

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

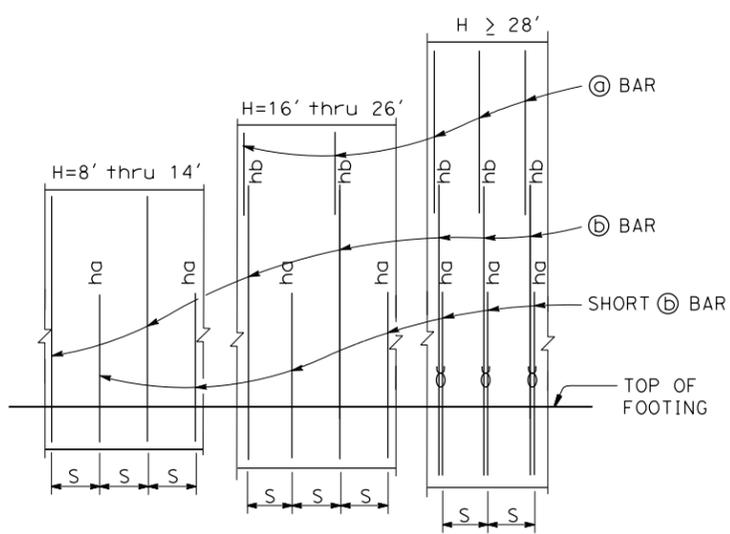
  

REGISTERED CIVIL ENGINEER	X	DATE
PLANS APPROVAL DATE		

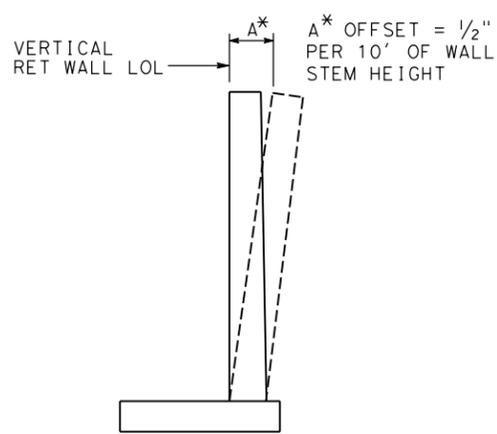
REGISTERED PROFESSIONAL ENGINEER	X
No.	X
Exp.	X
CIVIL	
STATE OF CALIFORNIA	

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**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

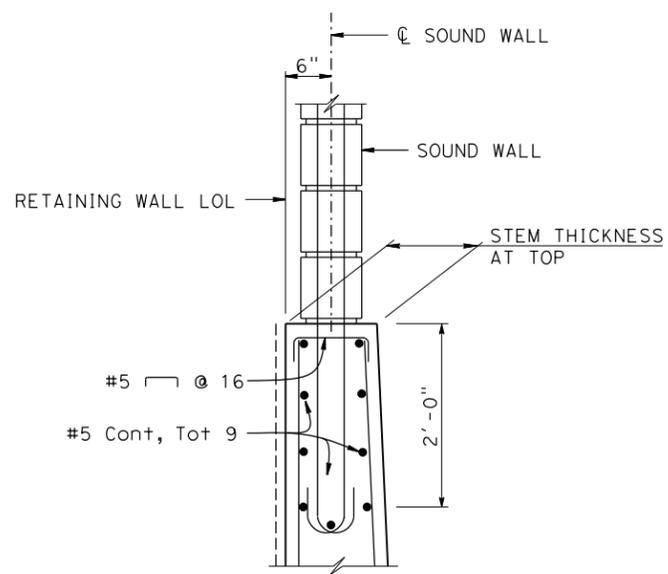
Values for offsetting forms to be determined by the Engineer

**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:  $\phi = 34^\circ$   
 $\gamma = 120$  pcf  
 Reinforced Concrete:  $f'_c = 3600$  psi  
 $f_y = 60,000$  psi

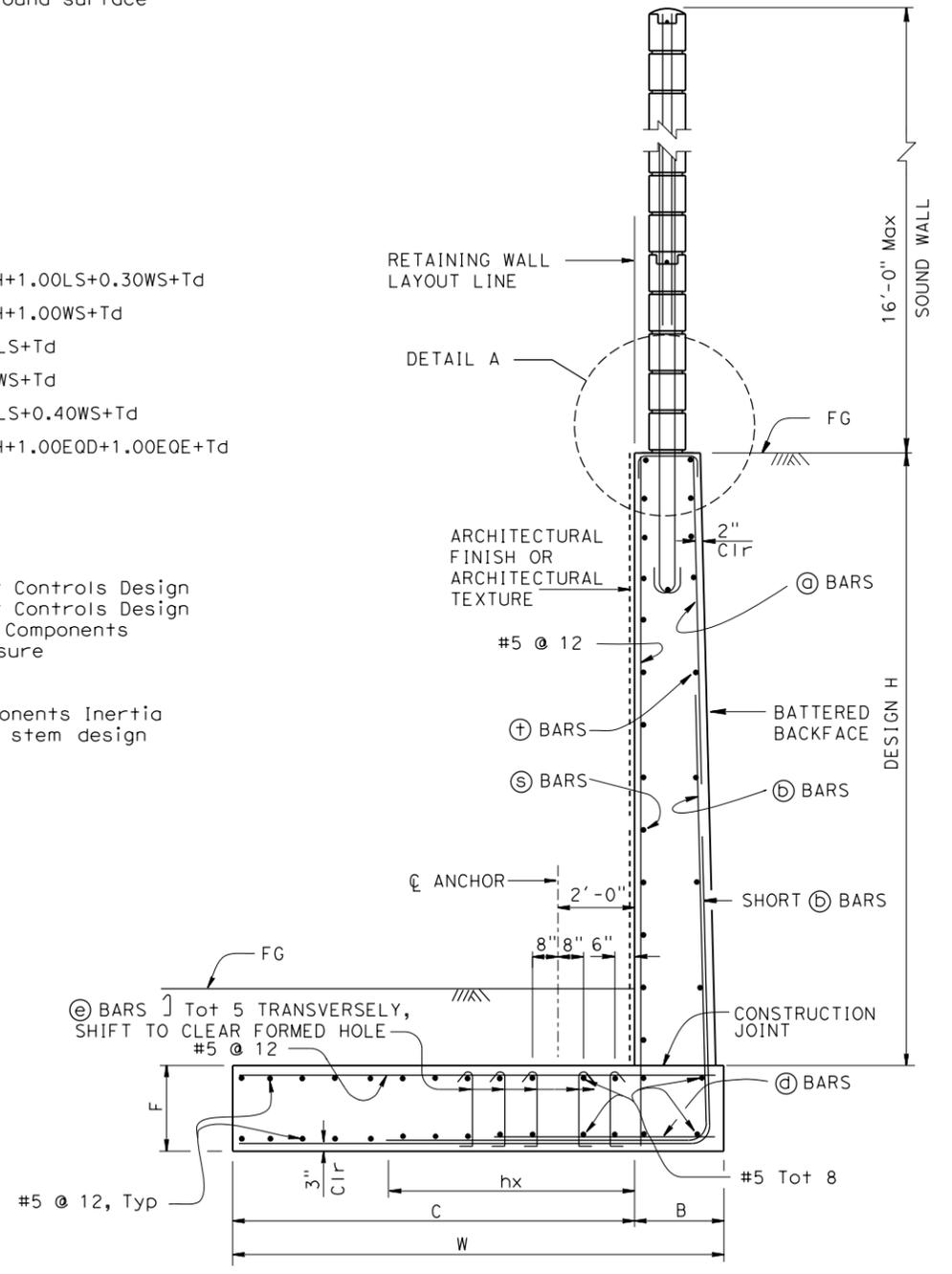
Load Combinations and Limit States  
 Service I  $Q=1.00DC+1.00EV+1.00EH+1.00LS+0.30WS+T_d$   
 Service II  $Q=1.00DC+1.00EV+1.00EH+1.00WS+T_d$   
 Strength I  $Q=aDC+\beta EV+1.50EH+1.75LS+T_d$   
 Strength III  $Q=aDC+\beta EV+1.50EH+1.40WS+T_d$   
 Strength V  $Q=aDC+\beta EV+1.50EH+1.35LS+0.40WS+T_d$   
 Extreme I  $Q=1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE+T_d$

Where: Q: Force Effects  
 a: 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  
 T<sub>d</sub>: Anchor Design Load



**DETAIL A**  
1" = 1'-0"

- NOTES:
- For Sound wall and Retaining wall Architectural finish or texture see Details elsewhere in Project Plans
  - For Details not shown and Drainage Notes see (3-5)
  - Footing cover, 2'-0" minimum.
  - For Sound wall reinforcement details, see "SOUND WALL - MASONRY BLOCK ON RETAINING WALL" sheet.
  - Shift Ⓣ bars and Ⓣ bars as required to clear formed hole for ground anchor.
  - Footing is designed to resist 1.33 T<sub>d</sub> assuming the maximum anchor spacing shown in the table.



**SPREAD FOOTING SECTION**  
No Scale

STANDARD DRAWING
FILE NO. <b>xs14-380-1</b>
APPROVAL DATE July 2014

BRIDGE NO.	X
POST MILE	X

STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES
DEPARTMENT OF TRANSPORTATION	

BRIDGE NO.	X
POST MILE	X
<b>RETAINING WALL TYPE 7SW - DETAILS No.1</b>	