

Plotting Date: 12/26/2013

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

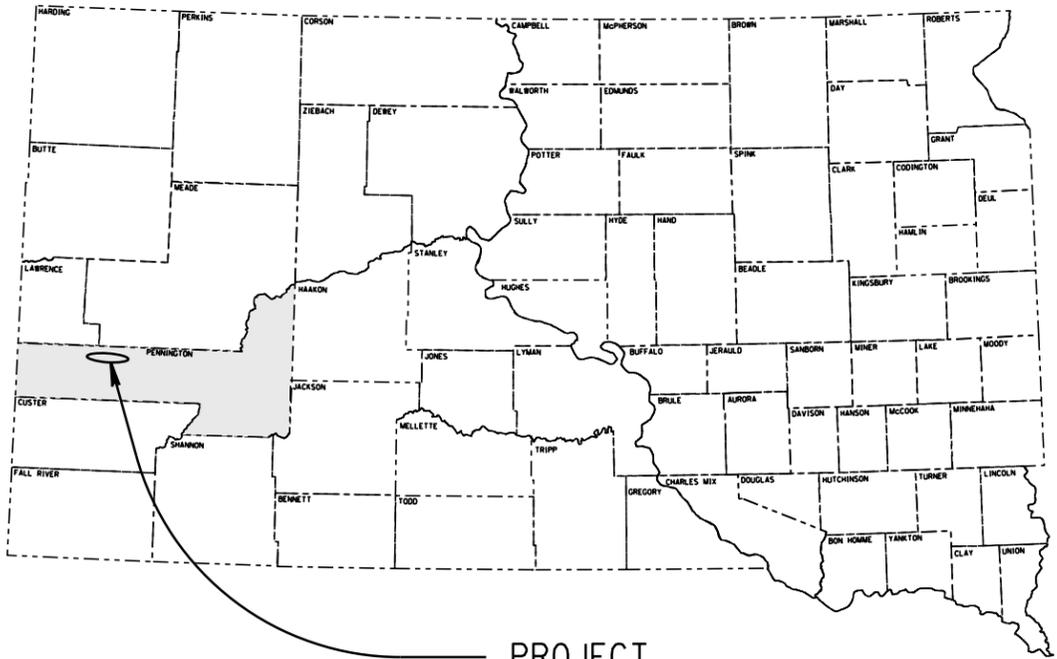
PLANS FOR PROPOSED
PROJECT NH-P 0044(172)26
SD HIGHWAY 44
PENNINGTON COUNTY

COLD MILLING ASPHALT CONCRETE,
ASPHALT CONCRETE RESURFACING,
AND SLOPE FLATTENING
PCN 038C

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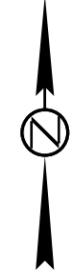
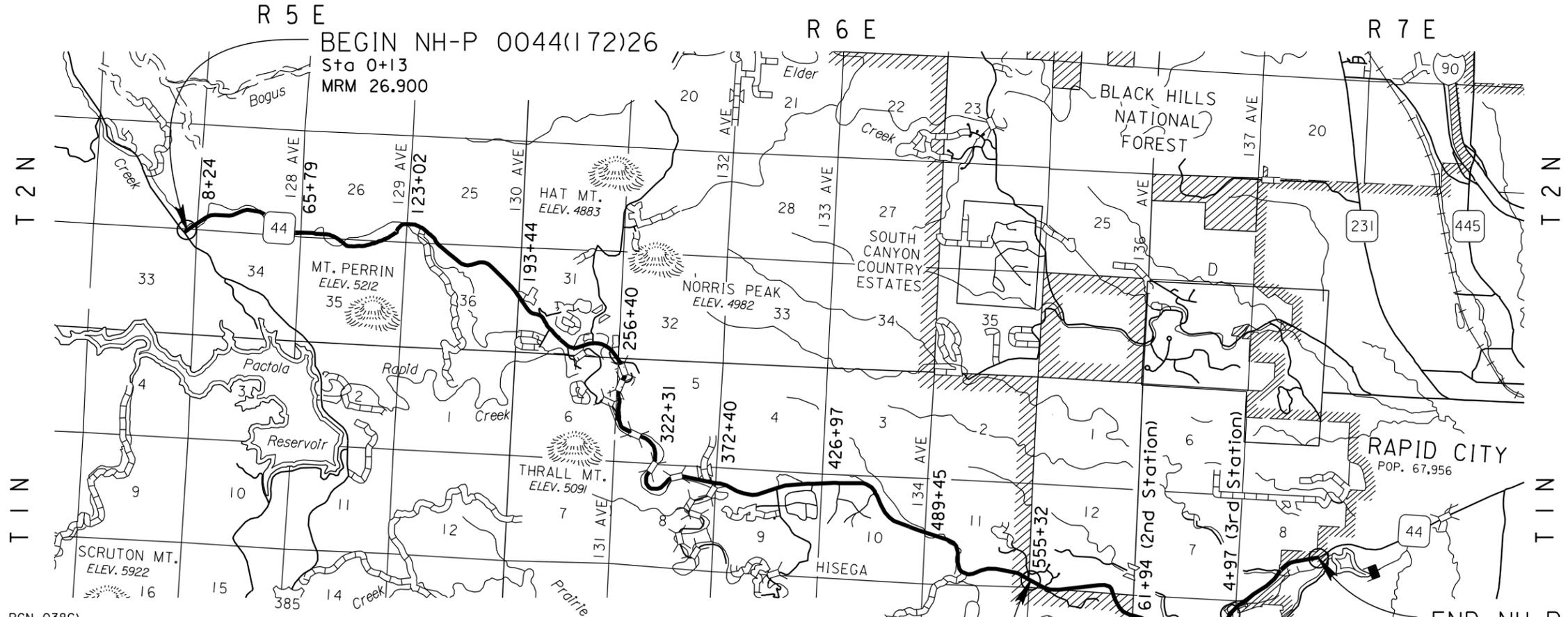
PLOT SCALE - 1:200



PROJECT

DESIGN DESIGNATION (SD 44)

ADT (2012)	2394
ADT (2032)	4031
DHV	791
D	51%
T DHV	2.3%
T ADT	5.0%
V	50 MPH



STORM WATER PERMIT (SD 44, PCN 038C)

Major Receiving Body of Water:	Deer Creek and Rapid Creek
Area Disturbed:	3.4 acres
Total Project Area:	84.9 acres
Approx. Begin Lat/Long	44.0959/-103.5168

GROSS LENGTH	73855.0 FEET	14.007 MILES
LENGTH OF EXCEPTIONS	314.0 FEET	0.059 MILES
NET LENGTH	73541.0 FEET	13.948 MILES

EQUATION
Sta 557+10 Bk =
Sta 0+00 Ah

EQUATION
Sta 124+43 Bk =
Sta 0+00 Ah

END NH-P 0044(172)26
Sta 58+15 (3rd Station)
MRM 40.97

9

PLOTTED FROM - TRRC11951

FILE - ... \PRJ\PENNH038C\DESIGN\TITLE.DGN

PLOT NAME - 2

ESTIMATE OF QUANTITIES

ESTIMATE OF QUANTITIES

Revised: 3/19/2014 jpr

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
100E0020	Clear and Grub Tree	90	Each
100E0100	Clearing	Lump Sum	LS
110E0135	Remove Delineator	732	Each
110E0300	Remove Concrete Curb and Gutter	376	Ft
110E0420	Remove Drop Inlet Frame and Grate Assembly	1	Each
110E0600	Remove Fence	650	Ft
110E1120	Remove Concrete Median Pavement	86.0	SqYd
110E1140	Remove Concrete Sidewalk	40.0	SqYd
110E4105	Salvage High Tension Cable Guardrail	7,838	Ft
110E4115	Salvage High Tension Cable Guardrail Anchor Assembly	19	Each
110E4330	Salvage W Beam Guardrail	5,100.0	Ft
110E5020	Salvage Traffic Sign	489	Each
110E6230	Remove W Beam Guardrail for Reset	50.0	Ft
110E6269	Remove W Beam Guardrail End Terminal for Reset	4	Each
110E6270	Remove W Beam Guardrail Flared End Terminal for Reset	27	Each
120E0010	Unclassified Excavation	1,535	CuYd
120E0100	Unclassified Excavation, Digouts	696	CuYd
120E0600	Contractor Furnished Borrow	985	CuYd
120E1150	Rock Excavation	2,194	CuYd
120E6200	Water for Granular Material	42.1	MGal
120E7100	Select Rock Fill Material	266	CuYd
230E0020	Placing Contractor Furnished Topsoil	400	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
250E0020	Incidental Work, Grading	Lump Sum	LS
260E1050	Base Course, Salvaged Asphalt Mix	4,044.4	Ton
* 260E6000	Granular Material, Furnish	17,063.4	Ton
* 270E0200	Blend, Haul, and Stockpile Granular Material	34,126.8	Ton
280E0010	Process In Place Surfacing	216	SqYd
320E0008	PG 64-34 Asphalt Binder	1,308.4	Ton
320E1090	Modified Class S Asphalt Concrete	22,559.8	Ton
320E1200	Asphalt Concrete Composite	3,585.0	Ton
320E3100	Stabilizing Additive for Asphalt Concrete	59.1	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	10.1	Mile
320E7032	Grind 12" Centerline Rumble Stripe in Asphalt Concrete	1.3	Mile
330E0010	MC-70 Asphalt for Prime	16.0	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	68.7	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	2.1	Ton
332E0010	Cold Milling Asphalt Concrete	304,744	SqYd
380E6110	Insert Steel Bar in PCC Pavement	20	Each
450E4759	18" CMP 16 Gauge, Furnish	6	Ft
450E4760	18" CMP, Install	6	Ft
450E4809	48" CMP 16 Gauge, Furnish	182	Ft
450E4810	48" CMP, Install	182	Ft
450E5010	18" CMP Elbow, Furnish	1	Each
450E5011	18" CMP Elbow, Install	1	Each
450E5035	48" CMP Elbow, Furnish	6	Each
450E5036	48" CMP Elbow, Install	6	Each
450E5100	CMP Tee, Furnish	1	Each
450E5101	CMP Tee, Install	1	Each
450E5231	48" CMP Flared End, Furnish	2	Each
450E5232	48" CMP Flared End, Install	2	Each
450E5326	48" CMP Sloped End, Furnish	4	Each
450E5327	48" CMP Sloped End, Install	4	Each
450E5539	36" CMP Arch 16 Gauge, Furnish	150	Ft
450E5540	36" CMP Arch, Install	150	Ft
450E6020	36" CMP Arch Safety End, Furnish	3	Each

Bid Item Number	Item	Quantity	Unit
450E6023	36" CMP Arch Safety End, Install	3	Each
600E0200	Type II Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	650	Ft
620E1020	2 Post Panel	10	Each
630E1010	Straight Class A W Beam Guardrail with Wood Posts	10,275.0	Ft
630E2015	W Beam Guardrail Flared End Terminal	15	Each
630E2110	Beam Guardrail Post and Block	1,931	Each
630E5160	Reset W Beam Rail	50.0	Ft
630E5207	Reset W Beam Guardrail Flared End Terminal	27	Each
630E5209	Reset W Beam Guardrail End Terminal	4	Each
632E1320	2.0"x2.0" Perforated Tube Post	2,553.0	Ft
632E1340	2.5"x2.5" Perforated Tube Post	233.0	Ft
632E2022	4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post	781	Each
632E2028	4" Tubular White Delineator with 1.12 Lb/Ft Post	124	Each
632E2220	Guardrail Delineator	139	Each
632E2510	Type 2 Object Marker Back to Back	155	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	260.2	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	1,696.0	SqFt
632E3520	Remove, Salvage, Relocate, and Reset Traffic Sign	5	Each
633E0010	Cold Applied Plastic Pavement Marking, 4"	200	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	200	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	4	Each
633E0046	Cold Applied Plastic Pavement Marking, Lane Reduction Arrow	2	Each
633E1200	Waterborne Pavement Marking Paint with High Grade Polymer, White	695.0	Gal
633E1205	Waterborne Pavement Marking Paint with High Grade Polymer, Yellow	683.0	Gal
633E1300	Pavement Marking Paint, White	11.0	Gal
633E1305	Pavement Marking Paint, Yellow	59.0	Gal
633E1445	Pavement Marking Paint, Arrow	22	Each
633E1452	Pavement Marking Paint, Lane Reduction Arrow	2	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	200	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	200	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	4	Each
633E5100	Grooving for Durable Pavement Marking, 4"	211,200	Ft
633E5131	Grooving for Durable Pavement Marking, Lane Reduction Arrow	2	Each
634E0010	Flagging	1,800	Hour
634E0020	Pilot Car	450	Hour
634E0100	Traffic Control	2,303	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0320	Temporary Road Markers	14,000	Mile
634E0420	Type C Advance Warning Arrow Panel	2	Each
634E0630	Temporary Pavement Marking	14.0	Mile
634E0806	Groove 4" Wide Rumble Strip	418	Ft
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
650E0090	Type B69 Concrete Curb and Gutter	222	Ft
651E0040	4" Concrete Sidewalk	489	SqFt
651E7000	Type 1 Detectable Warnings	50	SqFt
670E5205	Special Grate	39	Each
670E5300	3' x 4' Drop Inlet Cover	1	Each
671E7010	Adjust Manhole	1	Each

ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
730E1200	Hydroseeding	16,043	SqYd
731E0100	Fertilizing	4,972	Lb
732E0550	Fiber Reinforced Matrix	9,944	Lb
734E0131	Type 1 Turf Reinforcement Mat	36.0	SqYd
734E0154	12" Diameter Erosion Control Wattle	1,295	Ft
734E0510	Shaping for Erosion Control Blanket	32	Ft
734E0906	Temporary Stream Diversion for Pipe Culvert Extension	3	Each
900E0010	Refurbish Single Mailbox	19	Each
900E0012	Refurbish Double Mailbox	16	Each

* - Denotes Non-Participating

SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or 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 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 D: WATER QUALITY STANDARDS

COMMITMENT D2: SURFACE WATER DISCHARGE

Deer Creek and Rapid Creek are classified as cold water marginal fisheries with a Surface Water Discharge standard of 90 milligrams/liter total suspended solids.

Action Taken/Required:

If construction dewatering is required, the Contractor shall obtain a Temporary Discharge Permit from the DENR and provide a copy to the Project Engineer. Contact the DENR Surface Water Program at 605-773-3351 to apply for a permit.

COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance.

Action Taken/Required:

The DENR and the US Environmental Protection Agency (EPA) have issued separate general permits for the discharge of storm water runoff. The DENR permit applies to discharges on state land and the EPA permit applies to discharges on federal or reservation land. The Contractor is advised this project is regulated under the Phase II Storm Water Regulations and must receive coverage under the General Permit for Construction Activities. A Notice of Intent (NOI) will be submitted to DENR a minimum of 15 days prior to project start by the DOT Environmental Office. A letter must be received from DENR that acknowledges project coverage under this general permit before project start. The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

The Contractor shall adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State".

A major component of the storm water construction permits is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which is a joint effort and responsibility of the SDDOT and the Contractor. Erosion control measures and best management practices will be implemented in accordance with the SWPPP. The SWPPP is a dynamic document and is to be available on-site at all times.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT: <http://sddot.com/transportation/highways/environmental/stormwater/Default.aspx>

DENR: <http://www.denr.sd.gov/des/sw/stormwater.aspx>

EPA: http://cfpub.epa.gov/npdes/home.cfm?program_id=6

Contractor Certification Form:

The "Department of Environmental and Natural Resources – Contractor Certification Form" (SD EForm – 2110LDV1-ContractorCertification.pdf) shall be completed by the Contractor or their certified Erosion Control Supervisor after the award of the contract. Work may not begin on the project until this form is signed.

The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the Project.

The online form can be found at: <http://denr.sd.gov/des/sw/eforms/E2110LDV1-ContractorCertification.pdf>

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 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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	4	120

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES (CONTINUED)

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.

COMMITMENT K: RAPID CITY AREA AIR QUALITY CONTROL ZONE

Administrative Rule of South Dakota (ARSD) 74:36:18:03 states that "no state facility or state contractor may engage in any construction activity or continuous operation activity within the Rapid City air quality control zone which may cause fugitive emissions of particulate to be released into the ambient air without first obtaining a permit issued by the board or the secretary."

Construction activity is defined as any temporary activity at a state facility, which involves the removal or alteration of the natural or pre-existing cover of one acre or more of land. One acre of surface area is based on a cumulative area of disturbance to be completed for the entire project. Construction activity shall include, but not be limited to, stripping of topsoil, drilling, blasting, excavation, dredging, ditching, grading, street maintenance and repair, or earth moving. Construction activity is generally completed within one year. It also includes stockpiles, access roads, and disposal areas. An off-site disposal area of excess material will require an additional permit.

Action Taken/Required:

In order to be considered eligible for authorization to conduct a construction activity under the terms and conditions of this permit, the owner operator must submit a Notice of Intent (NOI) form. The form must be submitted to the address below at least seven business days prior to the anticipated date of beginning the construction activity.

South Dakota Department of Environment and Natural Resources Air Quality Program
523 East Capitol, Joe Foss Building
Pierre, SD 57501-3181
Phone: 605-773-3151

The permit requires the Contractor to use reasonably available technology to control fugitive dust emissions. The Contractor is required to use control measures for track out, paved areas, unpaved roads, unpaved parking lots, disturbed areas, and for material handling and storage. The control measures that the Contractor is required to use are listed in the permit.

COMMITMENT N: SECTION 404 PERMIT

The SDDOT has obtained a Section 404 Permit from the US Army Corps of Engineers for the permanent actions associated with this project.

Action Taken/Required:

The Contractor shall comply with all requirements contained in the Section 404 permit.

The Contractor shall also be responsible for obtaining a Section 404 permit for any dredge, excavation, or fill activities associated with staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands or waters of the United States.

COMMITMENT R: FIRE PREVENTION IN THE BLACK HILLS AREA

This project is located within the confines of the Black Hills Forest Fire Protection Boundary.

Action Taken/Required:

The Contractor shall adhere to the "Special Provision for Fire Plan".

CLEARING

Before clearing activities begin, the Contractor shall contact the Engineer to determine the limits of clearing for the project. If the trees or shrubs that are suppose to remain within the limits of work are damaged or destroyed by the Contractor, the Contractor shall replace them with the same size and type at the Contractor's expense.

There is a total of 90 trees larger than 6" in diameter that shall be removed near the work located at MRM 28.3

CLEARING AND DISPOSAL OF TIMBER

A. U.S. Forest Service Land

The Contractor shall dispose of the brush and timber. The State will pay the U.S. Forest Service for the merchantable timber on the project. The Contractor shall check with the State to make sure this payment has been made before the start of construction operations. Upon receipt of the payment for all merchantable timber, as described by the construction limits, shall become the property of the Contractor and either removed from Forest Service lands or disposed of as unmerchantable timber. Prior to removal of the merchantable timber, Forest Service log accountability requirements as outlined in the Forest Service timber sale contract clause CT5-842 shall be followed. Information in the clause will be furnished upon request from the Forest Service.

Merchantable timber shall be defined as any species of tree that is 8" in diameter, chest high.

Temporary decking locations outside the construction limits shall be approved by the District Ranger before its use.

Slash and non-merchantable timber shall be disposed of by chipping, burning, or burying. All residue from chipping or burning shall be buried. Burial pits shall be at locations approved by the District Ranger. The Contractor shall follow the prescribed burning provisions of the Fire Plan in his/her preparation for and conduction of all burning operations. The location of slash piles and all other aspects of slash disposal by burning must be approved in advance by the District Ranger.

Stumps from right-of-way clearing shall be buried at locations approved by the District Ranger.

TYPE II FIELD LABORATORY

The lab shall be equipped with an internet connection such as DSL, cable modem, or other approved service. The internet connection shall be provided with a multi-port wireless router. The internet connection shall be a minimum speed of 512 Kb unless limited by job location and approved by the DOT. Prior to installing the wireless router the Contractor shall submit the wireless router's technical data to the Area Office to check for compatibility with the state's computer equipment. The internet connection is intended for state personnel usage only. The Contractor's personnel are prohibited from using the internet connection unless pre-approved by the Project Engineer.

The Contractor shall submit a copy of each monthly bill for calls charged to this phone at the end of each month. The Project Engineer will then audit the bills to ensure all calls are legitimate and then initiate a Construction Change Order (CCO) to reimburse the Contractor for the actual phone calls made, including local and long distance calls. Reimbursement will not be made for fees associated with the purchase, installation, disconnection, monthly line charges, and incidentals involved in the installation, maintenance, and disconnection of the phone (including attachments). These items shall be incidental to the contract unit price per each for "Type II Field Laboratory".

UTILITIES

The Contractor shall contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It shall be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities.

Utilities are not planned to be affected on this project. If utilities are identified near the improvement area through the SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25, the Contractor shall contact the Project Engineer to determine modifications that will be necessary to avoid utility impacts.

ROCK EXCAVATION

The backslope excavation at MRM 28.3 L&R is classified as "Rock Excavation". The estimated quantity is 2194 cubic yards. The Contractor shall inspect the location prior to preparing the bid to determine the method necessary for excavation. This rock excavation shall be used as fill alongside of the highway. It is estimated that this rock excavation will not be enough material to complete the slope flattening work at MRM 28.3. Contractor Furnished Borrow material shall be used to finish the slope flattening work and cover all the rock at this location. All costs associated with this work shall be incidental to the contract unit price per cubic yard for "Rock Excavation"

UNCLASSIFIED EXCAVATION

Unclassified Excavation is provided on the project for removing excess material adjacent to the asphalt surfacing, so that new surfacing materials can be installed in accordance with the typical sections. This excess material shall be handled as waste. The estimate of quantities provides 1,535 cubic yards of Unclassified Excavation for performing this work.

All excavation along the existing surfacing edge shall be performed, so that a shoulder drop off does not exist adjacent to lanes open to the traveling public. The Contractor shall provide a temporary 3:1 slope adjacent to the existing surfacing if the excavation and placement of milled material cannot be completed prior to nightfall. All costs associated with providing and removing this temporary slope shall be incidental to the various bid items on the project.

Plans quantity shall be the basis of payment for the Unclassified Excavation quantity. If changes are made in the field during construction, measurements shall be taken and the quantity shall be adjusted accordingly.

CONTRACTOR FURNISHED BORROW

The Contractor shall provide a suitable site for Contractor furnished borrow material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site, prior to disturbance of the area. Excess material generated from the Unclassified Excavation work may be used as Contractor Furnished Borrow. The borrow material shall be approved by the Engineer.

Restoration of the Contractor furnished borrow site shall be the responsibility of the Contractor.

TABLE OF CONTRACTOR FURNISHED BORROW

MRM	L/R	Contractor Furnished Borrow CUYD
28.300	L	298
37.800	L	166
38.100	R	511
40.247	R	10
Total		985

INCIDENTAL WORK, GRADING

MRM	Side (L/R)	Description
27.7	R	Take Out 18" CMP End Section
27.7	R	Take Out Twin 48" CMP End Sections
28.290	L	2+00 L Take Out Triple 36" CMP End Sections
28.290	L & R	4+75 & 5+25, Remove damaged portions of 48" CMP
40.247	R	Idlehurst Drive, Remove existing retaining wall as needed for sidewalk installation. Breakout walls of drop inlet for surfacing and installation of drop inlet cover.
40.596	R	Fish Hatchery, Remove existing retaining wall as needed for sidewalk installation.

STEEP SLOPE EMBANKMENT CONSTRUCTION

Embankments with slopes steeper than 4:1 shall be continuously benched as the embankment is built in horizontal layers. Benching shall be of sufficient width to permit operations of placing and compacting equipment. Each horizontal cut shall begin at the intersection of the original ground and the vertical sides of the previous cuts. Excavated benching material shall be recompacted along with the new embankment material.

SELECT ROCK FILL MATERIAL

The Contractor shall provide a suitable site for Select Rock Fill Material. The Contractor is responsible for obtaining all required permits and clearances for the site.

The embankment at MRM 27.7 R, SD 44 with 2:1 slopes shall be constructed of poorly sorted, well graded, rock fill material consisting of at least 50% rock (8 inch minus) with an adequate amount of soil to provide compaction. If borrow material fails to meet these criteria and/or consists of predominantly soil, additional rock shall be added to the embankment to achieve the desired consistency or another borrow source shall be identified that meets the criteria for steep slope embankment construction. Acceptance of rock fill material shall be by visual inspection. The estimated quantity for performing this work is 266 cubic yards.

Restoration of the Contractor furnished site shall be the responsibility of the Contractor.

Payment for Select Rock Fill Material will be full compensation for excavation and furnishing the material on the project, construction and compaction of embankments, shaping slopes in accordance with the plans and restoration of the pit. All costs associated with this work shall be incidental to the contract unit price per cubic yard for Select Rock Fill Material.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	6	120

Revised: 3/19/2014 jpr

SAWING EXISTING ASPHALT CONCRETE

Where new asphalt concrete is placed adjacent to existing asphalt concrete or portland cement concrete the existing asphalt concrete or portland cement concrete shall be sawed full depth to a true line with a vertical face. Saw cutting will not be required at locations where cold milling is used to match existing surfacing elevations.

No separate payment shall be made for sawing and shall be incidental to the various asphalt concrete bid items on the project.

SURFACING THICKNESS DIMENSIONS

Plans tonnage shall be applied even though the thickness may vary from that shown in the plans. At those locations where material must be placed to achieve a required elevation, plans tonnage may be varied to achieve the required elevation.

INTERSECTING ROADS AND ENTRANCES

Intersecting roads and entrances shall be satisfactorily cleared of vegetation, shaped, milled and compacted prior to placement of mainline surfacing. This work shall be considered incidental to the various bid items on the project.

EXCAVATION OF UNSTABLE MATERIAL

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

Backfill shall be 8" of Base Course, Salvaged Asphalt Mix and 6" Asphalt Concrete Composite paid for at the contract unit price per ton.

BASE COURSE, SALVAGED ASPHALT MIX

Base Course, Salvaged Asphalt Mix shall be obtained from the milled material produced on this project.

Compaction of the Base Course, Salvaged shall be to the satisfaction of the Engineer.

The contract unit price per ton for Base Course, Salvaged Asphalt Mix shall include loading, hauling, placing, and compacting the cold milled material.

COLD MILLING ASPHALT CONCRETE

Loose material resulting from the cold milling shall be immediately picked up, and stockpiled for use as Base Course, Salvaged Asphalt Mix.

Cold Milling Asphalt Concrete shall be performed as shown in the typical sections and as necessary at the limits of the project or at structures, so that the top mat of the new asphalt surfacing can match existing surface elevations. The cold milling depth shall be transitioned over a distance of 100' per inch of surfacing depth when matching existing surface elevations. The milling depths might vary along the transition distance due to irregularities in the surface to obtain smoothness.

Cold Milling on entrances, intersecting roads, and mailbox turnouts shall match the cross slope of mainline.

The Los Angeles Abrasion Loss value on the aggregate used for the in place asphalt concrete was 26 percent. This value was obtained from testing during construction of the in place asphalt concrete.

Cold milling asphalt is estimated to produce 21,107.8 tons of salvaged asphalt concrete. An estimated 4,044.4 tons of salvaged asphalt concrete will be used as Base Course, Salvaged Asphalt Mix. The remaining salvaged asphalt concrete estimated at 17,063.4 tons shall be hauled and stockpiled near Exit 52, Section 5, Township 2N, Range 7E; N ½ SW ¼, South and West of LOT H2, East of Railroad and South of I-90, as directed by the Engineer.

GRANULAR MATERIAL, FURNISHED

Granular Material shall be furnished by the Contractor for use in blending with the salvaged asphalt mix material from this project.

The Granular Material shall be Base Course meeting the requirements of Section 882.

BLEND, HAUL & STOCKPILE GRANULAR MATERIAL

Asphalt mix material estimated at 17,063.4 tons (for informational purposes only) shall be blended with 17,063.4 tons of Granular Material, Furnished and shall be hauled, blended and stockpiled near Exit 52, Section 5, Township 2N, Range 7E; N ½ SW ¼, South and West of LOT H2, East of Railroad and South of I-90, as directed by the Engineer. A computerized scale along with a scale operator shall be provided by the Contractor at the stockpile site to weigh the salvaged material prior to blending.

Asphalt mix material shall be blended with Granular Material, Furnished at a rate of 50% salvaged asphalt mix material and 50% Granular Material, Furnished to obtain stockpile material. Prior to incorporation into the stockpile, cold milled asphalt material shall be run over a 1 ½" screen to remove large chunks. No further testing of the material will be required. The use of a pugmill to blend the materials will be accepted.

Calibrated conveyor(s) shall be used to provide a uniform blending of the materials. Material shall be blended prior to incorporation into the pile.

All costs for hauling, stockpiling, and blending asphalt mix material and Granular Material, Furnished shall be incidental to the contract unit price per ton for "Blend, Haul & Stockpile Granular Material".

CHECKING SPREAD RATES

The Contractor shall be responsible for checking the Asphalt Concrete Surfacing and Base Course spread rates and take the weigh delivery tickets as the surfacing material arrives on the project and is placed onto the roadway.

The Contractor shall compute the required spread rates for each typical surfacing section and create a spread chart prior to the start of material delivery and placement. The Engineer will review and check the Contractor's calculations and spread charts.

The station to station spread shall be written on each ticket as the surfacing material is delivered to the roadway.

At the end of each day's shift, the Contractor shall verify the following:

- All tickets are present and accounted for,
- The quantity summary for each item is calculated,
- The amount of material wasted if any,
- Each day's ticket summary is marked with the corresponding 'computed by',
- The ticket summary is initialed and certified that the delivered and placed quantity is correct.

All daily tickets and the summary by item shall be given to the Engineer no later than the following morning.

If the checker is not properly and accurately performing the required duties, the Contractor shall correct the problem or replace the checker with an individual capable of performing the duties to the satisfaction of the Engineer. Failure to do so will result in suspension of the work.

The Department will perform depth checks. The Contractor shall be responsible for placement of material to the correct depth unless otherwise directed by the Engineer. If the placed material is not within a tolerance of ±1/4" of the plan shown depth, the Contractor shall correct the problem at no additional cost to the Department. Excess material above the tolerance will not be paid for. Achieving the correct depth may require picking up and moving material or other action as required by the Engineer.

All costs for providing the Contractor furnished checker and performing all related duties shall be incidental to the contract lump sum price for the CHECKER. No allowances will be made to the contract lump sum price for CHECKER due to authorized quantity variations unless the quantities for the material being checked vary above or below the estimated quantities by more than 25%. Payment for the CHECKER shall then be increased or decreased by the same proportion as the placed material quantity bears to the estimated material quantity.

SAFETY EDGE

When specified in the plans an approved longitudinal paver wedge system shall be included to create a sloped safety edge along the outside edge of the asphalt concrete pavement. The wedge system shall be attached to the paver screed and shall compact the hot mixed asphalt pavement (HMA) to a density at least as dense as the compaction imparted to the rest of the HMA by the paving screed.

The system shall provide a sloped Safety Edge equal to 30° plus or minus 5° measured from the extended pavement surface cross slope. The safety edge must be constructed as an integral operation in the paving process and in accordance with the attached Detail.

The use of a single plate strike-off method to construct the safety edge will not be allowed.

The Engineer may allow the Contractor to use handwork for short sections or to saw cut the sloped safety edge after paving operations are complete in areas such as driveways, intersections, and interchanges.

The Contractor shall submit the proposed system for approval by the Engineer at the Preconstruction Meeting. The Engineer may require proof that the system has been used on previous projects with acceptable results or may require a test section to be constructed prior to the beginning of work to demonstrate that it can create an acceptable safety wedge and compaction. Paving shall not begin until the system is approved in writing by the Engineer. The safety edge shall be constructed on each lift of HMA specified in the plans.

The safety edge device shall be attached to the paving machine as recommended by the supplier. The device shall use a spring loaded shoe that constrains the asphalt head, thus increasing the density of the extruded profile. The shoe shall be capable of applying variable pressure to ensure some compaction of the edge during the paving operation. Currently there is a least two manufactures producing equipment that can create a Safety Edge (see list below). The Engineer may permit an approved equal.

Transtech Systems, Inc.
1594 State Street
Schenectady, NY 12304
Phone: 1-800-724-6306 or 1-518-370-5558
www.transtechsys.com

Advant-Edge Paving Equipment LLC
1197 Hillside Avenue, Suite B47
Niskayuria, NY 12309
Phone: 1-518-280-6090
www.advantedgepaving.com

Separate measurement and payment will not be made; all work associated with furnishing and constructing the safety edge shall be incidental to the Asphalt Concrete Placement Bid Item.

MODIFIED CLASS S ASPHALT CONCRETE

Mineral aggregate shall be produced from a crushed ledge rock source and shall be furnished by the Contractor.

Mineral aggregate for Asphalt Concrete Class S shall conform to the following gradation:

Passing 3/4" sieve	100%
Passing 5/8" sieve	97-100%
Passing 1/2" sieve	86-100%
Passing 3/8" sieve	66-80%
Passing No. 4 sieve	24-34%
Passing No. 8 sieve	10-20%
Passing No. 200 sieve	6.0-10.0%

The Class S composite mineral aggregate absorption shall not exceed 1.5 percent for the coarse aggregate (material retained on the number 4 sieve). This requirement will be evaluated at mix design by the SD DOT Bituminous Office using test method SD 210.

If mineral filler is needed to meet the modified Class S Asphalt Concrete gradation requirements for the virgin miner aggregate, the mineral filler will not be considered when calculating the minus 4 (4.75mm) sieve Manufactured Fines specification. Mineral Filler must meet the requirements of Section 880.2.B.2.

A stabilizing additive will be required in the Asphalt Concrete Class S mixture to prevent drain down of the asphalt binder and mineral aggregate. Drain down is that portion of the mixture (fines and asphalt cement) that separates and flows downward through the mixture. The test will be conducted at mix design and then once per day during field production.

Test	Specification	Requirement
Drain Down Sensitivity	AASHTO T 305	0.30% max

The stabilizing additive shall be introduced into the mixture as recommended by the manufacture.

The stabilizer supply system shall be a separate system that proportions the required amount of stabilizer in uniform distribution. The system shall include low level and no-flow indicators and a printout of status of feed rate in lbs/min. The stabilizer supply line shall include a section of transparent pipe for observing consistency of flow or feed. If the stabilizing Additive content falls outside a tolerance of ±10 % by total weight of desired stabilizing additive from the JMF target, the Contractor shall stop production until corrective measures are taken.

Cellulose Fibers only will be allowed as the stabilizing agent.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	7	120

Cellulose fibers shall be added at a dosage rate between 0.2% and 0.4% by weight of the total mix as determined by the mix designer. The fiber stabilizing additives are to conform to the following requirements and be accompanied by a certification upon delivery.

	Requirement
Fiber Length:	.25 inch (6.35 mm) max
Alpine Sieve Analysis	
Passing No. 100 (150µm) sieve	60-80%
Ash Content:	18% non-volatiles (±5%)
pH:	7.5 (±1.0)
Oil Absorption (times fiber weight):	5.0 (±1.0)
Moisture Content:	5.0% max (by weight)

Stabilizing Additive for Asphalt Concrete will be measured to the nearest 0.1 ton (M ton) and paid for at the contract unit price per ton (M ton). All costs for labor, equipment, and materials associated with the addition of the Stabilizing Additive for Asphalt Concrete are incidental to the contract unit bid price for Stabilizing Additive for Asphalt Concrete.

All remaining requirements of the Standard Specifications shall apply.

FLEXIBLE PAVEMENT SMOOTHNESS PROVISION

The Special Provision for Flexible Pavement Smoothness will be followed with the subsequent exception; all horizontal curves will be profiled.

ASPHALT CONCRETE COMPOSITE

Mineral aggregate for the Asphalt Concrete Composite shall conform to the requirements for Class E, Type 1.

All other requirements in the Standard Specifications for Asphalt Concrete Composite shall apply.

The asphalt binder used in the mixture shall be PG 64-22, PG 64-28, or PG 64-34 Asphalt Binder.

Included in the Estimate of Quantities is 200 tons of Asphalt Concrete Composite per mile for spot leveling, strengthening, and repair of the existing surface prior to the overlay.

RUMBLE STRIPS/STRIPES

Rumble Strips/Stripes shall be installed in rural areas as per the attached table. They will not be required in urban areas or where there is development in close proximity to the highway. The Engineer shall provide the exact start and stop locations for the rumble strip/stripe installation.

Centerline rumble strips are provided for curves as per the following table. Edgeline rumble strips on the outside of the curve will be required at these locations, except from 38.078 to 38.419 where the shoulder width is 3.5'. The inside shoulder of the curve will not require rumble strips. Centerline rumble strips shall be extended 500' along the tangent away from the curve at each end of the curve.

Water shall be used with the rumble strip/stripe installation for dust control.

SS-1h or CSS-1h Emulsified Asphalt for Flush Seal shall be applied 1.5 feet wide at the rate of 0.05 gallons per square yard. 2.1 ton is provided for performing this work.

Rumble strips or stripes shall not be placed on any bridge decks or approach slabs, or within 50 feet of any railroad crossings.

RUMBLE STRIP/STRIPE ROADWAY CLEANING

Loose material resulting from the rumble strip/stripe installation shall be removed from the driving surface prior to opening to traffic. The loose material shall be removed from the shoulders on a daily basis. Loose material may be placed along the edge of the surfacing. It shall be the Contractor's responsibility to ensure the loose material does not enter any waterways.

All costs associated with this work shall be incidental to the contract unit price per mile for installing Rumble Strips or Stripes.

TABLE OF ASPHALT CONCRETE RUMBLE STRIPS/STRIPES

MRM	MRM	Length	Grind 12" Rumble Strip in Asphalt Concrete	Grind 12" Rumble Strip in Asphalt Concrete	Grind 12" Centerline Rumble Stripe in Asphalt Concrete
			Both Sides	Outside of Curve	Centerline
		(Mile)	(Mile)	(Mile)	(Mile)
26.900	28.202	1.3	2.6		
28.202	28.429	0.2		0.2	0.2
28.429	30.680	2.3	4.5		
30.680	31.040	0.4		0.4	0.4
35.636	36.618	1.0	2.0		
36.618	37.009	0.4		0.4	0.4
38.078	38.419	0.3			0.3
		Total	9.1	1.0	1.3

TRANSVERSE RUMBLE STRIPS

The Contractor shall install transverse lane rumble strips in advance of the curve located at MRM 38.3 for the eastbound direction. 418' of "Groove 4" Wide Rumble Strip" is provided for performing this work.

The rumble strips shall be grooved into the pavement.

Plans quantity shall be the basis of payment and no field measurement will be required.

All costs associated with this work shall be incidental to the contract unit price per foot for "Groove 4" Wide Rumble Strip".

RATES OF MATERIALS

**SD 44 – SECTION 1
Sta. 0+13 to Sta. 449+00**

The Estimate of Quantities is based on the following quantities of materials per mile.

MODIFIED CLASS S ASPHALT CONCRETE 1.25"

Aggregate	1343
PG 64-34 Asphalt Binder	83
Total Mix	1426
Stabilizing Additive for Asphalt Concrete	4
Total Mix with Stabilizing Additive	1430

SS-1h or CSS-1h Emulsified Asphalt for Tack applied at the rate of 4.5 ton applied 36 feet wide (0.05 gallons per square yard).

The exact proportions of these materials will be determined on construction.

**SD 44 – SECTION 2
Sta. 459+00 to Sta. 513+55**

The Estimate of Quantities is based on the following quantities of materials per mile.

MODIFIED CLASS S ASPHALT CONCRETE 1.25"

Aggregate	1899
PG 64-34 Asphalt Binder	117
Total Mix	2016
Stabilizing Additive for Asphalt Concrete	5
Total Mix with Stabilizing Additive	2021

SS-1h or CSS-1h Emulsified Asphalt for Tack applied at the rate of 5.0 ton applied 40 feet wide (0.05 gallons per square yard).

The exact proportions of these materials will be determined on construction.

**SD 44 – SECTION 3
Sta. 513+55 to Sta. 545+80**

The Estimate of Quantities is based on the following quantities of materials per station.

MODIFIED CLASS S ASPHALT CONCRETE 1.25"

Aggregate	24.7
PG 64-34 Asphalt Binder	1.5
Total Mix	26.2
Stabilizing Additive for Asphalt Concrete	0.1
Total Mix with Stabilizing Additive	26.3

Base Course, Course Salvaged Asphalt Mix 9.6 tons

Water for Granular Material at the rate of 0.11 M. Gallons (12 gallons per ton)

MC-70 Asphalt for Prime at the rate of 0.1 tons applied 4.8 feet wide (2.4' per shoulder) (Rate = 0.30 gallons per square yard).

SS-1h or CSS-1h Emulsified Asphalt for Tack applied at the rate of 0.1 ton applied 34.5 feet wide (0.05 gallons per square yard).

The exact proportions of these materials will be determined on construction.

**SD 44 – SECTION 4
Sta. 545+80 to Sta. 110+50 (2nd Station)**

The Estimate of Quantities is based on the following quantities of materials per mile.

MODIFIED CLASS S ASPHALT CONCRETE 1.25"

Aggregate	1682
PG 64-34 Asphalt Binder	104
Total Mix	1786
Stabilizing Additive for Asphalt Concrete	5
Total Mix with Stabilizing Additive	1790

Base Course, Course Salvaged Asphalt Mix 528 tons

Water for Granular Material at the rate of 6.34 M. Gallons (12 gallons per ton)

MC-70 Asphalt for Prime at the rate of 3.59 tons applied 4.8 feet wide (1.9' left shoulder, 2.9' right shoulder) (Rate = 0.30 gallons per square yard).

SS-1h or CSS-1h Emulsified Asphalt for Tack applied at the rate of 5.3 ton applied 42.5 feet wide (0.05 gallons per square yard).

The exact proportions of these materials will be determined on construction.

**SD 44 – SECTION 5
Sta. 110+50 (2nd Station) to Sta. 4+00 (3rd Station)**

The Estimate of Quantities is based on the following quantities of materials per station.

MODIFIED CLASS S ASPHALT CONCRETE 1.25"

Aggregate	36.1
PG 64-34 Asphalt Binder	<u>2.2</u>
Total Mix	38.3

Stabilizing Additive for Asphalt Concrete	<u>0.1</u>
Total Mix with Stabilizing Additive	38.4

SS-1h or CSS-1h Emulsified Asphalt for Tack applied at the rate of 0.1 ton applied 48.5 feet wide (0.05 gallons per square yard).

The exact proportions of these materials will be determined on construction.

**SD 44 – SECTION 6
Sta. 4+00 (3rd Station) to Sta. 58+15 (3rd Station)**

The Estimate of Quantities is based on the following quantities of materials per mile.

MODIFIED CLASS S ASPHALT CONCRETE 1.25"

Aggregate	1803
PG 64-34 Asphalt Binder	<u>111</u>
Total Mix	1915

Stabilizing Additive for Asphalt Concrete	<u>5</u>
Total Mix with Stabilizing Additive	1920

SS-1h or CSS-1h Emulsified Asphalt for Tack applied at the rate of 6.0 ton applied 48 feet wide (0.05 gallons per square yard).

The exact proportions of these materials will be determined on construction.

TABLE OF QUANTITIES

Section	Sta. to	Sta.	Length (Ft)	Exceptions (Ft)	Net Length (Ft)	Cold Milling Asphalt Concrete (Sq Yd)	Unclassified Excavation (CuYd)	Water for Granular Material (Mgal)	Base Course, Salvaged Asphalt Mix (Ton)	Modified Class S Asphalt Concrete (Ton)	PG 64-34 Asphalt Binder (Ton)	Stabilizing Additive for Asphalt Concrete (Ton)	MC-70 Asphalt for Prime (Ton)	SS-1h or CSS-1h Asphalt for Tack (Ton)
1	0+13.0	449+00.0	44887.0		44887.0	179,548				12,156.9	705.6	34.0		38.2
2	449+00.0	513+55.0	6455.0		6455.0	18,791				2,470.7	143.0	6.1		6.1
3	514+55.0	545+80.0	3125.0		3125.0	9,722	149	3.6	298.6	820.9	47.3	2.4	2.1	2.5
4	545+80.0	557+10.0	1130.0		1130.0	4,721	57	1.4	113.0	383.1	22.3	1.1	0.8	1.1
4	0+00.0	36+00.0	2nd 3600.0		3600.0	15,040	180	4.3	360.0	1,220.5	70.9	3.4	2.4	3.6
Transition	36+00.0	42+00.0	2nd 600.0		600.0	2,587	24	0.6	47.1	198.6	11.6	0.6	0.3	0.6
4	42+00.0	62+00.0	2nd 2000.0		2000.0	8,889	64	1.5	128.9	645.8	37.5	1.9	0.8	2.0
Transition	62+00.0	68+00.0	2nd 600.0		600.0	2,587	24	0.6	47.1	198.6	11.6	0.6	0.3	0.6
4	68+00.0	110+50.0	2nd 4250.0		4250.0	17,756	213	5.1	425.0	1,440.8	83.7	4.0	2.9	4.3
5	110+50.0	124+43.0	2nd 1393.0	116.0	1277.0	6,882				490.7	28.3	0.7		1.5
5	0+00.0	4+00.0	3rd 400.0		400.0	2,156				153.7	8.9	0.2		0.5
6	4+00.0	58+15.0	3rd 5415.0	198.0	5217.0	27,824				1,897.1	109.7	3.0		5.9
Additional Quantities Total						-	825	25.1	2,624.7	482.2	28.0	1.1	6.2	1.9
TOTAL			73,855.0	314.0	73,541.0	304,744	1,535	42.1	4,044.4	22,559.8	1,308.4	59.1	16.0	68.7

TABLE OF ADDITIONAL QUANTITIES

	Length (Ft)	Cold Milling Asphalt Concrete (SqYd)	Unclassified Excavation, Digouts (CuYd)	Unclassified Excavation (CuYd)	Water for Granular Material (Ton)	Base Course, Salvaged Asphalt Mix (Ton)	Modified Class S Asphalt Concrete (Ton)	PG 64-34 Asphalt Binder (Ton)	Stabilizing Additive for Asphalt Concrete (Ton)	MC-70 Asphalt for Prime (Ton)	SS-1h or CSS-1h Asphalt for Tack (Ton)	Asphalt Concrete Composite (Ton)
Spot Leveling, Strengthening, and Repair	73541.0		696		16.7	1,392.8						2,785.6
Intersecting Rds. (36)		4,800									1.0	512.0
Mailbox Turnouts (30)		2,100									0.4	224.0
7' Additional Width MRM 31.379 to MRM 31.548 L	893.0	695					48.2	2.8	0.1		0.1	-
Additional Width Turn Lane MRM 34.509 to MRM 34.693	972.0	648					45.0	2.6	0.1		0.1	
MRM 39.751, Magic Canyon median				14								28.7
MRM 40.247, Idlehurst Drive					1.0						0.1	34.7
Additional Surfacing for Guardrail				810	7.4	1,231.8	389.0	22.6	0.8	6.2		
TOTAL		8243	696	825	25.1	2624.7	482.2	28.0	1.1	6.2	1.9	3585.0

CORRUGATED METAL PIPE

Corrugated metal pipes shall have 2 3/8-inch X 1/2-inch corrugations for 42-inch and smaller round pipe and 48-inch and smaller arch pipe unless otherwise stated in the plans. Corrugated metal pipes shall have 3-inch X 1-inch or 5-inch X 1-inch corrugations for 48-inch and larger round pipe and 54-inch and larger arch pipe unless otherwise stated in the plans.

PIPE CONNECTIONS

When it is not possible to use a normal pipe joint (male-female ends), connections to existing pipe shall be made by placing a 2' wide by 6" thick M6 concrete collar around the outside of the connection. The concrete collar shall be reinforced with 6x6 W2.9 x W2.9 wire mesh.

All costs for constructing the concrete collars including materials and labor shall be incidental to the contract unit price per foot for the corresponding pipe bid item.

TABLE OF PIPE QUANTITIES

MRM	L/R	18" CMP 16 Ga. Ft	36" CMP Arch 16 Ga. Ft	48" CMP 16 Ga. Ft	CMP Tee Each	18" CMP Elbow Each	48" CMP Elbow Each	36" CMP Arch Safety End Each	48" CMP Flared End Each	48" CMP Sloped End Each
27.700	R	6		58	1	1	2		2	
28.3, 2+00	L		150					3		
28.3, 4+75	L			76			2			2
28.3, 5+25	R			48			2			2
Totals:		6	150	182	1	1	6	3	2	4

DROP INLET GRATES

Remove drop inlet grates and replace with new Type B grates from MRM 39.6 to MRM 40.9. All removed grates shall become the property of the Contractor. All costs associated with removing and replacing grates shall be incidental to the contract unit price per each for "Special Grate".

MAILBOXES

The Contractor shall reset the existing mailboxes on new posts with the necessary support hardware for single or double mailbox assemblies. If the existing mailbox will not work with the necessary support hardware the SDDOT will work with the landowner to provide a new mailbox. The local Postmaster will determine the recommended mounting height of the mailboxes throughout the project. The Contractor shall coordinate with the Engineer on the proper postal representative to contact.

If large mailboxes are located at double mailbox installations, a single post may need to be used for the large mailbox.

All costs for removing existing mailboxes, existing post, providing temporary mailboxes, and resetting mailboxes with new posts and necessary support hardware shall be incidental to the contract unit price per each for "Refurbish Single Mailbox" or "Refurbish Double Mailbox".

TABLE OF REFURBISH MAILBOX

MRM	L/R	Refurbish Single Mailbox Each	Refurbish Double Mailbox Each
27.000	R	1	
27.100	L	1	
27.400	L	1	
27.710	L	1	
27.820	R		1
31.470	L	1	
31.540	R		1
31.990	R	2	1
32.410	R	1	
32.590	L		1
32.730	L	1	
32.910	L		1
33.210	R	1	
33.250	R	1	
33.350	R	1	
33.410	R	1	
33.720	L	1	
33.860	L	1	
33.970	L		2
34.300	L	1	
34.600	L		1
34.820	L	1	
35.090	R		1
35.110	L	1	
35.240	L		1
37.000	L		3
37.060	L	1	1
38.480	R		2
Total:		19	16

TABLE OF FENCE QUANTITIES

MRM	L/R	Remove Fence (Ft)	Type 2 Right-of-Way Fence (Ft)	2 Post Panel (Ft)
28.29	L	600	600	8
28.29	R	50	50	2
Total:		650	650	10

TABLE OF GUARDRAIL

MRM to	MRM	L/R	Offset from Centerline to Face of Guardrail (Ft)	Salvage W Beam Guardrail (Ft)	Salvage High Tension Cable Guardrail (Ft)	Salvage High Tension Cable Guardrail Anchor Assembly (Each)	Remove W Beam Guardrail Flared End Terminal for Reset (Each)	Remove W Beam Guardrail End Terminal for Reset (Each)	Straight Class A W Beam Guardrail with Wood Posts (Ft)	Beam Guard. Post and Block (Each)	W Beam Guard. Flared End Term. (Each)	Reset W Beam Guard. Flared End Term. (Each)	Reset W Beam Guardrail End Terminal (Each)	Guard. Deline. (Each)	Uncl. Exc. (CuYd)	Base Course Salv. Asph. Mix (Ton)	MC-70 Asph. for Prime (Ton)	Modif. Class S Asph. Conc. (Ton)	PG 64-34 Asphalt Binder (Ton)	Stabil. Add. for Asph. Conc. (Ton)	Comment	
27.692	27.702	R					1			17			1									
28.262	28.386	L		575.0			2															
28.321	28.391	R		300.0			2															
31.268	31.373	L	17	512.5			1		475.0	94	1	2			36	55.3	0.3	17.5	1.0	0.03	7' post, 3'-1 1/2" spacing	
31.289	31.379	R	17	437.5			1	1	437.5	88		1	1		34	51.4	0.3	16.2	0.9	0.03	7' post, 3'-1 1/2" spacing	
31.558	31.617	L	17	275.0			1	1	275.0	62		1	1		28	43.3	0.2	13.7	0.8	0.03	7' post, 3'-1 1/2" spacing	
31.548	31.633	R	17	375.0			2		375.0	78		2			33	50.1	0.3	15.8	0.9	0.03	7' post, 3'-1 1/2" spacing	
31.822	31.882	L	17	237.5			2		237.5	56		2			29	43.6	0.2	13.8	0.8	0.03	7' post, 3'-1 1/2" spacing	
31.827	31.877	R	17	187.5			2		187.5	48		2			27	40.9	0.2	12.9	0.7	0.03	7' post, 3'-1 1/2" spacing	
32.018	32.068	L	17	187.5			2		187.5	48		2			27	40.9	0.2	12.9	0.7	0.03	7' post, 3'-1 1/2" spacing	
32.018	32.078	R	17	237.5			2		237.5	56		2			29	43.6	0.2	13.8	0.8	0.03	7' post, 3'-1 1/2" spacing	
32.561	32.621	R	17	237.5			2		237.5	56		2			29	43.6	0.2	13.8	0.8	0.03	7' post, 3'-1 1/2" spacing	
32.592	32.661	L	17	287.5			2		287.5	64		2			30	45.9	0.2	14.5	0.8	0.03	7' post, 3'-1 1/2" spacing	
32.950	32.995	L	17	162.5			2		162.5	44		2			26	39.6	0.2	12.5	0.7	0.03	7' post, 3'-1 1/2" spacing	
32.985	33.051	R	17	275.0			2		275.0	62		2			30	45.1	0.2	14.3	0.8	0.03	7' post, 3'-1 1/2" spacing	
36.828	36.982	R	17		812.5	2			737.5	136		2		16	45	68.1	0.3	21.5	1.2	0.04	7' post, 3'-1 1/2" spacing	
36.917	37.007	L	17		475.0	2			400.0	73	1	1		10	34	51.4	0.3	16.2	0.9	0.03	7' post, 3'-1 1/2" spacing	
37.711	37.841	R	16		687.5	2			612.5	98	2			14	41	61.9	0.3	19.5	1.1	0.04	7' post, 3'-1 1/2" spacing	
37.776	38.028	L			1325.0	2															Removal Only	
37.879	38.019	R	16		737.5	2			662.5	106	2			15	42	64.5	0.3	20.4	1.2	0.04	7' post, 3'-1 1/2" spacing	
37.913	38.040	L	26						600.0	96	2			14	40	61.1	0.3	19.3	1.1	0.04	7' post, 3'-1 1/2" spacing	
38.068	38.118	R			262.5	2															Removal Only	
38.506	38.592	R	14.5		475.0	2			400.0	64	2			10	33	50.4	0.3	15.9	0.9	0.03	7' post, 3'-1 1/2" spacing	
38.517	38.691	L	24.5		925.0	2			850.0	136	2			19	48	73.4	0.4	23.2	1.3	0.05	7' post, 3'-1 1/2" spacing	
38.604	38.664	R	14.5	237.5			1	1	237.5	56		1	1		29	43.6	0.2	13.8	0.8	0.03	7' post, 3'-1 1/2" spacing	
38.746	38.915	L	26		887.5	2			812.5	130	2			18	47	72.1	0.4	22.8	1.3	0.05	7' post, 3'-1 1/2" spacing	
39.000	39.245	R	16		1250.0	1			1212.5	194	1			26	60	92.0	0.5	29.0	1.7	0.06	7' post, 3'-1 1/2" spacing	
39.245	39.330	R	16	375.0			1		375.0	69		1			33	50.1	0.3	15.8	0.9	0.03	7' post, 3'-1 1/2" spacing	
40.557	40.596	R		200.0																		
Totals:				5100.0	7837.5	19.0	27.0	4.0	10275.0	1931.0	15.0	27.0	4.0	139	810.4	1231.8	6.2	389.0	22.6	0.8		

GUARDRAIL

The guardrail posts shall be 7' long as noted in the Table of Guardrail Quantities. The guardrail post shall be placed at the break point of the inslope to maintain the shoulder width as per the typical sections. A width of 2' of additional surfacing is provided at the guardrail installation areas, so that surfacing can be paved up to the guardrail post. 4" of Base Course, Salvaged and 1.25" of Modified Class S Asphalt Concrete is provided for performing this work. The offset from centerline to the face of rail is provided in the guardrail table. The Engineer will stake out the limits of installation during construction.

Guardrail that is not included in the Table of Guardrail Quantities shall not be disturbed. Milling and surfacing widths shall be adjusted as necessary in front of the guardrail so that it is not disturbed. All costs associated with this adjustment shall be incidental to the surfacing bid items on the project.

SALVAGE W BEAM GUARDRAIL

Steel beam rail, end terminals, and hardware items shall become the property of the State and shall be removed, hauled, and neatly stacked at the Rapid City South Maintenance Yard located along SD 79 south of Rapid City as approved by the Engineer.

Existing guardrail post and blocks shall become the property of the Contractor and shall be removed from the project limits. Payment for removing, hauling, and stacking the guardrail items shall be incidental to the contract unit price per foot for "Salvage Beam Guardrail".

SALVAGE HIGH TENSION CABLE GUARDRAIL

The cables, posts, steel sleeves and hardware items shall become the property of the State and shall be removed, hauled, and neatly stacked at the Rapid City South Maintenance Yard located along SD 79 south of Rapid City as approved by the Engineer.

Concrete footings shall become the property of the Contractor and shall be removed from the project limits. Payment for removing, hauling, and stacking the salvaged guardrail items shall be incidental to the contract unit price per foot for "Salvage High Tension Cable Guardrail" or per each for "Salvage High Tension Cable Guardrail Anchor Assembly".

RESET W BEAM GUARDRAIL END TERMINAL

This bid item is provided for resetting "Curved W Beam Guardrail Terminal" at the locations provided in the table of guardrail. This work shall be performed in accordance with standard plate 630.70. An additional quantity of "Beam Guardrail Post and Block" has been provided for installing new posts in the "Curved W Beam Guardrail Terminal. All costs associated with this work shall be incidental to the contract unit price per each for "Reset W Beam Guardrail End Terminal" and for "Beam Guardrail Post and Block".

GUARDRAIL DELINEATORS

The Contractor shall place guardrail delineators on all portions of guardrail as per standard plate 632.40. All costs for furnishing and installing guardrail delineation shall be incidental to the contract unit price per each for "Guardrail Delineator".

New guardrail delineators will only be required where the High Tension Cable guardrail is replaced with W Beam Guardrail.

The Contractor shall use aluminum delineators and the use of flexible plastic will not be allowed as shown on standard plate 632.40.

Guardrail delineators currently exist on the w beam guardrail to be salvaged and replaced with new. The Contractor shall remove and reset these delineators. All costs associated with the removal and resetting of guardrail delineators shall be incidental to the various bid items on the project.

TYPE 1 DETECTABLE WARNINGS

Detectable warnings shall be in compliance with the Americans with Disability Act regulations.

The detectable warnings shall be installed according to the manufacturer's installation instructions.

A concrete thickness equal to the adjacent concrete sidewalk thickness and 2 inches of granular cushion material shall be placed below the Type 1 Detectable Warnings. When concrete is placed below the detectable warnings then the concrete thickness shall be transitioned at the rate of 1" per foot to match the adjacent concrete sidewalk thickness.

The detectable warnings shall be a brick red color for application in concrete curb ramps.

When Type 1 Detectable Warnings are specified, the Contractor shall furnish and install only one of the products listed in the Type 1 Detectable Warnings table.

Type 1 Detectable Warnings

Product	Manufacturer
Alertcast Composite Replaceable Cast in Place	Cape Fear Systems, III, LLC 215 South Water Street, Suite 103 Wilmington, NC 28401 877-232-6287 http://www.alerttile.com/
Detectable Warning Tile Composite Replaceable Wet-Set	ADA Solutions, Inc. North Billerica, MA 01862 800-372-0519 http://www.adatile.com
Access Tile Composite Replaceable Cast in Place	Access Products Inc. 241 Main Street, Suite 100 Buffalo, NY 14203 888-679-4022 http://www.accesstile.com/
Armorcast Detectable Warning Tile Composite Replaceable Wet-Set	Armorcast Products Company 13230 Saticoy Street North Hollywood, CA 91605 818-982-3600 http://www.armorcastprod.com/

ADJUSTMENT OF MANHOLES

The Contractor shall adjust manholes to the extent necessary on this project. Adjusting the manholes may consist of removing the upper course of brick or removing the concrete walls, replacing the removed materials with brick or Class M6 concrete, placing adjusting rings if necessary, and resetting the manhole frame and lid. The elevation of the lid shall be set at the same elevation of the adjacent new pavement or surrounding ground. All manhole frames, lids, and rings that are cracked or broken due to carelessness of the Contractor shall be replaced with new manhole frames, lids, and rings that conform with the Standard Specifications at the Contractor's expense. Manholes shall be adjusted to the satisfaction of the Engineer. All costs involved in adjusting the manholes shall be incidental to the contract unit price per each for "Adjust Manhole".

This work is located at MRM 40.247. The adjustment is approximately 4".

TABLE OF QUANTITIES FOR CURB RAMP INSTALLATION

MRM	L/R	Remove Concrete Sidewalk (SqYd)	Remove Concrete Curb and Gutter (Ft)	Type B69 Concrete Curb and Gutter (Ft)	4" Conc. Sidewalk (SqFt)	Type 1 Detectable Warnings (Sqft)
39.751	Median		254	70		
39.751	R	3.0	19	19	95	10
40.247	R	27.0	53	83	194	20
40.596	R	10.0	50	50	200	20
Total		40.0	376	222	489	50

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	13	120

STEEL BAR INSERTION

Included in the Estimate of Quantities is 20 each, Insert Steel Bar In PCC Pavement for the curb and gutter work located at MRM 40.596.

The Contractor shall insert the steel bars (No. 5 x 24" epoxy coated deformed tie bars for longitudinal joints) into drilled holes in the existing concrete pavement. An epoxy resin adhesive must be used to anchor the steel bar in the drilled hole.

Steel bars shall be cut to the specified length by sawing and shall be free from burring or other deformations. Shearing will not be permitted.

Epoxy resin adhesive shall be of the type intended for horizontal applications, and shall conform to the requirements of ASTM C 881, Type IV, Grade 3 (equivalent to AASHTO M235, Type IV, Grade 3).

The diameter of the drilled holes in the existing concrete pavement for the steel bars shall not be less than 1/8 inch nor more than 3/8 inch greater than the overall diameter of the steel bar. Holes drilled into the existing concrete pavement shall be located at mid-depth of the slab and true and normal. The drilled holes shall be blown out with compressed air using a device that will reach to the back of the hole to ensure that all debris or loose material has been removed prior to epoxy injection.

A rigid frame or mechanical device will be required to guide the drill to ensure proper horizontal and vertical alignment of the steel bars in the drilled holes.

Mix the epoxy resin as recommended by the manufacturer and apply by an injection method approved by the Engineer. If an epoxy pump is utilized, it shall be capable of metering the components at the manufacturer's designated rate and be equipped with an automatic shut-off. The pump shall shut off when any of the components are not being metered at the designated rate.

Fill the drilled holes 1/3 to 1/2 full of epoxy, or as recommended by the manufacturer, prior to insertion of the steel bar. Care shall be taken to prevent epoxy from running out of the horizontal holes prior to steel bar insertion. Rotate the steel bar during insertion to eliminate voids and ensure complete bonding of the bar. Insertion by the dipping method will not be allowed.

Cost for the epoxy resin adhesive, steel bars, drilling of holes, inserting the steel bars into the drilled holes and all other items incidental to the insertion of the steel bars shall be included in the contract unit price per each for Insert Steel Bar In PCC Pavement.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	14	120

Revised: 4/8/14 jpr

PERMANENT SIGNING

The Contractor shall furnish all signs, posts, stiffeners, bases, hardware, and labor for installation of permanent signs in size, type, and quantity as shown in these plans and/or as required by the Engineer.

The Contractor shall provide all labor and equipment necessary to install permanent signing, remove existing signs, and reset existing signs as detailed in these plans and/or as required by the Engineer. Payment for furnishing and installing permanent signs will be paid for at the contract unit price for each type of sign based on sheeting requirements per square foot of sign. All signs shall have ASTM D4956 Type IV (High Intensity) or Type XI (Super/Very High Intensity) sheeting as noted on the sign detail sheets. Payment for new signposts, hardware, bases, and labor will be made at the contract unit price per foot for 2.0" x 2.0" and 2.5" x 2.5" perforated tube post. Breakaway post details regarding posts, hardware, and bases shall be followed as per the manufacturer's recommendations. The sign post contract items shall include post bases and all hardware. The lengths of the posts in the sign tables are approximate lengths only. The post lengths shall be verified by the Contractor. The Contractor is urged to cut posts to length on job site after site by site verification of post length.

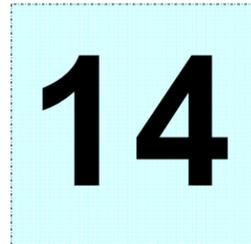
The Contractor shall use Telespar brand (or equivalent) posts and bases on all new standard highway signs as approved by the Engineer. All post materials shall conform to Section 982 of the Standard Specifications, and be in accordance with ASTM specifications. Signs designated as requiring a shear slip base shall have a 4 foot long base assembly with a shear breakaway base connecting the base to the signpost. The height of the post shall not exceed the minimum height needed by more than 0.5 feet. Any portion that extends above the sign shall be cut off. No separate payment will be made for cutting the post or for that length cut off. All posts and bases shall be accompanied by Certificates of Compliance and shall meet all safety standards as set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD).

The Contractor shall stake the signs and the Engineer will verify the location prior to installation. The lateral distance from the roadway and the height of the sign shall be established by the Contractor according to the Permanent Signing Typical, as well as the Standard Plates in the plans and the MUTCD.

The Contractor shall coordinate the removal of signs with Section C of these plans. Existing signing shall be replaced, left in place, or temporarily covered as needed to safely direct traffic through the project or as directed by the Engineer.

DATE DECAL

The Contractor shall affix a state furnished date decal to each new sign installed. Each decal is an approximately 2" X 2" self-adhesive sticker with removable paper backing and black numerals on a white background. The date decal displays the last two digits of the year the sign was manufactured (as illustrated).



One decal shall be placed in the extreme lower left corner of the back of flat aluminum signs.

Sign supports or other obstructions shall not block the view of the date decal upon completion of the sign installation.

Cost for installing of date decal on new signs shall be incidental to the contract unit price for the various signing bid items.

PERFORATED TUBE POST

Payment for 2.0" x 2.0" and 2.5" x 2.5" perforated tube post shall include all cost for labor, equipment, and materials necessary to complete the following work:

1. Furnish all posts, stiffeners, breakaway bases, soil stabilizers, and hardware.
2. Assembly and installation of breakaway base sign supports as per details shown in these plans.
3. Assembly of sign(s) to sign post as per erection details for Highway Signs as shown in these plans.
4. Installation of signpost and sign(s).

REMOVE, SALVAGE, RELOCATE & RESET TRAFFIC SIGN

The Contractor shall remove signs, posts, and bases that call for removal as shown in the table for Permanent Signing and stockpile. All existing signs, posts, and hardware removed as per these plans remain property of the State of South Dakota and shall be transported to the Rapid City South maintenance yard by the Contractor. The Contractor shall notify the Engineer two days prior to time of delivery to the maintenance yard so correct placement for storage and inventory of materials can be made upon receipt.

All bolts, nuts, and washers shall be placed in individual 5-gallon pails. Backing materials shall be separated from the signs and may be reused at the Contractor's discretion. Non-threaded connections (rivets) shall be cut when necessary to reduce sign sections to a 4' x 6' maximum size.

REMOVE, SALVAGE, RELOCATE & RESET TRAFFIC SIGN (CONT)

Any post assembly including sign, post, or bases that call for being removed, relocated or reset in the remarks column in the Table of Permanent Signing shall be included in the contract unit price per each for "Remove, Salvage, Relocate & Reset Traffic sign". All other signs, posts, and bases that call for removal and stockpile shall be included in the contract unit price per each for "Salvage Traffic Sign". These payments shall include all costs for labor, materials, and equipment necessary to remove, dismantle, backfill holes and deliver signs to the Rapid City South maintenance yard.

The Contractor shall reset existing brackets for chevron signs to maintain the proper angle to approaching traffic.

HARDWARE

Aluminum U-Channel stiffeners shall be used on all standard highway signs greater than or equal to 36" in width and shall conform to Alloy 6063-T6 or 6061-T6. The U-Channel shall be 2 inches in width and free of holes. The U-Channel stiffeners shall also be used to connect various signs and perforated tube posts together so that an entire sign can be erected as a single installation. Stiffeners may be fastened to signs by use of 1/4" drive rivets with a minimum of one on each end and one centered between each post. Installation of the stiffeners shall be incidental to other contract items.

A 3/8" diameter straight bolt (Grade 8) shall be used in all breakaway shear bases for the 2.5" perforated tube posts. All other perforated tube signpost base material shall be fastened with 5/16" diameter corner bolts (Grade 2).

All 2.0" perforated tube signposts shall have a soil stabilizer attached to the base. Soil stabilizers shall be MPJ sign wedge style or equivalent.

FURNISH & INSTALL FLAT ALUMINUM SIGNS / NON-REMOVABLE COPY HIGH INTENSITY & SUPER/VERY HIGH INTENSITY

Measurement of sign areas will include payment for the entire sign blank before trimming for rounded corners. The square unit measurement for each sign shall be as shown in the table of permanent signing. The payment shall include all labor (including installing date decals), equipment, and materials to complete the work, and shall be paid for at the contract unit price per square foot for Flat Aluminum Sign/Non-Removable Copy High Intensity or Flat Aluminum Sign/Non-Removable Copy Super/Very High Intensity.

SHEETING REQUIREMENTS

All legend and border utilizing the color black shall be vinyl or screen printed black, non-reflectorized material. All other legend and border shall be of same type of sheeting as the background of the same sign. All signs in the table for permanent signing that call for "Type IV" sheeting shall have High Intensity Prismatic retro-reflective background, Type IV as per AASHTO designation M 268 (ASTM D4956). All signs in the table for permanent signing that call for "Type XI" shall have micro-cube corner prismatic reflectorized background, Type XI as per AASHTO designation M 268 (ASTM D4956).

All W-series warning signs and plaques shall be fluorescent yellow.

SIGN LEGEND, BORDER, BACKGROUND, AND MOUNTING

All sign material shall comply with Section 982 of the Standard Specifications.

The sign colors shall be as stipulated in the MUTCD and as shown in the sign details.

When signs are vertically mounted in succession, they shall be 1-2 inches apart. Lateral placement of signs shall be determined by the Engineer.

REMOVE DELINEATOR

All costs for materials, labor, and equipment necessary to remove the following existing delineators and posts shall be incidental to the contract unit price per each for "Remove Delineator".

4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post
 4"x4" Blue Delineator Back to Back with 1.12Lb/Ft Post
 4" Tubular White Delineator with 1.12 Lb/Ft Post
 Type 2 Object Marker Back to Back

Delineators and Type 2 Object Markers shall be separated from the post and shall be placed in individual 5-gallon pails. All existing delineators, posts, and hardware removed as per these plans remain property of the State of South Dakota and shall be transported to the Rapid City South maintenance yard by the Contractor. The Contractor shall notify the Engineer two days prior to time of delivery to the maintenance yard so correct placement for storage and inventory of materials can be made upon receipt. Payment will be made upon verification of the separated items.

DELINEATORS

The Contractor shall furnish and install the following:

4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post
 4" Tubular White Delineators with 1.12 Lb/Ft Post

All cost for materials, labor and equipment necessary to furnish and install delineators shall be incidental to the contract unit price per each for 4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post and 4" Tubular White Delineator with 1.12 Lb/Ft Post. Delineator posts may be punched full length with 3/8" diameter holes.

The Contractor shall lay out delineator locations and shall obtain Engineer approval of locations prior to installation. Delineators shall be placed with the bottom of the reflector unit approximately 4 feet above the near roadway edge. They shall be located 2 feet outside the outer edge of the shoulder.

Where a roadside barrier or other obstruction intrudes into the space between the pavement edge and the extension of the line of delineators, the delineators shall be in line with the barrier or in line with the innermost edge of the obstruction.

The standard spacing between delineators on the same side of the roadway in tangent sections shall be a maximum of 528 feet with at least 3 delineators visible at all times along the alignment of the roadway with the direction of travel. On tangent sections of through two-lane, two-way roadways, delineators shall be installed on a 264-foot staggered basis, resulting in a delineator on one side of the road being placed midway between two delineators on the opposite side.

When normal spacing is interrupted by structures, crossroads, or ramps, delineators falling within such areas may be moved in either direction a distance not exceeding one-quarter of the standard spacing. Delineators still falling within such areas should be eliminated.

4" TUBULAR DELINEATORS

The following intersections shall have 4" Tubular White Delineators with 1.12 Lb/Ft Post installed as per the details located in these plans.

4" Tubular Delineators shall only be installed at junctions of County (hard surfaced, not gravel or dirt), State, and US highways.

- US Hwy 385 – Qty. 10
- Forest Rd (west end) – Qty. 8
- Meadowbrook Ct. – Qty. 8
- Forest Rd (east end) – Qty. 8
- Shields Rd (west end) – Qty. 8
- Shields Rd (east end) – Qty. 8
- Thunderhead Falls – Qty. 10
- Hisega Rd – Qty. 10
- Pioneer Ave – Qty. 8
- Lindsey Dr – Qty. 8
- Carter Dr – Qty. 8
- Cavern Rd – Qty. 10
- Nameless Cave – Qty. 20

TYPE 2 OBJECT MARKERS

All Type 2 Object Markers listed in these plans shall be used to mark pipe and box culverts throughout this project. All costs for materials, labor, and equipment necessary to furnish and install object markers shall be incidental to the contract unit price per each for Type 2 Object Marker Back to Back.

Only pipe and box culverts that fall within the 30-foot clear zone on this project shall be marked.

TABLE OF DELINEATORS

MRM	DIR CRV	Curve Length	Radius	Spacing	1st Delin. From Curve (2S)	2nd Delin. From Curve (3S)	3rd Delin. From Curve (6S)	# Delins. Outside of Curve	# Delins. Inside of Curve	Total Delins. Per Curve
27.222	R	529	954.9	90	180	270	300	12	1	13
27.402	L	308	881.5	85	170	255	300	10	1	11
27.631	R	1045	1041.7	95	190	285	300	17	2	19
27.989	L	1745	2083.5	135	270	300	300	19	3	22
28.323	R	313	498.2	65	130	195	300	11	1	12
28.504	L	723	881.5	85	170	255	300	15	1	16
28.878	L	150	954.9	90	180	270	300	8	0	8
28.118	R	294	636.6	75	150	225	300	10	1	11
29.344	R	405	1145.9	100	200	300	300	10	1	11
29.593	L	475	5729.6	225	300	300	300	8	1	9
29.906	L	436	636.6	75	150	225	300	12	1	13
30.163	R	494	636.6	75	150	225	300	13	1	14
30.531	R	350	2864.8	160	300	300	300	8	1	9
33.801	L	350	2864.8	160	300	300	300	8	1	9
30.926	R	346	477.5	60	120	180	300	12	1	13
31.056	L	125	636.6	75	150	225	300	8	0	8
31.276	L	390	573.0	70	140	210	300	12	1	13
31.562	R	1255	1145.9	100	200	300	300	19	2	21
31.930	R	371	477.5	60	120	180	300	12	1	13
32.093	L	329	818.5	85	170	255	300	10	1	11
32.439	L	566	716.2	75	150	225	300	14	1	15
32.876	R	1608	954.9	90	180	270	300	24	3	27
33.251	L	1275	477.5	60	120	180	300	27	2	29
33.558	R	275	477.5	60	120	180	300	11	1	12
33.927	L	109	2083.5	135	270	300	300	7	0	7
34.059	R	320	1145.9	100	200	300	300	9	1	10
34.310	L	1308	1762.9	125	250	300	300	16	2	18
34.716	R	1850	5729.6	225	300	300	300	14	4	18
35.458	R	1087	954.9	90	180	270	300	18	2	20
35.783	L	1063	1432.4	110	220	300	300	16	2	18
36.511	R	1129	954.9	90	180	270	300	19	2	21
36.797	L	950	573.0	70	140	210	300	20	2	22
37.023	R	400	954.9	90	180	270	300	10	1	11
37.311	R	288	1432.4	110	220	300	300	9	1	10
37.667	L	881	1432.4	110	220	300	300	14	2	16
38.014	L	300	5729.6	225	300	300	300	7	1	8
38.252	R	843	573.0	70	140	210	300	18	2	20
38.520	L	1315	1145.9	100	200	300	300	19	2	21
38.720	R	685	1145.9	100	200	300	300	13	1	14
39.012	L	769	1432.4	110	220	300	300	13	1	14
39.340	L	558	954.9	90	180	270	300	12	1	13
39.506	L	754	954.9	90	180	270	300	14	1	15

Total Length of Curves (Ft)	22661	Total Delineators for Curves (Includes the 3 in advance of and also the 3 proceeding away from the curve for each location)	615
Total Length of Tangents (Ft)	43867	Total Delineators for Tangents	166
TOTAL (4"x4" White Back to Back with 1.12 Lb/Ft Post) DELINEATORS			781

TABLE OF PERMANENT SIGNING – SD 44 WESTBOUND

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN							POST					SIGN DESCRIPTION	WORK TO BE DONE	
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts			Shear Slip Base
40.890	N/A	M4-6	24	12	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	END	SALVAGE EXISTING SIGN
40.890	N/A	R3-9b	24	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	TWO-WAY LEFT TURN ONLY	SALVAGE EXISTING SIGN
40.804	SAME	AAH	36	42	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (CANYON LAKE SENIOR CENTER)	LEAVE AS IS
40.773	SAME	R2-1	24	30	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	SPEED LIMIT - 40	LEAVE AS IS
40.729	N/A	SPECIAL	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	FALLING ROCK	SALVAGE EXISTING SIGN
40.729	N/A	W7-3aP	24	18	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	NEXT 1/2 MILE	SALVAGE EXISTING SIGN
40.706	SAME	SPECIAL	48	48	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	BIGHORN SHEEP SYMBOL	LEAVE AS IS
40.706	SAME	SPECIAL	30	30	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	BIGHORN SHEEP CROSSING	LEAVE AS IS
40.679	40.652	SPECIAL	36	24	WESTBOUND	NO	YES	-	-	NO	-	-	-	-	KOREAN WAR MEMORIAL HIGHWAY	REMOVE EXISTING SIGN & ATTACH TO FIRST POWER POLE TO THE WEST
40.594	SAME	SPECIAL	12	24	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	CITY TOUR & HISTORIC DISTRICTS	LEAVE AS IS
40.594	SAME	SPECIAL	18	18	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	DIRECTIONAL ARROW LEFT - WHITE ON BROWN	LEAVE AS IS
40.549	SAME	SPECIAL	48	24	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	CLEGHORN SPRINGS FISH HATCHERY	LEAVE AS IS
40.446	SAME	SPECIAL	84	30	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	HELP PROTECT WILDLIFE - TURN IN POACHERS	LEAVE AS IS
40.416	SAME	I10-3	24	24	BOTH	NO	NO	-	-	N/A	-	-	-	-	FATALITY MARKER	LEAVE AS IS
40.356	SAME	M3-4	24	12	WESTBOUND	FLAT ALUM	YES	2.0	IV	NO	-	-	-	-	CARDINAL DIRECTION - WEST	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON POWER POLE
40.356	SAME	M1-5	24	24	WESTBOUND	FLAT ALUM	YES	4.0	IV	NO	-	-	-	-	STATE ROUTE SIGN - 44	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON POWER POLE BELOW "WEST" SIGN
40.266	SAME	R2-1	24	30	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	SPEED LIMIT - 45	LEAVE AS IS
N/A	40.200	R3-9dP	30	12	WESTBOUND	FLAT ALUM	N/A	2.5	IV	YES	16.0	2.0	1	NO	END	INSTALL NEW SIGN
N/A	40.200	R3-9b	24	36	WESTBOUND	FLAT ALUM	N/A	6.0	IV	NO	-	-	-	-	TWO-WAY LEFT TURN ONLY	ATTACH NEW SIGN TO "END" POST
N/A	40.131	D17-2	42	42	WESTBOUND	FLAT ALUM	N/A	12.3	IV	YES	12.0	2.5	2	YES	PASSING LANE 1/2 MILE	INSTALL NEW SIGN
40.062	SAME	AAH	36	42	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	ADOPT-A-HIGHWAY (BLACK HILLS FEDERAL CREDIT)	LEAVE AS IS
39.940	SAME	I-3E	24	24	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	RAPID CREEK	LEAVE AS IS
39.876	SAME	D1-1	84	18	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	JOHNSON SIDING	LEAVE AS IS
39.847 MED	SAME	R4-7	24	30	WESTBOUND	NO	YES	-	-	YES	12.0	2.0	1	NO	KEEP RIGHT	REMOVE EXISTING SIGN & RESET WITH NEW POST
39.847 MED	SAME	OM2-2V	6	48	WESTBOUND	NO	YES	-	-	NO	-	-	-	-	TYPE 2 OBJECT MARKER	REMOVE EXISTING SIGN & ATTACH TO "KEEP RIGHT" POST
39.815	SAME	SPECIAL	36	54	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	FIRE PROTECTION	LEAVE AS IS
39.774	SAME	SPECIAL	48	24	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	OPEN FIRES PROHIBITED	LEAVE AS IS
39.740 MED	SAME	R4-7	24	30	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	KEEP RIGHT SYMBOL	LEAVE AS IS
39.740 MED	SAME	OM2-2V	6	48	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	TYPE 2 OBJECT MARKER	LEAVE AS IS
39.548	SAME	S3-1	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
39.534	SAME	I10-3	24	24	BOTH	NO	NO	-	-	N/A	-	-	-	-	FATALITY MARKER	LEAVE AS IS
39.531	SAME	W2-2	30	30	WESTBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	2	NO	SIDE ROAD - RIGHT	SALVAGE EXISTING SIGN, FLASHER, & ELECTRICAL - INSTALL NEW SIGN ON NEW POST
39.481	N/A	OM2-2V	6	12	BOTH	NO	YES	-	-	N/A	-	-	-	-	TYPE 2 OBJECT MARKER	SALVAGE EXISTING OBJECT MARKER
39.422	N/A	OM2-2V	6	12	BOTH	NO	YES	-	-	N/A	-	-	-	-	TYPE 2 OBJECT MARKER	SALVAGE EXISTING OBJECT MARKER
39.403	SAME	R2-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (NAMELESS CAVE RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
39.370	SAME	R4-16	24	30	WESTBOUND	FLAT ALUM	YES	5.0	IV	YES	12.0	2.0	1	NO	KEEP RIGHT EXCEPT TO PASS	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
39.316	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
39.302	SAME	R2-1	24	30	WESTBOUND	FLAT ALUM	YES	5.0	IV	NO	-	-	-	-	SPEED LIMIT - 50	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
39.197	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
39.152	SAME	R2-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (BLAKE RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
39.085	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST

TABLE OF PERMANENT SIGNING – SD 44 WESTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
38.916	SAME	R2-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (BLAKE RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
38.915	SAME	AAH	36	42	WESTBOUND	NO	NO	-	-	N/A	-	-	-	-	ADOPT-A-HIGHWAY (RAPID CITY LODGE #25 AFM)	LEAVE AS IS
38.896	N/A	W1-5	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	WINDING ROAD - LEFT	SALVAGE EXISTING SIGN
38.896	N/A	W13-1P	18	18	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 35 MPH	SALVAGE EXISTING SIGN
38.872	N/A	W4-2	36	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	RIGHT LANE ENDS (MERGE LEFT)	SALVAGE EXISTING SIGN
38.742	SAME	M3-4	24	12	WESTBOUND	FLAT ALUM	YES	2.0	IV	NO	-	-	-	-	CARDINAL DIRECTION - WEST	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
38.742	SAME	M1-5	24	24	WESTBOUND	FLAT ALUM	YES	4.0	IV	NO	-	-	-	-	STATE ROUTE SIGN - 44	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST BELOW "WEST" SIGN
38.718	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
38.646	38.638	W7-1a	48	48	EASTBOUND	FLAT ALUM	YES	16.0	XI	YES	16.0	2.5	2	YES	HILL WITH GRADE - 10%	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS AT NEW LOCATION
38.250	38.404	S3-1	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS AT NEW LOCATION
N/A	38.357	W1-2	30	30	WESTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE - LEFT	INSTALL NEW SIGN
N/A	38.357	W13-1P	18	18	WESTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	ATTACH NEW SIGN TO "CURVE - LEFT" POST CLOSEST TO ROAD
N/A	38.310	W1-2a	36	36	WESTBOUND	FLAT ALUM	N/A	9.0	XI	YES	14.0	2.0	2	NO	CURVE - LEFT WITH 40 IN SIGN	INSTALL NEW SIGN
38.260	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
38.260	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
38.245	38.237	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
38.245	38.237	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
38.237	SAME	I10-3	24	24	BOTH	NO	NO	-	-	N/A	-	-	-	-	FATALITY MARKER	LEAVE AS IS
38.225	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.225	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.222	SAME	I10-3	24	24	BOTH	NO	NO	-	-	N/A	-	-	-	-	FATALITY MARKER	LEAVE AS IS
38.214	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
38.214	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
38.201	38.191	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
38.201	38.191	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
38.185	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.185	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.185	N/A	-	24	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	SLOW LANE 500'	SALVAGE EXISTING SIGN
38.180	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.180	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.170	38.168	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
38.170	38.168	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
38.160	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.160	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.150	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.150	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
38.088	N/A	R4-16	24	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	KEEP RIGHT EXCEPT TO PASS	SALVAGE EXISTING SIGN
38.013	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
37.996	SAME	W1-2	48	48	EASTBOUND	FLAT ALUM	YES	16.0	XI	NO	-	-	-	-	CURVE - RIGHT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POSTS
37.996	SAME	W13-1P	24	24	EASTBOUND	FLAT ALUM	YES	4.0	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING "CURVE - RIGHT" POST - CLOSEST TO ROAD
37.588	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (ELKHART RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST

TABLE OF PERMANENT SIGNING – SD 44 WESTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
37.588	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
37.536	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
37.534	SAME	R2-1	24	30	WESTBOUND	FLAT ALUM	YES	5.0	IV	NO	-	-	-	-	SPEED LIMIT - 50	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
37.497	SAME	W7-1a	48	48	EASTBOUND	FLAT ALUM	YES	16.0	XI	NO	-	-	-	-	HILL WITH GRADE - 8%	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POSTS
37.497	SAME	W7-3aP	24	18	EASTBOUND	FLAT ALUM	YES	3.0	XI	NO	-	-	-	-	NEXT 2 MILES PLAQUE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING "HILL WITH GRADE" POSTS - CLOSEST TO ROAD
37.430	SAME	W4-2	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	RIGHT LANE ENDS (MERGE LEFT)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
37.405	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (CAVERN RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
37.400	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
37.166	37.122	W1-4	30	30	WESTBOUND	FLAT ALUM	YES	6.3	XI	YES	14.0	2.0	2	NO	REVERSE CURVE - LEFT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST AT NEW LOCATION
37.166	37.122	W13-1P	18	18	WESTBOUND	FLAT ALUM	YES	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "REVERSE CURVE - LEFT" POST
37.084	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
36.956	SAME	AAH	36	42	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (TRIANGLE FRATERNITY)	LEAVE AS IS
36.923	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	36.900	W1-2a	36	36	WESTBOUND	FLAT ALUM	N/A	9.0	XI	YES	16.0	2.0	2	NO	CURVE - RIGHT WITH 45 IN SIGN	INSTALL NEW SIGN
36.885	36.843	W2-2	30	30	WESTBOUND	FLAT ALUM	YES	6.3	XI	YES	14.0	2.0	2	NO	SIDE ROAD - LEFT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION
36.820	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	36.800	W1-6	60	30	WESTBOUND	FLAT ALUM	N/A	12.5	XI	YES	12.0	2.0	2	NO	ONE-DIRECTION LARGE ARROW	INSTALL NEW SIGN
36.351	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
36.297	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
36.297	SAME	SPECIAL	72	36	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	MOTOR VEHICLES PERMITTED ONLY ON...	LEAVE AS IS
36.073	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.841	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.817	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.690	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.630	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.620	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.522	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.509	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.401	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
35.182	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.113	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
35.058	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.004	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.990	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.975	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.955	SAME	AAH	36	42	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (7TH CIRCUIT JUDICIAL COURT)	LEAVE AS IS
34.922	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.917	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.884	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.880	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.819	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (BIG PINEY RD - EAST APPROACH)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST

TABLE OF PERMANENT SIGNING – SD 44 WESTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
34.802	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.700	SAME	W2-2	30	30	WESTBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	SIDE ROAD - LEFT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
34.676	SAME	D9-10F	72	54	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	TODS STACK	LEAVE AS IS
34.636	SAME	D1-1a	54	18	WESTBOUND	FLAT ALUM	YES	6.8	IV	YES	10.0	2.0	2	NO	HISEGA 1	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
34.608	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.590	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.566	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.554	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.512	SAME	R2-1	24	30	WESTBOUND	FLAT ALUM	YES	5.0	IV	NO	-	-	-	-	SPEED LIMIT - 50	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - STRAIGHTEN
34.505	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.470	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
34.438	N/A	W11-3	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	LARGE ANIMALS - DEER	SALVAGE EXISTING SIGN
34.438	N/A	W7-3aP	24	18	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	NEXT 3 MILES	SALVAGE EXISTING SIGN
34.314	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.210	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.050	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
34.022	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.016	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.000	SAME	D9-10F	72	72	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	TODS STACK	LEAVE AS IS
33.980	SAME	SPECIAL	30	24	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
33.976	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.968	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (FRENCH DR)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
33.968	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.873	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.868	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.858	SAME	M3-4	24	12	WESTBOUND	FLAT ALUM	YES	2.0	IV	NO	-	-	-	-	CARDINAL DIRECTION - WEST	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
33.858	SAME	M1-5	24	24	WESTBOUND	FLAT ALUM	YES	4.0	IV	NO	-	-	-	-	STATE ROUTE SIGN - 44	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST BELOW "WEST" SIGN
33.856	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.968	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (MORSE PL)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
33.812	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.734	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.724	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.710	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.705	N/A	W1-5	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	WINDING ROAD - LEFT	SALVAGE EXISTING SIGN
33.705	N/A	W13-1P	18	18	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN
N/A	33.665	W1-2	30	30	WESTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE - LEFT	INSTALL NEW SIGN
N/A	33.665	W13-1P	18	18	WESTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	ATTACH NEW SIGN TO "CURVE - LEFT" POST
33.567	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
33.567	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
33.558	SAME	S3-1	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
33.549	33.544	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART

TABLE OF PERMANENT SIGNING – SD 44 WESTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
33.549	33.544	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
33.531	33.521	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
33.531	33.521	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
33.512	33.498	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
33.512	33.498	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
33.491	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
33.491	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
33.446	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.446	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (BID BEND RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
33.446	SAME	SPECIAL	36	36	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	PRIVATE ROAD NO OUTLET	LEAVE AS IS
N/A	33.415	W1-2	30	30	WESTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE - RIGHT	INSTALL NEW SIGN
N/A	33.415	W13-1P	18	18	WESTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	ATTACH NEW SIGN TO "CURVE - RIGHT" POST
33.125	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.122	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.117	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.032	SAME	S3-1	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
32.938	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
32.933	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
32.929	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.929	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.925	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
32.923	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
32.915	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW OBJECT MARKER
32.910	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
32.905	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW OBJECT MARKER
32.900	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
32.898	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.898	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.887	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
32.880	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW OBJECT MARKER
32.869	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.869	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.852	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW OBJECT MARKER
32.847	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW OBJECT MARKER
32.840	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.840	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.805	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.805	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.650	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
32.582	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW OBJECT MARKER
32.581	SAME	W1-2	30	30	WESTBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	2	NO	CURVE - RIGHT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST

TABLE OF PERMANENT SIGNING – SD 44 WESTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
N/A	32.581	W13-1P	18	18	WESTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	ATTACH NEW SIGN TO "CURVE - RIGHT" POST
32.581	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
32.557	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW OBJECT MARKER
32.554	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
32.528	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (TAMARA LN)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
32.507	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
32.250	N/A	W1-4	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	REVERSE CURVE - RIGHT	SALVAGE EXISTING SIGN
32.250	N/A	W13-1P	18	18	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN
32.216	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
32.165	SAME	S3-1	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
N/A	32.022	W1-4	30	30	WESTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE - LEFT	INSTALL NEW SIGN
N/A	32.022	W13-1P	18	18	WESTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	ATTACH NEW SIGN TO "CURVE - LEFT" POST
32.002	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (S CREEKVIEW RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.996	SAME	AAH	36	42	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (JOHNSON SIDING - CLEGHORN FD)	LEAVE AS IS
N/A	31.975	W1-2a	36	36	WESTBOUND	FLAT ALUM	N/A	9.0	XI	YES	12.0	2.0	2	NO	CURVE - LEFT WITH 45 IN SIGN	INSTALL NEW SIGN
31.948	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	31.940	W1-8	30	36	WESTBOUND	FLAT ALUM	N/A	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	INSTALL NEW SIGN
N/A	31.940	W1-8	30	36	EASTBOUND	FLAT ALUM	N/A	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	ATTACH NEW SIGN ON "WB CHEVRON" POST
N/A	31.917	W1-8	30	36	WESTBOUND	FLAT ALUM	N/A	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	INSTALL NEW SIGN - CHEVRONS SHALL BE 120' APART
N/A	31.917	W1-8	30	36	EASTBOUND	FLAT ALUM	N/A	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	ATTACH NEW SIGN ON "WB CHEVRON" POST
N/A	31.894	W1-8	30	36	WESTBOUND	FLAT ALUM	N/A	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	INSTALL NEW SIGN - CHEVRONS SHALL BE 120' APART
N/A	31.894	W1-8	30	36	EASTBOUND	FLAT ALUM	N/A	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	ATTACH NEW SIGN ON "WB CHEVRON" POST
31.835	SAME	W3-5	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	REDUCED SPEED LIMIT AHEAD - 40	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
31.799	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (N CREEKVIEW RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.794	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
31.787	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (PRIVATE DRIVE)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.787	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
31.765	N/A	W1-4	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	REVERSE CURVE - LEFT	SALVAGE EXISTING SIGN
31.765	N/A	W1-4	30	30	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	REVERSE CURVE - RIGHT	SALVAGE EXISTING SIGN
31.765	SAME	W13-1P	18	18	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN
31.721	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (PINE MEADOWS CT)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.700	SAME	R2-1	30	36	WESTBOUND	FLAT ALUM	YES	7.5	IV	YES	12.0	2.0	2	NO	SPEED LIMIT - 40	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
31.556	SAME	W11-2	36	36	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	PEDESTRIAN	LEAVE AS IS
31.556	SAME	W16-9P	36	18	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	AHEAD (PLAQUE)	LEAVE AS IS
31.543	SAME	D1-1	42	42	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	NORRIS PEAK RD	LEAVE AS IS
31.531	SAME	R7-1	12	18	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	NO PARKING ANYTIME	LEAVE AS IS
31.483	SAME	R1-1	36	36	SOUTHBOUND	FLAT ALUM	YES	9.0	XI	NO	-	-	-	-	STOP (NORRIS PEAK RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.462	SAME	R7-1	12	18	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	NO PARKING ANYTIME	LEAVE AS IS
31.440	SAME	R7-1	12	18	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	NO PARKING ANYTIME	LEAVE AS IS
31.391	SAME	W11-2	36	36	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	PEDESTRIAN	LEAVE AS IS
31.391	SAME	W16-7P	36	18	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	DOWNWARD DIAGONAL ARROW (PLAQUE)	LEAVE AS IS

TABLE OF PERMANENT SIGNING – SD 44 WESTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
31.162	SAME	R2-1	24	30	WESTBOUND	FLAT ALUM	YES	5.0	IV	NO	-	-	-	-	SPEED LIMIT 50	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.149	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (PRIVATE DRIVE)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.105	N/A	W1-5	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	WINDING ROAD - RIGHT	SALVAGE EXISTING SIGN
31.105	N/A	W13-1P	18	18	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN
31.091	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
N/A	31.054	W1-2	30	30	WESTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE RIGHT	INSTALL NEW SIGN
N/A	31.054	W13-1P	18	18	WESTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	ATTACH NEW SIGN TO "CURVE - RIGHT" POST
31.048	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.945	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	30.910	W1-4	30	30	WESTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	REVERSE CURVE - LEFT	INSTALL NEW SIGN
N/A	30.910	W13-1P	18	18	WESTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	ATTACH NEW SIGN TO "REVERSE CURVE - LEFT" POST
30.883	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
30.883	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
30.869	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	30.860	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	INSTALL NEW SIGN - CHEVRONS SHALL BE 120' APART
N/A	30.860	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	ATTACH NEW SIGN ON "WB CHEVRON" POST
30.855	SAME	R1-1	30	30	SOUTH/EAST	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (PINE CLIFF DR)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
30.853	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
30.853	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
30.837	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
30.837	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
30.824	SAME	R1-1	30	30	SOUTHBOUND	NO	NO	-	-	NO	-	-	-	-	STOP (PINE CLIFF DR)	LEAVE AS IS
30.824	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.804	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
30.718	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.596	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.543	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.538	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.538	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (OVERLOOK DR)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
30.531	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.507	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
30.341	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.270	30.175	W1-4	30	30	WESTBOUND	FLAT ALUM	YES	6.3	XI	YES	16.0	2.0	2	NO	REVERSE CURVE - LEFT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST AT NEW LOCATION
30.270	30.175	W13-1P	18	18	WESTBOUND	FLAT ALUM	YES	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN & ATTACH NEW SIGN TO "REVERSE CURVE - LEFT" POST
30.140	N/A	R1-1	30	30	SOUTHBOUND	NO	YES	-	-	N/A	-	-	-	-	STOP (FOREST SERVICE RD)	SALVAGE EXISTING SIGN
30.106	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.099	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.036	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.974	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.852	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.770	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED

TABLE OF PERMANENT SIGNING – SD 44 WESTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
29.646	SAME	D9-10F	72	18	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	TODS - PLACERVILLE CHURCH CAMP	LEAVE AS IS
29.636	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.570	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.546	SAME	AAH	36	42	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (USS THUNDERCHILD)	LEAVE AS IS
29.477	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.275	SAME	SPECIAL	66	30	WESTBOUND	FLAT ALUM	YES	13.8	IV	YES	12.0	2.5	2	YES	PACTOLA WORK CENTER	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
29.275	SAME	SPECIAL	66	30	EASTBOUND	FLAT ALUM	YES	13.8	IV	NO	-	-	-	-	PACTOLA WORK CENTER	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON WESTBOUND "PACTOLA WORK CENTER" POSTS
29.271	SAME	R1-1	30	30	SOUTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (PACTOLA WORK CENTER RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
29.265	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.265	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.258	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.243	29.186	W1-2	30	30	WESTBOUND	FLAT ALUM	YES	6.3	XI	YES	16.0	2.0	2	NO	CURVE - LEFT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST AT NEW LOCATION
29.243	29.186	W13-1P	18	18	WESTBOUND	FLAT ALUM	YES	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN & ATTACH NEW SIGN TO "CURVE - LEFT" POST
28.971	N/A	W1-2	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CURVE - RIGHT	SALVAGE EXISTING SIGN
28.971	N/A	W13-1P	18	18	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN
28.695	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
28.677	N/A	W1-4	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	REVERSE CURVE - RIGHT	SALVAGE EXISTING SIGN
28.677	N/A	W13-1P	18	18	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN
28.674	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	28.641	W1-2	30	30	WESTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE - RIGHT	INSTALL NEW SIGN
N/A	28.641	W13-1P	18	18	WESTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	ATTACH NEW SIGN TO "CURVE - RIGHT" POST
N/A	28.435	W1-2	30	30	WESTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE - LEFT	INSTALL NEW SIGN
N/A	28.435	W13-1P	18	18	WESTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	ATTACH NEW SIGN TO "CURVE - LEFT" POST
N/A	28.388	W1-2a	36	36	WESTBOUND	FLAT ALUM	N/A	9.0	XI	YES	12.0	2.0	2	NO	CURVE - LEFT WITH 40 IN SIGN	INSTALL NEW SIGN
28.380	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
28.380	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
28.364	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
28.365	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
28.365	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
28.366	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
28.360	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - STRAIGHTEN
28.360	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
28.337	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
28.337	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
28.314	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
28.314	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
28.291	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
28.291	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WB CHEVRON" POST
28.183	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
28.125	TBD	W14-3	48	36	EASTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
28.065	N/A	R1-1	30	30	SOUTHBOUND	NO	YES	-	-	N/A	-	-	-	-	STOP (FOREST SERVICE RD)	SALVAGE EXISTING SIGN

TABLE OF PERMANENT SIGNING – SD 44 WESTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
27.489	N/A	W1-4	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	REVERSE CURVE - RIGHT	SALVAGE EXISTING SIGN
27.489	N/A	W13-1P	18	18	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN
27.452	SAME	S3-1	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
27.312	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
27.307	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
27.266	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
27.259	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW TYPE 2 OBJECT MARKER
27.210	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
27.135	SAME	W3-1	30	30	WESTBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP AHEAD	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
27.127	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
27.119	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
27.077	SAME	M2-1	21	15	WESTBOUND	FLAT ALUM	YES	2.2	IV	YES	12.0	2.0	1	NO	JUNCTION	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
27.077	SAME	M1-4	30	24	WESTBOUND	NO	YES	-	-	NO	-	-	-	-	U.S. ROUTE SIGN - 385	REMOVE EXISTING SIGN & RE-ATTACH TO "JUNCTION" POST
27.053	SAME	W2-4	30	30	WESTBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	INTERSECTION WARNING - T	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
28.125	N/A	W14-3	48	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	NO PASSING ZONE	SALVAGE EXISTING SIGN
27.024	SAME	M4-6	24	12	WESTBOUND	FLAT ALUM	YES	2.0	IV	YES	15.0	2.0	1	NO	END	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
27.024	SAME	M1-5	24	24	WESTBOUND	FLAT ALUM	YES	4.0	IV	NO	-	-	-	-	STATE ROUTE SIGN - 44	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "END" POST
27.024	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
26.981	SAME	D1-3	84	54	WESTBOUND	FLAT ALUM	YES	31.5	IV	YES	15.0	2.5	3	YES	CUSTER - DEADWOOD - LEAD	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
26.900	SAME	R1-1	48	48	WESTBOUND	FLAT ALUM	YES	16.0	XI	YES	12.0	2.5	2	YES	STOP (US 385)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
26.900	SAME	D10-5a	4.5	15	WESTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 26.90	SALVAGE EXISTING SIGN & REPLACE WITH NEW - ATTACH TO "STOP" POST
26.900	SAME	D10-5a	4.5	15	EASTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 26.90	SALVAGE EXISTING SIGN & REPLACE WITH NEW - ATTACH TO "STOP" POST

TABLE OF PERMANENT SIGNING – SD 44 EASTBOUND

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
26.905	SAME	SPECIAL	72	36	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	MOTOR VEHICLES PERMITTED ONLY ON...	LEAVE AS IS
26.913	SAME	SPECIAL	36	24	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	KOREAN WAR MEMORIAL HIGHWAY	LEAVE AS IS
26.924	SAME	AAH	36	42	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (USS THUNDERCHILD)	LEAVE AS IS
26.951	SAME	M3-2	24	12	EASTBOUND	FLAT ALUM	YES	2.0	IV	NO	-	-	-	-	CARDINAL DIRECTION - EAST	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
26.951	SAME	M1-5	24	24	EASTBOUND	FLAT ALUM	YES	4.0	IV	NO	-	-	-	-	STATE ROUTE SIGN - 44	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EAST" POST
26.971	SAME	D2-1	84	18	EASTBOUND	FLAT ALUM	YES	10.5	IV	YES	12.0	2.5	2	YES	RAPID CITY 15	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
27.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	YES	6.0	2.0	1	NO	MRM 27	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
27.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 27	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 27 POST
27.051	SAME	R2-1	24	30	EASTBOUND	FLAT ALUM	YES	5.0	IV	YES	12.0	2.0	1	NO	SPEED LIMIT - 50	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
27.085	N/A	W1-4	30	30	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	REVERSE CURVE - RIGHT	SALVAGE EXISTING SIGN
27.085	N/A	W13-1P	18	18	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN
27.096	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
27.107	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
27.119	SAME	S3-1	36	36	EASTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
27.342	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW TYPE 2 OBJECT MARKER
27.354	N/A	R1-1	30	30	NORTHBOUND	NO	YES	-	-	N/A	-	-	-	-	STOP (FOREST SERVICE RD)	SALVAGE EXISTING SIGN
27.355	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW TYPE 2 OBJECT MARKER
27.463	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
28.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	YES	6.0	2.0	1	NO	MRM 28	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
28.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 28	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 28 POST
28.196	SAME	W1-2	30	30	EASTBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	1	NO	CURVE - RIGHT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
28.196	SAME	W13-1P	18	18	EASTBOUND	FLAT ALUM	YES	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "CURVE - RIGHT" POST
28.196	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
28.225	N/A	I10-3	24	24	BOTH	NO	YES	-	-	N/A	-	-	-	-	FATALITY MARKER	SALVAGE EXISTING SIGN
28.227	N/A	I10-3	24	24	BOTH	NO	YES	-	-	N/A	-	-	-	-	FATALITY MARKER	SALVAGE EXISTING SIGN
N/A	28.243	W1-2a	36	36	EASTBOUND	FLAT ALUM	N/A	9.0	XI	YES	12.0	2.0	2	NO	CURVE - RIGHT WITH 40 IN SIGN	INSTALL NEW SIGN
28.283	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
28.285	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
28.348	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	28.373	W1-2	30	30	EASTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE - LEFT	INSTALL NEW SIGN
N/A	28.373	W13-1P	18	18	EASTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	ATTACH NEW SIGN TO "CURVE - LEFT" POST
28.668	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
28.678	N/A	R1-1	30	30	NORTHBOUND	NO	YES	-	-	N/A	-	-	-	-	STOP (FOREST SERVICE RD)	SALVAGE EXISTING SIGN
28.715	N/A	W1-4	30	30	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	REVERSE CURVE - LEFT	SALVAGE EXISTING SIGN
28.715	N/A	W13-1P	18	18	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN
28.715	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
28.883	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
28.995	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.012	29.000	W1-2	30	30	EASTBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	2	NO	CURVE - RIGHT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST
29.012	29.000	W13-1P	18	18	EASTBOUND	FLAT ALUM	YES	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "CURVE - RIGHT" POST
29.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 29	SALVAGE EXISTING SIGN & REPLACE WITH NEW - ATTACH TO "CURVE - RIGHT" POST

TABLE OF PERMANENT SIGNING – SD 44 EASTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST				SIGN DESCRIPTION	WORK TO BE DONE	
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts			Shear Slip Base
29.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 29	SALVAGE EXISTING SIGN & REPLACE WITH NEW - ATTACH TO "CURVE - RIGHT" POST
29.253	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.255	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.264	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.283	SAME	D9-10F	72	18	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	TODS - PLACERVILLE CHURCH CAMP	LEAVE AS IS
29.388	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	1	NO	STOP (PLACERVILLE CHURCH CAMP DRIVEWAY)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
29.388	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.459	SAME	AAH	36	42	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (JOHNSON SIDING - CLEGHORN FD)	LEAVE AS IS
29.482	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.487	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
29.558	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
29.739	SAME	W1-4	30	30	EASTBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	2	NO	REVERSE CURVE - LEFT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
29.739	SAME	W13-1P	18	18	EASTBOUND	FLAT ALUM	YES	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "REVERSE CURVE - LEFT" POST
29.775	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	YES	6.0	2.0	1	NO	MRM 30	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
30.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 30	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 30 POST
30.046	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.427	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
30.592	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.698	30.644	S3-1	36	36	EASTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
30.659	30.691	W1-5	30	30	EASTBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	2	NO	WINDING ROAD - LEFT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST AT NEW LOCATION
30.659	30.691	W13-1P	18	18	EASTBOUND	FLAT ALUM	YES	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "WINDING ROAD - LEFT" POST
N/A	30.738	W1-2a	36	36	EASTBOUND	FLAT ALUM	N/A	9.0	XI	YES	14.0	2.0	2	NO	CURVE - LEFT WITH 40 IN SIGN	INSTALL NEW SIGN
30.785	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
30.785	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
30.787	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
30.800	30.808	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
30.800	30.808	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
30.815	30.831	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
30.815	30.831	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
N/A	30.854	W1-8	30	36	EASTBOUND	FLAT ALUM	N/A	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	INSTALL NEW SIGN - CHEVRONS SHALL BE 120' APART
N/A	30.854	W1-8	30	36	WESTBOUND	FLAT ALUM	N/A	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	ATTACH NEW SIGN TO "WB CHEVRON" POST
30.934	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	31.000	D10-5	4.5	12	EASTBOUND	FLAT ALUM	N/A	0.4	IV	YES	6.0	2.0	1	NO	MRM 31	INSTALL NEW SIGN
N/A	31.000	D10-5	4.5	12	WESTBOUND	FLAT ALUM	N/A	0.4	IV	NO	-	-	-	-	MRM 31	ATTACH NEW SIGN TO EASTBOUND MRM 31 POST
31.005	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
31.010	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
31.010	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
31.035	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
31.035	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
31.060	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (MELCOR RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST

TABLE OF PERMANENT SIGNING – SD 44 EASTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST				SIGN DESCRIPTION	WORK TO BE DONE	
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts			Shear Slip Base
31.065	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
31.065	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
31.104	SAME	W3-5	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	14.0	2.0	2	NO	REDUCED SPEED LIMIT AHEAD - 40	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
31.108	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
31.130	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (DEER CREEK LN)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.158	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (FOREST RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.174	N/A	W1-4	30	30	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	REVERSE CURVE - LEFT	SALVAGE EXISTING SIGN
31.174	N/A	W13-1P	18	18	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN
31.200	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
31.220	SAME	R2-1	30	36	EASTBOUND	FLAT ALUM	YES	7.5	IV	YES	12.0	2.0	2	NO	SPEED LIMIT - 40	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
31.290	SAME	W11-2	36	36	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	PEDESTRIAN	LEAVE AS IS
31.290	SAME	W16-9P	36	18	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	AHEAD (PLAQUE)	LEAVE AS IS
31.300	SAME	D10-5a	4.5	15	EASTBOUND	FLAT ALUM	YES	0.5	IV	YES	6.0	2.0	1	NO	MRM 31.30	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
31.300	SAME	D10-5a	4.5	15	WESTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 31.30	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 31.30 POST
31.394	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (FOREST RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.395	SAME	W11-2	36	36	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	PEDESTRIAN	LEAVE AS IS
31.395	SAME	W16-7P	36	18	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	DOWNWARD DIAGONAL ARROW (PLAQUE)	LEAVE AS IS
31.447	SAME	D1-1	42	42	EASTBOUND	NO	YES	-	-	NO	-	-	-	-	NORRIS PEAK RD	LEAVE AS IS
31.545	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
31.590	SAME	D10-5a	4.5	15	EASTBOUND	FLAT ALUM	YES	0.5	IV	YES	6.0	2.0	1	NO	MRM 31.59	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
31.590	SAME	D10-5a	4.5	15	WESTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 31.59	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 31.59 POST
31.613	N/A	W11-3	30	30	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	LARGE ANIMALS - DEER	SALVAGE EXISTING SIGN
31.613	N/A	W7-3aP	24	18	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	NEXT 3 MILES	SALVAGE EXISTING SIGN
31.670	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (MEADOWBROOK CT)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.700	SAME	R2-1	24	30	EASTBOUND	FLAT ALUM	YES	5.0	IV	YES	12.0	2.0	1	NO	SPEED LIMIT - 50	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
31.765	SAME	W1-2	30	30	EASTBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	CURVE - RIGHT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.765	SAME	W13-1P	18	18	EASTBOUND	FLAT ALUM	YES	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "CURVE - RIGHT" POST
31.765	N/A	W1-4	30	30	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	REVERSE CURVE - LEFT	SALVAGE EXISTING SIGN
31.792	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
31.798	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (MEADOWBROOK CT)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
31.799	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	31.812	W1-2a	36	36	EASTBOUND	FLAT ALUM	N/A	9.0	XI	YES	14.0	2.0	2	NO	CURVE - RIGHT WITH 40 IN SIGN	INSTALL NEW SIGN
31.812	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
31.817	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
31.850	30.644	S3-1	36	36	EASTBOUND	FLAT ALUM	YES	9.0	XI	YES	14.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
31.850	SAME	D10-5a	4.5	15	EASTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 31.85	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "SCHOOL BUS STOP AHEAD" POST
31.850	SAME	D10-5a	4.5	15	WESTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 31.85	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "SCHOOL BUS STOP AHEAD" POST
31.895	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
N/A	31.975	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW TYPE 2 OBJECT MARKER
31.975	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (RIVERVIEW CT)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
N/A	31.980	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW TYPE 2 OBJECT MARKER

TABLE OF PERMANENT SIGNING – SD 44 EASTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST				SIGN DESCRIPTION	WORK TO BE DONE	
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts			Shear Slip Base
32.000	32.001	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 32	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "ADOPT-A-HIGHWAY" POST (FAR RIGHT)
32.000	32.001	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 32	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "ADOPT-A-HIGHWAY" POST (FAR RIGHT)
32.001	SAME	AAH	36	42	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (7TH CIRCUIT JUDICIAL COURT)	LEAVE AS IS
32.050	SAME	D10-5a	4.5	15	EASTBOUND	FLAT ALUM	YES	0.5	IV	YES	6.0	2.0	1	NO	MRM 32.05	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
32.050	SAME	D10-5a	4.5	15	WESTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 32.05	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 32.05 POST
32.106	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (BROOKSIDE CT)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
32.256	N/A	W1-2	30	30	EASTBOUND	NO	YES	-	XI	N/A	-	-	-	-	CURVE - LEFT	SALVAGE EXISTING SIGN
32.256	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
N/A	32.306	W1-2	30	30	EASTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE - LEFT	INSTALL NEW SIGN
N/A	32.306	W13-1P	18	18	EASTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	ATTACH NEW SIGN TO "CURVE - LEFT" POST
32.344	SAME	S3-1	36	36	EASTBOUND	FLAT ALUM	YES	9.0	XI	YES	14.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
32.390	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.390	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.396	SAME	R1-1	30	30	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	STOP (FOREST RD)	LEAVE AS IS
32.410	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.410	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.440	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.440	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.465	N/A	W1-8	30	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.465	N/A	W1-8	30	36	WESTBOUND	NO	YES	-	-	N/A	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN
32.584	N/A	W1-5	30	30	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	WINDING ROAD - RIGHT	SALVAGE EXISTING SIGN
32.584	N/A	W13-1P	18	18	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN
32.610	SAME	D10-5a	4.5	15	EASTBOUND	FLAT ALUM	YES	0.5	IV	YES	6.0	2.0	1	NO	MRM 32.61	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
32.610	SAME	D10-5a	4.5	15	WESTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 32.61	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 32.61 POST
N/A	32.638	R1-1	30	30	NORTHBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	1	NO	STOP (SHIELDS RD)	INSTALL NEW SIGN
32.643	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
32.725	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	YES	6.0	2.0	1	NO	MRM 33	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
33.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 33	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 33 POST
N/A	33.037	W1-2	30	30	EASTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	CURVE - LEFT	INSTALL NEW SIGN
N/A	33.037	W13-1P	18	18	EASTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	ATTACH NEW SIGN TO "CURVE - LEFT" POST
33.080	33.075	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	1	NO	STOP (SHIELDS RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST AT NEW LOCATION
33.087	SAME	S3-1	36	36	EASTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
N/A	33.106	W1-8	30	36	EASTBOUND	FLAT ALUM	N/A	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	INSTALL NEW SIGN
N/A	33.106	W1-8	30	36	WESTBOUND	FLAT ALUM	N/A	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	ATTACH NEW SIGN TO "WB CHEVRON" POST
33.129	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
33.129	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.137	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
33.152	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
33.152	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.175	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART

TABLE OF PERMANENT SIGNING – SD 44 EASTBOUND (CONTINUED)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	30	120

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST				SIGN DESCRIPTION	WORK TO BE DONE	
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts			Shear Slip Base
33.175	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.198	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
33.198	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.221	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
33.221	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.244	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
33.244	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.267	SAME	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST - CHEVRONS SHALL BE 120' APART
33.267	SAME	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.285	33.290	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
33.285	33.290	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.308	33.313	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
33.308	33.313	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.328	33.336	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
33.328	33.336	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.350	33.359	W1-8	30	36	EASTBOUND	FLAT ALUM	YES	7.5	XI	YES	10.0	2.0	1	NO	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW AT NEW LOCATION ON NEW POST - CHEVRONS SHALL BE 120' APART
33.350	33.359	W1-8	30	36	WESTBOUND	FLAT ALUM	YES	7.5	XI	NO	-	-	-	-	CHEVRON ALIGNMENT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "EB CHEVRON" POST
33.402	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	33.408	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	INSTALL NEW TYPE 2 OBJECT MARKER
33.410	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	33.416	W1-2	30	30	EASTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	1	NO	CURVE - RIGHT	INSTALL NEW SIGN
N/A	33.416	W13-1P	18	18	EASTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	ATTACH NEW SIGN TO "CURVE - RIGHT" POST
33.545	33.543	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	1	NO	STOP (BRIDGE LN)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST AT NEW LOCATION
33.728	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.732	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
33.946	SAME	D9-10F	72	72	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	TODS STACK	LEAVE AS IS
33.966	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
33.971	SAME	SPECIAL	30	24	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
33.983	33.981	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	1	NO	STOP (THUNDERHEAD FALLS RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST AT NEW LOCATION
33.991	SAME	SPECIAL	30	24	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
34.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	YES	6.0	2.0	1	NO	MRM 34	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
34.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 34	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 34 POST
34.009	SAME	M3-2	24	12	EASTBOUND	FLAT ALUM	YES	2.0	IV	NO	-	-	-	-	CARDINAL DIRECTION - EAST	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
34.009	SAME	M1-5	24	24	EASTBOUND	FLAT ALUM	YES	4.0	IV	NO	-	-	-	-	STATE ROUTE SIGN - 44	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST BELOW "EAST" SIGN
34.053	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.152	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.207	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.326	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.432	SAME	D9-10F	72	54	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	TODS STACK	LEAVE AS IS
34.452	SAME	W2-2	30	30	EASTBOUND	FLAT ALUM	YES	6.3	IV	YES	12.0	2.0	2	NO	INTERSECTION WARNING - SIDE ROAD	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
34.521	SAME	D1-1a	54	18	EASTBOUND	FLAT ALUM	YES	6.8	IV	YES	10.0	2.0	2	NO	HISEGA 1	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS

TABLE OF PERMANENT SIGNING – SD 44 EASTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST				SIGN DESCRIPTION	WORK TO BE DONE	
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts			Shear Slip Base
34.548	SAME	SPECIAL	30	24	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
34.554	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
34.566	34.564	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	1	NO	STOP (HISEGA RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST AT NEW LOCATION
34.570	SAME	SPECIAL	30	24	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
34.609	SAME	R2-1	24	30	EASTBOUND	FLAT ALUM	YES	5.0	IV	YES	12.0	2.0	2	NO	SPEED LIMIT - 50	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
34.888	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
34.889	SAME	SPECIAL	30	24	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
34.904	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (PIONEER AVE)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
34.905	SAME	SPECIAL	30	24	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
34.955	SAME	AAH	36	42	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (TRIANGLE FRATERNITY)	LEAVE AS IS
35.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	YES	6.0	2.0	1	NO	MRM 35	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
35.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 35	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 35 POST
35.142	SAME	SPECIAL	30	24	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
35.157	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (LINDSEY DR)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
35.159	SAME	SPECIAL	30	24	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
35.256	N/A	W1-2	30	30	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CURVE - RIGHT	SALVAGE EXISTING SIGN
35.256	N/A	W13-1P	18	18	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN
35.500	SAME	SPECIAL	30	24	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
35.517	35.515	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	YES	12.0	2.0	1	NO	STOP (CARTER DR)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST AT NEW LOCATION
35.520	SAME	SPECIAL	30	24	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
35.620	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.630	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.676	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
35.960	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
36.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	YES	6.0	2.0	1	NO	MRM 36	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
36.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 36	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 36 POST
36.083	SAME	SPECIAL	30	24	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	DITCH DAMAGE BY ATV PUNISHABLE	LEAVE AS IS
36.354	N/A	W1-5	30	30	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	WINDING ROAD - RIGHT	SALVAGE EXISTING SIGN
36.427	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
36.513	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
36.619	N/A	W16-3v	36	36	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	WATCH FOR TURNING VEHICLES	SALVAGE EXISTING SIGN
N/A	36.638	W1-4	30	30	EASTBOUND	FLAT ALUM	N/A	6.3	XI	YES	12.0	2.0	2	NO	REVERSE CURVE - LEFT	INSTALL NEW SIGN
N/A	36.638	W13-1P	18	18	EASTBOUND	FLAT ALUM	N/A	2.3	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	ATTACH NEW SIGN TO "REVERSE CURVE - LEFT" POST
N/A	36.685	W2-2	30	30	EASTBOUND	FLAT ALUM	N/A	6.3	IV	YES	12.0	2.0	2	NO	SIDE ROAD - RIGHT	INSTALL NEW SIGN
N/A	36.732	W1-6	60	30	EASTBOUND	FLAT ALUM	N/A	12.5	XI	YES	12.0	2.0	2	NO	ONE-DIRECTION LARGE ARROW	INSTALL NEW SIGN
36.808	SAME	R1-1	30	30	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	STOP (FALLING ROCK RD)	LEAVE AS IS
36.897	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
36.948	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
36.980	SAME	AAH	36	42	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (TRIANGLE FRATERNITY)	LEAVE AS IS
37.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	YES	6.0	2.0	1	NO	MRM 37	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
37.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 37	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 37 POST

TABLE OF PERMANENT SIGNING – SD 44 EASTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
37.009	TBD	W14-3	48	36	WESTBOUND	FLAT ALUM	YES	12.0	XI	YES	12.0	2.0	2	NO	NO PASSING ZONE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS - LOCATION TO BE DETERMINED
37.085	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
37.265	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
37.365	SAME	SPECIAL	-	-	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	TRUCK-TRAILER WARNING	LEAVE AS IS
37.402	N/A	N/A	24	30	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	SPEED ZONE AHEAD	SALVAGE EXISTING SIGN
37.421	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
37.429	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
37.430	SAME	W4-2	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	RIGHT LANE ENDS (MERGE LEFT)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
37.485	37.497	W7-1a	48	48	EASTBOUND	FLAT ALUM	YES	16.0	XI	NO	-	-	-	-	HILL WITH GRADE - 8%	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POSTS
37.485	37.497	W7-3aP	24	18	EASTBOUND	FLAT ALUM	YES	3.0	XI	NO	-	-	-	-	NEXT 2 MILES PLAQUE	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING "HILL WITH GRADE" POSTS - CLOSEST TO ROAD
37.545	SAME	R2-1	24	30	EASTBOUND	FLAT ALUM	YES	5.0	IV	NO	-	-	-	-	SPEED LIMIT - 50	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
37.548	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
37.604	37.602	R1-1	30	30	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	STOP (CINNAMON RIDGE)	REMOVE EXISTING SIGN & RESET AT NEW LOCATION ON EXISTING POST
37.996	SAME	W1-2	48	48	EASTBOUND	FLAT ALUM	YES	16.0	XI	NO	-	-	-	-	CURVE - RIGHT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POSTS
37.996	SAME	W13-1P	24	24	EASTBOUND	FLAT ALUM	YES	4.0	XI	NO	-	-	-	-	ADVISORY SPEED PLAQUE - 40 MPH	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING "CURVE - RIGHT" POST - CLOSEST TO ROAD
38.028	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
N/A	38.115	W1-2a	36	36	EASTBOUND	FLAT ALUM	N/A	9.0	XI	YES	14.0	2.5	2	YES	CURVE - LEFT WITH 40 IN SIGN	INSTALL NEW SIGN
38.293	SAME	I10-3	24	24	BOTH	NO	NO	-	-	NO	-	-	-	-	FATALITY MARKER	LEAVE AS IS
38.327	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
38.357	SAME	SPECIAL	-	-	EASTBOUND	NO	NO	-	-	N/A	-	-	-	-	BIGHORN SHEEP NEXT 2 MILES	LEAVE AS IS
38.419	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
38.483	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
38.491	N/A	R1-1	30	30	NORTHBOUND	NO	YES	-	-	N/A	-	-	-	-	STOP	SALVAGE EXISTING SIGN
38.493	SAME	OM2-2V	6	12	BOTH	EACH	YES	-	XI	INCIDENTAL	-	-	-	-	TYPE 2 OBJECT MARKER - BACK TO BACK	SALVAGE EXISTING POST & REPLACE WITH NEW TYPE 2 ON NEW POST
38.638	SAME	W7-1a	48	48	EASTBOUND	FLAT ALUM	YES	16.0	XI	YES	16.0	2.5	2	YES	HILL WITH GRADE - 10%	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
38.872	SAME	W4-2	36	36	WESTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	RIGHT LANE ENDS (MERGE LEFT)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
38.938	SAME	AAH	36	42	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (BLACK HILLS FEDERAL CREDIT)	LEAVE AS IS
39.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	YES	6.0	2.0	1	NO	MRM 39	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
39.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 39	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 39 POST
39.153	N/A	W1-2	48	48	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	CURVE - LEFT	SALVAGE EXISTING SIGN
39.153	N/A	W13-1P	24	24	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 45 MPH	SALVAGE EXISTING SIGN
39.209	N/A	W4-1	48	48	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	MERGE	SALVAGE EXISTING SIGN
39.235	SAME	S3-1	36	36	EASTBOUND	FLAT ALUM	YES	9.0	XI	YES	12.0	2.0	2	NO	SCHOOL BUS STOP AHEAD - FLUORESCENT GREEN - HINGED	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS
39.282	SAME	W3-5	36	36	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	REDUCED SPEED LIMIT AHEAD - 45	LEAVE AS IS
39.340	SAME	R1-1	30	30	EASTBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (DARK CANYON RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
39.423	39.458	R2-1	30	36	EASTBOUND	FLAT ALUM	YES	7.5	IV	YES	16.0	2.0	2	NO	SPEED LIMIT - 45	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POSTS AT NEW LOCATION
39.706 MED	SAME	R4-7	24	30	EASTBOUND	FLAT ALUM	YES	5.0	IV	NO	-	-	-	-	KEEP RIGHT	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
39.706 MED	SAME	OM2-2V	6	48	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	TYPE 2 OBJECT MARKER	LEAVE AS IS
39.750	SAME	R1-1	30	30	NORTHBOUND	FLAT ALUM	YES	6.3	XI	NO	-	-	-	-	STOP (MAGIC CANYON RD)	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
39.762	SAME	R1-2	36	36	EASTBOUND	FLAT ALUM	YES	9.0	XI	NO	-	-	-	-	YIELD	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EXISTING POST
39.740	SAME	D10-5a	4.5	15	EASTBOUND	FLAT ALUM	YES	0.5	IV	YES	6.0	2.0	1	NO	MRM 39.74	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST

TABLE OF PERMANENT SIGNING – SD 44 EASTBOUND (CONTINUED)

EXISTING MRM (Approx.)	NEW MRM (Approx.)	SIGN								POST					SIGN DESCRIPTION	WORK TO BE DONE
		Number	Width (in)	Height (in)	Facing Traffic	New Sign	Remove Existing	Square Footage	Sheeting Type	New Post	Length (ft)	Size (in)	# of Posts	Shear Slip Base		
39.740	SAME	D10-5a	4.5	15	WESTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 39.74	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 39.74 POST
39.754	SAME	SPECIAL	72	24	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	TOWN BOARD - RAPID CITY	LEAVE AS IS
39.940	SAME	D10-5a	4.5	15	EASTBOUND	FLAT ALUM	YES	0.5	IV	YES	6.0	2.0	1	NO	MRM 39.94	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
39.940	SAME	D10-5a	4.5	15	WESTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 39.94	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 39.94 POST
40.000	SAME	D10-5	4.5	12	EASTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 40	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "ADOPT-A-HIGHWAY" POST (FAR RIGHT)
40.000	SAME	D10-5	4.5	12	WESTBOUND	FLAT ALUM	YES	0.4	IV	NO	-	-	-	-	MRM 40	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON "ADOPT-A-HIGHWAY" POST (FAR RIGHT)
40.000	SAME	AAH	36	42	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	ADOPT-A-HIGHWAY (CANYON LAKE SENIOR CENTER)	LEAVE AS IS
N/A	40.013	W4-2	36	36	EASTBOUND	FLAT ALUM	N/A	9.0	XI	YES	16.0	2.0	2	NO	LANE ENDS MERGE RIGHT	INSTALL NEW SIGN
40.060	SAME	SPECIAL	24	40	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	UNMUFFLED DYNAMIC BRAKING PROHIBITED	LEAVE AS IS
40.135	SAME	R2-1	24	30	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	SPEED LIMIT - 45	LEAVE AS IS
N/A	40.200	R3-9cP	30	12	EASTBOUND	FLAT ALUM	N/A	2.5	IV	YES	16.0	2.0	1	NO	BEGIN	INSTALL NEW SIGN
N/A	40.200	R3-9b	24	36	EASTBOUND	FLAT ALUM	N/A	6.0	IV	NO	-	-	-	-	TWO-WAY LEFT TURN ONLY	ATTACH NEW SIGN TO "BEGIN" POST
40.245	SAME	R1-1	30	30	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	STOP (DOG PARK)	LEAVE AS IS
40.270	SAME	SPECIAL	48	48	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	BIGHORN SHEEP SYMBOL	LEAVE AS IS
40.270	SAME	SPECIAL	30	30	WESTBOUND	NO	NO	-	-	NO	-	-	-	-	BIGHORN SHEEP CROSSING	LEAVE AS IS
40.337	SAME	W2-1	30	30	EASTBOUND	FLAT ALUM	YES	6.3	IV	YES	12.0	2.0	2	NO	CROSS ROAD	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
40.337	N/A	W13-1P	18	18	EASTBOUND	NO	YES	-	-	N/A	-	-	-	-	ADVISORY SPEED PLAQUE - 35 MPH	SALVAGE EXISTING SIGN
40.393	SAME	R2-1	24	30	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	SPEED LIMIT - 40	LEAVE AS IS
40.420	SAME	D10-5a	4.5	15	EASTBOUND	FLAT ALUM	YES	0.5	IV	YES	6.0	2.0	1	NO	MRM 40.42	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON NEW POST
40.420	SAME	D10-5a	4.5	15	WESTBOUND	FLAT ALUM	YES	0.5	IV	NO	-	-	-	-	MRM 40.42	SALVAGE EXISTING SIGN & REPLACE WITH NEW ON EASTBOUND MRM 40.42 POST
40.447	SAME	R1-1	30	30	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	STOP (WATER TREATMENT PLANT)	LEAVE AS IS
40.481	SAME	SPECIAL	48	24	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	CLEGHORN SPRINGS FISH HATCHERY	LEAVE AS IS
40.600	SAME	R1-1	30	30	NORTHBOUND	NO	NO	-	-	NO	-	-	-	-	STOP (FISH HATCHERY)	LEAVE AS IS
40.850	SAME	R2-1	24	30	EASTBOUND	NO	NO	-	-	NO	-	-	-	-	SPEED LIMIT - 35	LEAVE AS IS

PERMANENT PAVEMENT MARKINGS

Waterborne Pavement Marking Paint:

- MRM 40.94 (Chapel Lane) to MRM 39.40 (Nameless Cave Rd)
 - All Markings
 - Surface Applied

Waterborne Pavement Marking Paint with High Grade Polymer and Cold Applied Plastic Pavement Markings:

- MRM 39.40 (Nameless Cave Rd) to MRM 26.90 (US Hwy 385)
 - Edgelines, Centerlines, & Skips
 - Grooved-In Paint
 - Turn Arrows, Lane Reduction Arrows, & Lane Lines
 - Grooved-In Cold Applied Plastic

All materials shall be applied as per manufacturer's recommendations.

PAVEMENT MARKING PAINT

Rates of Application:

- Solid 4" Line = 17 Gals/Mile
- Glass Beads = 8 Lbs/Gal

PAVEMENT MARKING PAINT WITH HIGH GRADE POLYMER

Pavement Marking Paint with High Grade Polymer markings shall be placed into a recessed groove on the surface.

This material shall consist of a durable high build, low VOC, fast drying, waterborne traffic paint with an acrylic polymer emulsion and with reflective media adhered to the paint. The reflective media shall consist of glass beads as well as bonded core reflective elements.

The bonded core reflective elements shall contain either clear or yellow tinted microcrystalline ceramic beads bonded to the outer surface. All microcrystalline ceramic beads bonded to reflective elements shall have a minimum index of refraction of 1.8 when tested using the liquid oil immersion method.

The Department will take retro-reflectivity readings on the pavement marking lines no sooner than 3 days and no later than 30 days after the completion of all line applications required for an individual highway route using a portable retro-reflectometer conforming to 30-meter geometry. Retro-reflectivity readings will be taken on a test location with cleaning being limited to light hand brooming.

Pavement markings not conforming to the Retro-reflectivity requirements shall be removed and replaced. If replacement of markings cannot be applied within the same year, the Contractor shall schedule subject work to be completed no later than June 15th in the following year. Upon replacement, the retro-reflectivity testing process will be done again requiring new readings.

The Department will randomly select one test location per mile of each edge line including ramps and one test location per mile of centerline (solid and/or skip line will be considered as one centerline). Three retro-reflectivity readings will be taken at each test location. The three readings will be averaged and become the reading for that test location.

Initial Readings (within 3 - 30 days of the line application):

<u>Pavement Marking Color</u>	<u>Minimum Value</u>
White	350 mcd/m2/lux
Yellow	275 mcd/m2/lux

All pavement markings not conforming to the requirements provided in these plans will be considered deficient and shall be removed and replaced. Additional retro-reflectivity readings will be taken by the Department to determine the limits of removal. The removal shall be accomplished using suitable sand blasting or grinding equipment unless the Engineer authorizes other means. The removal process shall remove at least 90% of the deficient line, with no excessive scarring of the existing pavement. The removal width shall be one inch wider all around the nominal width of the pavement marking to be removed. Removal and replacement of the pavement markings shall be at Contractor's expense, with no cost incurred by the State.

RATES OF MATERIALS FOR PAINT WITH HIGH GRADE POLYMER

Solid 4" Line = 27.8 Gals/Mile
 Glass Beads – 5.3 Lbs/Gal
 Composite Reflective Elements – 2.1 Lbs/Gal

All costs for materials, labor, and equipment necessary to furnish and install these pavement markings shall be incidental to the contract unit price per gallon for Waterborne Pavement Marking Paint with High Grade Polymer, White or Yellow.

GROOVE PAVEMENT FOR PAINT WITH HIGH GRADE POLYMER

The Contractor shall establish a positive means for the removal of the grinding and/or grooving residue. 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.

Unless otherwise specified in the plans, the Contractor shall groove the surface for Pavement Marking Paint with High Grade Polymer as specified in these plans and as per manufacture's instructions.

The grooving shall be completed within the following tolerances:

Depth of Groove:	70 mils ± 5 mils
Width of 4" Groove:	5" to 6"
Length of Skip Lines:	10'-6" with tolerance of ± 3"
Tapers at Begin/End Lines:	6" to 9"

The equipment 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.
- Providing uniform alignment and depth.
- Moving continuously to permit a mobile traffic work operation.

If damage to joints, joint sealant material, backer rod, etc. occurs, the grooving operation shall be stopped and modifications shall be made to the grooving operation to prevent further damage. The Contractor may be required to use specially prepared circular diamond blade cutting heads to prevent damage at the joints. Damage caused to joints, the joint sealant material, backer rod, etc. shall 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.

Grooving on bridge decks will not be required. The Contractor shall not damage bridge joints near any pavement marking grooving. Markings on bridge decks shall be surface applied.

COLD APPLIED PLASTIC PAVEMENT MARKING

Cold applied plastic pavement markings shall be placed into a recessed groove on the surface.

Final locations of markings will be determined by Engineer.

GROOVE PAVEMENT FOR COLD APPLIED PLASTIC MARKINGS

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	NH-P 0044(172)26	35	120

The grooving shall be completed within the following tolerance:

Depth of Groove: 100 mils, ± 10 mils.

The bottom of the groove shall be uniform and free of loose material. The groove shall be flat and of uniform depth for the entire width of the groove.

The Contractor shall establish a positive means for the removal of the grinding and/or grooving residue. 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.

If damage to joints, joint sealant material, backer rod, etc. occurs, the grooving operation shall be stopped and modifications shall be made to the grooving operation to prevent further damage. The Contractor may be required to use specially prepared circular diamond blade cutting heads to prevent damage at the joints. Damage caused to joints, the joint sealant material, backer rod, etc. shall 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.

Grooving on bridge decks will not be required. The Contractor shall not damage bridge joints near any pavement marking grooving. Markings on bridge decks shall be surface applied.

NO PASSING ZONES

The Contractor shall advise the Engineer a minimum of three (3) weeks prior to the application of permanent pavement markings to allow the State to mark the locations of No Passing Zones. State forces will not be available to mark the No Passing Zones from 07-21-14 to 08-15-14.

TRAFFIC CONTROL – GENERAL NOTES

1. Requests to deviate from the sequence of operations shall be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. An alternate sequence shall be submitted for review a minimum of one week prior to potential implementation.
2. Unless otherwise stated in these plans, no work will be allowed during hours of darkness. Hours of darkness are defined as ½ hour after sunset until ½ hour before sunrise.
3. Storage of vehicles and equipment shall be as near the right-of-way as possible. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work. Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage of 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.

4. Existing guide, route, informational logo, regulatory, and warning signs shall be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including but not limited to, traffic signal heads, delineation, and signing shall be the responsibility of the Contractor. Non-applicable signing and all traffic control devices shall be covered or removed during periods of inactivity. Periods of inactivity shall be defined as no work taking place for a period of more than 48 hours. The cost of removing or covering non-applicable signs shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".
5. Construction signing mounted on portable supports shall not be used for a duration of more than 3 days, unless approved by the Engineer. Construction signing that remains in the same location for more than 3 days shall be mounted on fixed location, ground mounted, breakaway supports.
6. The quantity of Signs paid for will be for the greatest number of installations per sign in place at any one time regardless of the number of set-ups on the project.
7. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.
8. All materials and equipment shall be stored a minimum distance of 30' from the traveled way during nonworking hours.
9. The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.
10. The Contractor shall be required to have a person available 24 hour/day, 7 days/week to maintain traffic control devices. The name and cellular telephone number of this individual shall be given to the Engineer at the preconstruction meeting.
11. The Contractor or designated traffic control subcontractor shall make night inspections at the initial set up of traffic control and every week thereafter to ensure the adequacy, legibility and reflectivity of each sign and device. A written summary of each inspection shall be given to the Engineer within 24 hours after completion of the inspection. The cost for the nighttime inspection work shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".
12. Vehicles working in traffic or alongside traffic shall be equipped with a flashing amber light visible from all directions. The amber light shall be mounted on the uppermost part of the Contractor's vehicle. Lights must have peak intensity within the range of 40 to 400 candelas and must flash at 75 ± 15 flashes per minute. Vehicle flasher/hazard lights are not acceptable. All haul trucks shall be equipped with a second flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights shall be incidental to the various related contract bid items.
13. All construction operations shall be conducted in the general direction of traffic movement.
14. If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD – whichever is more stringent shall be used, as determined by the Engineer.

15. Temporary Road Markers (Tabs) shall be used for lane closure tapers or lane shift tapers and shall be installed at 5' spacing. Tabs used for tapers and shifts will not be measured for payment. All costs associated to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove all markers will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".
16. Drums are required in all lane closure tapers.
17. Traffic approaching the project from intersecting roadways and approaches must be adequately accommodated. Major intersections or large commercial entrances may require additional signing, flaggers, and channelizing devices on a temporary basis until work activities pass these areas.
18. During S-Mix overlay operations, traffic shall not be delayed more than 5 minutes while crossing intersections.
19. The pilot car shall be a 4 wheeled vehicle with the Contractor's name prominently displayed on both sides of the vehicle. A 36" x 18" black on orange sign G20-4, PILOT CAR (top line) FOLLOW ME (bottom line) shall be mounted in a conspicuous position on the rear of the vehicle. The pilot car will be equipped with a flashing amber light.
20. The Contractor shall place Grooved Pavement (W8-15) with Next XX Miles (W7-3aP) and Motorcycles Use Extreme Caution (black on orange – "48x48") signs at each end of the project and at Norris Peak Road. The Contractor shall also place Grooved Pavement with Motorcycle plaque (W8-15P) signs immediately prior to milled surfaces and shall be repeated every 2 miles or as directed by the Engineer.
21. Traffic shall not be delayed for a period longer than 5 minutes.
22. Bump Signs (W8-1, black on orange - 48"x48") with appropriate Advisory Speed Plaque (W13-1P, black on orange - 24"x24") shall be placed 500' in advance of the bump or as approved by the Engineer for adequate sight distance. Type I Object Markers (orange - 18"x18") shall be placed at the bump location.
23. Road Work Ahead (W20-1) signs shall be placed at applicable intersecting roads and as directed by the Engineer.
24. The Contractor shall not allow mainline traffic to run on a milled surface at any location on the project for more than 14 calendar days.
25. The Contractor shall place Uneven Lane (W8-11) signs where appropriate.
26. Milling operations shall be conducted in a manner that keeps uneven lane exposure to minimum, i.e. - mill one lane then drop back the same day and mill adjacent lane(s).
27. Paving operations shall be conducted in a manner that keeps uneven lanes exposure to a minimum, i.e. – pave one lane one day then drop back and pave the adjacent lane the next day.
28. The Contractor shall cover the no passing zone signing as work progresses and Temporary Pavement Markings are placed.

TRAFFIC CONTROL – GENERAL NOTES (CONTINUED)

29. Guardrail replacement shall be completed during paving and milling operations. Section 630.3F of the Standard Specifications for Roads and Bridges shall be adhered to.

SEQUENCE OF OPERATIONS

Phase 1

1. Using Standard Plate No. 634.23, complete slope flattening at MRM's 27.7, 28.3, 37.8, and 38.1.

Phase 2

1. Complete all concrete work from Sta. 4+00 (3rd Station) to Sta. 58+15 using Standard Plate No.'s 634.47 and 634.48.

Phase 3

Note: Cold milling shall be completed full roadway width from Sta. 4+00 (3rd Station) to Sta. 58+15 prior to milling being started on the remaining project.

1. Using Standard Plate No. 634.47, close the driving lanes in both directions from Sta. 4+00 to Sta. 58+15 and complete cold milling.
2. Using Standard Plate No. 634.48, close the passing lanes in both directions from Sta. 4+00 to Sta. 58+15 and complete cold milling.
3. Install temporary pavement markings and remove traffic control.

Phase 4

Notes: Using Standard Plate No. 634.31, complete the work from Sta. 0+13 to Sta. 4+00 (3rd Station). Additional flaggers may be required to warn travelers of the approaching backup of vehicles due to pilot car operations. Use Standard Plate No.'s 634.46, 634.47, and 634.48 to complete the Class S overlay from Sta. 4+00 (3rd Station) to Sta. 58+15.

1. Complete digouts
2. Complete cold milling
3. Complete shoulder widening
4. Complete guardrail work
5. Complete spot leveling
6. Complete Class S overlay
7. Install permanent pavement markings
8. Install rumble strips and mailboxes
9. Complete all remaining work

TYPE C ADVANCE WARNING ARROW PANEL

The quantity of Type C Advance Warning Arrow Panels paid will be the most installations in place at any one time regardless of the number of setups on the project.

CONTRACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

The Contractor shall furnish portable changeable message signs to be used for the duration of the project. Message signs shall be installed to inform the traveling public of when construction will begin for each phase (2 week advance notice), advising the general public of the conditions ahead, and as directed by the Engineer. The changeable message signs shall be furnished, programmed, and maintained for the entire project duration. The Engineer will assist in determining the location and messages to be programmed into the message sign. The message boards shall be clearly visible from a minimum of 900 feet and shall be solar powered or wired directly to a power source. Diesel and gas powered message panels will not be allowed. The portable message panels will be paid for at the contract unit price per each for "Contractor Furnished Portable Changeable Message Sign". Payment will be full compensation for furnishing, maintaining, and relocating as many times as required by the Engineer and the Contractor's operations.

TEMPORARY PAVEMENT MARKING

Temporary Pavement Marking Paint shall be used on milled and leveling surfaces for centerlines, lane lines, skips, and as directed by the Engineer. The Temporary Pavement Marking Paint shall be placed at the exact location of the existing pavement markings except that centerline shall be double yellow the entire project length and shall be offset 6" from centerline of the roadway. It shall be the Contractor's responsibility to determine which direction to offset so that the markings do not get covered up when the first half of the roadway is paved. Any markings that get covered by the paving operation shall be reestablished as directed by the Engineer at the Contractor's expense. The Contractor shall be responsible for marking out those exact locations.

The Temporary Pavement Marking shall be installed by the end of each day. The Contractor shall conduct his milling and paving operations such that the surfaces only need to be temporarily painted once.

Payment for Temporary Pavement Marking Paint will be measured by the mile. Payment will be for all costs to furnish and install all temporary pavement markings from the beginning of the project to the end of the project.

TEMPORARY ROAD MARKERS

Temporary Road Markers (Tabs) shall be used on the top lift of asphalt surfacing for centerline delineation, lane lines, skips, and as directed by the Engineer. Tabs shall be offset 6" from the location shown for permanent pavement markings. Centerline shall be double yellow lines with tabs spaced at 5' the entire project length. Lane line spacing shall be 5'. Skips shall have 3 tabs for each 10' skip. The Tabs shall be installed by the end of each day. Tabs shall be removed the same day that permanent pavement marking is installed.

Payment for Temporary Road Markers will be by the mile. Payment will be for all costs to furnish, install, and remove all Temporary Road Markers from the beginning of the project to the end of the project.

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	NH-P 0044(172)26	36	120

CONTRACTOR FURNISHED PROGRESS SCHEDULES

The Contractor shall furnish the Engineer two copies of a bar chart method progress schedule at the preconstruction meeting. The schedule shall consist of a construction schedule and brief written narrative. The schedule shall contain the following information:

1. A time scale to graphically show percentage of work scheduled for completion within the contract completion requirements.
2. Definition and relation of work activities to contract pay items.
3. Work activities (prime contractor and all subcontractor activities) in the order the work will be performed including submittals, approvals, deliveries, temporary traffic control, and permanent signing/stripping.
4. All major work activities that are controlling factors in the completion of the work.
5. The time required for each activity and its relationship in time to other activities.
6. The total expected time to complete all work.
7. The expected work shifts in days per week and hours per day and the days when work is not expected to be performed.

The schedule shall be updated, revised and resubmitted on a bi-weekly interval until the project is substantially complete. There will be no direct payment for the contractor furnished schedule. All costs associated with the schedule shall be incidental to the related items. Failure to properly submit the required construction schedules will result in the withholding of progress payments until an approved schedule is received.

OVERWIDTH TRAFFIC

The Contractor shall maintain a minimum width of 16' at all times, except when milling and paving equipment is working directly adjacent to centerline. At these times the Contractor shall notify the public of the available width using variable message panels.

PRESS RELEASE ANNOUNCEMENTS

The SDDOT will prepare a Press Release to be released 5 days prior to any phase change or any other major change that affects traffic flow. The SDDOT will be responsible to keep law enforcement, emergency services, and the traveling public notified of changes in project access. The Contractor shall provide the Engineer with pertinent information 7 days prior to any phase change or any other major changes that affect traffic flow.

INVENTORY OF TRAFFIC CONTROL DEVICES

SIGN CODE	SIGN SIZE	DESCRIPTION	#	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
G20-4	36" x 18"	PILOT CAR FOLLOW ME	1	17	17
W3-4	48" x 48"	BE PREPARED TO STOP	2	34	68
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	2	34	68
W7-3aP	36" x 30"	NEXT ## MILES (plaque)	2	23	46
W8-1	48" x 48"	BUMP	6	34	204
W8-6	48" x 48"	TRUCK CROSSING	2	34	68
W8-11	48" x 48"	UNEVEN LANES	4	34	136
W8-15	48" x 48"	GROOVED PAVEMENT	12	34	408
W8-15P	24" x 18"	MOTORCYCLE (plaque)	12	7	84
W13-1P	30" x 30"	ADVISORY SPEED (plaque)	8	21	168
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	10	34	340
W20-4	48" x 48"	ONE LANE ROAD ##### FT. OR AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED ##### FT. OR AHEAD	2	34	68
W20-7a	48" x 48"	FLAGGER	6	34	204
SPECIAL	48" x 48"	MOTORCYCLES USE EXTREME CAUTION	2	34	68
OM1-3	18" x 18"	TYPE 1 OBJECT MARKER	6	5	30
*****		TYPE III BARRICADE - 8 FT. DOUBLE SIDED	4	56	224
TOTAL UNITS				2303	

REMOVE AND REPLACE TOPSOIL

Prior to beginning resurfacing operations, topsoil shall be bladed into a windrow just outside the width needed for surfacing equipment. The windrow shall be placed no greater than a distance of 1' from the limits of surfacing. The Contractor shall minimize the damage to existing vegetation and assure that topsoil is not lost down the slope. Following completion of resurfacing operations, topsoil shall be bladed back up against the surfacing as indicated on the typical sections. Topsoil lost down the slope shall be replaced by the Contractor at the Contractor's expense. The exact limit shall be determined by the Engineer during construction.

Prior to beginning grading operations, all available topsoil shall be salvaged within the work limits. The Contractor shall minimize the damage to existing vegetation. Following completion of grading operations, topsoil shall be replaced over all disturbed areas. The exact limit shall be determined by the Engineer during construction.

All costs associated with removing and replacing the topsoil on the project shall be incidental to the lump sum price for "Remove and Replace Topsoil".

The following locations will require remove and replace topsoil:

- grading work MRM 27.7
- grading work MRM 28.3
- grading work MRM 37.8
- grading work MRM 38.1
- grading work MRM 40.247
- grading work MRM 40.596
- along resurfacing Sta. 513+55 to 545+80
- along resurfacing Sta. 545+80 to 110+50 (2nd Station)

MYCORRHIZAL INOCULUM

Mycorrhizal inoculum shall consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier shall provide certification of the fungal species claimed and the live propagule count. The inoculum shall include the following fungal species:

- Glomus intraradices* 25%
- Glomus aggregatu* 25%
- Glomus mosseae* 25%
- Glomus etunicatum* 25%

All seed shall be inoculated with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. All costs of inoculating the seed shall be incidental to the contract unit price per square yard for hydroseeding.

FERTILIZING

The Contractor shall apply an all-natural slow release fertilizer prior to seeding or placing sod. The all-natural fertilizer shall have a minimum guaranteed analysis of 4-6-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 3.2%, a minimum of 6% (P2O5) available phosphate, a minimum of 4% (K2O) soluble potash, and a maximum carbon to nitrogen ratio (C:N ratio) of 5:1. The all-natural fertilizer shall be free of weed-seed and pathogens accomplished through thermophilic composting, and not mechanical or chemical sterilization, to assure presence of beneficial soil microbiology. The fertilizer shall have a near neutral pH, a low salt index, a low biological oxygen demand, contain organic humic and fulvic acids, and have high aerobic organism counts. The fertilizer shall also be stable, free of bad odors, and be unattractive as a food source for animals. It should also be in a granular form that is easily spread.

The application rate is 1500 pounds per acre.

The all-natural slow release fertilizer shall be from the list below or an approved equal:

<u>Product</u>	<u>Manufacturer</u>
Sustane	Sustane Corporate Headquarters Cannon Falls, Minnesota Phone: 1-800-352-9245 http://www.sustane.com/

HYDROSEEDING

The areas to be hydroseeded with Type F Permanent Seed Mixture shall comprise of all newly graded areas within the project limits.

Type F Permanent Seed Mixture shall consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Flintlock, Rodan, Rosana	7
Green Needlegrass	Lodorm	4
Sideoats Grama	Butte, Killdeer, Pierre, Trailway	3
Blue Grama	Bad River, Willis	2
Oats or Spring Wheat: April through May; Winter Wheat: August through November		10
Total:		26

Hydroseeding shall be done by applying a mixture of water and seed at locations determined by the Engineer during construction.

The equipment used for hydroseeding shall be a mechanical agitation hydroseeding machine.

All costs for hydroseeding including equipment, labor, and materials which include the water and seed shall be incidental to the contract unit price per square yard for "Hydroseeding"

FIBER REINFORCED MATRIX

Fiber reinforced matrix shall be applied to the areas noted in the table. Fiber reinforced matrix shall not be placed in channels. Fiber reinforced matrix shall be applied after hydroseeding. Areas designated for fiber reinforced matrix application do not require a grass hay or straw mulch application. Fiber reinforced matrix is effective upon application. The application rate is 3,000 pounds per acre.

All costs for furnishing and applying the fiber reinforced matrix including hauling, materials, equipment, labor, and incidentals necessary shall be paid for at the contract unit price per pound for "Fiber Reinforced Matrix".

The fiber reinforced matrix shall be from the list below:

<u>Product</u>	<u>Manufacturer</u>
Flexterra FGM or CocoFlex ET-FGM	Profile Products LLC Buffalo Grove, IL Phone: 1-800-508-8681 www.profileproducts.com
Flex Guard	Mat, Inc. Floodwood, MN Phone: 1-888-477-3028 www.matinc.biz

TABLE OF SEEDING, FIBER REINFORCED MATRIX & FERTILIZING

Sta.	Sta.	L (Ft)	W (Ft)	Acres	Hydro- seeding (SqYd)	Fiber Reinforced Matrix (Lb)	Fertilizing (Lb)
513+55	557+10	4355	4	0.4	1936	1199.7	600
0+00	110+50	11050	4	1.0	4911	3044.1	1522
MRM							
27.7				0.1	484	300.0	150
28.3				1.4	6776	4200.0	2100
37.8				0.1	484	300.0	150
38.1				0.2	968	600.0	300
40.247				0.1	484	300.0	150
			Totals:		16043	9943.8	4972

TURF REINFORCEMENT MAT

Turf Reinforcement Mat shall be installed at MRM 40.247 as shown on the plan sheet at the width specified, and at locations determined by the Engineer during construction. The Contractor shall use a turf reinforcement mat from the approved products list. The approved product list for turf reinforcement mat may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>

Installation of the Turf Reinforcement Mat shall be according to the manufacturer's installation instructions.

TEMPORARY STREAM DIVERSION FOR PIPE EXTENSION

A temporary stream diversion will be required to divert stream flows away for the work area located at MRM 27.7 and MRM 28.3 for the work in Deer Creek. A quantity of 1 each is provided at MRM 27.7 and 2 each is provided at MRM 28.3.

The type of temporary stream diversion device shall be chosen by the Contractor in accordance with the details provided in these plans. All costs for labor, equipment, materials to complete the temporary stream diversion shall be incidental to the contract unit price per each for "Temporary Stream Diversion for Pipe Extension". "Temporary Stream Diversion for Pipe Extension" will be paid for once per pipe site regardless of the number of times water is diverted at each individual site.

CONSTRUCTION PRACTICES FOR TEMPORARY WORKS IN WATERWAYS

No excavation shall be made below the ordinary high water elevation in waterways outside of caissons, cribs, cofferdams, steel piling, or sheeting; and the natural streambed shall not be disturbed without permission from the Engineer.

All dredged or excavated materials shall be placed at a site above the ordinary high water elevation in a confined area (not classified as a wetland) to prevent return of such material to the waterway.

The construction of temporary work platforms, crossings, or berms below the ordinary high water elevation will be allowed provided that all material placed below the ordinary high water elevation consists of Class B or larger riprap.

All temporary caissons, cribs, cofferdams, steel piling, sheeting, work platforms, crossings, and berms shall be removed with minimal disturbance to the streambed. Proper construction practices shall be used to minimize increases in suspended solids and turbidity in the waterway.

Bridge berms, wing dams, traffic diversions, channel reconstruction, grading, etc. shall be constructed in close conformity with the plans to ensure that the hydraulic capacity of the waterway is not changed.

Temporary waterway crossings required for the Contractors construction operations shall be constructed with an adequate drainage structure size and minimum fill height to reduce the potential for upstream flooding. The Contractor will be responsible for sizing the temporary drainage structure for these crossings.

EROSION CONTROL WATTLE

Erosion control wattles for restraining the flow of runoff and sediment shall be installed at locations noted in the table and at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

The Contractor shall provide certification that the erosion control wattles do not contain noxious weed seeds.

The erosion control wattle provided shall be from the approved product list. The approved product list for erosion control wattle may be viewed at the following internet site:

Erosion control wattles shall remain on the project to decompose.

<http://sddot.com/business/certification/products/Default.aspx>

TABLE OF EROSION CONTROL WATTLE

MRM	L/R	Description	12" Diameter Erosion Control Wattle (Ft)
27.700	R	Perimeter Control	75
28.300	L/R	Perimeter Control	800
37.800	L	Perimeter Control	200
38.100	R	Perimeter Control	200
40.247	R	Across Outlet Ditch	20
		Total	1295

PLACING CONTRACTOR FURNISHED TOPSOIL

It is anticipated that a larger volume of topsoil will be needed for the new grade than can be salvaged from the existing grade. The Contractor will be required to furnish and place topsoil on areas as determined by the Engineer during construction.

All costs to furnish and place the topsoil shall be incidental to the contract unit price per cubic yard for "Placing Contractor Furnished Topsoil".

STORM WATER POLLUTION PREVENTION PLAN CHECKLIST

(The numbers right of the title headings are **reference numbers** to the **GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES**)

❖ **SITE DESCRIPTION (4.2 1)**

- **Project Limits: See Title Sheet (4.2 1.b)**
- **Project Description: See Title Sheet (4.2 1.a.)**
- **Site Map(s): See Title Sheet and Plans (4.2 1.f. (1)-(6))**
- **Major Soil Disturbing Activities** (check all that apply)
 - Clearing and grubbing
 - Excavation/borrow
 - Grading and shaping
 - Filling
 - Cutting and filling
 - Other (describe):
- **Total Project Area 84.9 (4.2 1.b)**
- **Total Area To Be Disturbed 3.4 (4.2 1.b.)**
- **Existing Vegetative Cover (70%)**
- **Soil Properties: AASHTO Classification A-4,A-6, A-3 or A-2-4 (4.2 1. d.)**
- **Name of Receiving Water Body/Bodies** Deer Creek and Rapid Creek(4.2 1.e.)

❖ **ORDER OF CONSTRUCTION ACTIVITIES (4.2 1.c.)**

- (Stabilization measures shall be initiated as soon as possible, but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Initiation of final or temporary stabilization may exceed the 14-day limit if earth disturbing activities will be resumed within 21 days.)
- **Install perimeter control where runoff sheets from the site.**
 - **Clearing and grubbing**
 - **Remove and stockpile topsoil.**
 - **Grading and earth disturbing activities.**
 - **Replace topsoil and seed disturb areas that will not be disturbed due to surfacing operations.**
 - **Complete final paving.**
 - **Replace topsoil and seed areas disturbed during paving operations.**

❖ **EROSION AND SEDIMENT CONTROLS (4.2 2.a.(1)(a)-(f))**

- (Check all that apply)
- **Stabilization Practices (See Detail Plan Sheets)**
 - Temporary Seeding (Cover Crop Seeding)
 - Permanent Seeding
 - Sodding
 - Planting (Woody Vegetation for Soil Stabilization)
 - Mulching (Grass Hay or Straw)
 - Hydraulic Mulch (Wood Fiber Mulch)
 - Soil Stabilizer
 - Bonded Fiber Matrix
 - Erosion Control Blankets or Mats
 - Vegetation Buffer Strips
 - Roughened Surface (e.g. tracking)
 - Dust Control
 - Other

➤ **Structural Temporary Erosion and Sediment Controls**

- Silt Fence
- Floating Silt Curtain
- Straw Bale Check
- Temporary Berm
- Temporary Slope Drain
- Straw Wattles or Rolls
- Turf Reinforcement Mat
- Rip Rap
- Gabions
- Rock Check Dams
- Sediment Traps/Basins
- Inlet Protection
- Outlet Protection
- Surface Inlet Protection (Area Drain)
- Curb Inlet Protection
- Stabilized Construction Entrances
- Entrance/Exit Equipment Tire Wash
- Interceptor Ditch
- Concrete Washout Area
- Temporary Diversion Channel
- Work Platform
- Temporary Water Barrier
- Temporary Water Crossing
- Other

➤ **Wetland Avoidance**

Will construction and/or erosion and sediment controls impinge on regulated wetlands? Yes No If yes, the structural and erosion and sediment controls have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

➤ **Storm Water Management (4.2 2.b., (1) and (2))**

Storm water management will be handled by temporary controls outlined in "EROSION AND SEDIMENT CONTROLS" above, and any permanent controls needed to meet permanent storm water management needs in the post construction period. Permanent controls will be shown on the plans and noted as permanent.

➤ **Other Storm Water Controls (4.2 2.c., (1) and (2))**

- **Waste Disposal**
All liquid waste materials will be collected and stored in sealed metal containers approved by the project engineer. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal, and notices stating proper practices will be posted in the field office. The general contractor's representative responsible for the conduct of work on the site will be responsible for seeing waste disposal procedures are followed.
- **Hazardous Waste**
All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Site personnel will be instructed in these practices, and the individual designated as the contractor's on-site representative will be responsible for seeing that these practices are followed.
- **Sanitary Waste**
Portable sanitary facilities will be provided on all construction sites. Sanitary waste will be collected from the portable units in a timely manner by a licensed waste management contractor or as required by any local regulations.

❖ **Maintenance and Inspection (4.2 3. and 4.2 4.)**

➤ **Maintenance and Inspection Practices**

- Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater.
- All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report.
- Silt fence will be inspected for depth of sediment and for tears in order to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches $\frac{1}{3}$ of the height of the silt fence.
- Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
- Check dams will be inspected for stability. Sediment will be removed when depth reaches $\frac{1}{2}$ the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
- The SDDOT Project Engineer and contractor's site superintendent are responsible for inspections. Maintenance, repair activities are the responsibility of the contractor. The SDDOT Project Engineer will complete the inspection and maintenance reports and distribute copies per the distribution instructions on DOT 298.

❖ **Non-Storm Water Discharges (3.0)**

The following non-storm water discharges are anticipated during the course of this project (check all that apply).

- Discharges from water line flushing.
- Pavement wash-water, where no spills or leaks of toxic or hazardous materials have occurred.
- Uncontaminated ground water associated with dewatering activities.

❖ **Materials Inventory (4.2. 2.c.(2))**

The following materials or substances are expected to be present on the site during the construction period. These materials will be handled as noted under the headings "EROSION AND SEDIMENT CONTROLS" and "SPILL PREVENTION" (check all that apply).

- Concrete and Portland Cement
- Detergents
- Paints
- Metals
- Bituminous Materials
- Petroleum Based Products
- Cleaning Solvents
- Wood
- Cure
- Texture
- Chemical Fertilizers
- Other

Spill Prevention (4.2 2.c.(2))

➤ Material Management

▪ Housekeeping

- Only needed products will be stored on-site by the contractor.
- Except for bulk materials the contractor will store all materials under cover and in appropriate containers.
- Products must be stored in original containers and labeled.
- Material mixing will be conducted in accordance with the manufacturer's recommendations.
- When possible, all products will be completely used before properly disposing of the container off site.
- The manufacturer's directions for disposal of materials and containers will be followed.
- The contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
- Dust generated will be controlled in an environmentally safe manner.
- Vegetation areas not essential to the construction project will be preserved and maintained as noted on the plans.

▪ Hazardous Materials

- Products will be kept in original containers unless the container is not resealable.
- Original labels and material safety data sheets will be retained in a safe place to relay important product information.
- If surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
- Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.
- Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any storm water system or storm water treatment system.
- Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, and mixer washout waters will be collected on site and managed to prevent contamination of storm water runoff.

➤ Product Specific Practices (6.8)

▪ Petroleum Products

All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

▪ Fertilizers

Fertilizers will be applied only in the amounts specified by the SDDOT. Once applied, fertilizers will be worked into the soil to limit the exposure to storm water. Fertilizers will be stored in an enclosed area. The contents of partially used fertilizer bags will be transferred to sealable containers to avoid spills.

▪ Paints

All containers will be tightly sealed and stored when not required for use. The excess will be disposed of according to the manufacturer's instructions and any applicable state and local regulations.

▪ Concrete Trucks

Contractors will provide designated truck washout areas on the site. These areas must be self contained and not connected to any storm water outlet of the site. Upon completion of construction washout areas will be properly stabilized.

➤ Spill Control Practices (4.2 2 c.(2))

In addition to the previous housekeeping and management practices, the following practices will be followed for spill prevention and cleanup if needed.

- For all hazardous materials stored on site, the manufacturer's recommended methods for spill clean up will be clearly posted. Site personnel will be made aware of the procedures and the locations of the information and cleanup supplies.
- Appropriate cleanup materials and equipment will be maintained by the contractor in the materials storage area on-site. As appropriate, equipment and materials may include items such as brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for clean up purposes.
- All spills will be cleaned immediately after discovery and the materials disposed of properly.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- After a spill a report will be prepared describing the spill, what caused it, and the cleanup measures taken. The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring, as well as clean up instructions in the event of reoccurrences.
- The contractor's site superintendent, responsible for day-to-day operations, will be the spill prevention and cleanup coordinator. The contractor is responsible for ensuring that the site superintendent has had appropriate training for hazardous materials handling, spill management, and cleanup.

➤ Spill Response (4.2 2 c.(2))

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize migration into storm water runoff and conveyance systems. If the release has impacted on-site storm water, it is critical to contain the released materials on-site and prevent their release into receiving waters. If a spill of pollutants threatens storm water or surface water at the site, the spill response procedures outlined below must be implemented in a timely manner to prevent the release of pollutants.

- The contractor's site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
- If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
- Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the contractor at the site.
- If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to

remove the material causing the sheen. The contractor will use appropriate materials to contain and absorb the spill. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.

- If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SD DENR.
- Personnel with primary responsibility for spill response and clean up will receive training by the contractor's site superintendent or designee. The training must include identifying the location of the spill kits and other spill response equipment and the use of spill response materials.
- Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

❖ Spill Notification

In the event of a spill, the contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:

- A release or spill of a regulated substance (includes petroleum and petroleum products) must be reported to DENR immediately **if any one of the following** conditions exists:
 - The discharge threatens or is in a position to threaten the waters of the state (surface water or ground water).
 - The discharge causes an immediate danger to human health or safety.
 - The discharge exceeds 25 gallons.
 - The discharge causes a sheen on surface water.
 - The discharge of any substance that exceeds the ground water quality standards of ARSD (Administrative Rules of South Dakota) chapter 74:54:01.
 - The discharge of any substance that exceeds the surface water quality standards of ARSD chapter 74:54:01.
 - The discharge of any substance that harms or threatens to harm wildlife or aquatic life.
 - The discharge of crude oil in field activities under SDCL (South Dakota Codified Laws) chapter 45-9 is greater than 1 barrel (42 gallons).

To report a release or spill, call DENR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central time). To report the release after hours, on weekends or holidays, call State Radio Communications at 605-773-3231. Reporting the release to DENR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, the responsible person must also contact local authorities to determine the local reporting requirements for releases. DENR recommends that spills also be reported to the National Response Center at (800) 424-8802.

❖ Construction Changes (4.4)

When changes are made to the construction project that will require alterations in the temporary erosion controls of the site, the Storm Water Pollution Prevention Plan (SWPPP) will be amended to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SDDOT Project Engineer will modify the SWPPP plan (DOT 298) and drawings to reflect the needed changes. Copies of changes will be routed per DOT 298. Copies of forms and the SWPPP will be retained in a designated place for review over the course of the project.

EXISTING TOPOGRAPHY SYMBOLOLOGY AND LEGEND

PLOT SCALE -- 1:200

PLOT NAME -- 8

PLOTTED FROM -- ITRC11951

FILE -- ... \CUSTH031\DESIGN\TOPOSYMB.DGN

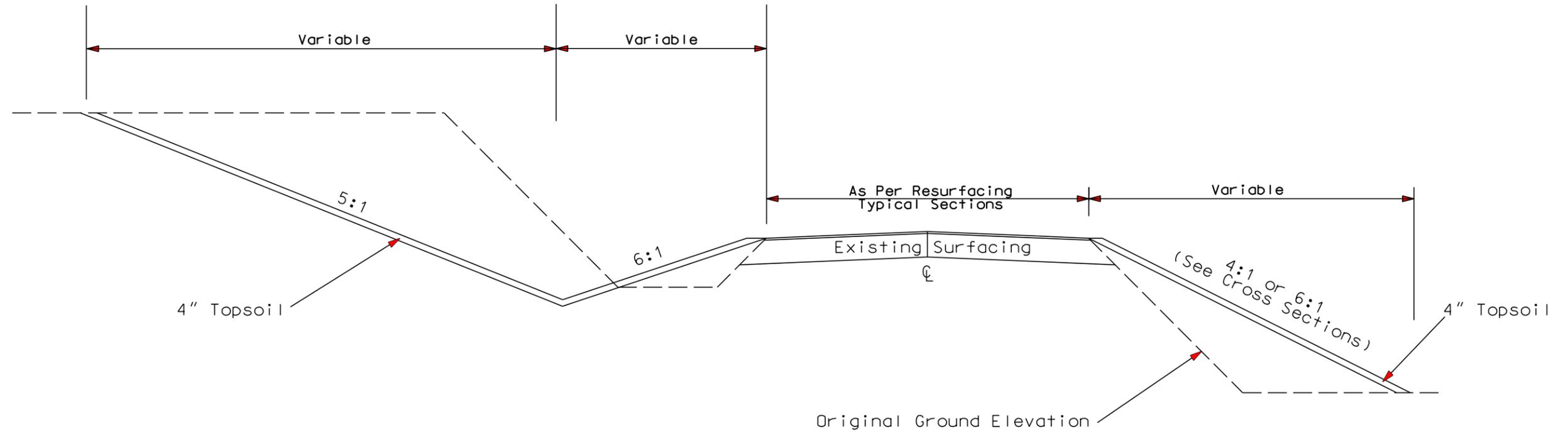
Anchor		Information Sign One Post		Satellite Dish	
Antenna		Information Sign Two Post		Septic Tank	
Approach		Interstate Close Gate		Shrub Tree	
Assumed Corner		Iron Pin		Sidewalk	
Azimuth Marker		Irrigation Ditch		Sign Face	
Bbq Grill/ Fireplace		Lake Edge		Sign Post	
Bearing Tree		Lawn Sprinkler		Slough Or Marsh	
Bench Mark		Mailbox		Spring	
Box Culvert		Manhole Electric		Stream Gauge	
Bridge		Manhole Gas		Street Marker	
Brush		Manhole Misc		Telephone Fiber Optics	
Buildings		Manhole Sanitary Sewer		Telephone Junction Box	
Bulk Tank		Manhole Storm Sewer		Telephone Pole	
Cattle Guard		Manhole Telephone		Television Cable Jct Box	
Cemetery		Manhole Water		Television Tower	
Centerline		Merry-Go-Round		Test Wells/Bore Holes	
Cistern		Microwave Radio Tower		Traffic Signal	
Clothes Line		Misc. Property Corner		Trash Barrel	
Commercial Sign Double Face		Misc. Post		Tree Belt	
Commercial Sign One Post		Overhang Or Encroachment		Tree Coniferous	
Commercial Sign Overhead		Overhead Utility Line		Tree Deciduous	
Commercial Sign Two Post		Parking Meter		Tree Stumps	
Concrete Symbol		Pipe With End Section		Triangulation Station	
Creek Edge		Pipe With Headwall		Underground Electric Line	
Curb/Gutter		Pipe Without End Section		Underground Gas Line	
Curb		Playground Slide		Underground Sanitary Sewer	
Dam Grade/Dike/Levee		Playground Swing		Underground Storm Sewer	
Ditch Block		Power And Light Pole		Underground Tank	
Drainage Profile		Power And Telephone Pole		Underground Telephone Line	
Drop Inlet		Power Meter		Underground Television Cable	
Edge Of Asphalt		Power Pole		Underground Water Line	
Edge Of Concrete		Power Pole And Transformer		Warning Sign One Post	
Edge Of Gravel		Power Tower Structure		Warning Sign Two Post	
Edge Of Other		Propane Tank		Water Fountain	
Edge Of Shoulder		Property Pipe		Water Hydrant	
Elec. Trans./Power Jct. Box		Property Pipe With Cap		Water Meter	
Fence Barbwire		Property Stone		Water Tower	
Fence Chainlink		Public Telephone		Water Valve	
Fence Electric		Railroad Crossing Signal		Water Well	
Fence Misc.		Railroad Milepost Marker		Weir Rock	
Fence Rock		Railroad Profile		Windmill	
Fence Snow		Railroad R.O.W. Marker		Wingwall	
Fence Wood		Railroad Signs		Witness Corner	
Fence Woven		Railroad Switch			
Fire Hydrant		Railroad Track		State and National Line	
Flag Pole		Railroad Trestle		County Line	
Flower Bed		Rebar		Section Line	
Gas Valve Or Meter		Rebar With Cap		Quarter Line	
Gas Pump Island		Reference Mark		Sixteenth Line	
Grain Bin		Retaining Wall		Property Line	
Guardrail		Riprap		Construction Line	
Gutter		River Edge		R. O. W. Line	
Guy Pole		Rock And Wire Baskets		New R. O. W. Line	
Haystack		Rockpiles		Cut and Fill Limits	
Hedge		Route Sign One Post		Control of Access	
Highway R.O.W. Marker		Route Sign Two Post		New Control of Access	

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	43	120

Plotting Date: 10/07/2013

TYPICAL GRADING SECTIONS

MRM 27.7 R
 MRM 28.3 R&L
 MRM 37.8 L
 MRM 38.1 R



PLOT SCALE - 1:12.5

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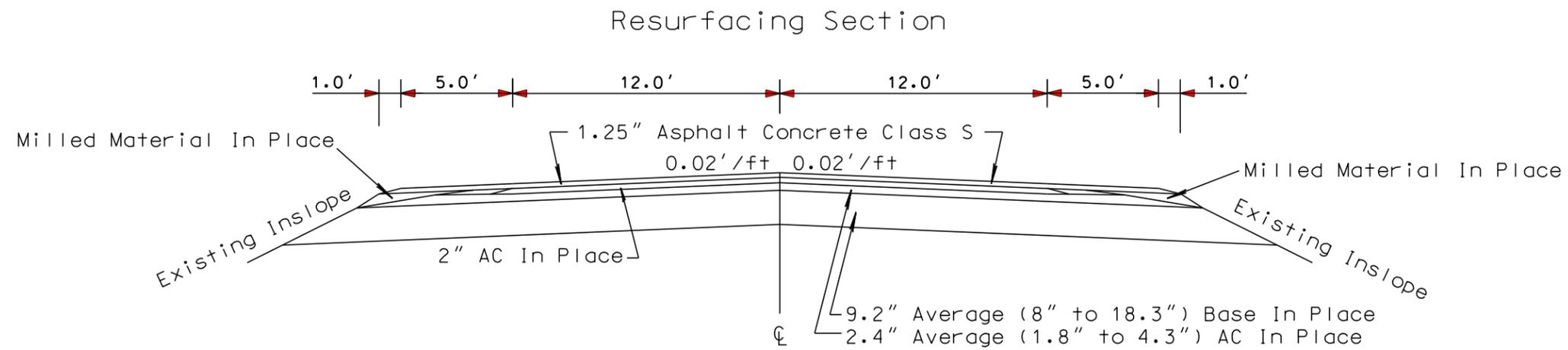
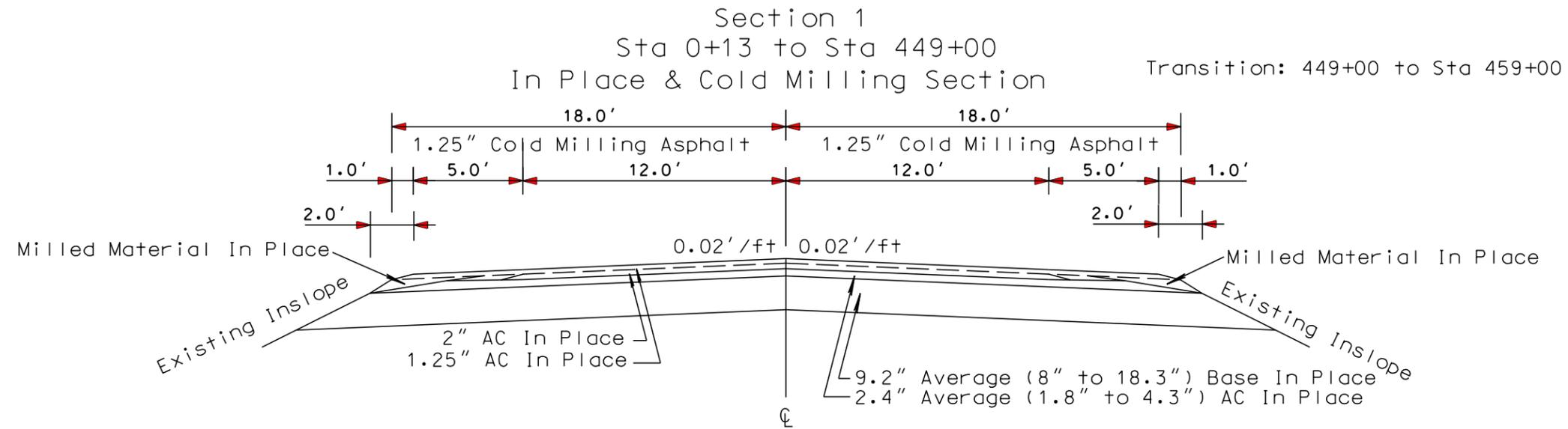
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	44	120

Plotting Date: 10/16/2013

TYPICAL SECTIONS



PLOT SCALE - 1:6.25

PLOT NAME - 4

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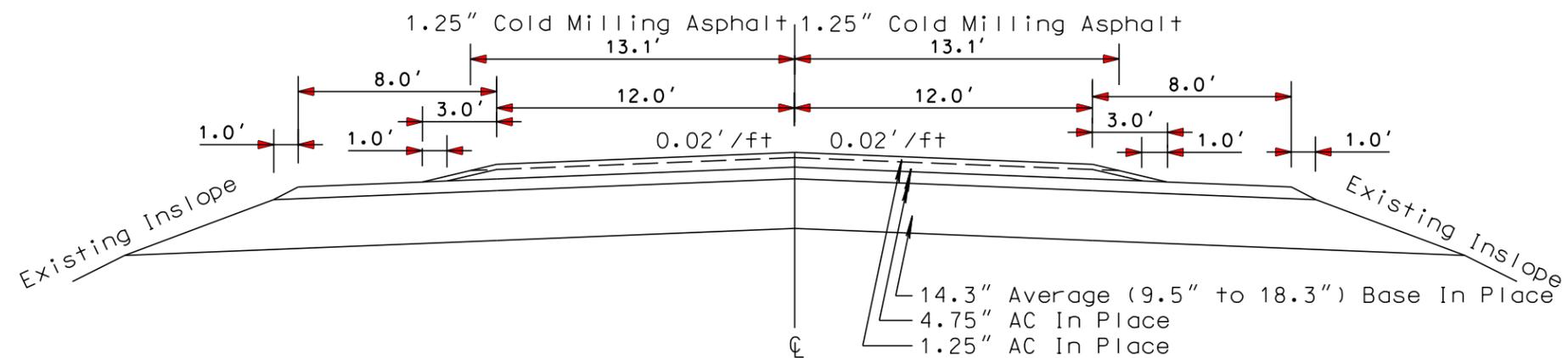
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	45	120

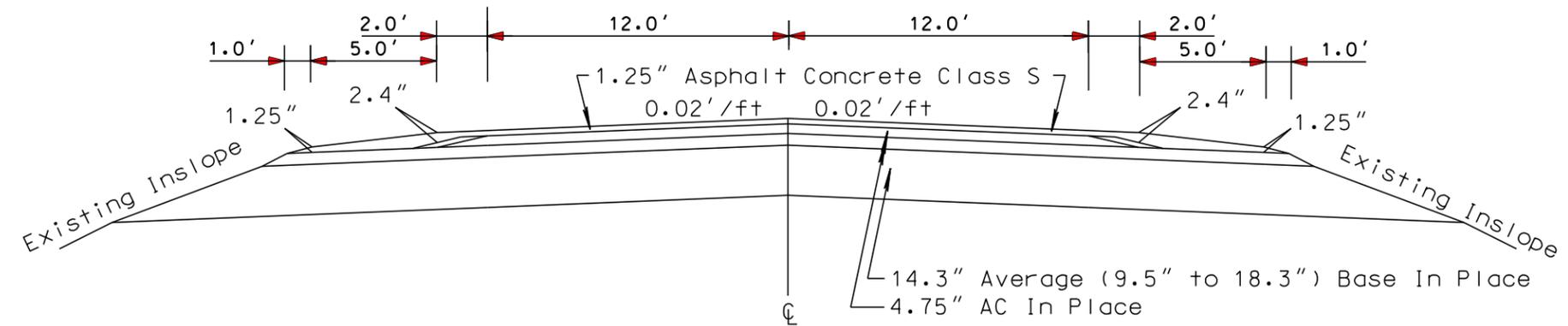
Plotting Date: 10/16/2013

TYPICAL SECTIONS

Section 2
Sta 459+00 to Sta 513+55
In Place & Cold Milling Section



Resurfacing Section

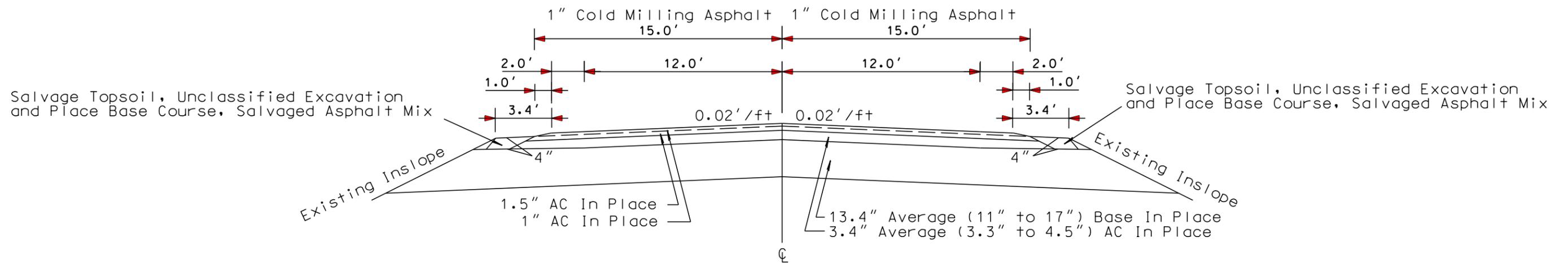


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	46	120

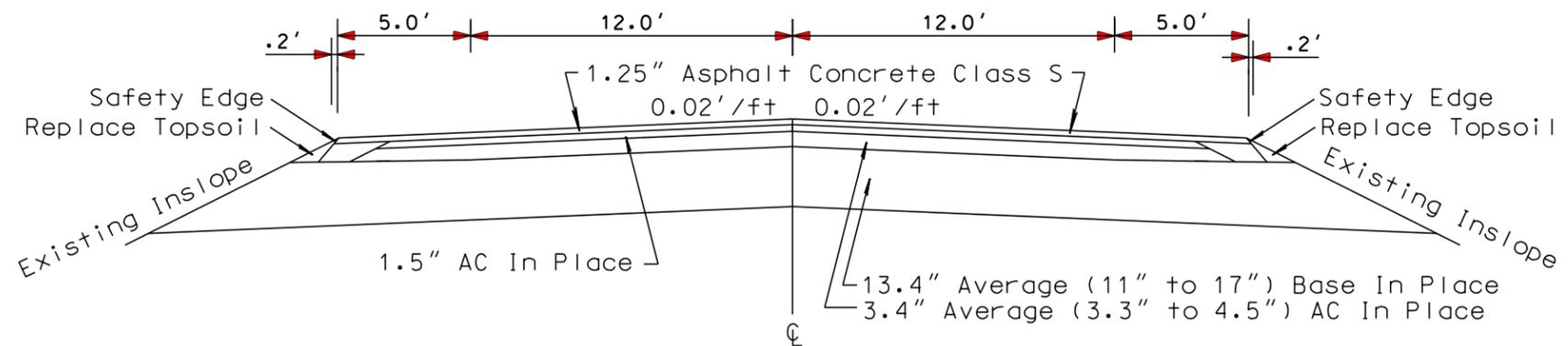
Plotting Date: 10/16/2013

TYPICAL SECTIONS

Section 3
Sta 513+55 to Sta 545+80
In Place & Cold Milling Section



Resurfacing Section



PLOT SCALE - 1:6.25

PLOTTED FROM - TRRC11951

PLOT NAME - 6

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	47	120

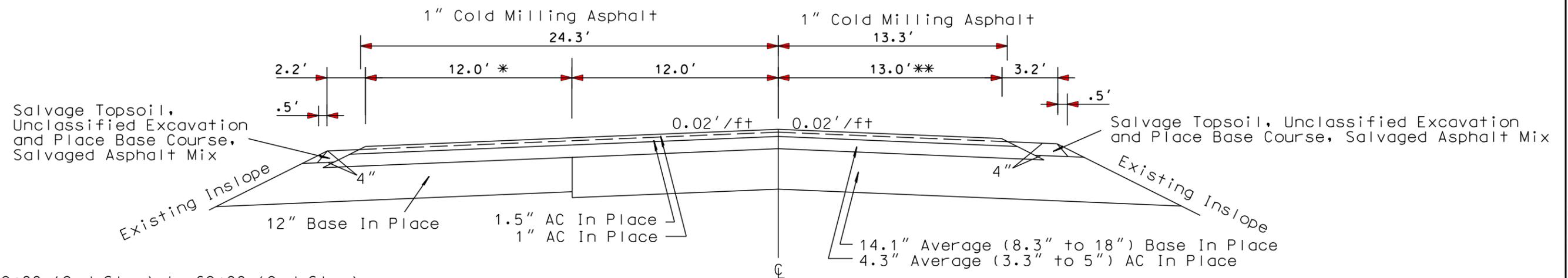
Plotting Date: 10/16/2013

TYPICAL SECTIONS

* 8' 42+00 (2nd Sta.) to 62+00 (2nd Sta.),
transition 36+00 to 42+00 and 62+00 to 68+00

** 20' 42+00 (2nd Sta.) to 62+00 (2nd Sta.),
transition 36+00 to 42+00 and 62+00 to 68+00

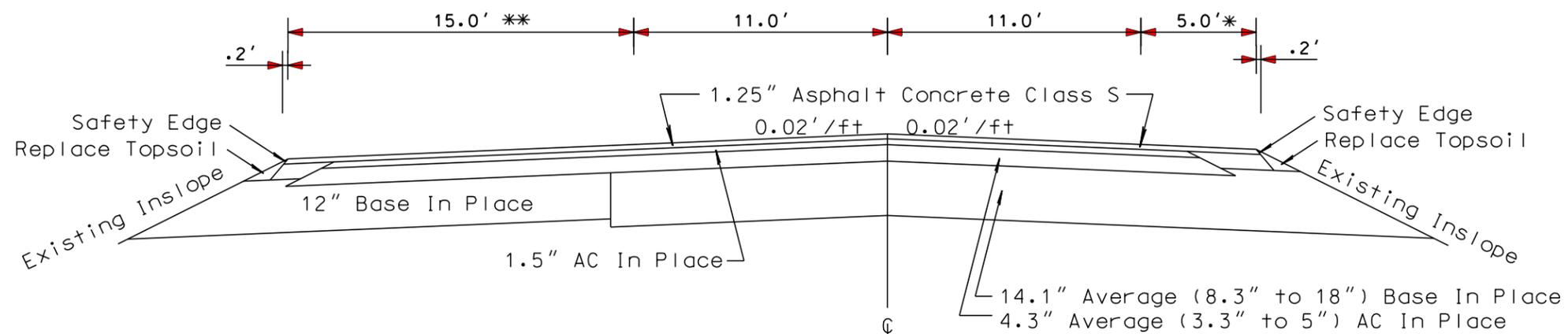
Section 4 Sta 545+80 to Sta 110+50 (2nd Station) In Place & Cold Milling Section



* 3.5' 42+00 (2nd Sta.) to 62+00 (2nd Sta.),
Widening with Base Course Salvaged on this side only.
Adjust centerline right to provide ultimate width for
climbing lane. Climbing lane shall be carried through
this location.
Transition width 36+00 to 42+00 and 62+00 to 68+00

** 14.5' 42+00 (2nd Sta.) to 62+00 (2nd Sta.),
No widening with Base Course Salvaged on this side.
Transition 36+00 to 42+00 and 62+00 to 68+00

Resurfacing Section



PLOT SCALE - 1:6.25

PLOTTED FROM - TRRC11951

PLOT NAME - 7

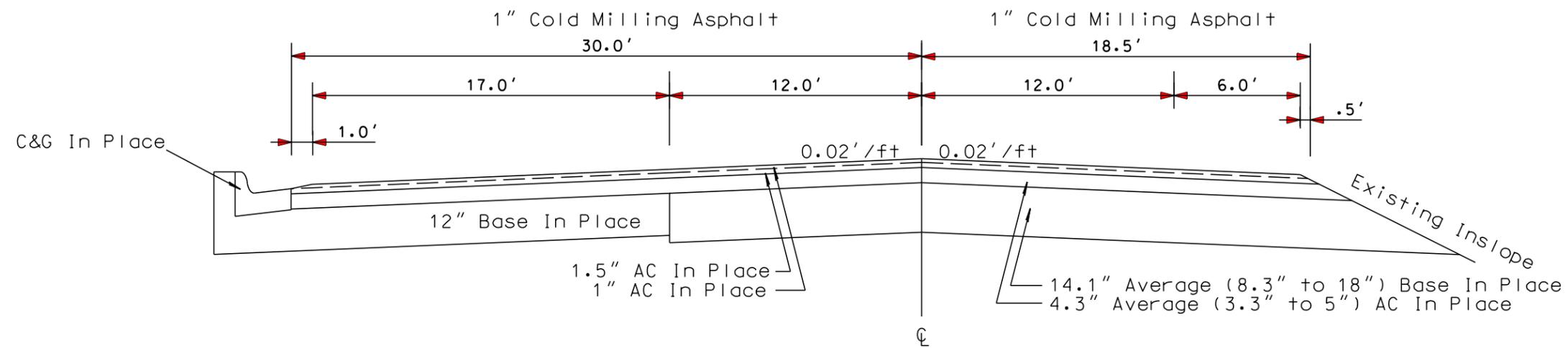
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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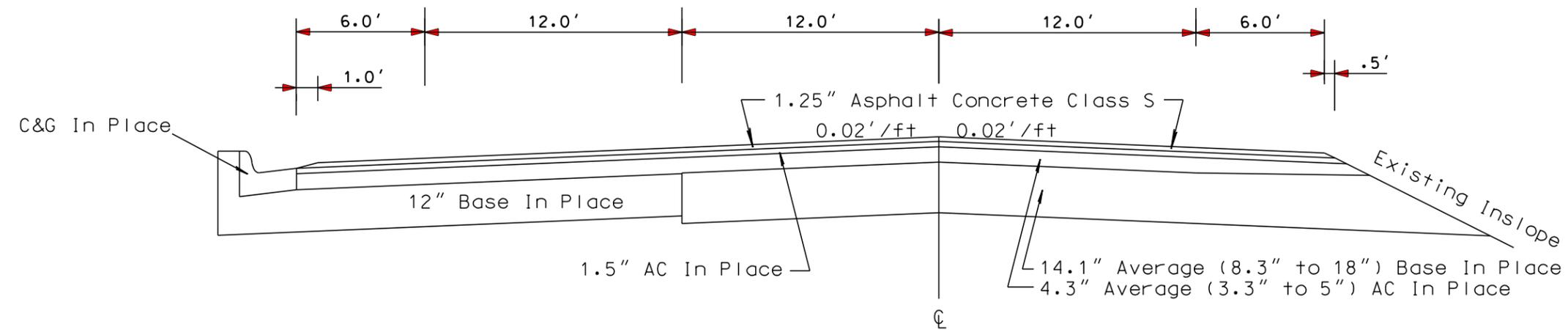
Plotting Date: 10/16/2013

TYPICAL SECTIONS

Section 5
Sta 110+50 (2nd Station) to Sta 4+00 (3rd Station)
In Place & Cold Milling Section



Resurfacing Section

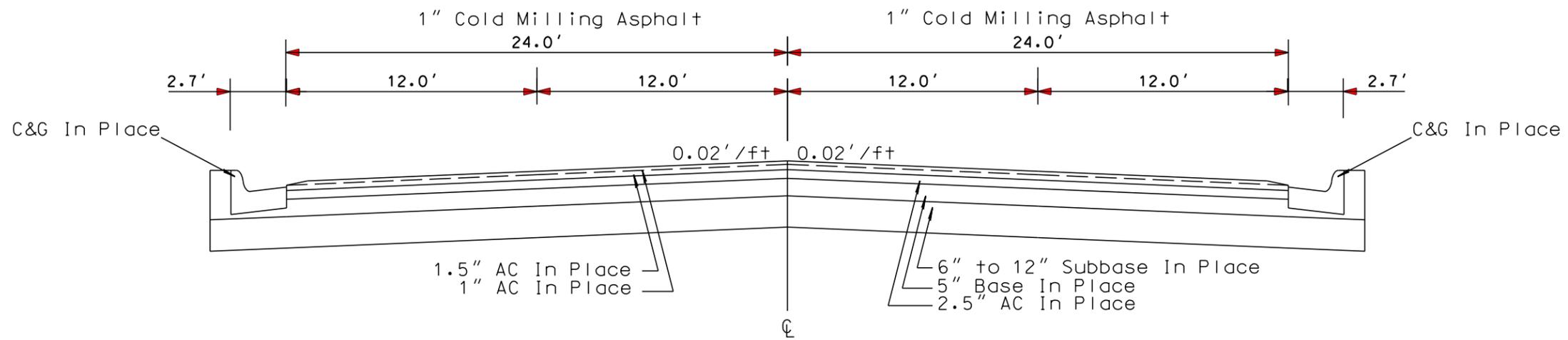


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	49	120

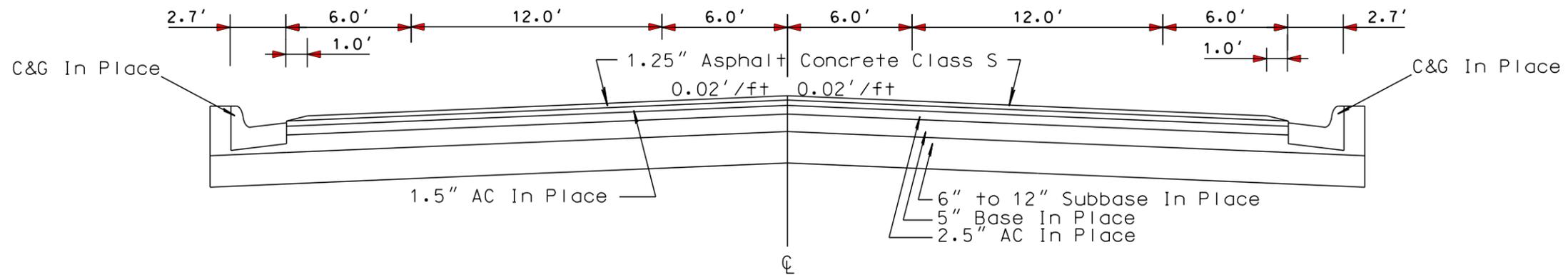
Plotting Date: 10/16/2013

TYPICAL SECTIONS

Section 6
Sta 4+00 (3rd Station) to Sta 58+15 (3rd Station)
In Place & Cold Milling Section



Resurfacing Section



PLOT SCALE - 1:6.25

PLOTTED FROM - TRRC11951

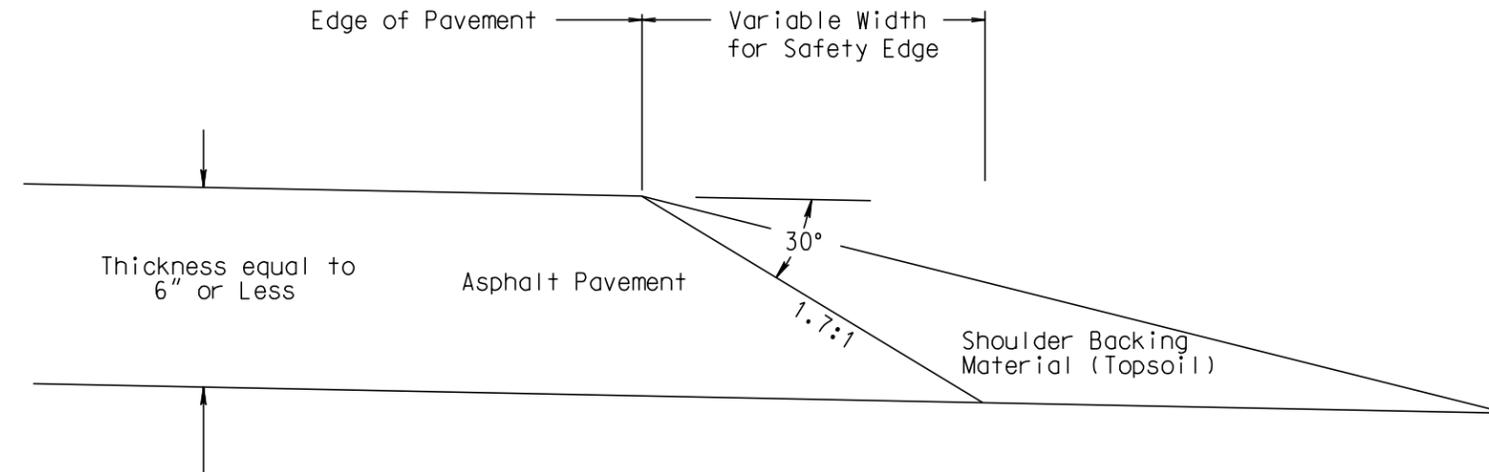
PLOT NAME - 9

FILE - ... \PRJ\PENND38C\DESIGN\TYP.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	50	120

Plotting Date: 10/07/2013

SAFETY EDGE TYPICAL SECTION



Detail 1: Safety Edge Dimension For HMA Pavements (Thickness 6" or Less)

PLOT SCALE - 1:4

PLOT NAME - 13

FILE - ... \DESIGN\SAFETY EDGE DETAIL.DGN

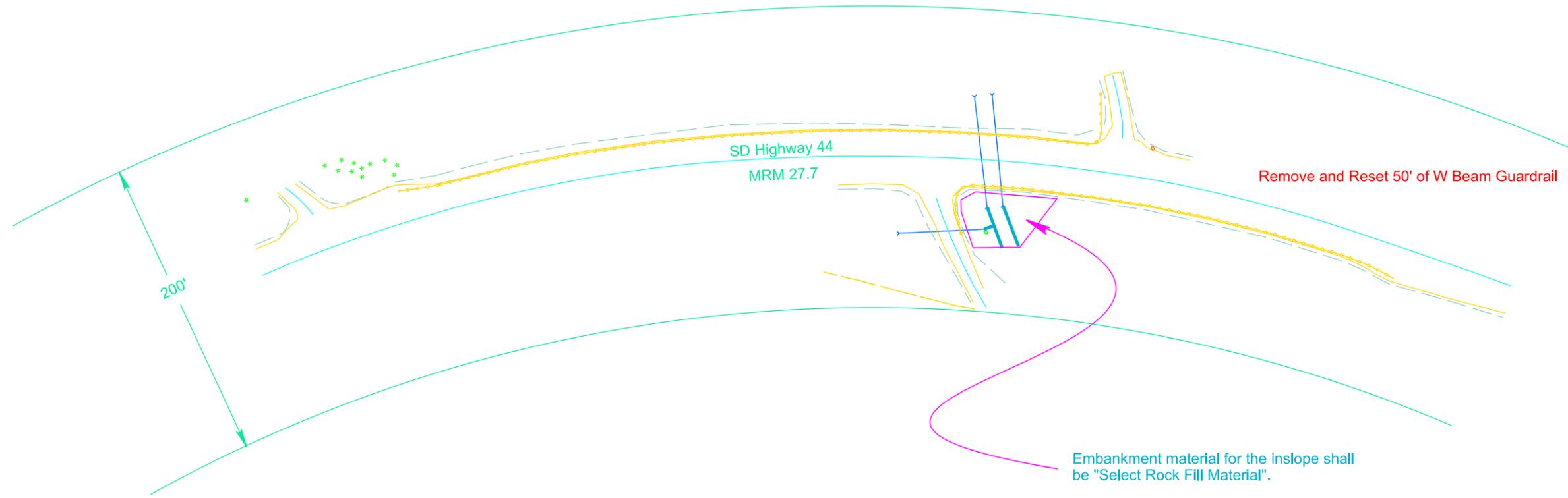
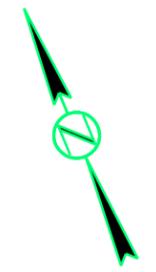
PLOTTED FROM - TRRC11951

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	51	120

Plotting Date: 11/25/2013

MRM 27.7 R
 Take Out 18" CMP End Section
 Take Out Twin 48" CMP End Sections
 (Incidental Work, Grading)

MRM 27.7 R
 Retain Existing Twin 48" CMP
 and 18" CMP
 Extend the 48" CMP with 2-15° Elbows,
 48" - 30' CMP, 12' CMP, 16' CMP, CMP Tee
 and 2 Flared Ends
 Extend the 18" CMP with 1-15° Elbow
 18" - 6'



Sec. 27 - T2N - R5E

Plot Scale - 1:80

Plotted From - TRRC11951

Plot Name -

File - ...\\penn038C\Design\27_7.dgn

2+00 L
 Retain Existing 36" Arch CMP
 Extend Lt with 3-15° Elbows,
 Triple 36" - 50' CMP Arch,
 & 3 Safety Ends

4+75 L
 Retain Existing 48" CMP
 Extend Lt with 2-30° Elbows,
 Twin 48" - 38' CMP,
 & 2 Sloped Ends

5+25 R
 Retain Existing 48" CMP
 Extend Rt with 2-25° Elbows,
 Twin 48" - 24' CMP,
 & 2 Sloped Ends

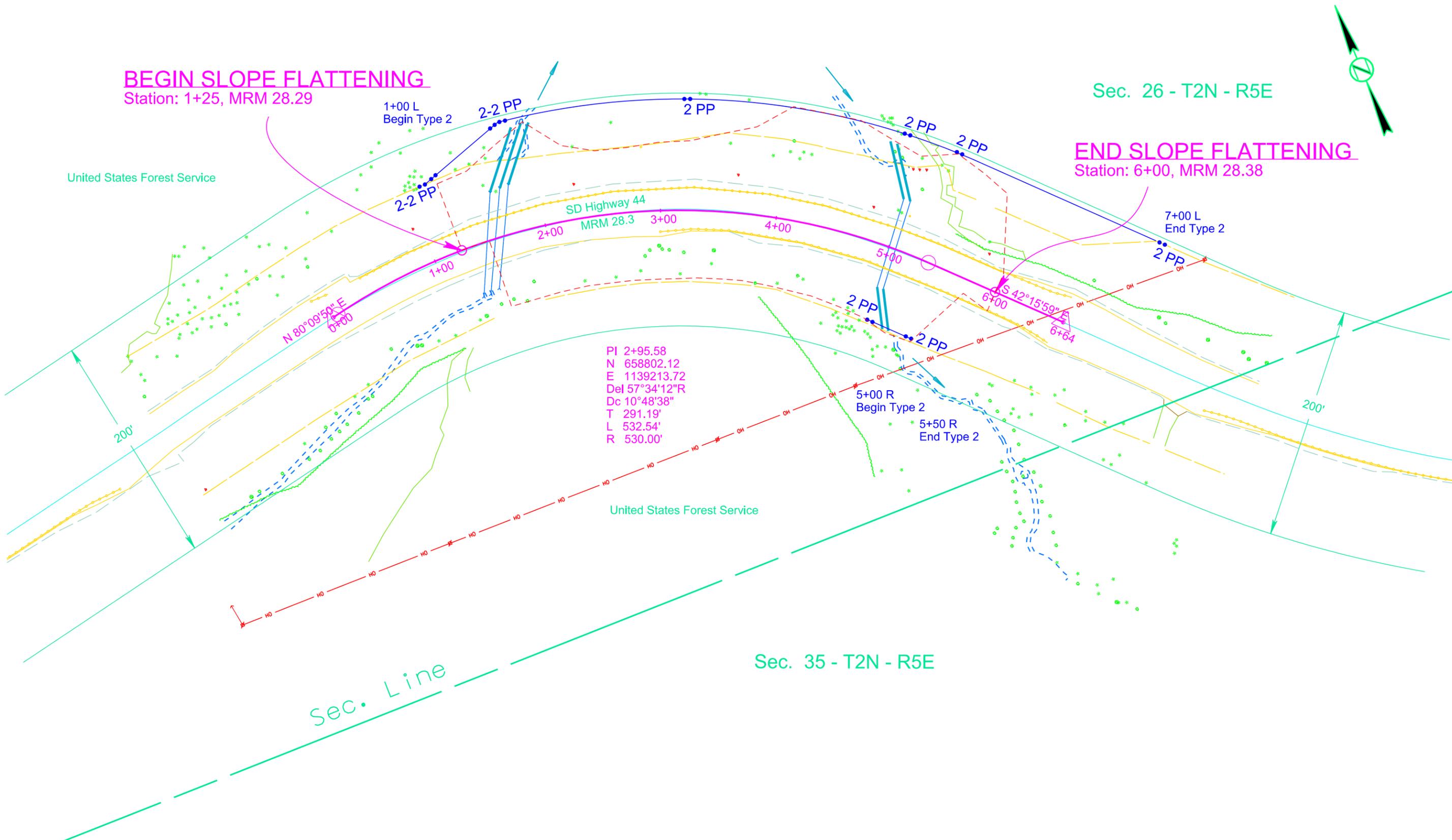
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	52	120

Plotting Date: 11/04/2013

BEGIN SLOPE FLATTENING
 Station: 1+25, MRM 28.29

Sec. 26 - T2N - R5E

END SLOPE FLATTENING
 Station: 6+00, MRM 28.38



Plot Scale - 1:80

Plotted From - TRRC11951

Plot Name -

Plot Name -

File - ...\\penn0303\Design\28_3.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	53	120

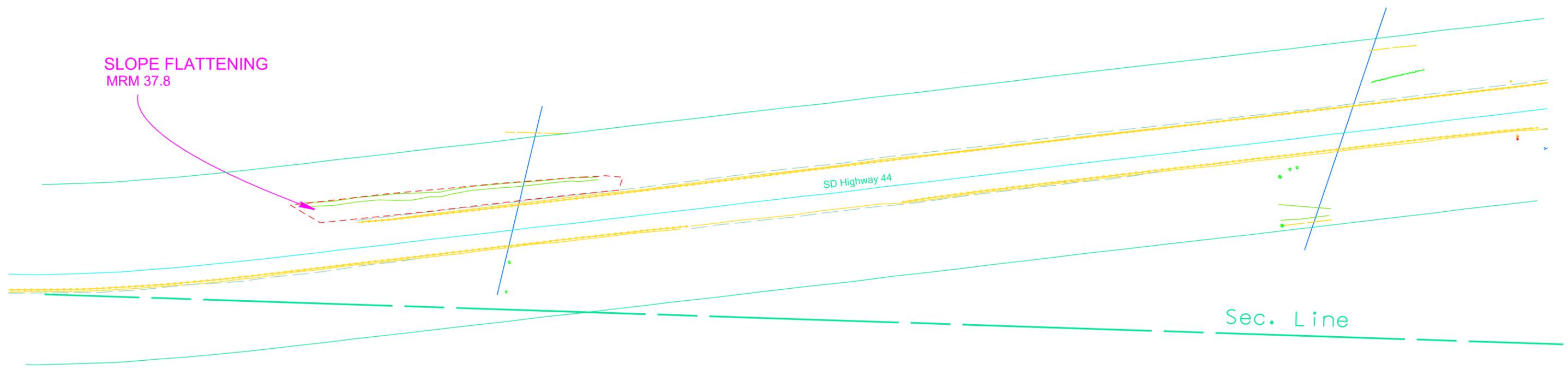
Plotting Date: 10/07/2013

Plot Scale - 1:100



Sec. 12 - T1N - R6E

SLOPE FLATTENING
MRM 37.8



SD Highway 44

Sec. Line

Sec. 13 - T1N - R6E

Plotted From - TRR011951

File - ...ppj\Penn0380\Design37_8.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	54	120

Plotting Date: 08/16/2013



Sec. 12 - T1N - R6E

SLOPE FLATTENING
MRM 38.10

SD Highway 44

N 80°16'07" E
0+00

1+39

Sec. Line

Sec. 13 - T1N - R6E

Plot Scale - 1:100

Plotted From - TRR011951

File - ...\\penn0380\Design\38_1.dgn

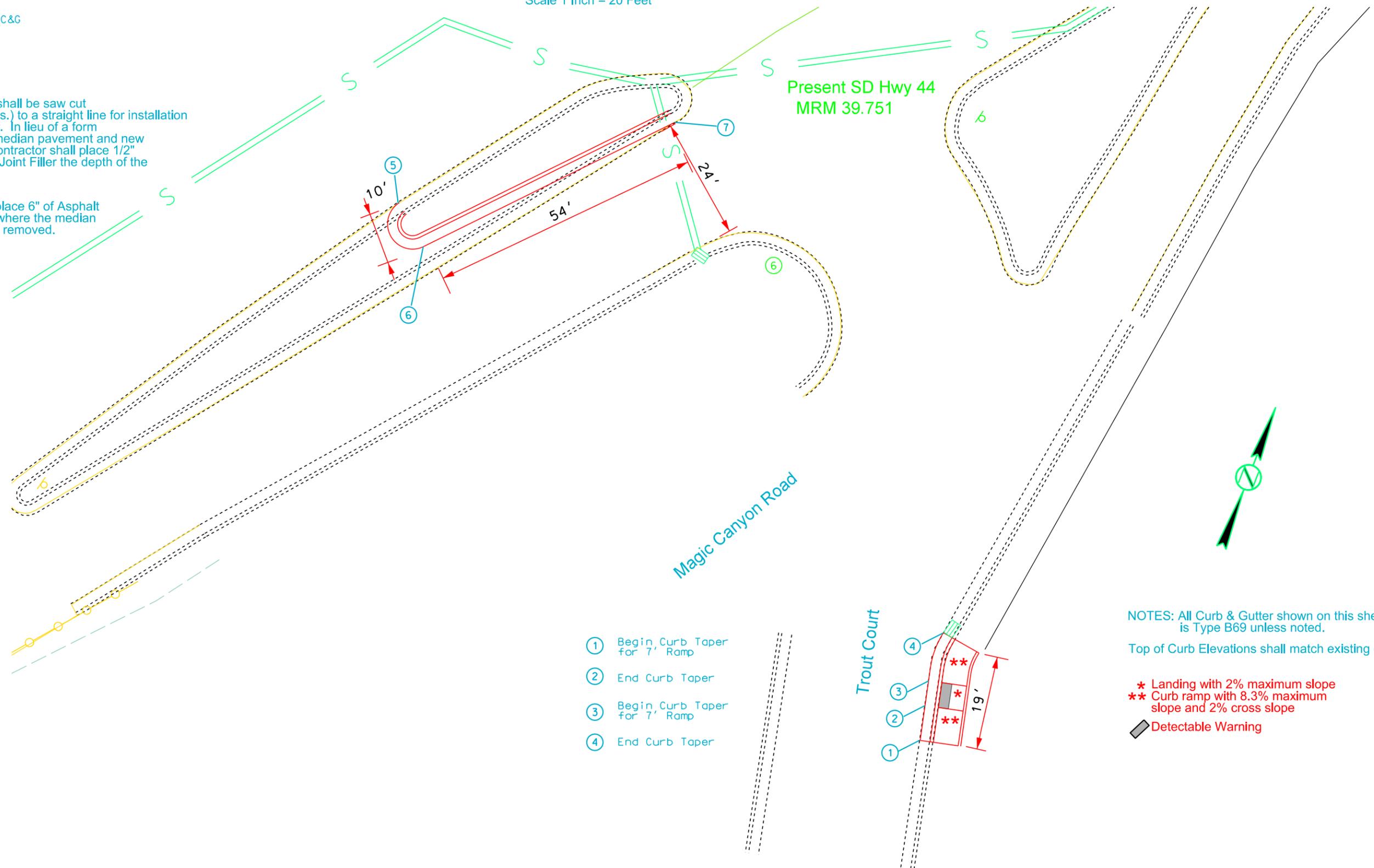
CURB & GUTTER LAYOUT

Scale 1 Inch = 20 Feet

- ⑤ Begin 5' Radius C&G
- ⑥ End 5' Radius C&G
Begin Str C&G
- ⑦ End Str C&G

The concrete median shall be saw cut and removed (86 sqyds.) to a straight line for installation of new curb and gutter. In lieu of a form between the existing median pavement and new curb and gutter, the Contractor shall place 1/2" Preformed Expansion Joint Filler the depth of the new curb and gutter.

The Contractor shall place 6" of Asphalt Concrete Composite where the median and curb and gutter is removed.



Present SD Hwy 44
MRM 39.751

Magic Canyon Road

Trout Court

- ① Begin Curb Taper for 7' Ramp
- ② End Curb Taper
- ③ Begin Curb Taper for 7' Ramp
- ④ End Curb Taper

NOTES: All Curb & Gutter shown on this sheet is Type B69 unless noted.
Top of Curb Elevations shall match existing conditions.

- * Landing with 2% maximum slope
- ** Curb ramp with 8.3% maximum slope and 2% cross slope
- ▣ Detectable Warning

CURB & GUTTER LAYOUT

Scale 1 Inch = 20 Feet

NOTES: All Curb & Gutter shown on this sheet is Type B69 unless noted.

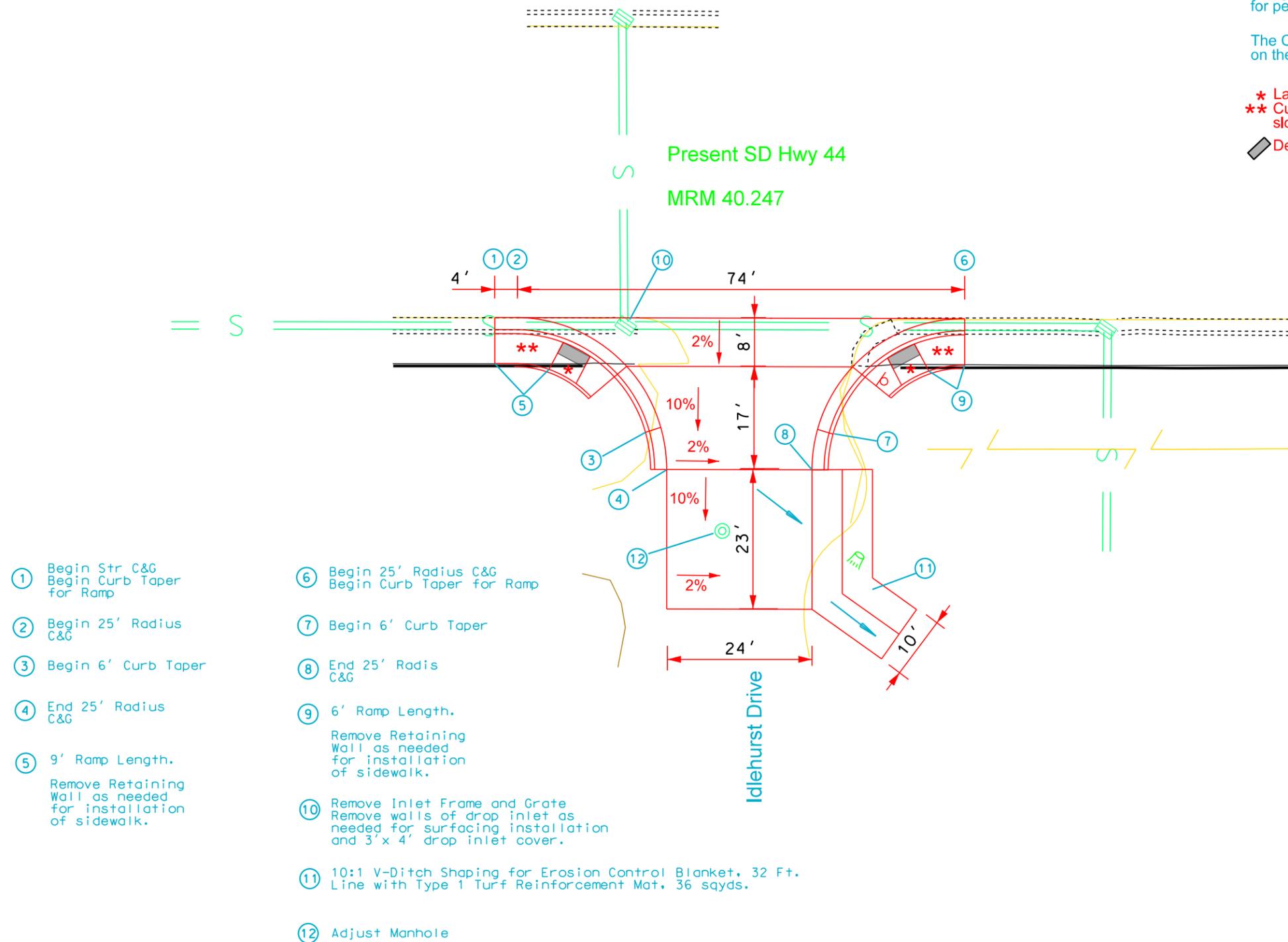
Top of Curb Elevations shall match existing conditions or as per the slopes detailed for the intersecting street.

The Contractor Shall Process In Place the existing asphalt and granular material to a depth of 6". The quantity estimated for performing this work is 216 sqyds.

The Contractor shall place 4" of Asphalt Concrete Composite on the completed base.

* Landing with 2% maximum slope
** Curb ramp with 8.3% maximum slope and 2% cross slope

▣ Detectable Warning



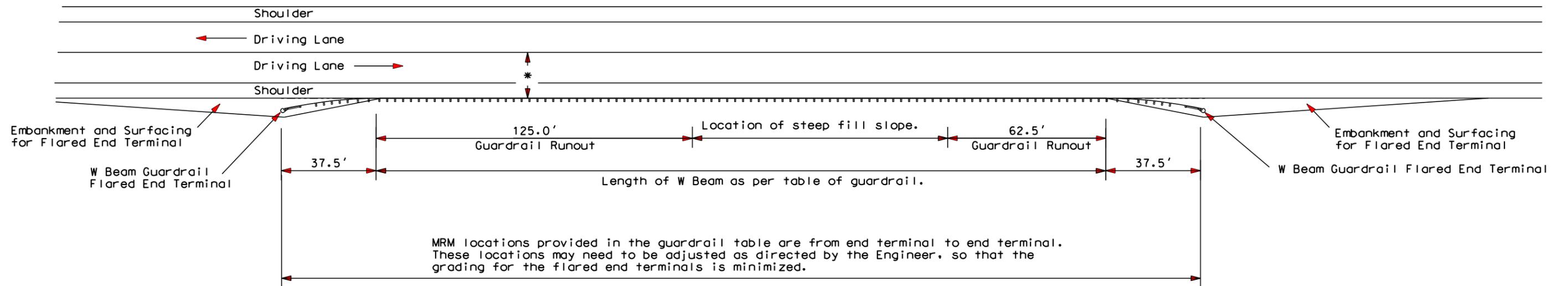
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	58	120

Plotting Date: 10/08/2013

GUARDRAIL LAYOUT

PROTECTION OF FILL SLOPES

* Offset from centerline to face of guardrail as provided in table of guardrail quantities or typical sections.



Plot Scale - 1:40

Plotted From - TRRC11951

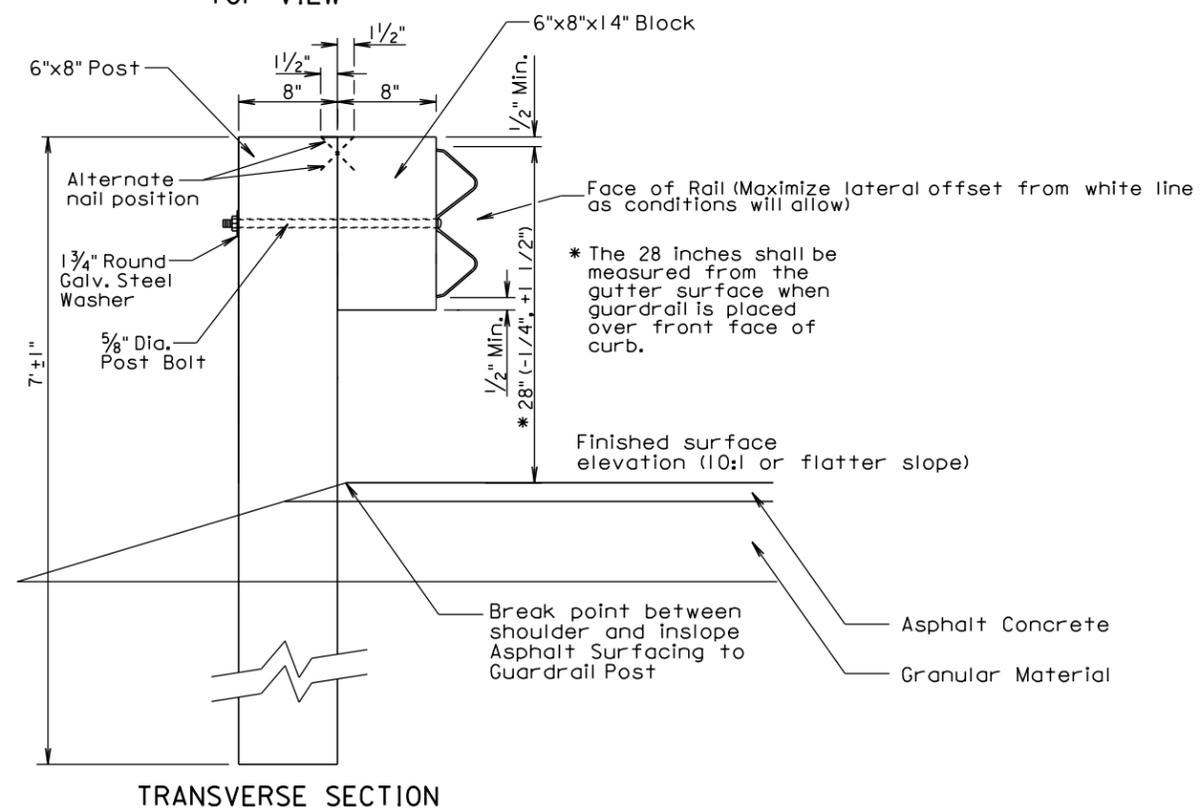
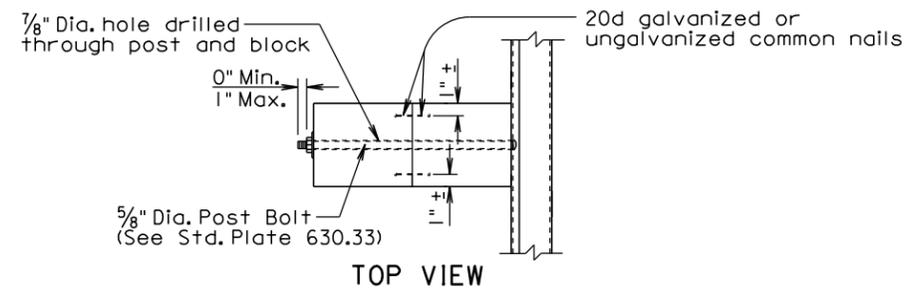
Plotted From -

File - ...Design\Guardrail\layouts.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	59	120

Plotting Date: 10/08/2013

W BEAM GUARDRAIL POST INSTALLATION

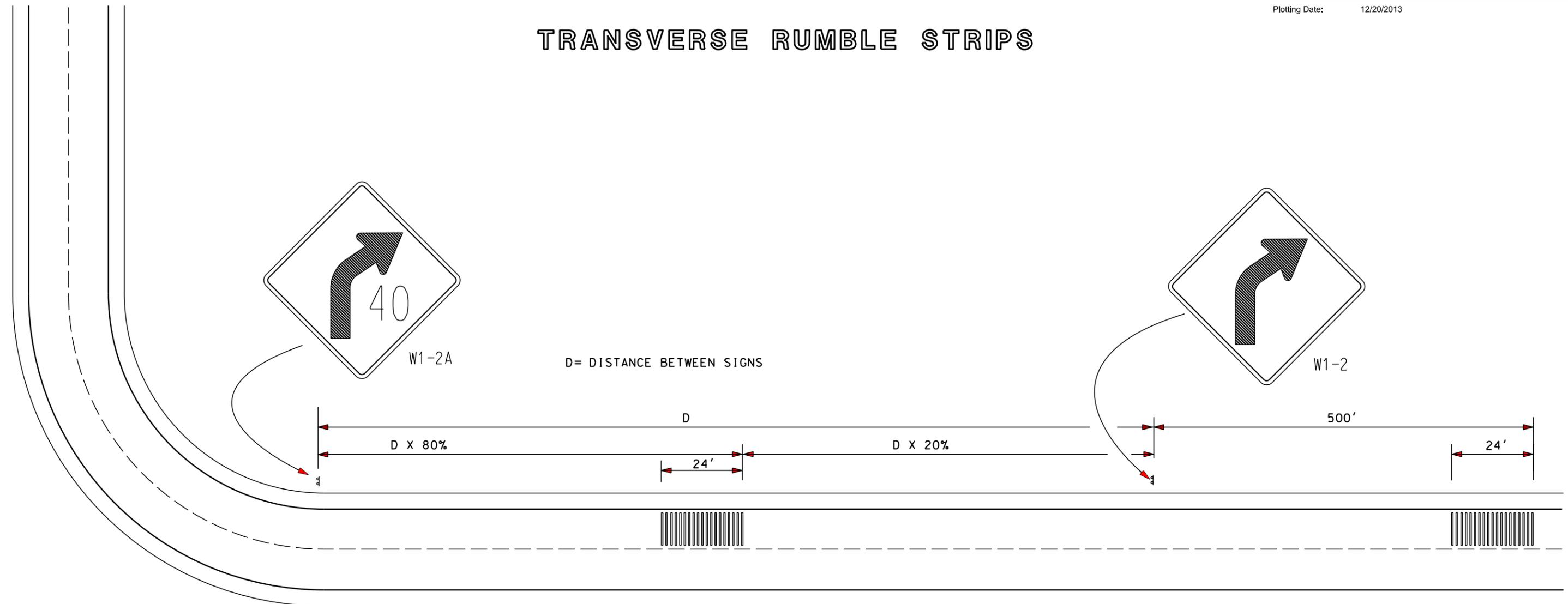


GENERAL NOTES:

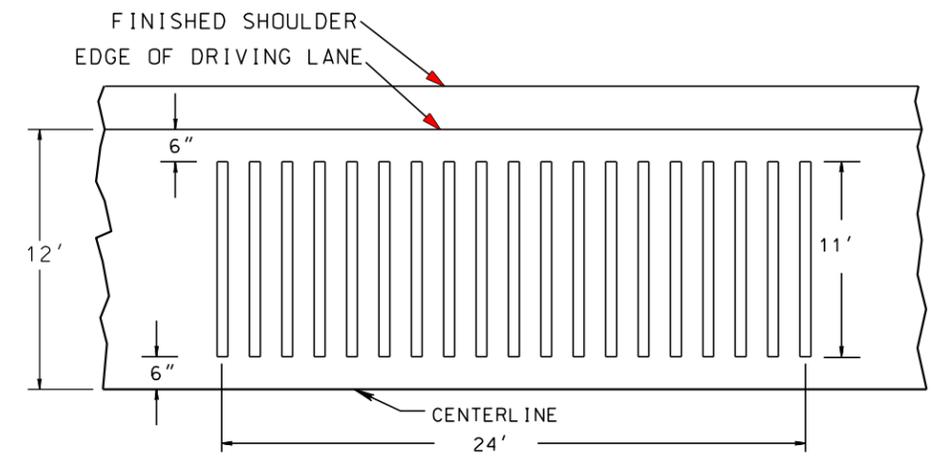
The top of posts and top of block shall have a true square cut. The top of post and top of block shall be flush.

TRANSVERSE RUMBLE STRIPS

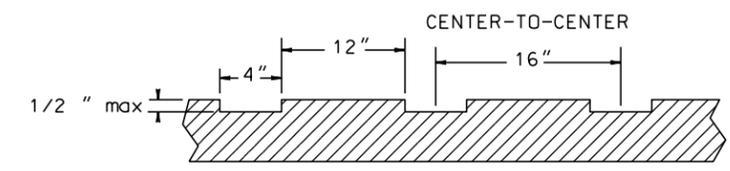
Plot Scale - 1:200



RUMBLE STRIP PLAN VIEW



RUMBLE STRIP PROFILE (TYPICAL)



THE RUMBLE STRIPS SHALL BE GROOVED INTO THE ASPHALT CONCRETE SURFACE.

Plotted From - TRRC11951

File - ...TransverseRumbleStrips.dgn

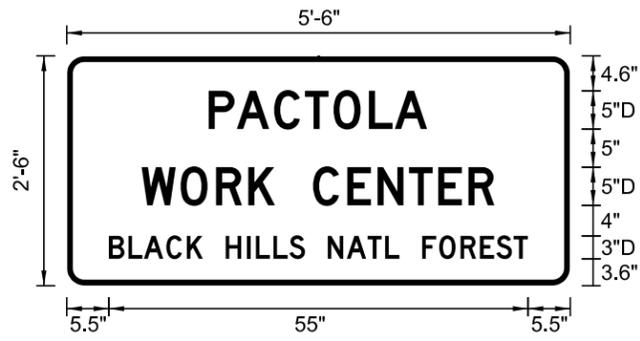
SIGN DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	62	120

Plotting Date: 12/02/2013

Plot Scale - 1:2

SIGN DETAIL
1:15



Panel Style: guide_con_recreational.sst
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	Special - MRM 29.275
WIDTH x HGHT.	5'-6" x 2'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	2.25"
MOUNTING	Overhead
BACKGROUND	TYPE: Type IV
	COLOR: Brown
LEGEND/BORDER	TYPE: Non-Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)																				LENGTH	SERIES SIZE			
P	A	C	T	O	L	A															28.8	D 2000		
18.6	22.3	27.2	31.3	35	39.7	43.1															5			
W	O	R	K		C	E	N	T	E	R											46.4	D 2000		
9.9	15	19.6	23.9	27.4	32.4	36.9	40.8	45	48.8	52.8											5			
B	L	A	C	K		H	I	L	L	S		N	A	T	L		F	O	R	E	S	T	55	D 2000
5.6	8.1	10.1	13.1	15.8	17.9	20.9	23.6	24.8	27.2	29.3	31.3	34.3	36.8	39.5	41.8	43.7	46.7	48.9	51.7	54.3	56.4	58.7	3	

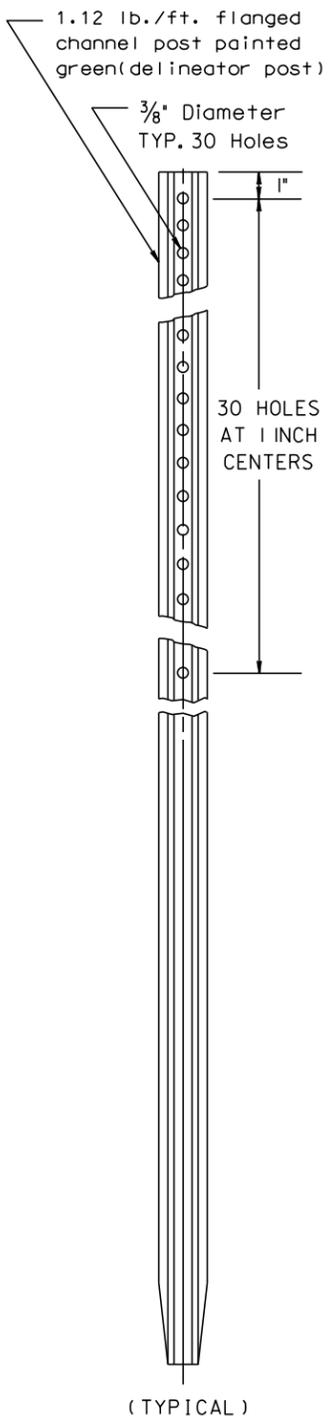
Plotted From - TRRC11951

File - ...1038C_SignDetails.dgn

Delineator Installation Details

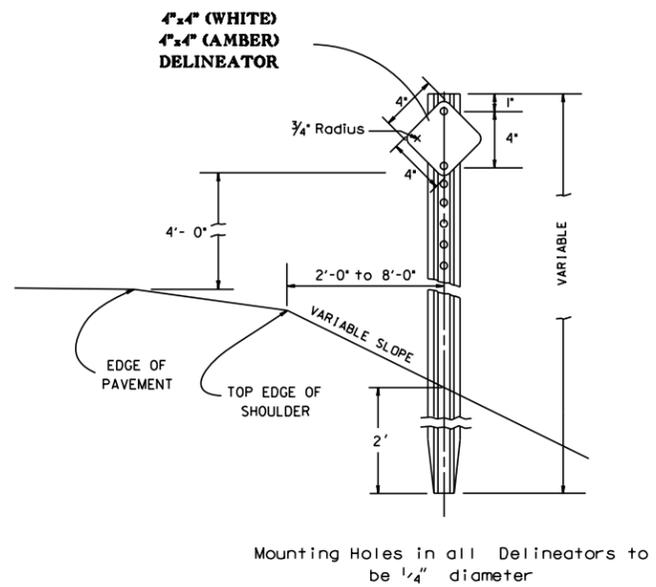
STATE OF SOUTH DAKOTA	PROJECT NH-P 0044(172)26	SHEET 64	TOTAL SHEETS 120
Plotting Date: 12/20/2013			

POST DETAIL

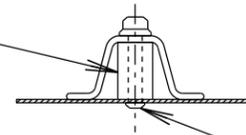


4"x4" DELINEATORS

with Diamond Grade reflective sheeting



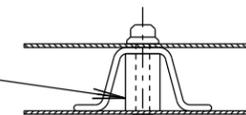
1/2" dia. zinc coated spacer



Single
- DIVIDED ROADWAYS -

Adjacent Traffic Direction

1/2" dia. zinc coated spacer



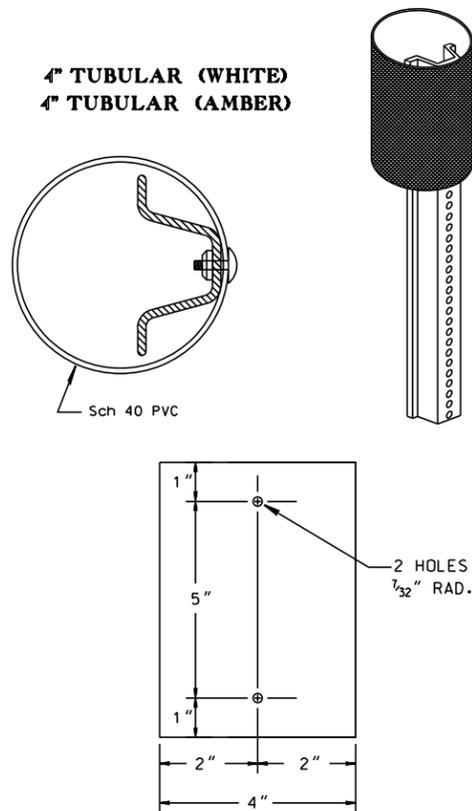
Back to Back
- UNDIVIDED ROADWAYS -

* Alternative methods of fastening may be approved by the Engineer.

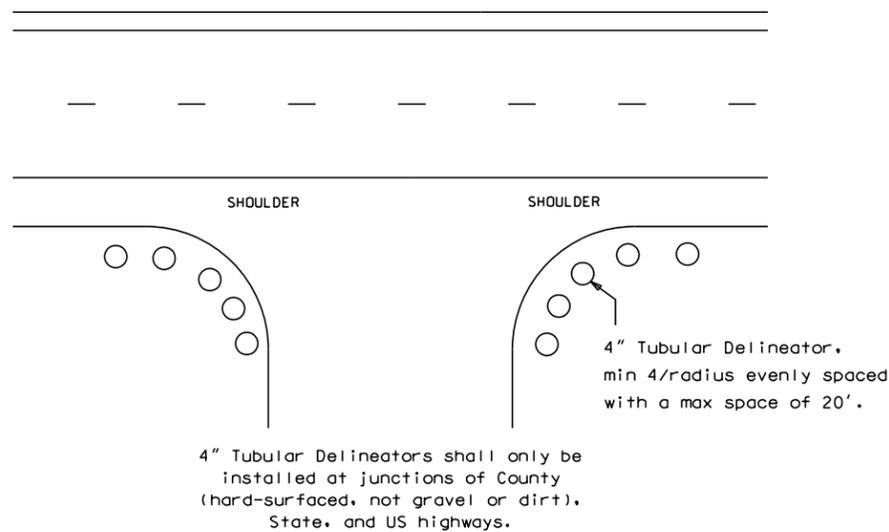
1/4" twin rivet
7/8" to 1 1/8" grip range
(single and back to back)

4" TUBULAR DELINEATORS

with Diamond Grade reflective sheeting



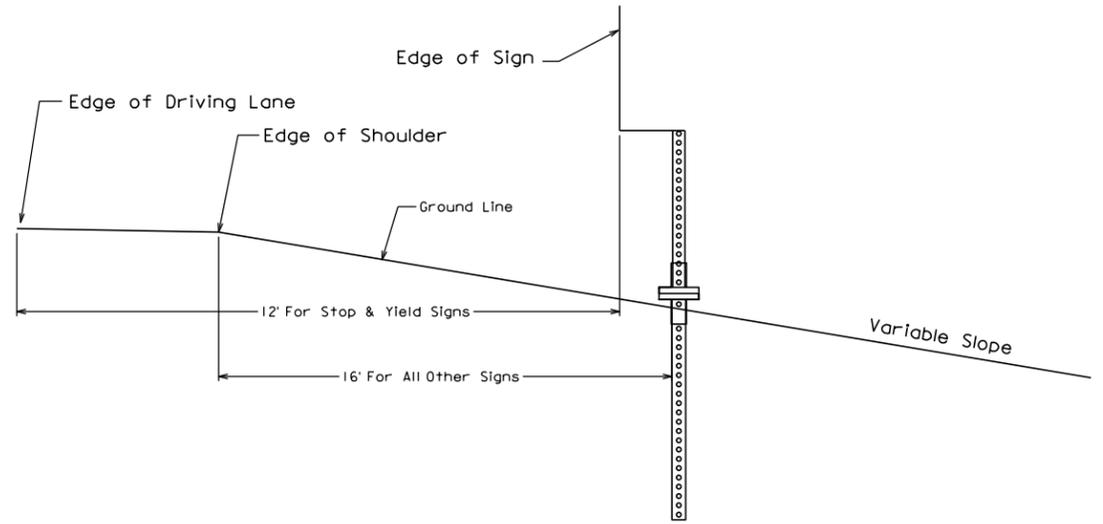
4" TUBULAR DELINEATORS LOCATION DETAILS



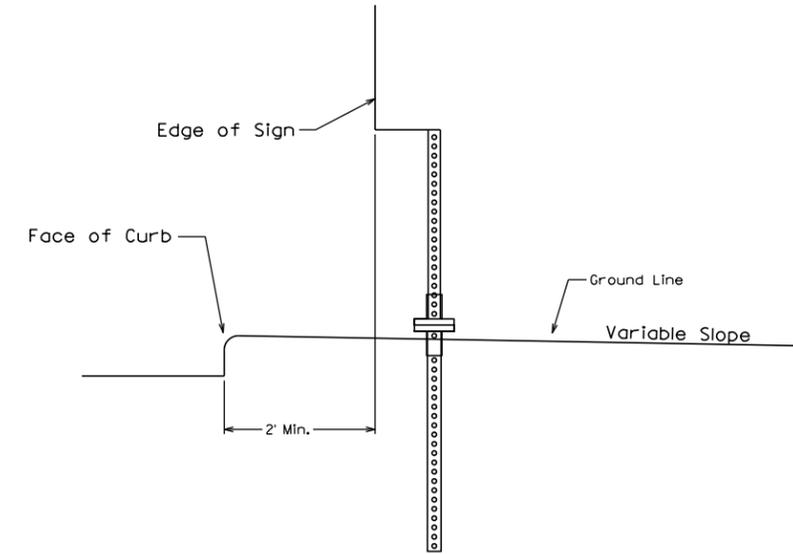
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	65	120

Plotting Date: 12/20/2013

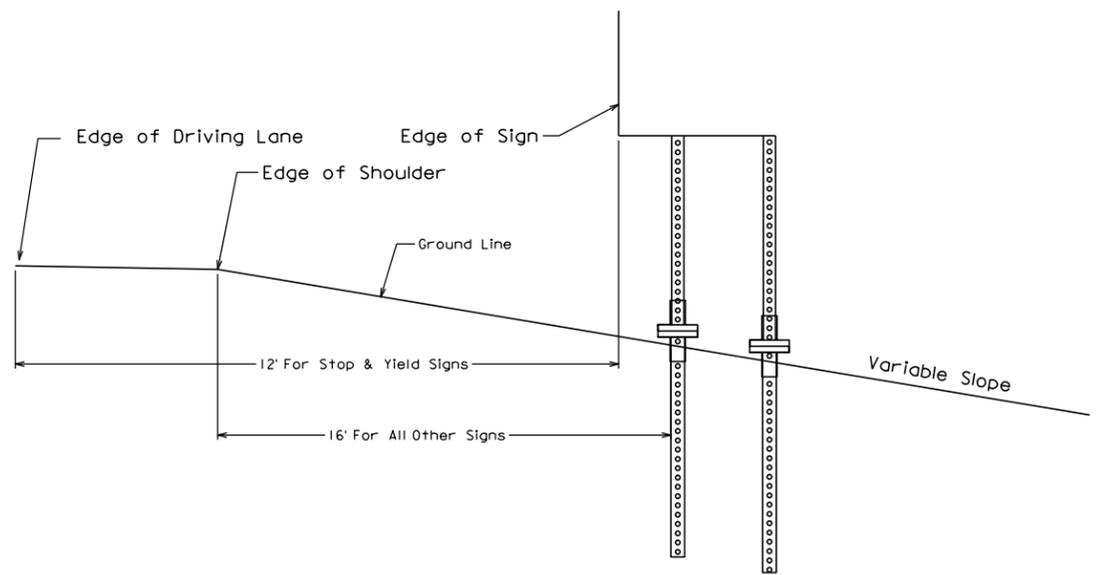
Plot Scale - 1:200



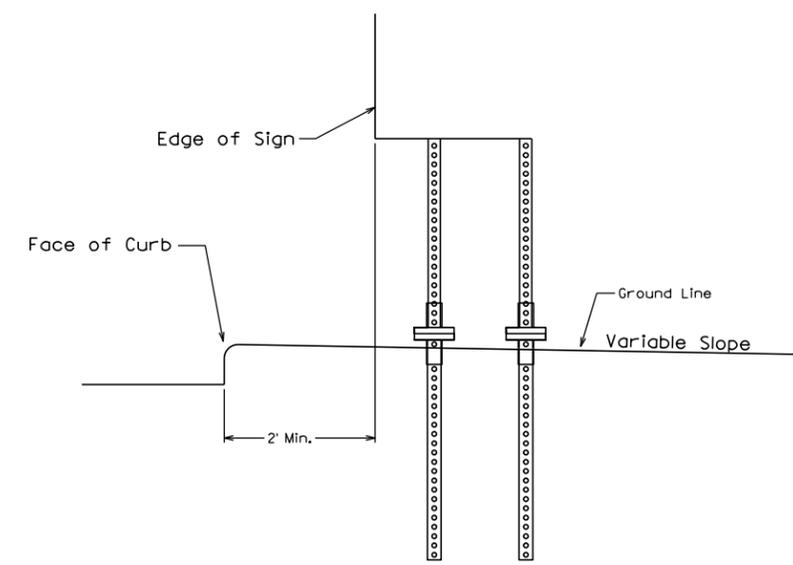
RURAL LOCATION WITH 1 POST
(Drawing shown from face of sign)



URBAN LOCATION WITH 1 POST
(Drawing shown from face of sign)



RURAL LOCATION WITH 2 POSTS
(Drawing shown from face of sign)



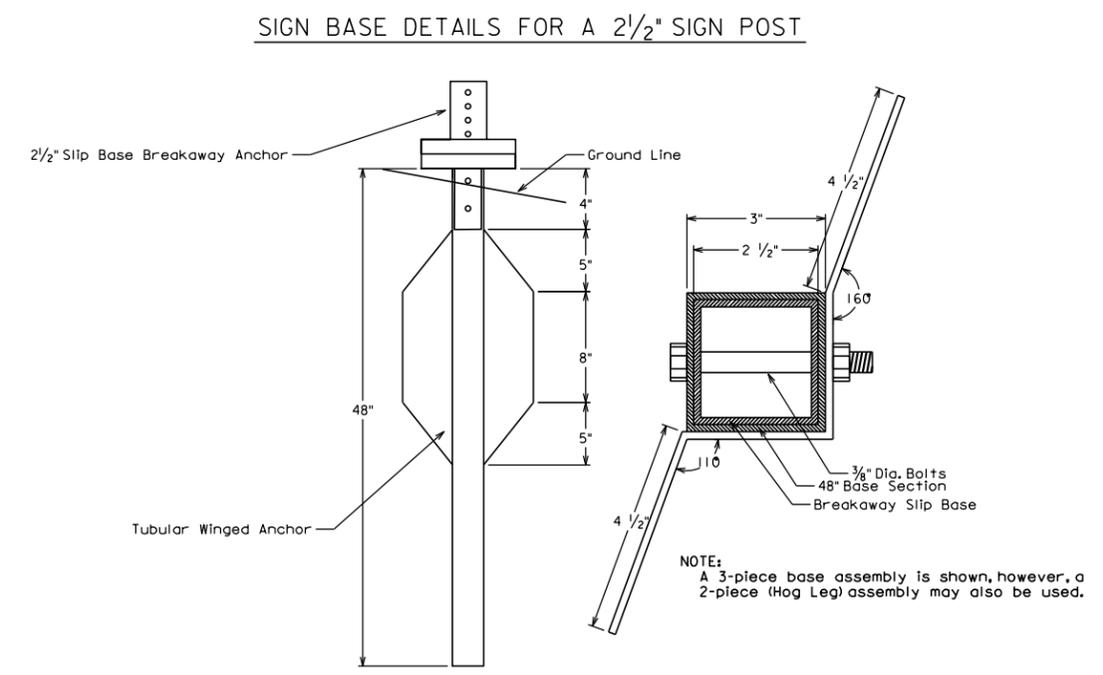
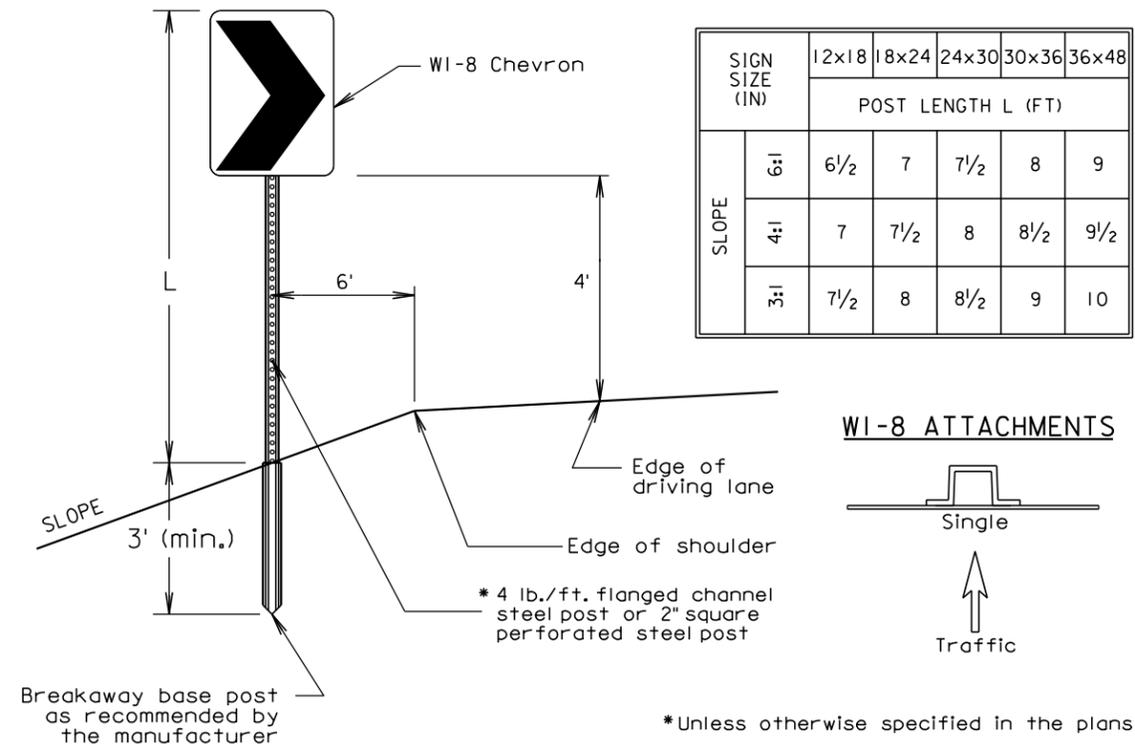
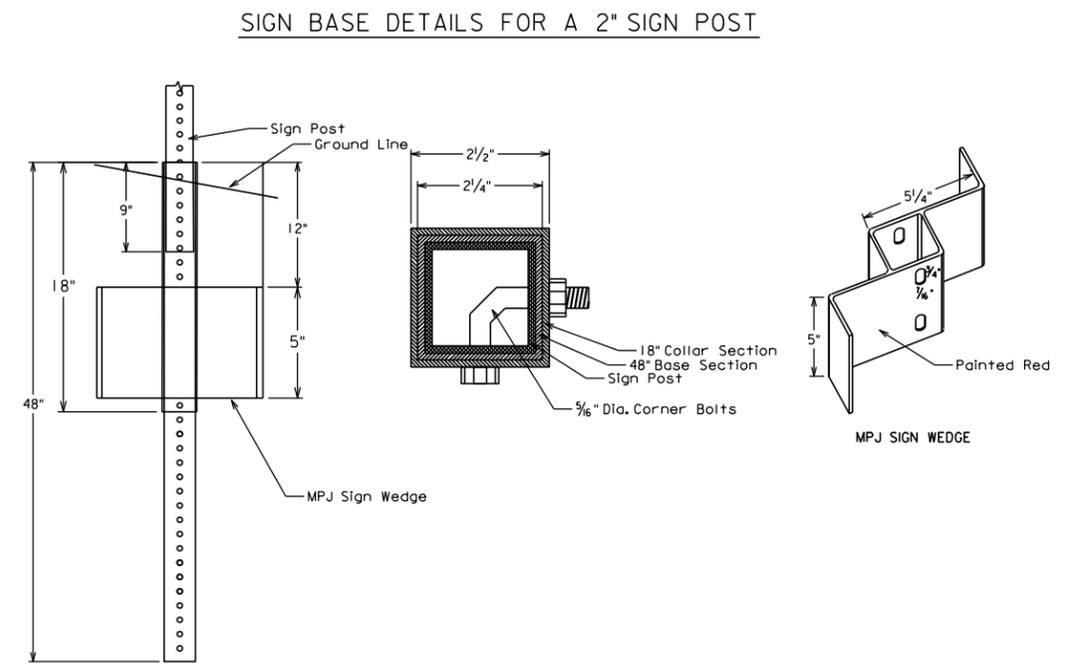
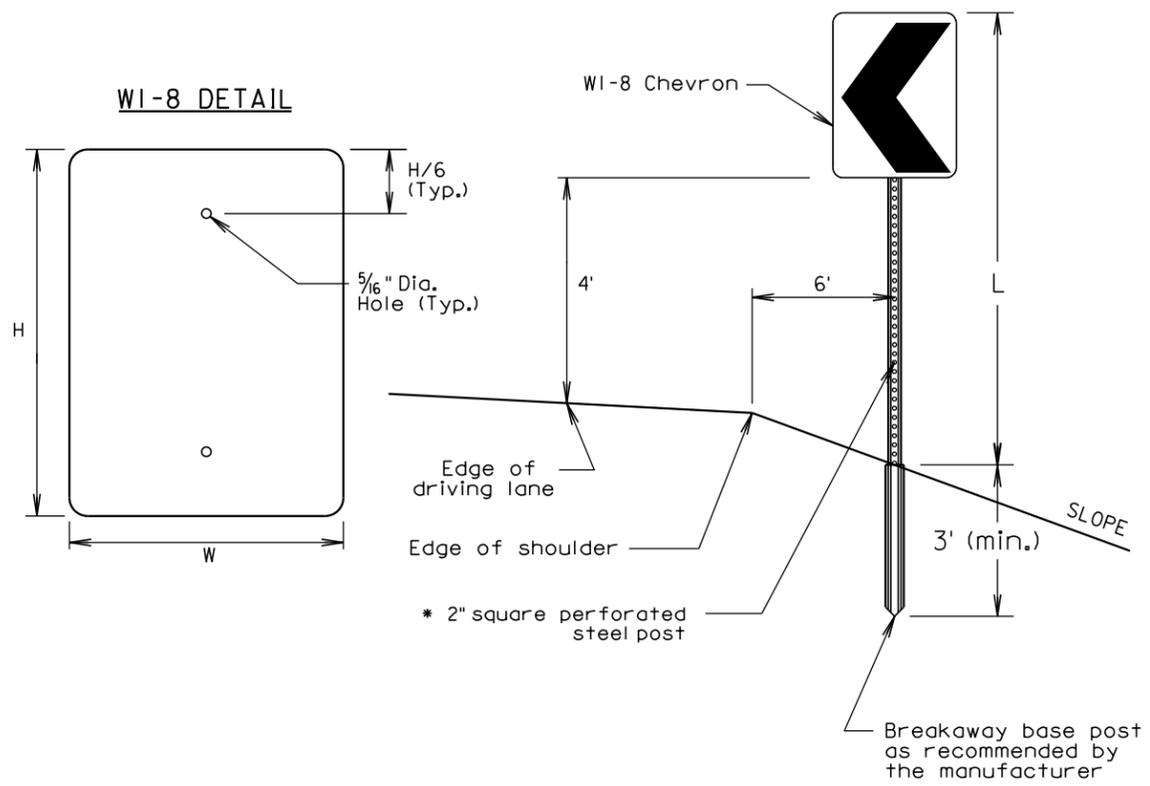
URBAN LOCATION WITH 2 POSTS
(Drawing shown from face of sign)

**LATERAL LOCATION FOR
URBAN & RURAL SIGNS**

Plotted From - TRRC11951

File - ...1038C_SignSupportStandards.dgn

Plot Scale - 1:200



TUBULAR POST BASE DETAILS

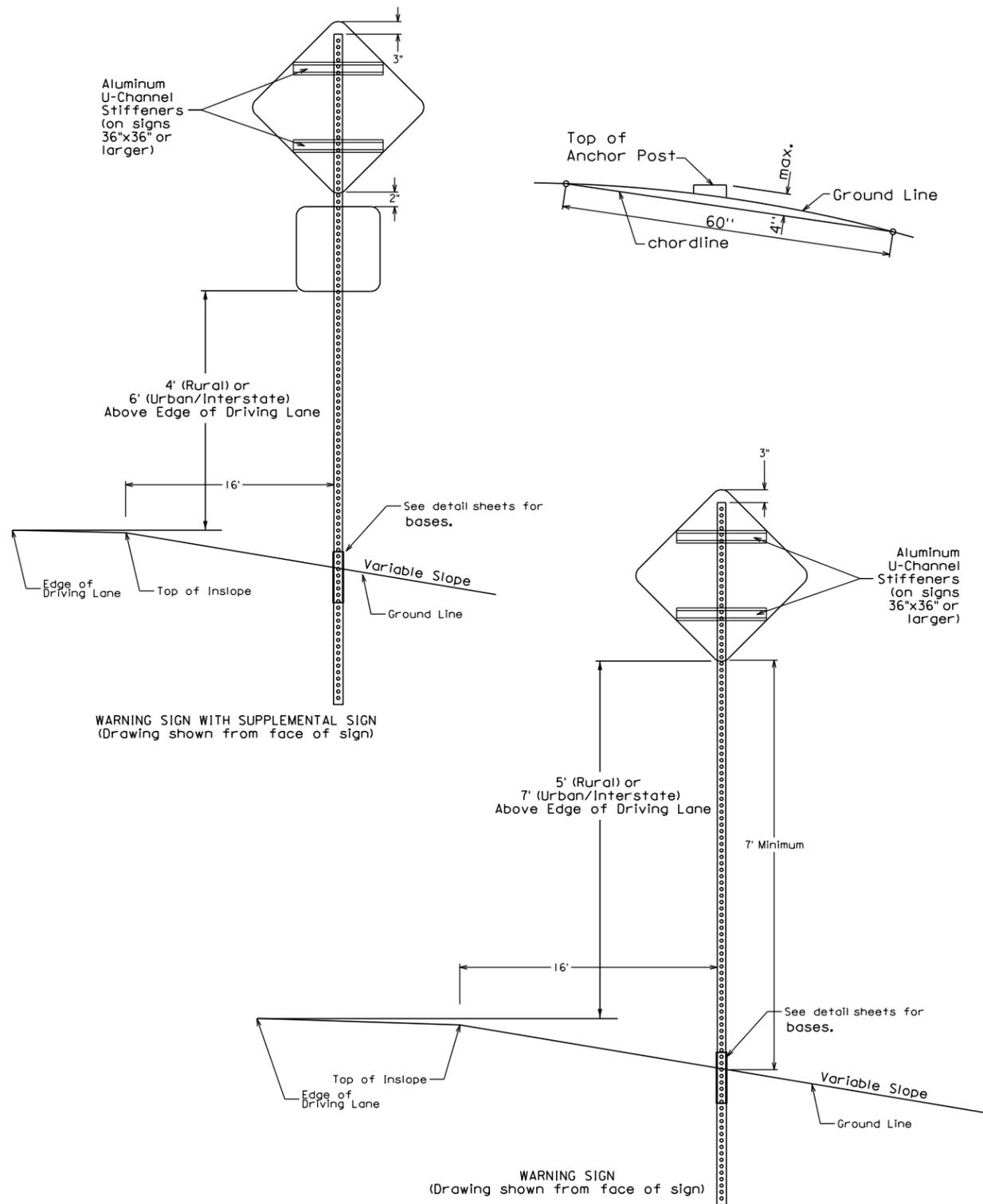
Plotted From - TRRC11951

File - ...1038C_SignSupportStandards.dgn

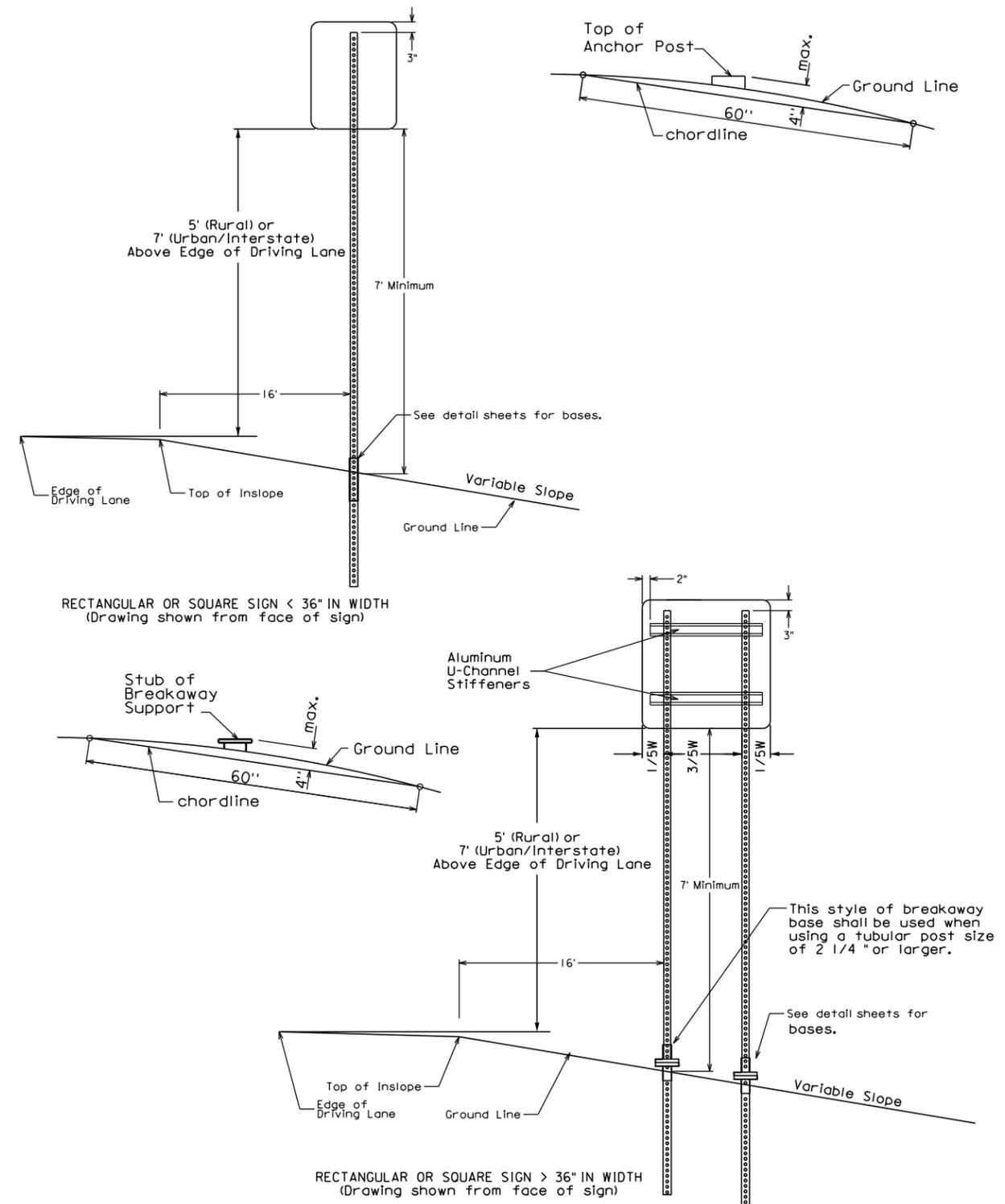
Plot Scale - 1:200

Plotted From - TRRC11951

File - ...1038C_SignSupportStandards.dgn

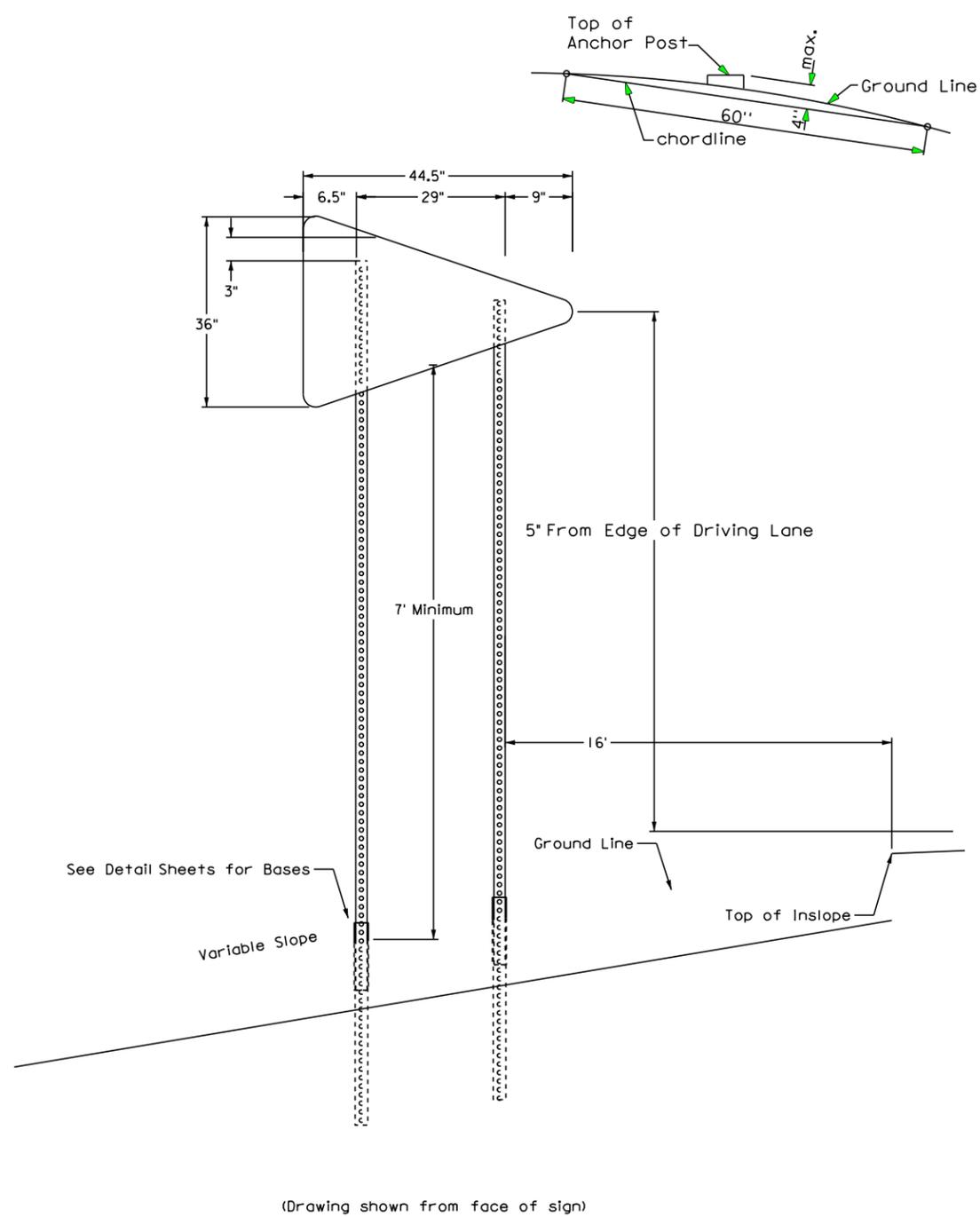


TYPICAL ERECTION DETAILS FOR WARNING SIGNS

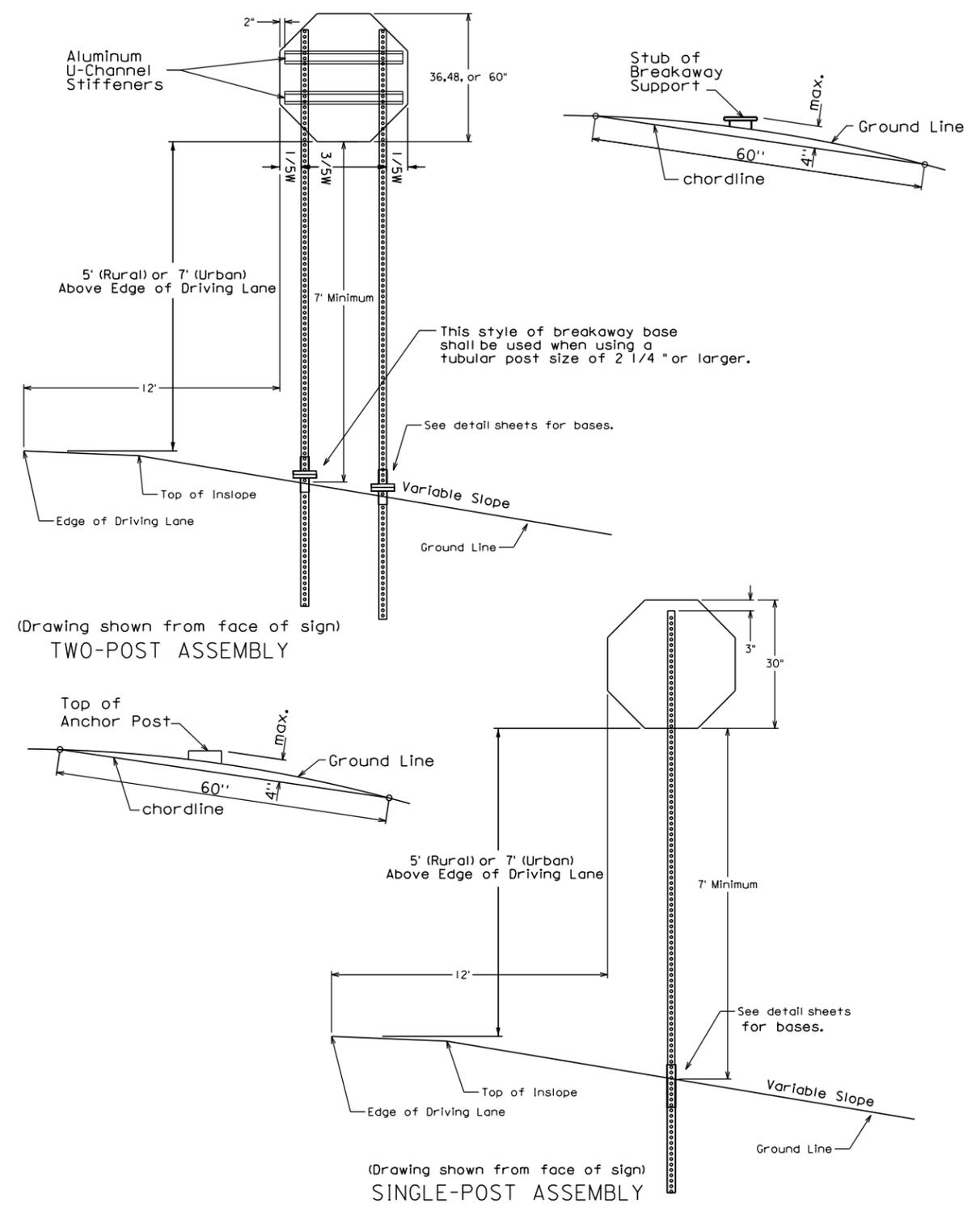


TYPICAL ERECTION DETAILS FOR SQUARE OR RECTANGULAR SIGNS

Plot Scale - 1:200



TYPICAL ERECTION DETAILS FOR NO PASSING ZONE PENNANT

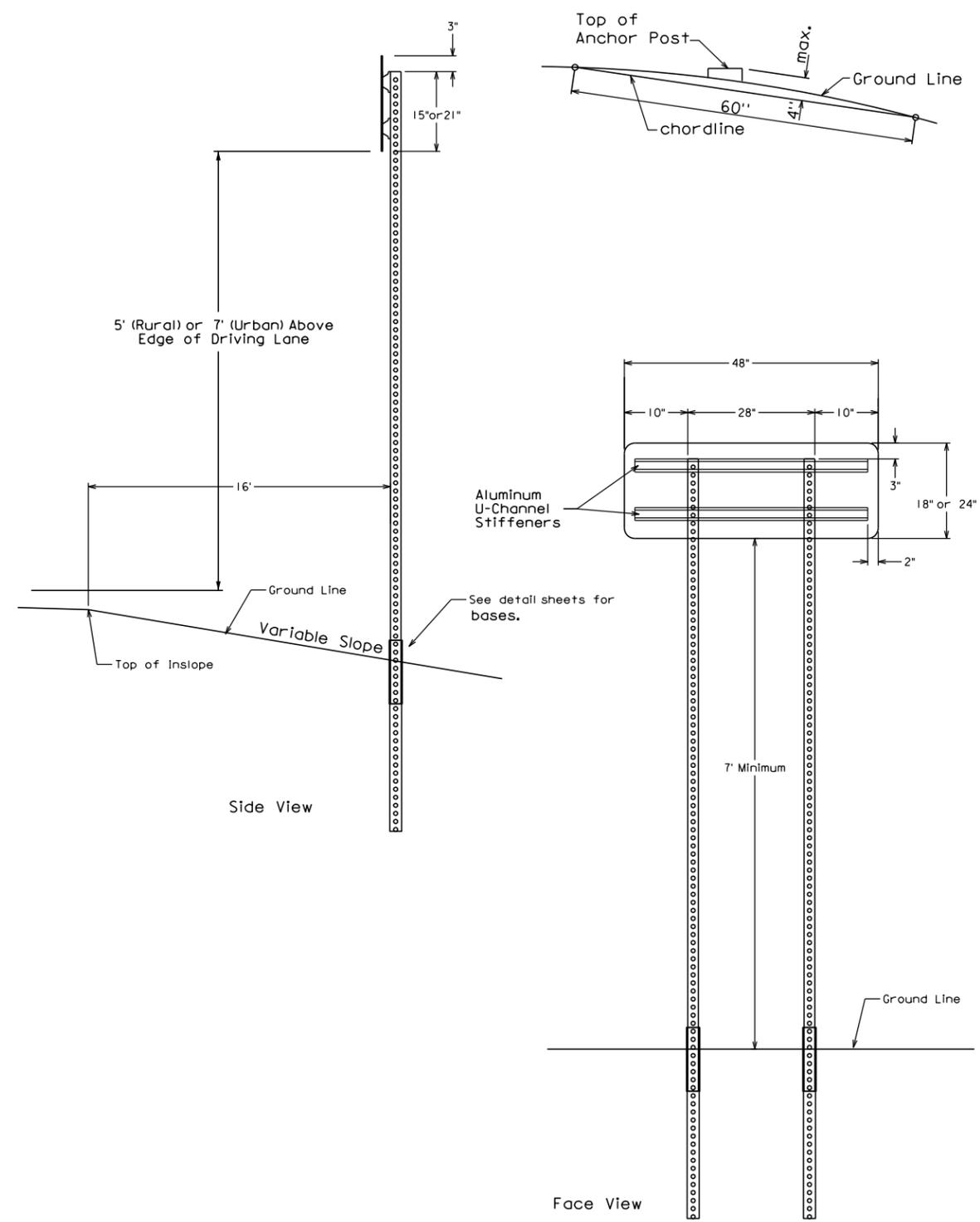


TYPICAL ERECTION DETAILS FOR STOP SIGNS

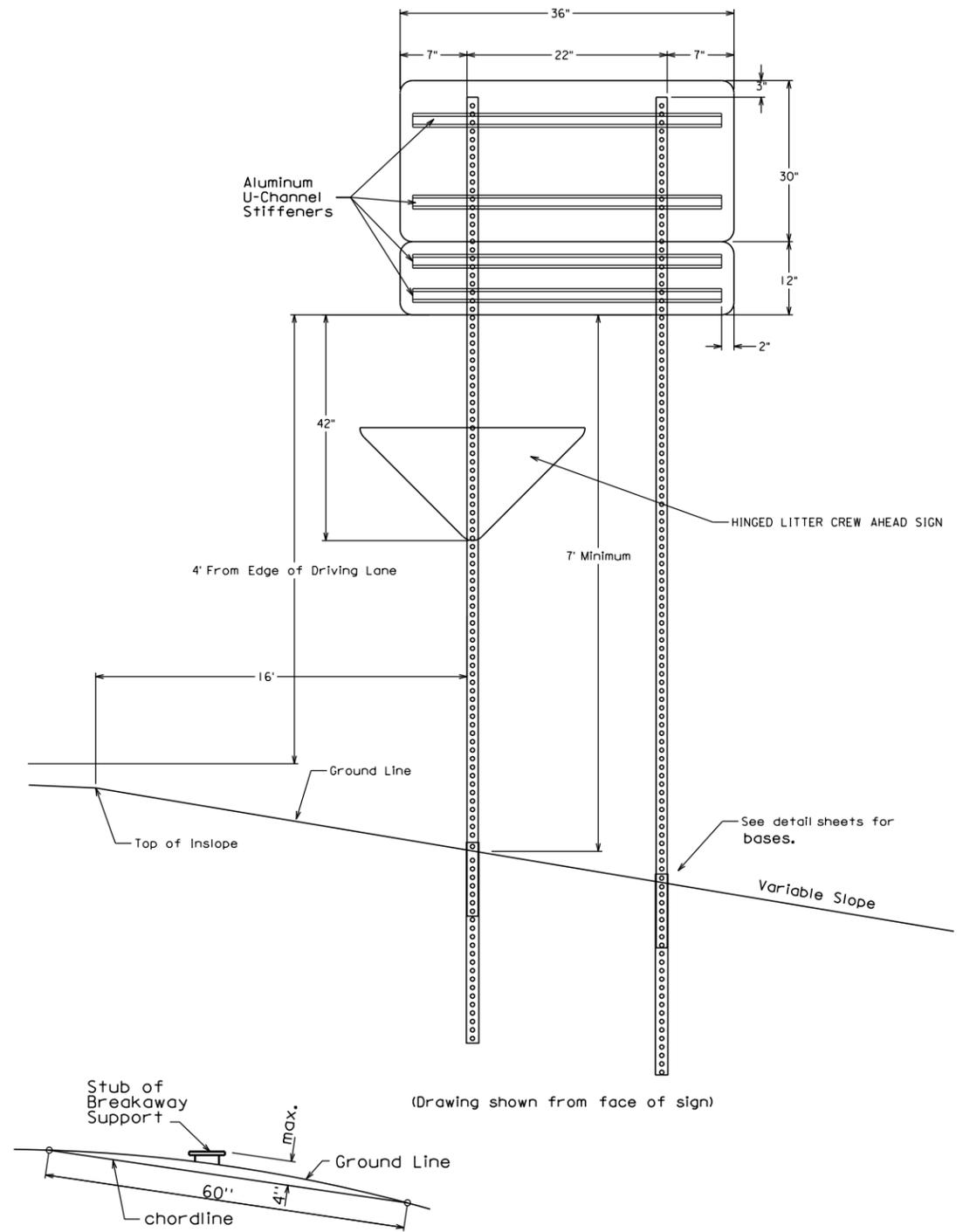
Plotted From - TRRC11951

File - ...1038C_SignSupportStandards.dgn

Plot Scale - 1:200



**TYPICAL ERECTION DETAILS FOR
ONE WAY SIGN OR LARGE ARROW SIGN**



**TYPICAL ERECTION DETAILS FOR
ADOPT-A-HIGHWAY SIGN WITH CLUB SIGN
AND LITTER CREW SIGN**

Plotted From - TRRC11951

File - ...1038C_SignSupportStandards.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	71	120

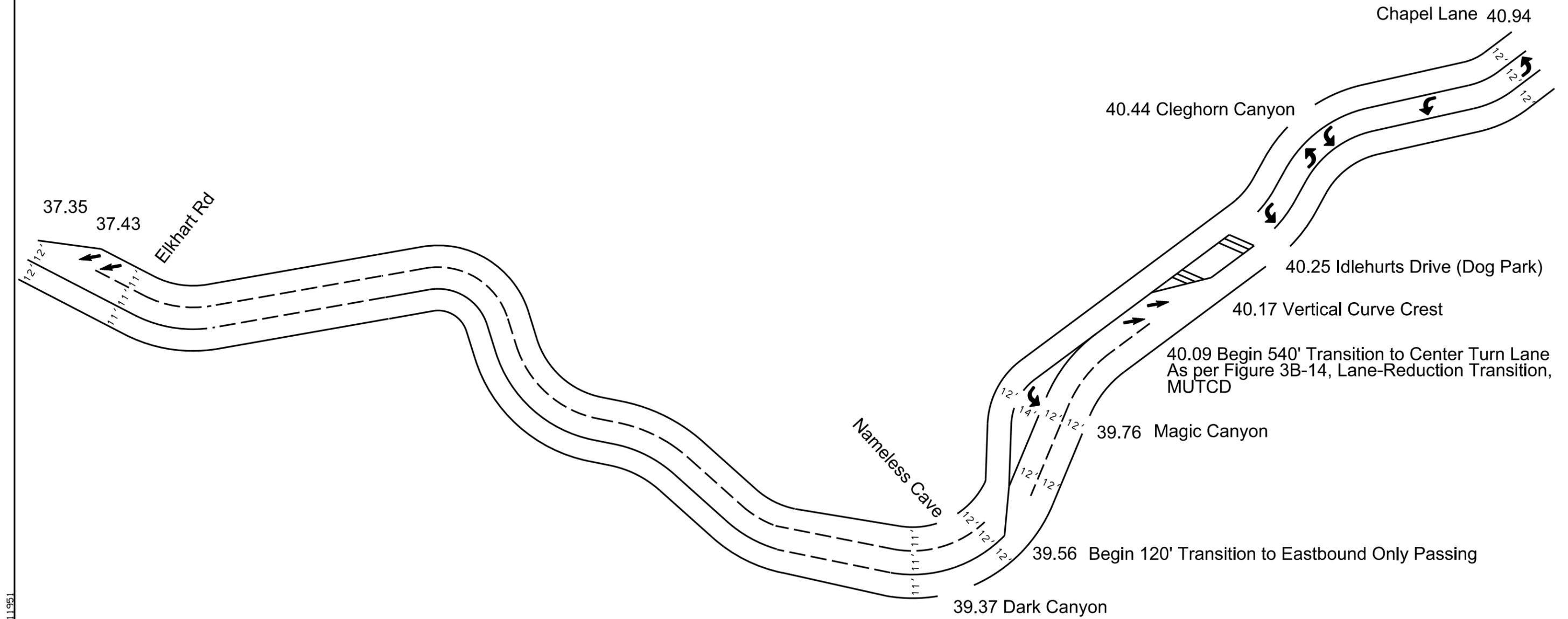
Plotting Date: 12/02/2013

PAVEMENT MARKING LAYOUT

MRM 37.43 to MRM 40.94

PLOT SCALE - 1:50

PLOT NAME - 22



PLOTTED FROM - TRRC11951

FILE - ... \PAVEMENTMARKINGDETAILS.DGN

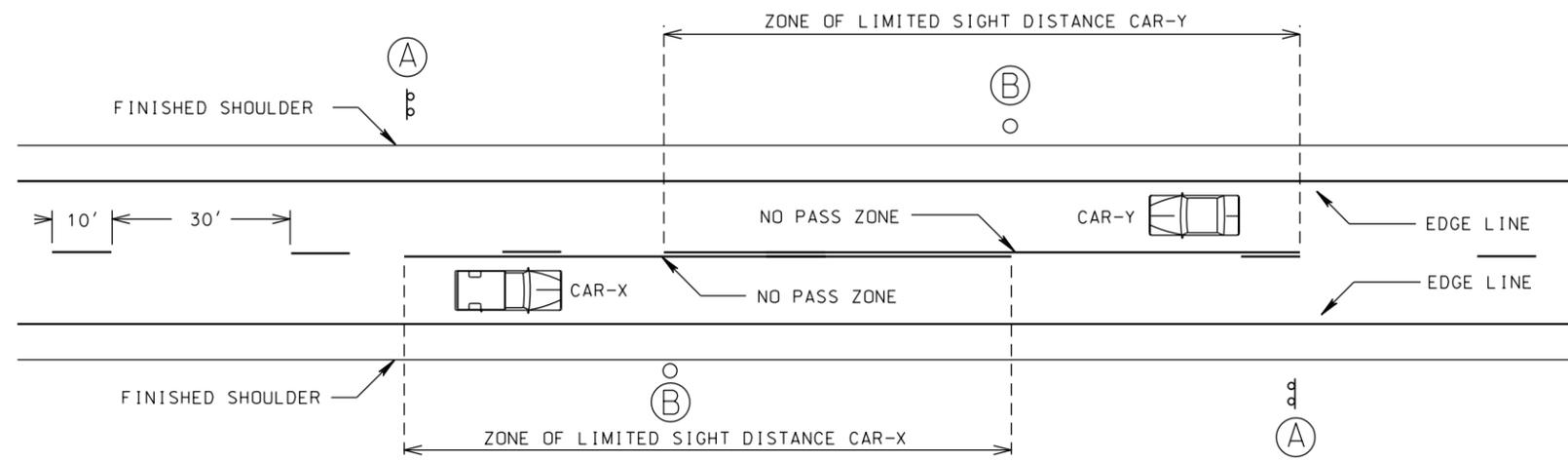
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	72	120

Plotting Date: 12/02/2013

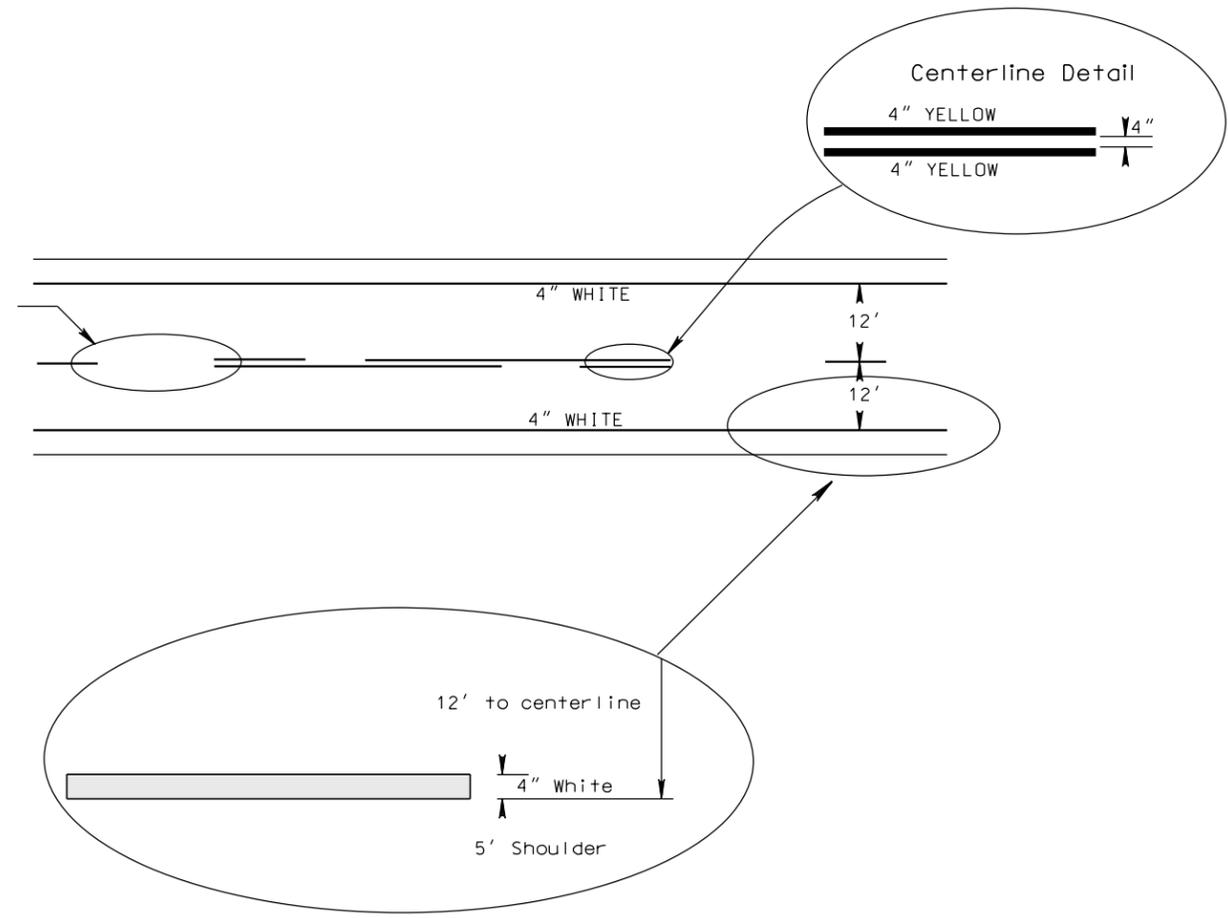
PAVEMENT MARKING LAYOUT



(A) NO PASSING ZONE
(B) End of Zone Marker



NOTE: A THREE "GUN" SYSTEM SHALL BE USED TO OBTAIN THIS PATTERN.



PLOT SCALE - 1:30

PLOTTED FROM - TRRC11951

PLOT NAME - 23

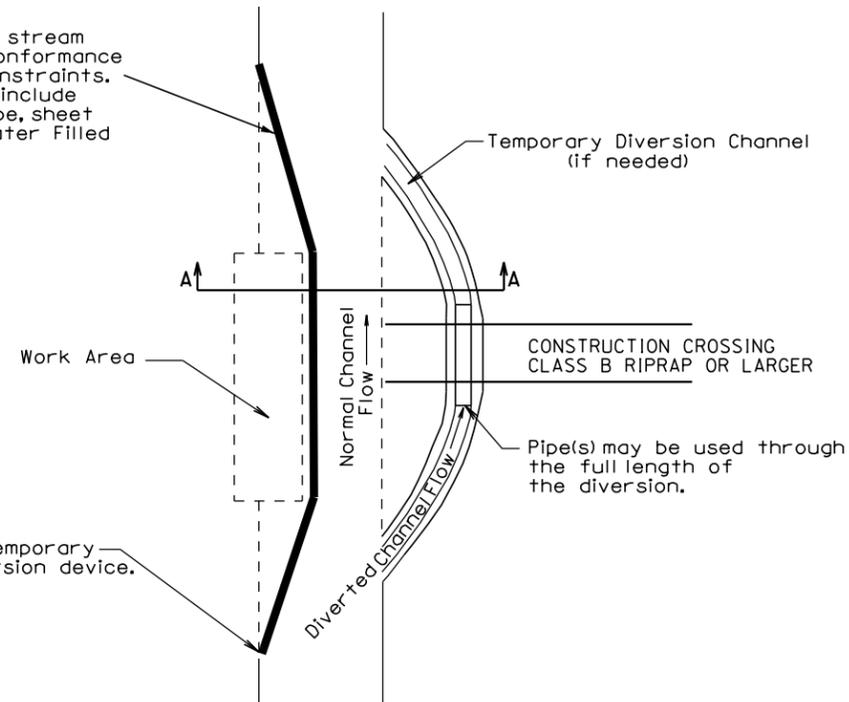
FILE - ... \PAVEMENT MARKING DETAILS.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-P 0044(172)26	74	120

Plotting Date: 12/27/2013

TEMPORARY STREAM DIVERSION DETAILS

Construct temporary stream diversion device in conformance with environmental constraints. Possible options may include sandbags, geotech tube, sheet pile, Class B Riprap, Water Filled Barrier or other.



GENERAL NOTES:

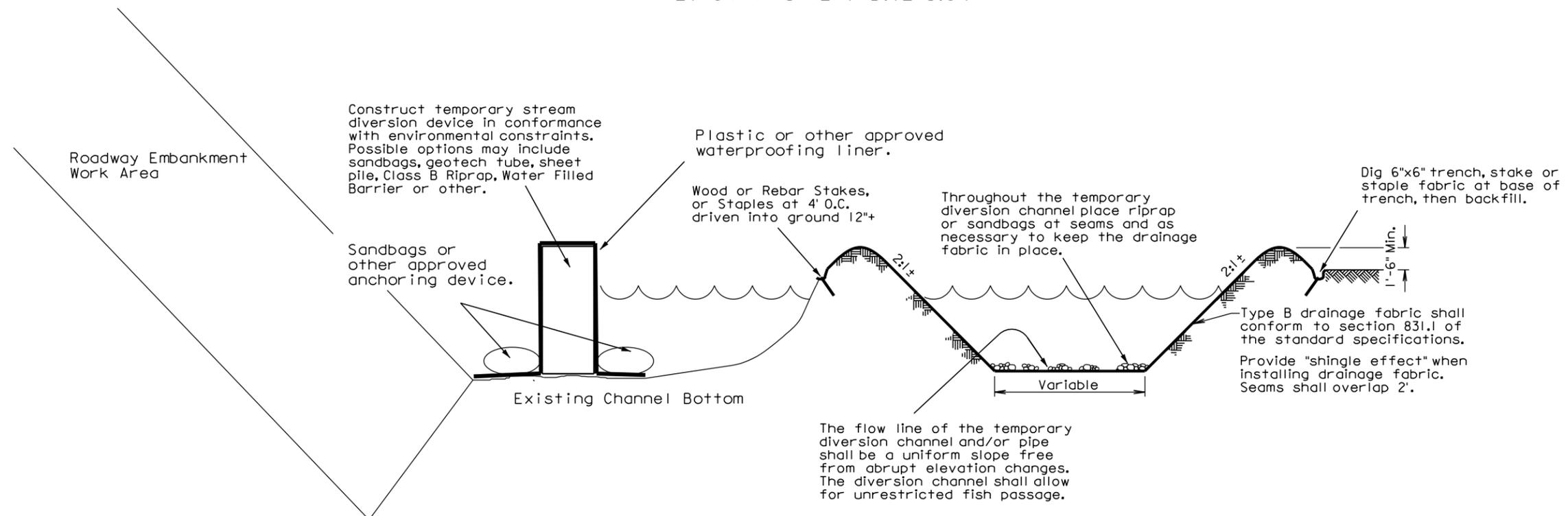
A temporary stream diversion shall be used to divert stream or drainage away from a construction area to provide a dry work area for construction. The diversion of streams and waterways is intended to protect the streams and waterways from various construction contaminants and sediment. Disturbing the existing stream channel and riparian zone should be minimized. Equipment shall not cross through the stream outside of the work area.

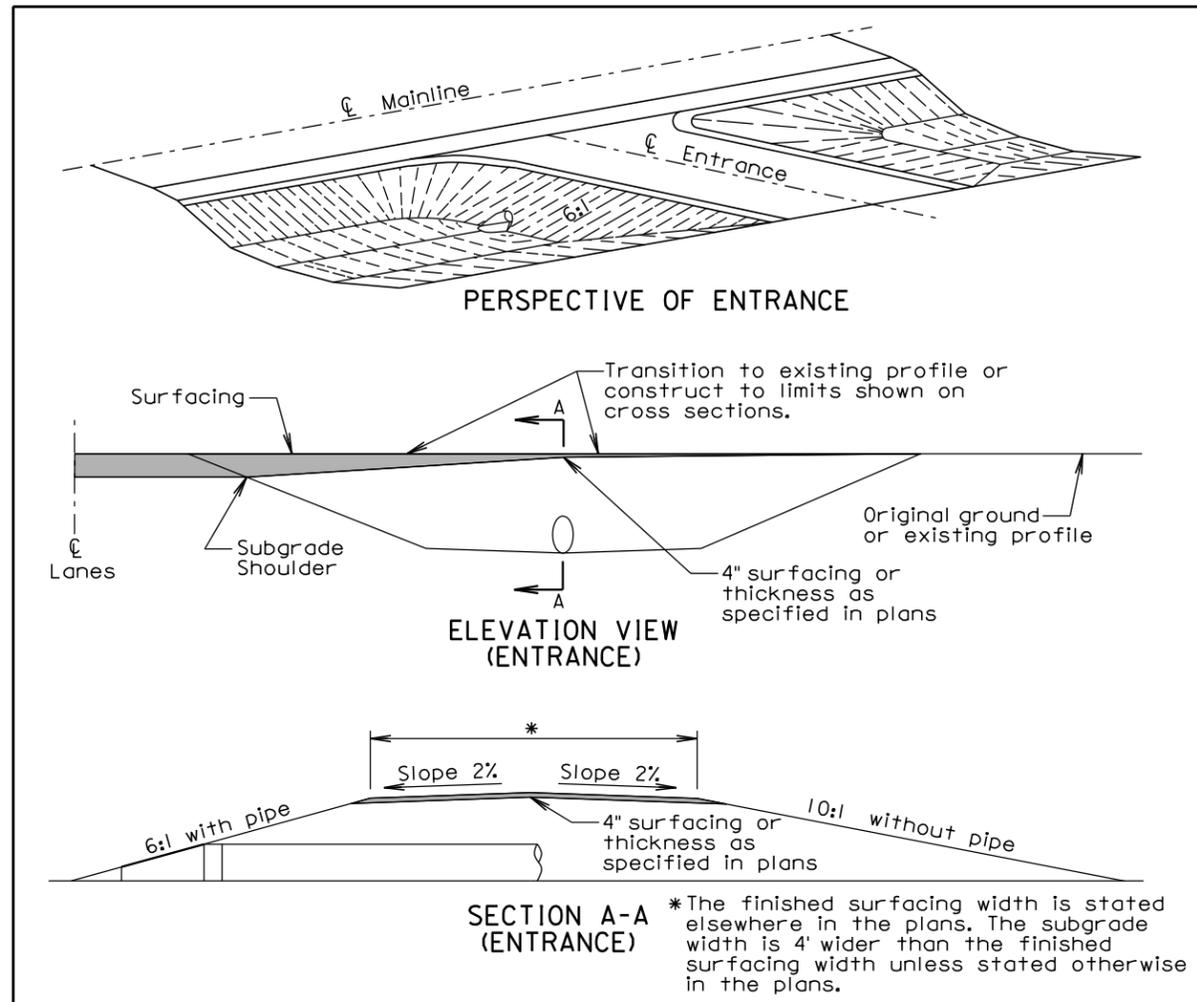
Sizing of the temporary diversion channel and/or pipe(s) shall be the Contractor's responsibility.

The method and materials used to construct the stream diversion device shall be the Contractor's responsibility, however, earthen berms are not acceptable since their removal causes siltation problems.

The Contractor shall restore the original channel bottom to its original condition prior to returning any flows. Upon completion of the new permanent drainage structure, the temporary stream diversion block or device shall be removed in a manner that will not cause violation of water quality standards. The temporary diversion channel shall then be backfilled and any pipe(s) (if used) shall be removed. The entire work area shall be cleaned and restored to smooth/even contours.

SECTION A-A TEMPORARY STREAM DIVERSION





GENERAL NOTES:

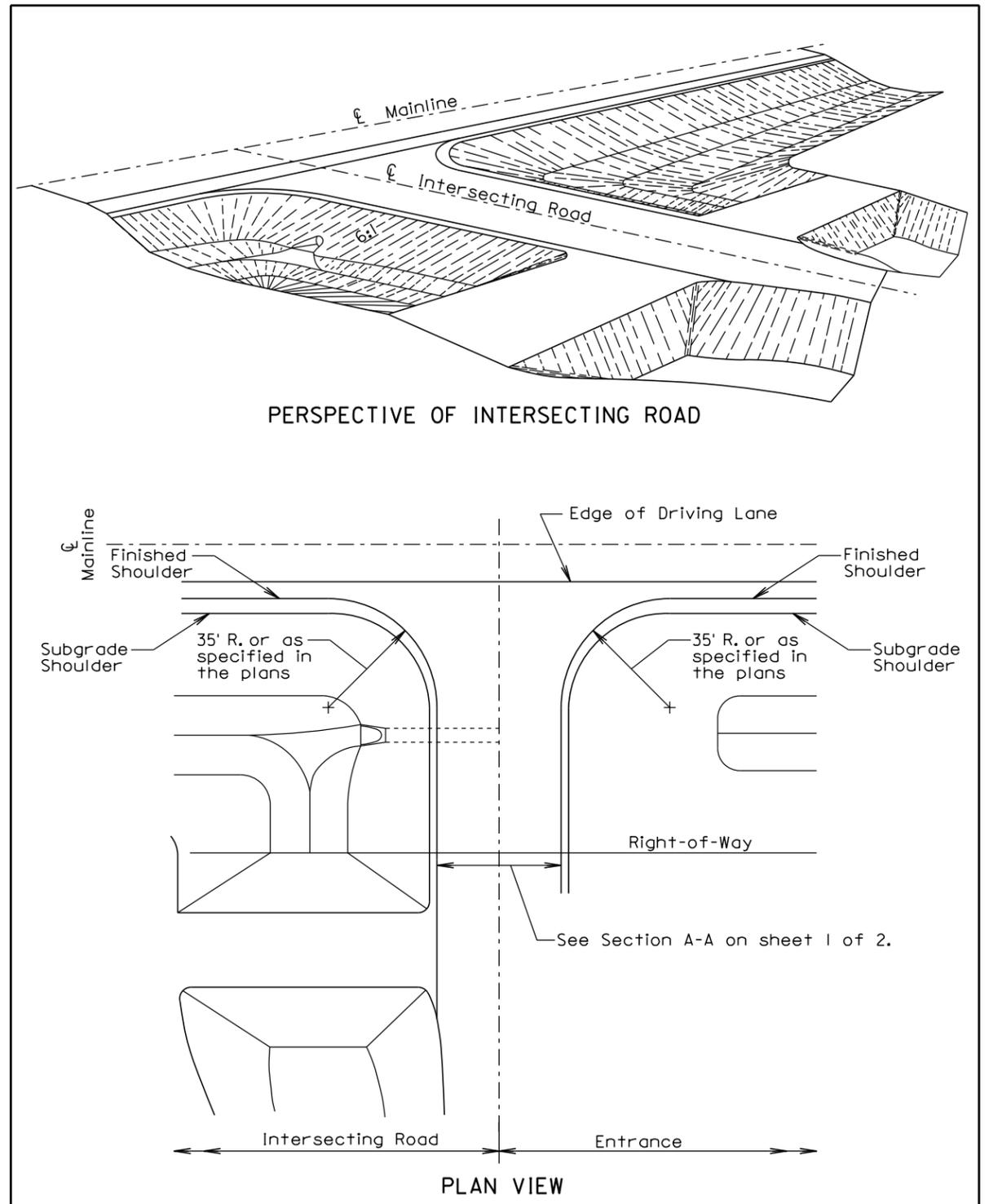
The ditch section shown above in the perspective and elevation view is only for illustrative purposes.

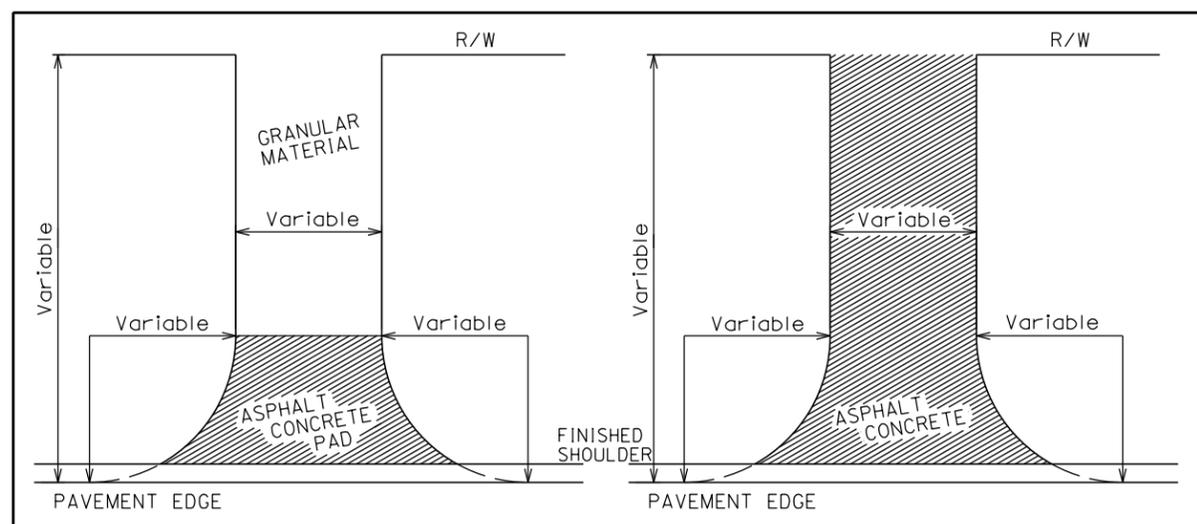
A 6:l inslope shall be constructed for an entrance when a pipe is required. A 10:l inslope shall be constructed when a pipe is not required.

Pipe lengths shall be adjusted if necessary during construction to obtain the 6:l slopes. For grading projects, the pipe lengths are estimated typically using a 4" thickness of surfacing directly over the subgrade above the pipe.

The transition area between the mainline inslope and the approach inslope for entrances shall be rounded to eliminate an abrupt transition.

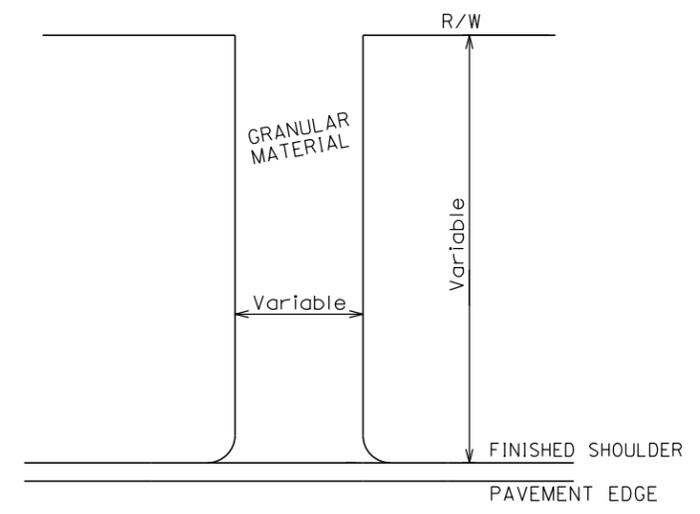
The turning radii shall be 35' for intersecting roads and entrances unless stated otherwise in the plans.





INTERSECTING ROAD
NO ASPHALT CONCRETE SURFACING
BEYOND R/W

INTERSECTING ROAD
ASPHALT CONCRETE SURFACING
BEYOND R/W



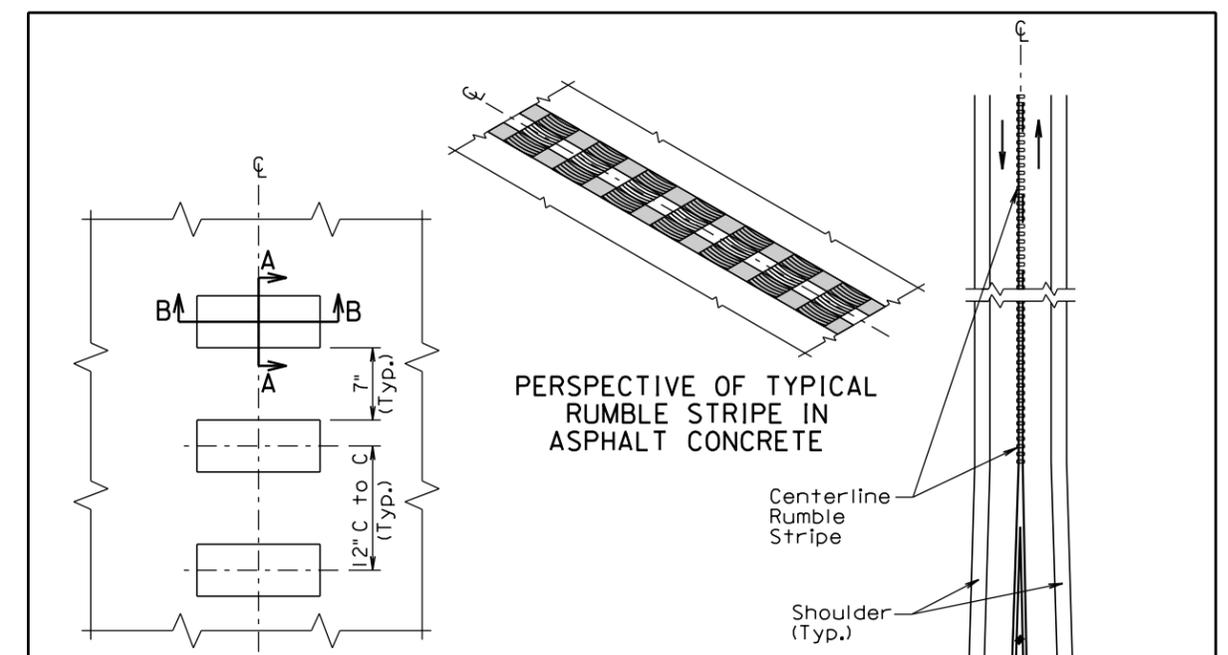
ENTRANCE

The surfacing details shown on this sheet are provided as a guide for surfacing these facilities. The precise construction limits for situations other than the standards shown will be determined by the Engineer, at the time of construction.

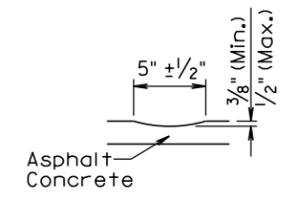
ROADWAY WITH SHOULDER

March 31, 2000

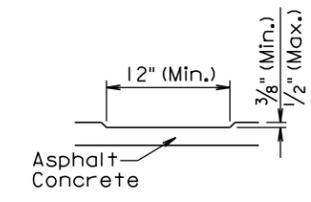
Published Date: 4th Qtr. 2013	S D D O T	RESURFACING OF INTERSECTING ROADS AND ENTRANCES	PLATE NUMBER 320.11
			Sheet 1 of 1



PLAN VIEW
TYPICAL RUMBLE STRIPE
IN ASPHALT CONCRETE



SECTION A-A



SECTION B-B

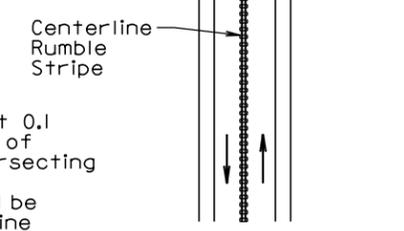
GENERAL NOTES:

A rumble stripe shall be constructed on the centerline of the roadway by grinding continuous indentations in the asphalt concrete. The rumble stripe shall be constructed at locations shown or stated in the plans.

A rumble stripe shall not be constructed adjacent to intersecting roads, entrances, turnouts, and turn lanes as directed by the Engineer.

Prior to constructing the rumble stripe the Contractor shall submit to the Engineer, for approval, the proposed method of constructing the rumble stripe.

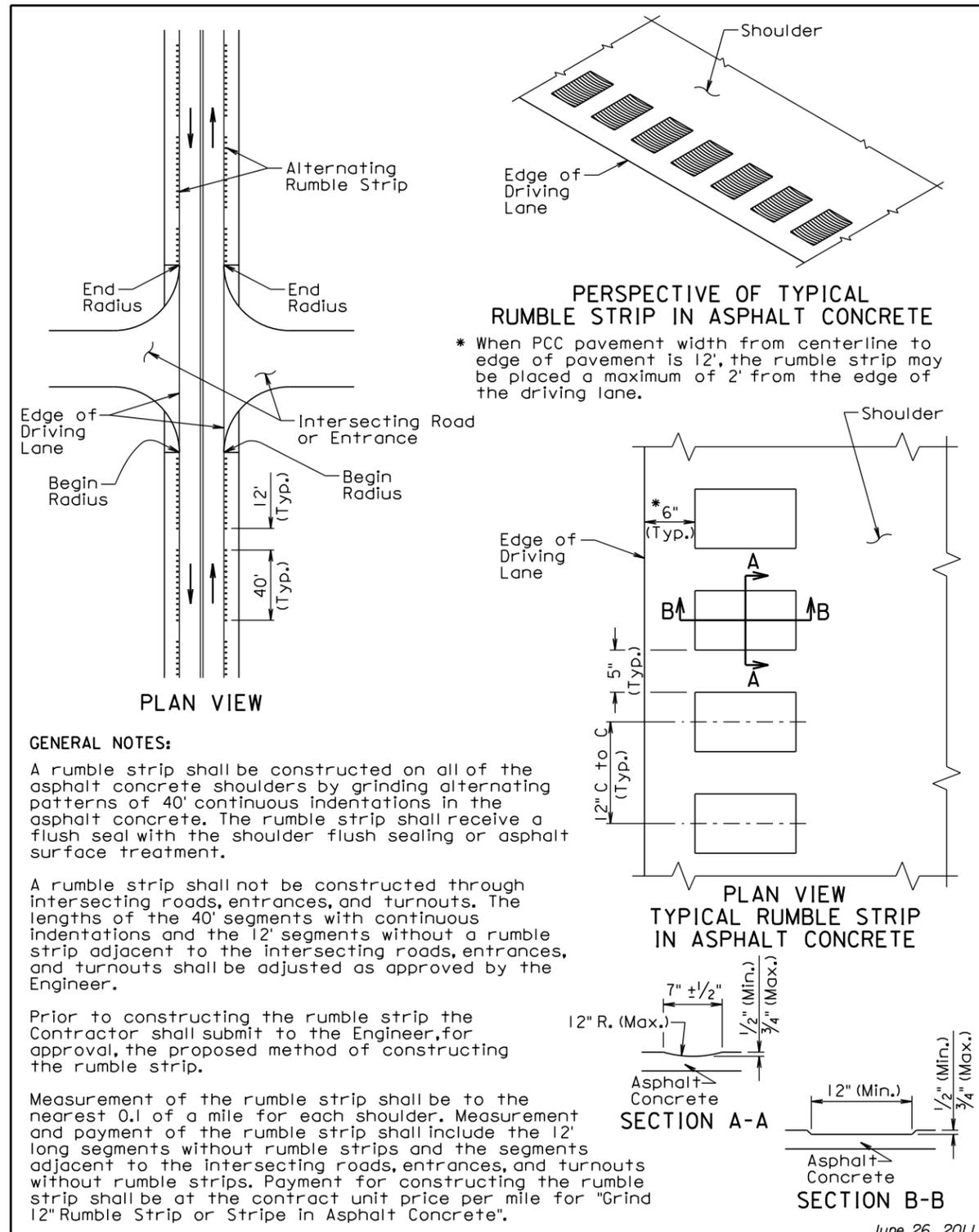
Measurement of the rumble stripe shall be to the nearest 0.1 of a mile along the centerline. Measurement and payment of the rumble stripe shall include segments adjacent to intersecting roads, entrances, turnouts, and turn lanes without rumble stripes. Payment for constructing the rumble stripe shall be at the contract unit price per mile for "Grind 12" Centerline Rumble Stripe in Asphalt Concrete".



PLAN VIEW

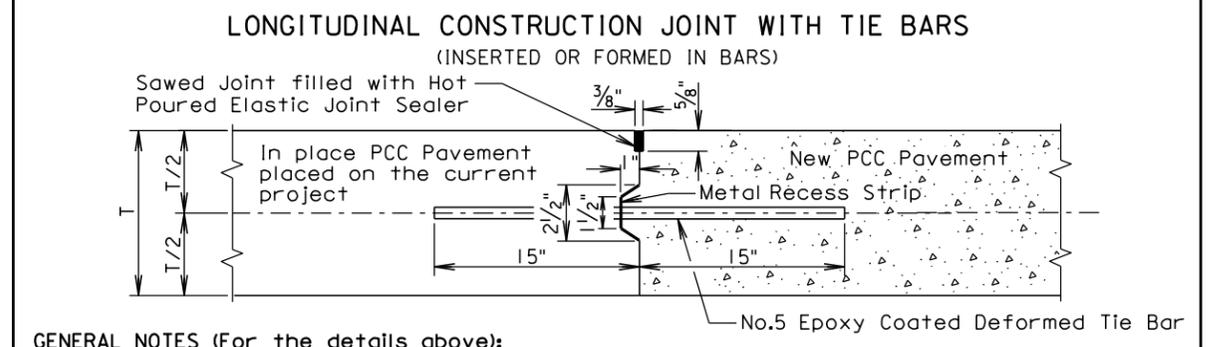
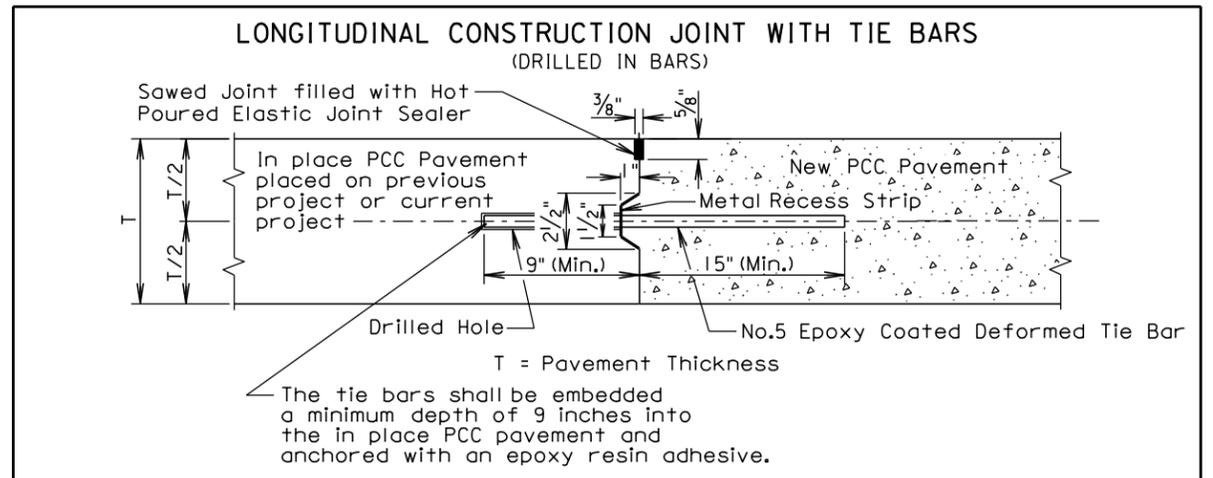
June 26, 2011

Published Date: 4th Qtr. 2013	S D D O T	12" CENTERLINE RUMBLE STRIPE IN ASPHALT CONCRETE	PLATE NUMBER 320.18
			Sheet 1 of 1



June 26, 2011

Published Date: 4th Qtr. 2013	S D D O T	12" RUMBLE STRIP IN ASPHALT CONCRETE ON NONDIVIDED HIGHWAY SHOULDERS	PLATE NUMBER 320.24
			Sheet 1 of 1



GENERAL NOTES (For the details above):

The epoxy coated deformed tie bars shall be spaced in accordance with the following tables:

Tie Bar Spacing 48" Maximum	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

Tie Bar Spacing 30" Maximum	
Transverse Contraction Joint Spacing	Number of Tie Bars
5' to 7'	2
7.5' to 9.5'	3
10' to 12'	4
12.5' to 14.5'	5
15' to 17'	6
17.5' to 19.5'	7
20' to 22'	8

The tie bars shall be placed a minimum of 15 inches from transverse contraction joints.

The required number of tie bars as shown in the table shall be uniformly spaced within each panel. The uniformly spaced tie bars shall be spaced a maximum of 48 inches center to center for a female keyway and shall be spaced a maximum of 30 inches center to center for a vertical face and male keyway. The maximum tie bar spacing shall apply to tie bars within each panel.

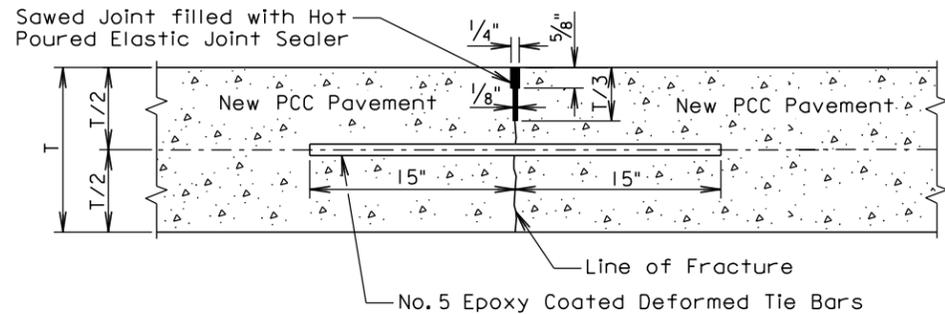
The keyway illustrated in the above details depict a female keyway.

The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip shall be used. When concrete pavement is slip formed, a metal recess strip is not required.

August 31, 2013

Published Date: 4th Qtr. 2013	S D D O T	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.10
			Sheet 1 of 2

SAWED LONGITUDINAL JOINT WITH TIE BARS
(POURED MONOLITHICALLY)



T = Pavement Thickness

GENERAL NOTES (For the detail above):

The epoxy coated deformed tie bars shall be spaced in accordance with the following table:

Tie Bar Spacing 48" Maximum	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

The tie bars shall be placed a minimum of 15 inches from the transverse contraction joints.

The required number of tie bars as shown in the table shall be uniformly spaced within each panel with a maximum space of 48 inches center to center. The maximum tie bar spacing shall apply to tie bars within each panel.

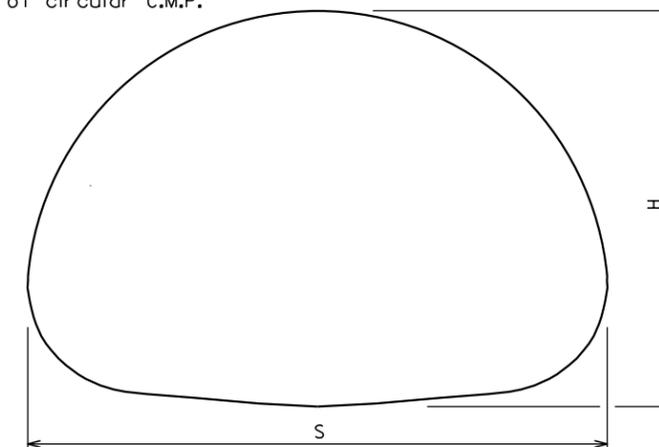
The first saw cut to control cracking shall be a minimum of 1/3 the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot poured elastic joint sealer is necessary.

August 31, 2013

Published Date: 4th Qtr. 2013	S D D O T	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.10
			Sheet 2 of 2

* Dia. (in.)	2 ² / ₃ " x 1/2" CORRUGATIONS			3" X 1" CORRUGATIONS		
	S Span (in.)	H Rise (in.)	Area (Sq. Ft.)	S Span (in.)	H Rise (in.)	Area (Sq. Ft.)
15	17	13	1.1			
18	21	15	1.6			
21	24	18	2.2			
24	28	20	2.8			
30	35	24	4.4			
36	42	29	6.4	40	31	7.0
42	49	33	8.7	46	36	9.4
48	57	38	11.4	53	41	12.3
54	64	43	14.3	60	46	15.6
60	71	47	17.6	66	51	19.3
66	77	52	21.3	73	55	23.2
72	83	57	25.3	81	59	27.4
78				87	63	32.1
84				95	67	37.0
90				103	71	42.4
96				112	75	48.0
102				117	79	54.2
108				128	83	60.8
114				137	87	67.4
120				142	91	74.5

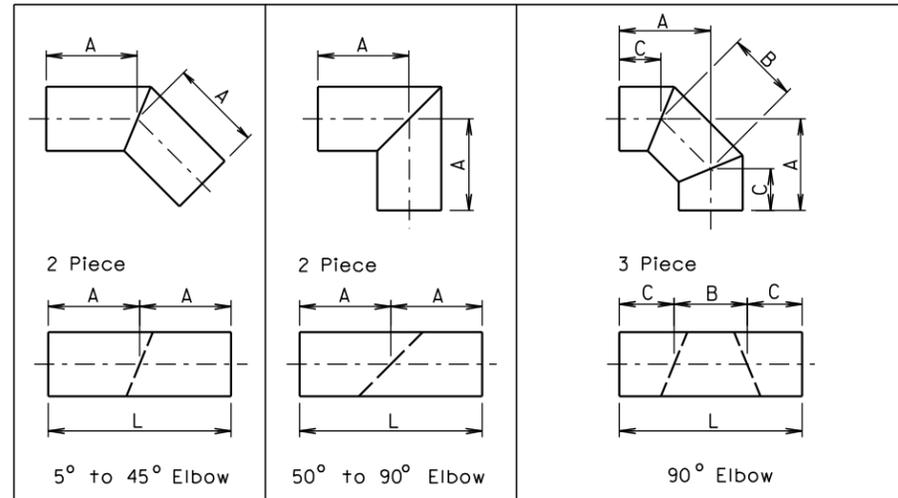
* Equivalent diameter of circular C.M.P.



GENERAL NOTE:
All dimensions measured from inside crest.

March 31, 2000

Published Date: 4th Qtr. 2013	S D D O T	CORRUGATED METAL PIPE ARCH CULVERT	PLATE NUMBER 450.30
			Sheet 1 of 1



Diameter	A	L	Diameter	A	L	Diameter	A	B	C	L
Inches	Feet	Feet	Inches	Feet	Feet	Inches	Inches			Feet
12	1	2	12	2	4	12	25½	11	18½	4
15	1	2	15	2	4	15	26½	12	18	4
18	1	2	18	2	4	18	27	14	17	4
21	2	4	21	2	4	21	27	15	16½	4
24	2	4	24	2	4	24	27½	16	16	4
27	2	4	27	2	4	27	27½	17	15½	4
30	2	4	30	3	6	30	40	19	26½	6
33	2	4	33	3	6	33	40	20	26	6
36	2	4	36	3	6	36	40½	21	25½	6
42	2	4	42	3	6	42	41	23	24½	6
48	2	4	48	4	8	48	53½	26	35	8
54	3	6	54	4	8	54	54	28	34	8
60	3	6	60	4	8	60	54½	31	32½	8
66	3	6	66	4	8	66	54	33	31½	8
72	3	6	72	5	10	72	67½	36	42	10
78	3	6	78	5	10	78	68	39	40½	10
84	3	6	84	5	10	84	68½	41	39½	10
90	3	6	90	6	12	90	70	46	37	10
96	3	6	96	6	12	96	82	46	49	12

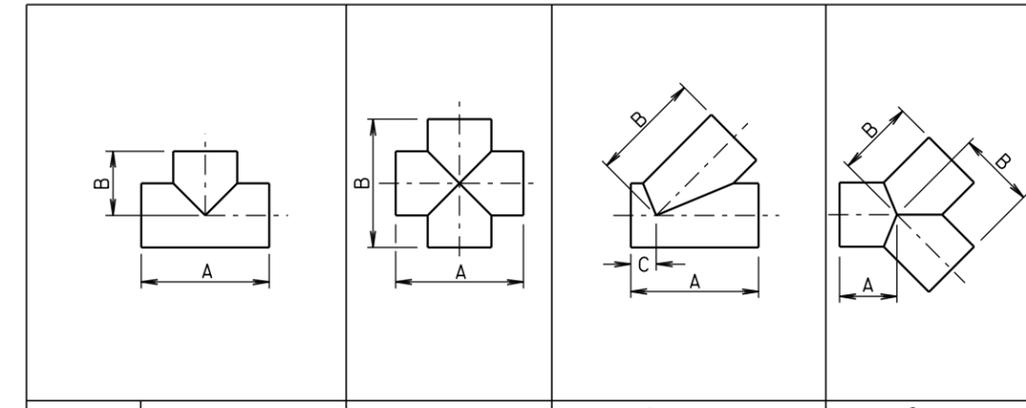
FABRICATED ELBOW LENGTHS FOR ALL CORRUGATIONS

GENERAL NOTES:

All dimensions shown are nominal.

L = Linear Feet of C.M.P. required to fabricate fitting.

June 26, 2001



	Tee			Cross			45° Lateral				45° Wye		
Diameter	A	B	L	A	B	L	A	B	C	L	A	B	L
Inches	Feet			Feet			Feet		Inches	Feet	Feet		
12	4	2	6	4	4	8	4	2	17	6	2	2	6
15	4	2	6	4	4	8	4	4	18	8	2	2	6
18	4	2	6	4	4	8	4	4	13	8	2	2	6
21	4	2	6	4	4	8	6	4	22	10	2	2	6
24	4	2	6	4	4	8	6	4	23	10	2	2	6
27	4	2	6	4	4	8	6	4	20	10	2	2	6
30	4	2	6	4	4	8	6	4	21	10	2	2	6
33	6	4	10	6	6	12	6	6	19	12	2	3	8
36	6	4	10	6	6	12	8	6	19	14	2	3	8
42	6	4	10	6	6	12	8	6	21	14	2	3	8
48	6	4	10	6	6	12	10	8	28	18	2	3	8
54	6	4	10	6	6	12	10	8	23	18	4	4	12
60	8	4	12	8	8	16	12	10	30	22	4	4	12
66	8	4	12	8	8	16	12	10	32	22	4	4	12
72	8	4	12	8	8	16	14	10	45	24	4	5	14
78	10	6	16	10	10	20	14	10	46	24	4	5	14
84	10	6	16	10	10	20	16	12	47	28	4	5	14
90	10	6	16	10	10	20	16	12	49	28	4	5	14
96	10	6	16	10	10	20	16	12	50	28	4	6	16

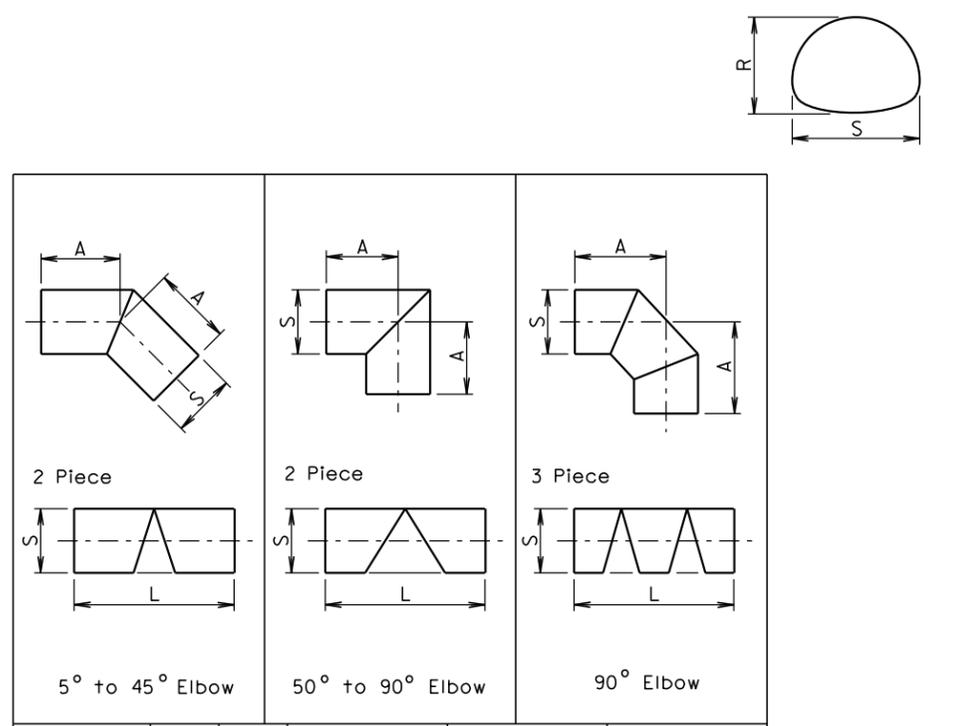
FABRICATED LENGTHS FOR TEES, CROSSES, AND WYES FOR ALL CORRUGATIONS

GENERAL NOTES:

All dimensions shown are nominal.

L = Linear Feet of C.M.P. required to fabricate fitting.

June 26, 2001



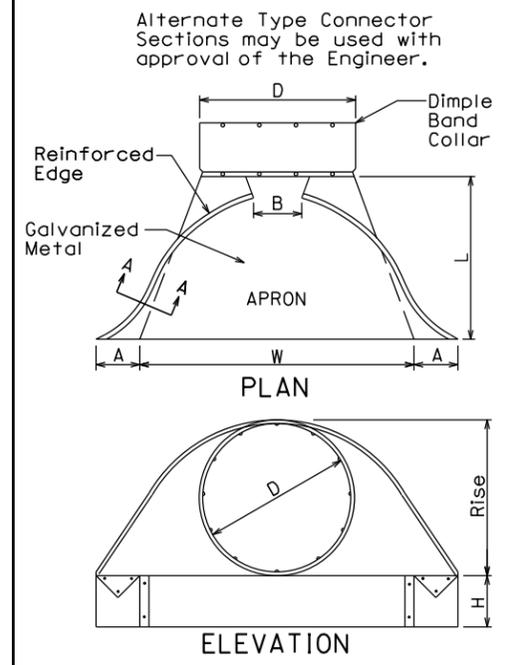
Equivalent Round Diameter	Span S	Rise R	45° Elbow 2 Piece		90° Elbow 2 Piece		90° Elbow 2 Piece	
			A	L	A	L	A	L
Inches	Inches	Inches	Inches	Feet	Inches	Feet	Inches	Feet
15	18	11	20	4	27	6	31	6
18	22	13	20	4	25	6	30	6
21	25	16	19	4	24	6	29	6
24	29	18	18	4	34	8	28	6
30	36	22	16	4	30	8	38	8
36	43	27	27	6	38	10	35	8
42	50	31	25	6	35	10	45	10
48	58	36	24	6	43	12	42	10
54	65	40	34	8	52	14	52	12
60	72	44	33	8	60	16	62	14
66	79	49	43	10	56	16	60	14
72	85	53	42	10	56	18	70	16

FABRICATED ELBOW LENGTHS

GENERAL NOTES:

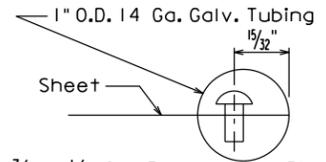
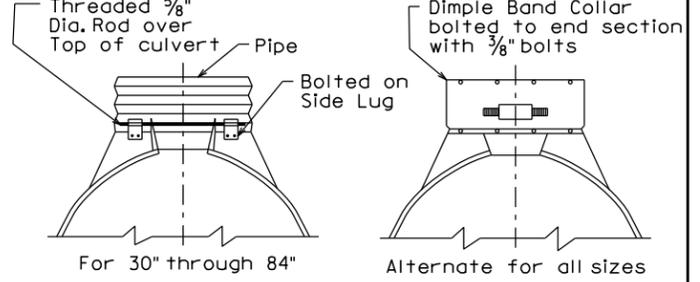
All dimensions shown are nominal.
L = Linear Feet of C.M.P. Arch required to fabricate fitting.

June 26, 2001

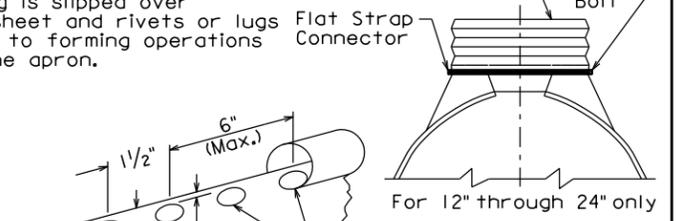
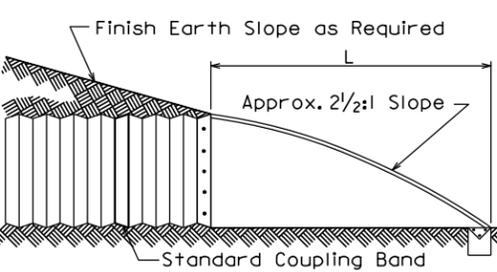


Dia. D (in.)	Ga.	DIMENSIONS (in.)					Approx. Slope	Body
		A	B	H	L	W		
12	16	6	6	6	21	24	2 1/2:1	1 Pc.
15	16	7	8	6	26	30	2 1/2:1	1 Pc.
18	16	8	10	6	31	36	2 1/2:1	1 Pc.
21	16	9	12	6	36	42	2 1/2:1	1 Pc.
24	16	10	13	6	41	48	2 1/2:1	1 Pc.
30	14	12	16	8	46	60	2 1/2:1	1 Pc.
36	14	14	19	9	51	72	2 1/2:1	2 Pc.
42	12	16	22	11	60	84	2 1/2:1	2 Pc.
48	12	18	27	12	69	90	2 1/4:1	2 Pc.
54	12	18	30	12	78	102	2:1	3 Pc.
60	12	18	33	12	84	114	1 3/4:1	3 Pc.
66	12	18	36	12	87	120	1 1/2:1	3 Pc.
72	12	18	39	12	87	126	1 1/3:1	3 Pc.
78	12	18	42	12	87	132	1 1/4:1	3 Pc.
84	12	18	45	12	87	138	1 1/6:1	3 Pc.

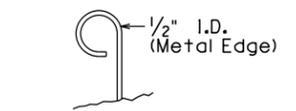
STANDARD CONNECTIONS



NOTE: Tubing is slipped over the sheet and rivets or lugs prior to forming operations of the apron.
3/8" x 1/2" Gal. Buttonhead Rivets spaced 6" C. to C. Overall length of rivets=0.78"



SECTION A-A (alternate)

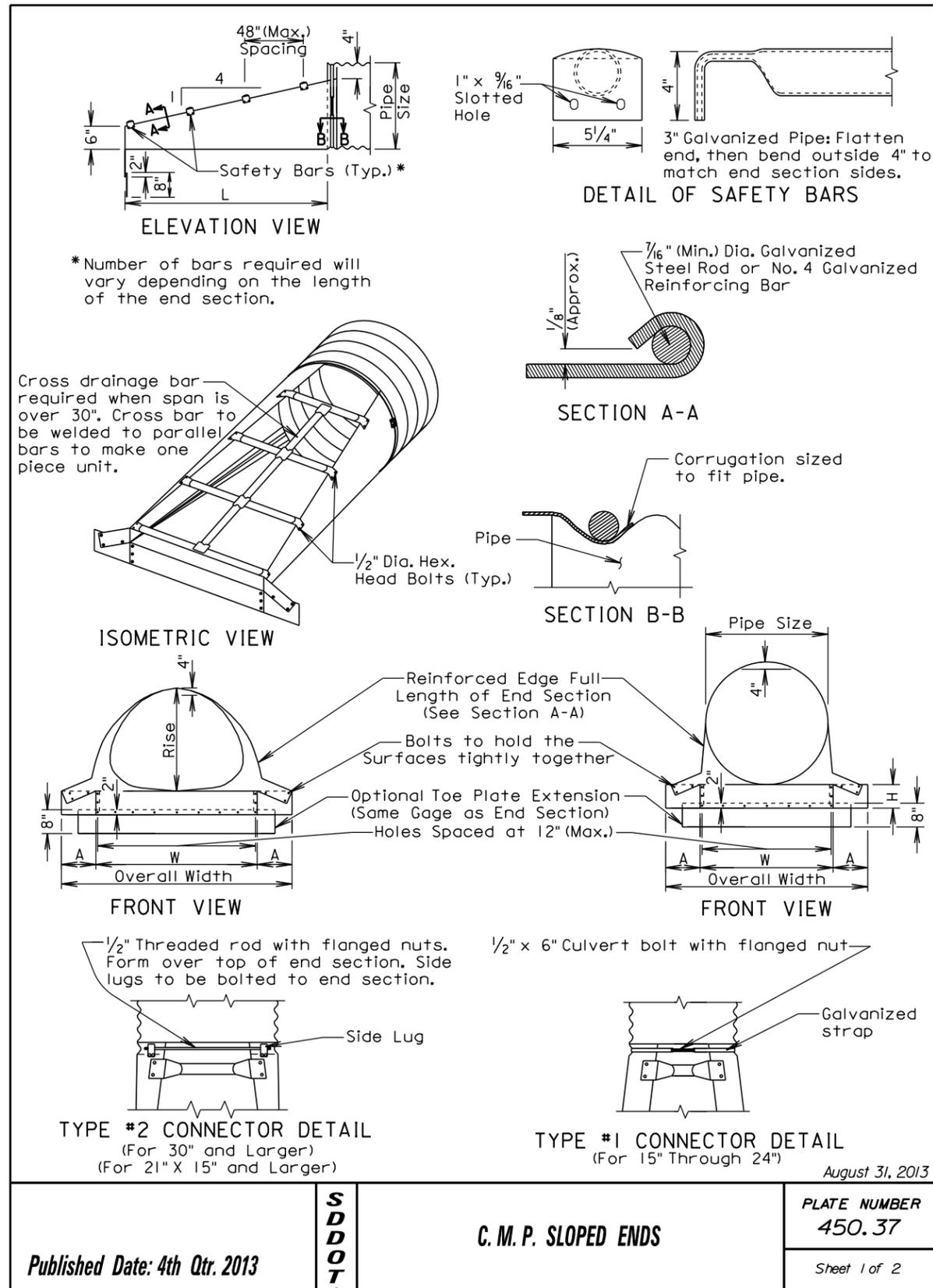


SECTION A-A (alternate)

GENERAL NOTES:

All 3 pc. bodies shall have 12 Ga. sides and 10 Ga. center panels. Width of center panels shall be greater than 20% of the pipe periphery. Multiple panel bodies to have lap seams tightly joined by 3/8" Dia. galvanized rivets or bolts.
For 60" through 84" sizes, reinforced edges shall be supplemented with galvanized stiffener angles. The angles will be 2" x 2" x 1/4" for 60" through 72" diameters and 2 1/2" x 2 1/2" x 1/4" for 78" and 84" diameters. The angles shall be attached by 3/8" diameter galvanized nuts and bolts.
Rivets and Bolts shall be 3/8" Dia. Min. for 10 Ga. and 12 Ga. sheet, and 5/16" Dia. Min. for 14 Ga. and 16 Ga. sheets. Tighten nuts with torque wrench to 25 lbs. torque.

March 31, 2000



ARCH C.M.P. SLOPED ENDS										
Equiv. Dia. (Inch)	(Inches)		Min. Thick. Inch	Dimensions (Inches)			L Dimensions			
	Span	Rise		Gage	A	H	W	Overall Width	Slope	Length (Inch)
18	21	15	.064	16	8	6	27	43	4:1	20
21	24	18	.064	16	8	6	30	46	4:1	32
24	28	20	.064	16	8	6	34	50	4:1	40
30	35	24	.079	14	12	9	41	65	4:1	56
36	42	29	.109	12	12	9	48	72	4:1	76
42	49	33	.109	12	16	12	55	87	4:1	92
48	57	38	.109	12	16	12	63	95	4:1	112
54	64	43	.109	12	16	12	70	102	4:1	132
60	71	47	.109	12	16	12	77	109	4:1	148
72	83	57	.109	12	16	12	89	121	4:1	188

CIRCULAR C.M.P. SLOPED ENDS									
Pipe Dia. (Inch)	Min. Thick.		Dimensions (Inches)				L Dimensions		
	Inch	Gage	A	H	W	Overall Width	Slope	Length (Inch)	
15	.064	16	8	6	21	37	4:1	20	
18	.064	16	8	6	24	40	4:1	32	
21	.064	16	8	6	27	43	4:1	44	
24	.064	16	8	6	30	46	4:1	56	
30	.109	12	12	9	36	60	4:1	80	
36	.109	12	12	9	42	66	4:1	104	
42	.109	12	16	12	48	80	4:1	128	
48	.109	12	16	12	54	86	4:1	152	
54	.109	12	16	12	60	92	4:1	176	
60	.109	12	16	12	66	98	4:1	200	

GENERAL NOTES:

Safety bars shall be attached to sloped ends over 30" in diameter only.

Sloped ends shall be fabricated from galvanized steel and shall conform to the requirements of the Standard Specifications.

Safety bars shall be fabricated from steel schedule 40 pipe in conformance with ASTM A53, grade B or HSS 3.5X.216 in conformance with ASTM A500, grade B.

Slotted holes for safety bar attachment shall be provided for all end sections.

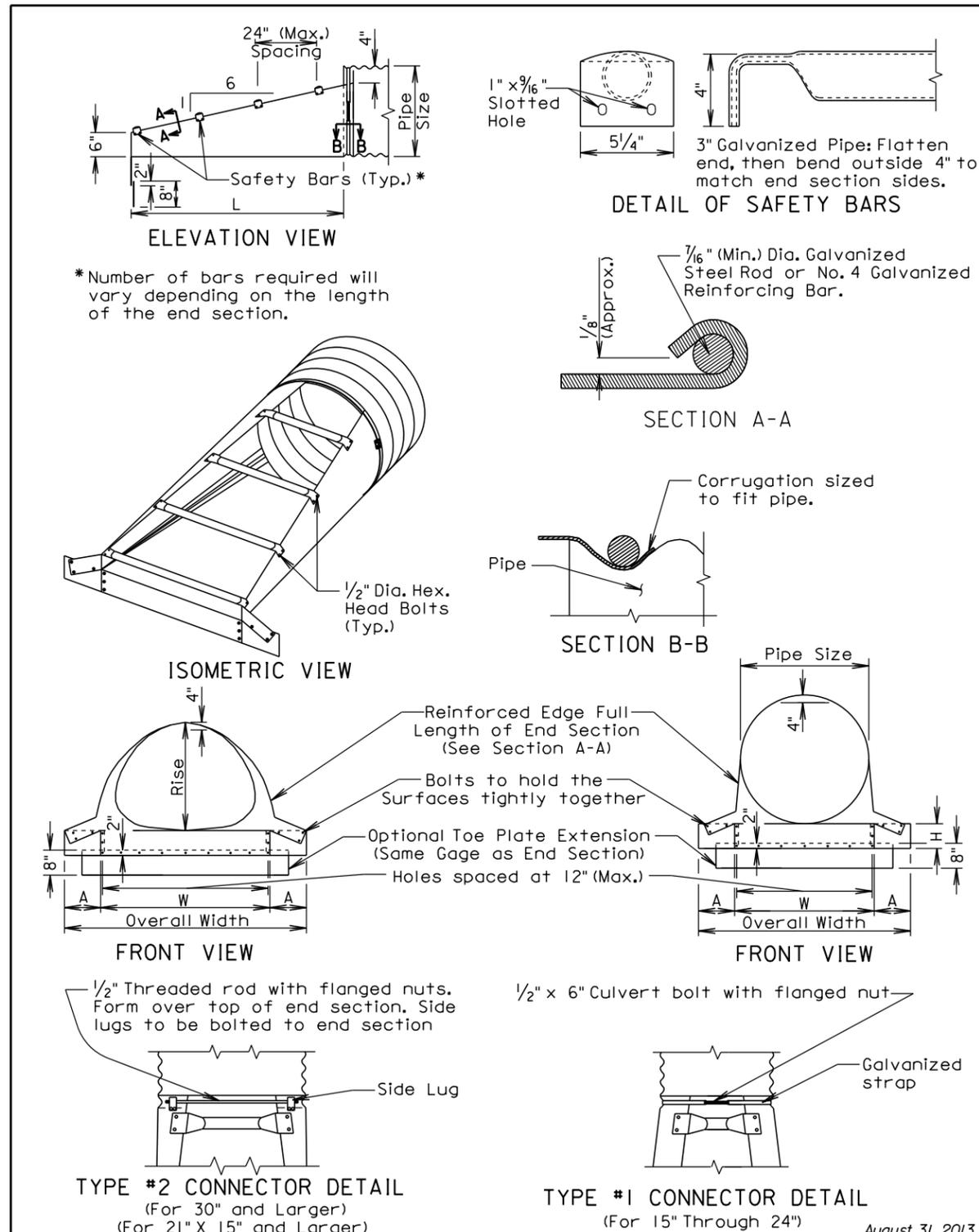
Attachment to circular pipes 15" through 24" diameter shall be made with Type #1 straps. All other sizes shall be attached with Type #2 rods and lugs.

When stated in the plans, optional toe plate extension shall be punched and bolted to end section apron lip with 3/8" diameter galvanized bolts. Steel for toe plate extension shall be same gauge as end section. Dimensions shall be overall width less 6" by 8" high.

Installation shall be performed in accordance with the Standard Specifications.

Cost of all work and materials required for fabrication and installation of sloped ends shall be incidental to the bid items for the various sizes of sloped ends.

August 31, 2013



August 31, 2013

ARCH C.M.P. SAFETY ENDS										
Equiv. Dia. (Inch)	(Inches)		Min. Thick. Inch	Dimensions (Inches)				L Dimensions		
	Span	Rise		Gage	A	H	W	Overall Width	Slope	Length (Inch)
18	21	15	.064	16	8	6	27	43	6:1	30
21	24	18	.064	16	8	6	30	46	6:1	48
24	28	20	.064	16	8	6	34	50	6:1	60
30	35	24	.079	14	12	9	41	65	6:1	84
36	42	29	.109	12	12	9	48	72	6:1	114
42	49	33	.109	12	16	12	55	87	6:1	138
48	57	38	.109	12	16	12	63	95	6:1	168
54	64	43	.109	12	16	12	70	102	6:1	198
60	71	47	.109	12	16	12	77	109	6:1	222
72	83	57	.109	12	16	12	89	121	6:1	282

CIRCULAR C.M.P. SAFETY ENDS									
Pipe Dia. (Inch)	Min. Thick.		Dimensions (Inches)				L Dimensions		
	Inch	Gage	A	H	W	Overall Width	Slope	Length (Inch)	
15	.064	16	8	6	21	37	6:1	30	
18	.064	16	8	6	24	40	6:1	48	
21	.064	16	8	6	27	43	6:1	66	
24	.064	16	8	6	30	46	6:1	84	
30	.109	12	12	9	36	60	6:1	120	
36	.109	12	12	9	42	66	6:1	156	
42	.109	12	16	12	48	80	6:1	192	
48	.109	12	16	12	54	86	6:1	228	
54	.109	12	16	12	60	92	6:1	264	
60	.109	12	16	12	66	98	6:1	300	

GENERAL NOTES:

Safety ends shall be fabricated from galvanized steel conforming to the requirements of the Standard Specifications.

Safety bars shall be fabricated from steel schedule 40 pipe in conformance with ASTM A53, grade B or HSS 3.5X.216 in conformance with ASTM A500, grade B.

Slotted holes for safety bar attachment shall be provided for all end sections.

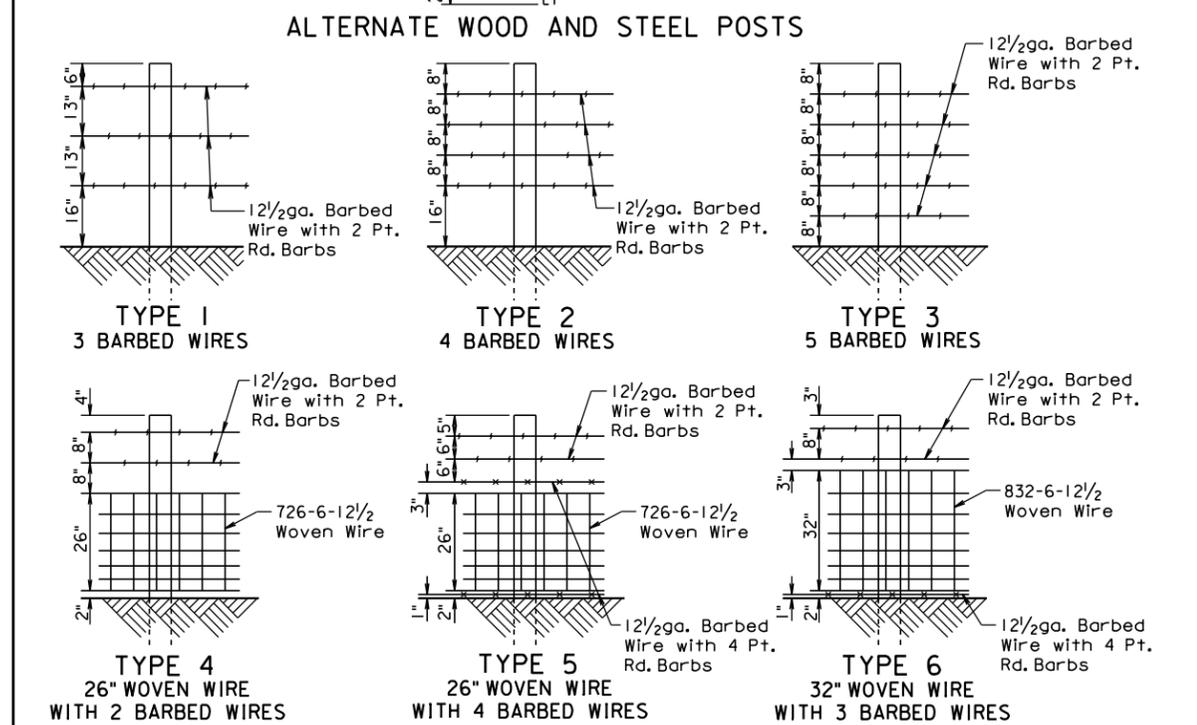
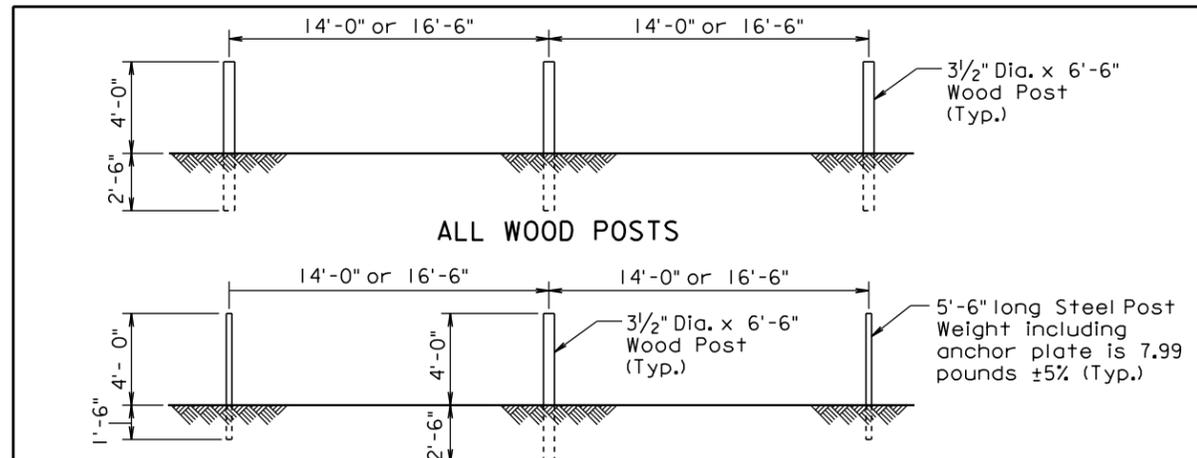
Attachment to circular pipes 15" through 24" diameter shall be made with Type #1 straps. All other sizes shall be attached with Type #2 rods and lugs.

When stated in the plans, optional toe plate extension shall be punched and bolted to end section apron lip with 3/8" diameter galvanized bolts. Steel for toe plate extension shall be same gauge as end section. Dimensions shall be overall width less 6" by 8" high.

Installation shall be performed in accordance with the Standard Specifications.

Cost of all work and materials required for fabrication and installation of safety ends shall be incidental to the bid items for the various sizes of safety ends.

August 31, 2013

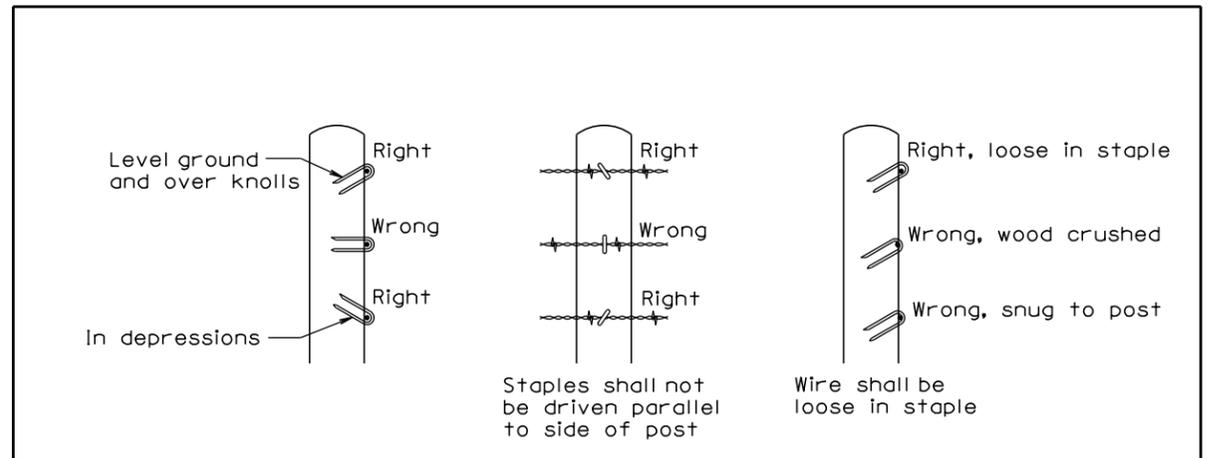


TYPE OF FENCE		LINE POST SPACING	WIRE GAGE	BARBED WIRE		WOVEN WIRE
TYPE	DESCRIPTION			NUMBER AND SHAPE OF BARBS	STYLE OR DESIGN NO.	
1	3 Barbed Wires	16'-6"	12/2	2 Point Round		
2	4 Barbed Wires	16'-6"	12/2	2 Point Round		
3	5 Barbed Wires	16'-6"	12/2	2 Point Round		
4	26" Woven Wire with 2 Barbed Wires	14'-0"	12/2	2 Point Round		726-6-12/2
5	26" Woven Wire with 4 Barbed Wires	14'-0"	12/2	2 wires with 2 Pt. Rd. 2 wires with 4 Pt. Rd.		726-6-12/2
6	32" Woven Wire with 3 Barbed Wires	14'-0"	12/2	2 wires with 2 Pt. Rd. 1 wire with 4 Pt. Rd.		832-6-12/2

GENERAL NOTES:
 Fence types designated on the plans that are followed by the letter S shall have smooth (barbless) wires.
 When type 5S or 6S is designated the bottom wire may be barbed, smooth, or left off.
 All degrees of curvature stated for fence are at centerline of roadway.

September 14, 2009

Published Date: 4th Qtr. 2013	S D D O T	RIGHT-OF-WAY FENCE	PLATE NUMBER 620.01
			Sheet 1 of 1



STAPLE INSTALLATION

GENERAL NOTES:

The Right-of-Way fence shall consist of barbed wire or a combination of woven wire and barbed wire. The barbed wire and/or woven wire shall be fastened to all wood posts or fastened to alternating wood and steel posts. Only wood posts shall be used for brace panels. Gates shall be of the type designated in the plans or as otherwise directed by the Engineer. Fence shall be constructed conforming to the details on the standard plates and in the plans unless otherwise directed by the Engineer.

Right-of-Way fence on Interstate Projects shall be constructed one foot within the Interstate Right-of-Way lines except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

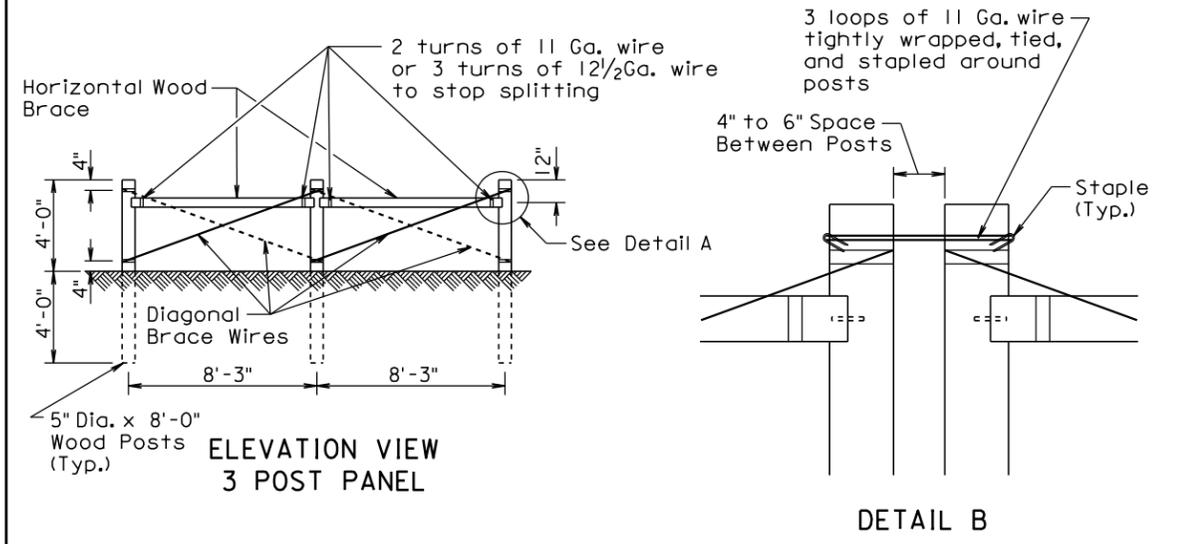
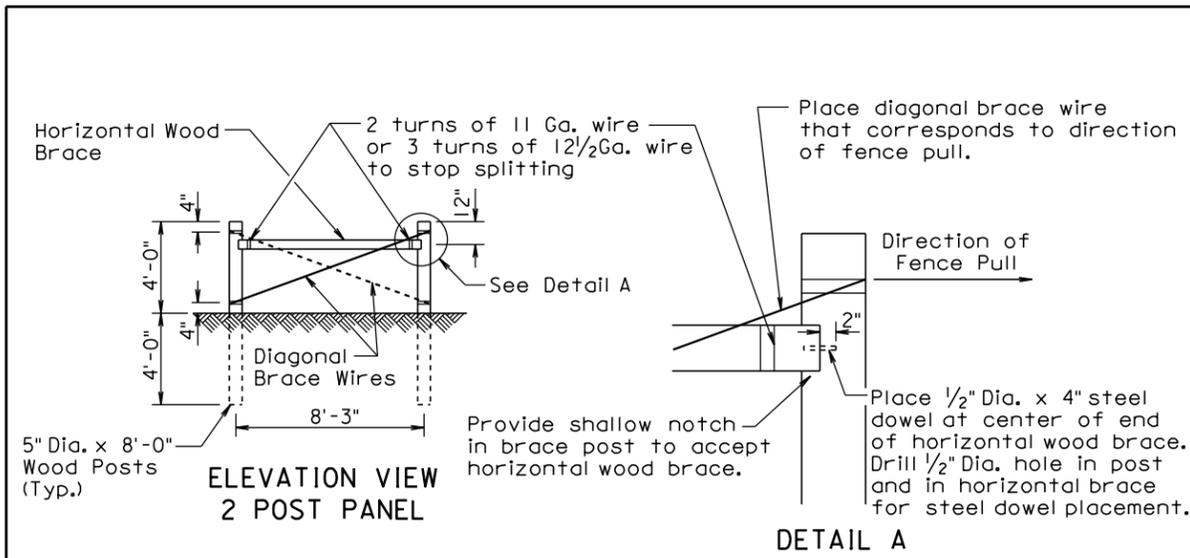
Right-of-Way fence other than on Interstate Projects shall be constructed within one foot of the Right-of-Way on the Landowner's side except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

Barbs shall be fabricated from zinc coated 14 ga. wire. Two point barbs shall be wrapped twice around one main strand at 4" spacings and the four point barbs shall be interlocked and wrapped around both main strands at 5" spacings.

The gages of wire and wood post lengths and sizes are the minimum acceptable unless otherwise specified in the plans. The tolerances for steel posts shall be as stated in AASHTO M281. Woven wire shall conform to design and specifications of ASTM A116 and barbed wire shall conform to ASTM A121.

December 23, 2004

Published Date: 4th Qtr. 2013	S D D O T	STAPLE INSTALLATION AND GENERAL RIGHT-OF-WAY FENCE NOTES	PLATE NUMBER 620.02
			Sheet 1 of 1



GENERAL NOTES:

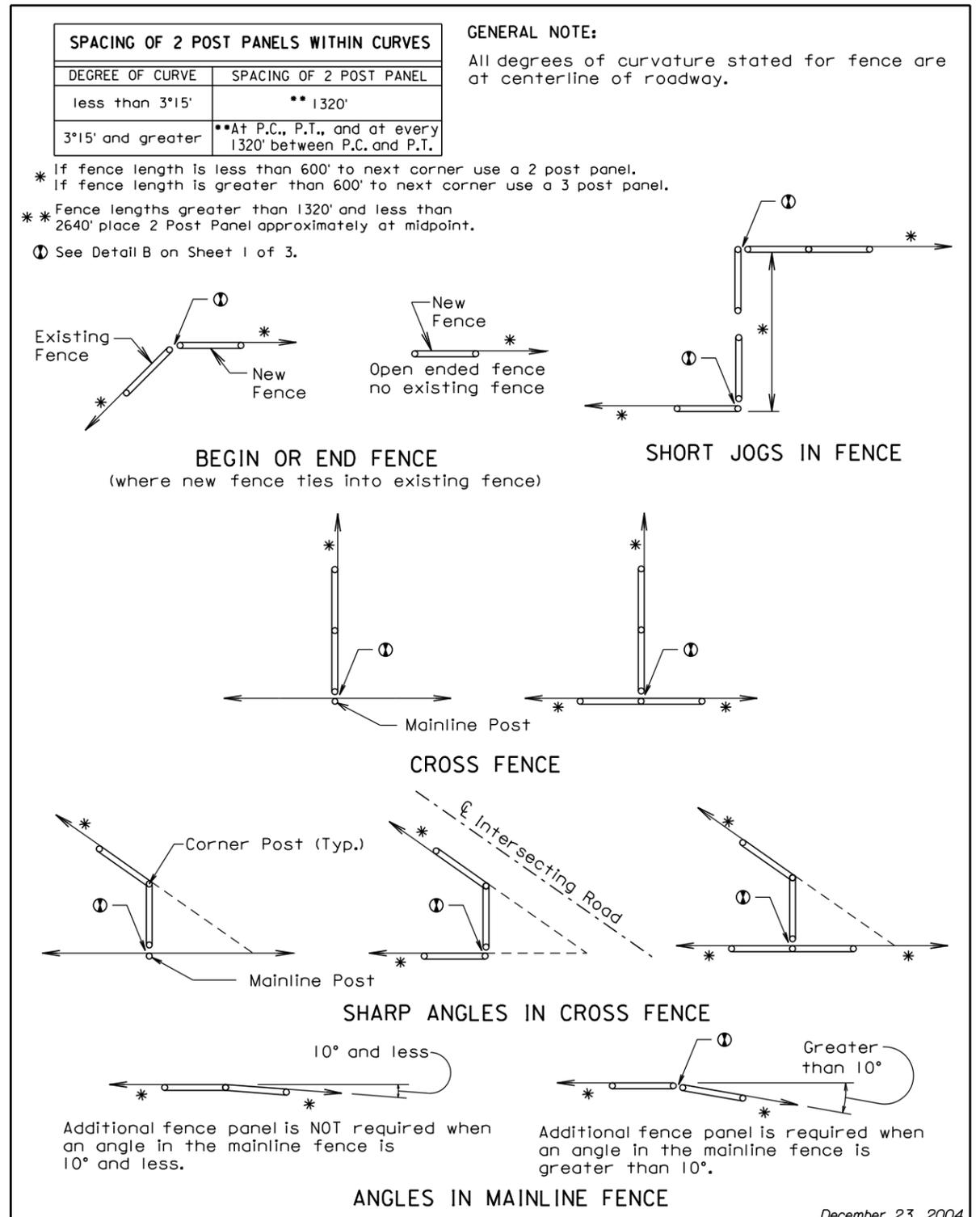
Two Post Panels shall be installed at least every 1320' between corners.

Two Post Panels shall be installed at any sharp vertical angle crest points and as directed by the Engineer.

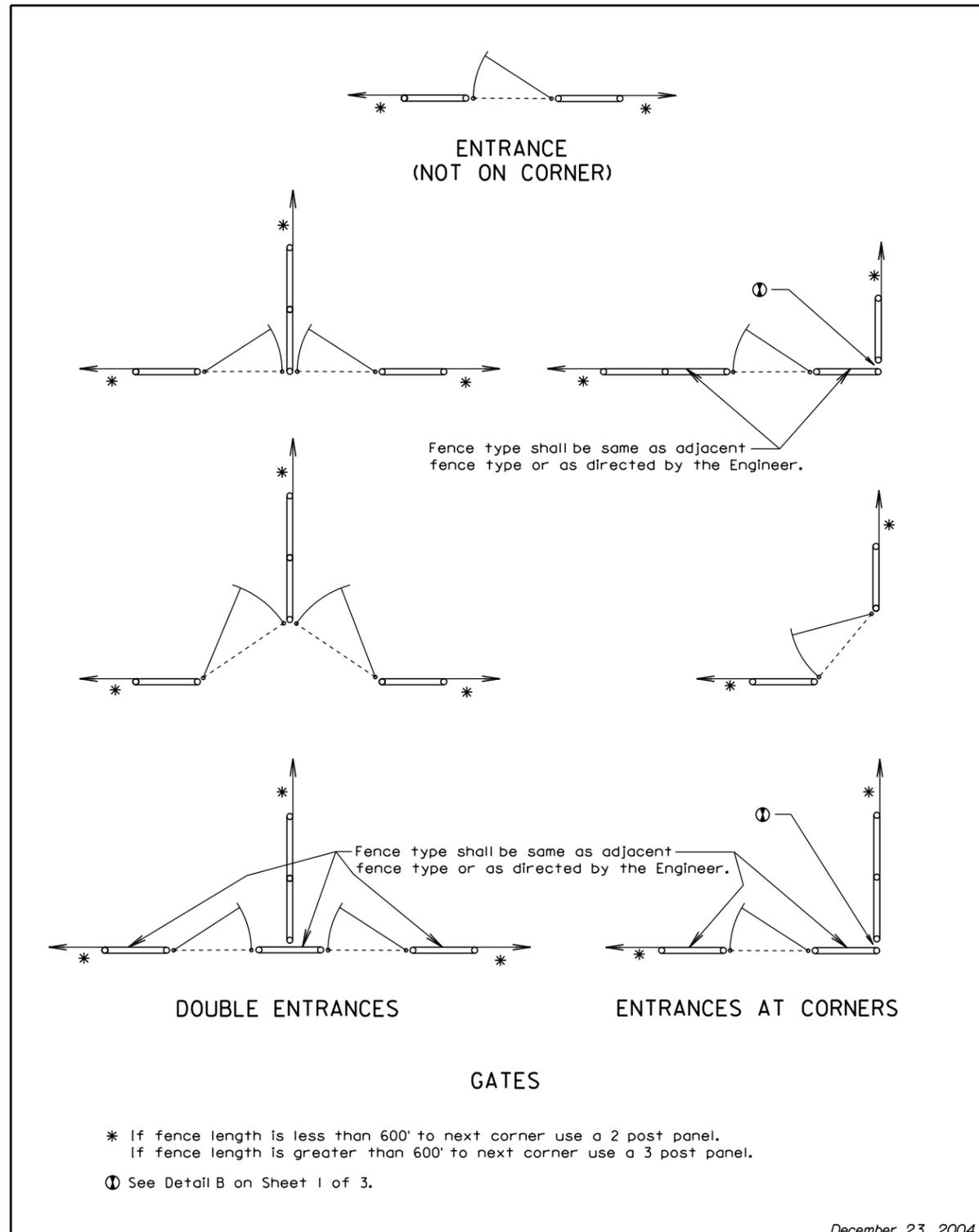
Horizontal wood braces shall consist of 4" dia. x 8' wood posts or rough 4" x 4" x 8' timbers.

Diagonal brace wires shall be fabricated with 4 strands of 9 Ga. galvanized wire twisted tight. The diagonal brace wires shall be installed in accordance with the direction of the fence pull. Two diagonal brace wires are required if fence pull is in both directions.

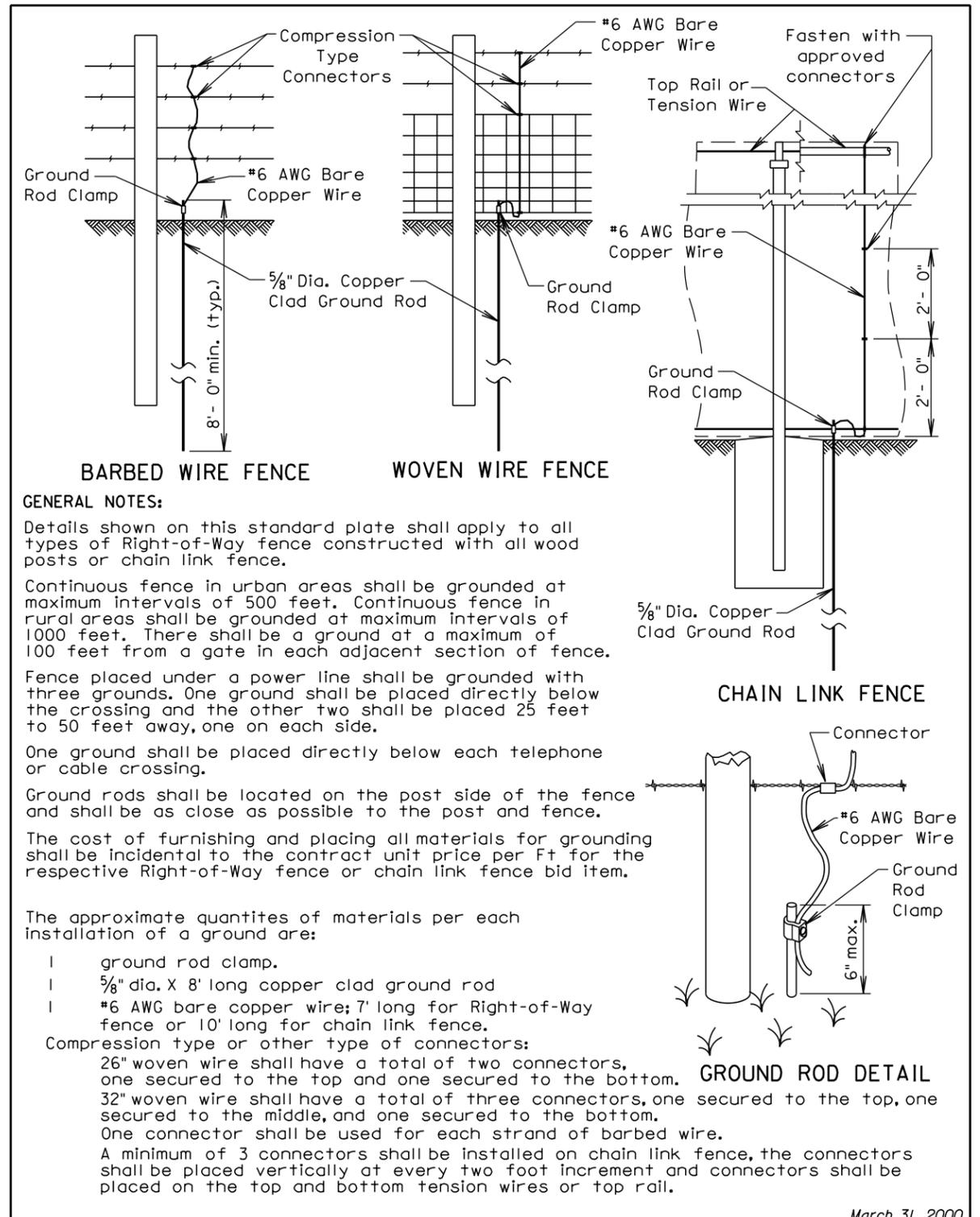
December 23, 2004



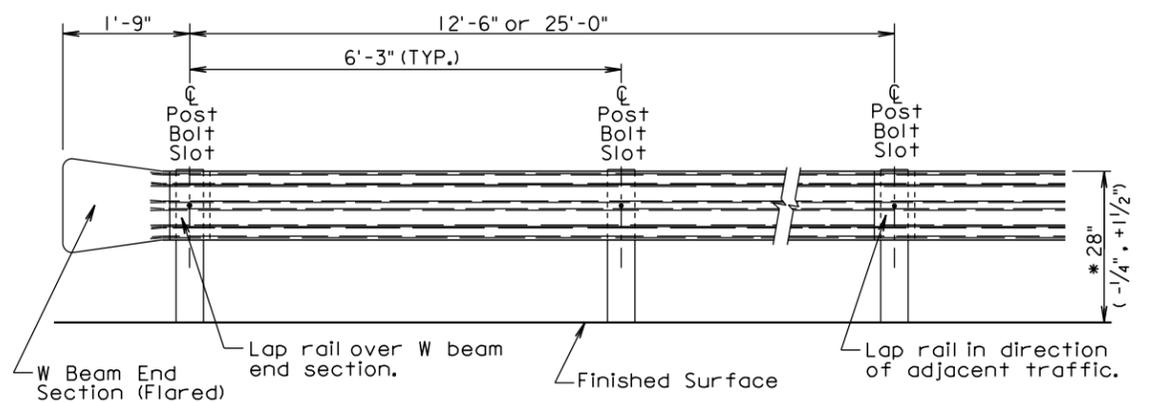
December 23, 2004



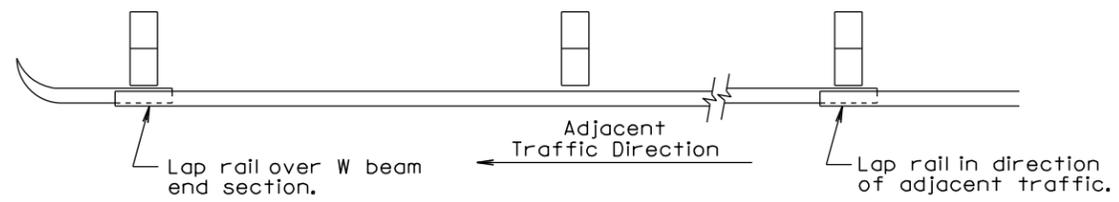
December 23, 2004



March 31, 2000



ELEVATION *See Standard Plate 630.98



PLAN

W BEAM GUARDRAIL DEFLECTION CRITERIA	
POST SPACING	MAXIMUM DEFLECTION
6'-3"	3'-3"
3'-1 1/2"	2'-0"

For Informational Purposes Only

GENERAL NOTES:

All W beam rail shall be Type I.

There will be no separate payment for furnishing and installing W Beam End Sections (Flared) and W Beam Terminal Connectors. All costs for the W Beam End Sections (Flared) and W Beam Terminal Connectors shall be incidental to the contract unit price per foot for the respective "W Beam Guardrail" bid item.

W beam rail section lengths may be 12'-6" and/or 25'-0". The combination of section lengths used shall be compatible with the total length of rail per site as shown in the plans.

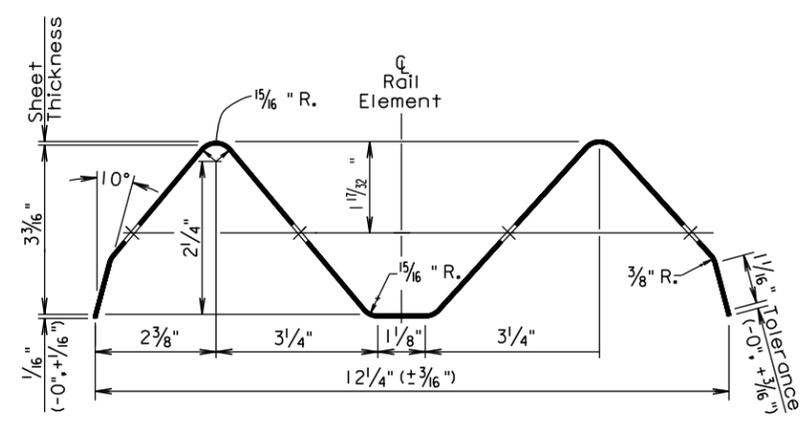
W Beam End Sections (Flared) shall only be used in a one way traffic situation. See Standard Plate 630.80 for W Beam End Section (Flared) in the Beam Guardrail Trailing End Terminal.

All costs for constructing W beam guardrail including labor, equipment, and materials including all posts, blocks, steel beam rail, and hardware shall be incidental to the contract unit price per foot for the respective "W Beam Guardrail" bid item.

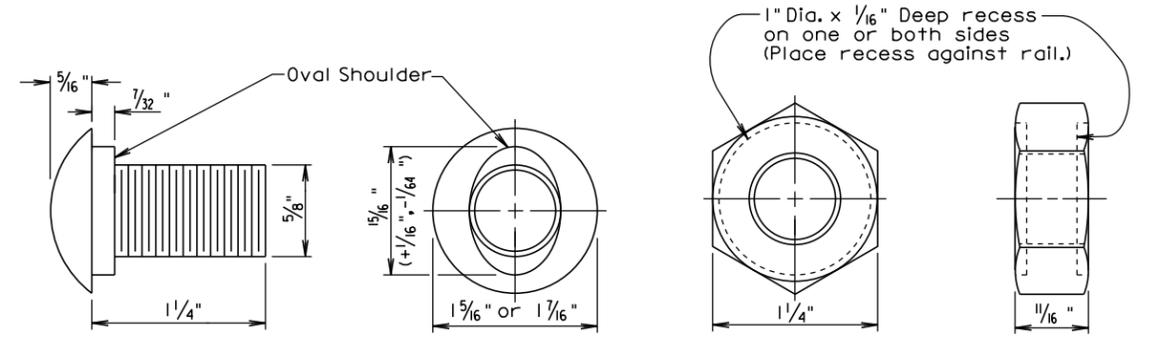
Surfacing and embankment quantities will be paid for separately and will NOT be incidental to the "W Beam Guardrail" bid item.

December 23, 2010

SDDOT	W BEAM GUARDRAIL INSTALLATION	PLATE NUMBER 630.32
	Published Date: 4th Qtr. 2013	Sheet 1 of 1

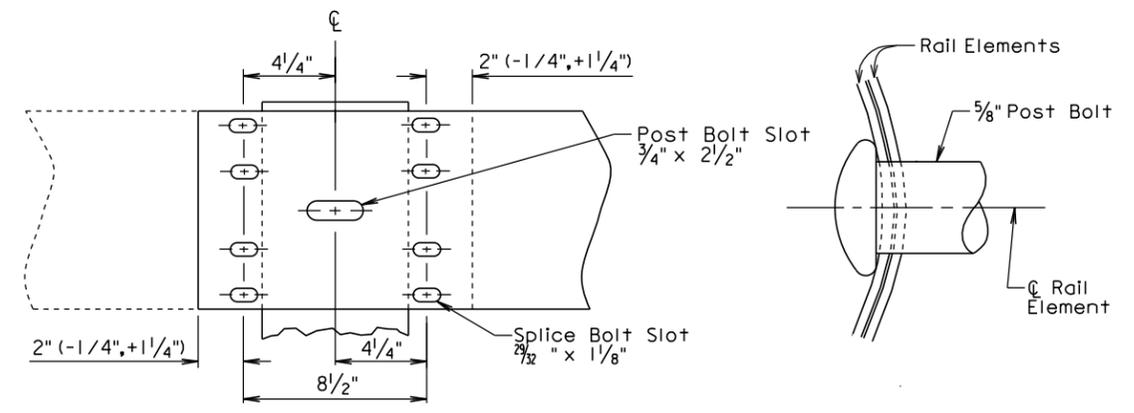


SECTION THROUGH W BEAM RAIL ELEMENT



The Post Bolt is similar except the post bolt is 18" long.

SPLICE BOLT (5/8" BUTTON HEAD BOLT AND RECESS NUT)

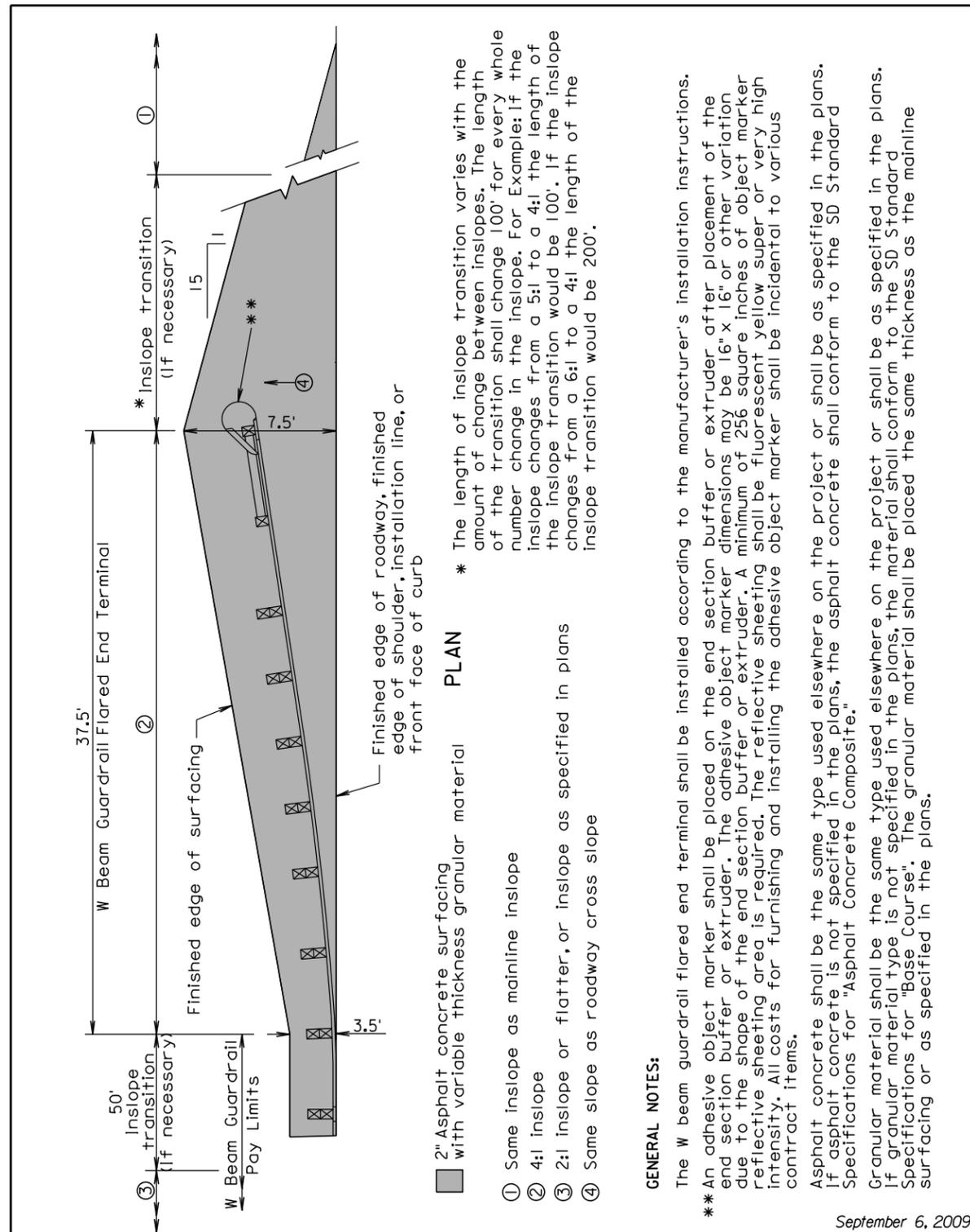


Lap in direction of traffic.

RAIL SPLICE

December 23, 2004

SDDOT	W BEAM RAIL, RAIL SPLICE, AND HARDWARE	PLATE NUMBER 630.33
	Published Date: 4th Qtr. 2013	Sheet 1 of 1



PLAN

- * The length of inslope transition varies with the amount of change between inslopes. The length of the transition shall change 100' for every whole number change in the inslope. For Example: If the inslope changes from a 5:1 to a 4:1 the length of the inslope transition would be 100'. If the inslope changes from a 6:1 to a 4:1 the length of the inslope transition would be 200'.

- ① 2" Asphalt concrete surfacing with variable thickness granular material
- ② Same inslope as mainline inslope
- ③ 4:1 inslope
- ④ 2:1 inslope or flatter, or inslope as specified in plans
- ⑤ Same slope as roadway cross slope

GENERAL NOTES:

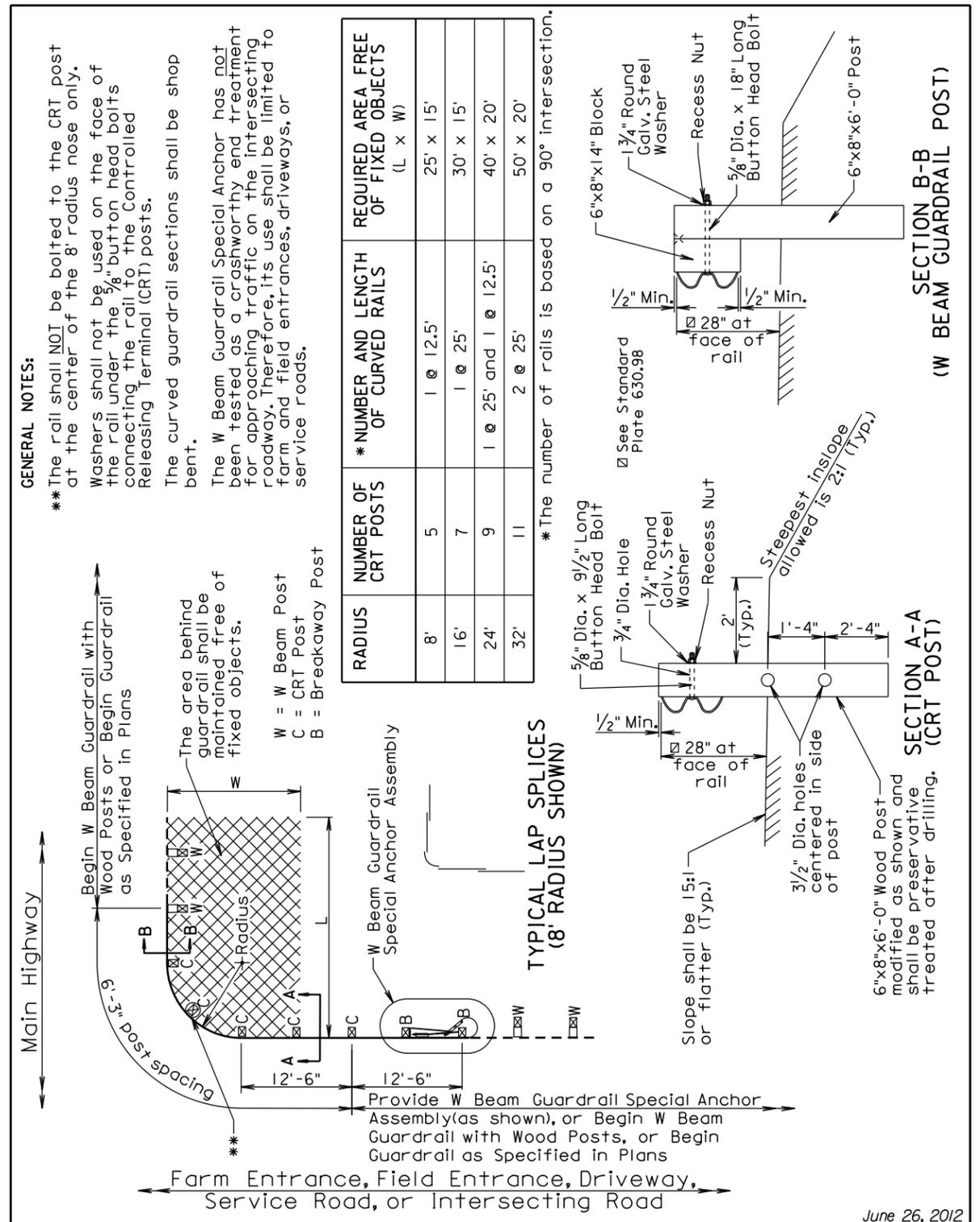
The W beam guardrail flared end terminal shall be installed according to the manufacturer's installation instructions.

** An adhesive object marker shall be placed on the end section buffer or extruder after placement of the end section buffer or extruder. The adhesive object marker dimensions may be 16" x 16" or other variation due to the shape of the end section buffer or extruder. A minimum of 256 square inches of object marker reflective sheeting area is required. The reflective sheeting shall be fluorescent yellow super or very high intensity. All costs for furnishing and installing the adhesive object marker shall be incidental to various contract items.

Asphalt concrete shall be the same type used elsewhere on the project or shall be as specified in the plans. If asphalt concrete is not specified in the plans, the asphalt concrete shall conform to the SD Standard Specifications for "Asphalt Concrete Composite."

Granular material shall be the same type used elsewhere on the project or shall be as specified in the plans. If granular material type is not specified in the plans, the material shall conform to the SD Standard Specifications for "Base Course". The granular material shall be placed the same thickness as the mainline surfacing or as specified in the plans.

September 6, 2009



GENERAL NOTES:

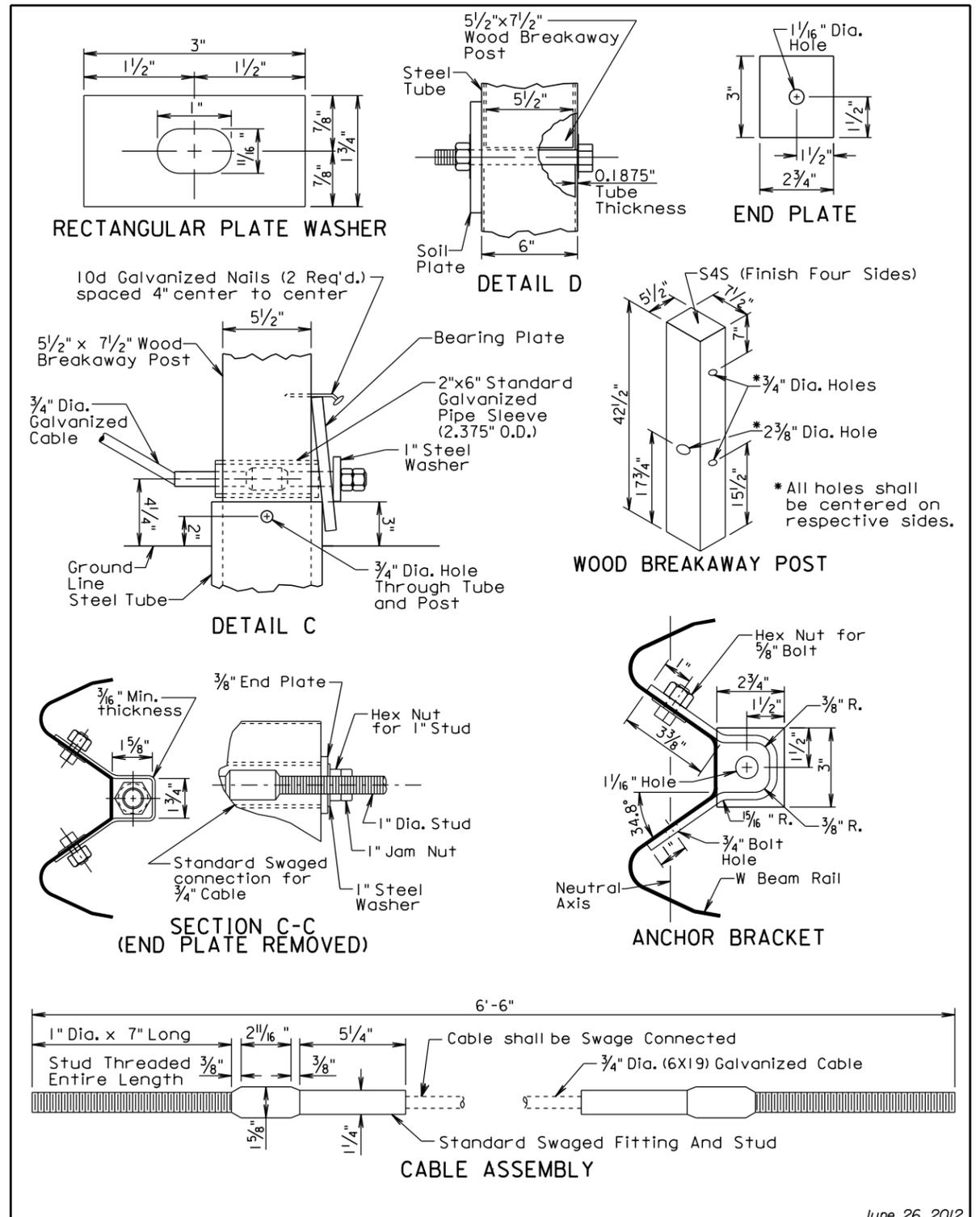
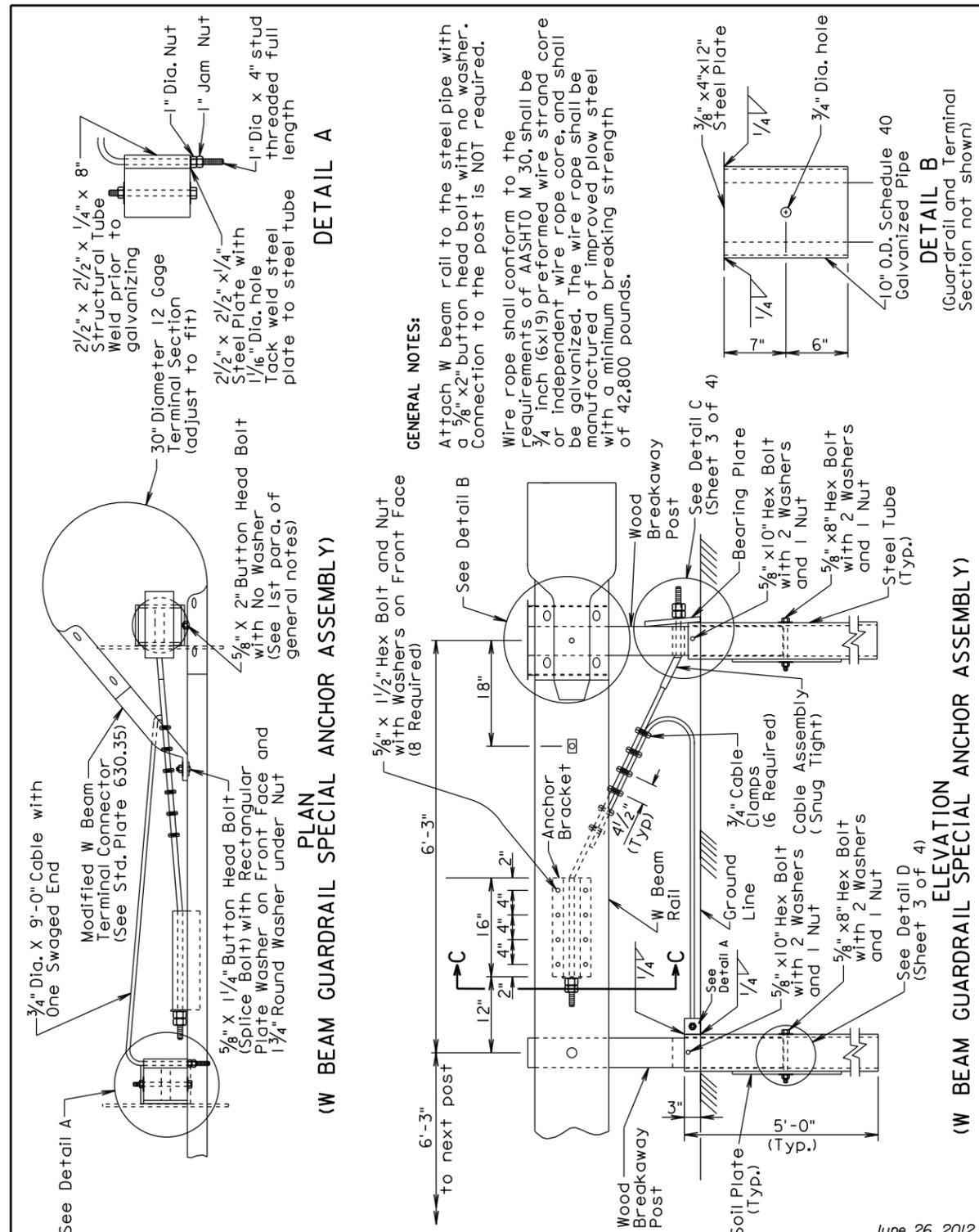
** The rail shall NOT be bolted to the CRT post at the center of the 8' radius nose only. Washers shall not be used on the face of the rail under the 3/8" button head bolts connecting the rail to the Controlled Releasing Terminal (CRT) posts. The curved guardrail sections shall be shop bent.

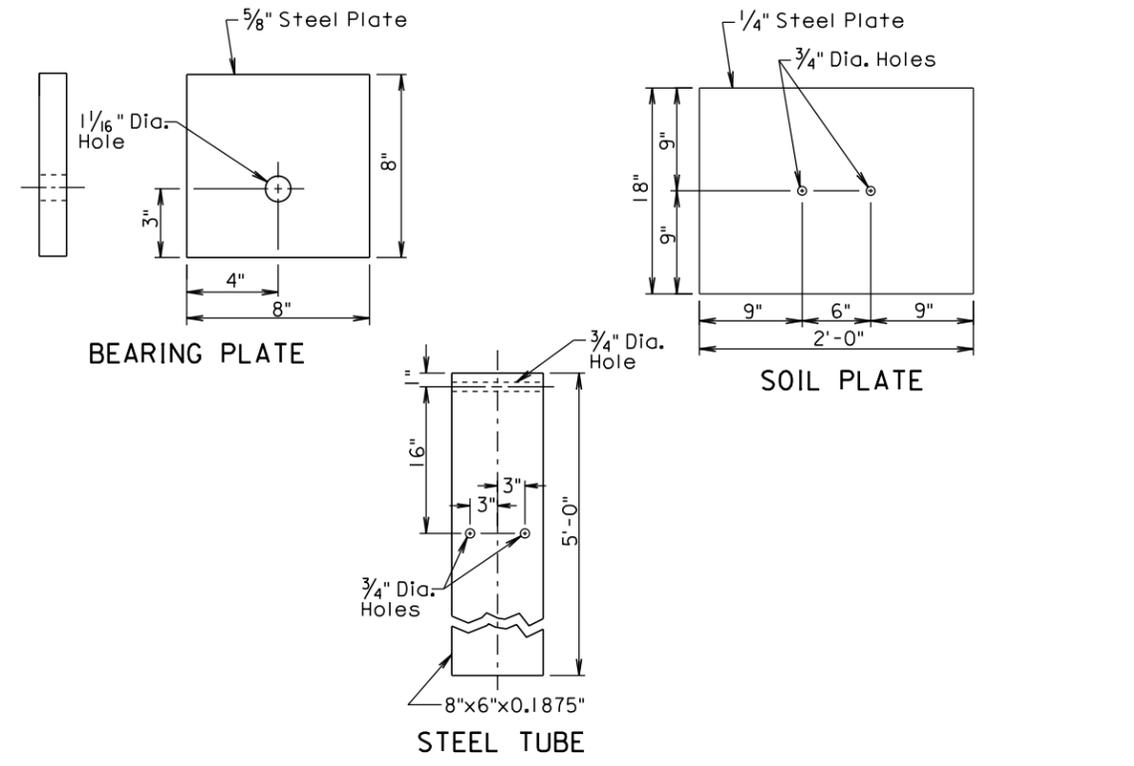
The W Beam Guardrail Special Anchor has not been tested as a crashworthy end treatment for approaching traffic on the intersecting roadway. Therefore, its use shall be limited to farm and field entrances, driveways, or service roads.

RADIUS	NUMBER OF CRT POSTS	* NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (L x W)
8'	5	1 @ 12.5'	25' x 15'
16'	7	1 @ 25'	30' x 15'
24'	9	1 @ 25' and 1 @ 12.5'	40' x 20'
32'	11	2 @ 25'	50' x 20'

TYPICAL LAP SPLICES (8' RADIUS SHOWN)

Published Date: 4th Qtr. 2013





GENERAL NOTES:

The wood breakaway post shall be S4S timber with a stress grade of 1200 psi and shall be grade marked or certified by a recognized association or agency which is certified by the Board of Review, American Lumber Standard Committee, to grade the species. It shall receive a preservative treatment in accordance with AASHTO designation M 133.

The bolts shall be in conformance with ASTM A 307 and the nuts shall be in conformance with ASTM A 563, Grade A or better. The bolts and nuts shall be galvanized in accordance with ASTM A 153.

All angles, channels, and plates shall conform to the requirements of ASTM A36 and the structural tubing shall conform to ASTM A 500. Welding shall meet the current requirements of the Structural Welding Code AWS D1.1. All structural steel shall be galvanized in accordance with ASTM A 123. Punching, drilling, cutting, or welding will NOT be permitted after galvanizing.

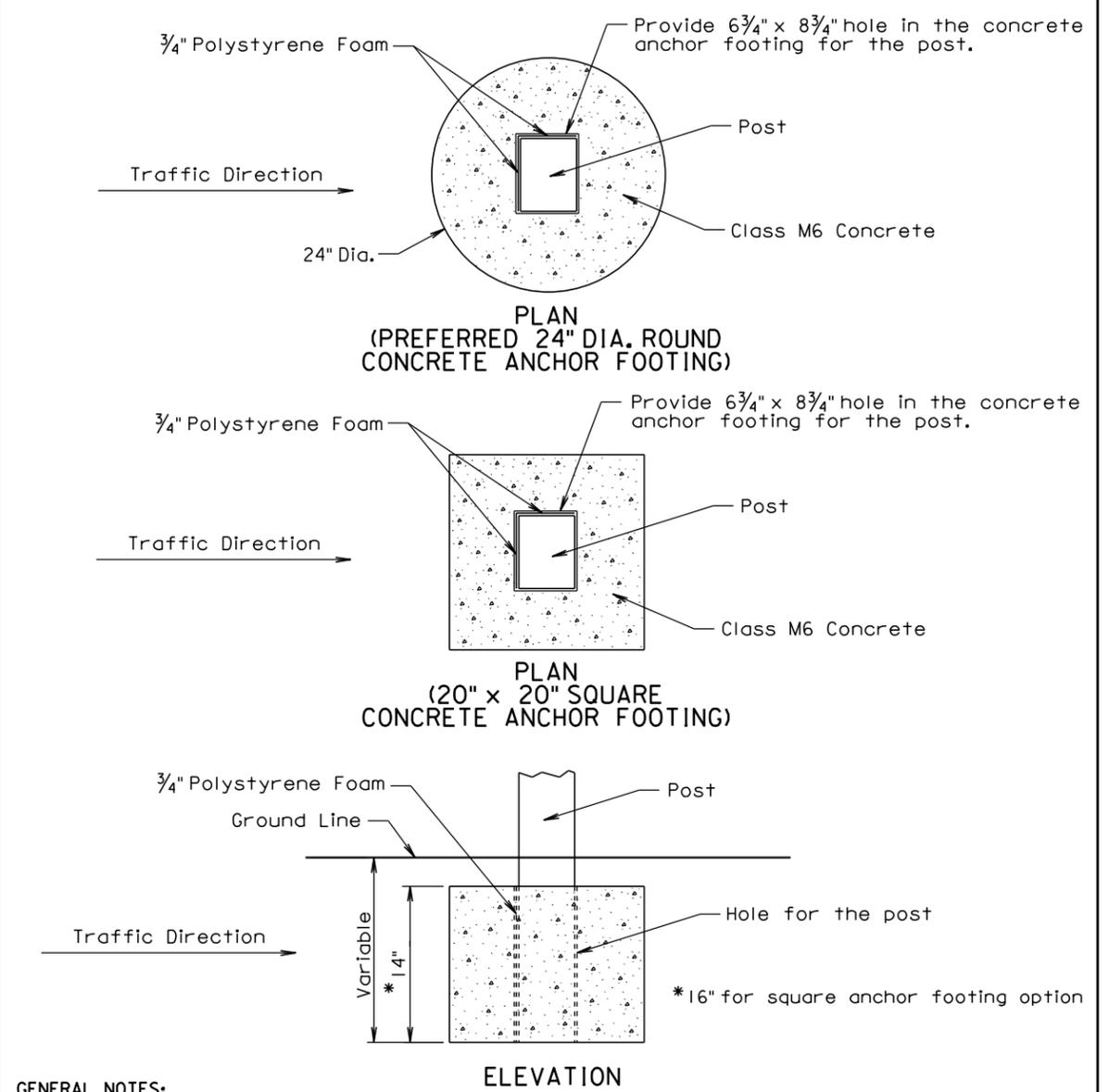
All costs for constructing the straight W beam guardrail portion of the curved W beam guardrail terminal including labor, equipment, and materials including all posts, blocks, steel beam rail, and hardware shall be incidental to the contract unit price per foot for "Straight Class A W Beam Guardrail with CRT Posts".

All costs for constructing the curved W beam guardrail portion of the curved W beam guardrail terminal including labor, equipment, and materials including all CRT posts, steel beam rail, and hardware shall be incidental to the contract unit price per foot for "Curved Class A W Beam Guardrail with CRT Posts".

All costs for constructing the W beam guardrail special anchor assembly including labor, equipment, hardware, and all components of the W beam guardrail special anchor assembly except the W beam rail shall be incidental to the contract unit price per each for "W Beam Guardrail Special Anchor Assembly". The 12'-6" length of W beam rail located within the W beam guardrail special anchor assembly shall be paid for per foot with the bid item "Straight Class A W Beam Guardrail with Wood Posts".

June 26, 2012

<i>Published Date: 4th Qtr. 2013</i>	S D D O T	CURVED W BEAM GUARDRAIL TERMINAL	PLATE NUMBER 630.70
			Sheet 4 of 4



GENERAL NOTES:

In areas where the required guardrail wood post depth is not obtainable, shorter posts may be used and shall be anchored in concrete in accordance with the details shown on this standard plate.

A 20" x 20" square concrete anchor footing may be used in lieu of the 24" diameter round anchor footing.

Forms for the concrete anchor footing hole is not required.

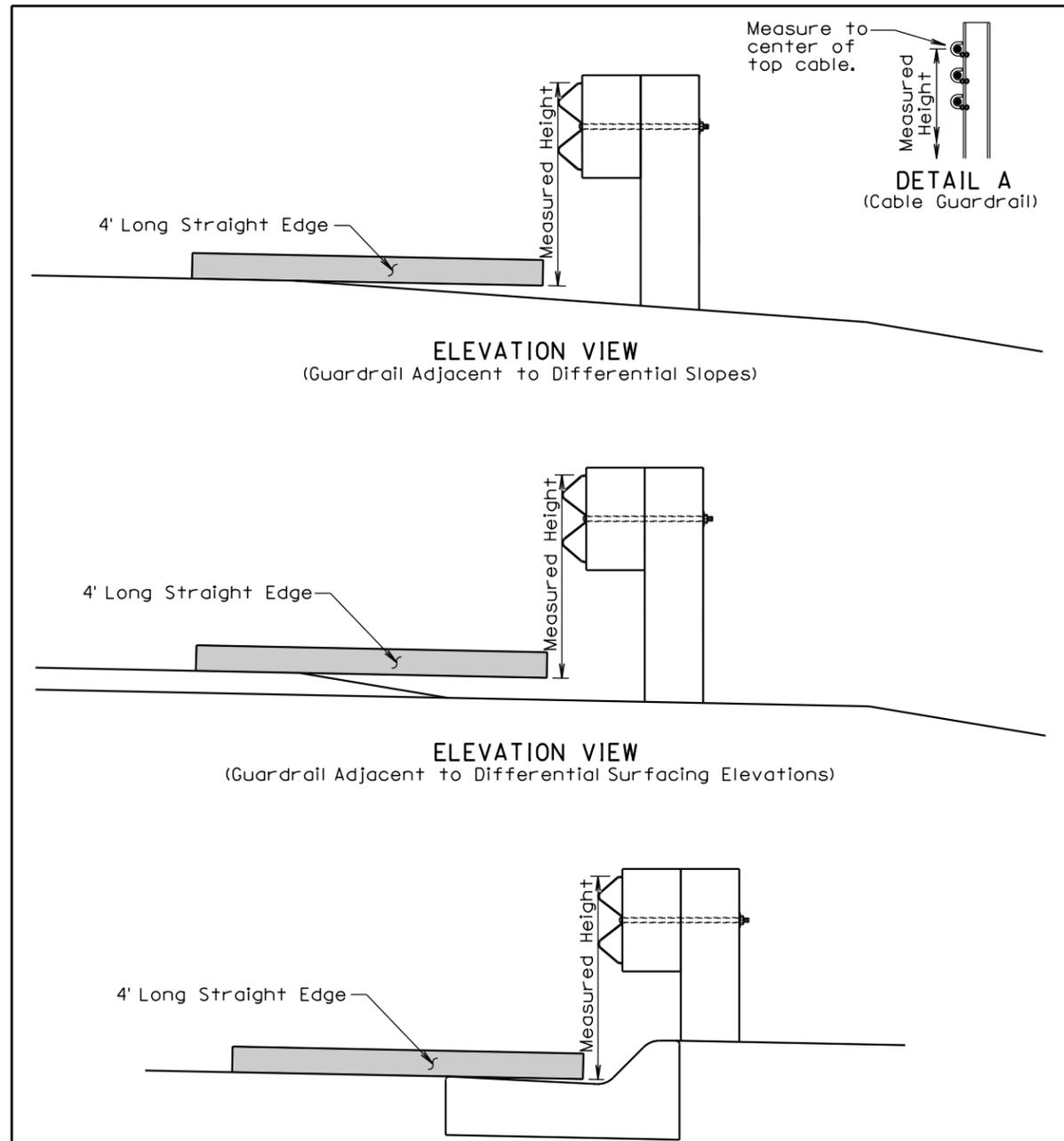
Concrete for the concrete anchor footing shall be Class M6.

Three quarter inch polystyrene foam shall be attached to two sides of the posts. See details above for placement position of the polystyrene foam.

There will be no separate payment for furnishing and installing the concrete anchor footing for short guardrail post. All costs for concrete anchor footings shall be incidental to the contract unit price per foot for the respective "Thrie Beam or W Beam Guardrail" bid item.

March 31, 2000

<i>Published Date: 4th Qtr. 2013</i>	S D D O T	CONCRETE ANCHOR FOOTING FOR SHORT GUARDRAIL POST	PLATE NUMBER 630.84
			Sheet 1 of 1

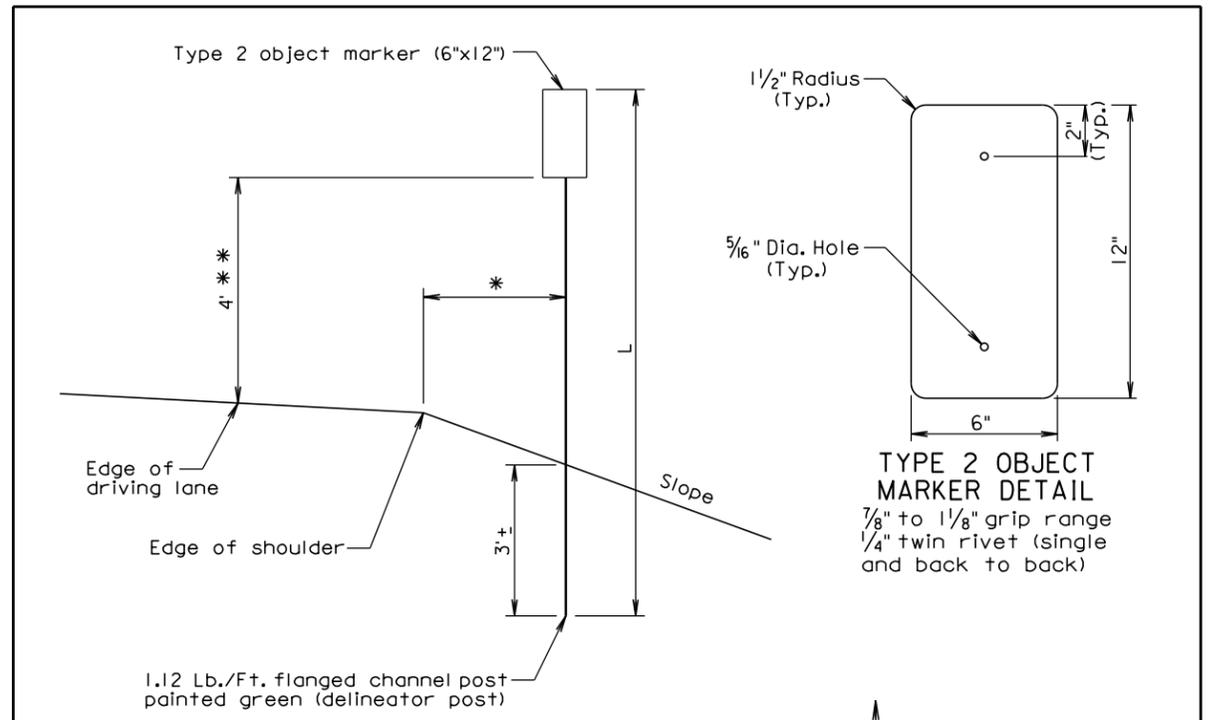


GENERAL NOTES:

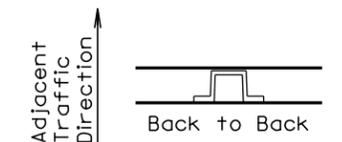
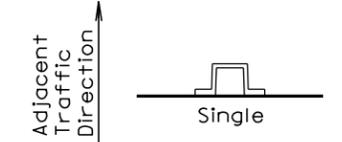
The W Beam guardrail shown is for illustrative purpose. The guardrail height for all types of guardrail systems shall be measured in accordance with this standard plate.

When measuring height of cable guardrail or cable barrier the height shall be measured to the center of the top cable. See Detail A.

June 26, 2010



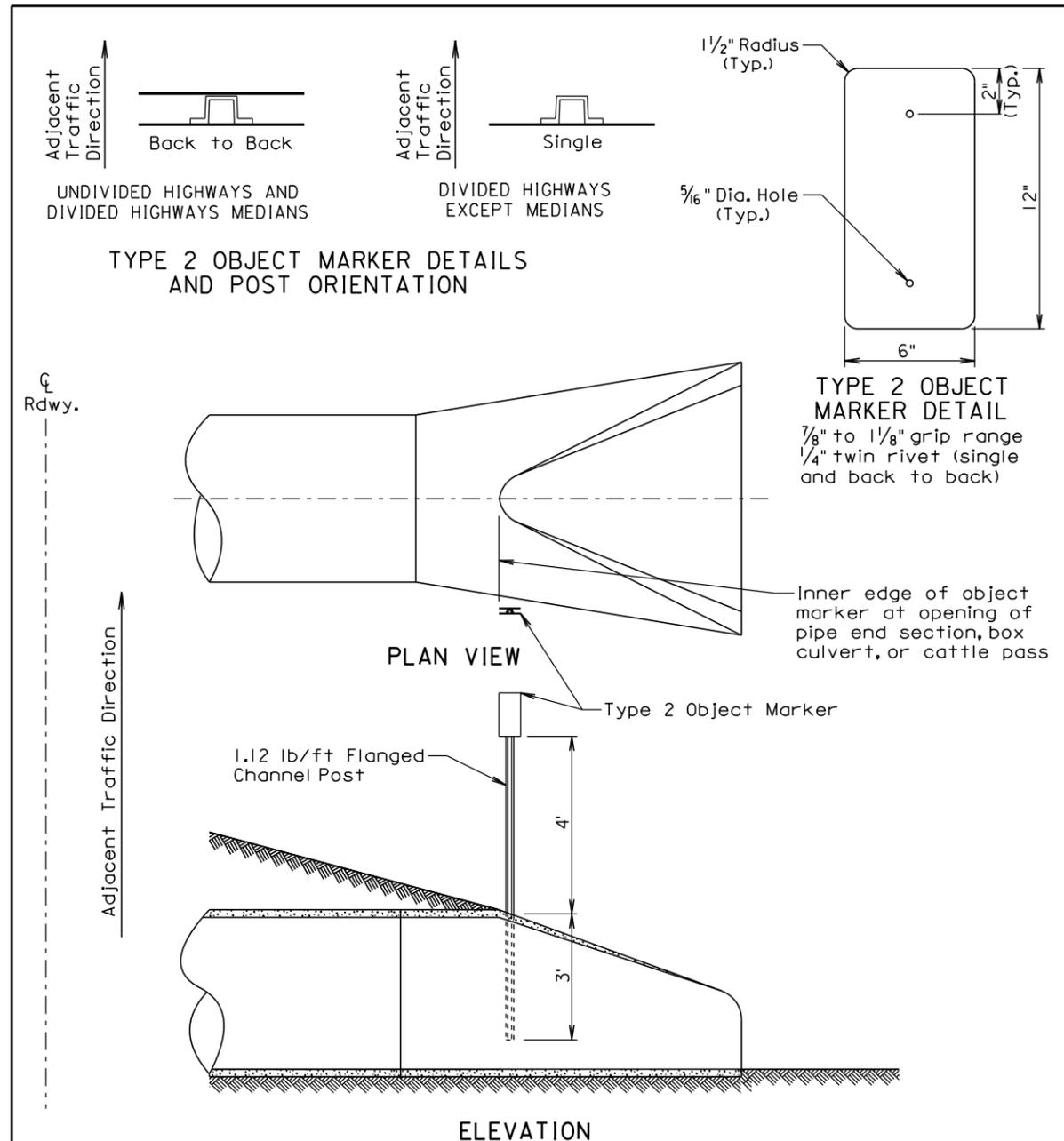
- * Type 2 object markers to be in same line as existing delineators. If no delineators are present, place type 2 object markers 6' from the edge of shoulder.
- ** Type 2 object markers shall be 4' above the ground when placed more than 8' from edge of shoulder.



TYPE 2 OBJECT MARKER DETAILS AND POST ORIENTATION

Distance To Marker (Ft.) *	2	3	4	5	6	7	8	
	Post Length L (Ft.)							
Slope	4:1	9	9	9	9	10	10	10
	3:1	9	9	9	10	10	10	11

June 26, 2006



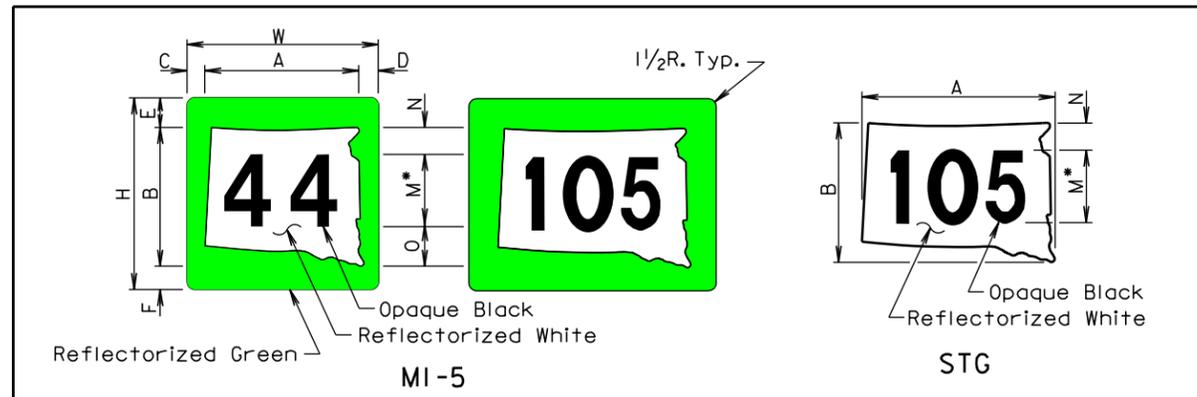
GENERAL NOTES:

The type 2 object markers shall conform to Standard Specifications Section 982.2 I.

The 1.12 lb/ft flanged channel post shall conform to Standard Specifications Section 982.2 I. 6.

Payment for the type 2 object markers shall be in conformance with Standard Specification Section 632.5 C.

June 26, 2006

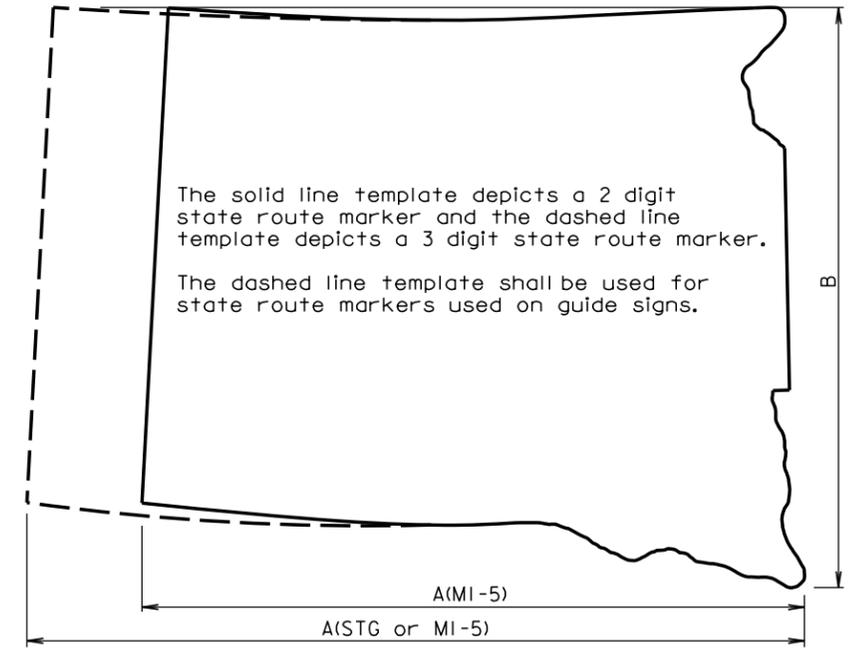


SIGN CODE	WxH	A	B	C	D	E	F	M*	N	O
MI-5	24x24	20 $\frac{1}{2}$	18	2	1 $\frac{1}{2}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	12D	2	4
MI-5**	30x24	24	18	2 $\frac{1}{4}$	1 $\frac{3}{4}$	3 $\frac{1}{2}$	2 $\frac{1}{2}$	12D	2	4
MI-5	30x30	25 $\frac{5}{8}$	22 $\frac{1}{2}$	2 $\frac{1}{2}$	1 $\frac{7}{8}$	4 $\frac{3}{8}$	3 $\frac{1}{8}$	15D	2 $\frac{1}{2}$	5
MI-5	36x36	30 $\frac{3}{4}$	27	3	2 $\frac{1}{4}$	5 $\frac{1}{4}$	3 $\frac{3}{4}$	18D	3	6

SIGN CODE	AxB	M*	N
STG-24	24x18	10D	4
STG-32	32x24	12D	4 $\frac{3}{4}$
STG-48	48x36	18D	7
STG-64	64x48	24D	9 $\frac{1}{2}$

*In the few cases where there is not enough space for the numerals, the standard "D" series font may be replaced with "C" series font if approved by the Engineer.

** 3 Digits



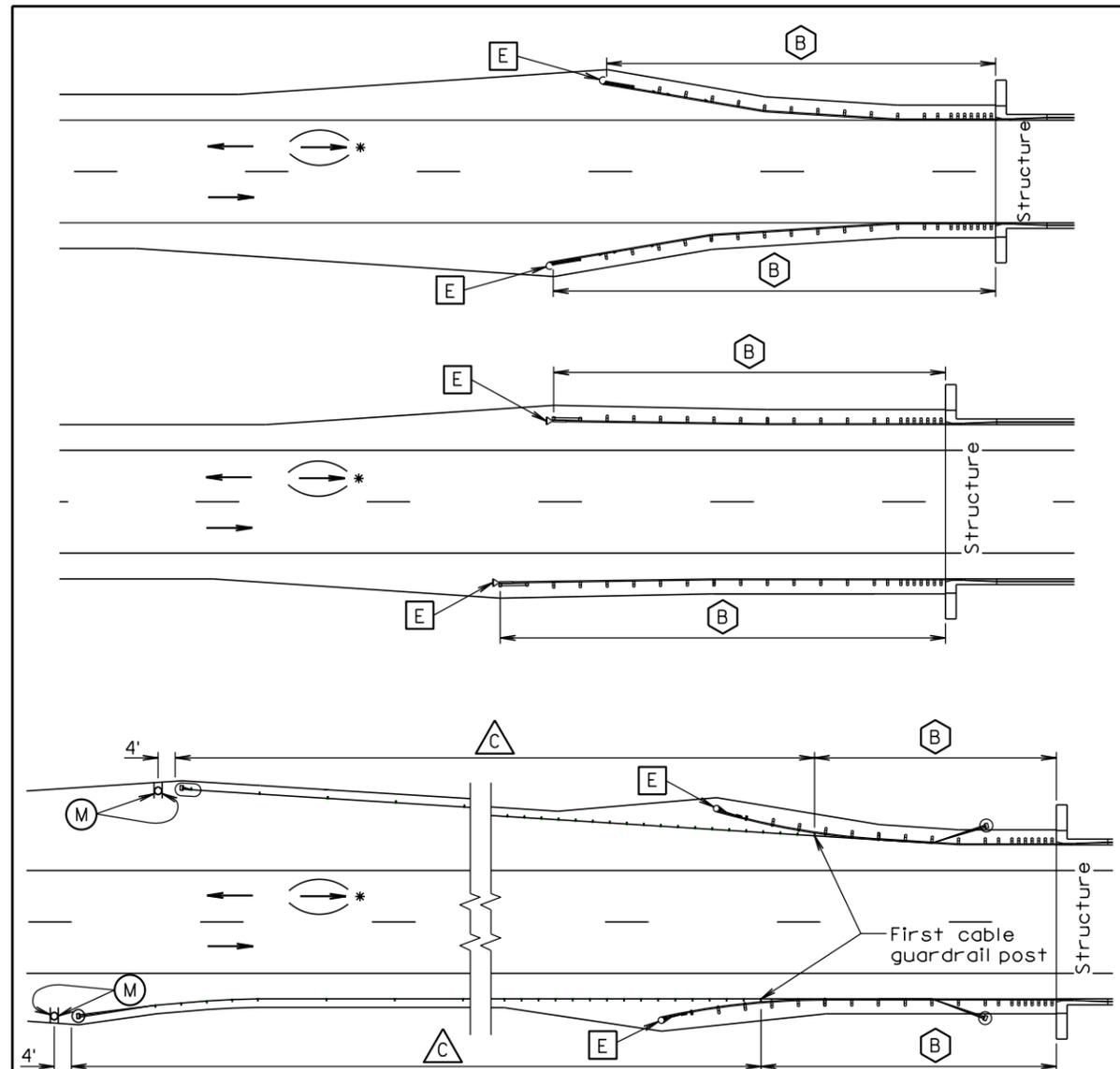
TEMPLATE FOR STATE ROUTE MARKER

GENERAL NOTES:

The unit for all dimensions shown is inches.

Numerals shall be "D" series font for all state route markers except as noted above.

December 23, 2003



TYPICAL GUARDRAIL LAYOUTS

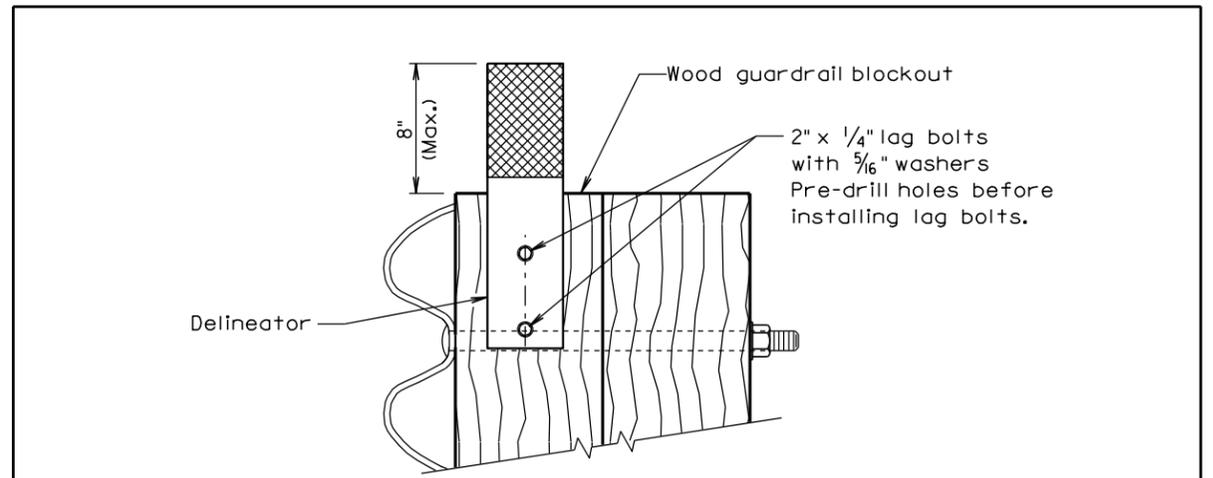
- (B) Steel Beam Guardrail Delineation
- (E) Guardrail Terminal End Object Marker
- (C) 3 Cable Guardrail Delineation
- (M) Type 2 Object Marker

*For two-way traffic, install delineation at the opposite end of structure the same as shown. Back-to-back delineation is required for two-way traffic, single-sided delineation for one-way traffic.

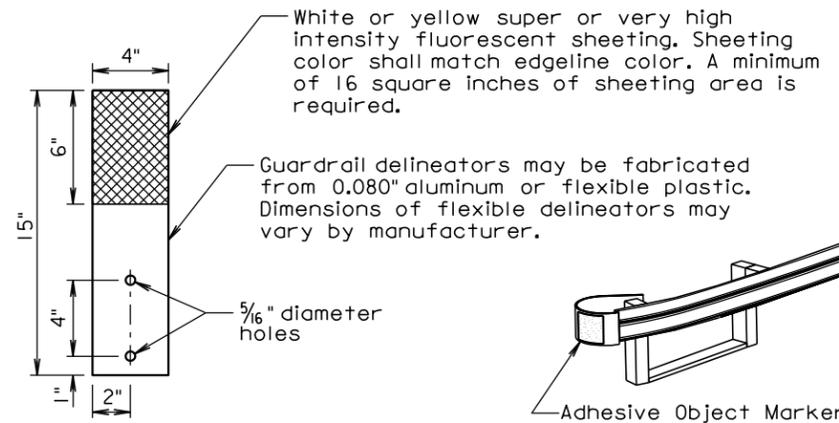
June 26, 2011

S D D O T	DELINEATION OF GUARDRAIL AT BRIDGES	PLATE NUMBER 632.40
		Sheet 1 of 4

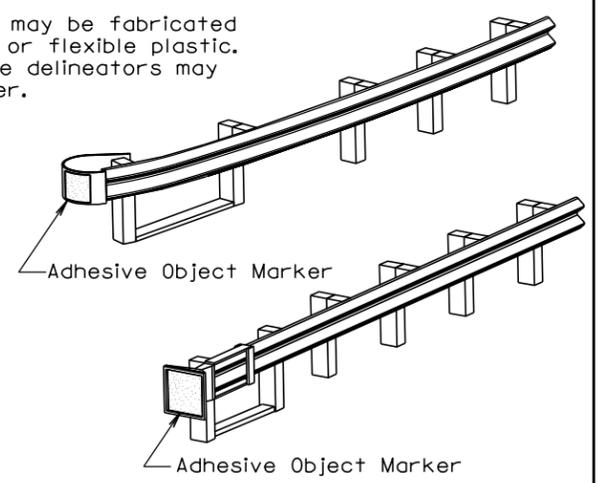
Published Date: 4th Qtr. 2013



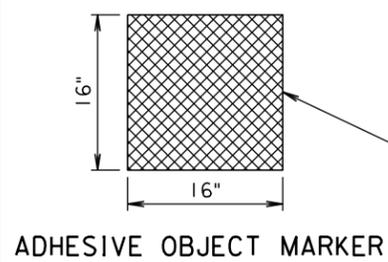
(B) STEEL BEAM GUARDRAIL DELINEATION



DELINEATOR
(For Steel Beam Guardrail)



(E) GUARDRAIL TERMINAL END OBJECT MARKER



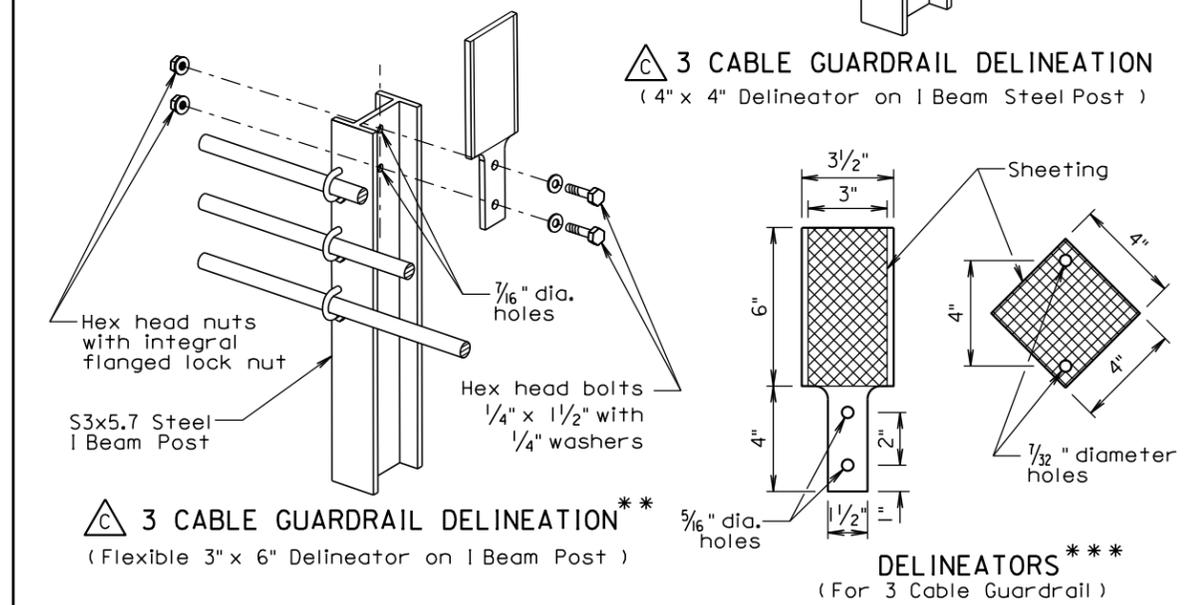
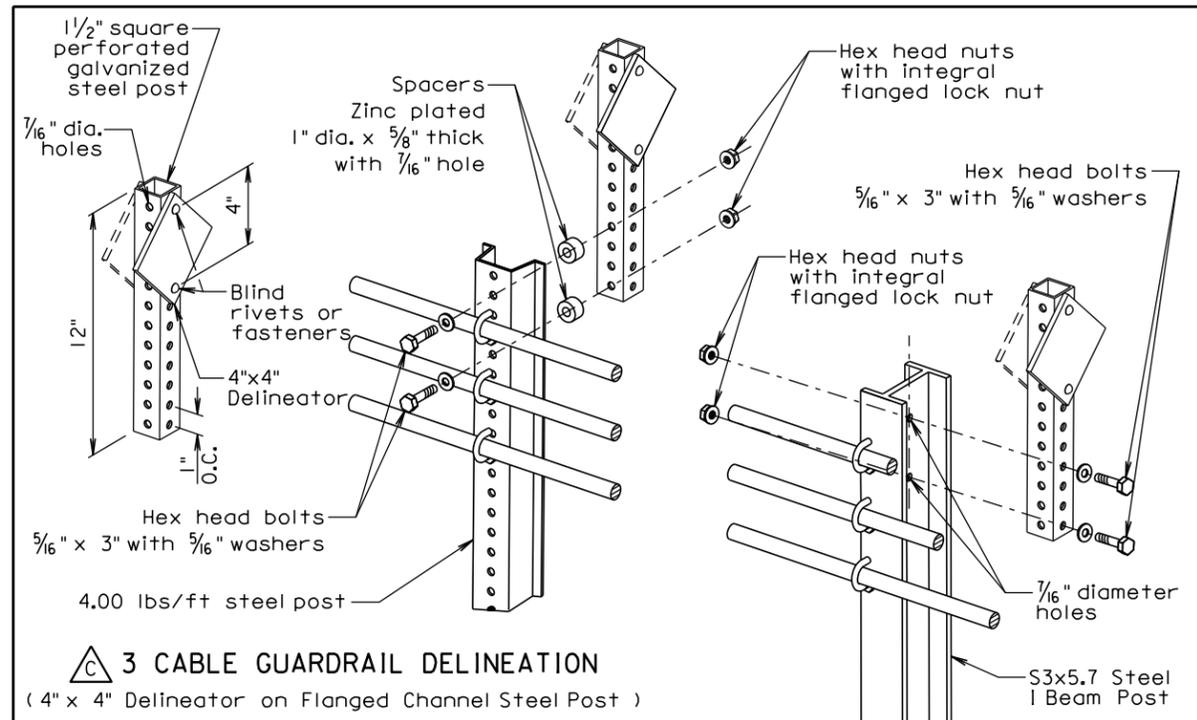
ADHESIVE OBJECT MARKER

Adhesive object marker dimensions may vary due to shape of terminal end. A minimum of 256 square inches of object marker sheeting area is required. The sheeting shall be fluorescent yellow super or very high intensity.

June 26, 2011

S D D O T	DELINEATION OF GUARDRAIL AT BRIDGES	PLATE NUMBER 632.40
		Sheet 2 of 4

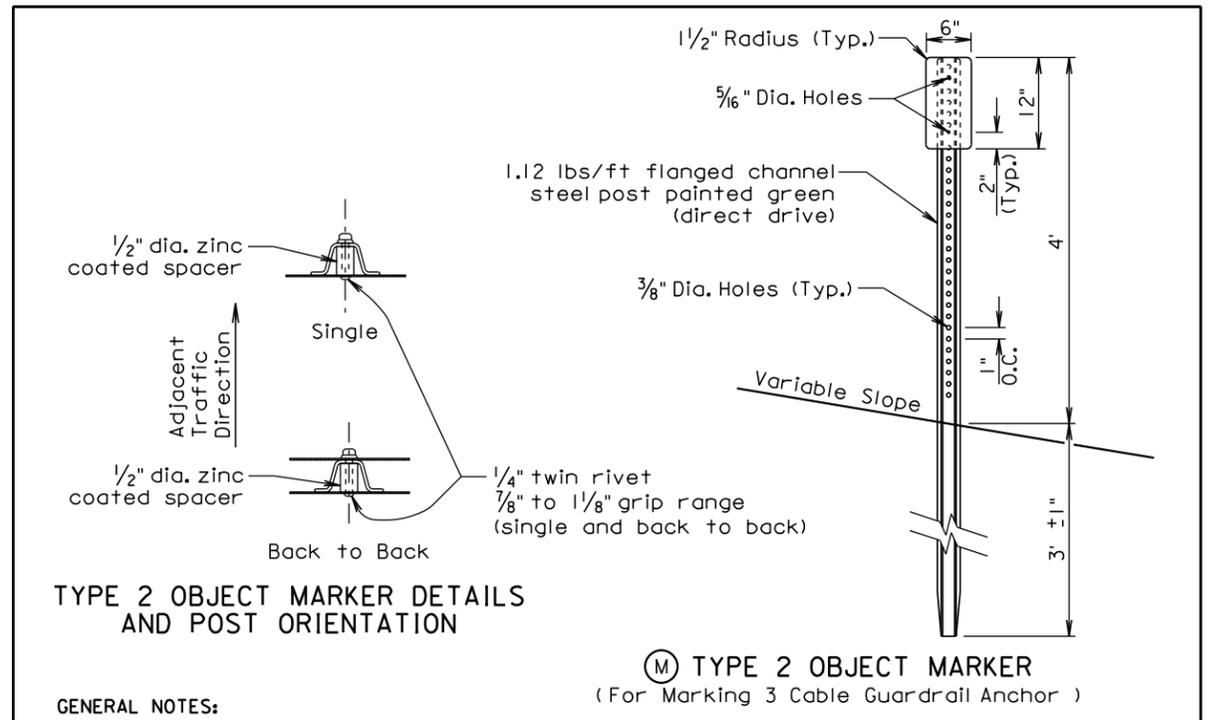
Published Date: 4th Qtr. 2013



** Flexible delineators may be attached to post with manufacturer approved adhesive instead of bolts.

*** Dimensions of flexible delineators may vary by manufacturer. A minimum of 16 square inches of sheeting area is required. The sheeting shall be white or yellow super or very high intensity fluorescent sheeting. The sheeting color shall match the edgeline color.

June 26, 2011



GENERAL NOTES:

The delineators shall be covered with a minimum of 16 square inches of reflective sheeting. The reflective sheeting shall be of either very high intensity or super high intensity material. For bridges along two-way roadways the sheeting shall be on both sides of the delineator and shall be white in color. For one-way roadways the sheeting will only be required on the side facing traffic and the color will be the same as the nearest pavement marking, yellow on the left side of the roadway and white on the right side.

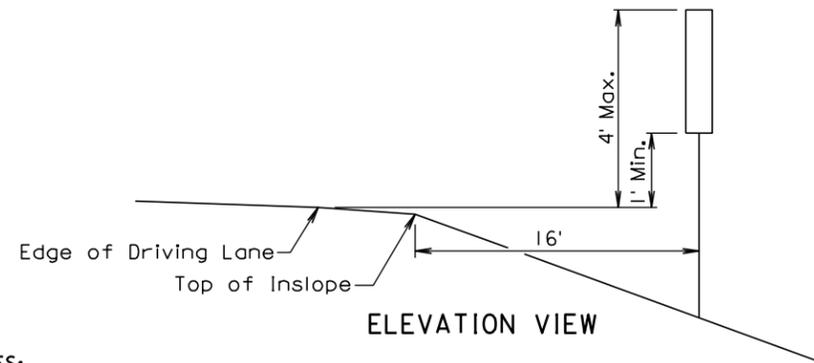
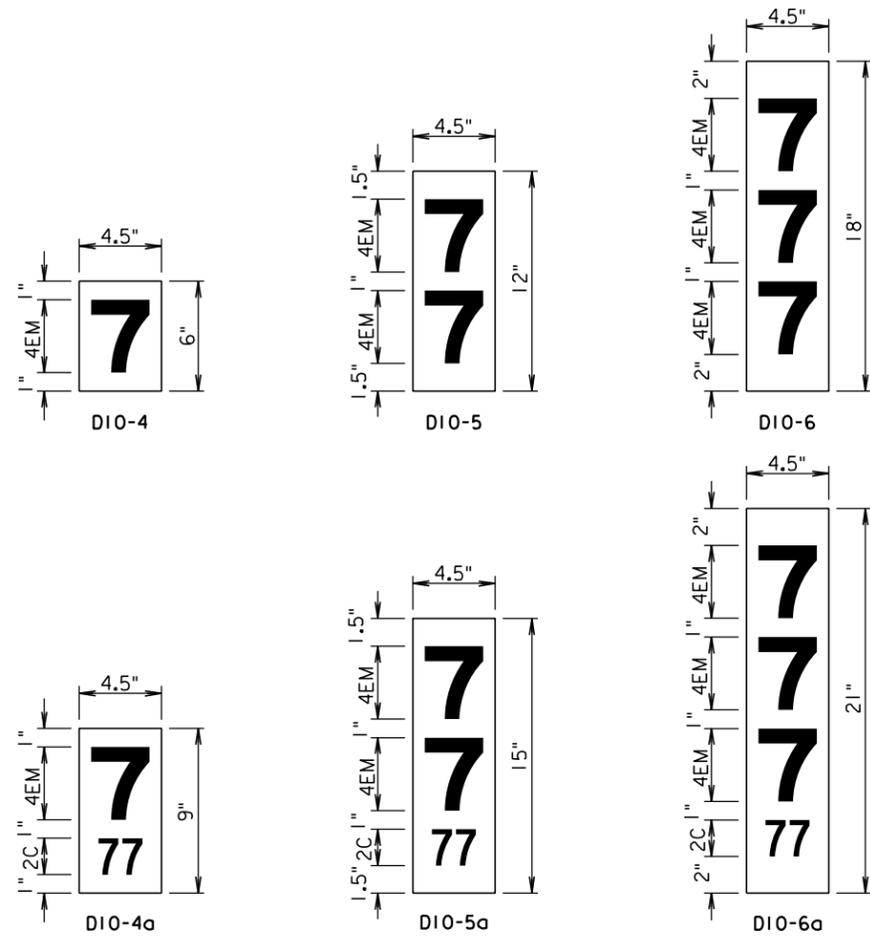
The first delineator shall be attached to the post nearest the bridge with additional delineators spaced in advance of the bridge at approximately 50 foot intervals. At bridges with short lengths of guardrail, less than 200 feet, a minimum of 4 delineators shall be placed in addition to the yellow object marker. The spacing between the delineators shall be approximately one third of the length of the guardrail. This will provide for a shorter spacing. At bridges with longer lengths of guardrail, greater than 200 feet, including bridges that have cable guardrail transitioning into the steel beam guardrail, the delineators will be placed at a spacing of approximately 50 feet. Delineation shall extend throughout the length of the guardrail system.

All costs for furnishing and installing single or back to back guardrail delineation shall be included in the contract unit price per each for "Guardrail Delineator".

An adhesive object marker shall be placed on the end of the W beam guardrail end terminal. The adhesive object marker dimensions may vary due to the shape of the terminal end. A minimum of 256 square inches of object marker reflective sheeting area is required. The reflective sheeting shall be fluorescent yellow super or very high intensity. All costs for furnishing and installing the adhesive object marker shall be incidental to various contract items.

A type 2 object marker shall be placed adjacent to the 3 cable guardrail anchor at the location noted on sheet 1 of this standard plate. The type 2 object marker (6" x 12") shall have a fluorescent yellow very high or super high intensity reflective sheeting. All costs for furnishing and installing the type 2 object marker including the steel post, 6" x 12" reflective panel, and hardware shall be included in the contract unit price per each for "Type 2 Object Marker" for single-sided and "Type 2 Object Marker Back to Back" for back to back type 2 object markers.

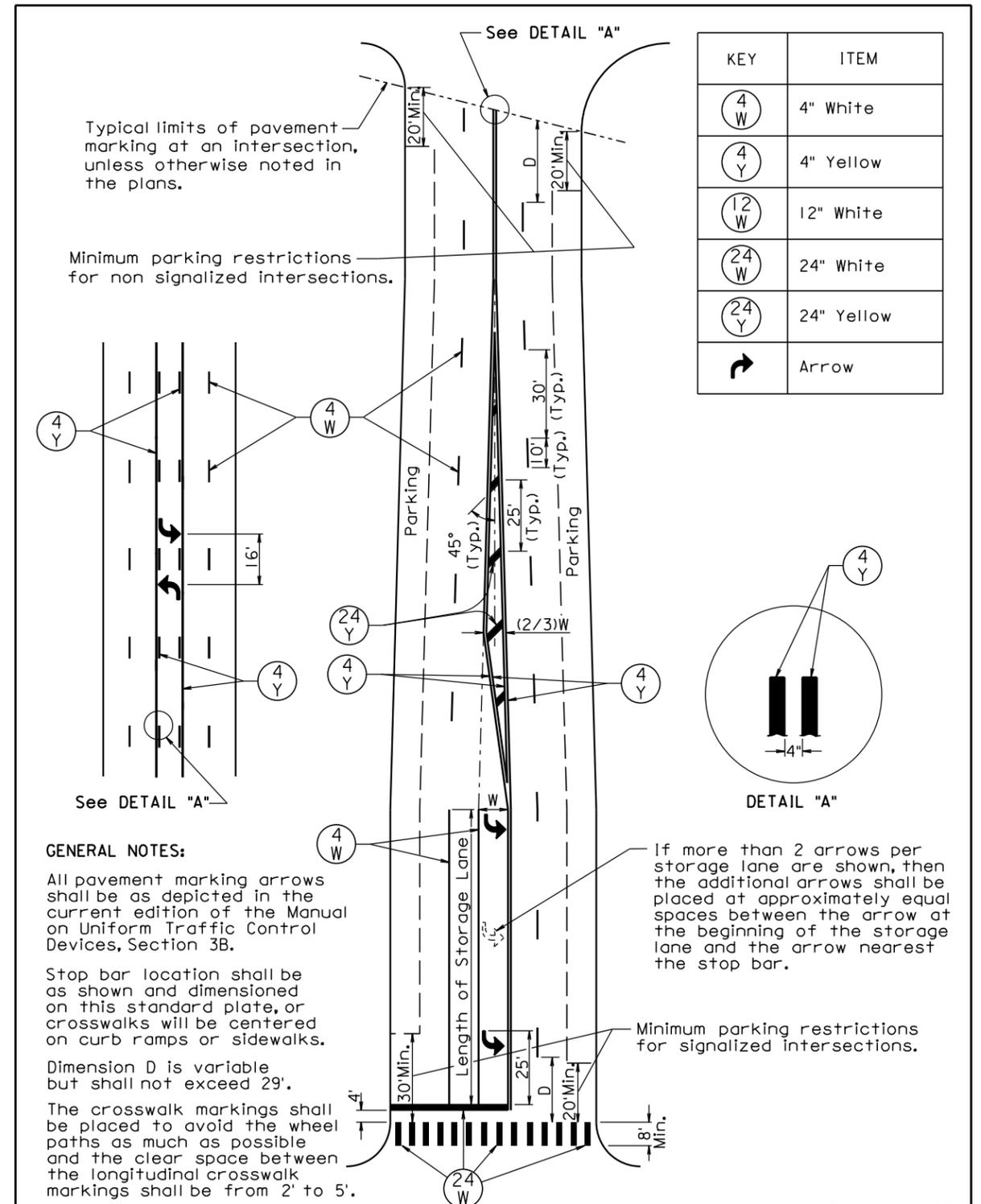
June 26, 2011



GENERAL NOTES:
 Background shall be high intensity green.
 Legend shall be high intensity white.
 Signs shall have squared corners with no border.
 Sign locations shall be staked by the Engineer.

December 23, 2003

Published Date: 4th Qtr. 2013	S D D O T	NON-INTERSTATE MILEAGE REFERENCE MARKERS	PLATE NUMBER 632.30
			Sheet 1 of 1



GENERAL NOTES:

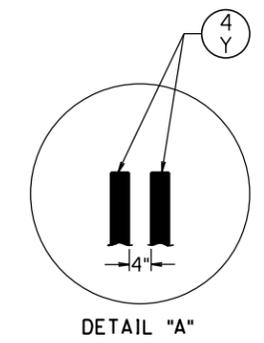
All pavement marking arrows shall be as depicted in the current edition of the Manual on Uniform Traffic Control Devices, Section 3B.

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'.

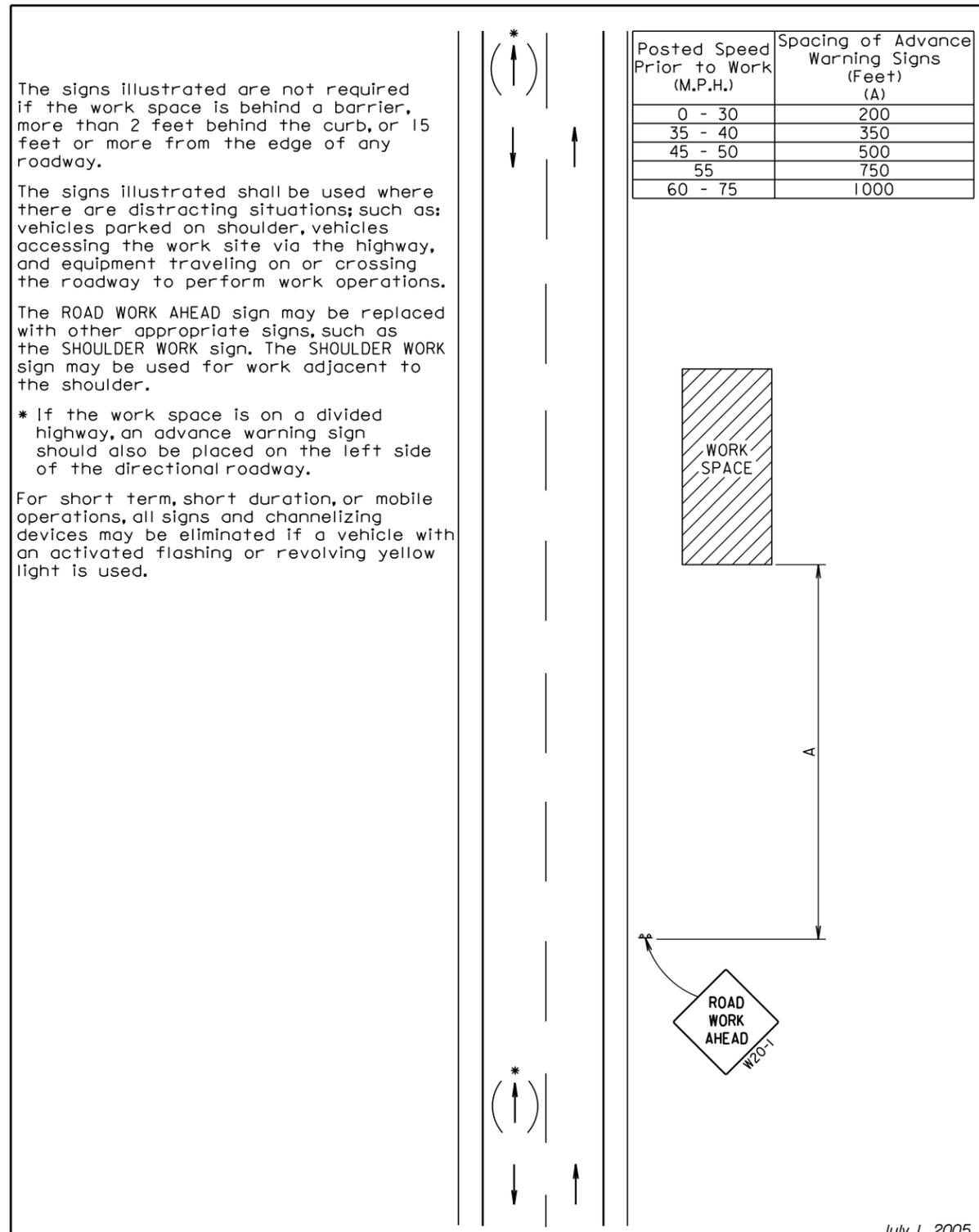
The crosswalk markings shall be placed to avoid the wheel paths as much as possible and the clear space between the longitudinal crosswalk markings shall be from 2' to 5'.

KEY	ITEM
(4 W)	4" White
(4 Y)	4" Yellow
(12 W)	12" White
(24 W)	24" White
(24 Y)	24" Yellow
↷	Arrow

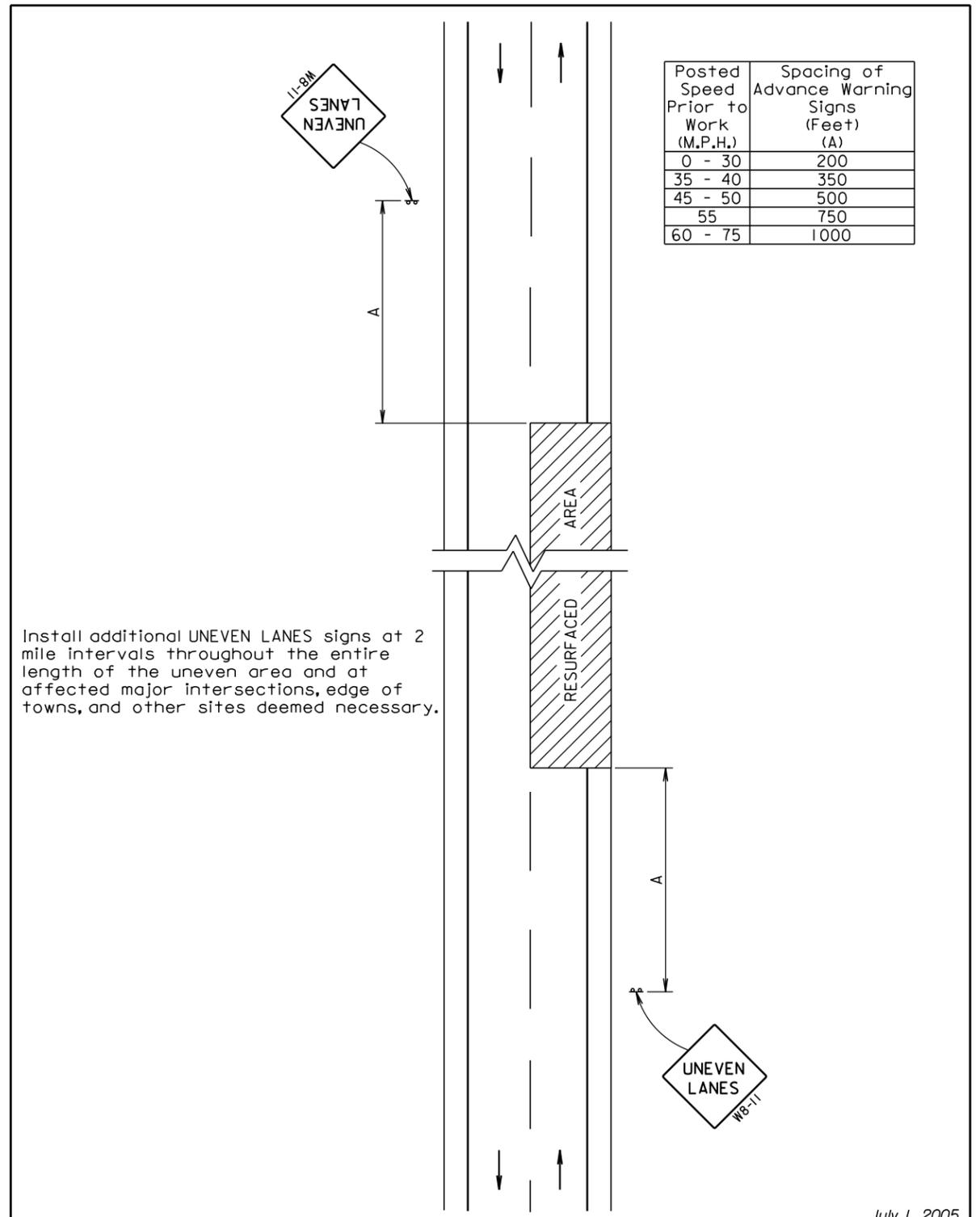


Published Date: 4th Qtr. 2013	S D D O T	PAVEMENT MARKINGS FOR ADJACENT INTERSECTIONS AND CENTER TURN LANE	PLATE NUMBER 633.01
			Sheet 1 of 1

September 14, 2011

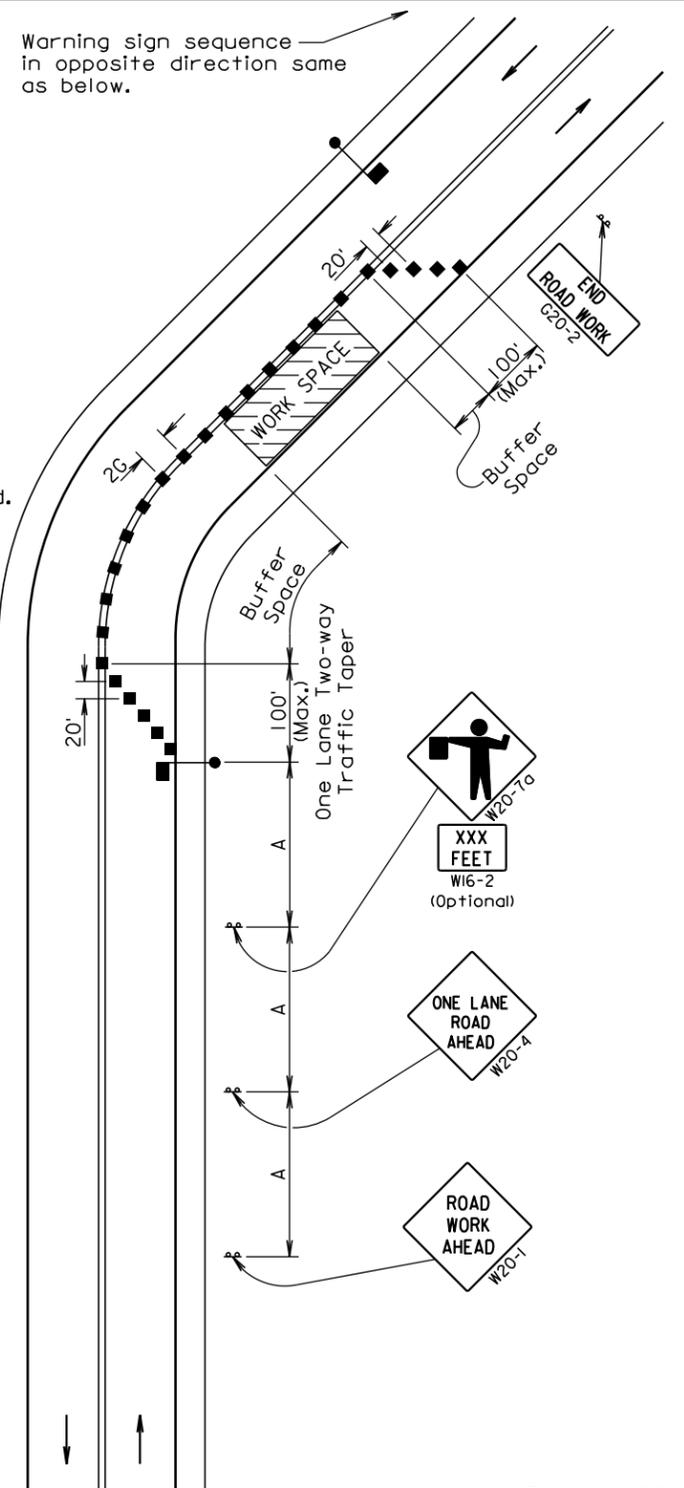


July 1, 2005



July 1, 2005

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



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.

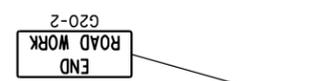
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

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.

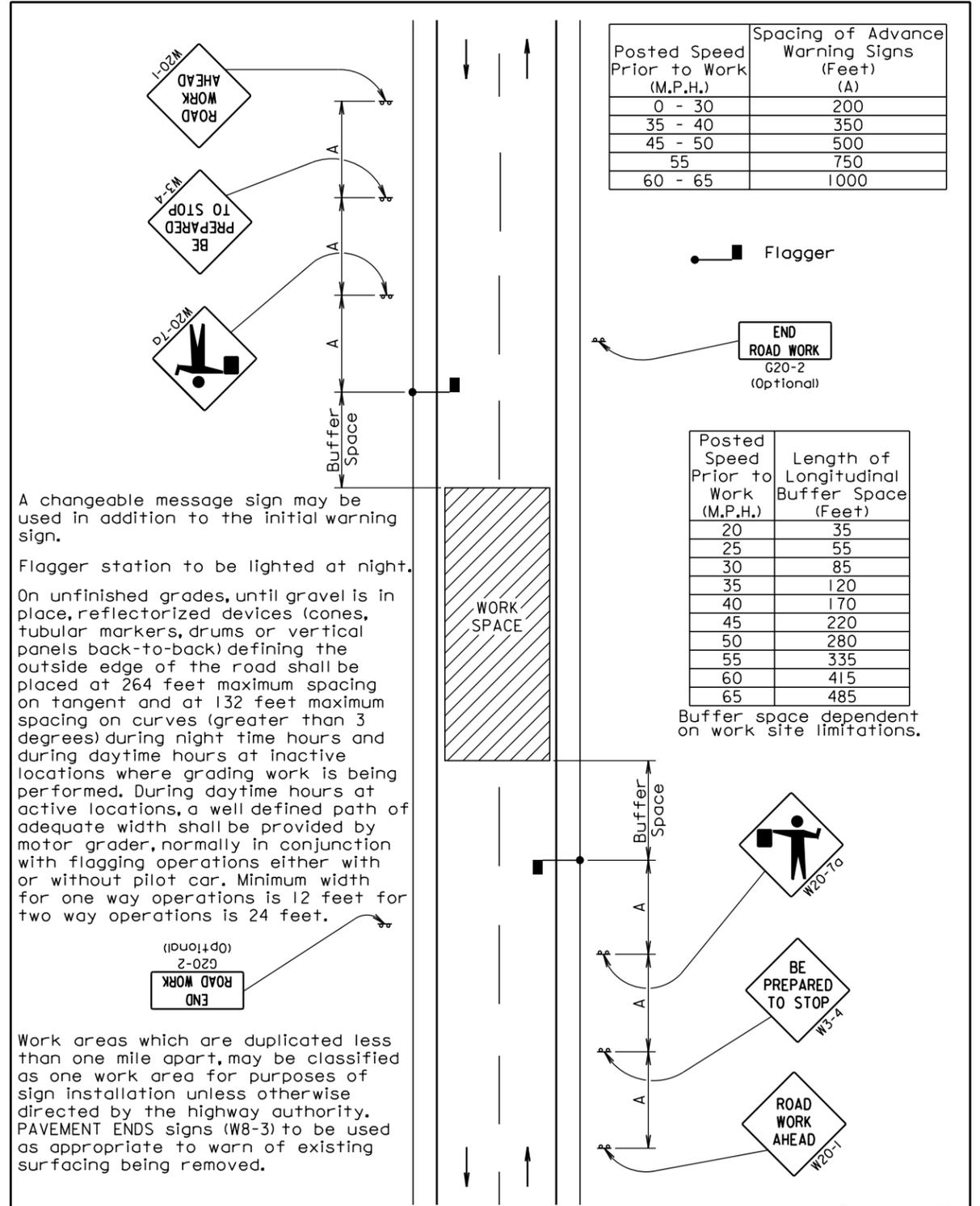
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



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.

February 14, 2011



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

Posted Speed Prior to Work (M.P.H.)	Length of Longitudinal Buffer Space (Feet)
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

Buffer space dependent on work site limitations.

A changeable message sign may be used in addition to the initial warning sign.

Flagger station to be lighted at night.

On unfinished grades, until gravel is in place, reflectorized devices (cones, tubular markers, drums or vertical panels back-to-back) defining the outside edge of the road shall be placed at 264 feet maximum spacing on tangent and at 132 feet maximum spacing on curves (greater than 3 degrees) during night time hours and during daytime hours at inactive locations where grading work is being performed. During daytime hours at active locations, a well defined path of adequate width shall be provided by motor grader, normally in conjunction with flagging operations either with or without pilot car. Minimum width for one way operations is 12 feet for two way operations is 24 feet.

Work areas which are duplicated less than one mile apart, may be classified as one work area for purposes of sign installation unless otherwise directed by the highway authority. PAVEMENT ENDS signs (W8-3) to be used as appropriate to warn of existing surfacing being removed.

February 14, 2011

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

* Spacing to be every 40' for 42" cones.

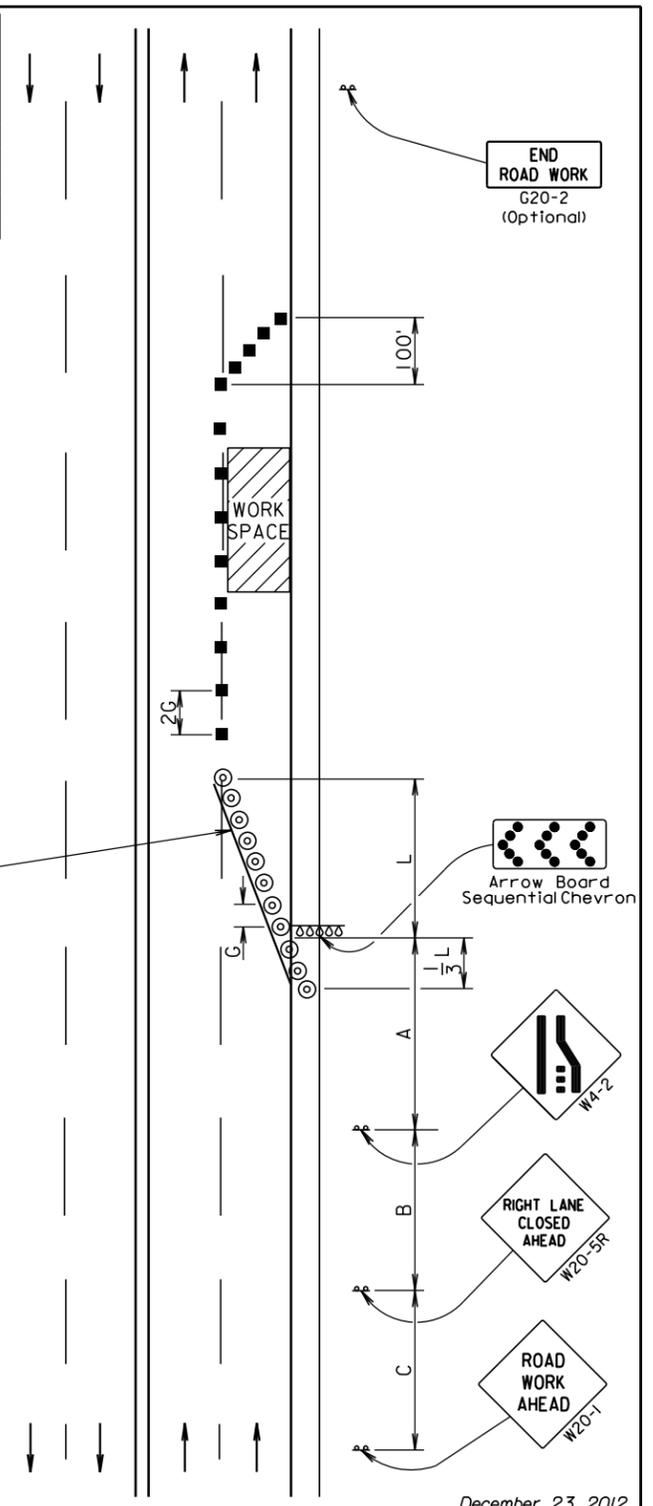
⊙ Reflectorized Drum

■ Channelizing Device shall be 42" cones or drums

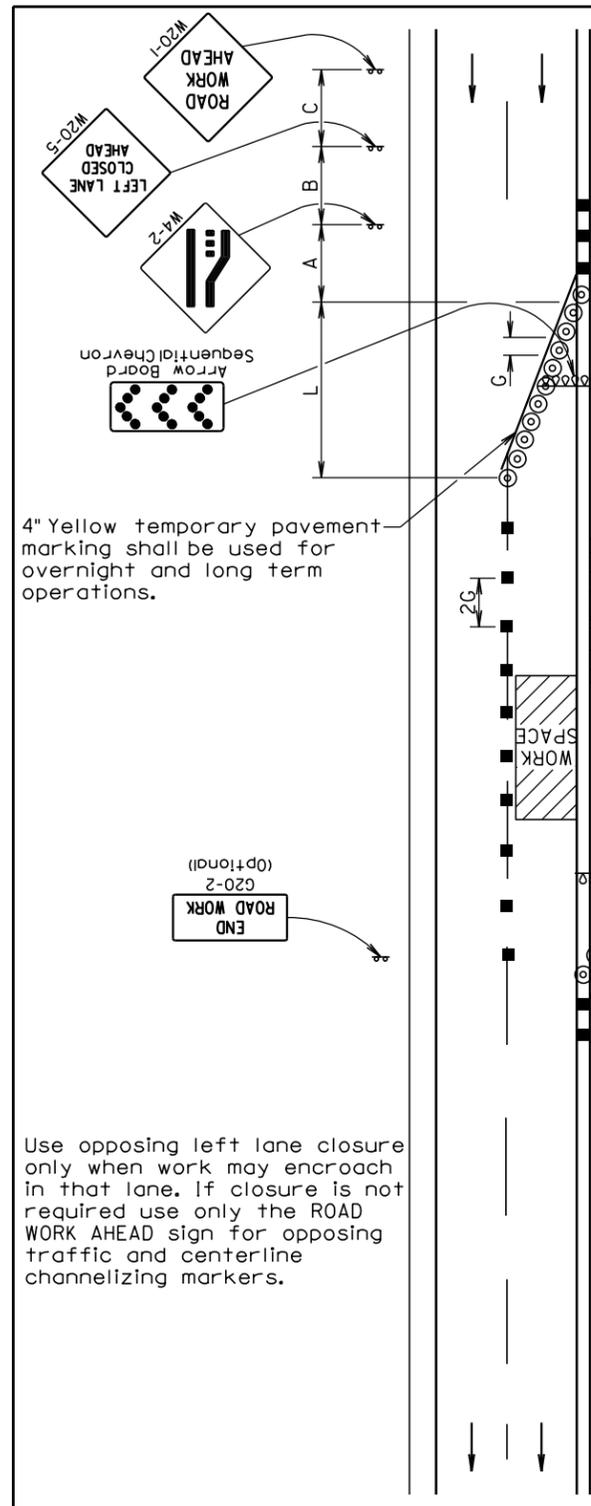
42" cones may be used in place of the drums shown in the taper if setup will not be used during any night time hours.

4" white temporary pavement marking shall be used for overnight and long term operations.

Longitudinal dimensions may be adjusted to fit project conditions such as horizontal curves, vertical curves, and other site restrictions.



December 23, 2012



Use opposing left lane closure only when work may encroach in that lane. If closure is not required use only the ROAD WORK AHEAD sign for opposing traffic and centerline channelizing markers.

December 23, 2012

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

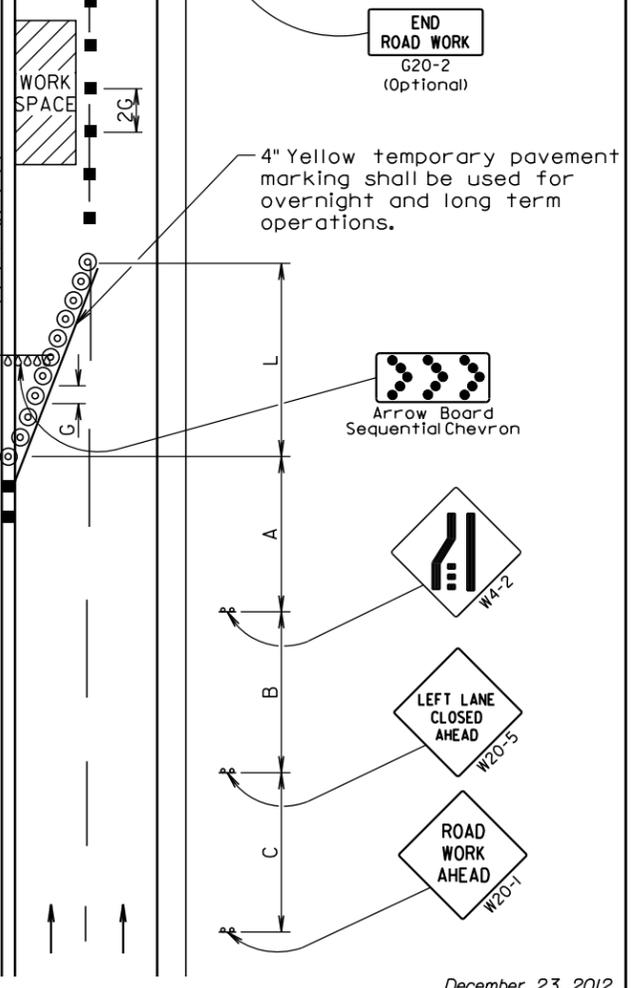
* Spacing to be every 40' for 42" cones.

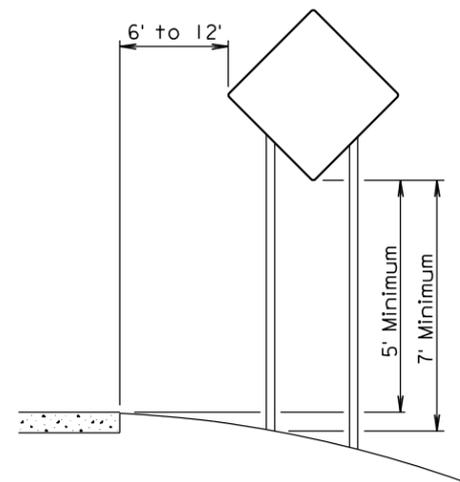
⊙ Reflectorized Drum

■ Channelizing Device shall be 42" cones or drums

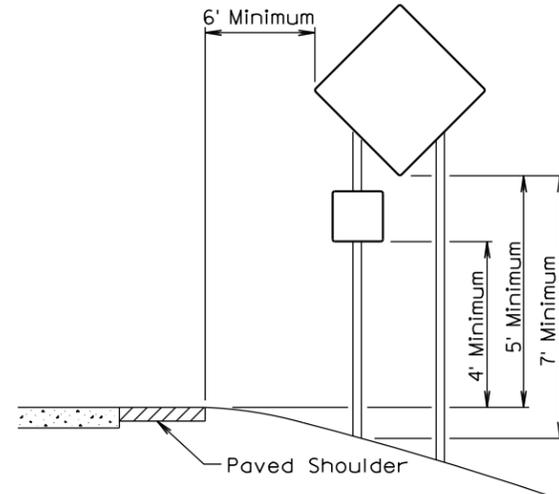
42" cones may be used in place of the drums shown in the taper if setup will not be used during any night time hours.

4" Yellow temporary pavement marking shall be used for overnight and long term operations.

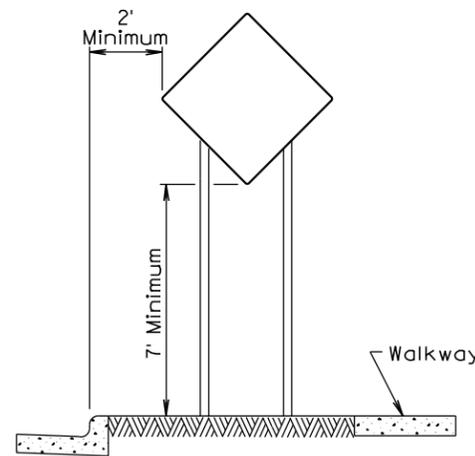




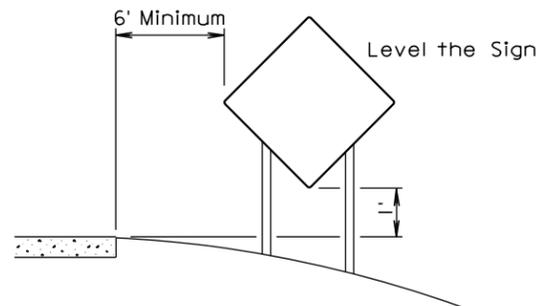
RURAL DISTRICT



RURAL DISTRICT WITH
SUPPLEMENTAL PLATE



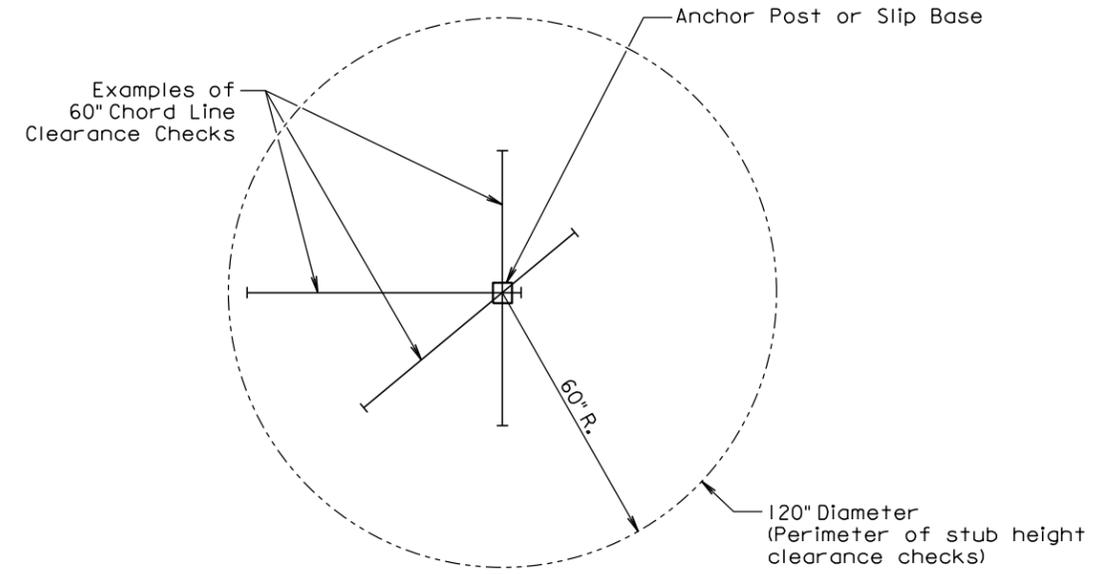
URBAN DISTRICT



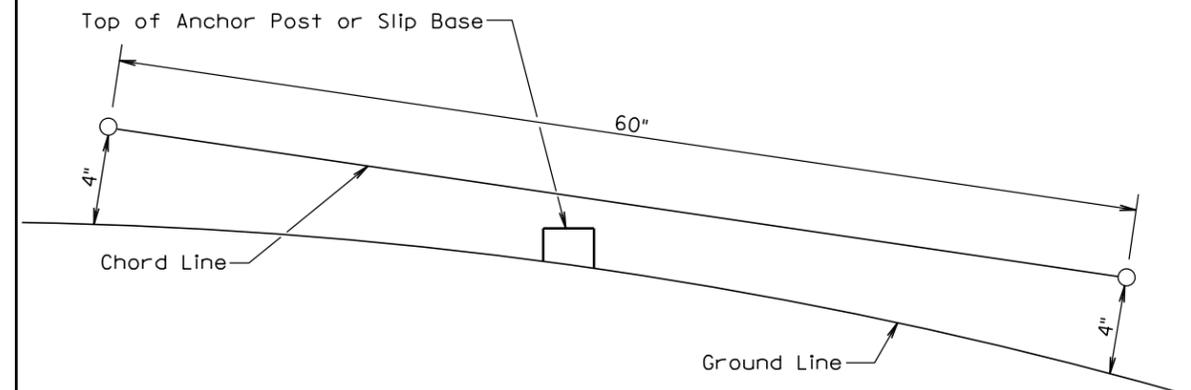
RURAL DISTRICT
3 DAY MAXIMUM

February 14, 2011

Published Date: 4th Qtr. 2013	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:

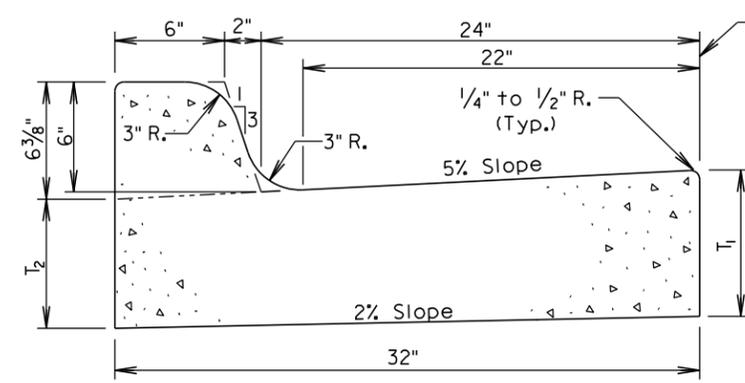
The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

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: 4th Qtr. 2013	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1



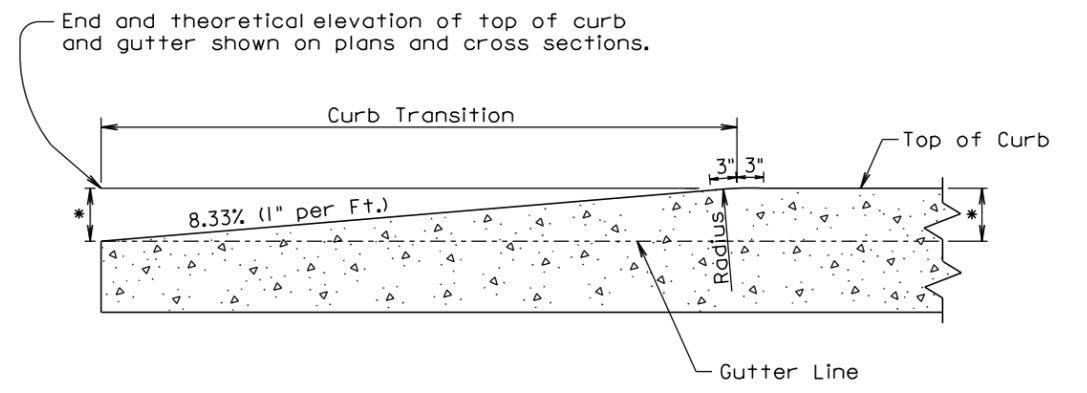
Type	T ₁ (Inches)	T ₂ (Inches)	Cu. Yd. Per Lin. Ft.	Lin. Ft. Per Cu. Yd.
B66	6	5 ¹ / ₁₆	0.057	17.7
B67	7	6 ¹ / ₁₆	0.065	15.4
B68	8	7 ¹ / ₁₆	0.073	13.7
B68.5	8.5	7 ⁹ / ₁₆	0.077	13.0
B69	9	8 ¹ / ₁₆	0.081	12.3
B69.5	9.5	8 ⁹ / ₁₆	0.085	11.7
B610	10	9 ¹ / ₁₆	0.090	11.2
B610.5	10.5	9 ⁹ / ₁₆	0.094	10.7
B611	11	10 ¹ / ₁₆	0.098	10.2
B611.5	11.5	10 ⁹ / ₁₆	0.102	9.8
B612	12	11 ¹ / ₁₆	0.106	9.4

GENERAL NOTES:

When concrete curb and gutter longitudinally adjoins new concrete pavement, the method of attachment shall be by one of the methods shown on Standard Plate 380.11.
See Standard Plate 650.90 for expansion and contraction joints in the curb and gutter.

September 6, 2008

Published Date: 4th Qtr. 2013	S D D O T	TYPE B CONCRETE CURB AND GUTTER	PLATE NUMBER 650.01
			Sheet 1 of 1

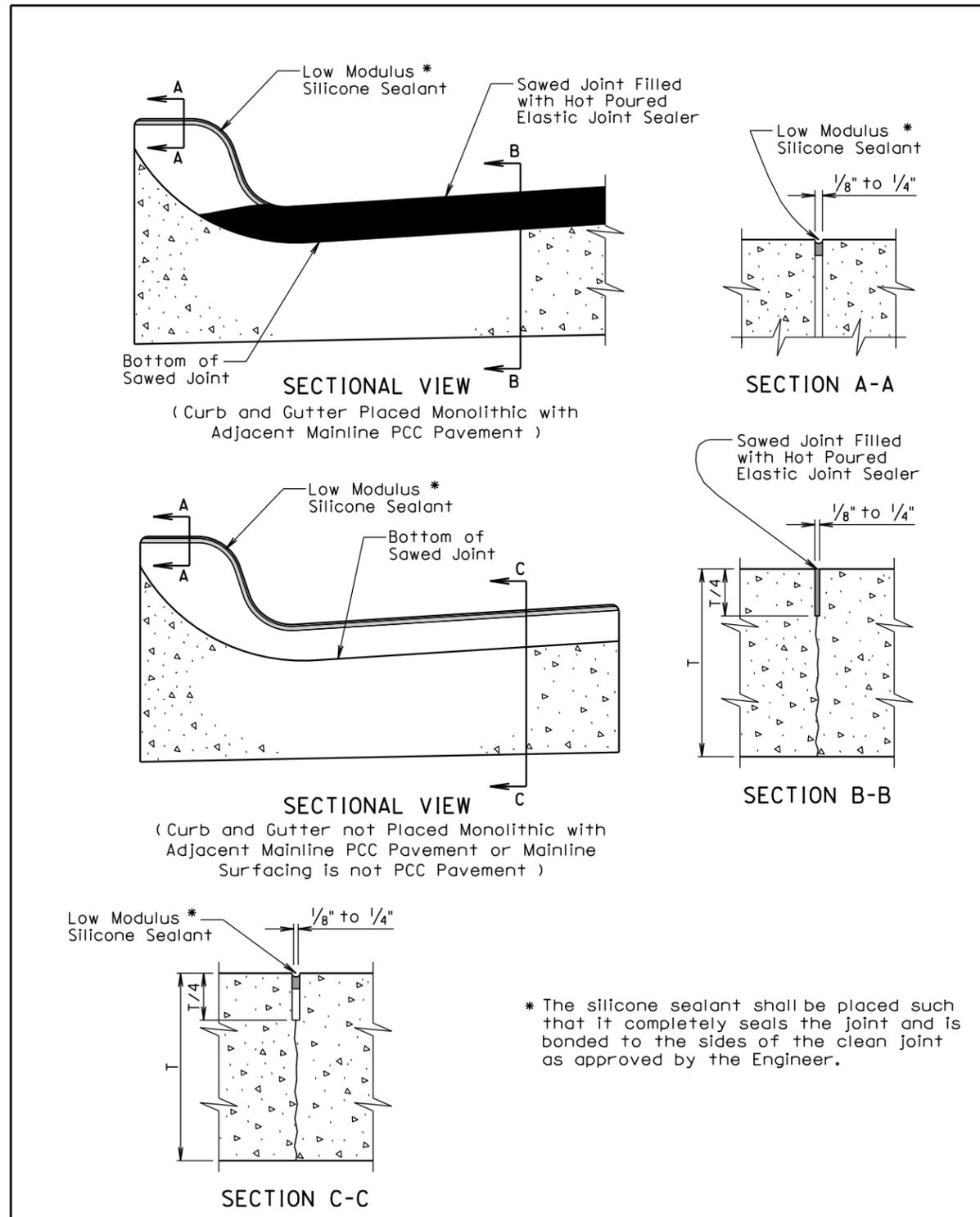


* Height of Curb

LONGITUDINAL SECTION OF CONCRETE CURB TAPER

September 14, 2005

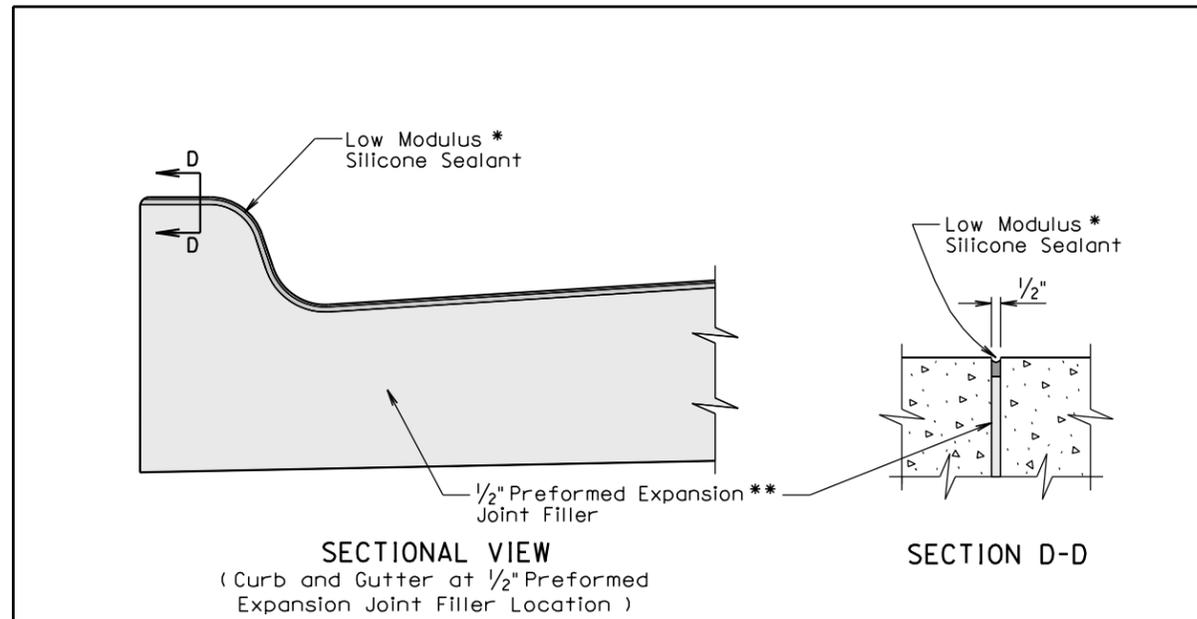
Published Date: 4th Qtr. 2013	S D D O T	CONCRETE CURB TAPER	PLATE NUMBER 650.35
			Sheet 1 of 1



* The silicone sealant shall be placed such that it completely seals the joint and is bonded to the sides of the clean joint as approved by the Engineer.

September 6, 2013

Published Date: 4th Qtr. 2013	S D D O T	JOINTS IN CONCRETE CURB AND GUTTER	PLATE NUMBER 650.90
			Sheet 1 of 2



* The silicone sealant shall be placed such that it completely seals the joint and is bonded to the sides of the clean joint as approved by the Engineer.

GENERAL NOTES:

For illustrative reason, only the type B curb and gutter is shown.

** A 1/2" preformed expansion joint filler shall be placed transversely in the curb and gutter at the following locations:

1. At each junction between the radius return of curb and gutter and curb and gutter which is parallel to the project centerline.
2. At each junction between new curb and gutter and existing curb and gutter.

Transverse contraction joints shall be constructed at 10' intervals in the concrete curb and gutter except when the concrete curb and gutter is constructed adjacent to mainline PCC pavement. When concrete curb and gutter is constructed adjacent to mainline PCC pavement, a transverse contraction joint shall be constructed in the concrete curb and gutter at each mainline PCC pavement transverse contraction joint location.

When concrete curb and gutter is not placed monolithically with the mainline PCC pavement or when the adjacent mainline surfacing is not PCC concrete, the transverse contraction joints in the concrete curb and gutter shall be 1/2 inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint shall be at least 1/4 the thickness of the concrete and the joint shall be sealed in accordance with the details shown above.

September 6, 2013

Published Date: 4th Qtr. 2013	S D D O T	JOINTS IN CONCRETE CURB AND GUTTER	PLATE NUMBER 650.90
			Sheet 2 of 2

GENERAL NOTES:

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

For illustrative purpose only, a PCC fillet section is shown in one of the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section, with curved curb and gutter, or with straight curb and gutter.

The curb ramp shall be placed at the location stated in the plans.

Sidewalk adjacent to the curb ramp shall be as shown in the plans.

Care shall be taken to ensure a uniform grade on the ramp, free of sags and short grade changes.

Surface texture of the ramp shall be obtained by coarse brooming transverse to the slope of the ramp.

The normal gutter line profile shall be maintained through the area of the ramp.

Joints shall be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking (see plan view for joint location).

Care shall be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings shall be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings shall be incidental to the corresponding detectable warning bid item.

When curb height is greater than 6" and less than 12", reinforcing steel is required in accordance with the detail on sheet 2 of 3. The reinforcing steel shall conform to ASTM A615, Grade 60. Cost for furnishing and installing the reinforcing steel shall be incidental to the contract unit price per square foot for the corresponding concrete sidewalk bid item.

There will be no separate payment for curb ramps. The curb ramp shall be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk bid item. The square foot area of the detectable warnings and the curb along the short radius shall be included in the measured and paid for quantity of sidewalk.

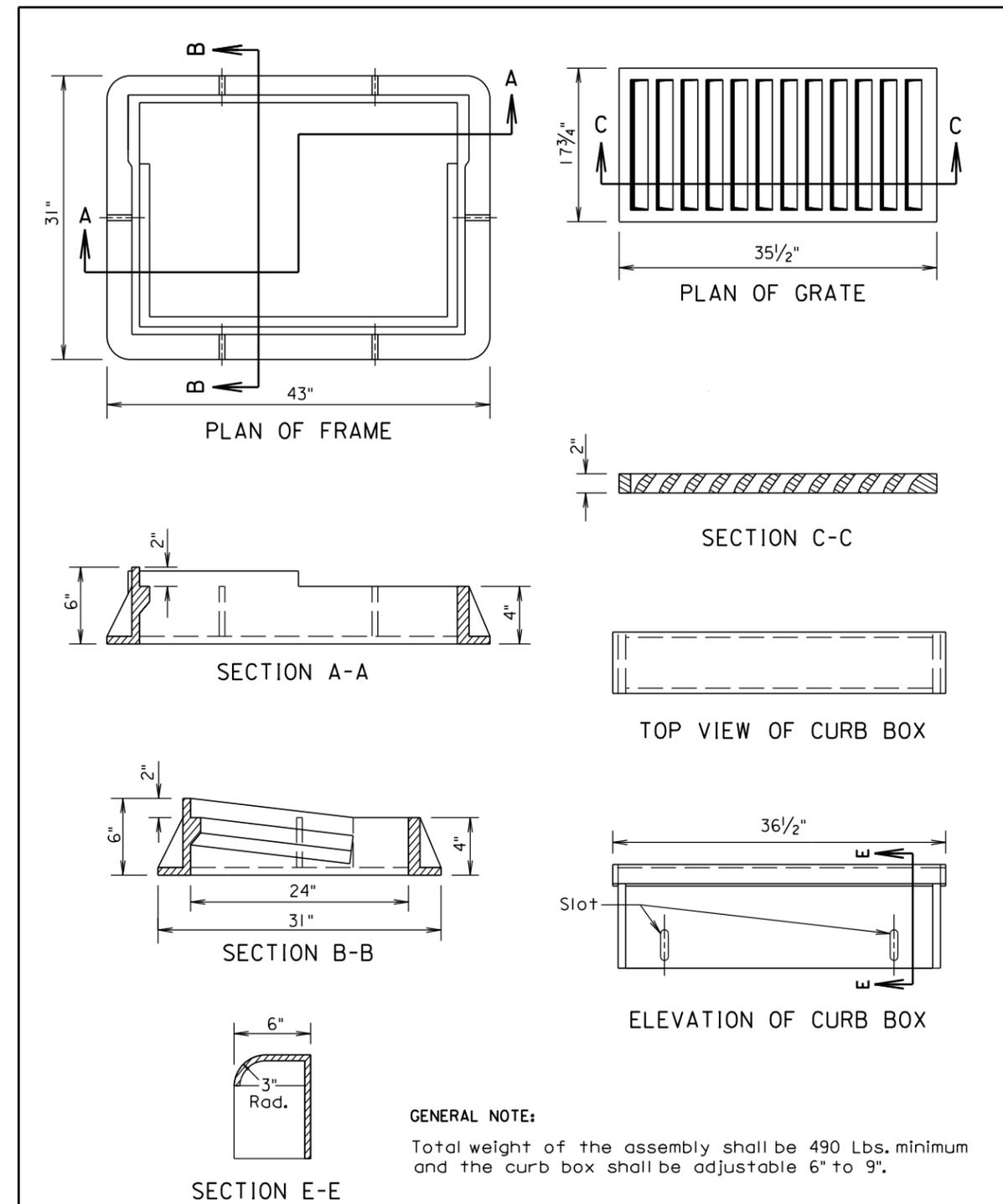
The curb transitions and ramp opening shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used. The curb transitions and ramp opening shall be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section bid item when a PCC fillet section is used.

The type 1 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals shall be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

The type 2 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding shall be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

September 6, 2013

S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
		Sheet 3 of 3
Published Date: 4th Qtr. 2013		



GENERAL NOTE:

Total weight of the assembly shall be 490 Lbs. minimum and the curb box shall be adjustable 6" to 9".

March 31, 2000

S D D O T	TYPE B FRAME AND GRATE ASSEMBLY	PLATE NUMBER 670.80
		Sheet 1 of 1
Published Date: 4th Qtr. 2013		

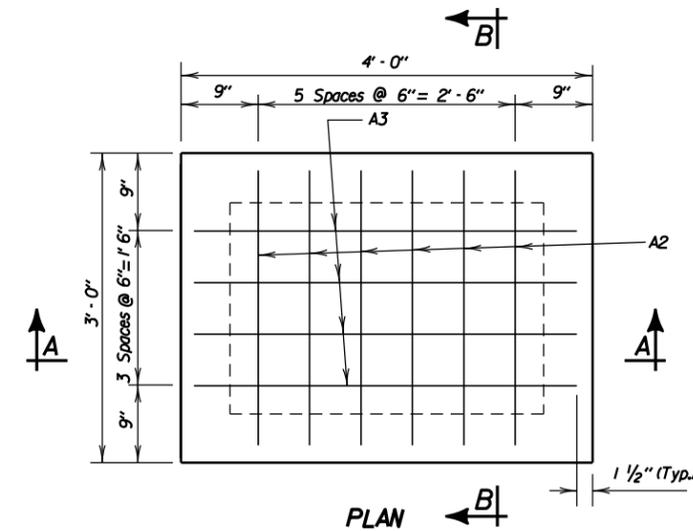
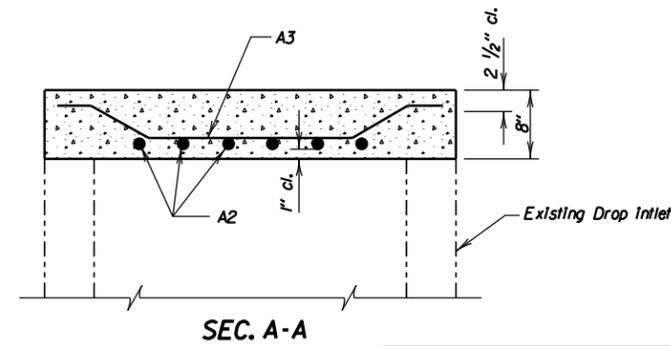
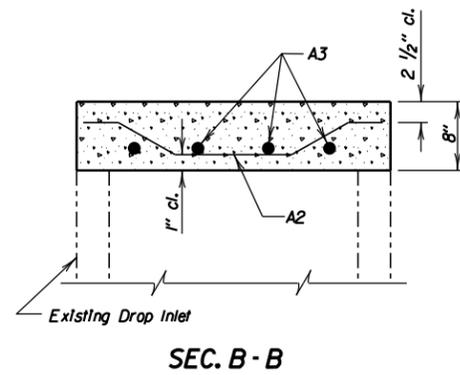
SPECIFICATIONS

1. Design Specifications: AASHTO Specifications for Highway Bridges, 1996 Edition (Service Load).
2. Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, Current Edition and required Provisions, Supplemental Specifications and/or Special Provisions as Included in the Proposal.

GENERAL NOTES

1. Concrete shall be Class M6 in conformance with Section 462.
2. Reinforcing Steel shall conform to ASTM A615 Grade 60.
3. Use 1 1/2" clear cover on all reinforcing steel except as shown.
4. All exposed edges shall be chamfered 3/4".
5. For information only, the estimated quantities for 1 drop inlet cover are:
a) Class M6 Concrete - 0.3 cu.yds.
b) Reinforcing Steel - 35 lbs.
6. Contractor shall break out drop inlet walls as necessary for the drop inlet cover to fit below roadway surfacing.
7. Apply a thin layer of grout between drop inlet and cover to ensure uniform bearing. Grout shall conform to Section 460.3 (R).

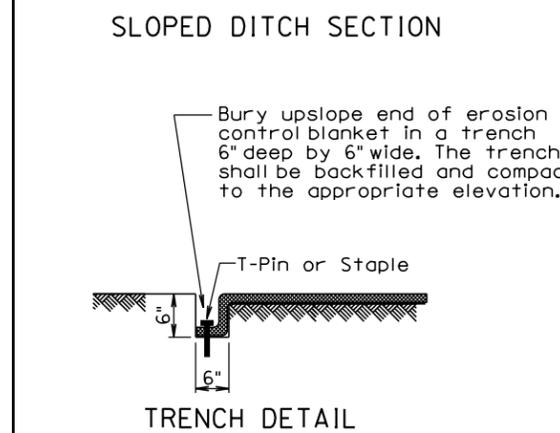
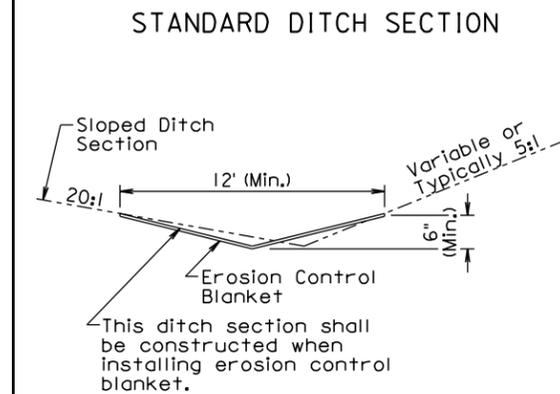
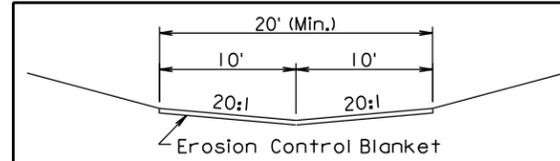
All costs involved in furnishing and installing the drop inlet cover shall be incidental to the contract unit price per each for "3' x 4' Drop Inlet Cover".



REINFORCING SCHEDULE					
MK.	No.	Size	Length	Type	Bending Details
A2	6	5	2'-11"	14A	
A3	4	5	3'-11"	14A	

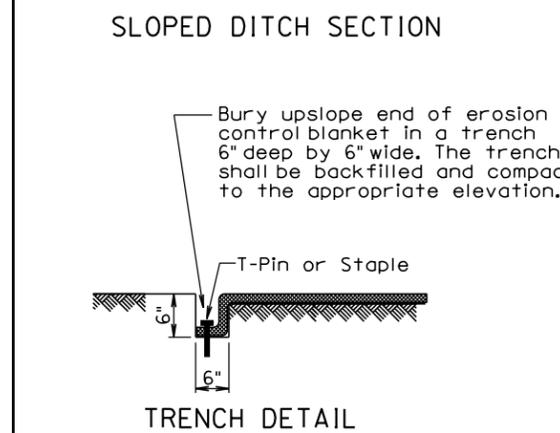
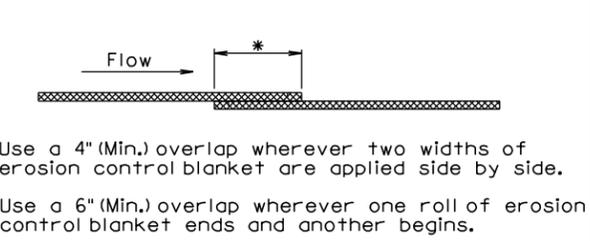
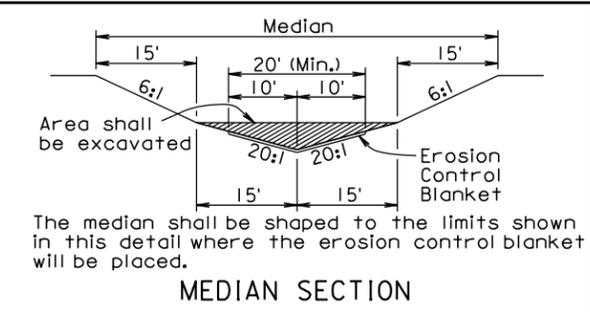
March 31, 2000

Published Date: 4th Qtr. 2013	S D D O T	3' X 4' DROP INLET COVER	PLATE NUMBER 670.90
			Sheet 1 of 1



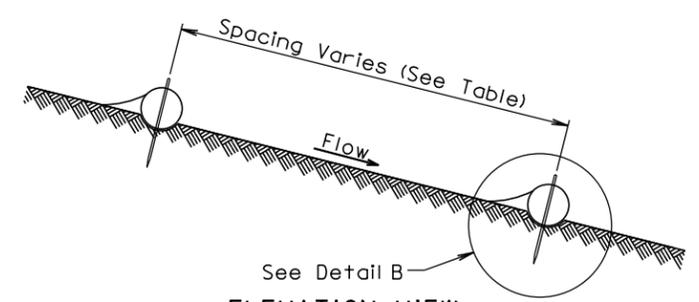
GENERAL NOTES:

- Prior to placement of the erosion control blanket, the areas shall be properly prepared, shaped, seeded, and fertilized.
- Erosion control blanket shall be unrolled in the direction of the flow of water when placed in ditches and on slopes. The upslope end of the erosion control blanket shall be buried in a trench 6" wide by 6" deep. There shall be at least a 6" overlap wherever one roll of erosion control blanket ends and another begins, with the upslope erosion control blanket placed on top of the downslope erosion control blanket.
- The erosion control blanket shall be pinned to the ground according to the manufacturer's installation recommendations.
- After the placement of the erosion control blanket, the Contractor shall fine grade along all edges of the blanket to maintain a uniform slope adjacent to the blanket and level any low spots which might prevent uniform and unrestricted flow of side drainage directly onto the erosion control blanket.
- All ditch sections shall be shaped when installing the erosion control blanket. All costs for shaping the ditches shall be incidental to the contract unit price per foot for "Shaping for Erosion Control Blanket".



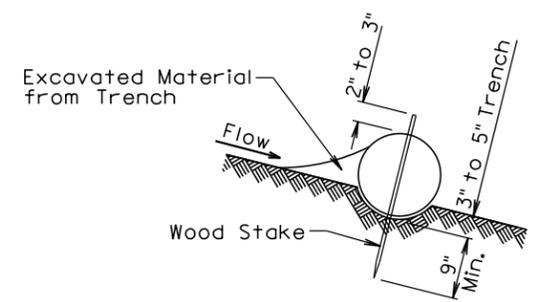
December 23, 2004

Published Date: 4th Qtr. 2013	S D D O T	EROSION CONTROL BLANKET	PLATE NUMBER 734.01
			Sheet 1 of 1

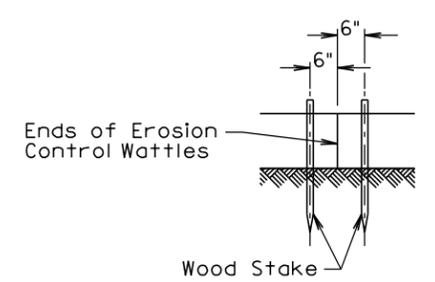


Slope	Spacing (Ft)
1:1	10
2:1	20
3:1	30
4:1	40

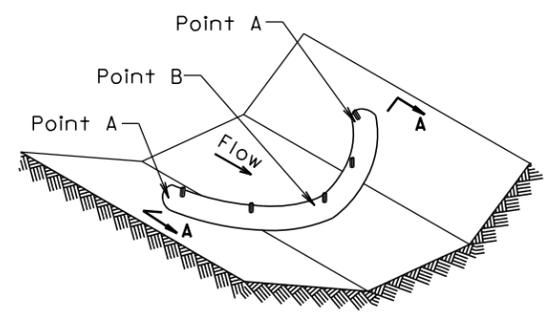
ELEVATION VIEW
CUT OR FILL SLOPE INSTALLATION



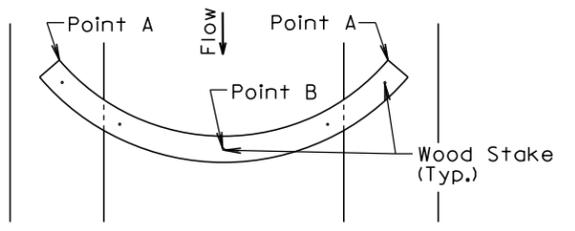
DETAIL B
(TYPICAL OF ALL INSTALLATIONS)



DETAIL C

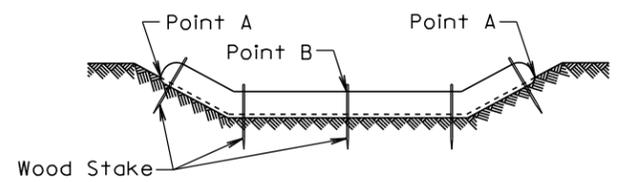


ISOMETRIC VIEW
DITCH INSTALLATION



PLAN VIEW
DITCH INSTALLATION

Grade	Spacing (Ft)
2%	150
3%	100
4%	75
5%	50



SECTION A-A

December 23, 2004

Published Date: 4th Qtr. 2013	S D D O T	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 1 of 2

GENERAL NOTES:

At cut or fill slope installations, wattles shall be installed along the contour and perpendicular to the water flow.

At ditch installations, point A must be higher than point B to ensure that water flows over the wattle and not around the ends.

The Contractor shall dig a 3" to 5" trench, install the wattle tightly in the trench so that daylight can not be seen under the wattle, and then compact the soil excavated from the trench against the wattle on the uphill side. See Detail B.

The stakes shall be 1"x2" or 2"x2" wood stakes, however, other types of stakes such as rebar may be used only if approved by the Engineer. The stakes shall be placed 6" from the ends of the wattles and the spacing of the stakes along the wattles shall be 3' to 4'.

Where installing running lengths of wattles, the Contractor shall butt the second wattle tightly against the first and shall not overlap the ends. See Detail C.

The Contractor and Engineer shall inspect the erosion control wattles once every week and within 24 hours after every rainfall event greater than 1/2". The Contractor shall remove, dispose, or reshape the accumulated sediment when necessary as determined by the Engineer.

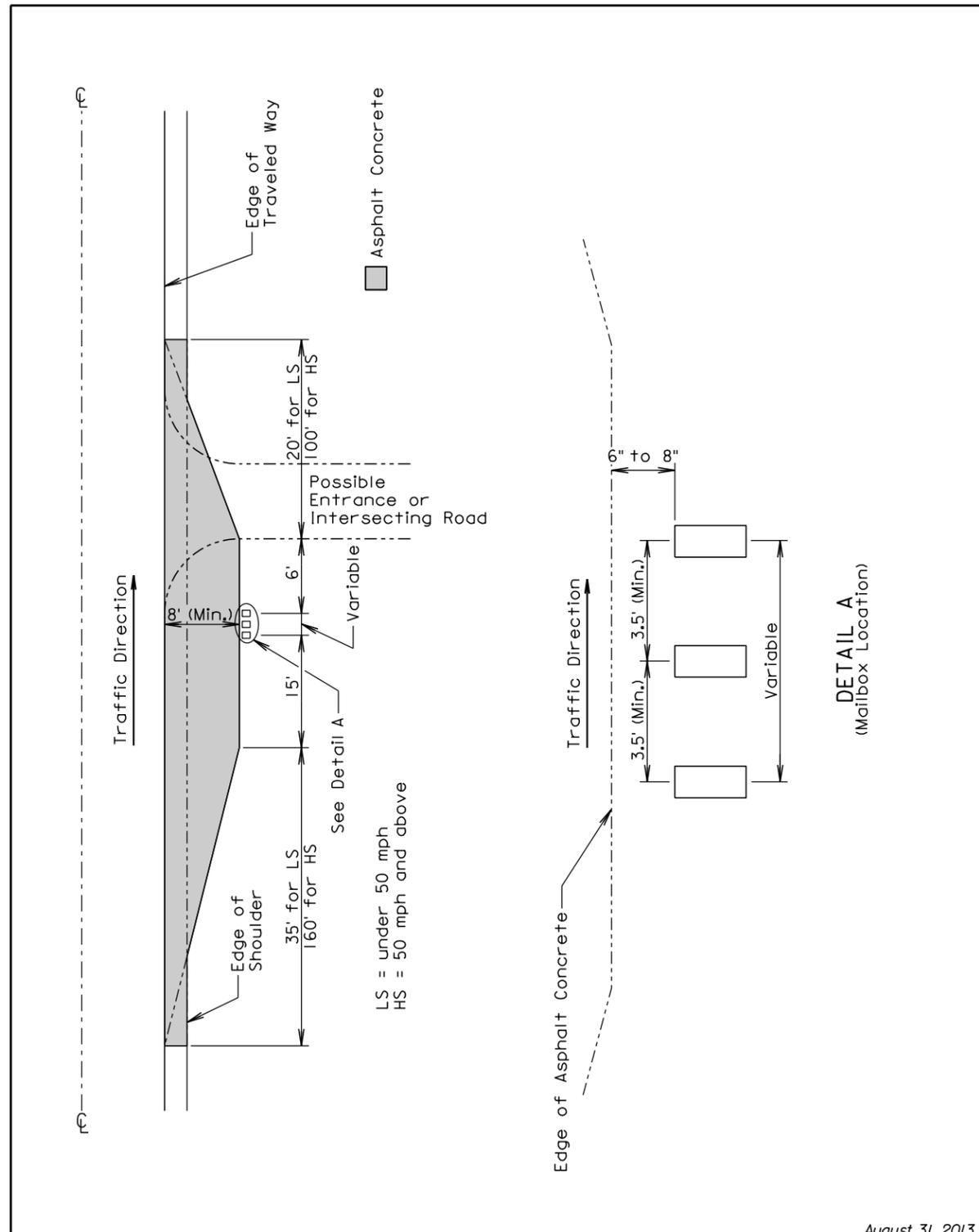
Sediment removal, disposal, or necessary shaping shall be as directed by the Engineer. All costs for removing accumulated sediment, disposal of sediment, and necessary shaping shall be incidental to the contract unit price per cubic yard for "Remove Sediment".

All costs for furnishing and installing the erosion control wattles including labor, equipment, and materials shall be incidental to the contract unit price per foot for the corresponding erosion control wattle bid item.

All costs for removing the erosion control wattle from the project including labor, equipment, and materials shall be incidental to the contract unit price per foot for "Remove Erosion Control Wattle".

December 23, 2004

Published Date: 4th Qtr. 2013	S D D O T	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 2 of 2

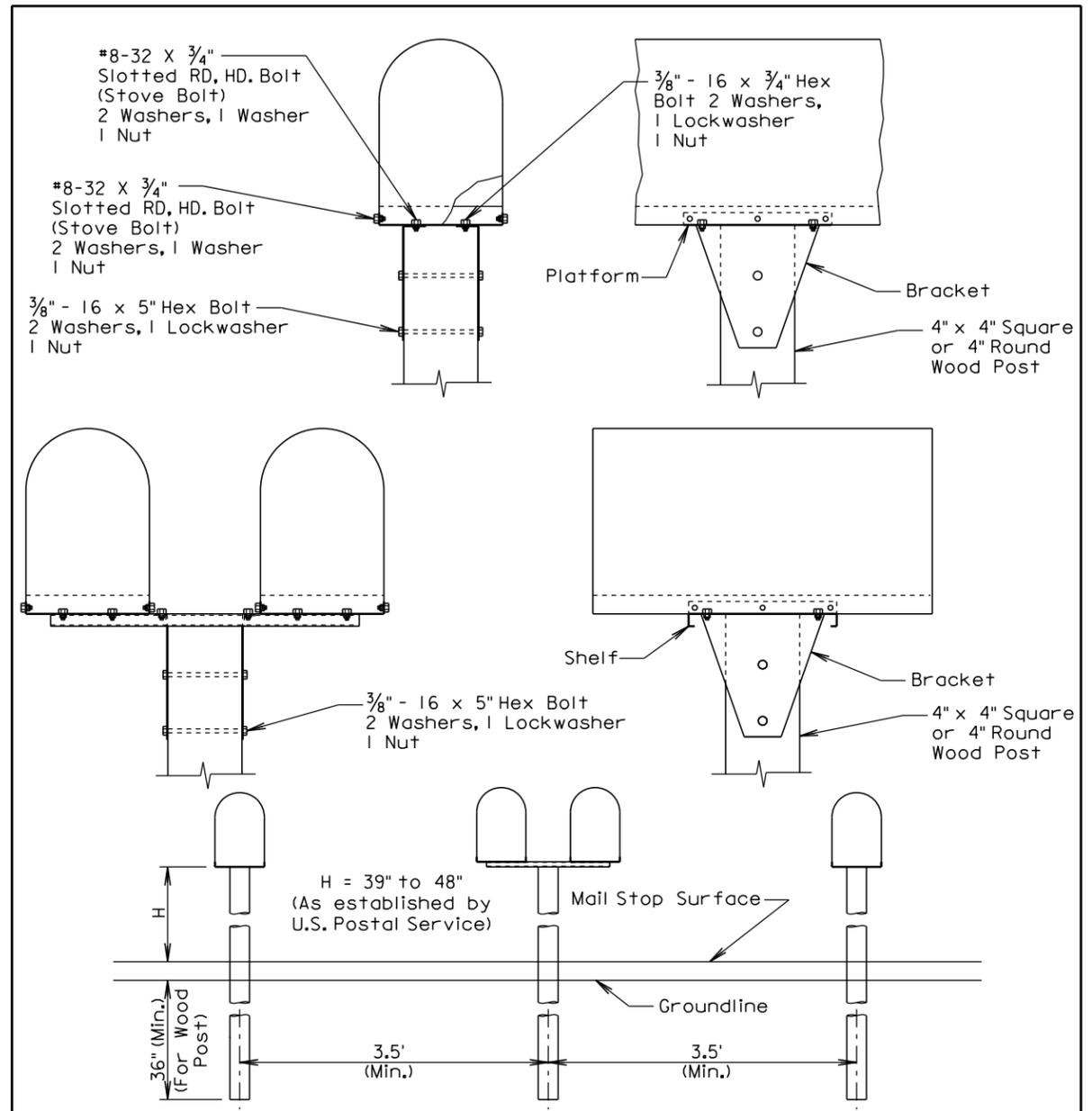


LS = under 50 mph
HS = 50 mph and above

DETAIL A
(Mailbox Location)

August 31, 2013

Published Date: 4th Qtr. 2013	S D D O T	MAILBOX TURNOUT	PLATE NUMBER 900.01
			Sheet 1 of 1



GENERAL NOTES: SPACING FOR MULTIPLE POST INSTALLATION

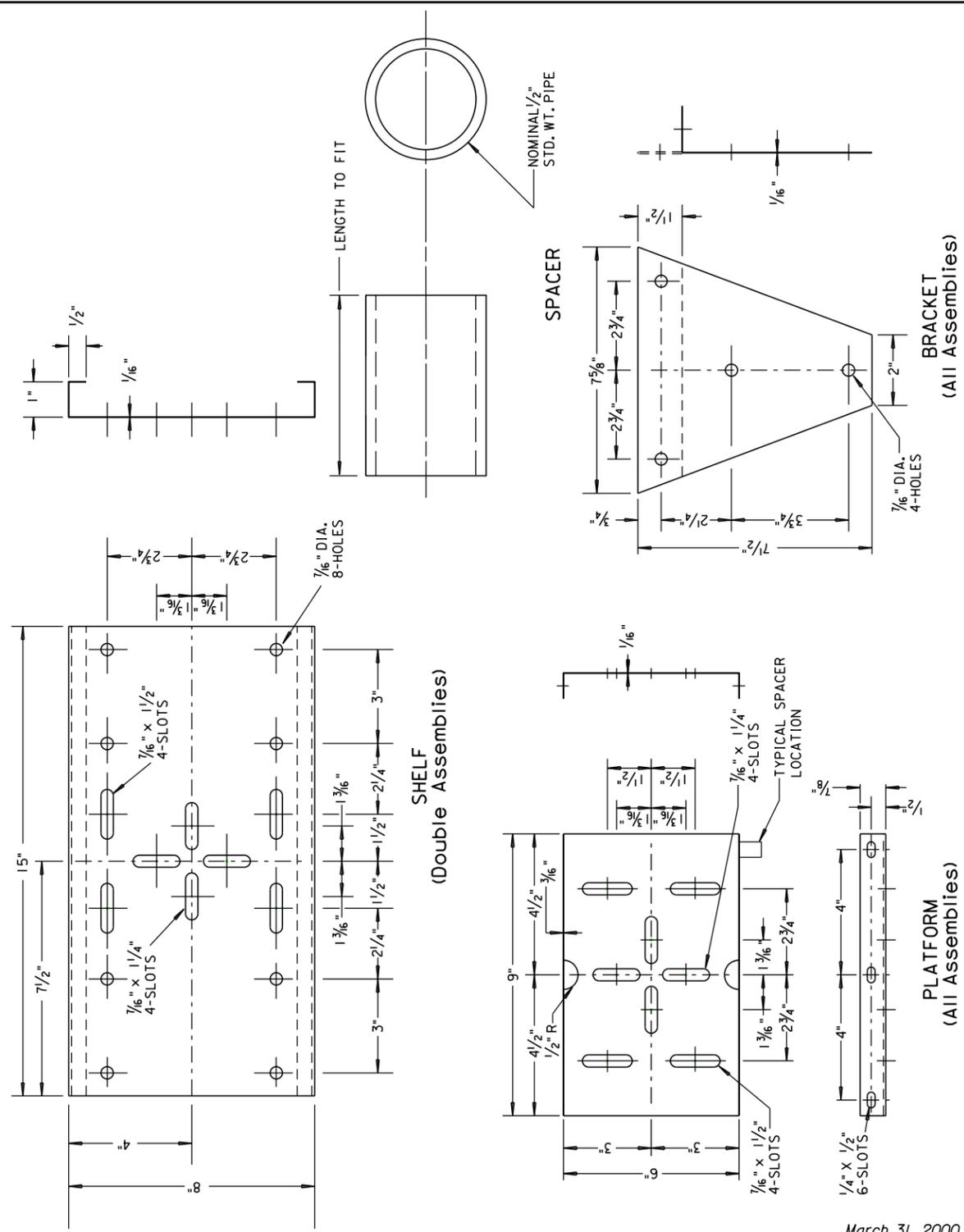
The post support assemblies provided should be consistent throughout the project. Single and double mailboxes may be in any sequence.

Post support assemblies shall be one from the approved products list, a 4"x4" or 4" round wood post, or an alternate post support assembly that meets the test level 3 crash testing requirements of NCHRP 350 or MASH.

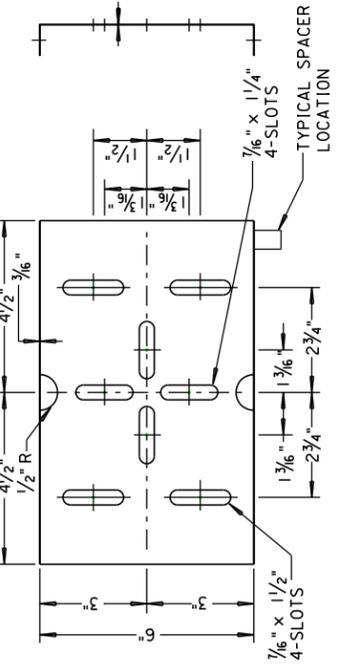
Alternate mailbox support assemblies shall be approved by the Engineer prior to installation. The Contractor shall provide the Engineer written certification that the mailbox support assembly has met the crash testing requirements and will be installed in accordance with the manufacturer's installation instructions.

September 6, 2013

Published Date: 4th Qtr. 2013	S D D O T	SINGLE AND DOUBLE MAILBOX ASSEMBLIES	PLATE NUMBER 900.02
			Sheet 1 of 1



SHELF
(Double Assemblies)



PLATFORM
(All Assemblies)

BRACKET
(All Assemblies)

March 31, 2000

Published Date: 4th Qtr. 2013

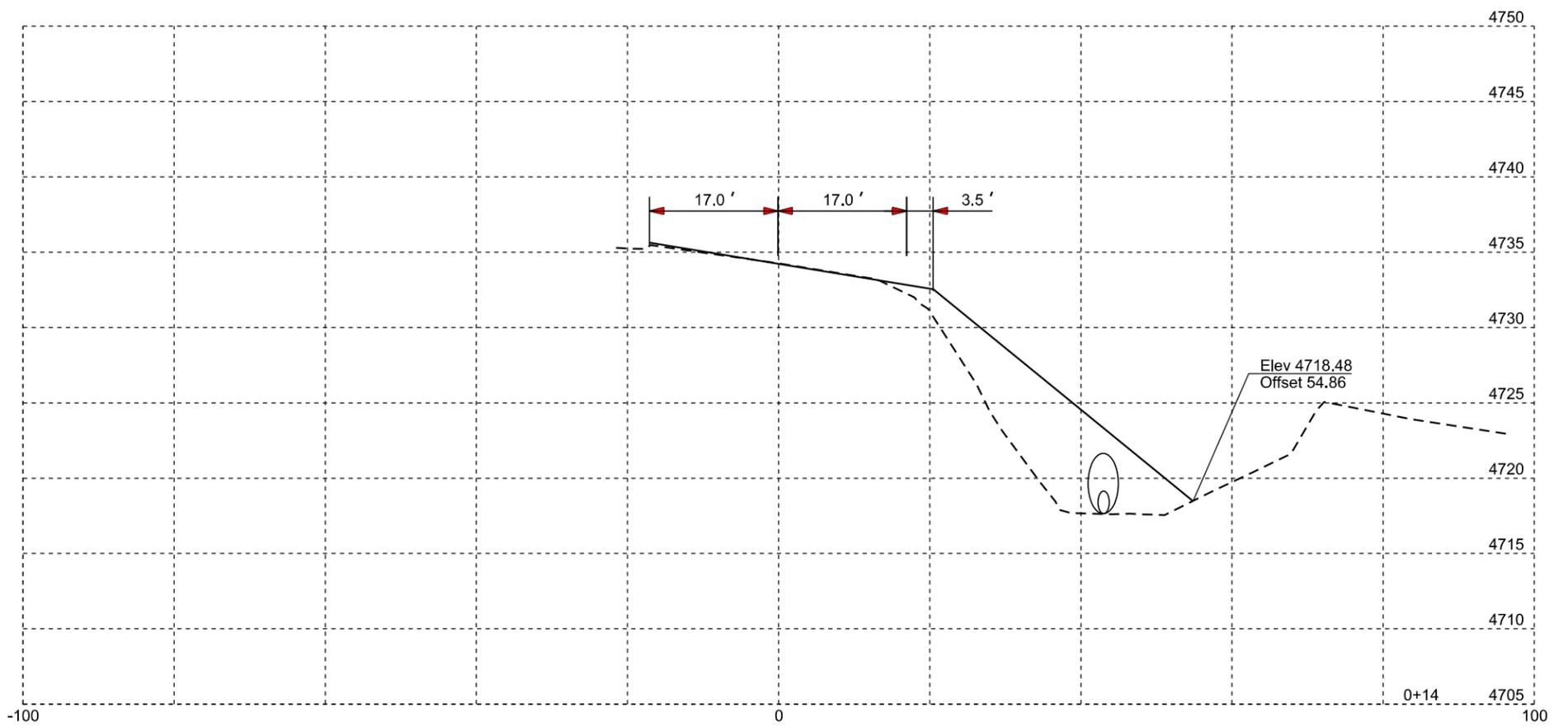
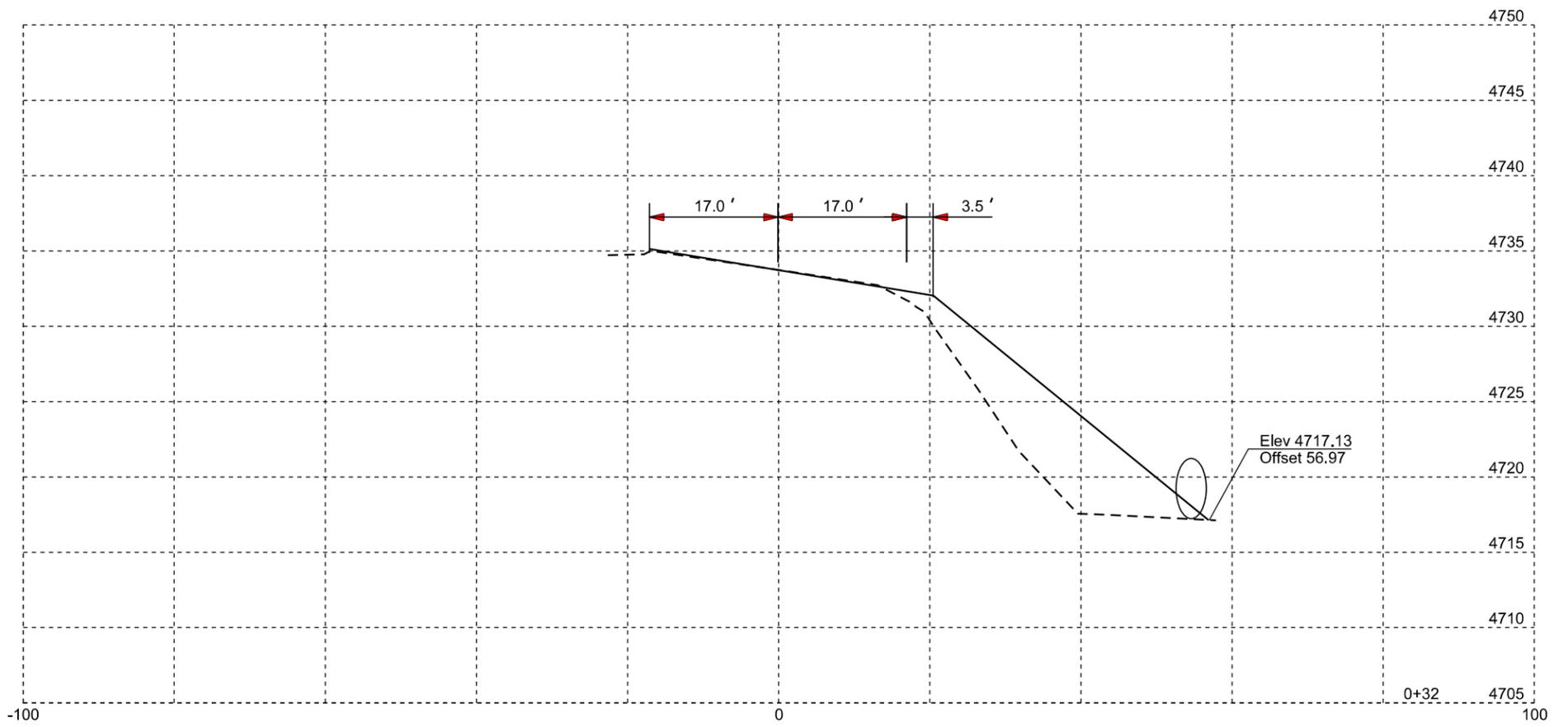
SDDOT

MAILBOX SUPPORT HARDWARE

PLATE NUMBER
900.03

Sheet 1 of 1

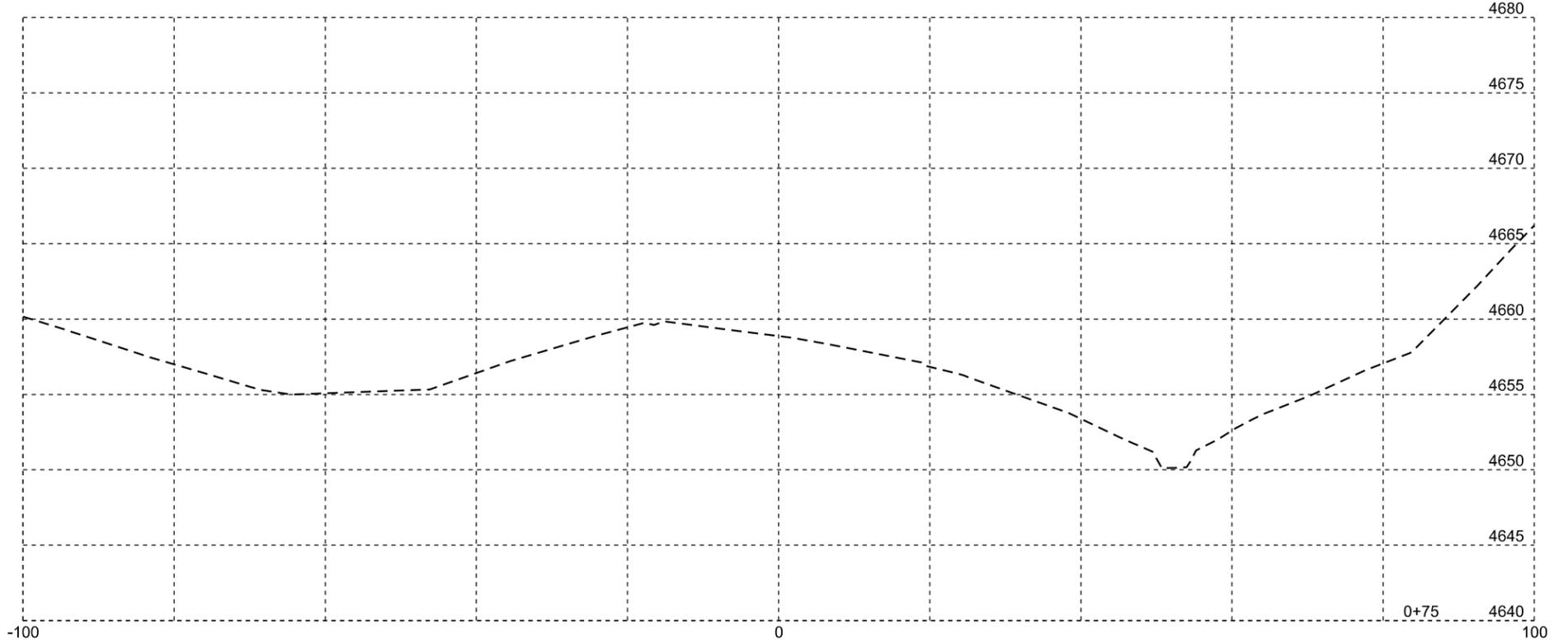
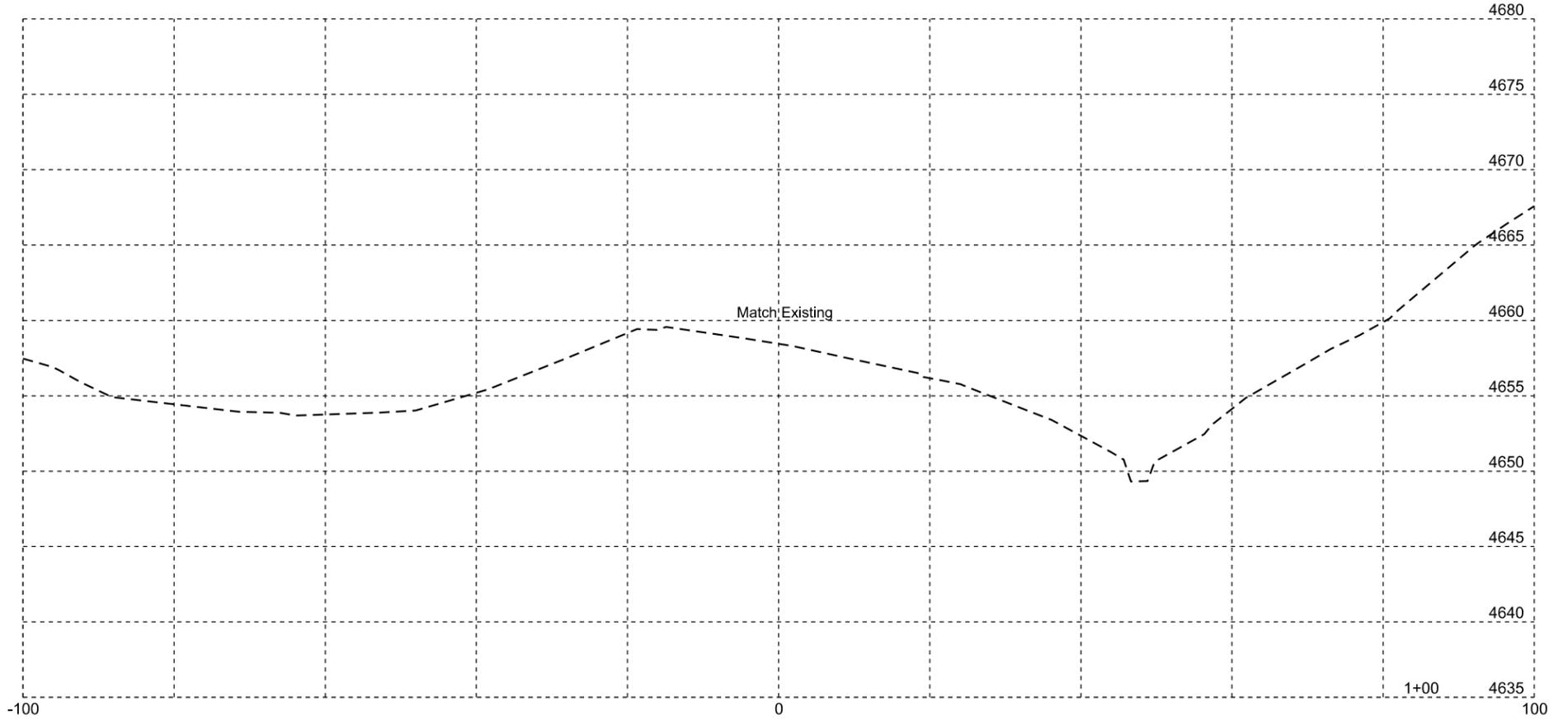
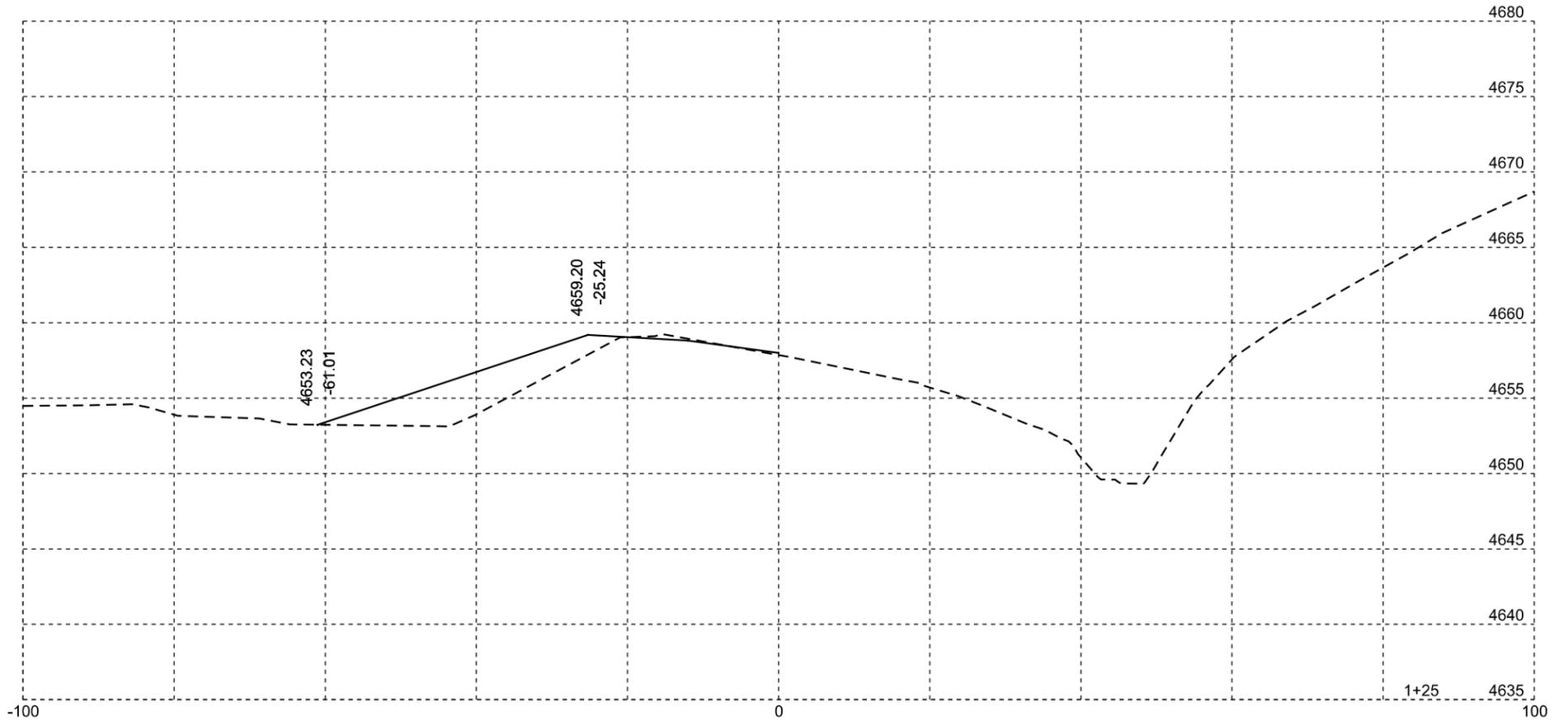
MRM 27.7



Plotting Date: 12/02/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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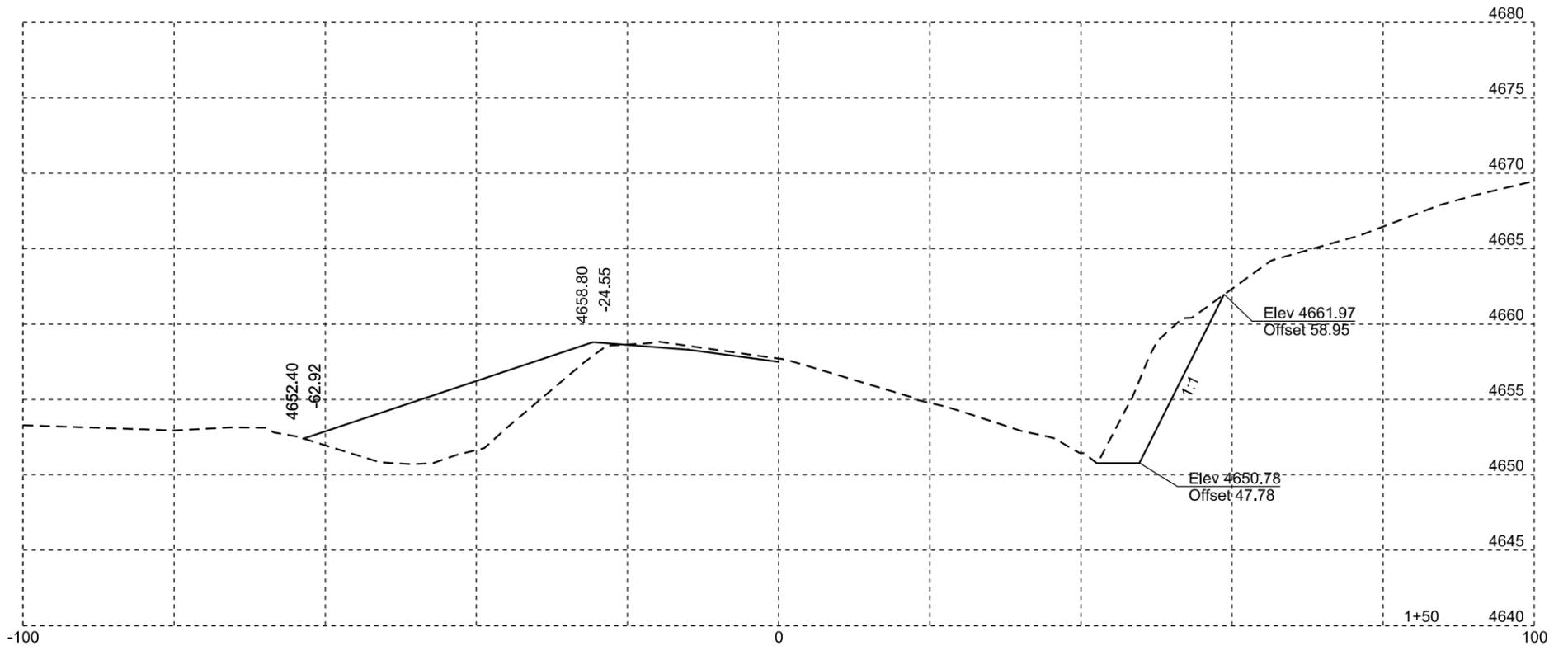
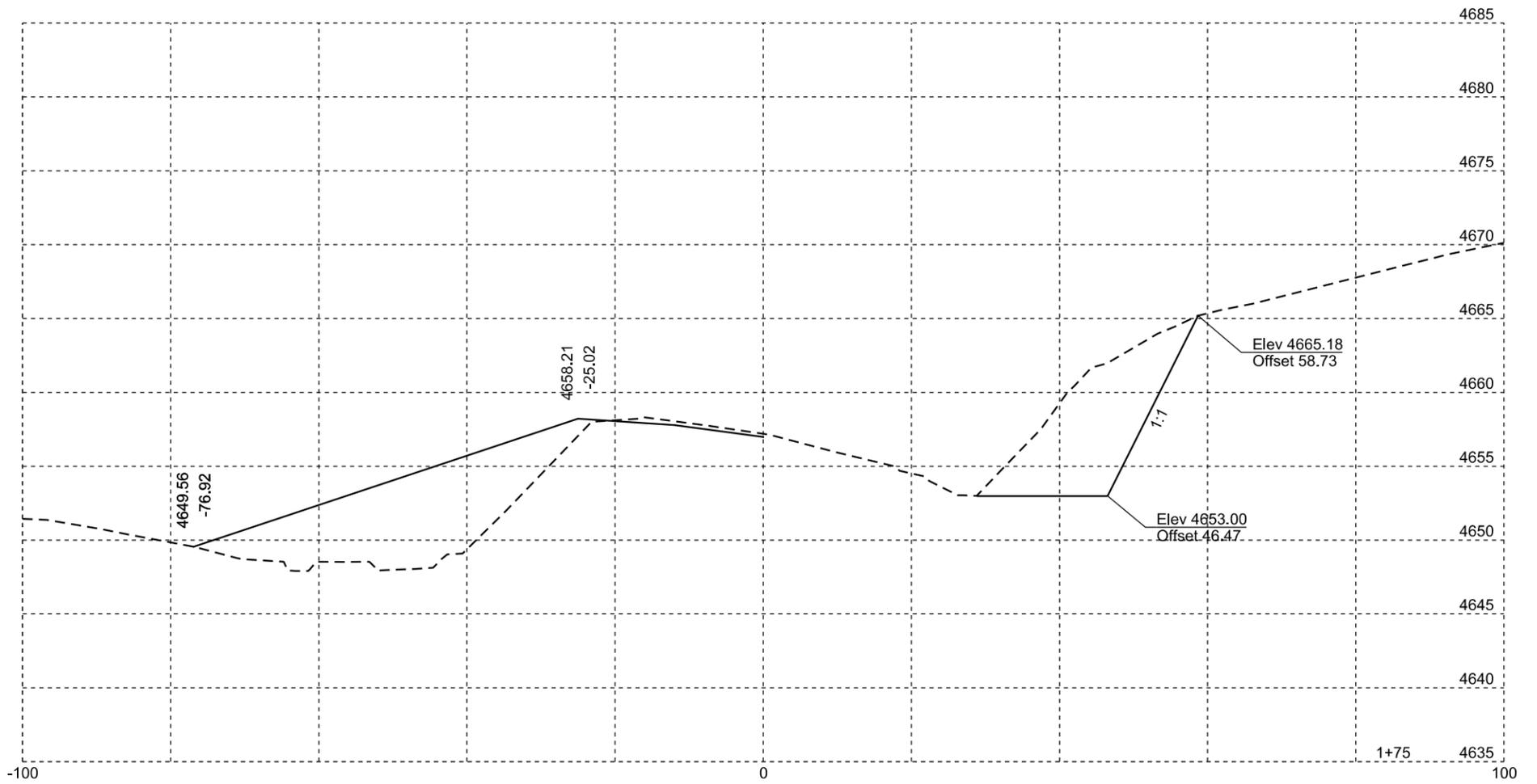
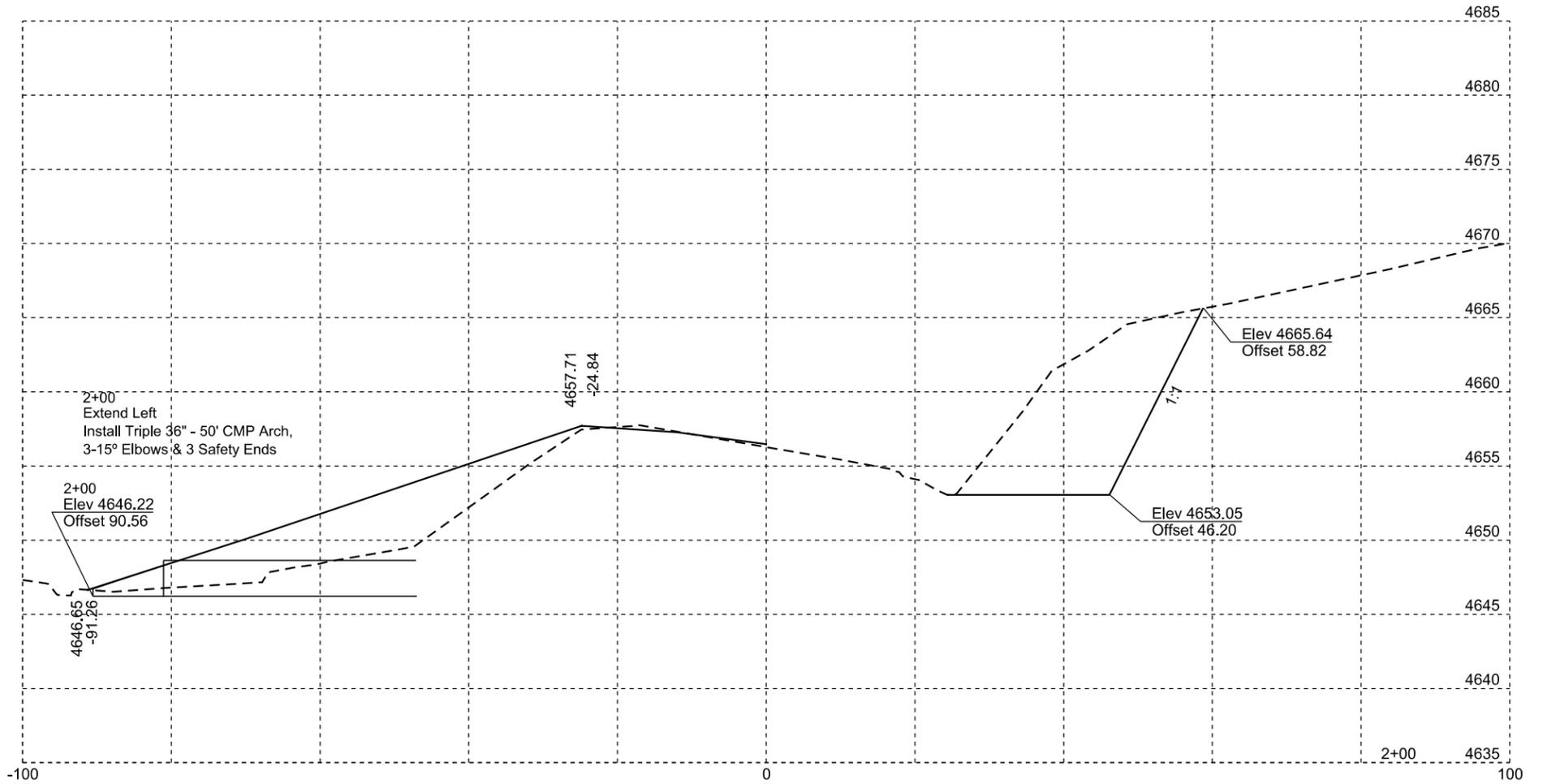
MRM 28.3



Plotting Date: 11/04/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	108	120

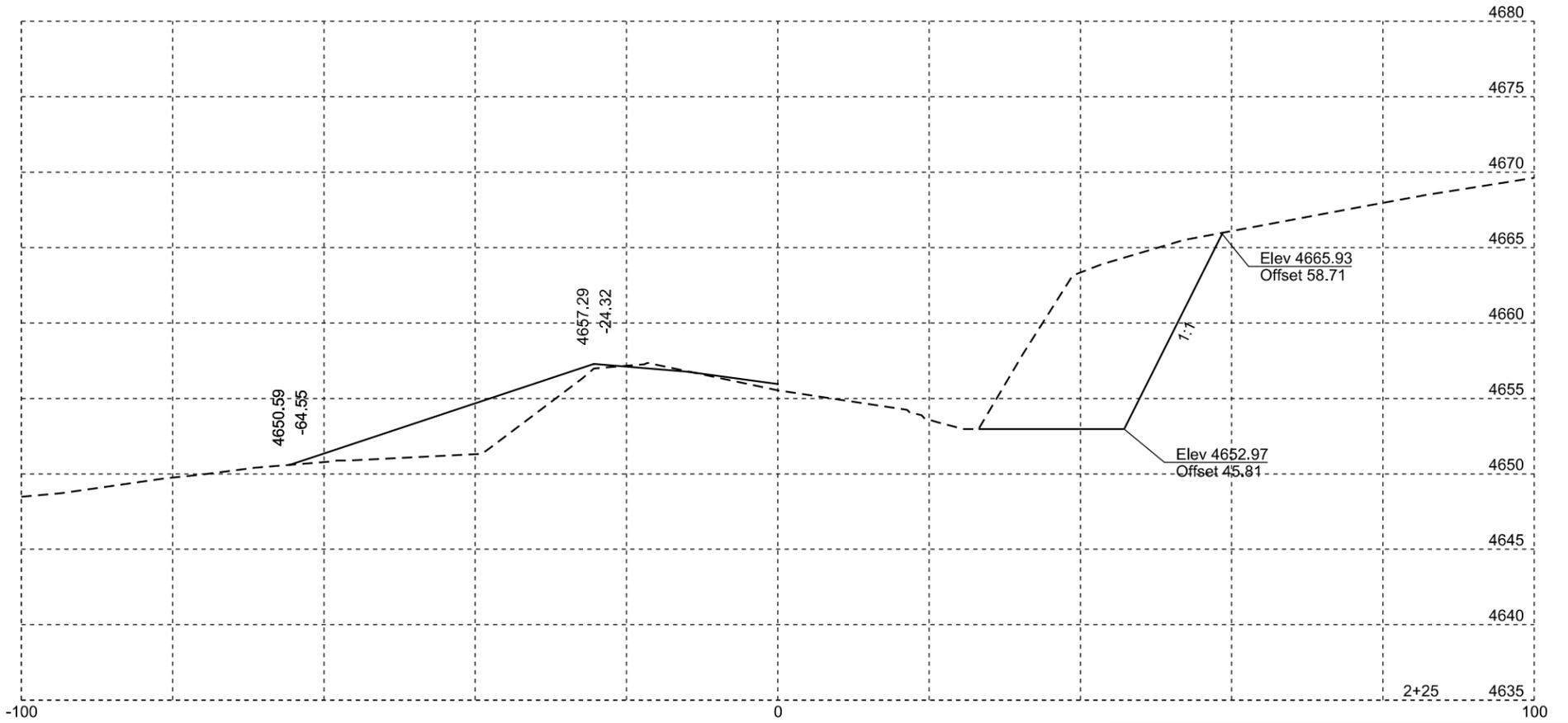
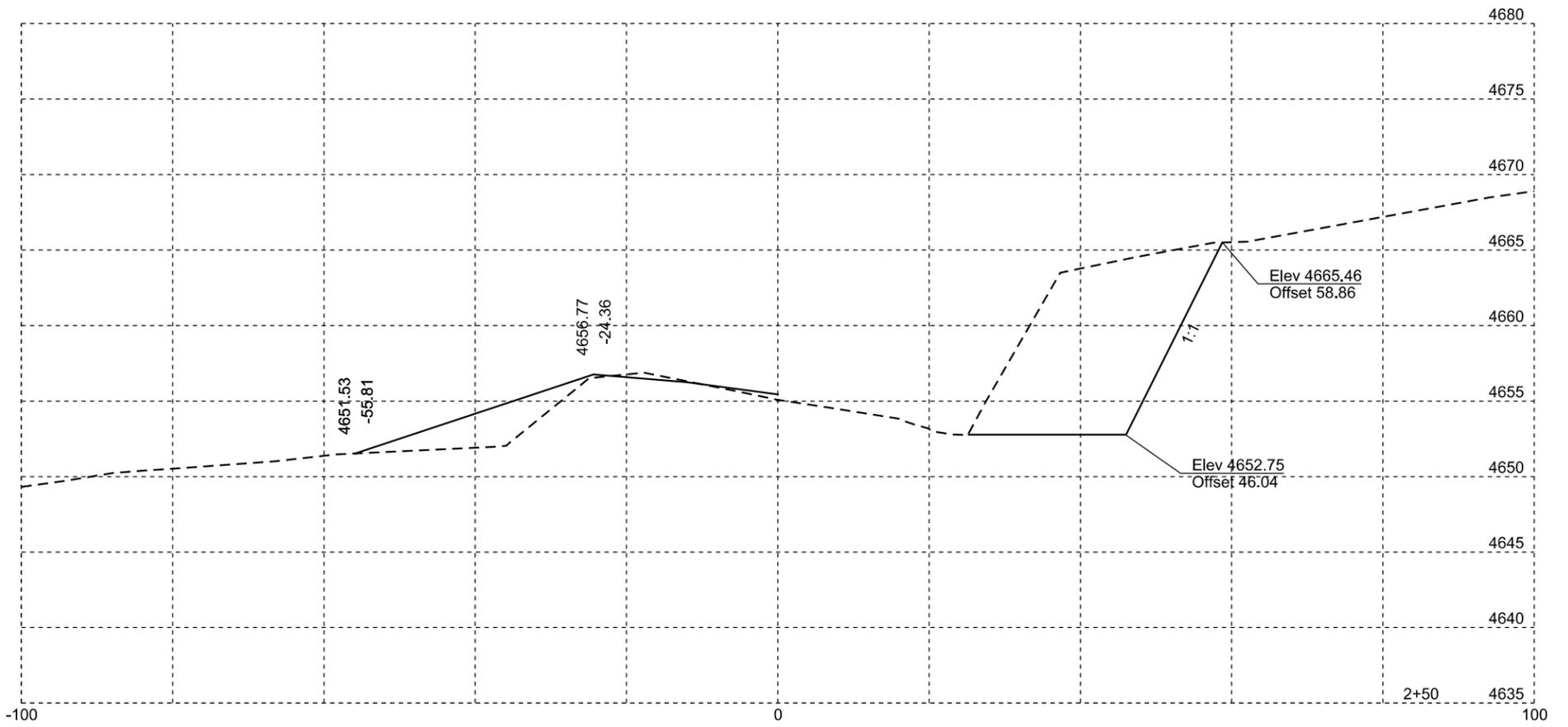
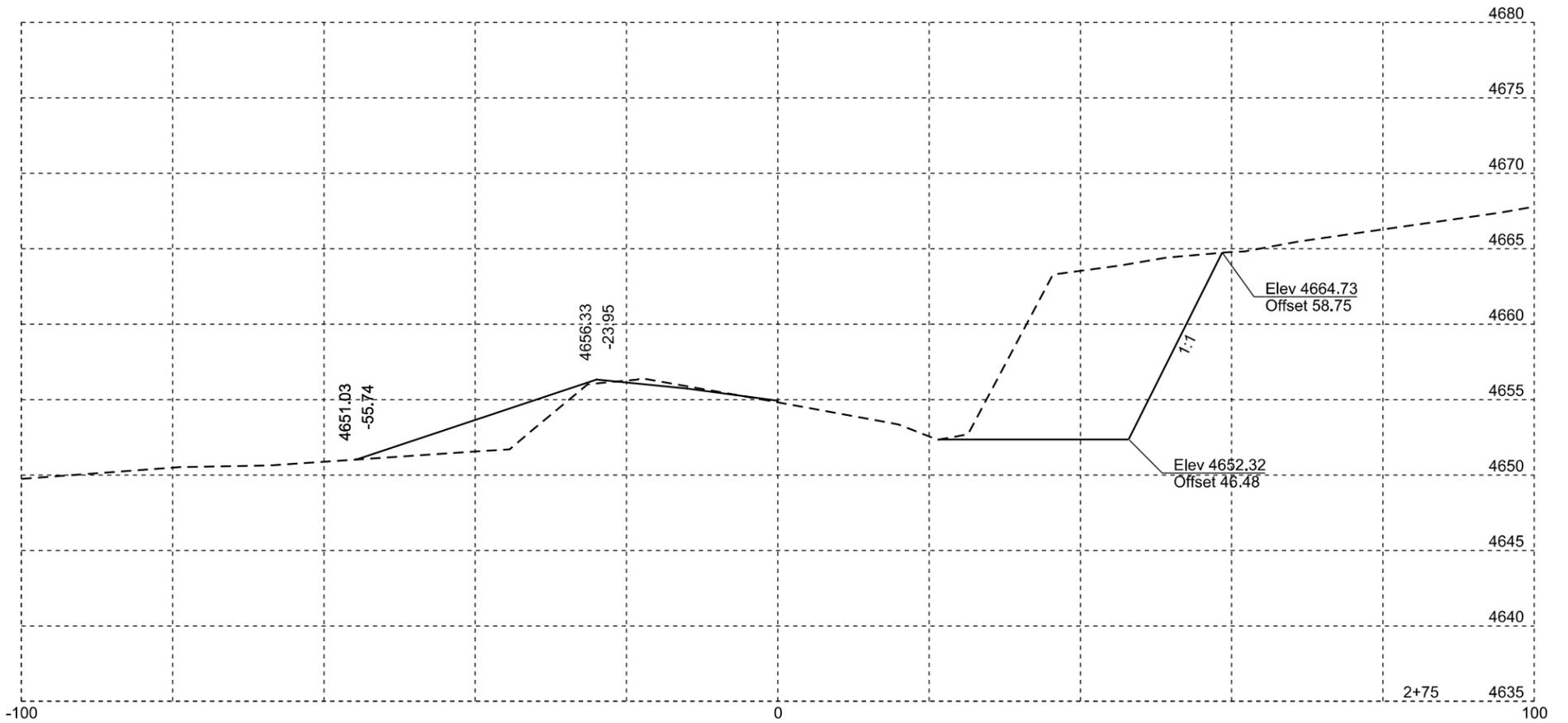
MRM 28.3



Plotting Date: 11/04/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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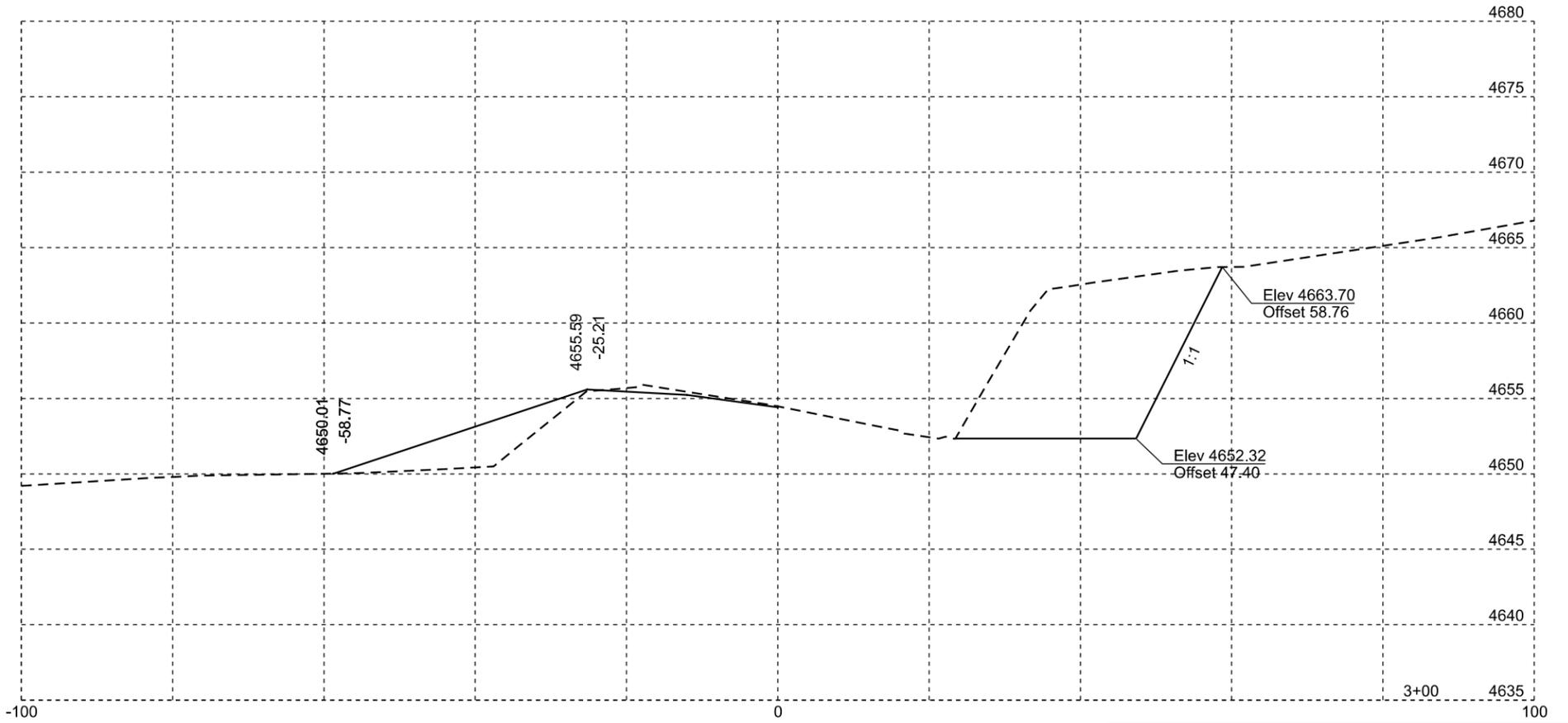
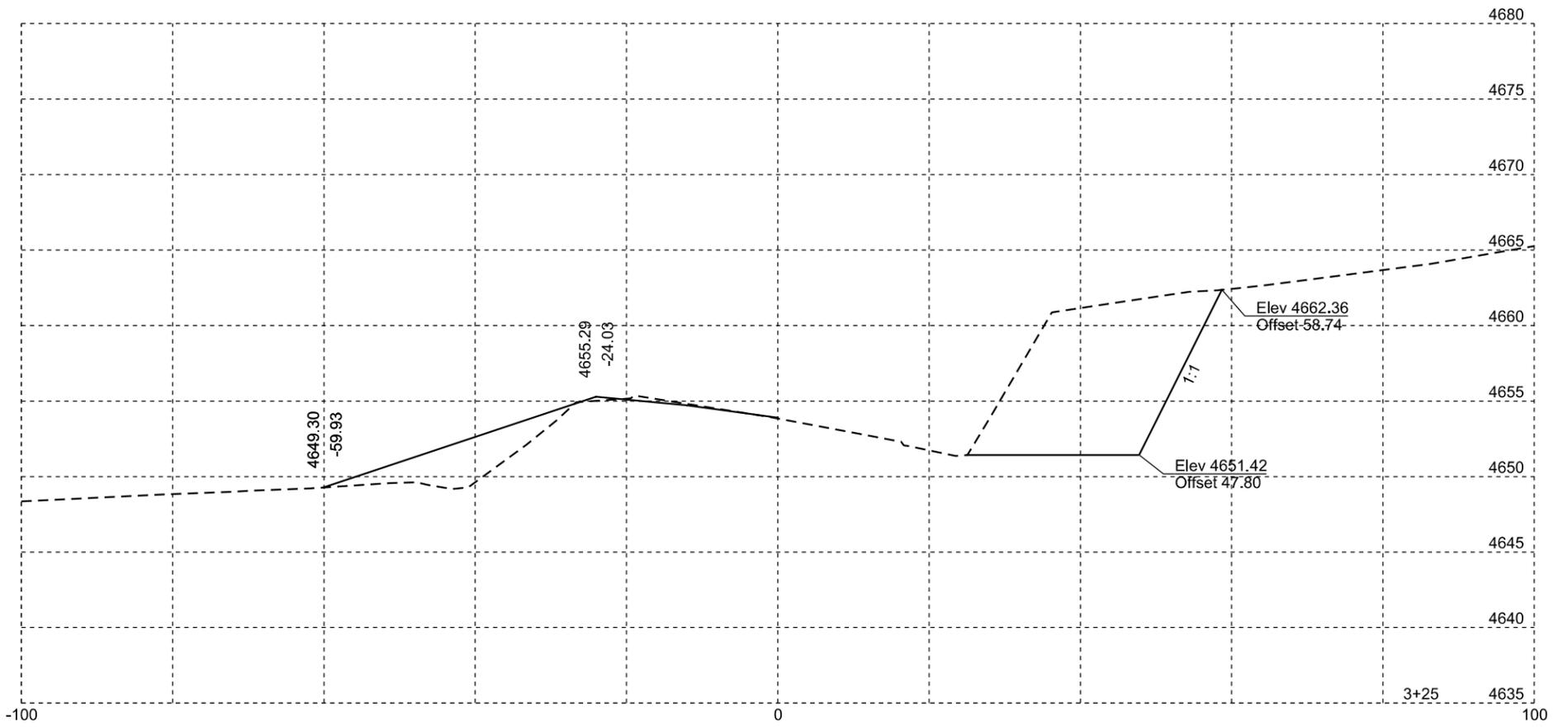
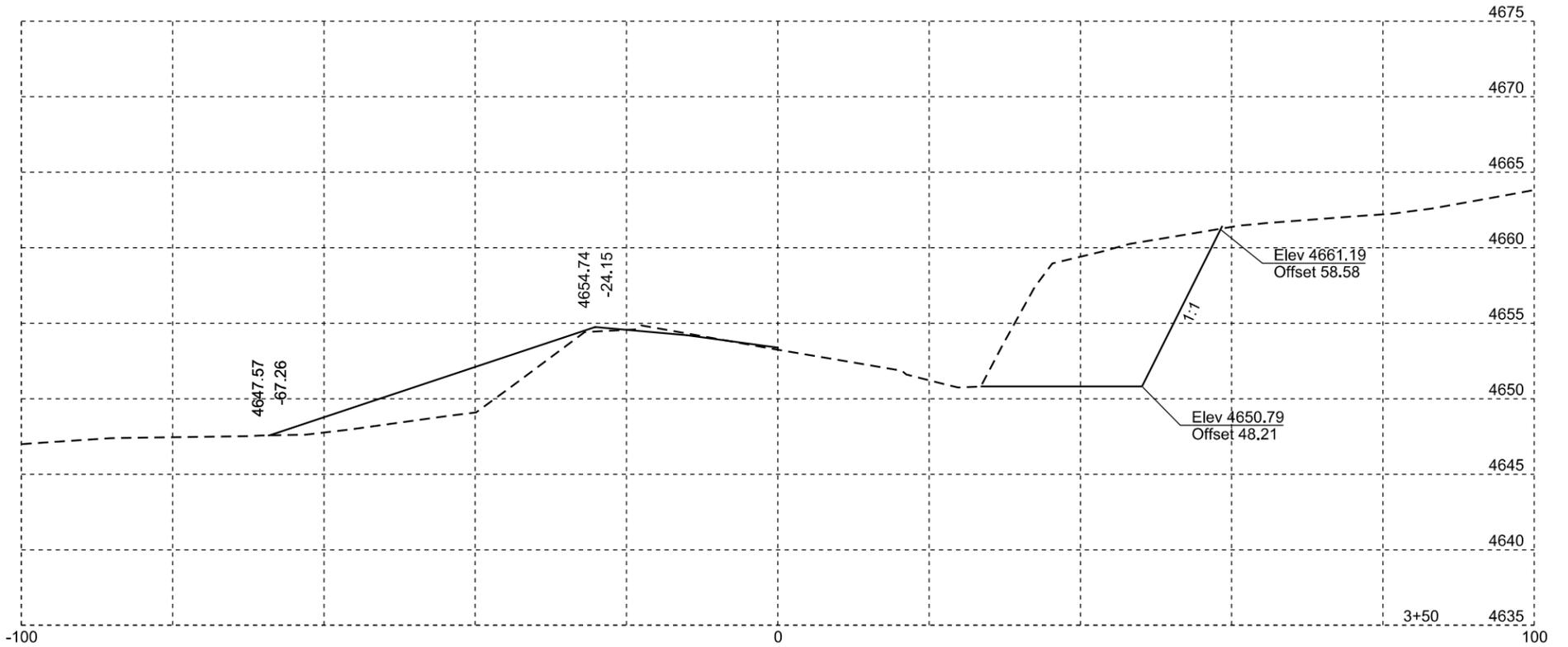
MRM 28.3



Plotting Date: 11/04/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	110	120

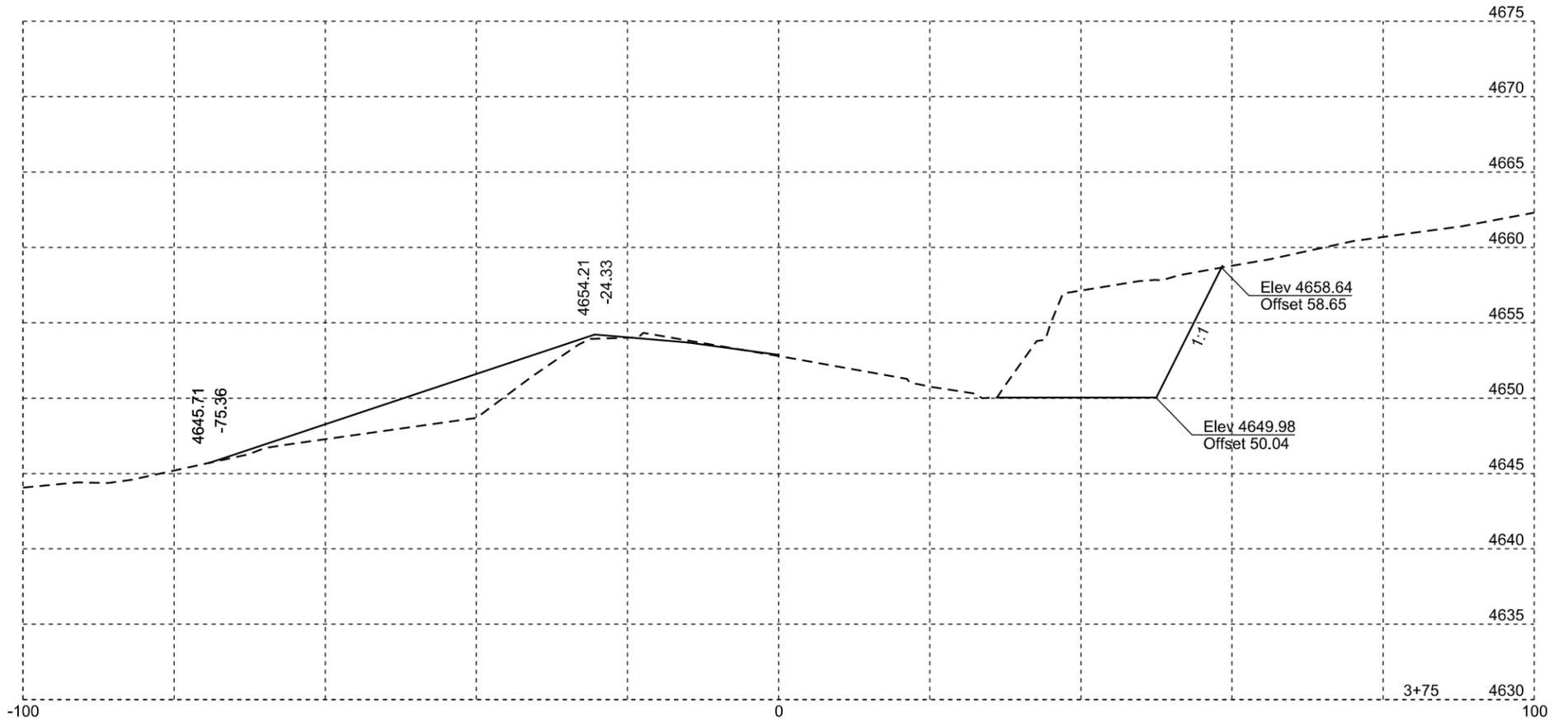
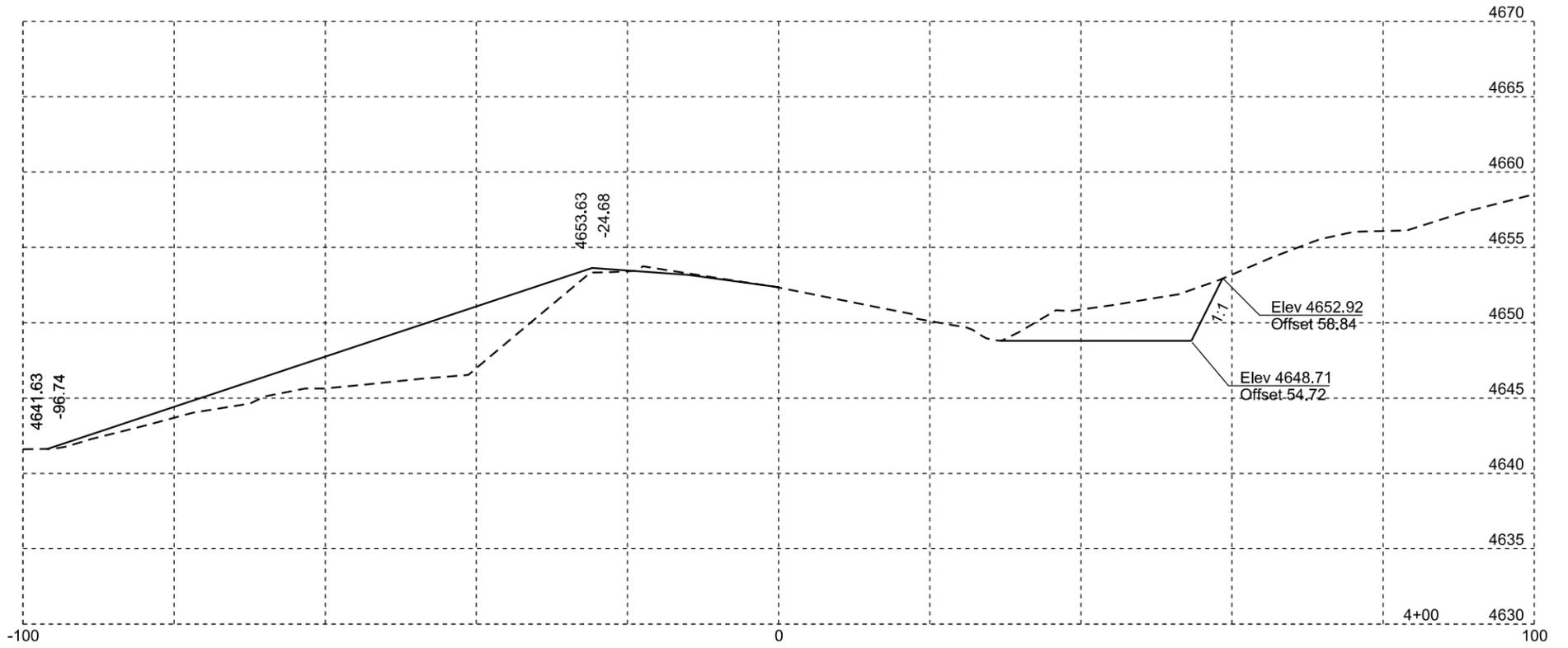
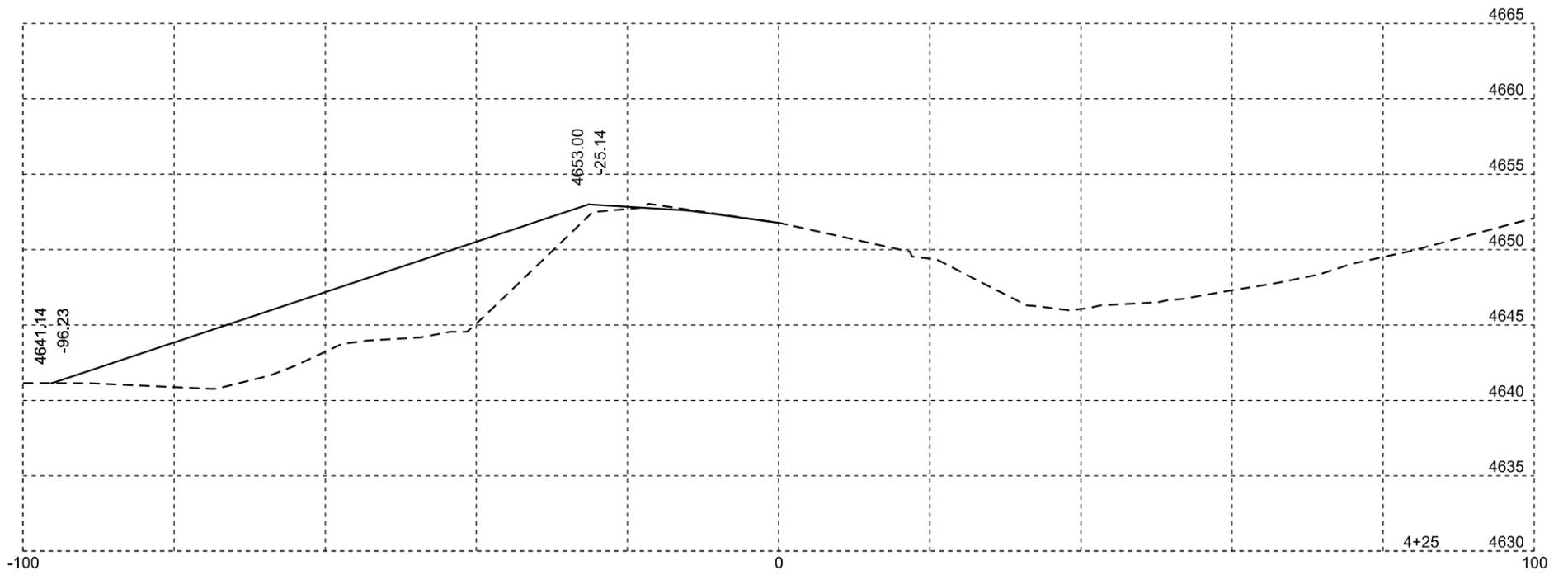
MRM 28.3



Plotting Date: 11/04/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	111	120

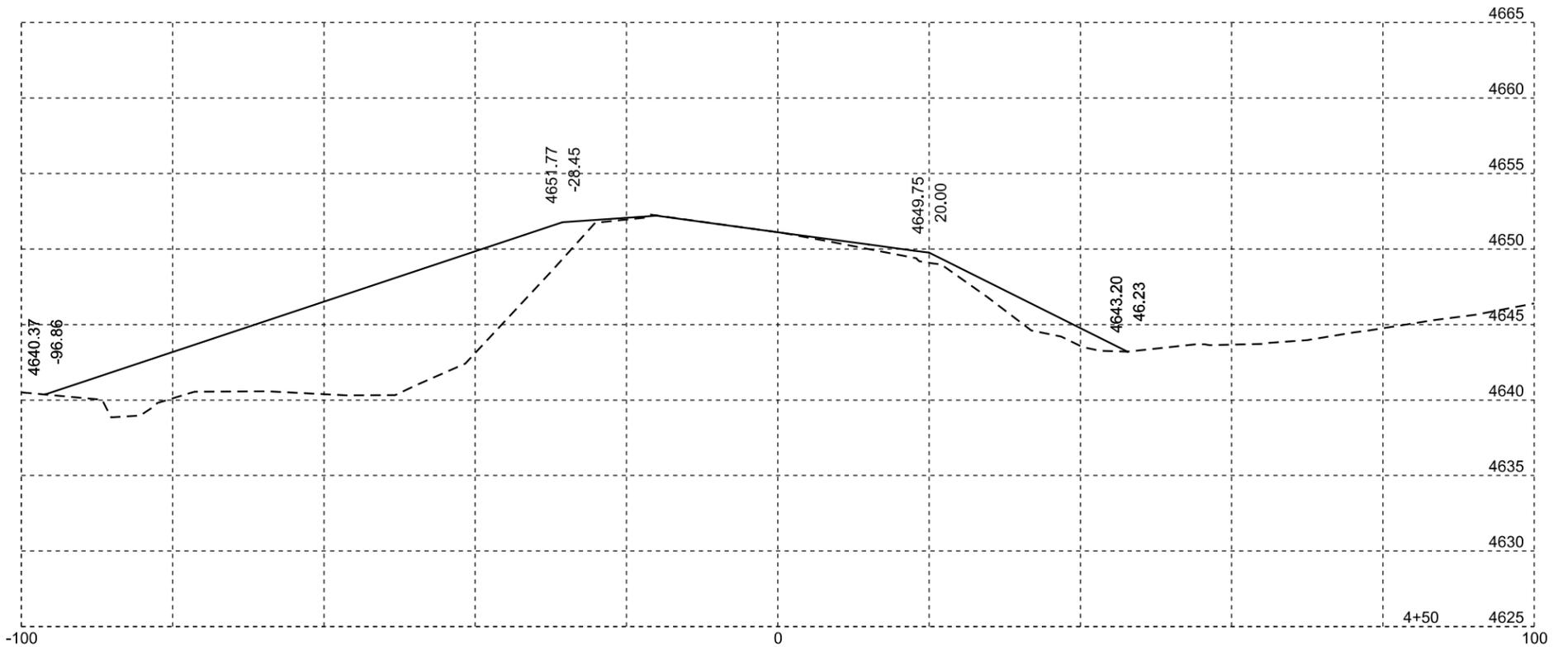
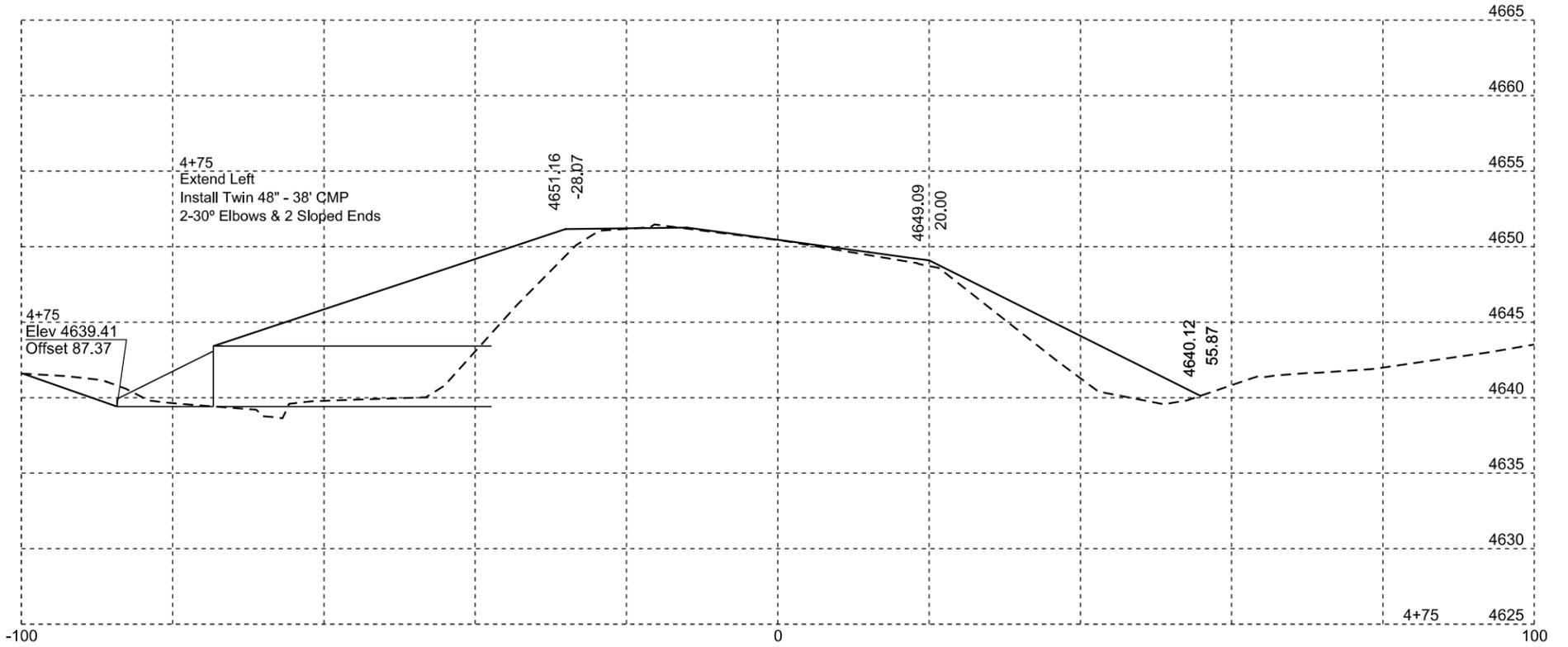
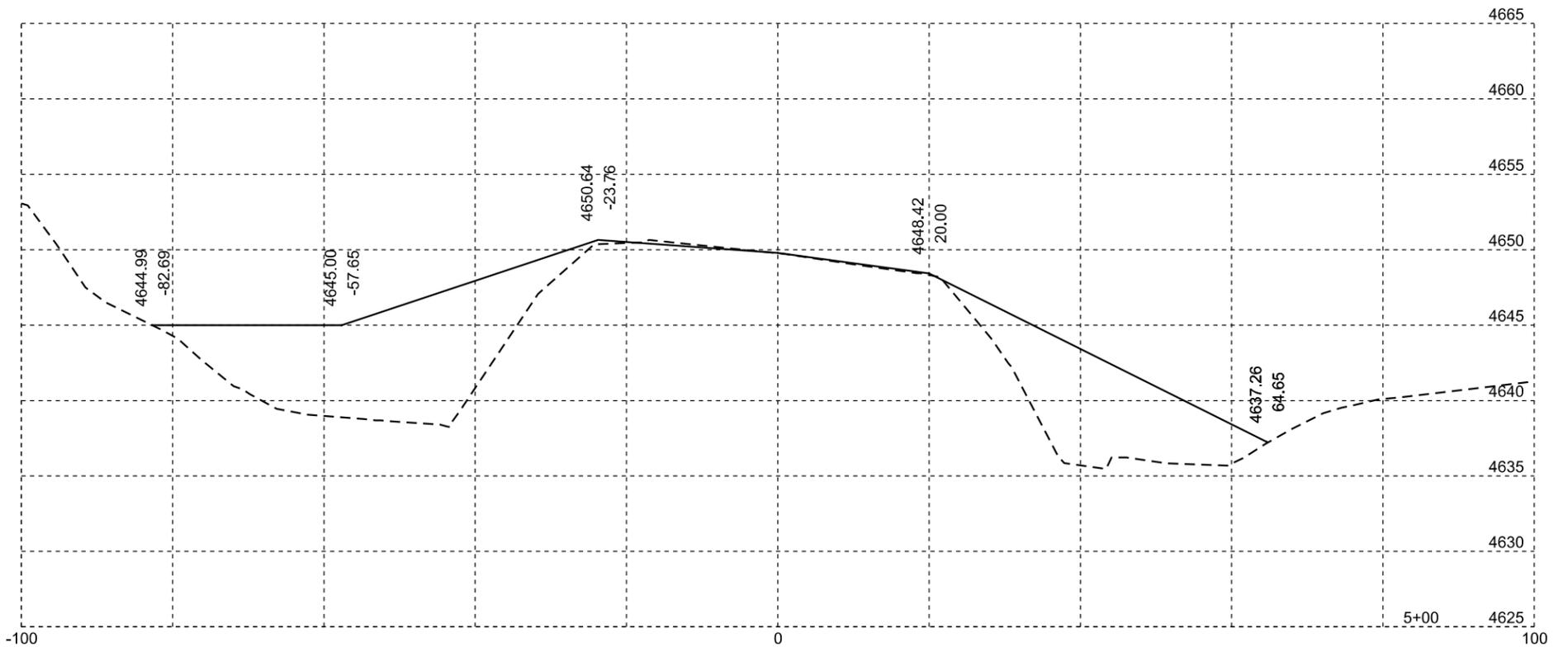
MRM 28.3



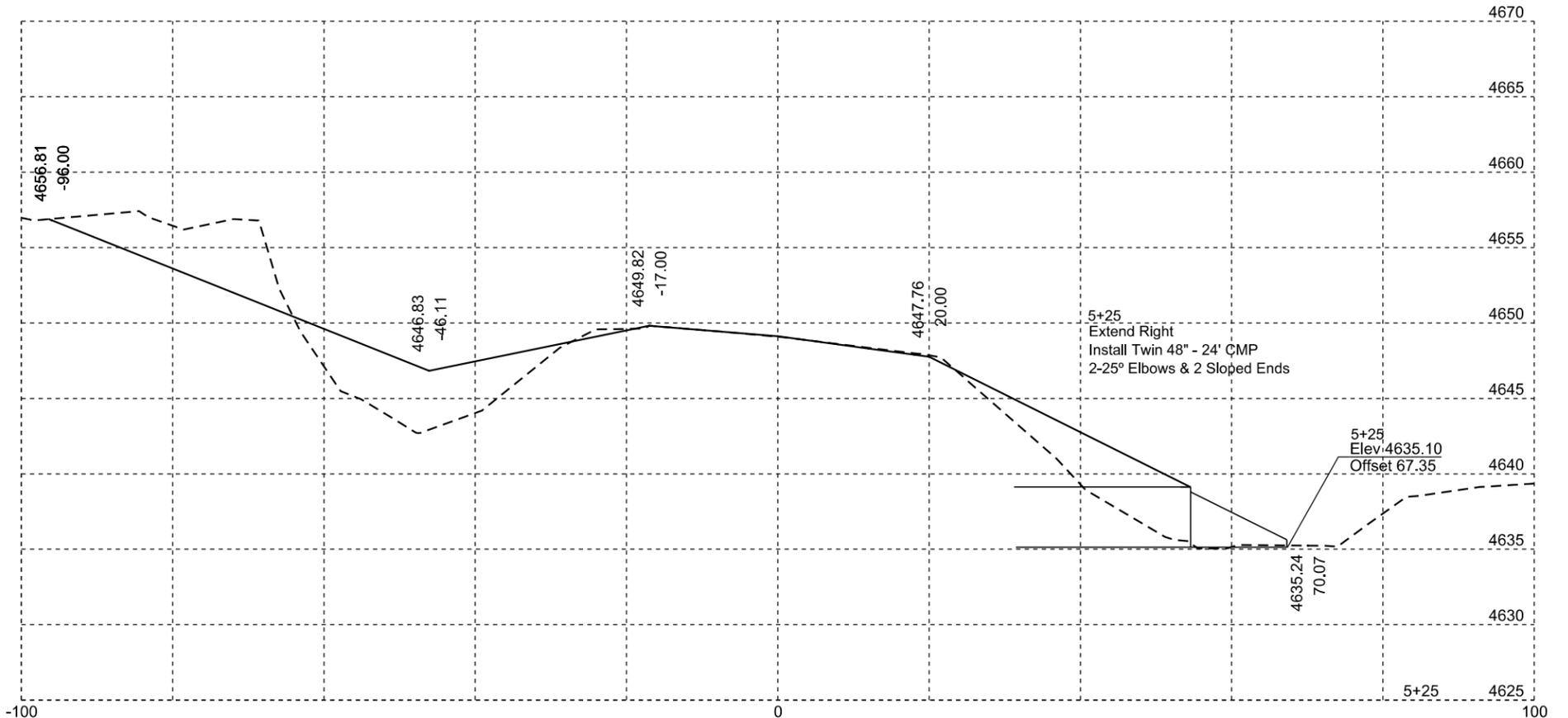
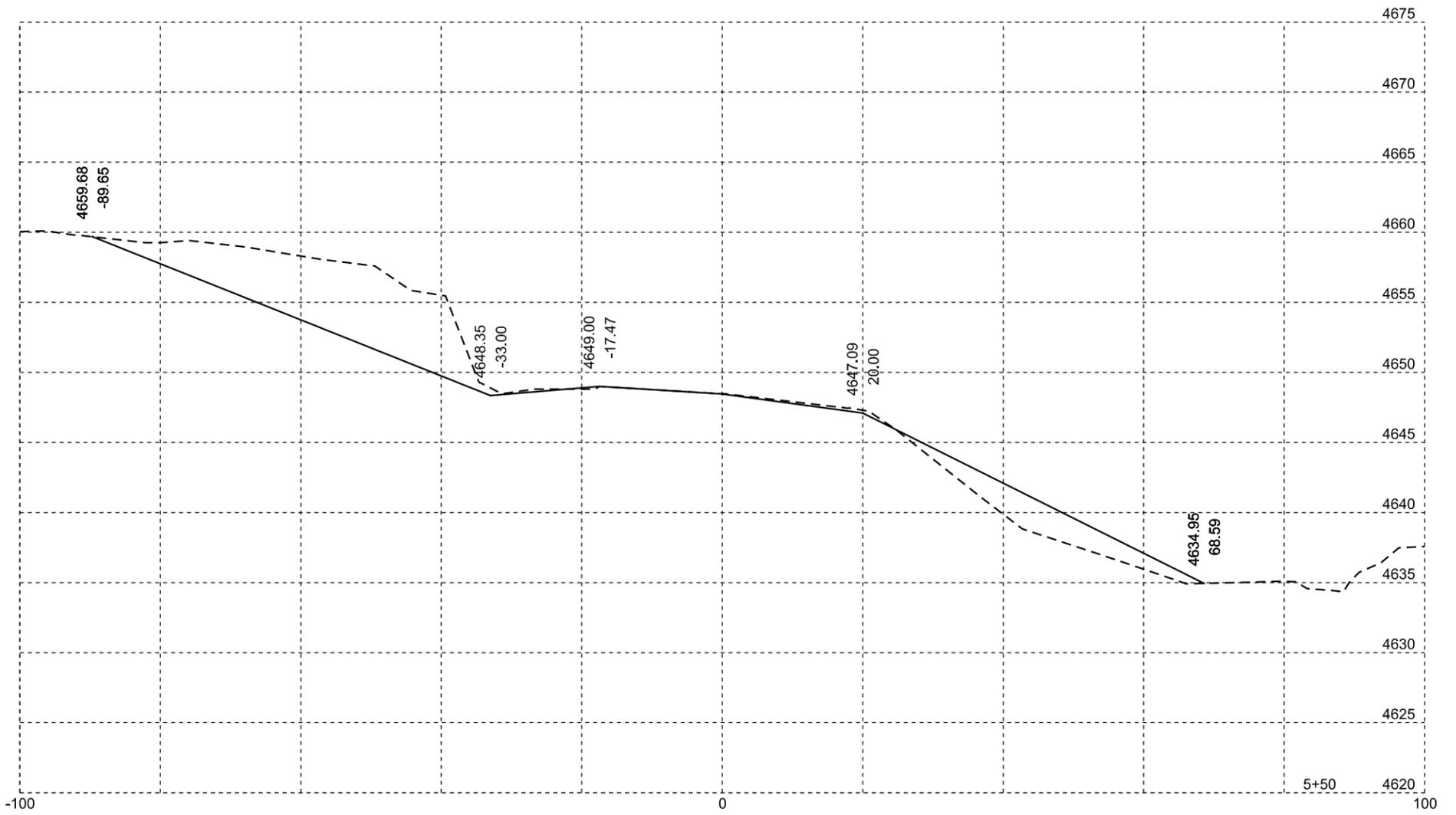
Plotting Date: 11/04/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	112	120

MRM 28.3



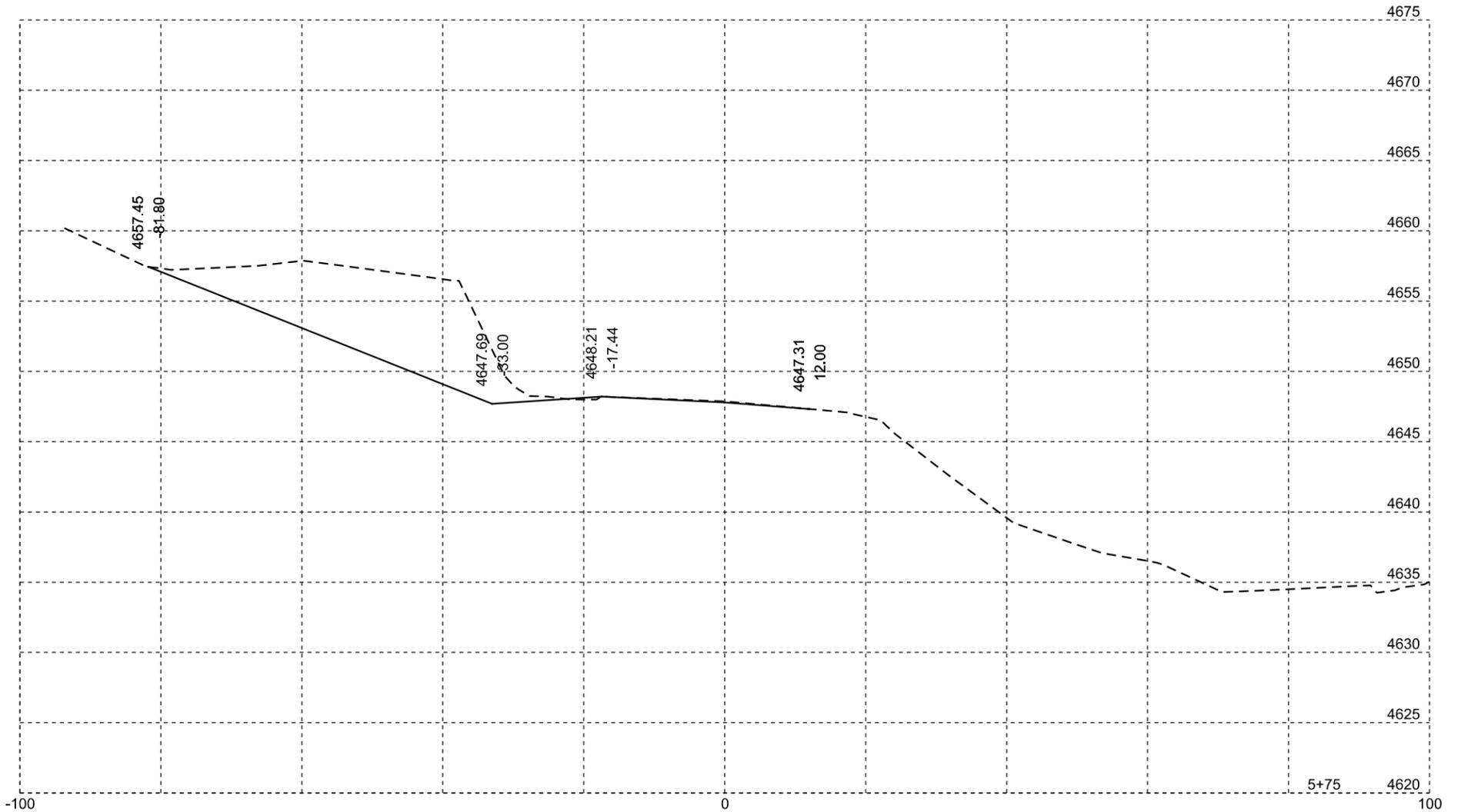
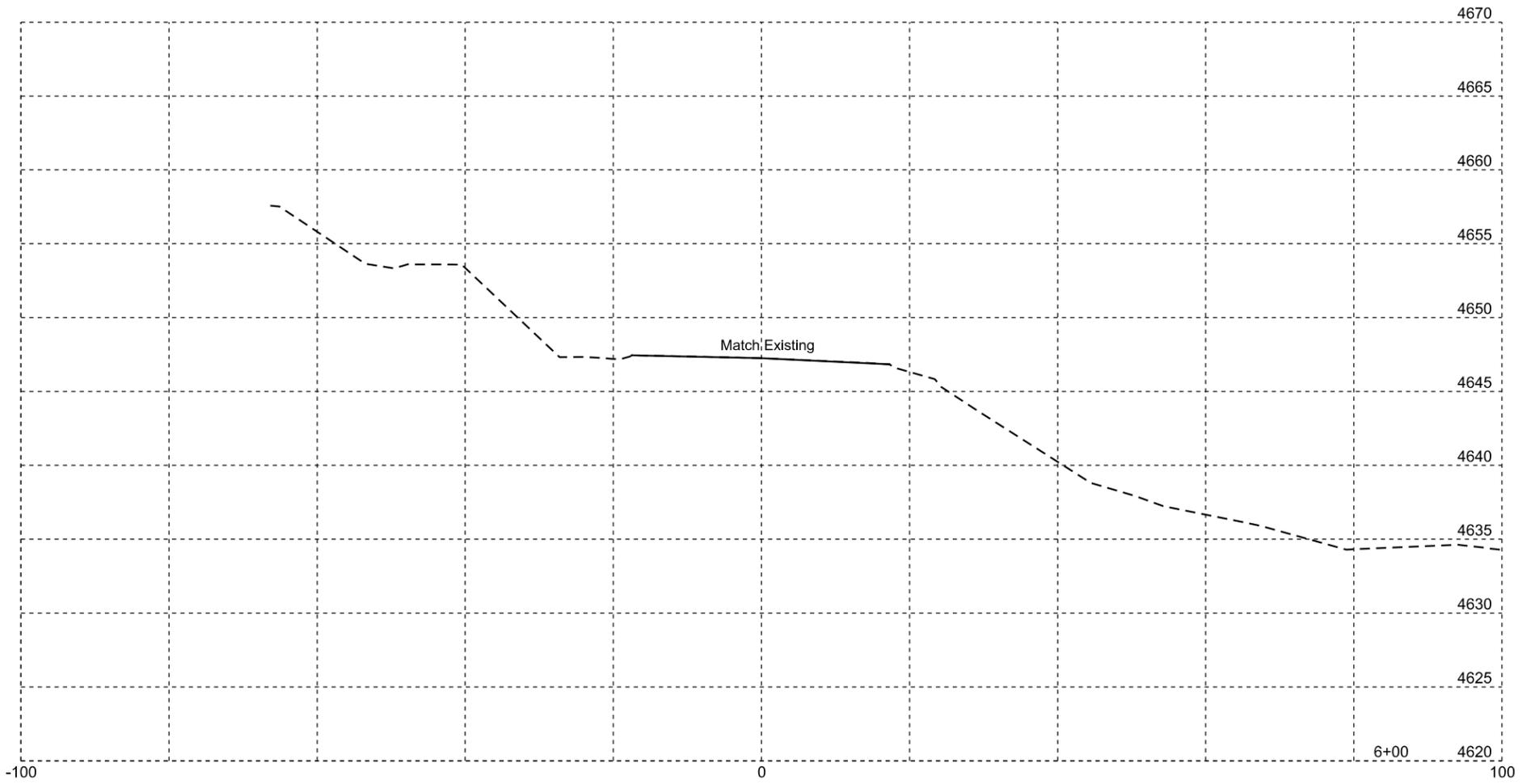
MRM 28.3



Plotting Date: 11/04/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	114	120

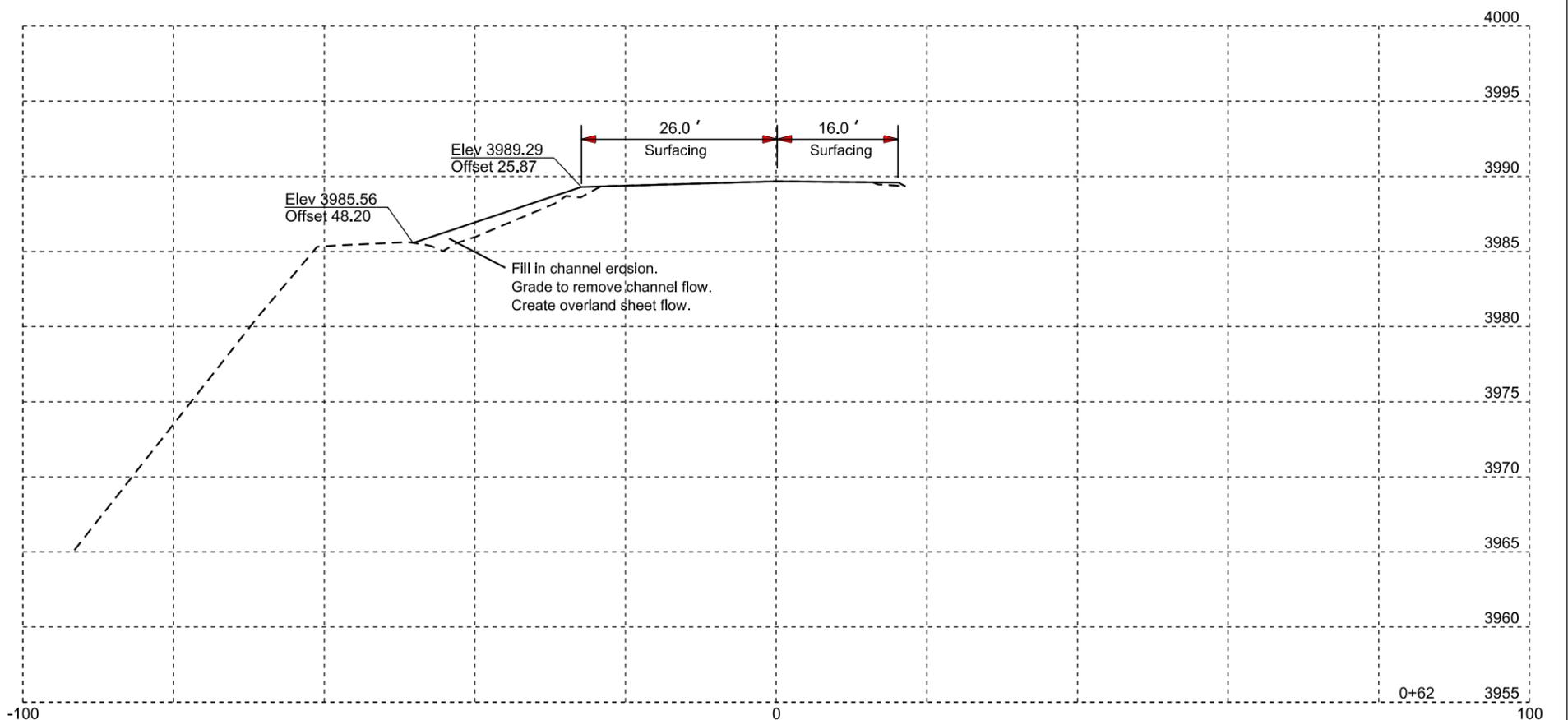
MRM 28.3



Plotting Date: 11/04/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	115	120

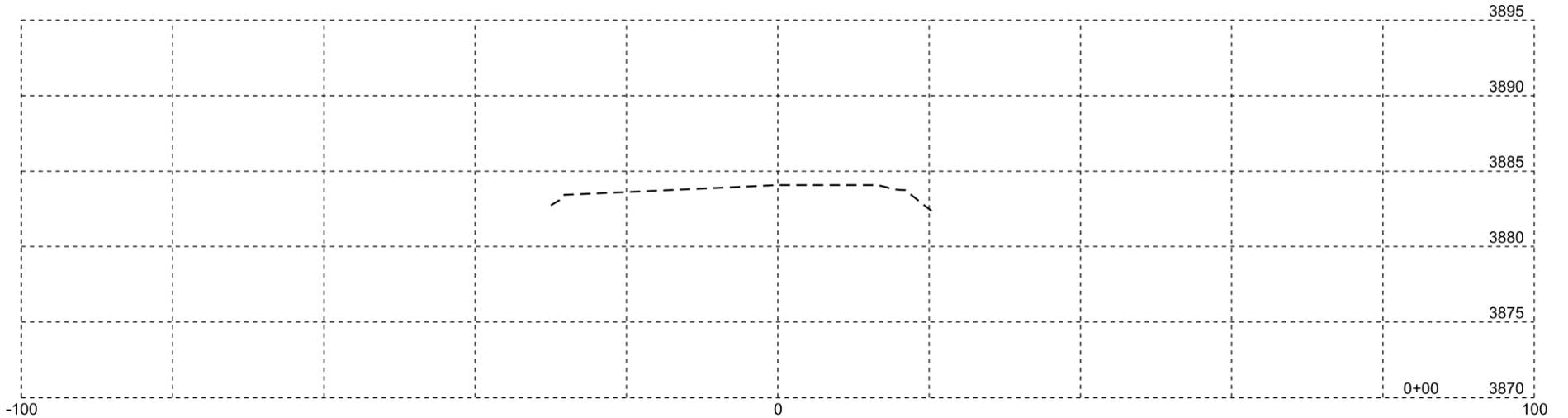
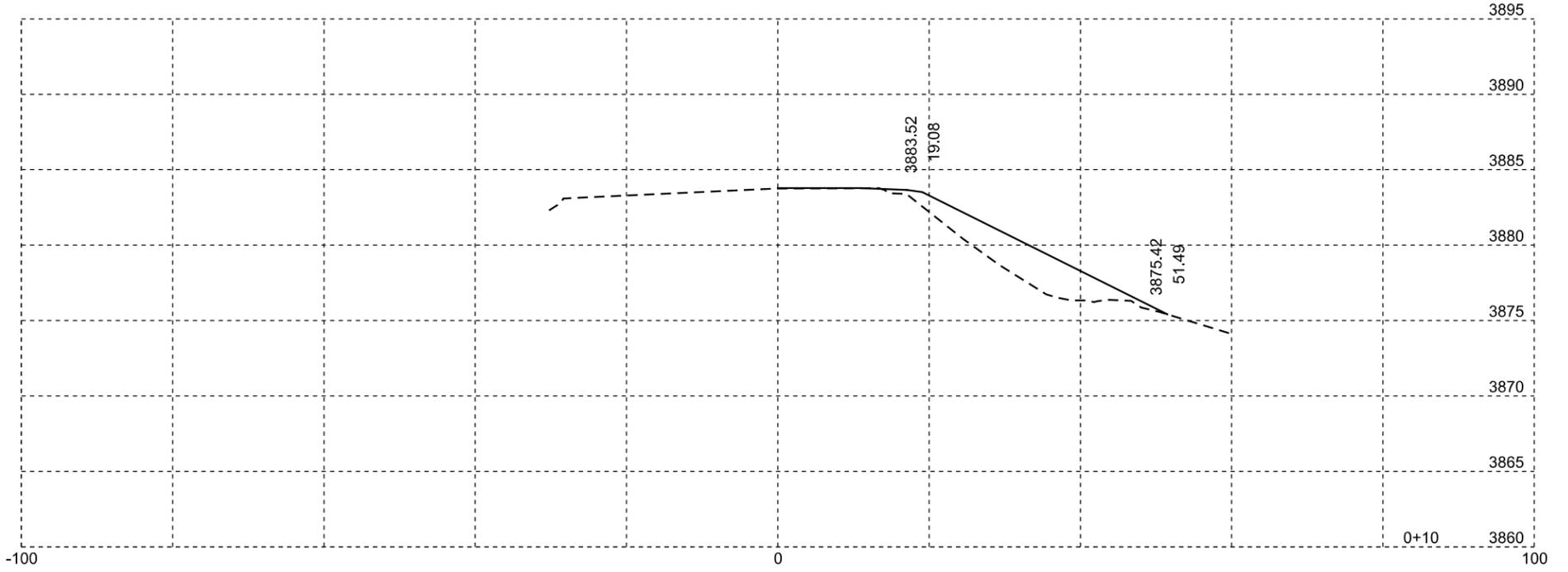
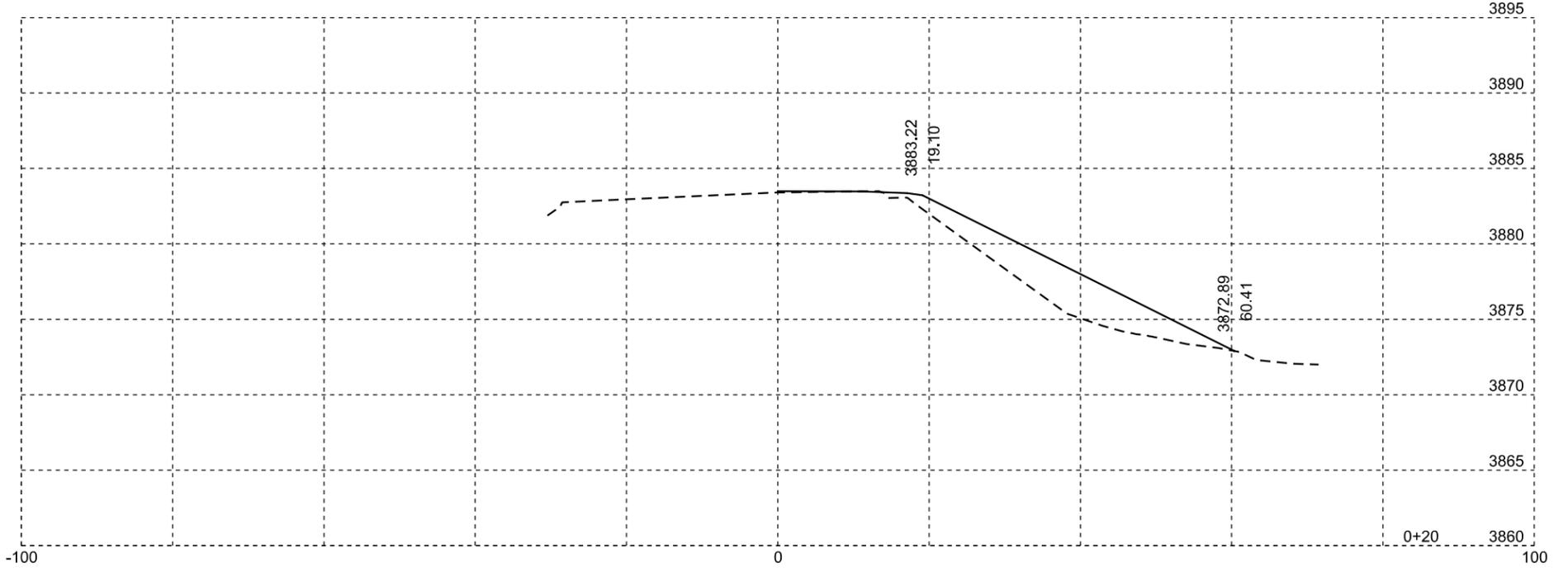
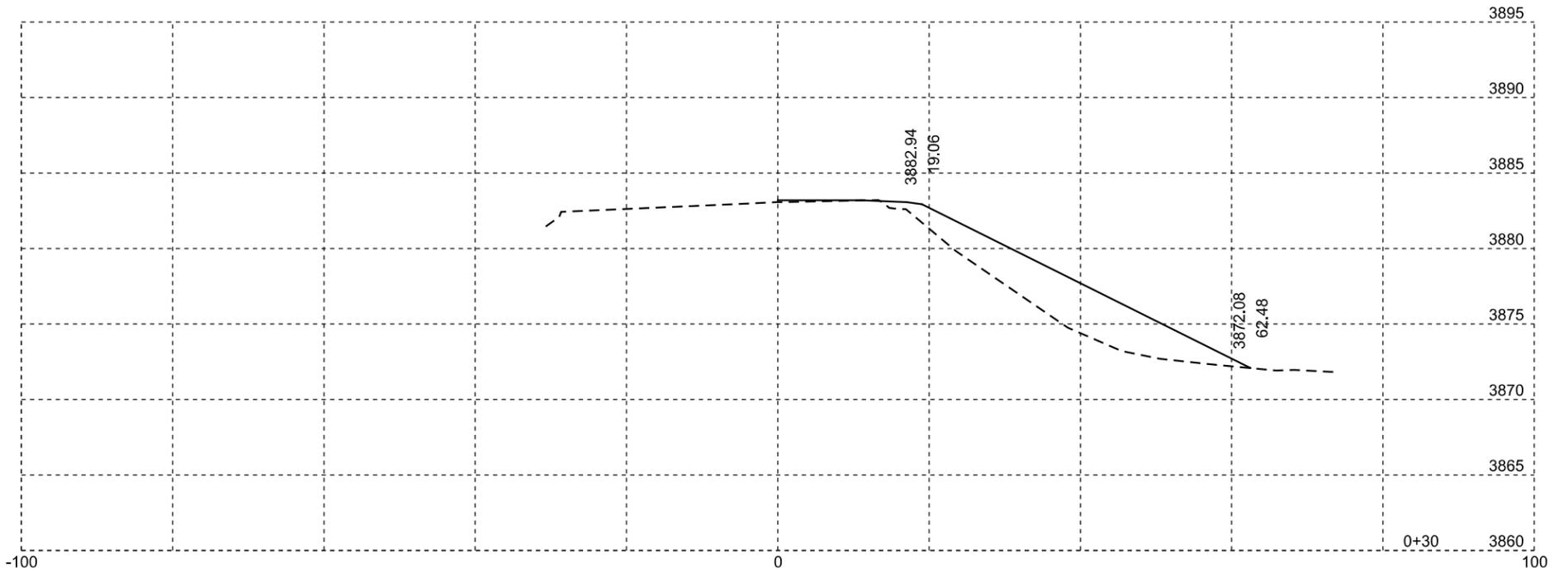
MRM 37.79 to MRM 37.84



Plotting Date: 12/02/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	116	120

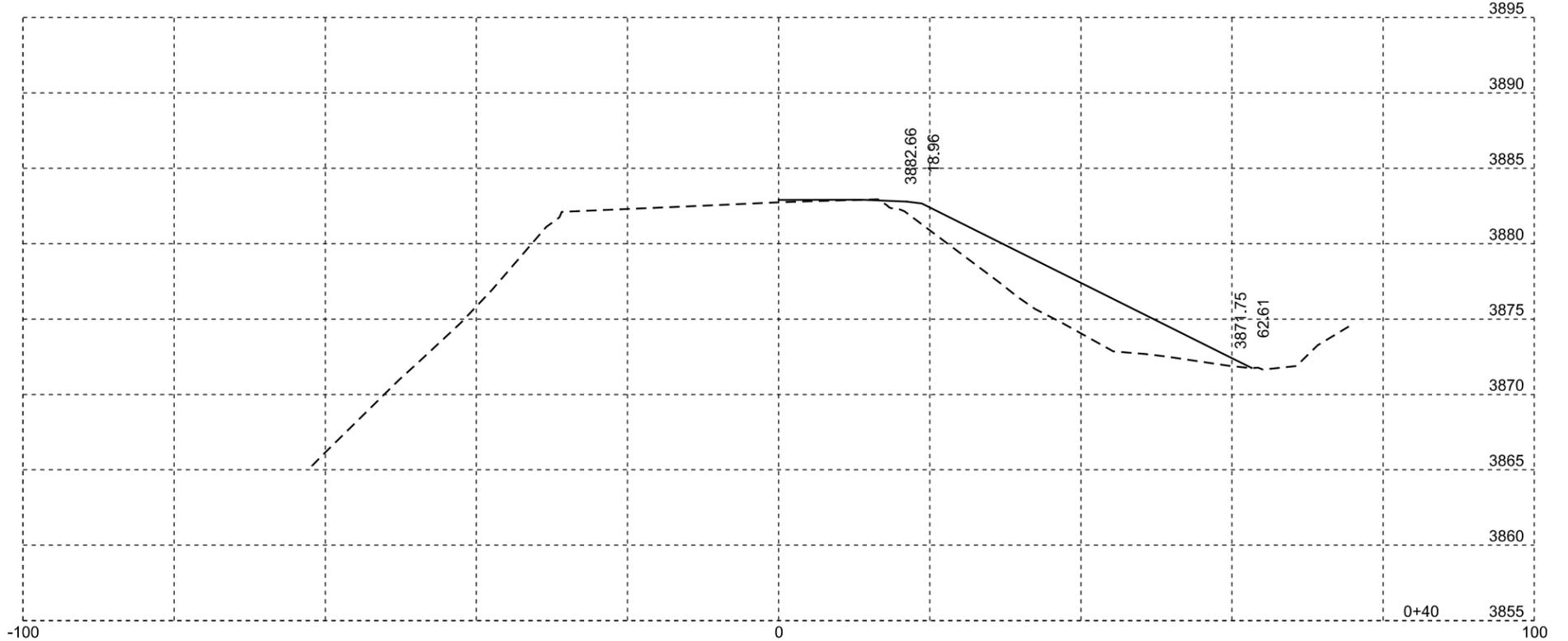
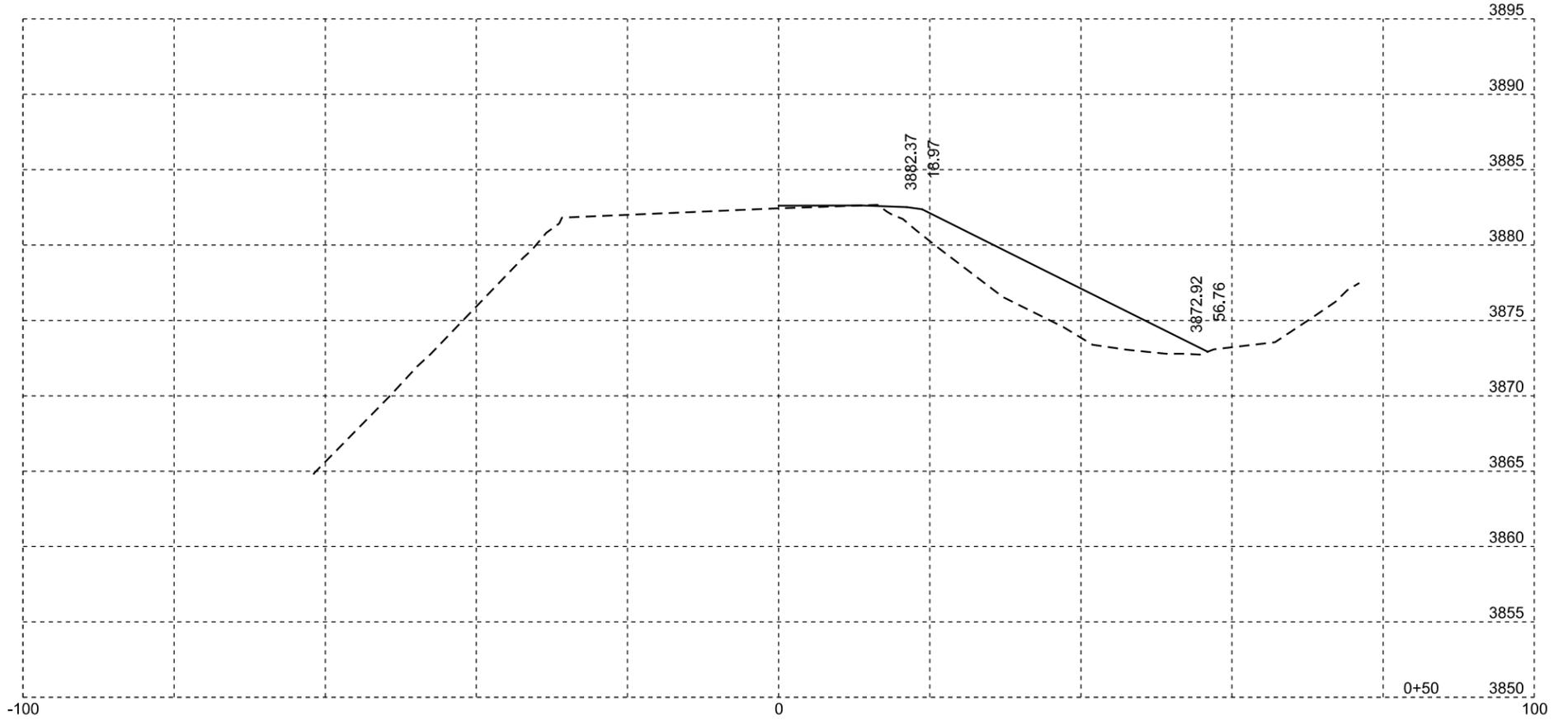
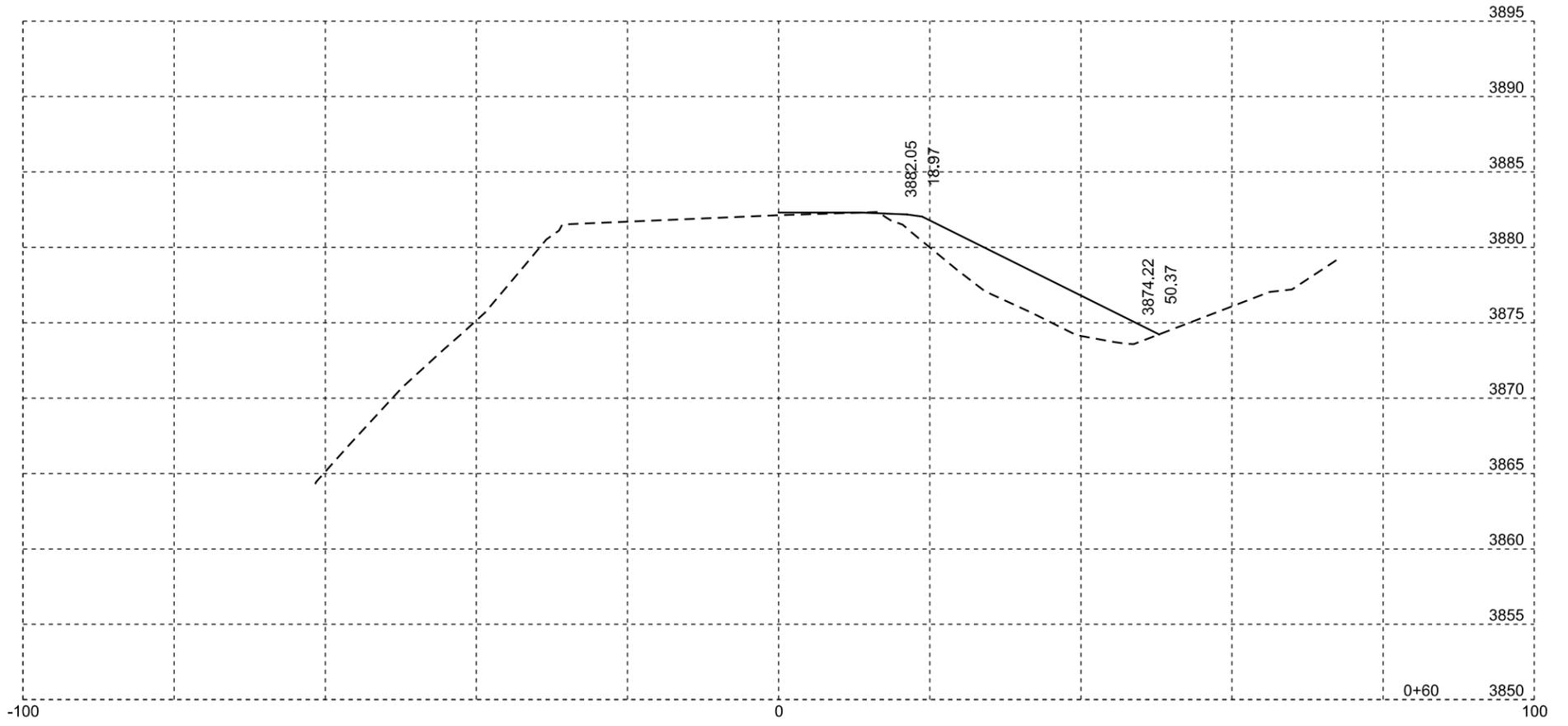
MRM 38.1



Plotting Date: 12/02/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	117	120

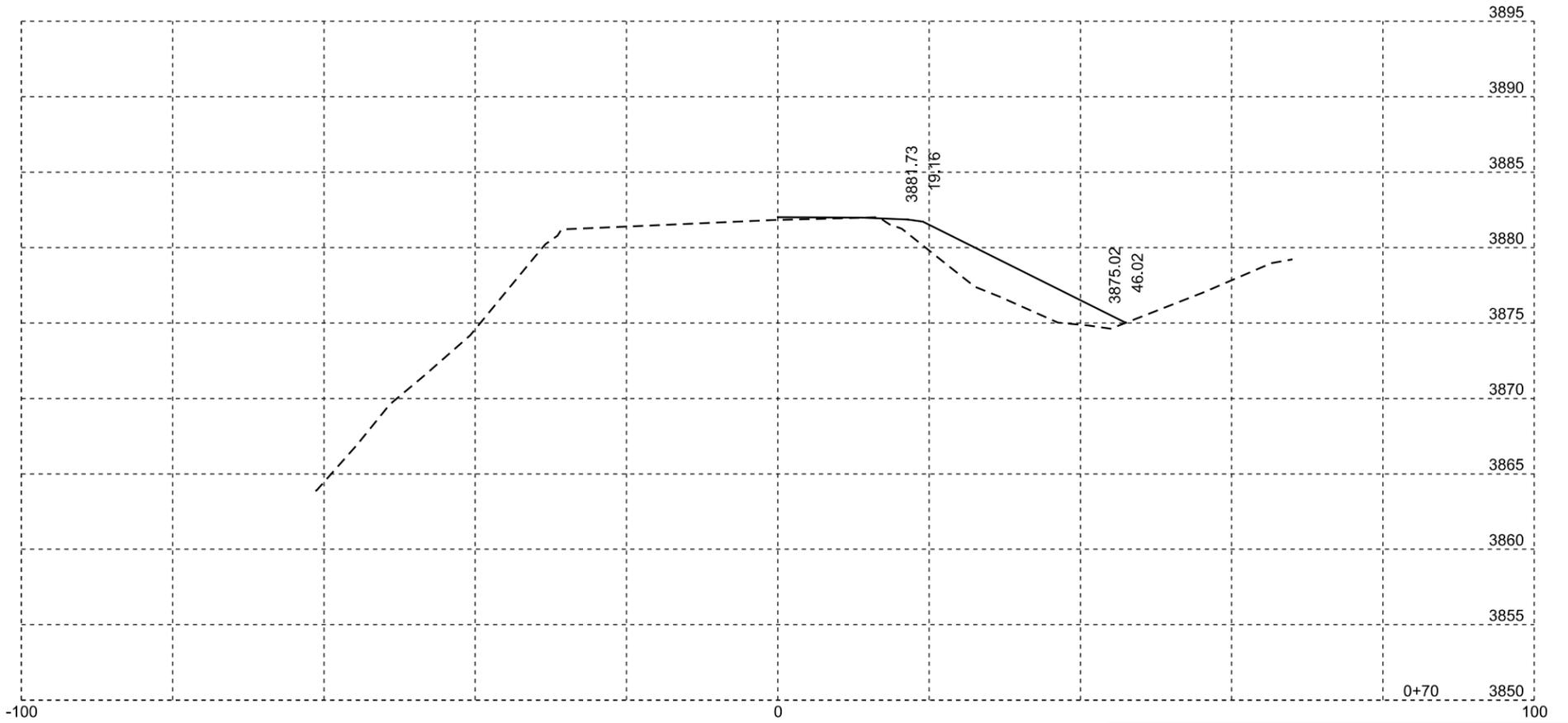
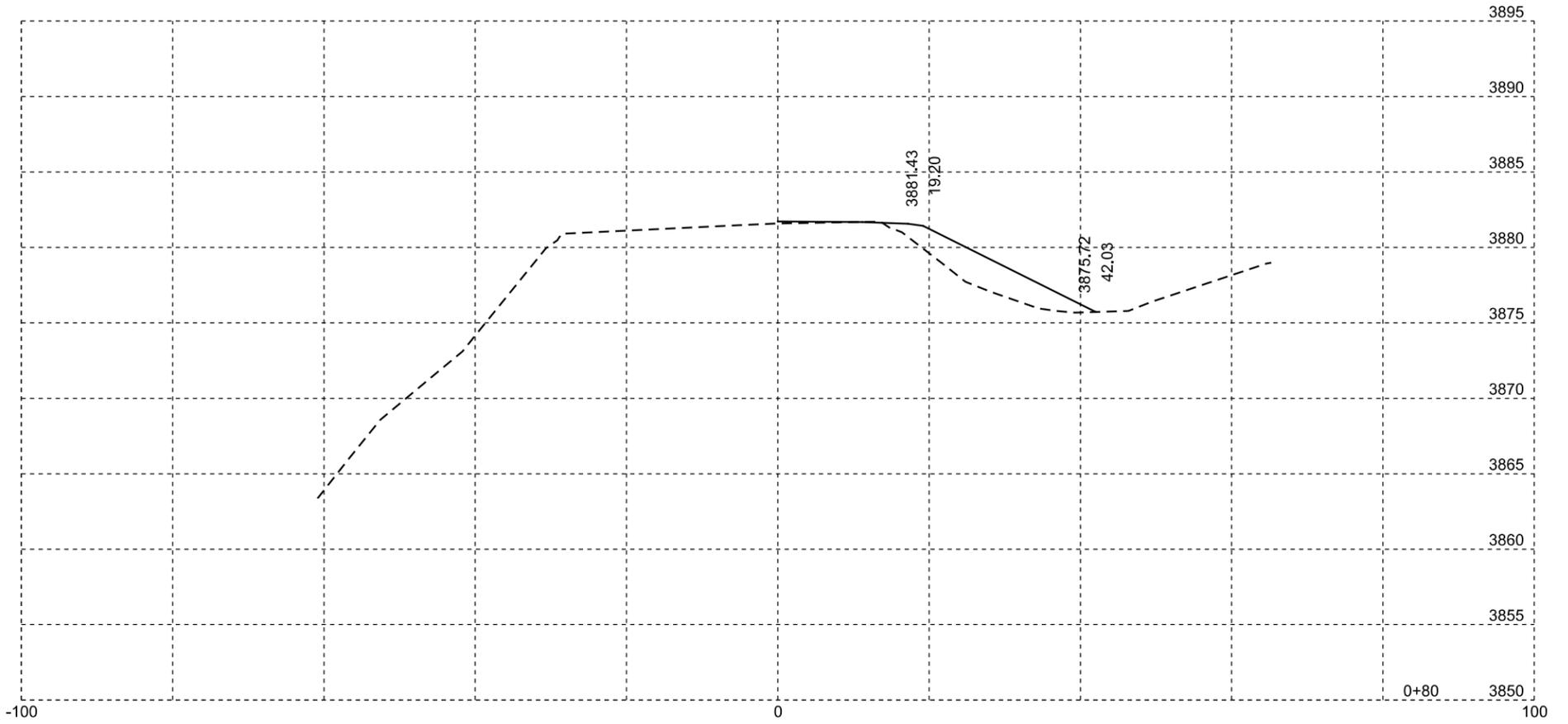
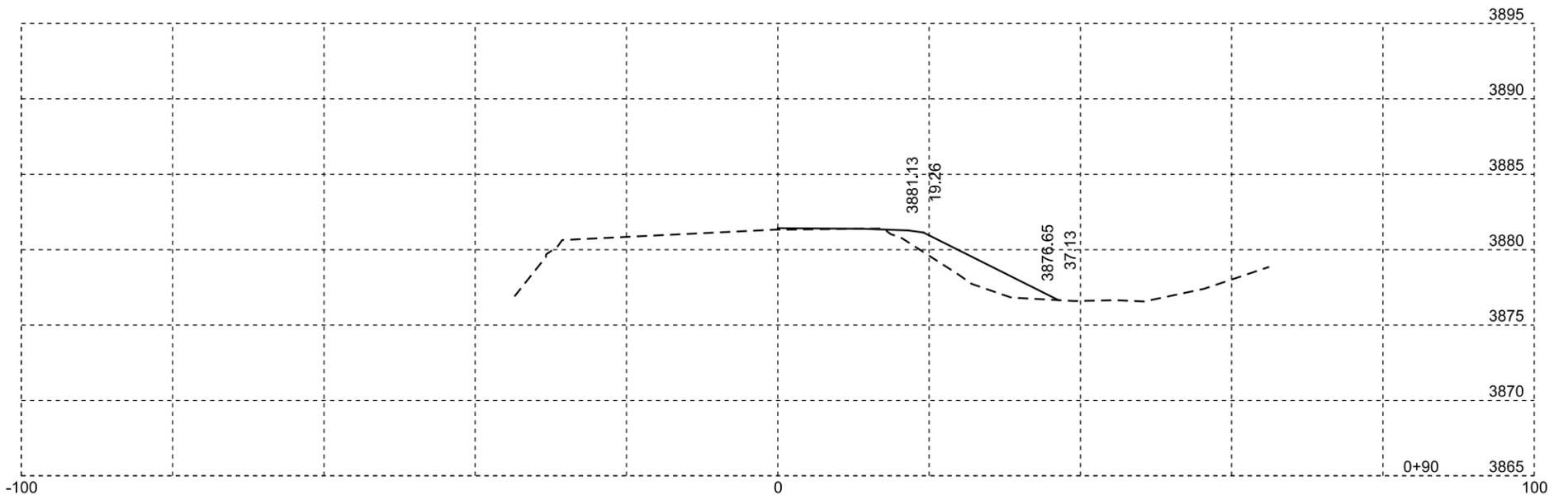
MRM 38.1



Plotting Date: 12/02/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	118	120

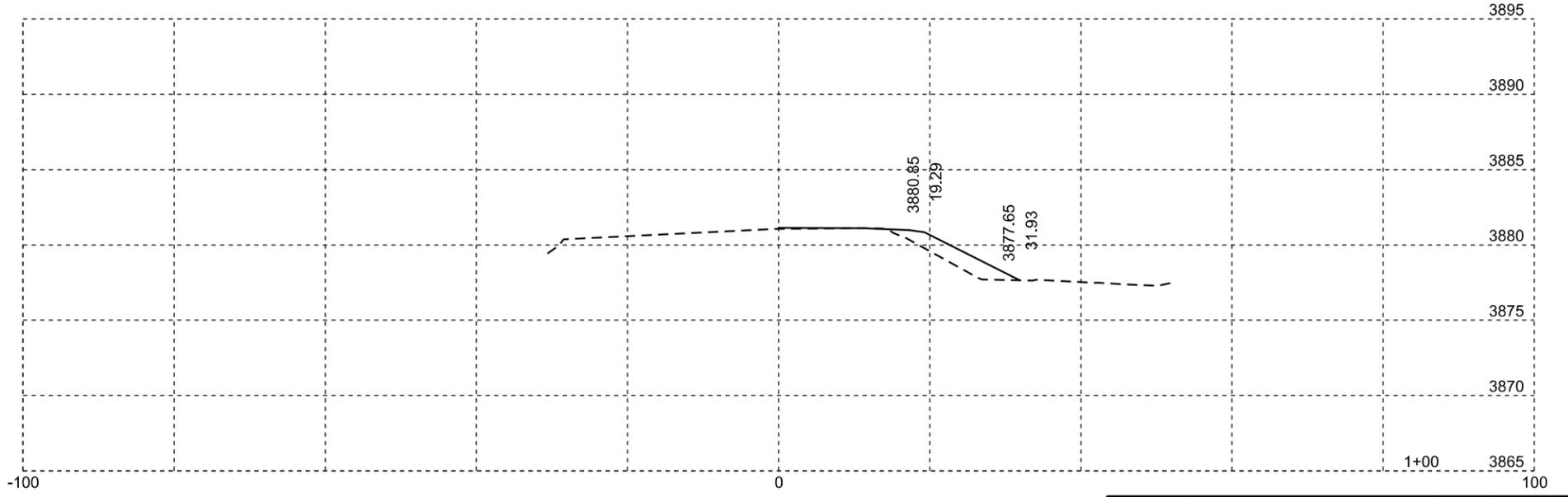
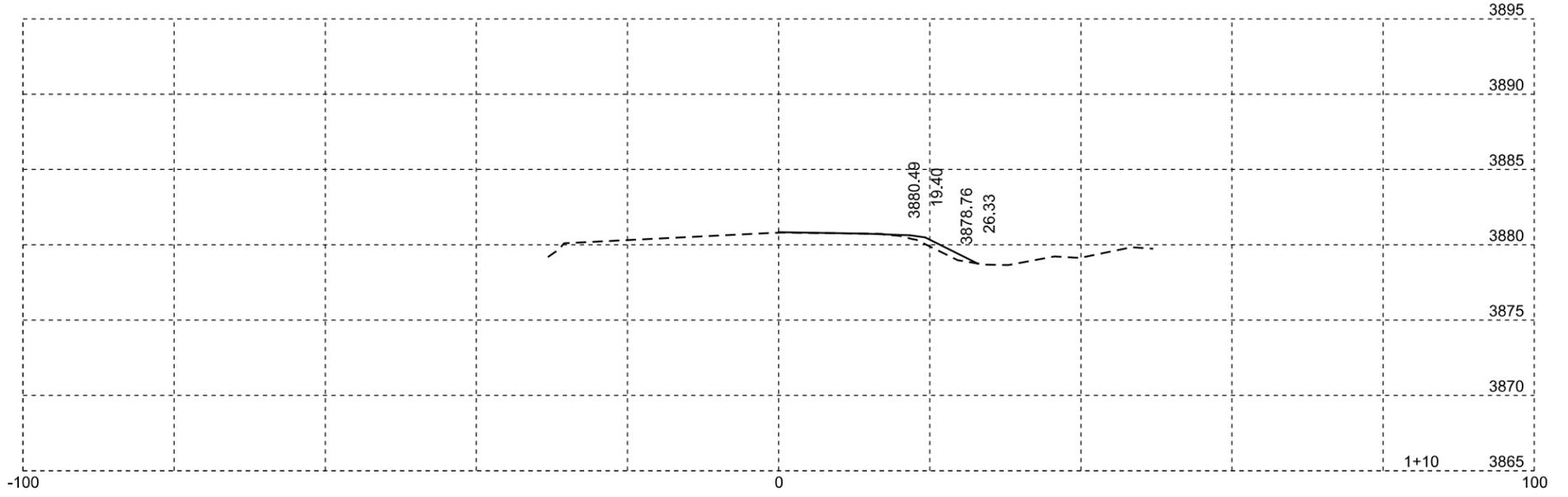
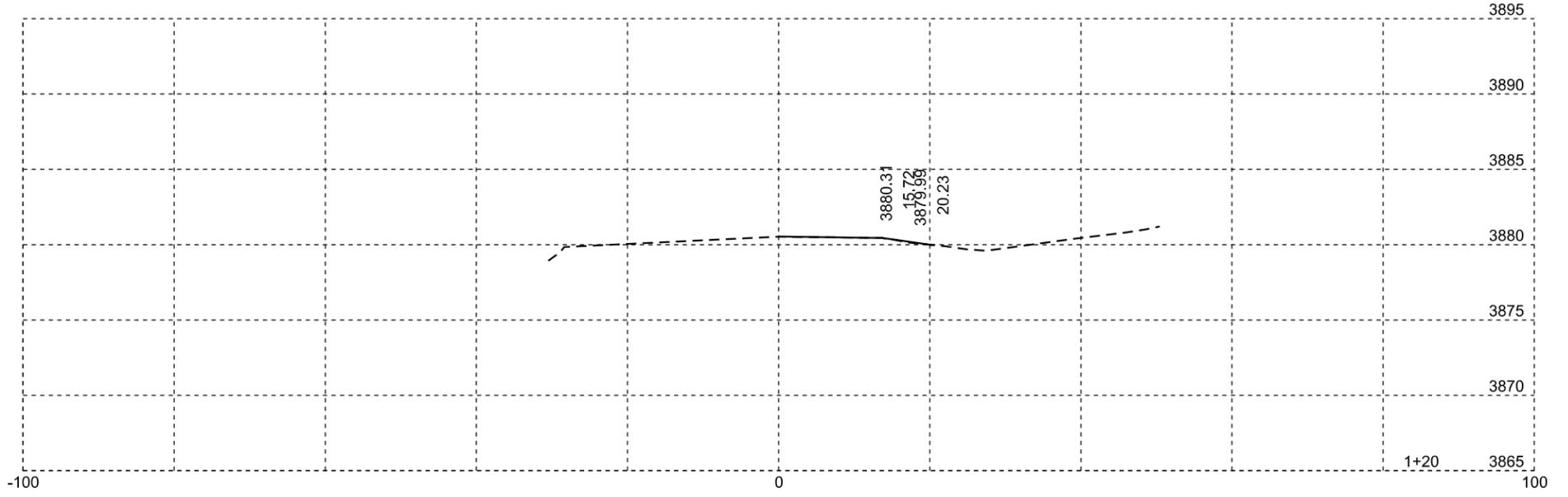
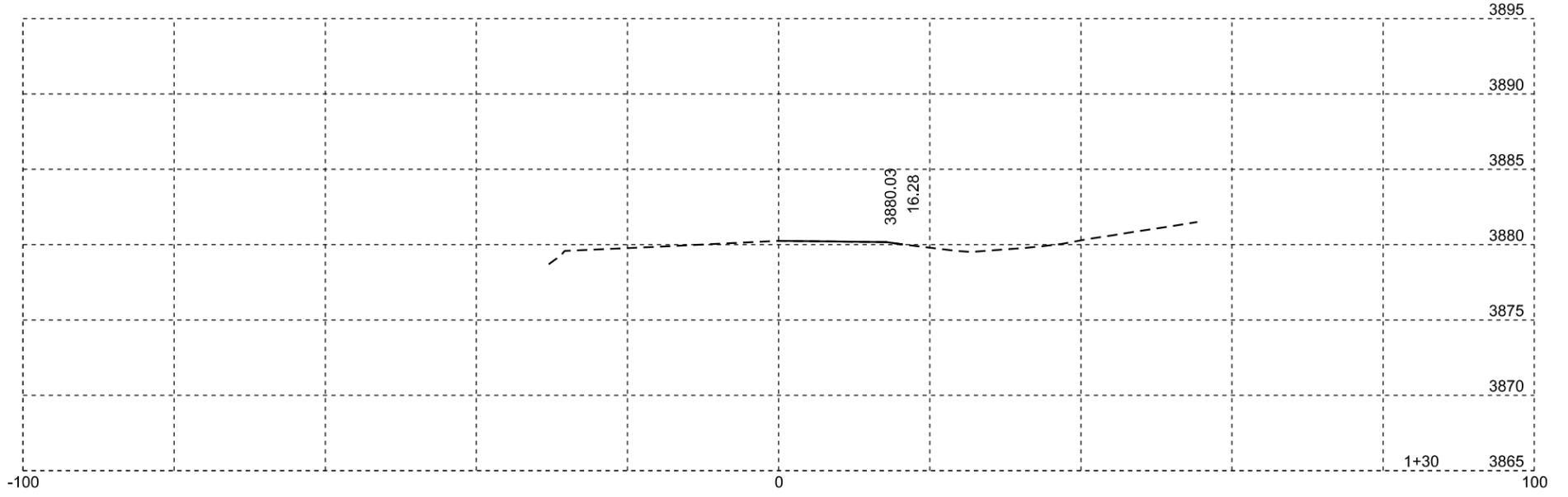
MRM 38.1



Plotting Date: 12/02/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	119	120

MRM 38.1



Plotting Date: 12/02/2013

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH-P 0044(172)26	120	120