

STATE OF SOUTH DAKOTA  
 DEPARTMENT OF TRANSPORTATION  
 PLANS FOR PROPOSED

**PROJECT PH 0010(92)**  
**US HWYS 212, 281 &**  
**SD HWY 45**  
**SPINK & FAULK**  
**COUNTIES**

COLD APPLIED PLASTIC PAVEMENT MARKINGS &  
 DURABLE PAVEMENT MARKINGS

PCN 03B3

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	1	25

Plotting Date: 05/08/2016

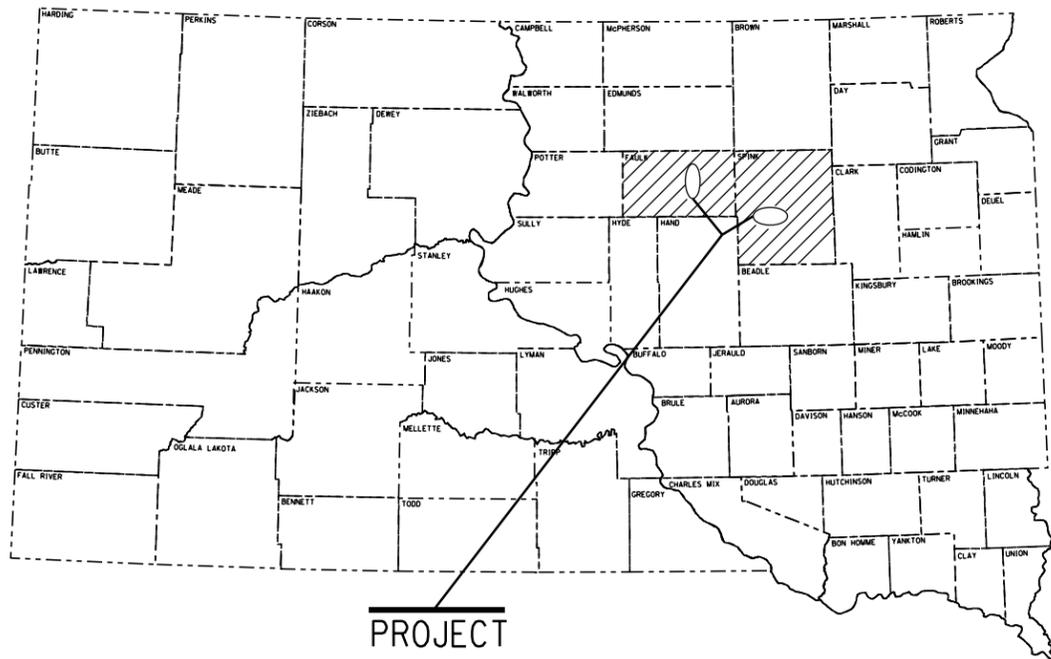
Revised 5/8/16 DLM

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PLOT SCALE - 1:8000

PLOT NAME - 1



PROJECT

**BEGIN PROJECT**  
 US 212  
 Station 12+29.00  
 MRM 306.15+0.067

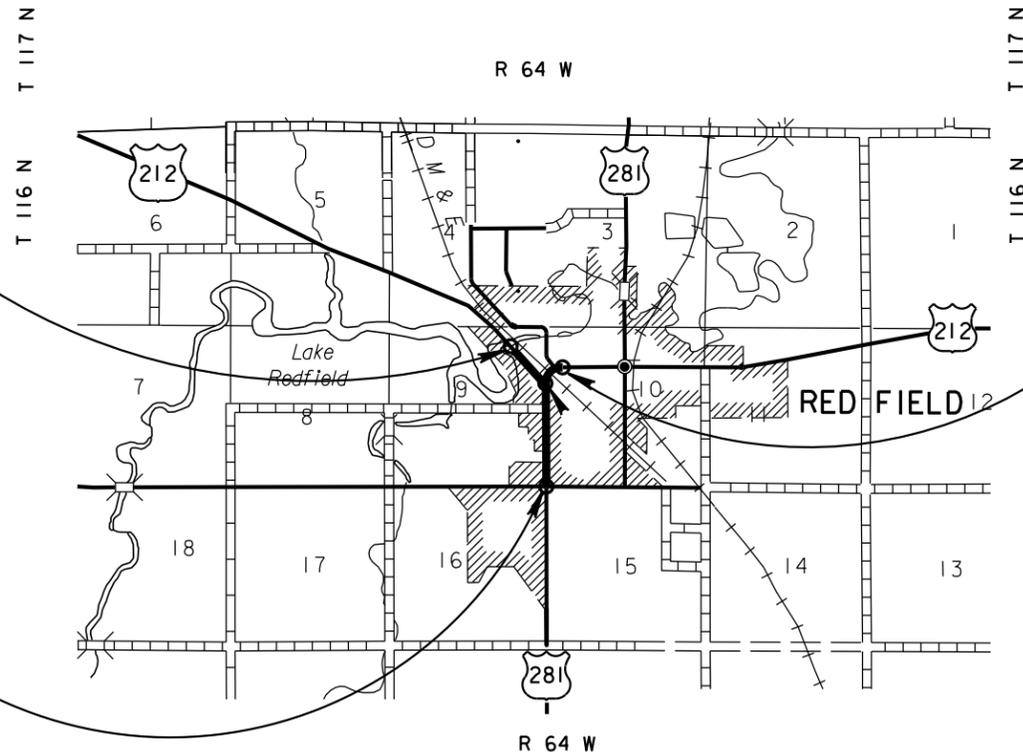
REDFIELD

R 64 W

**BEGIN PROJECT**  
 Station 0+179.61  
 MRM 267.67+0

**END PROJECT**  
 Station 54+64  
 MRM 306.56+0.362

**BEGIN PROJECT**  
 Station 9+97  
 MRM 152.00+0.662



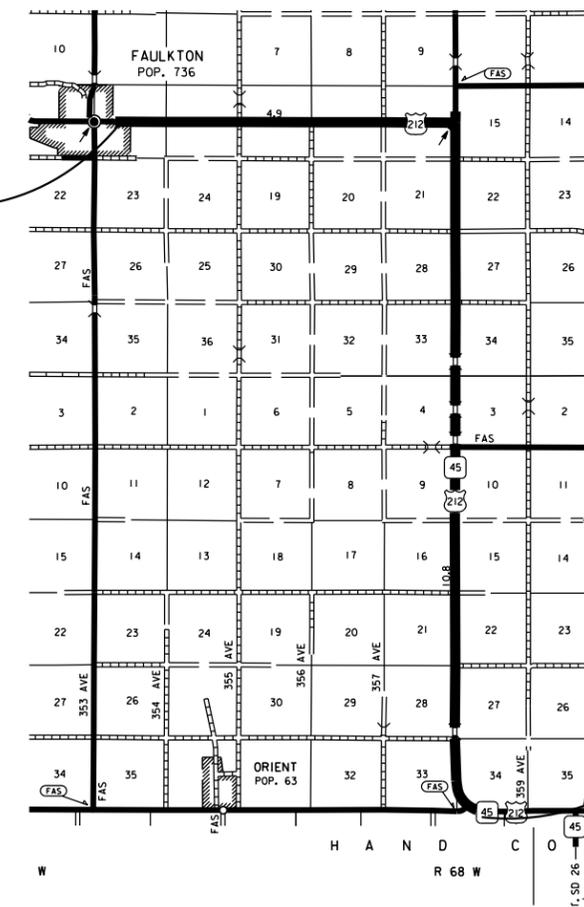
DESIGN DESIGNATION US 212/281 Redfield

STORM WATER PERMIT  
 (none required)

ADT (2015)	2726
ADT (2034)	3222
DHV	52
D	50%
T DHV	16.2%
T ADT	11.9
V	40 MPH

GROSS LENGTH	5,856 FEET	1.111 MILES
LENGTH OF EXCEPTIONS	0 FEET	0 MILES
NET LENGTH	5,856 FEET	1.111 MILES

FAULK COUNTY



DESIGN DESIGNATION US212 Faulk County

ADT (2015)	860
ADT (2034)	1073
DHV	240
D	51%
T DHV	22.4
T ADT	10.9%
V	70 MPH

GROSS LENGTH	77,144.98 FEET	14.611 MILES
LENGTH OF EXCEPTIONS	0 FEET	0 MILES
NET LENGTH	77,144.98 FEET	14.611 MILES

**END PROJECT**  
 Station 768+44.98  
 MRM 282.00+0.259



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# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	2	25

Revised 5/8/16 DLM

## ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
633E0010	Cold Applied Plastic Pavement Marking, 4"	22,620	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	830	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	25	Each
633E0046	Cold Applied Plastic Pavement Marking, Lane Reduction Arrow	2	Each
633E0055	Cold Applied Plastic Pavement Marking, Railroad Crossing	4	Each
633E3000	Durable Pavement Marking, 4" White	156,100	Ft
633E3005	Durable Pavement Marking, 4" Yellow	44,750	Ft
633E3010	Durable Pavement Marking, 8" White	240	Ft
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	350	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	445	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	2	Each
633E5031	Grooving for Cold Applied Plastic Pavement Marking, Lane Reduction Arrow	2	Each
633E5050	Surface Preparation for Pavement Marking	23,410	Ft
633E5051	Surface Preparation for Pavement Marking	85	SqFt
633E5052	Surface Preparation for Pavement Marking	29	Each
633E5100	Grooving for Durable Pavement Marking, 4"	200,850	Ft
633E5105	Grooving for Durable Pavement Marking, 8"	240	Ft
634E0010	Flagging	100.0	Hour
634E0110	Traffic Control Signs	318.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	3	Each
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	150	Ft
998E0100	Railroad Protective Insurance	Lump Sum	LS

## SPECIFICATIONS

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

## ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

### COMMITMENT B2: WHOOPING CRANE

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

#### Action Taken/Required:

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

### COMMITMENT H: WASTE DISPOSAL SITE

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

#### Action Taken/Required:

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

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

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

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

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the Public ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".

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

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

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

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	3	25

Revised 5/8/16 DLM

## COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all designated option borrow sites provided within the plans.

### Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

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

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

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(126)	4	25

## Table of Quantities

(For Information Only)

Item	US212 Faulk County	US212/US281 Redfield	Total	Unit
Mobilization	Lump Sum	Lump Sum	Lump Sum	LS
Cold Applied Plastic Pavement Marking, 4" White		14,210	14,210	Ft
Cold Applied Plastic Pavement Marking, 4" Yellow		8,410	8,410	Ft
Cold Applied Plastic Pavement Marking, 24" White	60	315	375	Ft
Cold Applied Plastic Pavement Marking, 24" Yellow	330	125	455	Ft
Cold Applied Plastic Pavement Marking, Arrow Left	2	23	25	Each
Cold Applied Plastic Pavement Marking, Lane Reduction Arrow Left		2	2	Each
Cold Applied Plastic Pavement Marking, Railroad Crossing		4	4	Each
Durable Pavement Marking, 4" Yellow	156,100		156,100	Ft
Durable Pavement Marking, 4" White	44,750		44,750	Ft
Durable Pavement Marking, 8" White	240		240	Ft
Grooving for Cold Applied Plastic Pavement Marking, 4"		350	350	Ft
Grooving for Cold Applied Plastic Pavement Marking, 24"	390	55	445	Ft
Grooving for Cold Applied Plastic Pavement Marking, Arrow	2		2	Each
Grooving for Cold Applied Plastic Pavement Marking, Lane Reduction Arrow		2	2	Each
Surface Preparation for Pavement Marking 4" Equivalent		21,970	23,410	Ft
Surface Preparation for Pavement Marking Symbol		29	29	Each
Grooving for Durable Pavement Marking 4"	200,850		200,850	Ft
Grooving for Durable Pavement Marking 8"	240		240	Ft
Flagging	50	50	100	Hour
Traffic Control	127	159	286	SqFt
Traffic Control, Miscellaneous	Lump Sum	Lump Sum	Lump Sum	LS
Type C Advance Warning Arrow Panel	1	2	3	Each
Remove Pavement Marking, 4" or Equivalent		150	150	Ft
Railroad Protective Insurance		Lump Sum	Lump Sum	LS

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	5	25

Revised 5/8/15 DLM

**WORK DESCRIPTION**

The project consists of two sections:

Section1 – US212 - Faulk County. Work shall include grooving for pavement marking and applying durable pavement marking.

Section 2 – US212 & US281 - Redfield. Work shall include surface preparation, grooving for pavement marking and applying cold applied plastic pavement markings.

**DURABLE PAVEMENT MARKING**

Durable Pavement Marking shall meet the requirements of the Special Provisions.

Durable Pavement Markings shall be installed to match existing markings.

**COLD APPLIED PLASTIC PAVEMENT MARKING**

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

**GROOVING FOR COLD APPLIED PLASTIC PAVEMENT MARKING**

The Contractor shall establish a positive means for the removal of the grinding and/or grooving residue. Residue from dry grooving shall be vacuumed. Solid residue shall be removed from the pavement surfaces before being blown by traffic action or wind. Residue from wet grooving shall 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, shall 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 shall be included in the contract unit price per foot for “Grooving for Cold Applied Plastic Pavement Marking”.

**REMOVE PAVEMENT MARKING, 4” OR EQUIVALENT**

Markings that fall outside of the new groove shall be obliterated using additional methods approved by the Engineer. Removal of the existing markings shall be accomplished without causing damage to the pavement, pavement joints, or joint sealant. The Contractor shall repair any damage to the pavement, pavement joints, or joint sealant for no additional payment and at no cost to the State. All costs for materials, labor, and equipment necessary to remove the existing markings shall be incidental to the contract unit price per foot for “Remove Pavement Marking, 4” or Equivalent”.

**COORDINATION OF WORK**

There is an ADA project to install curb ramps in Redfield. The Contractor shall coordinate any work with the Contractor on the ADA project with any work that might be effect by the ADA curb ramp installation.

**SURFACE PREPARATION FOR COLD APPLIED PLASTIC PAVEMENT MARKING**

In Redfield the Contractor shall prepare the pavement surface prior to applying the cold applied plastic pavement marking in accordance with the following.

In areas where the existing groove meets the required depth and existing markings are still in place, the Contractor shall clean the existing groove without adding additional depth beyond the required depth for the new pavement marking, including reflective media as noted below.

Description	Specification	Tolerance
Depth of Groove	Marking Thickness <sup>1</sup> + 100 mils	+ 5 mils

<sup>1</sup> Marking thickness shall include the thickness of marking material and reflective media.

The cleaning shall result in the existing pavement marking being adequately scuffed, abraded, and removed by light grinding or abrasive blasting or both to allow proper adhesion of the new durable pavement marking as per the manufacturer’s recommendations to comply with product warranties.

Existing grooves not meeting the required depth shall be re-grooved to the required depth for the new pavement marking, including reflective media. Equipment for grooving shall 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.

All costs associated with cleaning of the existing groove, including re-grooving, if needed, shall be included in the contract unit price per foot for “Surface Preparation for Pavement Marking”. Surface preparation shall be measured as 4” equivalent.

**GROOVING FOR DURABLE PAVEMENT MARKING**

The existing pavement making on US212 in Faulk County will be removed as part of the Grooving process. No payment will be made for the removal of the marking.

Grooving on US281 in Redfield is for the 24” white pavement marking and the northbound taper from station 37+77 to 41+12.

The Contractor shall establish a positive means for the removal of the grinding and/or grooving residue. In urban areas the Contractor shall use a vacuum attachment to collect dust and residue created by the grooving of pavement. Solid residue shall be removed from the pavement surfaces before being blown by traffic action or wind. Residue shall 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, shall be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state.

**TEMPORARY PAVEMENT MARKING**

Temporary pavement markings shall be as per the Specifications.

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.

Furnishing and installing tabs or tape for temporary pavement markings shall be at no cost to the state.

**GENERAL MAINTENANCE OF TRAFFIC**

Work will be allowed only during daylight hours.

Traffic control during the work shall be a minimum of a mobile work operation. The Contractor may use lane closures to complete the work should conditions dictate.

For mobile operation a lead vehicle is optional if the striper operates in its own lane or is on a multi-lane highway. The shadow vehicle shall be used at all times. The shadow vehicle shall operate in the same lane as the striper. The shadow vehicle shall display a sign with the legend “WET PAINT AHEAD” and an arrow panel.

Cost of equipment and traffic control devices on equipment, including arrow panels and signs, shall be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

Sufficient quantities for Traffic Control have been included to sign for one work area for each highway segment. If the Contractor elects to use additional lane closures, the cost for additional traffic control devices or equipment shall be incidental to the contract unit price per square foot for Traffic Control

**US281 & US212 Redfield**

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16	32
W9-3	CENTER LANE CLOSED AHEAD	2	48" x 48"	16	32
W20-1	ROAD WORK AHEAD	3	48" x 48"	16	48
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	2	48" x 48"	16	32
W20-7	FLAGGER (symbol)	2	48" x 48"	16	32
G20-2	END ROAD WORK	3	36" x 18"	5	15
<b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT</b>					<b>191</b>

**US212 Faulk County**

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	3	48" x 48"	16	48
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16	32
W20-7	FLAGGER (symbol)	2	48" x 48"	16	32
G20-2	END ROAD WORK	3	36" x 18"	5	15
<b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT</b>					<b>127</b>

**TYPE 3 BARRICADES**

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

**ARROW BOARDS**

ITEM DESCRIPTION	QUANTITY
Type C Arrow Board	2 Each

# MOBILE OPERATIONS ON TWO-LANE ROAD (TYPICAL PAINT APPLICATION)

STATE OF SOUTH DAKOTA	PROJECT PH 0010(92)	SHEET NO. 7	TOTAL SHEETS 25
Plotting Date: 04/29/2016			

## Notes for Mobile Operations on Multi-lane Road (Typical)

**Standard:**

1. Vehicle-mounted signs shall be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs shall be covered or turned from view when work is not in progress.
2. If an arrow board is used, it shall be used in the caution mode.

**Guidance:**

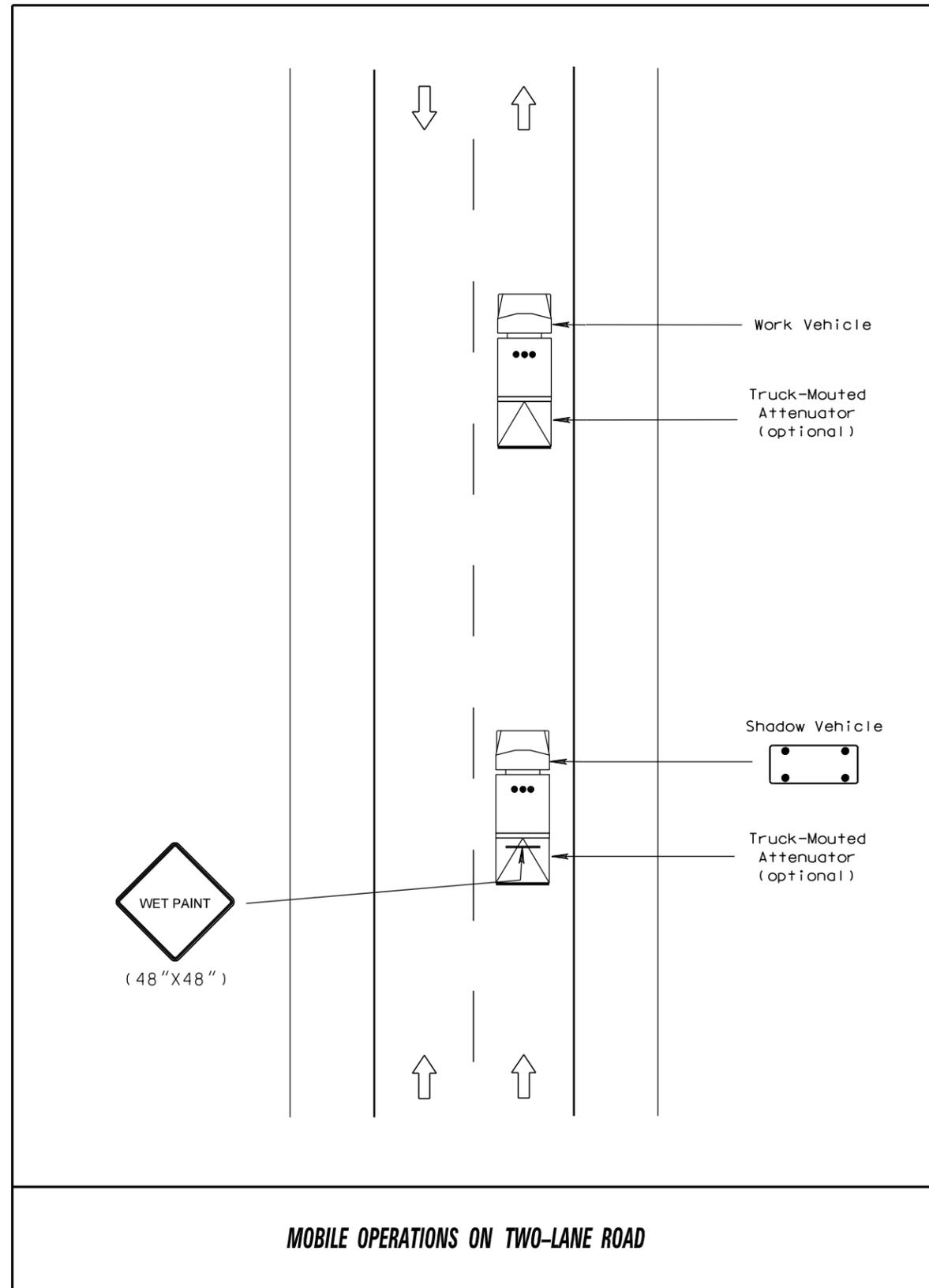
3. Where practical and when needed, the work and shadow vehicles should pull over periodically to allow vehicular traffic to pass.
4. Whenever adequate stopping sight distance exists to the rear, the shadow vehicle should maintain the minimum distance from the work vehicle and proceed at the same speed. The shadow vehicle should slow down in advance of vertical or horizontal curves that restrict sight distance.
5. The shadow vehicles should also be equipped with two high-intensity flashing lights mounted on the rear, adjacent to the sign.

**Option:**

6. The distance between the work and shadow vehicles may vary according to terrain, paint drying time, and other factors.
7. Additional shadow vehicles to warn and reduce the speed of oncoming or opposing vehicular traffic may be used. Law enforcement vehicles may be used for this purpose.
8. A truck-mounted attenuator may be used on the work vehicle and the shadow vehicle.
9. If the work and shadow vehicles cannot pull over to allow vehicular traffic to pass frequently, a DO NOT PASS sign may be placed on the rear of the vehicle blocking the lane.

**Support:**

10. Shadow vehicles are used to warn motor vehicle traffic of the operation ahead.



Plotting Date: 04/08/2016

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 - 50	500	50
55	750	50
60 - 65	1000	50

- Flagger
- Channelizing Device

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

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

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

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

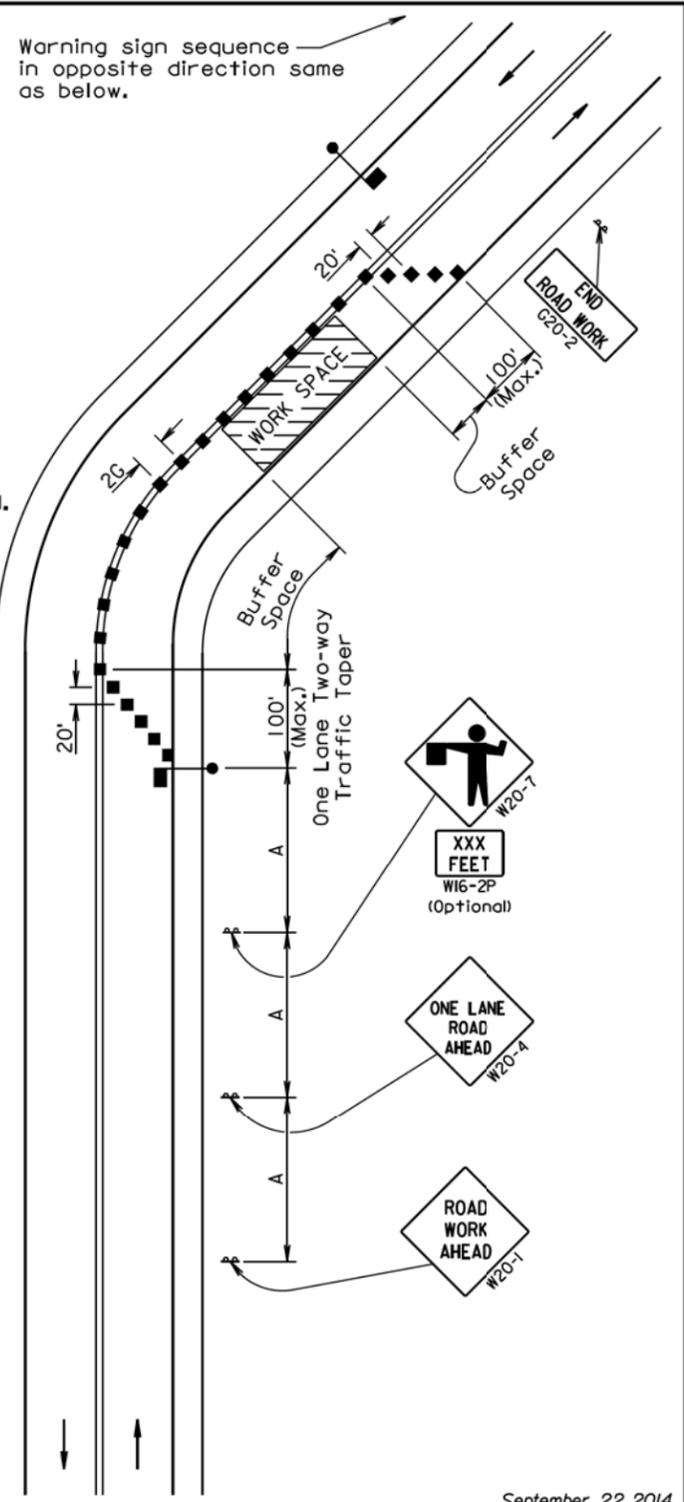
The channelizing devices shall be drums or 42" cones.

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

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

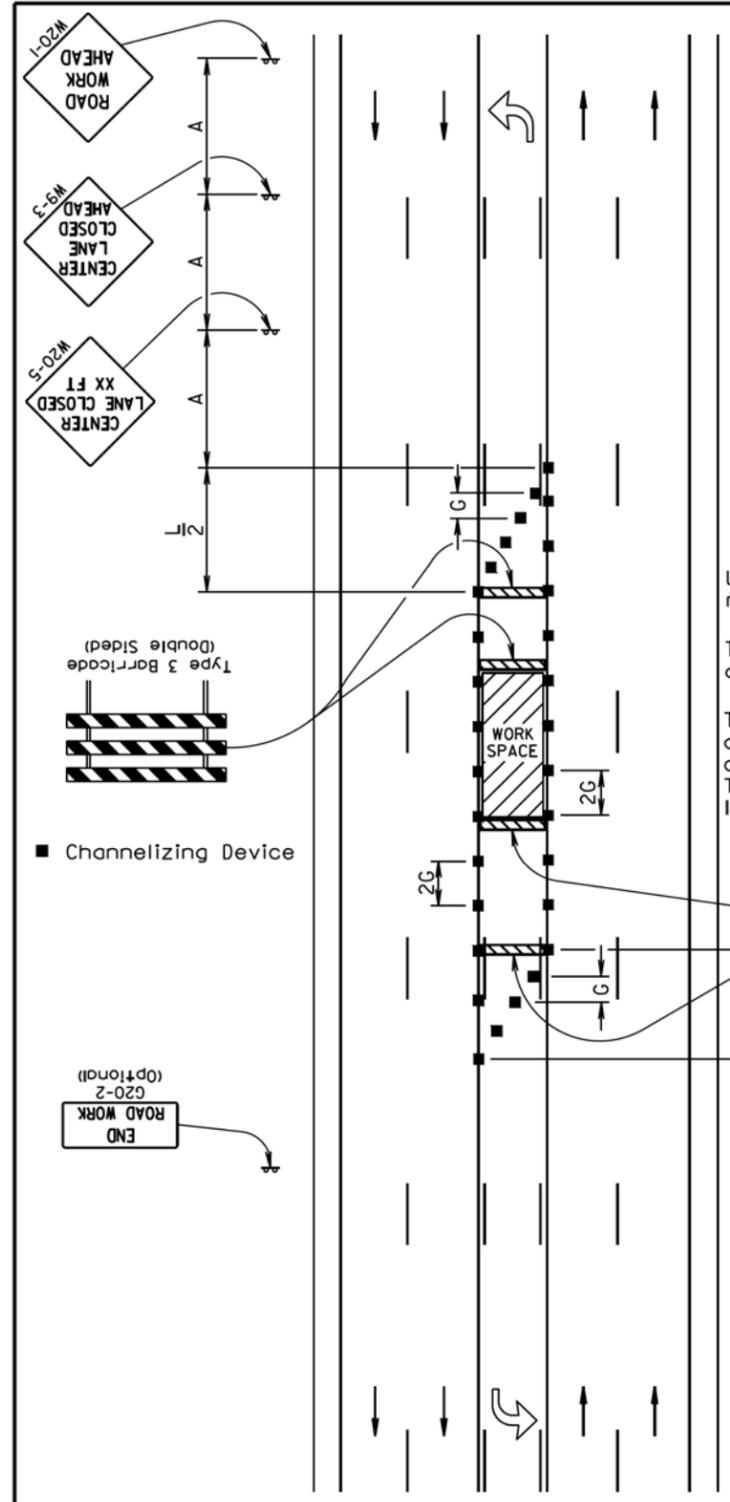
The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

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



September 22, 2014

<b>S D D O T</b>	<b>GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED</b>	PLATE NUMBER <b>634.23</b>
	Published Date: 2nd Qtr. 2016	Sheet 1 of 1



September 22, 2014

<b>S D D O T</b>	<b>GUIDES FOR TRAFFIC CONTROL DEVICES 5-LANE, CENTER LANE CLOSED</b>	PLATE NUMBER <b>634.55</b>
	Published Date: 2nd Qtr. 2016	Sheet 1 of 1

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)
0 - 30	200	180
35 - 40	350	320
45 - 50	500	600
55	750	660
60 - 65	1000	780

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	25
35 - 40	25
45 - 50	50
55	50
60 - 65	50

END ROAD WORK G20-2 (Optional)

Urban areas and intersecting streets may limit sign spacing.

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

The channelizing devices shall be drums or 42" cones if traffic control must remain overnight. Tubular markers may be used for 12 hour or less duration.

PLOT SCALE - 1:200

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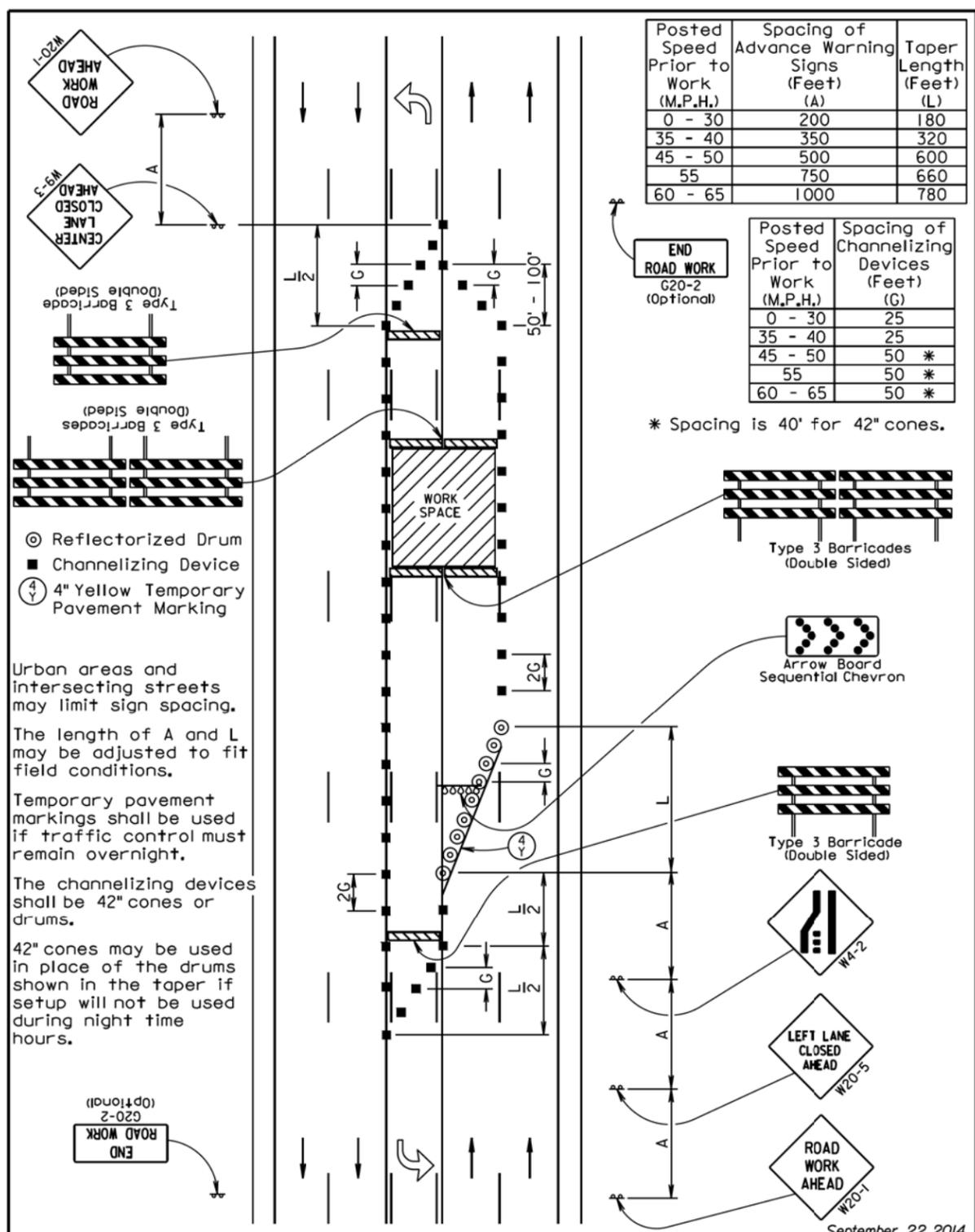
PLOT NAME - 2

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Plotting Date: 04/08/2016

PLOT SCALE - 1:200

PLOT NAME - 3



September 22, 2014

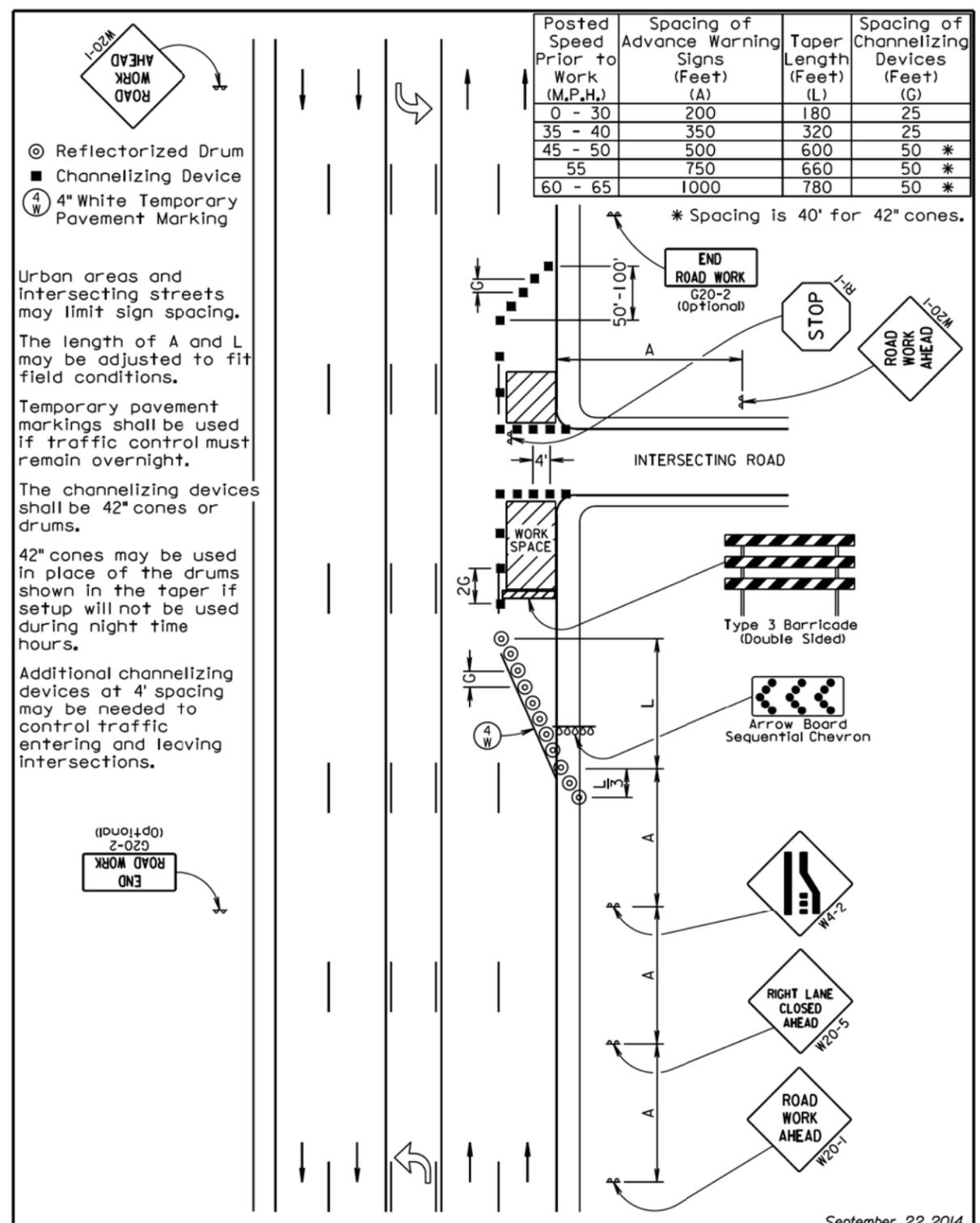
**SDDOT**

**GUIDES FOR TRAFFIC CONTROL DEVICES**  
5-LANE, INSIDE 2 LANES CLOSED

PLATE NUMBER  
634.56

Published Date: 2nd Qtr. 2016

Sheet 1 of 1



September 22, 2014

**SDDOT**

**GUIDES FOR TRAFFIC CONTROL DEVICES**  
5-LANE, OUTSIDE LANE CLOSED

PLATE NUMBER  
634.60

Published Date: 2nd Qtr. 2016

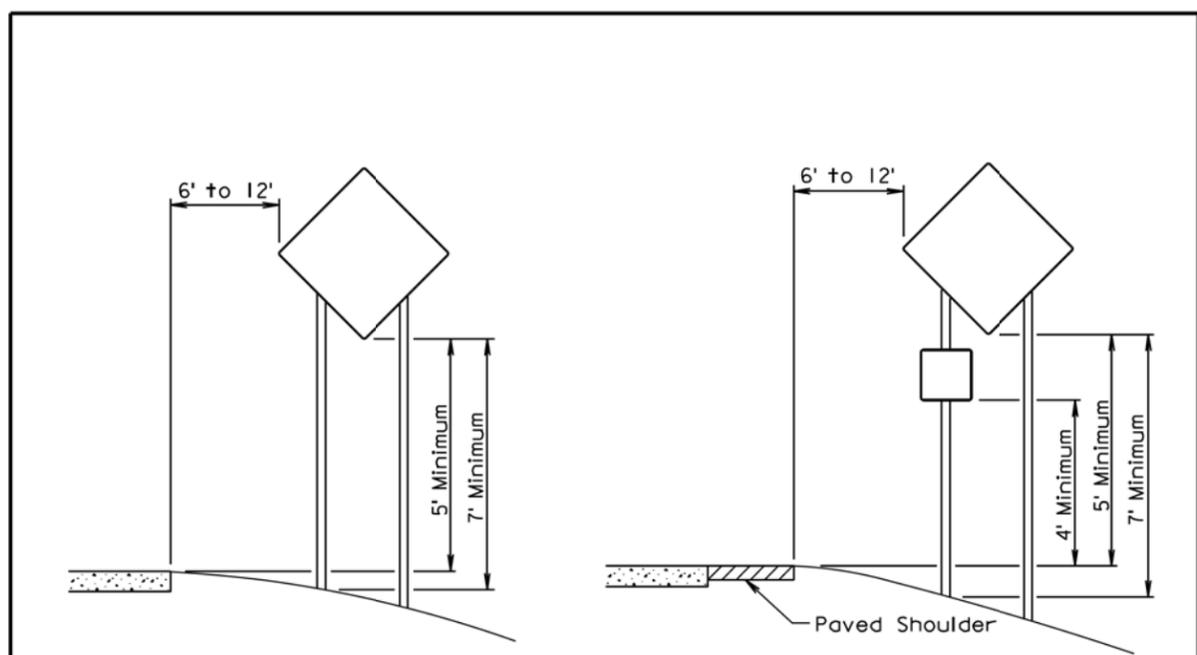
Sheet 1 of 1

Plotting Date: 04/08/2016

PLOT SCALE - 1:200

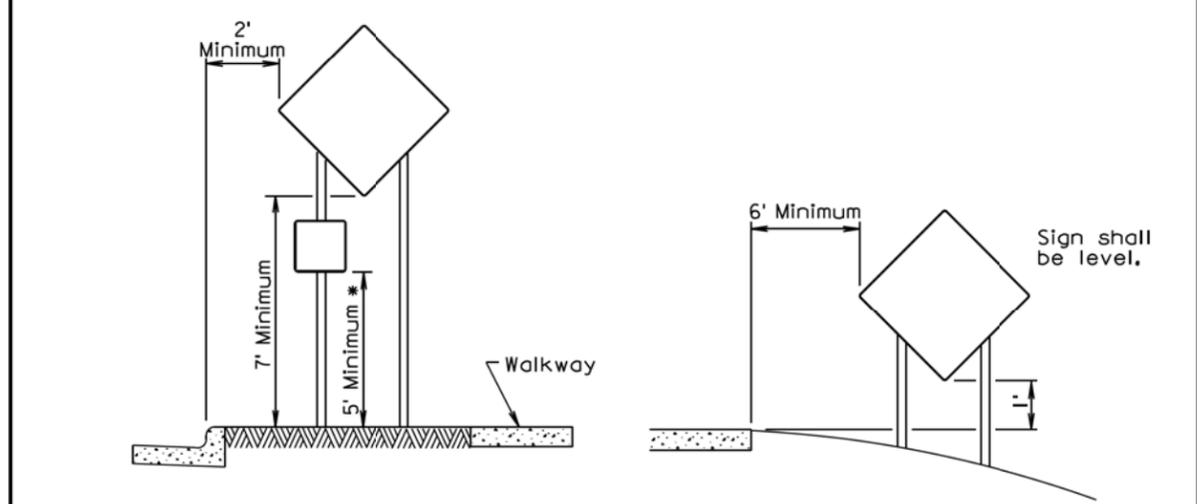
PLOT NAME - 4

FILE - ... \634.85 & 634.99.DGN



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

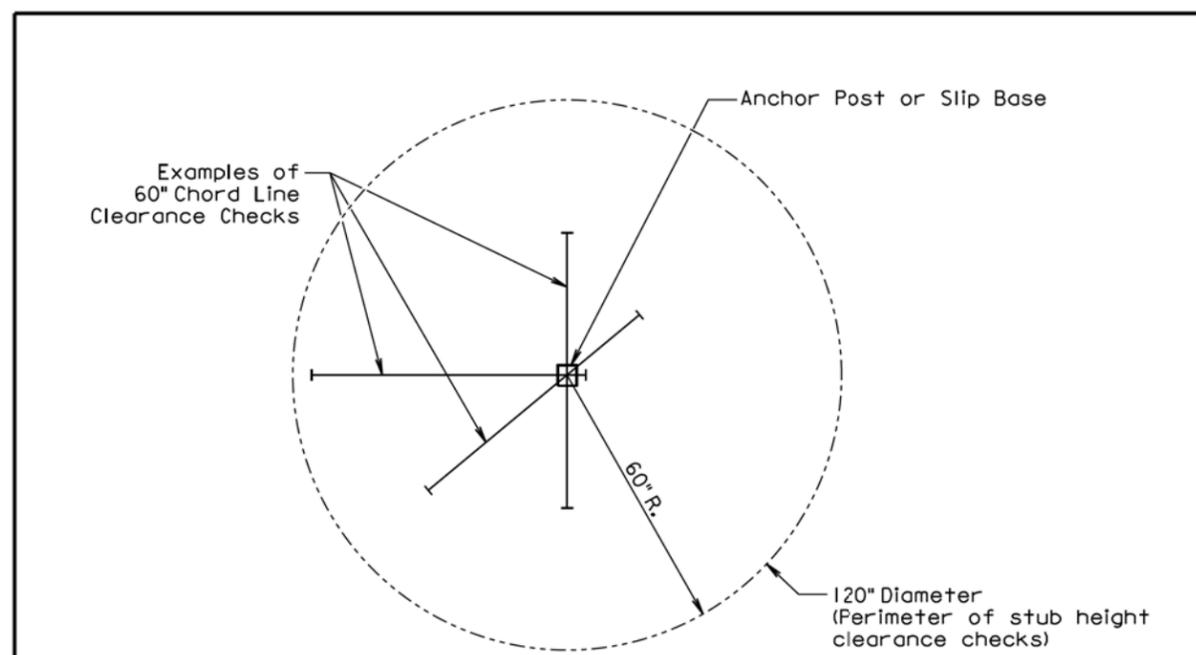
RURAL DISTRICT 3 DAY MAXIMUM

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

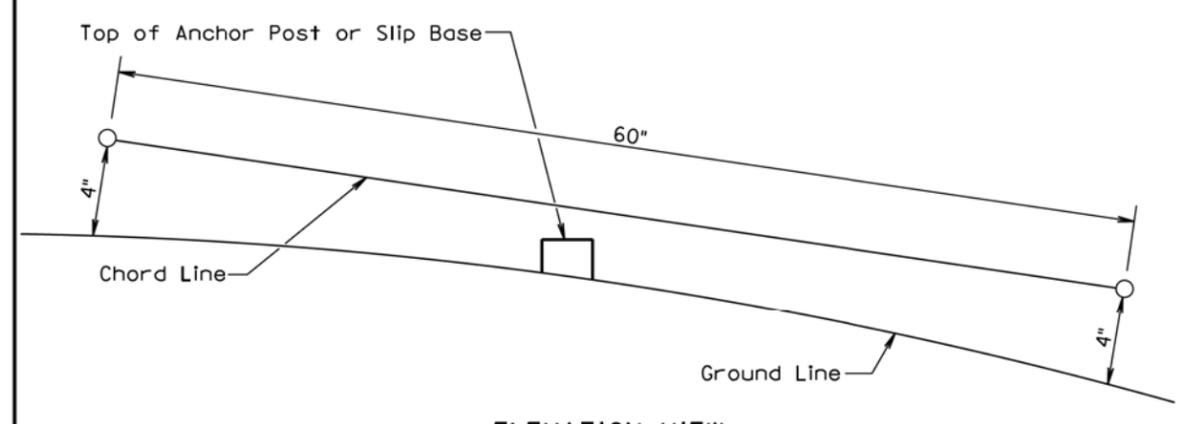
(Not applicable to regulatory signs)

September 22, 2014

Published Date: 2nd Qtr. 2016	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



PLAN VIEW  
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.  
 At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.  
 The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

Published Date: 2nd Qtr. 2016	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1

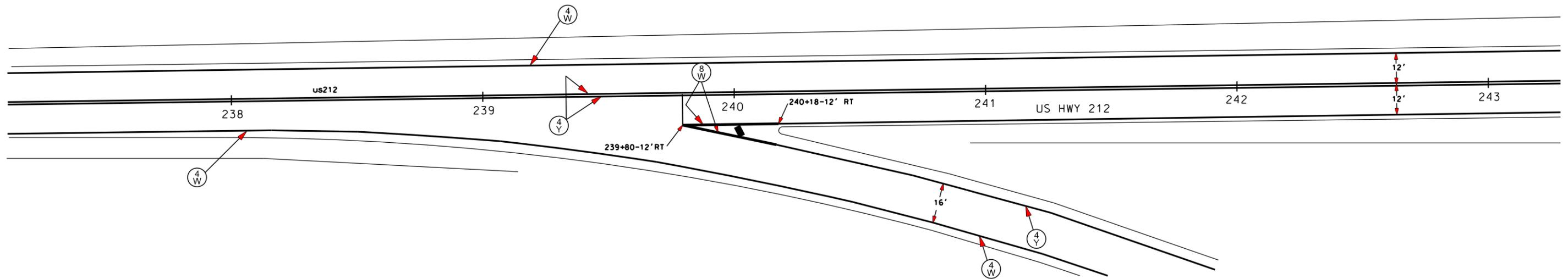
# PAVEMENT MARKING LAYOUT

## US HWY 212 FAULK COUNTY

LEGEND	
KEY	ITEM
(4 W)	DURABLE PAVEMENT MAKING 4" WHITE
(4 Y)	DURABLE PAVEMENT MAKING 4" YELLOW
(8 W)	DURABLE PAVEMENT MAKING 8" WHITE
(24 W)	COLD APPLIED PLASTIC PAVEMENT MARKING, 24" WHITE
(24 Y)	COLD APPLIED PLASTIC PAVEMENT MARKING, 24" YELLOW
↩	COLD APPLIED PLASTIC PAVEMENT MARKING, ARROW



SCALE  
1" = 40'



STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	12	25
Plotting Date: 04/29/2016			

# PAVEMENT MARKING LAYOUT

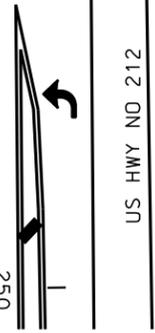
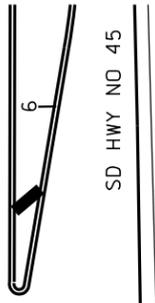
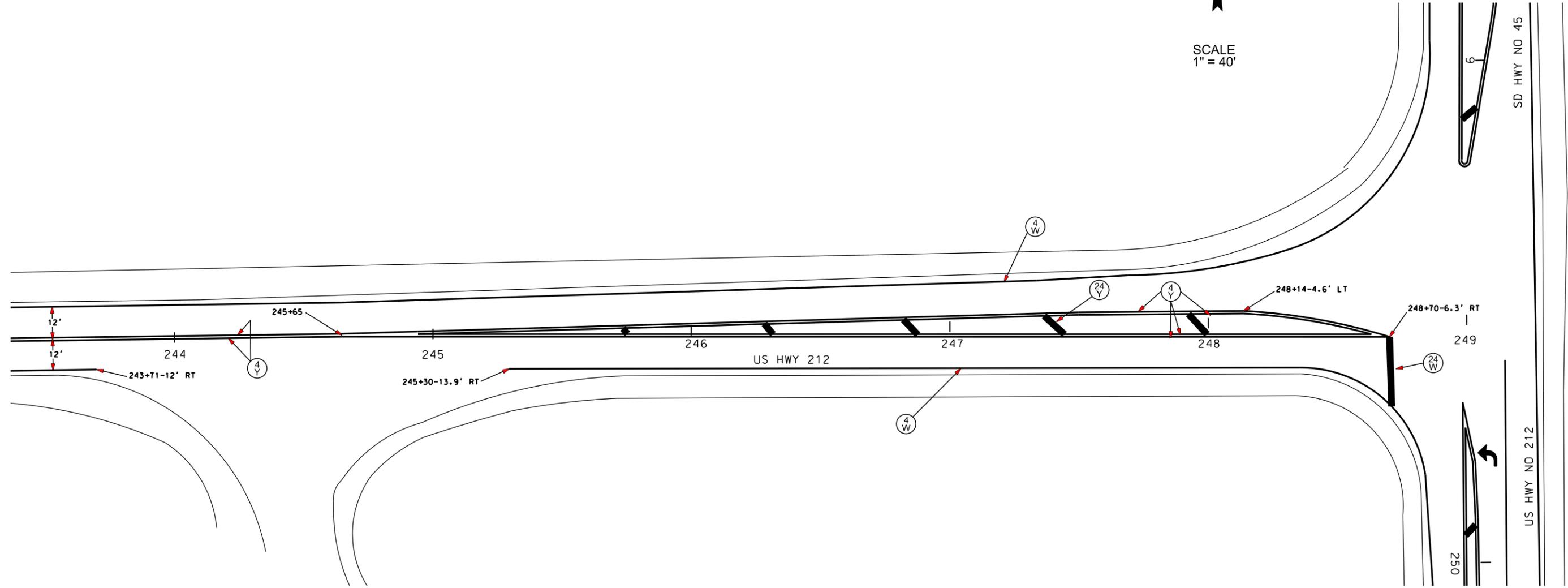
US HWY 212 FAULK COUNTY

PLOT SCALE - 1:40

PLOT NAME - 4



SCALE  
1" = 40'



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\SPNK03B3\PLAN\244249PH.DGN

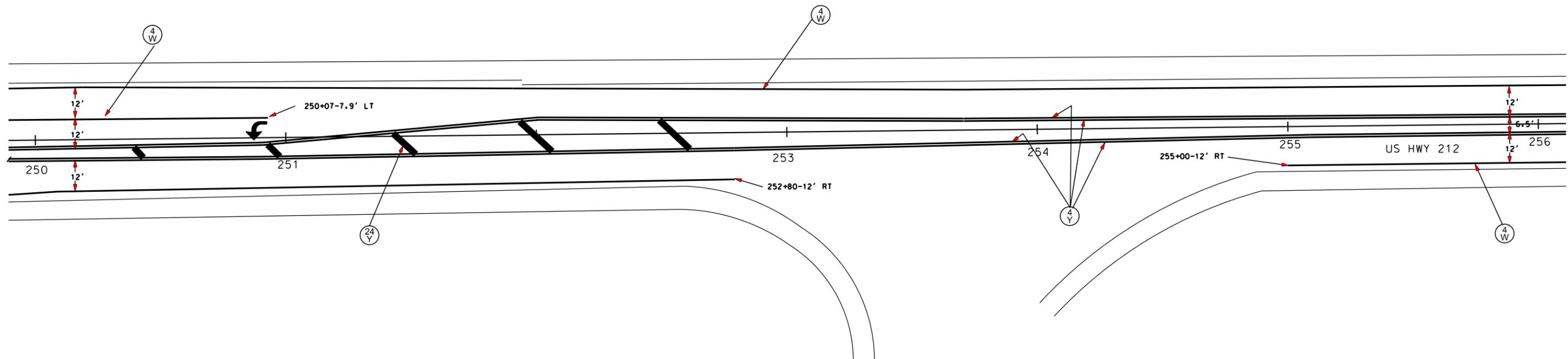
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	13	25
Plotting Date: 04/29/2016			

# PAVEMENT MARKING LAYOUT

US HWY 212 FAULK COUNTY



SCALE  
1" = 40'



PLOT SCALE - 1:40

PLOTTED FROM - TRAB17879

PLOT NAME - 5

FILE - ... \PRJ\SPNK03B3\PLAN\250256PH.DGN

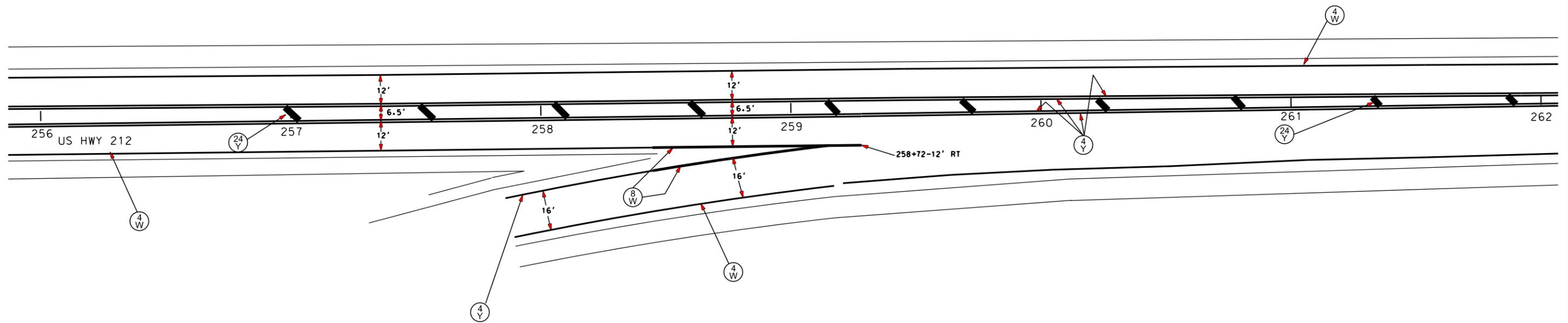
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	14	25
Plotting Date: 04/29/2016			

# PAVEMENT MARKING LAYOUT

US HWY 212 FAULK COUNTY



SCALE  
1" = 40'



PLOT SCALE - 1:40

PLOTTED FROM - TRAB17879

PLOT NAME - 6

FILE - ... \PRJ\SPNK03B3\PLAN\25662PH.DGN

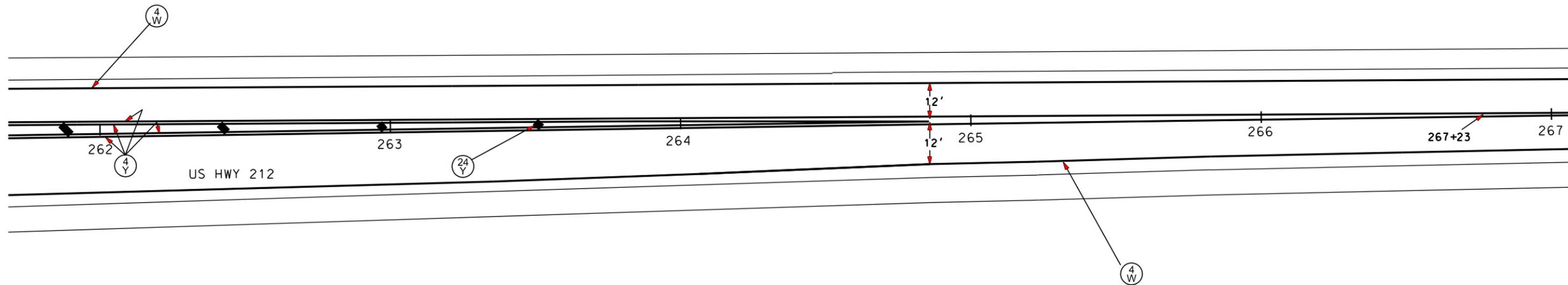
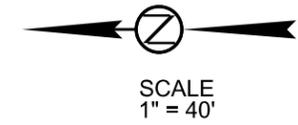
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	15	25
Plotting Date: 04/29/2016			

# PAVEMENT MARKING LAYOUT

US HWY 212 FAULK COUNTY

PLOT SCALE - 1:40

PLOT NAME - 7



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\SPNK03B3\PLAN\262268PH.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	16	25
Plotting Date: 05/08/2016			

Revised 5/8/16 DLM

# PAVEMENT MARKING LAYOUT

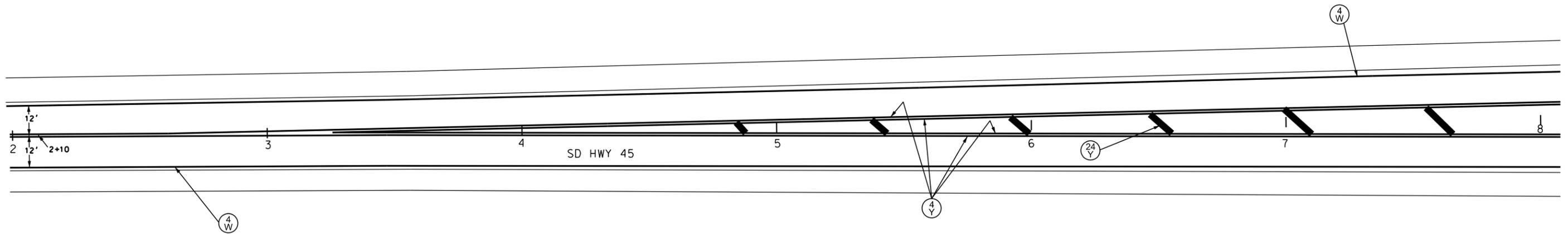
SD HWY 45 FAULK COUNTY

PLOT SCALE - 1"=40'

PLOT NAME - 1



SCALE  
1" = 40'



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\SPNK03B3\PLAN\0208PM.DGN

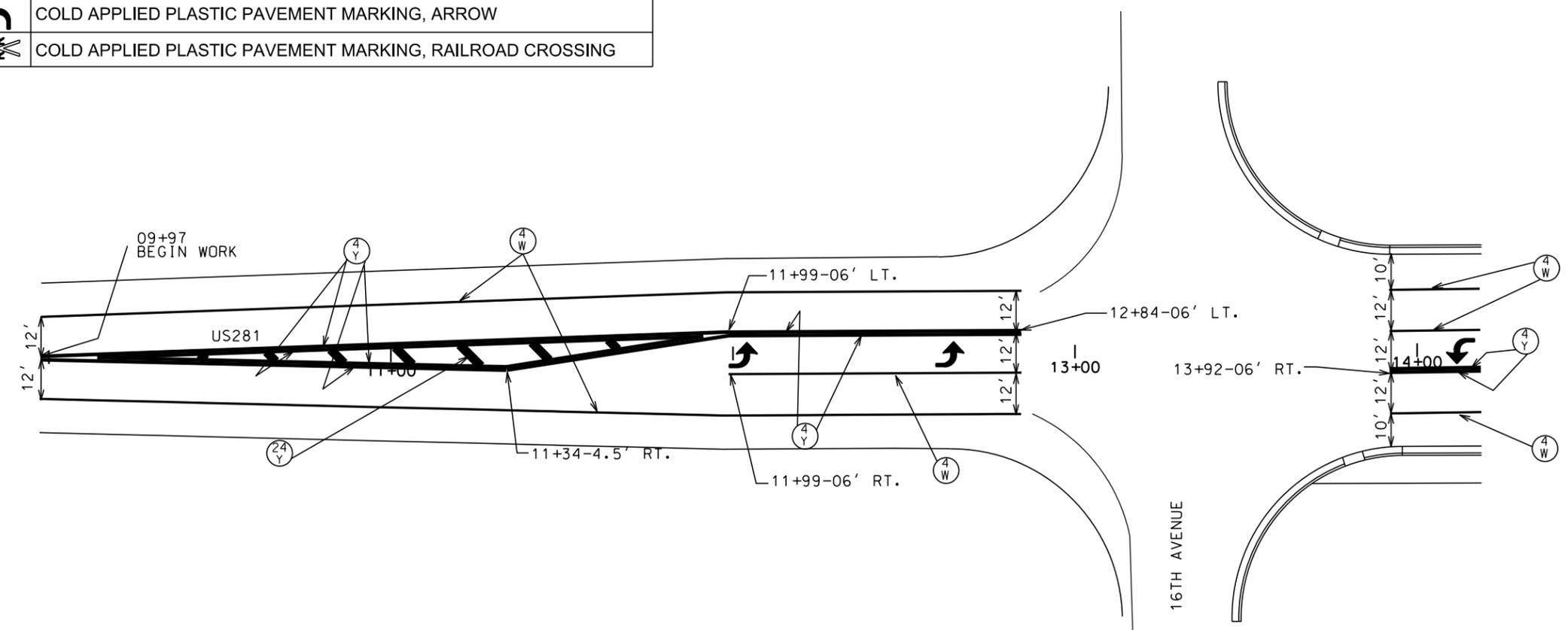
# PAVEMENT MARKING LAYOUT

US HWY 281 REDFIELD



SCALE  
1" = 40'

LEGEND	
KEY	ITEM
(4) W	COLD APPLIED PLASTIC PAVEMENT MARKING, 4" WHITE
(4) Y	COLD APPLIED PLASTIC PAVEMENT MARKING, 4" YELLOW
(24) W	COLD APPLIED PLASTIC PAVEMENT MARKING, 24" WHITE
(24) Y	COLD APPLIED PLASTIC PAVEMENT MARKING, 24" YELLOW
↩	COLD APPLIED PLASTIC PAVEMENT MARKING, ARROW
⊘	COLD APPLIED PLASTIC PAVEMENT MARKING, RAILROAD CROSSING



PLOT SCALE - J140.2192

PLOTTED FROM - TRAB17879

PLOT NAME - 9

FILE - ... \PRJ\SPNK03B3\PLAN\010PM.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	18	25
Plotting Date: 04/29/2016			

# PAVEMENT MARKING LAYOUT

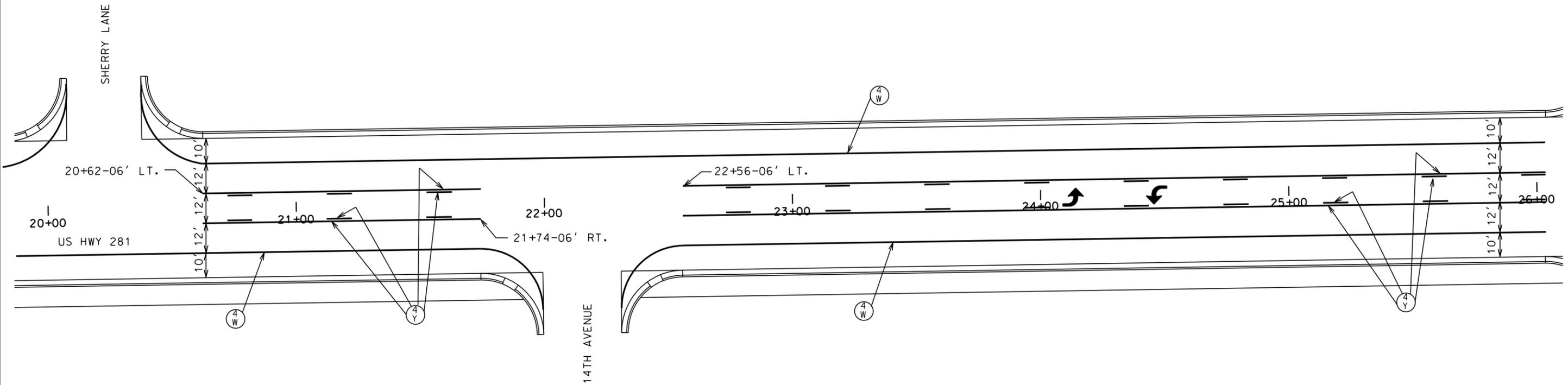
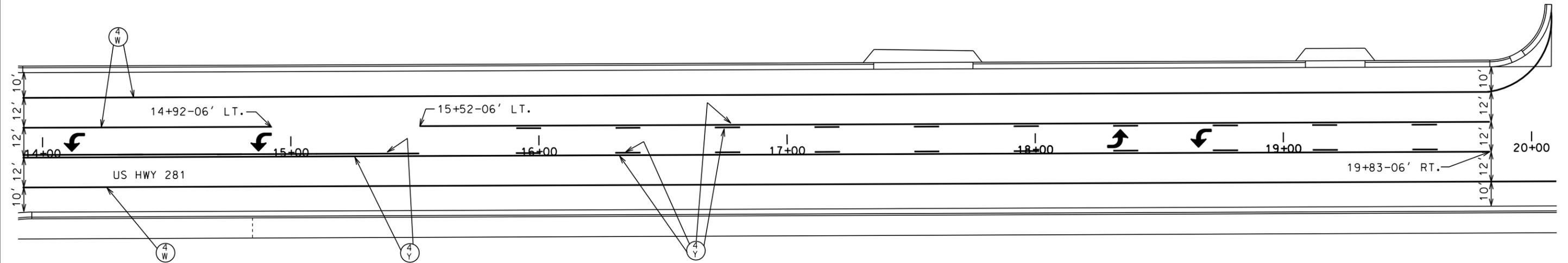
## US HWY 281 REDFIELD



SCALE  
1" = 40'

PLOT SCALE - 1:40

PLOT NAME - 10



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\SPNK03B3\PLAN\014PH.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH0010( 92 )	19	25
Plotting Date: 04/29/2016			

# PAVEMENT MARKING LAYOUT

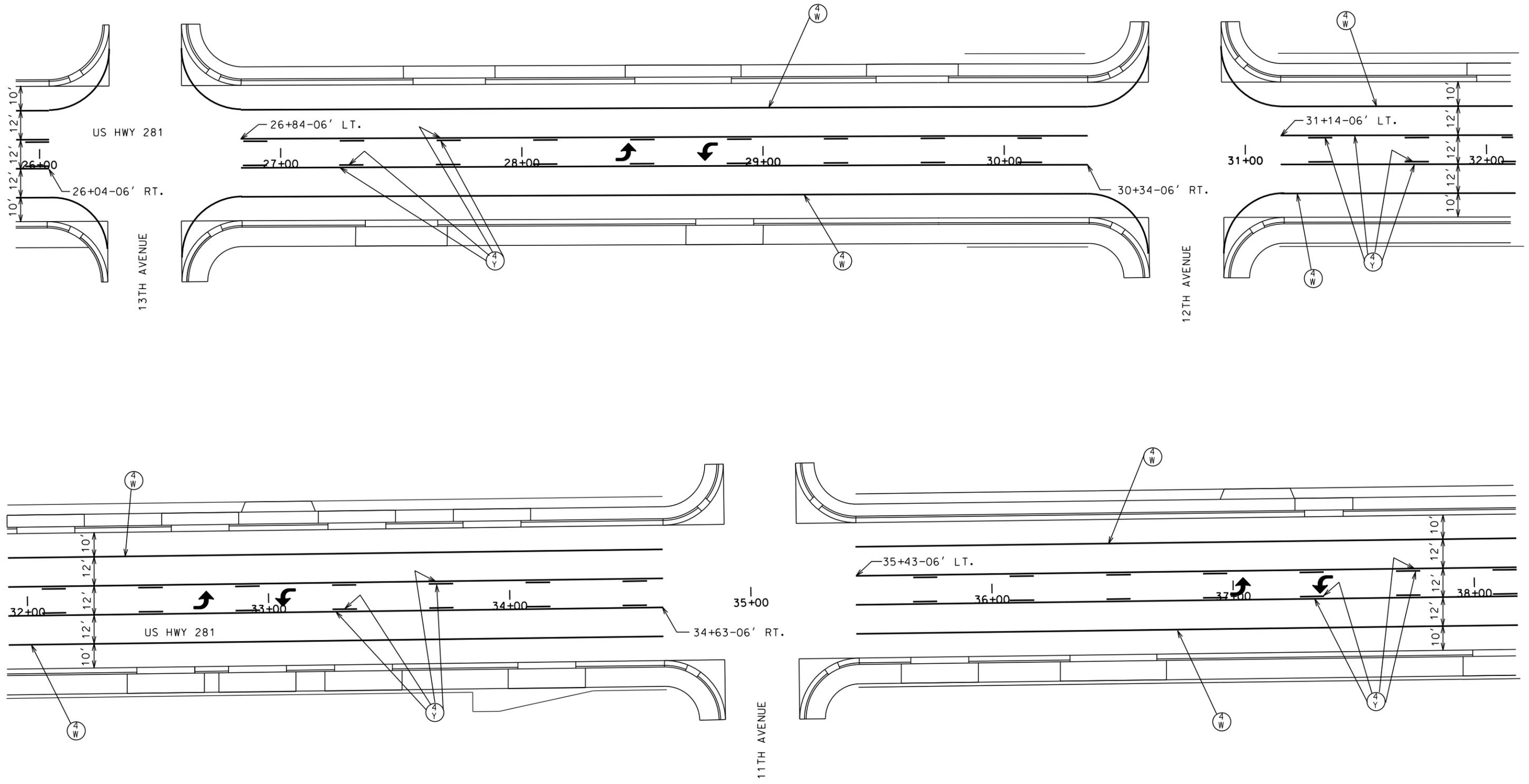
US HWY 281 REDFIELD



SCALE  
1" = 40'

PLOT SCALE - 1:40

PLOT NAME - 11



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\SPNK03B3\PLAN\026PM.DGN

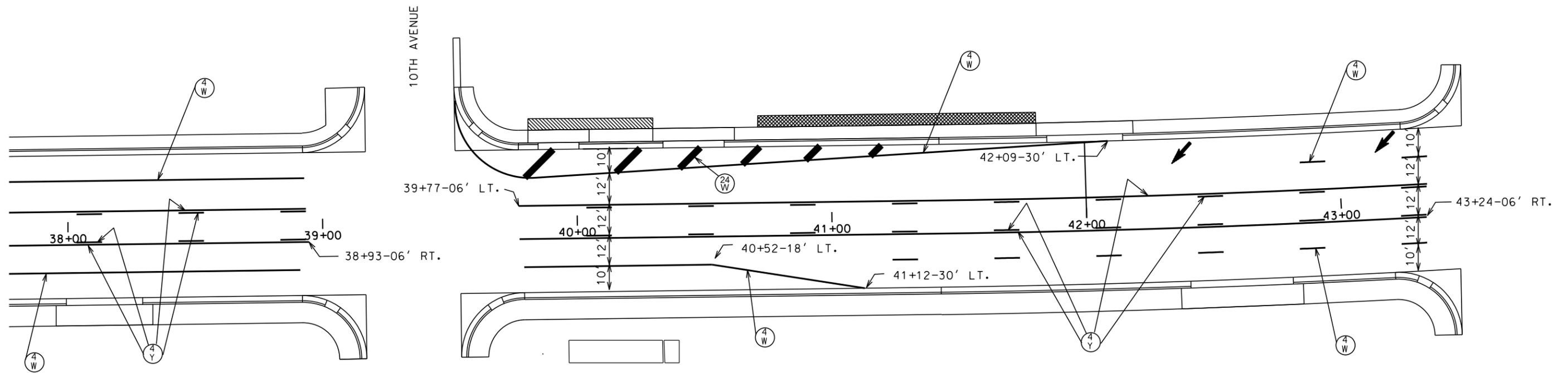
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	20	25
Plotting Date: 04/29/2016			

# PAVEMENT MARKING LAYOUT

US HWY 281 REDFIELD

PLOT SCALE - 1:40

PLOT NAME - 12



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\SPNK03B3\PLAN\038PM.DGN



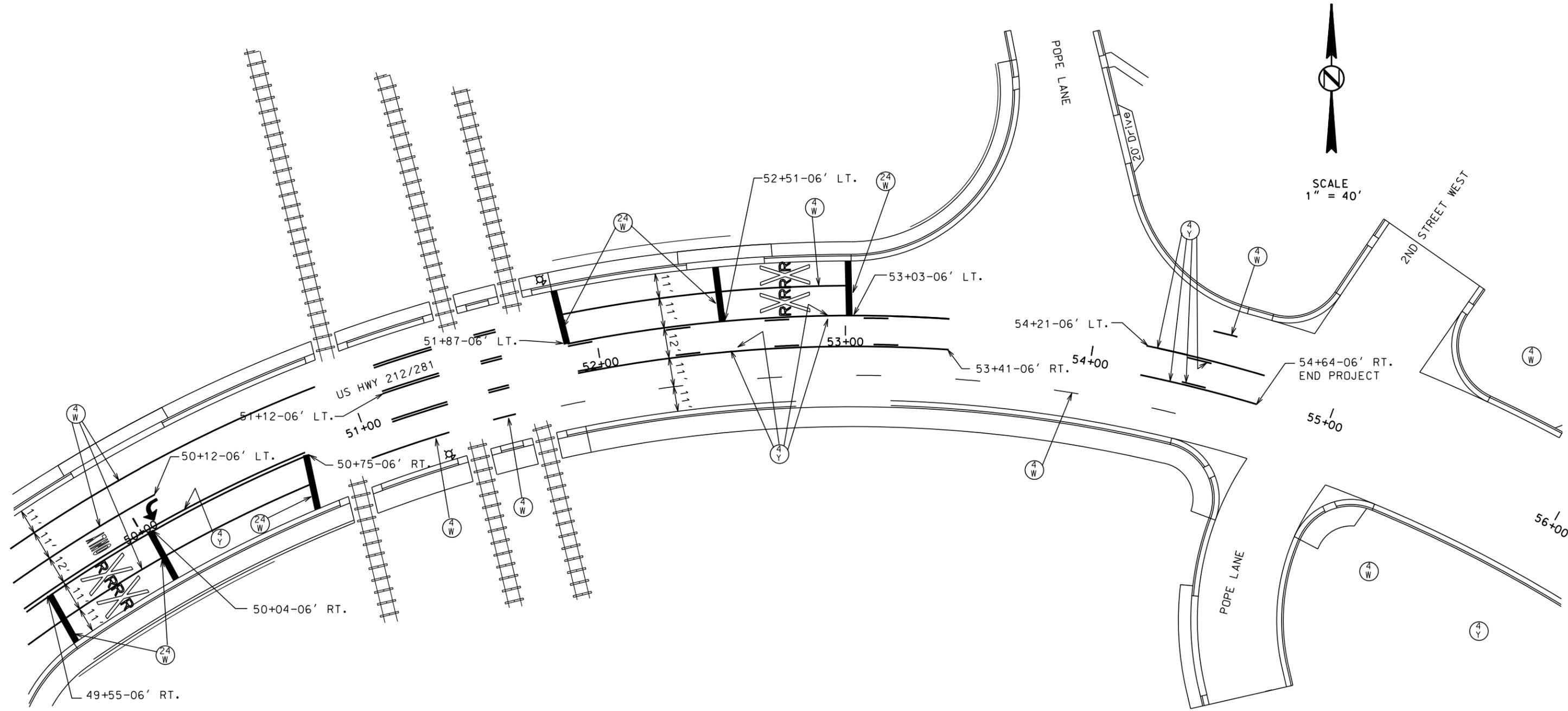
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	22	25
Plotting Date: 04/29/2016			

# PAVEMENT MARKING LAYOUT

## US HWY 212 & US HWY 281 REDFIELD

PLOT SCALE - 1"=40'

PLOT NAME - 14



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\SPNK03B3\PLAN\050PH.DGN

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STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 0010(92)	23	25
Plotting Date: 04/29/2016			

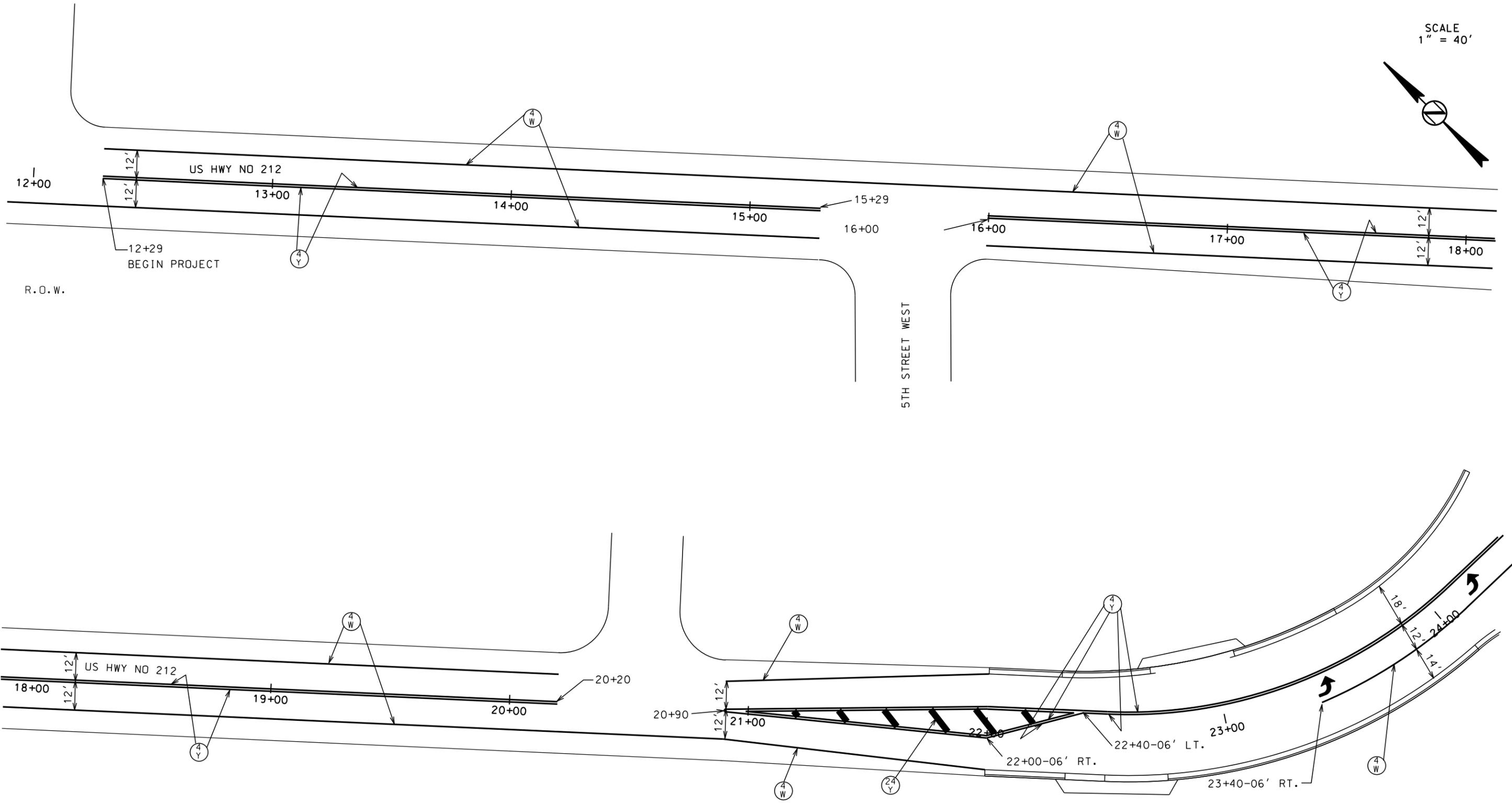
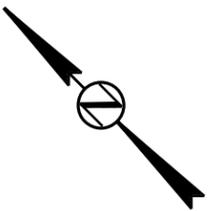
# PAVEMENT MARKING LAYOUT

US HWY 212 REDFIELD

PLOT SCALE - 1"=40'

PLOT NAME - 15

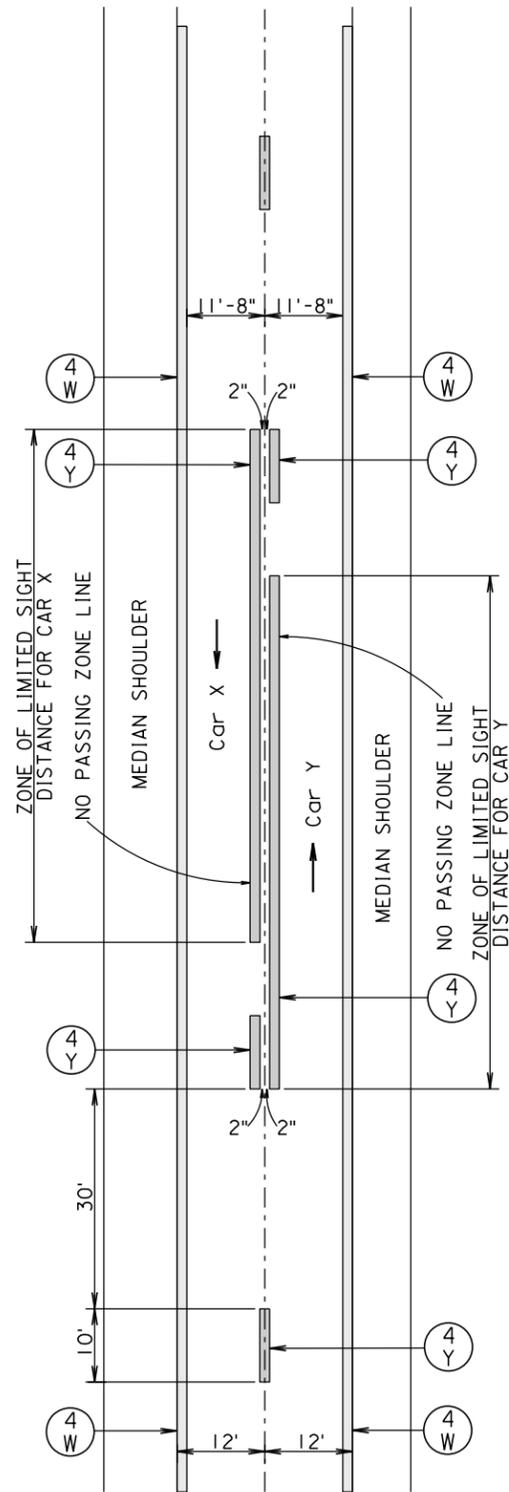
SCALE  
1" = 40'



PLOTTED FROM - TRAB17879

FILE - ... \PRJ\SPNK03B3\PLAN\012PM.DGN

**TWO LANE  
UNDIVIDED ROADWAY**



KEY	ITEM
(4W)	4" White
(4Y)	4" Yellow

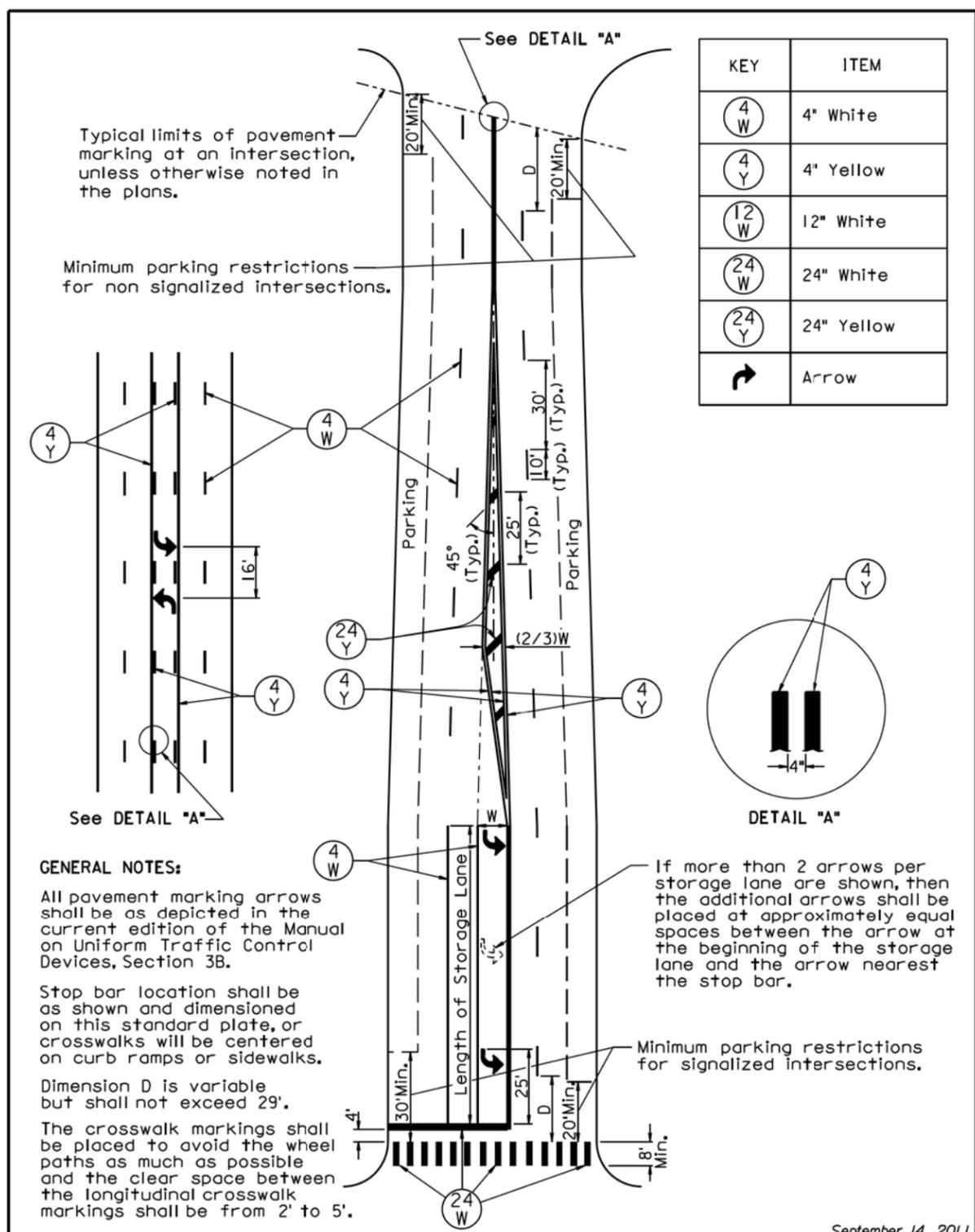
FURNISHING AND APPLYING DURABLE PAVEMENT MARKING

1. The typical pavement markings as shown on the following sheet shall be applied on US212 in Faulk County.
2. Traffic Control shall be incidental to the cost of application. The striping and advance or trailing warning vehicle shall be equipped with flashing amber lights or advance warning arrow panel.

Plotting Date: 04/08/2016

PLOT SCALE - 1:200

PLOT NAME - 1  
FILE - ... \633.01 & 633.10.DGN



**GENERAL NOTES:**

All pavement marking arrows shall be as depicted in the current edition of the Manual on Uniform Traffic Control Devices, Section 3B.

Stop bar location shall be as shown and dimensioned on this standard plate, or crosswalks will be centered on curb ramps or sidewalks.

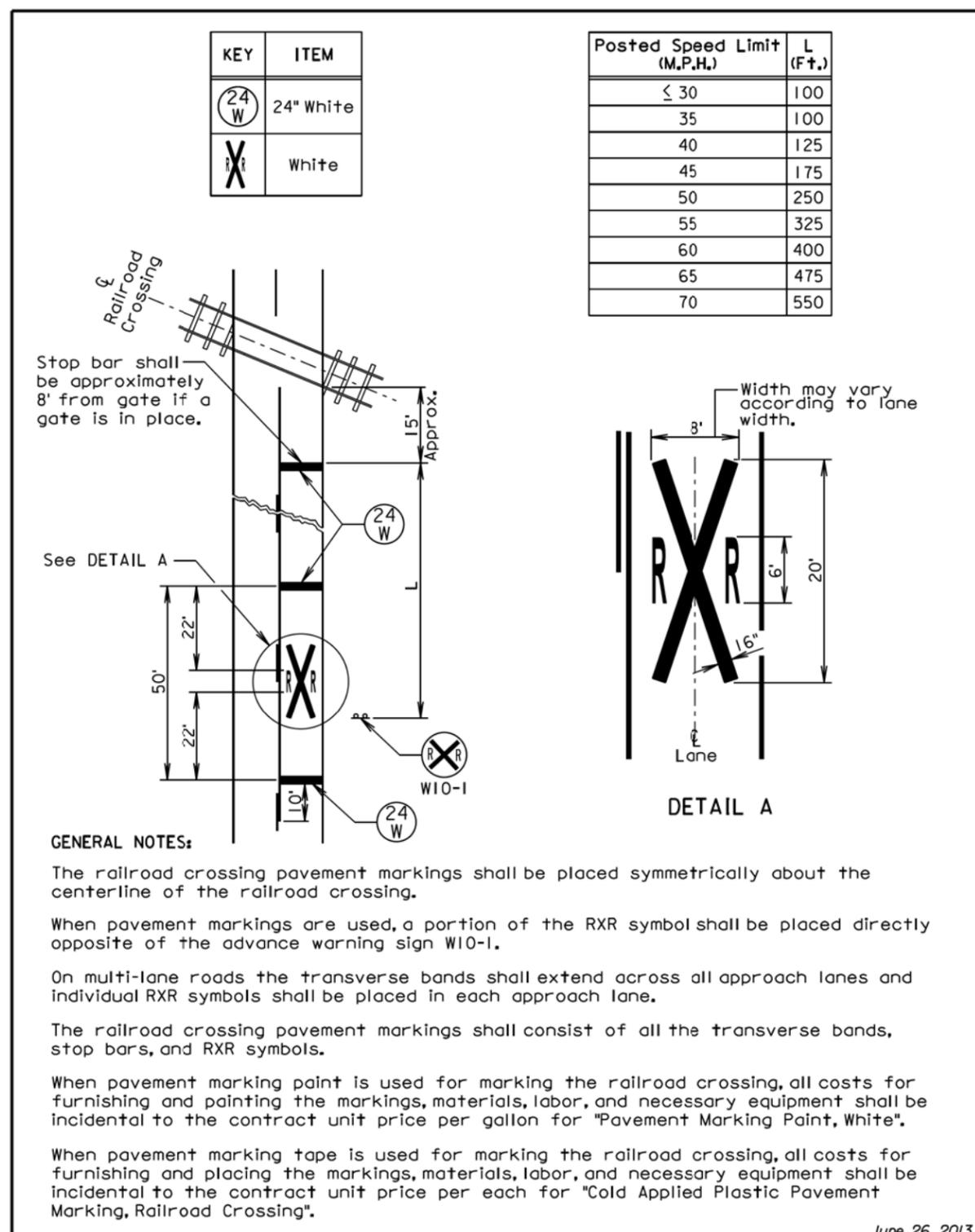
Dimension D is variable but shall not exceed 29'.

The crosswalk markings shall be placed to avoid the wheel paths as much as possible and the clear space between the longitudinal crosswalk markings shall be from 2' to 5'.

If more than 2 arrows per storage lane are shown, then the additional arrows shall be placed at approximately equal spaces between the arrow at the beginning of the storage lane and the arrow nearest the stop bar.

September 14, 2011

<b>S D D O T</b>	<b>PAVEMENT MARKINGS FOR ADJACENT INTERSECTIONS AND CENTER TURN LANE</b>	PLATE NUMBER <b>633.01</b>
	<i>Published Date: 2nd Qtr. 2016</i>	Sheet 1 of 1



Posted Speed Limit (M.P.H.)	L (Ft.)
≤ 30	100
35	100
40	125
45	175
50	250
55	325
60	400
65	475
70	550

**GENERAL NOTES:**

The railroad crossing pavement markings shall be placed symmetrically about the centerline of the railroad crossing.

When pavement markings are used, a portion of the RXX symbol shall be placed directly opposite of the advance warning sign W10-1.

On multi-lane roads the transverse bands shall extend across all approach lanes and individual RXX symbols shall be placed in each approach lane.

The railroad crossing pavement markings shall consist of all the transverse bands, stop bars, and RXX symbols.

When pavement marking paint is used for marking the railroad crossing, all costs for furnishing and painting the markings, materials, labor, and necessary equipment shall be incidental to the contract unit price per gallon for "Pavement Marking Paint, White".

When pavement marking tape is used for marking the railroad crossing, all costs for furnishing and placing the markings, materials, labor, and necessary equipment shall be incidental to the contract unit price per each for "Cold Applied Plastic Pavement Marking, Railroad Crossing".

June 26, 2013

<b>S D D O T</b>	<b>PAVEMENT MARKINGS AT RAILROAD CROSSING</b>	PLATE NUMBER <b>633.10</b>
	<i>Published Date: 2nd Qtr. 2016</i>	Sheet 1 of 1