



GENERAL NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES.
- Q = CUBIC METRES OF CONCRETE REQUIRED FOR TWO ENDWALLS FOR SINGLE CELL.
- AC = CUBIC METRES OF CONCRETE REQUIRED FOR EACH ADDITIONAL CELL FOR TWO ENDWALLS. PROVIDE 50 NB WEEPHOLES WITH AN APPROVED GEOTEXTILE BACKING ON A 2m GRID IN HEADWALLS. FIRST ROW OF WEEPHOLES SHALL BE AT CULVERT INVERT LEVEL.
- PROVIDE 50 NB WEEPHOLES WITH AN APPROVED GEOTEXTILE BACKING ON A 2m GRID IN HEADWALLS. FIRST ROW OF WEEPHOLES SHALL BE AT CULVERT INVERT LEVEL.
- PROVIDE 300 THICK LAYER OF FREE DRAINING 20mm NOMINAL SIZE AGGREGATE TO FULL HEIGHT BEHIND ENDWALLS.

NOMINAL PIPE SIZE (d)	SKEW 0°											SKEW 15°								SKEW 30°								SKEW 45°								REINF. SCHEDULE																																								
	D	H	A	X	G	L	B	S	T	Q	AC	D	H	A1	X1	G	L	B	S	T	Q	AC	D	H	A1	X1	G	L	B	S	T	Q	AC	D	H	A2	A3	X1	G	L	B1	S	T	Q	AC	0-30° SKEW		35-45° SKEW																												
300	330	480	170	630	300	520	260	450	200	0.55	0.28			180	650						0.56	0.29			200	730						0.58	0.33			240	490	890			900	780		200	0.91	0.40	N/A	N/A																												
375	410	560	210	710	300	640	320	560	200	0.71	0.34			220	740						0.71	0.36			240	820						0.73	0.40			300	550	1000			1120	970		200	1.16	0.48	N/A	N/A																												
450	480	630	240	780	300	780	390	680	200	0.88	0.41			250	810						0.87	0.42			280	900						0.91	0.47			340	590	1100			1360	1180		200	1.42	0.57	N/A	N/A																												
600	630	780	320	930	300	1040	520	900	200	1.27	0.55			330	960						1.28	0.56			370	1070						1.32	0.63			450	700	1320			1800	1560		200	2.00	0.78	N/A	N/A																												
750	780	930	390	1160	380	1260	630	1090	200	1.80	0.77			400	1200						1.81	0.80			450	1340						1.87	0.89			550	800	1640			2180	1890		200	3.04	1.09	600	Y12	850	Y12																										
900	960	1110	480	1410	450	1620	810	1400	200	2.52	1.08			500	1460						2.55	1.12			550	1630						2.61	1.25			680	930	1990			2790	2420		200	4.17	1.52	650	Y12	900	Y12																										
1050	1110	1260	560	1640	530	1920	960	1660	200	3.22	1.40			580	1700						3.24	1.45			650	1890						3.34	1.61			790	1040	2320			3330	2880		200	5.27	1.98	700	Y12	950	Y12																										
1200	1260	1410	630	1860	600	2220	1110	1920	200	3.97	1.75			650	1930						4.00	1.82			730	2150						4.13	2.02			890	1140	2630			3850	3330		200	6.49	2.48	750	Y12	1050	Y12																										
1350	1410	1560	710	2090	680	2520	1260	2180	200	4.84	2.15			740	2160						4.89	2.21			820	2410						5.03	2.47			1000	1250	2960			4360	3780		250	9.40	3.05	850	Y12	1300	Y16																										
1500	1560	1710	780	2310	750	2820	1410	2440	200	5.78	2.58			810	2390						5.83	2.67			900	2670						5.00	2.98			1100	1350	3270			4880	4230		250	11.32	3.66	950	Y12	1500	Y16																										
1650	1710	1860	860	2610	900	3120	1560	2700	200	6.81	3.17			890	2700						6.87	3.28			990	3010						7.07	3.66			1220	1470	3690			5400	4680		250	13.35	4.48	1050	Y12	1650	Y16																										
1800	1860	2010	930	2910	1050	3420	1710	2960	250	8.92	3.83			960	3010						8.99	3.97			1070	3360						9.22	4.43			1320	1570	4120			5920	5130		250	15.51	5.42	900	Y12	1800	Y16																										
1950	2010	2160	1010	3210	1200	3720	1860	3220	250	10.25	4.54			1050	3320						10.34	4.69			1170	3710						10.61	5.24			1430	1680	4540			6440	5580		250	17.85	6.42	950	Y12	1950	Y16																										

16/01/2007 9:22:44 AM X:\CIVIL STANDARD DRAWINGS\2. CULVERTS\C(S)1117-2.dgn

2.	DRAWING CONVERTED TO ELECTRONIC FORMAT & DEPARTMENT LOGO CHANGED	02/2003	K.S.
1.			
No.	DESCRIPTION	DATE	INIT.
	AMENDMENTS		

DRAWN	CHECKED
DATE DESIGNED	DATE CHECKED
DATE DESIGN PROJECT LEADER	DATE PROJECT OFFICER
<i>Blair</i>	<i>P. J. Hill</i>
DATE 1 APRIL 2004	DATE 1 APRIL 2004


Northern Territory Government
 Department of Planning and Infrastructure

STANDARD DRAWING
HEADWALLS TO
HELICAL LOCK SEAM PIPE CULVERTS
300mm TO 1950mm DIAMETER

FILE No.	ASSET No.	SHEET No.	DRAWING No.	AMEND.	SHEET SIZE
		3 OF 4	C(S)1117-2		A1