

PRIVATE STORM WATER AND SANITARY SEWER PLANS

BUILDER'S SQUARE

STORE No. 1320

PRIVATE PROJECT NO. 326 PPS (607861)

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, CITY ENGINEER

GENERAL NOTES

- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE-CALL 1-800-344-7233
OR 687-2470 (LOCAL WICHITA)

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF EMERGENCY:

SOUTHWESTERN BELL TELEPHONE COMPANY	1-571-2115
CABLEVISION	262-4270 OR 263-2061
KPL GAS SERVICE COMPANY	263-7511
KANSAS GAS & ELECTRIC	264-1141
CITY OF WICHITA WATER DEPARTMENT	268-4908

- UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.

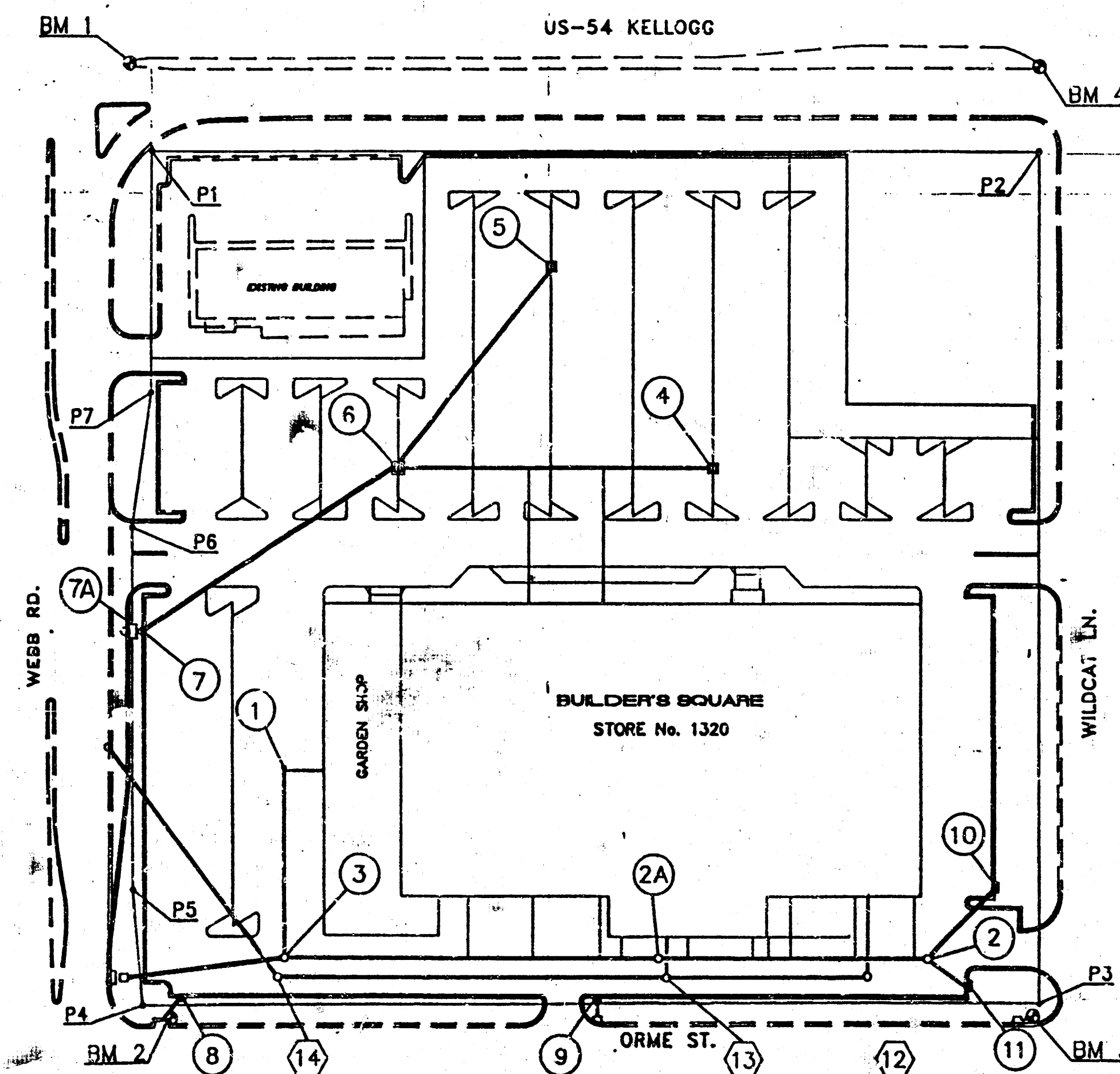
- COST OF EXCAVATION, HAULING, AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO THE PROJECT.

- A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUND AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUNDS SHALL BE CONSTRUCTED WITH A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP OF THE MANHOLE.

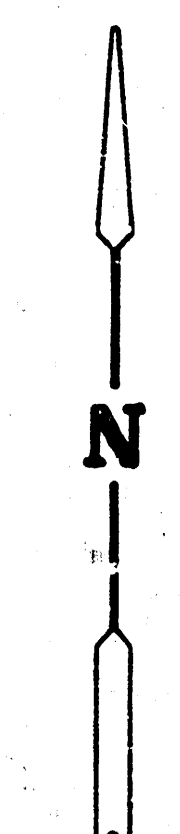
- ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE FASTENED TO THE END OF THE PIPE AND EXTENDED TO THE GROUND SURFACE AS THE EXCAVATION IS BACKFILLED, SUCH THAT THE COLORED TAPE IS VISIBLE WHEN THE PROJECT IS COMPLETED. THE ENDS OF THE PIPES SHALL BE CAPPED OR PLUGGED USING FITTINGS FURNISHED BY THE MANUFACTURER OF THE PIPE.

- WHERE CONNECTING TO AN EXISTING MANHOLE, THE CONTRACTOR SHALL RESHAPE THE EXISTING MANHOLE INVERT TO PROVIDE SMOOTH FLOW. THE COST OF RESHAPING EXISTING MANHOLE INVERTS IS INCIDENTAL TO THE PROJECT.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL BE REQUESTED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.



SCALE: 1"=100'



HORIZONTAL CONTROL			
NO.	DESCRIPTION	NORTH	EAST
1	N.W. Prop. Cor. (Iron Pin)	4920.998	1075.000
2	N.E. Prop. Cor. (Iron Pin)	4921.765	1075.144
3	S.E. Prop. Cor. (Iron Pin)	4291.787	1175.988
4	S.W. Prop. Cor. (Iron Pin)	4288.194	1087.338
5	Prop. Cor. / W. Line (Iron Pin)	4373.389	1060.000
6	Prop. Cor. / W. Line (Cross)	4840.709	1080.000
7	Prop. Cor. / W. Line (Cross)	4740.858	1075.000
8	Storm Sewer Cleanout	4463.891	1177.859
9	Storm Sewer Manhole	4324.450	11673.017
10	Storm Sewer Manhole	4324.215	11465.017
11	Storm Sewer Manhole	4323.891	11778.017
12	Storm Sewer Area Inlet	4685.261	11505.203
13	Storm Sewer Area Inlet	4835.125	1385.203
14	Storm Sewer Area Inlet	4694.989	1285.203
15	Storm Sewer Inlet Manhole	4564.277	1087.748
16	Storm Sew. Curb Inlet Type IA	4554.270	1060.893
17	Storm Sewer Curb Inlet	4294.842	1087.550
18	Storm Sewer Curb Inlet	4295.206	1420.108
19	Storm Sewer Curb Inlet	4375.945	1171.916
20	Storm Sewer Curb Inlet	4333.984	1170.949
21	Sanitary Sewer Manhole	4309.399	1628.034
22	Sanitary Sewer Manhole	4309.222	1471.534
23	Sanitary Sewer Manhole	4308.685	1173.534

BENCH MARKS

BENCH MARK ELEVATION CONVERSION TO CITY DATUM = ELEVATION SHOWN - 1187.4

- BM No. 1 "C" CUT ON NOSE IN KELLOGG MEDIAN ON EAST SIDE OF WEBB ROAD ELEVATION 1368.465 N 4986.054, E 1057.783
- BM No. 2 "C" CUT ON NE CORNER OF EAST INLET ON NE CORNER OF ORME & WEBB ELEVATION 1365.725 N 4278.688, E 1089.024
- BM No. 3 "C" CUT ON NE CORNER OF EAST INLET ON NW CORNER OF ORME & WILDCAT ELEVATION 1369.080 N 4282.604, E 1751.177
- BM No. 4 "C" CUT ON TC NOSE MEDIAN IN KELLOGG ON WEST SIDE OF WILDCAT LN. ELEVATION 1372.730 N 4985.419, E 1755.218

APPROVED AS NOTED
BY CITY ENGINEERING OF WICHITA

SANITARY SEWERS VRH 3/19/92

STORM SEWERS VRH 3/19/92

DRIVEWAY APPROACHES _____

WATER MAINS _____

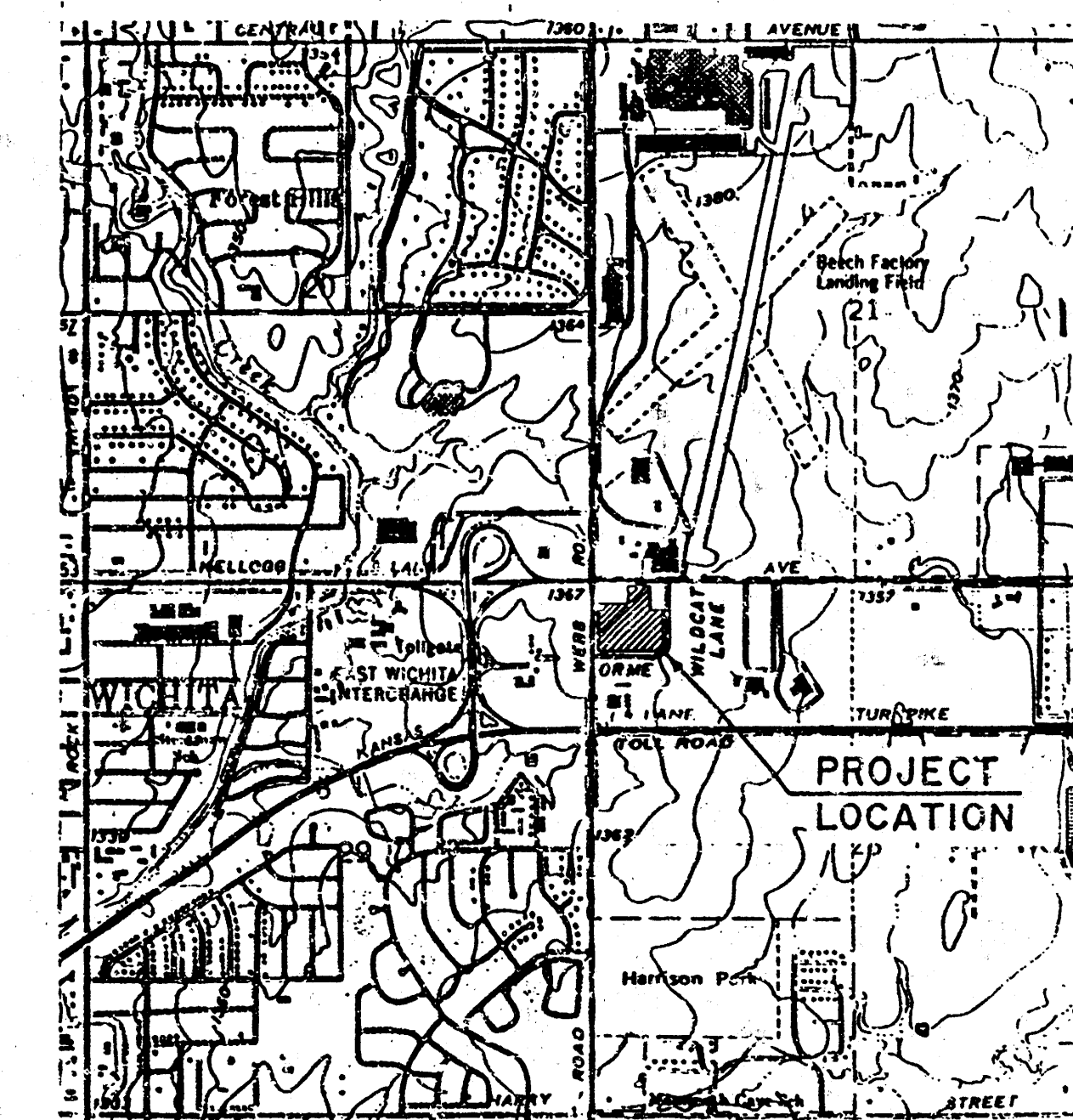
PAVING _____

NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-4	STORM SEWER PLAN/ PROFILE
5	SANITARY SEWER PLAN/ PROFILE
6-7	MISCELLANEOUS DETAILS
8	STANDARD TYPE IA CURB INLET



LOCATION MAP

AS BUILT 7-31-92

BUILDER'S SQUARE
STORE No. 1320

STORM WATER

AND

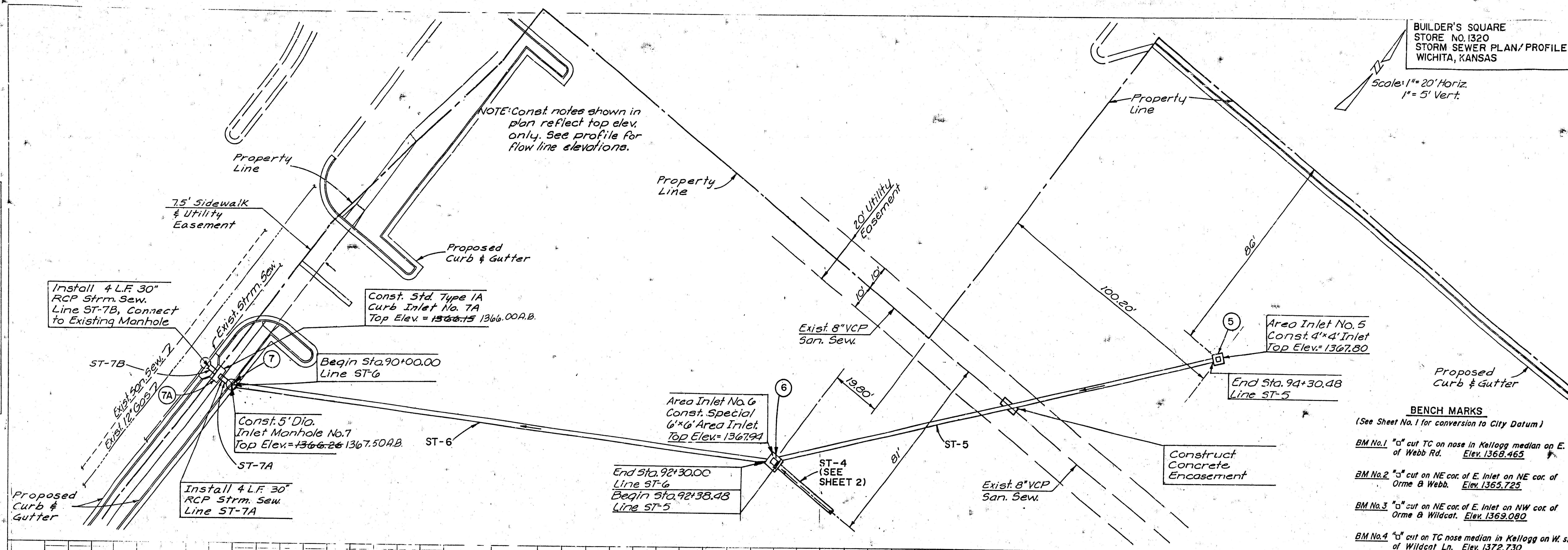
SANITARY SEWER PLANS

WHITE, MARTIN & ASSOCIATES, INC.
ENGINEERING CONSULTANTS
1725 S.W. GAGE BOULEVARD PH. (913) 271-7100
TOPEKA, KANSAS 66604 FAX (913) 271-8108

Design MAM
Drawn by DMS
checked by
Date FEB 1992
Job no. 91-23-03
Sheet 1 of 8

BUILDER'S SQUARE
STORE NO. 1320
STORM SEWER PLAN/PROFILE
WICHITA, KANSAS

Scale: 1" = 20' Horiz.
1" = 5' Vert.



BENCH MARKS

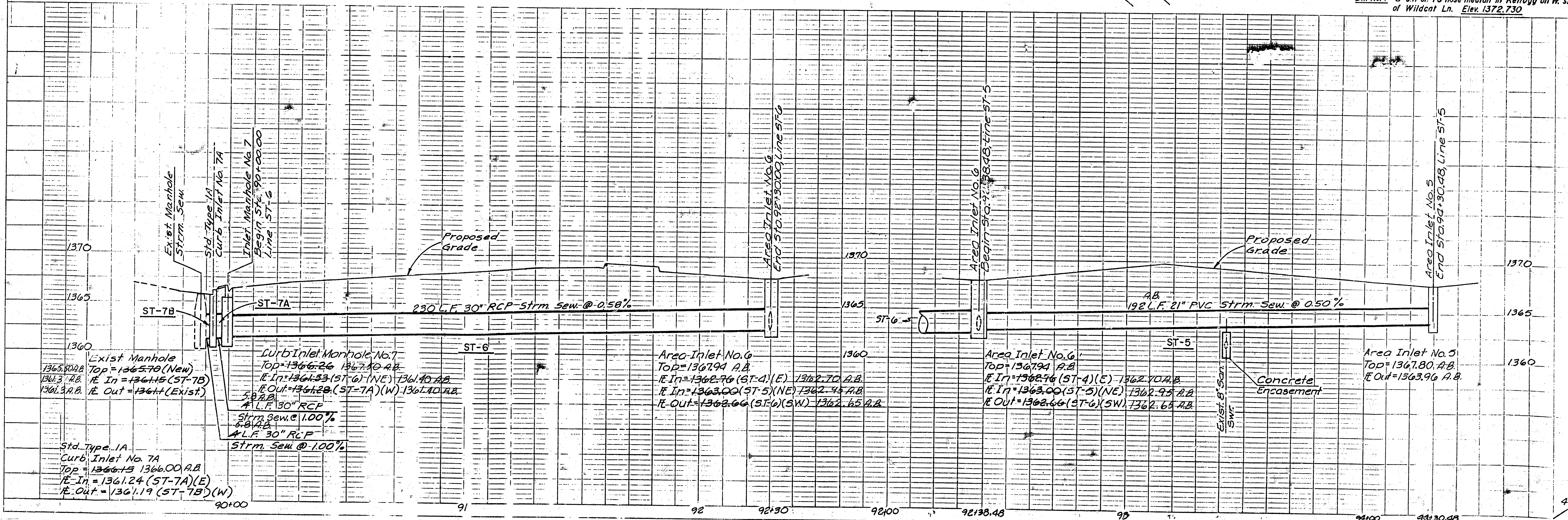
(See Sheet No. 1 for conversion to City Datum)

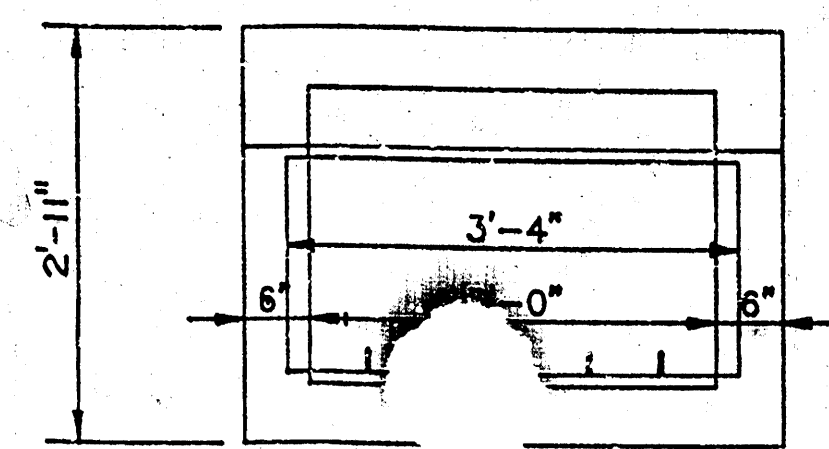
BM No. 1 "a" cut TC on nose in Kellogg median on E. side of Webb Rd. Elev. 1368.463

BM No. 2 "a" cut on NE cor. of E. Inlet on NE cor. of Orme & Webb. Elev. 1363.725

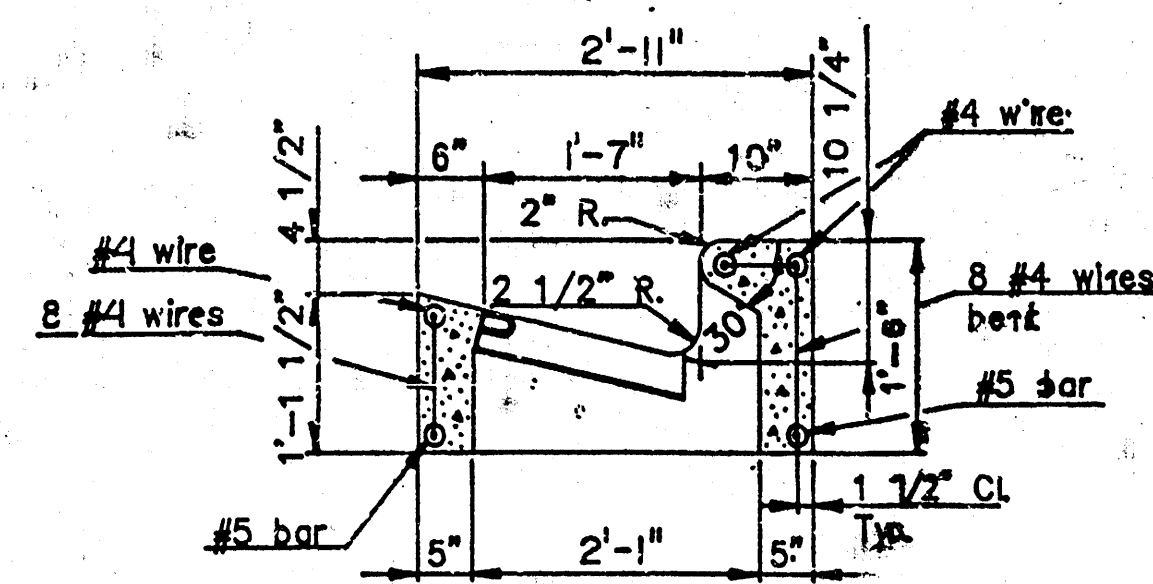
BM No. 3 "a" cut on NE cor. of E. Inlet on NW cor. of Orme & Wildcat. Elev. 1369.080

BM No. 4 "a" cut on TC nose median in Kellogg on W. side of Wildcat Ln. Elev. 1372.730

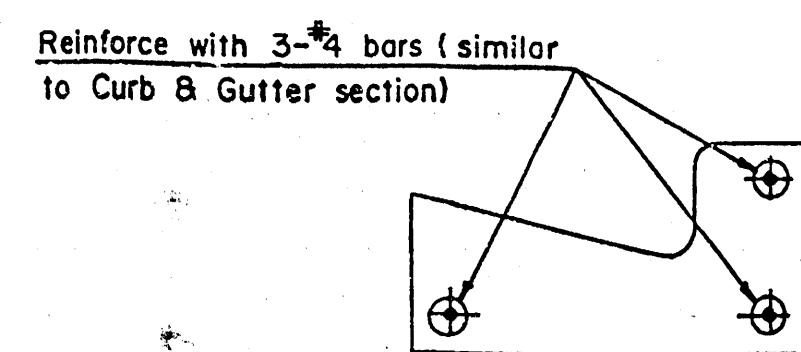




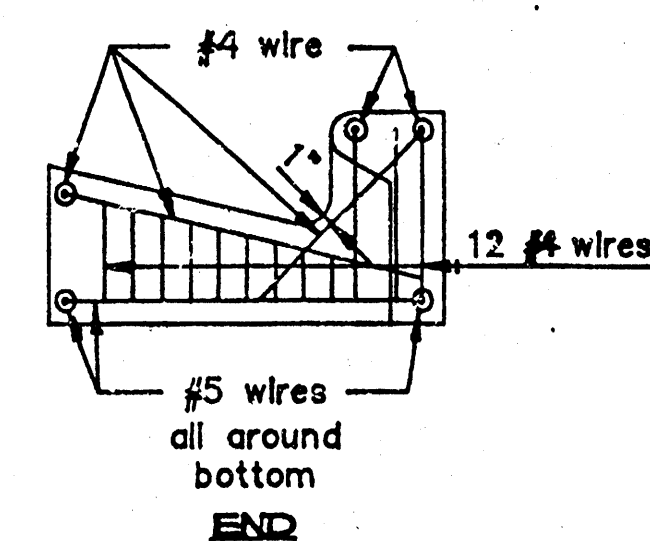
PLAN



SECTION

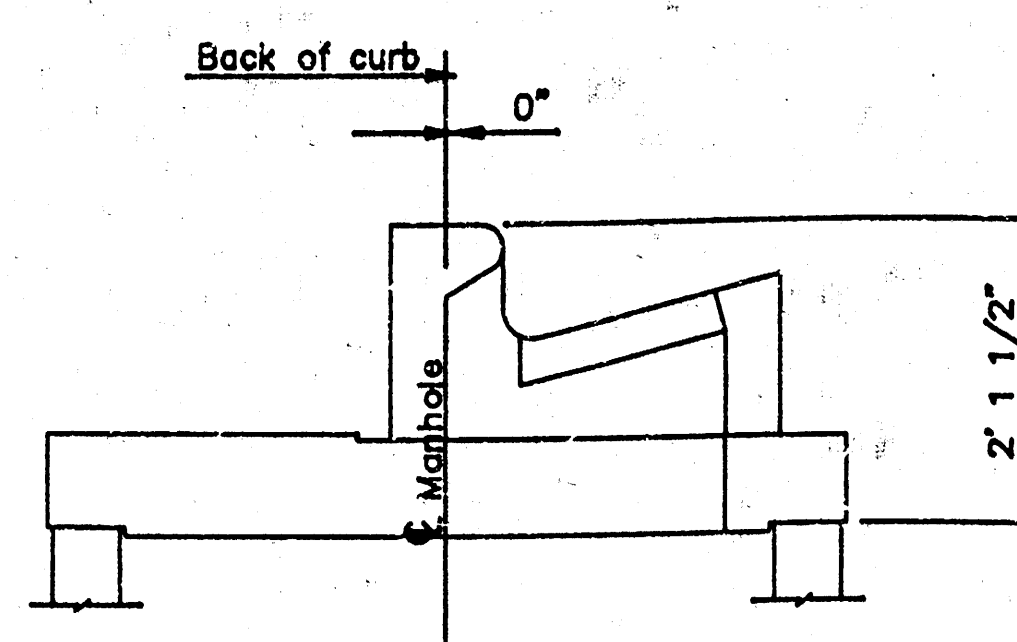


SECTION SHOWING REINFORCING

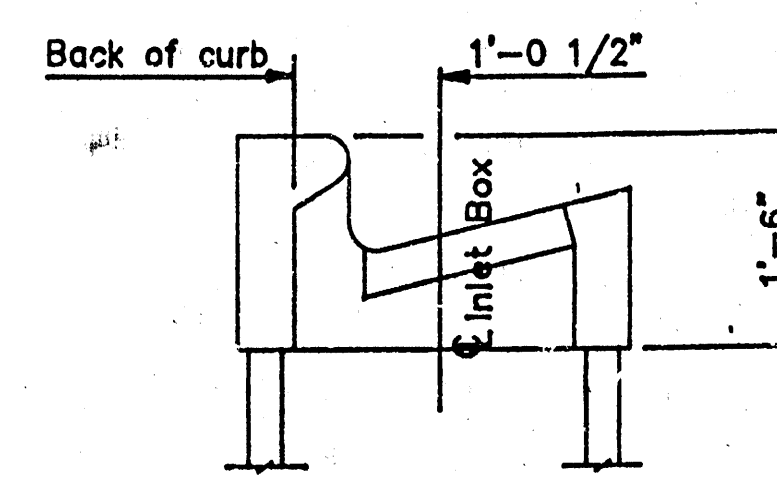


END

PRECAST CURB and GUTTER INLET WEIGHT - 1000 LBS.



5' DIA. CURB INLET MANHOLE STD.

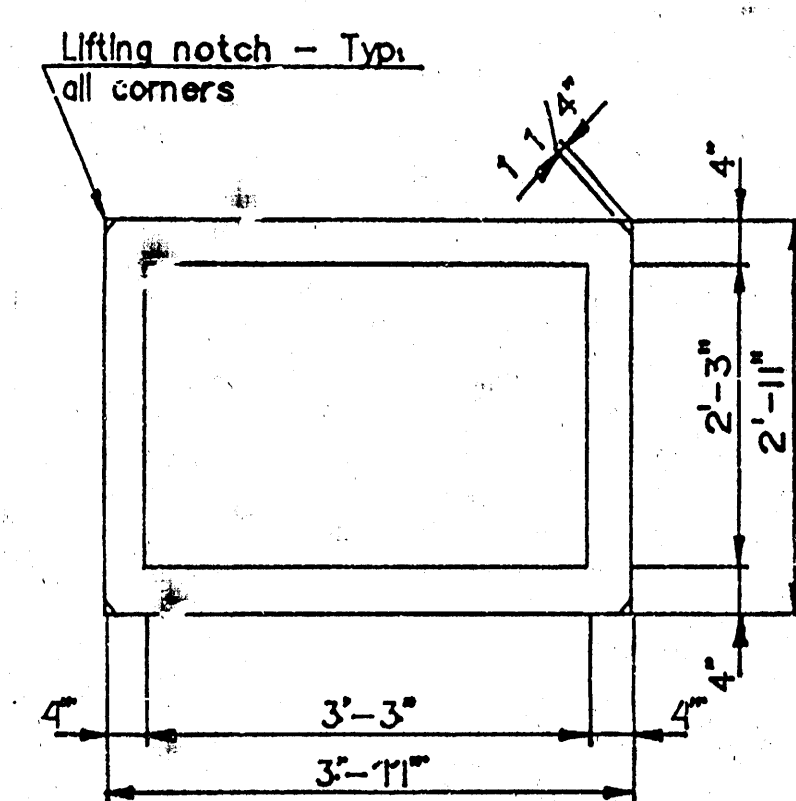


CURB INLET STD.

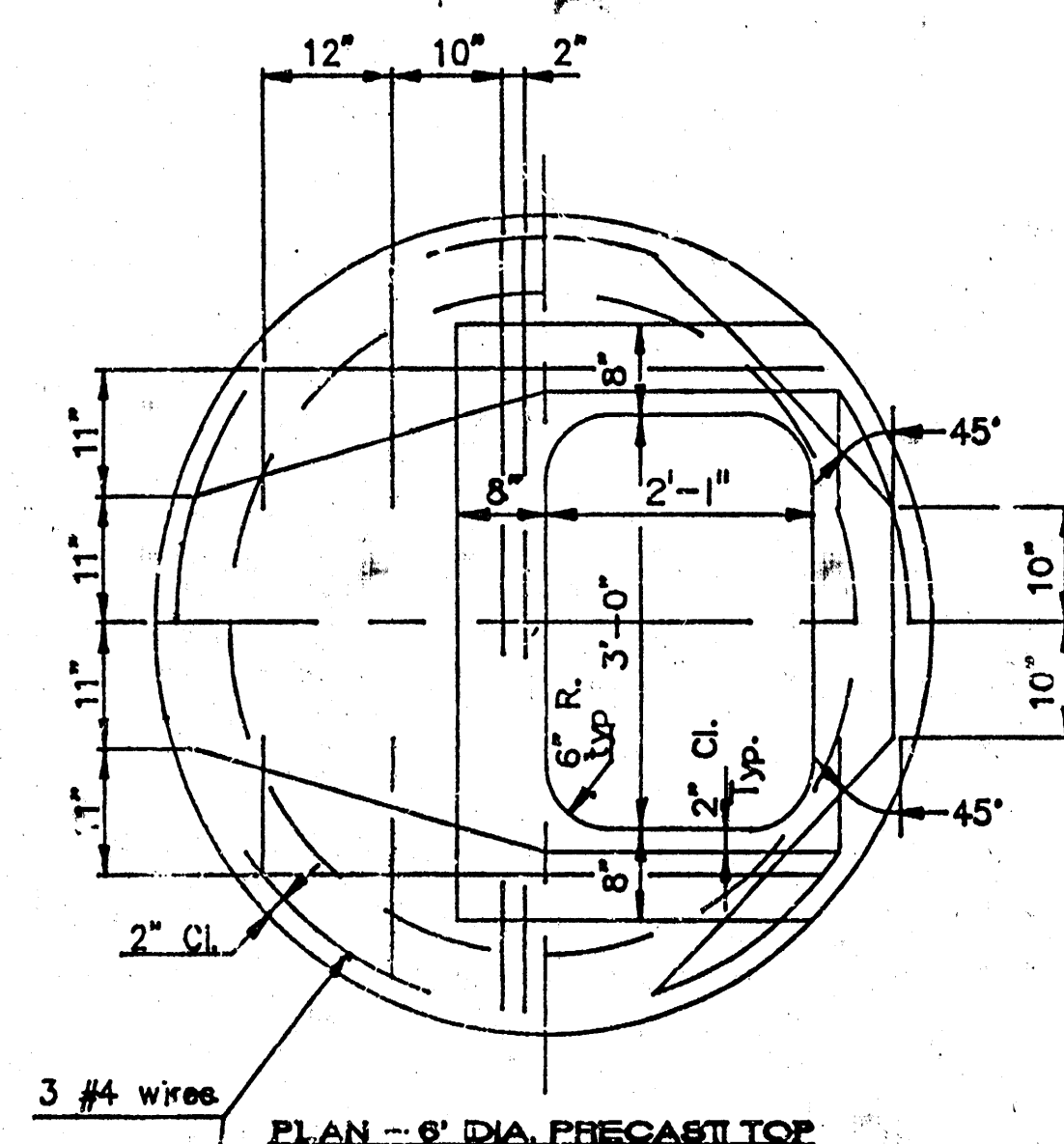
INLET POSITIONS WITH BACK OF CURB

GENERAL NOTES

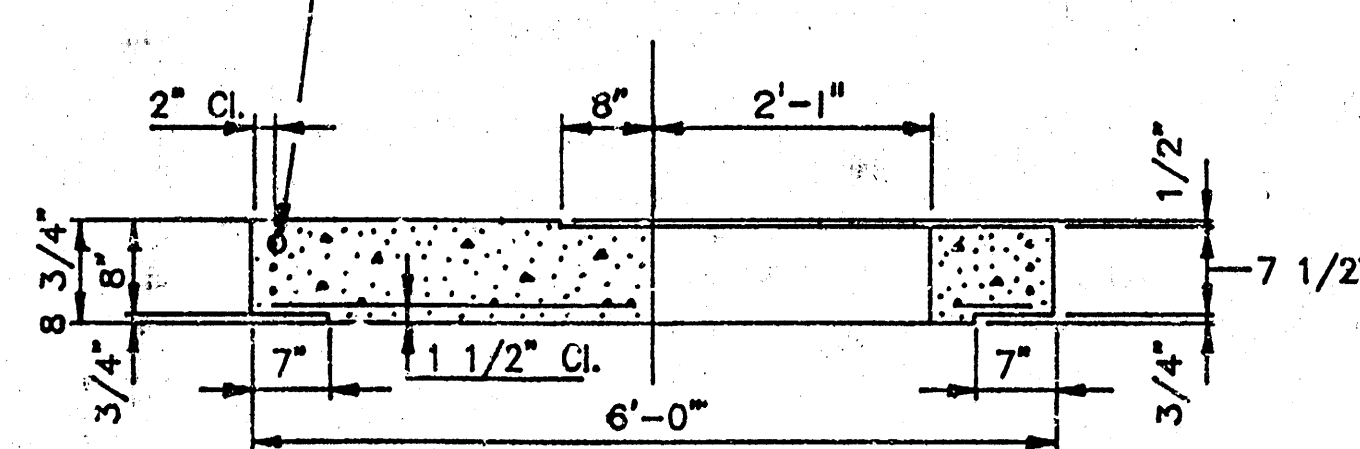
1. CAST INPLACE CONC. SHALL BE CLASS A
2. PRECAST CONC. SHALL BE 4000 PSI.
3. REINFORCING WIRE SHALL CONFORM TO ASTM A62.
4. REINFORCING BARS SHALL CONFORM TO ASTM A615.
5. GROUT ALL PIPES IN PLACE.
6. GRATES & FRAMES SHALL BE ASTM A36 STEEL COATED WITH BITUMASTIC BLACK SOLUTION (COAL TAR BASE) AS MANUFACTURED BY KOPPERS OR APPROVED EQUAL.



PLAN



PLAN - 6' DIA. PRECAST TOP



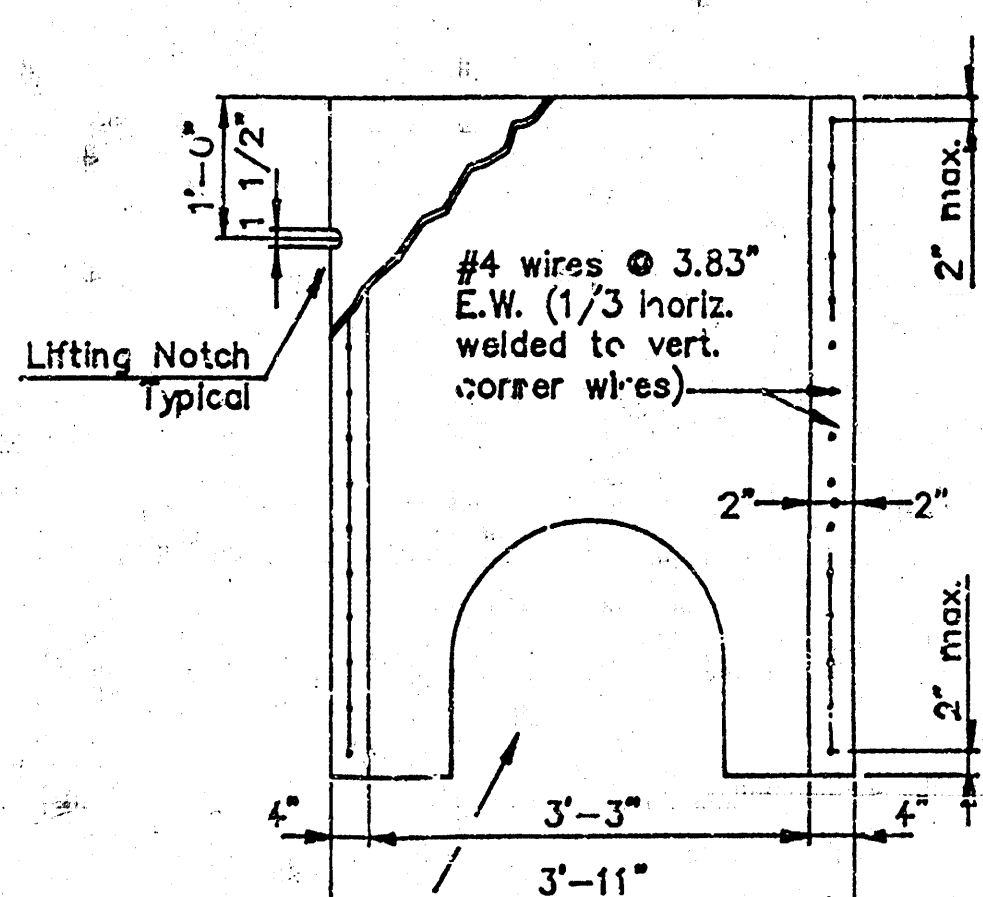
SECTION - 6' DIA. PRECAST TOP

PRECAST INLET MANHOLE TOP NOTES

1. All reinforcing shall be #4 bars except as noted
2. All clearance shall be 1 1/2" except as noted

PRECAST INLET MANHOLE RISER NOTES

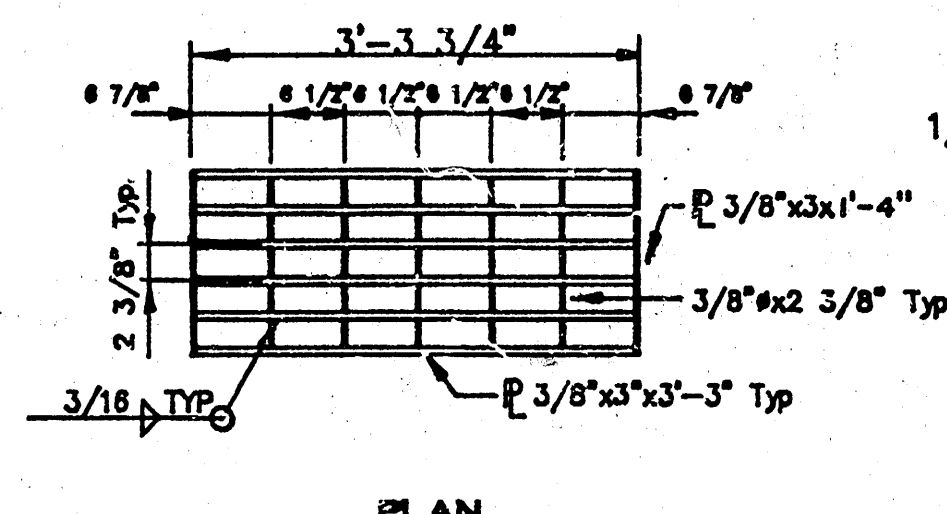
1. All manhole riser sections shall conform to A.S.T.M. 478-80
2. All manhole construction shall be watertight
3. Steps shall be PSI-PF as manufactured by M.A. Industries Inc. or approved equal and shall be placed to provide easy access to manhole at 16" O.C. max. while maintaining vertical alignment



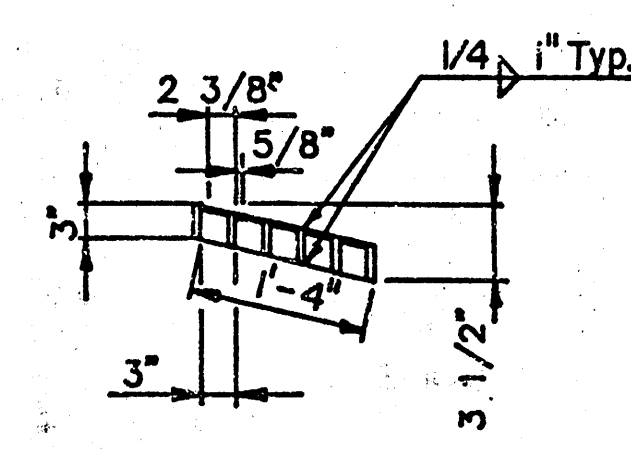
SECTION

PRECAST INLET BOX RISER

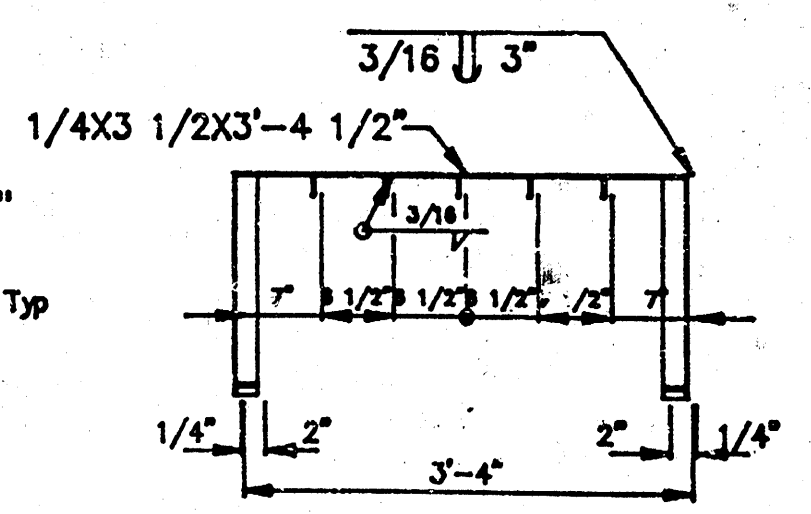
PRECAST INLET MANHOLE RISER and TOPS



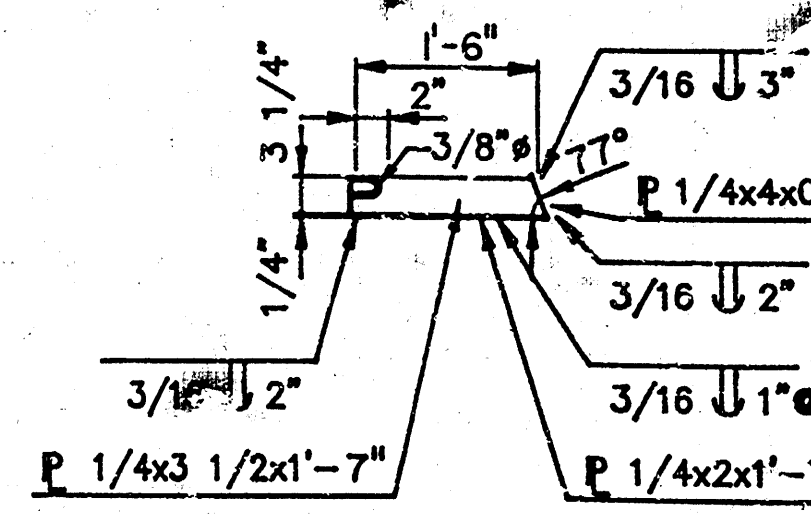
PLAN



SECTION
INLET GRATE
WEIGHT - 140 LBS.

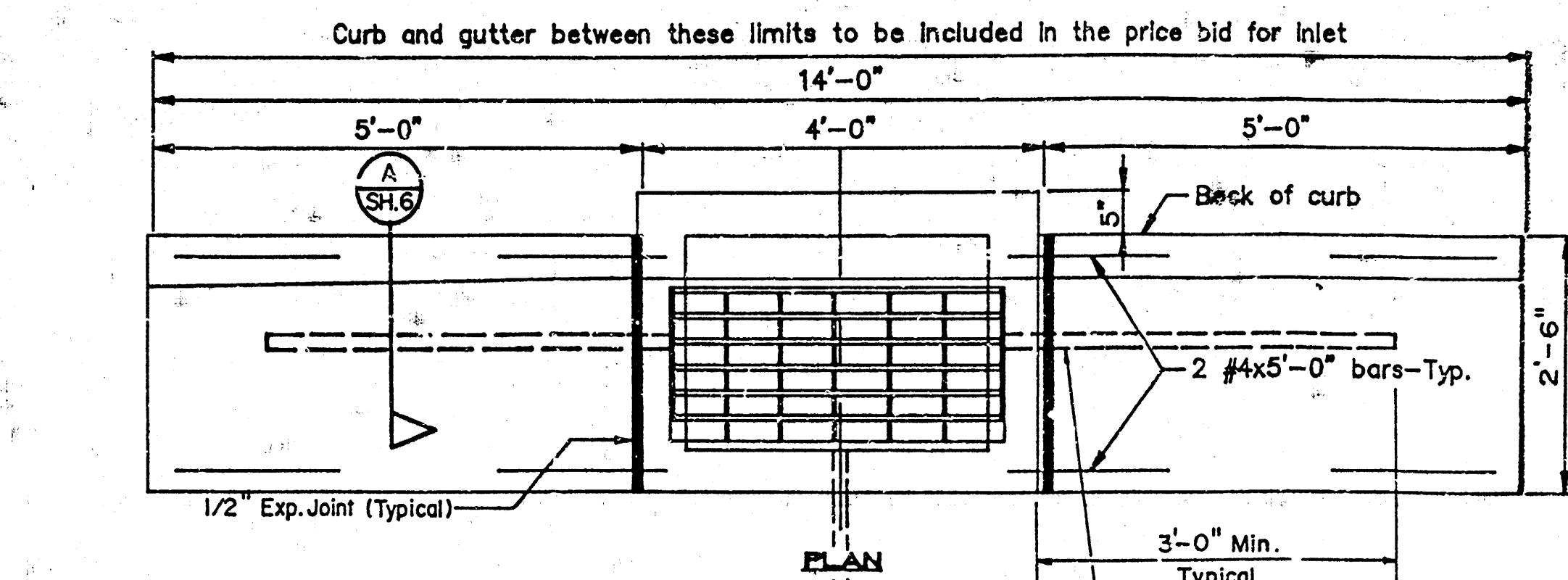


PLAN

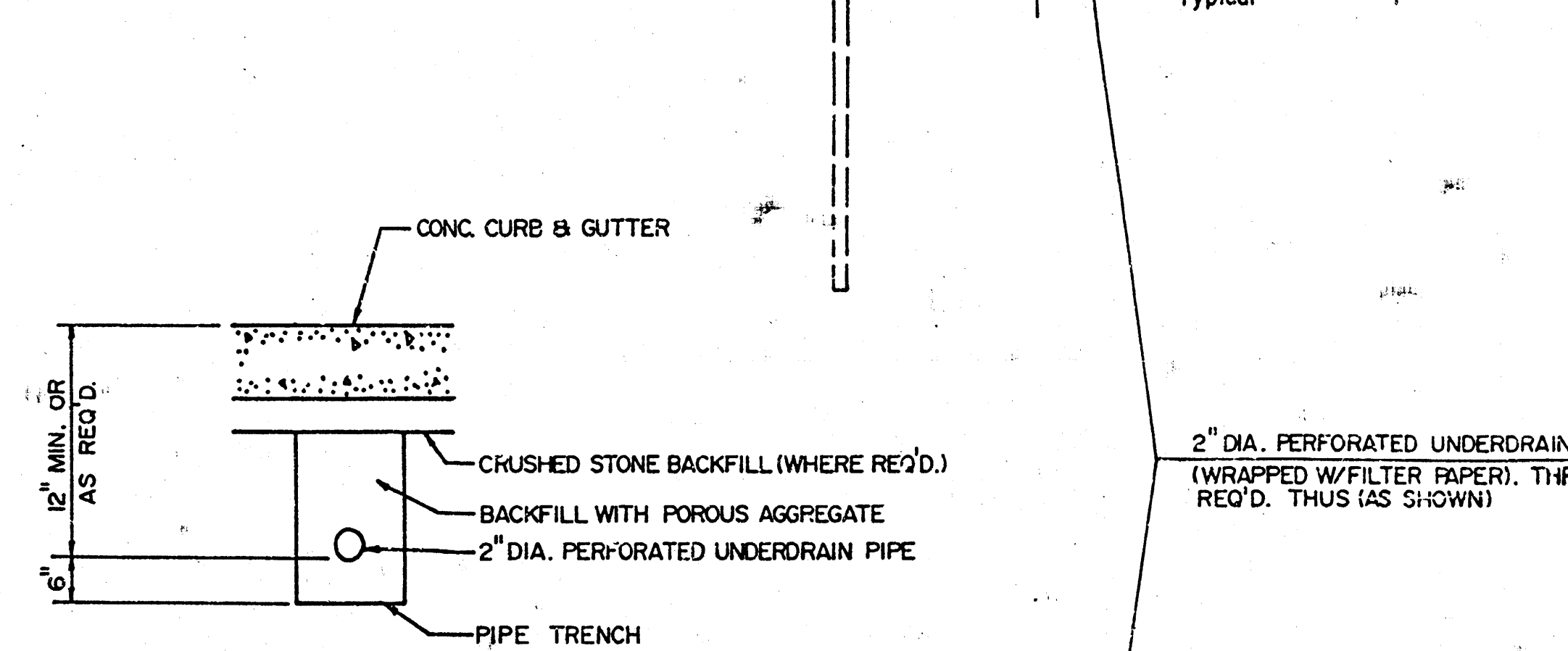


SECTION

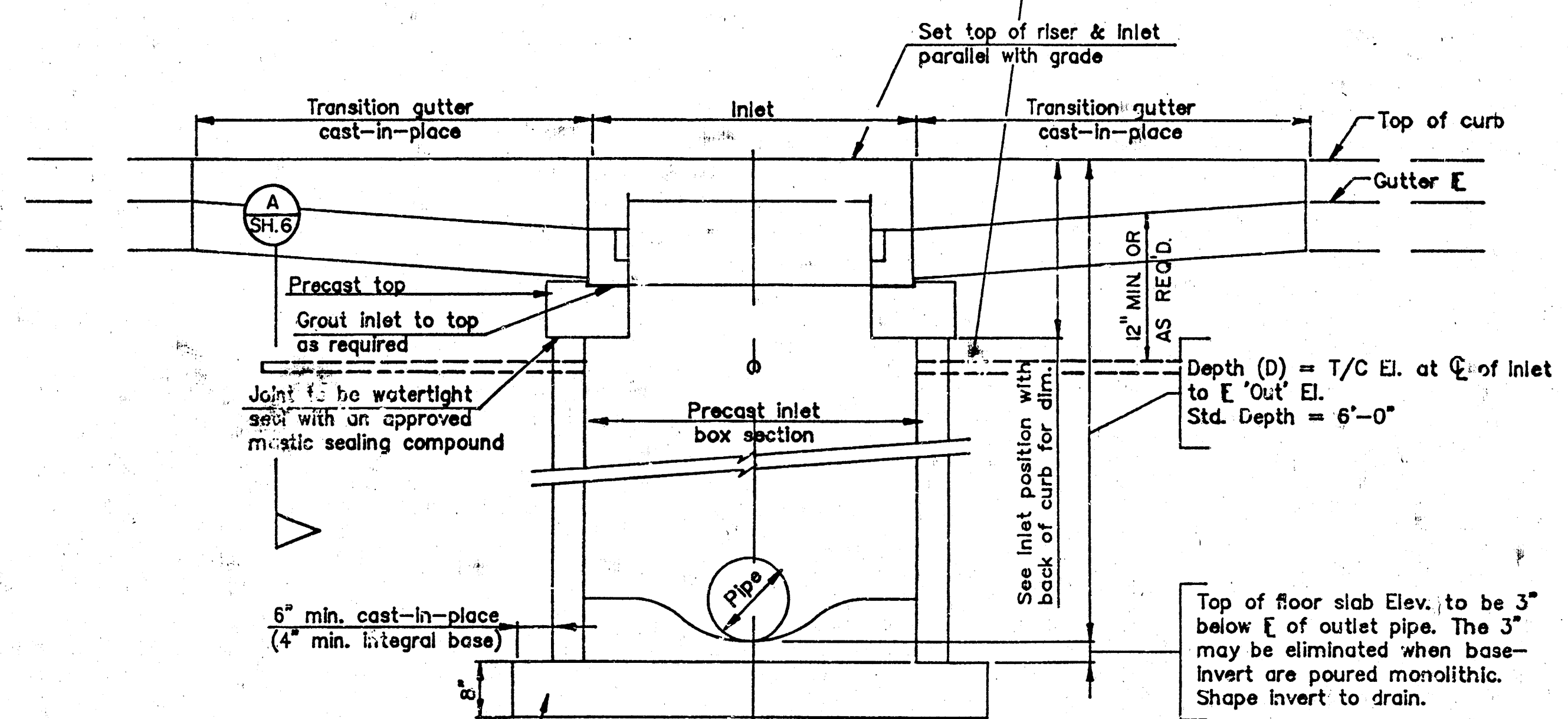
GRATE FRAME
WEIGHT - 30 LBS.



PLAN

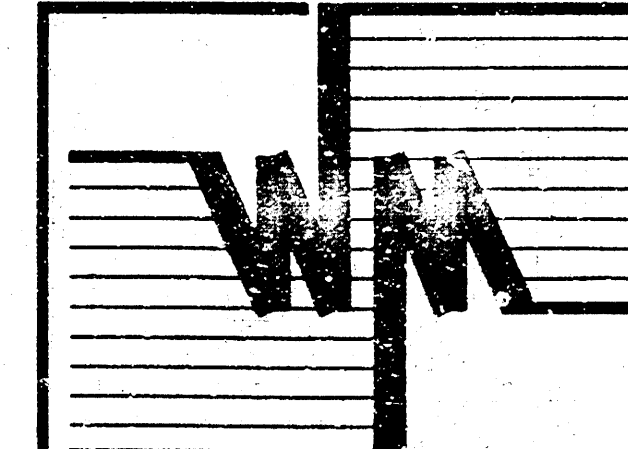


SECTION
SH6 NOT TO SCALE



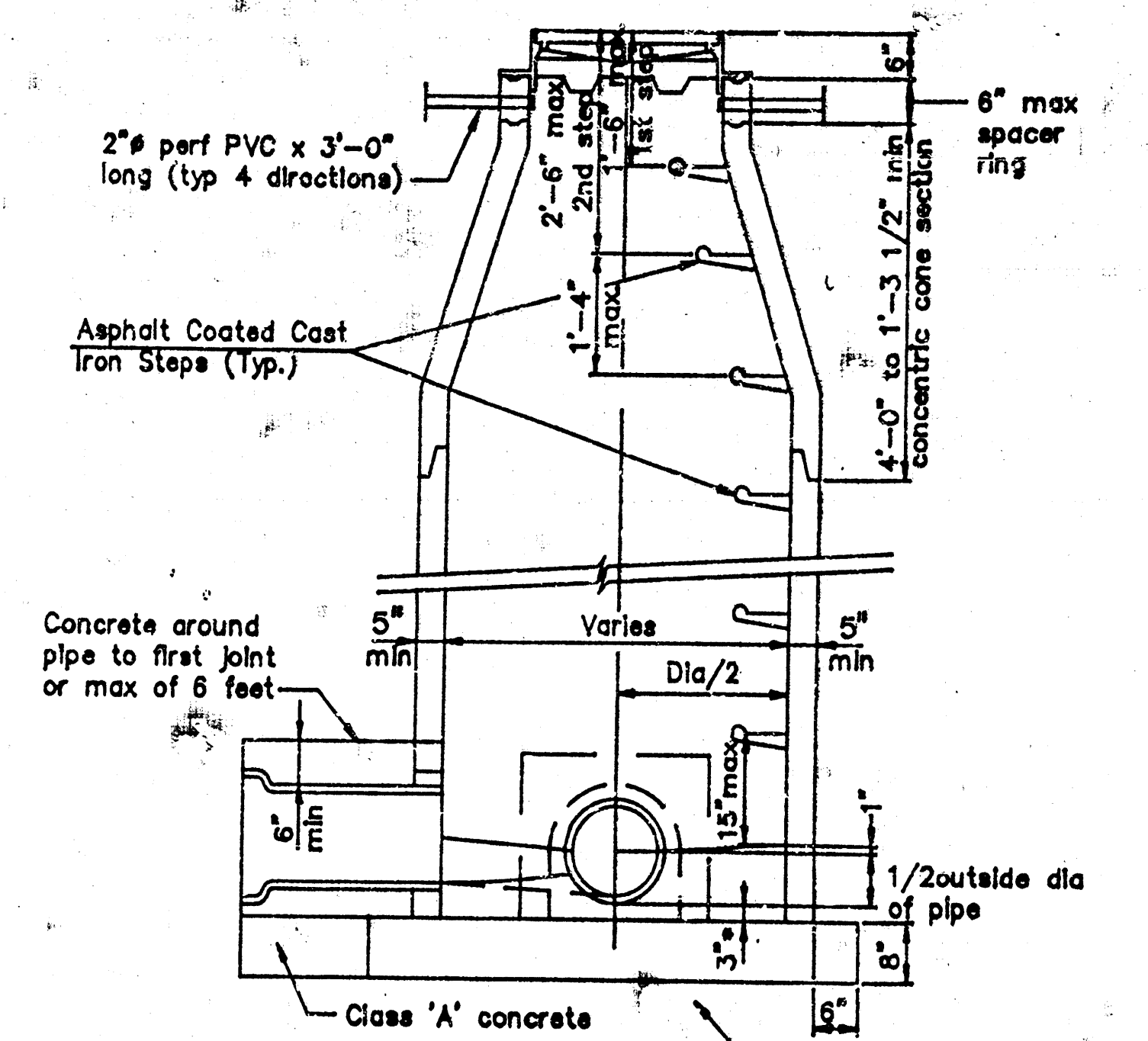
SECTION - CURB INLET

INLET DETAILS

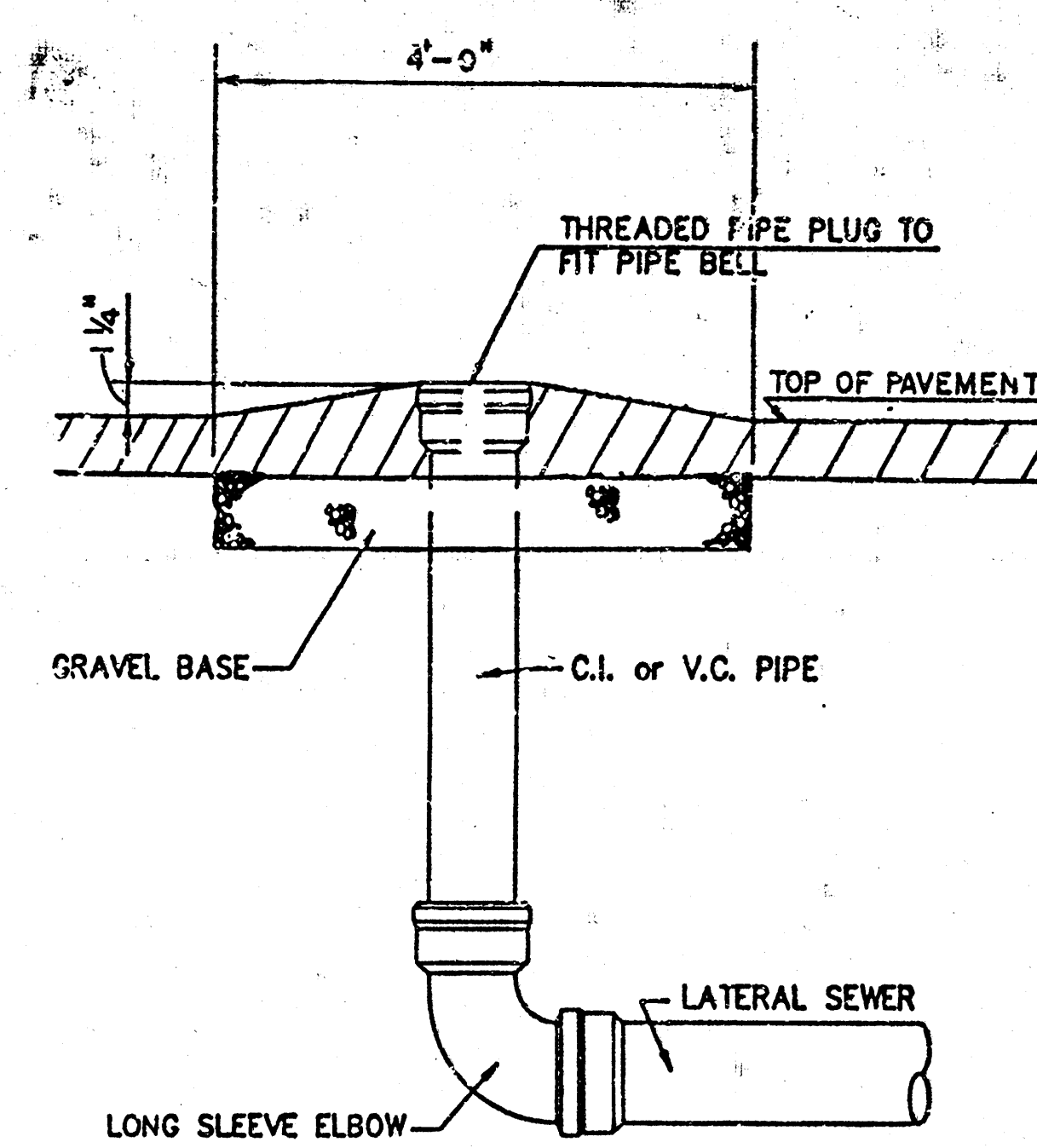


BUILDER'S SQUARE STORE NO. 1320		Design M.A.M.
MISCELLANEOUS DETAILS		Drawn by M.D.G.
		Checked by
		Date FEB 1992
		Job no. 91-23-03
		Sheet 6
		of 8

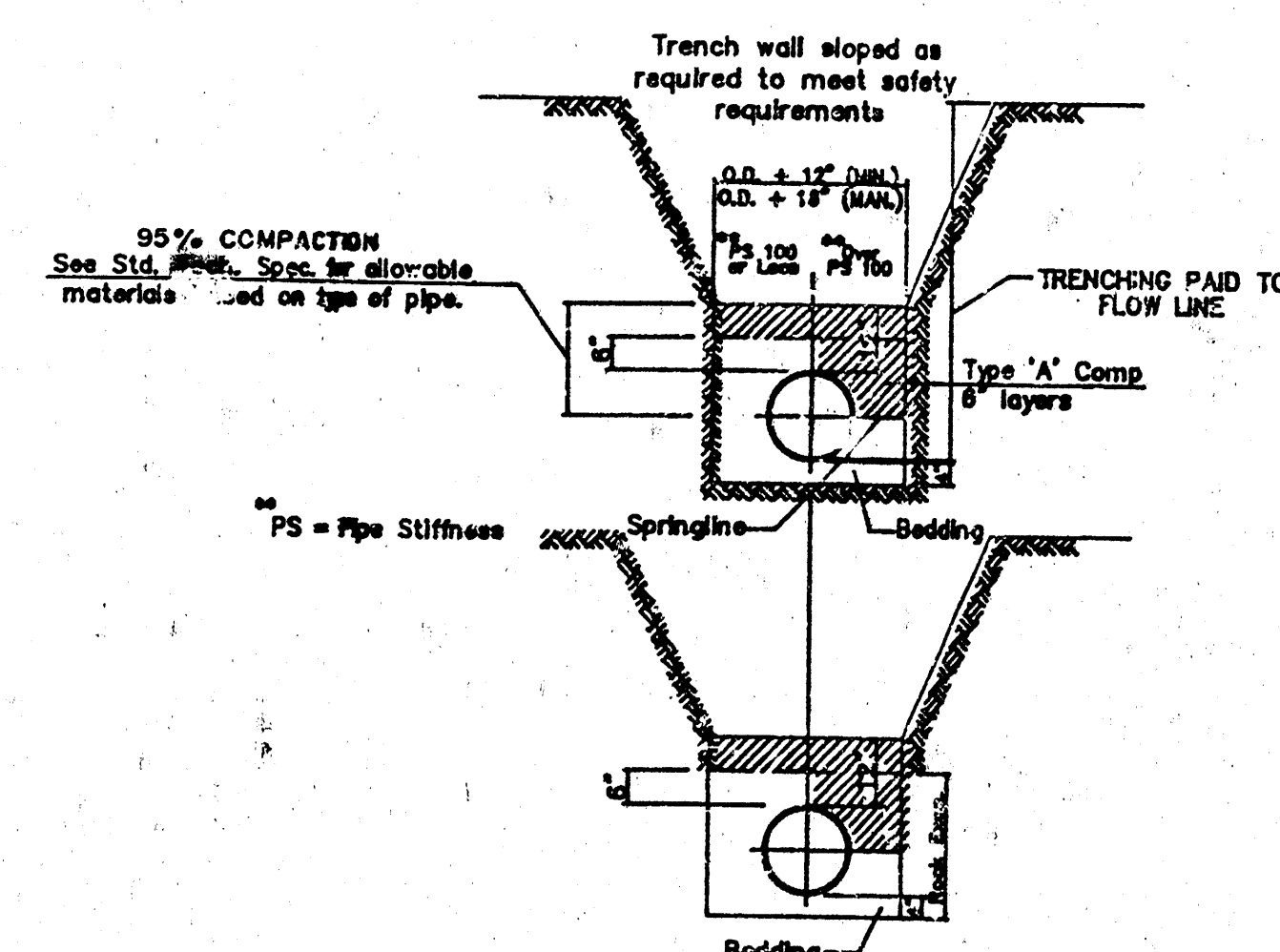
WHITE, MARTIN & ASSOCIATES, INC.
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1725 S.W. GAGE BOULEVARD PH. (913) 271-7100
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**PRE-CAST
STANDARD MANHOLE
SANITARY and STORM**
* This 3" to be eliminated when
base and invert are poured monolithic



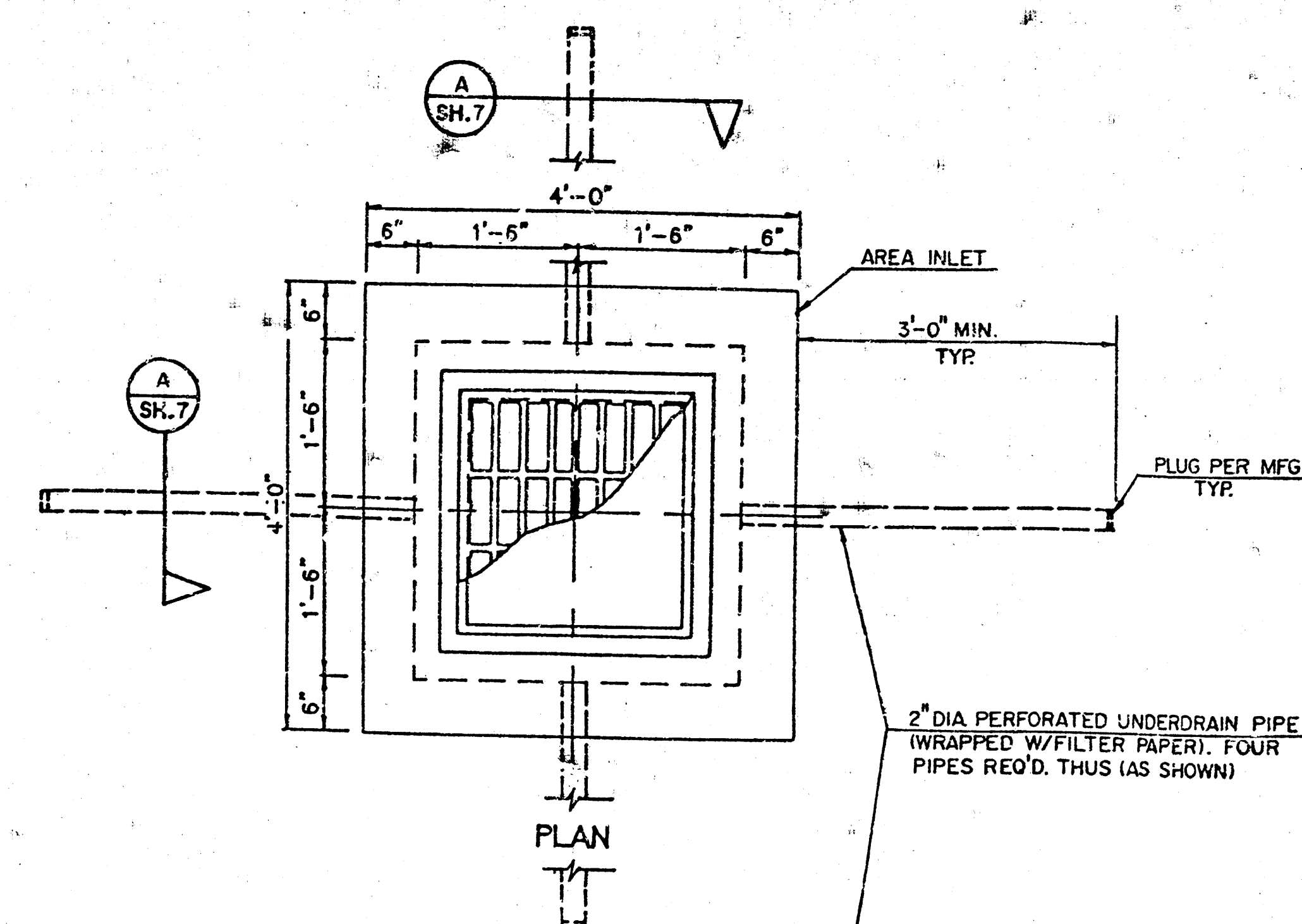
CLEANOUT WITH THREADED CAP
NO SCALE



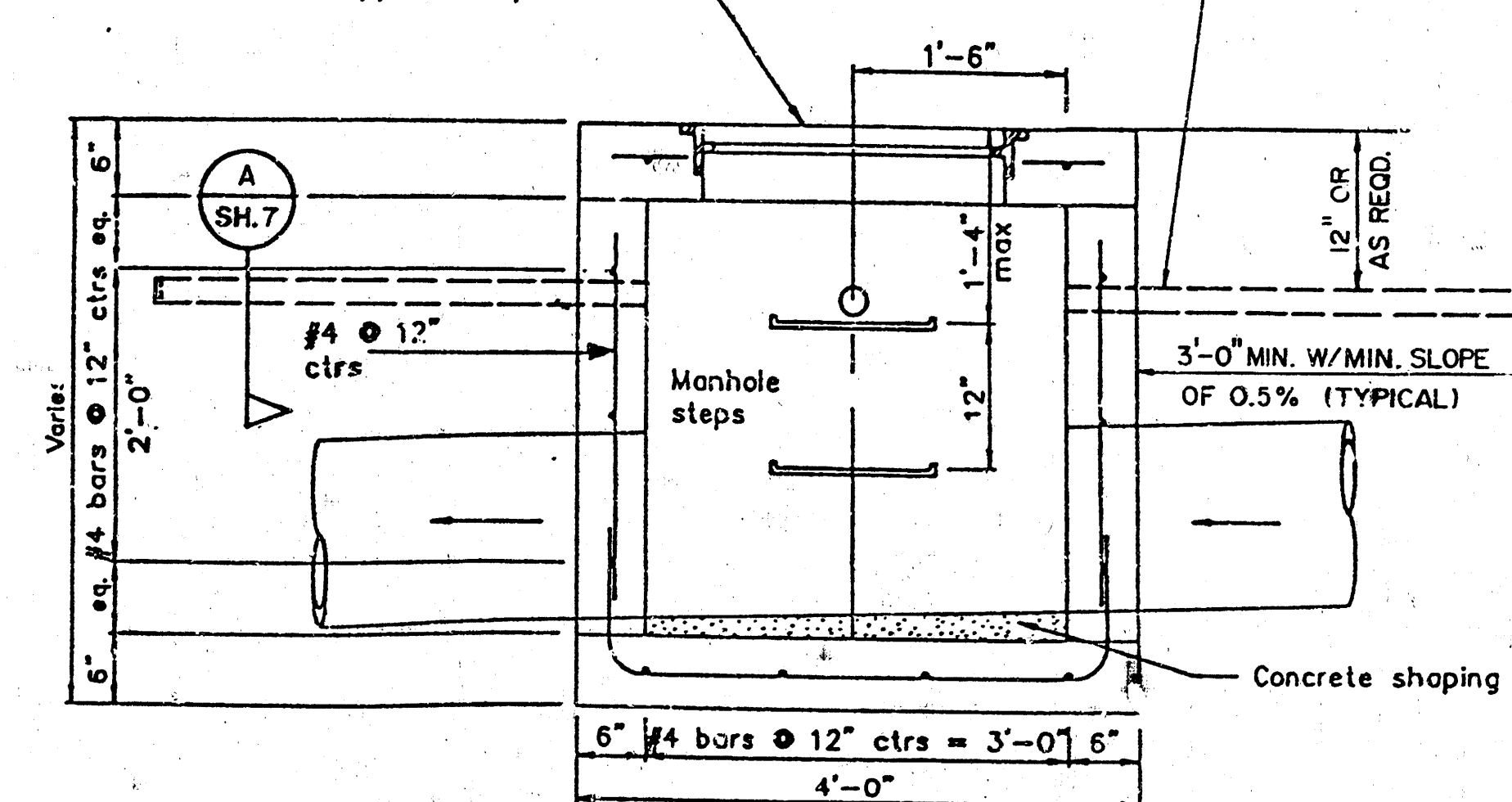
TRENCHING DETAILS
NO SCALE

TRENCHING DETAIL NOTES

1. The trench shall be excavated to 4" below bottom of the pipe barrel & backfilled as shown above with an approved bedding material.
2. When the sewer is to be installed in rock, the trench is to be excavated to a minimum depth of 4" below the bottom of the pipe and backfilled in 6" compacted layers with an approved bedding material as shown above. The rock excavated to be paid as a separate bid item. The embankment in all cases, is included in the price bid per trench, excavation, and backfill.

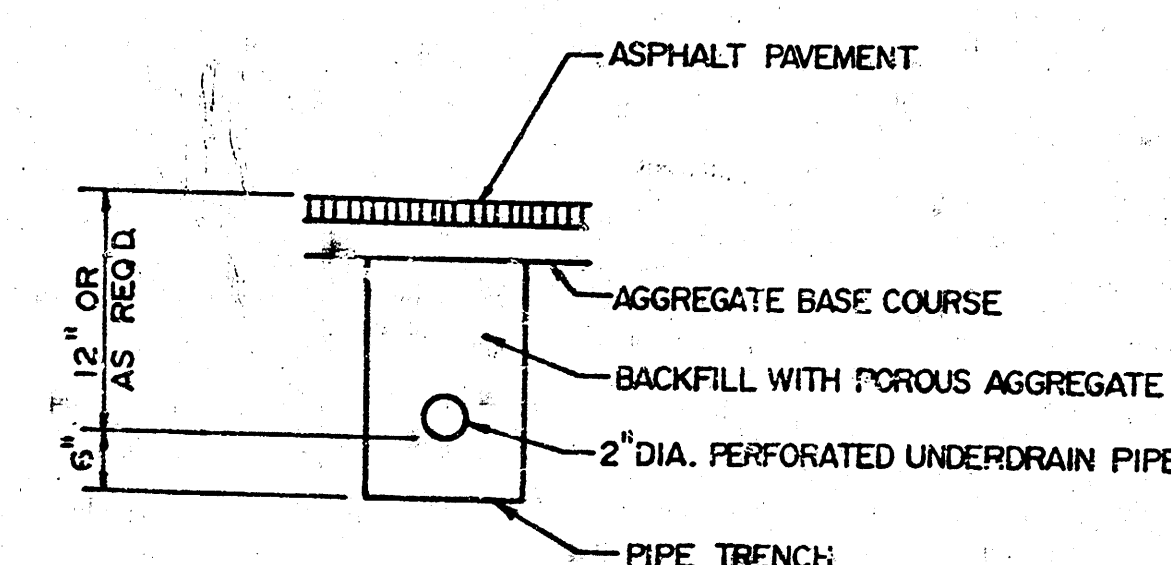


Non-rocking grate and frame
NEENAH No. R-6672-F or
approved equal



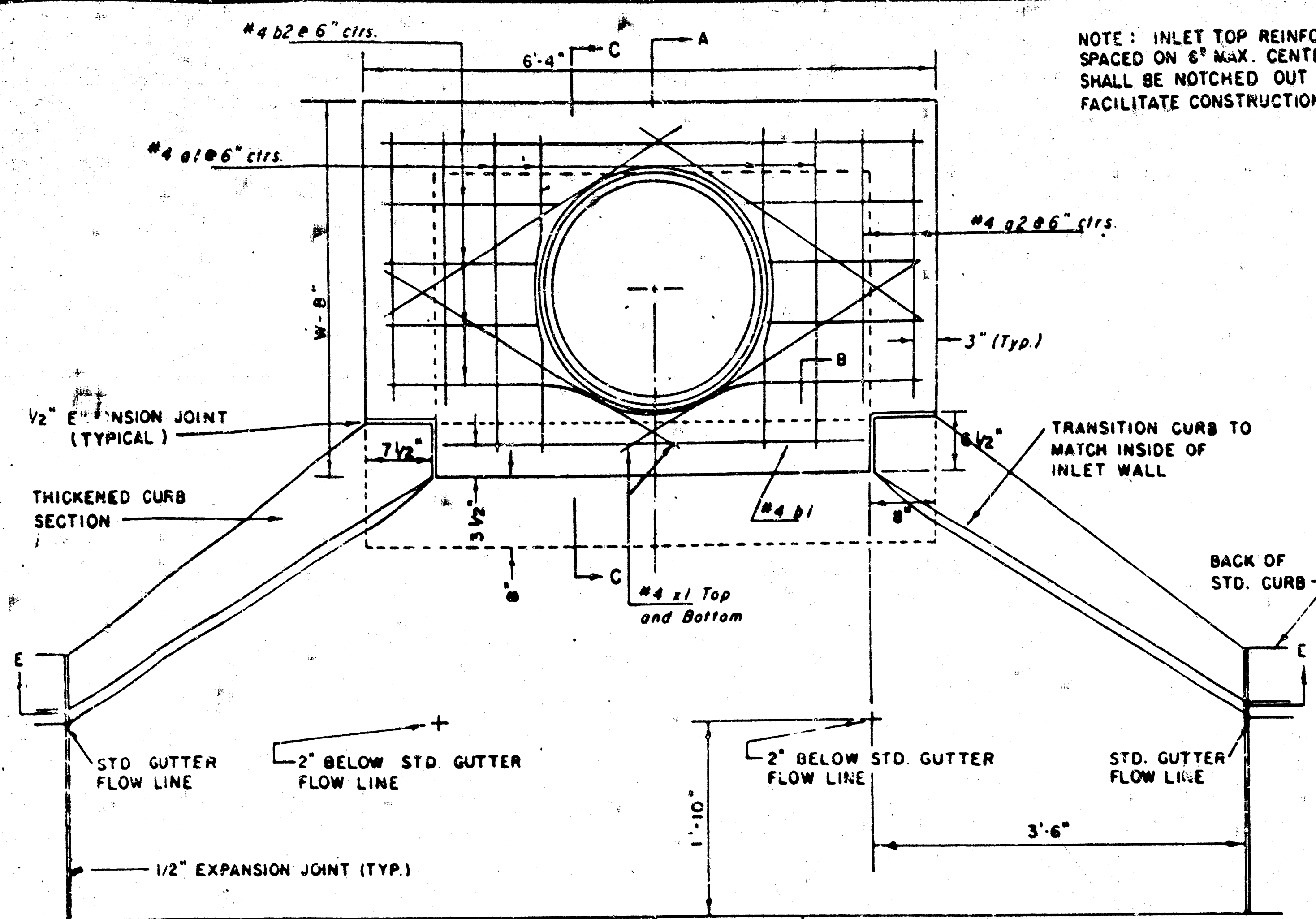
**ELEVATION
AREA INLET DETAILS**
NOT TO SCALE

Note: Minimum dimensions are shown.
Inside structure dimensions to provide
for minimum 6 inches in addition to
outside diameter of pipe. Pipes
entering on a skew shall provide a
total of 6 inches as measured from
furthest outside point. Area inlets
shall have four (4) radial bleeders of
3 foot long perforated pipe.



SECTION
NOT TO SCALE

	BUILDER'S SQUARE STORE NO. 1320	Design M.A.M. Drawn by M.D.G. Checked by
	MISCELLANEOUS DETAILS	Date FEB. 1992 Job no. 91-23-03
WHITE, MARTIN & ASSOCIATES, INC. ENGINEERING CONSULTANTS 1725 S.W. GAGE BOULEVARD PH. (913) 271-7100 TOPEKA, KANSAS 66604 FAX (913) 271-8108		Sheet 7 of 8

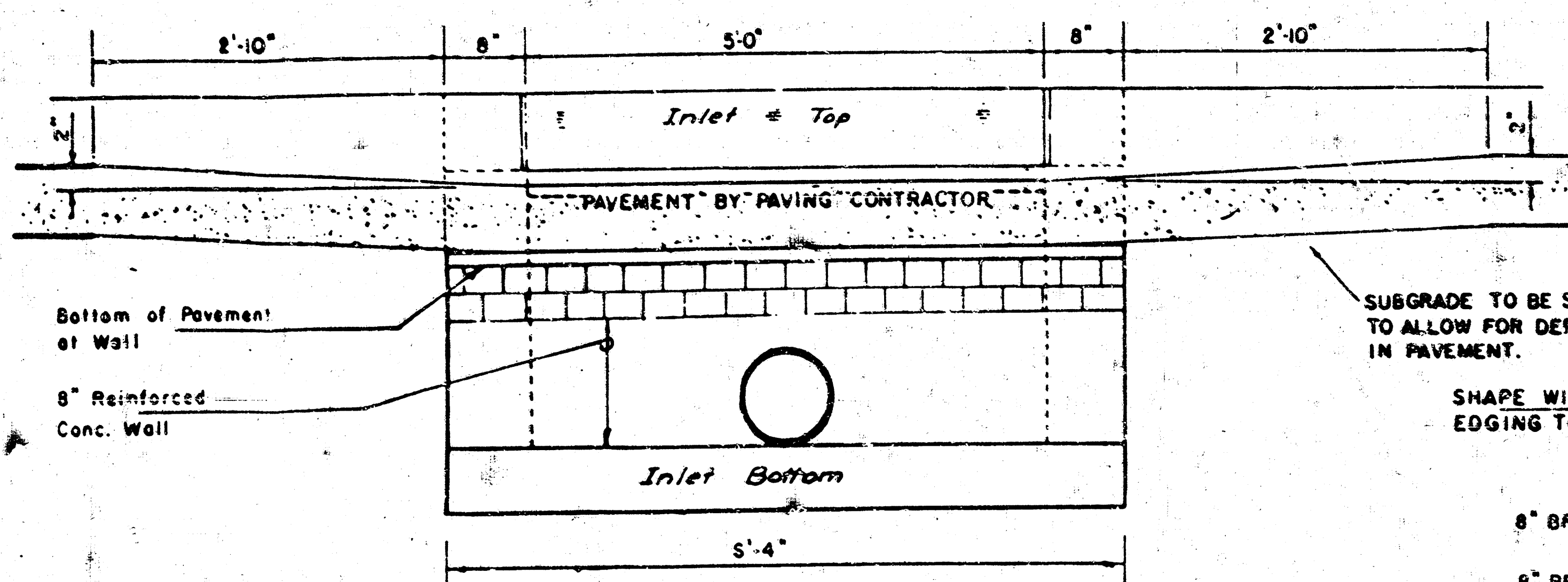


PLAN

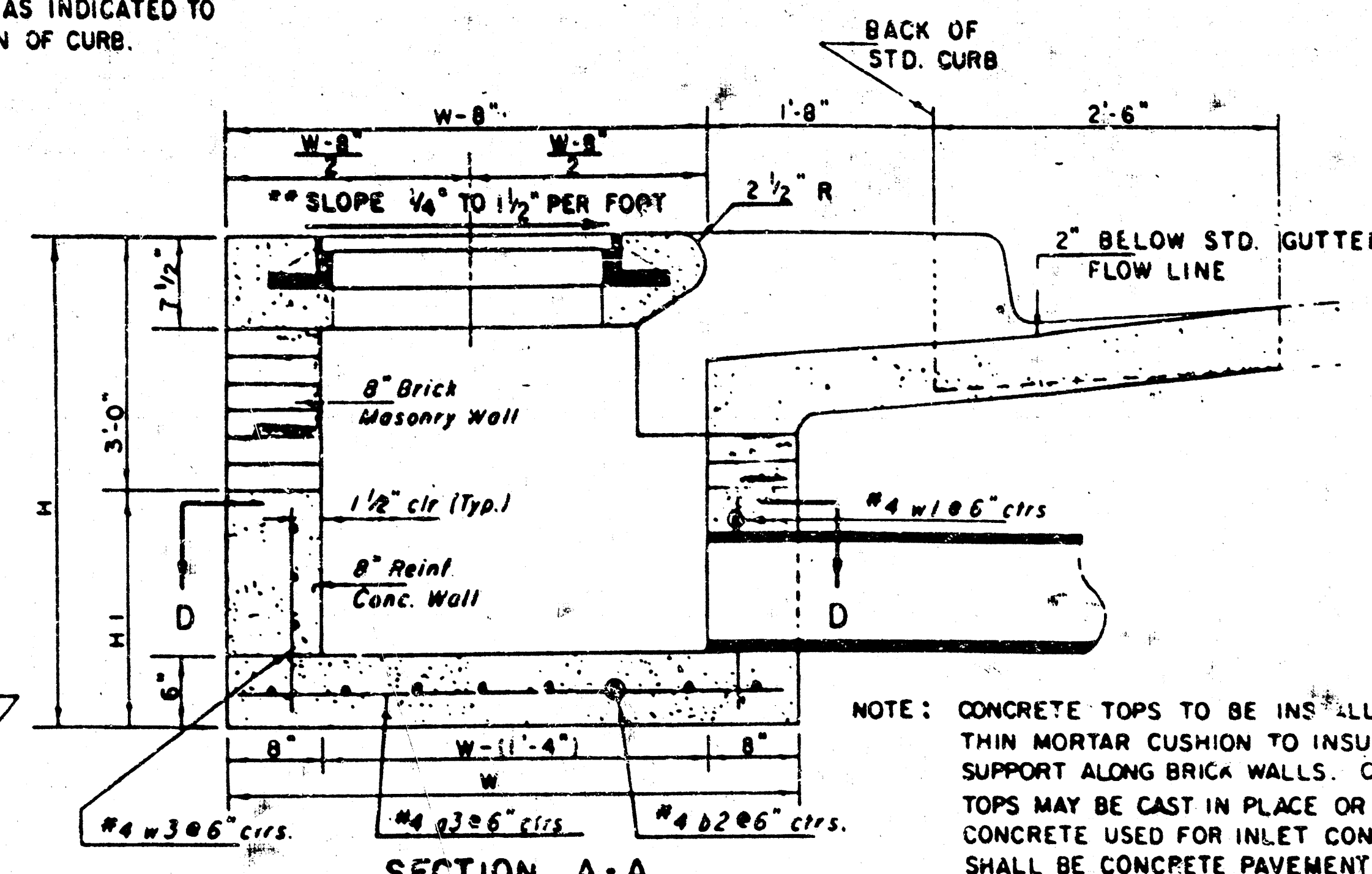
PRECAST SLAB AND FLOOR REINFORCING									
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length
101	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"
102	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"
103	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"
104	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
105	#4	23	5'-1"	23	6'-1"	23	7'-1"	23	8'-1"
106	#4	8	3'-10"	8	4'-2"	8	4'-5"	8	4'-10"

WALL REINFORCING									
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length
101	#4	1	6'-1"	1	6'-1"	1	6'-1"	1	6'-1"
102	#4	1	4'-1"	1	5'-1"	1	6'-1"	1	7'-1"
103	#4	32	2	36	2	40	2	44	2

* Field bend or cut reinforcing as required for clearance.
 ① 4(HI-12"); (HI-12") Round down to nearest 0.5"
 ② HI-3"



NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.



NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX WITH AIR ENTRAINMENT.

NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6'-4" AND H = 7'-0" OR LESS.

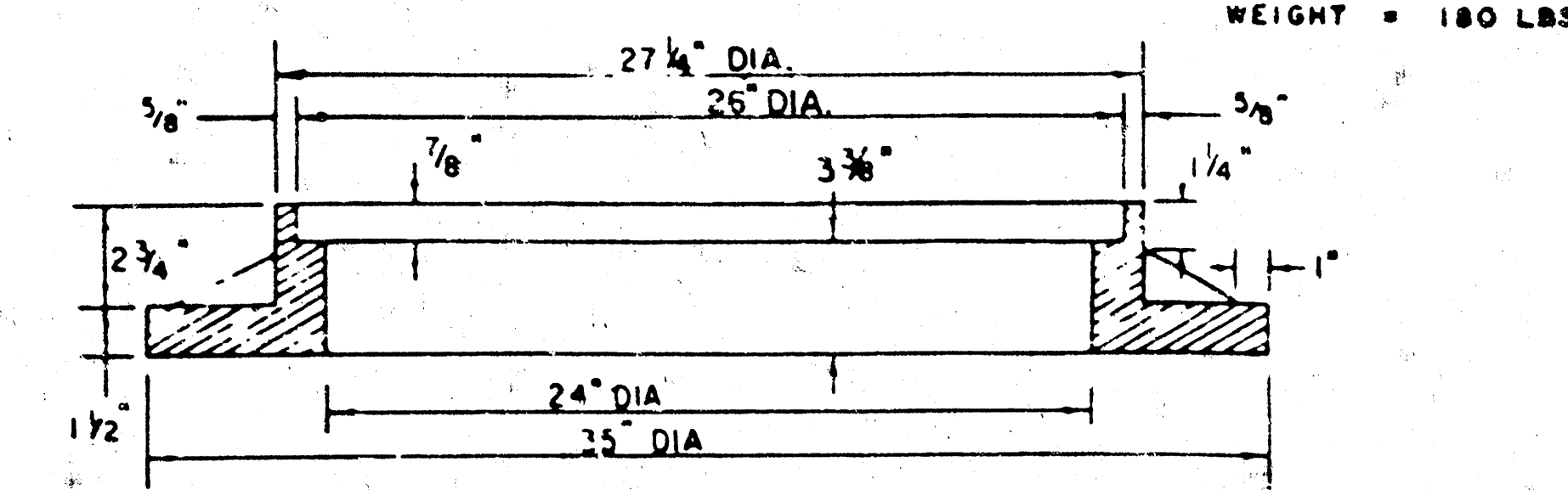
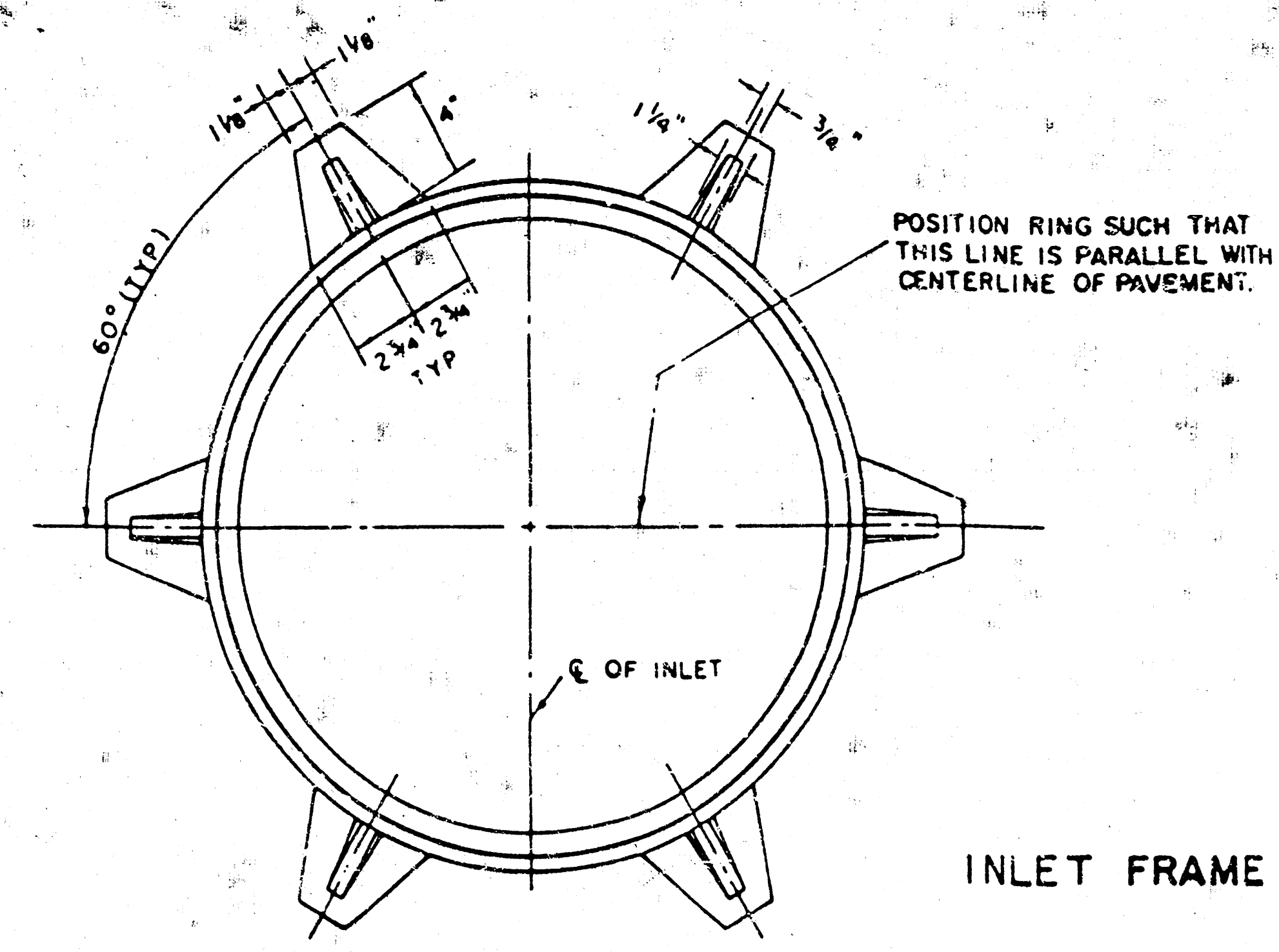
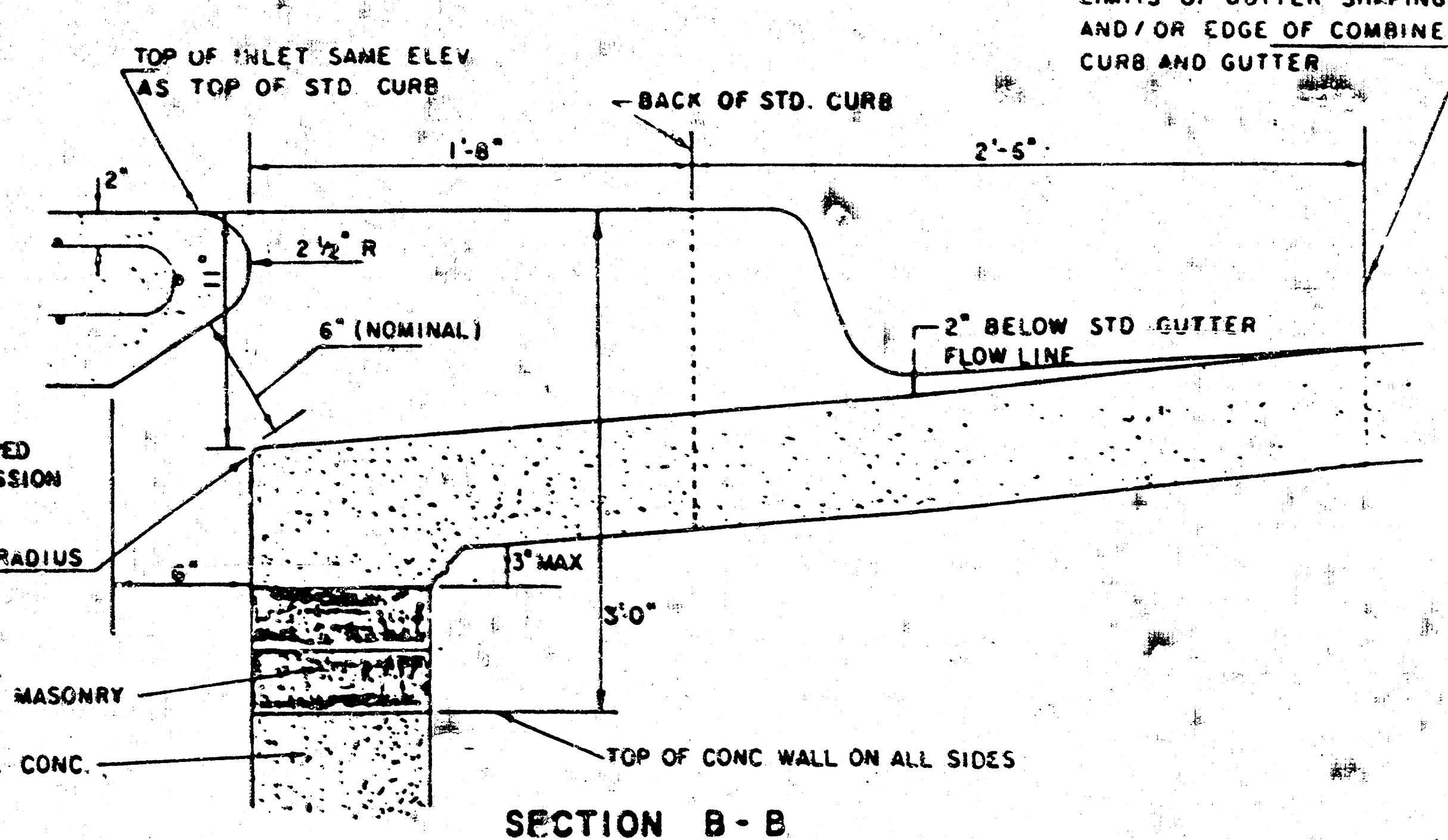
ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET WORKUP.

INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF-CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

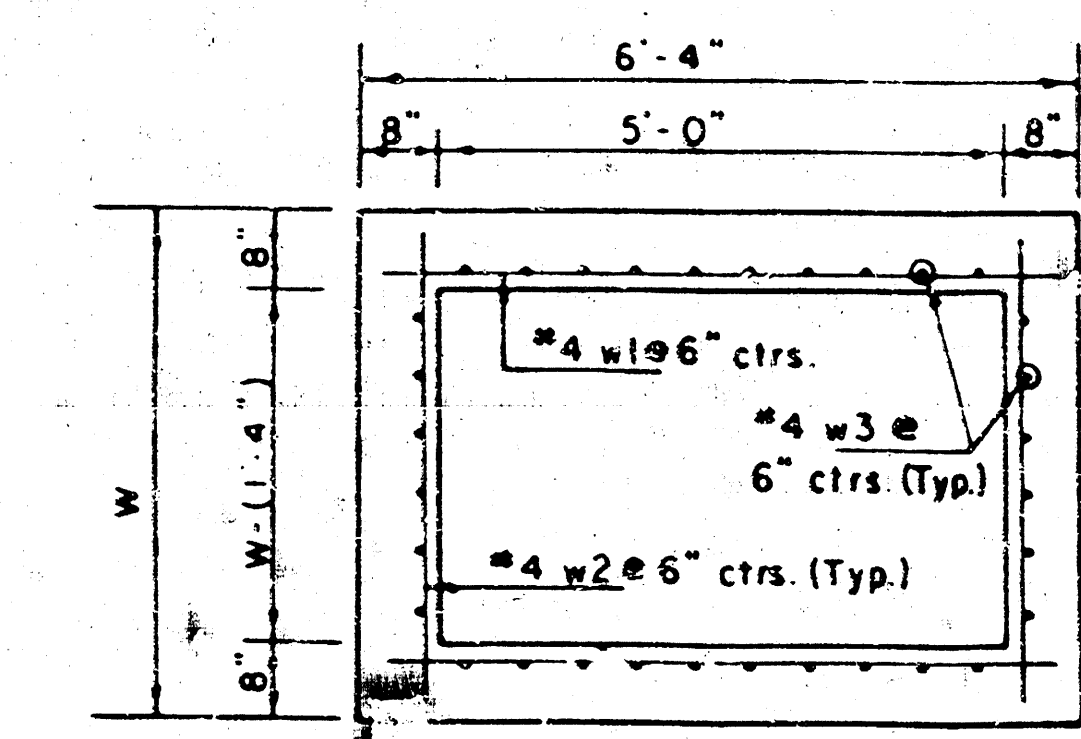
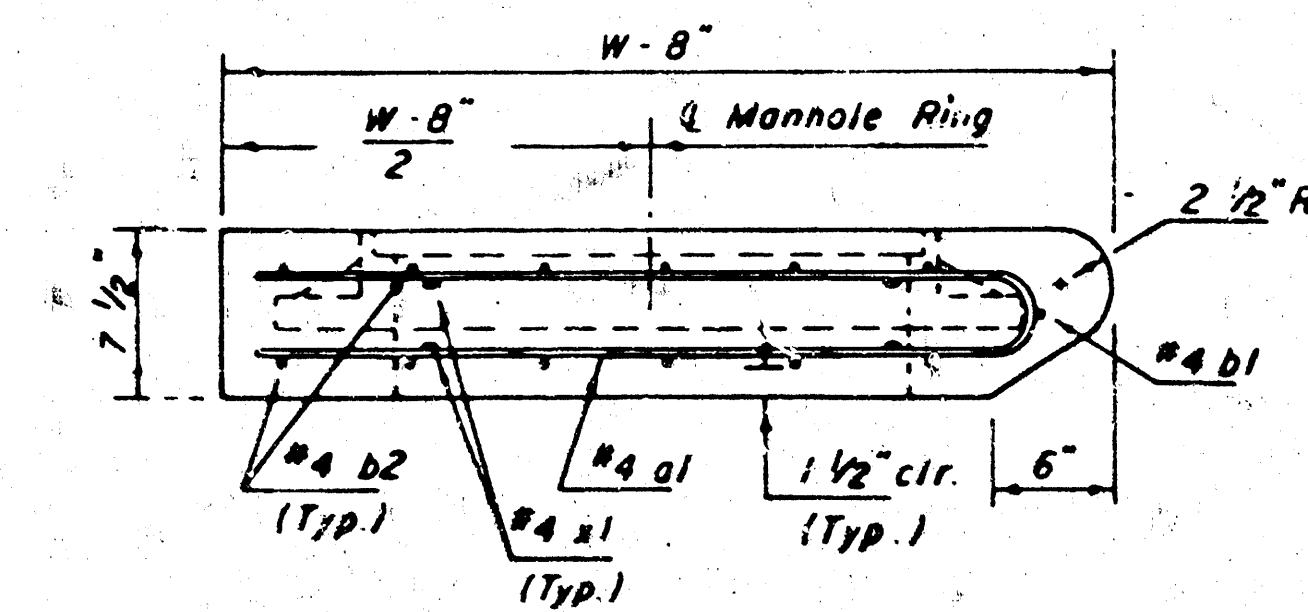
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

** NOTE: Slope of Inlet Tops to match Sidewalk or Parking Slopes within Limits indicated.

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CURB CONC.
4'-4"	3'-8" x 6'-4" x 7'-1/2"	21" & SMALLER	0.38 ±
5'-4"	4'-8" x 6'-4" x 7'-1/2"	24" & 30"	0.51 ±
6'-4"	5'-8" x 6'-4" x 7'-1/2"	36" & 42"	0.64 ±
7'-4"	6'-8" x 6'-4" x 7'-1/2"	48" & 54"	0.77 ±
8'-4"	7'-8" x 6'-4" x 7'-1/2"	60" & 66"	0.90 ±



SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.



REVISIO 11-30-1988
 REVISED 12-31-1984
 Revised 2-16-1989

DETAIL STANDARD TYPE IA CURB INLET
 CITY OF WICHITA, KANSAS
 INLET OPENING = 6" x 5' 0"

JUNE 1984

8/8