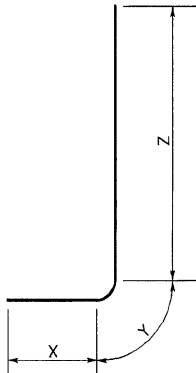
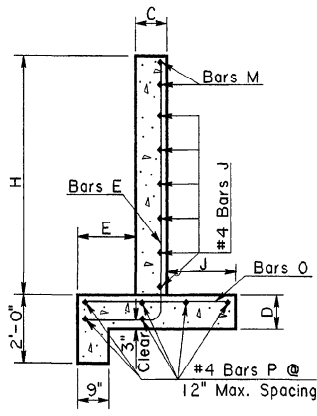


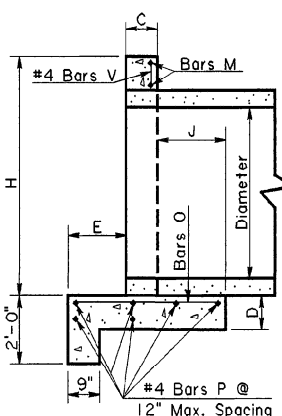
OPENING			H	E	C	J	D	L	M	S	BARS E					#4 BARS J	BARS O			#4 BARS P		#4BARSH	#4BARSV	BARS M		CONC.	STEEL	OPENING										
Dia. in.	No.	Area sq.ft.	Lgth. ft.in.	Lgth. ft.in.	Lgth. ft.in.	Lgth. ft.in.	Lgth. ft.in.	Lgth. ft.in.	Lgth. ft.in.	Lgth. ft.in.	Size	No.	Lgth. ft.in.	Spc. in.	X ft.in.	Y in.	Z ft.in.	No.	Lgth. ft.in.	Size	No.	Lgth. ft.in.	Spc. in.	No.	Lgth. ft.in.	No.	Lgth. ft.in.	No.	Lgth. ft.in.	Size	No.	Lgth. ft.in.	CU. YDS.	LBS.	Area sq.ft.	No.	Dia. in.	
15	1	1.2	2-8	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-2	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-2	0-0	7	7	12-4	4	2	0-0	0-0	4	2	12-4	2.56	149	1.2	1	15
15	2	2.5	2-8	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-2	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-2	0-0	7	7	12-4	4	2	0-0	0-0	4	2	12-4	3.14	183	2.5	2	15
15	3	3.7	2-8	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-2	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-2	0-0	7	7	12-4	4	2	0-0	0-0	4	2	12-4	3.73	218	3.7	3	15
15	4	4.9	2-8	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-2	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-2	0-0	7	7	12-4	4	2	0-0	0-0	4	2	12-4	4.30	252	4.9	4	15
15	5	6.1	2-8	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-2	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-2	0-0	7	7	12-4	4	2	0-0	0-0	4	2	12-4	4.88	287	6.1	5	15
15	6	7.4	2-8	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-2	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-2	0-0	7	7	12-4	4	2	0-0	0-0	4	2	12-4	5.46	321	7.4	6	15
18	1	1.8	2-11	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-4	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-4	0-0	7	7	13-0	0	2	0-0	0-0	4	2	13-0	2.95	172	1.8	1	18
18	2	3.5	2-11	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-4	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-4	0-0	7	7	13-0	0	2	0-0	0-0	4	2	13-0	3.62	209	3.5	2	18
18	3	5.3	2-11	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-4	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-4	0-0	7	7	13-0	0	2	0-0	0-0	4	2	13-0	4.26	246	5.3	3	18
18	4	7.1	2-11	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-4	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-4	0-0	7	7	13-0	0	2	0-0	0-0	4	2	13-0	4.92	286	7.1	4	18
18	5	8.8	2-11	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-4	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-4	0-0	7	7	13-0	0	2	0-0	0-0	4	2	13-0	5.58	323	8.8	5	18
18	6	10.6	2-11	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-4	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-4	0-0	7	7	13-0	0	2	0-0	0-0	4	2	13-0	6.24	360	10.6	6	18
24	1	3.1	3-6	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-6	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-6	0-0	7	7	16-9	0	2	0-0	0-0	4	2	16-9	3.94	218	3.1	1	24
24	2	6.3	3-6	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-6	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-6	0-0	7	7	16-9	0	2	0-0	0-0	4	2	16-9	4.77	264	6.3	2	24
24	3	9.4	3-6	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-6	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-6	0-0	7	7	16-9	0	2	0-0	0-0	4	2	16-9	5.60	310	9.4	3	24
24	4	12.6	3-6	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-6	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-6	0-0	7	7	16-9	0	2	0-0	0-0	4	2	16-9	6.43	356	12.6	4	24
24	5	15.7	3-6	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-6	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-6	0-0	7	7	16-9	0	2	0-0	0-0	4	2	16-9	7.26	399	15.7	5	24
24	6	18.8	3-6	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-6	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-6	0-0	7	7	16-9	0	2	0-0	0-0	4	2	16-9	8.09	445	18.8	6	24
30	1	4.9	4-1	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-8	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-8	0-0	8	8	19-8	0	2	0-0	0-0	4	2	19-8	5.00	297	4.9	1	30
30	2	9.8	4-1	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-8	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-8	0-0	8	8	19-8	0	2	0-0	0-0	4	2	19-8	6.04	354	9.8	2	30
30	3	14.7	4-1	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-8	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-8	0-0	8	8	19-8	0	2	0-0	0-0	4	2	19-8	7.05	412	14.7	3	30
30	4	19.6	4-1	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-8	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-8	0-0	8	8	19-8	0	2	0-0	0-0	4	2	19-8	8.06	468	19.6	4	30
30	5	24.5	4-1	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-8	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-8	0-0	8	8	19-8	0	2	0-0	0-0	4	2	19-8	9.10	527	24.5	5	30
30	6	29.4	4-1	0-0	0-0	0-0	3-3	1-1	0-0	0-0	6	1-8	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-8	0-0	8	8	19-8	0	2	0-0	0-0	4	2	19-8	10.11	583	29.4	6	30
36	1	7.1	4-8	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-10	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-10	0-0	8	8	22-10	0	2	0-0	0-0	4	2	22-10	6.30	399	7.1	1	36
36	2	14.1	4-8	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-10	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-10	0-0	8	8	22-10	0	2	0-0	0-0	4	2	22-10	7.53	465	14.1	2	36
36	3	21.2	4-8	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-10	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-10	0-0	8	8	22-10	0	2	0-0	0-0	4	2	22-10	8.78	532	21.2	3	36
36	4	28.3	4-8	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-10	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-10	0-0	8	8	22-10	0	2	0-0	0-0	4	2	22-10	10.00	598	28.3	4	36
36	5	35.3	4-8	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-10	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-10	0-0	8	8	22-10	0	2	0-0	0-0	4	2	22-10	11.25	665	35.3	5	36
36	6	42.4	4-8	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-10	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-10	0-0	8	8	22-10	0	2	0-0	0-0	4	2	22-10	12.48	731	42.4	6	36
42	1	9.6	5-5	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-12	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-12	0-0	8	8	25-9	0	2	0-0	0-0	4	2	25-9	9.14	470	9.6	1	42
42	2	19.2	5-5	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-12	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-12	0-0	8	8	25-9	0	2	0-0	0-0	4	2	25-9	10.93	553	19.2	2	42
42	3	28.8	5-5	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-12	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-12	0-0	8	8	25-9	0	2	0-0	0-0	4	2	25-9	12.69	635	28.8	3	42
42	4	38.5	5-5	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-12	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-12	0-0	8	8	25-9	0	2	0-0	0-0	4	2	25-9	14.48	715	38.5	4	42
42	5	48.1	5-5	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-12	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-12	0-0	8	8	25-9	0	2	0-0	0-0	4	2	25-9	16.27	798	48.1	5	42
42	6	57.7	5-5	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-12	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-12	0-0	8	8	25-9	0	2	0-0	0-0	4	2	25-9	18.07	881	57.7	6	42
48	1	12.6	5-10	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-14	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-14	0-0	8	8	28-10	0	2	0-0	0-0	4	2	28-10	11.02	610	12.6	1	48
48	2	25.1	5-10	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-14	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-14	0-0	8	8	28-10	0	2	0-0	0-0	4	2	28-10	13.18	707	25.1	2	48
48	3	37.7	5-10	0-0	0-0	0-0	4-4	1-1	0-0	0-0	6	1-14	1-1	1-1	0-0	0-0	2-2	4	1-1	4	4	1-14	0-0	8	8	28-10	0	2	0-0	0-0	4							



BARS E



SECTION A-A



SECTION B-B

GENERAL NOTES

DESIGN: Method- Headwalls are designed as retaining walls according to current AASHTO working stress procedures. Walls are designed for a lateral earth pressure of 40 psf with 2.0 feet of surcharge. **Overturning**- A minimum safety factor of 2.0 is provided against overturning. The resultant of loads is within the middle third of the footing. **Sliding** - A minimum safety factor of 1.5 is provided against sliding. The coefficient of friction between the footing and soil is 0.5. **Foundation** - The design soil bearing pressure is 1800 psf. When strength of the soil at the site is less than 1800 psf, bedding material shall be added under the footing as directed.

MATERIALS: Concrete- All concrete shall be class A. All exposed edges shall be 3/4 inch chamfered. **Reinforcing Steel**- Reinforcement shall be Grade 60. Bar spacing dimensions are to bar centers. Steel required for lap splices not detailed shall not be measured for payment. Reinforcing steel shall have 2' cover unless otherwise specified. Steel and concrete quantities shown in table are for one headwall.

A 1'-6" square of geotextile fabric (see Section 1019 of the LA DOTD Standard Specifications) shall be placed in contact with concrete behind each weephole in addition to approximately 2 cu.ft. of concrete sand (see Section 1003.02 of the LA DOTD Standard Specifications).

CONSTRUCTION JOINTS: All construction joints shown are optional. For details of keyed construction joints see Standard Plan CM-49. For construction joints without key, the joint surface shall be roughened. Hardened surface shall be cleaned. Immediately before new concrete is placed, joint surface shall be saturated with water.



SPECIAL DETAIL NO. HW75RCP1

STRAIGHT HEADWALL FOR RCP
ON A 75° CROSSING
15" THRU 54"