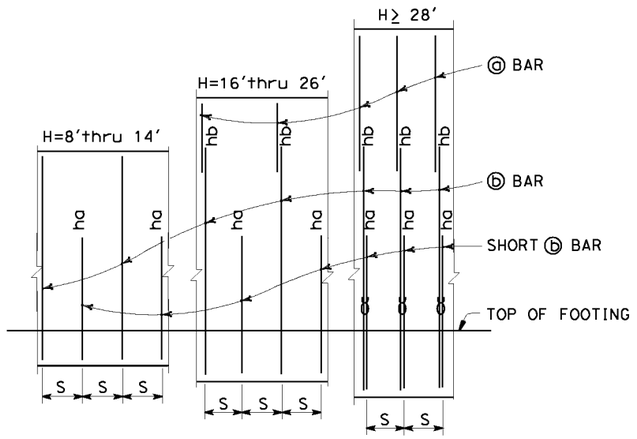
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
X	X	X	X	X	X

REGISTERED CIVIL ENGINEER — DATE X

PLANS APPROVAL DATE

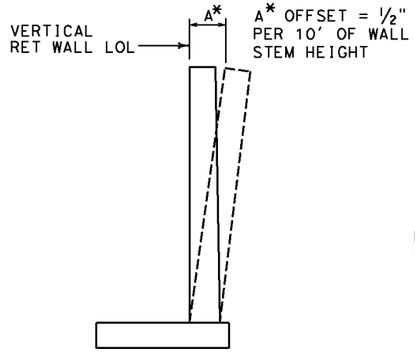
REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



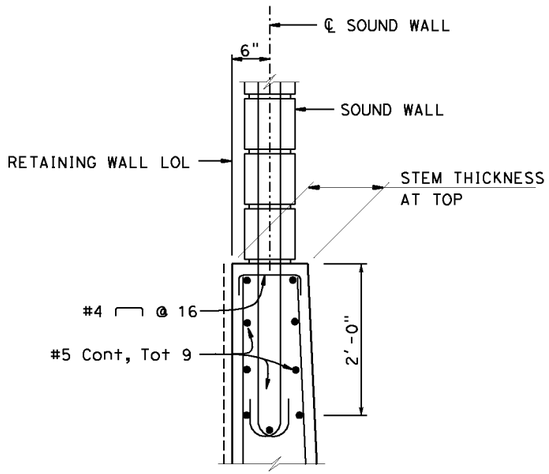
ELEVATION
No Scale

NOTES:
"ha", "hb" above ⓑ bars indicate distance from top of footing to upper end of ⓑ bars, see table.
"S" is ⓑ bar spacing, see table.



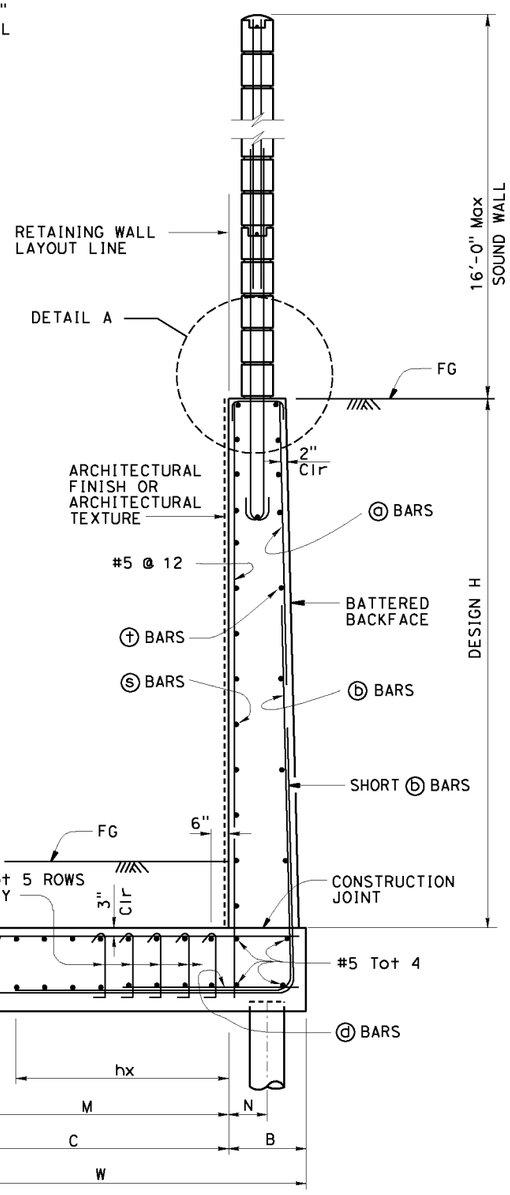
WALL OFFSET
No Scale

Values for offsetting forms to be determined by the engineer



DETAIL A
1" = 1'-0"

For sound wall reinforcement, see "SOUND WALL - MASONRY BLOCK ON RETAINING WALL" sheet



PILE FOOTING SECTION
No Scale

DESIGN DATA

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

WS: 33 psf on Sound wall

LS: Varied surcharge on level ground surface

EQE: Mononabe-Okabe Method
K_h = 0.3
K_v = 0.0

Soil: Ø = 34°
γ = 120 pcf

Reinforced Concrete: f'c = 3600 psi
fy = 60,000 psi

Load Combinations and Limit States

Service I	Q=1.00DC+1.00EV+1.00EH+1.00LS+0.30WS
Service II	Q=1.00DC+1.00EV+1.00EH+1.00WS
Strength I	Q=αDC+βEV+1.50EH+1.75LS
Strength III	Q=αDC+βEV+1.50EH+1.40WS
Strength V	Q=αDC+βEV+1.50EH+1.35LS+0.40WS
Extreme I	Q=1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE

Where:
Q: Force Effects
α: 1.25 or 0.90, Which ever Controls Design
β: 1.35 or 1.00, which ever Controls Design
DC: Dead Load of Structure Components
EV: Vertical Earth Fill Pressure
LS: Live Load Surcharge
EQE: Seismic Earth Pressure
EQD: Soil and Structure Components Inertia
Soil inertia ignored for stem design
WS: Wind Load on Sound wall

NOTES:
1. All piles are class 90 concrete piles.
2. Pile batter shown are 1:3.
3. Minimum distance between center pile and edge of footing is 1'-6".
4. Lateral resistance of each pile:
30 kip for strength limit states.
40 kip for extreme limit states.
5. Maximum spacing between piles is shown in the table. Reduce to suit the length of footing.
6. Minimum distance between any two piles is 3'-0". Reduce to suit the length of footing.
7. For sound wall and retaining wall architectural finish or texture, see details elsewhere in Project Plans.
8. For details not shown and drainage notes, see B3-5
9. Footing cover, 2'-0" minimum.
10. For sound wall and reinforcement see "SOUND WALL - MASONRY BLOCK ON RETAINING WALL" sheet.

STANDARD DRAWING
FILE NO. xs14-400-1
APPROVAL DATE July 2011

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. X
POST MILE X

X
RETAINING WALL TYPE 7SWP - DETAILS NO.1

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: X
PROJECT NUMBER & PHASE: X
CONTRACT NO.: X

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
				X	X

USERNAME => $USER DATE PLOTTED => $DATE TIME PLOTTED => $TIME
FILE => $REQUEST