

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
AASHTO LRFD Bridge Design Specifications, 2017 edition
with California Amendments updated April 2019

DEAD LOAD:
2" Concrete Surface Texture added to stem (DC)

WIND LOADING:
Wind perpendicular to plane of Sound Wall
Exposure Category D (WS)

LIVE LOADING:
Varied surcharge on level ground surface (LS)

SEISMIC LOADING (EQE):
 $K_h = 0.3$

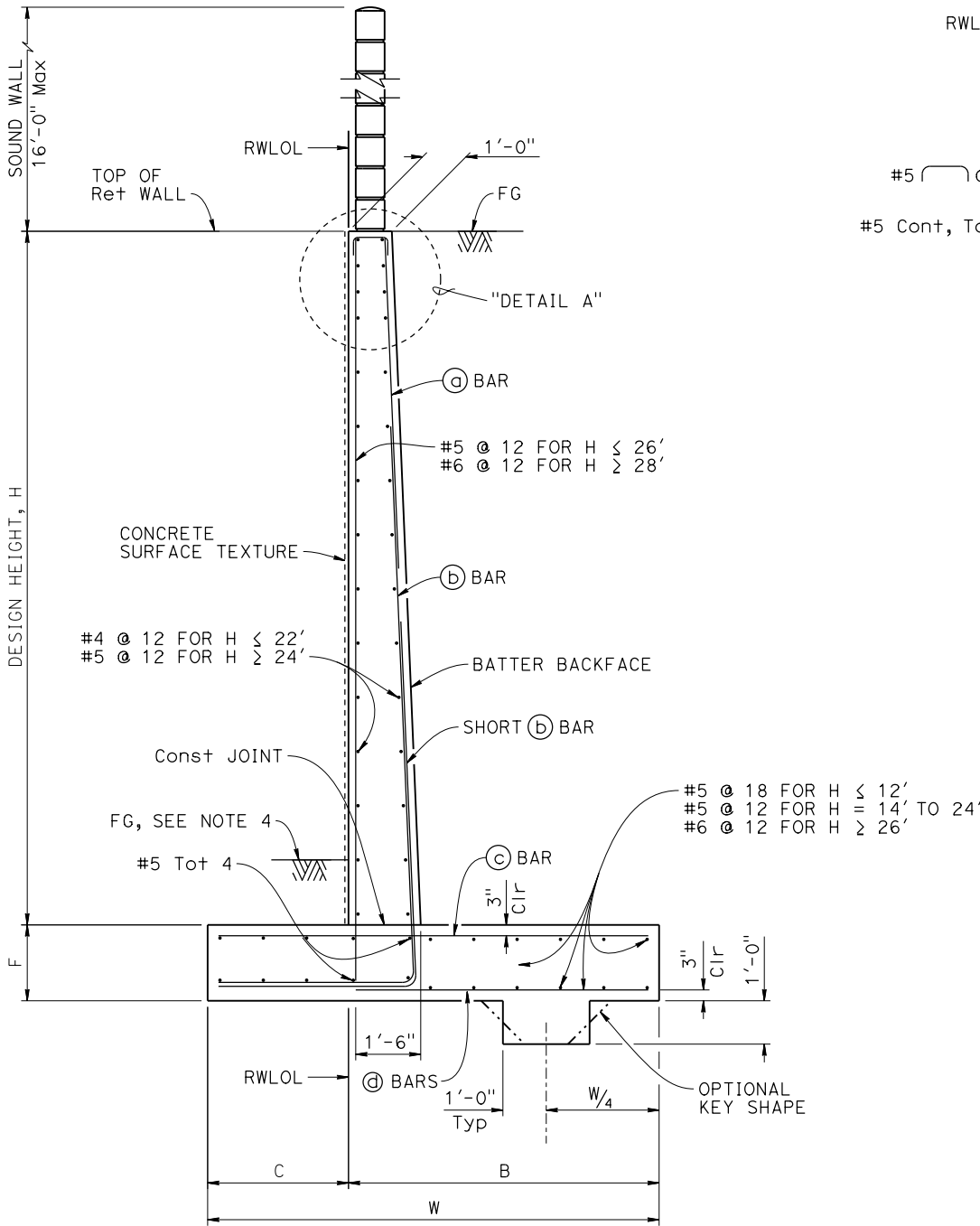
SOIL PARAMETERS (BACKFILL):
 $\phi = 34^\circ$
 $\gamma = 0.120 \text{ kcf}$
 $\phi = 32^\circ$ (used for footing friction)

REINFORCED CONCRETE:
 $f_y = 60 \text{ ksi}$
 $f'_c = 3.6 \text{ ksi}$

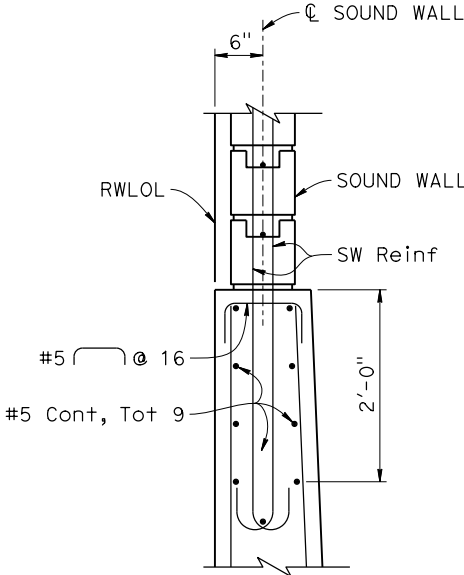
LOAD COMBINATIONS AND LIMIT STATES
Service I $Q = 1.00DC + 1.00EV + 1.00EH + 1.00LS + 1.00WS$
Strength I $Q = aDC + bEV + \eta EH + 1.75LS$
Strength III $Q = aDC + bEV + 1.50EH + 1.00WS$
Strength V $Q = aDC + bEV + 1.50EH + 1.35LS + 1.00WS$
Extreme I $Q = 1.00DC + 1.00EV + 1.00EH + 1.00EQD + 1.00EQE$

WHERE:
Q: Force Effects
a: 1.25 or 0.90, Whichever Controls Design
b: 1.35 or 1.00, Whichever Controls Design
 η : 0.9 or 1.5, Whichever Controls Design
DC: Dead Load of Structural Components
EV: Vertical Earth Fill Pressure
EH: Horizontal 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

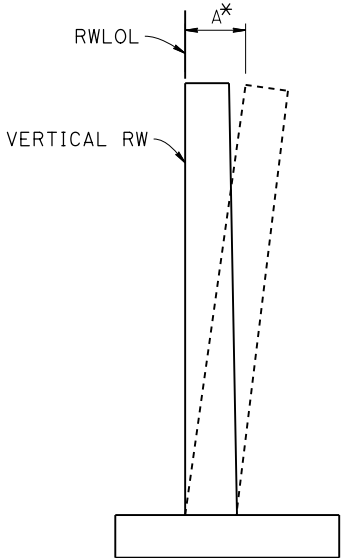
- NOTES:
- For reinforcement layout details, see "RETAINING WALL (TYPE 1SW) DETAILS No. 2" sheet.
 - For Sound Wall and Retaining Wall Concrete Surface Texture, see "ARCHITECTURAL DETAILS" sheet.
 - For Retaining Wall details not shown and drainage notes, see Standard Plan B0-3 and B3-5.
 - Footing cover, 1'-6" minimum.
 - For Sound Wall reinforcement and details, see "SOUND WALL MASONRY BLOCK ON RETAINING WALL DETAILS No. 1" and "SOUND WALL MASONRY BLOCK ON RETAINING WALL DETAILS No. 2" sheets.



TYPICAL SECTION



DETAIL A



WALL OFFSET

- NOTES:
- A^* offset = $\frac{1}{2}$ " per 10' of wall stem height.
 - Values for offsetting forms to be approved by the Engineer.

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER			X	DATE	
PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
THE REGISTERED CIVIL ENGINEER FOR THE PROJECT IS RESPONSIBLE FOR THE SELECTION AND PROPER APPLICATION OF THE COMPONENT DESIGN AND ANY MODIFICATIONS SHOWN.					

REGISTERED PROFESSIONAL ENGINEER

No. X

Exp. X

CIVIL

STATE OF CALIFORNIA

BRIDGE STANDARD DETAILS		DESIGN	BY X	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE No.	X	RETAINING WALL (TYPE 1SW) DETAILS No. 1								
xs14-210-1 FILE NO.	August 2026 APPROVAL DATE	DETAILS	BY X	CHECKED X			XX-XXXX										
		QUANTITIES	BY X	CHECKED X			POST MILE X.X										
Refer to: http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html		DATE PLOTTED => 31-AUG-2026 FILE => xs14-210-1.dgn		TIME PLOTTED => 14:08 USERNAME => s136247		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0	1	2	3	UNIT: XXXX PROJECT NUMBER & PHASE: XXXXXXXXXX1	COUNTY/ROUTE/ZONE: XXX/XXX/X CONTRACT No.: XX-XXXXX4	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET X	OF X