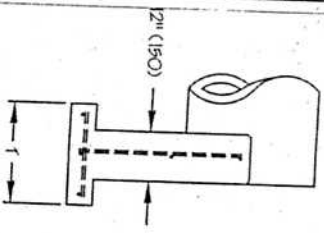


HEADWALL FOR CONCRETE PIPE (ENGLISH)

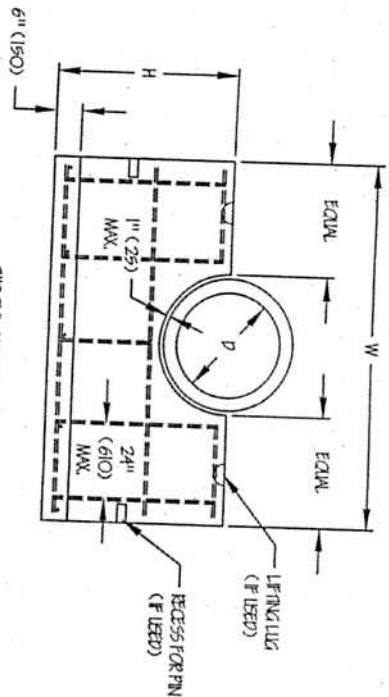
CIRCULAR				ELLIPTICAL							
D	W	H	T	Span	Rise	W	H	T	Conc.		
12"	3'-6"	3'-0"	24"	24"	.42	29"	14"	4'-0"	3'-6"	24"	.53
15"	3'-6"	3'-0"	24"	24"	.41	30"	19"	4'-6"	3'-6"	24"	.57
18"	3'-0"	3'-6"	24"	24"	.68	34"	22"	5'-0"	3'-6"	24"	.62
21"	6'-0"	3'-6"	24"	24"	.82	38"	24"	5'-6"	3'-6"	24"	.60
24"	7'-0"	3'-6"	24"	24"	.94	42"	27"	5'-6"	4'-0"	24"	.74
27"	7'-0"	3'-6"	24"	24"	.91	45"	29"	6'-0"	4'-0"	24"	.77
30"	7'-0"	3'-6"	24"	24"	.89	49"	32"	6'-0"	4'-0"	24"	.80
33"	7'-0"	3'-6"	24"	24"	.86	53"	34"	6'-6"	4'-0"	24"	.87
36"	7'-0"	3'-6"	24"	24"	.85	60"	38"	7'-6"	4'-6"	24"	.80
39"	7'-0"	4'-6"	24"	24"	1.06	60"	43"	8'-0"	4'-6"	24"	1.05
42"	7'-0"	4'-6"	24"	24"	1.04	68"	48"	8'-6"	5'-0"	24"	1.19
48"	8'-0"	4'-6"	24"	24"	1.27	83"	53"	9'-6"	5'-0"	24"	1.56
54"	9'-6"	5'-0"	24"	24"	1.67	91"	59"	10'-6"	5'-6"	36"	1.87
60"	10'-6"	5'-6"	36"	36"	1.98	99"	63"	11'-6"	5'-6"	36"	1.99
66"	12'-0"	6'-0"	36"	36"	2.45	106"	68"	14'-0"	6'-0"	36"	2.46
72"	13'-0"	6'-0"	36"	36"	2.59						2.58
78"	14'-6"	6'-6"	36"	36"	3.12						

HEADWALL FOR CONCRETE PIPE (METRIC)

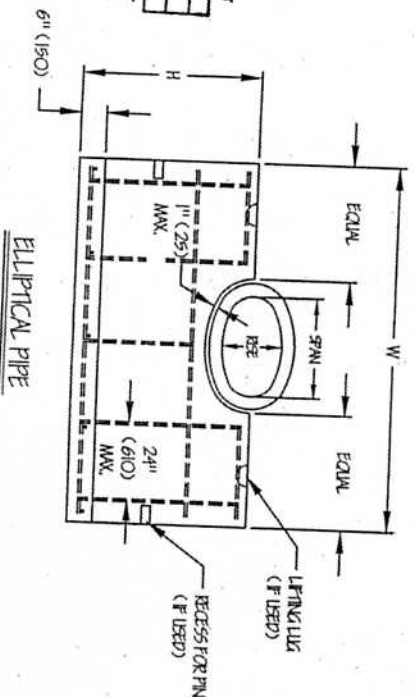
CIRCULAR				ELLIPTICAL							
D	W	H	T	Span	Rise	W	H	T	Conc.		
300	1065	915	610	32	575	365	1220	1065	610	.40	
375	1065	915	610	31	770	480	1710	1065	610	.44	
450	1525	1065	610	5.2	865	550	1525	1065	610	.47	
525	1830	1065	610	6.5	960	610	1525	1065	610	.46	
600	2135	1065	610	7.2	1055	670	1525	1065	610	.56	
675	2135	1065	610	7.0	1150	730	1830	1220	610	.61	
750	2135	1065	610	6.6	1250	795	1830	1220	610	.59	
825	2135	1065	610	6.6	1345	855	1830	1220	610	.61	
900	2135	1065	610	6.2	1535	915	2135	1710	610	.78	
975	2135	1370	610	8.1	1730	1095	2440	1370	610	.91	
1050	2135	1370	610	7.7	1920	1220	2895	1525	610	1.19	
1200	2440	1370	610	8.5	2110	1340	3200	1675	610	1.45	
1350	2700	1525	610	1.28	2305	1465	3660	1675	610	1.52	
1500	3200	1675	610	1.51	2495	1585	4115	1830	610	1.88	
1650	3660	1830	610	1.87	2690	1705	4420	1830	610	1.97	
1800	4115	1830	610	1.98							
1950	4572	1830	610	2.39							



PROFILE



CIRCULAR PIPE



ELLIPTICAL PIPE

STRUCTURAL ENGINEERING

APPROVED 12-1-02 D.A.G.
 APPROVED AS NOTED
 NOT APPROVED

For general contractors with design plans and schedules for this project, please refer to the notes on the drawings. For any questions, please contact the engineer of record.

- NOTES:
1. CONCRETE IS 4,000 PSI AT 28 DAYS, MINIMUM
 2. REINFORCEMENT IS #5 BARS AS PER ITEM 509.
 3. HEADWALLS FOR CIRCULAR PIPE UP TO 36" TO BE HANDLED AND POURED BY GWNS. OTHER HEADWALLS TO BE HANDLED BY LIFTING LUGS. RECESSES TO BE GROUDED CLOSED AFTER INSTALLATION.
 4. ALL GRADING SHALL BE NON-STEAK GRADE AS PER ODOT SPEC. 705.22 (10) BE DONE BY OTHERS.

E.C. Babbert, Inc.

7415 Dixie Road
 Home (614) 897-8444
 Fax (614) 897-1186

Concrete Pipe Headwall

ODOT HW-2.2

Drawn by: TK Date: 11-5-02 Scale: none