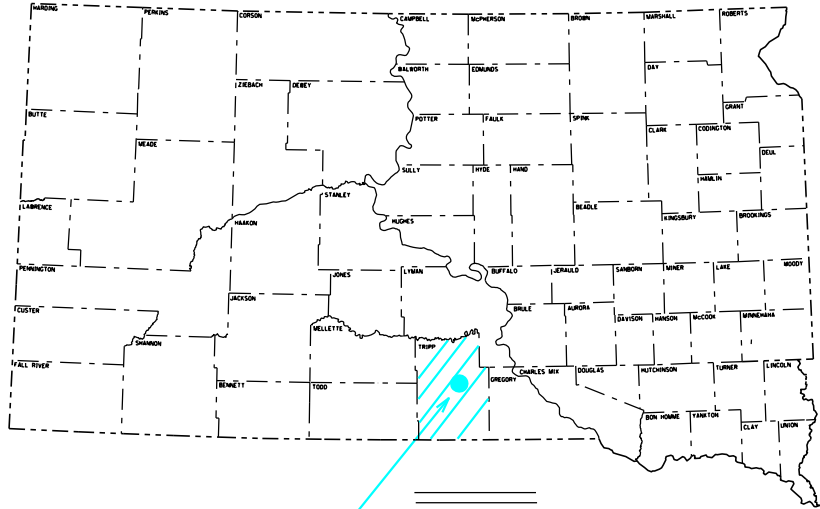


PLOT SCALE - 1"=136381
PLOT NAME - 1
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PLOTTED FROM - TRW11NT29

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	018-392 & 044-392	1	12

Plotting Date: 01/30/2013



PROJECT
018-392, 044-392

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT 018-392 & 044-392
US HIGHWAY 18 &
SD HIGHWAY 44
TRIPP COUNTY

EROSION & PIPE REPAIR

PCN 12RN & 12RP

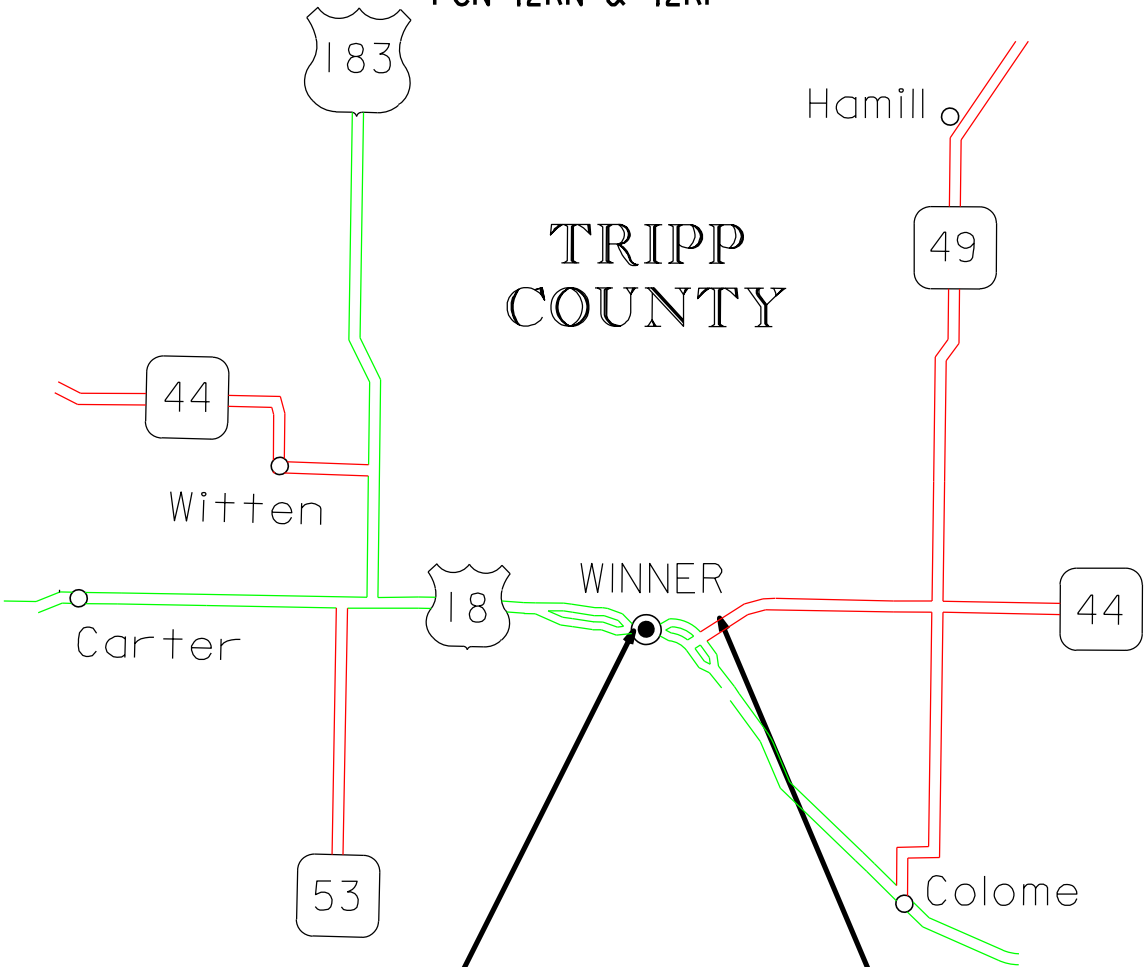
INDEX OF SHEETS

Sheet No.1	Title Sheet & Layout Map
Sheet Nos. 2-5	Estimate of Quantities & Plan Notes
Sheet No.6	Traffic Control
Sheet No. 7	Project Work Site Summary
Sheet Nos. 8-12	Standard Plates

DESIGN DESIGNATION

018-392		
ADT	(2011)	3613
ADT	(2031)	4173
DHV		500.8
D		52%
T DHV		6.1%
T ADT		13.5%

044-392		
ADT	(2011)	5231
ADT	(2011)	6042
DHV		725
D		52%
T DHV		0.8%
T ADT		1.7%



STORMWATER PERMIT
None Required

PROJECT 018-392
MRM 250.8 TO MRM 251.1 WB

PROJECT 044-392
MRM 253.7 WB

PROJECT 018-392 PCN I2RN

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E0500	Remove Pipe Culvert	70	Ft
110E1700	Remove Silt Fence	50	Ft
120E0600	Contractor Furnished Borrow	300	CuYd
120E4100	Reprofiling Ditch	13.0	Sta
260E1090	Base Course, State Furnished	22.0	Ton
450E4807	48" CMP 12 Gauge, Furnish	70	Ft
450E4810	48" CMP, Install	70	Ft
450E5433	48" CMP Safety End with Bars, Furnish	2	Each
450E5435	48" CMP Safety End, Install	2	Each
634E0010	Flagging	20	Hour
634E0100	Traffic Control	187	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
730E0210	Type F Permanent Seed Mixture	20	Lb
732E0100	Mulching	1.5	Ton
734E0604	High Flow Silt Fence	50	Ft
734E0610	Mucking Silt Fence	10	CuYd
734E0620	Repair Silt Fence	50	Ft

PROJECT 044-392 PCN I2RP

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
634E0100	Traffic Control	85	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
730E0210	Type F Permanent Seed Mixture	1	Lb
734E0131	Type 1 Turf Reinforcement Mat	93.3	SqYd
734E0510	Shaping for Erosion Control Blanket	70	Ft

SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

SEQUENCE OF OPERATIONS

The Contractor shall submit his/her proposed sequence of operations for the Engineer’s approval at least two weeks prior to the preconstruction meeting. No preconstruction meeting will be allowed without the above submittal.

Access shall be maintained to businesses and local residences at ALL times.

PROJECT WORK HOURS

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

Project 018-392

The Department has a concrete resurfacing project, NH 0018(119)242, PCN 0018 in Tripp County. This contract has been awarded to Upper Plains Contracting, Inc. of Aberdeen, SD (PH#(605)225-7082). This work may overlap into the erosion and pipe repair work on this project. The contractor will coordinate with the Department and Upper Plains Contracting for the installation of traffic control and scheduling of work to facilitate and minimize impacts to the traveling public and work requirements of each contract’s specified work.

The existing 48” CMP approach pipe at MRM 251.04 Lt shall be removed and replaced. In addition, 48” CMP Safety Ends with bars shall be added to each end of the new pipe. The new pipe bed elevation will be approximately 1’ lower than the existing pipe as shown elsewhere in the plans. Contractor Furnished Borrow shall be used to construct the finished in slopes of the access with 6:1 side slopes and the salvaged topsoil replaced and the area seeded & mulched. The newly constructed in slopes of the approach shall allow for 24’ finished surfacing.

The existing approach has a 20’ wide gravel surface. The contractor shall salvage and replace the existing surfacing within the work limits of the pipe replacement. Payment for salvaging and replacing the existing surfacing shall be incidental to the various pipe replacement bid items. Base Course, State Furnished shall then be placed to a depth of 2” and a width of 24’ wide within the Right of Way. Compaction of the Base Course, State Furnished shall be to the satisfaction of the Engineer.

The contractor shall coordinate with the adjacent landowner to facilitate access to their property during the time period that the work is being completed until completion of the access work.

The contractor shall also grade and reshape the existing ditch bottom to a width of 10 feet and length of 1,302 feet. The ditch sides shall be shaped to match into the newly shaped ditch bottom. All costs associated with reshaping the existing ditch, including labor, excavation, equipment, and incidentals shall be paid for by the station at the contract unit price for “Reprofiling Ditch”. Material removed during the reprofiling ditch work (estimated at 180 cubic yards) will consist of primarily sod and topsoil and may be used as fill material in the areas outside the shoulder of the approach or as topsoil. Any excavated ditch material not used or required to complete the work shall be disposed of by the contractor.

All disturbed areas will be seeded and mulched.

Project 044-392

The access to the Family Dollar store currently has a twin 24” x 82’ CMP & safety ends with channel and scour issues at the inlet. The site work on the Lt will consist of reshaping the inlet to a width of 10’ and a length of 50’. The existing ditch flow line will remain the same throughout this 50’ area but all excess silted in material will be removed and the ditch sides matched into the newly shaped ditch bottom. Any excavated material not used or required to complete the work shall be disposed of by the contractor. All disturbed areas will be seeded and mulched.

Type 1 Turf Reinforcement Mat shall be installed to a width of 12 feet and a length of 70 feet at the inlet of the twin 24” x 82’ CMPs.

The contractor shall coordinate with the manager of the Family Dollar store (605-842-1195) to minimize disruption with the store’s operating hours and delivery schedule. The contractor shall provide access to the store at all times.

PIPE NOTES

Pipe culverts that are removed and not reset shall become the property of the Contractor. Pipe culverts shall be removed and not in view from the project upon completion of the project.

PIPE NOTES-CONTINUED

The excavation required to expose existing pipe and ends will be incidental to the contract unit prices for "Remove Pipe Culvert".

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

The cost of providing and installing the connecting collars shall be incidental to the contract unit price for CMP and ends.

BASE COURSE, STATE FURNISHED

The Base Course, State Furnished shall be obtained from a stockpile site located at the SDDOT Winner Maintenance yard located on the North side of US Highway 44 on the east edge of Winner at MRM 254.

The moisture content for compaction of the Base Course, State Furnished shall be approximately optimum moisture of the material. The cost for water shall be incidental to the contract unit price for "Base Course, State Furnished".

This material is royalty free to the Contractor.

Furnish cost to the State for the Base Course, State Furnished is \$10.00 per ton.

Compaction shall be to the satisfaction of the Engineer. This material may be used without further quality and gradation testing.

All other requirements for Base Course shall apply.

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. The Contractor may use material from within the SDDOT ROW at the Engineer's discretion. The borrow material shall be approved by the Engineer prior to removal and placement. The plans quantity for "Contractor Furnished Borrow" as shown in the Estimate of Quantities will be the basis of payment for this item.

Prior to placement of fill material, the Contractor will be required to remove 3 inches of topsoil and replace it on the inslopes of newly constructed embankments. Payment for the above shall be incidental to the contract unit price per cubic yard for "Contractor Furnished Borrow".

Once a work site is opened up at a given location, work shall proceed in a continuous manner to minimize the potential for erosion. Failure to pursue the work once work has begun at a given site will result in Liquidated Damages being assessed at a rate of \$100.00 per day.

It is anticipated that water for compaction will not be required. When, in the opinion of the Engineer, the fill material is dry, water may be ordered and placed to the satisfaction of the Engineer.

The cost of water shall be incidental to the contract unit price per cubic yard for "Contractor Furnished Borrow".

All fill material shall meet with the approval of the Engineer. The Contractor will be required to obtain his own borrow sources. Borrow areas within the right-of-way may be available with prior approval of the Engineer.

Excavation quantities are computed using the volume of embankment plus 20 percent for shrinkage. Plans quantity will be paid for at the contract unit price per cubic yard for "Contractor Furnished Borrow" unless the Engineer orders changes.

The Contractors attention should be drawn, and consideration given, to Section 7.21 of the Standard Specifications prior to the planning and procurement of Borrow sites for the Contractor Furnished Borrow required on this project.

Restoration of the Contractor Furnished Borrow site(s) shall be the responsibility of the Contractor and shall be completed to the satisfaction of the Engineer.

Compaction shall be to the satisfaction of the Engineer.

HISTORICAL PRESERVATION OFFICE CLEARANCES

To obtain State Historical Preservation Office (SHPO) clearance, a cultural resources survey may need to be conducted by a qualified archaeologist. In lieu of a cultural resources survey, the Contractor could request a records search from Jim Donohue, State Archaeological Research Center (SARC). Provide SARC 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 no artifacts have been found on the site. The Contractor shall arrange and pay for the cultural resource survey and/or records search.

If any earth disturbing activities occur within the current geographical or historic boundaries of any South Dakota reservation, the Contractor shall obtain Tribal Historical Preservation Office (THPO) clearance. If no THPO exists, the required SHPO clearance shall suffice, with documentation of Tribal contact efforts provided to SHPO.

To facilitate SHPO or THPO responses, the Contractor should submit a records search or cultural resources survey report to the DOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3268). Allow 30 days from the date this information is submitted to the Environmental Engineer for SHPO/THPO approval. The Contractor is responsible for obtaining all required permits and clearances for staging areas, borrow sites, waste disposal sites, and all material processing sites. The Contractor shall provide the required permits and clearances to the Engineer at the preconstruction meeting.

WASTE DISPOSAL SITE

The Contractor will be required to furnish a site(s) for the disposal of construction/demolition debris generated by this project.

Construction/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 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/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/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.

MUCKING SILT FENCE

Mucking silt fence shall consist of removing muck trapped by the silt fence and spreading the material evenly over the adjacent area to conform to the existing grade.

REMOVE SILT FENCE

Silt fence shall be removed when vegetation is established. Some or all of the silt fence may be left on the project until vegetation is established.

HIGH FLOW SILT FENCE

The high flow silt fence fabric provided shall be from the approved product list. The approved product list for high flow silt fence may be viewed at the following internet site:

<http://apps.sd.gov/Applications/HC54ApprovedProducts/main.asp>

High flow silt fence shall be placed on project 018-392 at station 3+00 Lt. to minimize siltation of the adjacent stream. High flow silt fence shall also be placed at the inlet of the 48” CMP at station 12+84 Lt. Refer to Standard Plate 734.05 for details.

TOPSOIL

All disturbed slope flattening areas and non-ditch areas shall have salvage topsoil placed. The contractor shall disk and rake the topsoil such that there are not any clumps of sod or topsoil greater than 3 inches in diameter existing prior to seeding.

All topsoil shall be removed and salvaged from the approaches to receive slope flattening work and reused on the approaches. Costs for salvaging & replacing the topsoil shall be incidental to the unit bid cost for Contractor Furnished Borrow.

PERMANENT SEEDING

The area will be reseeded with Type F Permanent Seed Mixture (estimated @ 0.80 acres).

Permanent Seeding will be measured and paid for where embankment work is accomplished.

Seeding of borrow areas within the right-of-way will be required as specified above but will not be measured for payment. Restoration of borrow areas outside the right-of-way will be as per agreement with the landowner and will not be paid for.

Hand seeding devices approved by the Engineer will be allowed. All seed broadcast, including the use of a hydroseeder, must be raked or dragged in (incorporated) with the top 1/4 to 1/2 inch of topsoil to the satisfaction of the Engineer.

PERMANENT SEEDING-CONTINUED

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 July; Winter Wheat: August through November		10
Total:		26

MULCHING (HAY OR STRAW)

Following permanent seeding, a mulch consisting of grass hay or straw shall be blown on at the rate of 2 tons per acre and punched in on slopes 3:1 and flatter and on 2:1 slopes where equipment can be operated without rutting the slope due to slippage. Bales with noxious weed contamination will be rejected and the Contractor will be required to remove the contaminated bales from the project.

FERTILIZING

Application of fertilizer will not be required on this project.

TURF REINFORCEMENT MAT

Turf Reinforcement Mat shall be installed at the location described in the plans. 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://www.state.sd.us/Applications/HC54ApprovedProducts/main.asp>

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

SHAPING FOR EROSION CONTROL BLANKET & TURF REINFORCEMENT

The ditches shall be shaped for the erosion control blanket and turf reinforcement as specified on Standard Plate 734.01. All costs for shaping the ditches for turf reinforcement blanket including labor and equipment shall be incidental to the contract unit price per foot for "Shaping for Erosion Control Blanket".

UTILITIES

The contractor shall contact the involved utility companies through South Dakota One Call prior to starting work. It shall be the responsibility of the Contractor to coordinate work with the utility company to avoid damage to existing facilities.

GENERAL MAINTENANCE OF TRAFFIC

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

Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. 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 to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

All construction operations shall be conducted in the general direction of traffic movement. All signs shall be mounted on portable supports. The bottom of signs on portable or temporary supports shall not be less than seven feet above the pavement in urban areas and one foot above the pavement in rural areas. Portable sign supports may be used as long as the duration is less than three days. If the duration is more than three days, the signs shall be on fixed supports. The work areas for this contract will be signed as rural areas.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP 350 or MASH crashworthy requirements. The Contractor shall provide post installation details at the preconstruction meeting for all steel post breakaway sign support assemblies.

Traffic control signs furnished will be paid for only once per project. The cost of moving signs within project limits shall be incidental to the contract unit price per unit for Traffic Control.

Additional standard signs, as ordered by the Engineer, shall be available within two (2) working days. Failure to provide signs within this time limit will result in Liquidated Damages being assessed in the amount of \$400 per Calendar Day. Payment for additional signs will be paid using the contract unit price per unit for Traffic Control.

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

The contractor shall furnish, install and maintain "Truck Crossing" signs. The exact number and location will be determined on construction. Payment for these signs will be incidental to the contract unit price per unit for Traffic Control and will be paid for once on the project.

ITEMIZED LIST FOR TRAFFIC CONTROL

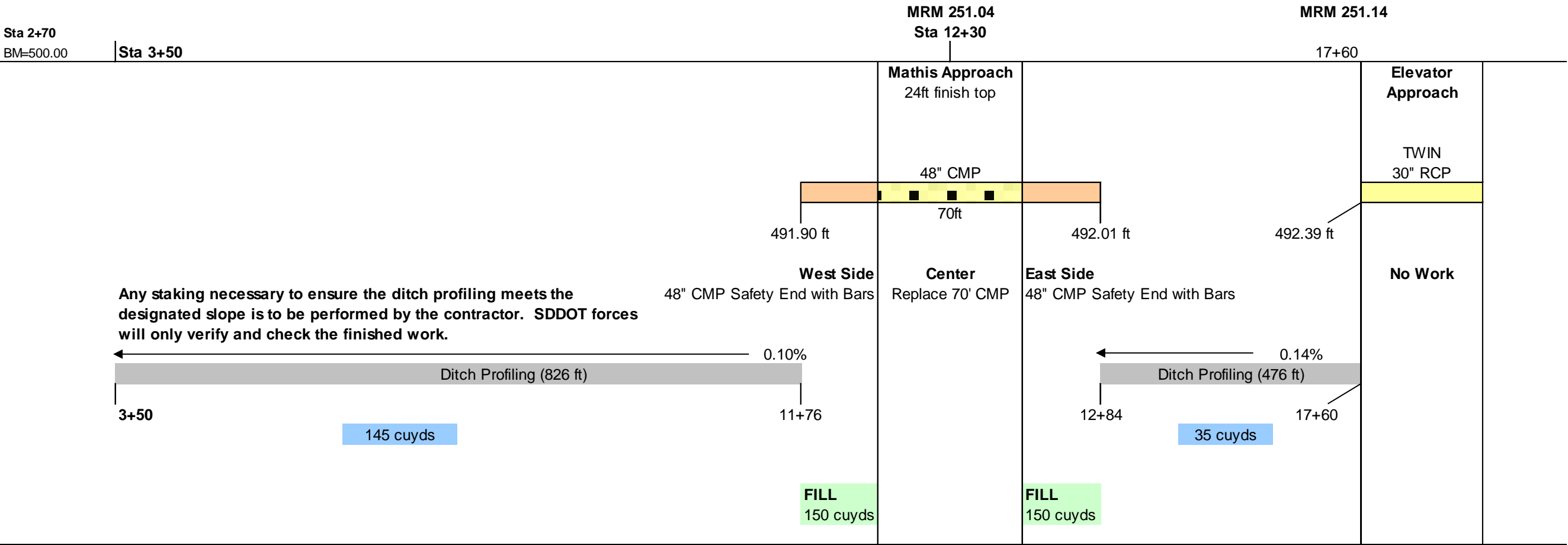
018-392 PCN I2RN

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2A	36" x 18"	END ROAD WORK	1	17	17
W8-6	48" x 48"	TRUCK CROSSING	2	34	68
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	1	34	34
W20-7a	48" x 48"	FLAGGER	1	34	34
W21-5	48" x 48"	SHOULDER WORK	1	34	34
TOTAL UNITS					187








044-392 PCN I2RP

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2A	36" x 18"	END ROAD WORK	1	17	17
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	1	34	34
W21-5	48" x 48"	SHOULDER WORK	1	34	34
TOTAL UNITS					85

SUMMARY OF WORK (018-392) – MRM 250.8 to 251.1 EAST BOUND DITCH



LEGEND

-  = Existing Approach Pipe
-  = Install 48" CMP Safety Ends with Bars
-  = Existing pipe to be Removed & Replaced
-  = Ditch Reshaping Area
-  = Estimated Fill for Slope Flattening
-  = Drainage Direction Arrows
-  = Excavation from Ditch Reshaping

Bench Mark Description

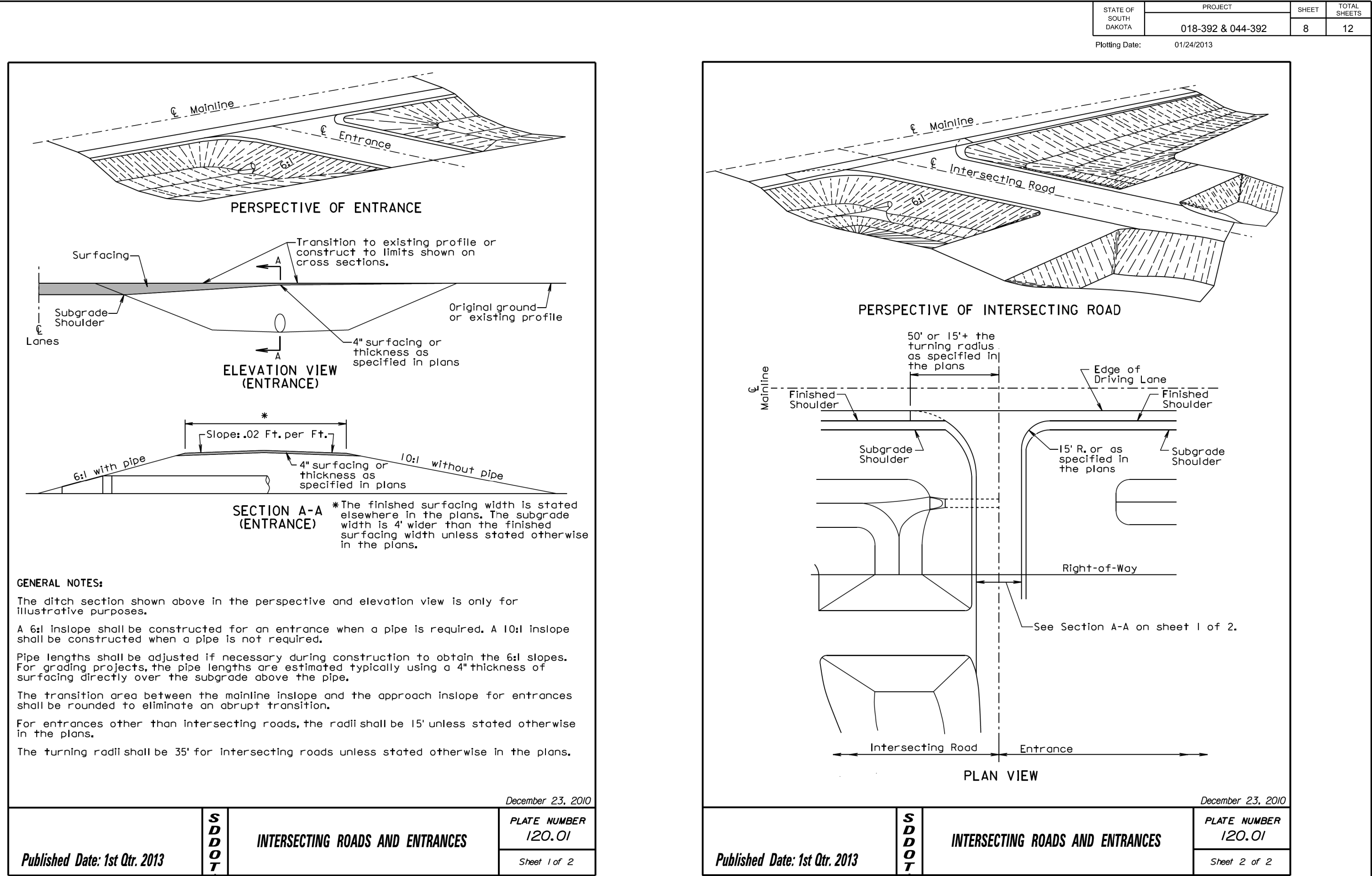
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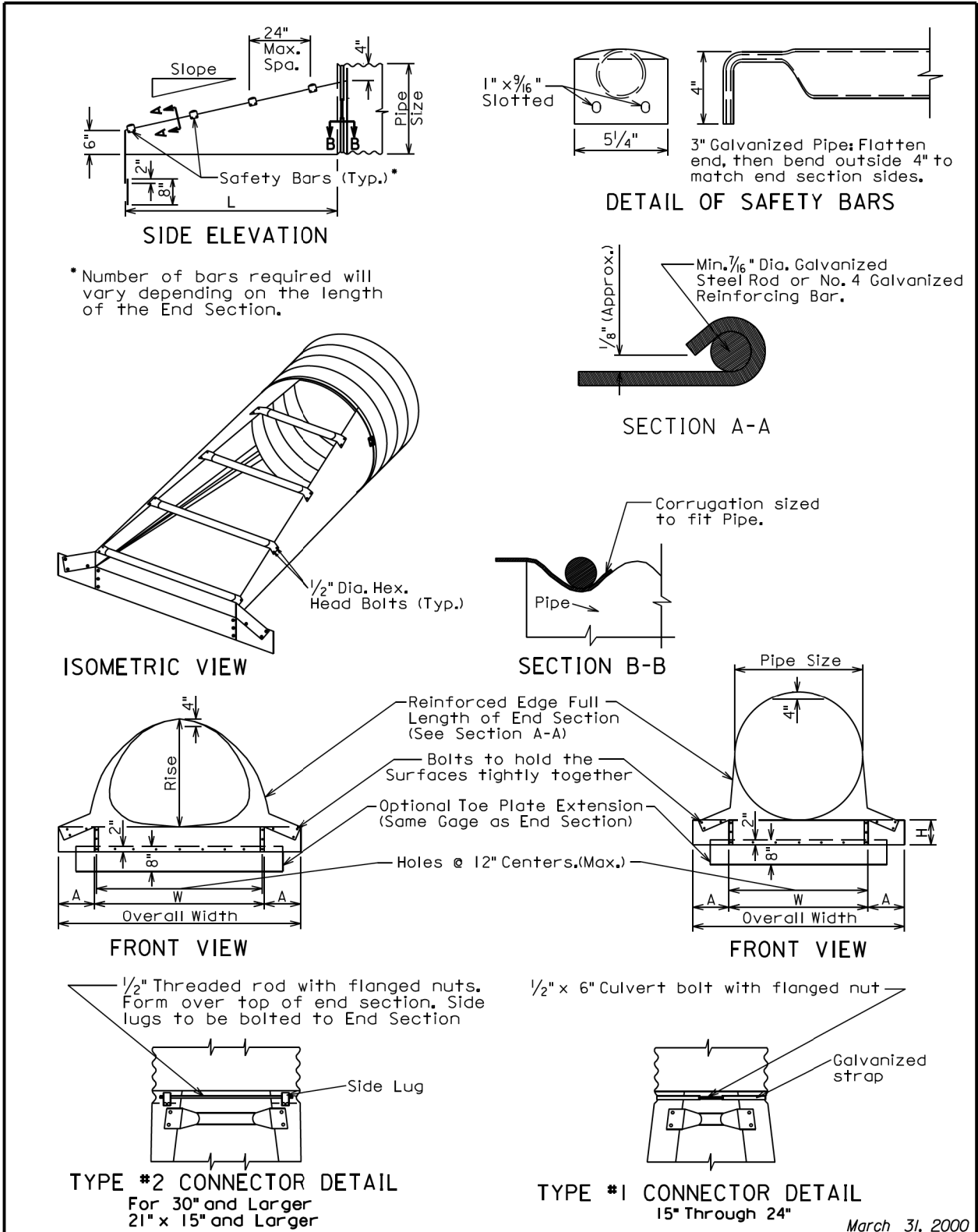
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Published Date: 1st Qtr. 2013	S D D O T	C. M. P. SAFETY ENDS	PLATE NUMBER 450.38
			Sheet 1 of 2

ARCH C.M.P. SAFETY ENDS										
Equiv. Dia. (In.)	(Inches)		Min. Thick.		Dimensions (Inches)				L Dimensions	
	Span	Rise	In.	Gage	A	H	W	Overall Width	Slope	Length (In.)
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. (In.)	Min. Thick.		Dimensions (Inches)				L Dimensions		
	In.	Gage	A	H	W	Overall Width	Slope	Length (In.)	
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 bars shall be attached to safety ends over 24" in diameter only.

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

Safety bars shall be fabricated from steel pipe conforming to the requirements of ASTM A-53 Schedule 40 Specifications.

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.

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.

Published Date: 1st Qtr. 2013	S D D O T	C. M. P. SAFETY ENDS	March 31, 2000 PLATE NUMBER 450.38
			Sheet 2 of 2

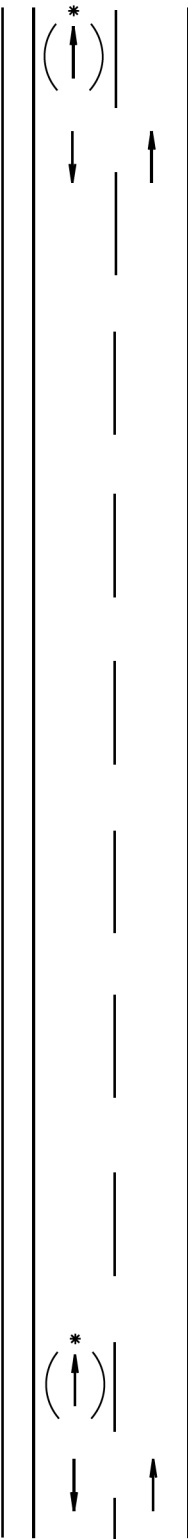
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

The signs illustrated shall be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

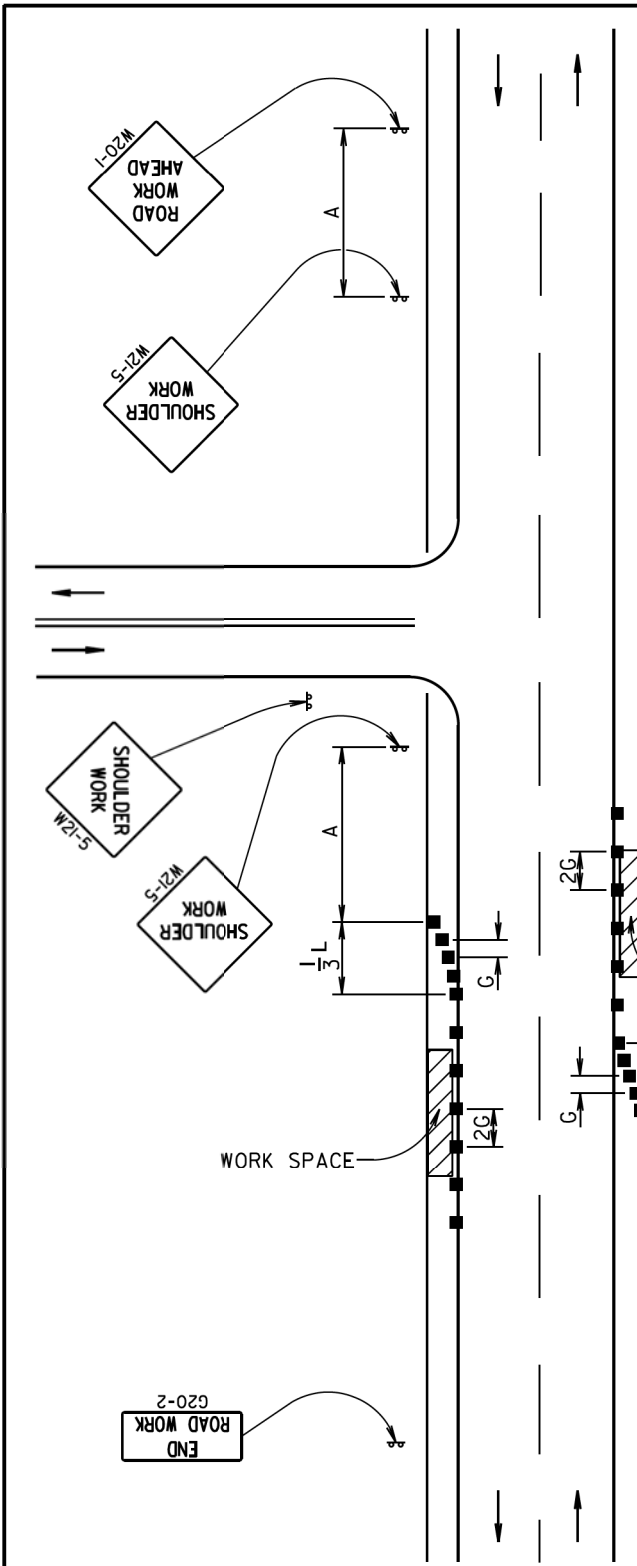


Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 75	1000



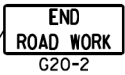
July 1, 2005

Published Date: 1st Qtr. 2013	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
			Sheet 1 of 1



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	100 - 200	180	25
35 - 40	350	320	25
45 - 50	500	600	50
55	750	660	50
60 - 65	1000	780	50

Channelizing Device



The channelizing devices shall be drums or 42" cones if traffic control must remain overnight or longer.

For short duration operations (1 hour or less) all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Worker signs (W21-1 or W21-1a) may be used instead of SHOULDER WORK signs.

A SHOULDER WORK sign should be placed on the left side of a divided or one-way roadway only if the left shoulder is affected.

The SHOULDER WORK sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

WORK SPACE

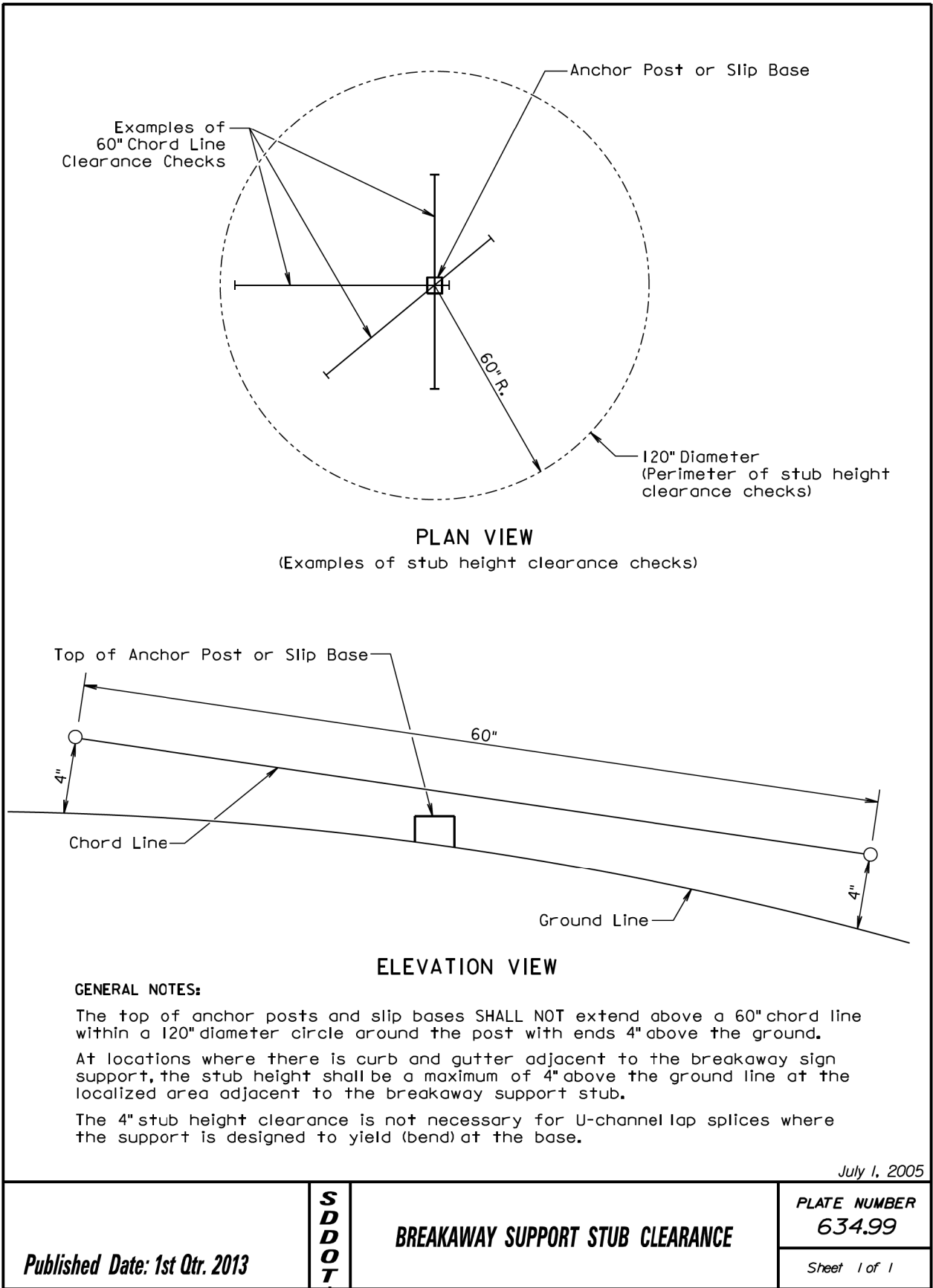
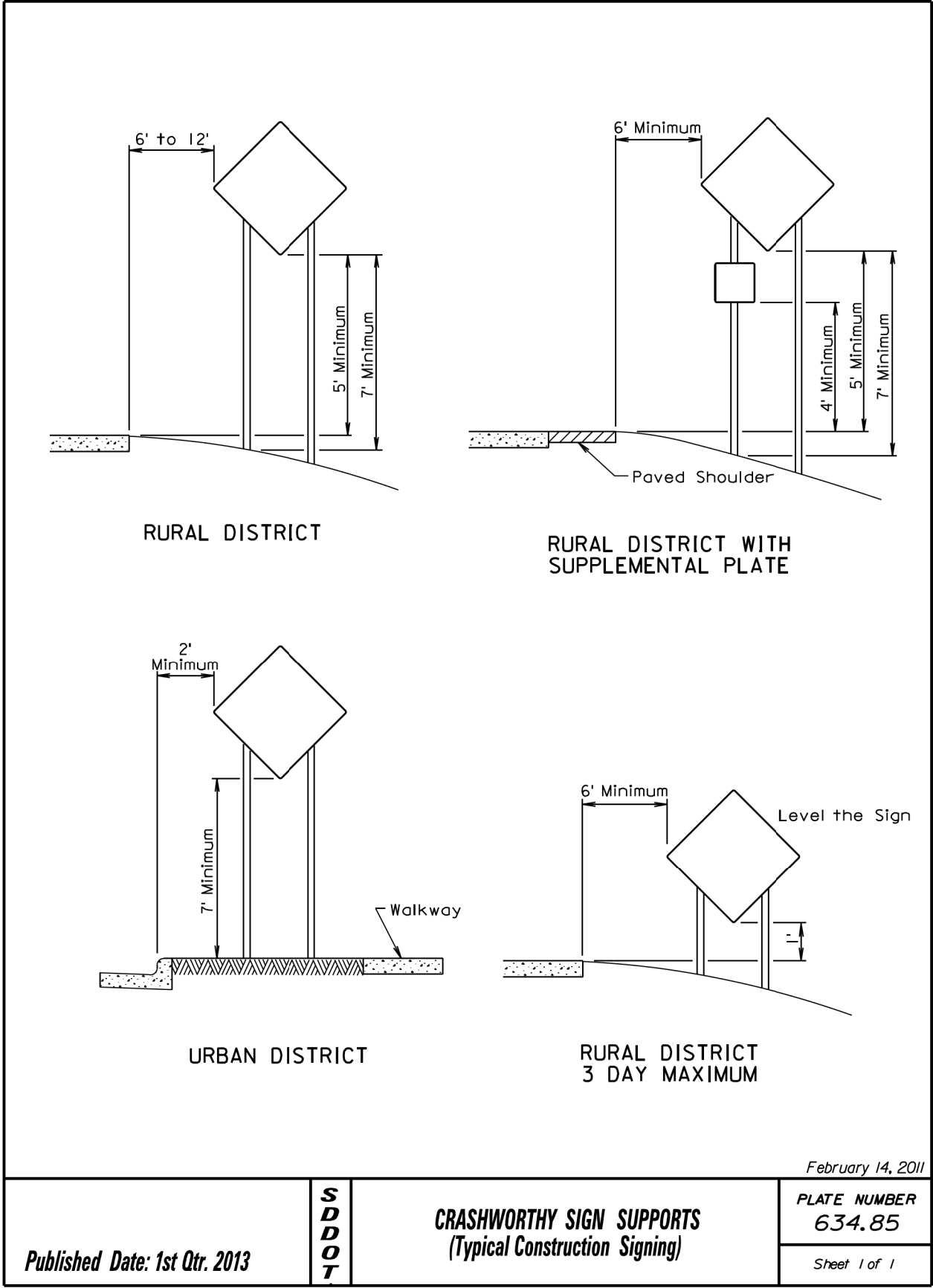


February 14, 2011

Published Date: 1st Qtr. 2013	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WORK ON SHOULDERS	PLATE NUMBER 634.03
			Sheet 1 of 1

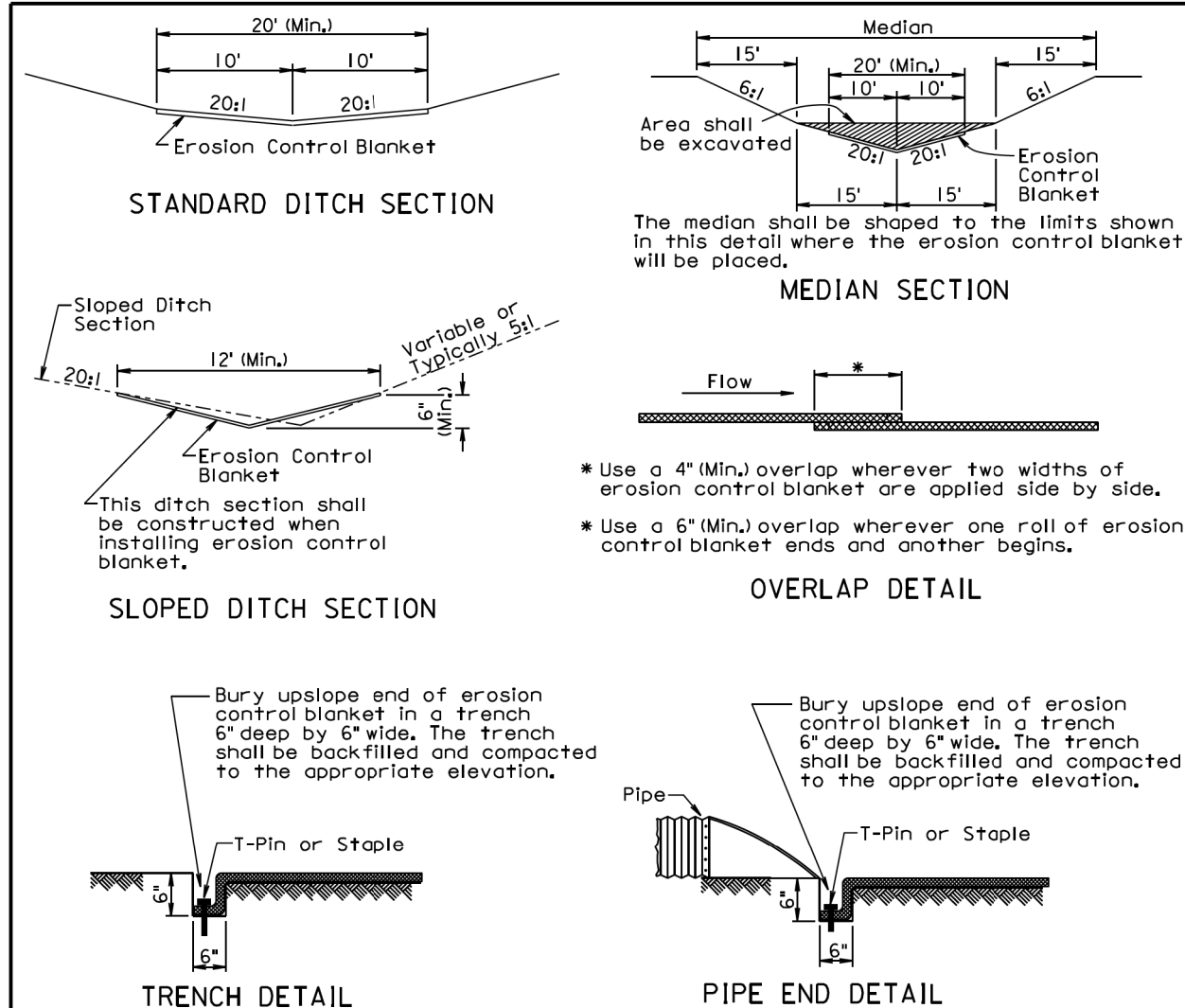
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	018-392 & 044-392	11	12

Plotting Date: 01/24/2013



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	018-392 & 044-392	12	12

Plotting Date: 02/20/2013



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.

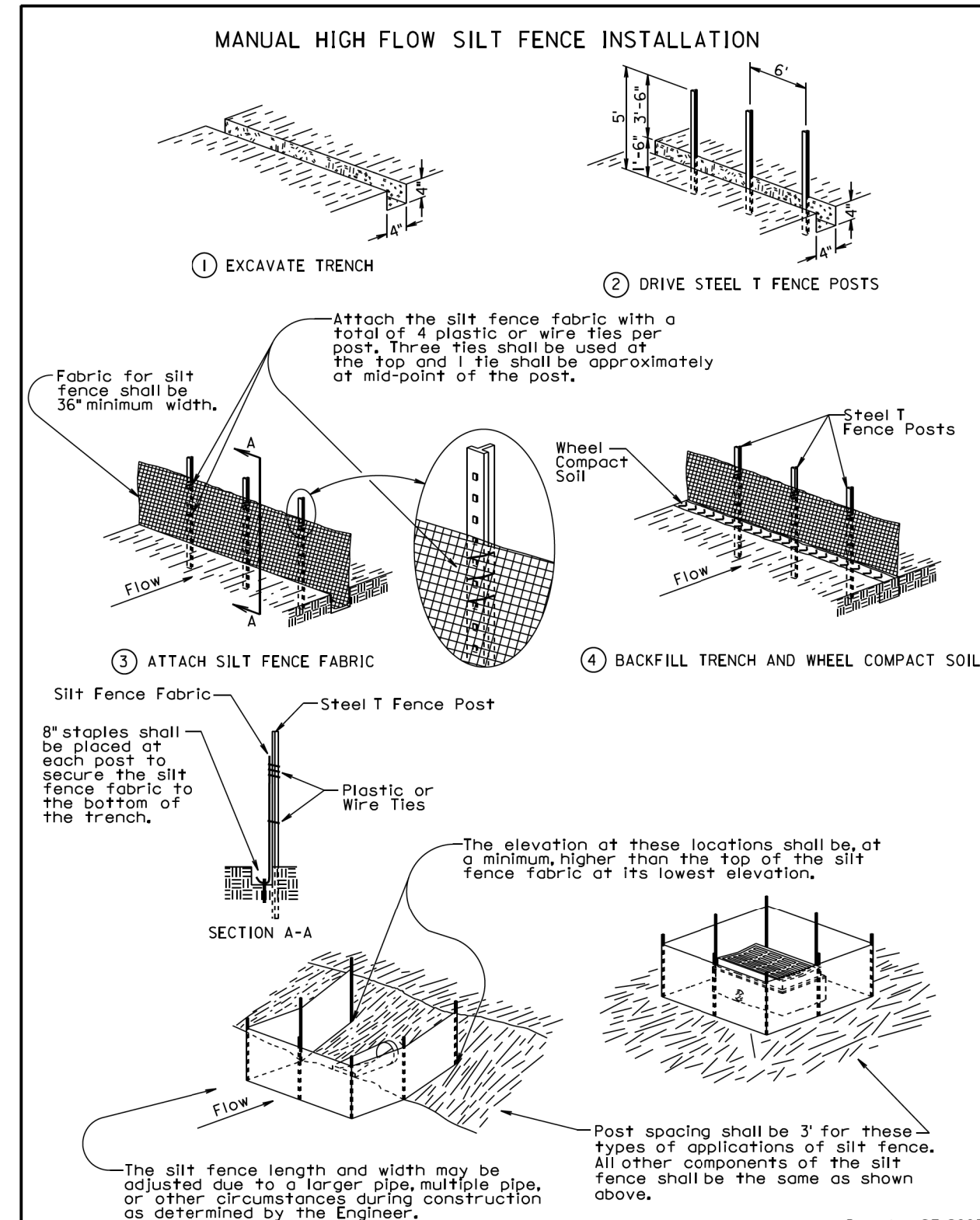
The erosion control blanket shall be pinned to the ground according to the manufacturer's installation recommendations.

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: 1st Qtr. 2013	S D D O T	EROSION CONTROL BLANKET	PLATE NUMBER 734.01
			Sheet 1 of 1



December 23, 2003

Published Date: 1st Qtr. 2013	S D D O T	HIGH FLOW SILT FENCE	PLATE NUMBER 734.05
			Sheet 1 of 2