Plot Scale - 1:200
Plotted From - trrc12608

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	016A-491	1	11

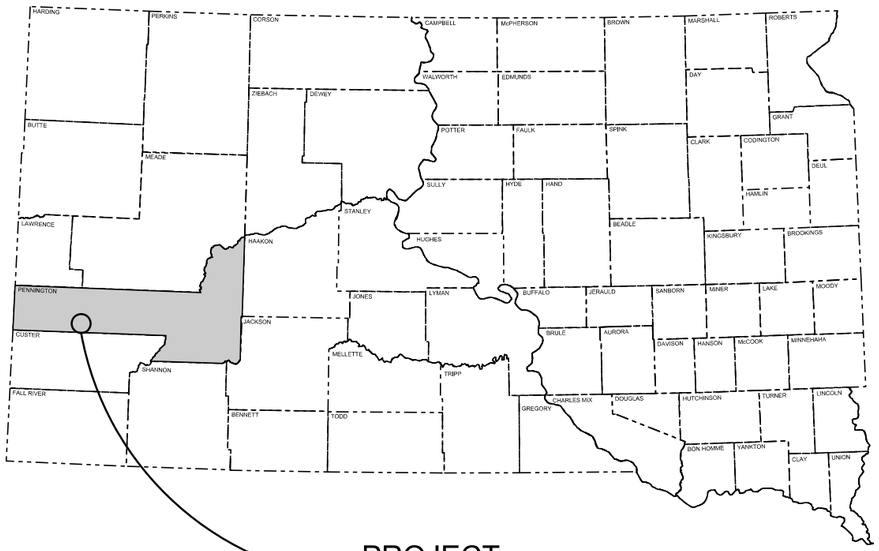
Plotting Date: 05/20/2013

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

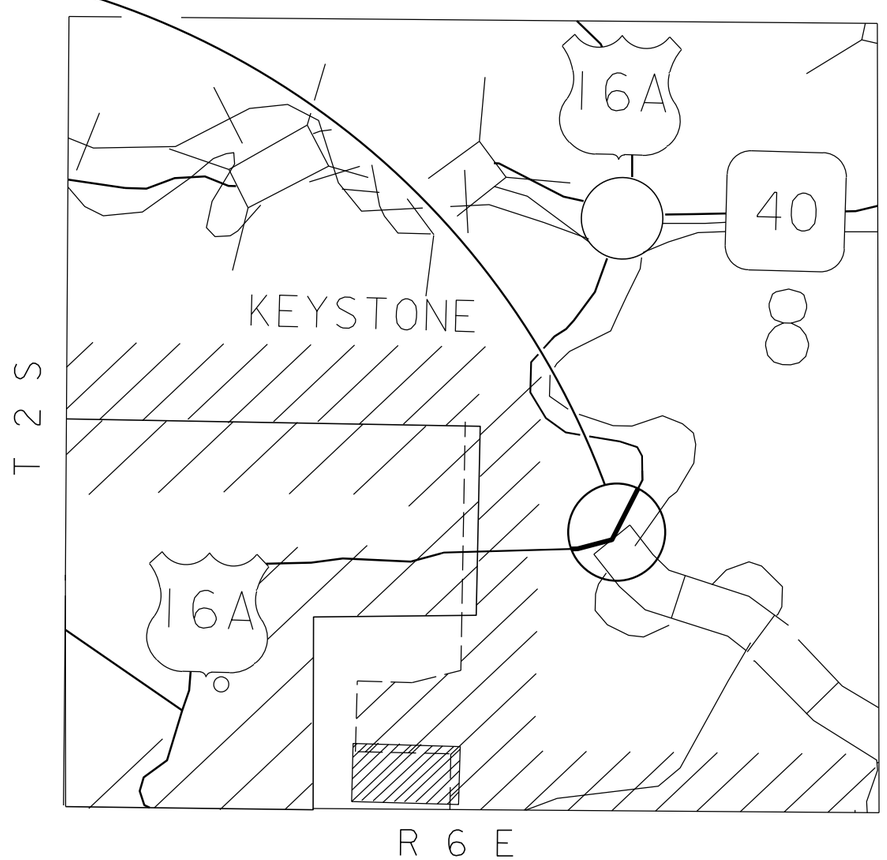
PLANS FOR PROPOSED

PROJECT 016A-491
US HIGHWAY 16A
PENNINGTON COUNTY

SIDEWALK AND PEDESTRIAN RAILING
PCN i2vf



PROJECT
US 16A
MRM 56.36



INDEX OF SHEETS

DESIGN DESIGNATION

ADT (2012)	3248
ADT (2032)	5437
DHV	1093
D	51%
T DHV	3.7%
T ADT	8.2%
V	25 mph

STORM WATER PERMIT

No Storm Water Permit required

File - ...\Title.dgn

ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E1140	Remove Concrete Sidewalk	109.4	SqYd
260E6010	Granular Material	11.0	Ton
462E0100	Class M6 Concrete	9.1	CuYd
470E0040	Steel Pedestrian Railing	196.8	Ft
621E0300	Chain Link Fence for Bridge Sidewalk	197	Ft
634E0010	Flagging	20	Hour
634E0100	Traffic Control	510	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
651E0160	6" Reinforced Concrete Sidewalk	1,281	SqFt
831E0110	Type B Drainage Fabric	109	SqYd

SPECIFICATIONS

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

UTILITIES

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.

Any damage to a utility will be the Contractor's responsibility to repair.

Utilities, if identified within the limits of the proposed construction, shall be adjusted by the owner as addressed in SDCL 31-26-23 unless otherwise indicated in these plans.

WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the DOT Environmental Office.

The DOT Environmental Office contact is the Environmental Project Scientist, 605-773-3268. The WATER SOURCE plan note does not relieve the Contractor of his/her responsibility to obtain the necessary permits from other agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE).

WORK AFFECTING WATERWAYS

Storm Water

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

SEQUENCE OF OPERATIONS

Variations from this sequence shall be submitted to the Engineer for approval.

1. Set up traffic control.
2. Remove steel pipe railing.
3. Remove sidewalk.
4. Install sidewalk/leveling pad.
5. Install new pedestrian railing.
6. Remove traffic control.

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.

WASTE DISPOSAL SITE (CONTINUED)

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.

EXISTING CURB AND GUTTER

All existing curb and gutter shall remain in place. The new sidewalk and ramp shall be adjusted to match the existing curb and gutter. Any damage to the curb and gutter shall be repaired by the Contractor at no additional cost to the State.

SAWING IN EXISTING SURFACING

Where new concrete is placed adjacent to existing concrete, the existing concrete shall be sawed full depth to a true line with a vertical face. The cost for sawing shall be paid for at the contract unit bid price per SqYd for Remove Concrete Sidewalk.

REMOVAL OF CONCRETE SIDEWALK

1. The existing concrete sidewalk and existing pipe rail within the limits shown in the plans shall be completely removed by the Contractor.

2. All broken out concrete shall be disposed of by the Contractor at an approved site. An appropriate site will be as described in the Waste Disposal Site notes in this set of plans.

3. All labor, tools, equipment and any incidentals necessary for removal and disposal of the existing concrete sidewalk and pipe rail shall be incidental to the contract unit price per square yard for “Remove Concrete Sidewalk”.

4. It is estimated that 109.4 SqYd of concrete sidewalk removal shall be required.

CLASS M6 CONCRETE

Class M6 Concrete shall be used for construction of the leveling pad.

Requirements for the contract item Class M6 Concrete shall conform to the requirements of Section 462 of the Construction Specification except as noted below.

1. The minimum 28 day compressive strength shall be 4500 psi (31MPa).

2. Coarse Aggregate to be used in concrete shall consist of either crushed quartzite or other crushed ledge rock. If crushed ledge rock other than quartzite is to be used, it shall be from a source approved by the Engineer.

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. Access shall be maintained at all times to all side streets and approaches.

3. 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.

4. 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.

TRAFFIC CONTROL – GENERAL NOTES (CONTINUED)

5. 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 delineation, shall be the responsibility of the Contractor. Non-applicable signing 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 36 hours. The cost of removing or covering non-applicable signs shall be incidental to the contract lump sum price for, Traffic Control, Miscellaneous.

6. 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.

7. 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.

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.

13. If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD – whichever is more stringent shall be used.

14. Temporary Road Markers shall be used for lane closure tapers or lane shift tapers. Temporary Road Markers used for tapers and shifts will not be measured for payment and will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

15. Drums are required in all lane closure tapers.

INVENTORY OF TRAFFIC CONTROL DEVICES

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	1	17	17
R9-8	36" x 18"	PEDESTRIAN CROSSWALK	2	17	34
R9-9	24" x 12"	SIDEWALK CLOSED	2	4	8
R9-10	24" x 12"	SIDEWALK CLOSED, USE OTHER SIDE	3	4	12
R9-11	24" x 18"	SIDEWALK CLOSED AHEAD, CROSS HERE	1	7	7
W4-2	48" x 48"	RIGHT LANE ENDS (SYMBOL)	1	34	34
W11-2	36" x 36"	PEDSTRIAN (SYMBOL)	4	27	108
W16-7P	30" x 18"	DOWNWARD DIAGONAL ARROW	2	15	30
W16-9P	30" X 18"	AHEAD	2	15	30
W20-1	48" x 48"	ROAD WORK AHEAD	5	34	170
*****		TYPE III BARRICADE - 6 FT. SINGLE SIDED	2	30	60
				TOTAL UNITS	**510**

REINFORCED CONCRETE SIDEWALK AND LEVELING PAD

The leveling pad shall be constructed as shown.

The existing granular material shall be salvaged prior to installation of the drainage fabric and leveling pad. The Contractor shall use caution to not damage the existing gabion baskets. Damage to the existing gabion baskets shall be repaired at the Contractor’s expense. The existing granular material shall be used as backfill over the drainage fabric and against the leveling pad. The existing granular material shall be watered and compacted to the satisfaction of the Engineer. All costs associated with this work shall be incidental to the contract unit price per cubic yard for Class M6 Concrete

Type B Drainage Fabric shall be placed as shown in the section A-A of the Sidewalk Replacement Details.

All costs for furnishing and placing the fabric including incidentals shall be paid for at the contract unit price per square yard for Type B Drainage Fabric.

It is estimated that 109 SqYd of Type B Drainage Fabric will be required.

Granular Material shall be used to bring the base to the appropriate level for the construction of the sidewalk.

All costs for furnishing and placing Granular Material shall be paid for at the contract unit price per ton for Granular Material.

It is estimated that 11.0 Tons of Granular Material will be required.

The sidewalk shall then be constructed as shown.

The new reinforced concrete sidewalks shall be constructed in accordance with section 460 of the construction specifications. The sidewalks shall have a broomed or carpet drag finish with no tining.

All costs involved in furnishing and placing reinforced concrete sidewalks including concrete, epoxy coated reinforcing steel, 1” preformed expansion joint material and all labor, tools and equipment shall be included in the contract unit price per square foot for 6” Reinforced Concrete Sidewalk.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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STEEL PEDESTRIAN RAILING

1. All rail posts shall be built vertical.

2. All structural steel parts for railing shall conform to ASTM A500, Grade B. Material less than ¼" thick may be ASTM A570, Grade 36 and rail post base plates may be ASTM A709, Grade 36.

3. All anchor bolts and nuts for railing shall conform to ASTM F1554, Grade 55. Washers shall conform to ASTM F436 and all components shall be galvanized in accordance with ASTM A153. The bolts shall be hex head "structural" type with heavy hex nuts and round washers.

4. All anchor bolts shall be tightened to a torque of 120 ft.-lbs. (approximated without the use of a calibrated torque wrench).

5. The non-shrink grout used to fill the recess beneath the rail post base plates shall be a commercially available non-shrink grout containing no metallic particles and capable of attaining a 28 day compressive strength of 3000 psi. The non-shrink grout shall be mixed according to the manufacturer's recommendations. The cost of furnishing and placing the non-shrink grout shall be incidental to the contract unit price per foot for "Steel Pedestrian Railing".

6. All steel railing shall be painted in accordance with Section 411 of the South Dakota Standard Specifications and the color shall be an approved green (Federal Standard 595B Color 24108).

7. The costs of structural steel, painting and galvanizing shall be incidental to the contract unit price per foot for Steel Pedestrian Railing.

CHAIN LINK FENCE FOR BRIDGE SIDEWALK

1. The chain link fence fabric and miscellaneous hardware for the chain link fence shall conform to Section 930 of the Construction Specifications as modified by the following notes.

2. The miscellaneous hardware shall be galvanized and conform to AASHTO M181. The fence fabric shall be Type IV 9 gauge wire woven in a 2" diamond mesh. Knuckled selvage shall be used on the top and bottom of the fence fabric.

3. The Fabric Ties shall be 11 gauge aluminum. The Tension Bars shall be 3/16'' x 5/8'' x 36''.

4. All carriage bolts shall conform to ASTM A307. Washers shall conform to ASTM F436 and all components shall be galvanized in accordance with ASTM A153 or ASTM F2329, as applicable.

5. All nuts shall be tightened as recommended by the Manufacturer.

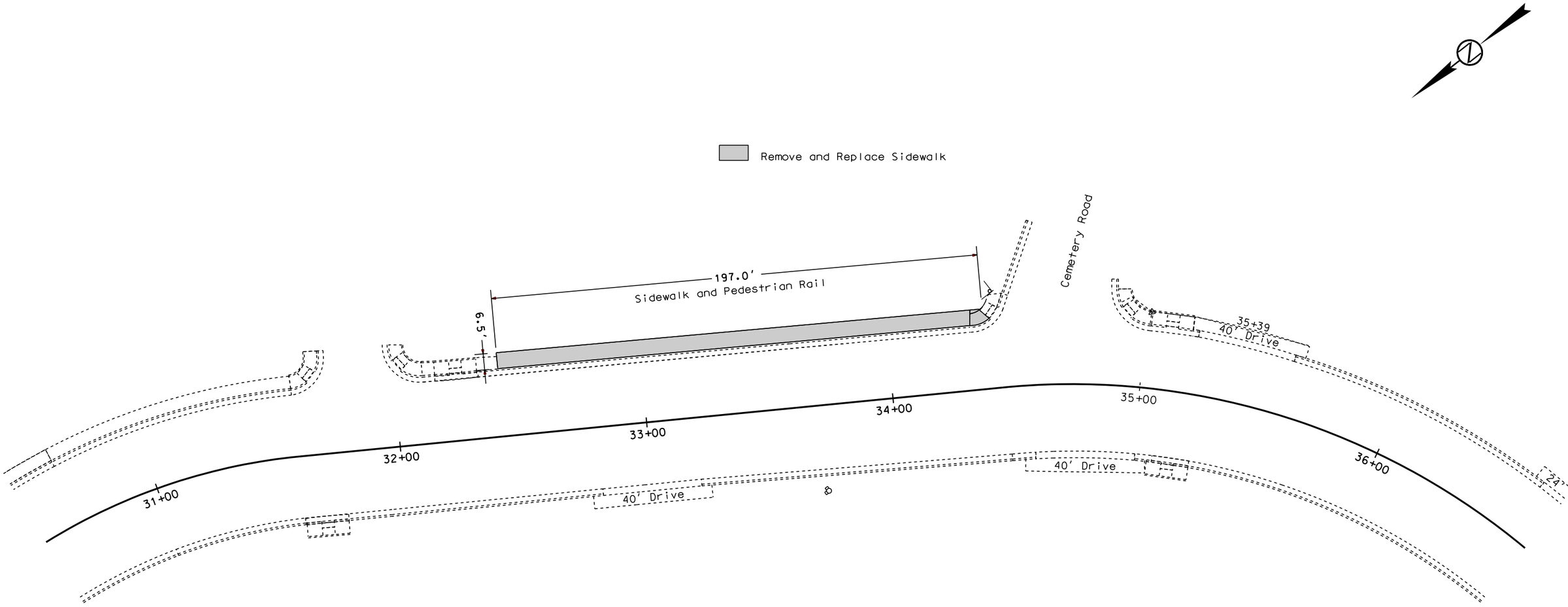
6. A green (Federal Standard 595B Color 24108) thermally extruded polyvinyl coating shall be applied to the fence fabric and wire ties.

7. The item Chain Link Fence for Bridge Sidewalk shall be paid for by the linear foot. This payment shall be full compensation for furnishing all material, labor, tools and equipment necessary or incidental to the construction of the chain link fence including chain link fence fabric, wire ties, and miscellaneous hardware, all to satisfactorily complete this work.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	016A-491	5	11

Plotting Date: 05/15/2013

SIDEWALK AND PEDESTRIAN RAIL LAYOUT



PLOT SCALE - 1:40

PLOT NAME - 2

PLOTTED FROM - TRRC12608

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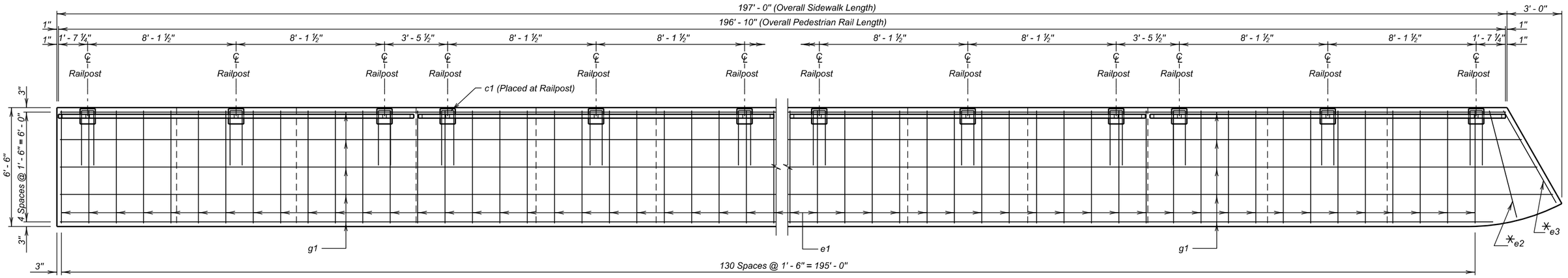
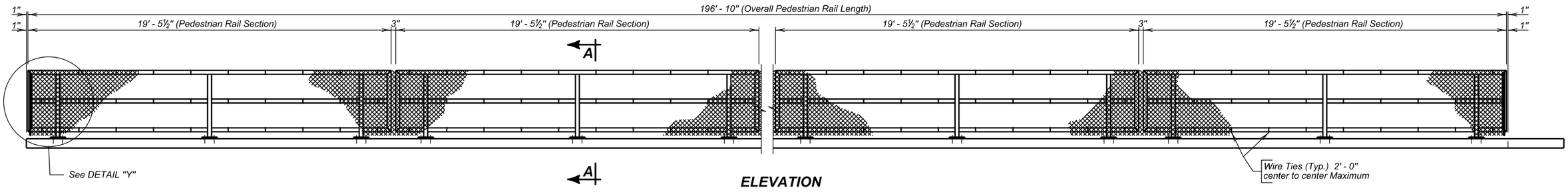
STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	016A-491	6	11



PLAN

✳ Rotate and evenly space bars



ELEVATION

SIDEWALK AND PEDESTRIAN RAIL REPLACEMENT LAYOUT

PENNINGTON COUNTY

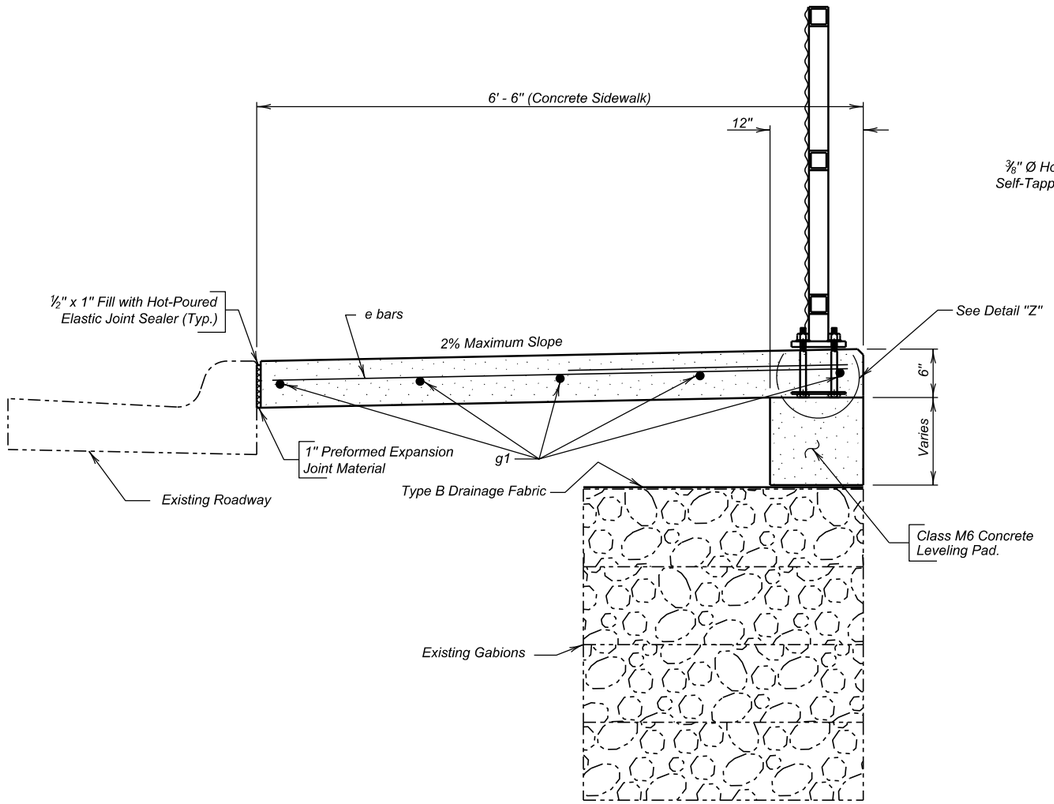
S. D. DEPT. OF TRANSPORTATION

MAY 2013

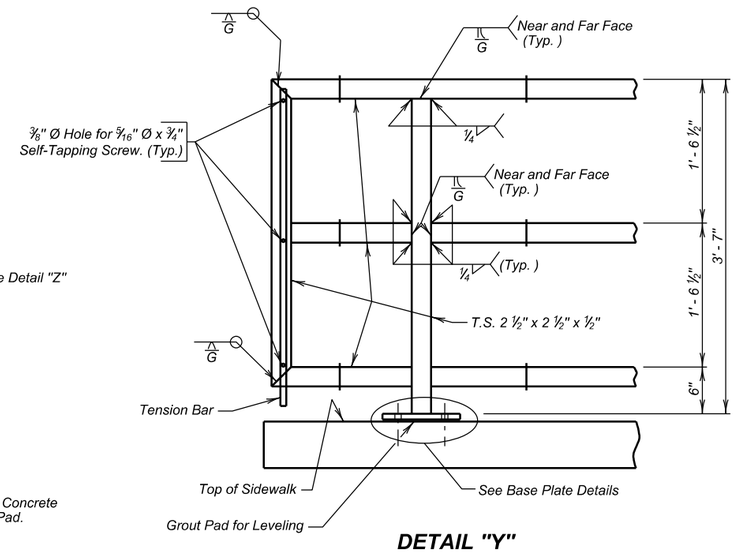
1 OF 2

DESIGNED BY	DRAWN BY	CHECKED BY	
NP	NP/JRK	TK	Kevin N. Goeden BRIDGE ENGINEER
PENNI2VF	I2VFKA01		

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	016A-491	7	11



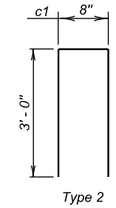
SECTION A - A



DETAIL "Y"

REINFORCING SCHEDULE

Mk.	No.	Size	Length	Type	Bending Details
c1	30	4	6' - 8"	2	
e1	131	4	6' - 2"	Str.	
e2	1	4	6' - 0"	Str.	
e3	1	4	5' - 10"	Str.	
g1	25	4	40' - 11"	Str.	



Type 2

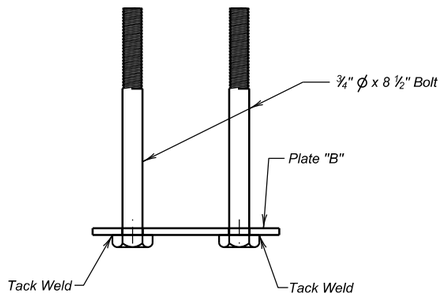
NOTES:
All Bars to be Epoxy Coated.
All dimensions are out to out of bars.

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Remove Concrete Sidewalk	Sq. Yd.	109.4
Type B Drainage Fabric	Sq. Yd.	109.4
Class M6 Concrete	Cu. Yd.	9.1
6" Reinforced Concrete Sidewalk	Sq. Ft.	1280.5
Steel Pedestrian Railing	Ft.	196.8
Chain Link Fence for Bridge Sidewalk	Ft.	196.8

Items 1 and 2 are approximate quantities contained in the above bid item and are for information only.

1. Concrete in Sidewalk. 18.2 Cu. Yd.
2. Epoxy Coated Re-Steel in Sidewalk. 1364 Lb.



DETAIL "Z"

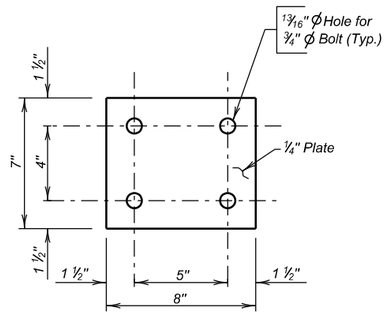
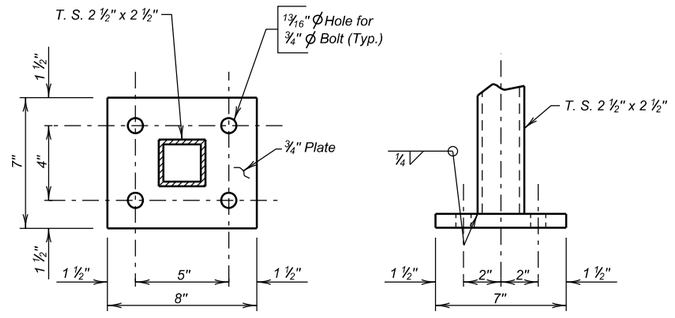


PLATE "B"



BASE PLATE DETAILS

SIDEWALK AND PEDESTRIAN RAIL REPLACEMENT DETAILS

PENNINGTON COUNTY
S. D. DEPT. OF TRANSPORTATION
MAY 2013

2 OF 2

DESIGNED BY	DRAWN BY	CHECKED BY	
NP	NP/JRK	TK	Kevin N. Boeder BRIDGE ENGINEER
PENNI2VF	I2VFKA02		

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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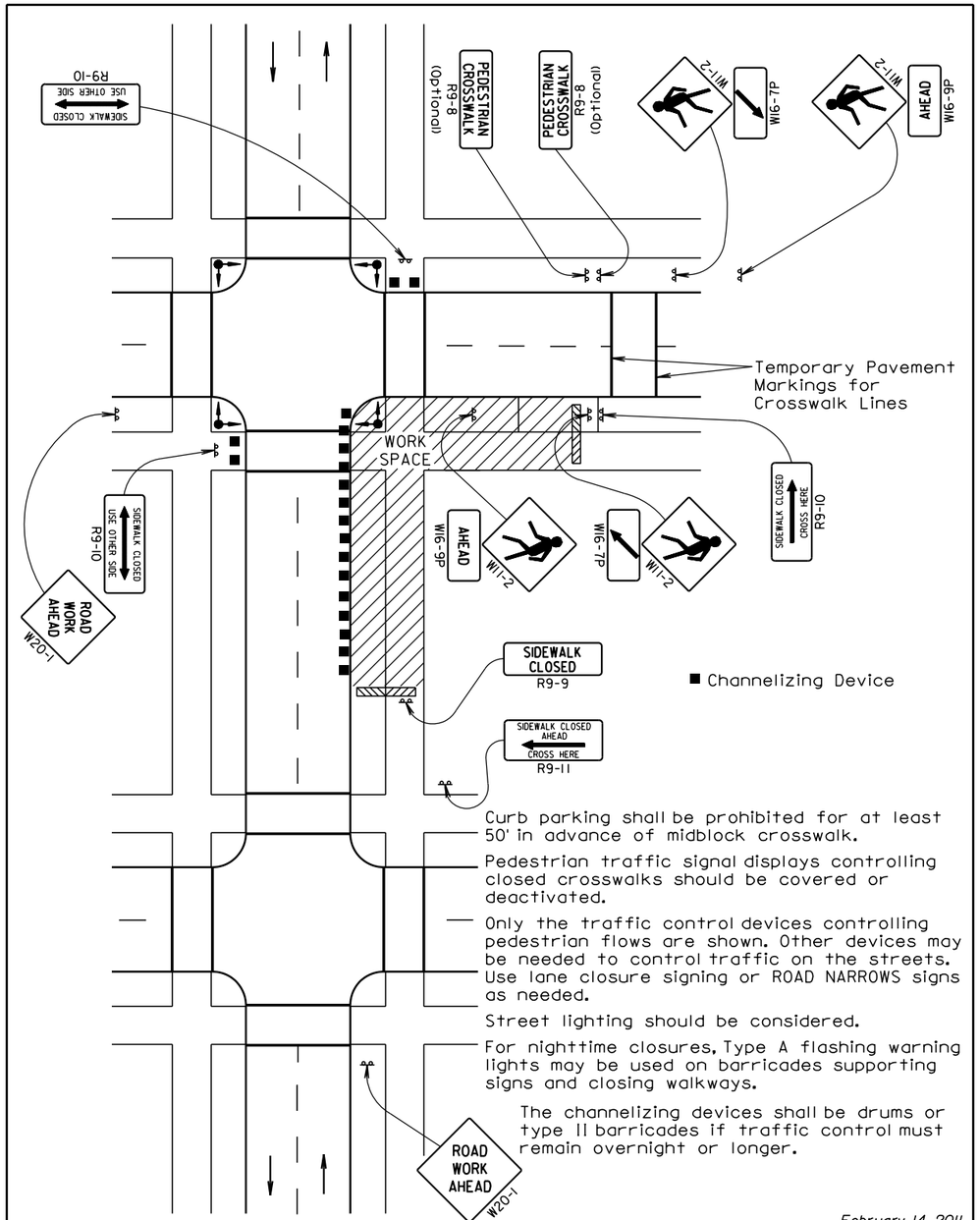


■ Channelizing Device

Curb parking shall be prohibited for at least 50' in advance of midblock crosswalk.

Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.

Only the traffic control devices controlling pedestrian flows are shown. Other devices may be needed to control traffic on the streets. Use lane closure signing or ROAD NARROWS signs as needed.

Street lighting should be considered.

For nighttime closures, Type A flashing warning lights may be used on barricades supporting signs and closing walkways.

The channelizing devices shall be drums or type II barricades if traffic control must remain overnight or longer.

February 14, 2011

Published Date: 1st Qtr. 2013	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES SIDEWALK CLOSURES AND PEDESTRIAN DETOURS	PLATE NUMBER 634.33 Sheet 1 of 1

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

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

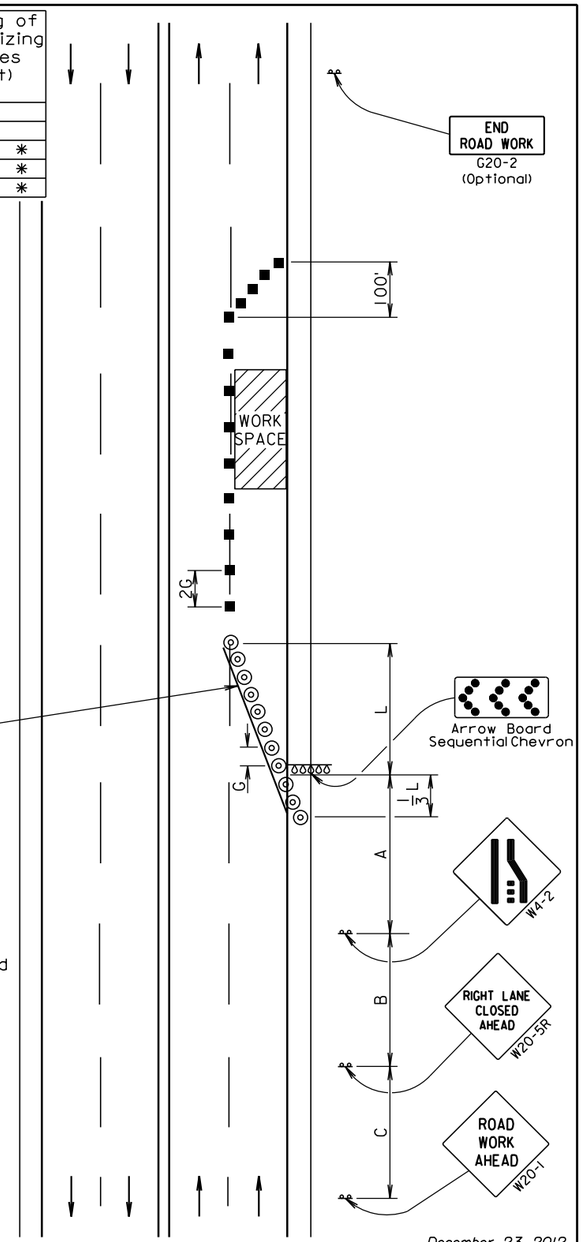
◎ Reflectorized Drum

■ 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

Published Date: 1st Qtr. 2013	SDDOT	GUIDES FOR TRAFFIC CONTROL DEVICES 4-LANE UNDIVIDED, RIGHT LANE CLOSED	PLATE NUMBER 634.47 Sheet 1 of 1

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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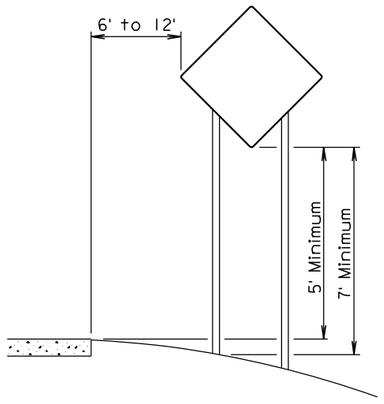
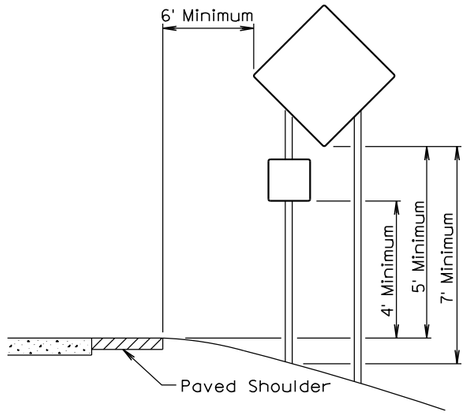
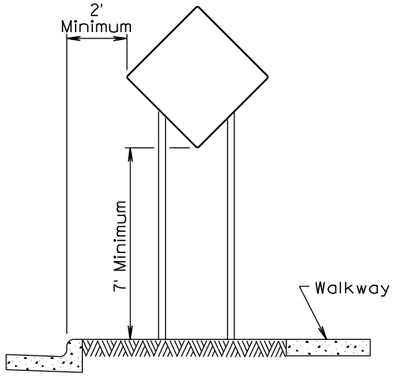


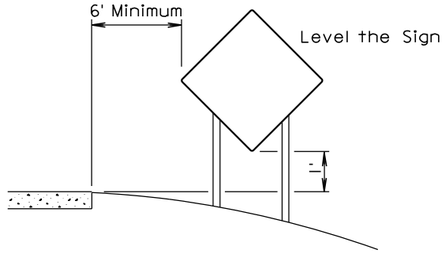
RURAL DISTRICT



RURAL DISTRICT WITH
SUPPLEMENTAL PLATE



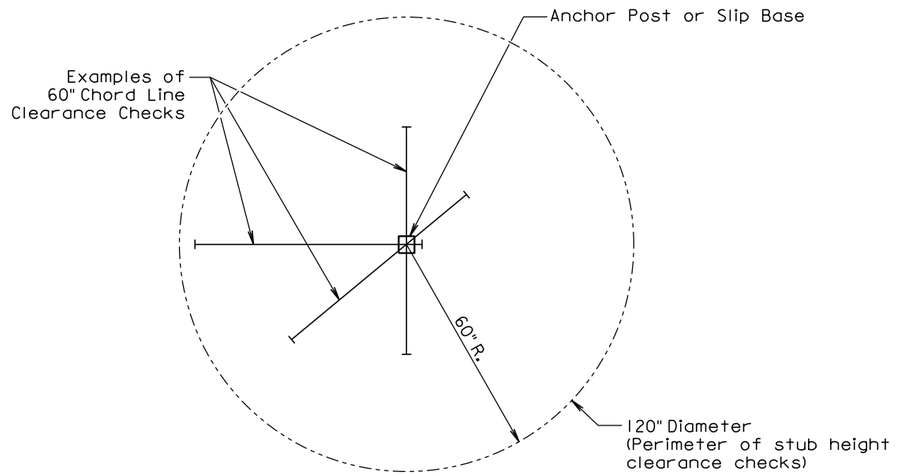
URBAN DISTRICT



RURAL DISTRICT
3 DAY MAXIMUM

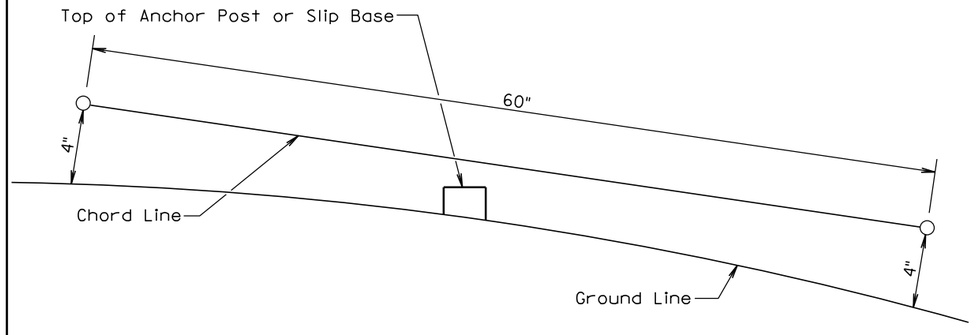
February 14, 2011

Published Date: 1st Qtr. 2013	SDDOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



PLAN VIEW

(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

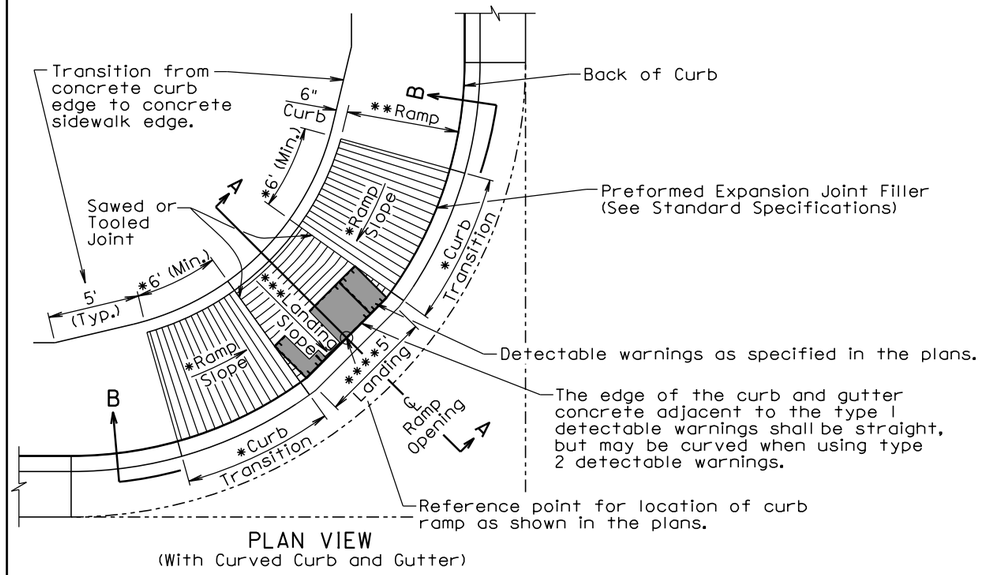
The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

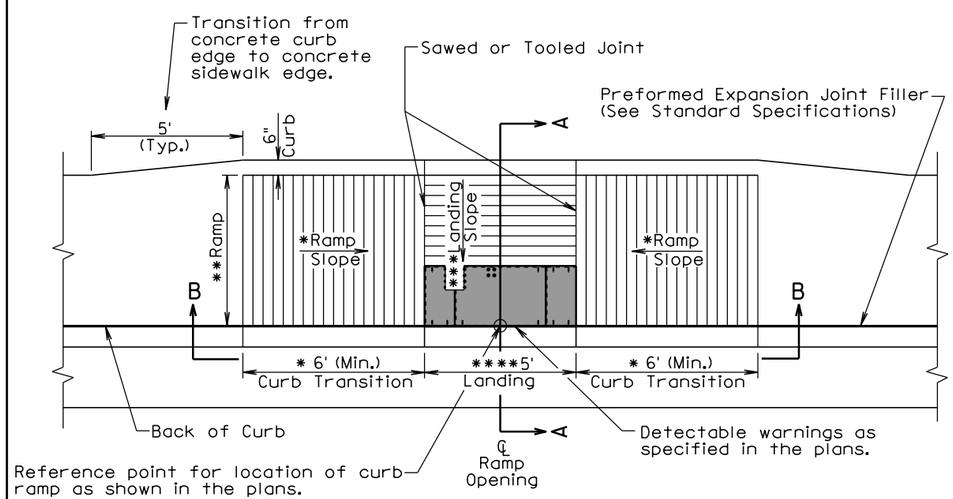
The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

Published Date: 1st Qtr. 2013	SDDOT	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1



PLAN VIEW
(With Curved Curb and Gutter)



PLAN VIEW
(With Straight Curb and Gutter)

December 23, 2010

Published Date: 1st Qtr. 2013	SDDOT	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 1 of 3

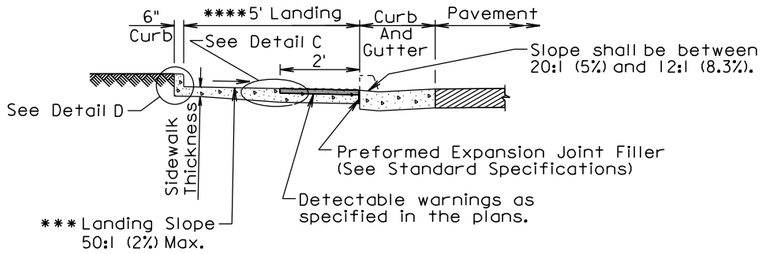
* The curb transition slope shall match the ramp slope. The ramp slope, at any location of the ramp, shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans. The minimum length of the curb transition shall be 6'.

** The ramp cross slope shall not be steeper than a 50:1 (2%) and the ramp width is 5' unless stated otherwise in the plans.

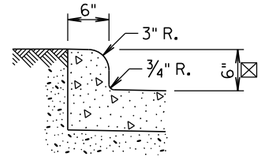
*** The landing slope shall not be steeper than a 50:1 (2%) in any direction of pedestrian travel.

**** The landing is 5' x 5' unless stated otherwise in the plans.

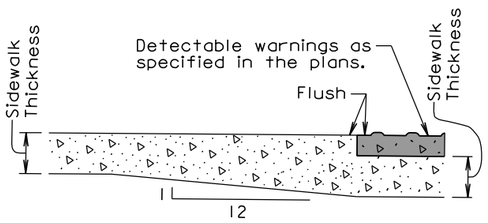
☒ The curb height shall be 6" unless stated otherwise in the plans.



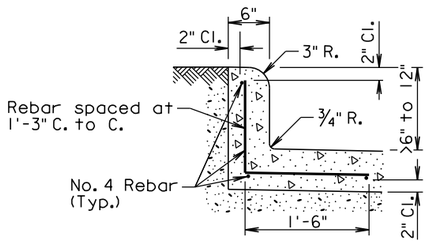
SECTION A-A



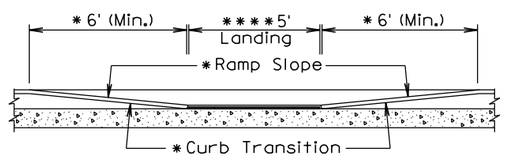
DETAIL D



DETAIL C



DETAIL D
(Use this detail when the curb height is greater than 6" and less than 12")



SECTIONAL VIEW B-B

December 23, 2010

Published Date: 1st Qtr. 2013	SDDOT	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 2 of 3

GENERAL NOTES:

For illustrative purpose only, type I 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.

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

December 23, 2010

Published Date: 1st Qtr. 2013	**SDDOT**	***TYPE 3 CURB RAMP (PARALLEL CURB RAMP)***	***PLATE NUMBER*** 651.03
			Sheet 3 of 3