DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Dallas Forester No. C37765 Exp. 12-31-06 CIVIL STATE OF CALIFORNIA

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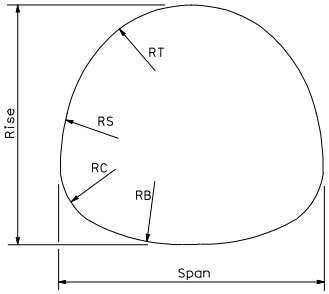
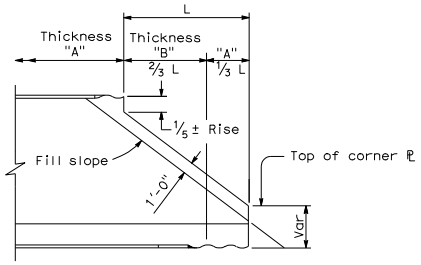




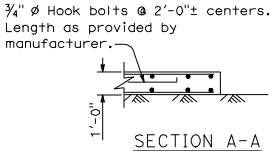
SIDE ELEVATION

NOTE:

Thickness "B" two thicknesses greater than thickness "A" except for 0.249" and 0.280" thicknesses.

Skew-bevels not permitted with Alternative 1. Cutoff dimensions are approximate only and may be varied by fabricator to suit plate layout.

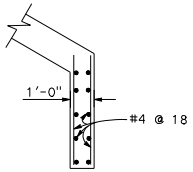
ALTERNATIVE 1



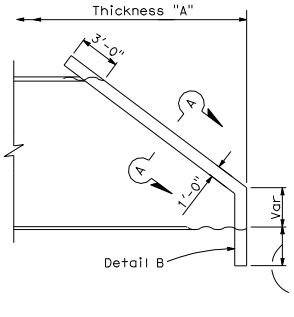
SECTION A-A

NOTE:

Reinforce both faces of concrete collar with #4 @ 18 both ways. Maximum skew is 35°.

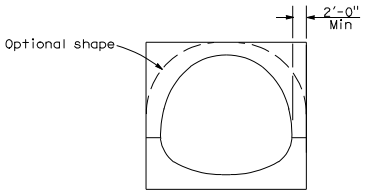


DETAIL B



SIDE ELEVATION

ALTERNATIVE 2



END ELEVATION

END BEVELS

MAXIMUM HEIGHT OF FILL											LAYOUT DATA			
Span	Rise	Thickness												
		0.109"	0.138"	0.168"	0.109"	0.138"	0.168"	0.218"	0.249"	0.280"				
		Soil Pressure 3.0 ksf			For soil pressures see Table A						RT	RS	RC	RB
12'-2"	11'-0"	16'-0"	16'-0"	16'-0"	17'-0"	26'-0"	33'-0"	46'-0"	54'-0"	59'-0"	5'-8"	7'-9"	3'-2"	11'-2"
12'-11"	11'-3"	15'-0"	15'-0"	15'-0"	16'-0"	24'-0"	31'-0"	43'-0"	51'-0"	56'-0"	6'-1"	7'-11"	3'-2"	12'-0"
13'-2"	11'-11"	14'-0"	14'-0"	14'-0"	16'-0"	24'-0"	31'-0"	42'-0"	50'-0"	55'-0"	6'-1"	8'-7"	3'-2"	13'-3"
13'-10"	12'-3"	13'-0"	13'-0"	13'-0"	15'-0"	22'-0"	29'-0"	41'-0"	48'-0"	52'-0"	6'-5"	9'-0"	3'-2"	13'-8"
14'-1"	12'-10"	13'-0"	13'-0"	13'-0"	15'-0"	22'-0"	29'-0"	40'-0"	47'-0"	51'-0"	6'-5"	9'-7"	3'-2"	15'-2"
14'-6"	13'-6"	13'-0"	13'-0"	13'-0"	14'-0"	21'-0"	28'-0"	39'-0"	46'-0"	50'-0"	6'-6"	10'-11"	3'-2"	14'-6"
14'-10"	14'-0"	13'-0"	13'-0"	13'-0"	14'-0"	21'-0"	27'-0"	38'-0"	45'-0"	49'-0"	6'-7"	11'-4"	3'-2"	16'-0"
15'-6"	14'-4"	12'-0"	12'-0"	12'-0"	13'-0"	20'-0"	26'-0"	36'-0"	43'-0"	47'-0"	7'-0"	11'-6"	3'-2"	16'-9"
15'-9"	15'-1"		12'-0"	12'-0"		20'-0"	26'-0"	35'-0"	42'-0"	46'-0"	6'-11"	12'-6"	3'-2"	17'-8"
16'-4"	15'-5"		12'-0"	12'-0"		19'-0"	25'-0"	34'-0"	40'-0"	44'-0"	7'-2"	13'-1"	3'-2"	17'-11"
16'-5"	16'-1"		11'-0"	11'-0"		19'-0"	25'-0"	34'-0"	40'-0"	44'-0"	7'-4"	13'-2"	3'-2"	22'-7"
16'-9"	16'-3"		11'-0"	11'-0"		19'-0"	24'-0"	33'-0"	39'-0"	43'-0"	7'-5"	13'-11"	3'-2"	20'-7"
17'-3"	17'-0"		14'-0"	14'-0"		18'-0"	23'-0"	32'-0"	38'-0"	42'-0"	7'-6"	14'-6"	3'-11"	17'-11"
18'-4"	16'-11"			13'-0"			22'-0"	30'-0"	36'-0"	39'-0"	8'-3"	13'-1"	3'-11"	20'-9"
19'-2"	17'-2"			13'-0"			21'-0"	29'-0"	35'-0"	38'-0"	8'-9"	13'-0"	3'-11"	22'-0"
19'-6"	17'-7"			12'-0"			21'-0"	29'-0"	34'-0"	37'-0"	8'-11"	13'-2"	3'-11"	24'-9"
20'-4"	17'-10"							28'-0"	33'-0"	36'-0"	9'-5"	13'-0"	3'-11"	26'-2"

Structures require strutting for fill heights below heavy lines. See Note A.

TABLE A						
Spans	Soil Pressure (ksf)					
	Thickness					
	0.109"	0.138"	0.168"	0.218"	0.249"	0.280"
12'-2" to 16'-9"	3.4	5.0	6.6	9.0	10.6	11.6
17'-3" to 20'-4"	2.8	4.0	5.0	7.2	8.4	9.2

NOTES:

A. For strutting requirements of structural steel plate vehicular undercrossing during construction, see Standard Plan D88A.

B. Minimum cover from crown to shoulder hinge point = 5'-0".

C. Backfill shall be brought up uniformly on both sides of the structure.

D. Minimum cover for construction loading, see Standard Plan D88.

Reinforced concrete: F_s = 24,000 psi
N = 10
F_c = 1,300 psi

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL PLATE VEHICULAR UNDERCROSSING

NO SCALE

B14-1

2006 STANDARD PLAN B14-1

8-8-05