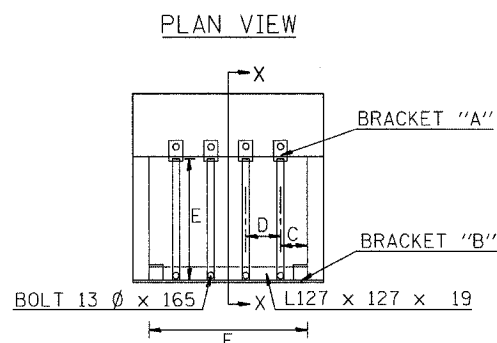
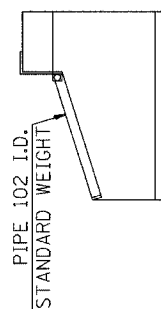


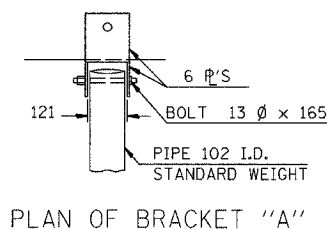
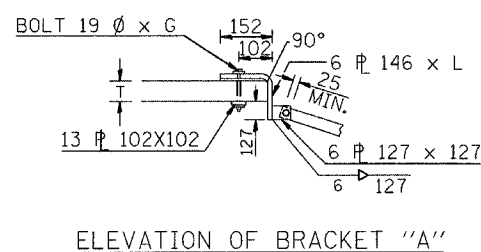
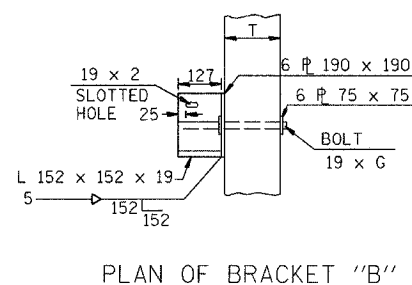
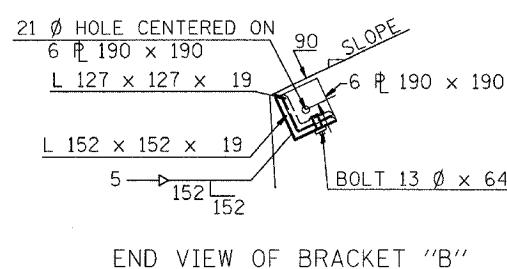
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
642	99-00124-02-PV	COLES	229	115
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



CROSS SECTION X-X



BOX CULVERT SPAN AND RISE	EXT. SPACE C(mm)	INT. SPACE D(mm)	SLOPE	NO. PIPES REQ'D	PIPE LENGTH E(m)	ANGLE LENGTH F(m)	BOLT LENGTH G (mm)	WEIGHT (kg.)	L (mm)	WALL THICK. T (mm)
0.9x0.9	450	N/A	3:1	1	1.14	0.86	140	68	380	102
1.2x0.9	380	450	3:1	2	1.14	1.17	165	103	405	127
1.2x1.2	380	450	2:1	2	1.22	1.17	165	106	405	127
1.5x0.9	300	450	3:1	3	1.14	1.47	190	138	430	152
1.5x1.2	300	450	2:1	3	1.22	1.47	190	142	430	152
1.5x1.5	300	450	2:1	3	1.22	1.47	190	142	430	152
1.8x0.9	450	450	3:1	3	1.14	1.78	215	150	460	178
1.8x1.2	450	450	2:1	3	1.22	1.78	215	153	460	178
1.8x1.5	450	450	2:1	3	1.22	1.78	215	153	460	178
2.1x0.9	380	450	3:1	4	1.14	2.08	240	185	485	203
2.1x1.2	380	450	2:1	4	1.22	2.08	240	190	485	203
2.1x1.5	380	450	2:1	4	1.22	2.08	240	190	485	203
2.4x0.9	300	450	3:1	5	1.14	2.39	240	221	485	203
2.4x1.2	300	450	2:1	5	1.22	2.39	240	227	485	203
2.4x1.5	300	450	2:1	5	1.22	2.39	240	227	485	203
2.7x0.9	450	450	3:1	5	1.14	2.69	265	232	510	229
2.7x1.2	450	450	2:1	5	1.22	2.69	265	239	510	229
2.7x1.5	450	450	2:1	5	1.22	2.69	265	239	510	229
3.0x1.2	380	450	2:1	6	1.22	3.00	290	276	535	254
3.0x1.5	380	450	2:1	6	1.22	3.00	290	276	535	254



GENERAL NOTES

- BOLTS AND NUTS SHALL CONFORM TO A. S. T. M. A307, AND SHALL BE GALVANIZED IN ACCORDANCE WITH A. A. S. H. T. O. M232. ALL BOLTS SHALL HAVE WASHERS AT EACH END. HOLES SHALL BE 2 mm OVERSIZE UNLESS OTHERWISE NOTED EXCEPT IN CONCRETE WHICH SHALL BE 3 mm OVERSIZE.
- ANGLES AND STEEL PLATES SHALL CONFORM TO A. A. S. H. T. O. M183. STEEL PIPES SHALL CONFORM TO A. S. T. M. A53 GRADE B.
- STEEL PIPES, ANGLES AND PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH A. A. S. H. T. O. M-111.
- THE APPROXIMATE WEIGHT OF STEEL IS LISTED ABOVE. THIS TOTAL INCLUDES PLATES, ANGLES AND PIPES. BOLTS, NUTS AND WASHERS ARE NOT INCLUDED.
- THE CONTRACTOR SHALL VERIFY THE PIPE LENGTHS AND HOLE LOCATIONS PRIOR TO CUTTING THE PIPES TO LENGTH OR DRILLING HOLES.
- GRATING FOR THE PRECAST END SECTION WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "GRATING FOR PRECAST CONCRETE BOX CULVERT END SECTION" OF THE SIZE SPECIFIED WHICH PRICE SHALL INCLUDE FABRICATION, GALVANIZING AND INSTALLATION OF THE GRATING AS DETAILED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 GRATING FOR PRECAST CONCRETE
 BOX CULVERT
 FAI-57, FAS 642
 SEC NO. 15-23K, 99-00124-02-PV
 COLES COUNTY, ILLINOIS

SCALE: NOT TO SCALE
 DATE 07/13/2005

DRAWN BY DJP
 CHECKED BY JWM

DESIGNED	NAME	DATE	REVISIONS	
CHECKED			NAME	DATE
CADD NO.			C.L.H.	12/93
			CHECKED: B.K.T.	12/93
			NAME	DATE
			G.A.M.	2/98

07/13/2005
 JAW
 12/26/03
 12/26/03
 10/05/04
 07/13/2005
 JAW
 12/26/03
 12/26/03
 10/05/04



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