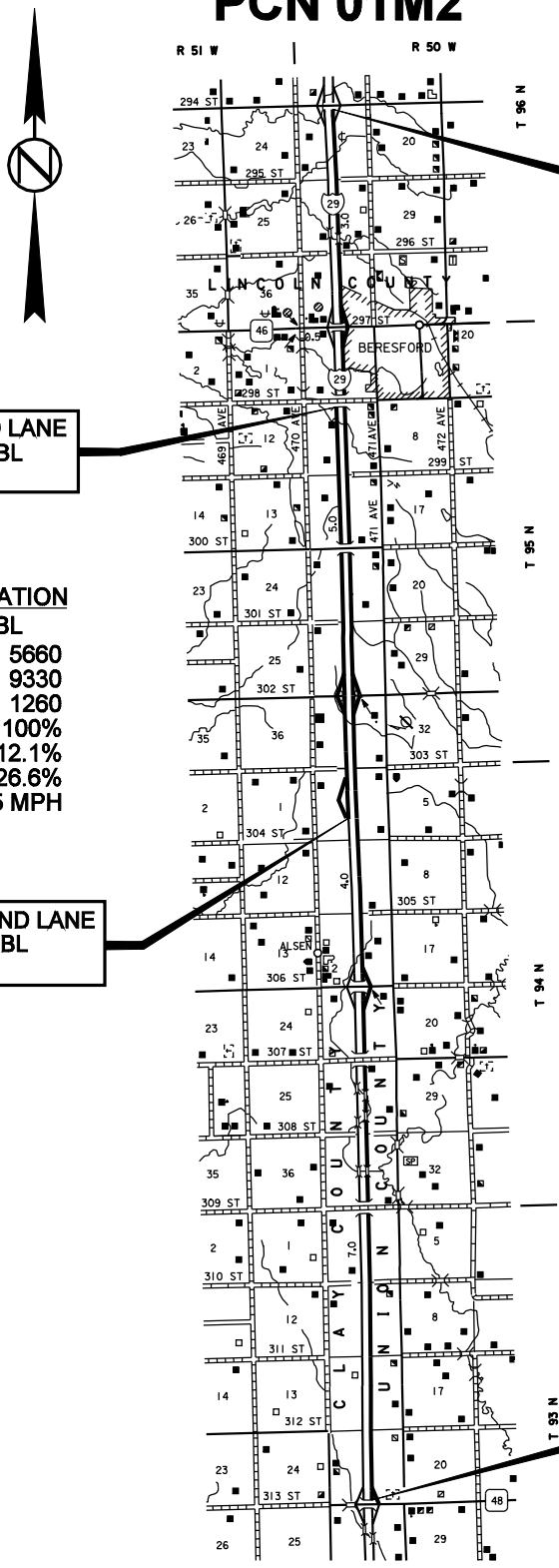
IM 0291(110)0
UNION & LINCOLN COUNTIES
FENCE REPLACEMENT
NB LENGTH: 19.000 MILES
SB LENGTH: 5.697 MILES
PCN 01M2



END PROJECT
END NORTHBOUND LANES
MRM 50.31 + 0.000 NBL
MILEAGE 50.193

END SOUTHBOUND LANE
MRM 46.31+0.000 SBL
MILEAGE 46.188

DESIGN DESIGNATION
Interstate 29 SBL

ADT(2007)	5660
ADT(2027)	9330
DHV	1260
D	100%
T DHV	12.1%
T ADT	26.6%
V	75 MPH

BEGIN SOUTHBOUND LANE
MRM 40.00+0.570 SBL
MILEAGE 40.491

DESIGN DESIGNATION
Interstate 29 NBL

ADT(2007)	5600
ADT(2027)	9255
DHV	1250
D	100%
T DHV	12.1%
T ADT	26.6%
V	75 MPH

BEGIN PROJECT
BEGIN NORTHBOUND LANE
MRM 31.28+0.000 NBL
MILEAGE 31.193

INDEX OF SHEETS

ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
100E0100	Clearing	Lump Sum	LS
110E0600	Remove Fence	132,645	Ft
620E0030	Type 3 Right-of-Way Fence	128,448	Ft
620E0230	Modified Type 3 Right-of-Way Fence	686	Ft
620E0260	Modified Type 6 Right-of-Way Fence	3,511	Ft
620E1020	2 Post Panel	181	Each
620E1030	3 Post Panel	99	Each
620E1110	Wood Fence Post	70	Each
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

IM 0291(110)0
UNION & LINCOLN COUNTIES

TABLE OF FENCE QUANTITIES

LANE	INTERSTATE 29 MRM TO MRM (LOCATION)	REMOVE FENCE Ft	TYPE 3 R/W FENCE Ft	MODIFIED TYPE 3 R/W FENCE Ft	MODIFIED TYPE 6 R/W FENCE Ft	2 POST PANEL Each	3 POST PANEL Each	WOOD FENCE POST Each	WIDE DEPRESSION & STREAM CROSSINGS N.A.B.I. Each *	GATES BARB WIRE 24' N.A.B.I. Each *	NOTES
NB	Control of Access at Exit 31 On Ramp	360	360			3	1			1	Reset Tubular Gate
NB	Exit 31 On Ramp	1080	1080			2	1				
NB	Exit 31 On Ramp to 32.0	2696	2696			2	1				
NB	32.0 to 33.0	5228	5172	56		6	2	5	1		Depression: MRM 32.27
NB	33.0 to 34.0	1012	1012			2	1			1	
	33.21 to 33.29	425	425			1	1				Gate: MRM 33.26
	33.29 to 34.00	3749	3749			3	1				
NB	34.0 to 35.0	5232	5232			12	3			1	Gate: MRM 34.33
NB	35.0 to 35.31	1468	1468			6	1			1	Gate: MRM 35.29
NB	35.31 to 36.0	3669	3613	56		7	1	5	1	1	Depression: MRM 35.83 Gate: MRM 35.32
NB	36.00 to 37.00	5218	5162	56		14	5	5	1	1	Depression: MRM 36.60 & 36.89 Gate: MRM 36.32
NB	37.00 to 37.32	1600	1600			5	1			1	Gate: MRM 37.30
NB	37.32 to 38.00	3616	3560	56		3	3	5	1	1	Gate: MRM 37.34 Depression: MRM 37.62
NB	38.00 to Exit 38 Off Ramp	790	790			1	1				
NB	Exit 38.00 Off Ramp	800	800			1	1				
NB	Control of Access at Exit 38 Off Ramp	590	590			1	1				
NB	Control of Access to Exit 38 On Ramp	597	597			3	1			1	Reset Tubular Gate
NB	Exit 38 On Ramp	1062	1062			4					
NB	Exit 38 On Ramp to 39.00	2577	2577			4	1				
NB	39.00 to 39.31	1637	1637			2	2				
NB	39.31 to 39.42	610	610			4	2			1	Gate: MRM 39.30
	39.42 to 40.00	3050	3050			2	2				
NB	40.00 to 41.00	5230	5230			5	2			1	Gate: MRM 40.30
NB	41.00 to 42.00	5215	5159	56		7	2	5	1		Depression: MRM 41.31
NB	42.00 to Exit 42 Off Ramp	450	450			3					
NB	Exit 42 Off Ramp	825	825			1	1				
NB	Control of Access at Exit 42 Off Ramp	645	589	56		3	1	5	1		Depression: MRM 42.17
NB	Control of Access at Exit 42 On Ramp	660	660			1	1				
NB	Exit 42 On Ramp	1380	1380				2				
NB	Exit 42 On Ramp to 43.00	2226	2226				1				
NB	43.00 to 44.00	5220	5164	56			3	5	1		Depression: MRM 43.30
NB	44.00 to 44.30	1500	1500			2	1			1	Gate: MRM 44.28
NB	44.30 to 45.00	3658	3658			7	2			1	Gate: MRM 44.31
NB	45.00 to 45.95	5010	5010			5	4			1	Gate: MRM 45.30
NB	45.95 to 46.00	210			210		2	5	1		Depression: MRM 45.96
	SHEET TOTALS:	**79295**	**78693**	**392**	**210**	**122**	**55**	**40**			

N.A.B.I. - Not a bid item.

IM 0291(110)0
UNION & LINCOLN COUNTIES

TABLE OF FENCE QUANTITIES (CONTINUED)

LANE	INTERSTATE 29 MRM TO MRM (LOCATION)	REMOVE FENCE Ft	TYPE 3 R/W FENCE Ft	MODIFIED TYPE 3 R/W FENCE Ft	MODIFIED TYPE 6 R/W FENCE Ft	2 POST PANEL Each	3 POST PANEL Each	WOOD FENCE POST Each	WIDE DEPRESSION & STREAM CROSSINGS N.A.B.I. Each *	GATES BARB WIRE 24' N.A.B.I. Each *	NOTES
NB	46.00 to 46.31	1515	1515			2	1			1	Gate: MRM 46.29
NB	46.31 to 47.00	3754	3698	56		5	3	5	1	1	Gate: MRM 46.32 Depression: MRM 46.63
NB	47.00 to Exit 47 Off Ramp	386	386				1				
NB	Exit 47 Off Ramp	1005	1005			2	1				
NB	Control of Access to Exit 47 Off Ramp	300	300			2					
NB	Control of Access to Exit 47 On Ramp	300	300			3					
NB	Exit 47 On Ramp	1850	1850			2	2				
NB	Exit 47 On Ramp to 48.00	1754	1754			1					
NB	48.00 to 48.47	2461	2461			2	3			1	Gate: MRM 48.30
NB	48.47 to 48.53	265			265	1	3				
NB	48.53 to 49.00	2466	2466			1	1				
NB	49.00 to 50.00	5197	5071	126		3	5	10	2	1	Gate: MRM 49.30 Depression: MRM 49.63 & 49.75
NB	50.00 to Exit 50 Off Ramp	773	773			1	1				
NB	Exit 50 Off Ramp	820	820			1	1				
NB	Control of Access to Exit 50 Off Ramp	190	190			2					
SB	40.57 to 40.95	1969	1969			5	1				Weigh Station
SB	40.95 to 41.00	263	263			1					
SB	41.00 to 42.00	5198	5142	56		5	1	5	1		Depression: MRM 41.30
SB	42.00 to Exit 42 On Ramp	452	452				1				
SB	Exit 42 On Ramp	800	800			1	1				
SB	Control of Access to Exit 42 On Ramp	425	425			1	1				
SB	Control of Access to Exit 42 Off Ramp	542	542			1	1				Reset Tubular Gate
SB	Exit 42 Off Ramp	735	735			1	1				
SB	Exit 42 Off Ramp to 43.00	2832	2832			1	1				
SB	43.00 to 44.00	5205	5205				3			1	Gate: MRM 43.30
SB	44.00 to 44.30	1506	1506			2	1			1	Gate: MRM 44.28
SB	44.30 to 45.00	3640	3640			7	4			1	Gate: MRM 44.32
SB	45.00 to 45.30	1567	1567			1	2			1	Gate: MRM 45.29
SB	45.30 to 45.58	1450			1450		1				
SB	45.58 to 45.79	1099	1043	56		2	1	5	1		Depression: MRM 45.68
SB	45.79 to 46.00	1120			1120	1		5	1		Depression: MRM 45.99
SB	46.00 to 46.11	466			466		1				
SB	46.11 to 46.31	1045	1045			2	1			1	Gate: MRM 46.29
	SHEET TOTALS:	**53350**	**49755**	**294**	**3301**	**59**	**44**	**30**			
	TOTALS:	**132645**	**128448**	**686**	**3511**	**181**	**99**	**70**			

N.A.B.I. - Not a bid item.

SPECIFICATIONS

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

COMPLETION DATE

All work shall be completed on or before June 18, 2010.

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.

COORDINATION BETWEEN CONTRACTORS

A separate contract for Project No. ES 0291(101)37 – PCN 4768 may be awarded to another Contractor for concrete pavement surfacing on Interstate 29 Northbound Lanes from MRM 37.0 to MRM 47.0.

The Contractor shall schedule his work so as not to interfere with or hinder the progress of the work performed by other Contractors on the concrete paving project.

HISTORICAL PRESERVATION OFFICE CLEARANCES

To obtain State Historic Preservation Office (SHPO) clearance, a cultural resources survey may need to be conducted by a qualified archaeologist. The Contractor shall arrange and pay for this survey. In lieu of a cultural resources survey, the Contractor could request a literature search on the site and 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. Jim Donohue, State Archaeological Research Center at 605-394-1937 shall be contacted for a literature search.

If borrow material is furnished from within the current geographical reservation boundaries or historic boundaries of the Lake Traverse, Yankton, or Flandreau-Santee reservations, the Contractor shall obtain THPO (Tribal Historical Preservation Office) clearance from the Tribal Cultural Resources Officer. This requirement is in addition to the SHPO clearance. If no Tribal contact exists, the required SHPO clearance shall suffice, with documentation of Tribal contact efforts provided to SHPO.

To facilitate SHPO and THPO responses, the Contractor should submit a cultural resources survey report or the results of the literature search along with a legal description of the site, a topographical map with the site clearly marked, and evidence of prior site disturbance to Terrence G. Keller, DOT Environmental Supervisor, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3721). Allow 30 days from the date this information is submitted to the Environmental Engineer for SHPO approval. The Contractor is responsible for obtaining all required permits and clearances for the borrow and/or waste disposal site(s) prior to commencing construction activities at the borrow and/or waste disposal site(s). 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:

WASTE DISPOSAL SITE (CONTINUED)

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. 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.

Cost for furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates & signs) and reclamation of the waste disposal site(s) shall be incidental to the contract unit prices for the various items.

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.

Limited Access Security - All fence removed during any one working day is to be replaced during the same day if livestock are being restrained.

CLEARING

Prior to installing right-of-way fence, the fence alignment shall be cleared of all trees, tree branches, tree stumps, brush, vegetation, debris, bladed and leveled to the satisfaction of the Engineer. Sod cleared from the fence alignment may be disposed on the interstate ditch back slope. Lumps or clods over 3 inches in diameter shall be broken up.

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

FENCE ALIGNMENT

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

TYPE 3 RIGHT-OF-WAY FENCE

The Contractor shall furnish new posts. Install alternate wood and steel posts at 16'-6" spacing for Type 3 Right-of-Way Fence.

MODIFIED TYPE 3 RIGHT-OF-WAY FENCE

Modified Type 3 Right-of-Way Fence shall be installed at wide depressions subject to flooding.

The Contractor shall furnish new 5” x 8’ wood posts. Install wood posts at 14' spacing for Modified Type 3 Right-of-Way Fence. Cost for 5” x 8’ wood posts shall be included in the contract unit price per each for Wood Fence Post.

MODIFIED TYPE 6 RIGHT-OF-WAY FENCE

The Contractor shall furnish new posts. Install alternate wood and steel posts at 14' spacing for Modified Type 6 Right-of-Way Fence.

Note specification change for Modified Type 6 Woven Wire Fence to Design No. 832-6-11.

NEW POST PANELS

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.

TUBULAR GATES

Tubular Gates located within the project limits shall be removed, salvaged and reset on new post panels.

Cost for removing, salvaging and resetting Tubular Gates shall be incidental to contract unit prices for the various items.

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.

Contractors' equipment and trucks will not be allowed to enter or exit lanes used by traffic or cross opposing traffic on Interstate 29. Median Maintenance Crossings shall not be used for construction activities. The Contractor shall submit a plan in writing detailing how haul vehicles will enter and exit the work site.

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

Cost for traffic control, including signs, shall be included in the contract lump sum price for Traffic Control, Miscellaneous.

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.

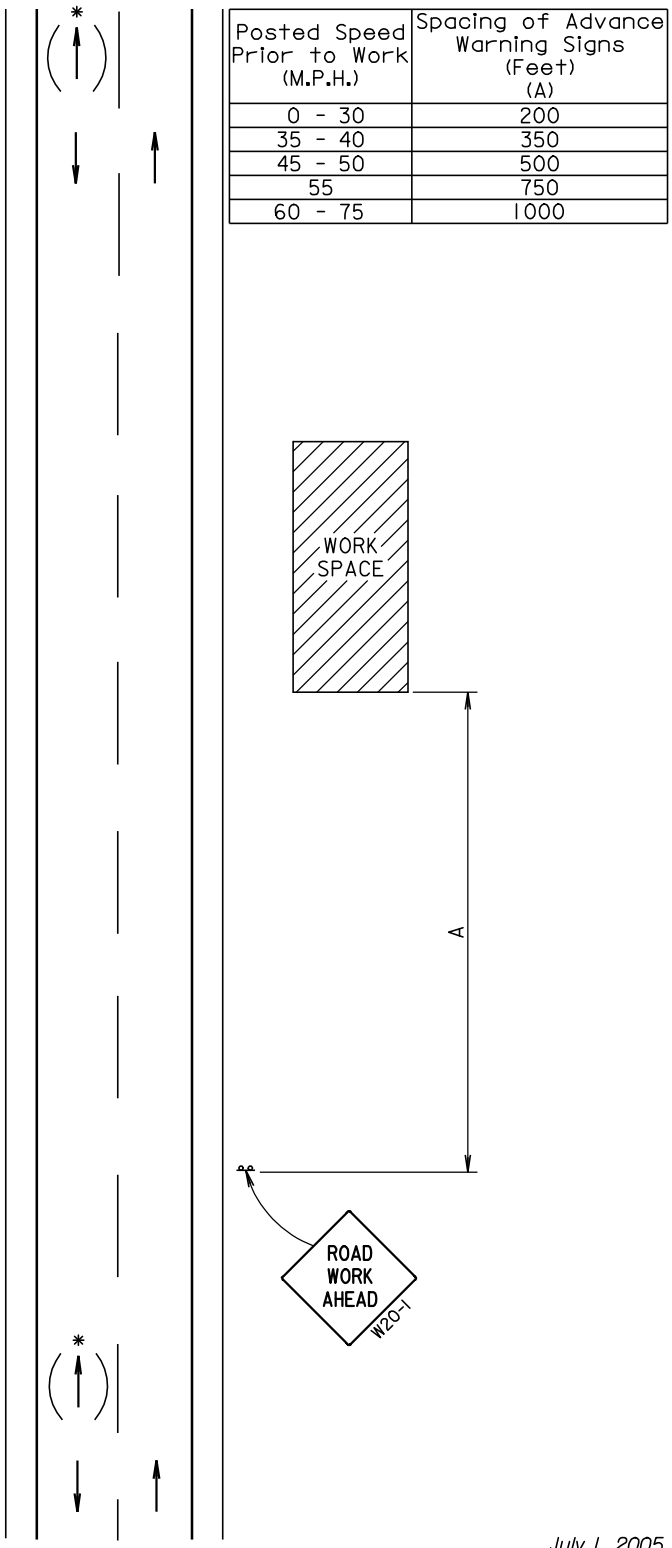
The signs illustrated shall be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

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: 2nd Qtr. 2009

SDDOT

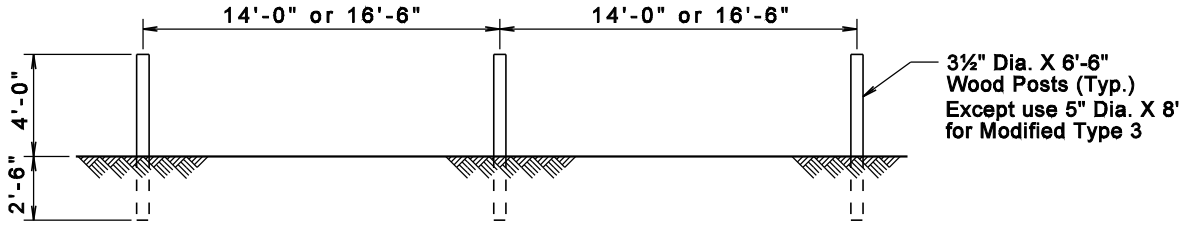
GUIDES FOR TRAFFIC CONTROL DEVICES
WORK BEYOND THE SHOULDER

PLATE NUMBER
634.01

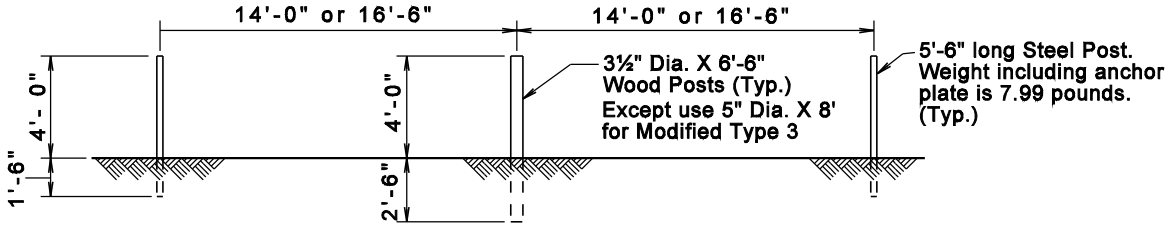
Sheet 1 of 1

Plotting Date: 22-APR-2009

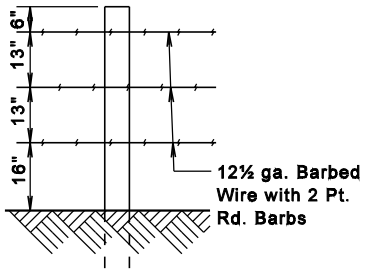
Username - TRMIINTI5



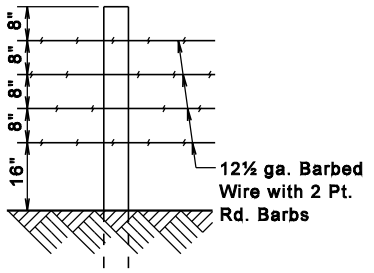
ALL WOOD POSTS



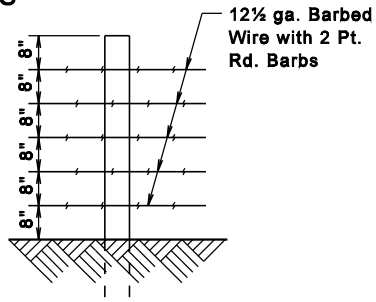
ALTERNATE WOOD AND STEEL POSTS



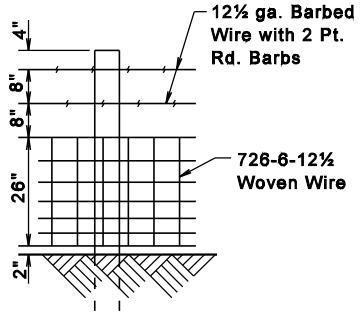
TYPE 1
3 BARBED WIRES



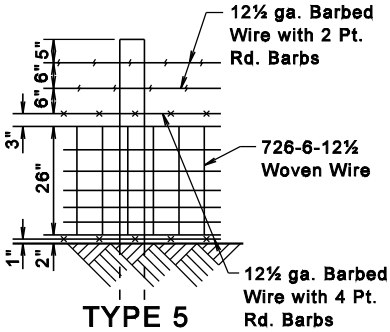
TYPE 2
4 BARBED WIRES



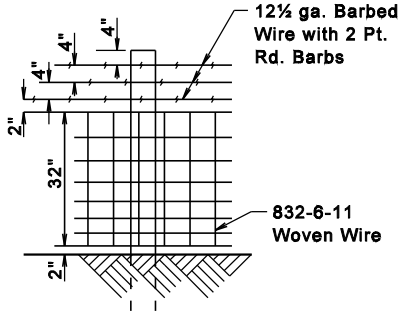
TYPE 3 / MODIFIED TYPE 3
5 BARBED WIRES



TYPE 4
26" WOVEN WIRE
WITH 2 BARBED WIRES



TYPE 5
26" WOVEN WIRE
WITH 4 BARBED WIRES



MODIFIED TYPE 6
32" WOVEN WIRE
WITH 3 BARBED WIRES

TYPE OF FENCE		LINE POST SPACING	BARBED WIRE		WOVEN WIRE
TYPE	DESCRIPTION		WIRE GAGE	NUMBER AND SHAPE OF BARBS	STYLE OR DESIGN NO.
1	3 Barbed Wires	16'-6"	12½	2 Point Round	—
2	4 Barbed Wires	16'-6"	12½	2 Point Round	—
3	5 Barbed Wires	16'-6"	12½	2 Point Round	—
MOD 3	5 Barbed Wires	14'-0"	12½	2 Point Round	—
4	26" Woven Wire with 2 Barbed Wires	14'-0"	12½	2 Point Round	726-6-12½
5	26" Woven Wire with 4 Barbed Wires	14'-0"	12½	2 wires with 2 Pt. Rd. 2 wires with 4 Pt. Rd.	726-6-12½
MOD 6	32" Woven Wire with 3 Barbed Wires	14'-0"	12½	3 wires with 2 Pt. Rd.	832-6-11

GENERAL NOTES:

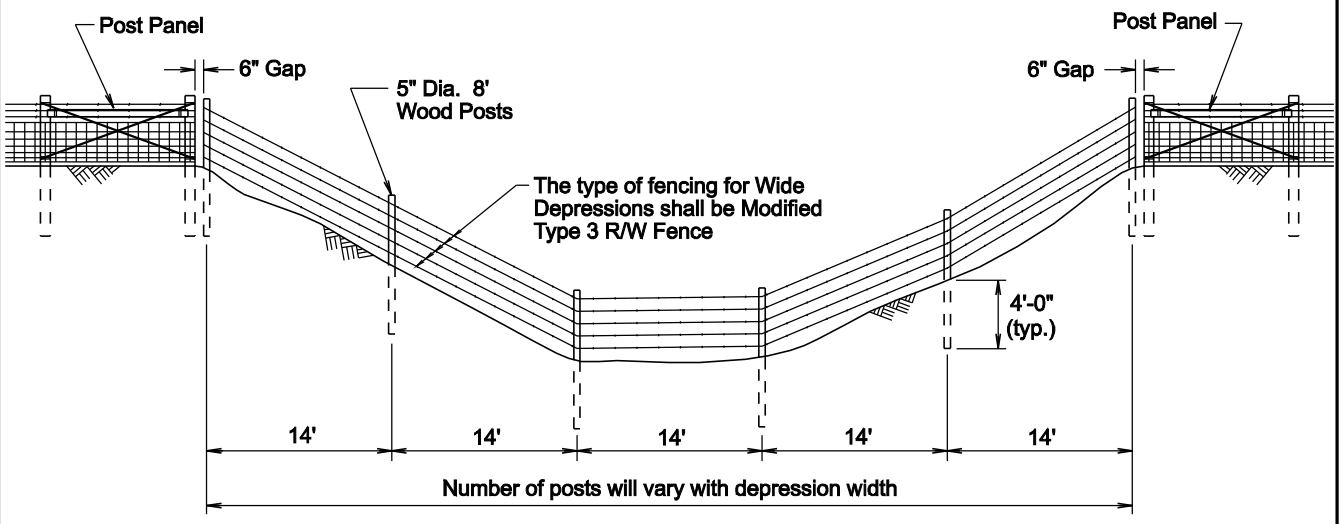
Fence types designated on the plans that are followed by the letter S shall have smooth (barbless) wires.

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.

RIGHT-OF-WAY FENCE

Fencing At Wide Depression/Stream Crossing (Subject to Flooding)

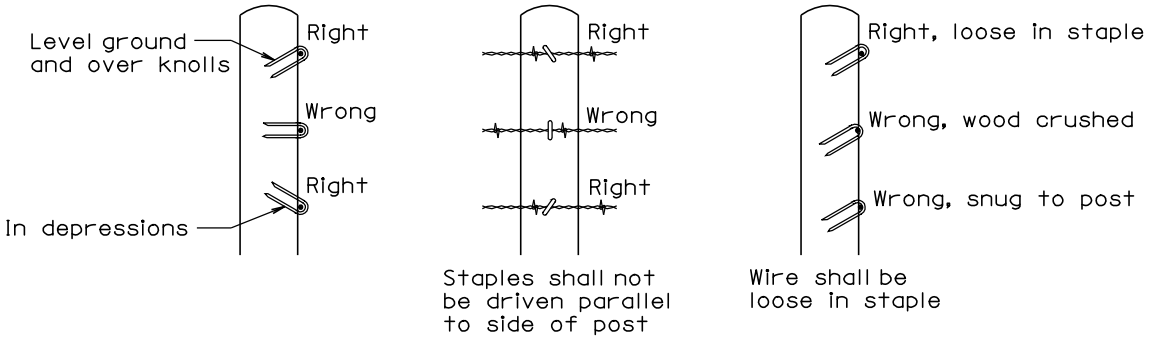


GENERAL NOTES:

Cost for fencing through stream crossing(s) and/or wide depression(s) shall be included in the contract unit price per foot for Modified Type 3 Right-of-Way Fence.

The Wood Fence Posts used in stream crossing(s) and/or wide depression(s) shall be 5" x 8' Wood Fence Posts. The designated fencing location(s) for the stream crossing(s) and/or wide depression(s) will be directed by the Engineer.

Cost for furnishing and installing the 5" x 8' Wood Fence Posts in stream crossing(s) and/or wide depression(s) shall be included in the contract unit price per each for Wood Fence Post.



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: 2nd Qtr. 2009	SDDOT	STAPLE INSTALLATION AND GENERAL RIGHT-OF-WAY FENCE NOTES	PLATE NUMBER 620.02 Sheet 1 of 1

Plotting Date: 22-APR-2009

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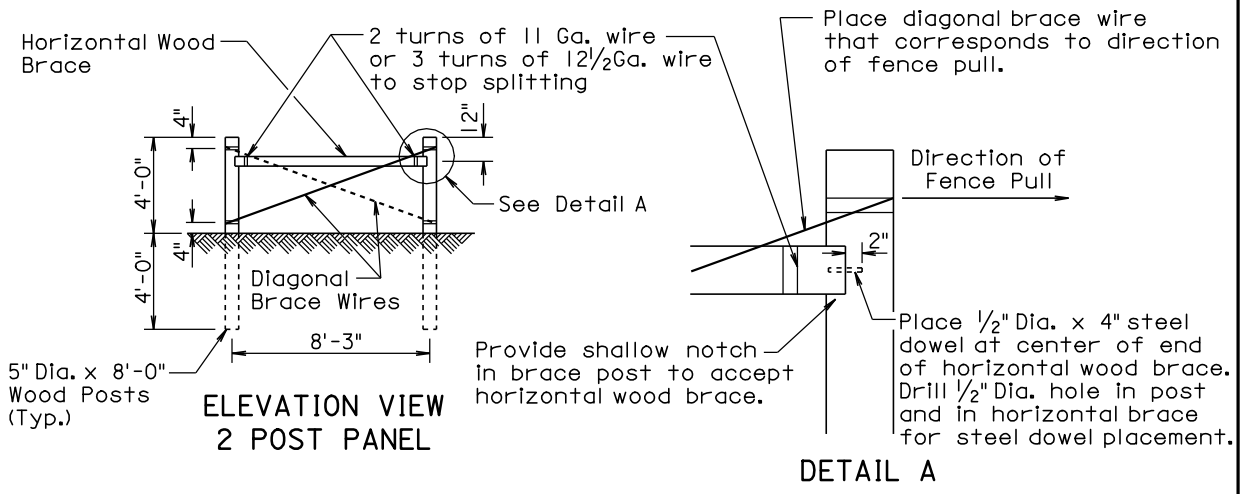

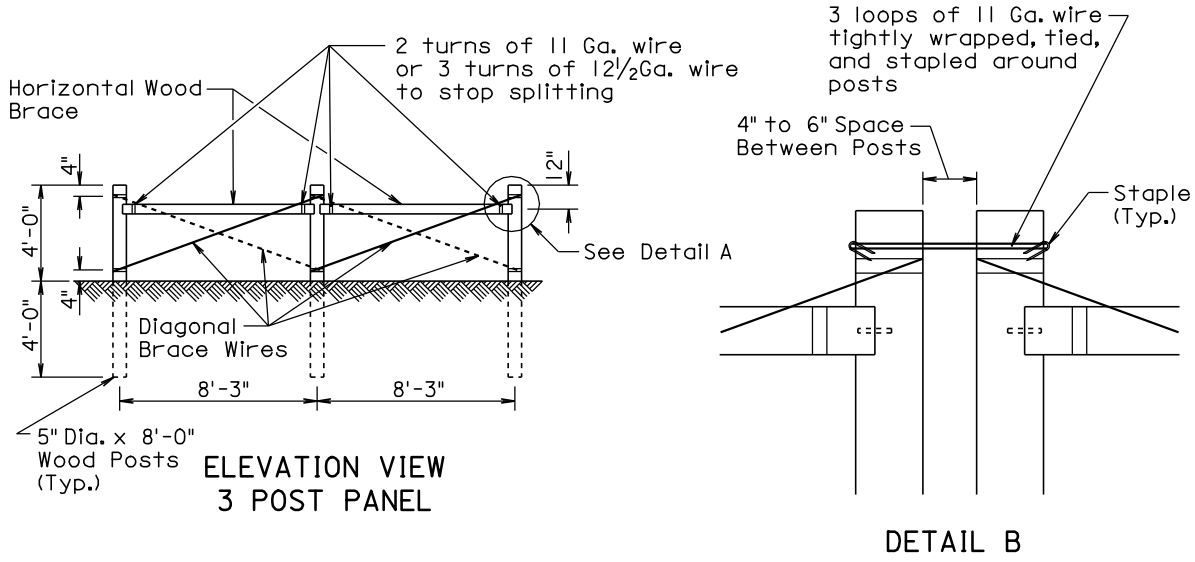

GENERAL NOTES:

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.

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SPACING OF 2 POST PANELS WITHIN CURVES	
DEGREE OF CURVE	SPACING OF 2 POST PANEL
less than 3°15'	** 1320'
3°15' and greater	**At P.C., P.T., and at every 1320' between P.C. and P.T.

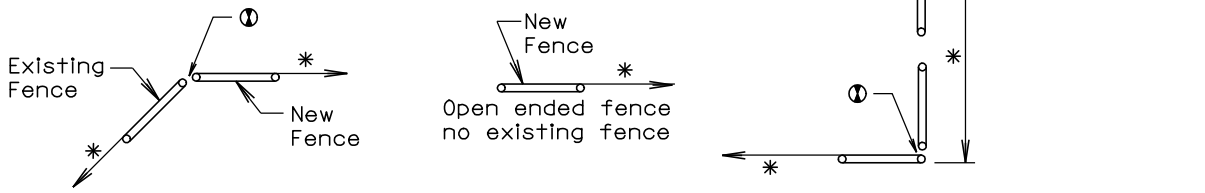
GENERAL NOTE:

All degrees of curvature stated for fence are at centerline of roadway.

* If fence length is less than 600' to next corner use a 2 post panel.
If fence length is greater than 600' to next corner use a 3 post panel.

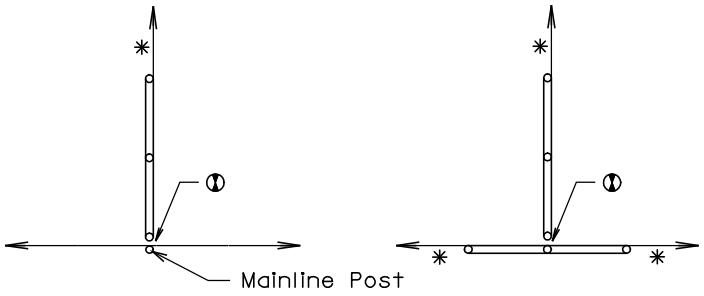
** Fence lengths greater than 1320' and less than 2640' place 2 Post Panel approximately at midpoint.

① See Detail B on Sheet 1 of 3.

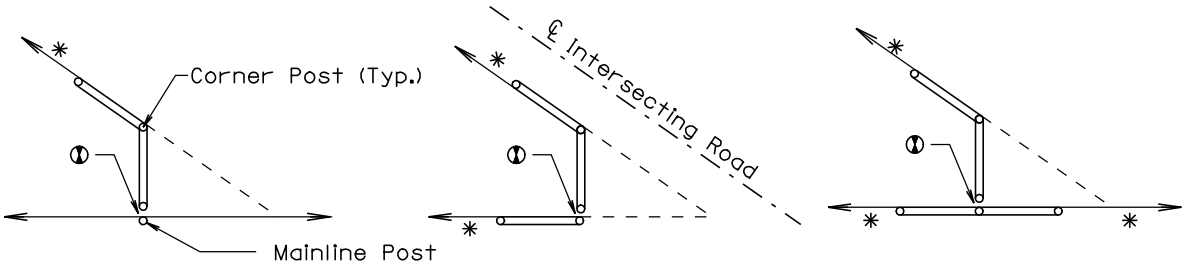


BEGIN OR END FENCE
(where new fence ties into existing fence)

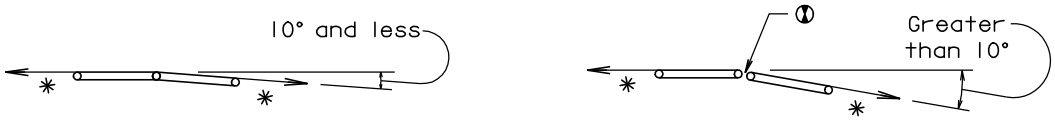
SHORT JOGS IN FENCE



CROSS FENCE



SHARP ANGLES IN CROSS FENCE



Additional fence panel is NOT required when an angle in the mainline fence is 10° and less.

Additional fence panel is required when an angle in the mainline fence is greater than 10°.

ANGLES IN MAINLINE FENCE

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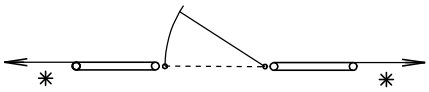
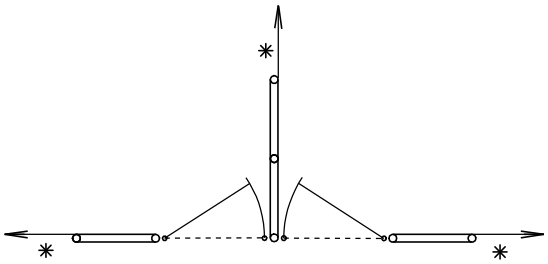
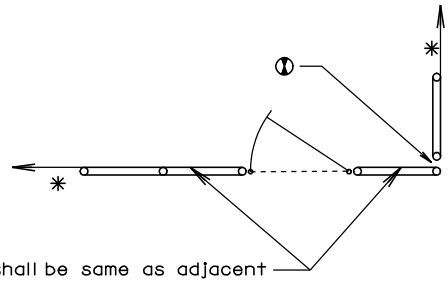
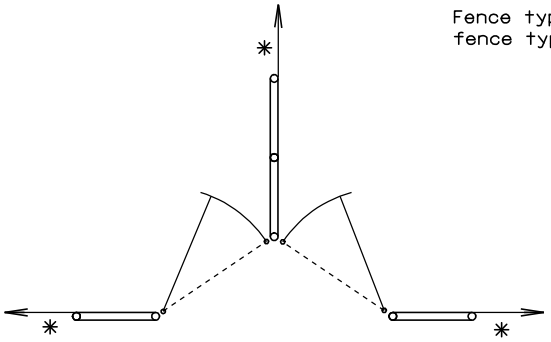


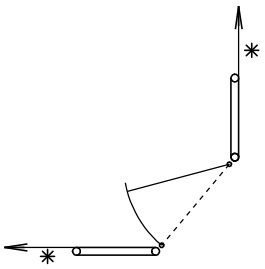
ENTRANCE
(NOT ON CORNER)

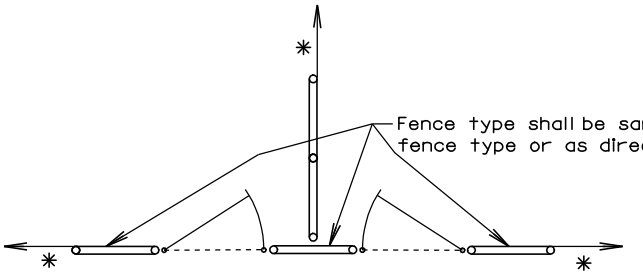




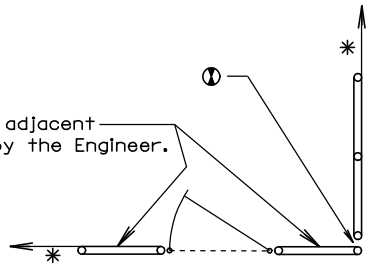
Fence type shall be same as adjacent fence type or as directed by the Engineer.







Fence type shall be same as adjacent fence type or as directed by the Engineer.



DOUBLE ENTRANCES

ENTRANCES AT CORNERS

GATES

* If fence length is less than 600' to next corner use a 2 post panel.
  If fence length is greater than 600' to next corner use a 3 post panel.

① See Detail B on Sheet 1 of 3.

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BRACE PANELS AND APPLICATIONS OF BRACE PANELS

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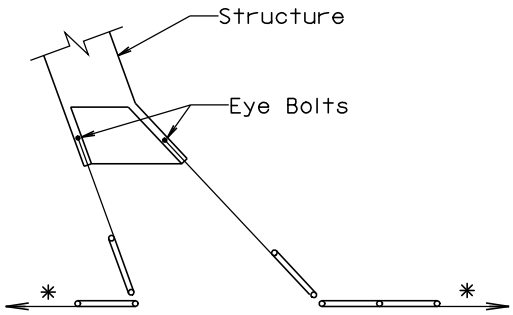
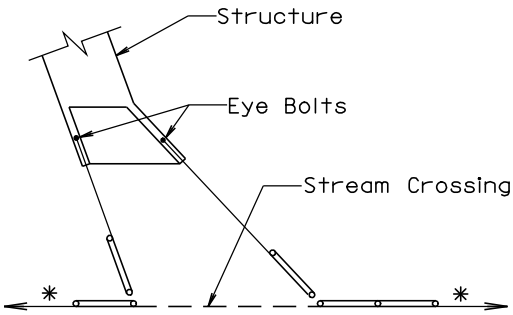
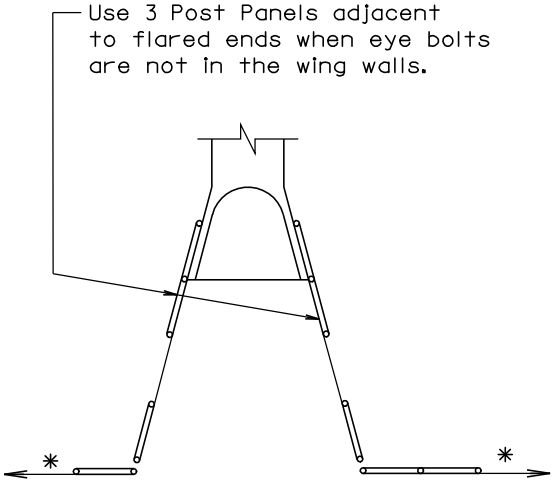


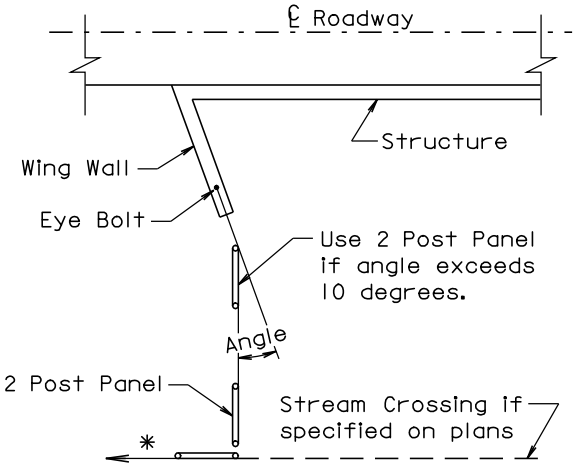
R.C. BOX CULVERT
OR CATTLE PASS



STRUCTURE WITH STREAM
CROSSING FENCE



R.C. BOX CULVERT
OR CATTLE PASS



BRIDGE

* If fence length is less than 600' to next corner use a 2 post panel.
If fence length is greater than 600' use a 3 post panel.

March 31, 2000

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SDDOT

BRACE PANEL APPLICATIONS AT STRUCTURES

PLATE NUMBER
620.04

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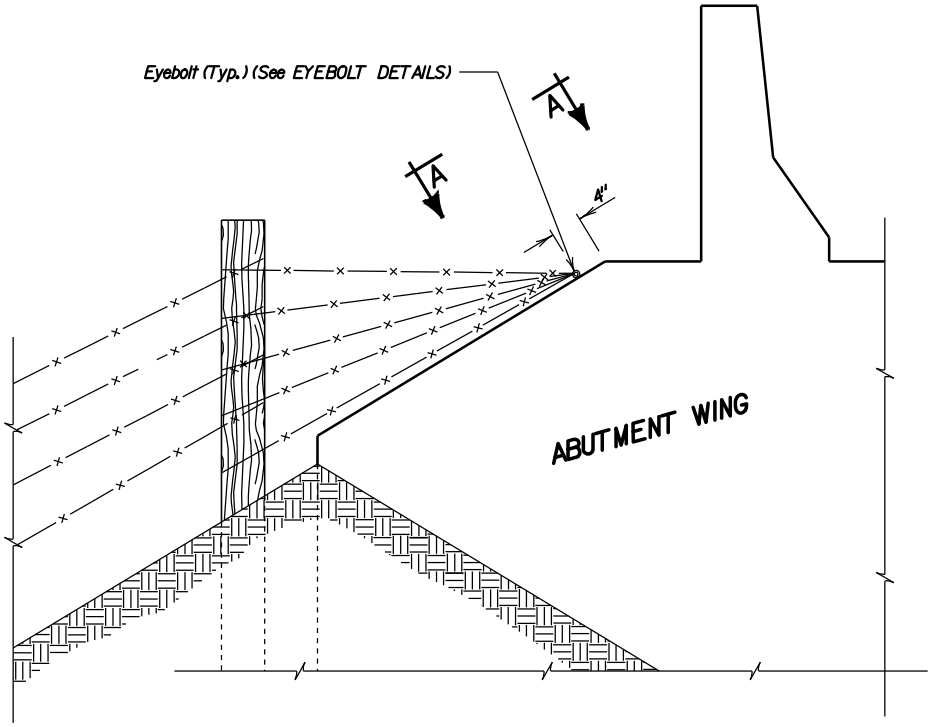
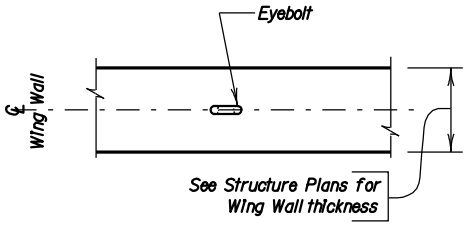


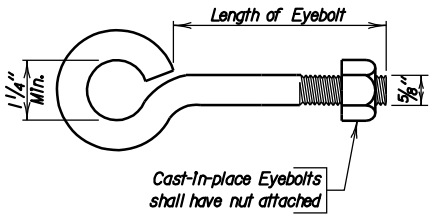
DETAILS FOR FENCE ANCHORS

GENERAL NOTES:

1. The fence and post details shown are for illustrative purpose only. The fence shall be as specified elsewhere in the plans.
2. Eyebolts shall be placed on all of the bridge abutment wings.
3. Eyebolts shall be 5/8" dia. and shall conform to ASTM A307.
4. Eyebolts, nuts, and concrete inserts shall be galvanized in accordance with AASHTO M232 (ASTM A153). Concrete inserts of corrosion resistant material need not be galvanized.
5. Cast-in-place eyebolts shall have a nut attached, be 4 1/2" (Min.) in length and shall be embedded such that the eye of the bolt is flush with the concrete surface. (See Eyebolt Details) As an alternate, cast-in-place concrete inserts, capable of developing the full strength of the 5/8" diameter threaded eyebolt, may be used and shall be set in the concrete in accordance with the manufacturer's recommendations. The eyebolt shall be of sufficient length to develop its full strength. The eye of the eyebolt shall be flush with the concrete surface.
6. The cost for furnishing and installing eyebolts and/or concrete inserts shall be incidental to the contract unit price per pound for "Reinforcing Steel".



VIEW A - A



EYEBOLT DETAILS

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SDDOT

FENCE ANCHORS FOR BRIDGE ABUTMENT WINGS (WINGS 6' AND SHORTER)

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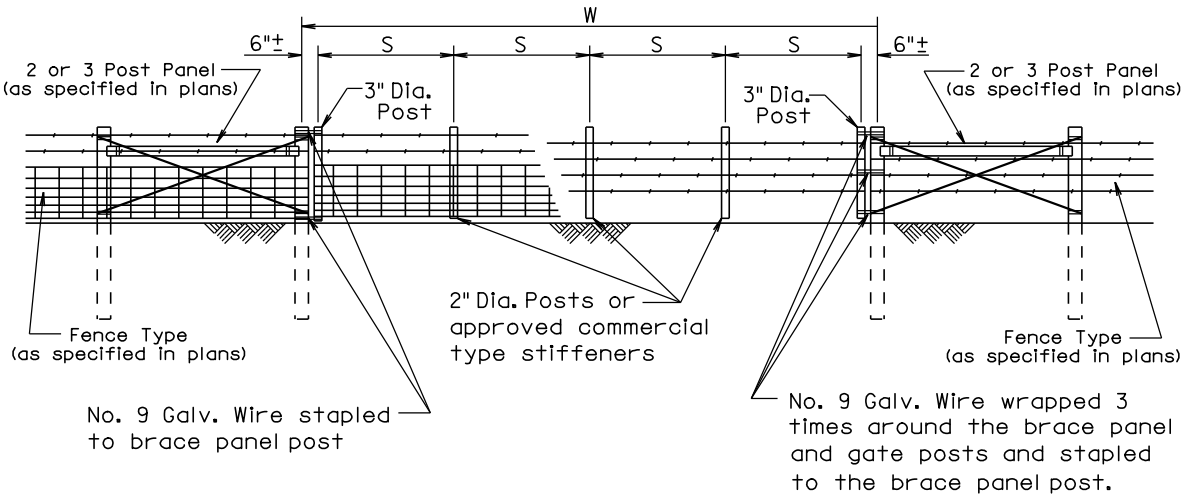

W Gate Width (ft.)	S Post Spacing
16	3 @ 5'-0" ±
20	4 @ 4'-9" ±
24	4 @ 5'-9" ±
30	5 @ 5'-10" ±
40	6 @ 6'-6" ±

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.

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WIRE GATES

PLATE NUMBER
620.20

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