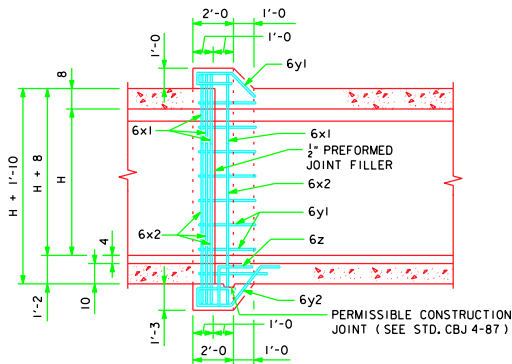
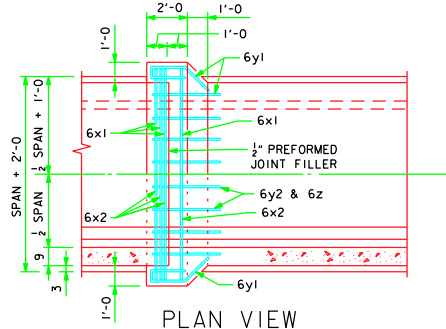


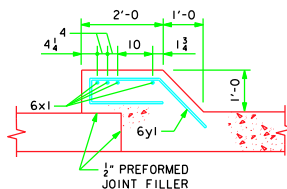
JOINT DETAIL SECTION THRU BARREL



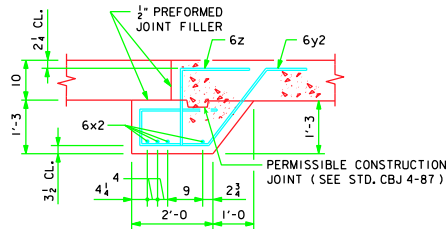
LONGITUDINAL SECTION



PLAN VIEW



TOP & SIDES - BARS 6y1



BOTTOM BARS - 6y2 & 6z

CONCRETE PLACEMENT			
SIZE	FOOTING	WALLS	SLAB
6' x 3'	1.300	.494	1.052
6' x 4'	1.300	.679	1.052
6' x 5'	1.300	.864	1.052
6' x 6'	1.300	1.049	1.052
6' x 8'	1.300	1.420	1.052
8' x 4'	1.532	.679	1.238
8' x 5'	1.532	.864	1.238
8' x 6'	1.532	1.049	1.238
8' x 8'	1.532	1.420	1.238
8' x 10'	1.532	1.790	1.238

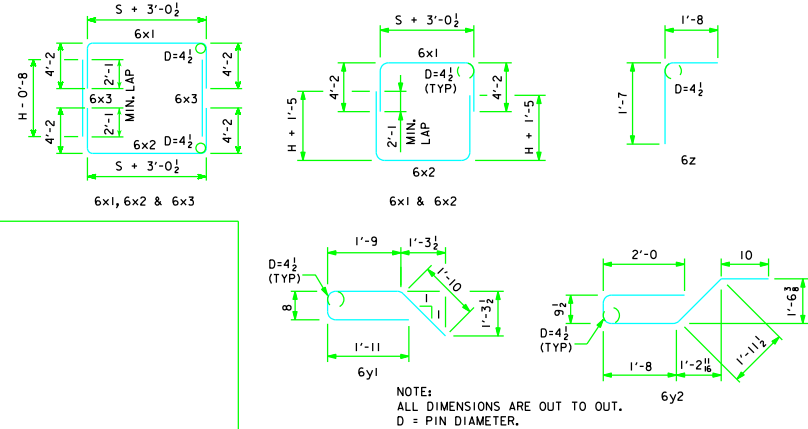
ESTIMATE OF QUANTITIES - ONE JOINT - 6' SPAN

BILL OF REINFORCING STEEL		6' x 3'		6' x 4'		6' x 5'		6' x 6'		6' x 8'		
MARK	LOCATION	SHAPE	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
6x1	SLAB AND WALLS		4	17'-5	105	4	17'-5	105	4	17'-5	105	
6x2	FLOOR AND WALLS		4	17'-11	108	4	19'-11	120	4	17'-5	105	
6x3	WALLS								8	4'-4	52	
6y1	TOP AND SIDES		18	6'-2	167	20	6'-2	185	22	6'-2	204	
6y2	BOTTOM		8	7'-3	87	8	7'-3	87	8	7'-3	87	
6z	BOTTOM & FLOOR		8	3'-3	39	8	3'-3	39	8	3'-3	39	
TOTAL WEIGHT (LBS.)			506		536		592		622		683	
TOTAL CONCRETE			2.8 cu. yds.		3.0 cu. yds.		3.2 cu. yds.		3.4 cu. yds.		3.8 cu. yds.	

ESTIMATE OF QUANTITIES - ONE JOINT - 8' SPAN

BILL OF REINFORCING STEEL		8' x 4'		8' x 5'		8' x 6'		8' x 8'		8' x 10'		
MARK	LOCATION	SHAPE	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
6x1	SLAB AND WALLS		4	19'-5	117	4	19'-5	117	4	19'-5	117	
6x2	FLOOR AND WALLS		4	21'-11	132	4	19'-5	117	4	19'-5	117	
6x3	WALLS					8	4'-4	52	8	5'-4	64	
6y1	TOP AND SIDES		22	6'-2	204	24	6'-2	222	26	6'-2	241	
6y2	BOTTOM		10	7'-3	109	10	7'-3	109	10	7'-3	109	
6z	BOTTOM & FLOOR		10	3'-3	49	10	3'-3	49	10	3'-3	49	
TOTAL WEIGHT (LBS.)			611		666		697		758		819	
TOTAL CONCRETE			3.4 cu. yds.		3.6 cu. yds.		3.8 cu. yds.		4.2 cu. yds.		4.6 cu. yds.	

BENT BAR DETAILS



NOTE:
ALL DIMENSIONS ARE OUT TO OUT.
D = PIN DIAMETER.

NOTES:

- DIMENSIONS AND QUANTITIES SHOWN BASED ON SLAB THICKNESS OF 8", WALL = 9", AND FLOOR = 10".
- CHANGE LENGTHS OF BARS 6x1, 6x2, 6z, AND ADJUST REINFORCING STEEL AND CONCRETE QUANTITIES ACCORDINGLY FOR SLAB, WALL, AND FLOOR THICKNESSES OTHER THAN SHOWN.
- ALL BAR LENGTHS ARE ESTIMATED WITH A 2" CLEARANCE FROM CONCRETE EDGE TO OUTSIDE OF BAR, EXCEPT AS NOTED.
- MATERIAL AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS OF I.D.O.T.
- SEE DRAWING RCB-G1-87 FOR GENERAL INFORMATION, SPECIFICATIONS, AND DESIGN STRESSES.
- BARREL FLOOR BARS *m* ARE TO BE SHORTENED 6" AT BELL JOINTS.

LATEST REVISION DATE :
03-08

APPROVED BY :
Thomas E. McQuill

STANDARD DESIGN
CULVERT BELL JOINTS
FOR
REINFORCED CONCRETE BOX CULVERTS
6' AND 8' SPANS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
MAY, 1987
CBJ 2-87