

# SECTION M: PERMANENT MARKING PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH0038(48)304	M1	M6

Plotting Date: 8/28/2025

## INDEX OF SHEETS

- M1: General Layout with Index
- M2: Estimate of Quantities and Plan Notes
- M3-M5: Permanent Pavement Markings
- M6: Standard Plates



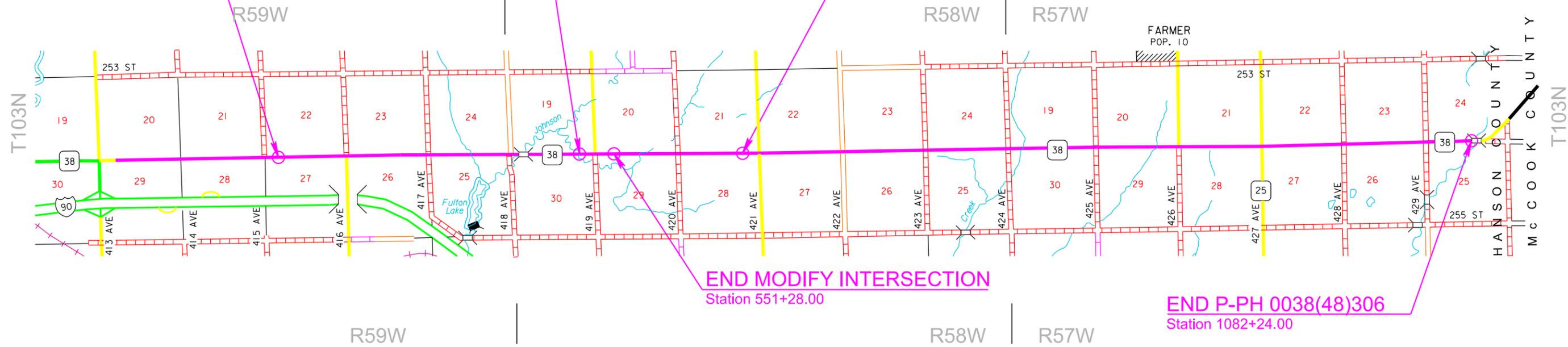
**BEGIN P-PH 0038(48)306**  
**BEGIN PIPE WORK**  
 Station 334+00.00

**BEGIN MODIFY INTERSECTION**  
 Station 520+18.00

**END PIPE WORK**  
**BEGIN GRADING**  
 Station 629+60.00

**END MODIFY INTERSECTION**  
 Station 551+28.00

**END P-PH 0038(48)306**  
 Station 1082+24.00



### SECTION M ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1200	High Build Waterborne Pavement Marking Paint, White	667	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	261	Gal

### PAVEMENT MARKING PAINT

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

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

### HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

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

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

### RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

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

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

### RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

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

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

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

### PAVEMENT MARKING

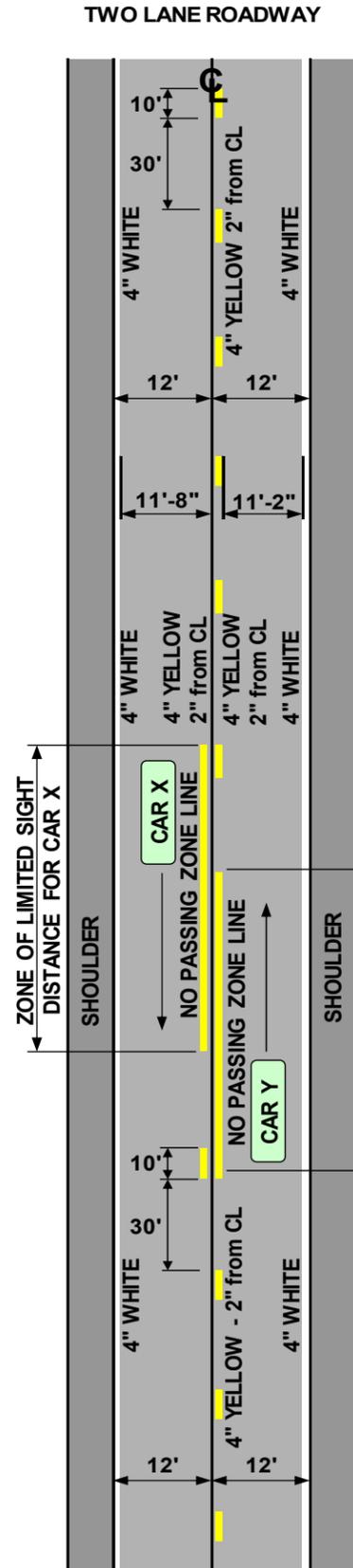
Typical pavement marking as shown on this sheet will be applied throughout the entire length of two lane roadway.

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:

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

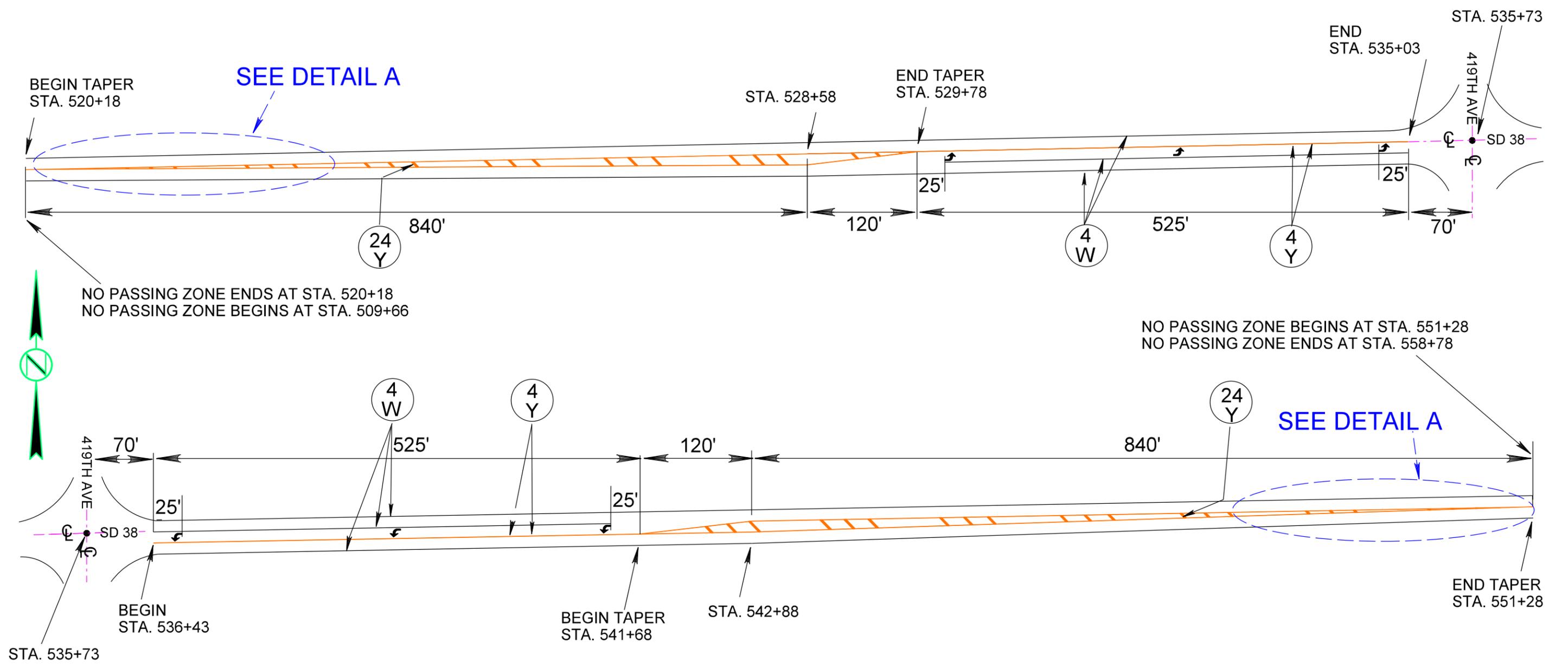
4" Yellow Skip Centerline (when not adjacent to a 4" Yellow No Passing Zone) will be placed consistently to the south or east side of centerline.



ESTIMATED QUANTITIES (BASED ON ONE APPLICATION)	
HIGH BUILD	QUANTITY
WHITE	667 GALLONS
YELLOW	261 GALLONS

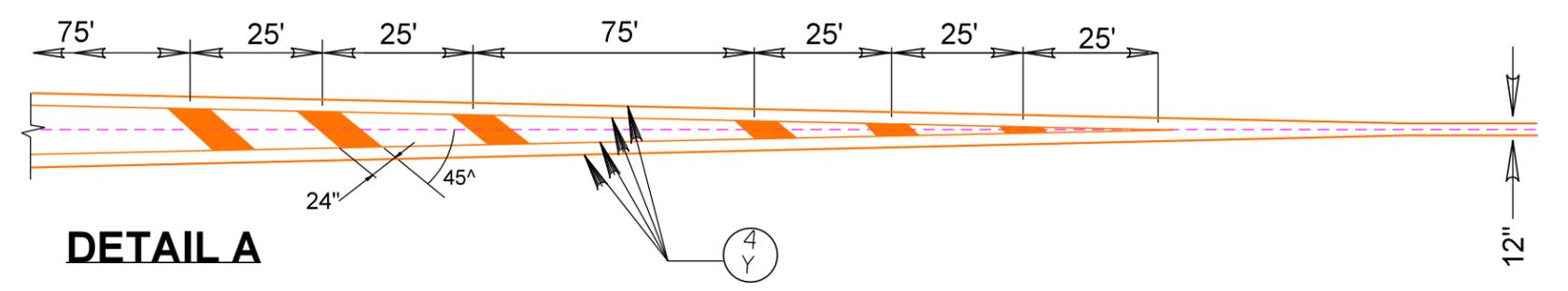
Included in the above quantities are:			
Additional White (1 Application)		Additional Yellow (1 Application)	
Description	Gallons	Description	Gallons
4" Lines	3100'	Transitions 6 Ea	8160'
8" Lines	-	4" Skip Lines	-
12" Gore Lines	-	8" Lines	-
Crosswalks	-	12" Lines	-
24" Stop Lines	-	24" Hatches	650'
24" Hatches	-	Solid Areas	-
Solid Areas	-	Additional Yellow:	78
<b>Arrows</b>			
Left Arrows	18 Ea	Additional Quantities	
Right Arrows	-	<b>Rates of Coverage: SqFt/Gal</b>	
Straight Arrows	-	4", 8" & 12" Lines	60
Combo Arrows	-	24" Lines & Hatches	40
Lane Drop Arrows	-	Arrows, Messages and Solid Areas	25
<b>Messages</b>			
STOP	-	All pavement marking dimensions are based on 12' driving lanes.	
STOP AHEAD	-		
R X R w/ Stop Lines	-		
SCHOOL X-ING	-		
Additional White:		29	

## PERMANENT PAVEMENT MARKINGS JCT OF SD38 & 419th AVE



### LEGEND

-  - 4" WHITE PAINTED PAVEMENT MARKING
-  - 4" YELLOW PAINTED PAVEMENT MARKING
-  - 24" YELLOW PAINTED PAVEMENT MARKING
-  - WHITE PAVEMENT MARKING, ARROW



Plot Scale - 1/8"=20'

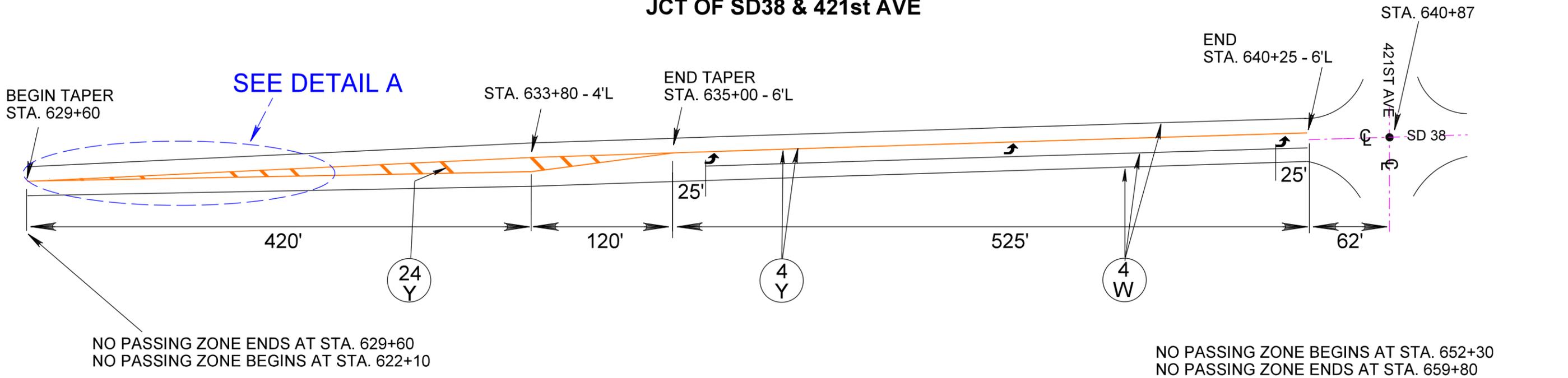
Plotted From - TRM113315

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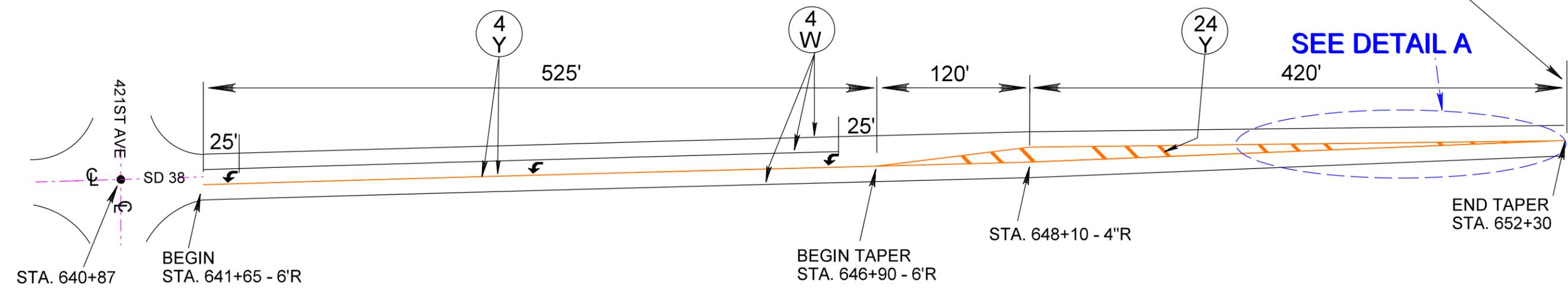
Plot Name -

## PERMANENT PAVEMENT MARKINGS JCT OF SD38 & 421st AVE



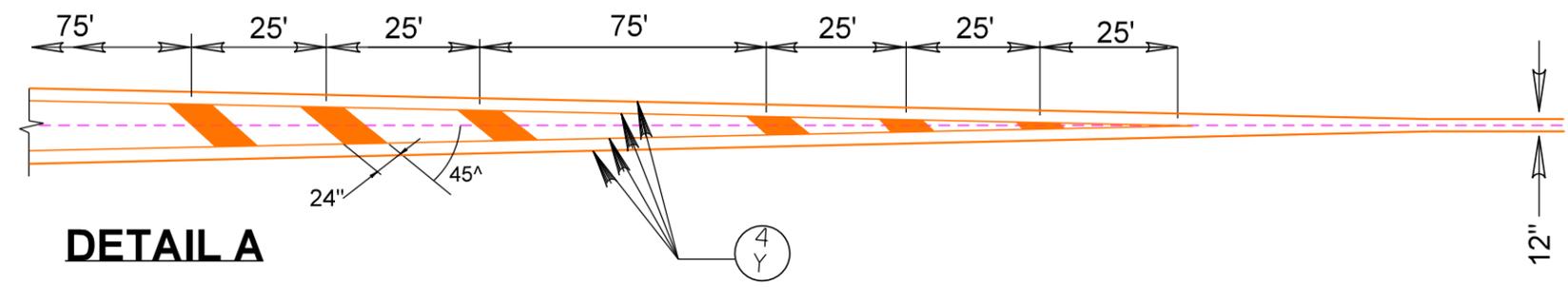
NO PASSING ZONE ENDS AT STA. 629+60  
NO PASSING ZONE BEGINS AT STA. 622+10

NO PASSING ZONE BEGINS AT STA. 652+30  
NO PASSING ZONE ENDS AT STA. 659+80



### LEGEND

- 4" WHITE PAINTED PAVEMENT MARKING
- 4" YELLOW PAINTED PAVEMENT MARKING
- 24" YELLOW PAINTED PAVEMENT MARKING
- WHITE PAVEMENT MARKING, ARROW



**DETAIL A**

Plot Scale - 1/8"=20'

Plotted From - TRM113315

Plot Name -

...Marking Layouts 05PAdjgn

Plot -



