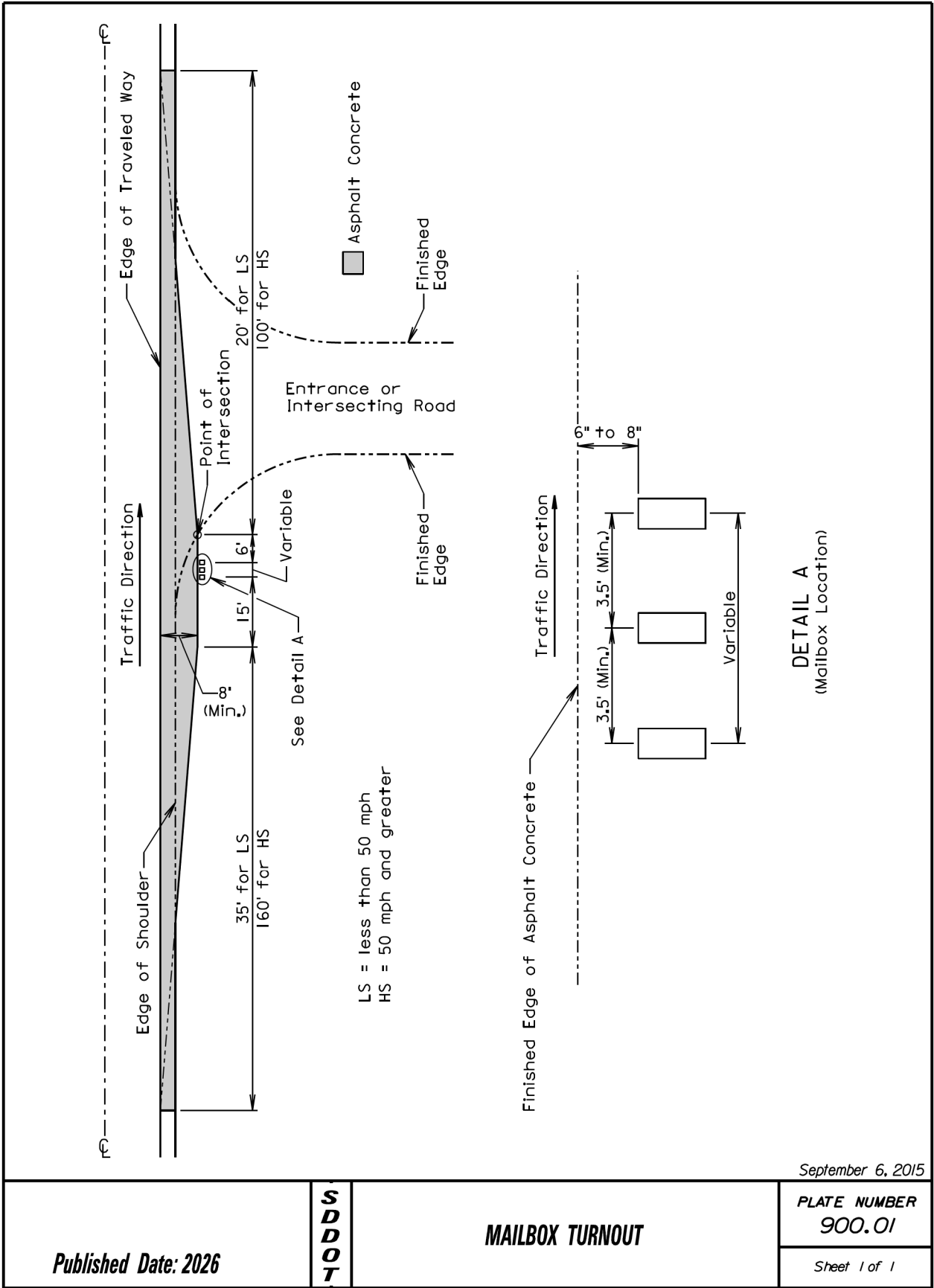
Published Date: 2026	SD DOT	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 1 of 2

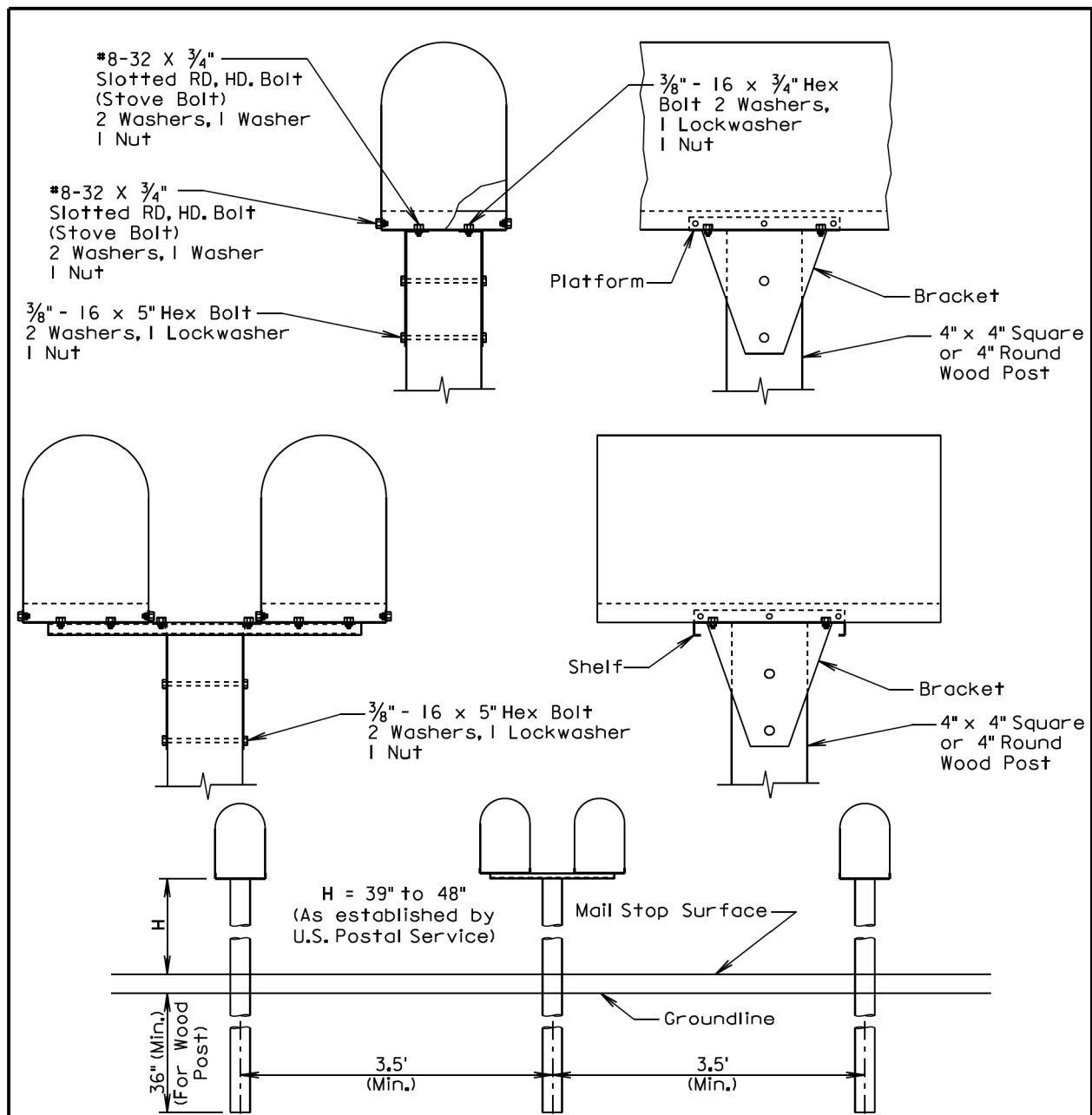
GENERAL NOTES:

- At cut or fill slope installations, wattles will be installed along the contour and perpendicular to the water flow.
- At ditch installations, point A must be higher than point B to ensure that water flows over the wattle and not around the ends.
- The Contractor will dig a 3" to 5" trench, install the wattle tightly in the trench so that daylight can not be seen under the wattle, and then compact the soil excavated from the trench against the wattle on the uphill side. See Detail B.
- The stakes will be 1"x2" or 2"x2" wood stakes, however, other types of stakes such as rebar may be used only if approved by the Engineer. The stakes will be placed 6" from the ends of the wattles and the spacing of the stakes along the wattles will be 3' to 4'.
- Where installing running lengths of wattles, the Contractor will butt the second wattle tightly against the first and will not overlap the ends. See Detail C.
- The Contractor and Engineer will inspect the erosion control wattles in accordance with the storm water permit. The Contractor will remove, dispose, or reshape the accumulated sediment when necessary as determined by the Engineer.
- Sediment removal, disposal, or necessary shaping will be as directed by the Engineer. All costs for removing accumulated sediment, disposal of sediment, and necessary shaping will be incidental to the contract unit price per cubic yard for "Remove Sediment".
- All costs for furnishing and installing the erosion control wattles including labor, equipment, and materials will be incidental to the contract unit price per foot for the corresponding erosion control wattle contract item.
- All costs for removing the erosion control wattle from the project including labor, equipment, and materials will be incidental to the contract unit price per foot for "Remove Erosion Control Wattle".

February 14, 2020

Published Date: 2026	SD DOT	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 2 of 2





GENERAL NOTES:

SPACING FOR MULTIPLE POST INSTALLATION

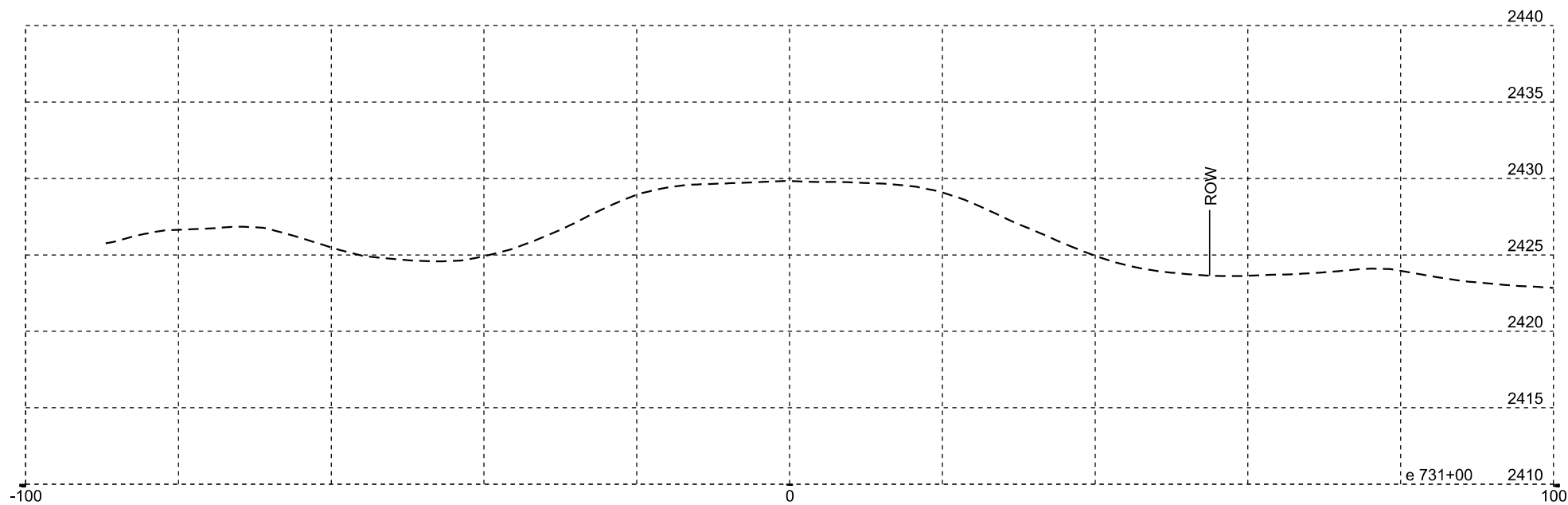
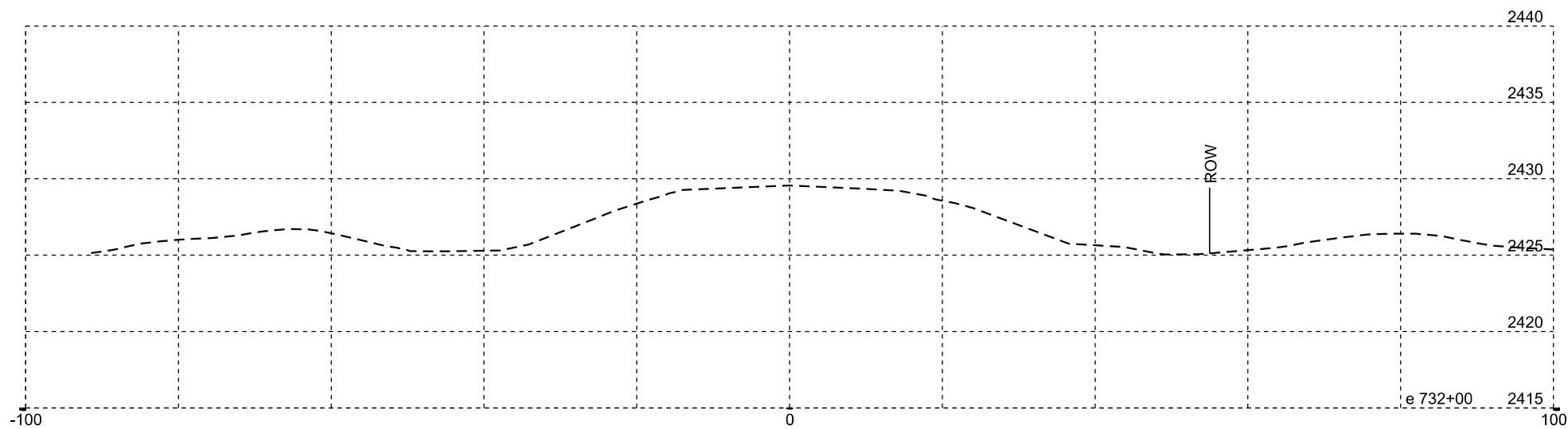
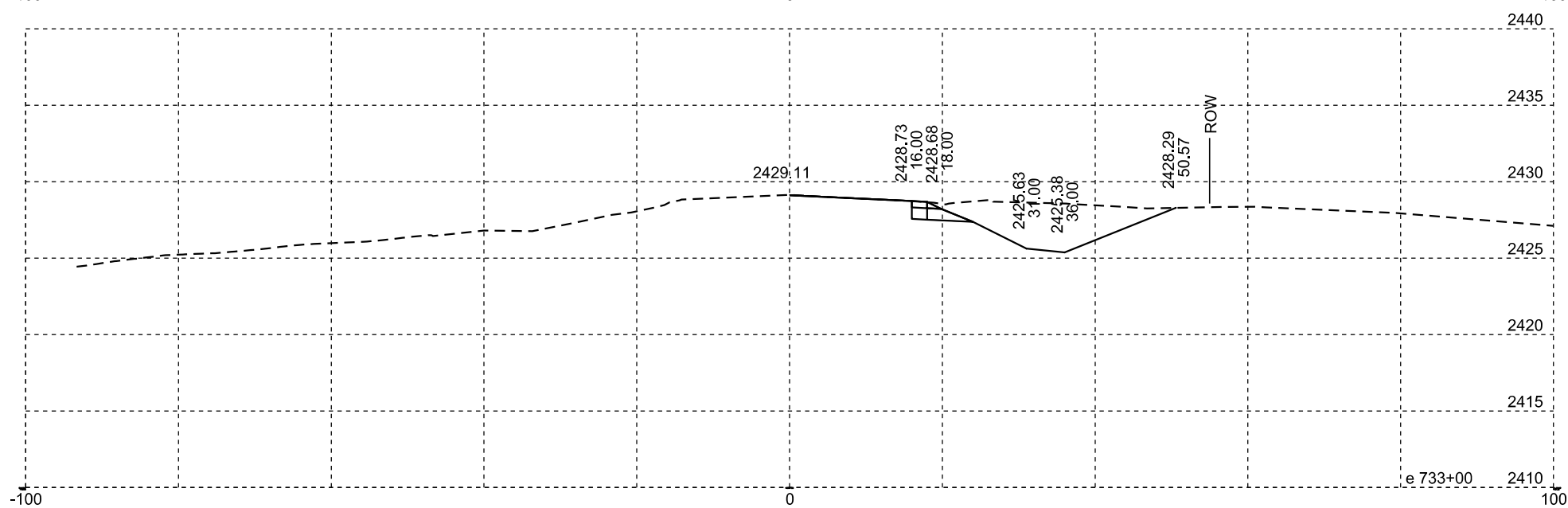
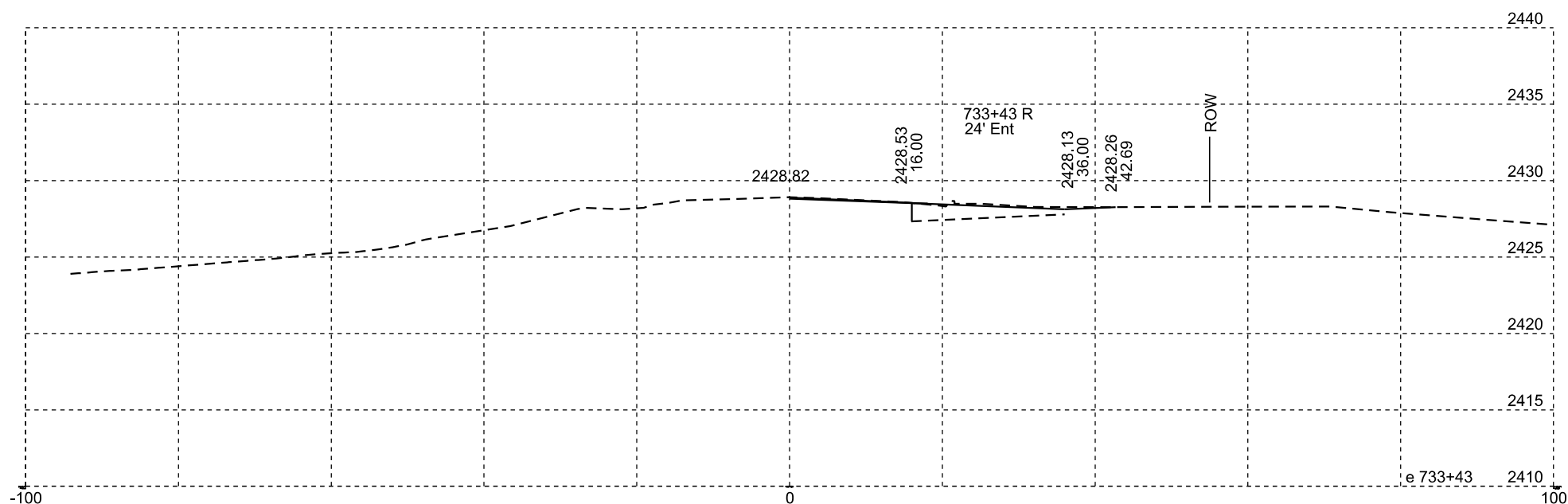
The post support assemblies provided should be consistent throughout the project. Single and double mailboxes may be in any sequence.

Post support assemblies shall be one from the approved products list, a 4"x4" or 4" round wood post, or an alternate post support assembly that meets the test level 3 crash testing requirements of NCHRP 350 or MASH.

Alternate mailbox support assemblies shall be approved by the Engineer prior to installation. The Contractor shall provide the Engineer written certification that the mailbox support assembly has met the crash testing requirements and will be installed in accordance with the manufacturer's installation instructions.

September 6, 2013

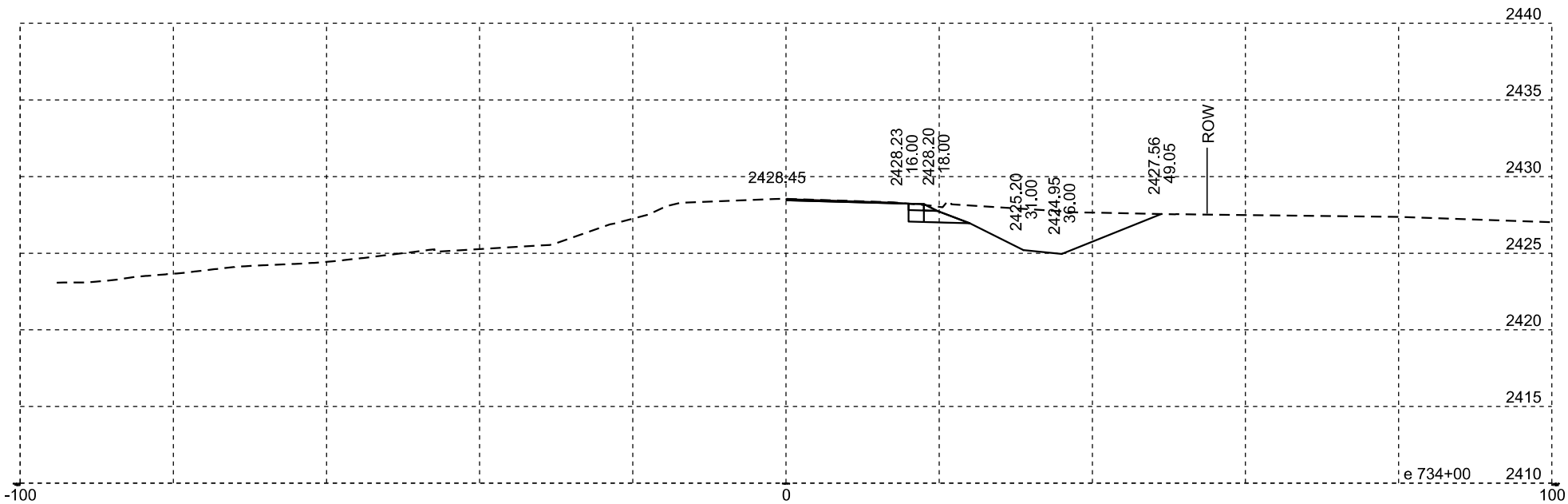
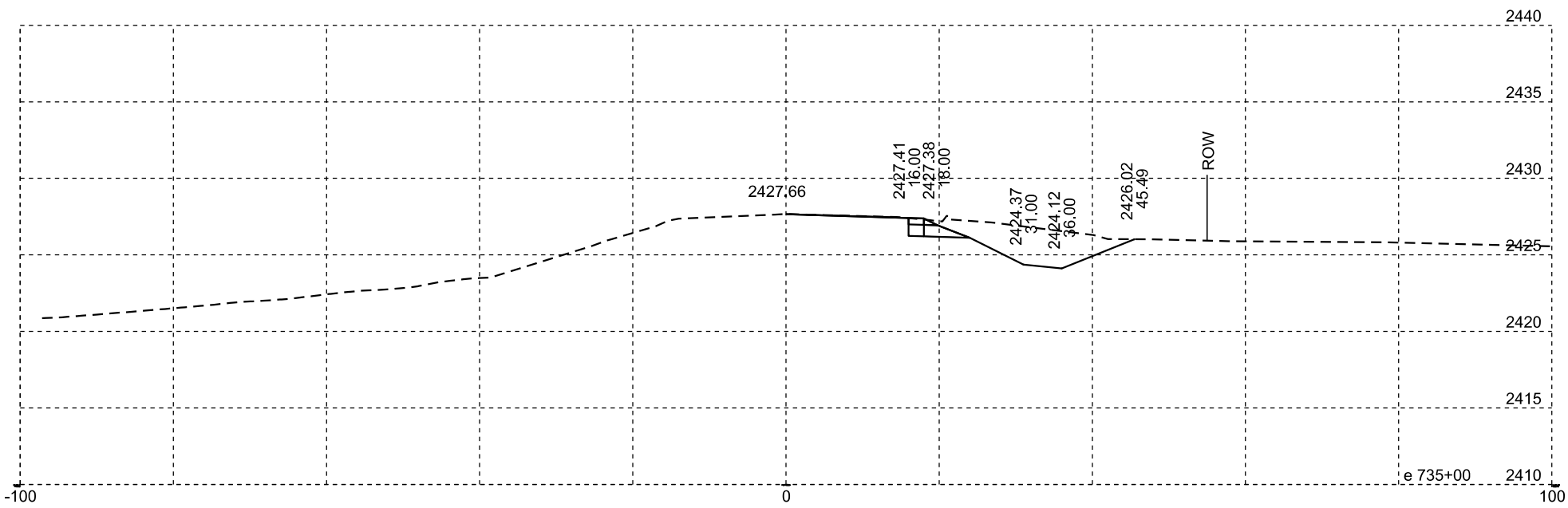
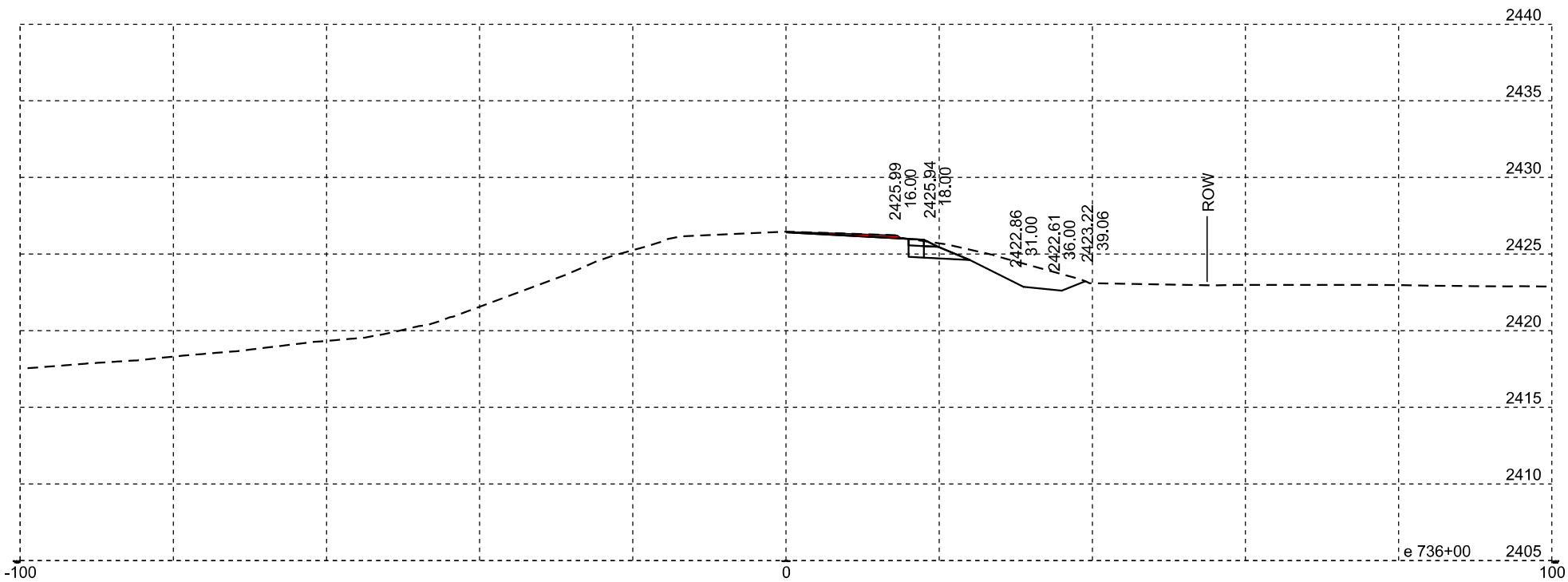
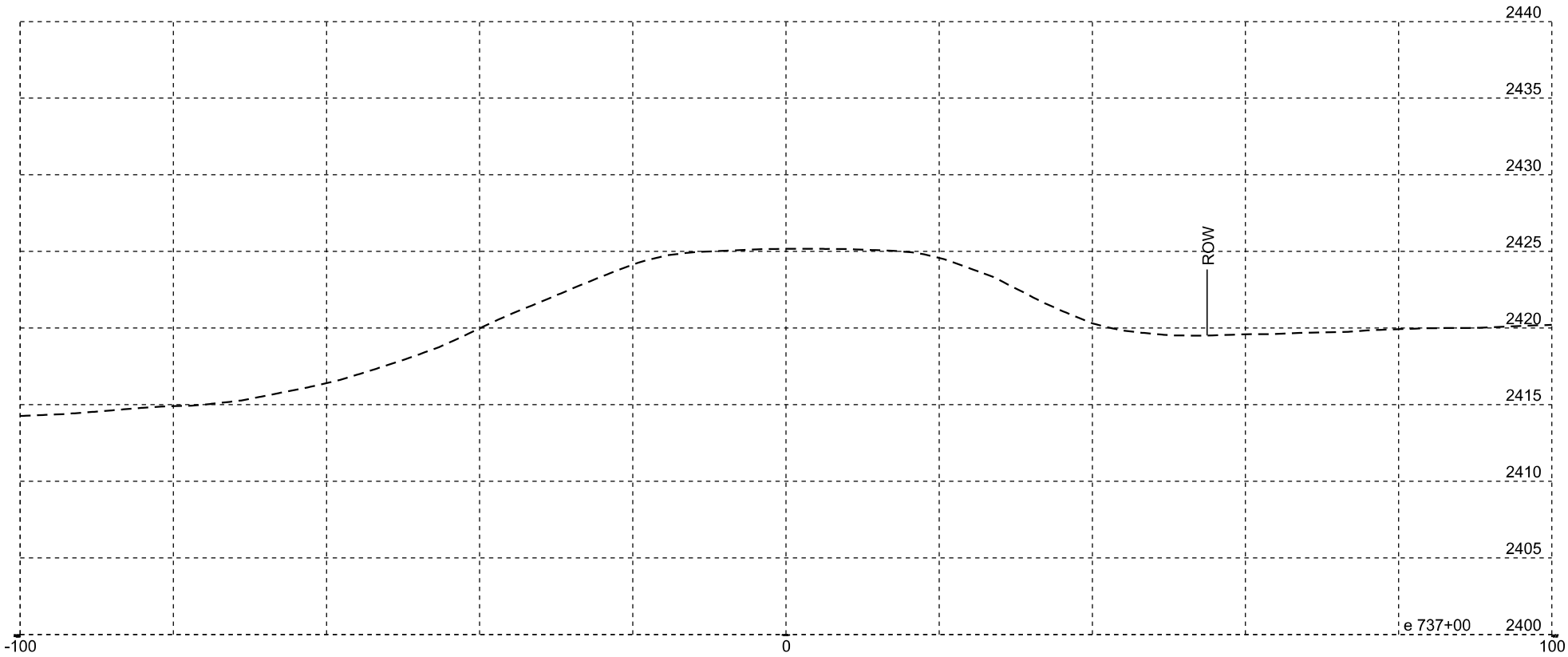
Published Date: 2026	SD DOT	SINGLE AND DOUBLE MAILBOX ASSEMBLIES	PLATE NUMBER 900.02
			Sheet 1 of 1



SD34 - Ditch East of Cemetery

Plotting Date: 09/16/2025

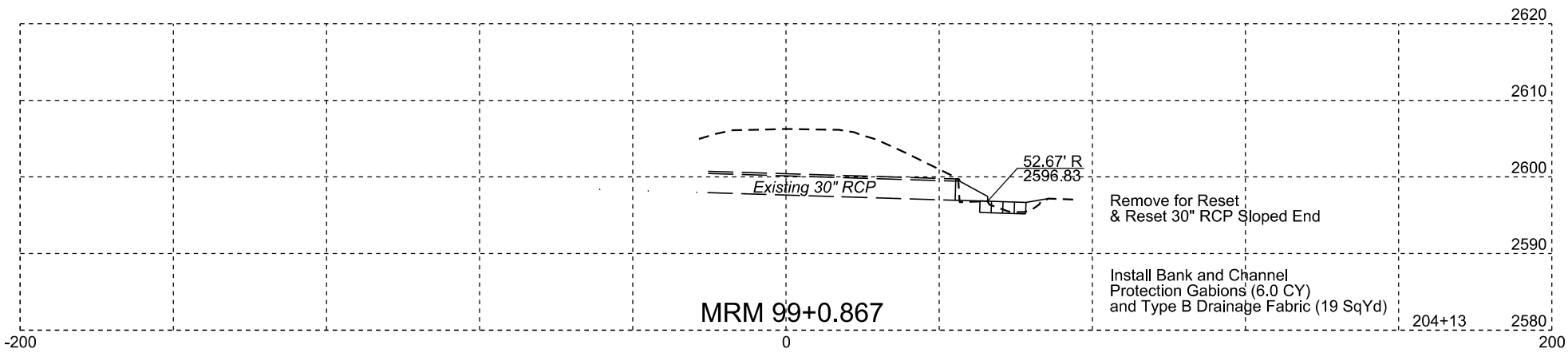
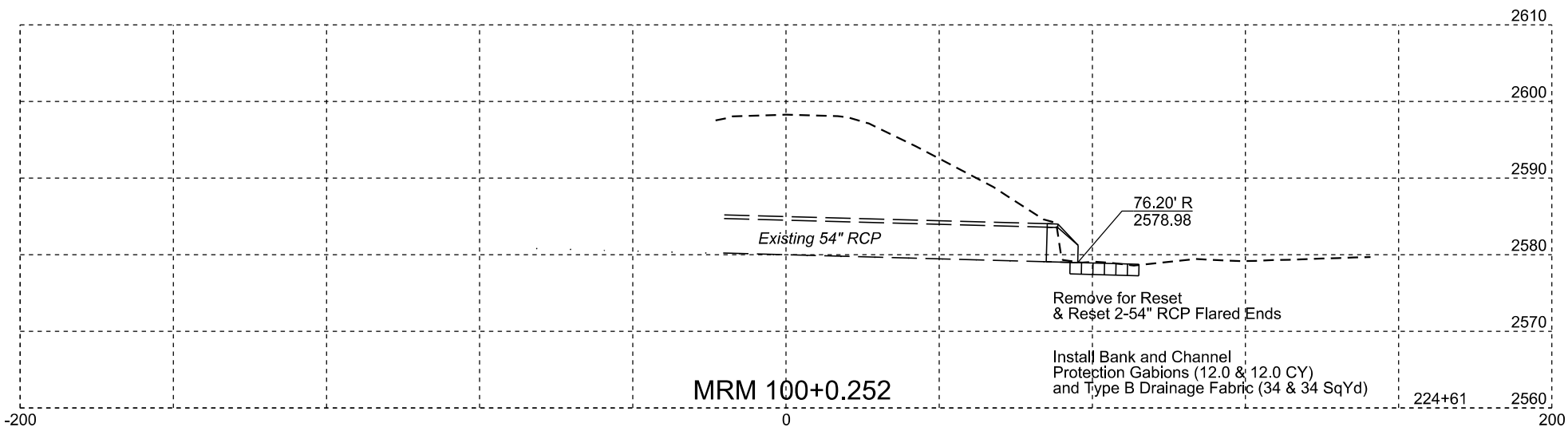
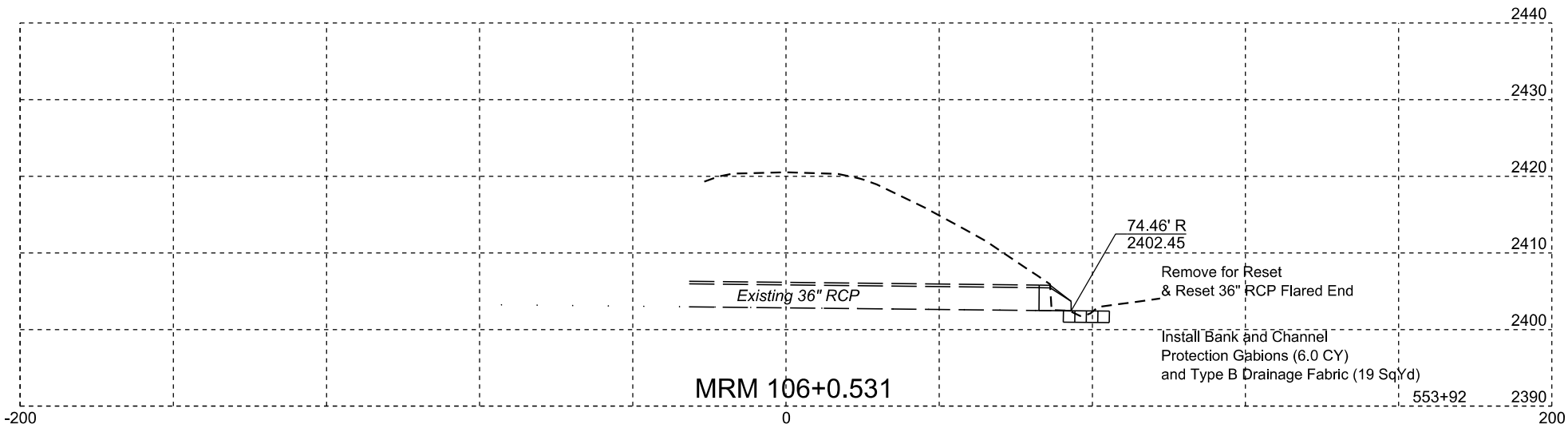
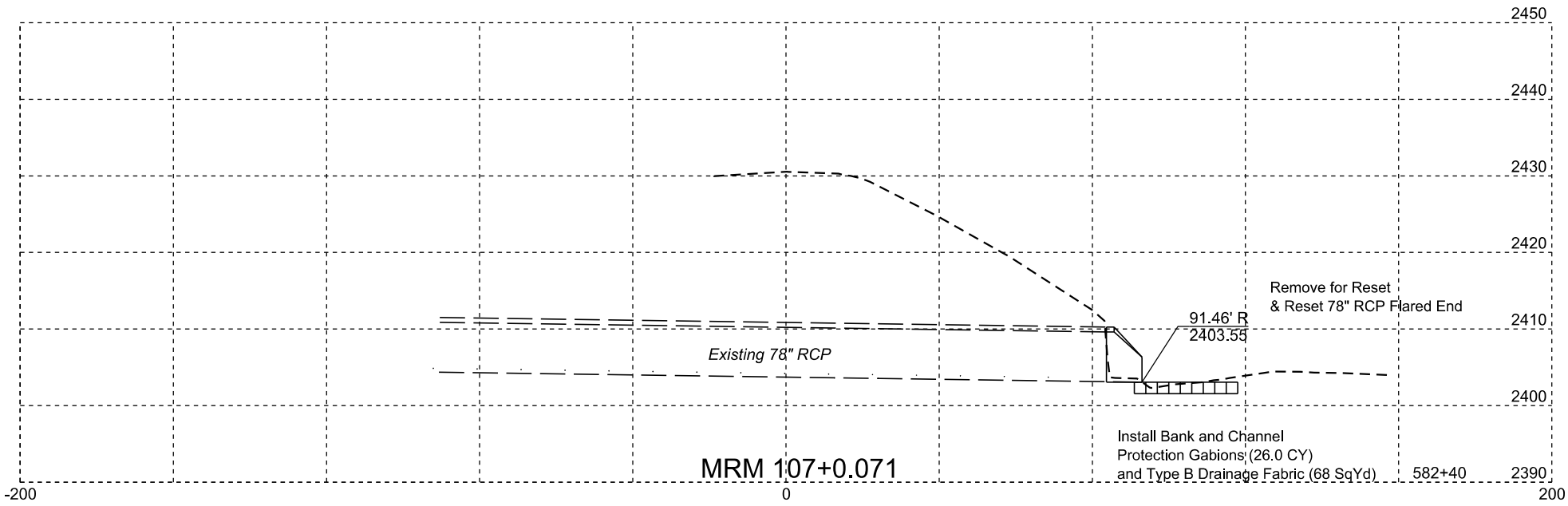
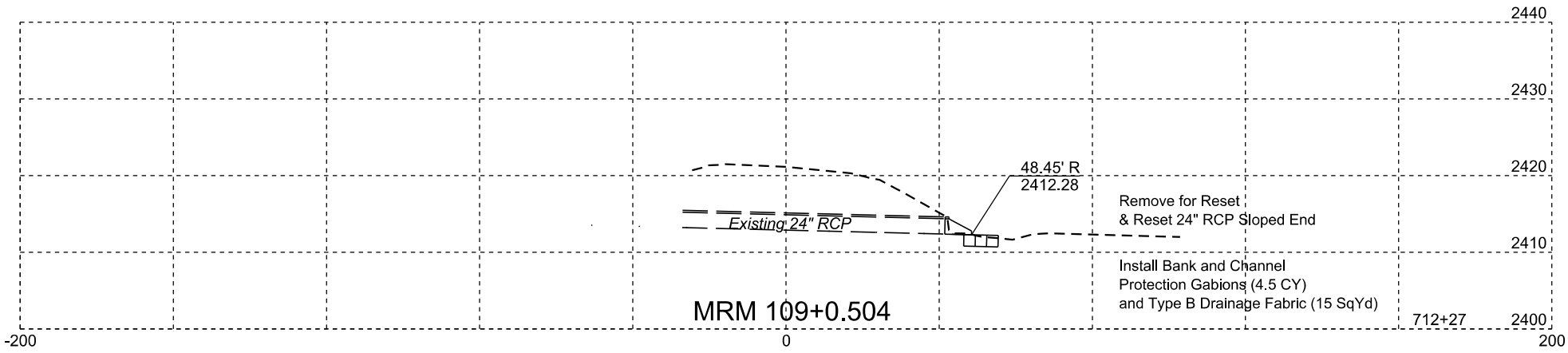
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	83	86



SD34 - Ditch East of Cemetery

Plotting Date: 09/16/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	84	86



Plotting Date: 09/16/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 0034(207)96 & NH 0073(81)160	85	86

