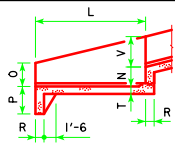
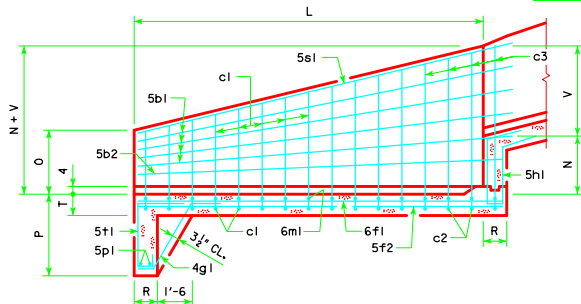


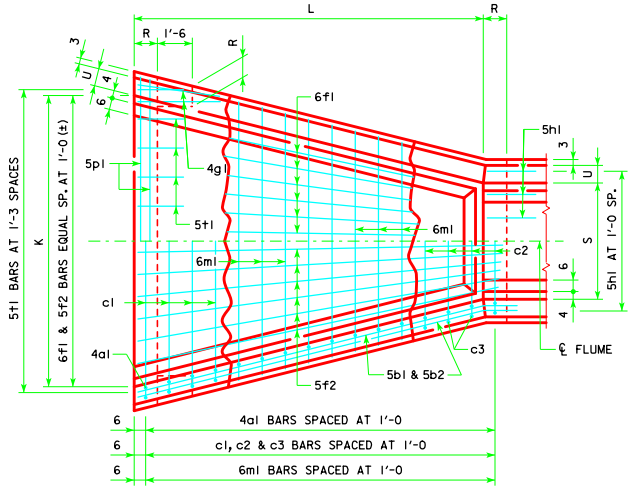
ENGLISH UNITS (DIMENSIONS IN FEET) - RCFB-01-12 - THIS SHEET ISSUED 04-12



**END DETAILS**



**LONGITUDINAL SECTION**



**PLAN VIEW**

		ESTIMATE OF QUANTITIES - FLUME BASIN																					
BILL OF REINFORCING STEEL		3' x 3'			4' x 4'			5' x 3'			5' x 4'			5' x 5'									
BAR	LOCATION	SHAPE	SIZE	NO.	LENGTH	WEIGHT	SIZE	NO.	LENGTH	WEIGHT	SIZE	NO.	LENGTH	WEIGHT	SIZE	NO.	LENGTH	WEIGHT	SIZE	NO.	LENGTH	WEIGHT	
4a1	WALLS - VERT. - F.F.		4	28	1'-8 1/4'-10	61	4	30	2'-5 5/8'-11	84	4	28	1'-8 1/4'-10	61	4	32	3'-2 5/8'-11	108	4	34	4'-0 7/8'-11	135	
5b1	WALLS - LONGIT. - F.F. & B.F.		5	8	15'-1	126	5	12	16'-2	202	5	8	15'-1	126	5	12	17'-3	288	5	16	18'-4	306	
5b2	WALLS - LONGIT. - F.F. & B.F.		5	4	13'-10	58	5	4	15'-1	63	5	4	13'-10	58	5	4	15'-1	63	5	4	17'-5	145	
c1	WALLS - VERT. - B.F.		5	14	13'-9 1/4'-0	203	5	15	16'-9 1/8'-0	264	5	14	15'-9 1/8'-0	232	5	12	19'-9 20'-1	249	6	9	21'-11 22'-2	298	
c2	WALLS - VERT. - B.F.		--	--	--	--	--	--	--	--	--	--	--	--	--	5	4	12'-5 1/3'-11	55	6	8	13'-3 1/8'-9	180
c3	WALLS - VERT. - B.F.		--	--	--	--	--	--	--	--	--	--	--	--	--	5	8	5'-3 5/8'-0	47	6	16	5'-3 7/8'-0	147
6f1	FLOOR - LONGIT. - TOP		6	11	13'-5	222	6	12	14'-8	264	6	13	13'-5	262	6	14	15'-8	329	6	14	16'-11	356	
5f2	FLOOR - LONGIT. - BOT.		5	11	13'-5	154	5	12	14'-8	184	5	13	13'-5	182	5	14	15'-8	229	5	14	16'-11	247	
4g1	CURTAIN BRACKET - VERT.		4	4	5'-3	14	4	4	5'-6	15	4	4	5'-3	14	4	4	5'-6	15	4	4	5'-9	15	
5h1	BASIN BACKWALL - VERT.		5	5	7'-4	38	5	6	8'-1	51	5	7	7'-4	54	5	7	8'-1	59	5	7	9'-4	68	
6m1	FLOOR TRANS. - TOP		6	14	4'-8 1/2'-11	164	6	15	5'-8 1/2'-5	204	6	14	6'-8 1/2'-11	206	6	15	6'-8 1/3'-5	226	6	16	6'-8 1/4'-5	269	
5p1	CURTAIN - TRANS.		5	2	11'-0	23	5	2	12'-4 1/2'-6	26	5	2	13'-0	27	5	2	13'-4 1/3'-6	28	5	2	14'-3 1/4'-6	30	
5s1	WALL - TOP SLOPE		5	4	15'-4	64	5	4	16'-5	68	5	4	15'-4	64	5	4	16'-5	68	5	4	18'-7	76	
5t1	CURTAIN - VERT.		5	9	6'-1	57	5	10	6'-4	66	5	10	6'-1	63	5	11	6'-4	73	5	11	6'-7	78	
TOTAL WEIGHT (LB)						1184				1491				1349				1583				2350	
CONCRETE (CY)																							
FOOTING						5.3				6.8				6.4				7.4				9.1	
WALLS						1.8				2.6				1.9				2.6				4.7	
TOTAL						7.1				9.4				8.3				10.0				13.8	

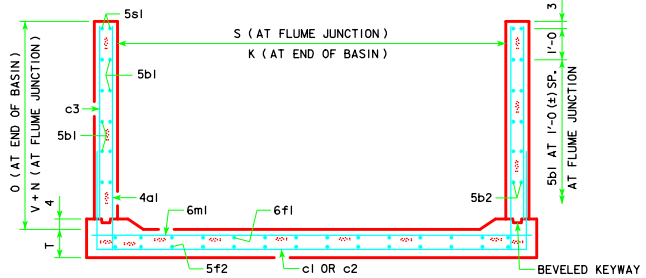
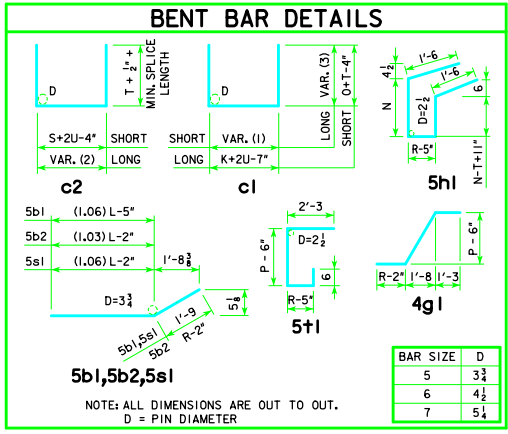
VARIABLE DIMENSIONS	
VARIABLE (1)	$K+2U-4''$ (K-S) (No. of c1 - 1) No. of c1 + c2 - 1
VARIABLE (2)	$S+2U-4''$ (K-S) (No. of c2 - 1) No. of c1 + c2 - 1
VARIABLE (3)	$O+T-4''$ (N+V-0) (No. of c1 - 1) No. of c1 + c2 - 1

TABLE OF FLUME BASIN DIMENSIONS											
S x H	K	L	M	N	O	P	R	T	U	V	
3' x 3'	9'-6	13'-0	2'-3	2'-0	1'-1	3'-6	0'-9	0'-11	0'-9	2'-3 1/4	
4' x 4'	11'-0	14'-0	3'-0	2'-3	1'-10	3'-6	1'-0	0'-11	0'-9	3'-1 1/4	
5' x 3'	11'-6	13'-0	2'-3	2'-0	1'-1	3'-6	0'-9	0'-11	0'-9	2'-3 1/4	
5' x 4'	12'-0	14'-0	3'-0	2'-3	1'-10	3'-6	1'-0	0'-11	0'-9	3'-1 1/4	
5' x 5'	12'-6	15'-0	3'-9	2'-6	2'-7	3'-6	1'-0	0'-11	0'-9	3'-10 1/4	
5' x 6'	13'-0	16'-0	4'-6	2'-9	3'-5	3'-6	1'-3	0'-11	0'-9	4'-7 1/4	

S = CULVERT SPAN  
H = CULVERT HEIGHT

**FLUME BASIN NOTES:**

- SEE STANDARD SHEET RCF-01-12 FOR GENERAL INFORMATION.
- c2 & c3 BARS ARE LAPPED.



**5'x5' FLUME BASIN EXAMPLE SHOWN**

LATEST REVISION DATE  <i>Thomas E. McQuinn</i> APPROVED BY BRIDGE ENGINEER	<b>Iowa Department of Transportation</b> Highway Division	
	STANDARD DESIGN <b>REINFORCED CONCRETE</b> <b>BOX CULVERTS</b> APRIL, 2012	
	<b>FLUME BASIN</b> <b>DETAILS</b> 3', 4' & 5' SPANS	<b>RCFB-01-12</b>