

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	P 0063(49)54, +...	1	10

Plotting Date: 01/11/2016

Revised: 1/11/16 RF

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

PROJECT P 0063(49)54 & 3962G
SD HIGHWAY 63
JACKSON & MELLETT
COUNTIES

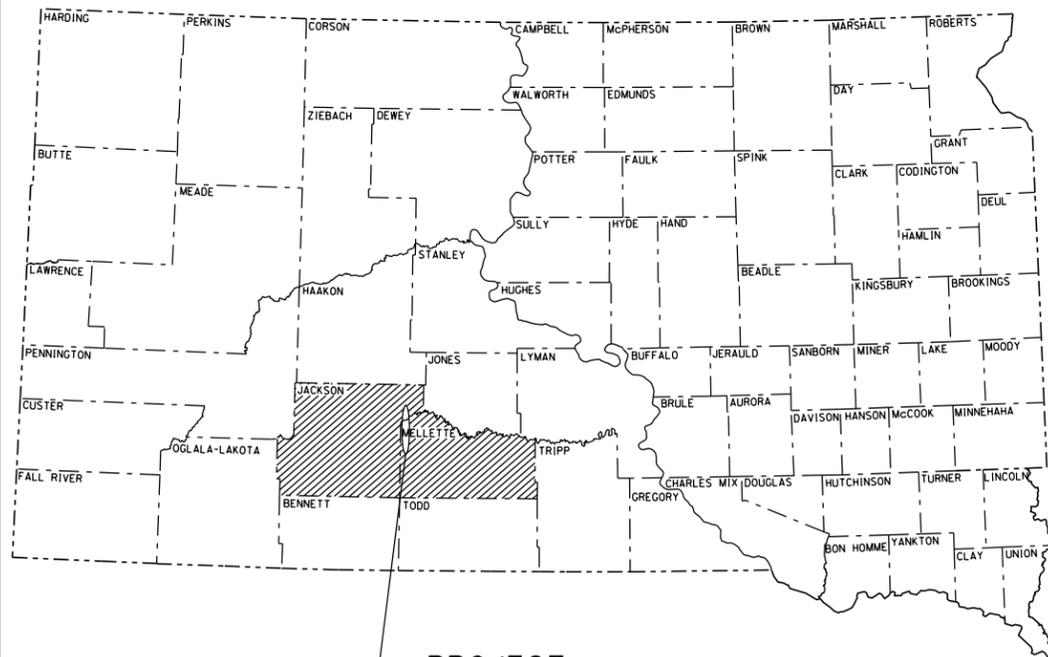
GRAVEL RESURFACING & MAINTENANCE GRAVEL STOCKPILE

PCNS: 054W & i42L

INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
SHEET NOS. 2-6	ESTIMATE OF QUANTITIES & NOTES
SHEET NO. 7	TYPICAL SECTION
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SHEET NOS. 9-10	STANDARD CONSTRUCTION PLATES

PLOT SCALE - 1" = 10890'

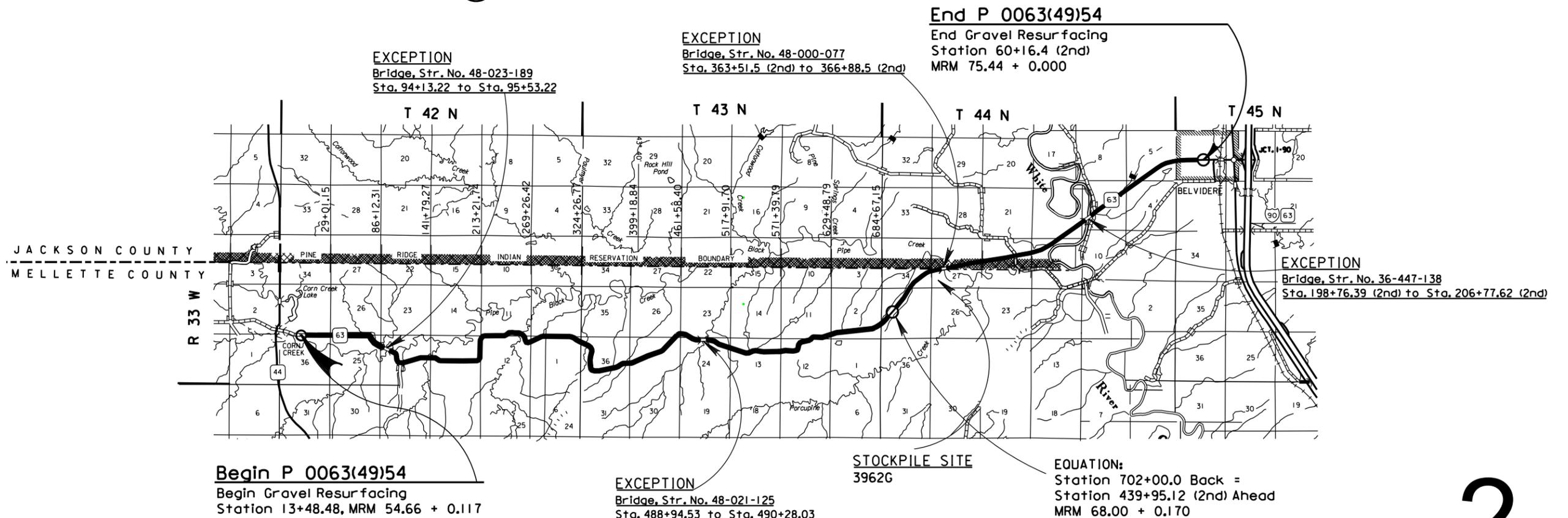


PROJECT



DESIGN DESIGNATION

ADT (2014)	109
ADT (2034)	154
DHV	19
D	52%
T DHV	6.0%
T ADT	13.2%
V	40 MPH



GROSS LENGTH	20.233 MILES
LENGTH OF EXCEPTIONS	0.267 MILES
NET LENGTH	19.966 MILES

STORM WATER PERMIT
NONE REQUIRED

2

PLOTTED FROM - TRW11INT29

PLOT NAME - 1

FILE - ... \TITLE054W.DGN

SHEET OF SHEETS

Estimate of Quantities

P 0063(49)54 – PCN 054W

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
120E0100	Unclassified Excavation, Digouts	1,000	CuYd
120E6200	Water for Granular Material	1,744.0	MGal
210E1005	Surface Preparation	19.966	Mile
260E3010	Gravel Surfacing	79,104.0	Ton
600E0200	Type II Field Laboratory	1	Each
634E0010	Flagging	800.0	Hour
634E0020	Pilot Car	400.0	Hour
634E0110	Traffic Control Signs	580	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

3962G – PCN i42L

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
* 009E0010	Mobilization	Lump Sum	LS
* 260E6000	Granular Material, Furnish	5,000.0	Ton
* 270E0210	Haul and Stockpile Granular Material	5,000.0	Ton
* 634E0110	Traffic Control Signs	32	SqFt
* 634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

* - Denotes Non-Participating

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 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 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 B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

ENVIRONMENTAL COMMITMENTS - CONTINUED

COMMITMENT C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

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 Highway, Road, and Railway 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 State 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 State 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.

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 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 review of cultural resources impacts. 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 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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 0063(49)54, +...	4	10

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES - CONTINUED

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 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 shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

SURFACING THICKNESS DIMENSIONS

Plans quantity will be applied though the thickness may vary from that shown on the plans.

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

SURFACE PREPARATION

Included in the Estimate of Quantities are 19.966 miles of Surface Preparation to be done prior to the Gravel Surfacing.

The upper 2-4 inches of existing granular material shall be scarified, reworked, shaped, and recompacted to the typical section in accordance with section 260.3. E as directed by the Engineer.

Included in the Estimate of Quantities are 41.0 MGal of Water for Granular Material per mile for shaping and recompaction of the granular material.

UNCLASSIFIED EXCAVATION - DIGOUTS

Included in the Estimate of Quantities are 50 cubic yards of Unclassified Excavation – Digouts per mile for the necessary removal of unstable material.

Included in the Estimate of Quantities is 2,000 ton of Gravel Surfacing to be used as backfill of Unclassified Excavation – Digouts at a rate of 100 ton per mile. Payment will be at the contract unit price per ton for Gravel Surfacing.

Excess Gravel Surfacing not used for the backfilling of digouts will be added to the quantity for Granular Material Furnish and Haul and Stockpile Granular Material. Payment will be at the contract unit price per ton for Granular Material Furnish and Haul and Stockpile Granular Material.

GRAVEL SURFACING

Gravel Surfacing shall be furnished by the contractor and shall have a PI requirement of 1-8. All other requirements of Section 882 shall apply. Gravel Surfacing shall be placed and compacted to the typical section in accordance with section 260.3.E as directed by the Engineer.

GRANULAR MATERIAL, FURNISH (PCN i42L)

Granular Material shall be furnished by the Contractor.

The Granular Material shall be Gravel Surfacing with a PI requirement of 1-8. All other requirements of Section 882 shall apply.

HAUL AND STOCKPILE GRANULAR MATERIAL (PCN i42L)

An estimated 5000 tons of Granular Material, Furnish shall be hauled and stockpiled at a site located 6 miles South of Belvidere on the East side of SD63 (SE ¼ SEC 27 T44N R33W). Contact Greg Ulmer at 605-842-5386 to discuss a location to place the material.

The Contractor shall use a portable platform scale or a stationary commercial scale to weigh the Granular Material, Furnish prior to stockpiling.

The material shall be stockpiled with a stacking conveyor. Equipment will not be allowed on the stockpile. All costs involved with hauling and stockpiling the material shall be incidental to the contract unit price per ton for Haul and Stockpile Granular Material.

Revised: 2/16/16 RF

GENERAL MAINTENANCE OF TRAFFIC - CONTINUED

Additional standard signs, as ordered by the Engineer, shall be available within 2 working days. Failure to provide signs within this time limit will result in Liquidated Damages being assessed in the amount of \$400.00 per Calendar Day. Payment for additional signs will be paid using the contract unit price per square foot for "Traffic Control Signs".

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.

If operations exist where the traveling public will be delayed at a flagging station more than 5 minutes, it is required that the flaggers and pilot car operators all have radio or telephone contact with one another. This equipment is to be used to assist with Traffic movement in the event that an emergency vehicle such as ambulance, police or fire vehicles need to pass through the project in an expedient manner.

The maximum allowed delay at a flagger station shall be 15 minutes. Work zone lengths in the field shall be adjusted accordingly to comply with the maximum allowed delay.

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 Contractor shall furnish, install and maintain Truck Crossing Signs. The exact number and location will be determined on construction. Payment for additional signs will be based on the contract unit price per square foot for "Traffic Control Signs".

The Truck Crossing signs shall be displayed at all times when haul vehicles are hauling material. When the truck haul condition no longer exists, and also during nighttime hours, the signs shall be covered or removed from view.

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. Flat surfaced temporary traffic control devices including, but not limited to; signs, barricades, vertical panels, and direction indicator barricades shall be reflectorized with super/very high intensity reflectorized sheeting meeting the standards of Type XI 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 high intensity reflectorized sheeting meeting the standards of Type IV as defined by AASHTO M 268 (ASTM D4956). All orange colored material shall be fluorescent.

ITEMIZED LIST FOR TRAFFIC CONTROL

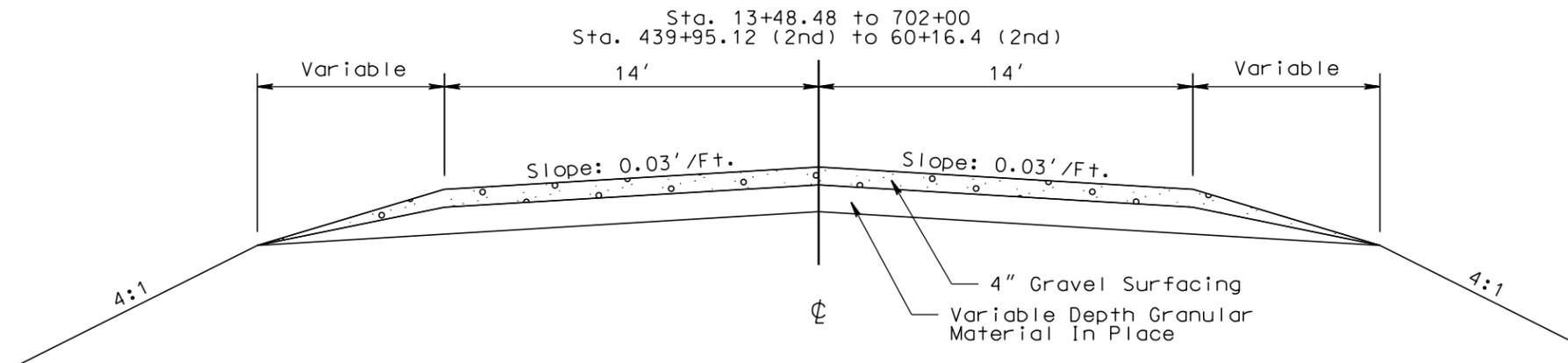
		PCN 054W			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R4-7	KEEP RIGHT (symbol)	4	24" x 30"	5	20
W8-6	TRUCK CROSSING	2	48" x 48"	16	32
W8-7	LOOSE GRAVEL	4	48" x 48"	16	64
SPECIAL	WINDROW	4	48" x 48"	16	64
W16-2P	___ FEET (supplemental distance plaque)	4	30" x 24"	5	20
W20-1	ROAD WORK AHEAD	8	48" x 48"	16	128
W20-4	ONE LANE ROAD AHEAD	4	48" x 48"	16	64
W20-7	FLAGGER (symbol)	4	48" x 48"	16	64
W21-3	ROAD MACHINERY AHEAD	4	48" x 48"	16	64
G20-1	ROAD WORK NEXT ___ MILES	2	36" x 18"	5	10
G20-2	END ROAD WORK	10	36" x 18"	5	50
CONVENTIONAL ROAD					580
TRAFFIC CONTROL SIGNS SQFT					

		PCN i42L			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W8-6	TRUCK CROSSING	2	48" x 48"	16	32
CONVENTIONAL ROAD					32
TRAFFIC CONTROL SIGNS SQFT					

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0063(49)54, +...	7	10

Plotting Date: 01/04/2016

TYPICAL SURFACING SECTION



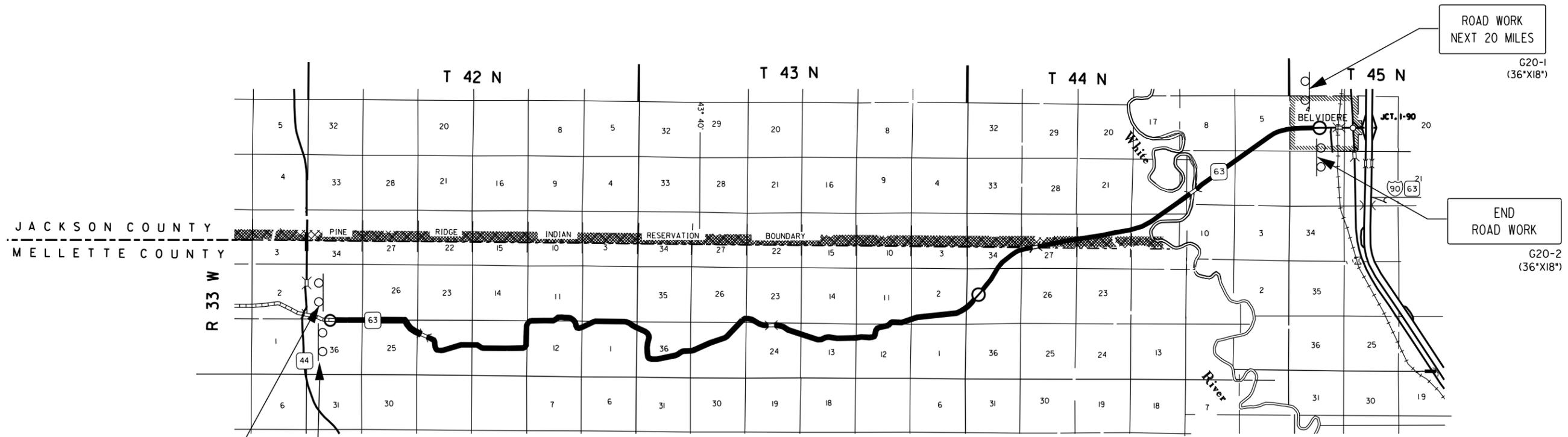
PLOT SCALE - 1:6

PLOT NAME - 1

FILE - ... \DESIGN FILES\TYPICALS.DGN

PLOTTED FROM - TRW11INT29

FIXED LOCATION SIGN LAYOUT



NOTES:

SIGN LOCATIONS WILL BE VERIFIED IN THE FIELD BY THE ENGINEER PRIOR TO INSTALLATION.

FIXED LOCATION SIGNS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR "TRAFFIC CONTROL SIGNS".

END ROAD WORK
G20-2
(36"x18")

ROAD WORK NEXT 20 MILES
G20-1
(36"x18")

ROAD WORK NEXT 20 MILES
G20-1
(36"x18")

END ROAD WORK
G20-2
(36"x18")

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.

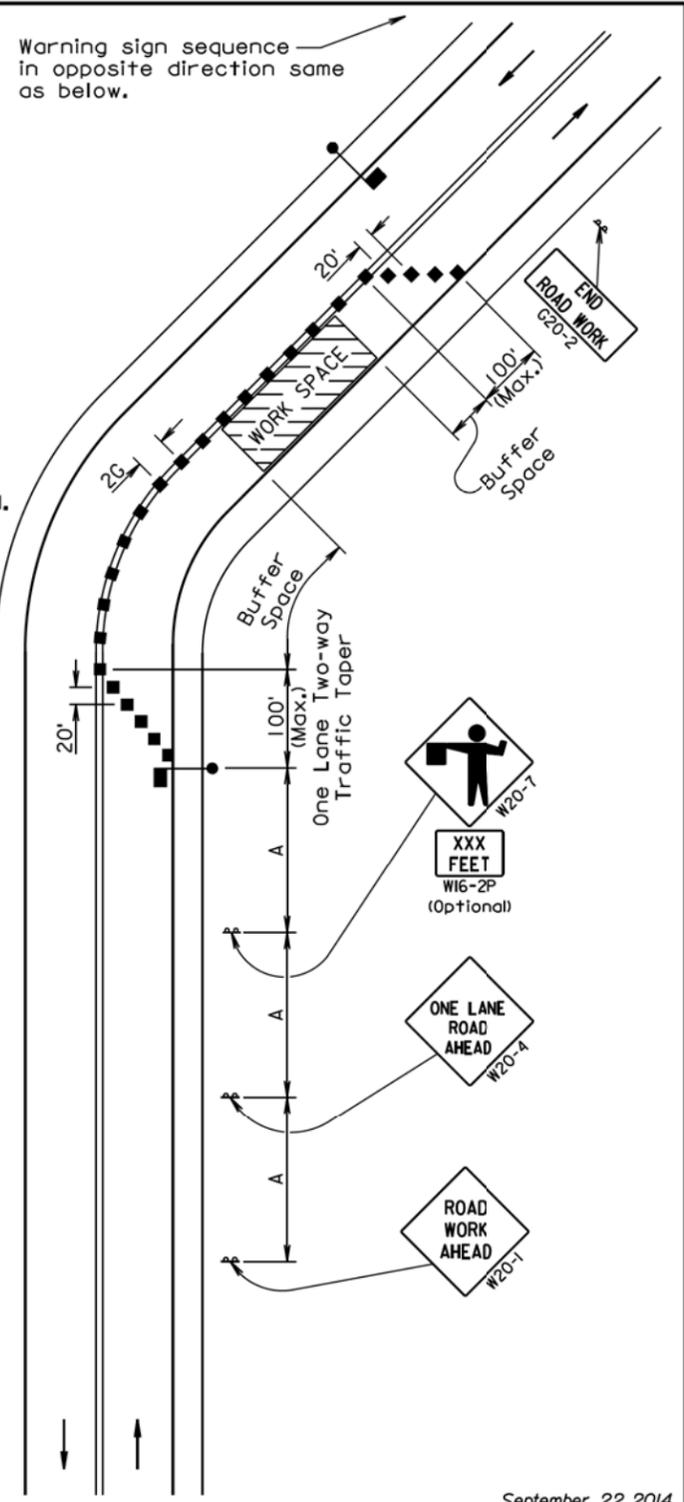
The channelizing devices shall be drums or 42" cones.

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.

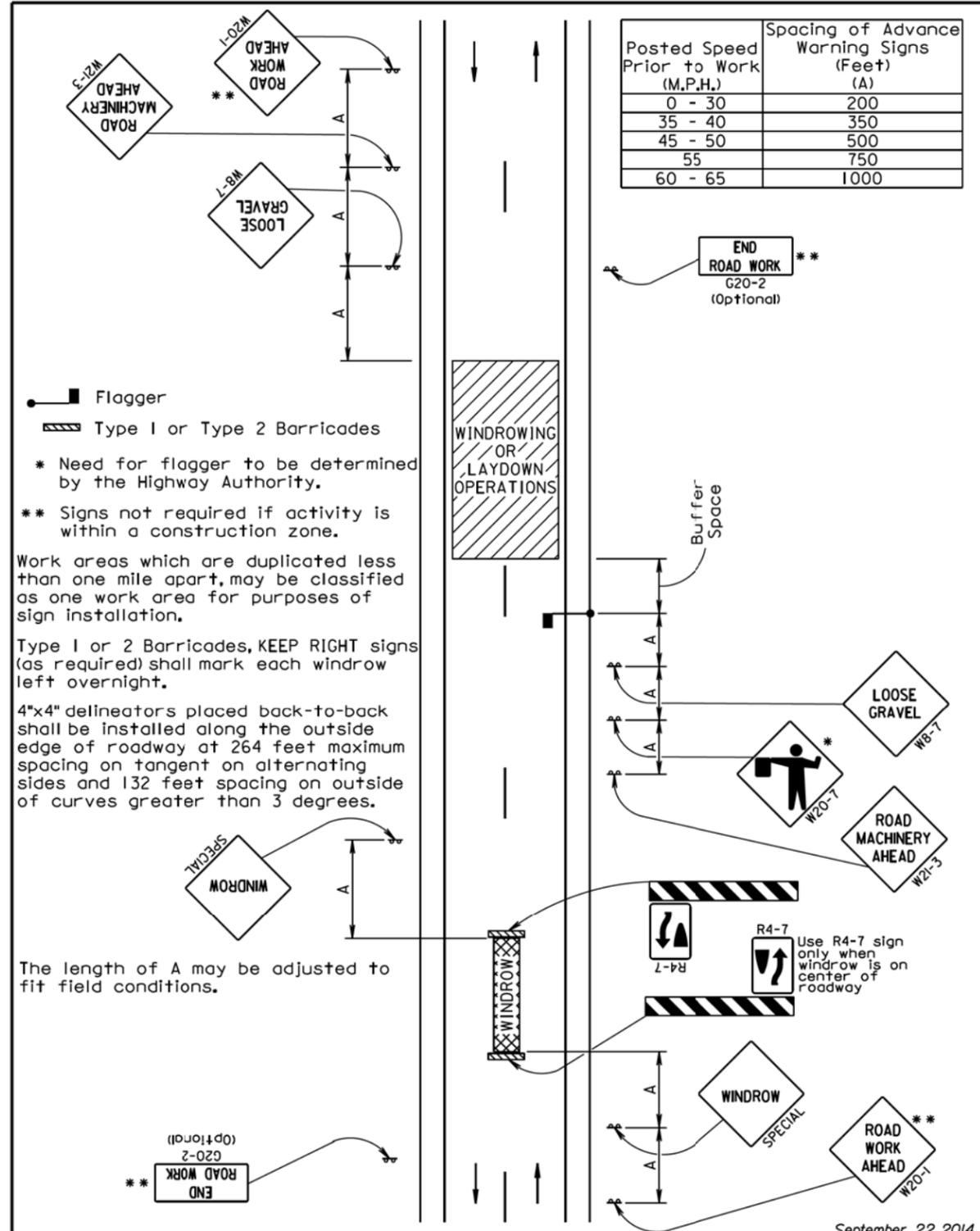
The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

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



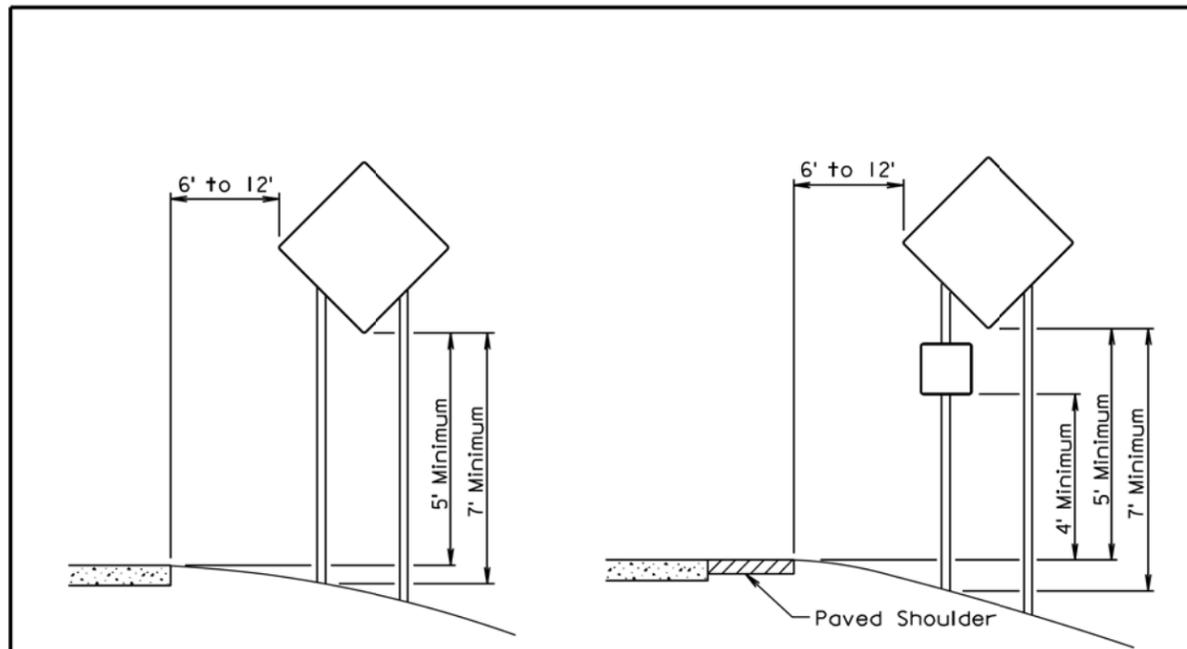
September 22, 2014

S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
	Published Date: 4th Qtr. 2015	Sheet 1 of 1



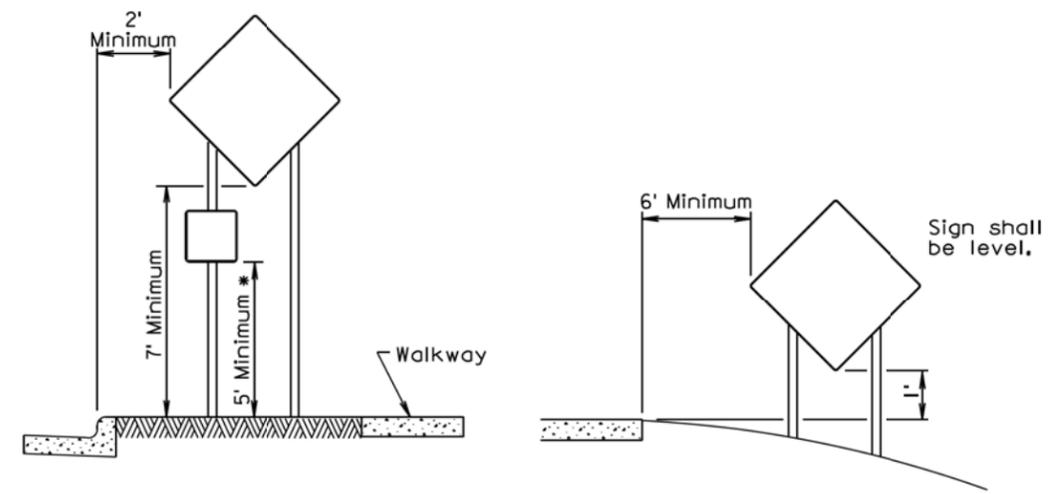
S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WINDROWING OR LAYDOWN OPERATION	PLATE NUMBER 634.27
	Published Date: 4th Qtr. 2015	Sheet 1 of 1

Plot Scale - 1:200



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

RURAL DISTRICT 3 DAY MAXIMUM

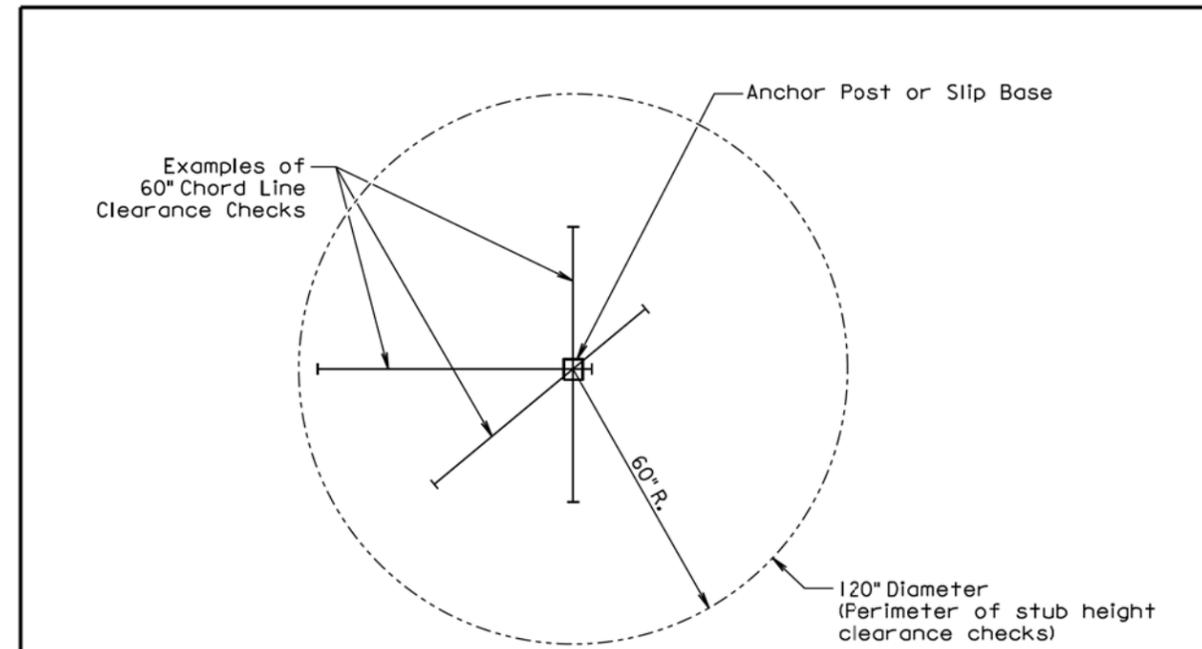
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

(Not applicable to regulatory signs)

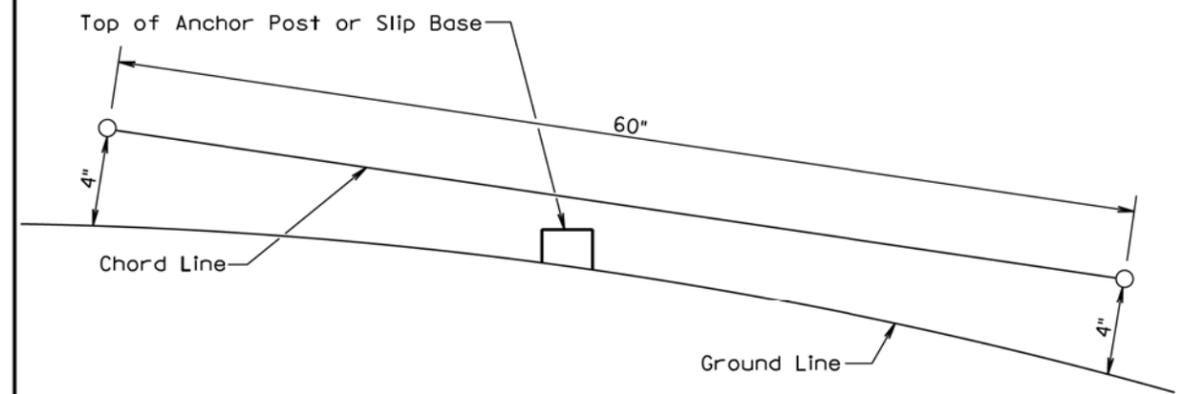
September 22, 2014

S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
		Sheet 1 of 1

Published Date: 4th Qtr. 2015



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

S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
		Sheet 1 of 1

Published Date: 4th Qtr. 2015

- Plotted From - tw11m29

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