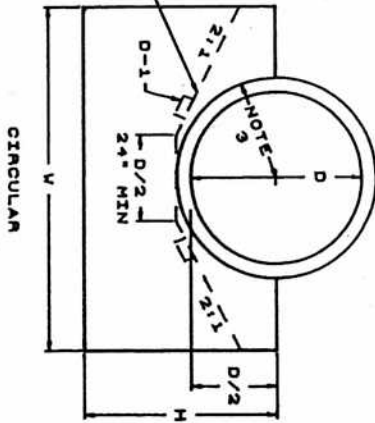
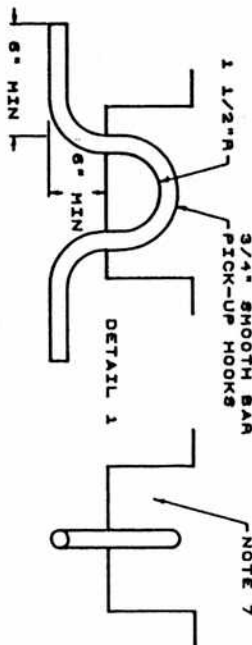


INLET CHANNEL PROTECTION ONLY
6" EXTENSION REQUIRED
WHEN AIRPAP IS SPECIFIED



CIRCULAR



DETAIL 1

HEADWALL FOR CONCRETE PIPE					
CIRCULAR					
D	V	H	T	CONCR CU YD	WEIGHT
12"	2'-0"	3'-0"	12"	.26	618
15"	2'-6"	3'-2"	12"	.25	1813
18"	3'-0"	3'-3"	12"	.31	1256
21"	3'-6"	3'-4"	12"	.37	1499
24"	4'-0"	3'-6"	12"	.43	1742
27"	4'-6"	3'-9"	12"	.49	1985
30"	5'-0"	3'-9"	12"	.56	2266
33"	5'-6"	3'-10"	12"	.62	2511
36"	6'-0"	4'-0"	12"	.69	2795
39"	6'-6"	4'-2"	12"	.77	3119
42"	7'-0"	4'-3"	12"	.84	3482
48"	8'-0"	4'-6"	14"	1.09	4415
54"	9'-0"	4'-9"	14"	1.32	5346
60"	10'-0"	5'-0"	16"	1.93	7817
66"	11'-0"	5'-9"	18"	2.42	9881
72"	13'-0"	6'-8"	18"	2.77	11219

- NOTES:
1. PRECAST CONCRETE 4000 PSI - 28 DAY STRENGTH - AIR 63423.
 2. CONCRETE QUANTITIES ARE BASED ON HEADWALLS WITHOUT THE 6" EXTENSION WHICH MAY BE REQUIRED WITH INLET CHANNEL PROTECTION.
 3. OUTSIDE DIAMETER OF PIPE TYPE BELL + 1" - INLET ONLY.
 4. PICK-UP HOOKS AS SHOWN FOR D = 30" OR LARGER.
 5. PICK-UP HOOKS TO BE 5/8" GALVANIZED CABLE FOR D = 27" OR SMALLER.
 6. GROUT TO BE NON-SHRINK GROUT AS SPECIFIED BY ODOT 785.22 BY OTHERS.
 7. OPENING TO BE FILLED WITH GROUT AFTER INSTALLATION BY OTHERS.

STRUCTURAL ENGINEERING

Brad Fayell

Administrator

APPROVED	
APPROVED AS NOTED	
NOT APPROVED	

for general conformance with design plans and specifications only. Does not relieve contractor from responsibility for errors or omissions.

01-09-98
01-05-95
07-29-94
02-11-94

NCI Norwalk Concrete Industries
Norwalk, Ohio
191 WOODLAWN AVE. PHONE (419) 668-8167

PRECAST CONCRETE
ODOT STANDARD
HW - 4B HEADWALL

REVISIONS: 06-25-92 Drawing No. C-2115-92

SMT