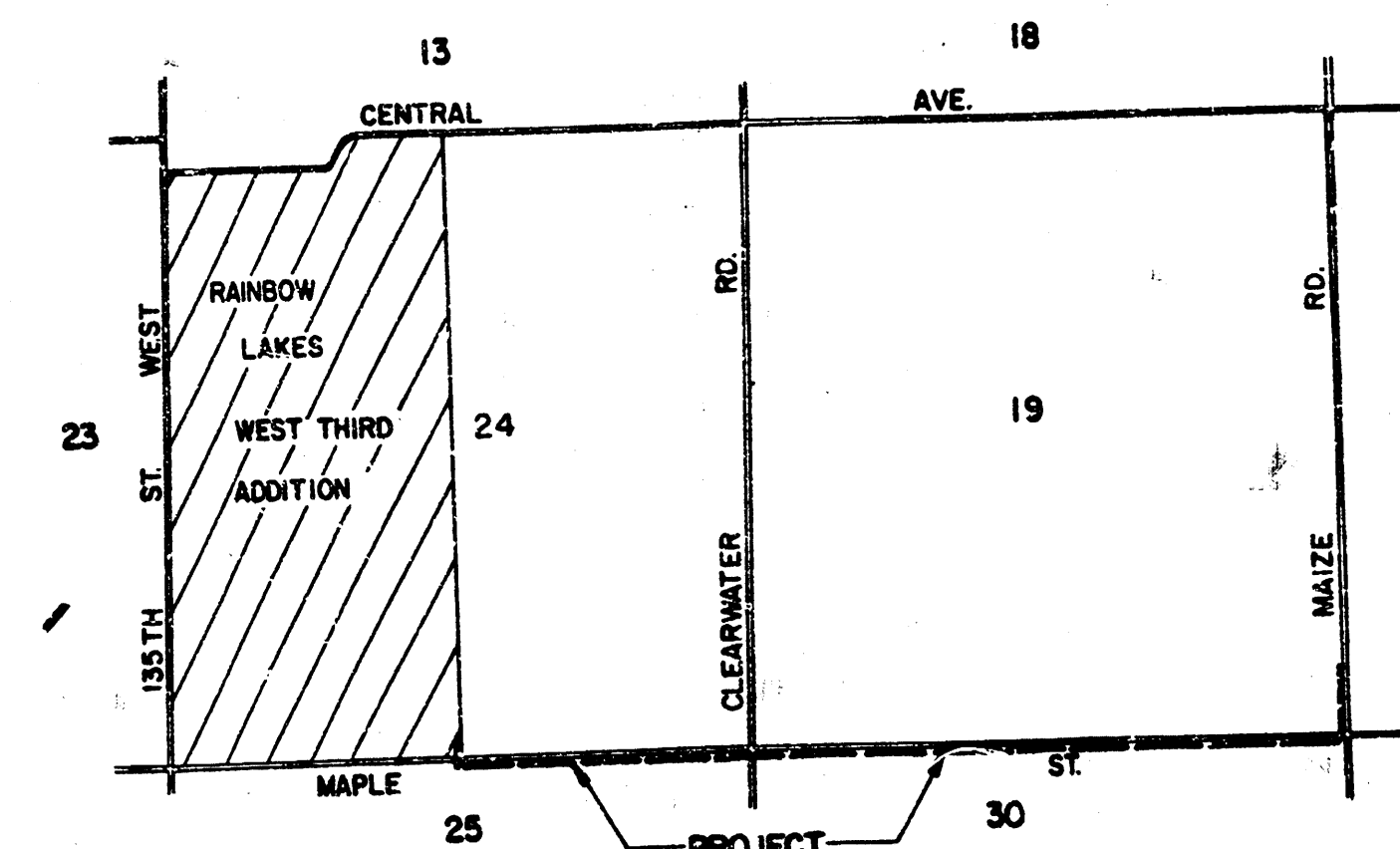


INDEX OF SHEETS	
SHEET NO. 1	TITLE SHEET
2-5a	FORCE MAIN
6	PUMP STATION
7,7a	DETAIL SHEET
8	MANHOLE STANDARD



CONSTRUCTION PLANS FOR SANITARY SEWER EXTENSIONS PUMPING STATION & FORCE MAIN FOR RAINBOW LAKES WEST THIRD ADDITION TO SEDGWICK COUNTY, KANSAS

CITY OF WICHITA PROJECT NO 542-80-245-80032-000-000-003

REISS AND GOODNESS ENGINEERS
WICHITA, KANSAS

1981

PLANS PREPARED BY	
REISS & GOODNESS ENGINEERS	
2100 WEST 21 ST STREET WICHITA, KANSAS 67204 (316) 832-0223	
DATE	1-6-81

FILED	
FILED IN THE OFFICE OF THE SEDGWICK COUNTY CLERK	
DATE	2-23-81

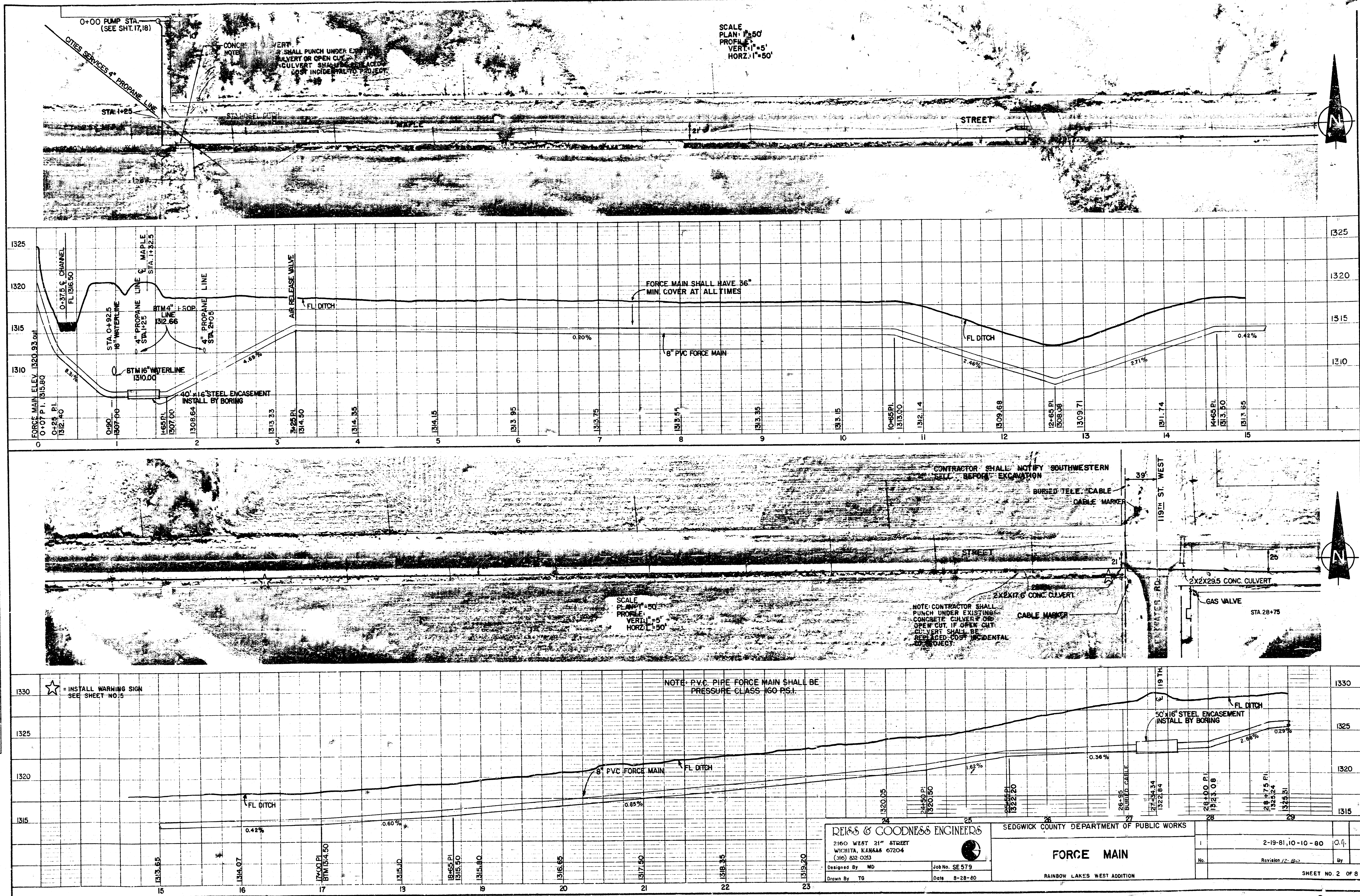
APPROVED	
<i>John P. Freeman</i>	
COUNTY ENGINEER/DIRECTOR OF PUBLIC WORKS	
DATE	2-23-81

APPROVED	
<i>R.W. Bruggeman</i>	
CITY ENGINEER, CITY OF WICHITA, KANSAS	
DATE	2-12-81

APPROVED	
<i>Donald E. Gragg</i>	
CHAIRMAN BOARD OF COUNTY COMMISSIONERS	

PLAN	DATE	
	BY	
	REVISION	
	NOTES	

PROFILE	DATE	
	BY	
	REVISION	
	NOTES	



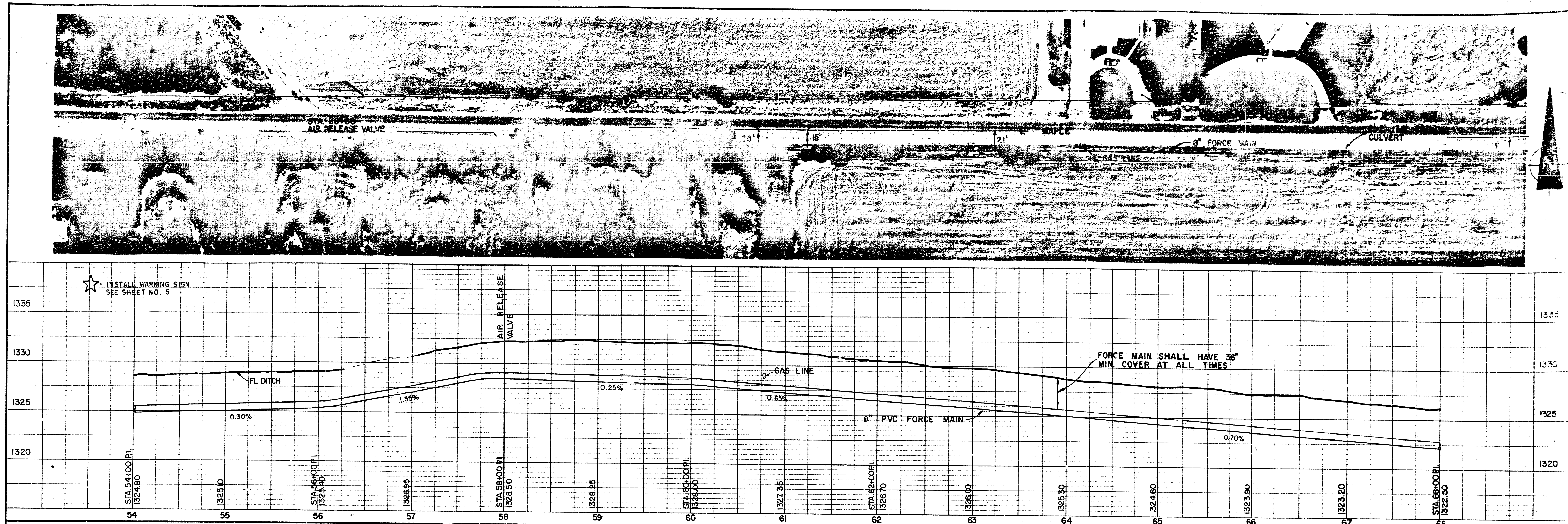
REISS & GOODNESS ENGINEERS
2160 WEST 21ST STREET
WICHITA, KANSAS 67204
(316) 832-0213
Designed By MD Job No. SE 579
Drawn By TG Date 8-28-80

SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
FORCE MAIN
RAINBOW LAKES WEST ADDITION

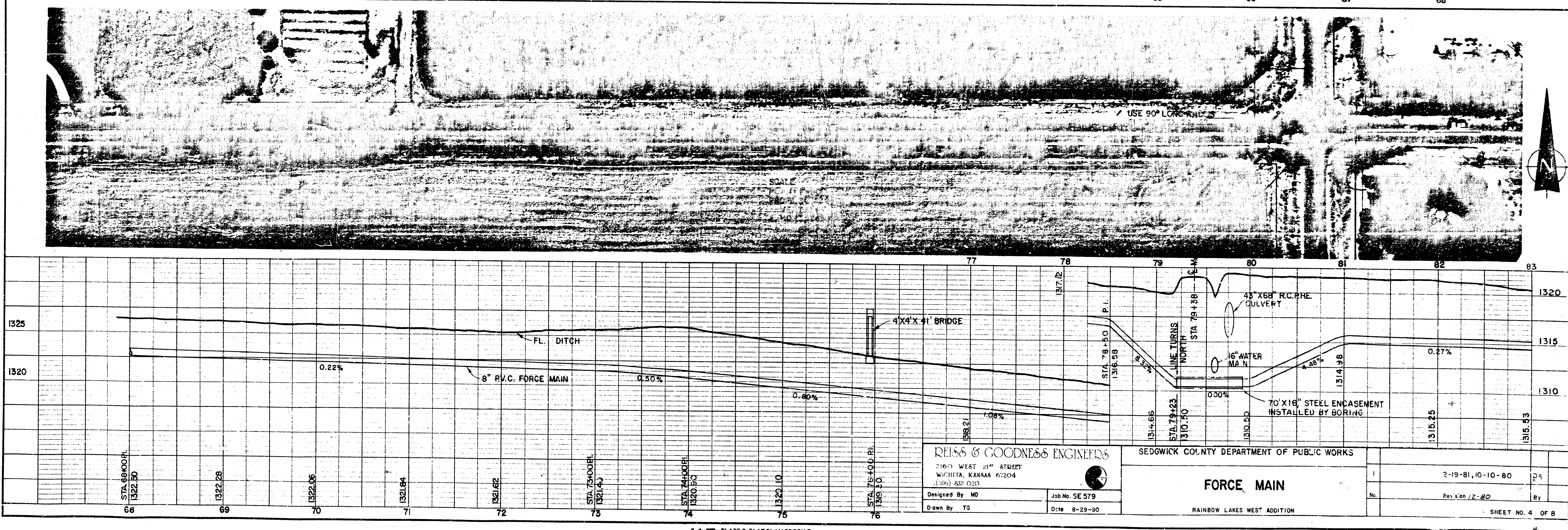
No.	2-19-81, 10-10-80	By	O.F.
Revision 1/2-83			

SHEET NO. 2 OF 8

PLAN	DATE	
	BY	
	SURVEYED	
	NOTE BOOK	



PROFILE	DATE	
	BY	
	SURVEYED	
	NOTE BOOK	



REISS & GOODNESS ENGINEERS
2160 WEST 21ST STREET
WICHITA, KANSAS 67204
(316) 832-0231

SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS

FORCE MAIN

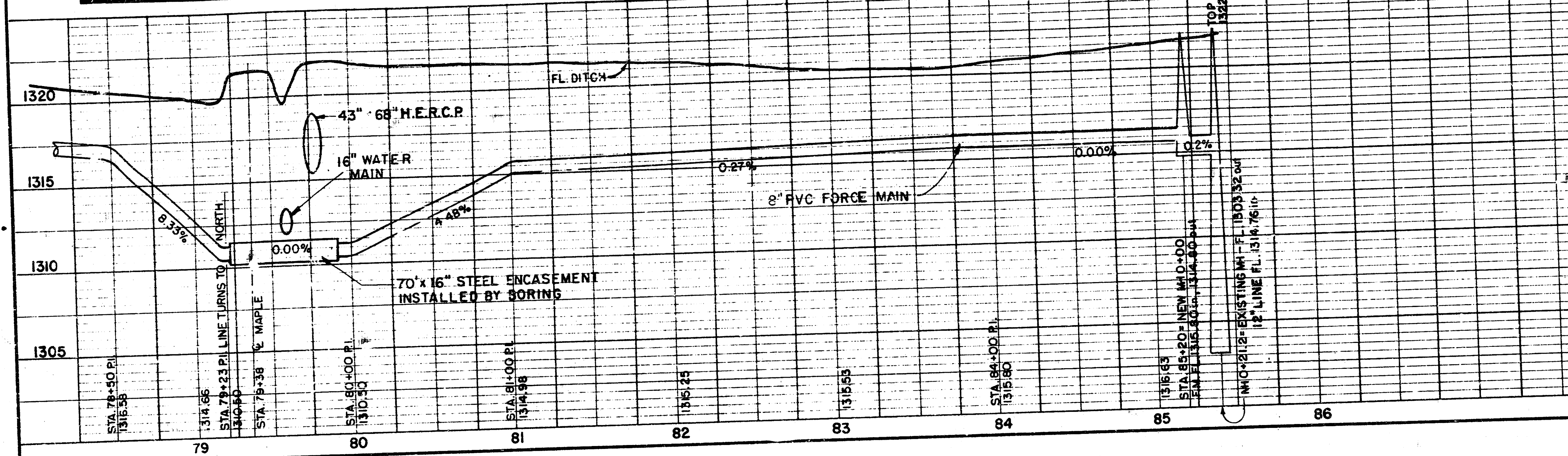
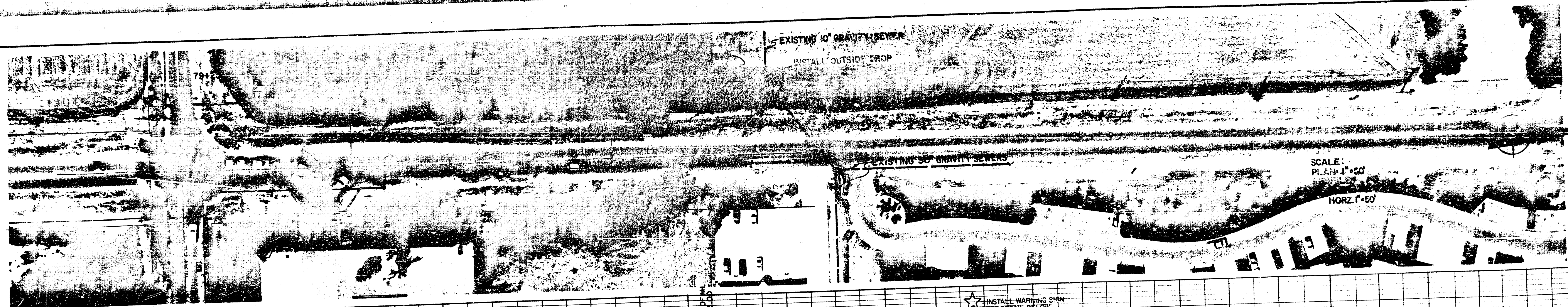
RAINBOW LAKES WEST ADDITION

1	2-19-81, 10-10-80	24
No.	Rev's on / 2-80	By

SHEET NO. 4 OF 8

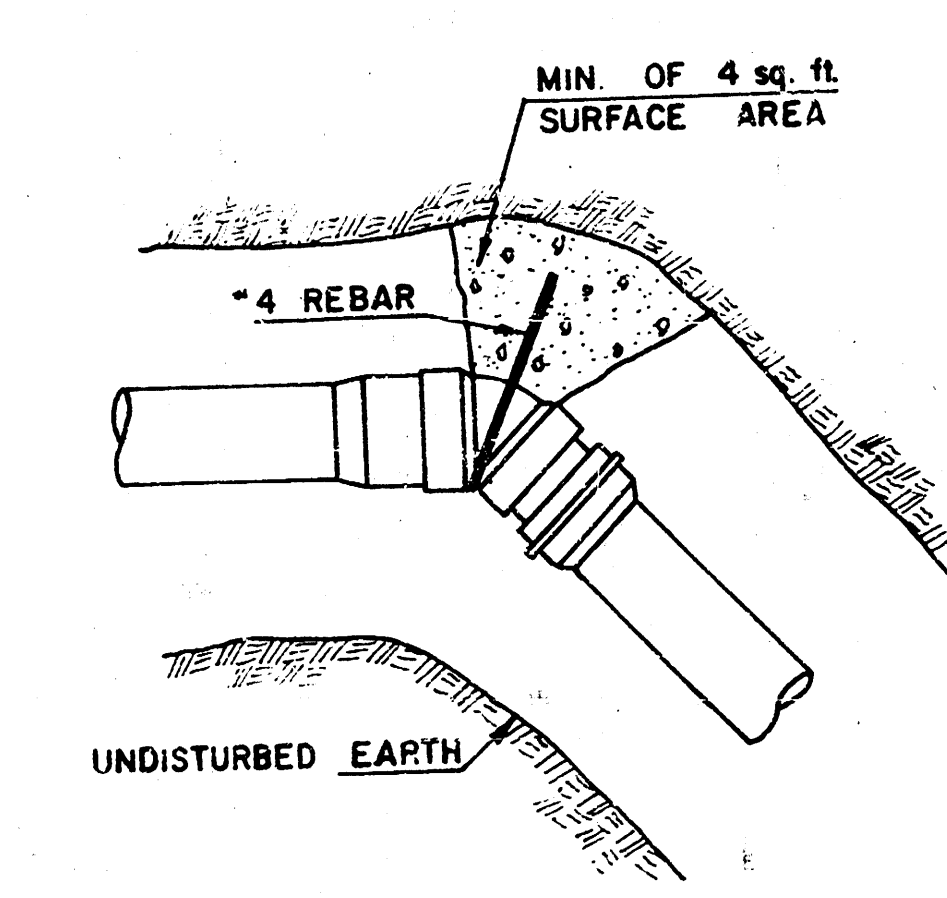
PLAN	DATE
BY	
NO.	

PROFILE	DATE
BY	
NO.	

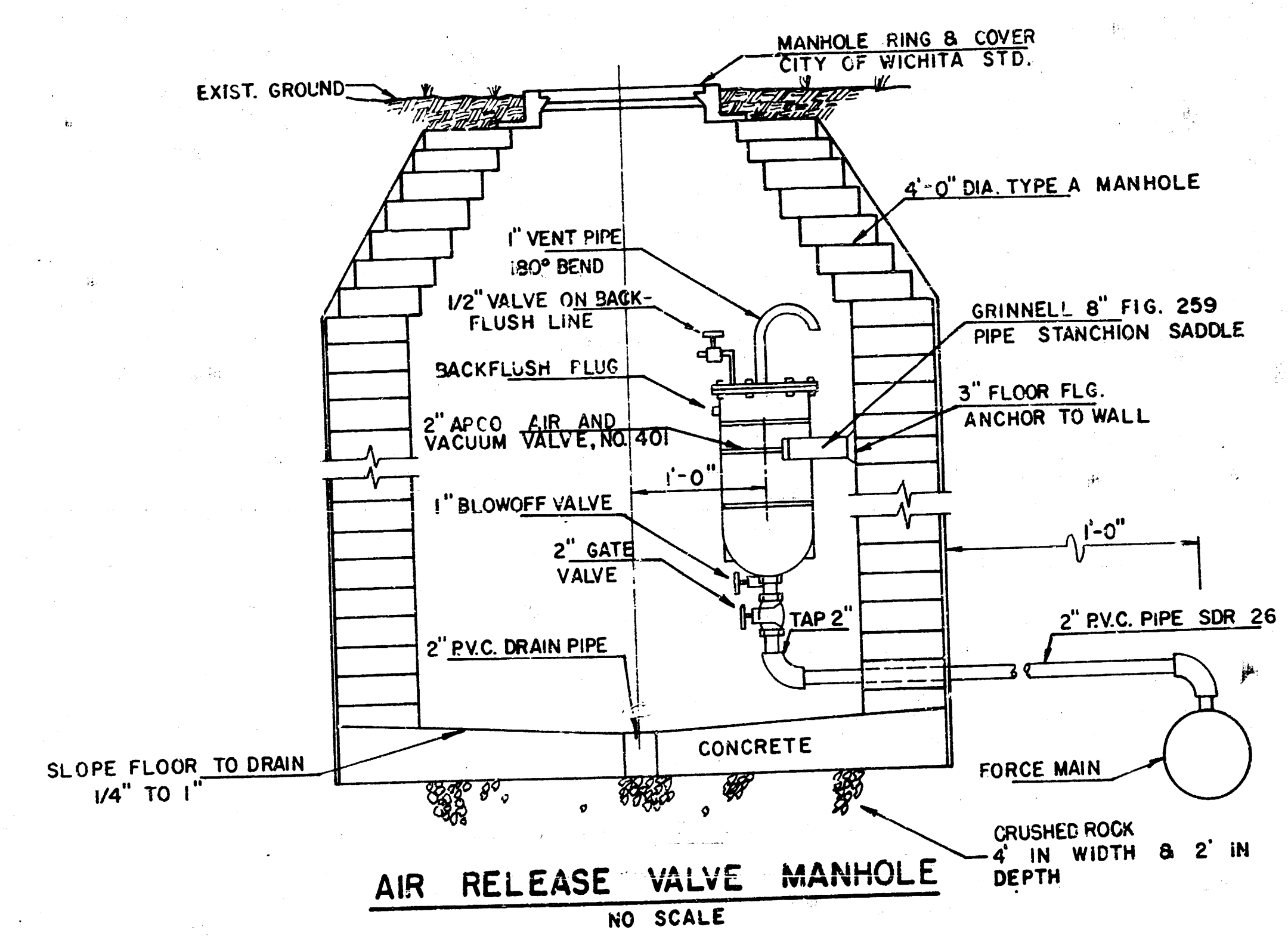


- NOTES:
- EXISTING MANHOLE IS A PLASTIC LINED TYPE D MANHOLE. THE OUTSIDE DROP INSTALLATION INTO THIS MANHOLE MUST MAINTAIN INTEGRITY OF PROTECTIVE PLASTIC LINING. SET CROWN OF BOTTOM OPENING TO MATCH CROWN OF 15\"/>
 - A FLEXIBLE WATER TIGHT GASKET SHALL BE USED TO CONNECT PVC PIPE TO MANHOLE 0+00.

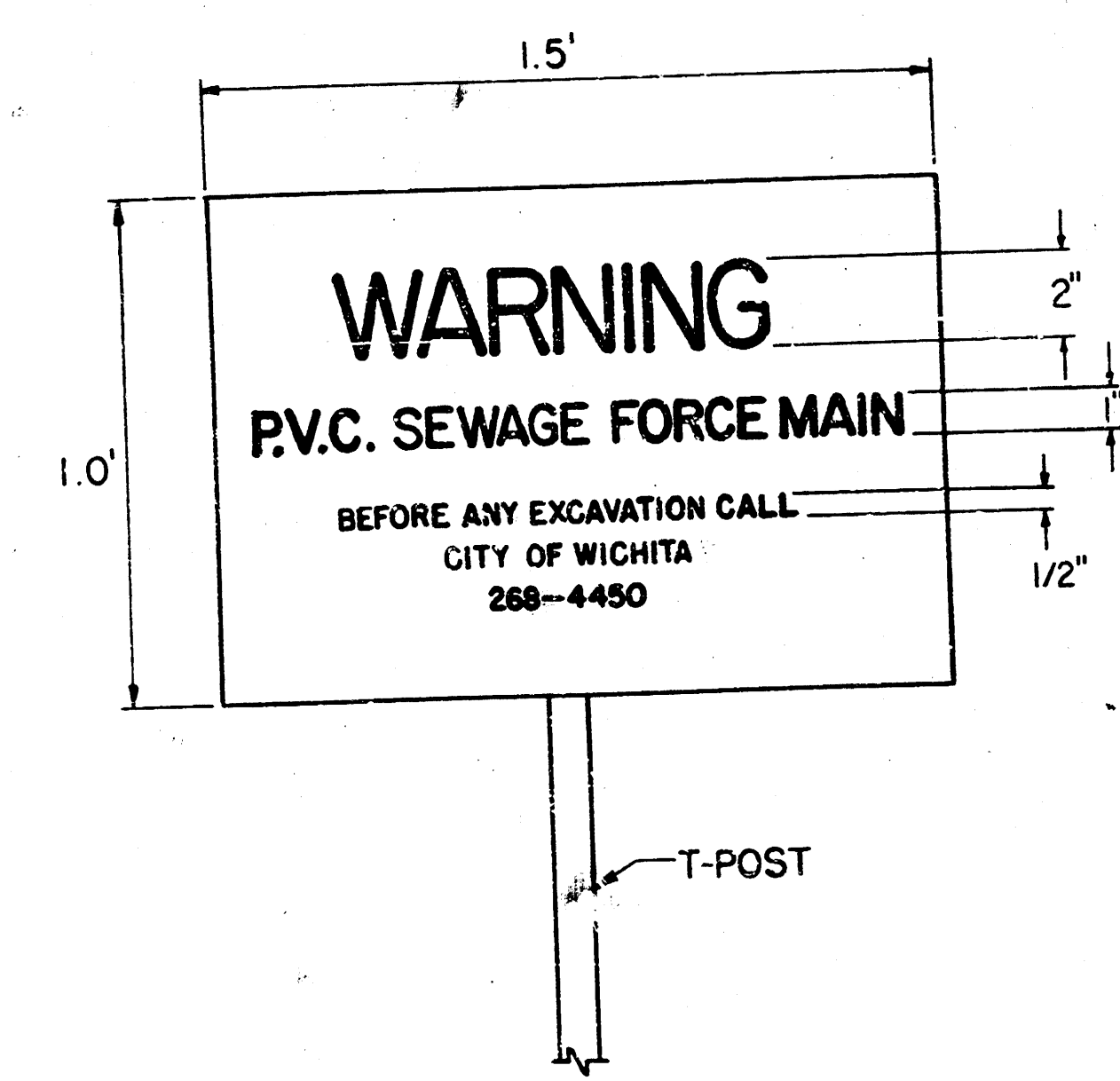
ADDENDUM NO. 1
3-19-1981



THURST BLOCK DETAIL
NO SCALE



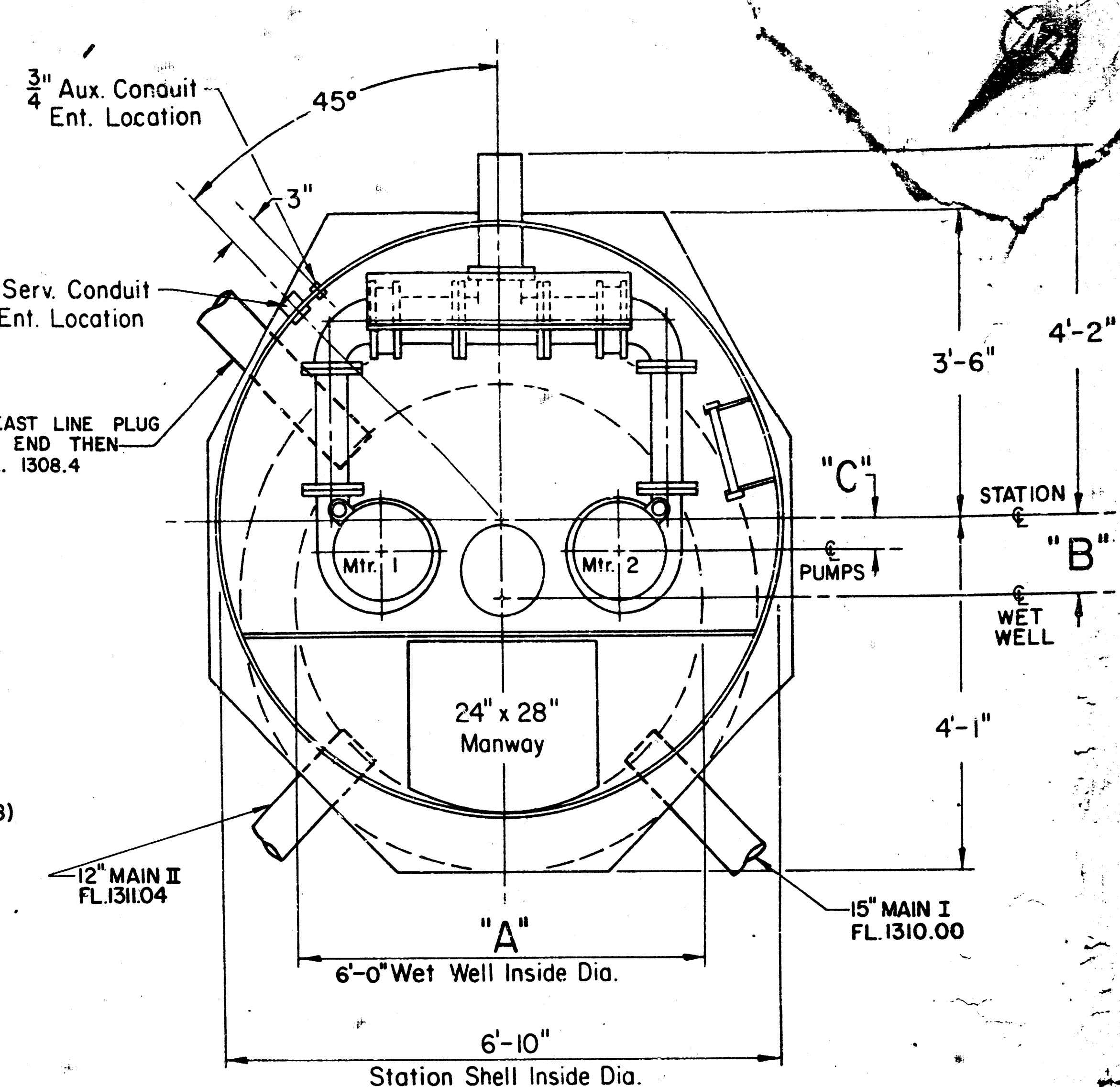
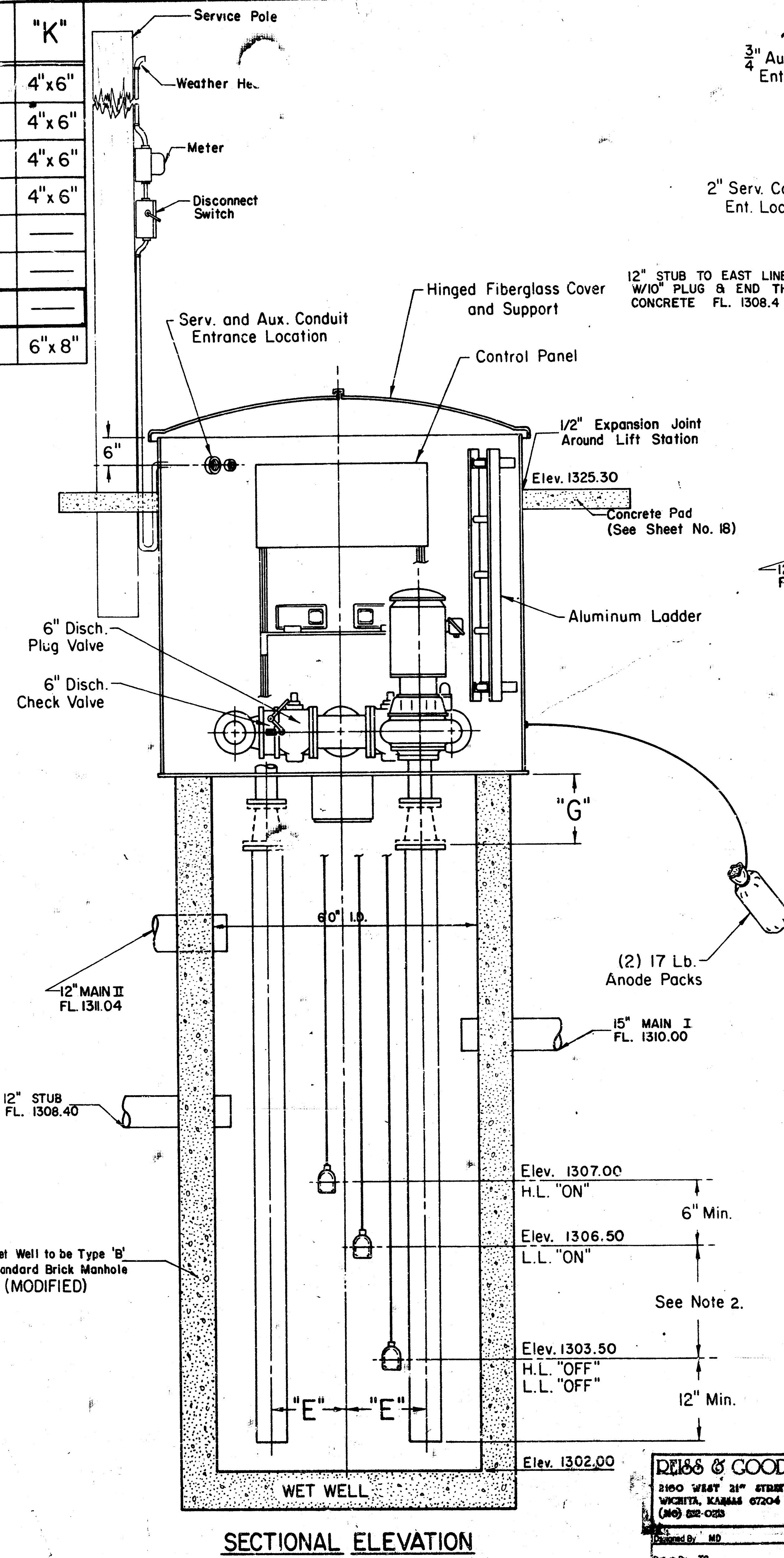
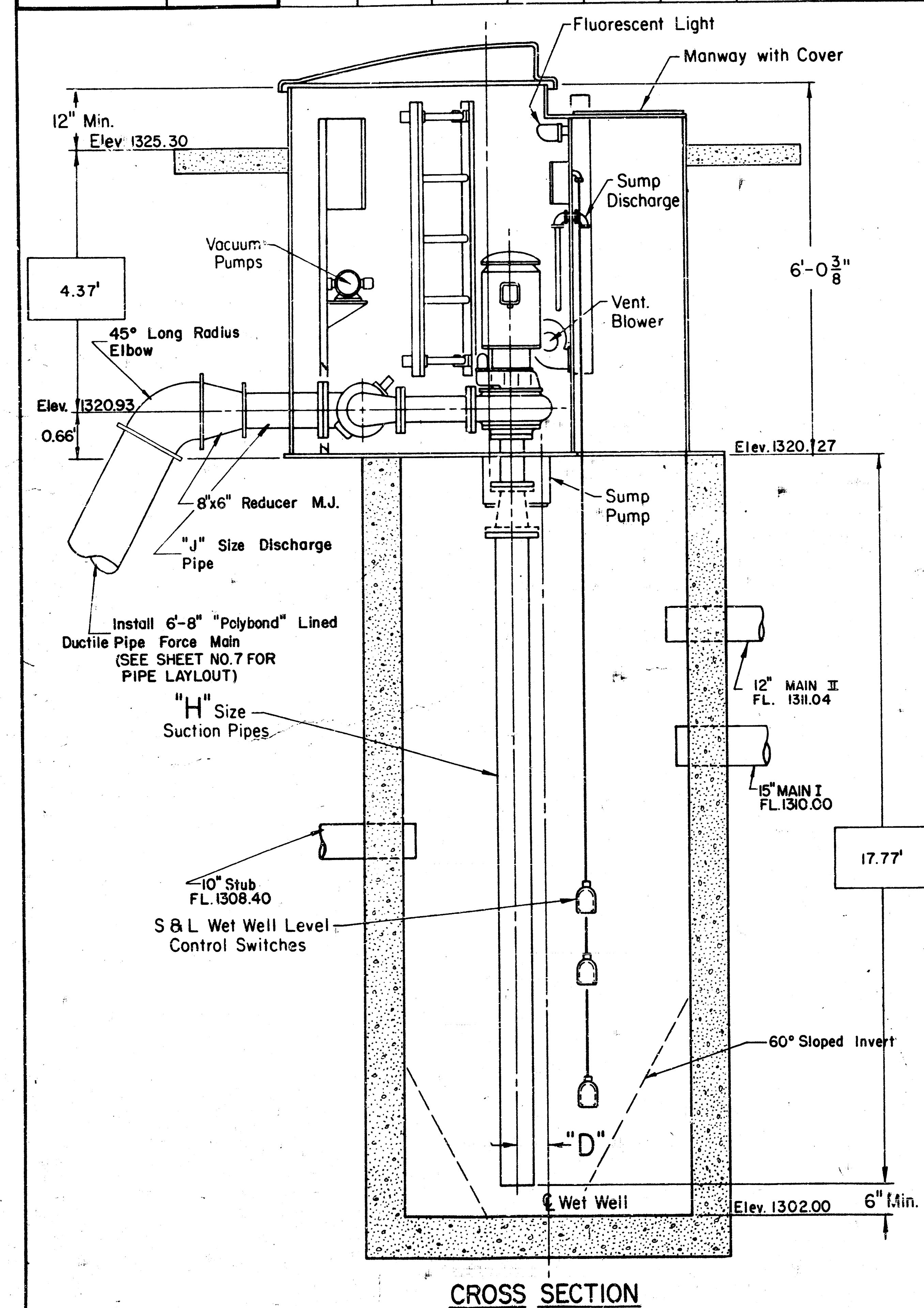
AIR RELEASE VALVE MANHOLE
NO SCALE



WARNING SIGN DETAIL
SCALE: 1\"/>

REISS & GOODNESS ENGINEERS 2160 WEST 21 ST STREET WICHITA, KANSAS 67204 (316) 633-0213		SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS	
Designed By: MD Drawn By: TG	Job No.: SE 579 Date: 8-29-80	FORCE MAIN RAINBOW LAKES WEST ADDITION	
2-19-81, 10-10-80		Revision / 2-81, 2-81 By	
SHEET NO. 5A OF 8		5/9	

PUMPS	Pump Motor Maximum Horsepower	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"
4B2B	20	5'-0"	11"	4 3/4"	6 1/4"	22 7/16"	7 7/8"	15 1/16"	6"	6"	4" x 6"
		6'-0"	5"	4 3/4"	1/4"	22 7/16"	7 7/8"	15 1/16"	6"	6"	4" x 6"
4B2C	20	5'-0"	11"	4 3/4"	6 1/4"	22 7/16"	7 7/8"	15 1/16"	6"	6"	4" x 6"
		6'-0"	5"	4 3/4"	1/4"	22 7/16"	7 7/8"	15 1/16"	6"	6"	4" x 6"
4B3B/4C3B	30	5'-0"	11"	4 3/4"	6 1/4"	20 7/16"	7 7/8"	6"	6"	6"	—
		6'-0"	5"	4 3/4"	1/4"	20 7/16"	7 7/8"	6"	6"	6"	—
6B3B/6C3B	30	6'-0"	5"	4"	1"	20 7/16"	7 7/8"	6"	6"	6"	—
		6'-0"	5"	4"	1"	20 7/16"	6 7/8"	17 1/16"	8"	8"	6" x 8"



- NOTES**
- A dehumidifier assembly w/ hermetically sealed freon refrigeration type compressor expansion coil, fan and condensor coil shall be furnished to maintain the relative humidity of air in the pump chamber low enough to keep electrical equipment dry and to prevent condensation on the walls.
 - Station Design Characteristics:
Suction Line 8" Discharge 6"
2 Pumps at 600 GPM at 85' TDH Singly Operated
 - Backfill Around Station shall be Compacted to 95% Standard Proctor to Prevent Settlement Prior to Installation of Concrete Pad.
 - These Drawings show a Recessed Wet Well Mounted Sewage Pumping Station Manufactured by Smith and Loveless (S & L). Station by any Other Manufacturer must be Approved by City Engineer Prior to Submitting Bids.
 - Pumping Station shall include an alarm system compatible to city's lift station alarm system for power outage, High water in wet well & high water in pump chamber.
 - A Dual Range Electric Heater w/ an automatic circulating fan thermostat control & an "ON-OFF" switch is to be provided. The Heater shall be capable of keeping the temperatures in the station above freezing. The Heater is to be operated by connection to the convenience receptacle location on control panel.

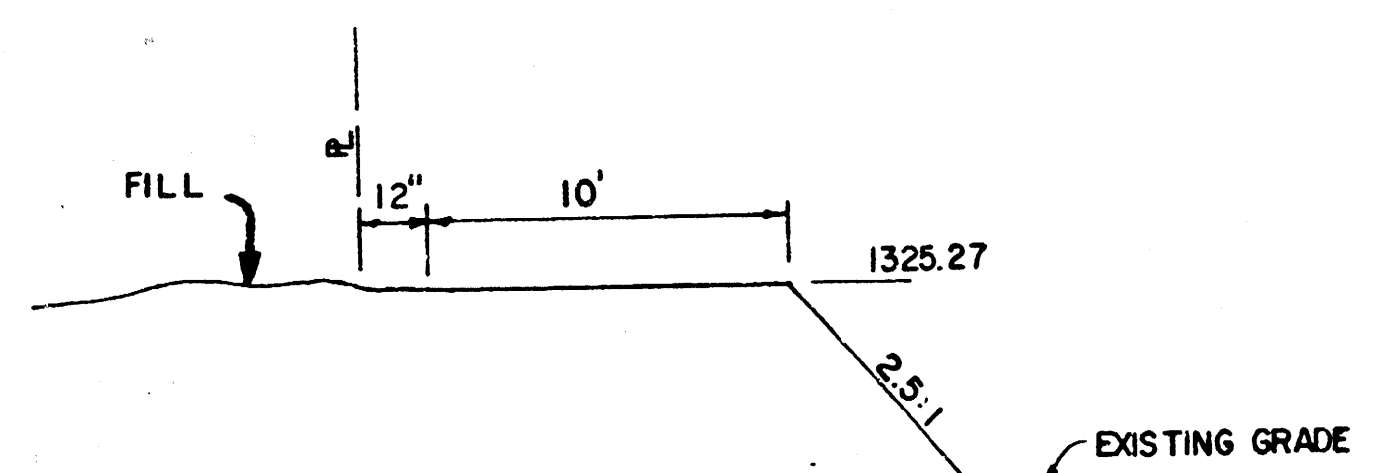
DELL & GOODNESS ENGINEERS
2100 WEST 21ST STREET
WICHITA, KANSAS 67204
(913) 832-0238

Drawn by: MD
Checked by: SE 979
Date: 2-22-80

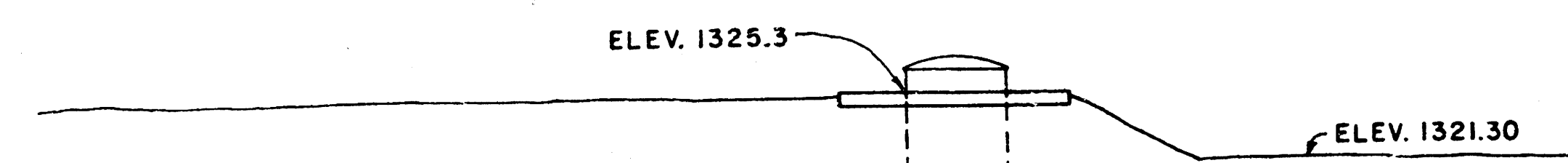
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS		2	11-4-80, 2-19-81	OK
PUMP STATION		1	10-10-80	
RAINBOW LAKES WEST ADDITION		No.	Revision 2/80	By
		SHEET NO. 6 OF 8		



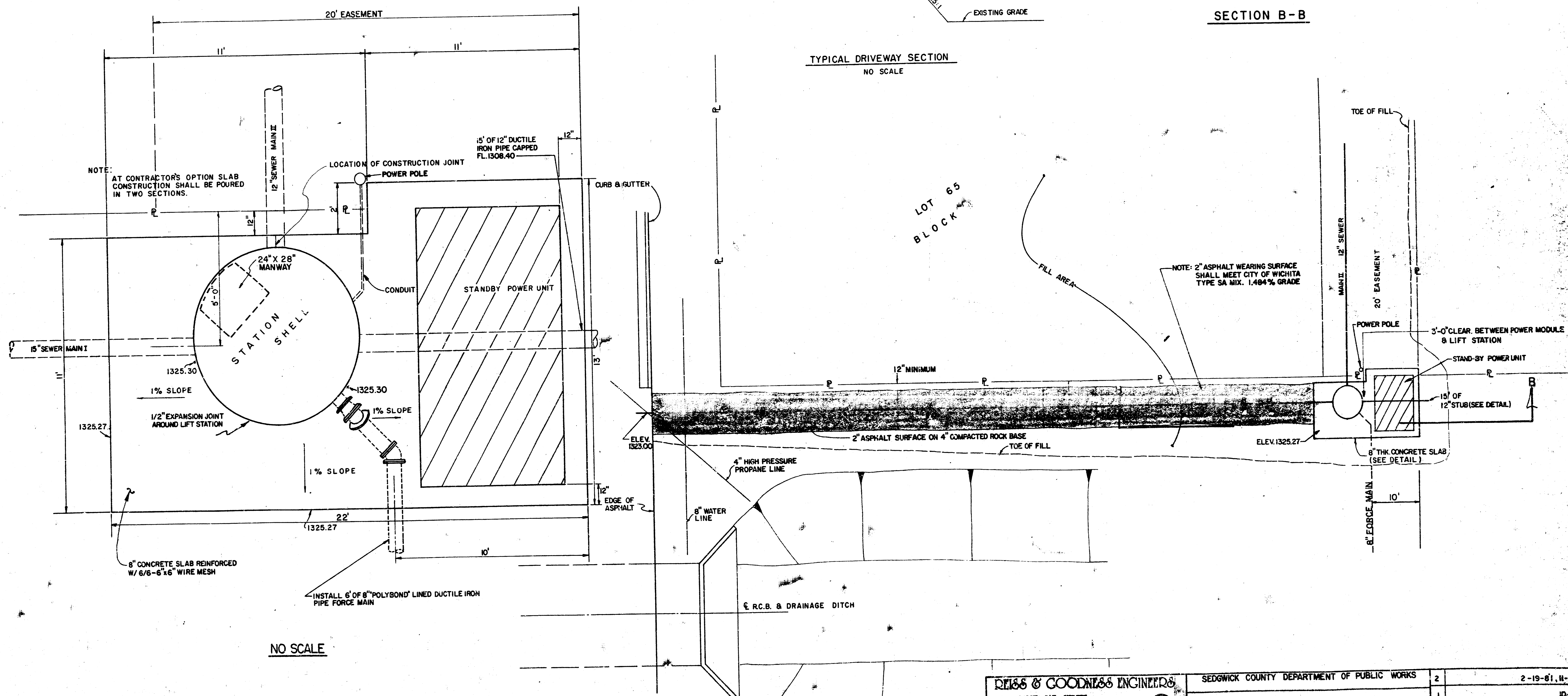
SCALE: 1"=10'



TYPICAL DRIVEWAY SECTION
NO SCALE



SECTION B-B



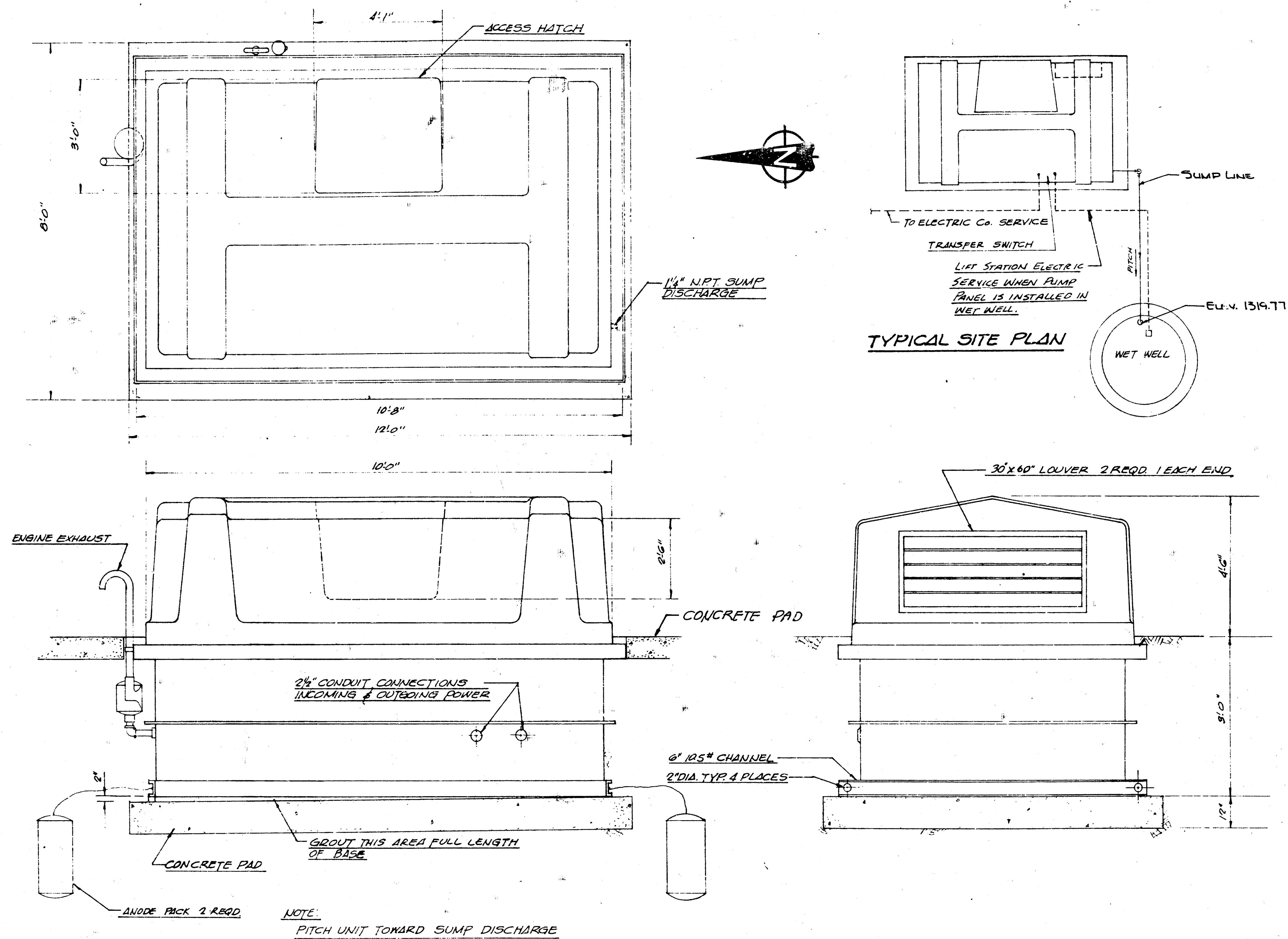
REISS & GOODNESS ENGINEERS
2100 WEST 21ST STREET
WICHITA, KANSAS 67204
(316) 838-0225

SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS

DETAIL SHEET

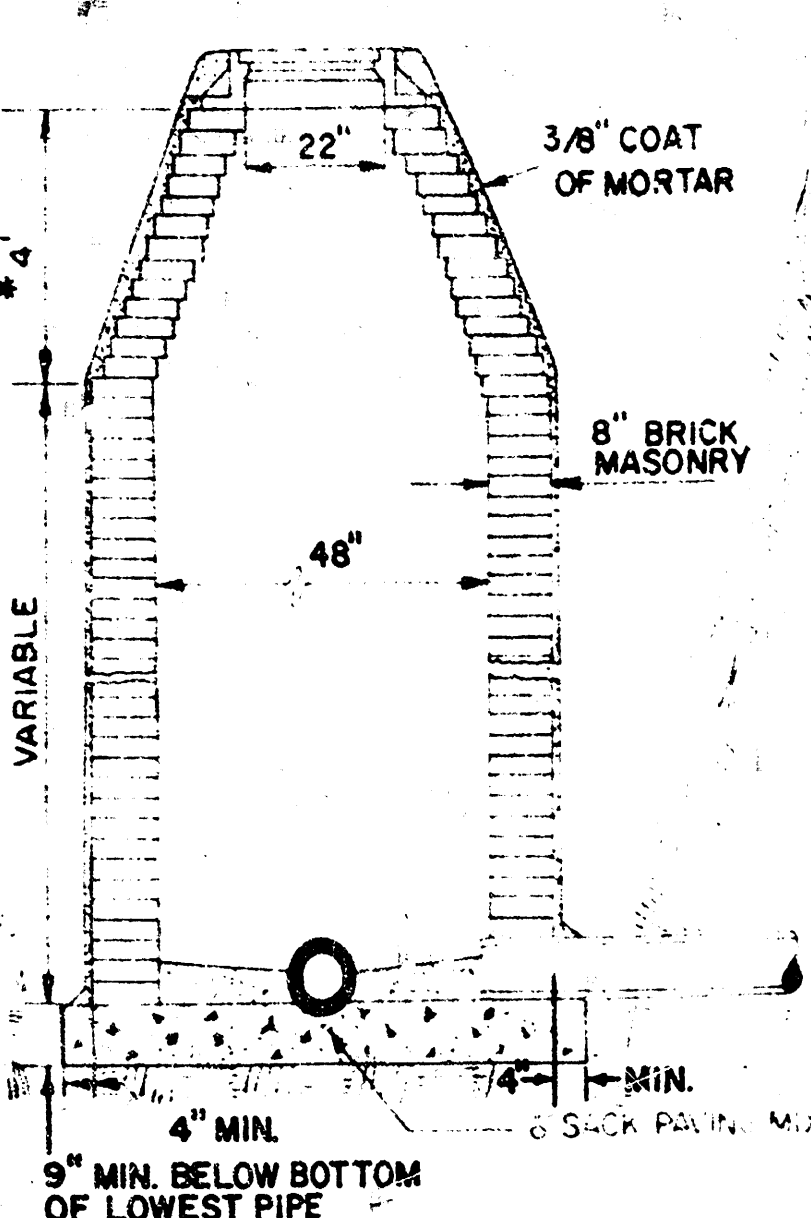
RAINBOW LAKES WEST ADDITION

2	2-19-81, 11-4-80	10-10-80
1		
No.	Rev. 1 / E-80	1/9

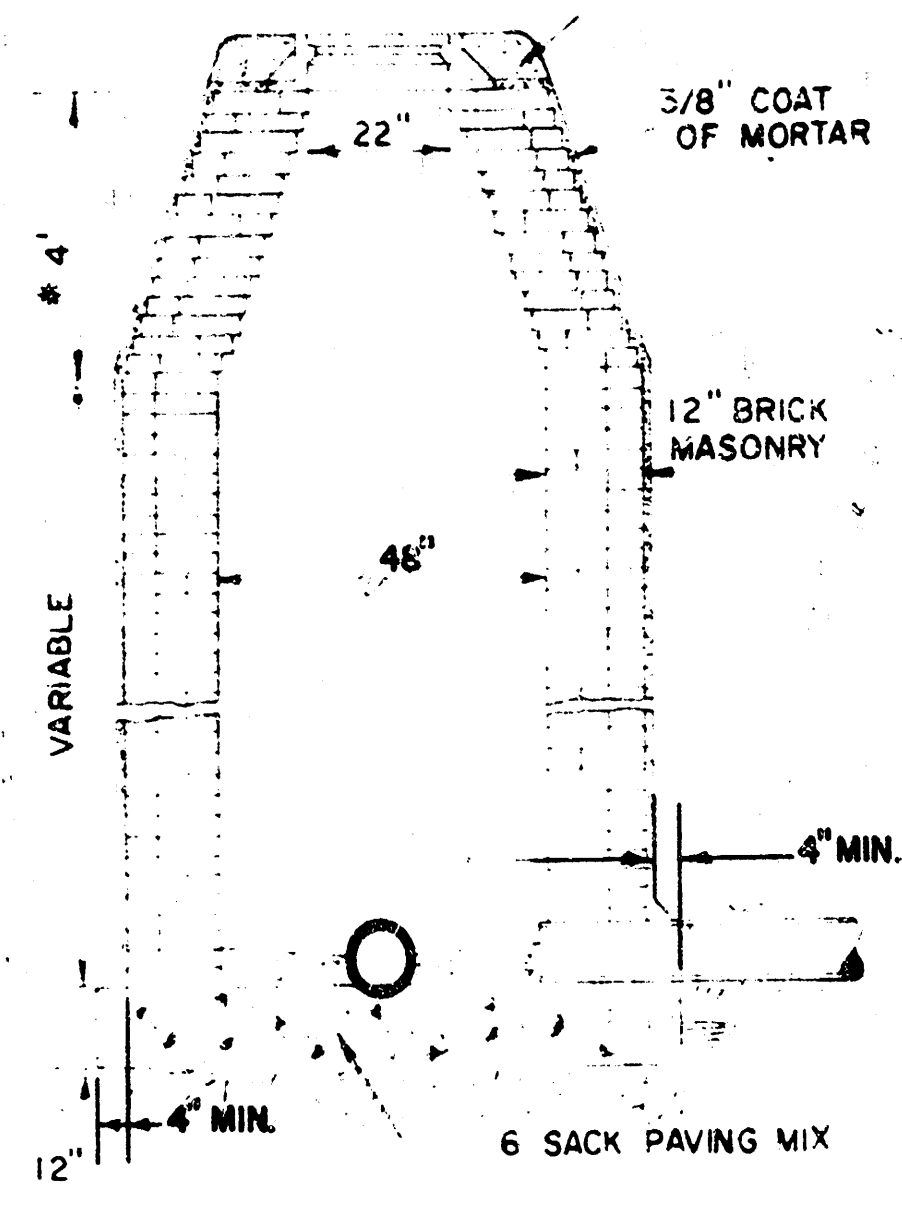


No.	Revision	By	Date
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS			
ADDENDUM NO. 1			
SANITARY SEWER EXTENSIONS			
PUMPING STATION & FORCE MAIN			
RAINBOW LAKES WEST THIRD ADDITION			
DEISS & GOODNESS ENGINEERS 2160 WEST 21 ST STREET WICHITA, KANSAS 67204 (316) 832-0233			
Designed by STANDARD POWER EQUIP. CO.		Job No.	Sht. 7a of 8
Drawn by		Date 3-2-31	

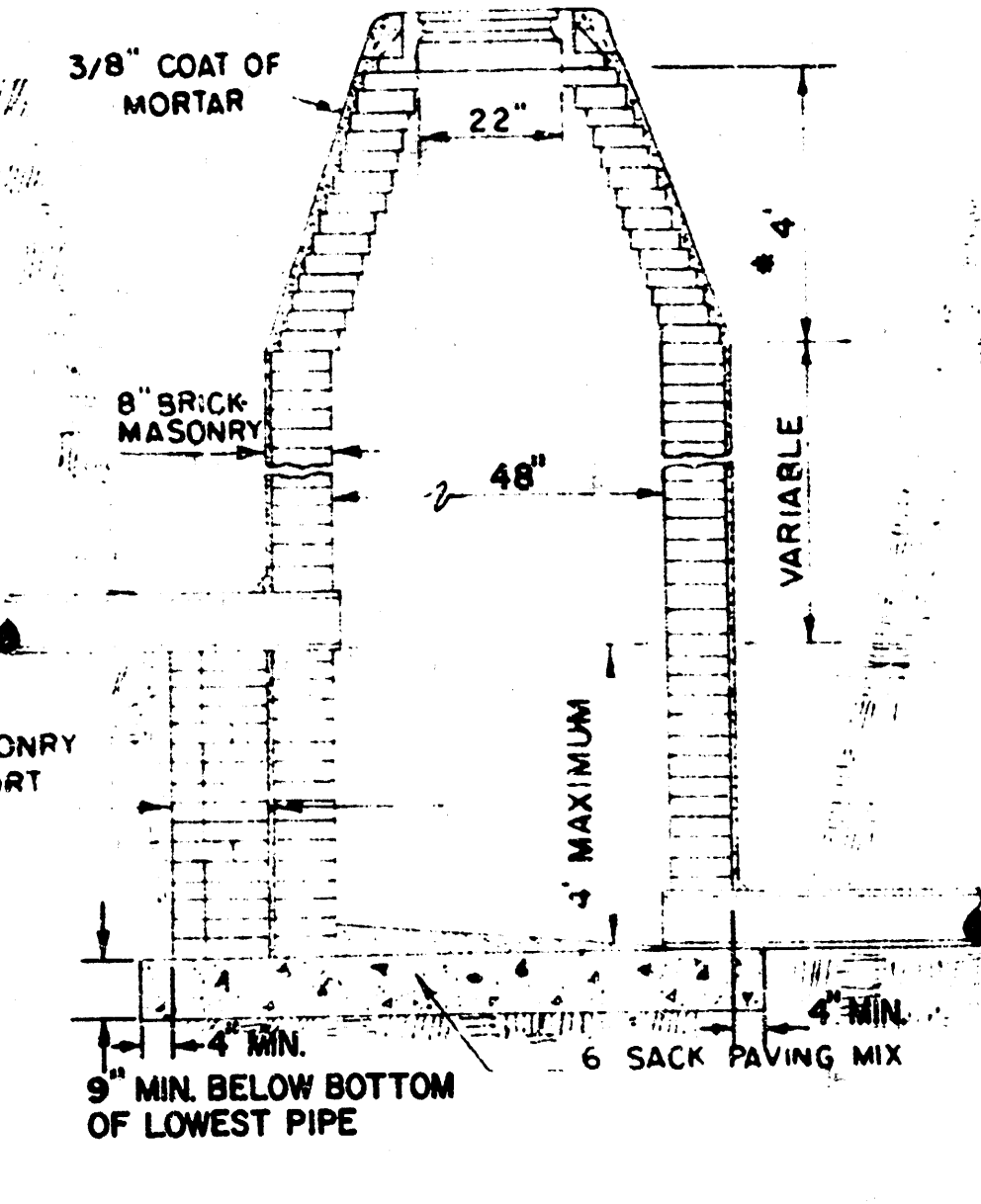
GROUT TO BE PLACED AROUND MANHOLE RING ONLY WHEN MANHOLE IS CONSTRUCTED IN UNPAVED AREAS. (TYPICAL ALL MANHOLES)



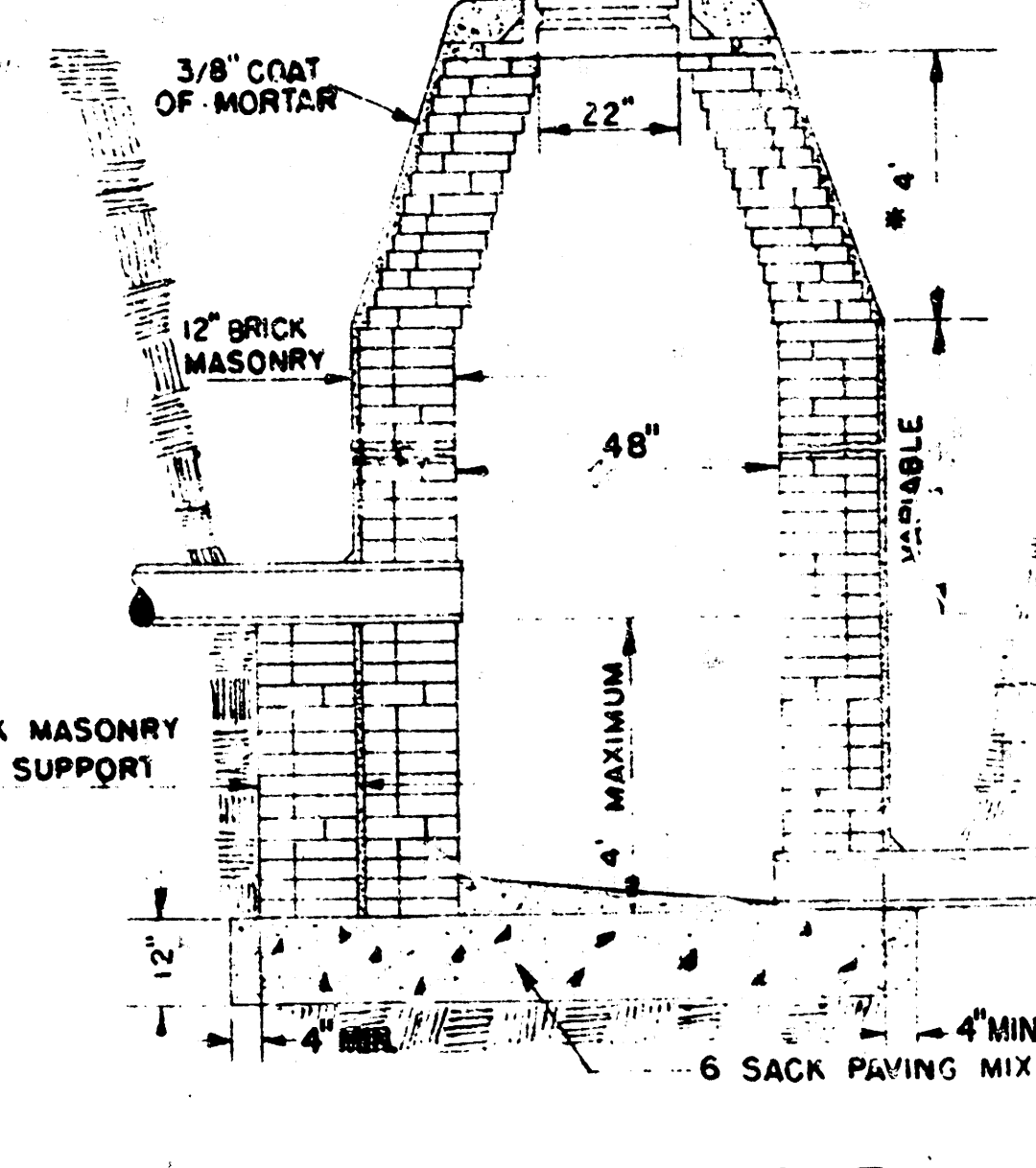
STANDARD MANHOLE TYPE "A"



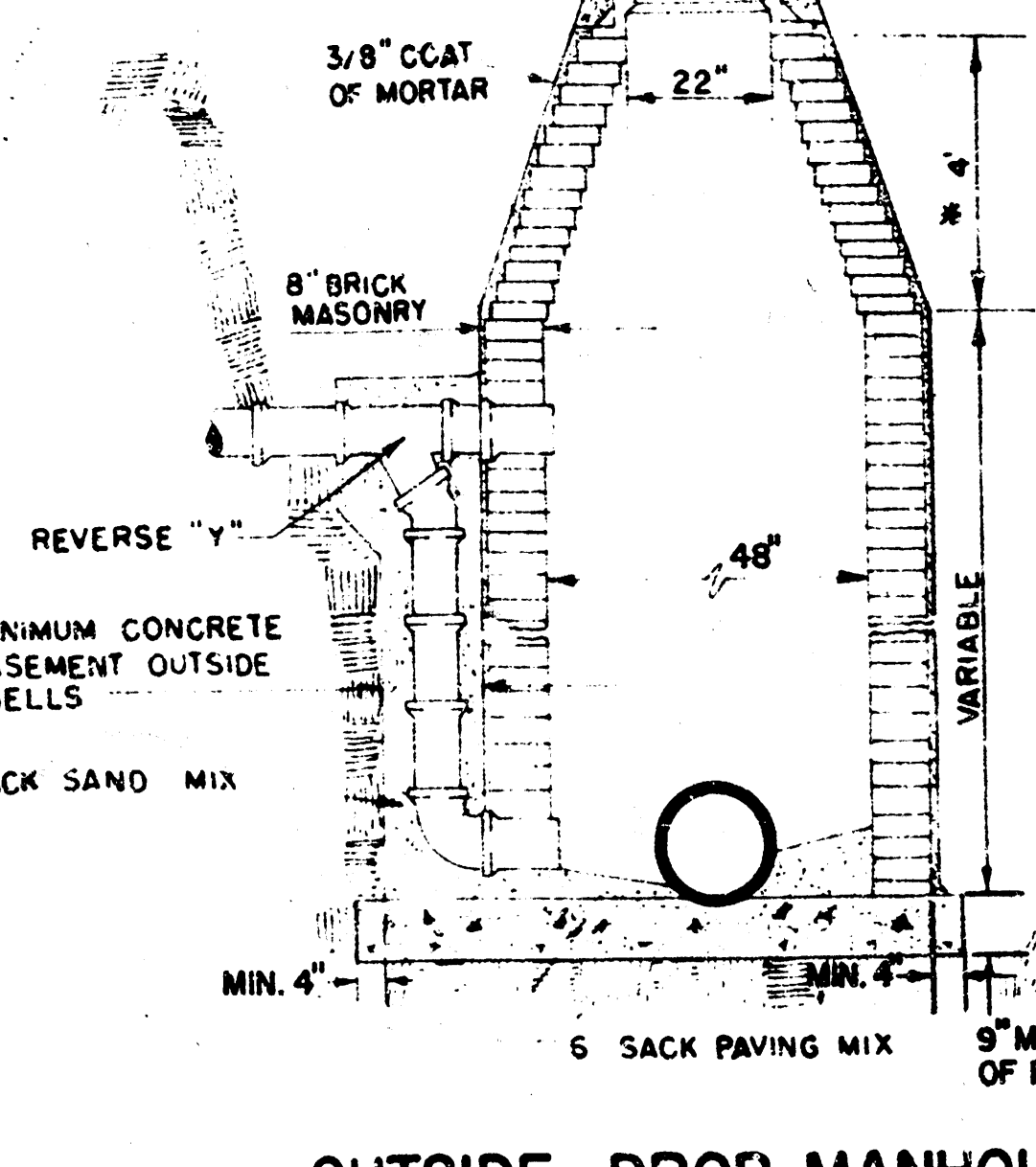
STANDARD MANHOLE TYPE "B"



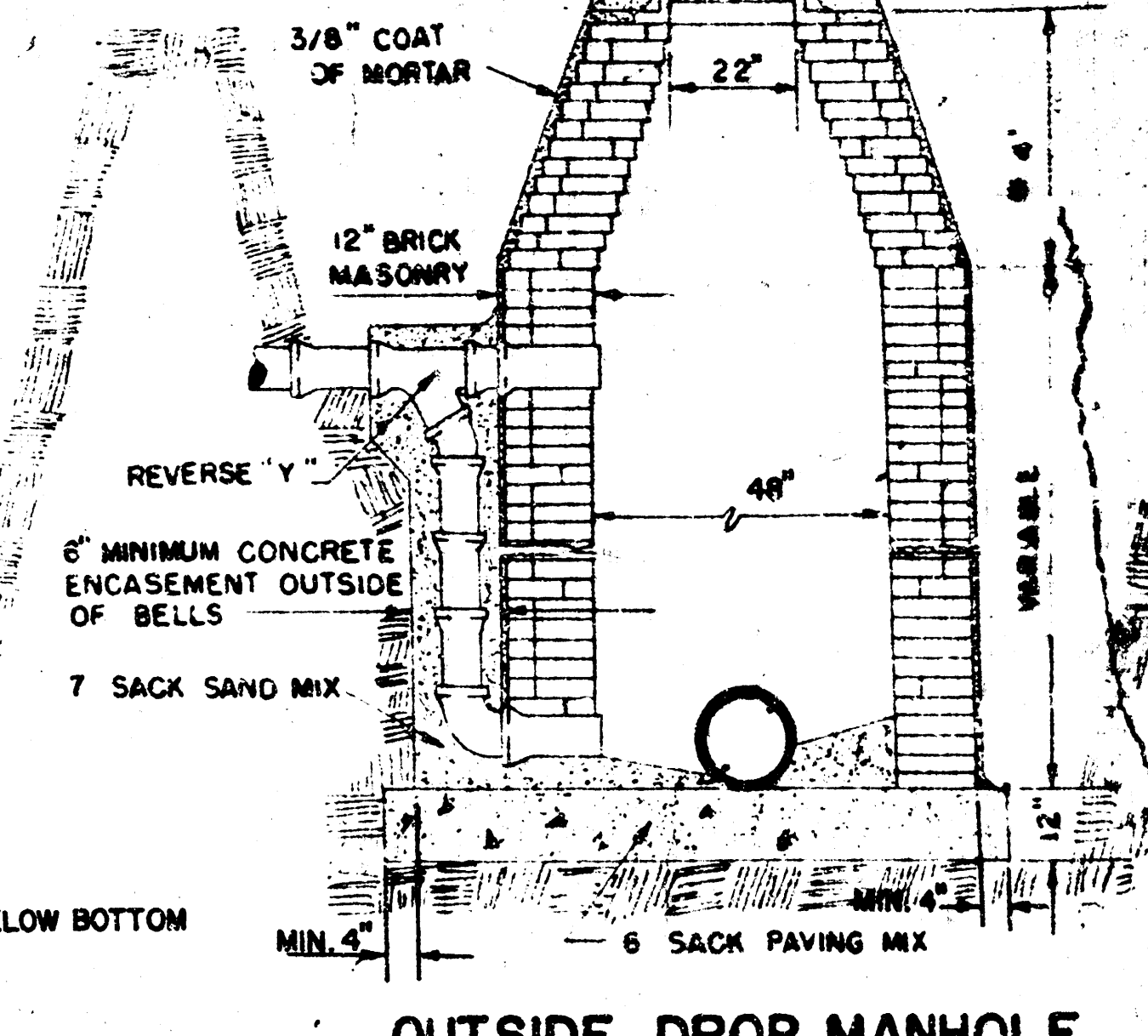
DROP MANHOLE TYPE "A"



DROP MANHOLE TYPE "B"



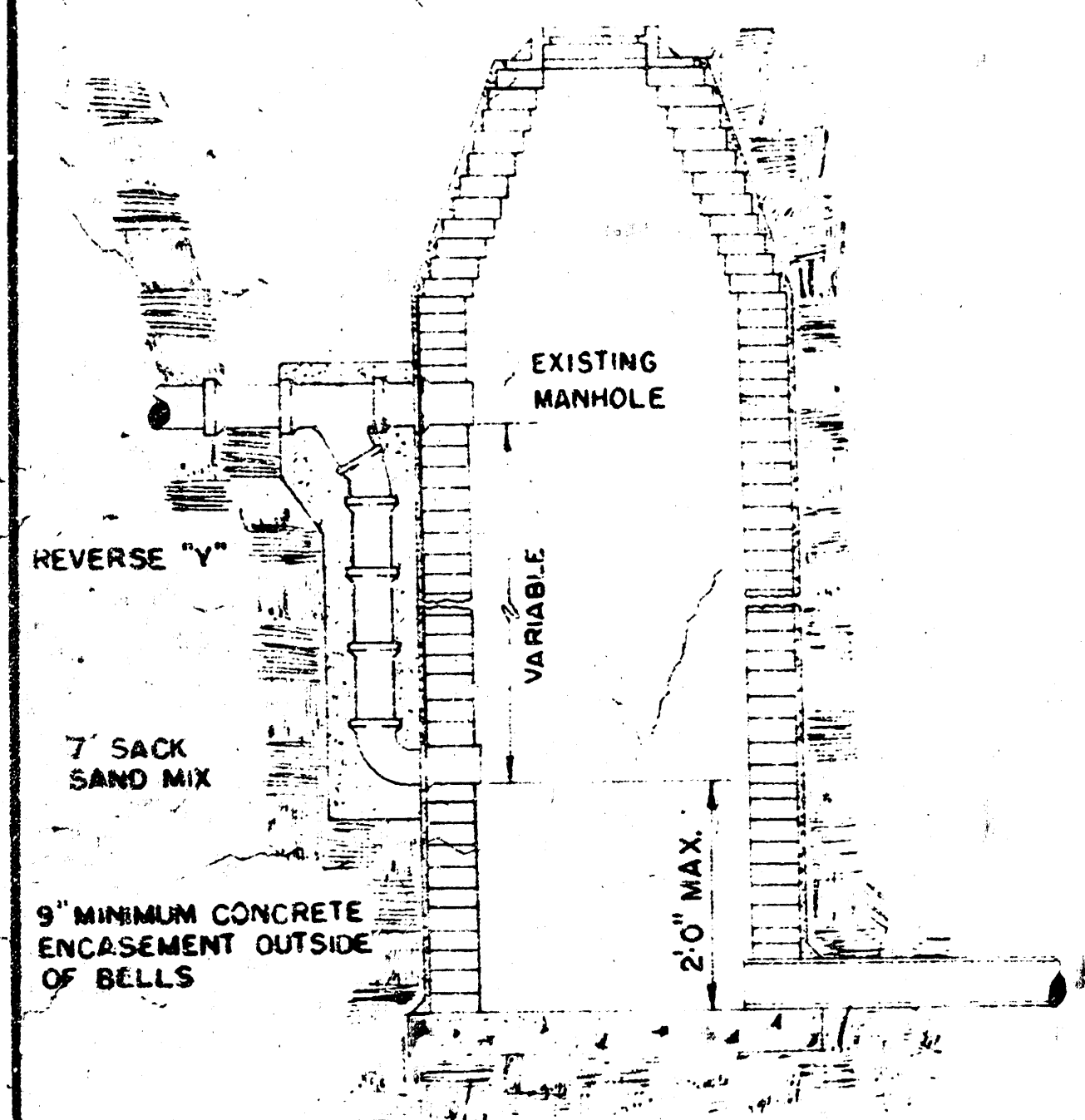
OUTSIDE DROP MANHOLE TYPE "A"



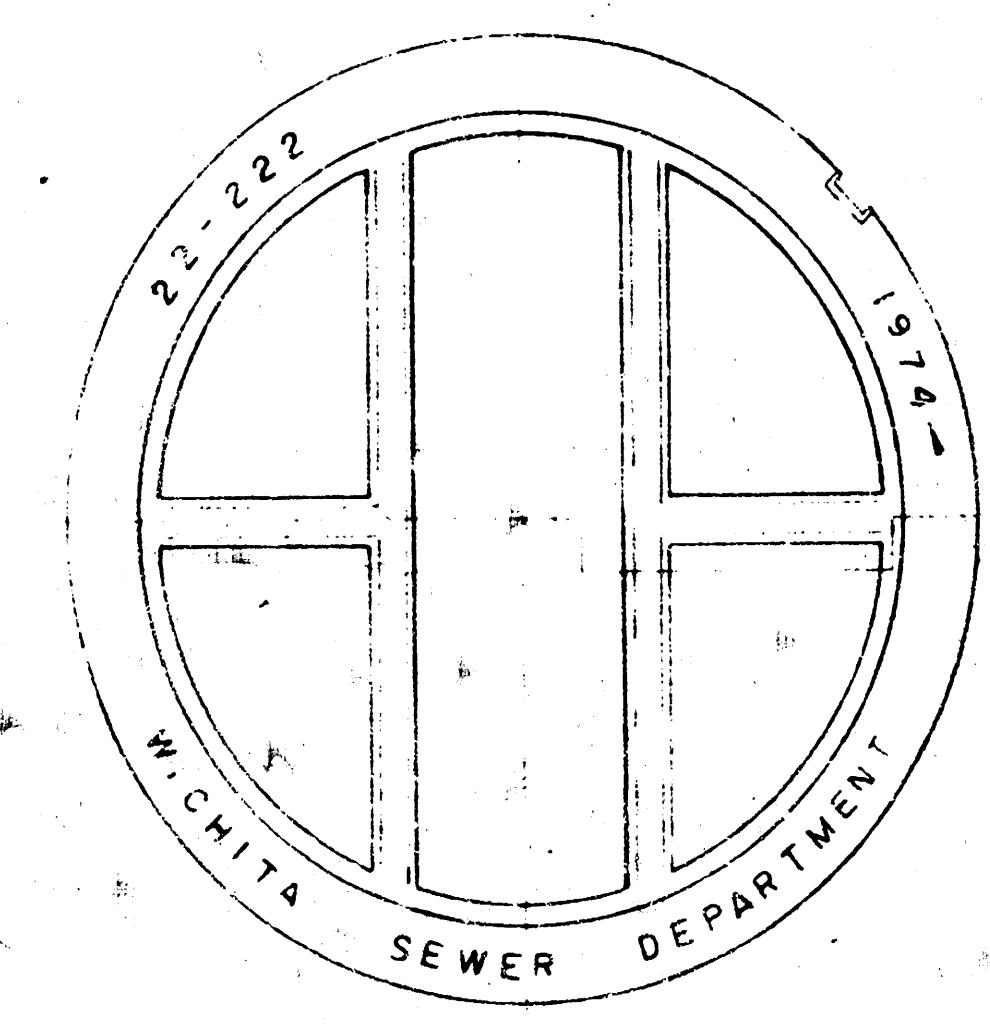
OUTSIDE DROP MANHOLE TYPE "B"

* DRAW = 6' ON 5' DIA. M.H.

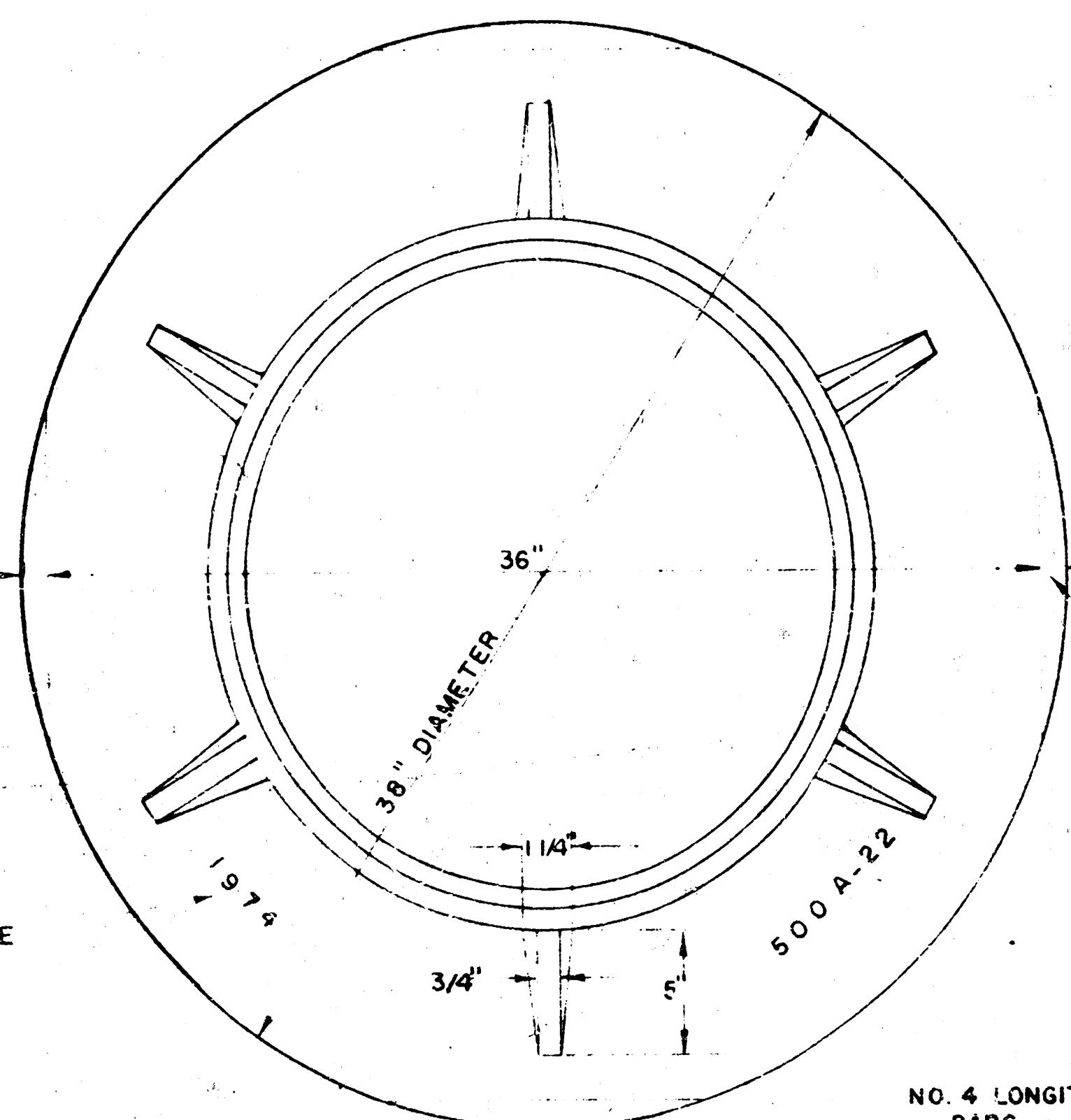
NOTE: REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES 6" ABOVE THE BOTTOM. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE COST OF REINFORCING STEEL IS TO BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLES CONSTRUCTED.



DETAIL OF DROP STACK FOR EXISTING MANHOLES IN GROUND WATER



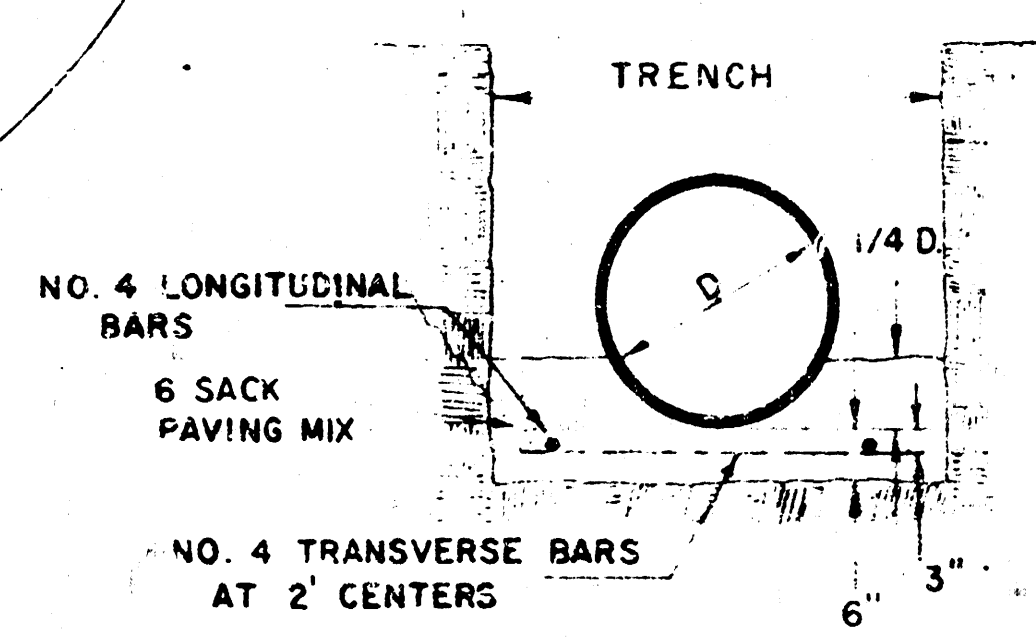
MANHOLE COVER WEIGHT 110 LBS.



MANHOLE RING

WEIGHT 325 LBS. RING NO. 500A
WEIGHT 800 LBS. RING NO. 500AS

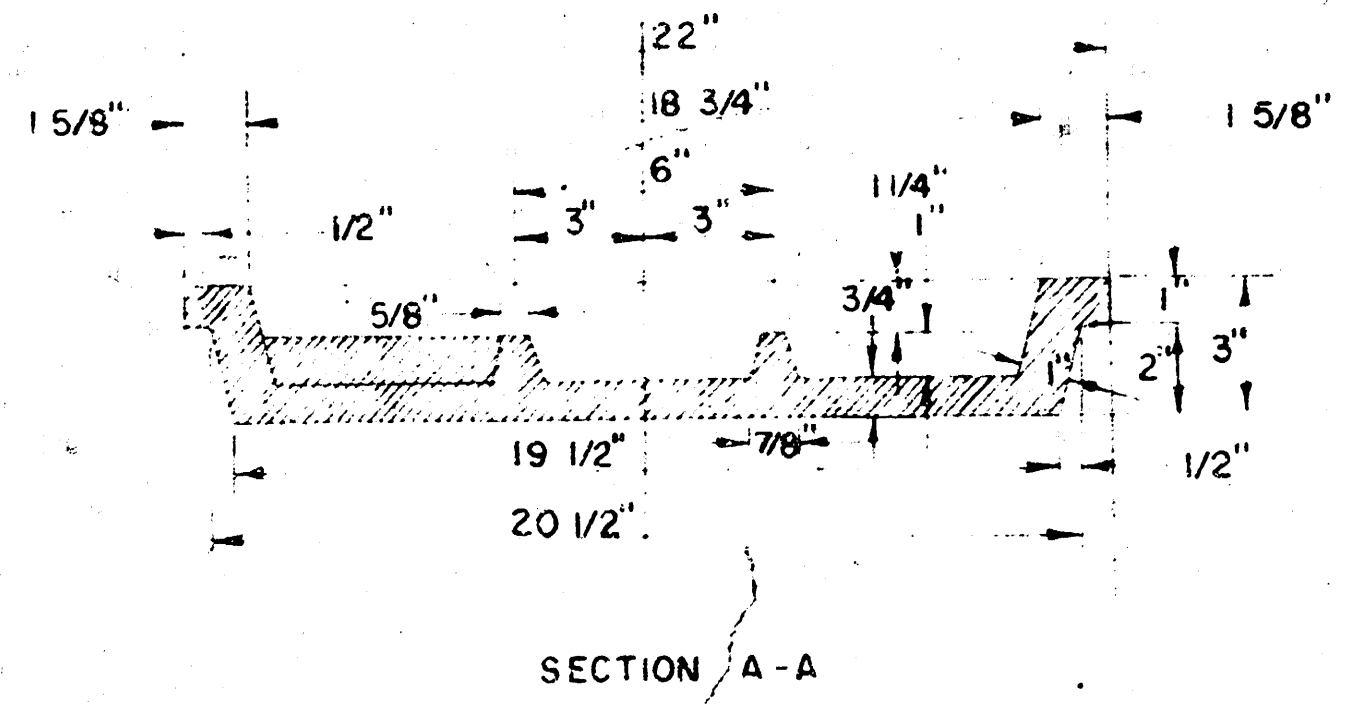
THIS PORTION OF FLANGE MAY BE OMITTED



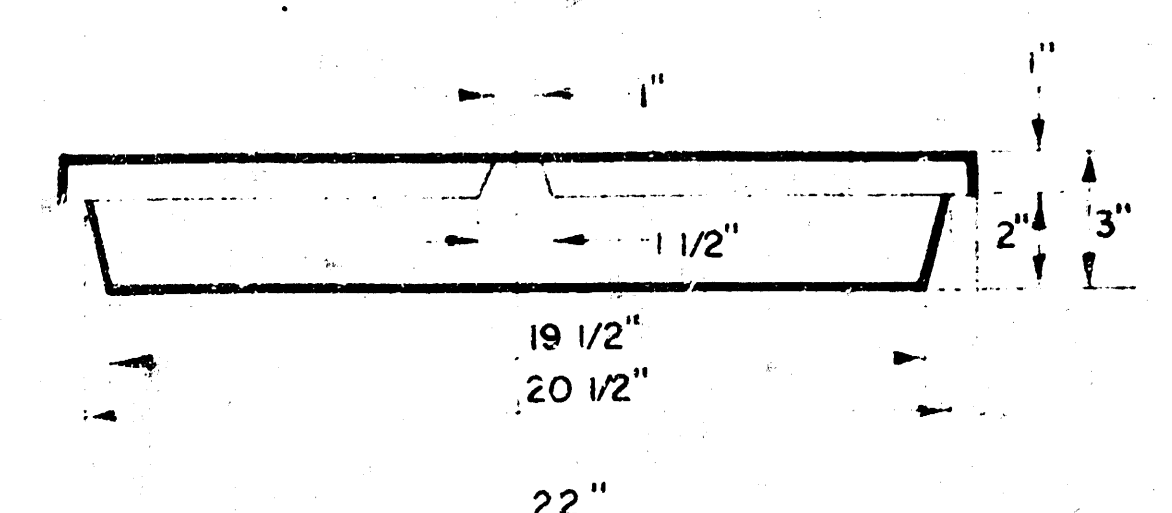
DETAIL OF CONCRETE CRADLE

GENERAL NOTES

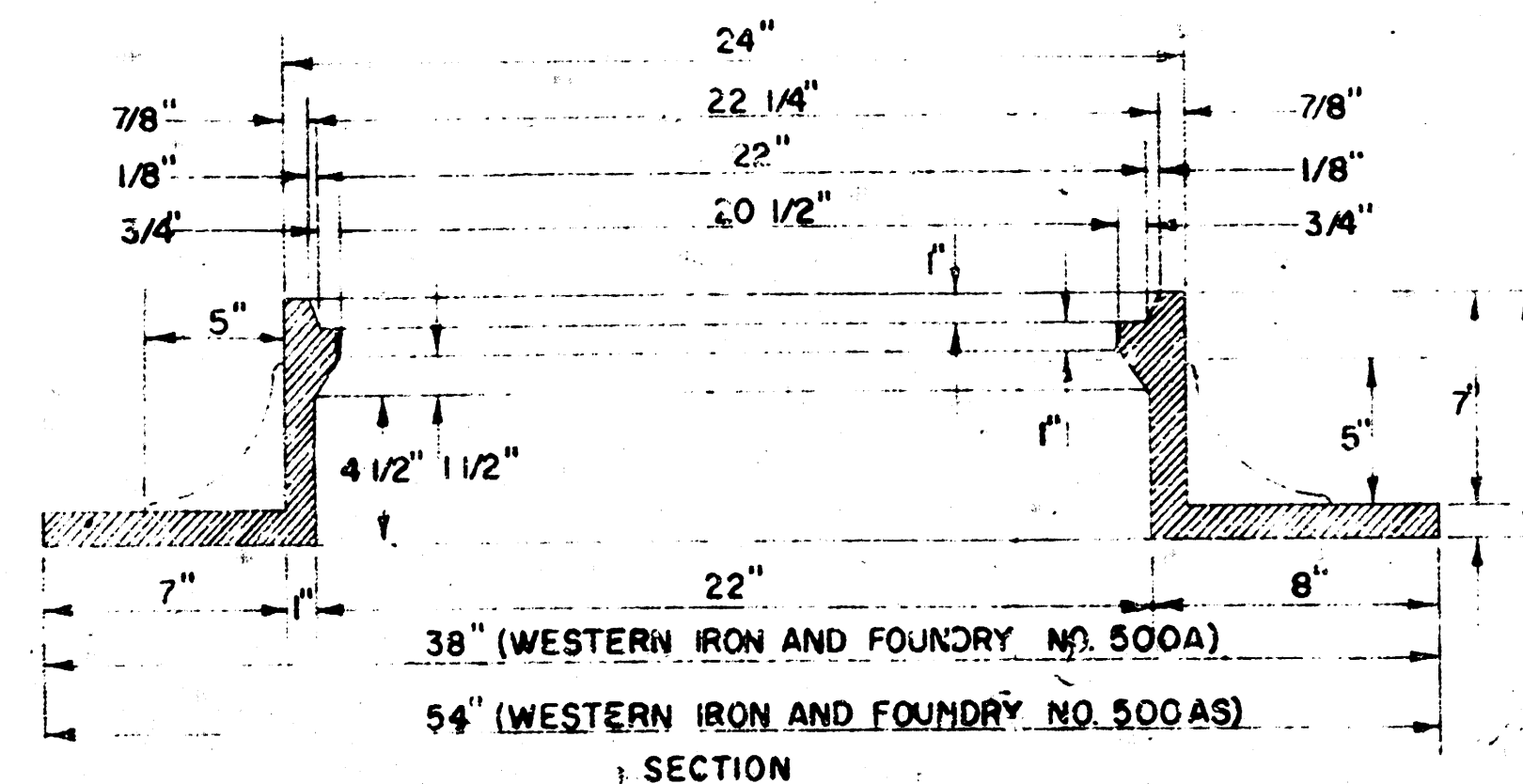
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD.
- STANDARD MANHOLES TYPE "A" OR TYPE "B" AND STANDARD DROP MANHOLES TYPE "A" OR TYPE "B" SHALL BE BID PER LINEAR FOOT OF MANHOLES CONSTRUCTED.
- LINEAR FOOT OF MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- MANHOLES WITH PIPE SIZES LARGER THAN 24" SHALL BE 5' DIAMETER.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED TO INCREASE HYDRAULIC EFFICIENCY USING 8 SACK SAND MIX CONCRETE.
- PIPES INSTALLED WITHIN THE MANHOLE EXCAVATION SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. COST OF CRADLE WITHIN MANHOLE EXCAVATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLES CONSTRUCTED. CRADLE SHALL EXTEND TO FIRST JOINT OUTSIDE OF MANHOLE WHEN CLAY PIPE IS USED.



MANHOLE COVER

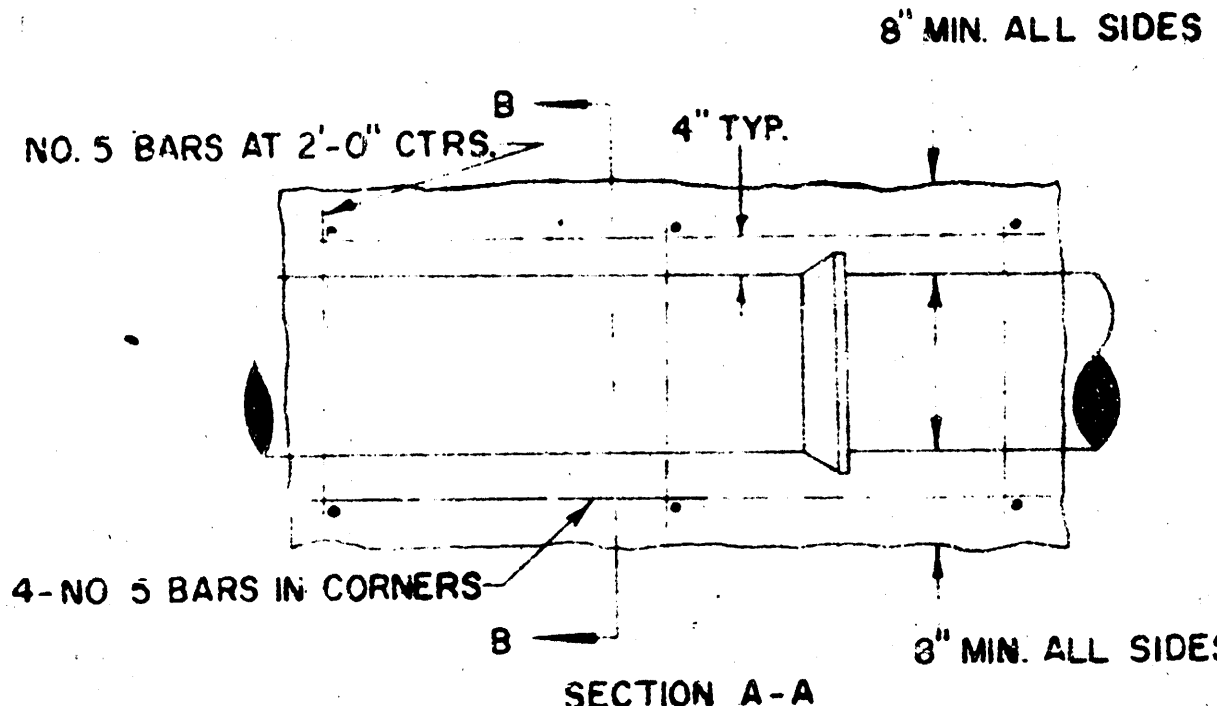


MANHOLE COVER

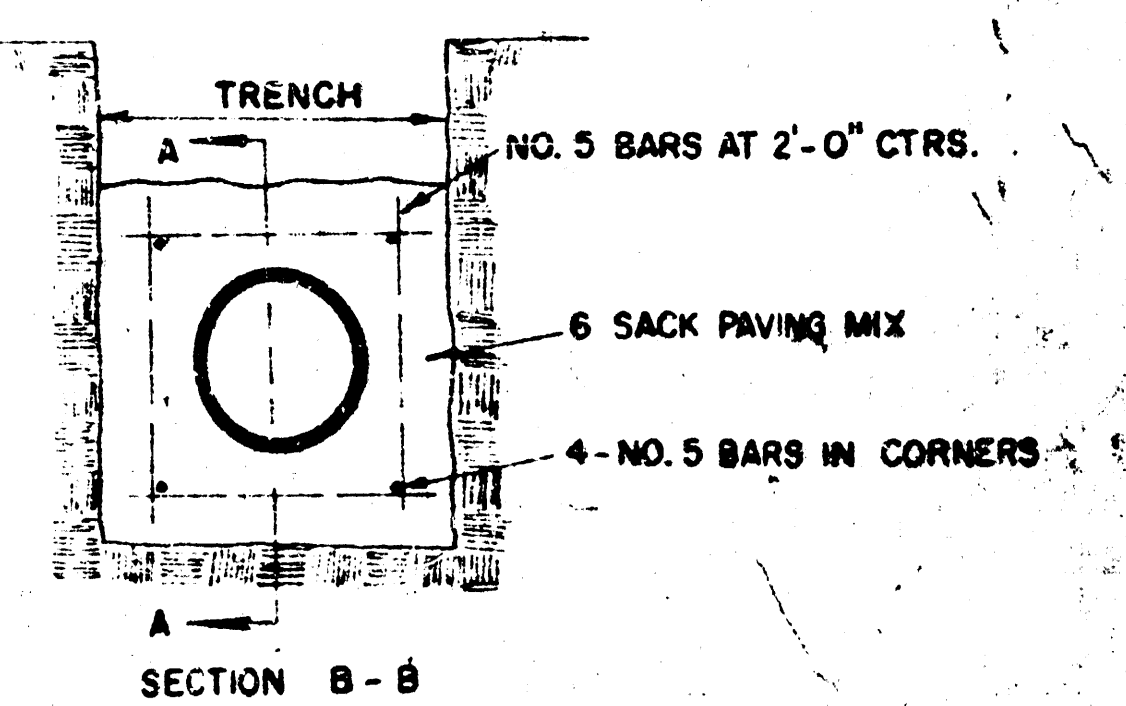


MANHOLE RING

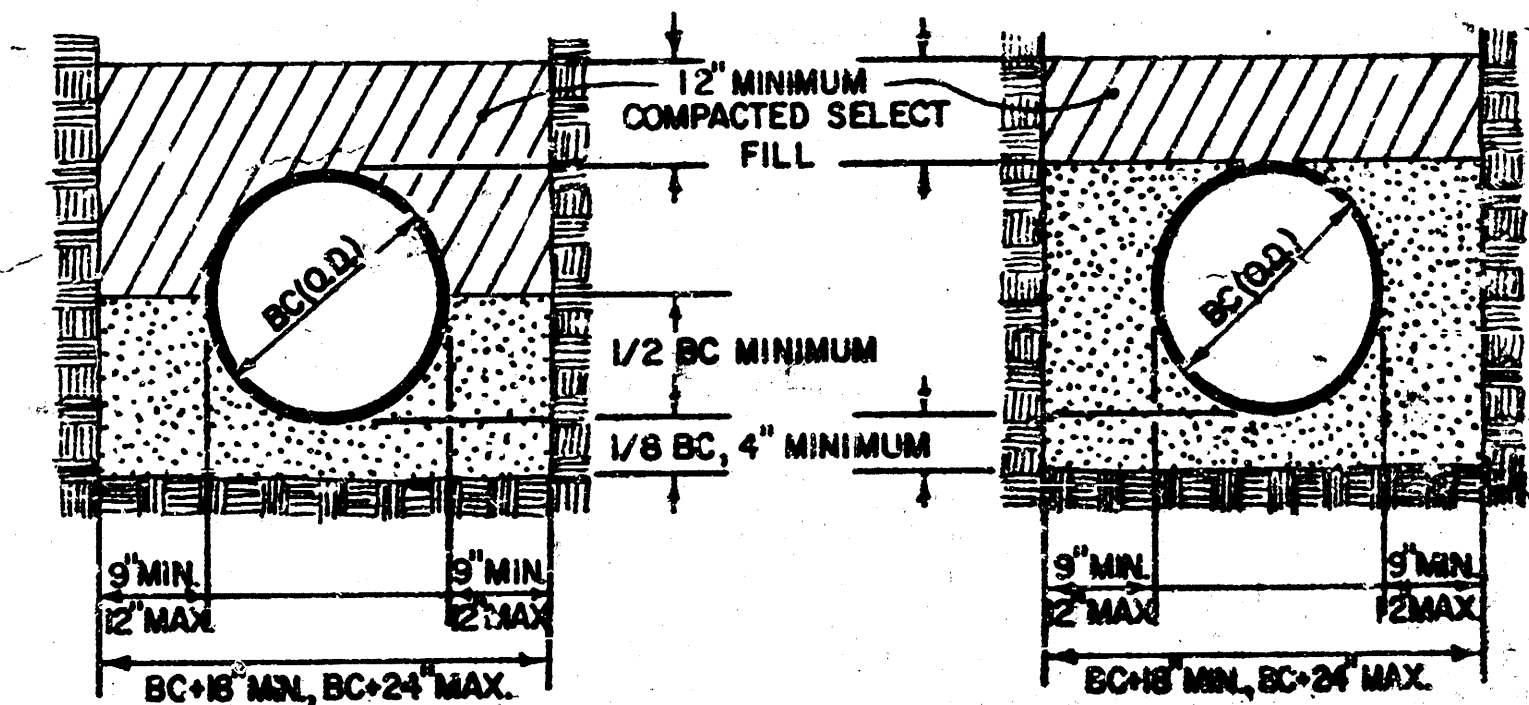
OUTSIDE CIRCUMFERENCE OF COVER AND THE INNER FACE AND SEAT OF RING TO BE MACHINE FIT.



REINFORCED CONCRETE ENCASMENT



NOTE: CONCRETE ENCASMENT AND CONCRETE CRADLE SHALL BEGIN AND END AT A JOINT WHEN CLAY PIPE IS USED.
3" MINIMUM CONCRETE COVER OVER REBAR.



A.B.S. PIPE BEDDING DETAIL

R.V.C. PIPE BEDDING DETAIL

2-19-81, 1-8-81, 2-3-80, 11-14-80, 6-26-80 (SS.CJ)	D.J.	
NO.	REVISION	BY DATE
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS		
BRICK MANHOLE DETAILS (TYPES A&B) & MISC. DETAILS		
DESIGNED BY: D.E. & CO. ENGINEERS		
2400 WEST 24th STREET, WICHITA, KANSAS 67204 (913) 833-5488		
DESIGNED BY: CITY OF WICHITA	JOB NO.	SY. 8 OF 9
DRAWN BY: CITY OF WICHITA	DATE: 6-26-80	