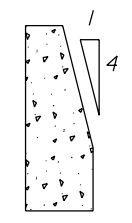
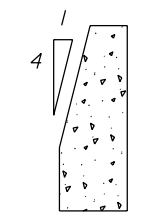
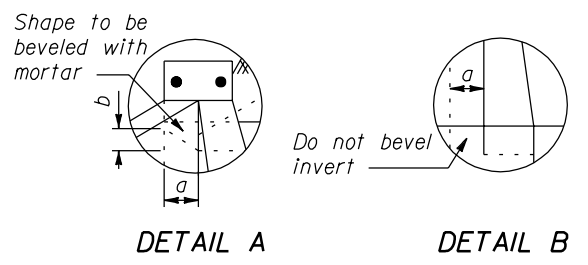
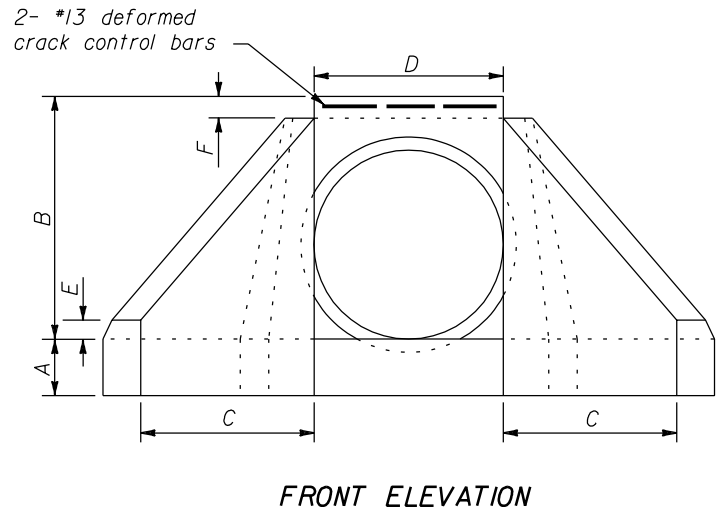
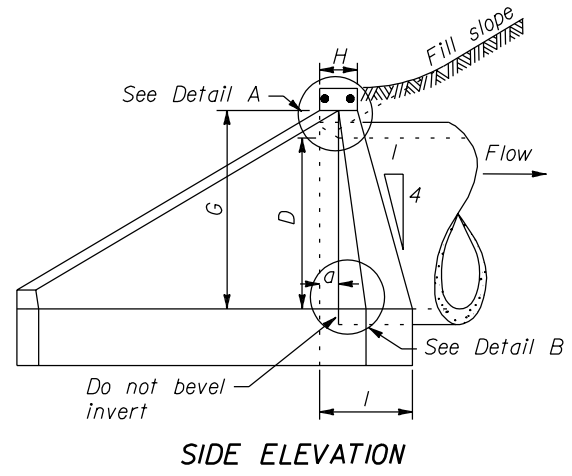
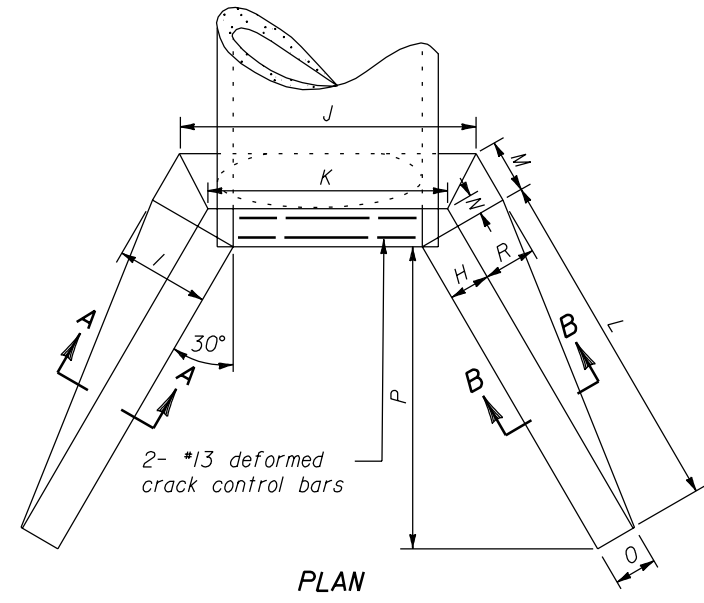


NOTE:

- Dimensions not labeled are in millimeters.
- Use this Standard for normal crossings and skews up to 15°.
- On shallow fill, where headwall is 600 mm or less below shoulder line, construct the headwall parallel to line and grade of the shoulder.
- Do not allow top of wingwall to project above fill slope, ditch slope or shoulder.
- Chamfer all exposed corners 20 mm.
- Bevel required at inlet only.
- Concrete quantities as shown will be used as the basis for final payment for wingwalls constructed according to this Standard.



SECTION A-A

SECTION B-B

DIMENSIONS AND QUANTITIES PER WINGWALL

		D (Diameter of pipe culvert)							
		1050	1200	1350	1500	1650	1800	1950	2100
For 1:1.5 fill slope	A	450	450	450	450	450	450	450	450
	B	1460	1625	1790	1955	2120	2285	2450	2615
	C	1010	1140	1275	1400	1540	1670	1805	1935
	D	1065	1220	1370	1525	1675	1830	1980	2135
	E	150	150	150	150	150	150	150	150
	F	140	150	165	180	190	205	215	230
	G	1320	1475	1625	1780	1930	2080	2235	2390
	H	255	255	280	305	330	355	380	405
	I	585	620	685	750	810	875	940	1005
	J	1740	1935	2165	2390	2615	2845	3065	3290
	K	1360	1510	1695	1875	2055	2240	2420	2605
	L	2020	2285	2550	2815	3080	3345	3605	3870
	M	335	360	395	430	470	510	545	580
	N	145	145	160	175	190	205	220	235
	O	290	290	320	340	370	395	420	445
	P	1750	1980	2210	2440	2665	2895	3125	3350
	R	330	370	405	445	480	520	560	595
	Conc. m ³	Conc.	2.720	3.343	4.308	5.420	6.710	8.182	9.833
CMP		2.898	3.578	4.629	5.843	7.256	8.873	10.692	12.751
For 1:2 fill slope	C	1320	1495	1670	1850	2020	2200	2375	2555
	F	165	180	190	205	215	230	240	255
	G	1295	1450	1600	1755	1905	2055	2210	2360
	I	580	615	680	745	805	870	935	995
	J	1735	1930	2160	2380	2610	2830	3060	3280
	L	2640	2990	3345	3695	4050	4400	4750	5105
	M	335	355	395	430	465	500	540	575
	P	2285	2590	2895	3200	3505	3810	4115	4420
R	325	360	400	440	475	515	550	590	
Conc. m ³	Conc.	3.240	3.999	5.169	6.528	8.106	9.907	11.936	14.238
	CMP	3.417	4.233	5.487	6.948	8.649	10.594	12.791	15.286
	a	140	150	180	190	215	230	255	265
	b	90	100	115	125	140	150	165	180

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 FEDERAL LANDS HIGHWAY

METRIC STANDARD

**CONCRETE WINGWALLS
 FOR SINGLE NORMAL
 1050 TO 2100 mm CULVERTS**

STANDARD APPROVED FOR USE 3/1996
 REVISED: 5/1997

STANDARD
M601-5