

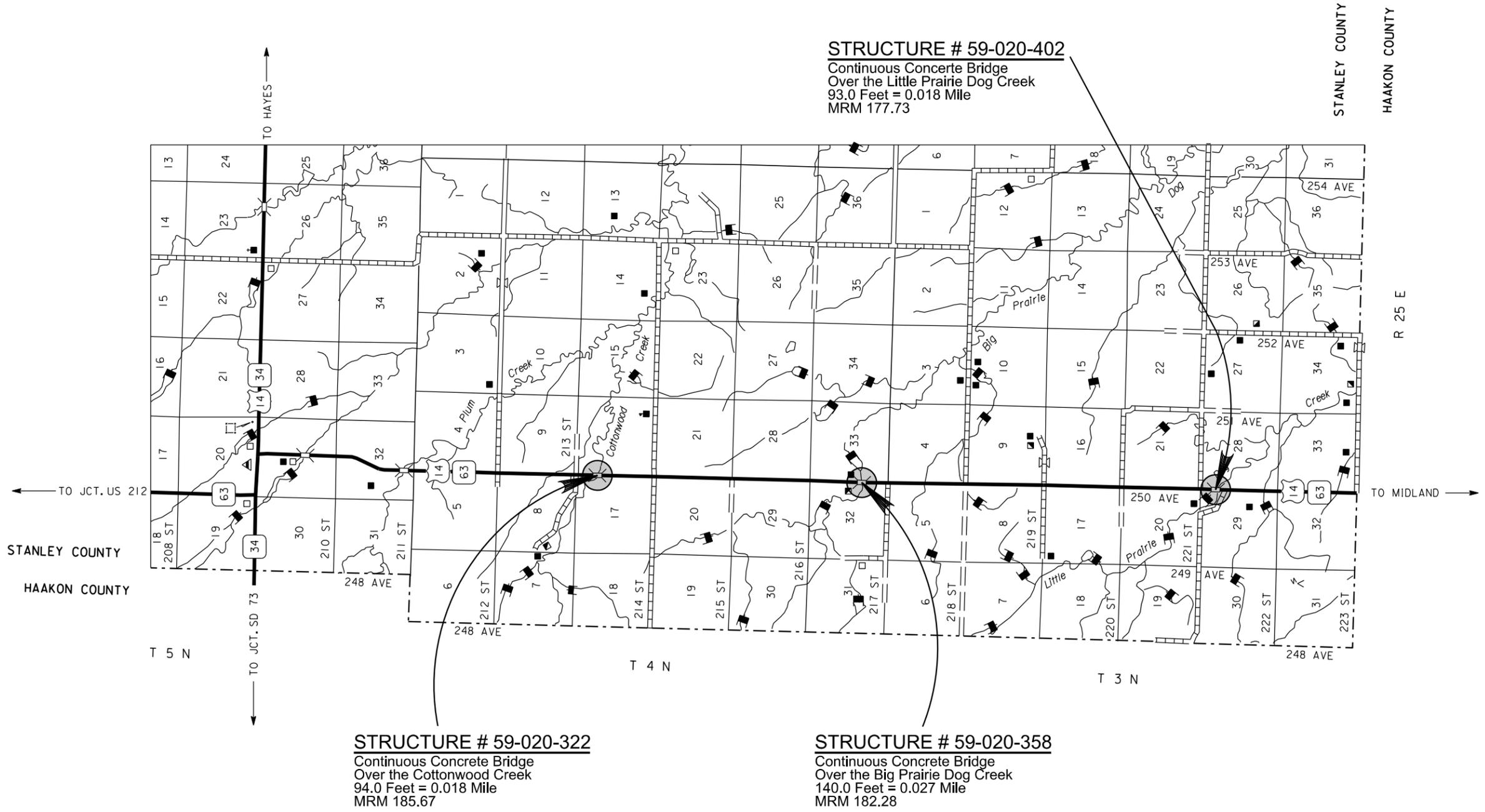
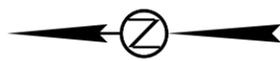
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0014(206)177	C1	C5

Plotting Date: 03/05/2016

# SECTION C: TRAFFIC CONTROL PLANS

## INDEX OF SHEETS

- Sheet C1: Title Sheet
- Sheet C2: Estimate of Quantities and Notes
- Sheet C3: Notes and Itemized List for Traffic Control Signs and Barricades
- Sheets C4-C5: Standard Plates



**STRUCTURE # 59-020-402**  
 Continuous Concrete Bridge  
 Over the Little Prairie Dog Creek  
 93.0 Feet = 0.018 Mile  
 MRM 177.73

**STRUCTURE # 59-020-322**  
 Continuous Concrete Bridge  
 Over the Cottonwood Creek  
 94.0 Feet = 0.018 Mile  
 MRM 185.67

**STRUCTURE # 59-020-358**  
 Continuous Concrete Bridge  
 Over the Big Prairie Dog Creek  
 140.0 Feet = 0.027 Mile  
 MRM 182.28

Plot Scale - 1:200

Plotted From - trp25584

File - ...Stan04V2\Title Sheet.dgn

**ESTIMATE OF QUANTITIES**

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
634E0010	Flagging	40.0	Hour
634E0110	Traffic Control Signs	650	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	3	Each
634E0310	Temporary Flexible Vertical Markers (Tabs)	627	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	7,632	Ft

**SEQUENCE OF OPERATIONS**

The Contractor shall submit a proposed sequence of operations for the Engineer's review and approval at least two weeks prior to the preconstruction meeting.

Traffic shall be maintained through the project at ALL times.

Once work that inconveniences traffic has commenced on a structure site, it shall be pursued in a near continuous, expeditious manner to its completion. Any work that restricts the motorist from driving the posted speed limit, reduces existing roadway width, or causes a potentially unsafe condition due to Contractor operations such as frequent movement of equipment or materials on or through the project, is considered to be an inconvenience to traffic.

The Contractor shall maintain access on and off the highway for local residences and county roads.

The Contractor may elect to work on all three sites simultaneously by utilizing three separate lane closure set-ups.

The Contractor may perform work on the roadway during daylight hours only, unless additional hours are approved by the Engineer.

**TRAFFIC CONTROL**

The Contractor shall designate an employee who will be available 24 hours/day, 7 days/week to be responsible for the maintenance of traffic during periods of repair work. The name and phone number of person(s) shall be provided to the SD Department of Transportation (773-5294), SD Highway Patrol (Pierre State Radio (773-3536)), and Stanley County Sheriff Department (223-7792).

Channelizing devices in a series shall be of the same type. The cost of additional channelizing devices shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

All traffic control devices shall be in "like new" condition.

Type 3 Barricades 8' wide shall mark one end of the construction work zone. In addition, Type 3 Barricades 8' wide shall be placed in the lanes that are closed to traffic at the discretion of the Engineer.

**GENERAL MAINTENANCE OF TRAFFIC**

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

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

A shadow vehicle, equipped with flashing amber light and a ROAD MACHINERY AHEAD sign prominently displayed, shall be used in advance of landscaping, clean up, and other mobile work activities. Highway equipment working within traffic or adjacent to traffic shall, at all times, display a flashing or revolving amber light to warn the traveling public.

The cost for additional signs shall be paid for at the contract unit price per square foot for "Traffic Control Signs". Additional Flagger hours shall be paid for at the contract unit price per hour for "Flagging".

Traffic Control signs, as shown in the Estimate of Quantities, are estimates. Contractor's operation may require adjustments in quantities, either more or less. Payment will be for those signs actually ordered by the Engineer and used.

**Reflectorized Sheeting Requirements for Temporary Traffic Control Devices**

Delete the first paragraph of Section 984.1 and replace with the following:

Temporary traffic control devices, including signs, drums, cones, tubular markers, barricades, vertical panels, and direction indicator barricades shall be reflectorized with sheeting applied to a satisfactory backing. For all temporary traffic control warning signs, the reflective sheeting shall meet or exceed the standards of Type VII, Type VIII, Type IX, or Type XI as defined by AASHTO M 268 (ASTM D4956). For all other temporary traffic control signs, the reflective sheeting shall meet or exceed the standards of Type IV, Type V, Type VII, Type VIII, Type IX, or Type XI as defined by AASHTO M 268 (ASTM D4956). For barricades, vertical panels, and direction indicator barricades; the reflective sheeting shall meet or exceed the standards of Type III as defined by AASHTO M 268 (ASTM D4956). Round surfaced temporary traffic control devices including, but not limited to; drums, cones, and tubular markers shall be reflectorized with reflectorized sheeting meeting or exceeding the standards of Type IV as defined by AASHTO M 268 (ASTM D4956). All orange colored material shall be fluorescent.

**TEMPORARY PAVEMENT MARKING**

After completion of structure site work, temporary pavement markings shall be used to mark centerline of all new surfaces as per Specifications.

Flagger symbol signs (W20-7) and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights shall be positioned on the roadway shoulder in advance of workers for both directions of traffic during the installation of temporary pavement markings. The traffic control device used shall be moved to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1), a Workers symbol sign (W21-1) or a BE PREPARED TO STOP (W3-4) warning sign shall be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work shall be approved by the Engineer.

Temporary Pavement Marking Tape, Type 1 shall be used for all pavement marking shown on Standard Plate 634.25.

Approximately 432 feet of 4 inch white temporary pavement marking tape, type I (24" stop bar reduced to 4" equivalent), and 7,200 feet of 4 inch yellow temporary pavement marking tape, type I, will be required for the project (see table for breakdown of quantities). The Contractor will be paid only once for tape placement. The Contractor is responsible for maintaining and cleaning the tape throughout the duration of the project and for removing all temporary pavement marking tape when it is no longer required.

The Contractor shall install approximately 627 feet (structure length plus 50' off each end of structure) of Temporary Flexible Vertical Markers (Tabs) on centerline after completion of the deck seal.

**TABLE OF ESTIMATED TEMPORARY PAVEMENT TAPE**

Location	Pavement Marking Tape Type 1 Stop Bar	
	(4Y)	(4W)
Structure # 59-020-322 MRM 185.67	2400	144
Structure # 59-020-358 MRM 182.28	2400	144
Structure # 59-020-402 MRM 177.73	2400	144
Total:	7200	432

**PERMANENT PAVEMENT MARKING**

Application of permanent pavement marking shall be done by State forces.

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	NH 0014(206)177	C3	C5

**ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS**

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	6	30" x 30"	6	36
W1-4	REVERSE CURVE (L or R)	3	48" x 48"	16	48
W3-1	STOP AHEAD (symbol)	6	48" x 48"	16	96
W3-4	BE PREPARED TO STOP	3	48" x 48"	16	48
W13-1P	ADVISORY SPEED (plaque)	6	30" x 30"	6	36
W16-2P	___ FEET (supplemental distance plaque)	2	30" x 24"	5	10
W20-1	ROAD WORK AHEAD	8	48" x 48"	16	128
W20-4	ONE LANE ROAD AHEAD	8	48" x 48"	16	128
W20-7	FLAGGER (symbol)	2	48" x 48"	16	32
W21-1	WORKERS (symbol)	3	48" x 48"	16	48
G20-2	END ROAD WORK	8	36" x 18"	5	40
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			<b>650</b>

**TYPE 3 BARRICADES**

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

Plotting Date: 03/05/2016

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.

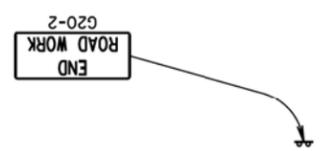
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

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.

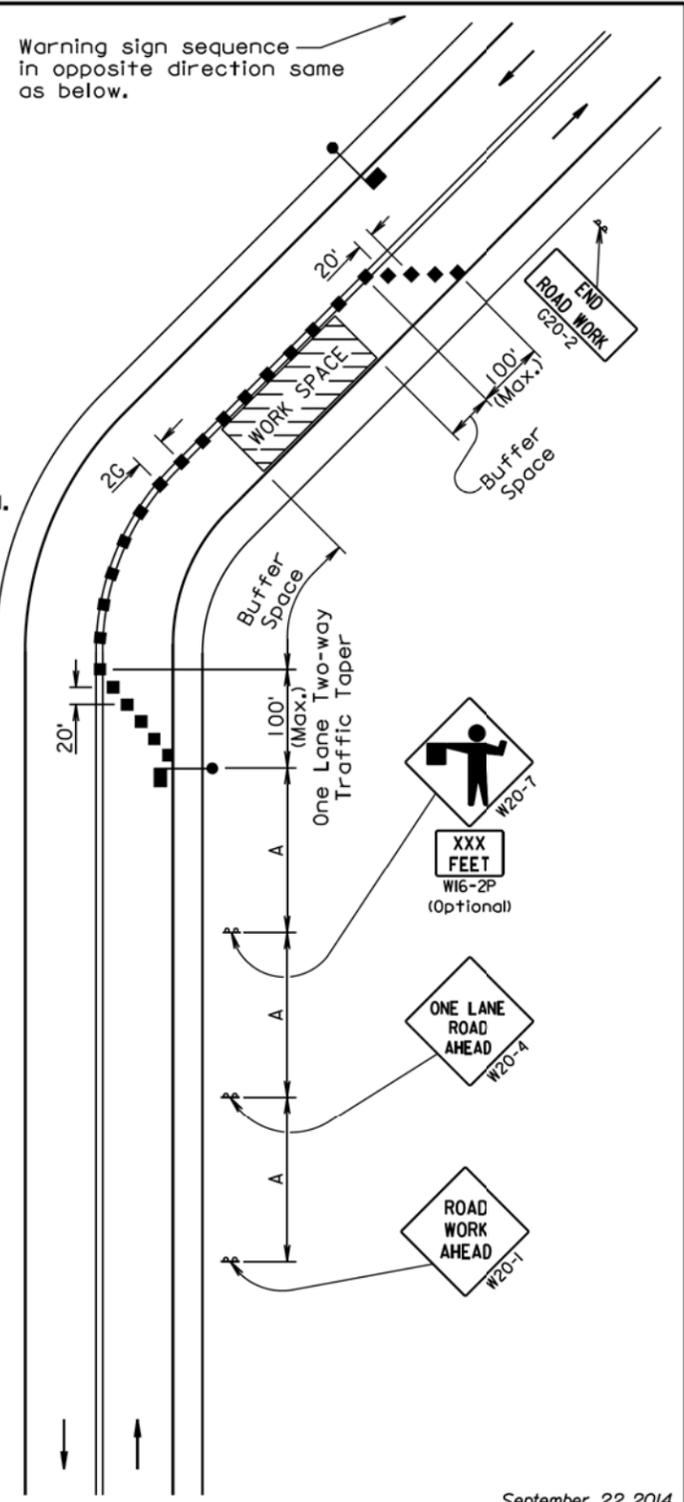
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



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.

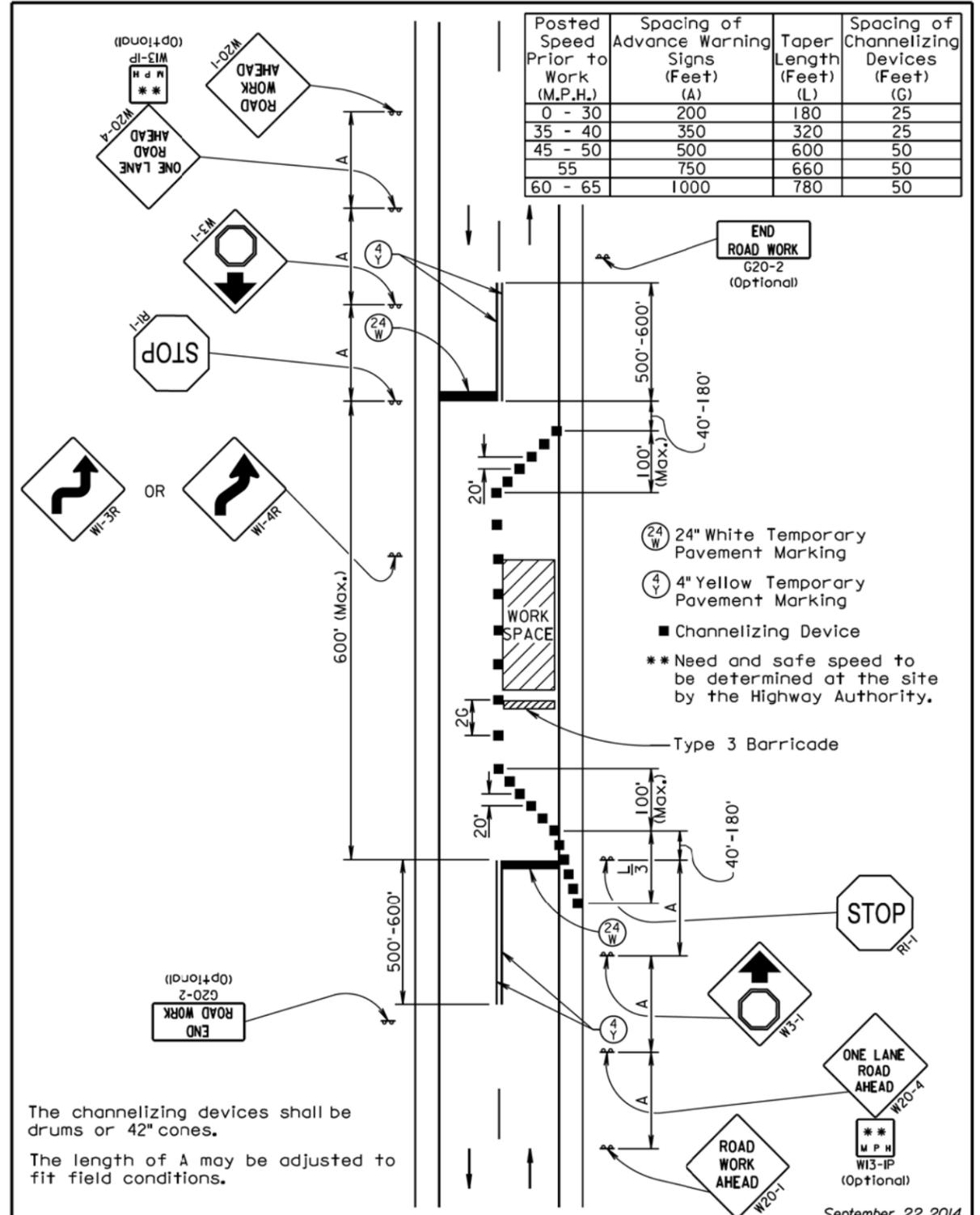


September 22, 2014

<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>
	<i>Published Date: 1st Qtr. 2016</i>	Sheet 1 of 1

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45 - 50	500	600	50
55	750	660	50
60 - 65	1000	780	50

- Flagger
- Channelizing Device
- 24" 24" White Temporary Pavement Marking
- 4" 4" Yellow Temporary Pavement Marking
- Channelizing Device
- \*\* Need and safe speed to be determined at the site by the Highway Authority.



September 22, 2014

<b>S D D O T</b>	<b>GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE USING STOP SIGNS</b>	PLATE NUMBER <b>634.25</b>
	<i>Published Date: 1st Qtr. 2016</i>	Sheet 1 of 1

PLOT SCALE - 1:200

-PLOTTED FROM - TRPR25584

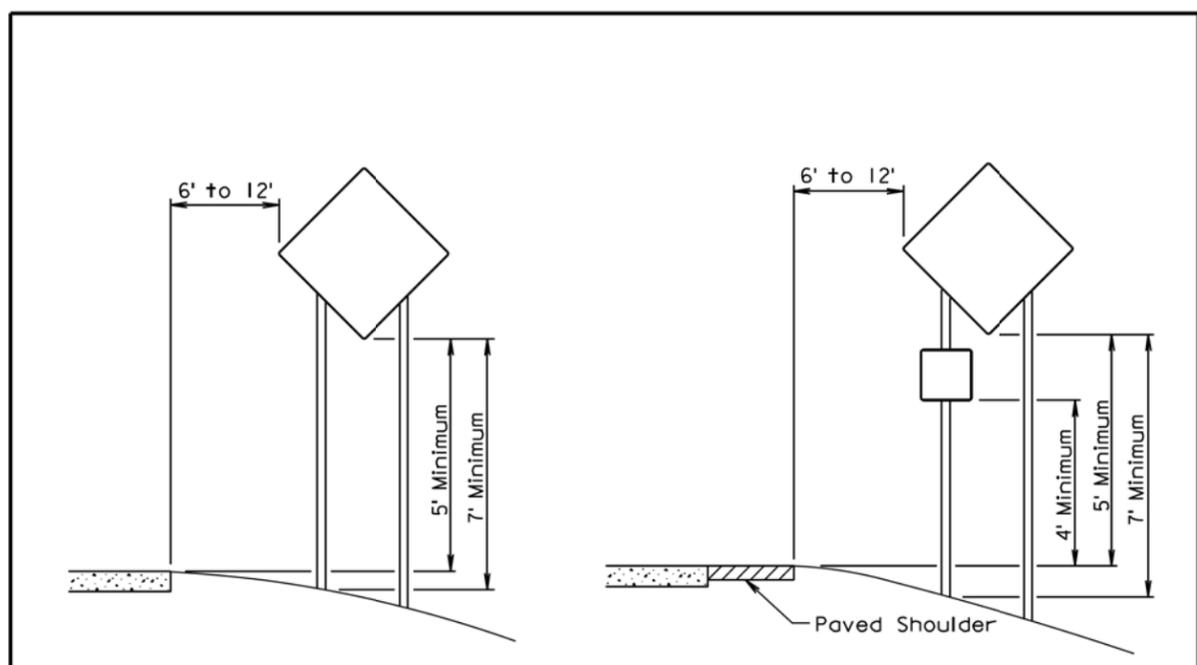
PLOT NAME - 1

FILE - ... \STAND04V2\STANDARD PLATES.DGN

PLOT SCALE - 1:200

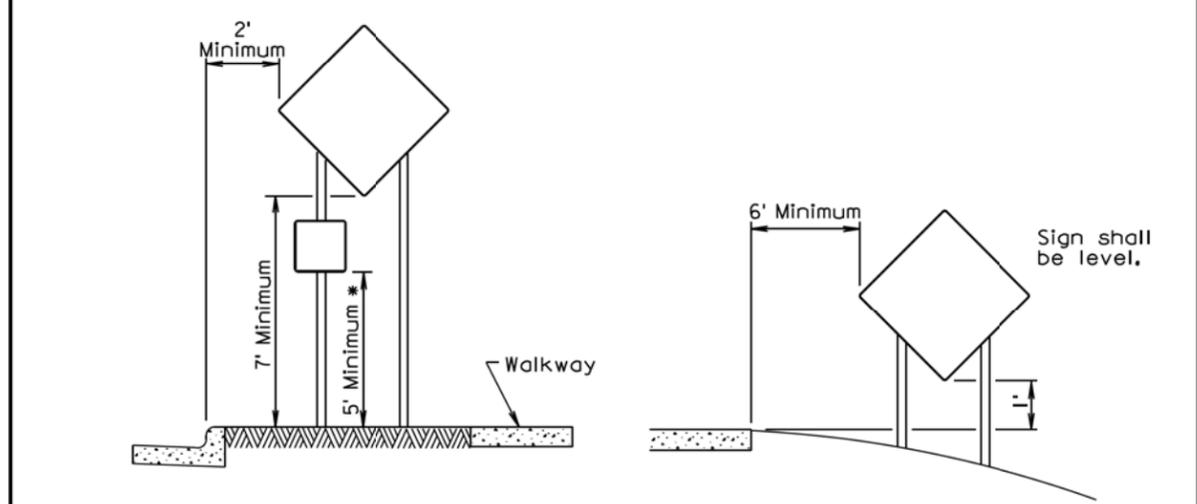
PLOT NAME - 2

FILE - ... \STAND04V2\STANDARD PLATES.DGN



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

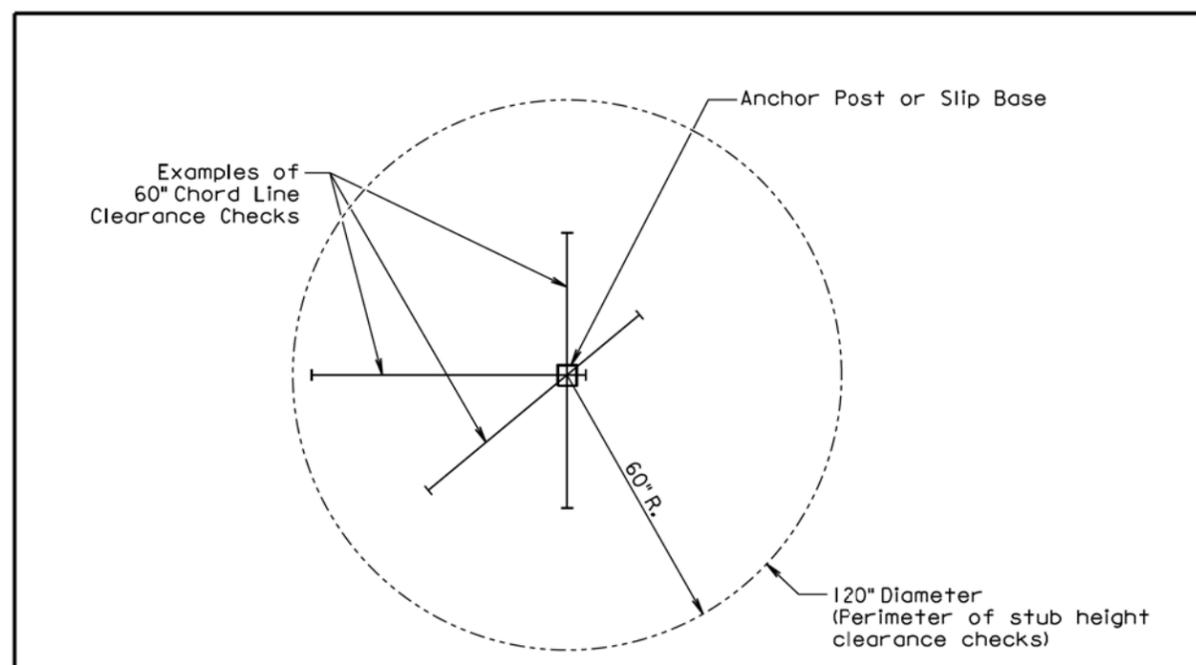
RURAL DISTRICT 3 DAY MAXIMUM

\* 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.

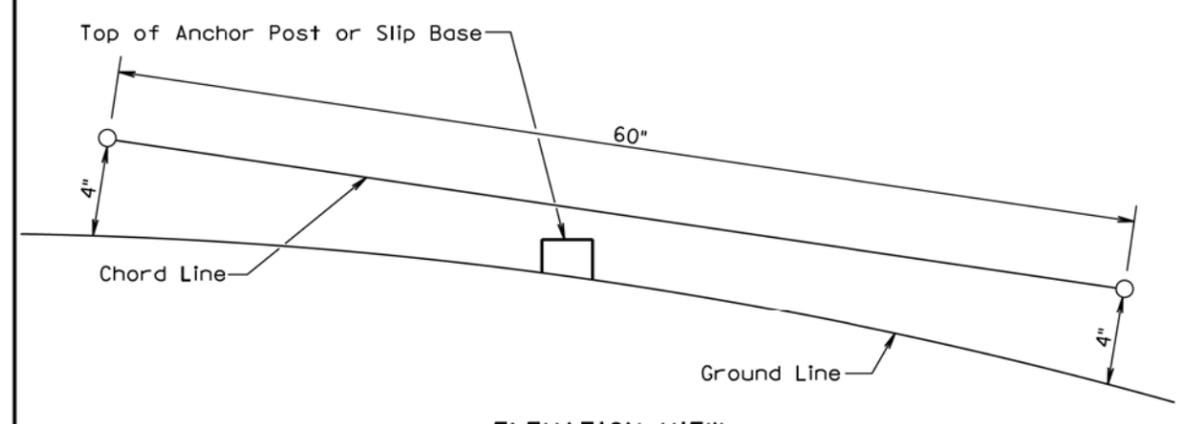
(Not applicable to regulatory signs)

September 22, 2014

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

-PLOTTED FROM - TRPR25584