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

REGISTERED CIVIL ENGINEER

May 1, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Overcomer Y. Hor No. C45803 Exp. 12-31-06 CIVIL STATE OF CALIFORNIA

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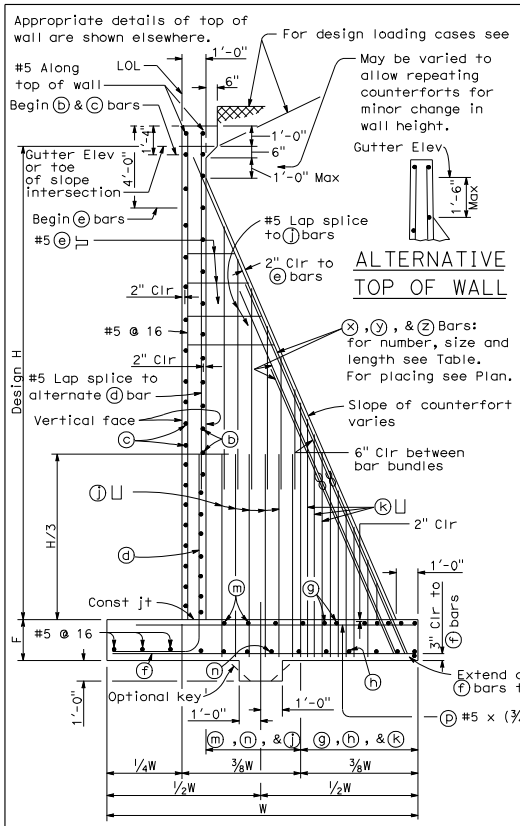
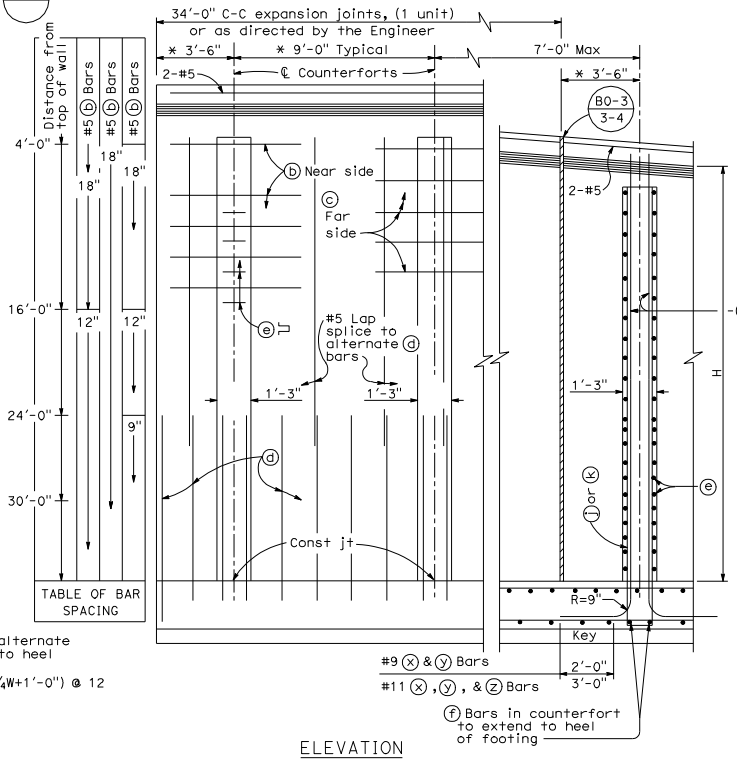


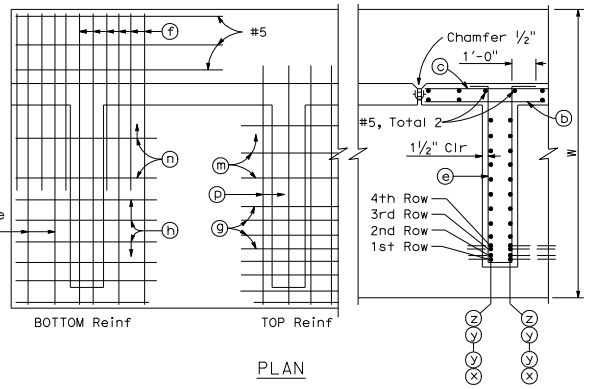
ALTERNATIVE TOP OF WALL

SPREAD FOOTING SECTION

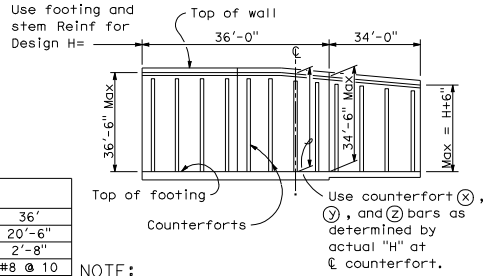


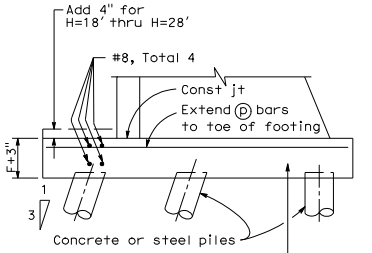
ELEVATION

* Dimensions 9'-0" and 3'-6" may be decreased proportionally but not increased without a special design. Use footing dimensions and reinforcing and stem reinforcing in any unit as determined by maximum Design "H" in that unit. Use counterfort ⓧ, ⓨ, and ⓩ bars as determined by "H" at ℄ counterfort.



PLAN





Reinforcement detailed is to be placed in addition to that shown for spread footing. Provide 6" clear to ⓕ bars. All piles not shown, see Pile Layout on other sheets.

90 KIP PILE FOOTING SECTION

TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA

Design H	18'	20'	22'	24'	26'	28'	30'	32'	34'	36'
W	11'-6"	12'-6"	13'-6"	14'-6"	15'-6"	16'-6"	17'-6"	18'-6"	19'-6"	20'-6"
F	1'-3"	1'-3"	1'-4"	1'-4"	1'-6"	1'-9"	2'-0"	2'-2 "	2'-4"	2'-8"
ⓓ Bars, counterfort stem	#5 @ 12	#5 @ 12	#5 @ 11	#5 @ 9	#5 @ 8	#5 @ 7	#6 @ 9	#6 @ 8	#8 @ 11	#8 @ 10
ⓕ Bars, bottom toe	#6 @ 12	#6 @ 8	#8 @ 11	#8 @ 9	#8 @ 8	#8 @ 7	#8 @ 9	#8 @ 8	#9 @ 11	#9 @ 10
ⓕ Bars, length	5'-7"	6'-3"	6'-11"	7'-10"	8'-2"	8'-6"	8'-10"	9'-2"	9'-10"	10'-2"
ⓕ Bars, length	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"
ⓖ Bars, top of heel	#6 @ 8	→	→	→	→	→	→	→	→	→
ⓗ Bars, bottom of heel	#6 @ 8	→	→	→	→	→	→	→	→	→
ⓙ Bars, counterfort heel	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 14	#5 @ 12	#5 @ 12	#6 @ 16	#6 @ 16	#6 @ 14	#6 @ 14
ⓚ Bars, counterfort heel	#5 @ 8	#5 @ 8	#5 @ 8	#5 @ 7	#5 @ 6	#5 @ 6	#6 @ 8	#6 @ 8	#6 @ 7	#6 @ 7
ⓜ Bars, top heel	#5 @ 10	→	→	→	→	→	→	→	→	→
ⓝ Bars, bottom heel	#5 @ 14	→	→	→	→	→	→	→	→	→
ⓧ Bar	2 - #9	2 - #9	2 - #9	2 - #9	2 - #11	2 - #11	2 - #11	2 - #11	2 - #11	2 - #11
ⓧ Bar, length	20'-0"	22'-4"	24'-3"	26'-7"	28'-10"	30'-10"	33'-2"	35'-1"	37'-5"	39'-1"
ⓨ Bar	2 - #9	2 - #9	4 - #9	4 - #9	4 - #11	4 - #11	4 - #11	4 - #11	4 - #11	4 - #11
ⓨ Bar, length	9'-3"	12'-0"	14'-3"	15'-9"	17'-9"	20'-8"	22'-6"	24'-10"	26'-3"	27'-9"
ⓩ Bar	-	-	-	-	-	-	2 - #11	2 - #11	2 - #11	2 - #11
ⓩ Bar, length	-	-	-	-	-	-	11'-10"	12'-2"	14'-9"	17'-1"
Toe Pressure k/sf										
Loading Case I	3.5	3.8	4.2	4.5	4.9	5.4	5.9	6.3	6.7	7.3
Loading Case II	3.9	4.4	4.9	5.4	6.0	6.7	7.3	7.9	8.6	9.3
Loading Case III	4.2	4.7	5.3	5.9	6.5	6.9	7.3	7.7	8.1	8.6

NOTE:

For design notes, drainage notes, and other details, see B3-8

Length of ⓧ, ⓨ, and ⓩ bars indicates distance from top of footing to upper end of bar measured along bar. No other lap splices are allowed except as shown in the plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

COUNTERFORT RETAINING WALL TYPE 3

NO SCALE

B3-5

2-8-06