STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	PT 0908(105)349	M1	M3

Plotting Date: 07/01/2024

SECTION M: PERMANENT MARKING PLANS

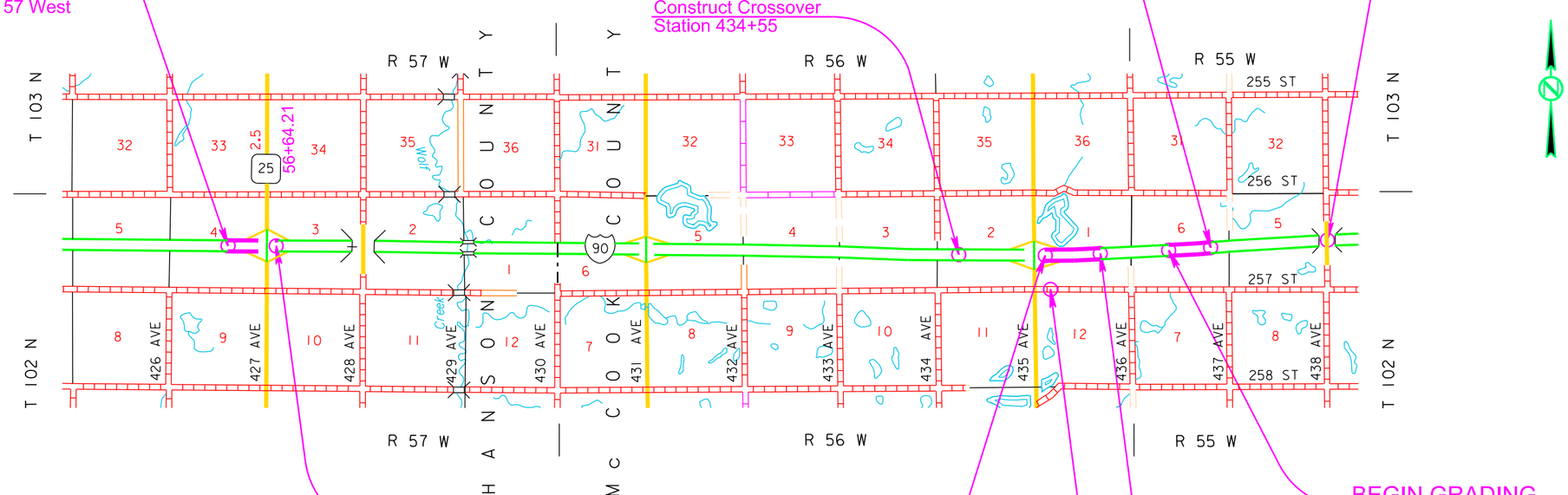
INDEX OF SHEETS

BEGIN PT 0908(105)349
BEGIN DRAINAGE MODIFICATIONS
Station 36+12.00 = Station 765+83.56
on I-90-8(15)347 located 200.12 feet South and 579.58 feet East of the Interior 1/4 corner of Section 4 - Township 102 North - Range 57 West of the 5th P.M.
MRM 349.00+0.673

END PT 0908(105)349
END GRADING
Station 570+00.00 = Station 355+17.75
on I-90-8(16)356 located 462.95 feet South and 1068.43 feet West of the East 1/4 corner of Section 6 - Township 102 North - Range 55 West of the 5th P.M.
MRM 359.00+0.801

Construct Crossover
Station 434+55

Temporary Guardrail
Station 633+60



END DRAINAGE MODIFICATIONS
Station 58+00.00

BEGIN GRADING
Station 479+55.00

BEGIN GRADING
Station 548+45.00

END GRADING
Station 507+30.00

Replace Culvert
Station 1+81.00

DESIGN DESIGNATION

AADT (2023)	12740
AADT (2048)	20842
DHV	2856
DHV T%	10.1%
AADT T%	22.1%
V	80 mph

STORM WATER PERMIT
Major Receiving Body of Water: Tributaries to James River
Area Disturbed: 33 acres
Total Project Area: 46 acres
Approx. Begin Lat,Long: 43.6656, -97.6741

Gross Length	6918.00 Feet	1.310 Miles
Length of Exceptions	0 Feet	0 Miles
Net Length	6918.00 Feet	1.310 Miles

ESTIMATE OF QUANTITIES

PT 0908(105)349

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E3000	Durable Pavement Marking, 4" White	14,571	Ft
633E3005	Durable Pavement Marking, 4" Yellow	11,256	Ft
633E3020	Durable Pavement Marking, 12" White	600	Ft
633E5100	Grooving for Durable Pavement Marking, 4"	25,827	Ft
633E5110	Grooving for Durable Pavement Marking, 12"	600	Ft

PAVEMENT MARKING PAINT

Marking 8-inch edge lines and gore areas will require the use of 2 spray nozzles to achieve the required width. Marking 12-inch gore lines will require the use of 3 spray nozzles to achieve the required width.

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.

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 item.

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.

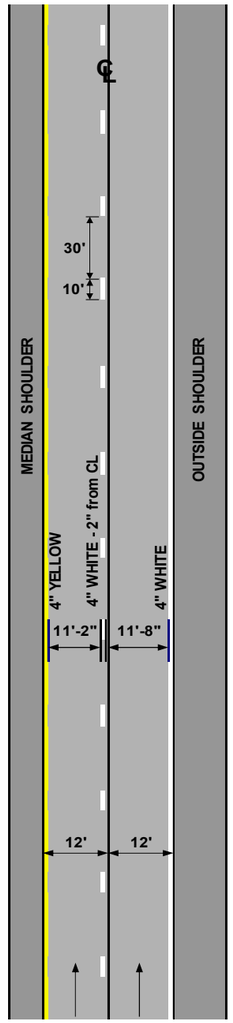
GROOVING FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT (CONTINUED)

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.

DIVIDED ROADWAY
(ONE DIRECTION SHOWN)



PAVEMENT MARKING

Typical pavement marking as shown on this sheet will be applied throughout the entire length of divided roadway.

Traffic Control will be incidental to the cost of application. The striper and advance or trailing warning vehicle will be equipped with flashing amber lights and advance warning arrow board.

Application rates will be as follows:

DIVIDED ROADWAY (Rates for one line)
Solid Yellow Edgeline Rate = 22.5 Gals./Pass-Mile
Dashed White Centerline Rate = 6.2 Gals./Pass-Mile
Solid White Edgeline Rate = 22.5 Gals./Pass-Mile

ESTIMATED QUANTITIES (BASED ON ONE APPLICATION)	
DURABLE	QUANTITY
WHITE	76 GALLONS
YELLOW	50 GALLONS

Included in the above quantities are:

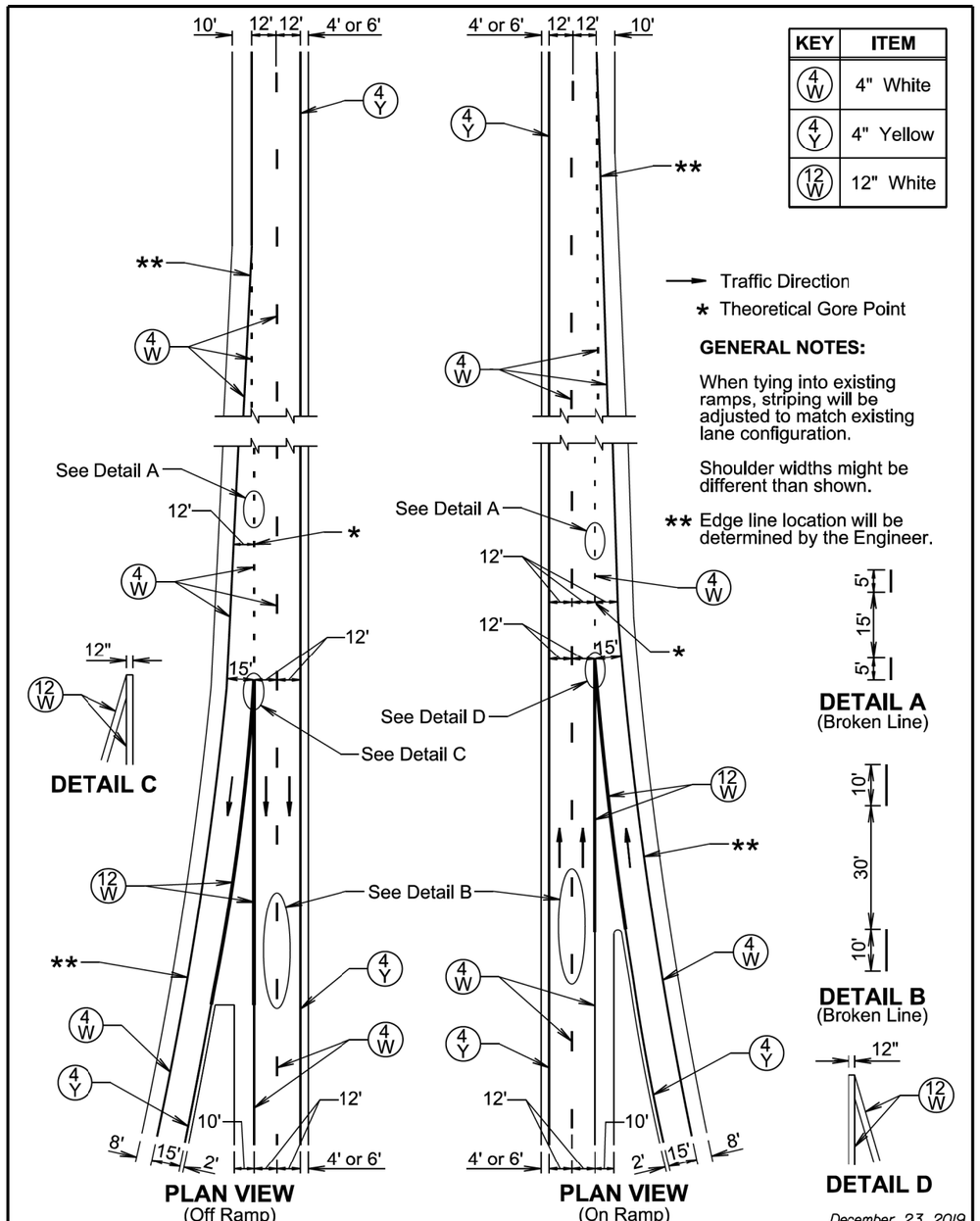
Additional White (1 Application)			Additional Yellow (1 Application)			
Description		Gallons	Description			Gallons
4" Lines	2245'	12	Transitions	2 Ea	1396'	8
8" Lines	-	-	4" Skip Lines		-	-
12" Gore Lines	600'	10	8" Lines		-	-
Crosswalks	-	-	12" Lines		-	-
24" Stop Lines	-	-	24" Hatches		-	-
24" Hatches	-	-	Solid Areas		-	-
Solid Areas	-	-	Additional Yellow:			8
Arrows						
Left Arrows	-	-				
Right Arrows	-	-				
Straight Arrows	-	-				
Combo Arrows	-	-				
Lane Drop Arrows	-	-				
Messages						
STOP	-	-				
STOP AHEAD	-	-				
R X R w/ Stop Lines	-	-				
SCHOOL X-ING	-	-				
Additional White:		22				

Additional Quantities

Rates of Coverage:	SqFt/Gal
4", 8" & 12" Lines -	60
24" Lines & Hatches -	40
Arrows, Messages and Solid Areas -	25

All pavement marking dimensions are based on 12' driving lanes.

Pavement marking at On Ramps and at Off Ramps will be applied as detailed in these plans.



Published Date: 2025	SDDOT	PAVEMENT MARKING LAYOUT FOR TAPERED INTERSTATE RAMPS

PLATE NUMBER 633.05

Sheet 1 of 1