

Due to a software update, the bid item file for this project will not be available until no later than the close of business on April 16, 2015.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0905(103)230	1	11

Plotting Date: 01/05/2015

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

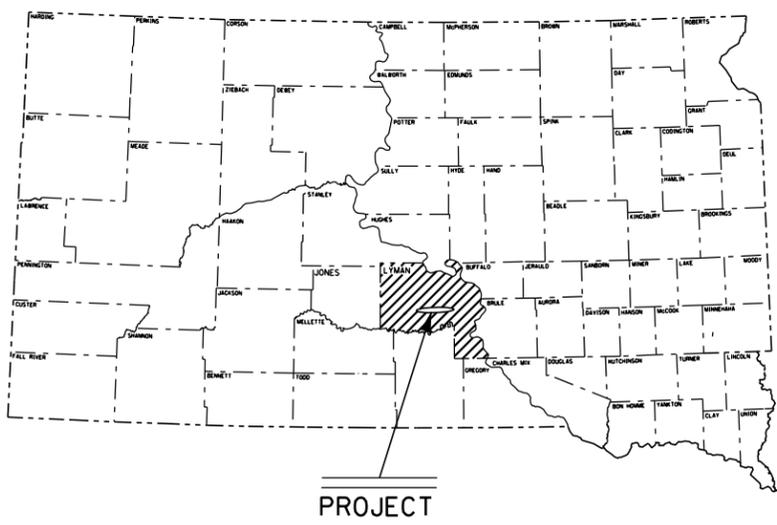
PROJECT IM 0905(103)230
INTERSTATE 90 EBL
LYMAN COUNTY

FENCE REPLACEMENT
PCN 040G

INDEX OF SHEETS

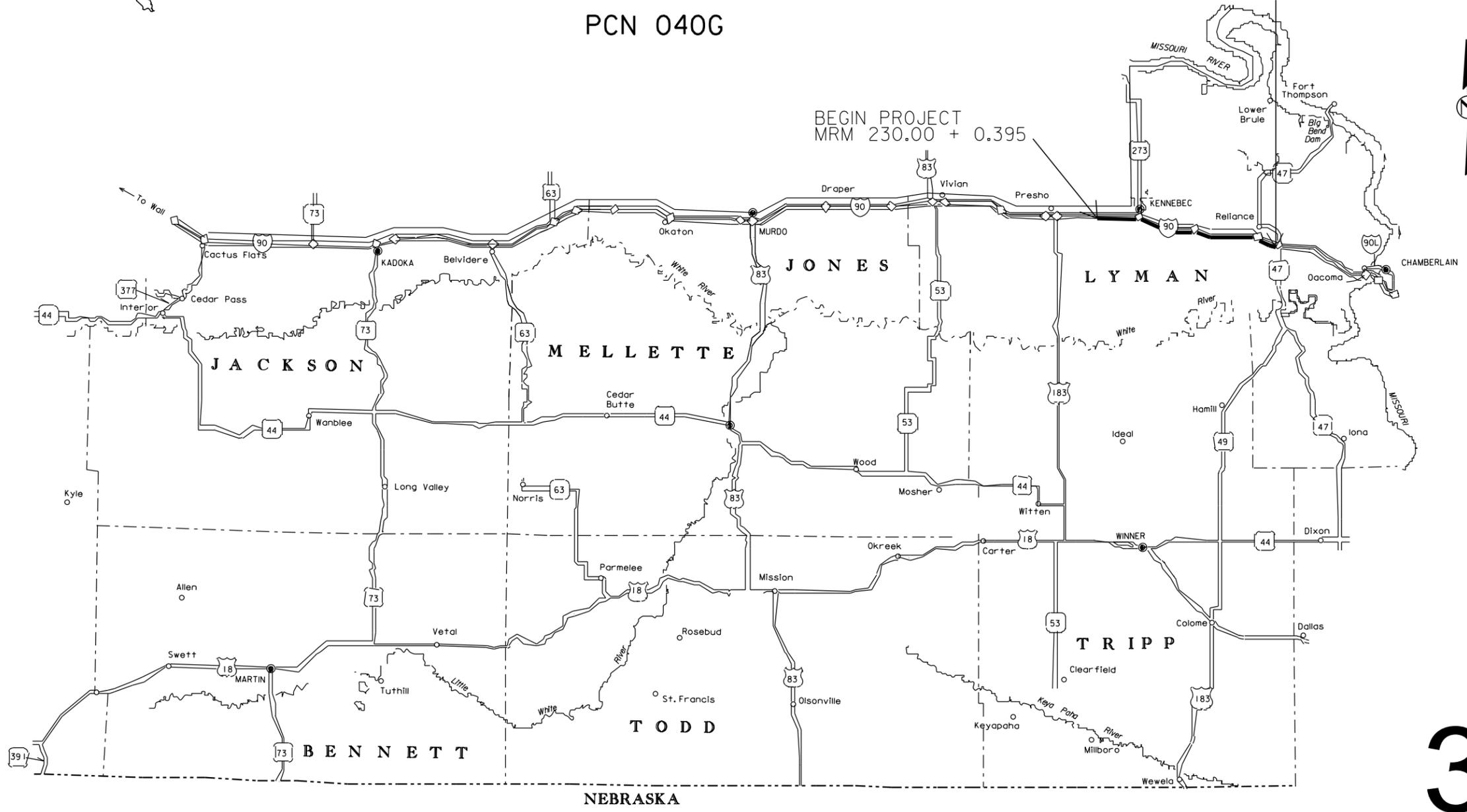
Sheet No.1	Title Sheet
Sheet Nos.2-6	Estimate of Quantities Environmental Commitments Plan Notes
Sheet Nos.7-11	Standard Plates

PLOT SCALE - 1:25616.3



END PROJECT
MRM 251.60 + 0.000

BEGIN PROJECT
MRM 230.00 + 0.395



DESIGN DESIGNATION
INTERSTATE 90

ADT (2013)	2952
ADT (2033)	3616
DHV	585.7
D	51%
T DHV	14.3%
T ADT	31.5%
V	75 MPH

STORM WATER PERMIT
NO PERMIT REQUIRED

GROSS LENGTH	111,883 FEET	21.19 MILES
LENGTH OF EXCEPTIONS	0 FEET	0 MILES
NET LENGTH	111,883 FEET	21.19 MILES

3

PLOTTED FROM - TRW11INT29

PLOT NAME - 1

FILE - ... \LYM040G-TITLE.DGN

Estimate of Quantities

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
100E0100	Clearing	Lump Sum	LS
110E0600	Remove Fence	111,144	Ft
620E0020	Type 2 Right-of-Way Fence	103,889	Ft
620E0040	Type 4 Right-of-Way Fence	7,255	Ft
620E1020	2 Post Panel	154	Each
620E1030	3 Post Panel	186	Each
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

SPECIFICATIONS

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

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pit, or staging site associated with the project, cease construction activities in the affected area until the Whooping Crane departs and contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

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

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

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

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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.

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.

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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.

GENERAL MAINTENANCE OF TRAFFIC

Removing, relocating, covering, salvaging and resetting of permanent 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.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP Report 350 or MASH crash-worthy requirements. The contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

Cost for traffic control, including placement and movement of signs, shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

All workers within the right of way shall wear a minimum of Class 2 approved safety apparel at all times.

CLEARING

Prior to installing right-of-way fence, the fence alignment shall be cleared of all trees, tree branches, tree stumps, brush, vegetation and debris. After clearing, the area shall be mowed, bladed and leveled to the satisfaction of the Engineer prior to the installation of the new right-of-way fence.

Clearing will be paid for at the contract lump sum price for "Clearing". Payment shall be full compensation for labor and equipment necessary to clear the entire line for the fence, mow and level ground irregularities.

RESTORATION OF INSLOPES AND DITCHES

Any slope area or ditch that is rutted or otherwise unduly disturbed during fencing operations shall be restored and seeded by the Contractor, at no expense to the State. Cost for this work shall be incidental to the contract unit prices for the various items.

REMOVE FENCE

The Contractor shall remove the existing right-of-way fence that is to be replaced as designated in the plans and/or as ordered by the Engineer. Fence removed shall become the property of the Contractor. Salvaged material may be temporarily stored near the right of way line provided it is out of the clear zone of I90 and SD248. Stockpiled material shall be removed from the project on a weekly basis.

The Contractor shall be responsible to contact all landowners along the project route prior to removing fence.

CONTROL OF ACCESS

This highway is a "Control of Access" highway as adopted by the South Dakota Transportation Commission. Access points to be limited to those shown on the construction plans except any additional that are required as a result of Right of Way acquisition.

The Contractor is responsible to control access throughout the project. All fence removed during any one working day is to be replaced during the same day. If the contractor elects to use temporary fence to control access or to accommodate livestock, the cost of the temporary fence shall be incidental to the contract unit prices for the various items.

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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FENCE ALIGNMENT

Where fence is being removed and replaced, fence shall be installed on the same alignment as the existing. It shall be the Contractor's responsibility to preserve the fence alignment.

TYPE 2 FENCE

It is anticipated that low areas susceptible to flooding may be encountered. The Engineer will determine which areas will be fenced in accordance with Standard Plate 620.10 for Fencing at Wide Depressions. Concrete footings will not be required. Payment for fencing these areas shall be incidental to the contract unit price per foot for "Type 2 Right-Of-Way Fence".

POST PANELS

All existing post panels shall be replaced. Existing 5 Post and 4 Post Panels shall be replaced with a combination of 2 Post and 3 Post Panels as determined by the Engineer.

The number of 2 Post and 3 Post Panels will be the actual number installed and will be paid for at the contract unit price per each. Payment shall be full compensation for furnishing material, (including posts, brace post, diagonal brace wire, and dowels), labor, equipment and incidentals necessary to construct the post panels.

The E-Z Brace or an approved equal may be utilized as an alternate horizontal brace in the brace panels if approved by the Engineer. The E-Z Brace shall be attached to each wood post utilizing two 5/16" x 3" lag screws. Holes of appropriate diameter, based on wood post condition, shall be drilled before placement of lag screws. The following are contacts regarding the E-Z Brace:

Roger Papka
E-Z Brace
1160 Karen St.
Watertown, SD 57201
605-881-6142

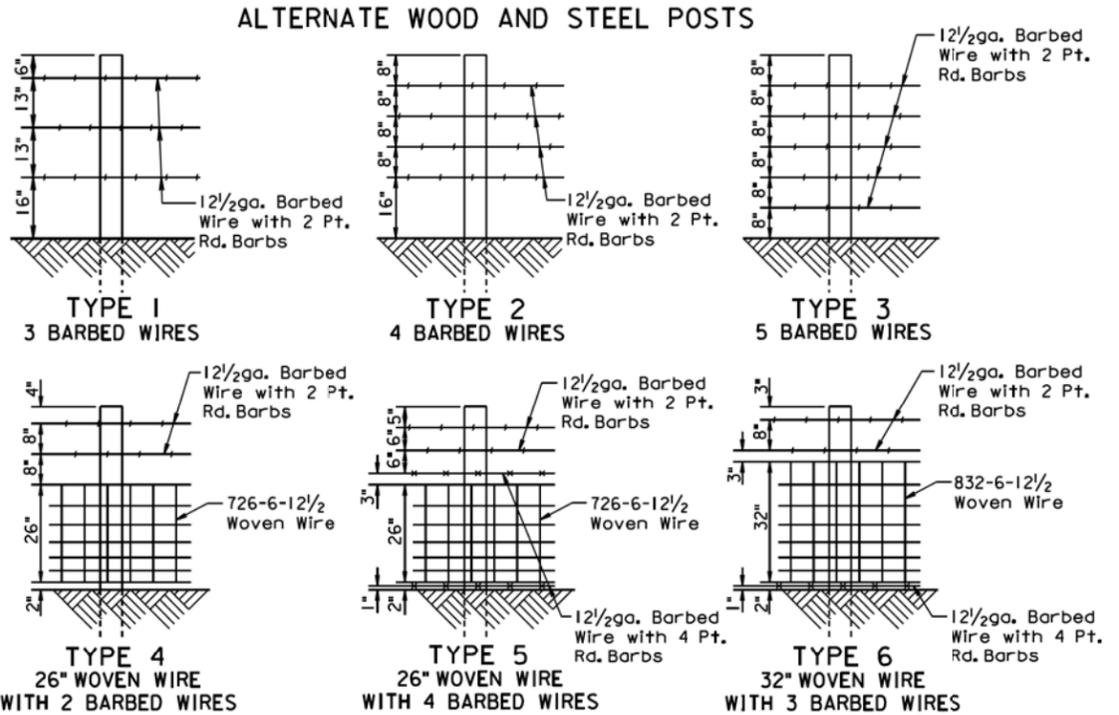
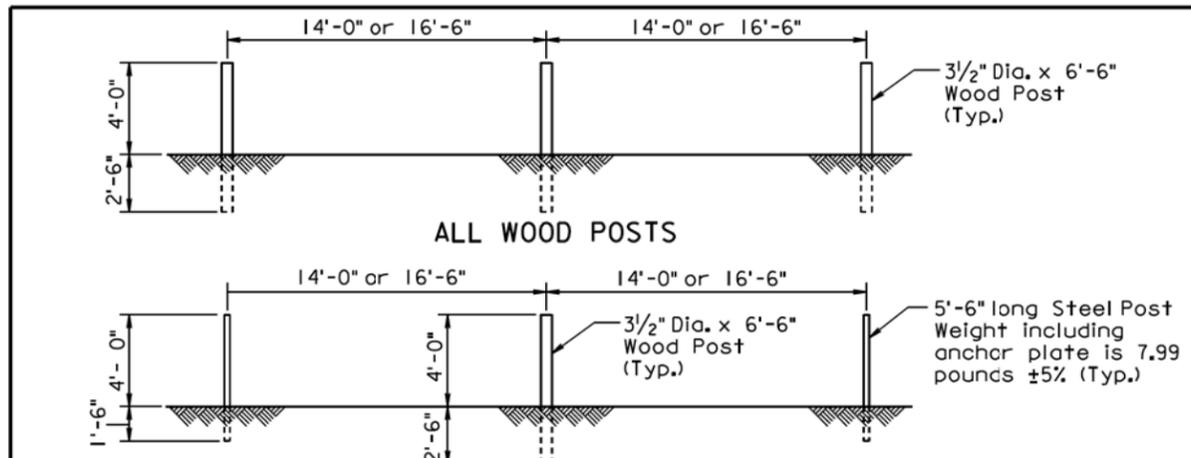
Dennis Mack
E-Z Brace
108 18th St. NE
Watertown, SD 57201
605-881-4990

TABLE OF FENCE QUANTITIES

		Remove	Type 2	Type 4			
	Interstate 90	Fence	Type 2 ROW	Type 4 ROW	2 Post	3 Post	
LANE	MRM TO MRM	Ft	Fence	Fence	Panel	Panel	Gate
					Each	Each	Each
EB	230.39 to 231	3221	3221	0	8	4	0
EB	231 to 232	5280	5280	0	11	4	1
EB	232 to 233	5280	5280	0	16	5	2
EB	233 to 234	5280	5280	0	8	2	1
EB	234 to 235	5280	5280	0	10	10	1
EB	235 to 236	5280	5280	0	6	6	0
EB	236 to 237	5280	5280	0	9	16	1
EB	237 to 238	5280	5280	0	14	3	1
EB	238 to 239	5280	5280	0	2	13	1
EB	239 to 240	5280	5280	0	8	16	2
EB	240 to 241	5280	5280	0	5	7	1
EB	241 to 242	5280	5280	0	3	14	1
EB	242 to 243	5280	2508	2772	6	7	1
EB	243 to 244	5280	3564	1716	2	12	1
EB	*244 to 245	4435	4435	0	9	4	1
EB	245 to 246	5280	5280	0	5	14	1
EB	246 to 247	5280	2772	2508	5	15	1
EB	247 to 248	5280	5021	259	7	5	1
EB	248 to 249	5280	5280	0	2	15	1
EB	249 to 250	5280	5280	0	5	5	1
EB	250 to 251	5280	5280	0	8	2	0
EB	251 to 251.6	3168	3168	0	5	7	0
	TOTALS:	111,144	103,889	7,255	154	186	20

***No Fence from 244.74 to 244.90**

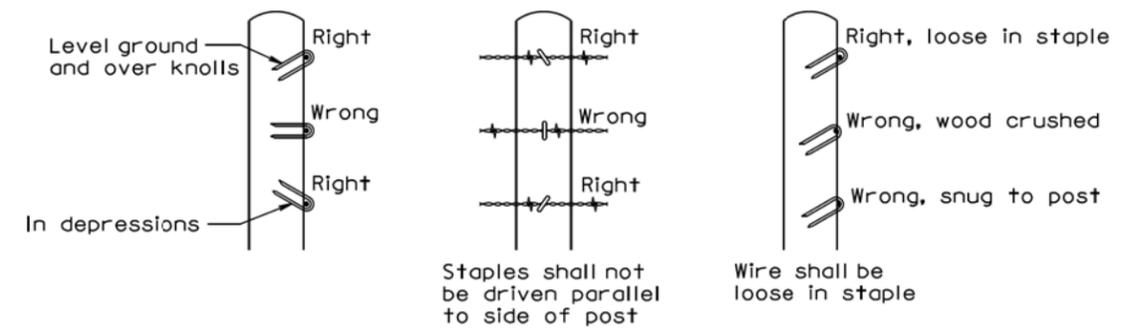
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TYPE	DESCRIPTION	LINE POST SPACING	BARBED WIRE		WOVEN WIRE
			WIRE GAGE	NUMBER AND SHAPE OF BARBS	STYLE OR DESIGN NO.
1	3 Barbed Wires	16'-6"	12/2	2 Point Round	---
2	4 Barbed Wires	16'-6"	12/2	2 Point Round	---
3	5 Barbed Wires	16'-6"	12/2	2 Point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

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

S D D O T	RIGHT-OF-WAY FENCE	PLATE NUMBER 620.01
	Published Date: 4th Qtr. 2014	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.

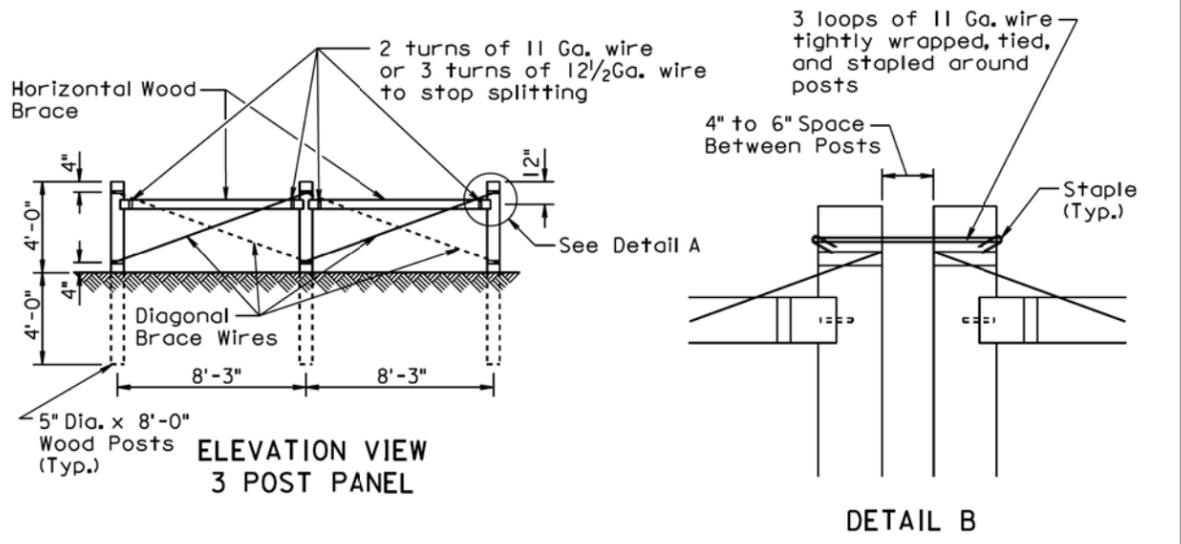
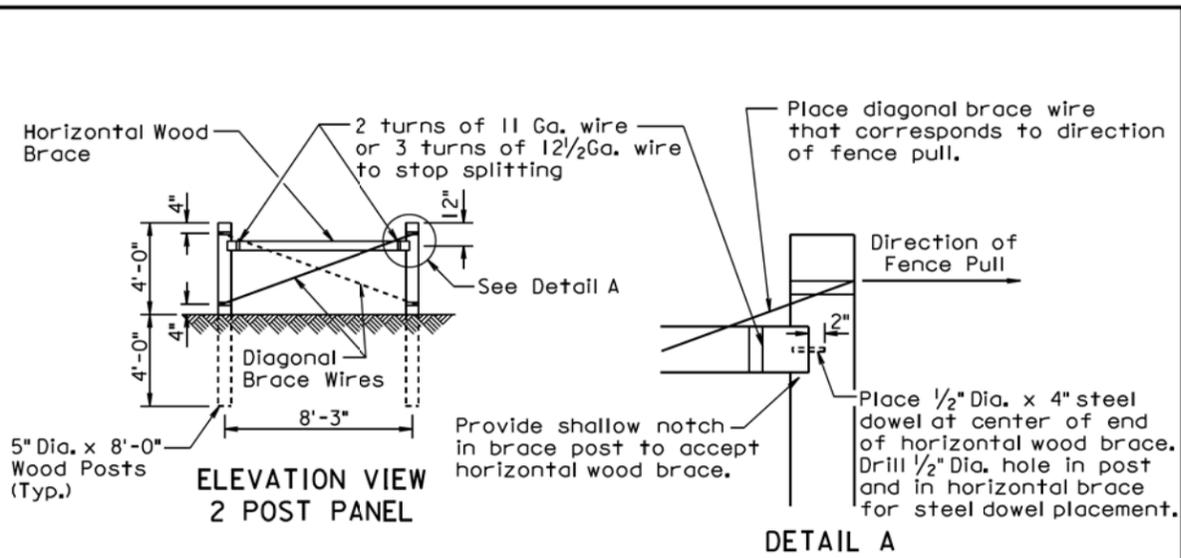
Barbs shall be fabricated from zinc coated 14 ga. wire. Two point barbs shall be wrapped twice around one main strand at 4" spacings and the four point barbs shall be interlocked and wrapped around both main strands at 5" spacings.

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.

S D D O T	STAPLE INSTALLATION AND GENERAL RIGHT-OF-WAY FENCE NOTES	PLATE NUMBER 620.02
	Published Date: 4th Qtr. 2014	Sheet 1 of 1

- Plotted From - tw11m29

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GENERAL NOTES:

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

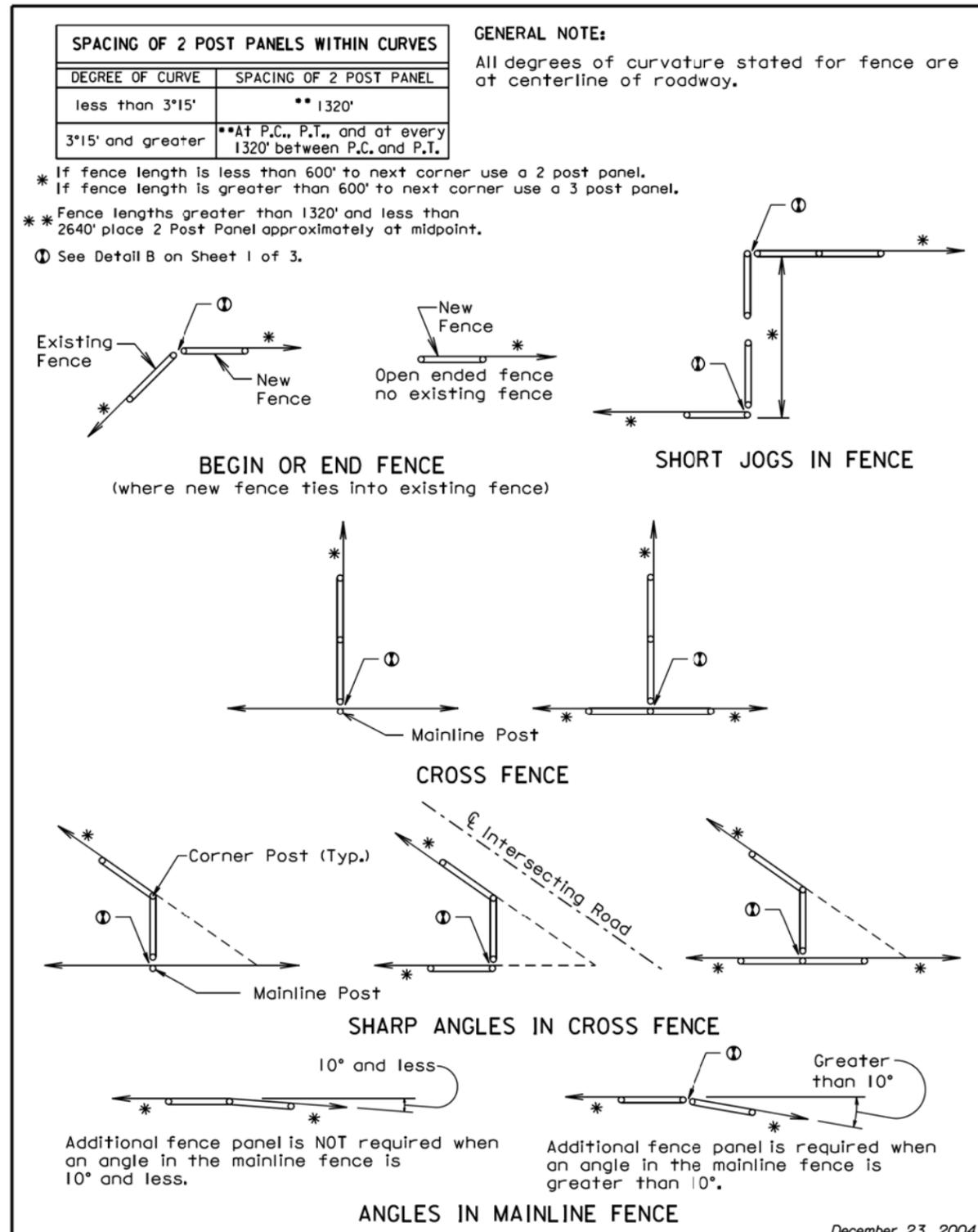
Two Post Panels shall be installed at any sharp vertical angle crest points and as directed by the Engineer.

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

S D D O T	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03
	Published Date: 4th Qtr. 2014	Sheet 1 of 3



December 23, 2004

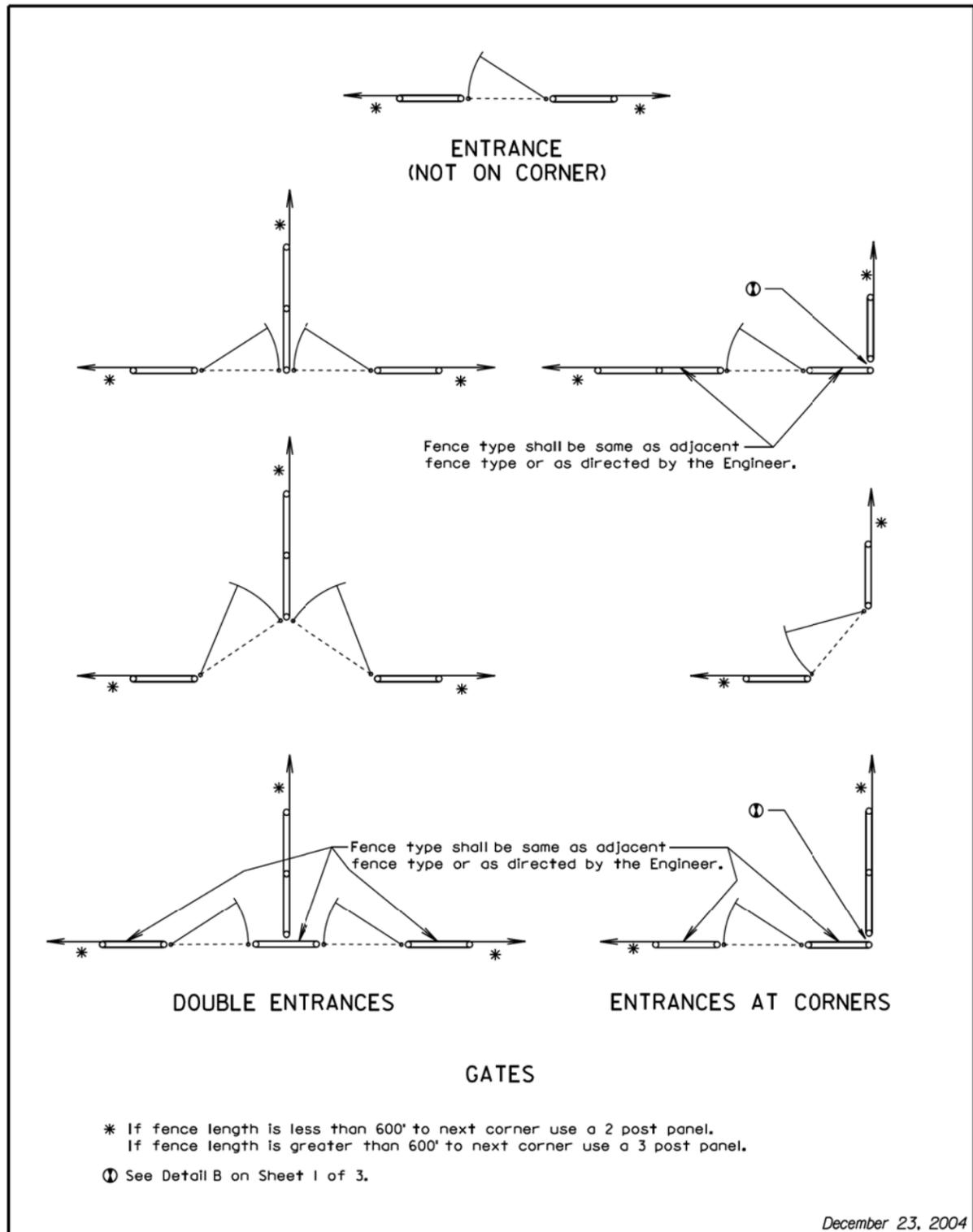
S D D O T	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03
	Published Date: 4th Qtr. 2014	Sheet 2 of 3

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- Plotted From - tw11m29

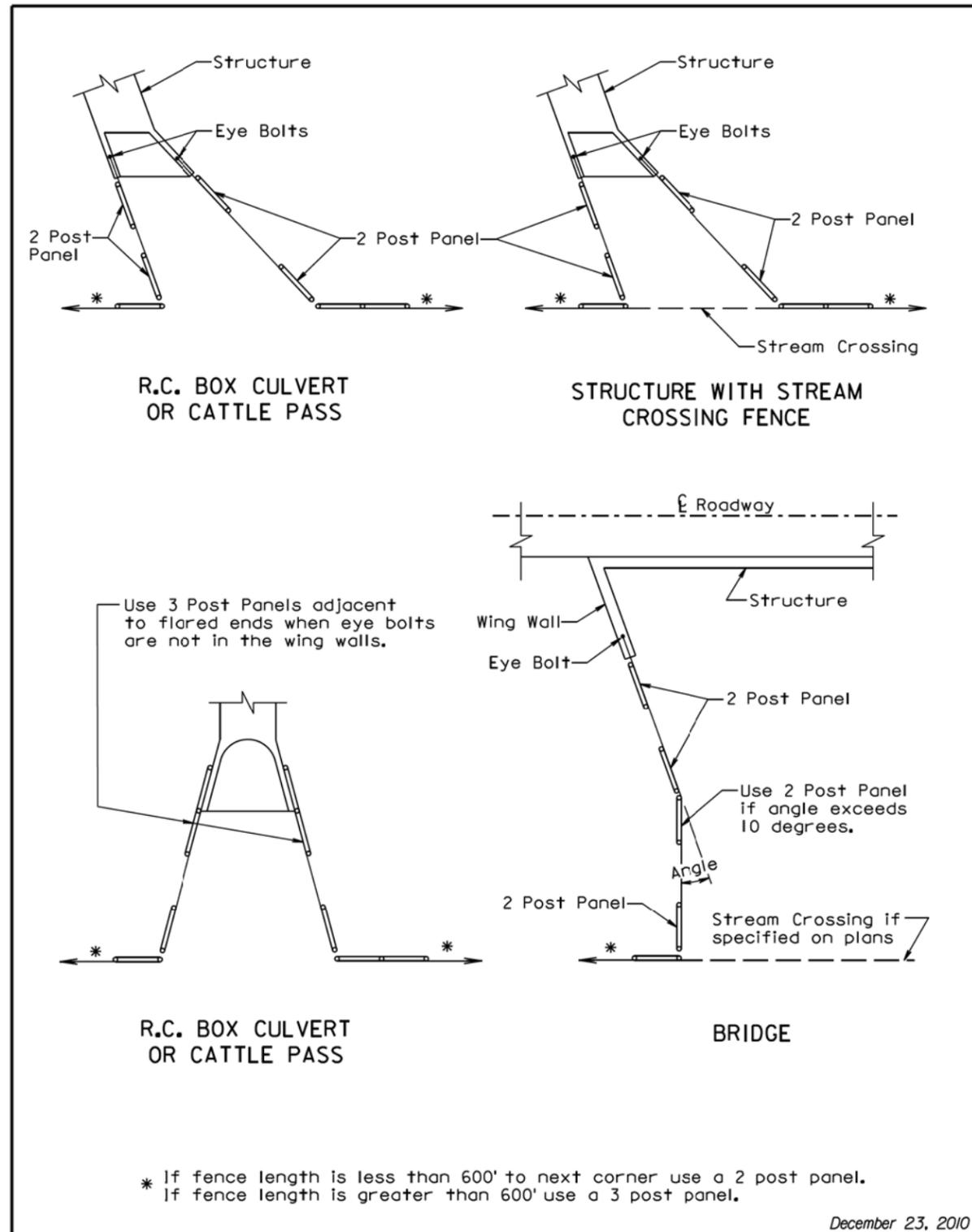
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Plot Scale - 1:200



December 23, 2004

S D D O T	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03
	Published Date: 4th Qtr. 2014	Sheet 3 of 3

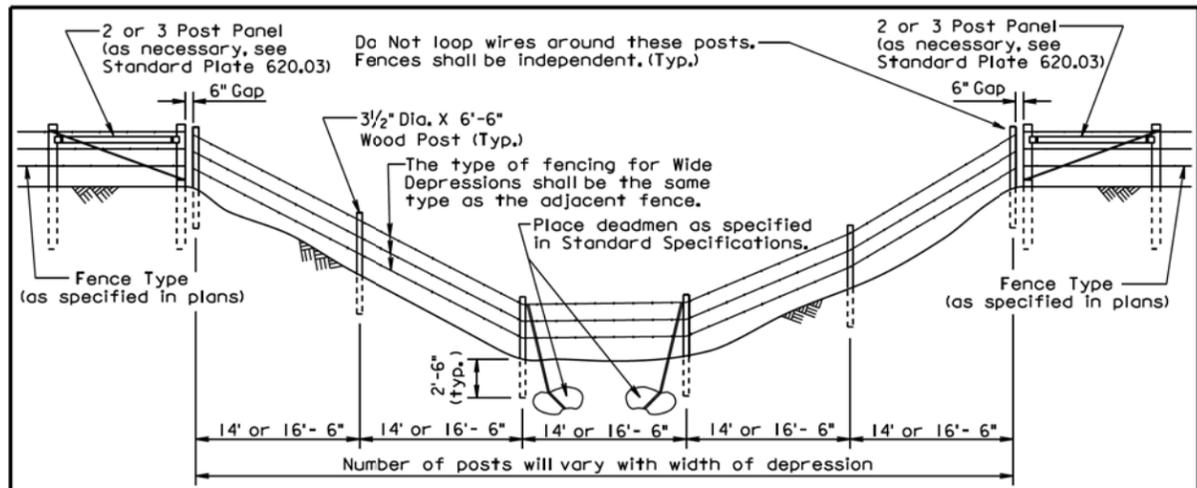


December 23, 2010

S D D O T	BRACE PANEL APPLICATIONS AT STRUCTURES	PLATE NUMBER 620.04
	Published Date: 4th Qtr. 2014	Sheet 1 of 1

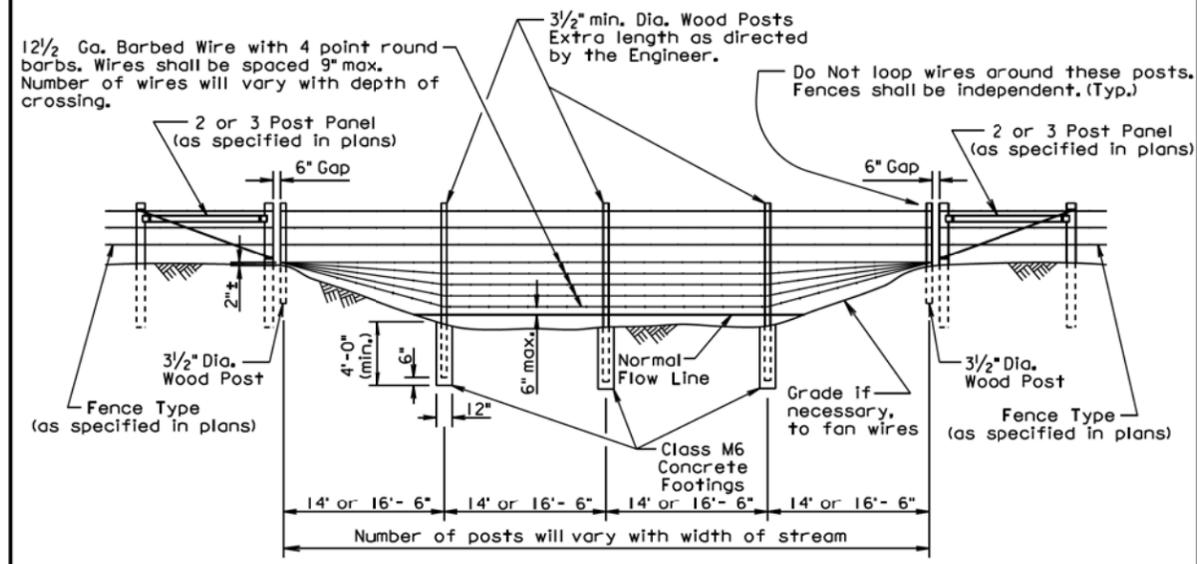
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This installation shall be made when requested by the Engineer.

**FENCING AT WIDE DEPRESSION
(SUBJECT TO FLOODING)**



This installation shall be made only when stated in the plans.

FENCING AT STREAM CROSSING

GENERAL NOTES:

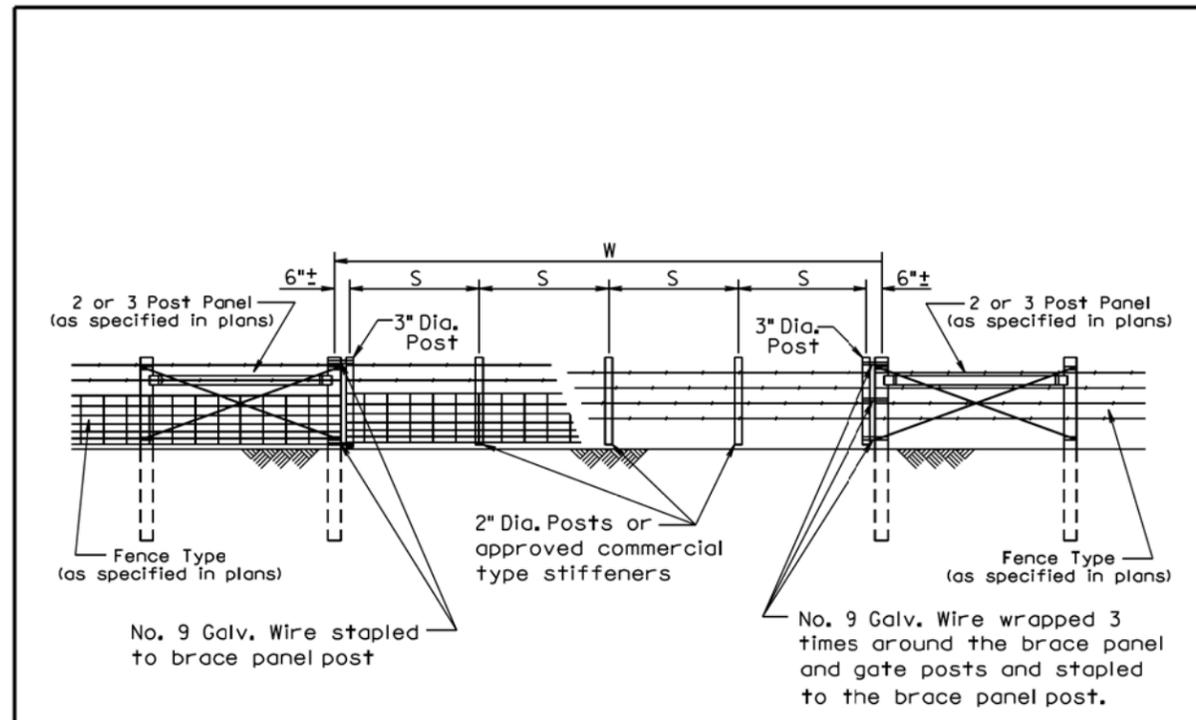
There will be no extra payment for the additional work and materials required to construct the fencing at the wide depression(s) and/or the fencing at the stream crossing(s).

Measurement and payment for the fencing at the wide depression(s) and/or the fencing at the stream crossing(s) shall be at the contract unit price per foot for the corresponding Right-of-Way fence bid item.

August 31, 2013

S D D O T	FENCING AT WIDE DEPRESSION(S) AND STREAM CROSSING(S)	PLATE NUMBER 620.10
		Sheet 1 of 1

Published Date: 4th Qtr. 2014



W Gate Width (ft.)	S Post Spacing
16	3 @ 5'-0" ±
20	4 @ 4'-9" ±
24	4 @ 5'-9" ±
30	5 @ 5'-10" ±
40	6 @ 6'-6" ±

GENERAL NOTES:

Creosote treatment of the gate posts will not be accepted.

The type of fencing in the gate shall be of the same type as specified for the adjacent Right-of-Way fence.

All costs for furnishing and constructing the wire gate(s) shall be incidental to the contract unit price per Ft for the respective Right-of-Way fence bid item.

March 31, 2000

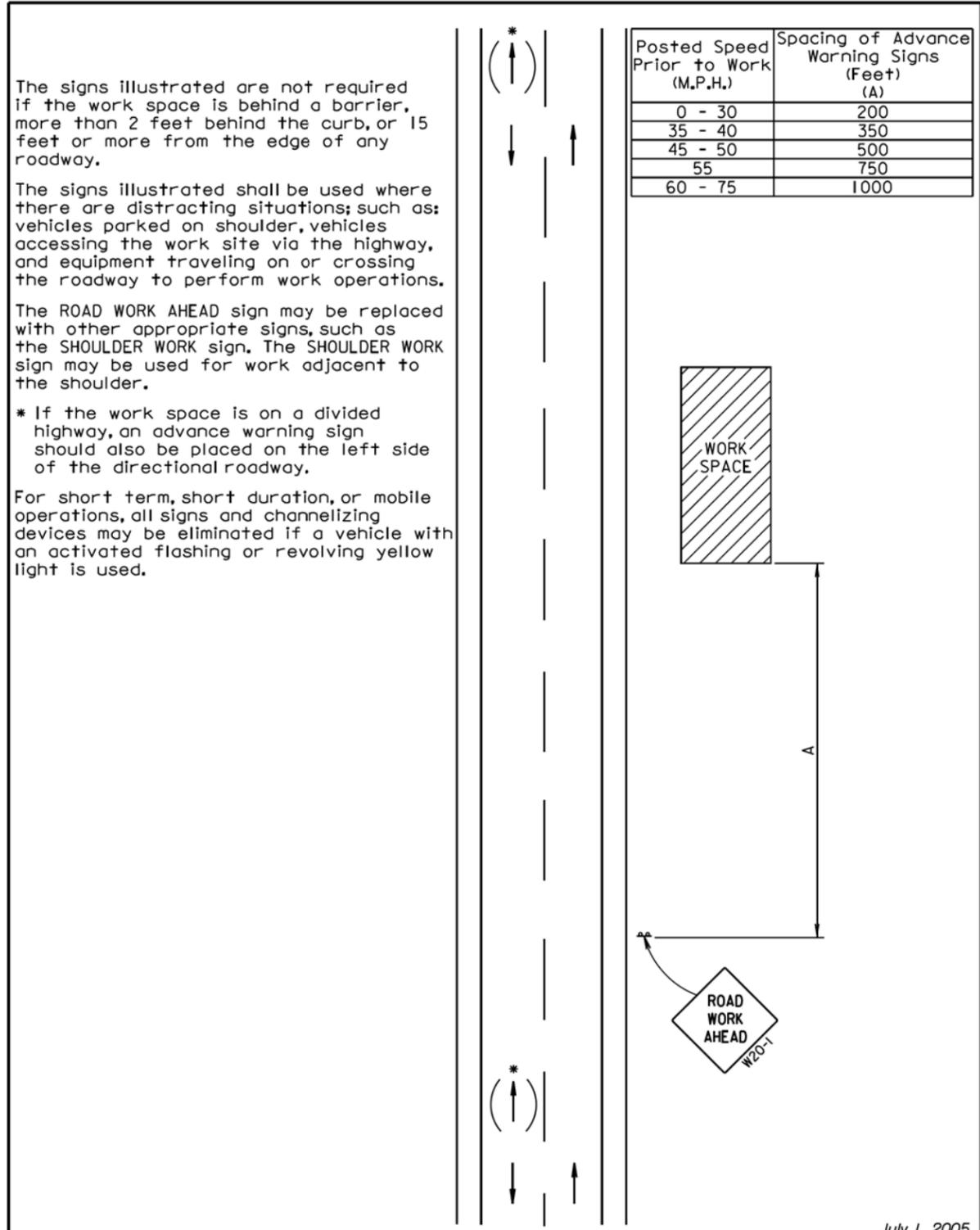
S D D O T	WIRE GATES	PLATE NUMBER 620.20
		Sheet 1 of 1

Published Date: 4th Qtr. 2014

Plot Scale - 1:200

- Plotted From - tw11m29

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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.

July 1, 2005

S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
	<i>Published Date: 4th Qtr. 2014</i>	<i>Sheet 1 of 1</i>

Plot Scale - 1:200

- Plotted From - tw1m29

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