

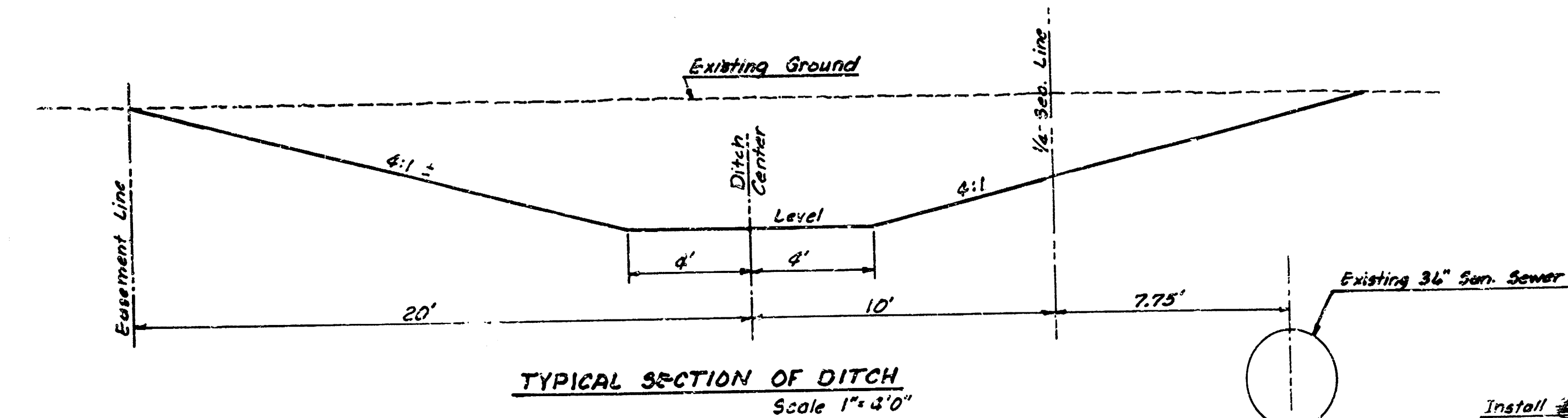
B.M. 103.59 City B.M. Disc, Top of S. rail @
E. end Box Culvert, Sheridan & 31st.

B.M. 102.15 N. rim M.H. @ S.W. cor.
of Sheridan & Canada.

NOTE: All areas within earthwork limits shall be seeded in accordance with Kansas State Highway 1964 Standard Specifications using mixed native grass seed and prairie hay mulch. Seed shall be applied at 80 lbs per acre and fertilizer at 300 lbs per acre. Fertilizer shall contain 18% Nitrogen, 12% Phosphate and 14% Potassium. Costs for seeding, mulching and other appurtenant work shall be paid for as bid for "Seeding" and "Mulching" from channel to be placed in wind-row west of new channel and northeast of existing channel as directed by Engineer.

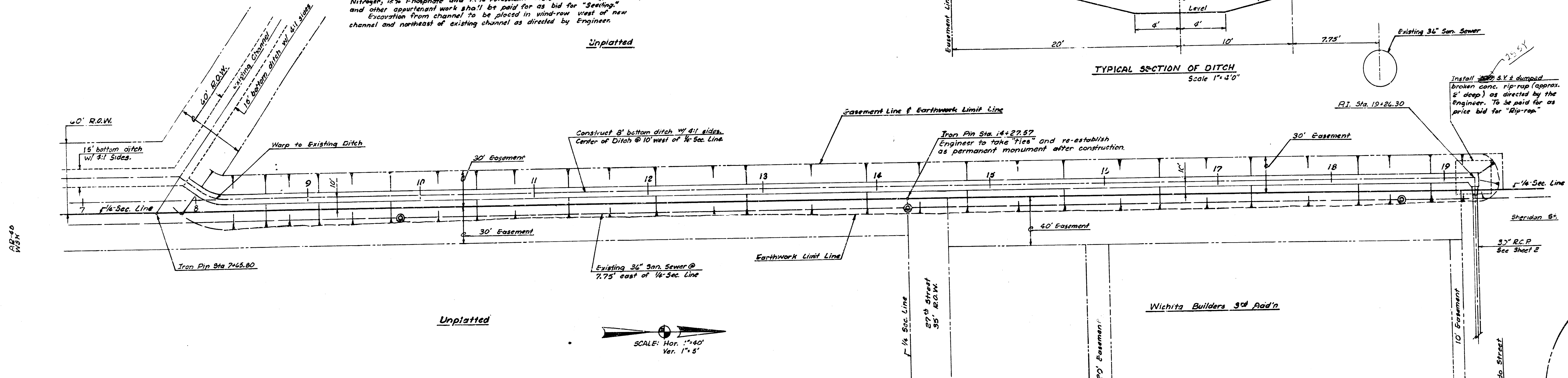
Sec. 1, T28S, R1W

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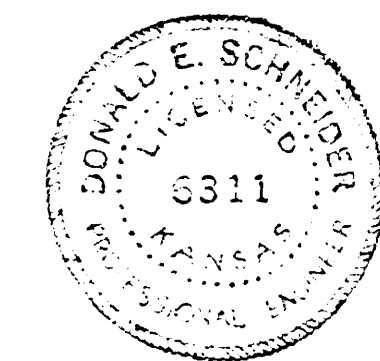
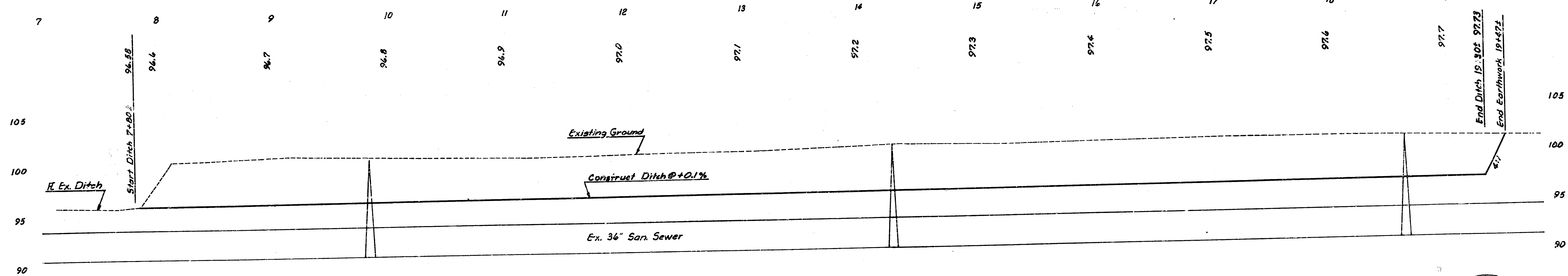


Install 24" S.V. & dump. broken conc. rip-rap (approx. 2' deep) as directed by the Engineer. To be paid for as price bid for "Rip-rap."

R.I. Sta. 19+26.30



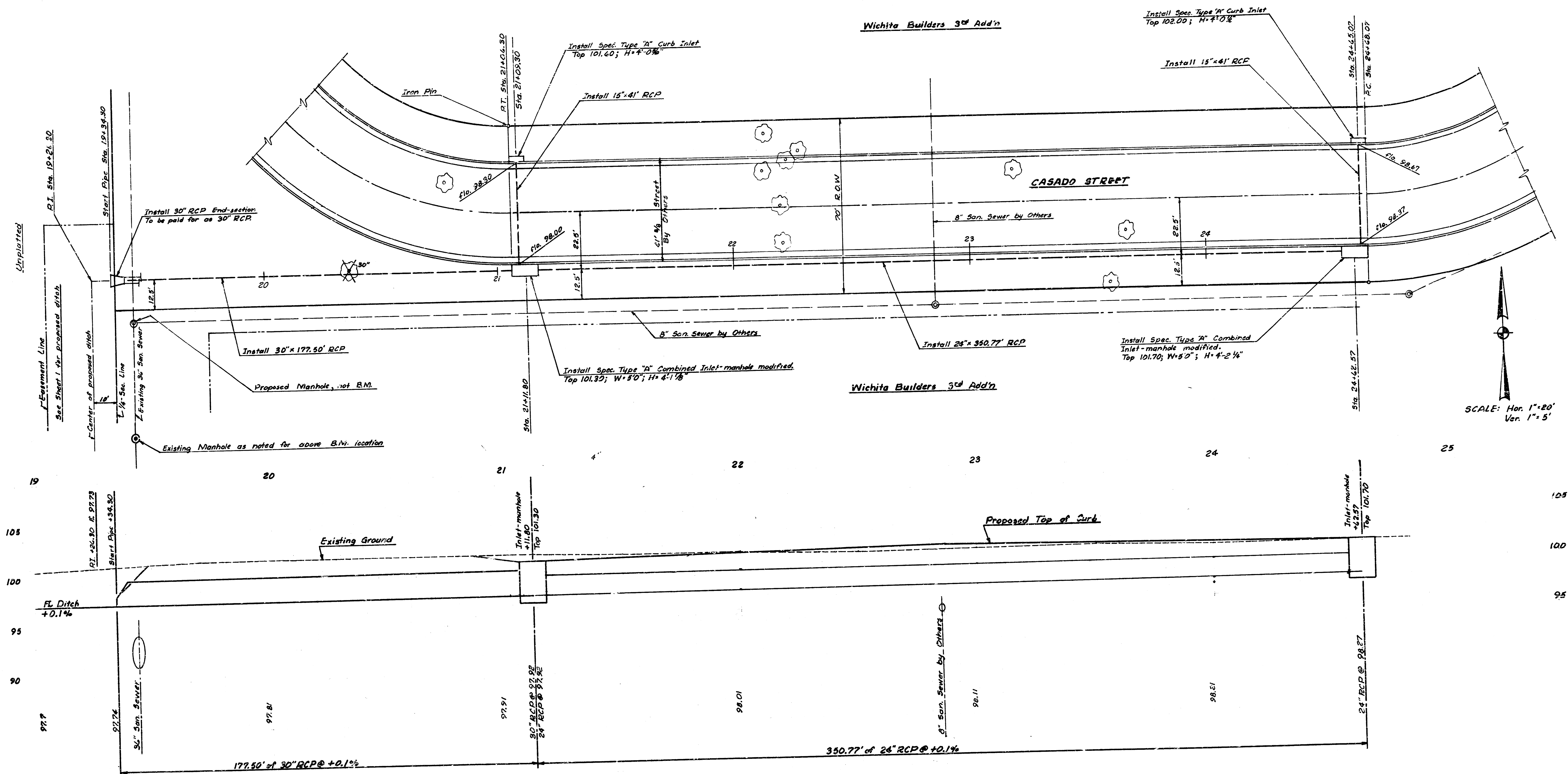
NOTE: Earthwork between 42.00 to 43.00 C.Y. Engineer to cross-section before and after construction for earthwork quantities.

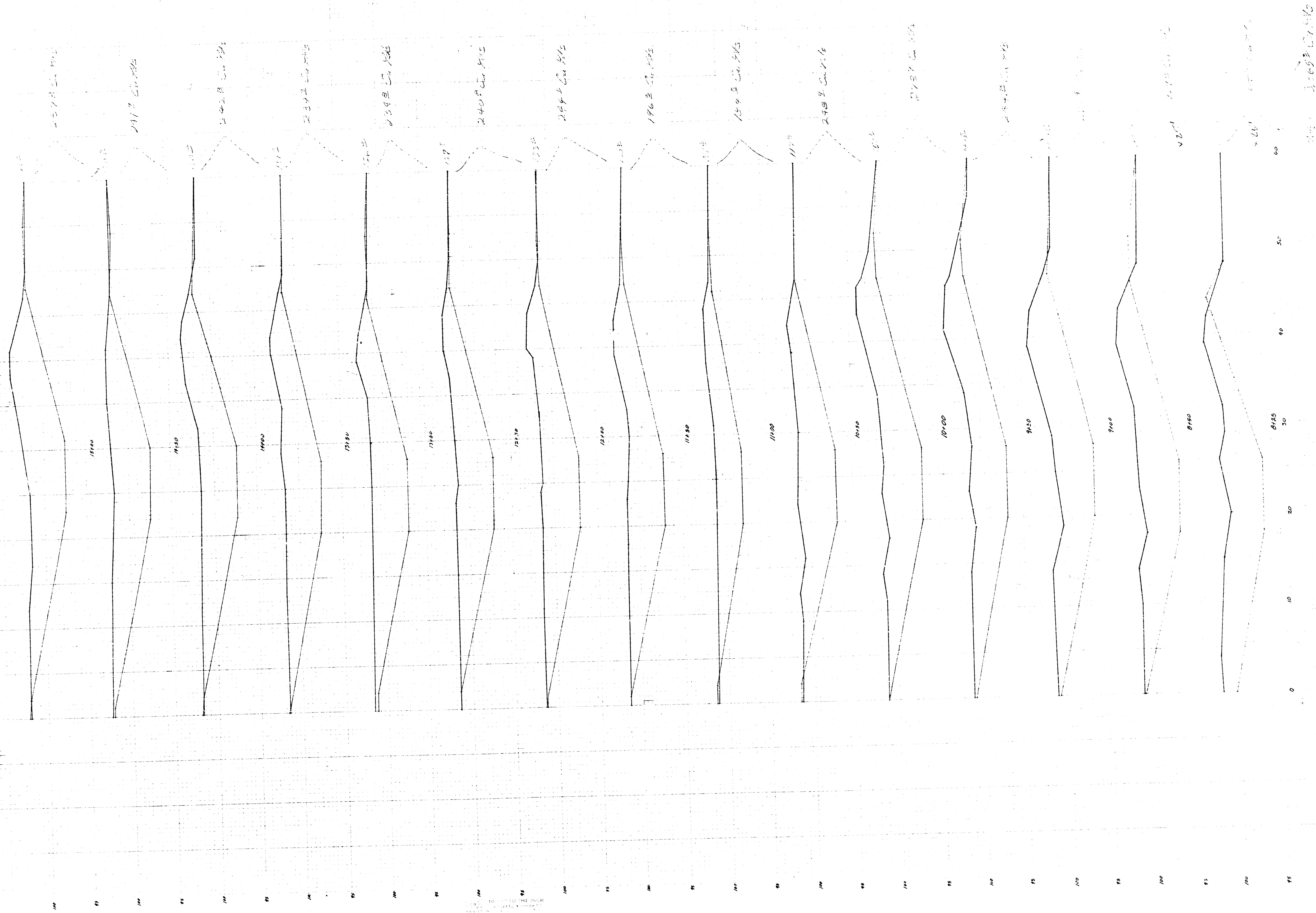


STORM WATER SEWER NO. 103
R.W. LINN, CITY ENGINEER
CITY OF WICHITA, KANSAS
PROJECT NO. DBKA 573007
DATE APRIL 1973 SHEET 1 OF 5 1/2

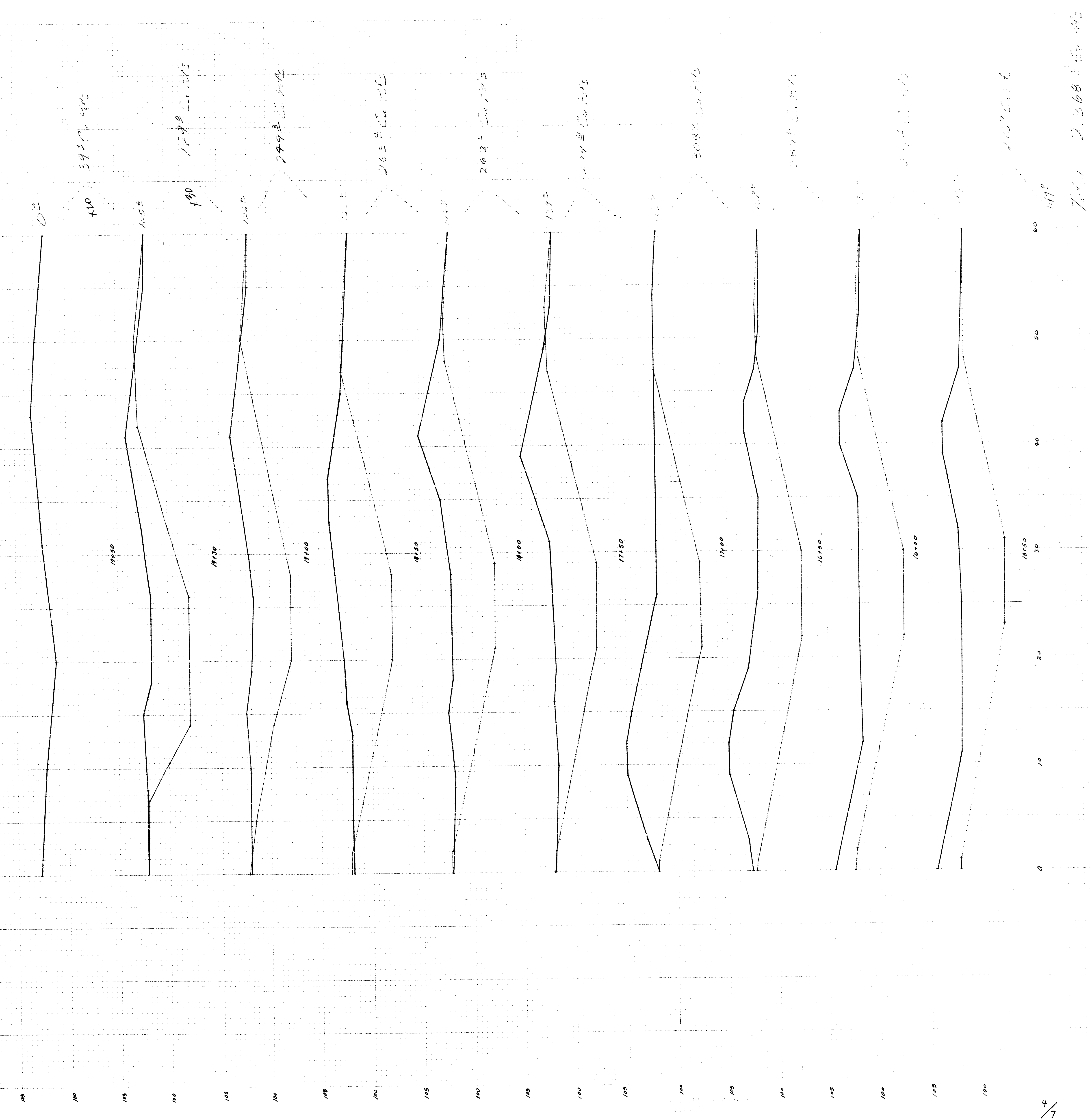
FILMED FROM THE BEST

Sec. 1, T28S, R12W

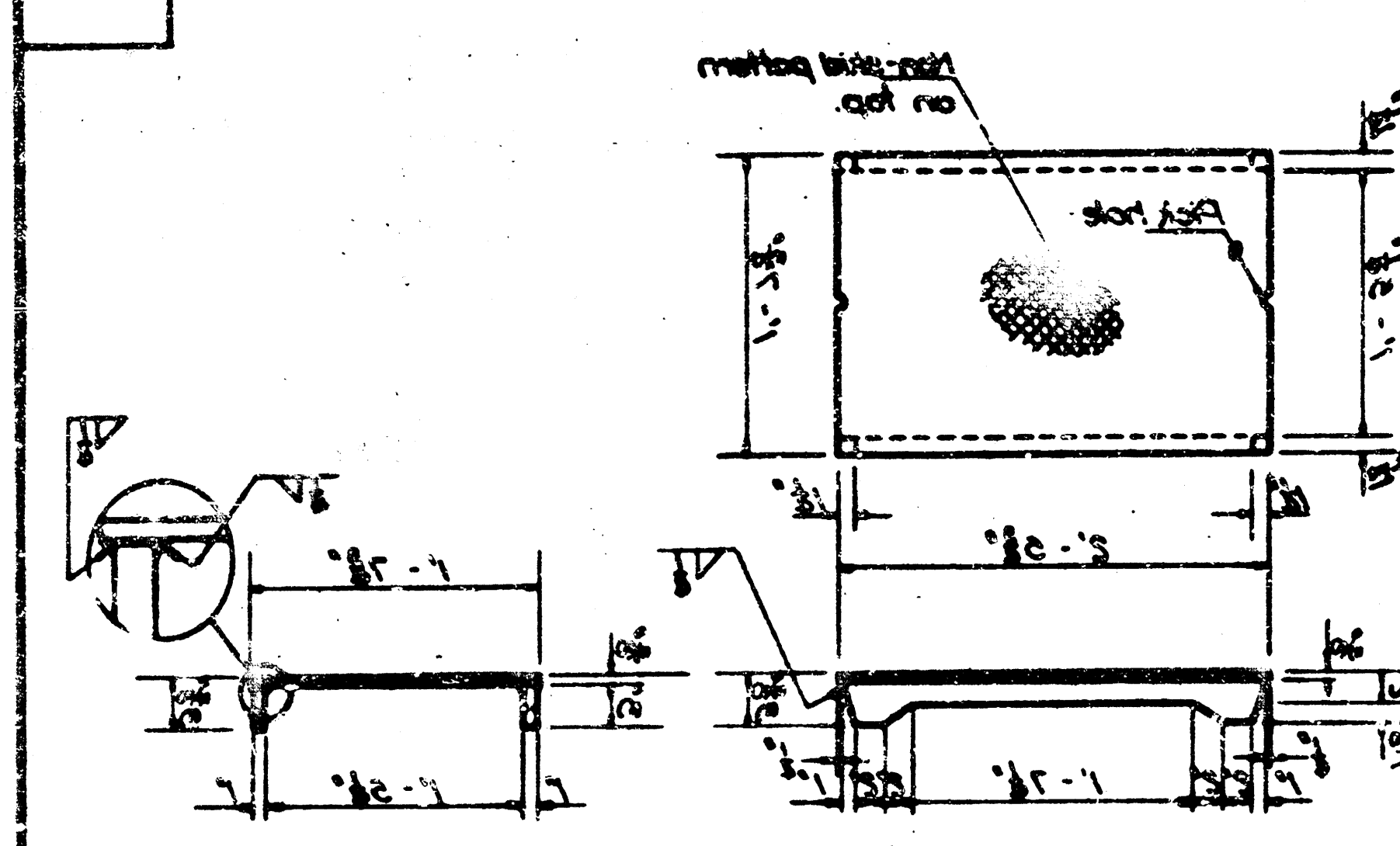




Dirt under
Excavation
5,738.6 Cu Yds

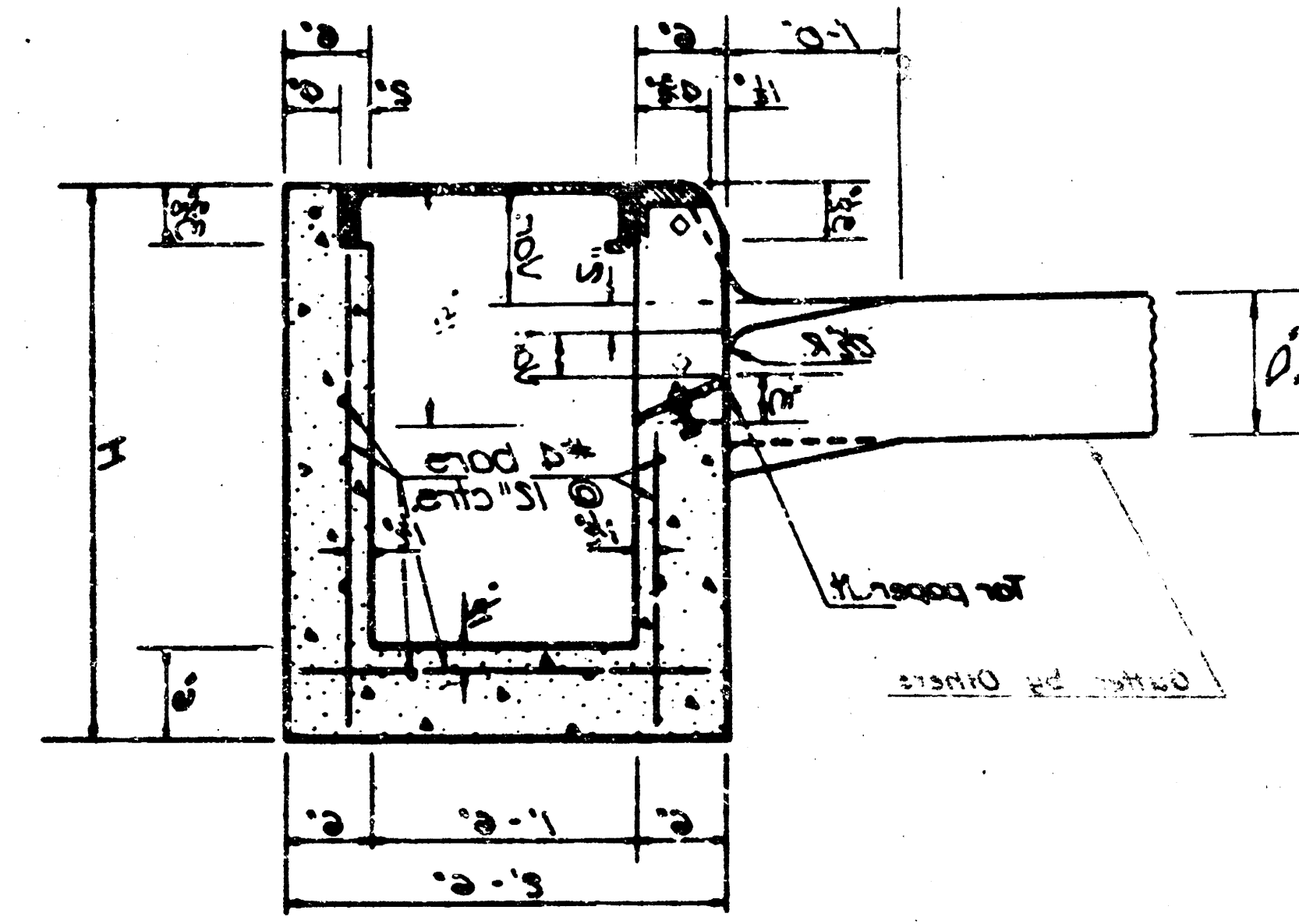


Part	QTY	UNIT	DESCRIPTION
1	1	EA	INLET
2	1	EA	COVER PLATE
3	1	EA	REINFORCING BARS
4	1	EA	CONCRETE



*** STRUCTURAL STEEL COVER PLATE**
Weight 28 lbs each

* Reinforced steel floor plate (Commercial grade)
Welded to steel (ASTM A-36 or A-441) per
specification



SECTION Y-Y

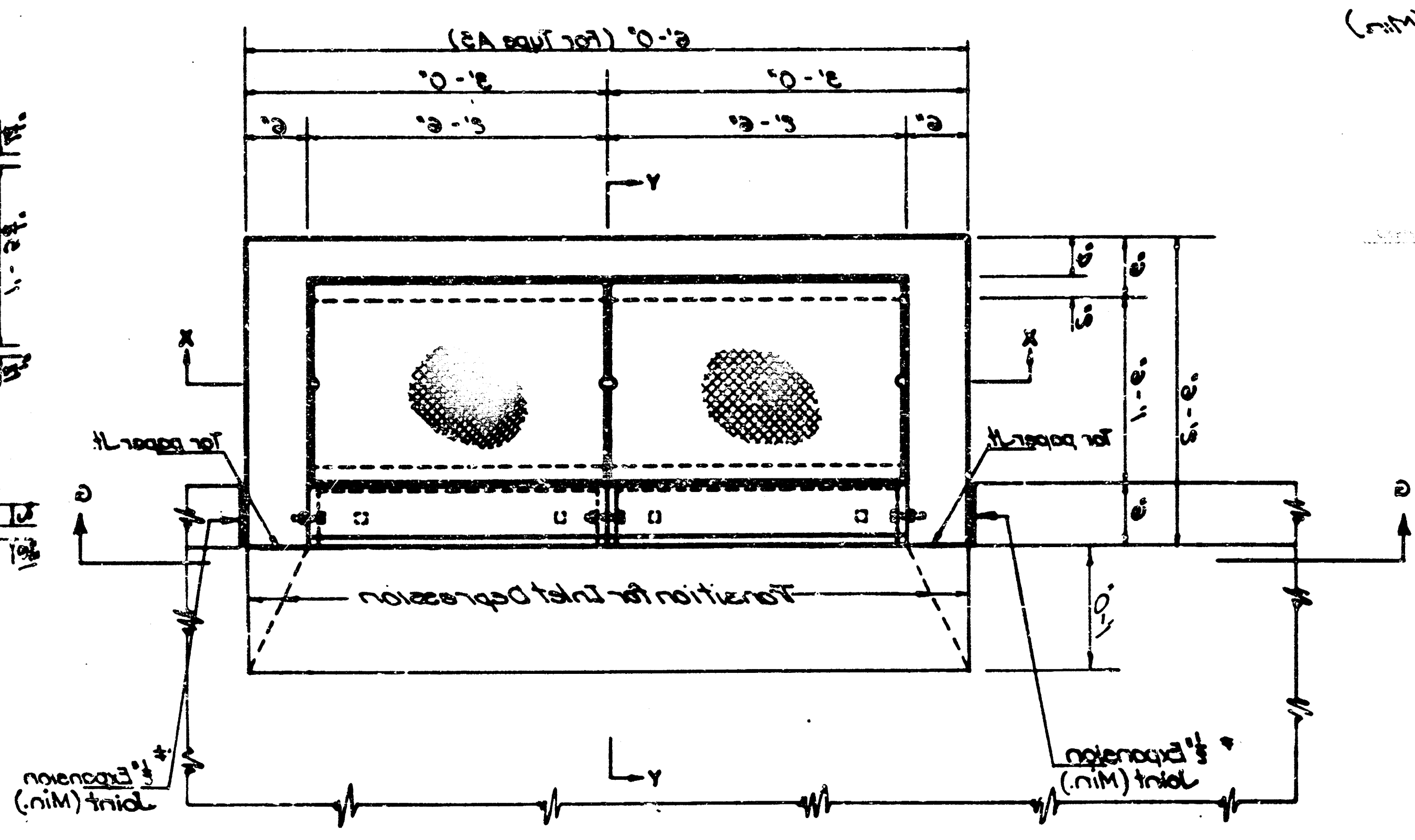
NOTE: See this sheet for details of depression
at inlet. This work shall be done for
Concrete Reinforcement
Floor of inlet shall be sloped as shown in various
"EXAMPLES" on Reinforced Concrete Manual
Standard No. 833.
Concrete used for sloping shall be same as concrete
used for floor of inlet.
No addition in concrete quantities shall be made for
sloping floor of inlet.

Part	QTY	UNIT	DESCRIPTION
1	1	EA	INLET
2	1	EA	COVER PLATE
3	1	EA	REINFORCING BARS
4	1	EA	CONCRETE

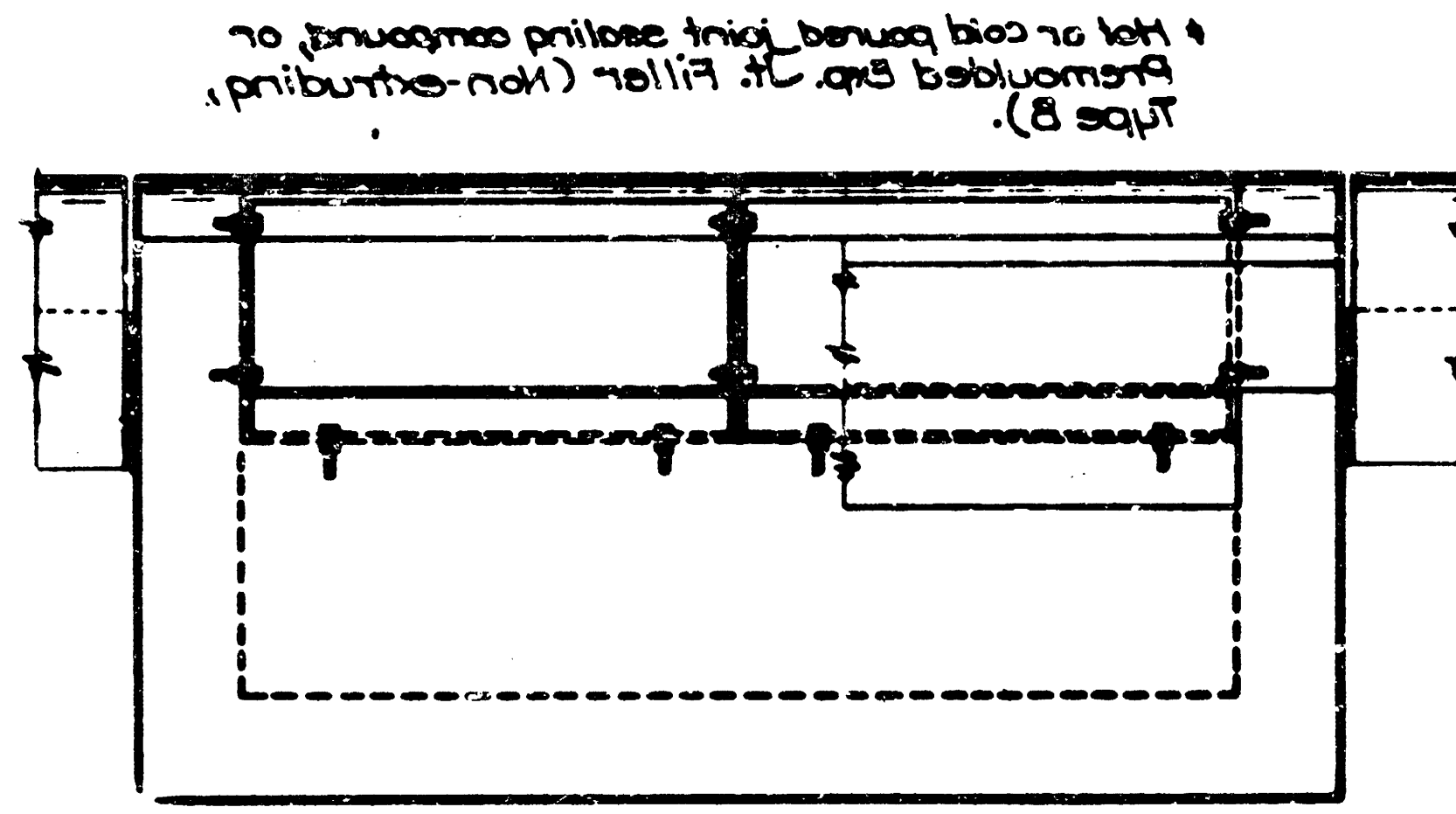
SPECIAL
TYPE A CURB INLET

STATE HIGHWAY COMMISSION OF KANSAS

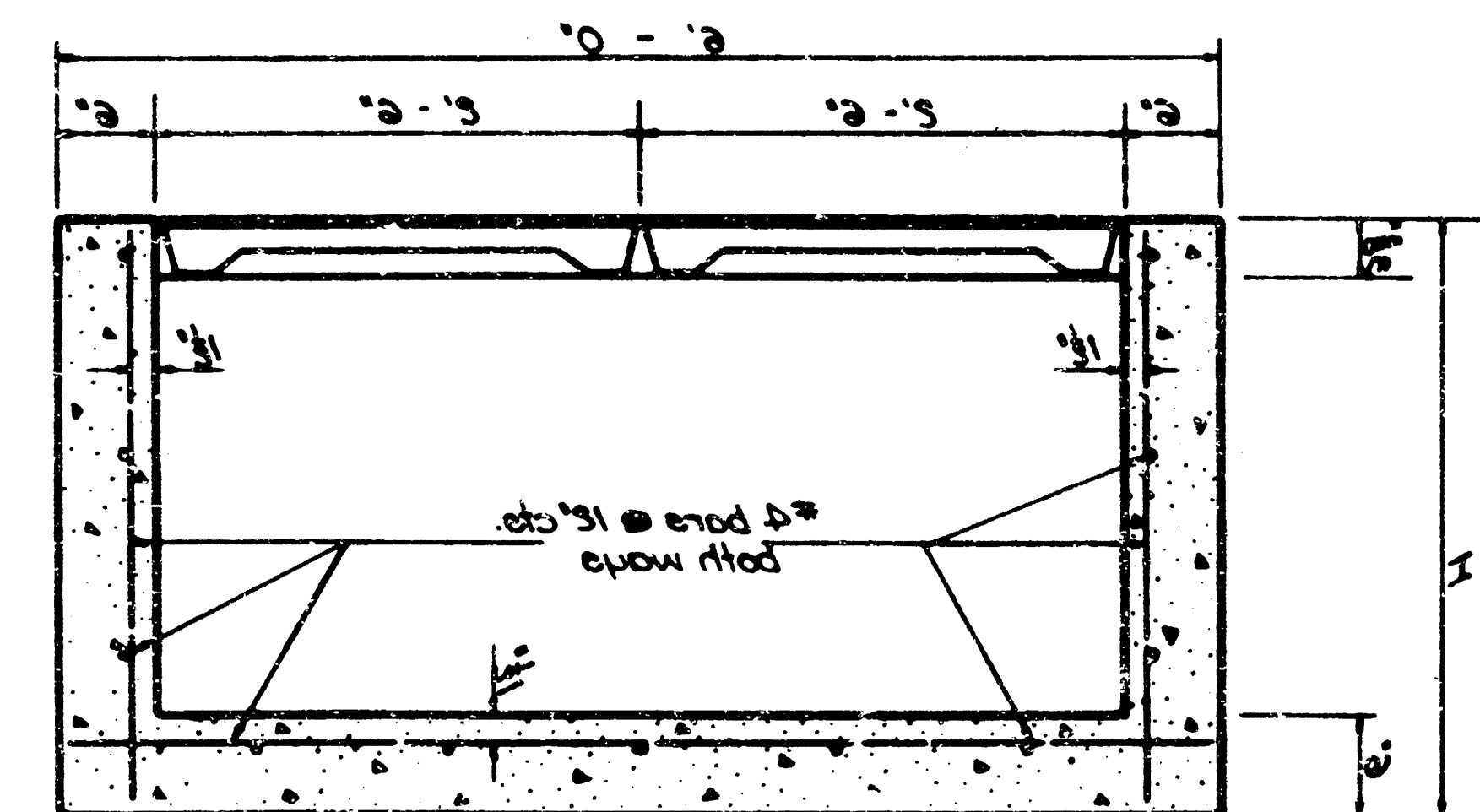
DESIGNED BY A. A. ...
CHECKED BY A. A. ...
SCALE 1/4" = 1'-0"



PLAN



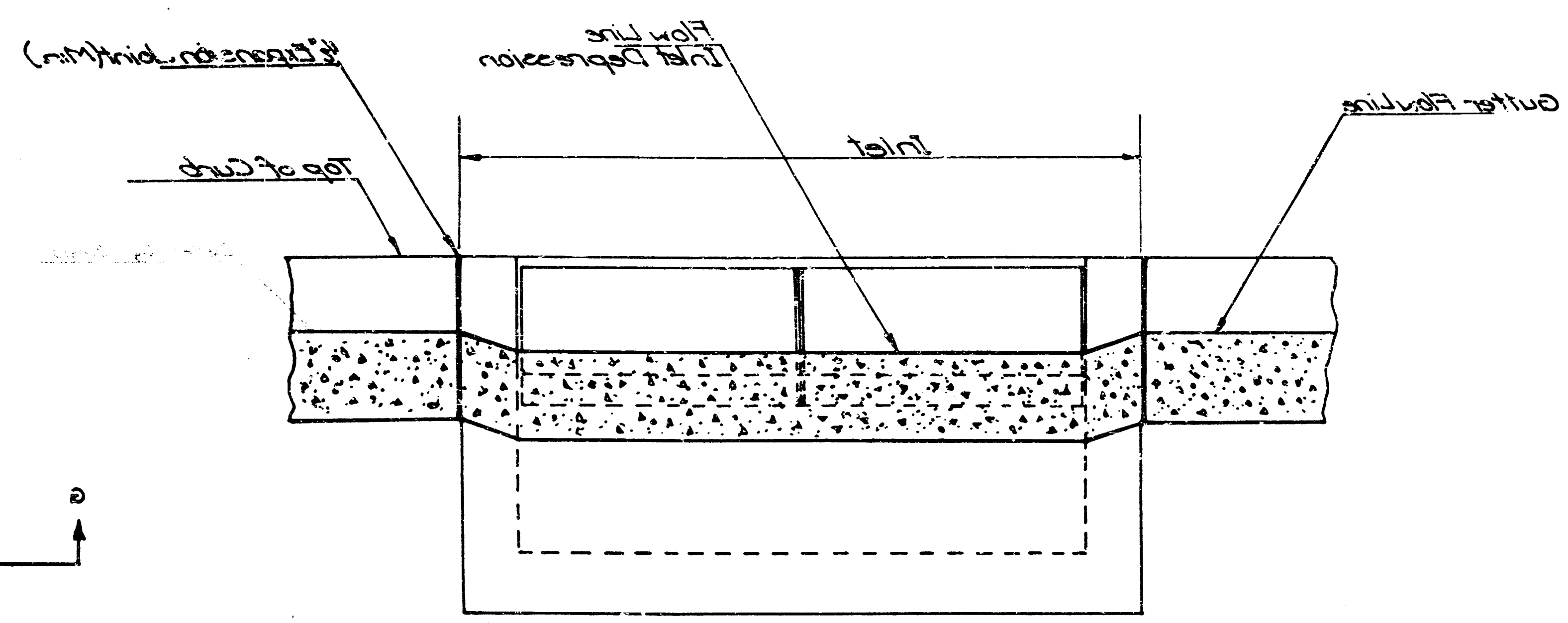
FRONT ELEVATION



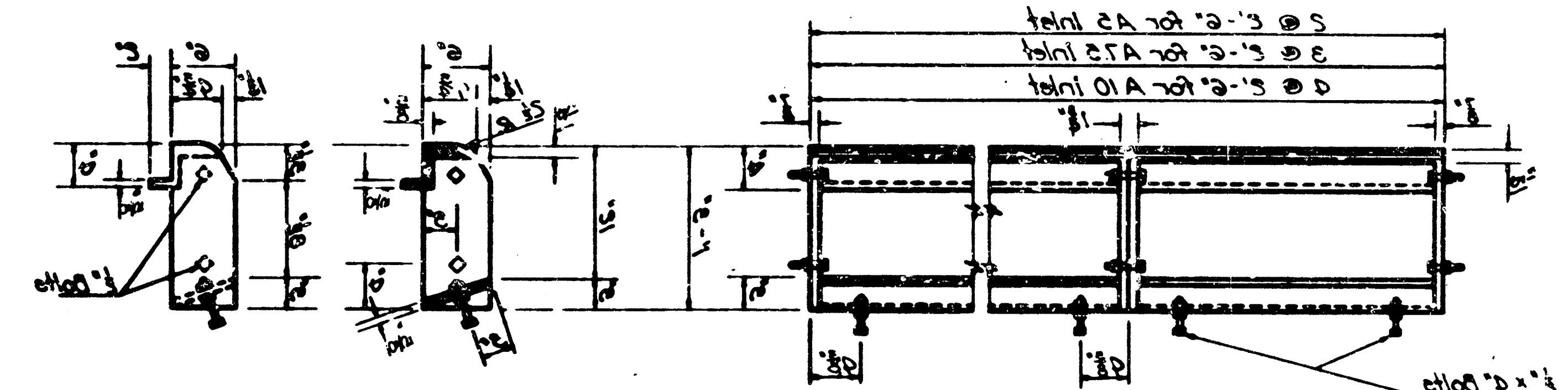
SECTION X-X

NOTE: Reinforcing bars will extend through
the opening in concrete quantities
will be made for this opening.
When so ordered by the Engineer the top of the
inlet shall be sloped slightly to approximate fit
the ground line or other conditions.
Structural steel cover plate and all exposed cast
iron surfaces shall be painted either in the shop or
in the field with one coat of zinc dust paint, followed
by two coats of aluminum paint.
No substitutions of design will be permitted or
printing.

NOTE: Use Forming Concrete throughout.
Develop all exposed edges with 1/2"
triangular rounding.
Reinforcing bars shall be bent
around plate.
No reduction in concrete quantities
shall be made for pipe openings.
At the contractor's option Class A concrete (ASTM A-441) may be used throughout and reinforcement may be made as Class A concrete reinforcement. A small opening may be reinforced in the back of the inlet to drain a low area, if ordered by the



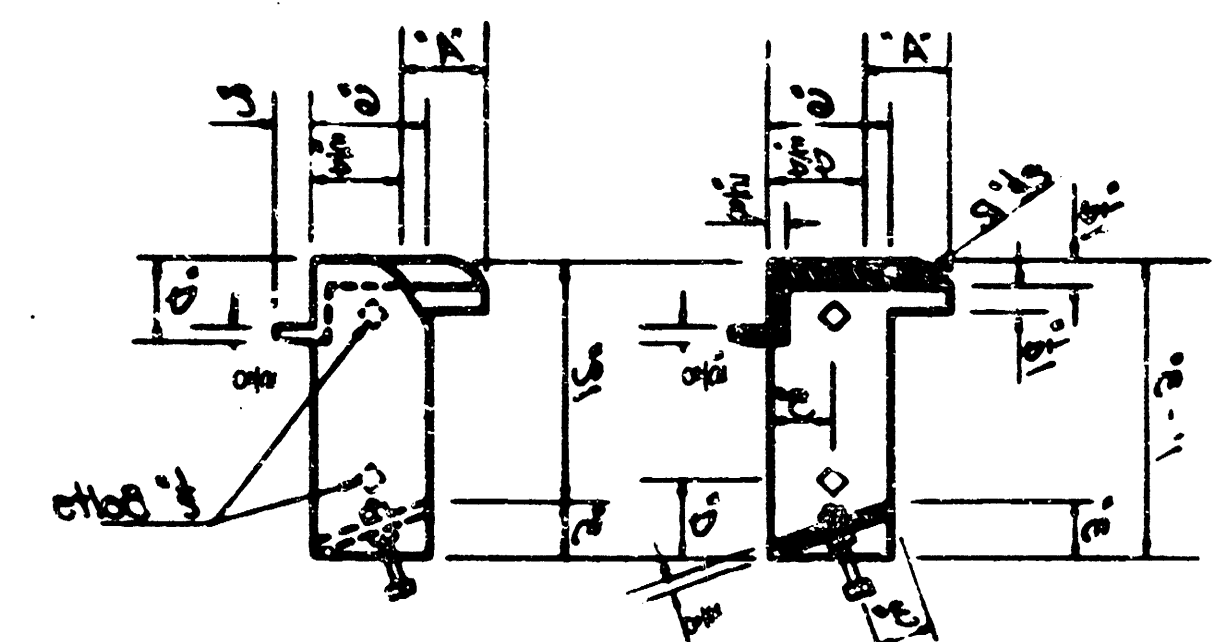
SECTION C-C



ELEVATION

END VIEW

NOTE: All bolts and nuts shall be designed
to meet the requirements of section
12.5 of the 1966 specifications.



SECTION T. CENTER

NOTE: All castings shall be
iron and shall comply with
ASTM A-48 Class 25.

DETAILS OF CURB CASTING (IRON)

FOR TYPE A-1 CASTINGS	FOR TYPE A-2 CASTINGS	FOR TYPE A-3 CASTINGS
Weight lbs 50.0	Weight lbs 50.0	Weight lbs 50.0
Volume cu ft 1.8	Volume cu ft 1.8	Volume cu ft 1.8
Reinforcing bars 4 #4	Reinforcing bars 4 #4	Reinforcing bars 4 #4

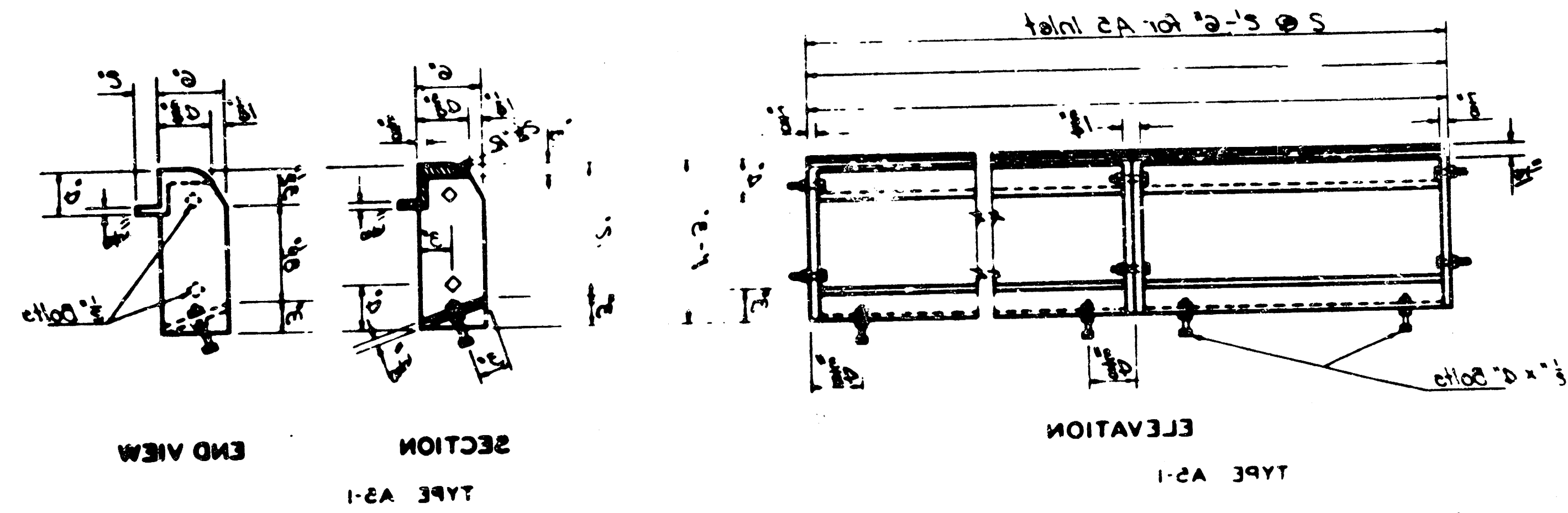
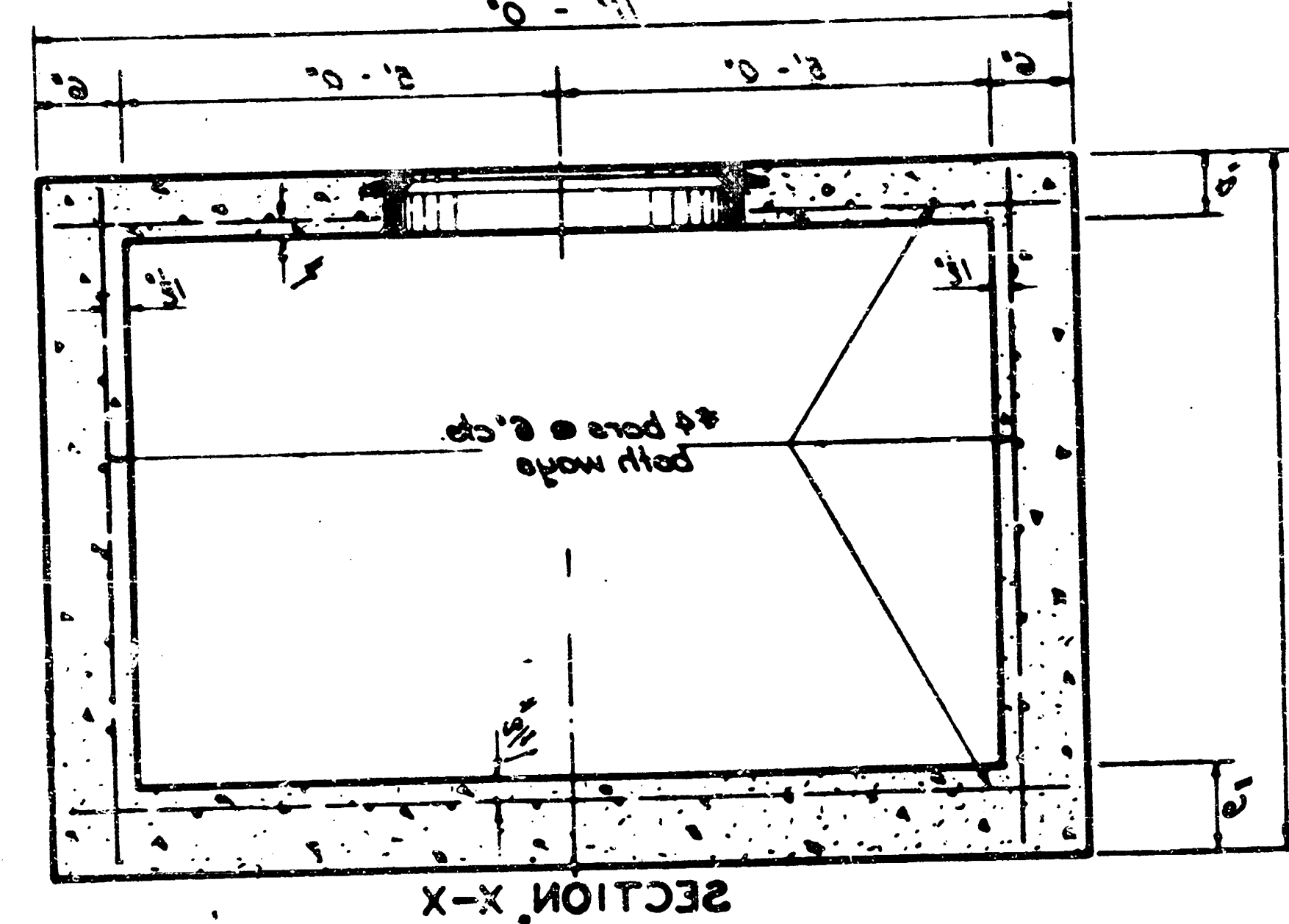
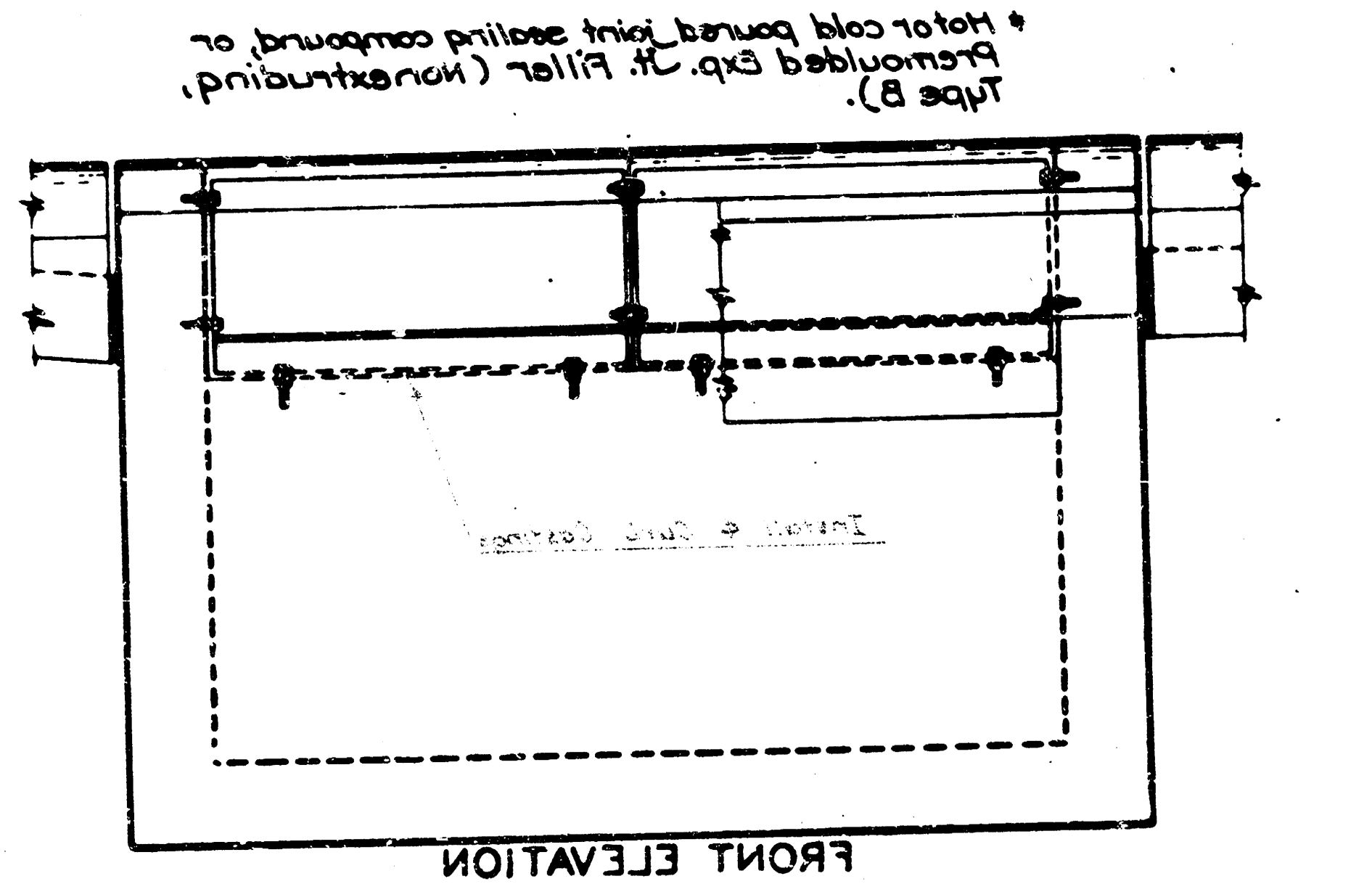
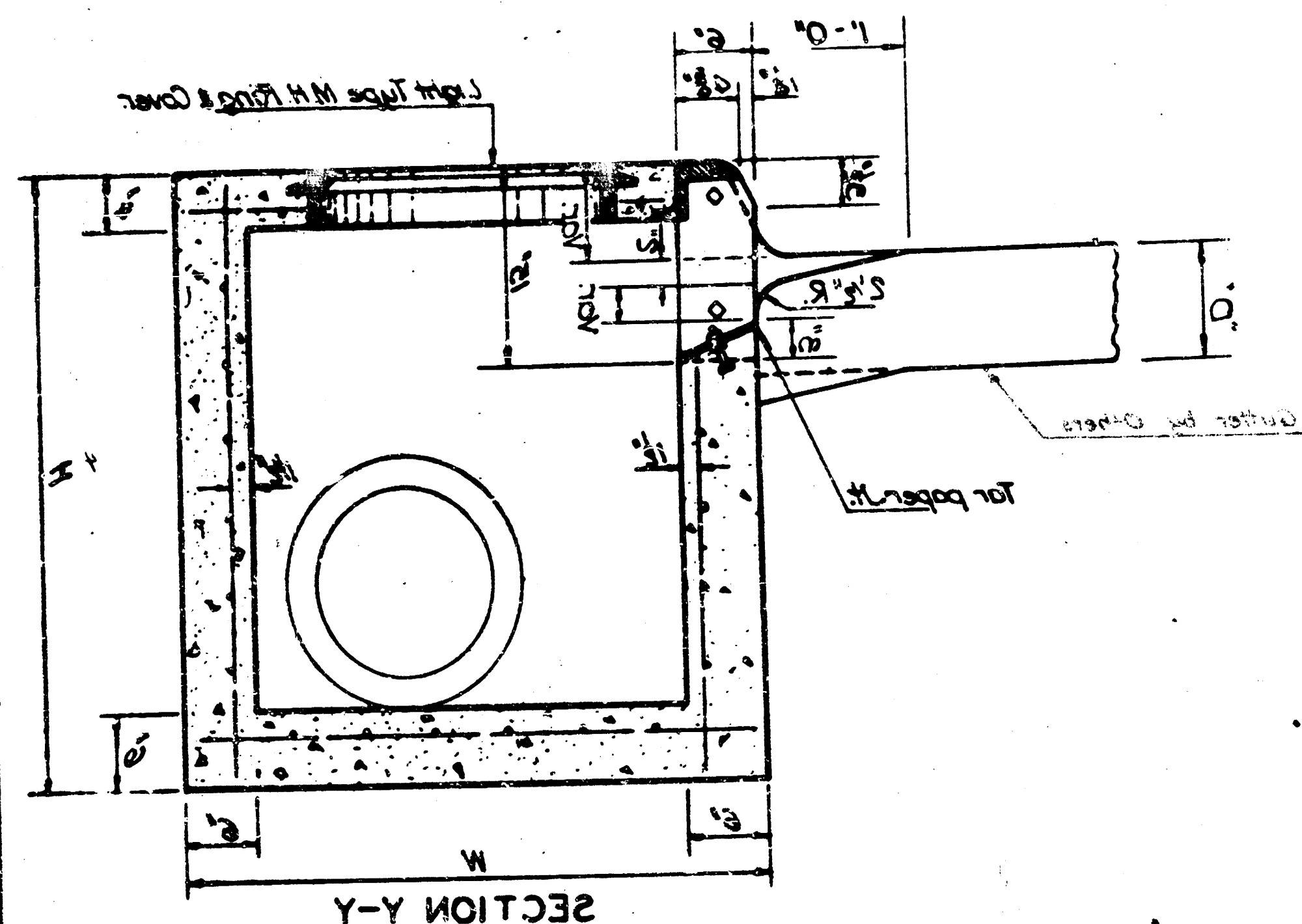
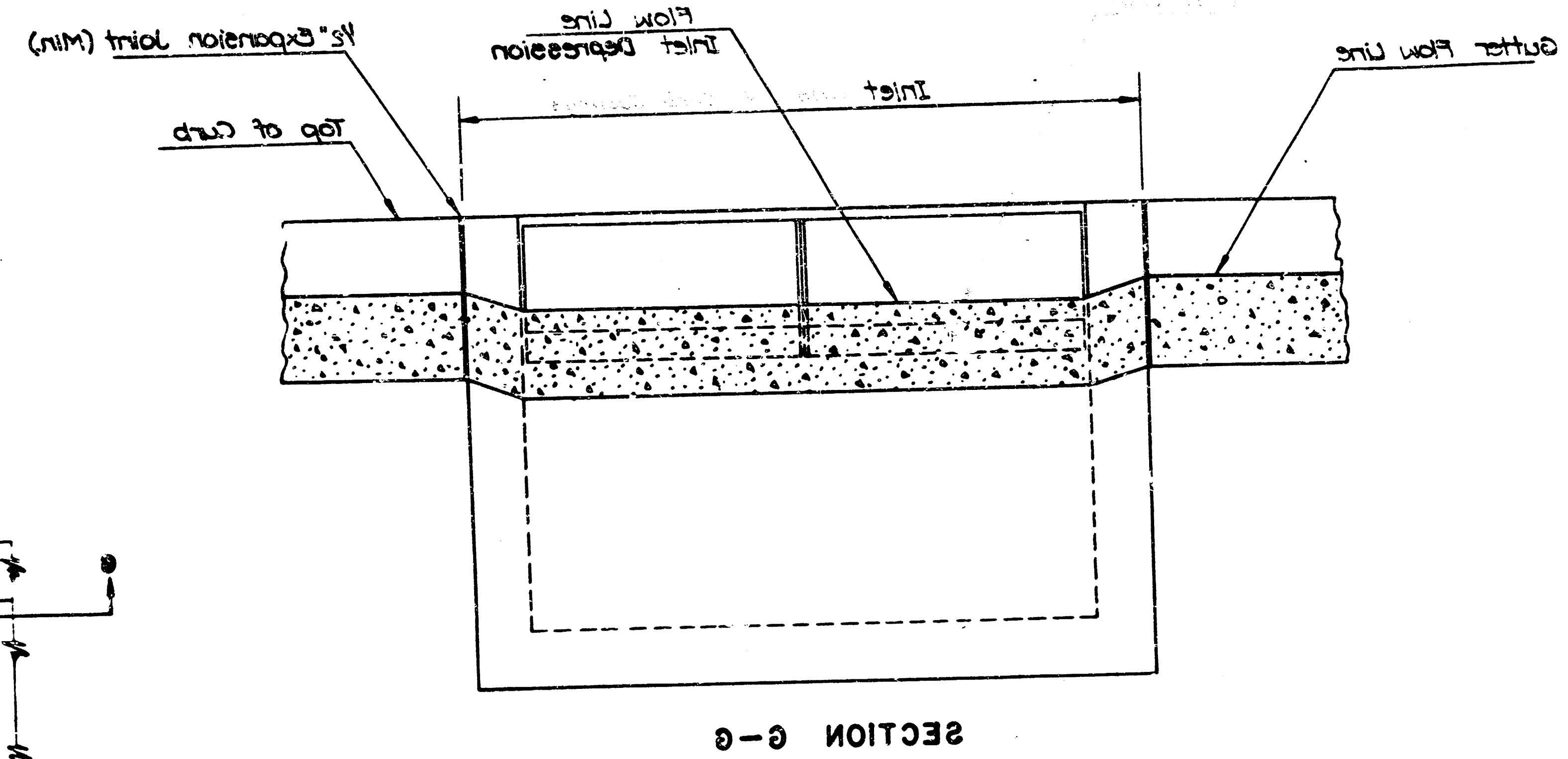
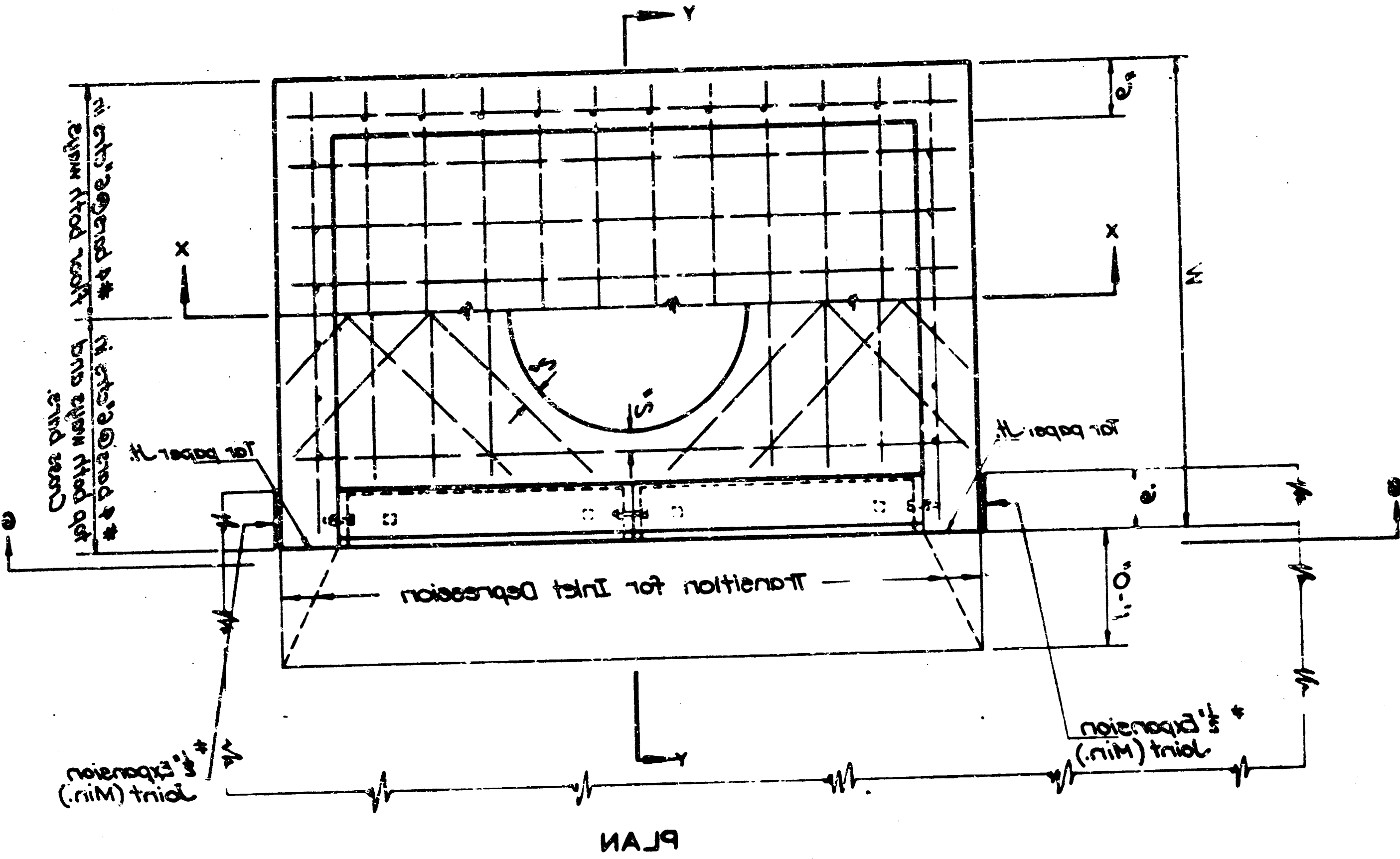
NOTE: Weights given in tables above are total weights for
Curb Castings only.
All weights of castings are calculated weights with
no allowance for fillets, overruns, or other parts
and bolts.

DIV NO	STATE	PROJECT NO	SHEET NO	TOTAL SHEETS
2	KANSAS			

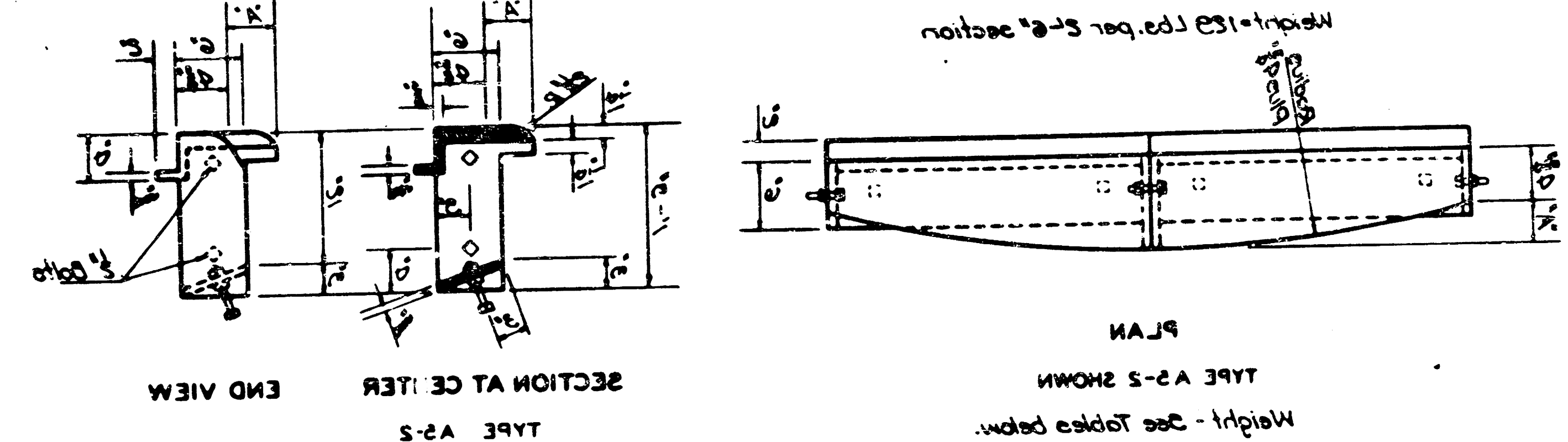
Note: Use Forming Concrete throughout. Level all exposed sides with a 3/4" finish. Reinforcing bars shall be bent around pipe. No deductions in concrete quantities shall be made for pipe openings.

At the contractor's option Class A Concrete (AC) may be used throughout, but payment shall be made as Class A Concrete. A small opening may be required in the back of the inlet to drain a low area. If ordered by the Engineer, reinforcing bars will extend through the opening. No deduction in concrete quantities will be made for this opening.

When so ordered by the Engineer the top of the inlet shall be sloped slightly to approximately fit the ground line or other conditions. All exposed cast iron surfaces shall be painted. In the shop or in the field with one coat of zinc dust paint, followed by two field coats of aluminum paint. No substitutions of design will be permitted on castings.



NOTE: All poles and nuts shall be developed to meet the requirements of end-section U-12-S of the 1966 Specifications.



DETAILS OF CURB CASTING (IRON)

FOR TYPE A-2-S CASTINGS			
Weight	50#	55#	60#
Height	10"	12"	14"
Radius	50"	55"	60"

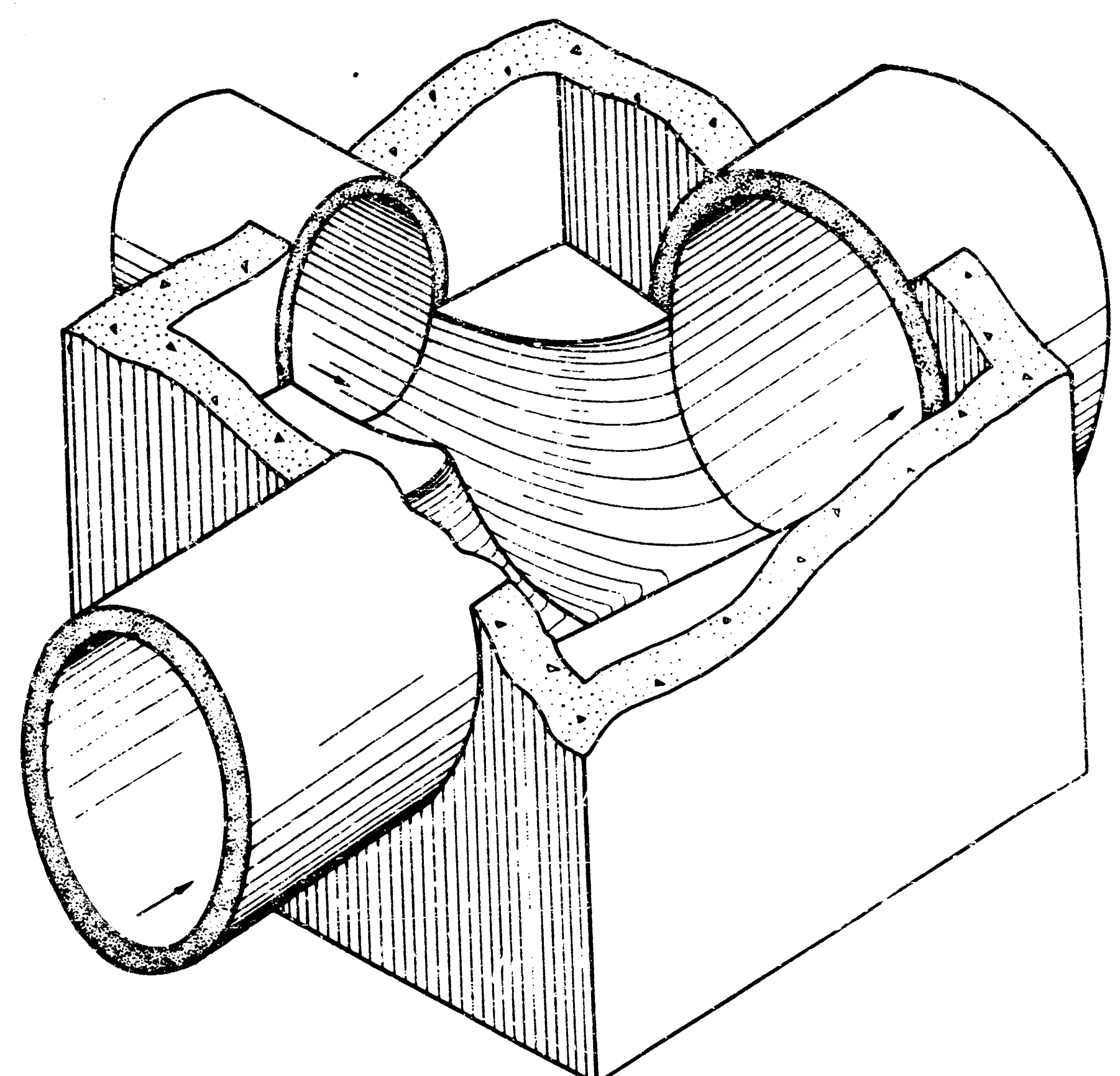
NOTE: Heights given in tables above are total weights for Curb Castings only. All weights of castings are calculated weights with no allowance for fillets, overruns, anchor bolts and poles.

Note: All castings shall be drop iron and shall comply with ASTM A-48 Class 20.

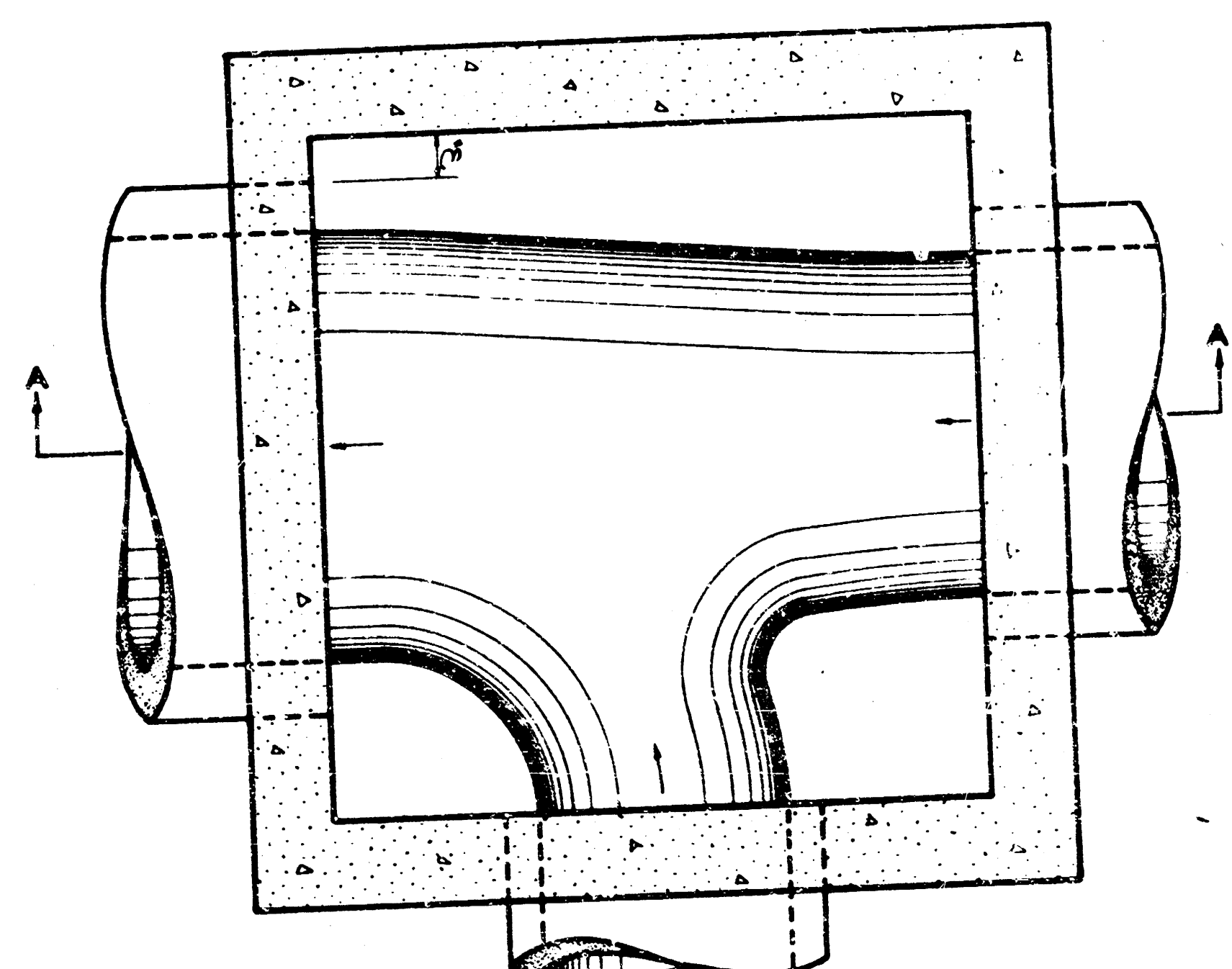
NOTE: See standard sheet for Concrete Reinforcement. This sheeting will be required for all inlets, unless otherwise noted on the plans. This work will be paid for as follows: when concrete curb and gutter is used the entire length of the spaced gutter and the curb together with the concrete under the gutter casting, shall be paid for as Combined Curb & Gutter, Type 1; when concrete curb and gutter is used the spaced curb, gutter and the edge curb, together with the concrete under the gutter casting, shall be paid for as Concrete Reinforcement, and 1/2 inch curb. See standard sheet for details of inlets, cover and ring and cast iron pipe.

Top of inlet-rim shall be sloped as shown in various "DETAILS" on Reinforced Concrete Manhole Standard, U-23. Concrete used for sheeting shall be Class A Concrete. No additional 1/2 inch Class A miscellaneous concrete quantities shall be made for 1/2 inch concrete in base of sheeting. Reinforcing bars shall be bent around pipe. No deductions in concrete quantities shall be made for pipe openings.

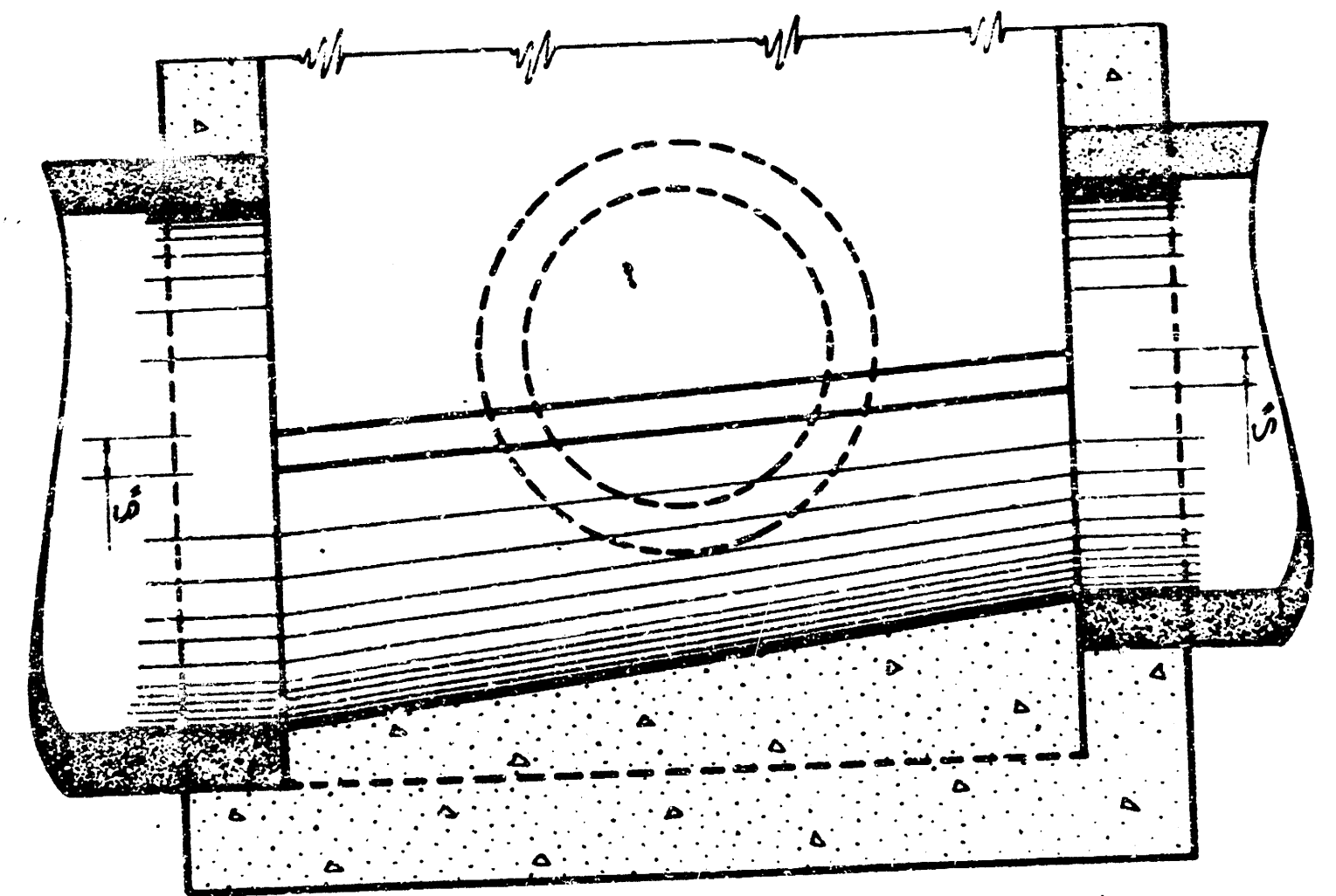
STATE HIGHWAY COMMISSION OF KANSAS
SPECIAL TYPE "A"
COMBINED INLET-MANHOLE
MODELS



SECTIONAL VIEW (EXAMPLE IV)
Showing Floor Shading

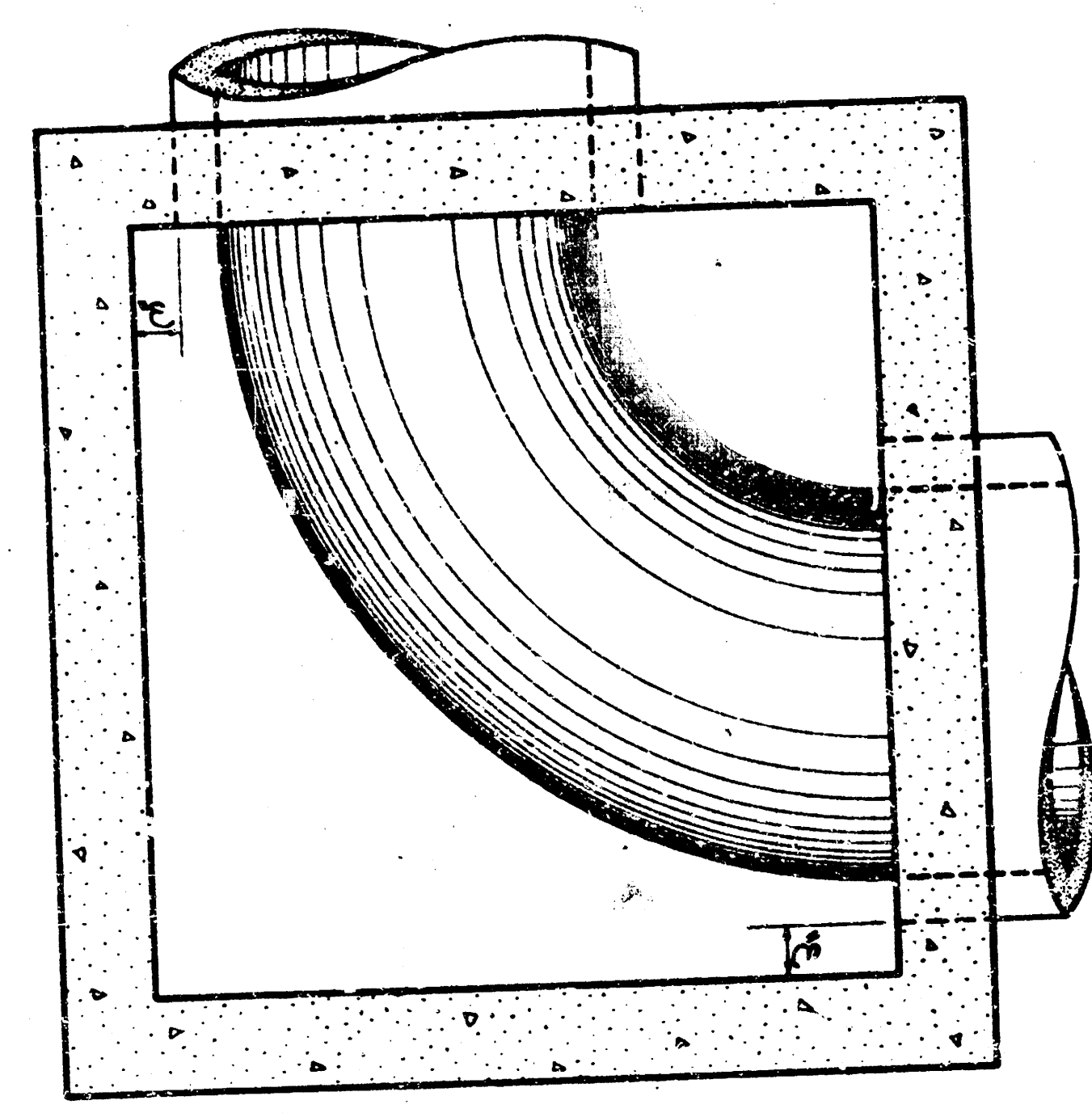


FLOOR PLAN (EXAMPLE IV)

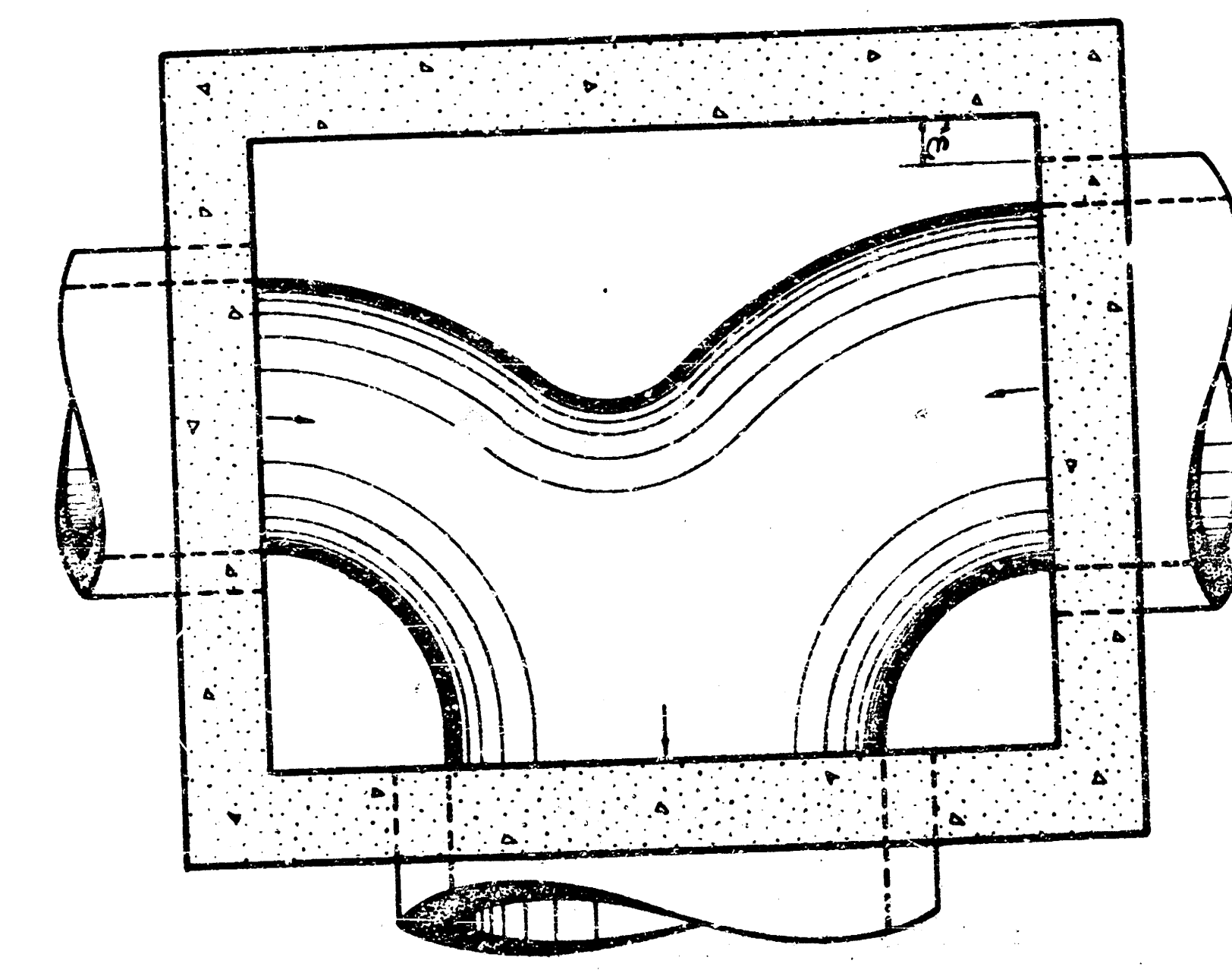


SECTION A-A (EXAMPLE IV)

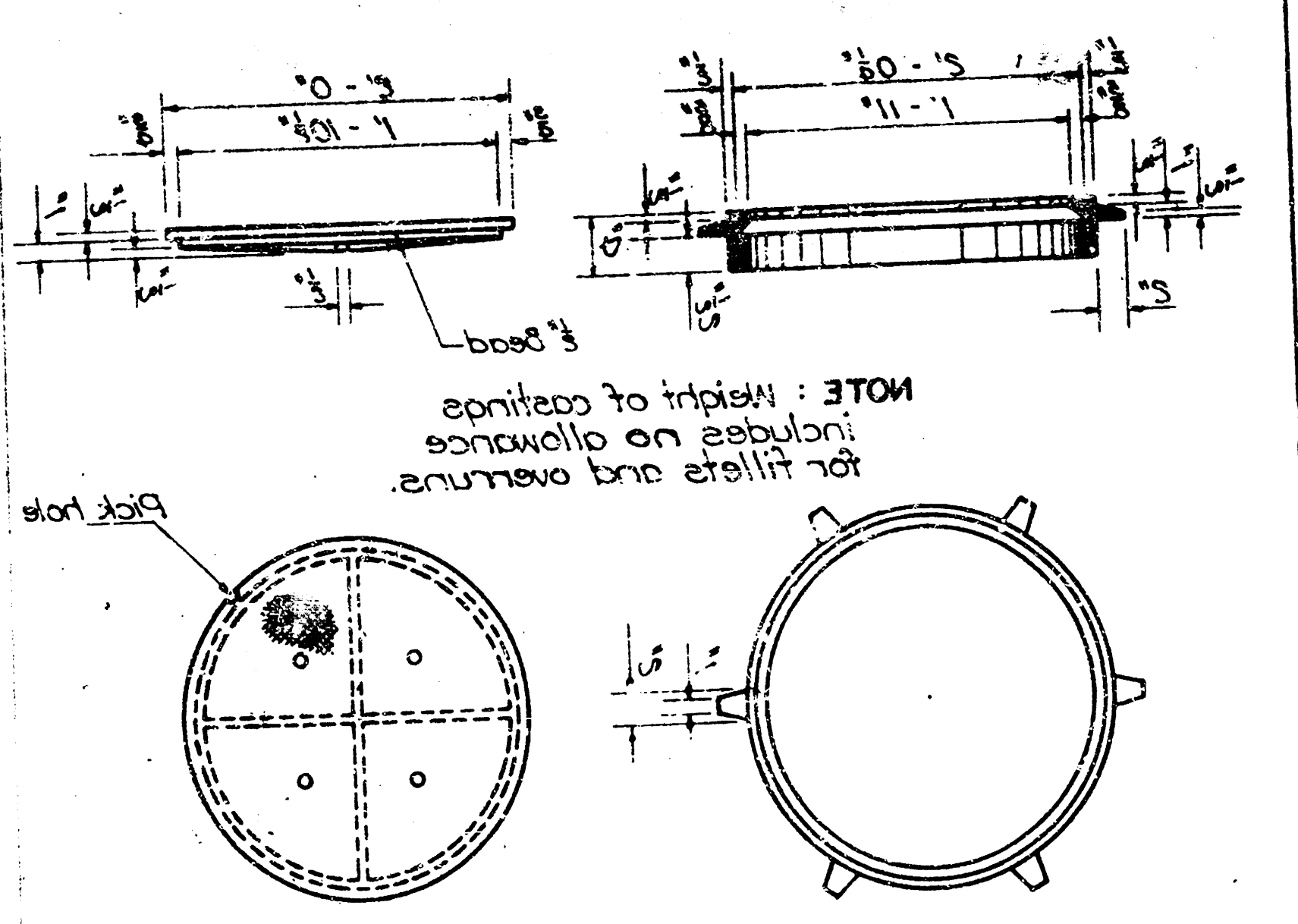
TYPICAL EXAMPLES OF VARIOUS PIPE COMBINATIONS
Showing method of grading floor of manholes to provide increased hydraulic efficiency for reinforcing & other features see "PLAN" and "SECTION".



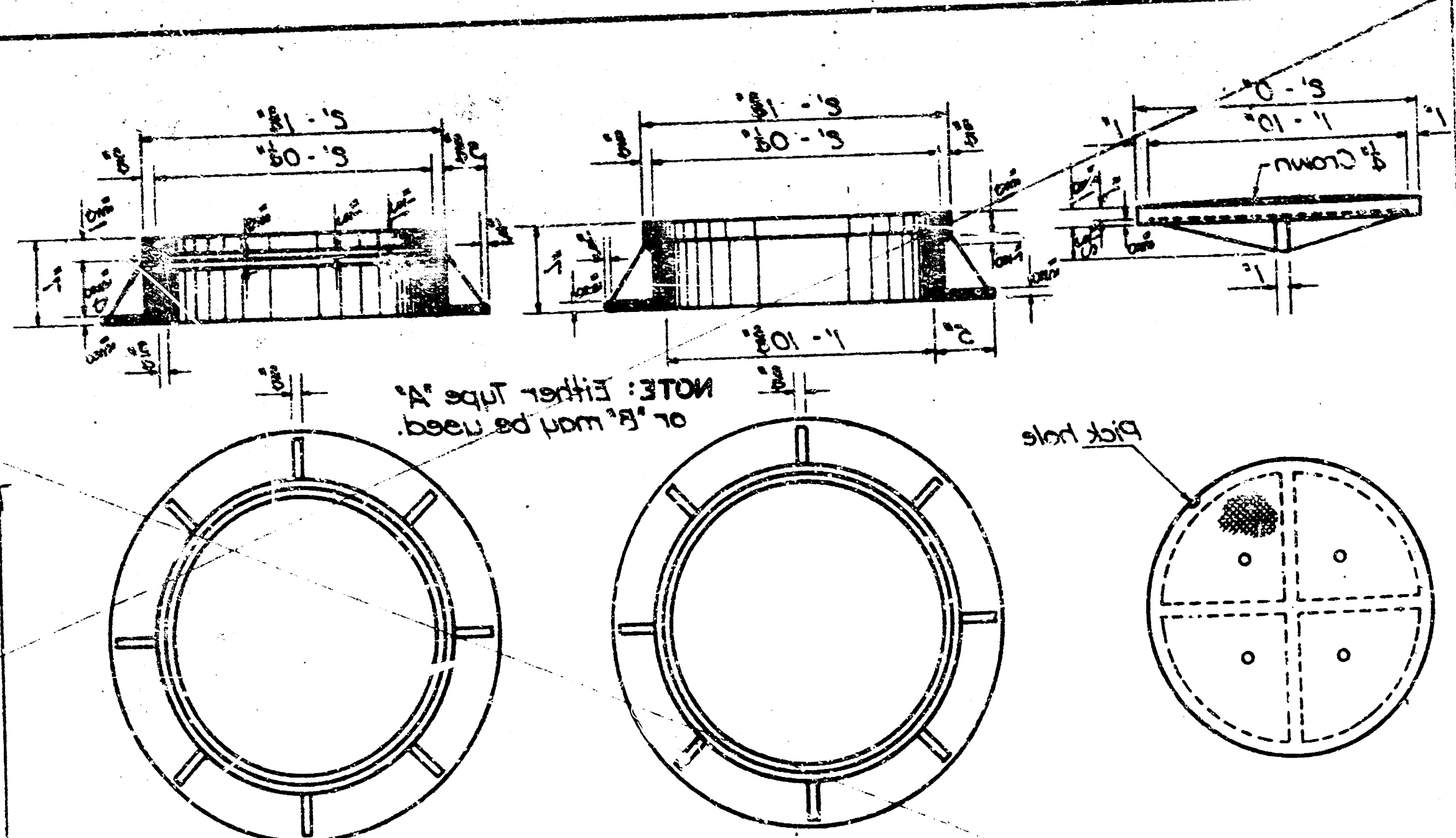
FLOOR PLAN (EXAMPLE II)



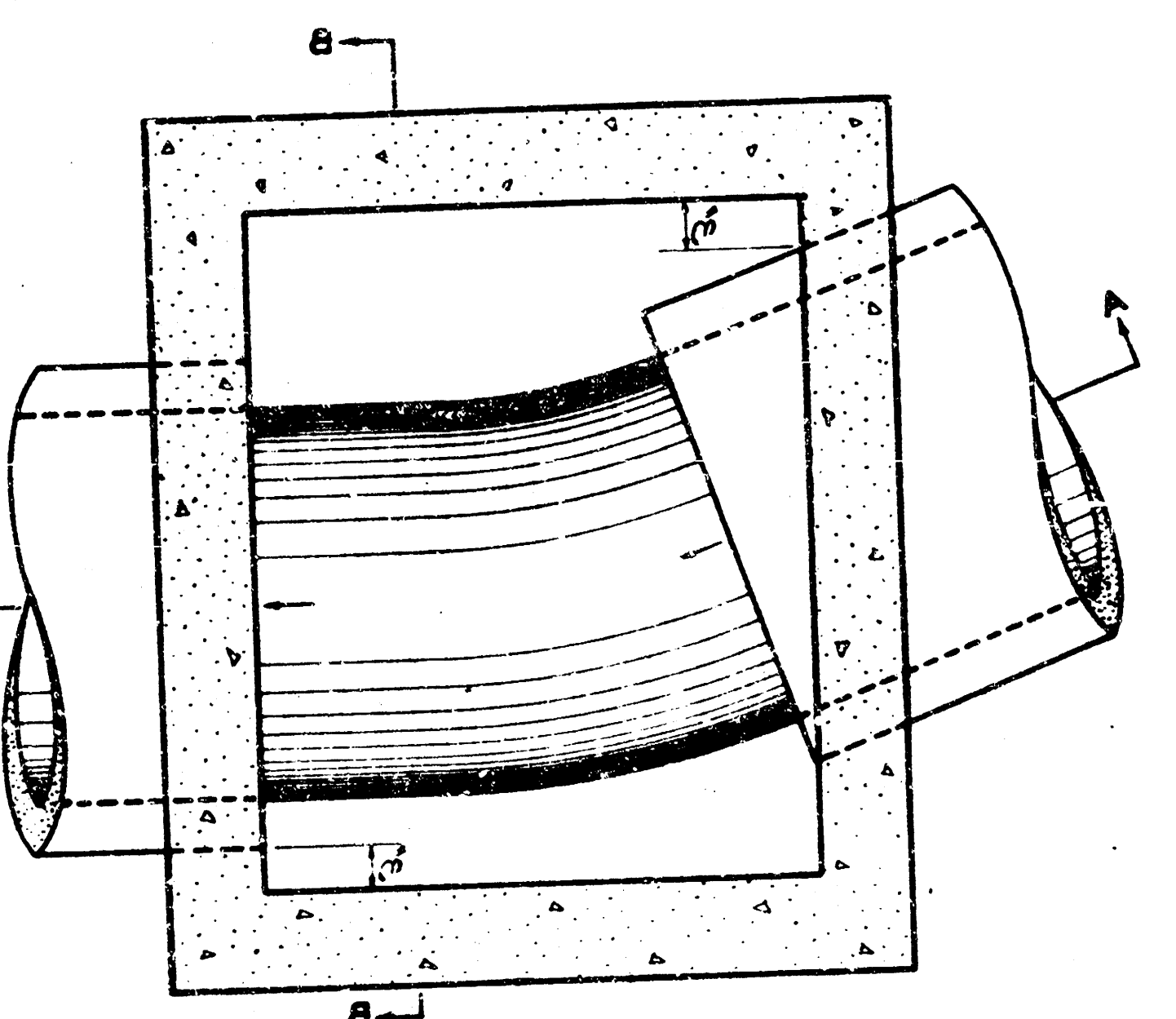
FLOOR PLAN (EXAMPLE III)



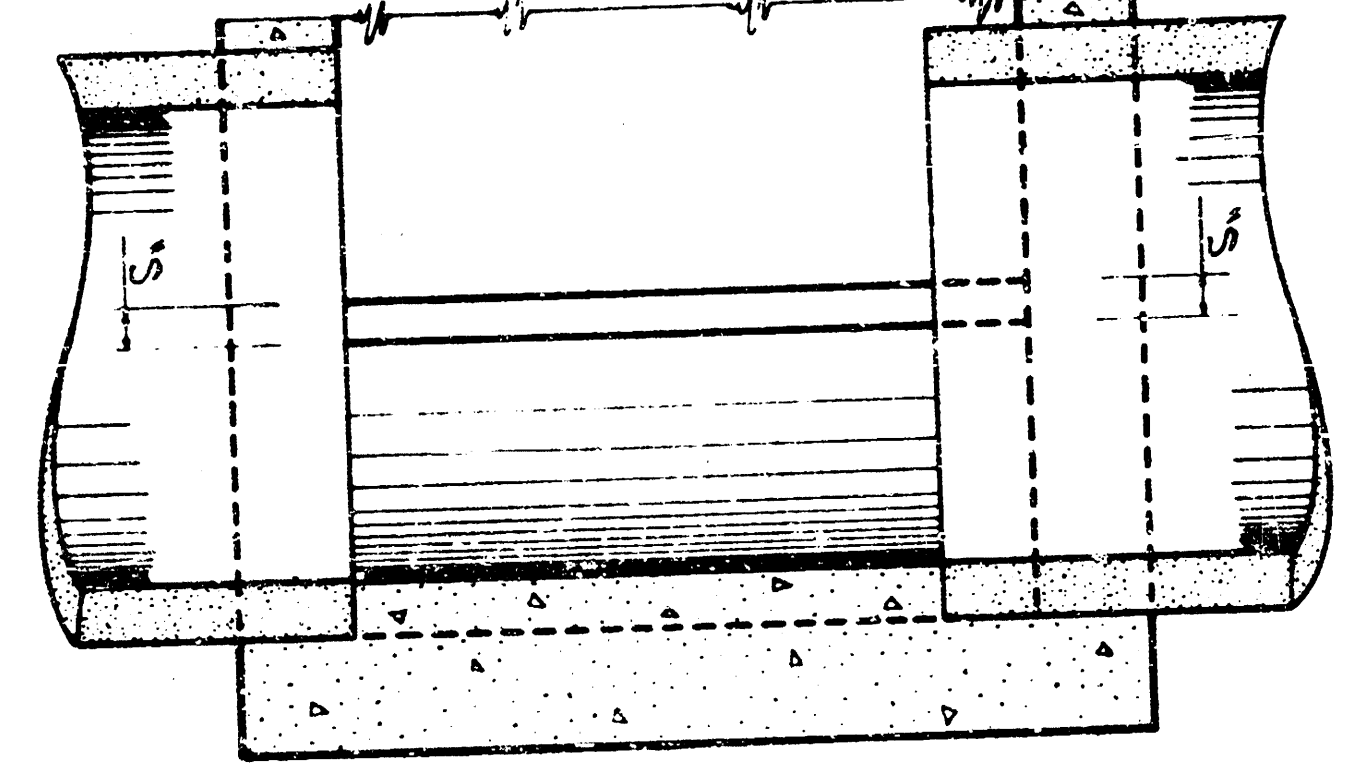
LIGHT TYPE MANHOLE COVER & RING
Weight - 23 lbs.
CAST IRON MANHOLE RING
Weight - 48 lbs.
CAST IRON MANHOLE COVER
Weight - 134 lbs.



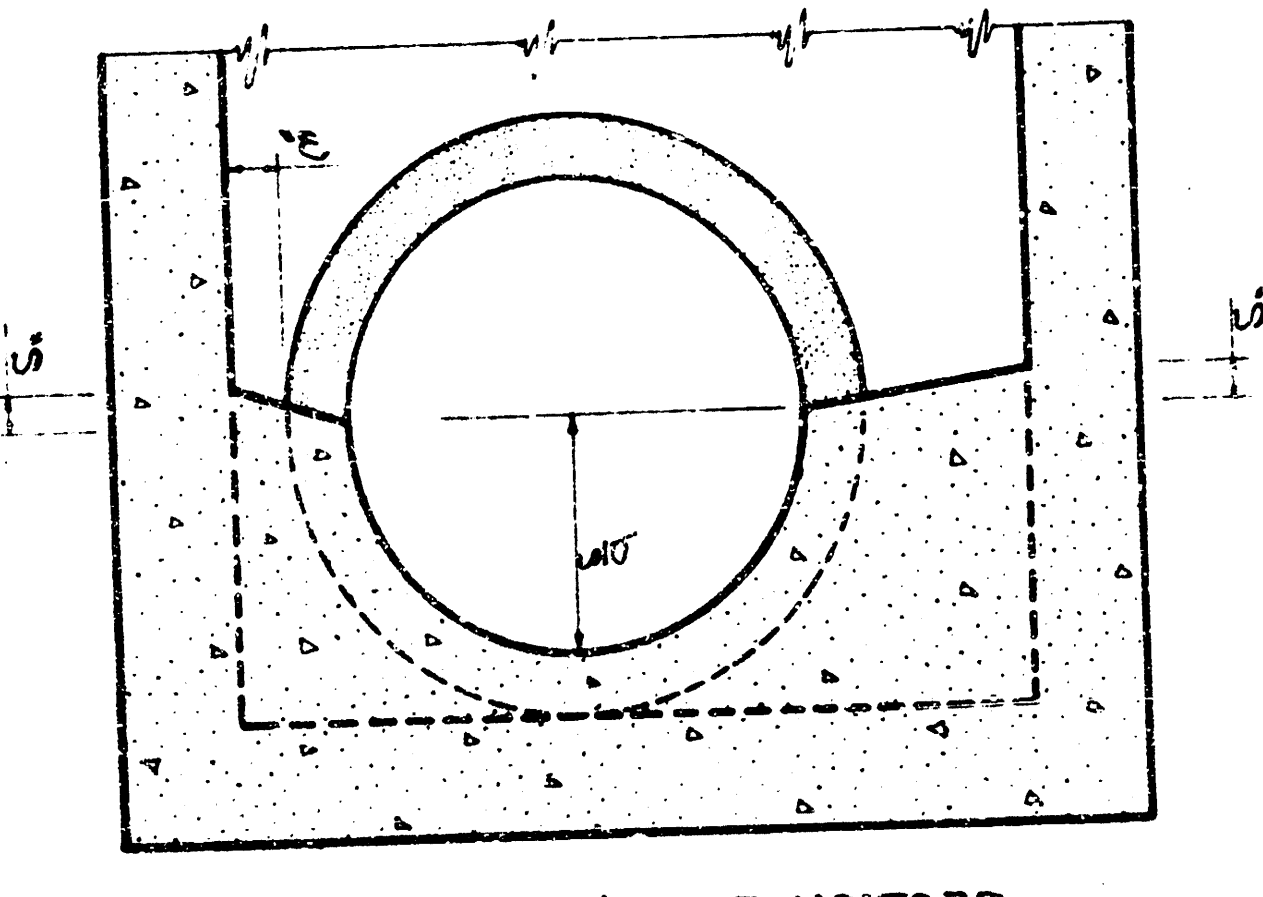
HEAVY TYPE MANHOLE COVER & RING
Weight - 128 lbs.
CAST IRON MANHOLE RING
Weight - 125 lbs.
CAST IRON MANHOLE COVER
Weight - 134 lbs.



SECTION A-A (EXAMPLE I)

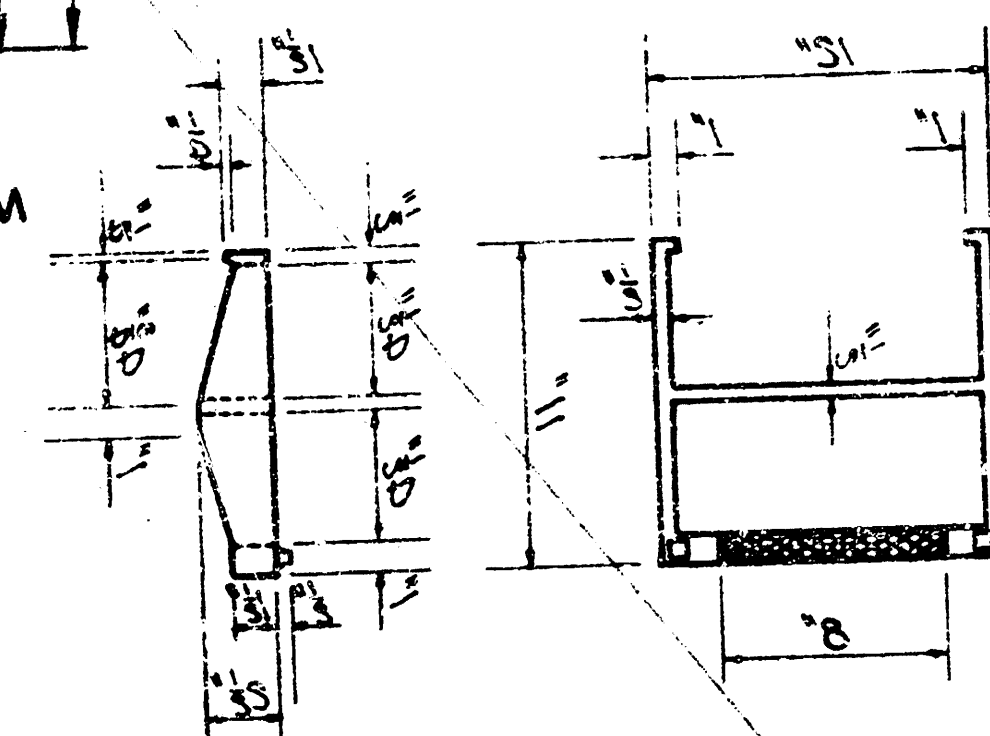


SECTION B-B (EXAMPLE I)

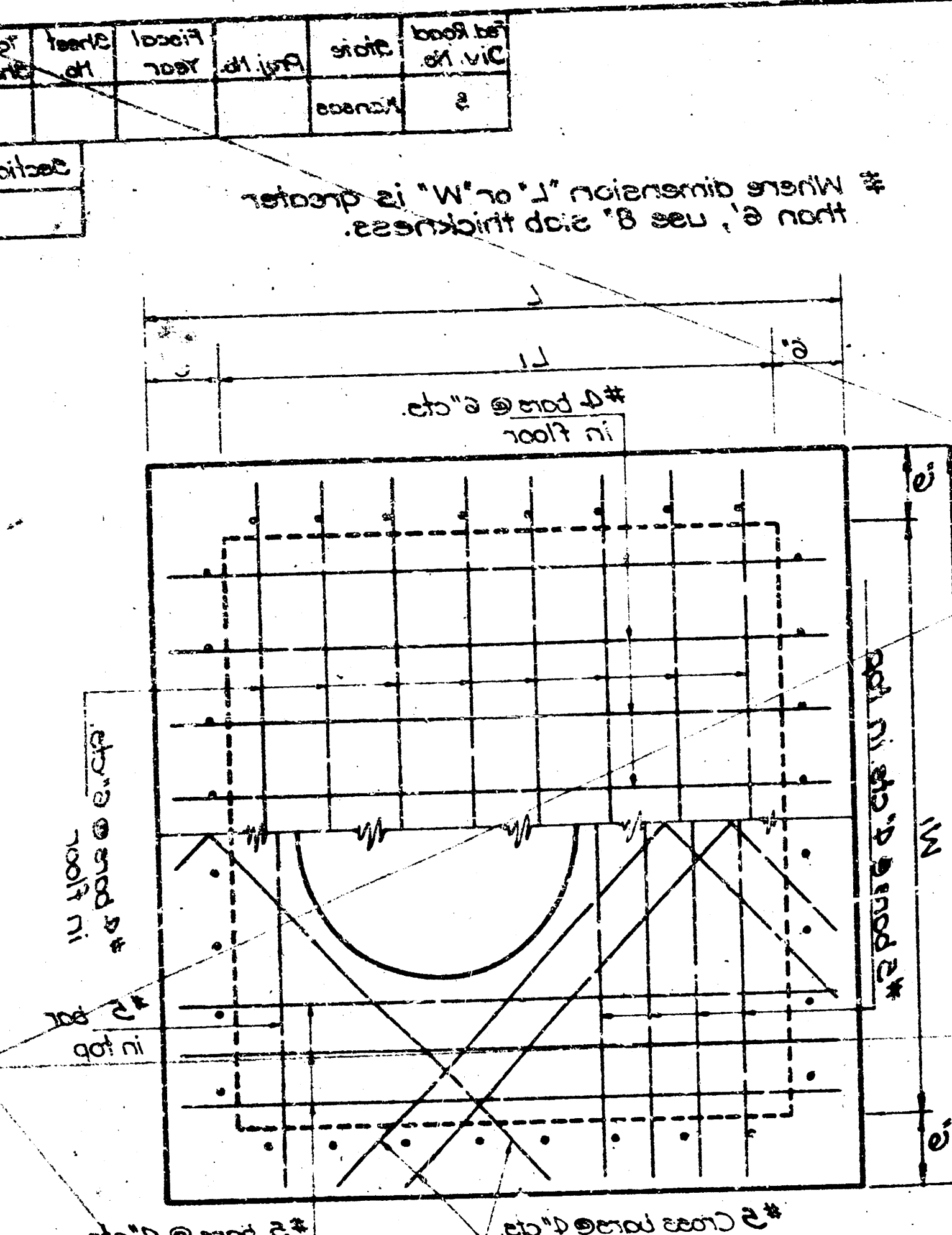


FLOOR PLAN (EXAMPLE I)

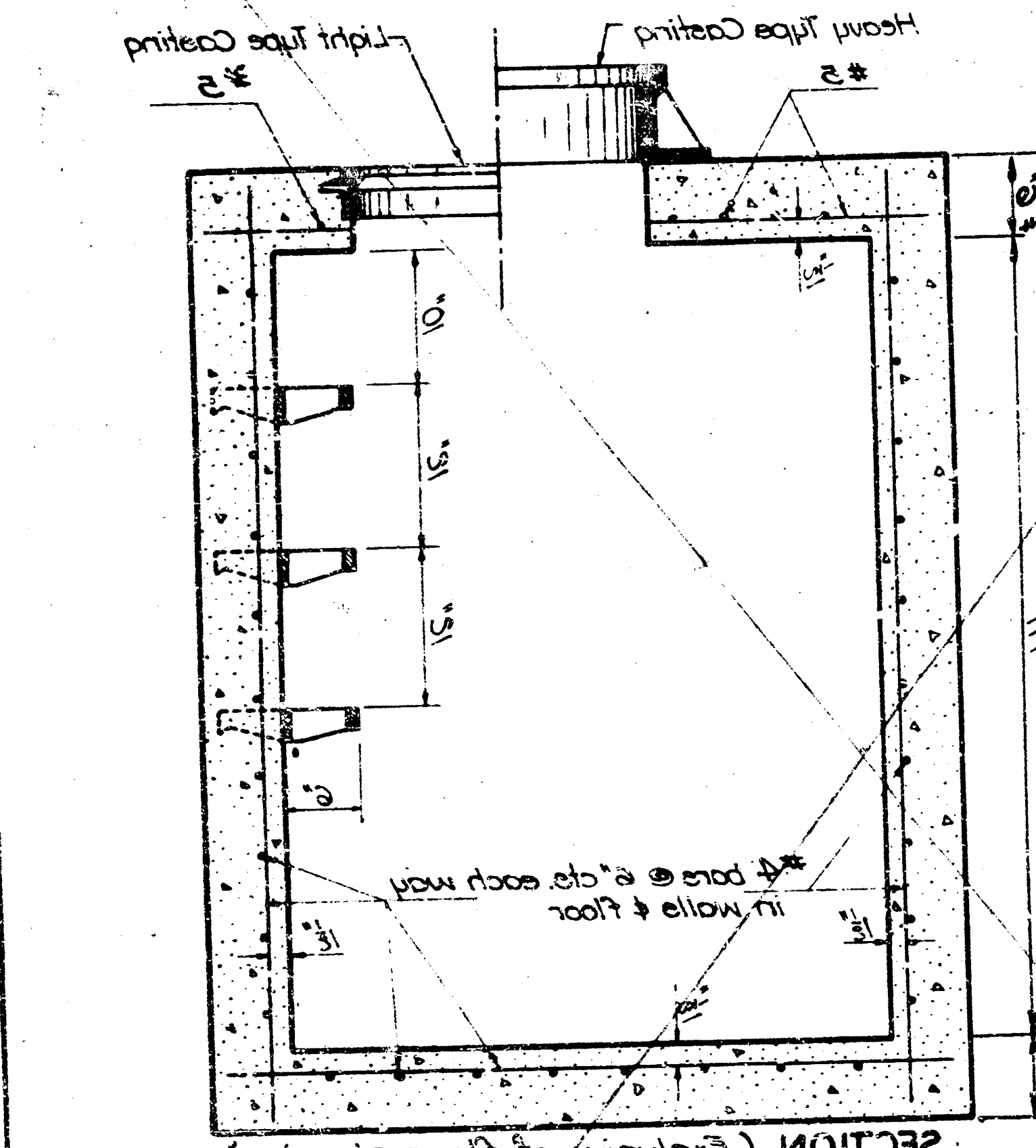
NOTE: Class A concrete to be used throughout, level all exposed edges with a 1/2" round bar. At the corners of the concrete (A) may be used first, but concrete shall be made in Class A concrete. In general, pipes will enter and leave the manhole at various positions. Where possible, bend pipes around pipes. Floor of manhole to be shown as shown in various examples. Manhole opening and steps where used shall be placed to afford easy access to top of manhole. Top of manhole shall be shown in accordance with Class A concrete. All castings shall be cast iron and shall comply with ASTM A-153, Class 25. All exposed cast iron surfaces (rings & covers) not subject to traffic, shall be painted either in the shop or in the field with one coat of zinc dust paint or followed by two field coats of aluminum paint. No deductions in concrete quantities shall be made for pipe openings in concrete. No additions in concrete quantities shall be made for draining floor or manholes. Manholes ordered by the engineer, the top of the manhole shall be placed slightly to approximately fit the ground line or other conditions.



CAST IRON STEP
Weight - 14 lbs.
Scale - 1/4" = 1'
NOTE: Steps not to be used where 'H' is less than 6 feet.



PLAN



SECTION (Exclusive of floor shading)

Note: Contractor has the option of using pre-cast manholes, as approved by the engineer (see Spec. for Provision). Payment of quantities shall be on a cor. in place basis.

STANDARD NO. 633	DESIGNED BY: J. H. B. (10/25/50)	SCALE: 1/4" = 1'
REINFORCED CONCRETE MANHOLE	STATE HIGHWAY COMMISSION OF KANSAS	DATE: 10/25/50
NO. 1	REVISIONS	1. 3-26-50 Class A concrete
1. 3-26-50 Class A concrete	2. 3-26-50 Class A concrete	3. 3-26-50 Class A concrete