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

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.

TABLE 1: TABLE OF DIMENSIONS AND DATA

Design H		8′	10′	12′	14′	16′	18′	20′	22′	24′	26′	28′	30′	32′
W		7′-6"	8′-0"	9′-3"	10′-9"	12′-3"	13′-9"	15′-3"	16′-9"	18′-3"	19′-6"	21′-0"	22′-6"	24′-0"
C		6′-0"	6′-6"	7′-6"	9′-0"	10′-3"	11′-6"	13′-0"	14′-3"	15′-3"	16′-6"	17′-6"	18′-6"	20′-0"
B		1′-6"	1′-6"	1′-9"	1′-9"	2′-0"	2′-3"	2′-3"	2′-6"	3′-0"	3′-0"	3′-6"	4′-0"	4′-0"
F		2′-6"	2′-6"	2′-6"	2′-6"	2′-6"	2′-6"	3′-0"	3′-3"	3′-3"	3′-9"	4′-0"	4′-0"	4′-3"
D (Footing Key Depth)		1′-0"	1′-0"	1′-0"	1′-6"	1′-9"	2′-0"	2′-3"	2′-3"	2′-9"	3′-0"	3′-0"	3′-0"	3′-0"
E		1′-3"	1′-3"	1′-3"	1′-3"	1′-3"	1′-6"	1′-6"	1′-6"	1′-6"	1′-9"	1′-9"	1′-9"	1′-9"
Stem Thickness @ Top		1′-0"	1′-0"	1′-3"	1′-3"	1′-6"	1′-9"	1′-9"	2′-0"	2′-0"	2′-0"	2′-0"	2′-3"	2′-3"
Batter		0	0	0	0	0	0	0	0	1/4:12	1/4:12	1/2:12	1/2:12	1/2:12
G (Minimum)		7′-6"	7′-6"	7′-6"	8′-6"	9′-3"	10′-3"	11′-0"	12′-0"	13′-0"	14′-0"	15′-6"	15′-9"	16′-3"
ⓐ Bars				#7@18	#5@6	#9@18	#9@18	#9@12	#9@12	#7@6	#7@6	#10@12	#10@12	#11@12
X				Cont	Cont	Cont	Cont	Cont	Cont	Cont	Cont	Cont	Cont	Cont
Y				5′-6"	5′-6"	8′-6"	8′-9"	8′-9"	9′-0"	9′-9"	11′-3"	13′-3"	14′-3"	15′-3"
ⓑ Bars		#5@9	#6@9	#7@18	#5@6	#9@18	#9@18	#9@12	#9@12	#7@6	#7@6	#10@12	#10@12	#11@12
X		Cont	Cont	3′-6"	2′-6"	6′-3"	7′-9"	6′-9"	7′-9"	8′-6"	8′-0"	12′-6"	13′-6"	14′-9"
Y		Cont	Cont	Cont	Cont	12′-0"	13′-6"	14′-0"	15′-9"	17′-9"	20′-3"	22′-3"	24′-9"	24′-9"
Placement, ◯				Ⓐ	Ⓑ	Ⓐ	Ⓐ	Ⓐ	Ⓐ	Ⓑ	Ⓑ	Ⓑ	Ⓑ	Ⓐ
ⓒ Bars						#8@18	#8@18	#8@12	#8@12	#6@6	#6@6	#9@12	#9@12	#10@12
Placement, ◯						Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ	Ⓒ
ⓓ Bars		#5@18	#5@18	#5@18	#5@18	#5@18	#5@18	#5@18	#5@18	#5@18	#5@18	#5@18	#5@18	#5@18
ⓔ Bars								#5@18	#5@18	#5@18	#5@18	#5@18	#5@18	#5@18
X								5′-0"	5′-6"	6′-0"	6′-6"	7′-0"	7′-6"	7′-6"
Placement, ◯								Ⓓ	Ⓓ	Ⓓ	Ⓓ	Ⓓ	Ⓓ	Ⓓ
ⓕ Bars						#9@18	#9@18	#9@18	#9@18	#9@6	#7@6	#10@6	#10@6	#11@6
X						3′-9"	6′-0"	5′-0"	6′-0"	5′-3"	5′-3"	6′-6"	8′-3"	8′-9"
ⓖ Bars										#4@15	#4@15	#4@15	#4@12	#4@12
U										7′-6"	7′-6"	8′-9"	9′-9"	11′-9"
Tie Down Design Force (T) k/ft		0	0	3	3	3	8	8	14	14	21	25	29	34
Tie Down Maximum Spacing (S) ft		0	0	32	32	32	20	20	12	12	9	9	8	7
Ultimate Bearing Capacity Required (ksf)		3.75	4.25	5.50	6.00	5.75	5.25	6.25	6.00	7.75	6.75	7.75	7.75	8.00
H_D (N)	Group 1 k/m (k/ft)	2.21 (8.1)	3.09 (8.74)	4.51 (9.69)	5.29 (11.6)	6.77 (14.44)	8.44 (17.77)	10.29 (21.08)	12.57 (26)	14.55 (29.25)	17.23 (34.66)	20.40 (42.24)	23.25 (47.66)	26.26 (52.42)
	Group 2 k/m (k/ft)	4.54 (10.06)	5.9 (11.16)	7.15 (12.66)	8.9 (15.46)	11.46 (19.38)	15 (24.15)	17.59 (28.77)	23.4 (35.24)	25.6 (40.14)	32.12 (47.36)	38.55 (57.31)	40.96 (64.9)	45.89 (71.93)

LEGEND FOR BAR PLACEMENT:

Ⓐ : Alternate placement of ⓐ bars and ⓑ bars

Ⓑ : Bundle ⓐ bars and ⓑ bars

Ⓒ : Splice ⓒ bars to ⓑ bars

Ⓓ : Bundle ⓓ bars and ⓔ bars

H_D : Horizontal driving force

(N) : Sum of vertical forces

Cont : Continuous

STANDARD DRAWING

FILE NO. xs14-380-2x

APPROVAL DATE July 2011

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. X

POST MILE X

X

RETAINING WALL TYPE 7SW - DETATILS NO. 2

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 X OF X

FILE => $REQUEST

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