

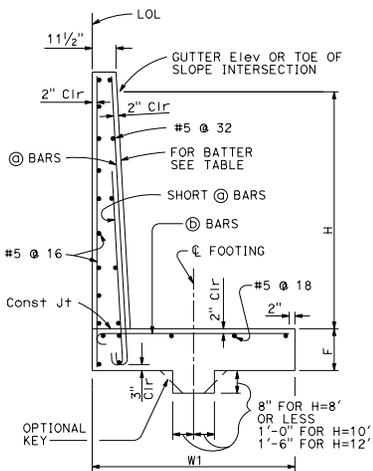
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Gary Wong
REGISTERED CIVIL ENGINEER

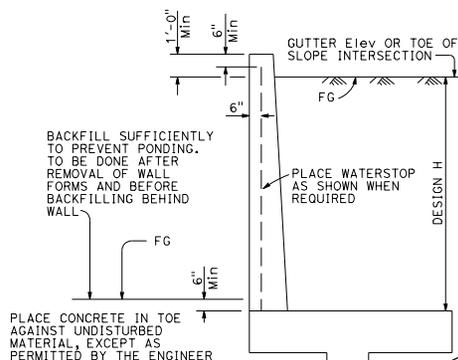
May 20, 2011
PLANS APPROVAL DATE

Exp. 6-30-12
CIVIL

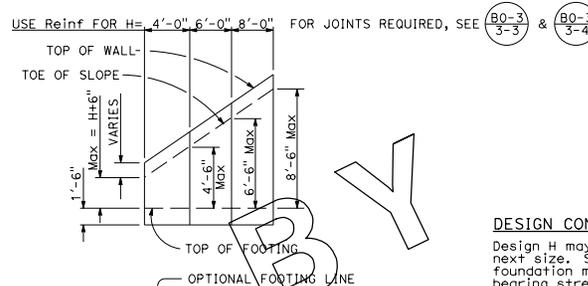
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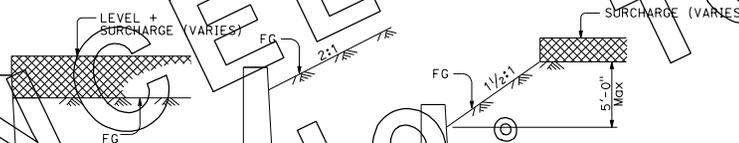
SPREAD FOOTING SECTION



DESIGN SECTION



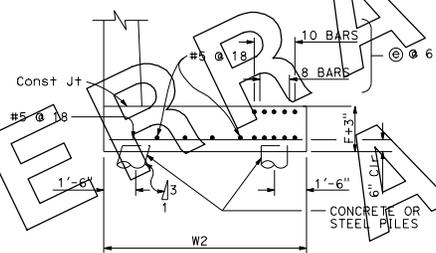
TYPICAL LAYOUT EXAMPLE



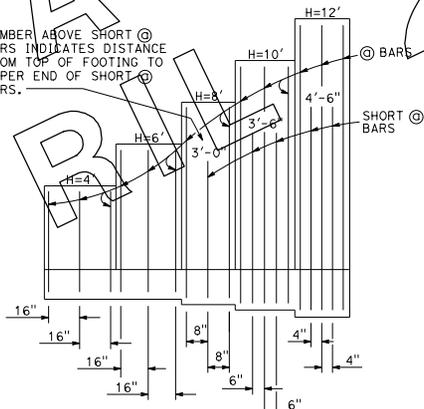
DETAIL OF DESIGN LOADING CASES

DESIGN H	FRONT ROW	BACK ROW
4'	15'-0"	18'-0"
6'	10'-0"	16'-0"
8'	6'-0"	14'-0"
10'	5'-0"	12'-0"
12'	4'-0"	8'-0"

For actual spacing, see Wall Layout. Pile Layout does not apply to case III conditions.



90 KIP PILE FOOTING SECTION



ELEVATION

DESIGN CONDITIONS:

Design H may be exceeded by 6' before going to the next size. Special footing design is required where foundation material is incapable of supporting bearing stress listed in table.

DESIGN NOTES:

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments

LIVE LOAD: Surcharge on level ground surface

SOIL: $\phi = 34^\circ$
 $\gamma = 120$ pcf
REINFORCED CONCRETE: $f_y = 60,000$ psi
 $f_c = 3,600$ psi
 $\mu = 8$

NOTES:

- For details not shown and drainage notes see B3-5
- For wall stem joint details see B0-3/3-3 and B0-3/3-4
- At @ and Short @ bars:
H \leq 6', no splices are allowed within 1'-8" above the top of footing.
H > 6', no splices are allowed within H/4 above the top of footing.

SYMBOLS:

- Ser - service limit state 1
- Str - strength limit state 1
- B' - effective footing width (ft)
- q_0 - net bearing stress (ksf)
- q_0 - gross uniform bearing stress (ksf)

DESIGN H	4'	6'	8'	10'	12'	
W1	5'-9"	6'-9"	10'-3"	11'-0"	12'-6"	
W2	6'-0"	6'-9"	8'-0"	8'-6"	9'-6"	
F SPREAD FOOTING	1'-6"	1'-6"	1'-6"	1'-6"	1'-10"	
BATTER	NONE	NONE	100:2	100:3	100:6	
@ BARS	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 12	#5 @ 8	
SHORT @ BARS	None	None	#5 @ 16	#5 @ 12	#5 @ 8	
Ⓢ BARS	#5 @ 16	#5 @ 8	#6 @ 8	#6 @ 6	#6 @ 4	
TOTAL @ BARS	8 - #8	8 - #8	10 - #8	10 - #7	8 - #6	
LOAD CASE I	Ser: B', q_0	5.0, 1.2	5.5, 1.5	9.0, 1.6	9.4, 1.9	10.5, 2.2
	Str: B', q_0	5.0, 2.2	5.4, 2.6	8.9, 2.7	9.2, 3.1	10.4, 3.5
LOAD CASE II	Ser: B', q_0	5.3, 0.9	5.9, 1.3	9.5, 1.6	9.9, 2.0	11.0, 2.5
	Str: B', q_0	5.3, 1.5	5.9, 2.1	9.5, 2.5	9.8, 3.1	10.9, 3.8
LOAD CASE III	Ser: B', q_0	5.2, 1.0	5.4, 1.5	9.0, 1.7	7.4, 2.4	8.7, 2.7
	Str: B', q_0	4.1, 1.9	4.4, 2.6	7.1, 3.2	7.5, 3.8	8.8, 4.3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**RETAINING WALL
TYPE 5**

NO SCALE

B3-4