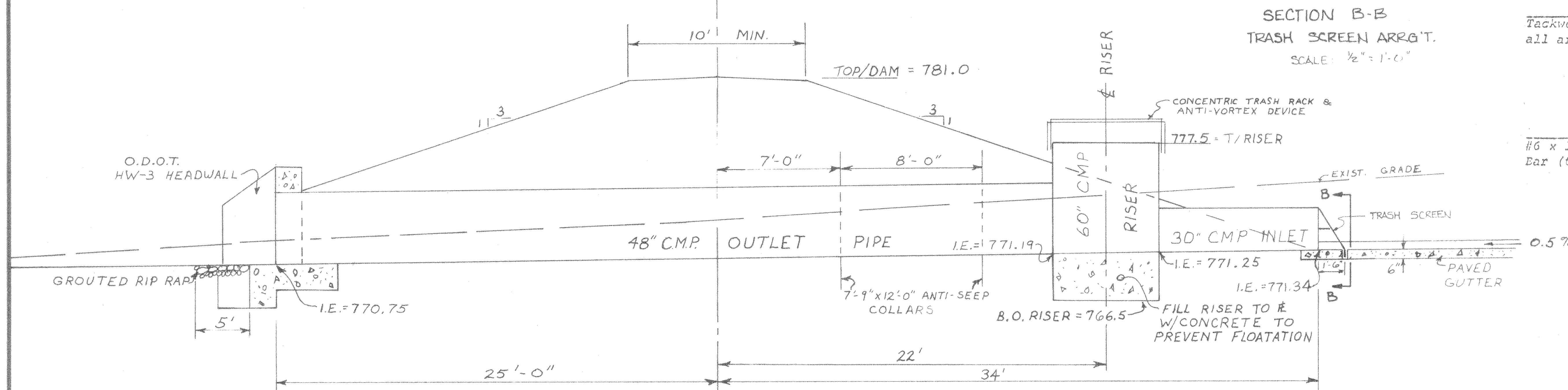
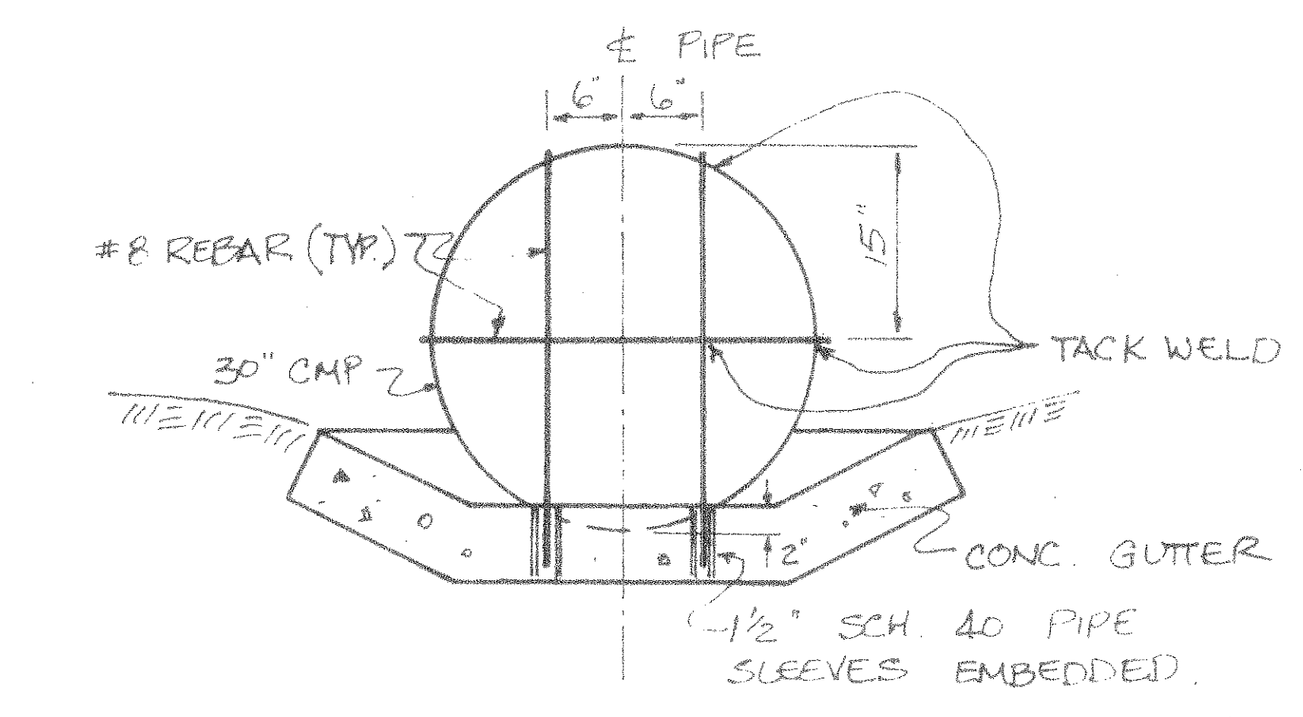
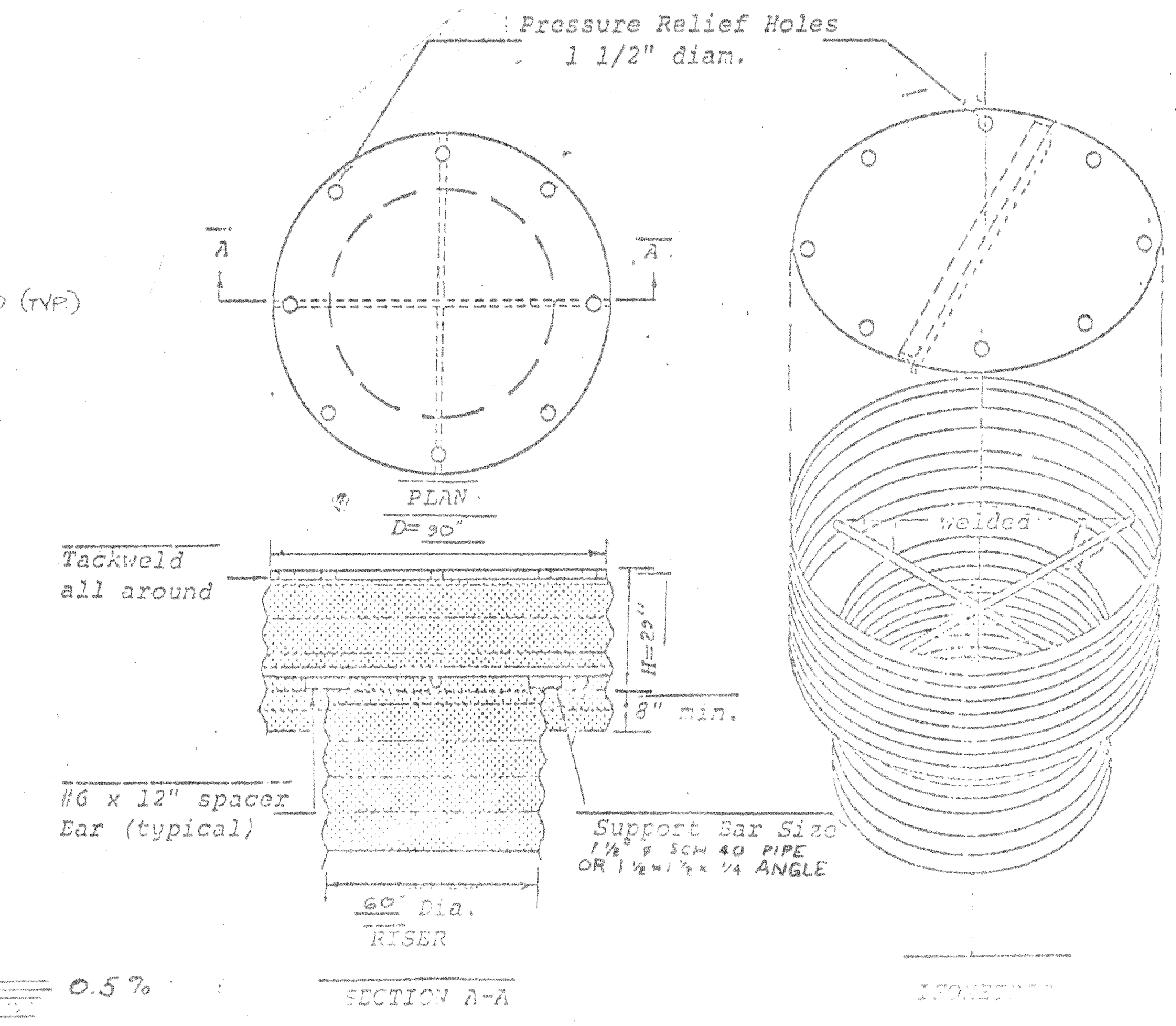


DAM CROSS SECTION ALONG OUTLET PIPE
SCALE : 1" = 5'

NOTE: AN INDEPENDENT TESTING AGENCY SHALL BE REQUIRED TO CERTIFY COMPACTION OF DAM FILL.



SECTION B-B
TRASH SCREEN ARRG'T.
SCALE: ½" = 1'-0"



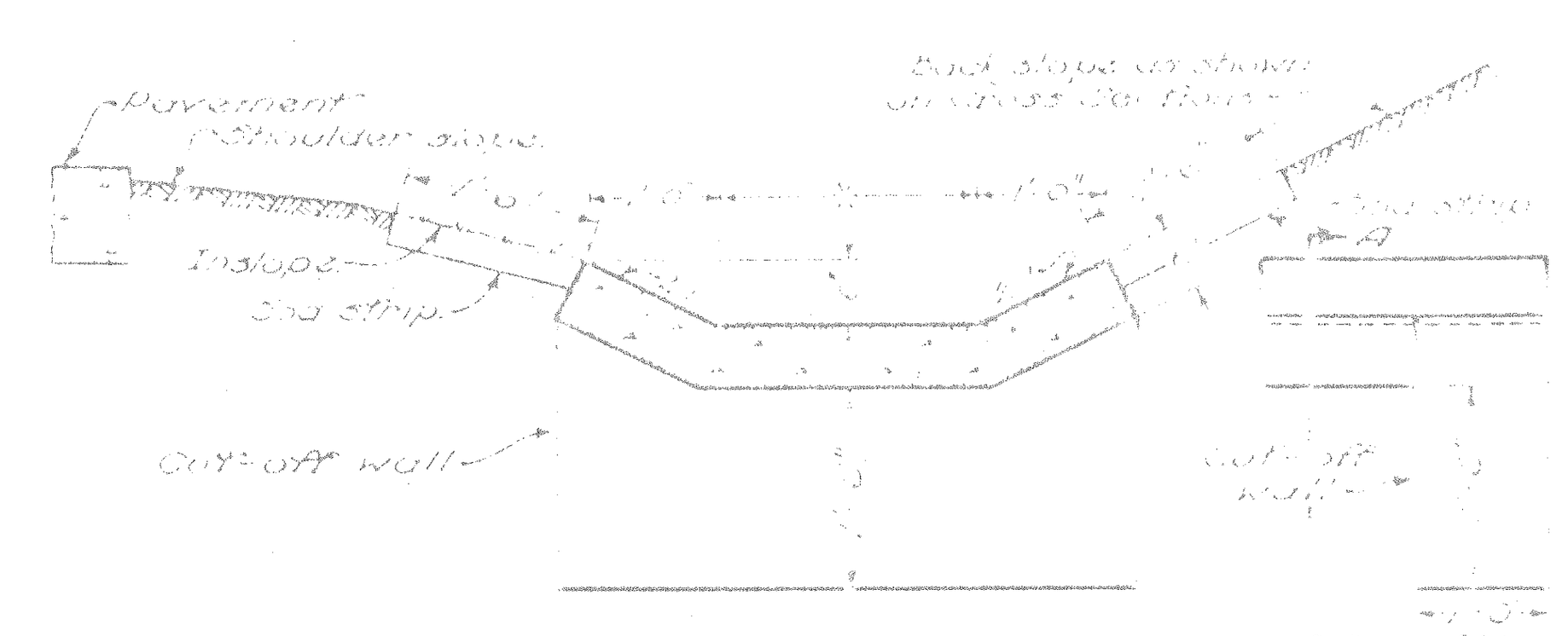
CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE
(not to scale)

Top is 8 gage corrugated metal or 1/8" steel plate. Pressure relief holes may be ommitted, if ends of corrugations are left fully open when corrugated top is welded to cylinder.

Cylinder is 10 gage corrugated metal pipe or fabricated from 1/8" steel plate.

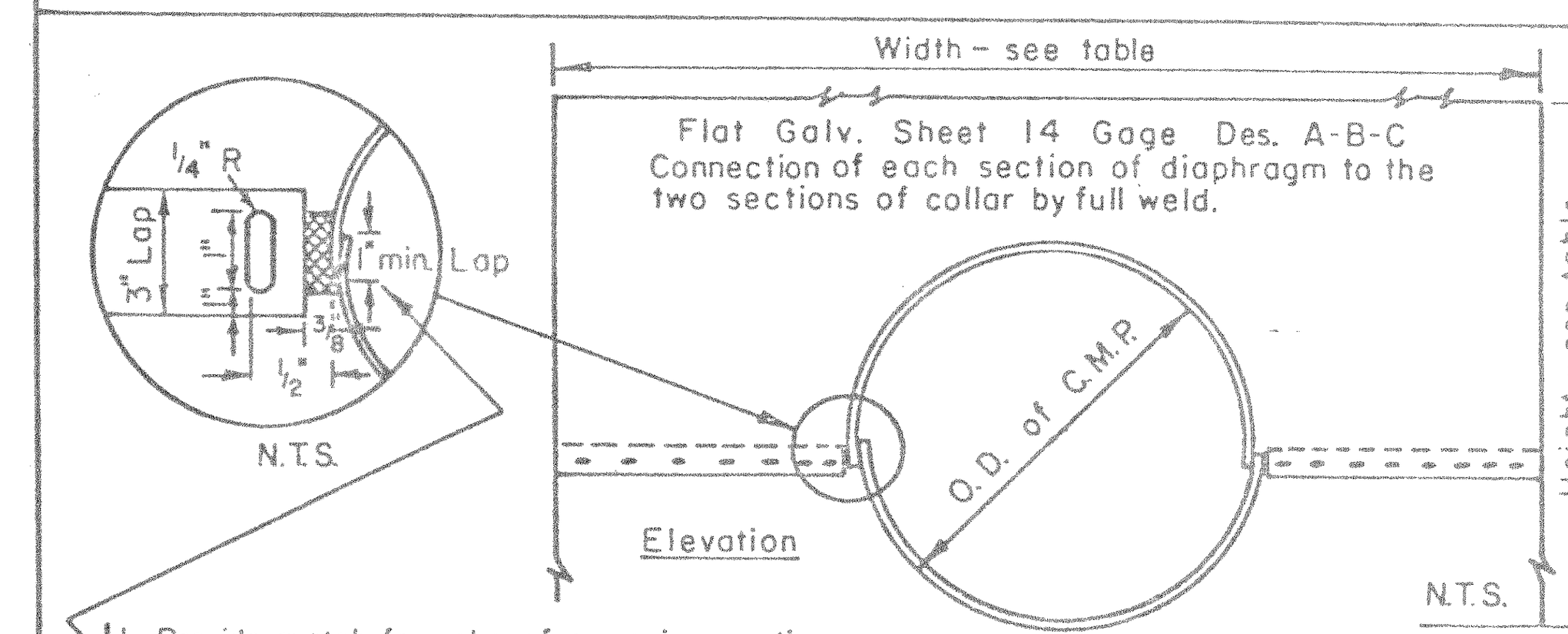
Notes:
1) The cylinder must be firmly fastened to the top of the riser.
2) Support bars are welded to the top of the riser or attached by straps bolted to top of riser.

DETAIL OF PAVED GUTTER

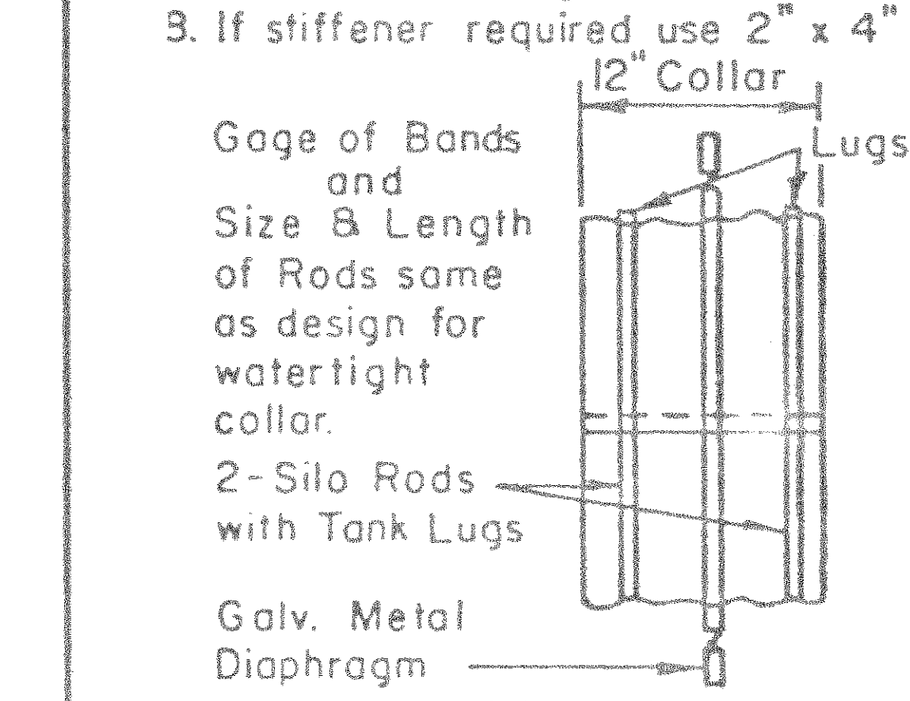


SECTION A-A SIDE VIEW
TYPE 1-2

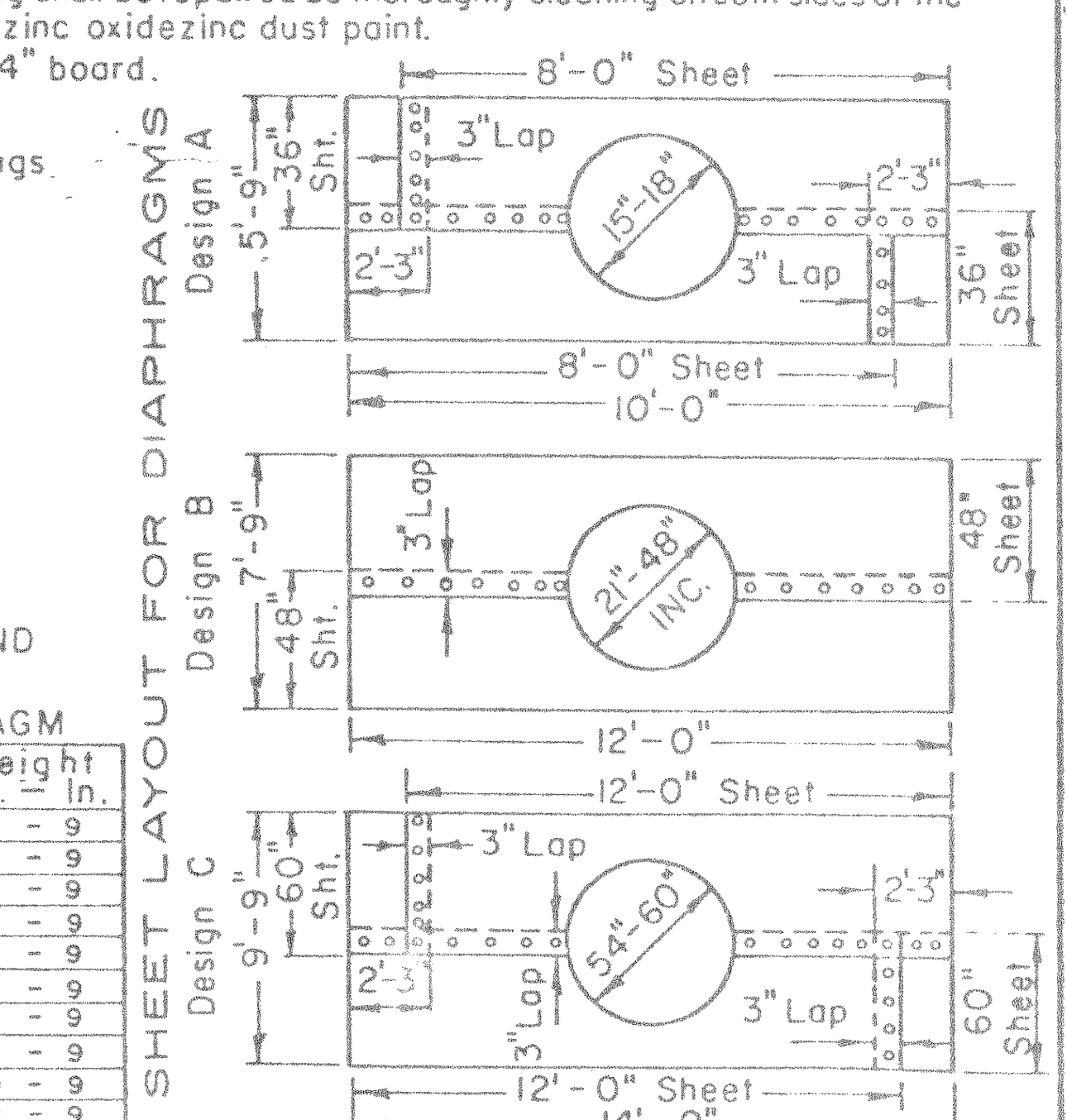
DESIGN FOR METAL DIAPHRAGM WITH COLLAR



1. Provide match for yoke of opposing section.
2. During assembly fill in open area with burlap impregnated with asphalt cement to make watertight.
3. Diaphragm to be located at other than culvert joints.
4. 1/2"x1" slotted holes for 3/8" x 1" bolts in one half (upper or lower) of diaphragm only. Use 1/2" holes in other matching half.
5. All bolts - nuts - rivets and washers shall be galvanized, cadmium plated or stainless steel.
6. Lap of the 2'-3" pieces in design A and C to be with either 3/8"x1-3/4" rivets or with 3/8" x1" bolts or by stitch weld all on 6" centers. Paint facing surfaces of laps with asphalt cement before shop assembly.
7. After welding damaged zinc coating shall be repaired be thoroughly cleaning on both sides of the metal and painting with 2 coats zinc oxidezinc dust paint.
8. If stiffener required use 2" x 4" board.



(Not To Scale) COUPLING BAND
Elevation



DIMENSIONS FOR DIAPHRAGM

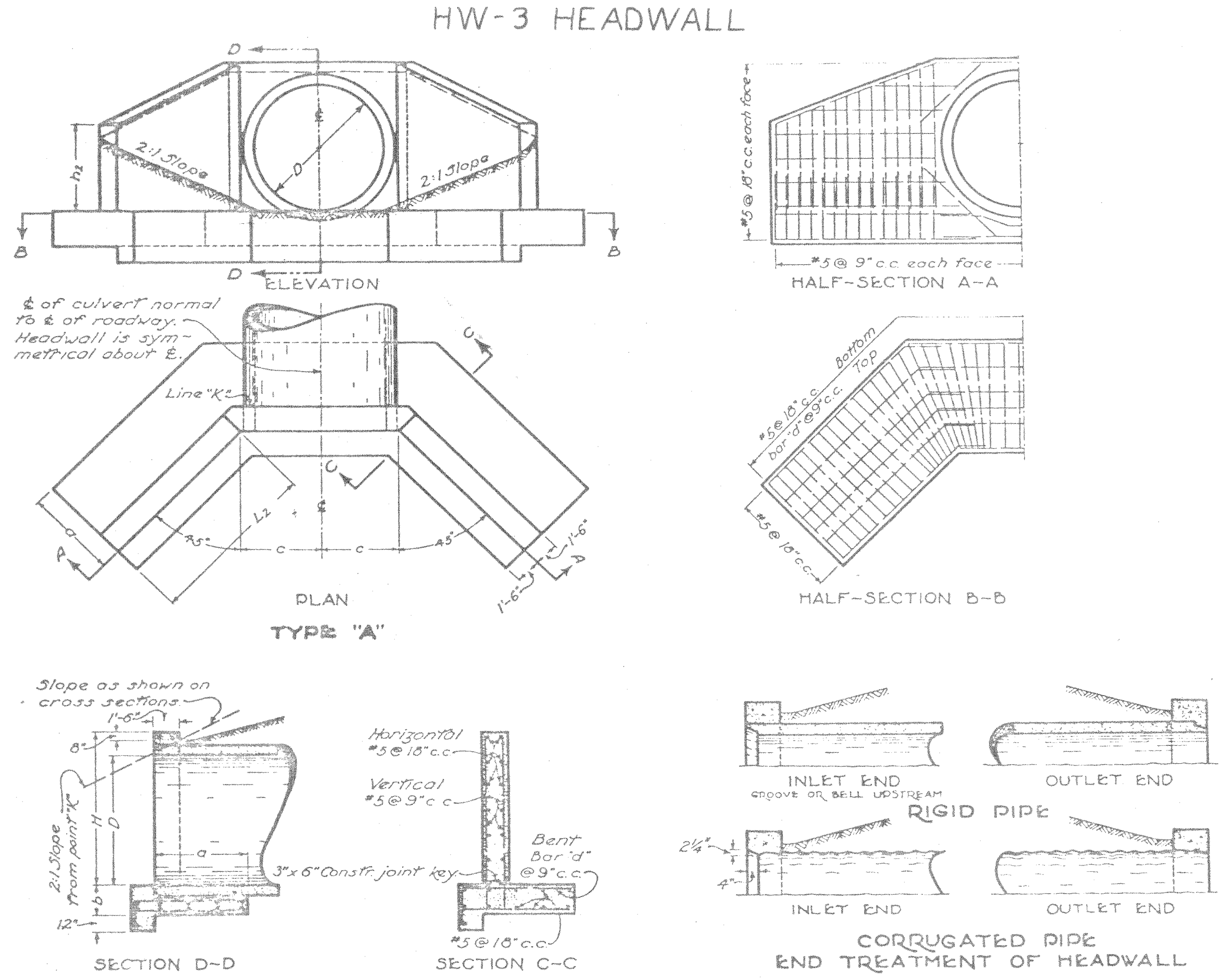
Design	Gage Sheet	Pipe Dia. In.	Width Ft. - In.	Height Ft. - In.
A	14	15	10 - 0	5 - 9
A	14	18	10 - 0	5 - 9
B	14	21	12 - 0	7 - 9
B	14	24	12 - 0	7 - 9
B	14	30	12 - 0	7 - 9
B	14	36	12 - 0	7 - 9
B	14	42	12 - 0	7 - 9
B	14	48	12 - 0	7 - 9
C	14	54	14 - 0	9 - 9
C	14	60	14 - 0	9 - 9

REFERENCE	U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE ENGINEERING & WATERSHED PLANNING UNIT UPPER DARBY, PENNSYLVANIA	RTSC-NE-ENG 630 SHEET OF



PLAN
DETENTION DAM AND BASIN SCALE: 1" = 50'

HW-3 HEADWALL



PIPE DIAM. D	H	a	b	c	BAR d	ø=0° L2	ø=0° h2	ø=0° C.Y. CONC. CMP	ø=0° C.Y. CONC. RCP	ø=0° STEEL LBS.	ø=15° L1	ø=15° L2	ø=15° h1	ø=15° h2	ø=15° C.Y. CONC. CMP	ø=15° C.Y. CONC. RCP	ø=15° STEEL LBS.	ø=30° L1	ø=30° L2	ø=30° h1	ø=30° h2	ø=30° C.Y. CONC. CMP	ø=30° C.Y. CONC. RCP	ø=30° STEEL LBS.
42"	4'-11"	3'-3"	1'-6"	2'-6"	#5	3'-7"	3'-1"	7.0	6.7	598	8'-9"	4'-6"	3'-8"	3'-2"	7.3	7.1	619	7'-10"	5'-9"	3'-2"	3'-3"	7.5	7.3	633
48"	5'-5"	3'-6"	1'-6"	2'-9"	#5	4'-4"	3'-4"	8.5	8.2	793	10'-0"	5'-4"	4'-1"	3'-5"	9.0	8.7	776	8'-9"	6'-10"	3'-5"	3'-6"	9.1	8.8	801
54"	5'-11"	3'-9"	1'-6"	3'-0"	#5	5'-2"	3'-8"	10.3	10.0	1,069	11'-4"	6'-3"	4'-6"	3'-8"	10.9	10.5	1,026	9'-8"	7'-11"	3'-8"	3'-9"	10.8	10.5	1,024
60"	6'-6"	4'-0"	1'-6"	3'-3"	#5	5'-11"	3'-11"	12.3	11.8	1,149	12'-7"	7'-2"	4'-10"	4'-0"	12.9	12.4	1,174	10'-7"	9'-0"	3'-10"	4'-1"	12.7	12.3	1,157
72"	7'-7"	4'-6"	1'-7"	3'-9"	#7	7'-5"	4'-5"	17.0	16.2	1,783	15'-1"	8'-11"	5'-7"	4'-6"	17.8	17.1	1,811	12'-5"	11'-2"	4'-3"	4'-7"	17.3	16.6	1,788
84"	8'-8"	5'-0"	1'-10"	4'-3"	#8	9'-0"	5'-0"	23.7	22.8	2,595	17'-7"	10'-9"	5'-4"	5'-1"	24.8	23.9	2,596	14'-7"	13'-4"	4'-10"	5'-2"	24.1	23.3	2,511

GENERAL NOTES

1. GENERAL: ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE BUTLER COUNTY CONSTRUCTION STANDARDS.

2. SITE PREPARATION
   CLEAR, GRUB AND STRIP TOPSOIL FROM DAM EMBANKMENT AND SPILLWAY EXCAVATION AREAS, CUT ADDITIONAL MATERIAL TO A DEPTH OF ONE FOOT UNDER EMBANKMENT AREA TO PROVIDE KEYING ACTION FOR DAM.

   IN LOCATIONS WHICH WILL BE A MINIMUM OF 3 FEET BELOW SUBGRADE OR SLOPE OF EMBANKMENT, THE CONTRACTOR MAY LEAVE UNDISTURBED STUMPS AND ROOTS AND NONPERISHABLE SOLID OBJECTS PROVIDED THEY DO NOT EXTEND MORE THAN 6 INCHES ABOVE THE GROUND SURFACE.

3. PLACEMENT AND COMPACTION OF FILL

   COMPACT EMBANKMENT IN ACCORDANCE WITH ODOT SPECIFICATION 203.12

4. STRUCTURAL BACKFILL
   BACKFILL WITHIN FOUR FEET OF THE OUTLET STRUCTURE SHALL BE PLACED IN 4 INCH LIFTS AND HAND TAMPED.

5. PIPE: GALVANIZED CORRUGATED METAL PIPE CONFORMING TO ODOT SPECIFICATION 707.
   MINIMUM GAGE: 16 FOR 30" DIAMETER
   14 FOR 48" DIAMETER
   14 FOR 60" DIAMETER
   WATERTIGHT PIPE CONNECTIONS ARE REQUIRED, BED PIPE FIRMLY AND UNIFORMLY THROUGH OUT ITS ENTIRE LENGTH.

6. CONCRETE: CONFORMING TO ODOT SPECIFICATION 499, CLASS C.

7. REINFORCING STEEL: ASTM A615, GRADE 60.

8. RESTORATION AND SEEDING
   REPLACE TOPSOIL ON ALL DISTURBED AREAS. SEED AND MULCH AS REQUIRED TO ATTAIN GOOD VEGETATIVE COVER AS QUICKLY AS POSSIBLE.

2/15

DATE 10/5/84 REV #1

CINNAMON WOODS SECTION 4
STORMWATER DETENTION DAM
PLAN, SECTIONS & DETAILS

SCALE: AS NOTED
DESIGNED: J.B.K.
DATE: SEPT. 8, 1984
CHECKED: R.W.

RW Consultants
Engineers and Surveyors
1227 Central Avenue
Middletown Ohio 45042

N10020