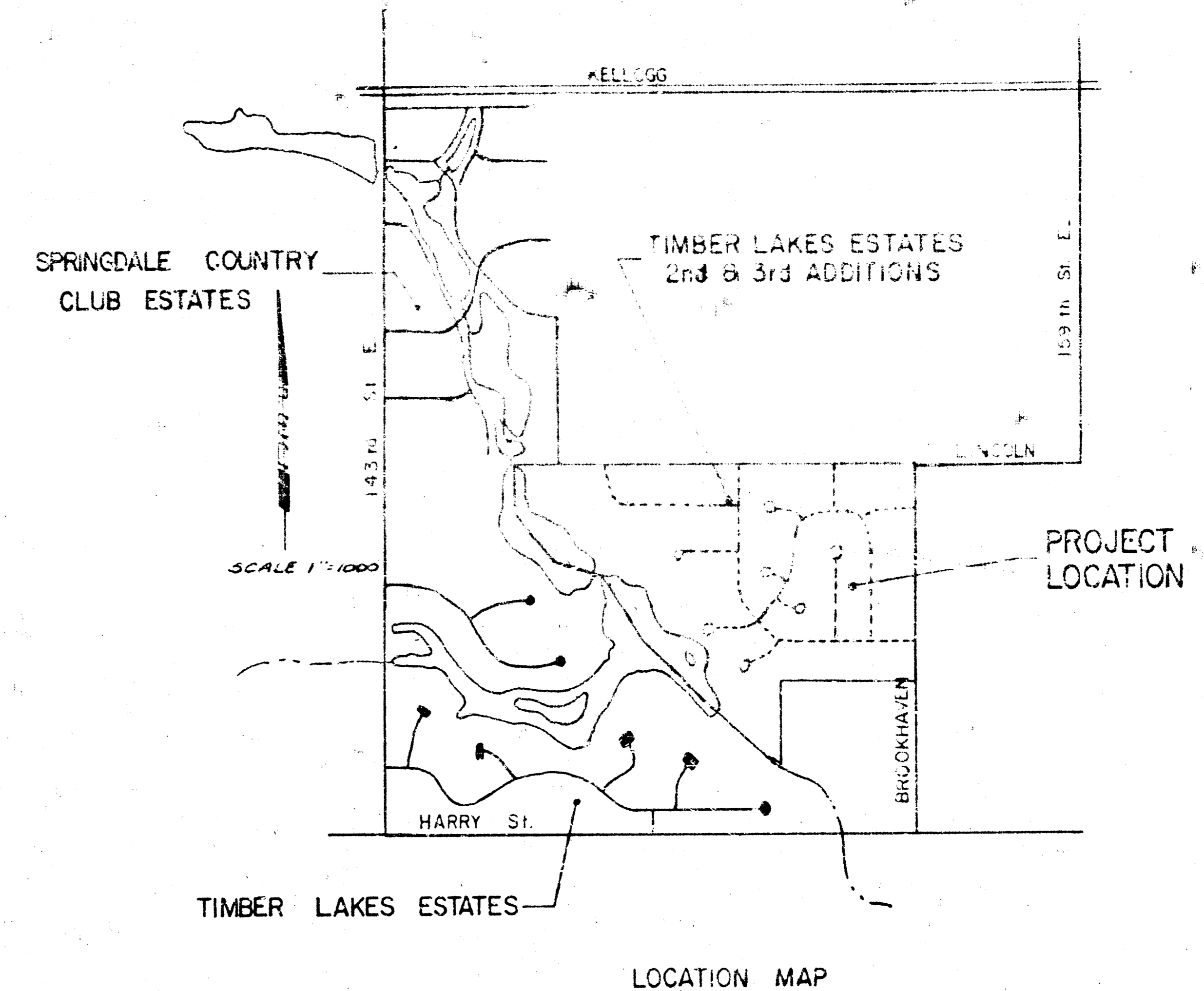
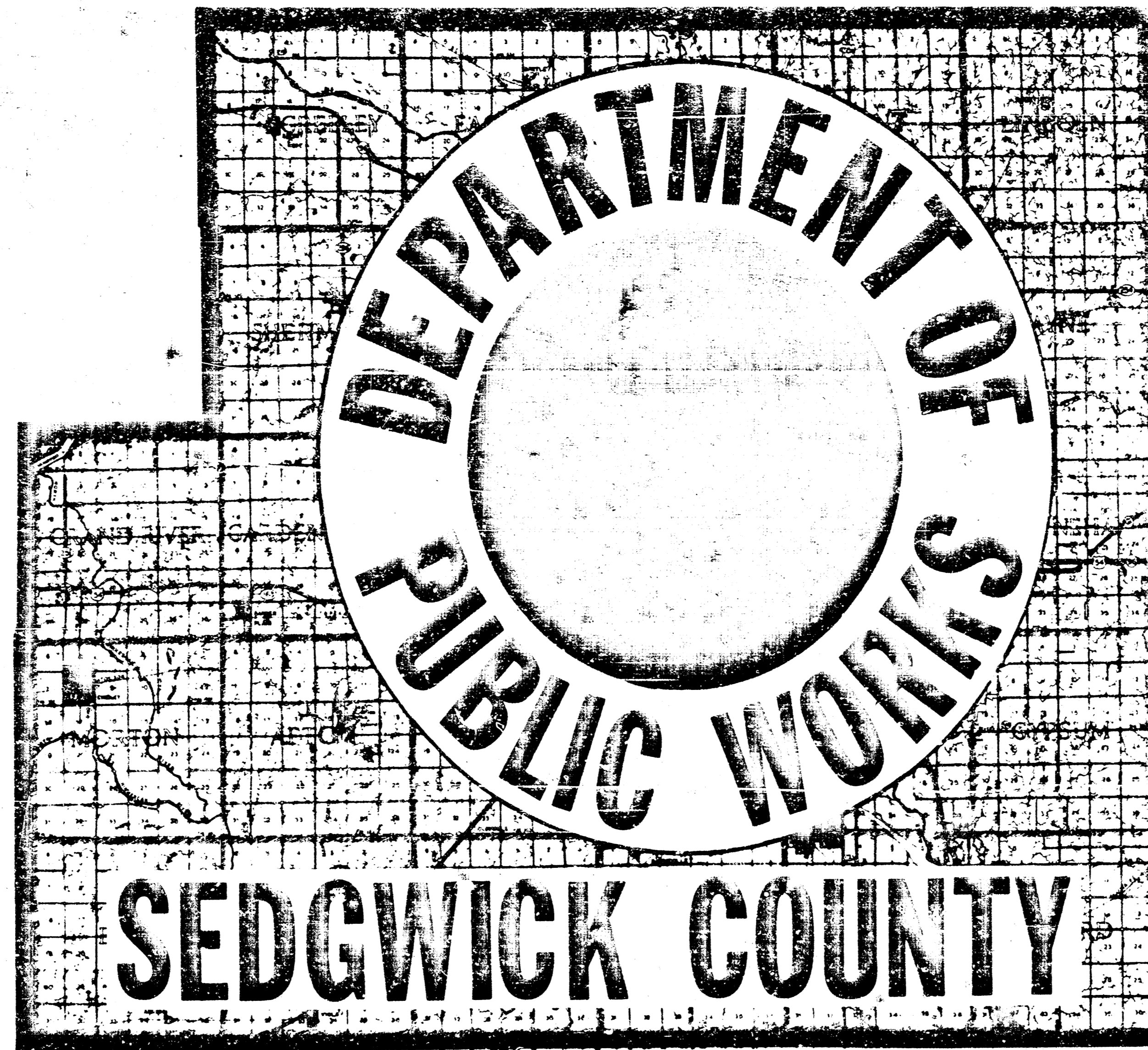


INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	KEY MAP & SCHEDULE
SHEET NO. 3-4	SANITARY SEWER DETAILS
SHEET NO. 5-7	PLAN PROFILES



CONSTRUCTION PLANS FOR
SANITARY SEWER IMPROVEMENTS
 IN

TIMBER LAKES ESTATES SECOND AND THIRD ADDITION
 PHASE I

SEPT. 1977

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

CONVENTIONAL SIGNS

WIRE FENCE	— x — x — x —
HEDGE ROW	— ~ ~ ~ ~ ~ —
RAILROADS	— + + + + + —
SURVEY LINE	— 9 100 —
RIGHT OF WAY	— — — — —
TELEPHONE POLE	— ● —
POWER POLE	— ■ —
COMB. POWER & TELEPHONE	— ■ ● —
TOWNSHIP LINE	— / / / / / —
CONSTRUCTION LIMITS	— - - - - —
GUARD FENCE	— • • • • • —
TREES	— ○ ○ —

APPROVED

[Signature]

CITY ENGINEER OF WICHITA, KANSAS

DATE 9/20/77

FILED

COPY FILED IN THE OFFICE OF THE SEDGWICK COUNTY CLERK.

[Signature] 9-20-77

COUNTY CLERK DATE

APPROVED

COUNTY ENGINEER/DIRECTOR OF PUBLIC WORKS

DATE 9-20-77

APPROVED

[Signature] 9/20/77

CHAIRMAN PRO-TEM BOARD OF COUNTY COMMISSIONERS

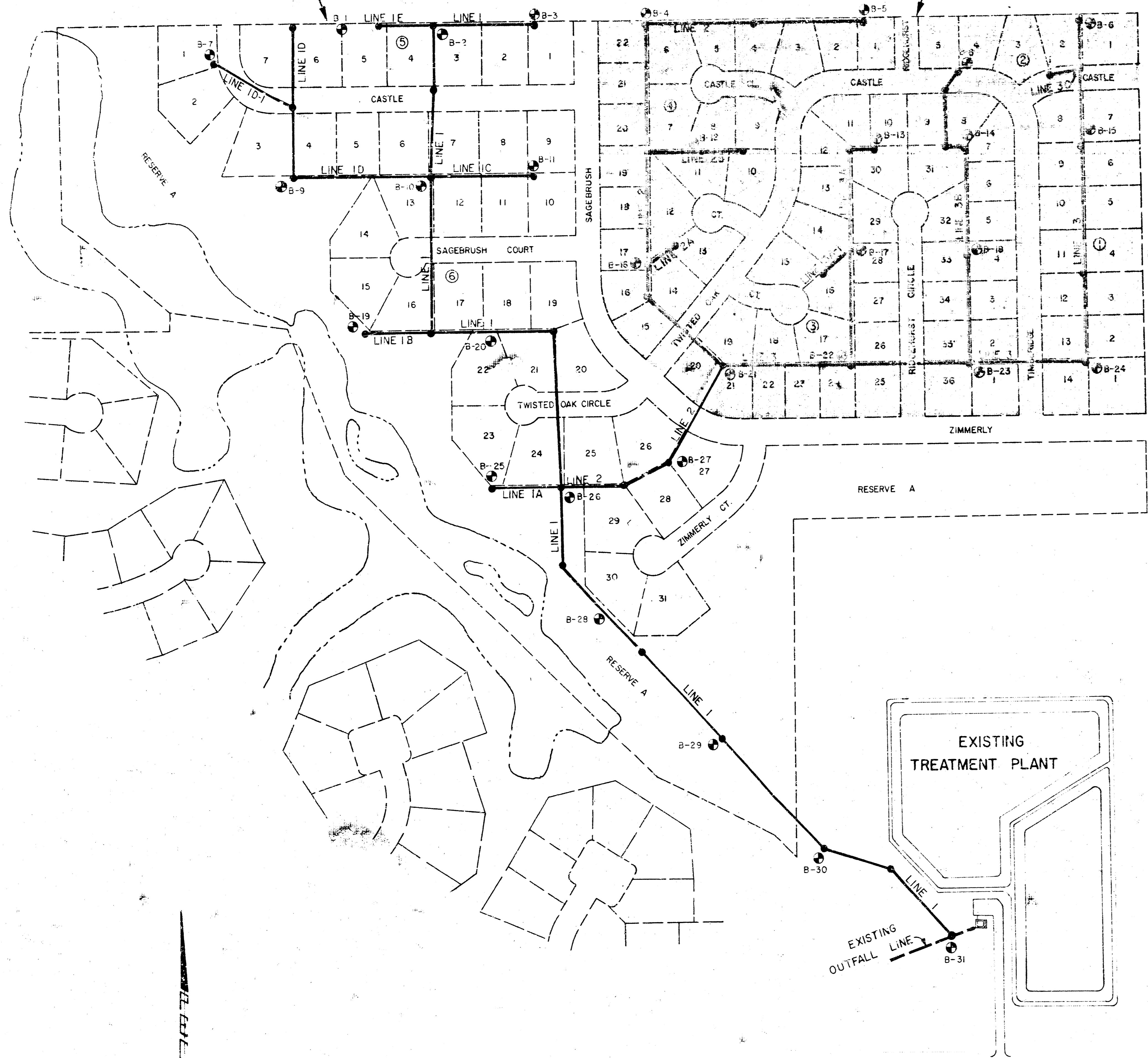
APPROVED

[Signature] 9-20-77

WICHITA SEDGWICK COUNTY DEPARTMENT OF COMMUNITY HEALTH

TIMBER LAKES ESTATES SECOND ADDITION
SANITARY SEWER IMPROVEMENTS

TIMBER LAKES ESTATES THIRD ADDITION
FUTURE SANITARY SEWER IMPROVEMENTS



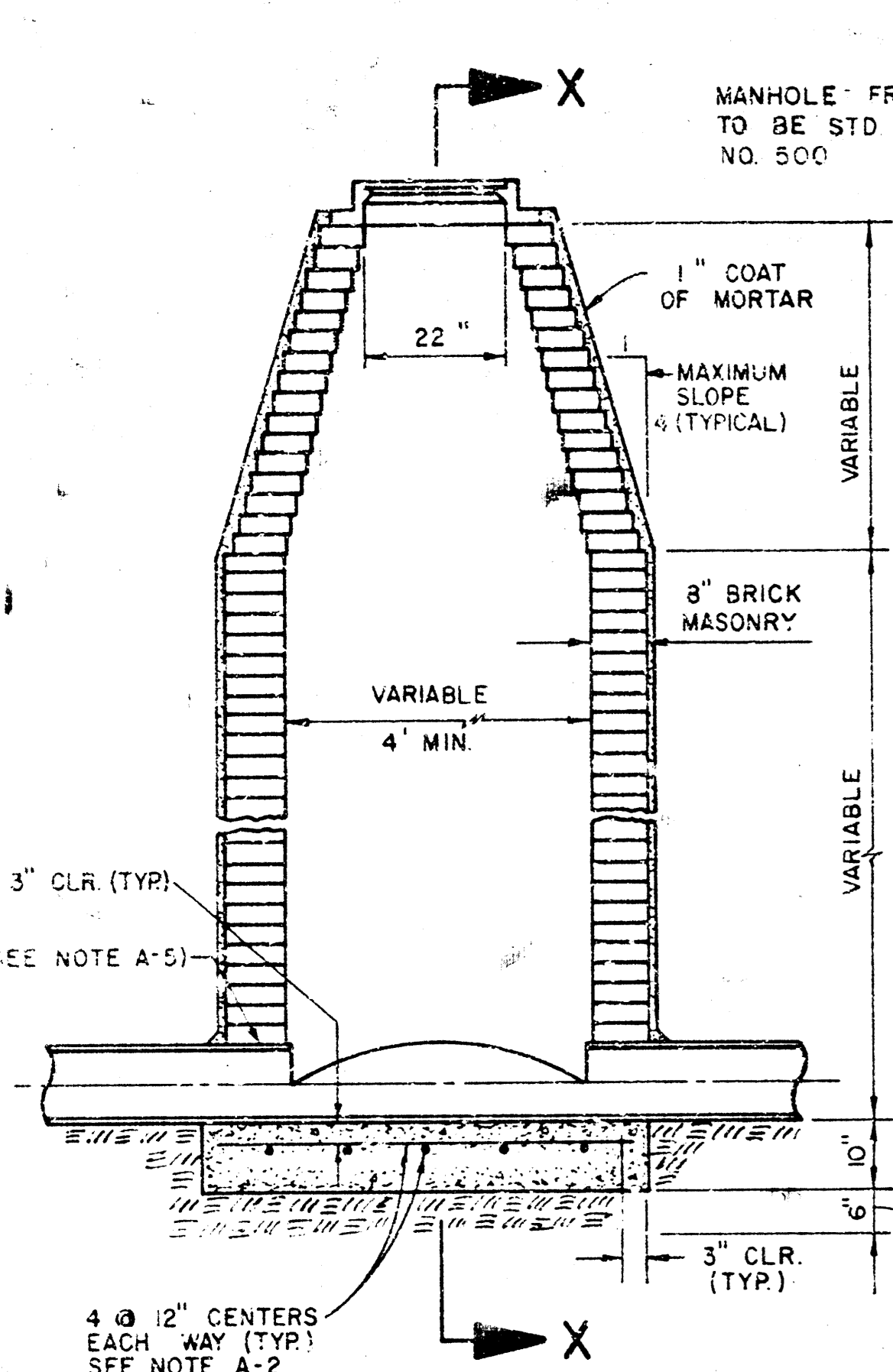
SEWER LINE	SCHEDULE
LINE NO.	SHEET NO.
1	5-6
1A	6
1B	6
1C	6
1D	7
1D-1	7
1E	7
2	7

Scale 1"=200'

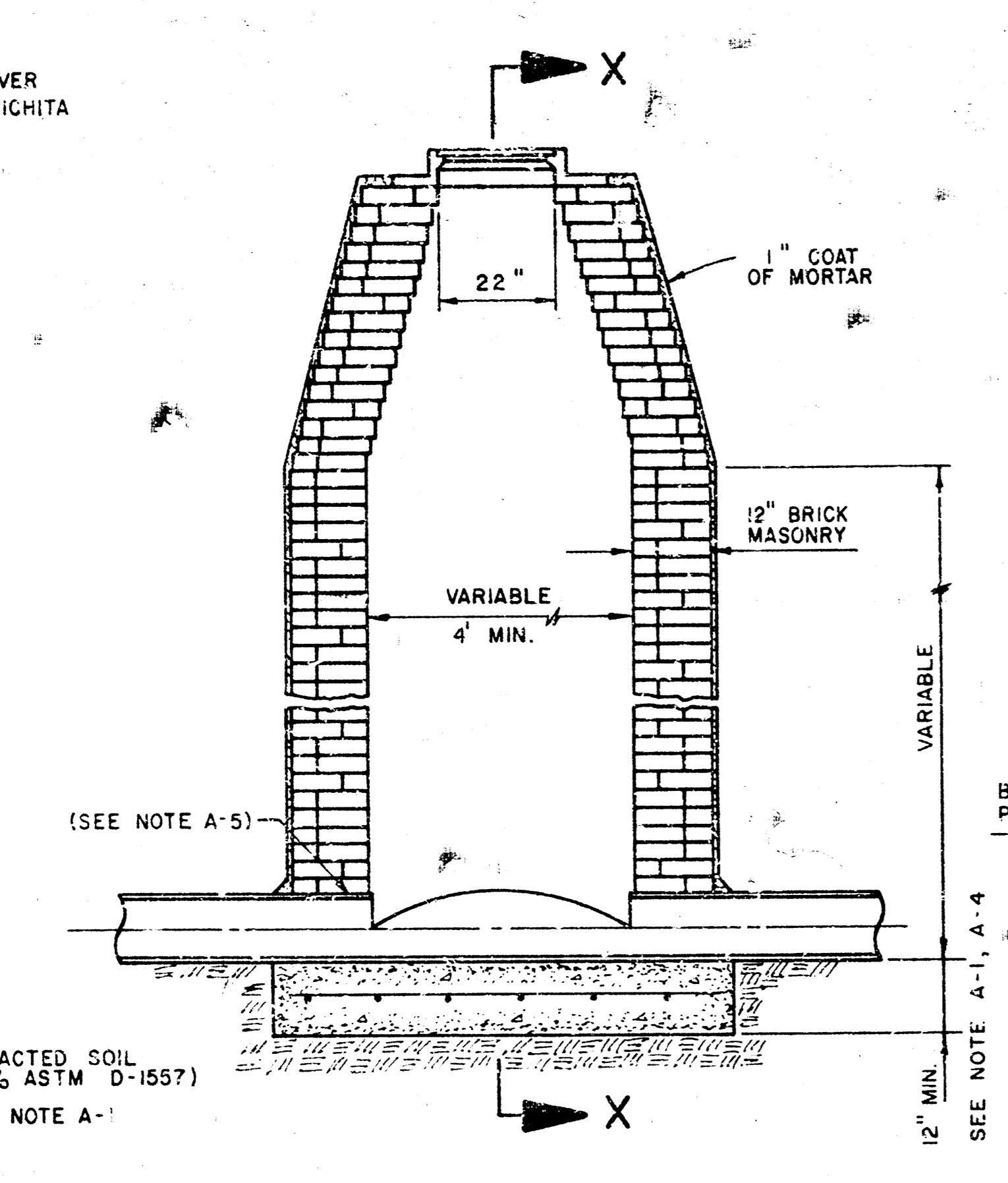
BENCH MARK LIST

- B.M. REFERENCE - PLANT SITE P.M. P.R. SPIKE IN ROOT AT THE NORTHEASTERLY SIDE 42" DIA. COTTONWOOD AT THE W. SIDE TREATMENT PLANT AREA 60' N.W. OF LIFT STATION. ELEV. 1289.24 (M.S.L.)
- B.M. #1 TOP OF 1/2" BURNER 1285' S. AND 11' W. OF N.E. COR. W. 1/2 S.E. 1/4, SEC. 25, T27S, R2E, OF 6TH P.M. ELEV. 1299.5 (M.S.L.)
- B.M. #2 P.P. SPIKE IN SOUTHWESTERLY SIDE OF HEDGE TREE (1.0' ABOVE GROUND) 20' W. OF N.E. CORNER W. 1/2, S.E. 1/4, SEC. 25 OF 6TH P.M. ELEV. 1298.96 (M.S.L.)
- B.M. #4 TOP OF 1/2" PIPE 28' E. AND 73' S. OF N.E. COR. S.W. 1/4, SEC. 25, T27S, R2E, OF 6TH P.M. ELEV. 1300.9 (M.S.L.)

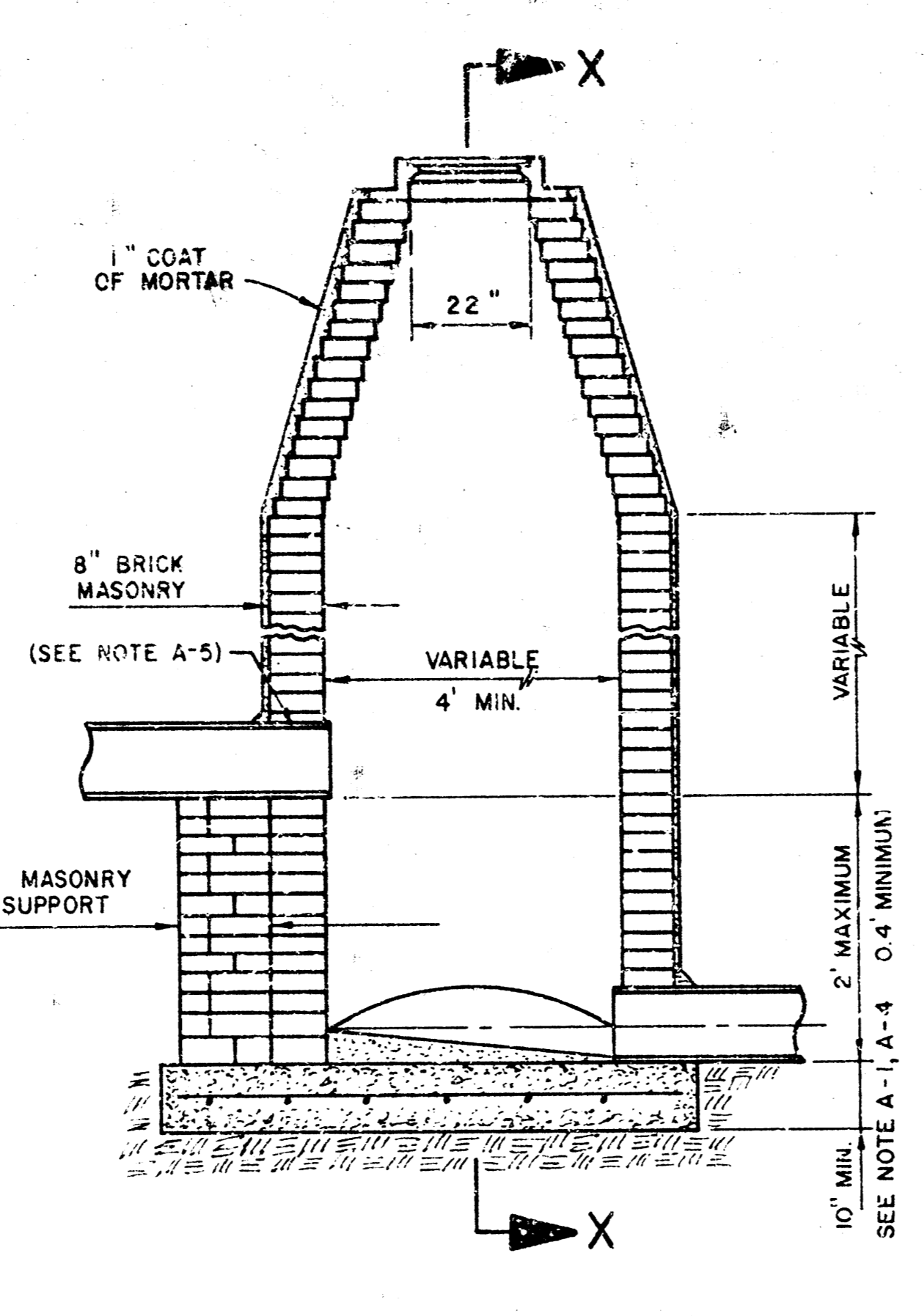
No.	Revised
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS G. C. McLURE, JR., PE DIRECTOR & COUNTY ENGINEER	
KEY MAP & SCHEDULE	
SANITARY SEWER IMPROVEMENTS TIMBER LAKES ESTATES 2nd & 3rd ADDITIONS	
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.	
ENGINEERS WICHITA, KANSAS	
Designed by: MOS	Drawn: 7/24/88



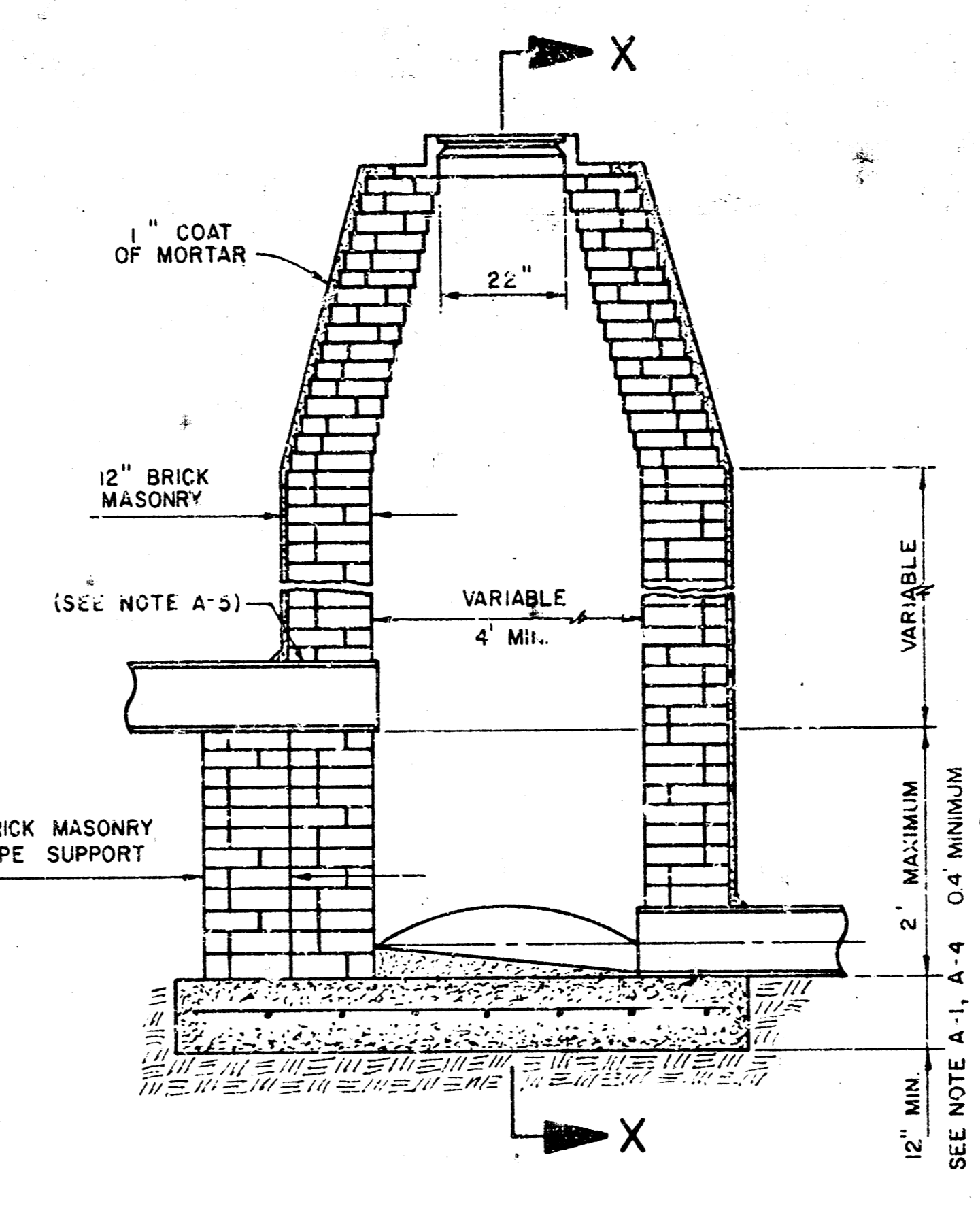
STANDARD MANHOLE TYPE A



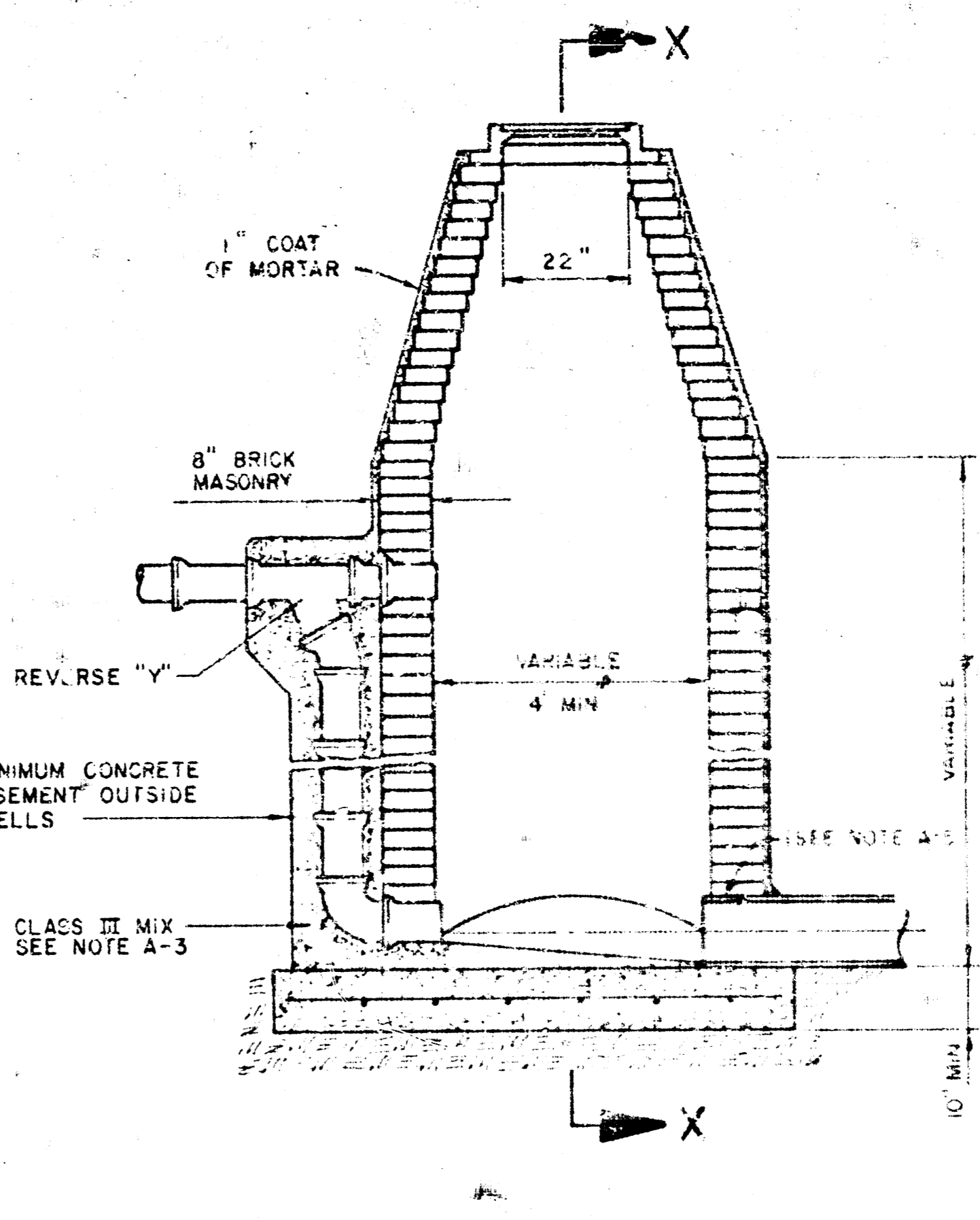
STANDARD MANHOLE TYPE AA



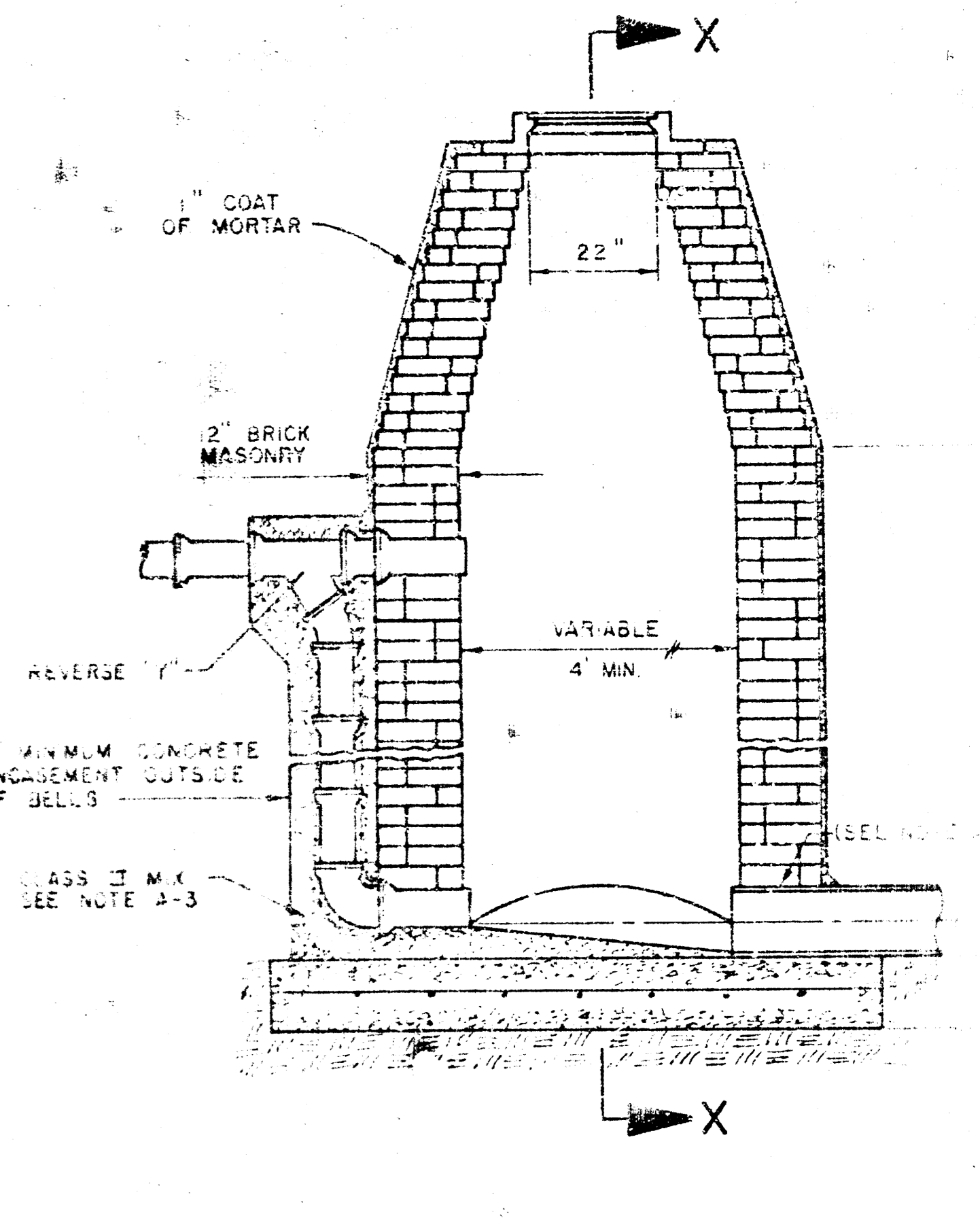
DROP MANHOLE TYPE B



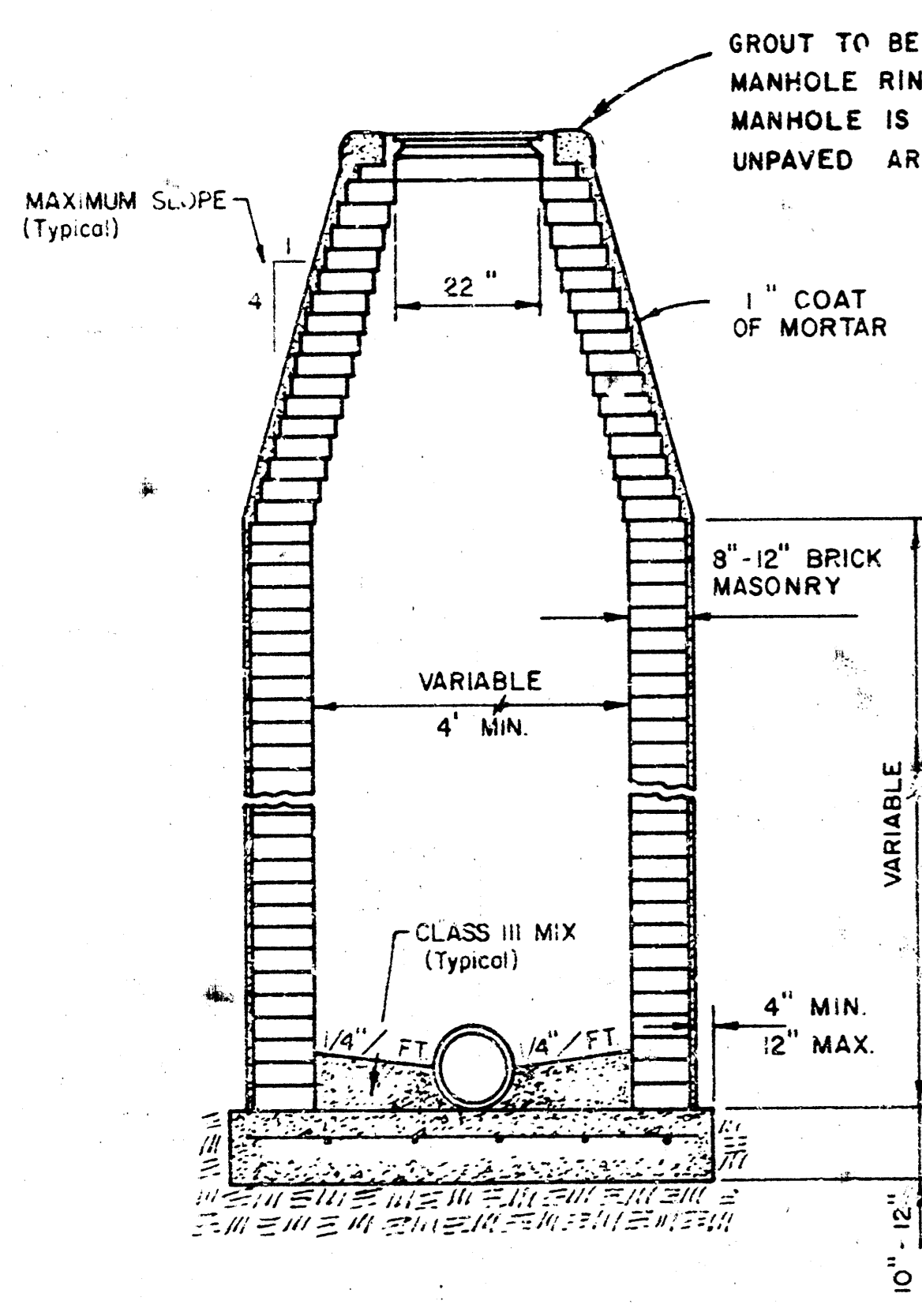
DROP MANHOLE TYPE BB



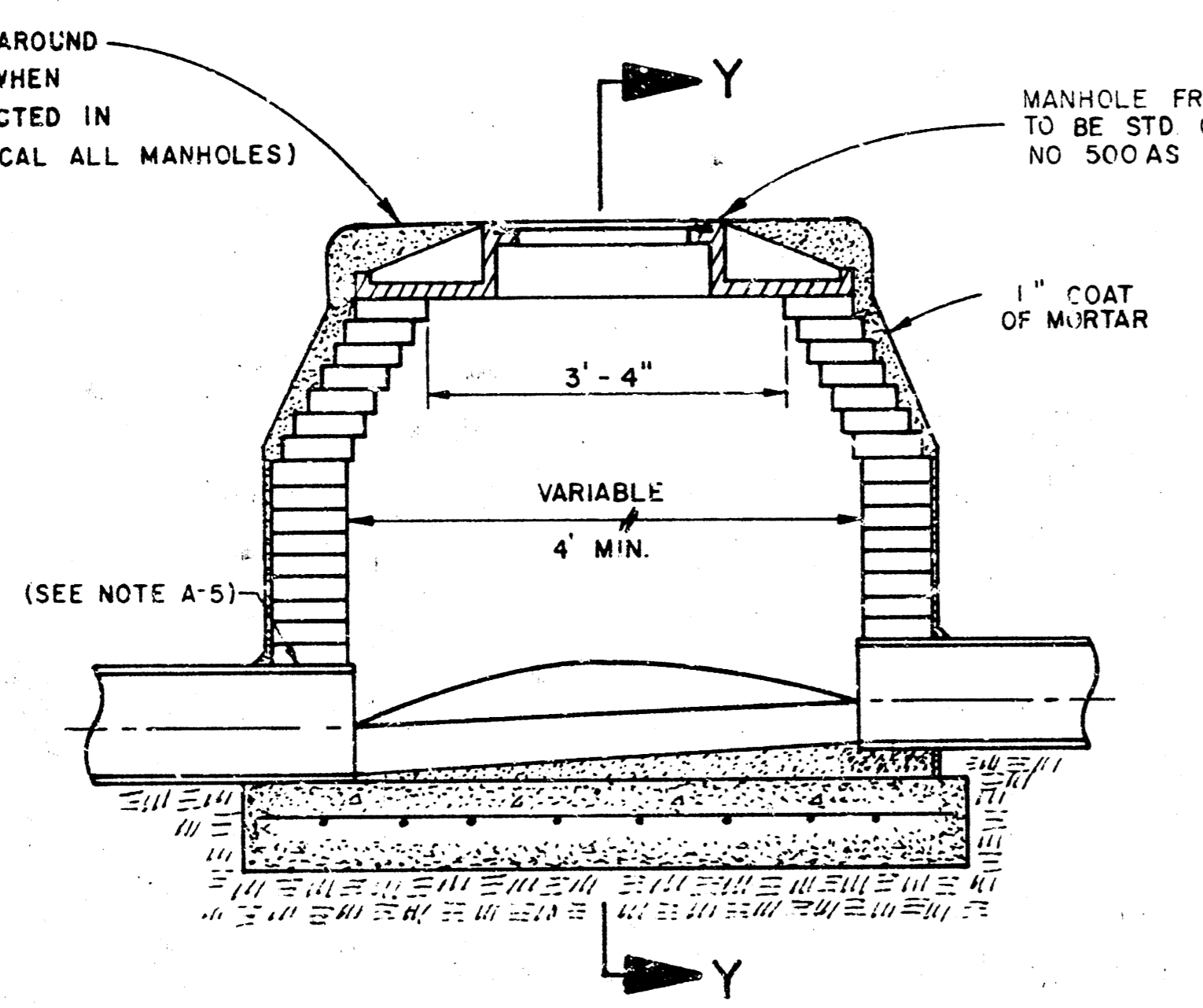
OUTSIDE DROP MANHOLE TYPE C



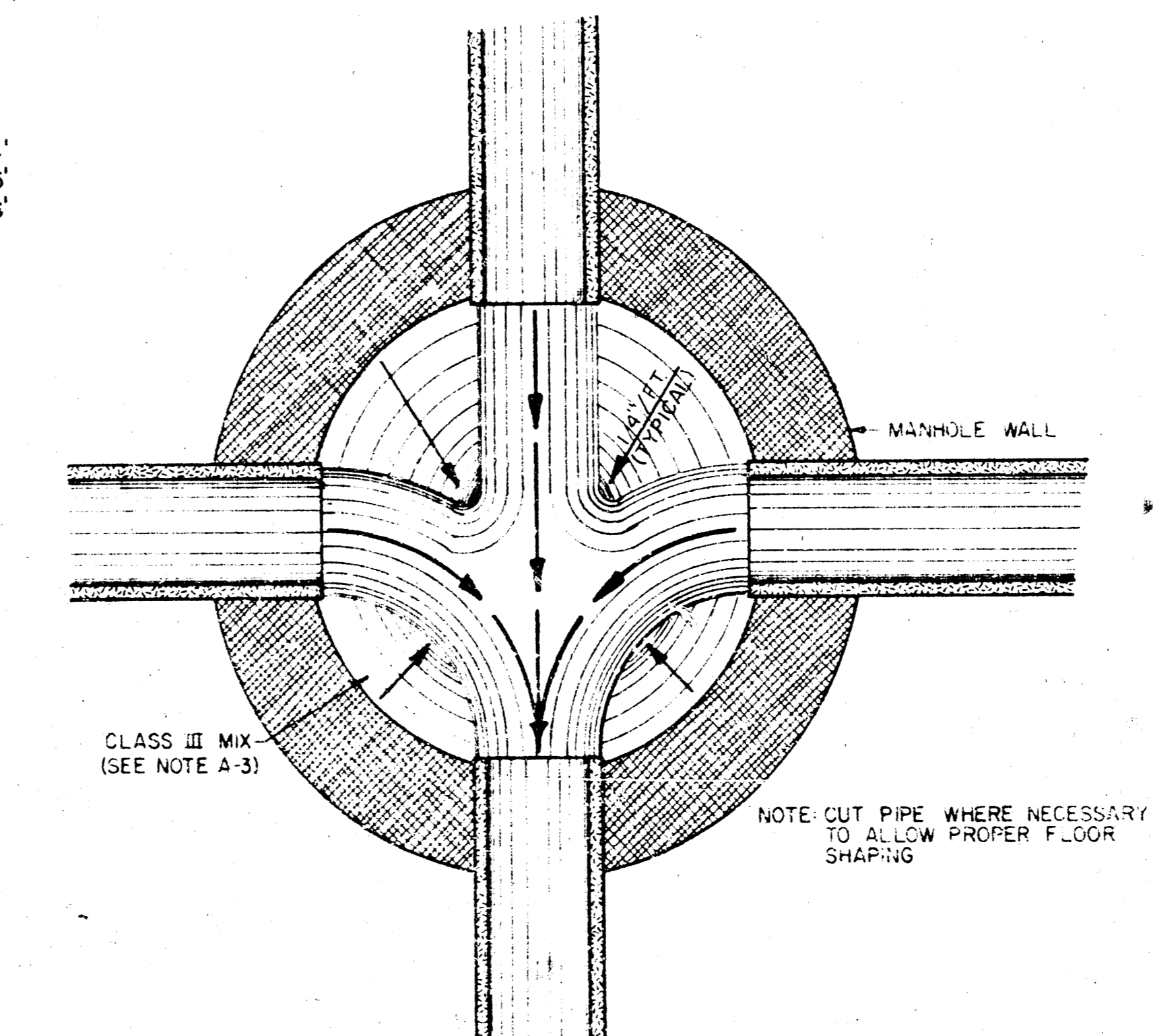
OUTSIDE DROP MANHOLE TYPE CC



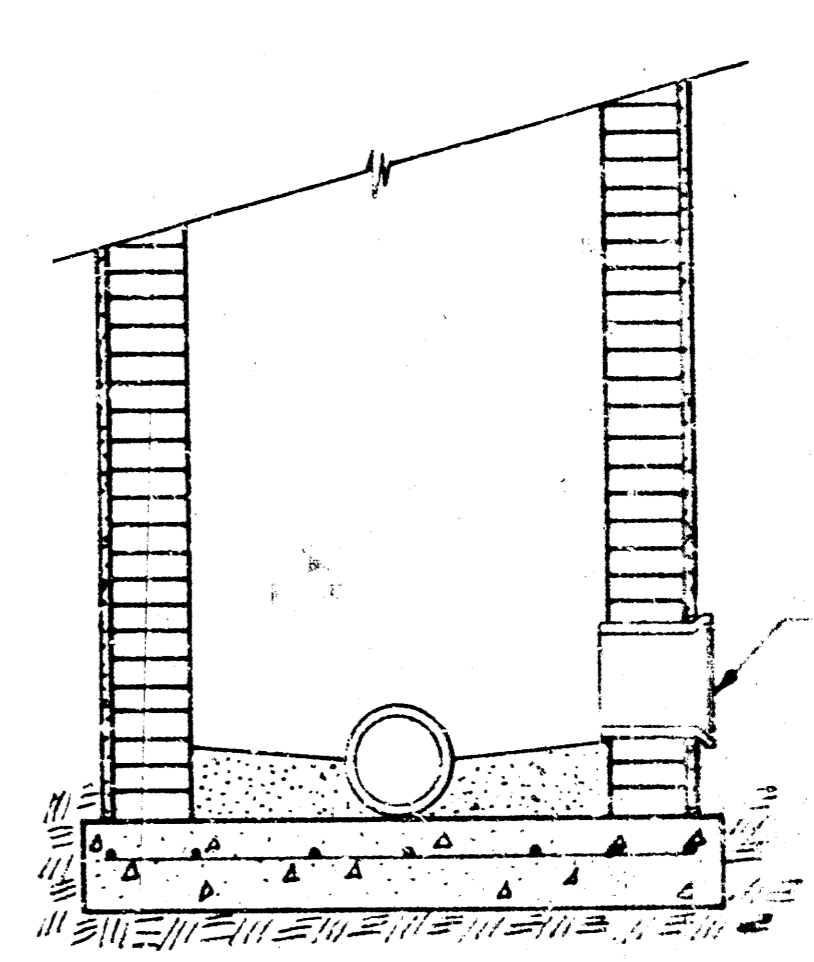
SHALLOW MANHOLE TYPE D



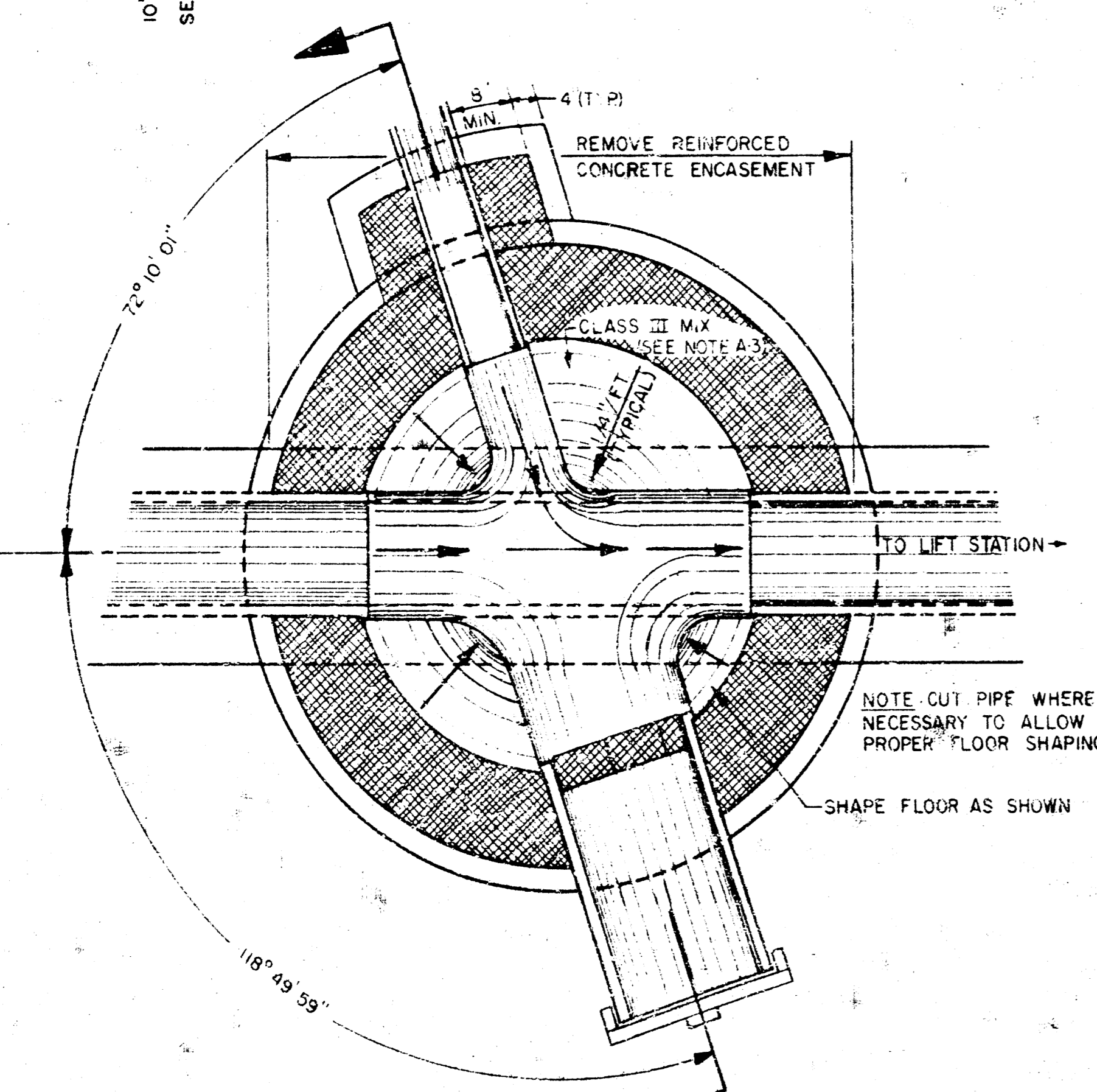
SECTION Y



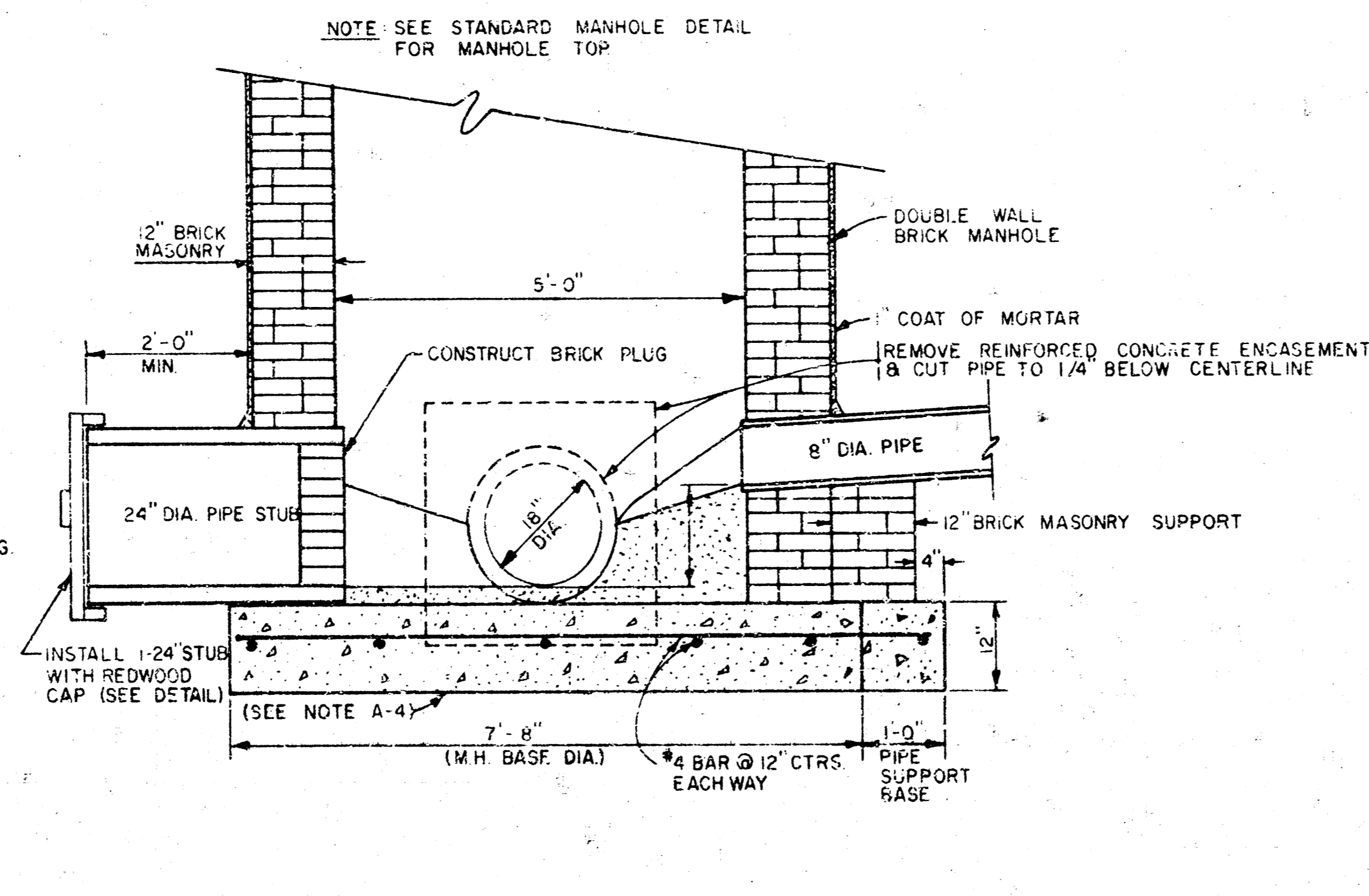
TYPICAL MANHOLE FLOOR SHAPING



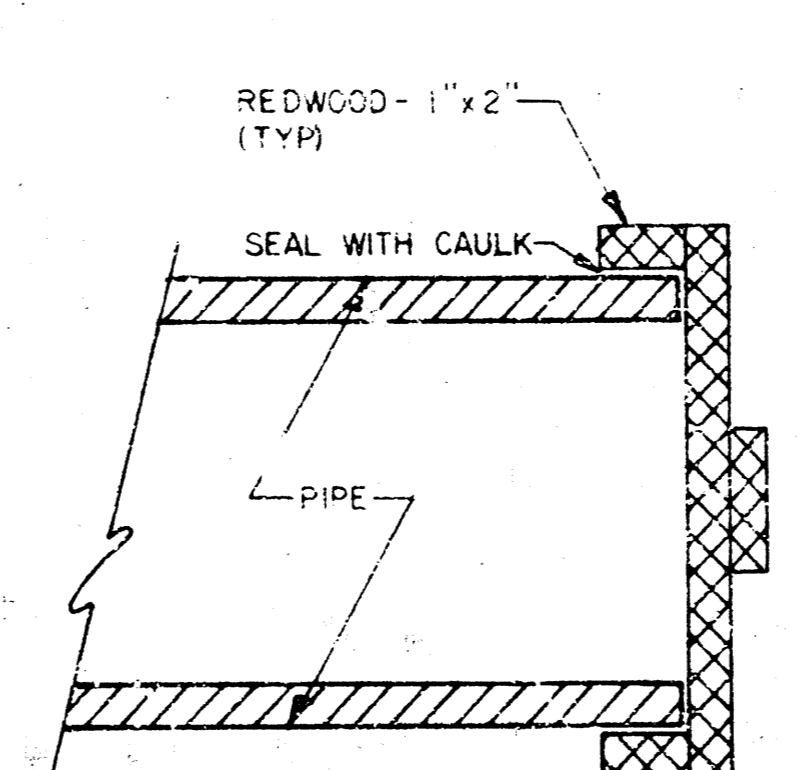
STUB DETAIL



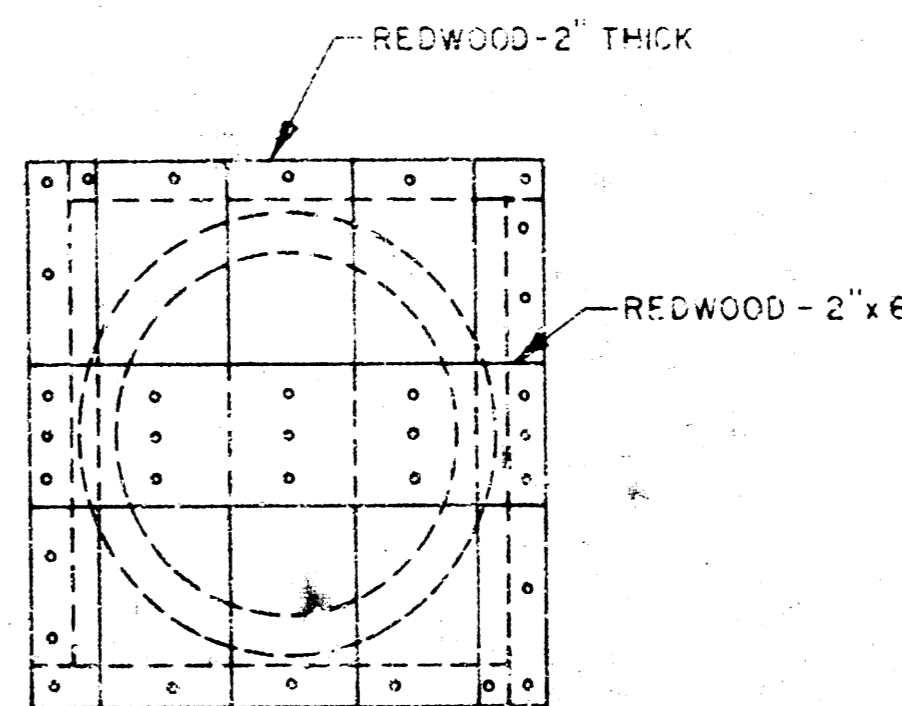
SPECIAL MANHOLE FLOOR SHAPING



SPECIAL MANHOLE SECTION

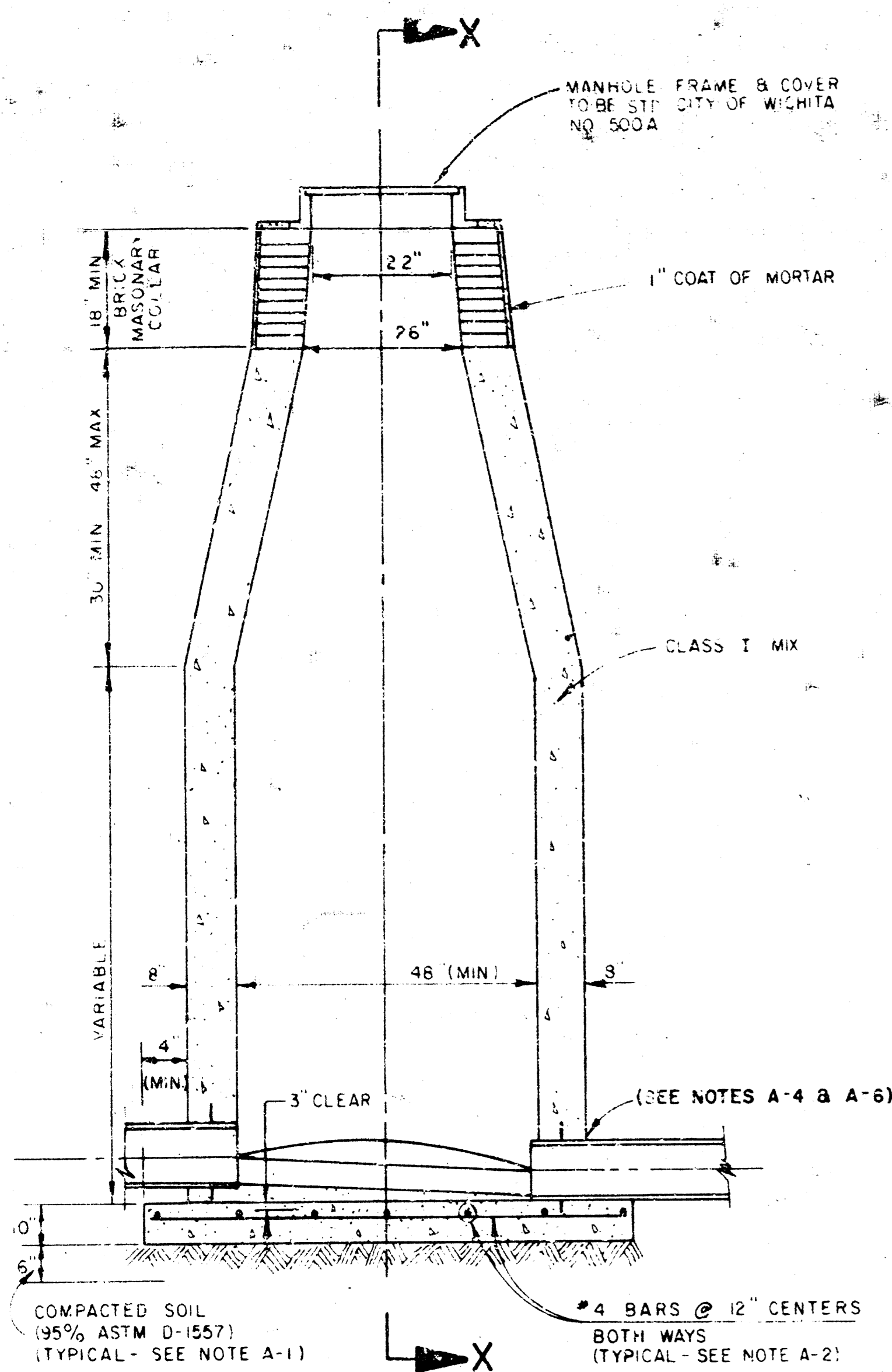


REDWOOD CAP DETAIL

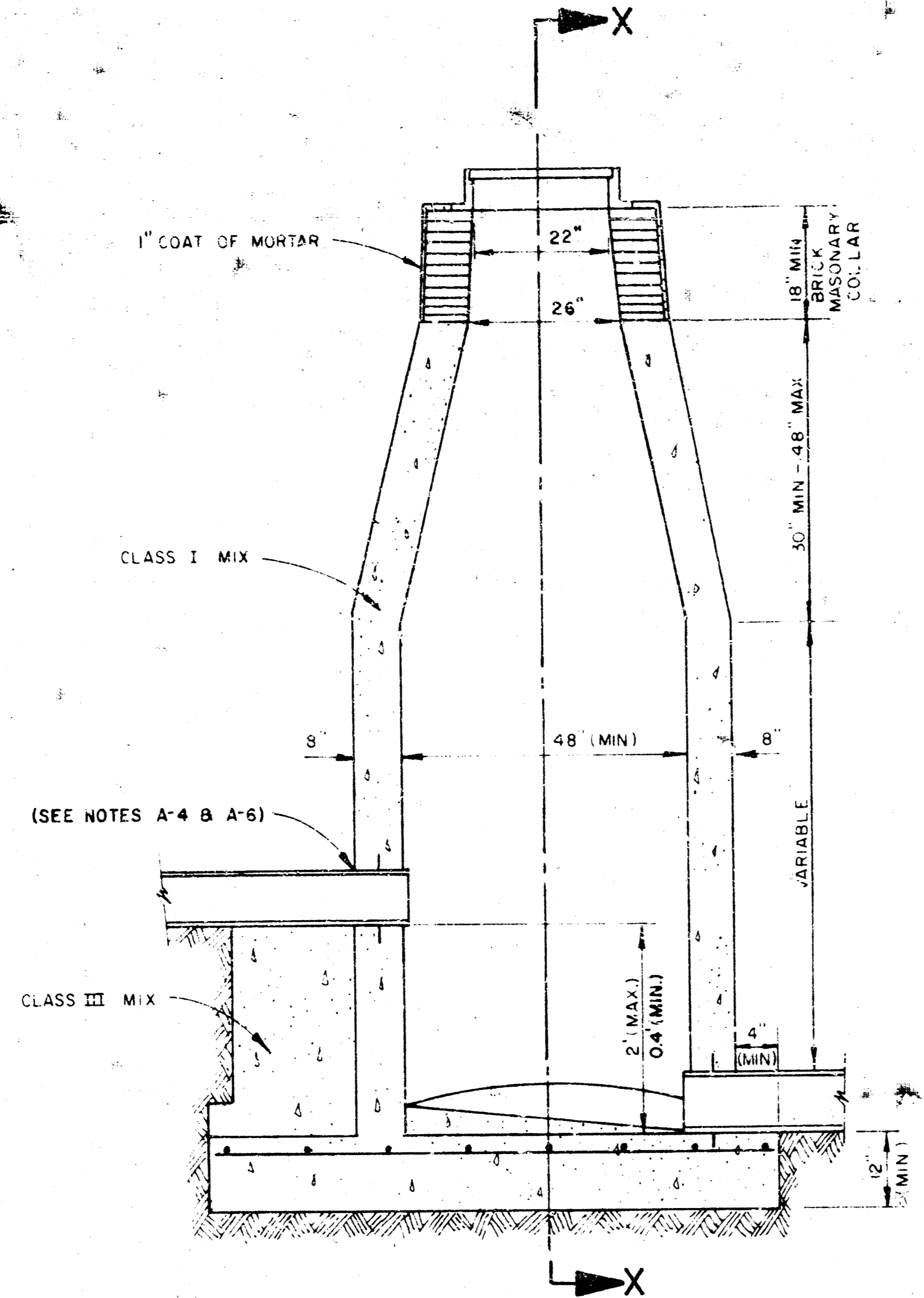


THE DESIGN OF THE ENGINEER IS THE BASIS FOR THE CONTRACTOR'S OBLIGATION TO CONSTRUCT THE MANHOLE AS SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF THE MANHOLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF THE MANHOLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF THE MANHOLE.

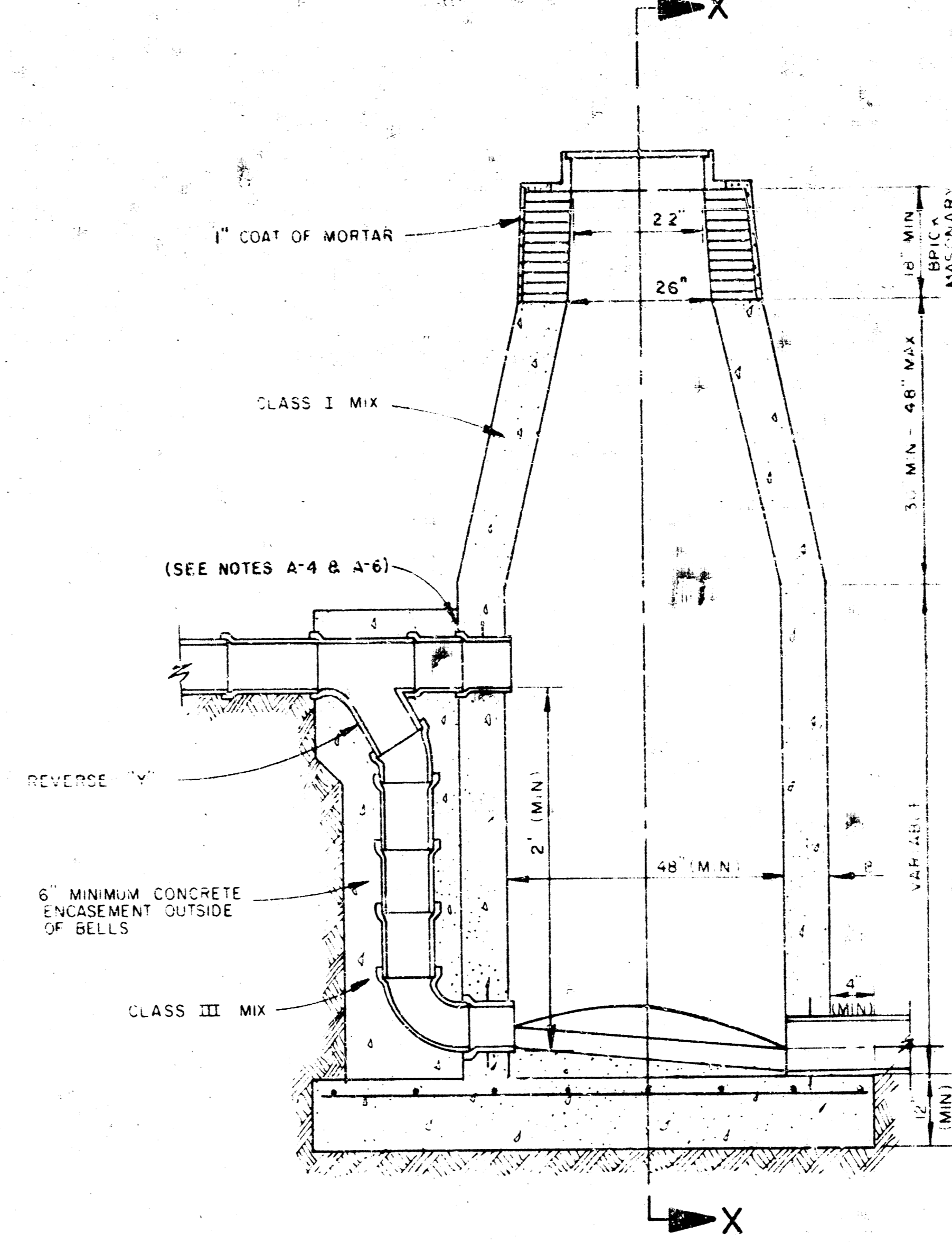
No.	Revision	By	Date
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS G. C. MCLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER SANITARY SEWER DETAILS SANITARY SEWER IMPROVEMENTS TIMBER LAKE ESTATES 2nd & 3rd ADDITIONS PROFESSIONAL ENGINEERING CONSULTANTS, P.A. ENGINEERS WICHITA, KANSAS			



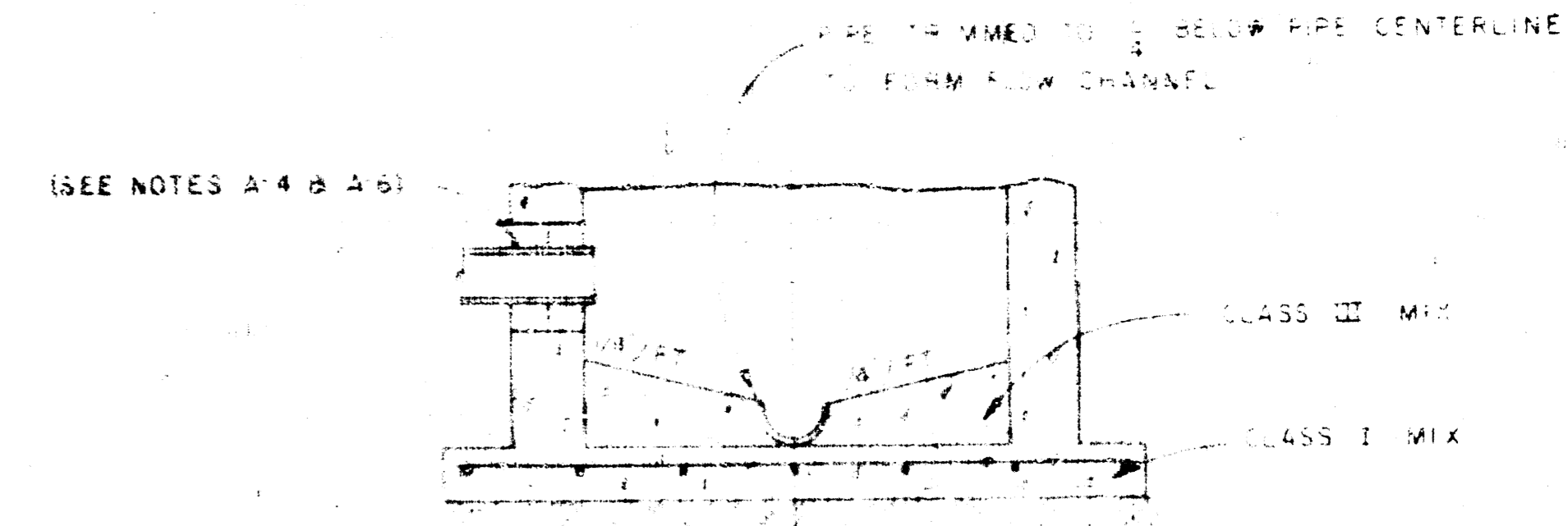
CAST IN PLACE
STANDARD MANHOLE
TYPE "E-A"



CAST IN PLACE
DROP MANHOLE
TYPE "E-B"



CAST IN PLACE
OUTSIDE DROP MANHOLE
TYPE "E-C"



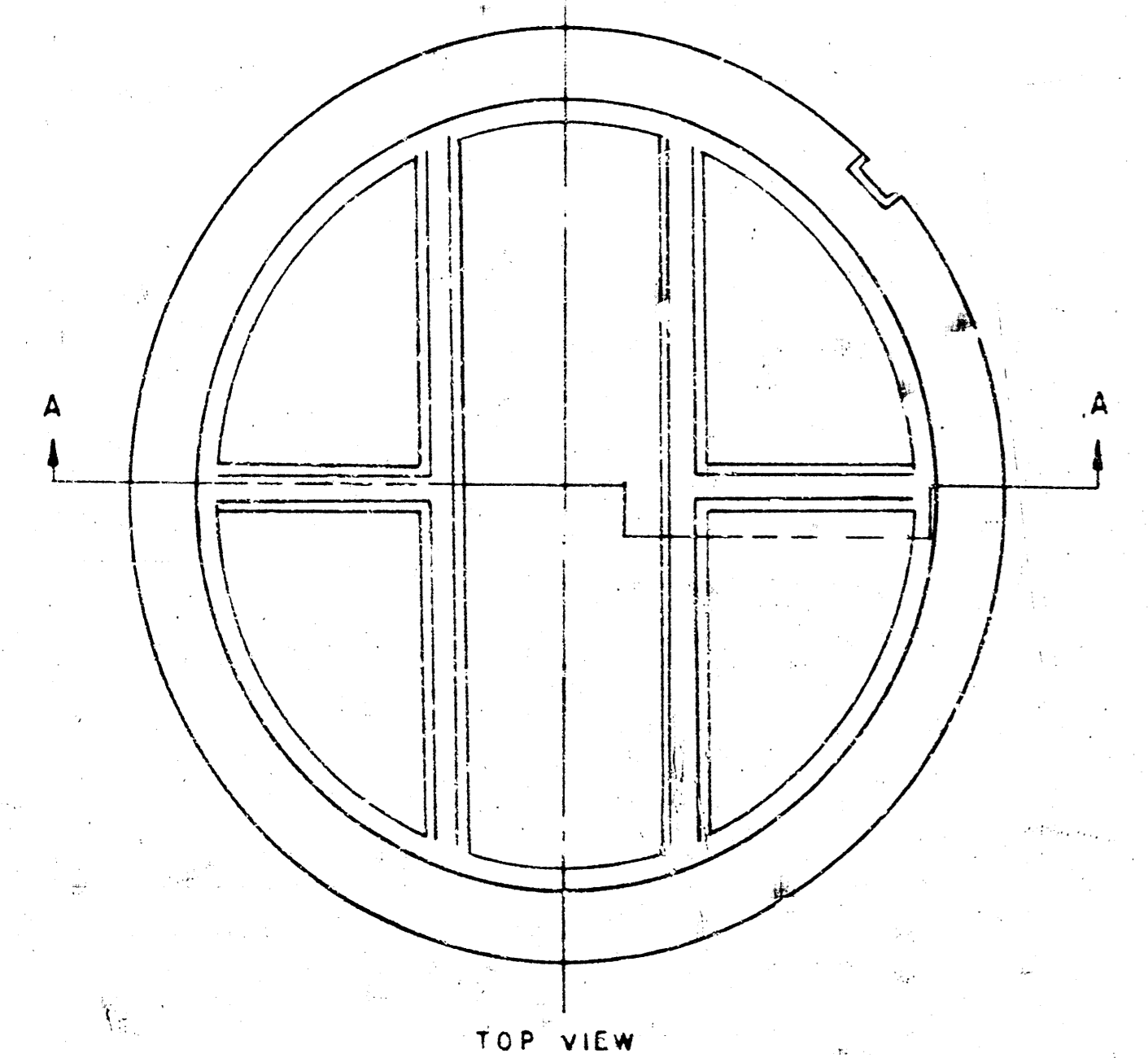
SECTIONAL ELEVATION-INVERT

PRECAST MANHOLES

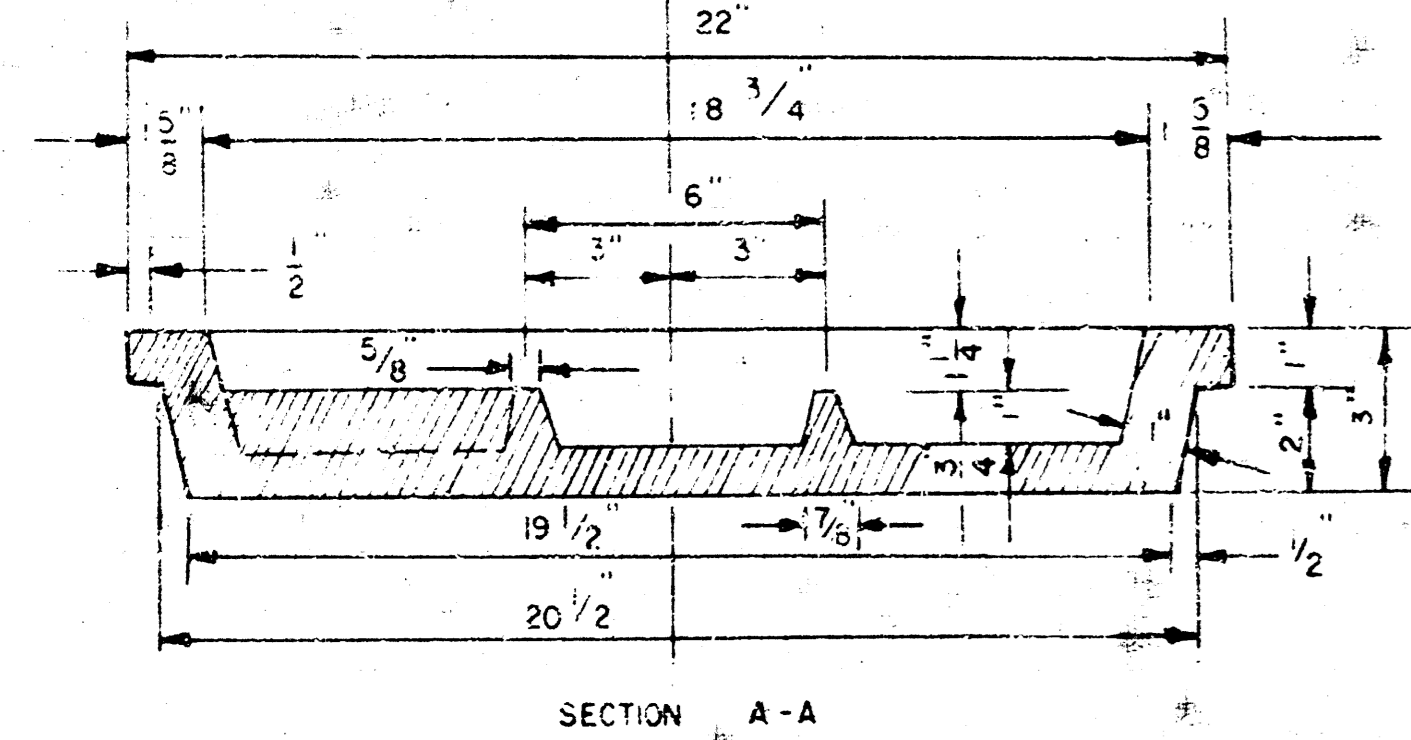
PRECAST MANHOLES MAY BE SUBSTITUTED FOR THE 8" THICK CAST-IN-PLACE MANHOLES. THE MANHOLE BASE AND OUTSIDE MANHOLE PIPE SUPPORTS FOR PRECAST MANHOLES WILL BE THE SAME AS SHOWN FOR CAST-IN-PLACE MANHOLES.

NOTES

1. IF IN THE OPINION OF THE ENGINEER THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR HAS THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING IS REQUIRED IN ALL MANHOLE BASES.
3. MORTAR USED IN MASONRY CONSTRUCTION TO BE CLASS I MIX.
4. WHEN OPENINGS ARE CUT IN MANHOLE WALL FOR PIPE, PIPE SHALL BE DROUGHT IN PLACE WITH NON-SHRINKING GROUT. EXTERIOR OF COMPLETED CONNECTION TO BE SEALED WITH APPROVED COATING.
5. CAST-IN-PLACE CIRCULAR CONCRETE MANHOLES ARE TO BE CONSTRUCTED ONLY ON SEWERS NOT SUBJECT TO DEGRADATION DUE TO FORMATION OF HYDROGEN SULFIDE GAS AND IN LOCATIONS WHERE IT IS OBVIOUS THAT AN ADJUSTMENT OF THE MANHOLE TOP ELEVATION WHICH MAY BE NECESSARY WILL NOT REQUIRE MODIFICATION OF THE CONCRETE BARREL.
6. WATERSTOP BASKETS SHALL BE INSTALLED IN MANHOLE WALLS WHEN A.B.S. COMPOSITE PIPE, POLYETHYLENE PIPE, OR P.V.C. PIPE IS USED.
7. PRECAST MANHOLES SHALL BE SET 4 INCHES INTO THE MANHOLE BASE.



TOP VIEW

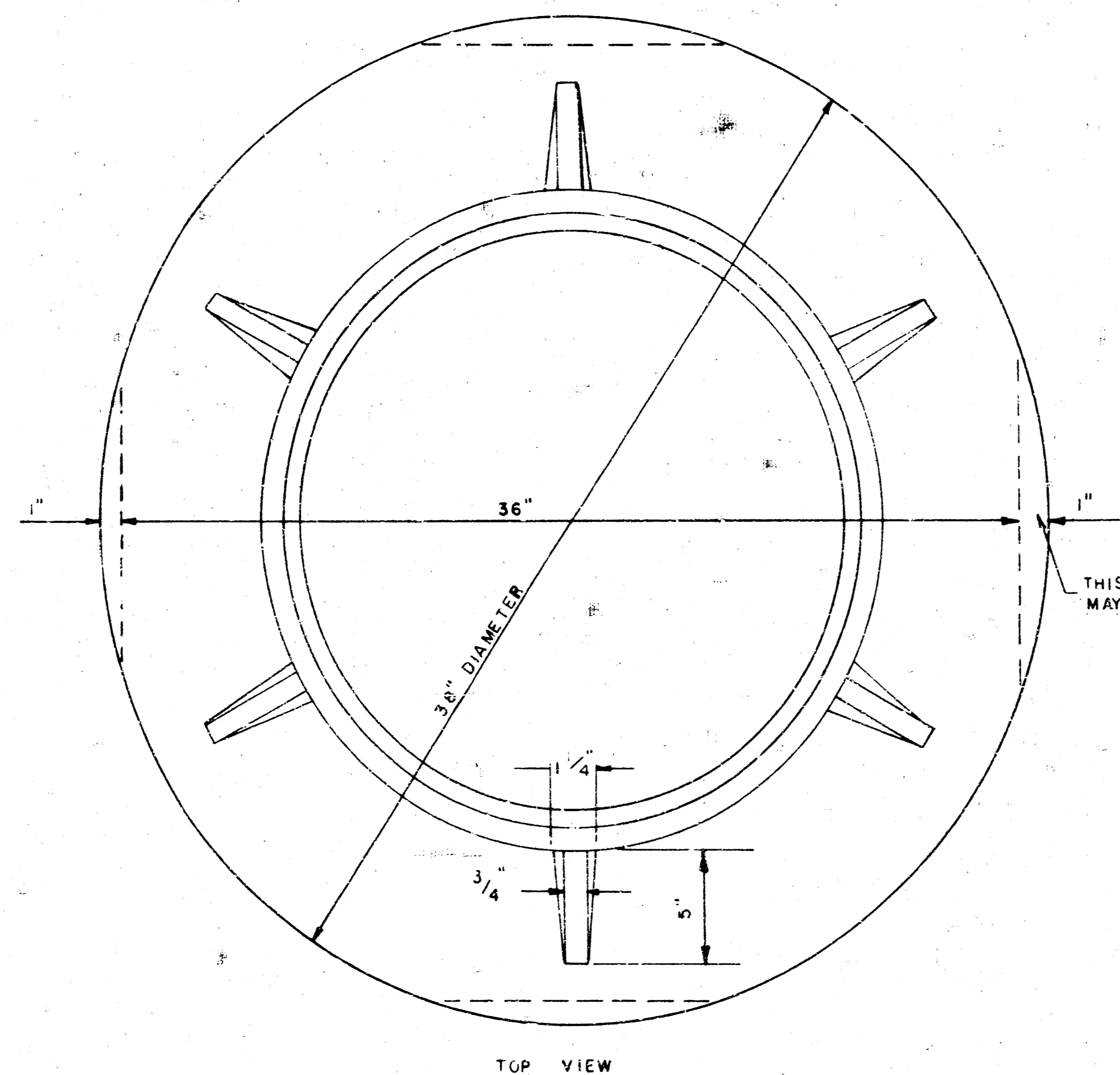
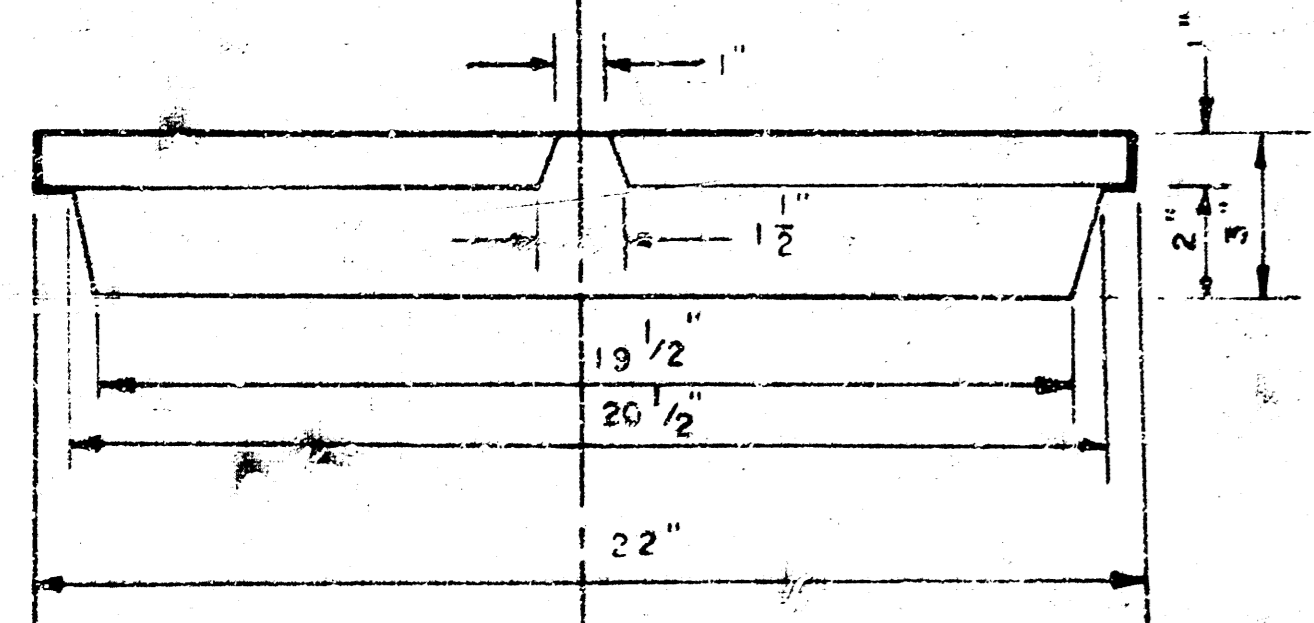


SECTION A-A

MANHOLE COVER

WEIGHT 110 LBS

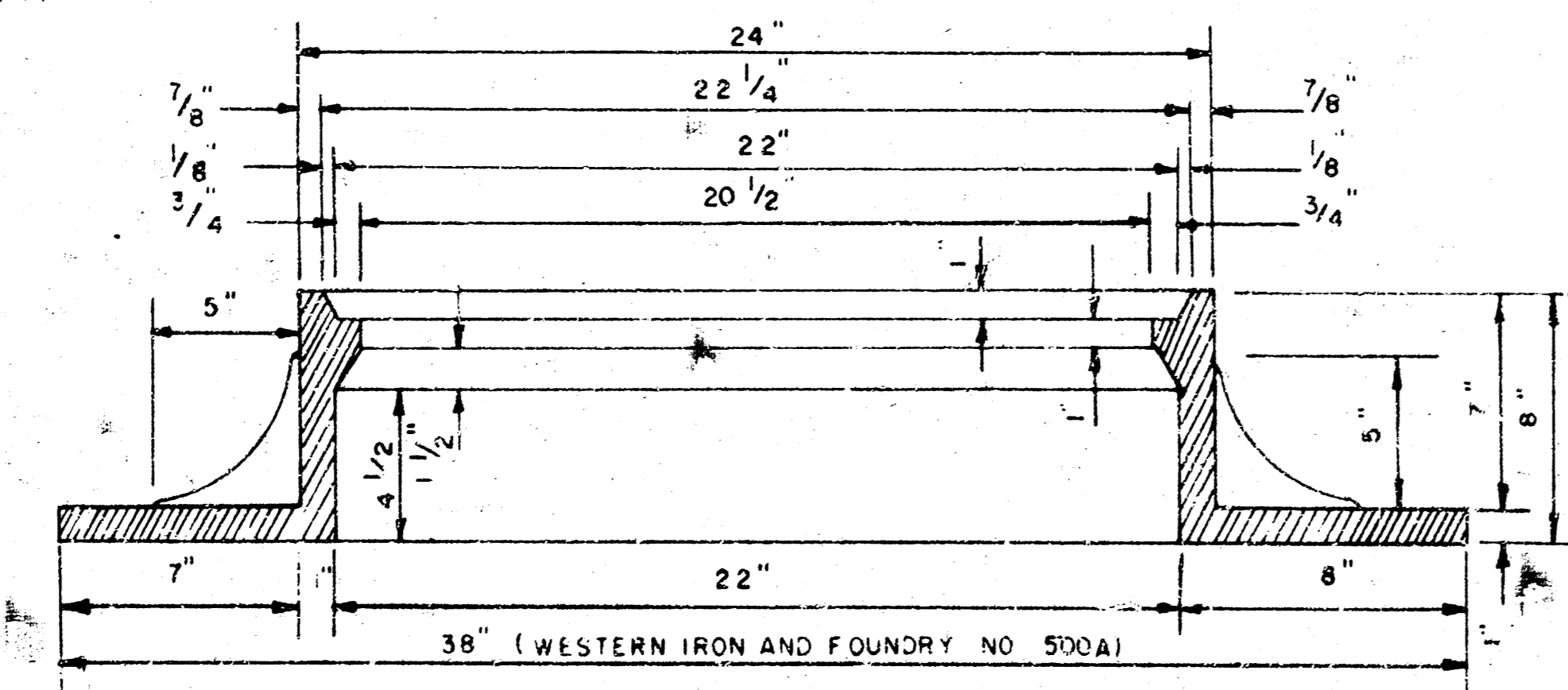
SIDE VIEW



TOP VIEW

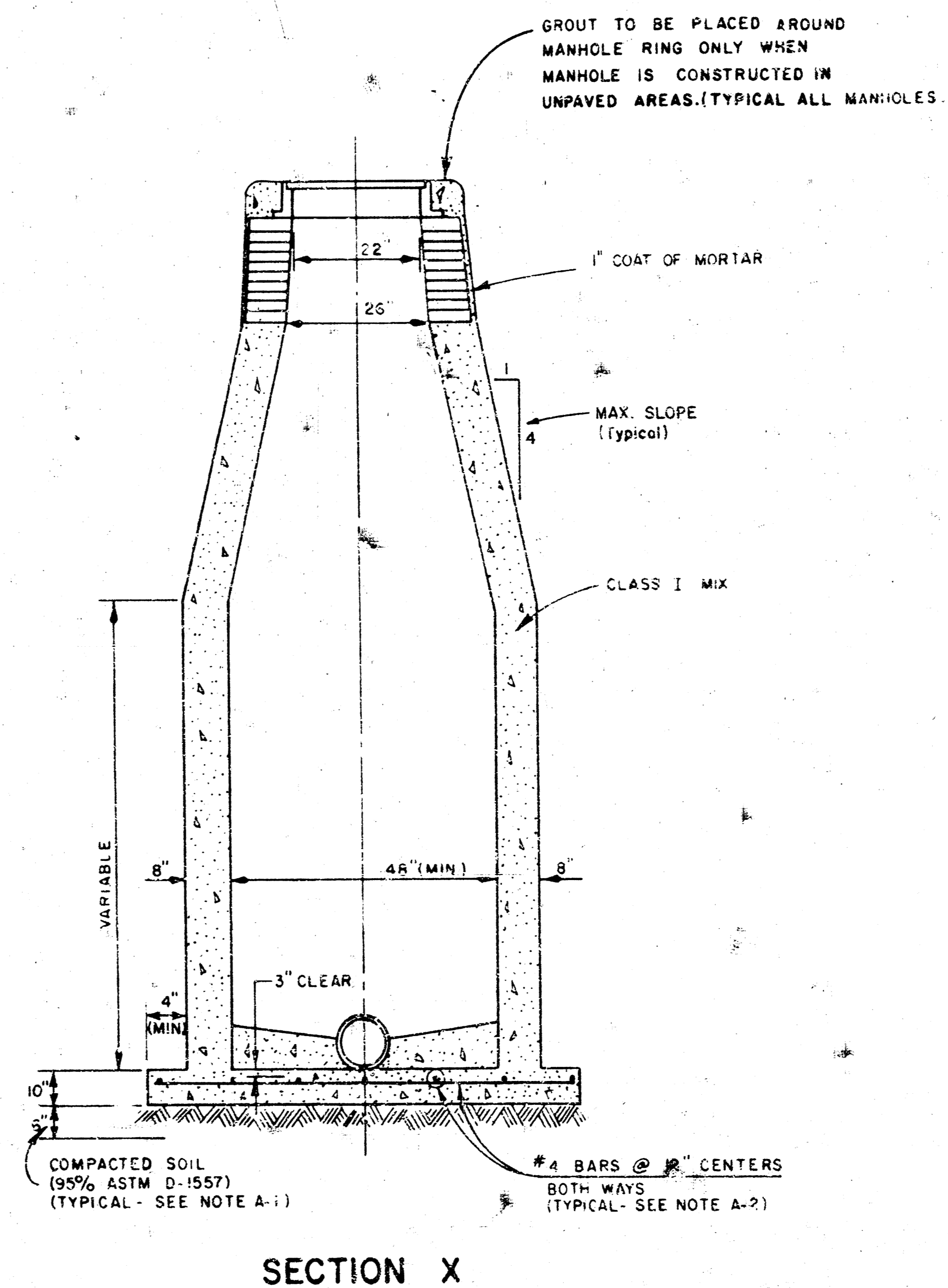
WEIGHT 325 LBS RING

OUTSIDE CIRCUMFERENCE OF COVER AND THE INNER FACE AND SEAT OF RING TO BE MACHINE FIT



SECTION VIEW

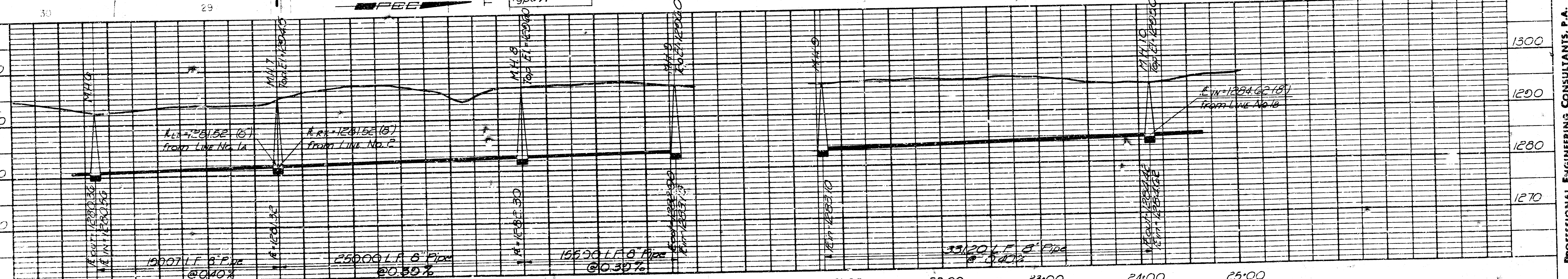
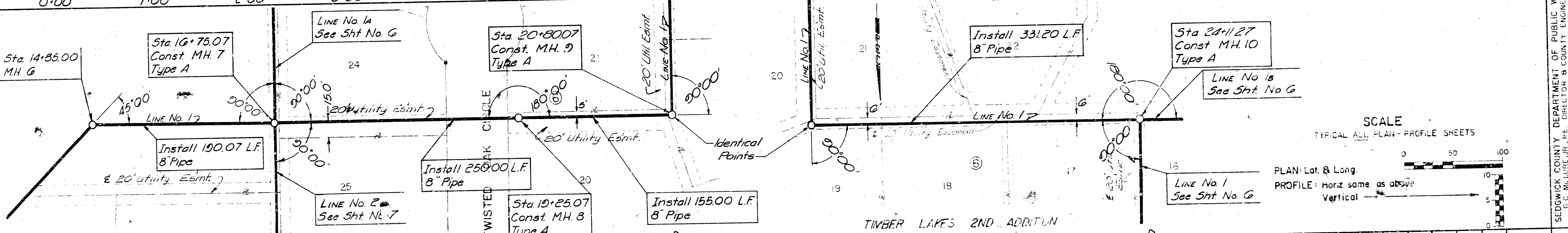
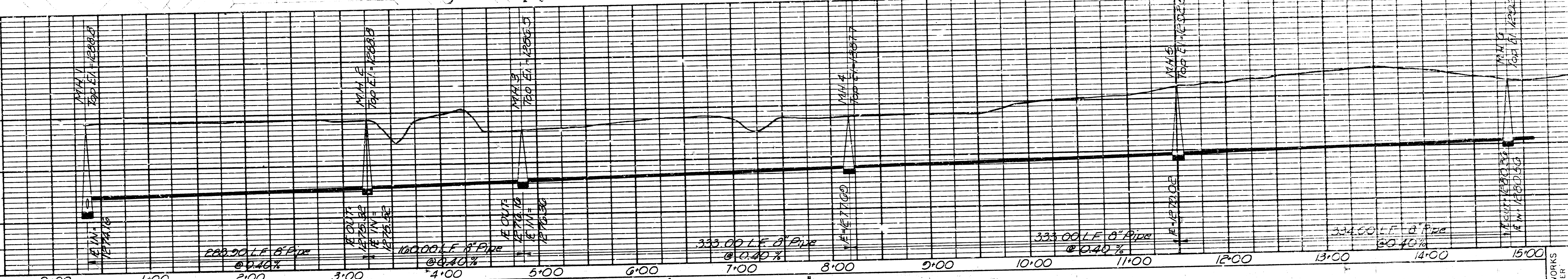
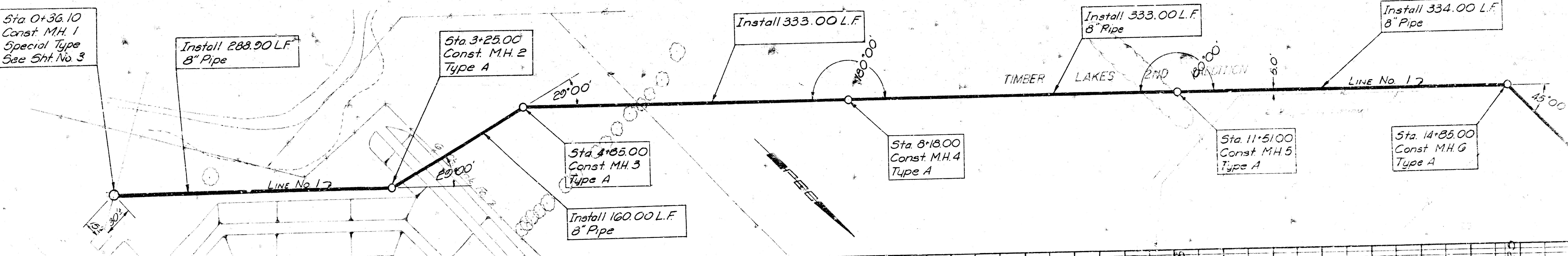
MANHOLE RING



SECTION X

STANDARD MANHOLES TYPE "E-A", "E-B", AND "E-C" MAY BE BID IN LIEU OF STANDARD MANHOLES "A and AA", "B and BB", AND "C and CC", RESPECTIVELY.

No.	Revision	By	Date
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS G. C. McLURE, JR., RE. DIRECTOR & COUNTY ENGINEER SANITARY SEWER DETAILS SANITARY SEWER IMPROVEMENTS TIMBER LAKES ESTATES 2nd & 3rd ADDITIONS PROFESSIONAL ENGINEERING CONSULTANTS, P.A. ENGINEERS WICHITA, KANSAS			
Designed by	M.D.S.	Job No.	76488
Drawn by		Date	JULY 1977
		Sht	4 of 7



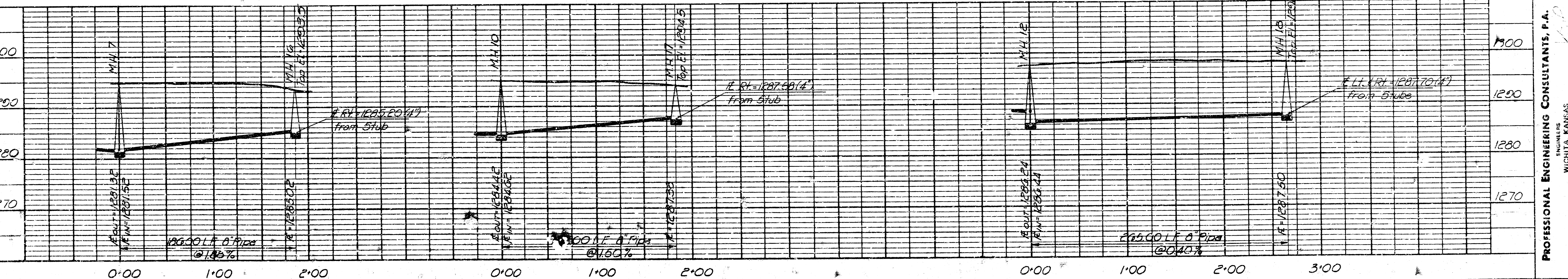
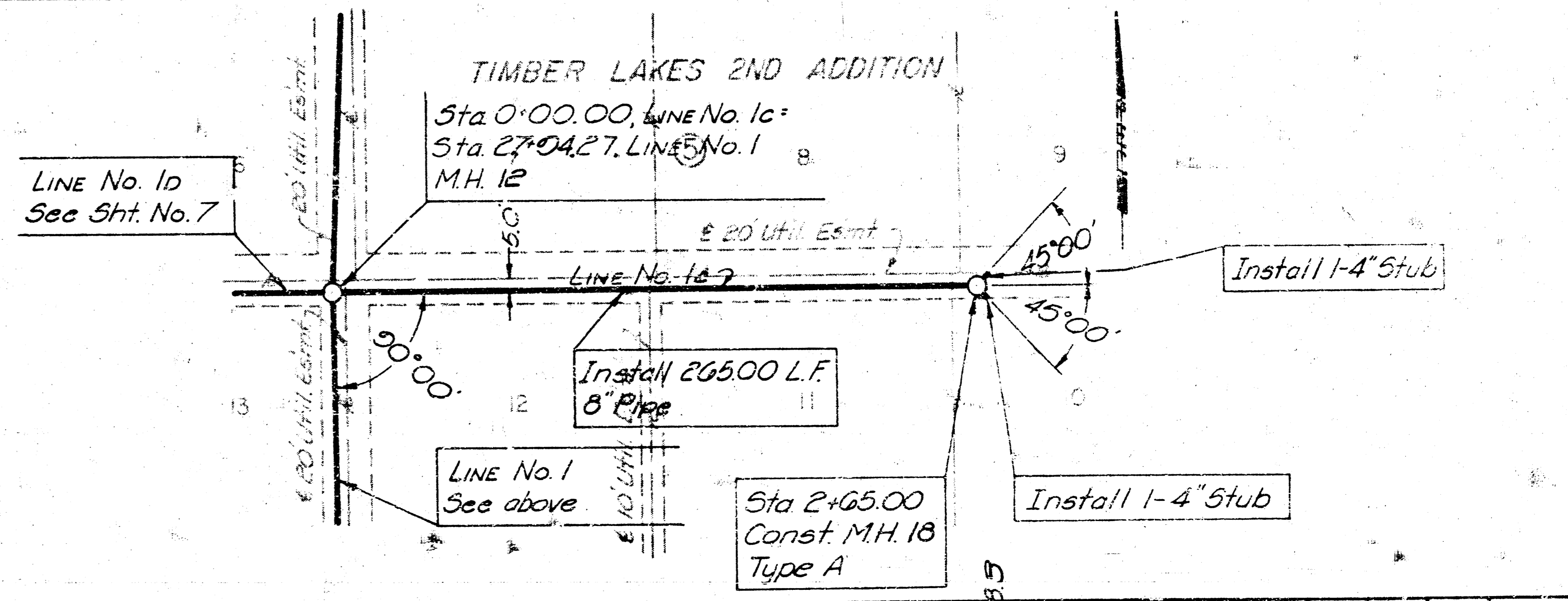
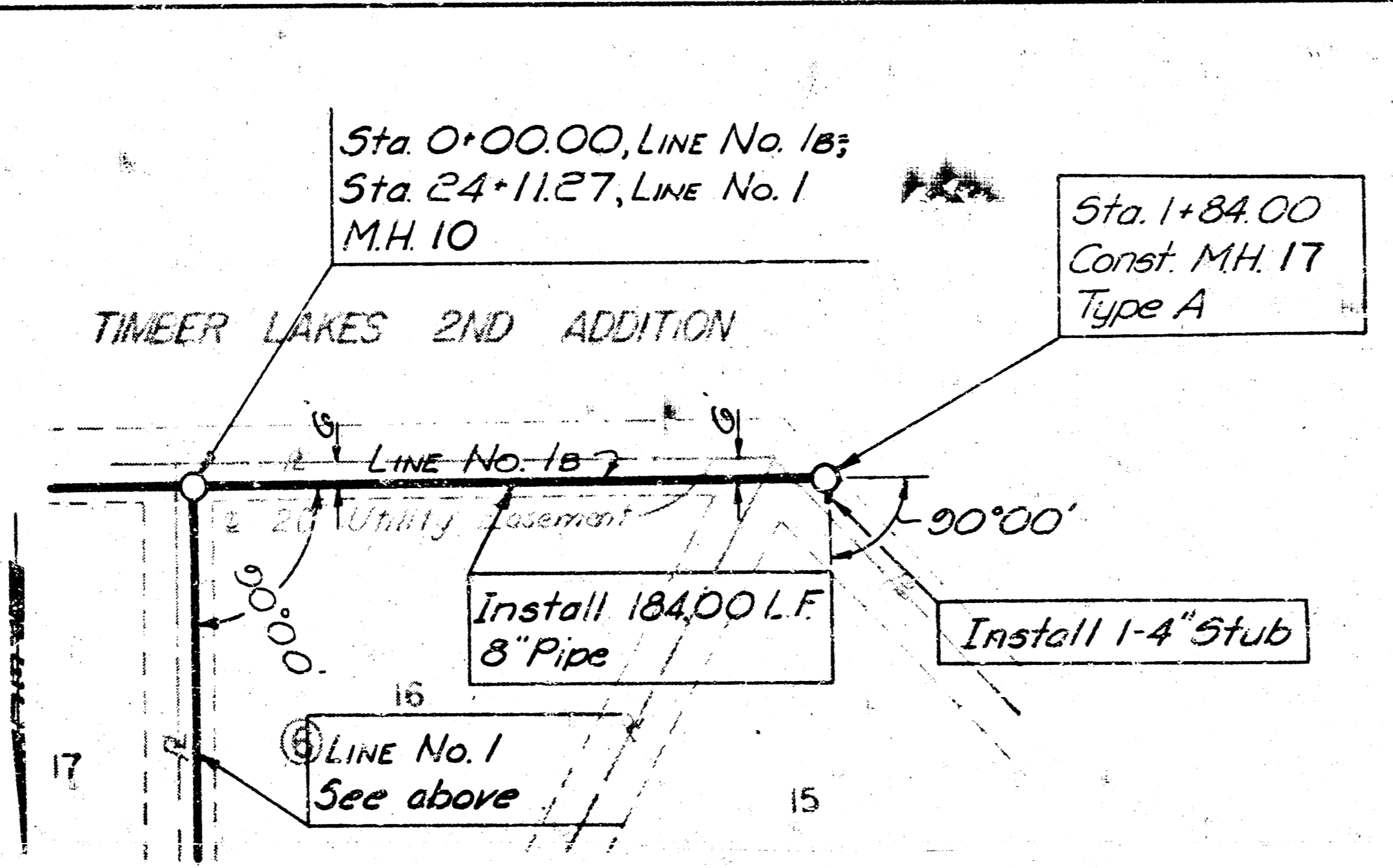
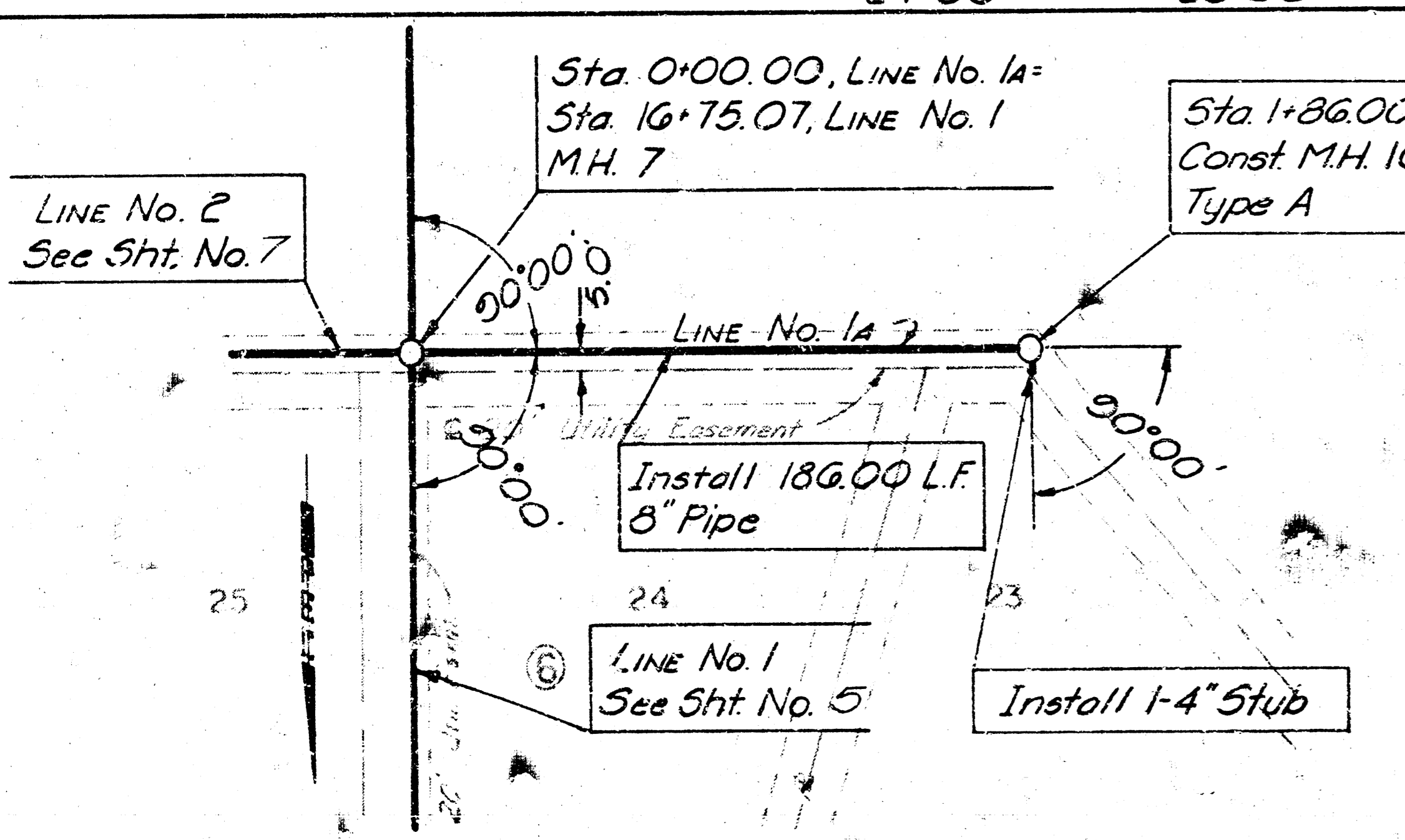
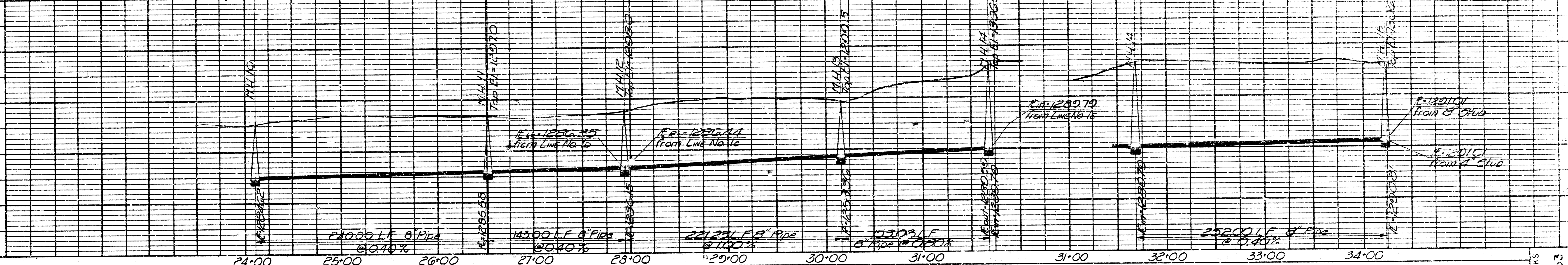
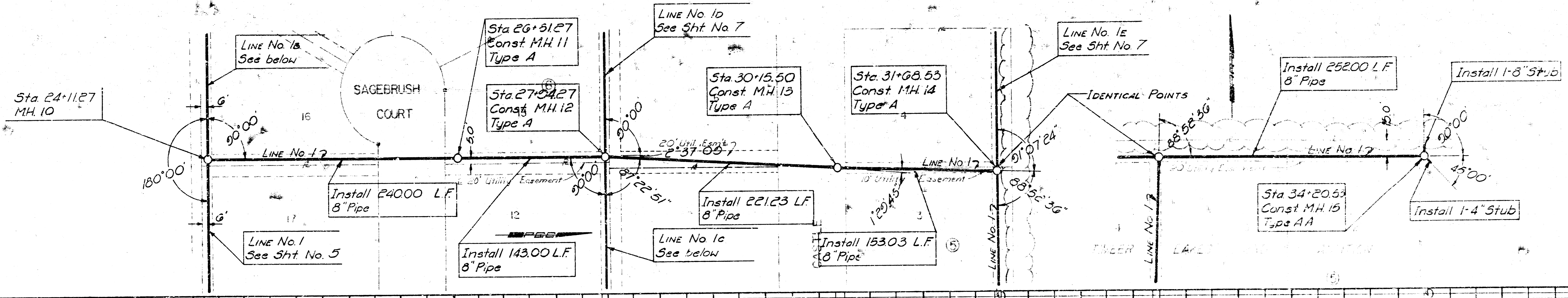
SCALE
 TYPICAL ALL PLAN-PROFILE SHEETS

PLAN: Lat. & Long
 PROFILE: Horiz same as above
 Vertical: 1" = 5'

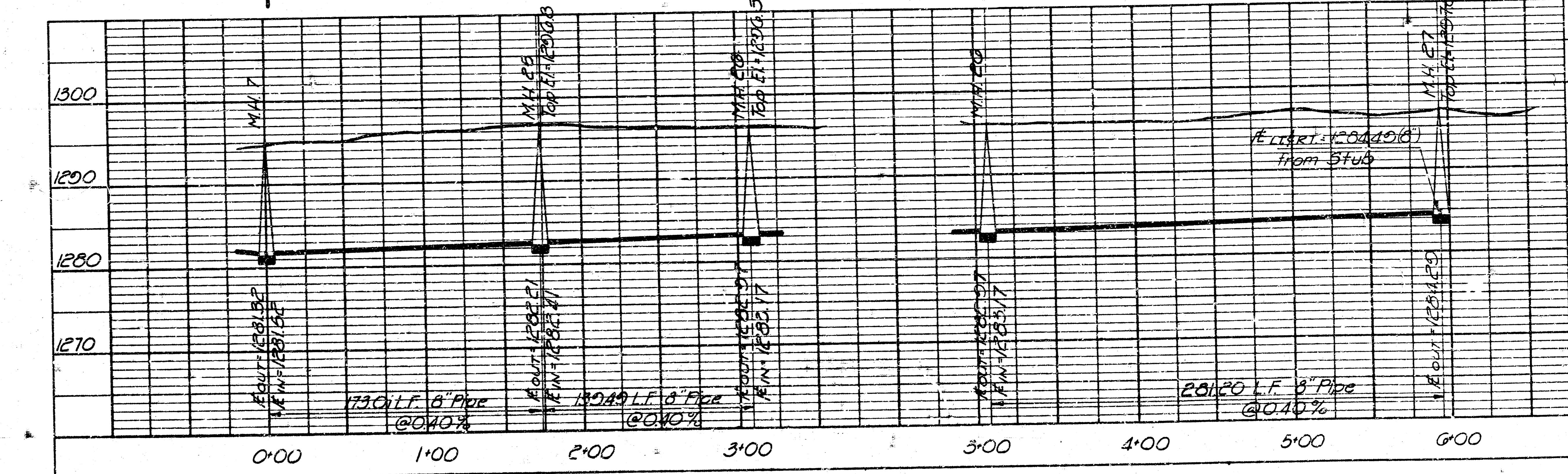
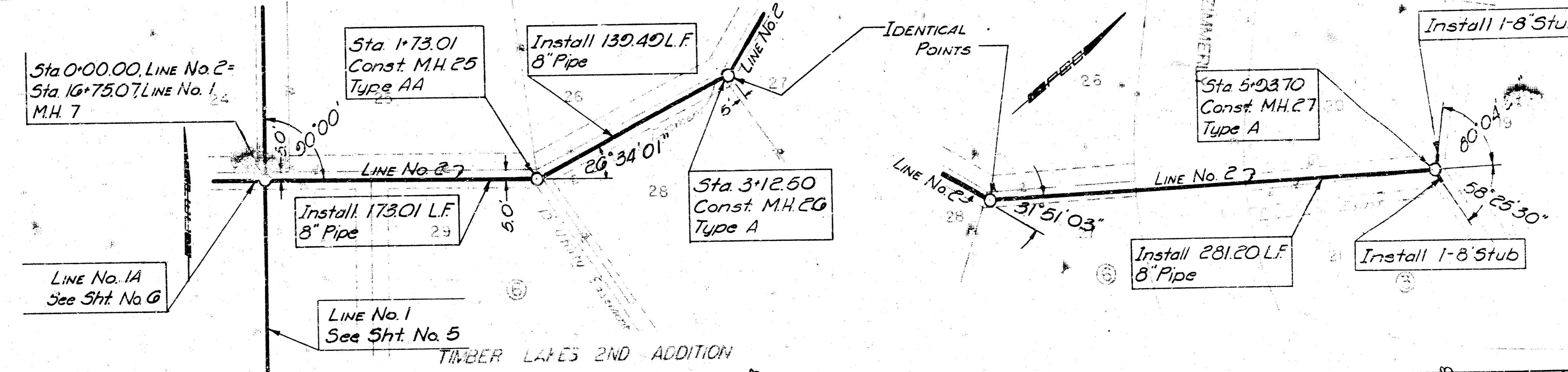
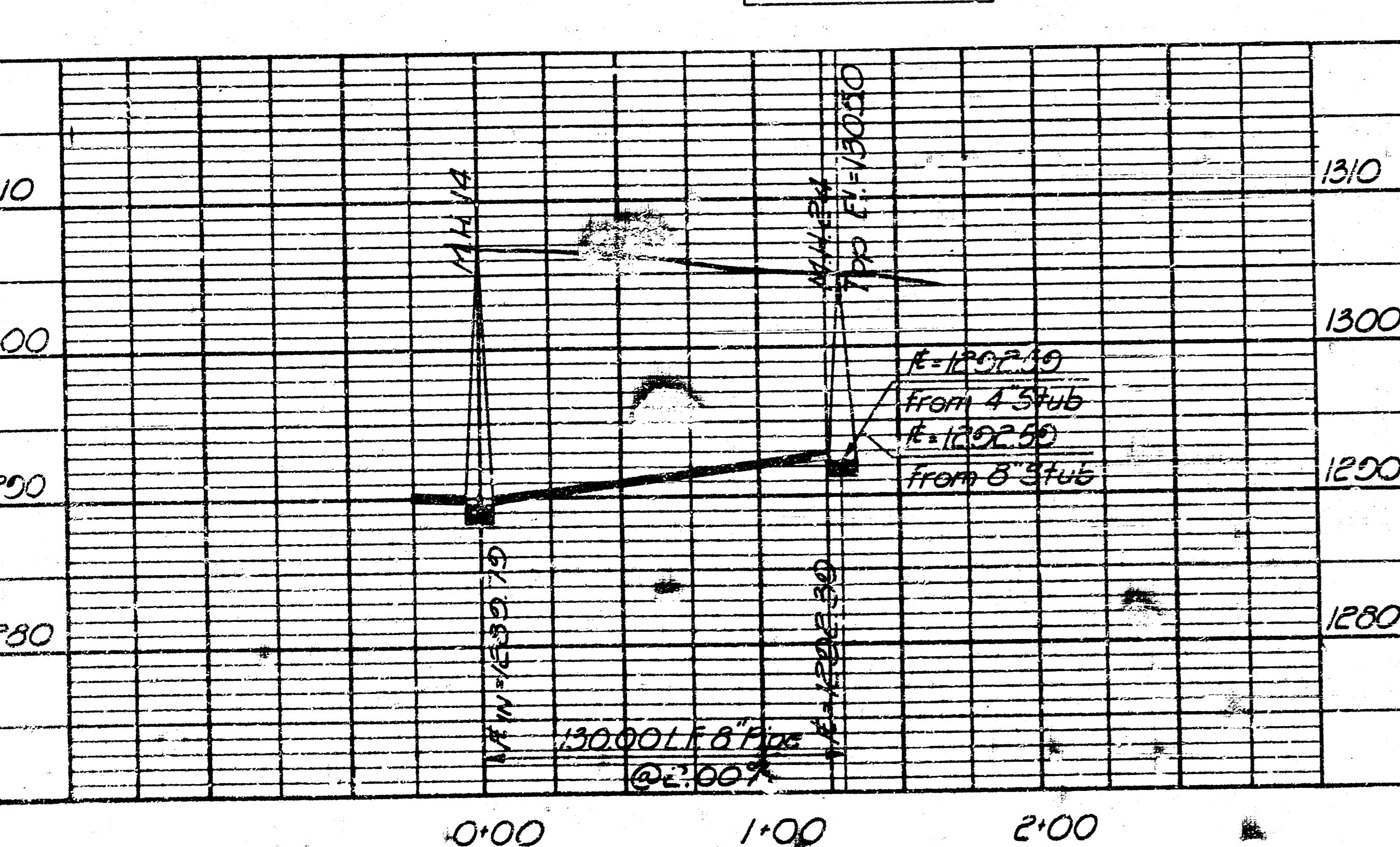
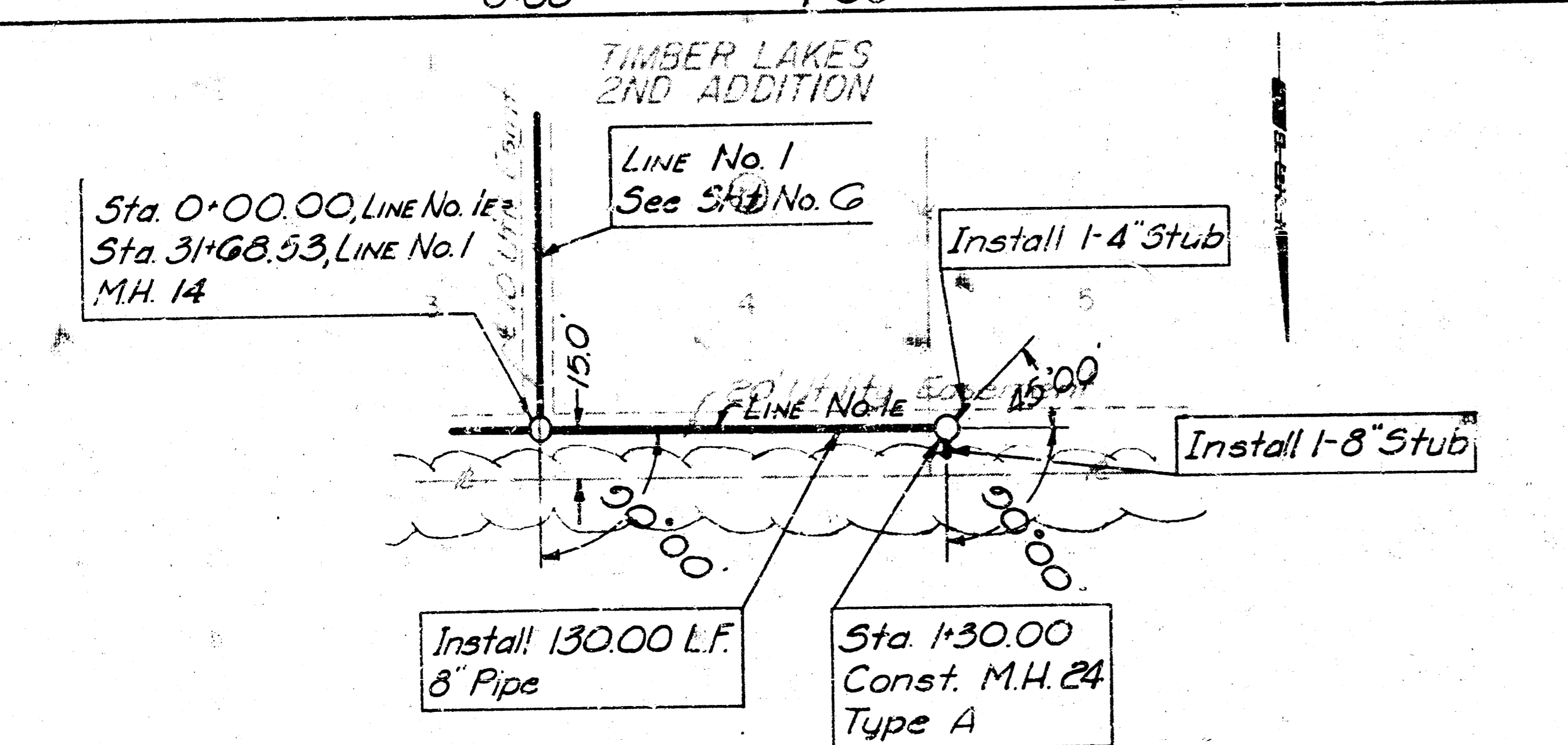
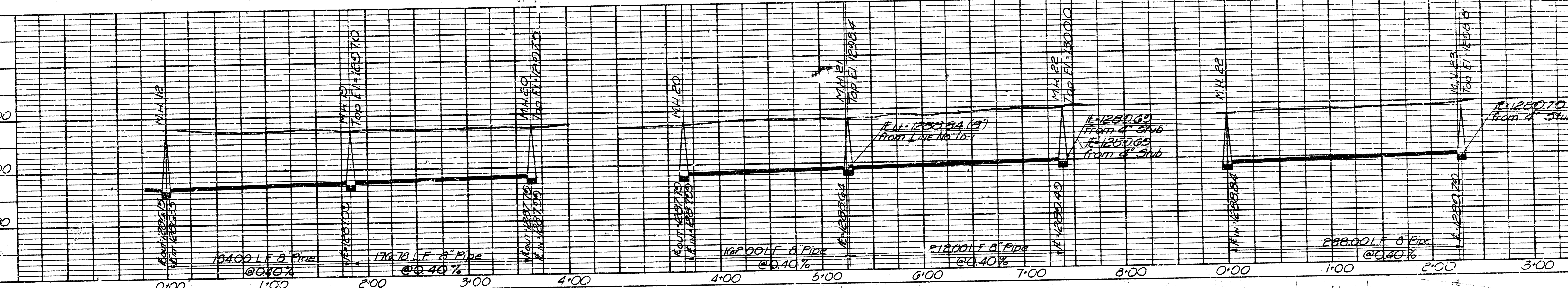
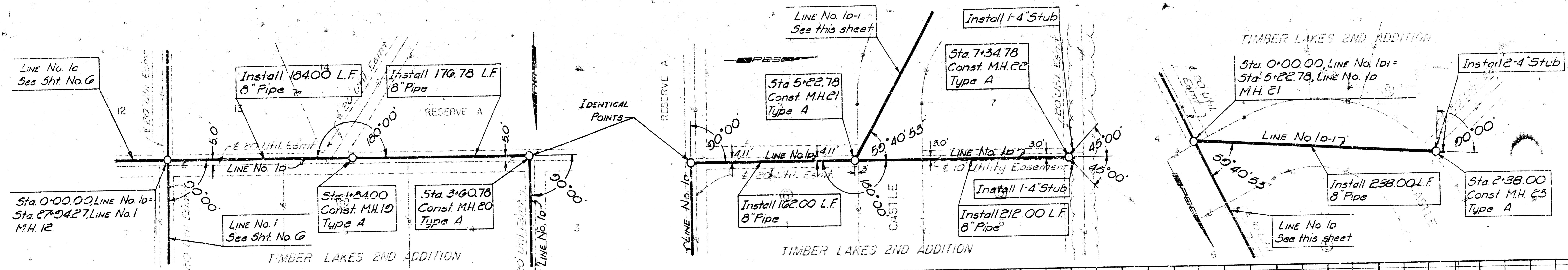
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
 G.C. MCLURE, JR., P.E., DIRECTOR & COUNTY ENGINEER

LINE NO. 1
 STA 0+36.10 TO STA 24+112.7

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 WICHITA, KANSAS
 ENGINEER: M.D.S.
 DESIGNED BY: M.D.S.
 DRAWN BY: J.F.F.



PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS
 SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
 G.C. MCGUIRE, JR., P.E. DIRECTOR 8 COUNTY ENGINEER
 LINE NO. 1 STA 24+11.27 TO STA 34+20.53
 LINE NO'S 1A, 1B & 1C
 Drawn by RFL
 Job No. 702463
 Date: 12/15/77



SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
 G.C. McGUIRE, JR., PE - DIRECTOR & COUNTY ENGINEER
 LINE NO. 10, ID-1 & 1E
 LINE NO. 2 STA. 0+0000 TO STA. 5+9370
 SANITARY SEWER IMPROVEMENTS
 TIMBER LAKES, ESTABLISHED 1903
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS
 Job No. 76468
 Drawn by M.D.S.
 Checked by R.F.J.
 Date: June 1977
 Sheet 7 of 7