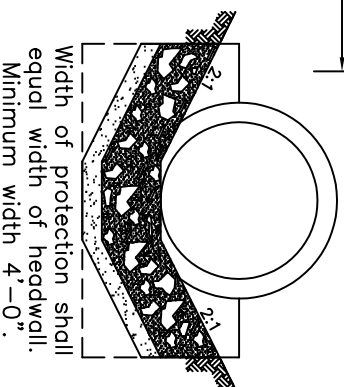
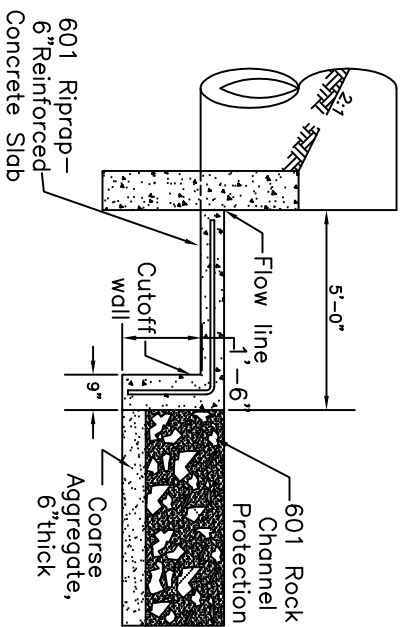


HEADWALL FOR CONCRETE PIPE

CIRCULAR				ELLIPTICAL						
D	W	H	T	CONCRETE CU.YDS.	Span	Rise	W	H	T	CONCRETE CU.YDS.
12"	2'-0"	3'-0"	12"	.20						
15"	2'-6"	3'-2"	12"	.25						
18"	3'-0"	3'-3"	12"	.31	23"	14"	3'-5"	3'-2"	12"	.33
21"	3'-6"	3'-4"	12"	.37						
24"	4'-0"	3'-6"	12"	.43	30"	19"	4'-2"	3'-4"	12"	.42
27"	4'-6"	3'-8"	12"	.49	34"	22"	4'-7"	3'-5"	12"	.46
30"	5'-0"	3'-9"	12"	.56	38"	24"	5'-0"	3'-6"	12"	.50
33"	5'-6"	3'-10"	12"	.62	42"	27"	5'-5"	3'-7"	12"	.55
36"	6'-0"	4'-0"	12"	.69	45"	29"	5'-10"	3'-8"	12"	.59
39"	6'-6"	4'-2"	12"	.77	49"	32"	6'-6"	3'-10"	12"	.67
42"	7'-0"	4'-3"	12"	.84	53"	34"	7'-2"	4'-0"	14"	.82
48"	8'-0"	4'-6"	14"	1.09	60"	38"	8'-5"	4'-2"	14"	1.01
54"	9'-3"	4'-9"	14"	1.32	68"	43"	9'-8"	4'-4"	16"	1.32
60"	10'-6"	5'-6"	16"	1.93	76"	48"	11'-0"	5'-0"	16"	1.79
66"	11'-9"	5'-9"	18"	2.42	83"	53"	12'-4"	5'-2"	18"	2.23
72"	13'-0"	6'-0"	18"	2.77	91"	58"	13'-7"	5'-5"	18"	2.53
78"	14'-3"	6'-3"	20"	3.37	98"	63"	14'-10"	5'-7"	20"	3.07
84"	15'-6"	6'-6"	20"	4.05	106"	68"	16'-2"	5'-10"	20"	3.42
90"	16'-9"	6'-9"	22"	4.51	113"	72"	17'-6"	6'-0"	22"	4.05
96"	18'-0"	7'-0"	24"	5.31						
102"	19'-3"	7'-3"	26"	6.20						
108"	20'-6"	7'-6"	26"	6.78						
114"	21'-9"	7'-9"	28"	7.81						
120"	23'-0"	8'-0"	30"	8.93						



NOTES
CONCRETE for headwalls shall be Class C.

CITY OF SPRINGFIELD, OHIO
DEPARTMENT OF ENGINEERING

HEADWALL
DETAIL

DATE
JUL 98

STANDARD DRAWING HW-1

APPROVED _____

CITY ENGINEER