

Lat. 17, C.I.S.
SANITARY SEWER IMPROVEMENTS
to serve
REECE FARMS ESTATES

CITY OF WICHITA, KANSAS

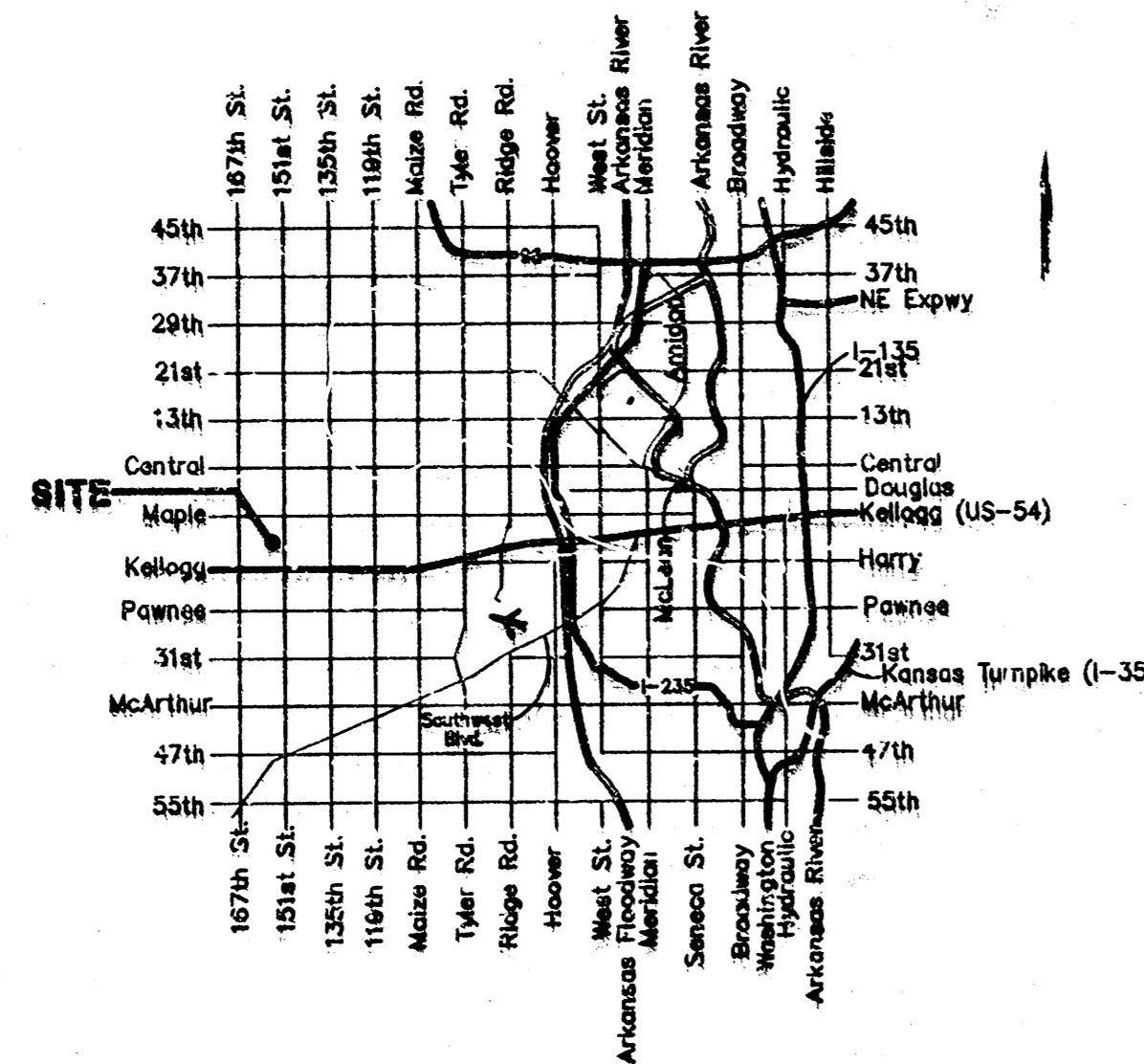
Michael E. Lindelak, P.E. City Engineer

Project Number

468-82880

Index Code:

748484



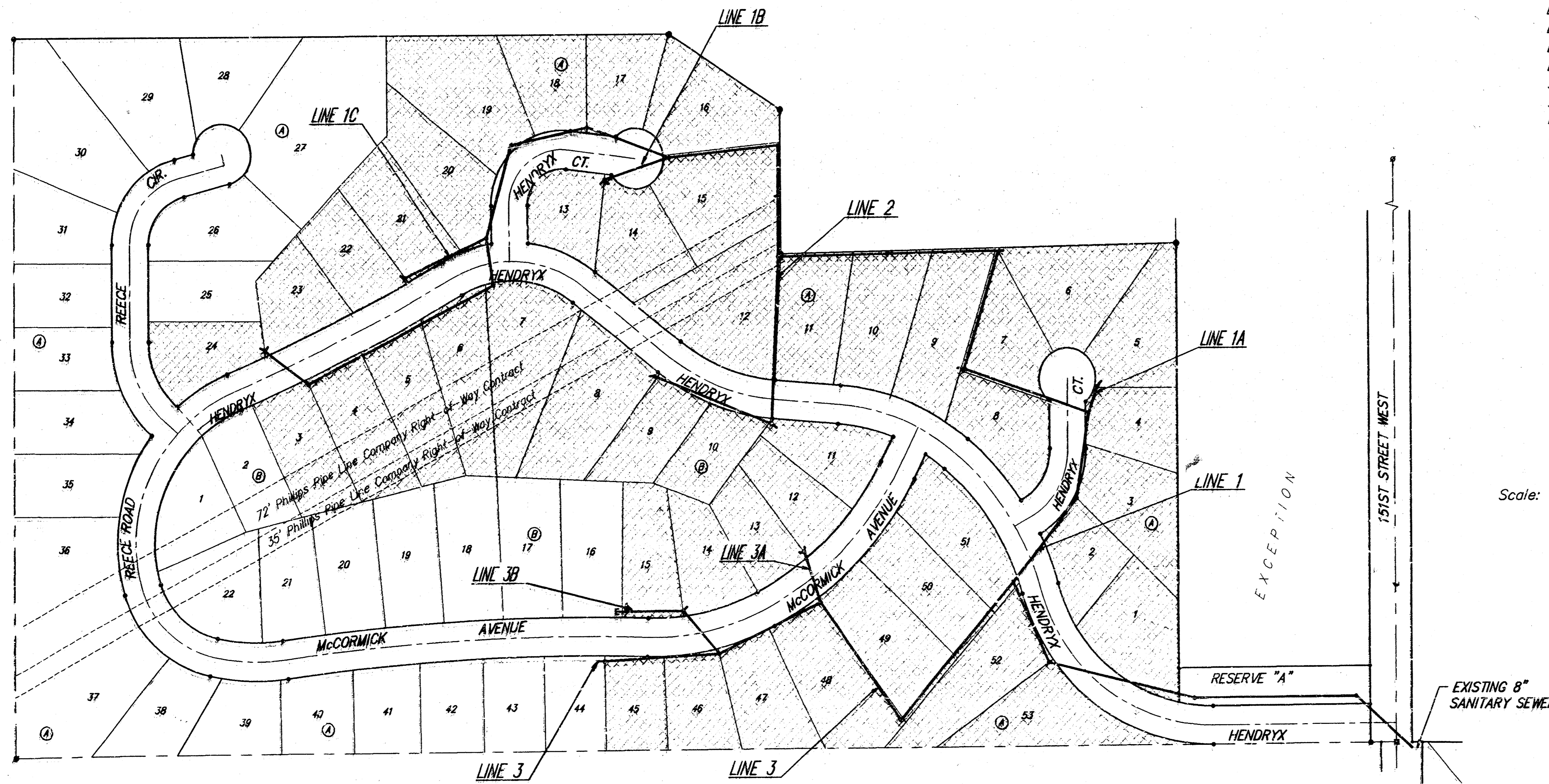
Vicinity Map

Benchmark

Top of 1" Iron 12" Deep E1/4 Cor.
Sec. 27, Twp. 27-S, R-2-W
Elev. = 1396.53 M.S.L.
(209.13 City Datum)

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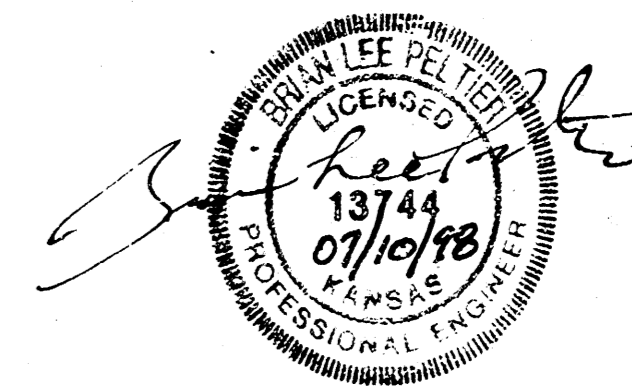
Scale: 1" = 150'

GENERAL NOTES:

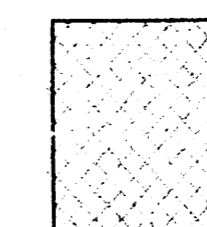
1. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:
Kansas One-Call 887-2470
The Contractor must notify the following in case of an emergency:
Multimedia Cablevision 262-0661
K.P.L. Gas Service Company 383-9650
Kansas Gas & Electric Company 383-8600
Peoples Gas Company 942-8350
Southwestern Bell Telephone Company 1-371-2611
City of Wichita Water Dept. 269-4908
City of Wichita Traffic Engineering 269-4448
2. 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. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
3. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
4. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.
5. The Contractor shall be responsible for preserving property irons. The Contractor will be required 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.
6. All areas disturbed by construction operations shall be seeded with rye grass at a rate of 300 lbs/acre immediately following construction in that area. Prior to seeding, area shall be prepared per City specs.
7. The Contractor shall be responsible for maintaining continuous flow of sewage through construction. Contractor's proposed method for maintaining sewage flow shall be approved by the Engineer. Cost of maintaining flow of sewage through construction will not be paid for directly and this cost shall be considered as subsidiary to the other pay items of work.
8. Although there is no easement grading over the sanitary sewer line in this project, Contractor shall fill to finished grade around manhole within 10' of manhole. If easement grading shall be performed by street contractor during the pavement construction phase of this project.

Booked
P.81, P.82
6-14-99

AS BUILT
RDL



Benefit District

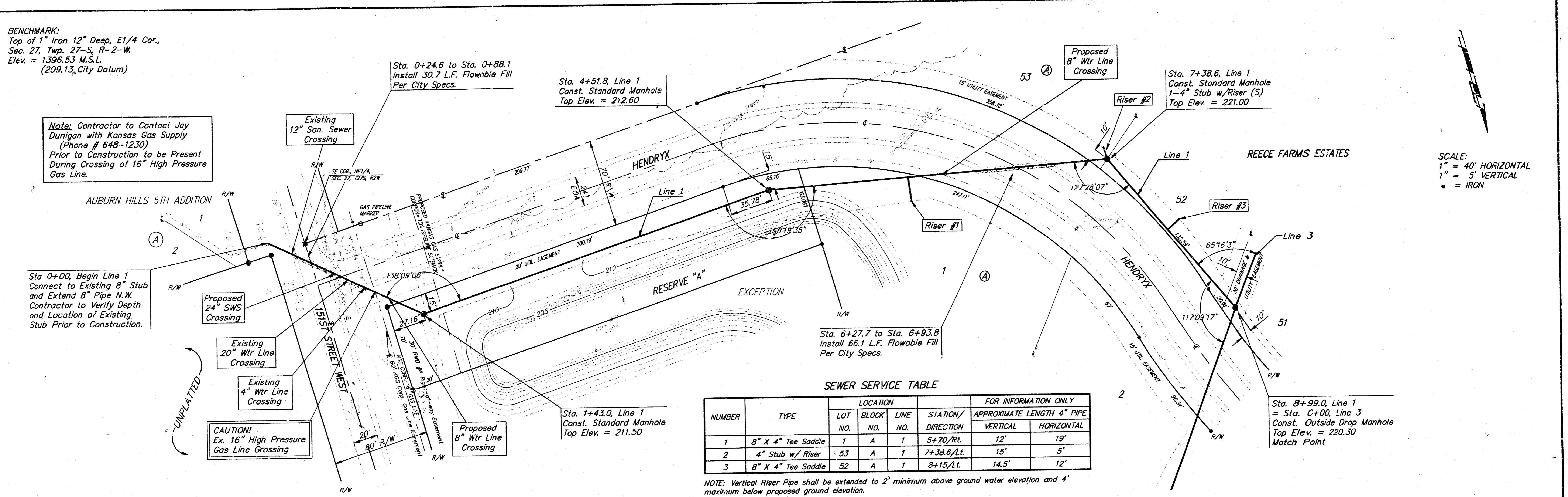


Revised 7-10-98 DMV

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

BENCHMARK:
Top of 1" Iron 12" Deep, E1/4 Cor.,
Sec. 27, Twp. 27-S, R-2-W.
Elev. = 1396.53 M.S.L.
(209.13 City Datum)

Note: Contractor to Contact Jay Dunigan with Kansas Gas Supply (Phone # 648-1230) Prior to Construction to be Present During Crossing of 16" High Pressure Gas Line.



SEWER SERVICE TABLE

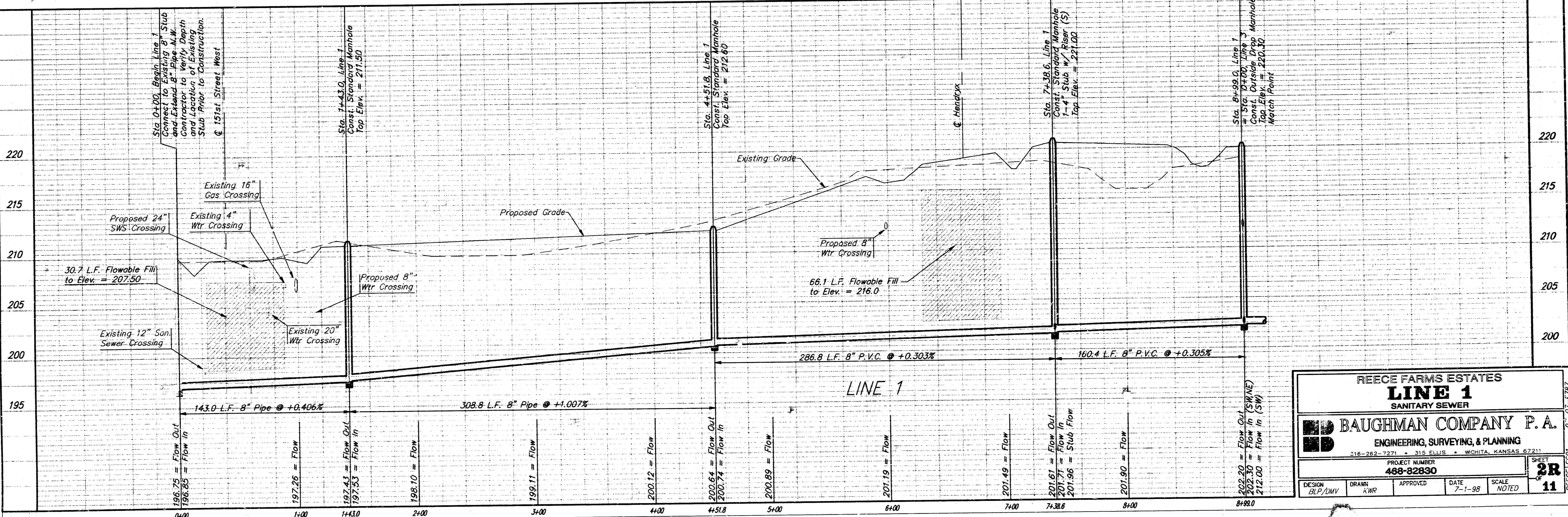
NUMBER	TYPE	LOCATION			APPROXIMATE LENGTH 4" PIPE	
		LOT NO.	BLOCK NO.	LINE NO.	VERTICAL	HORIZONTAL
1	8" X 4" Tee Saddle	1	A	1	5+70/RL	12'
2	4" Stub w/ Riser	53	A	1	7+38.6/Lt	15'
3	8" X 4" Tee Saddle	52	A	1	8+15/Lt	14.5'

FOR INFORMATION ONLY

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.

SCALE:
1" = 40' HORIZONTAL
1" = 5' VERTICAL
• = IRON

Revised 7-10-98 DMV



RECEE FARMS ESTATES
LINE 1
SANITARY SEWER

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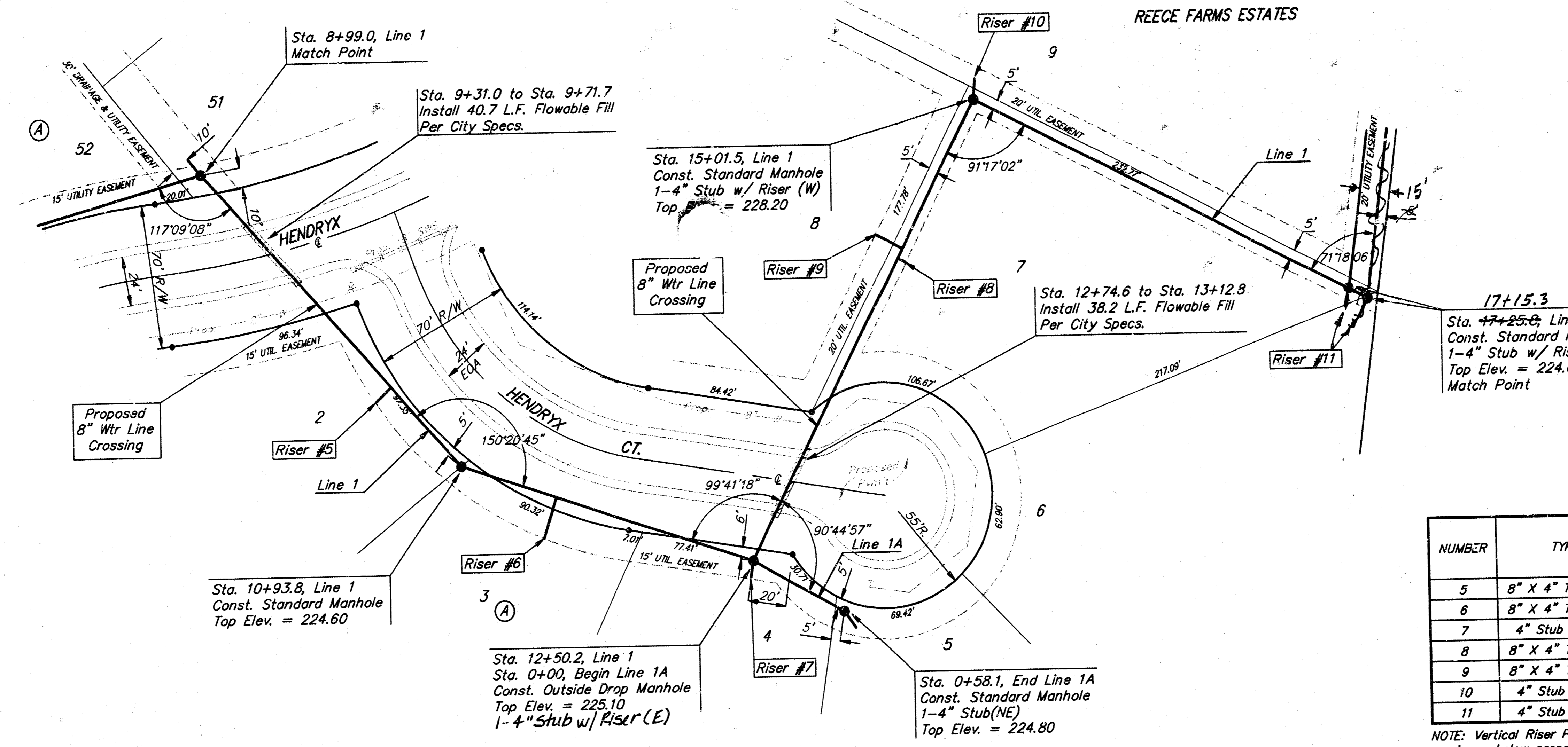
PROJECT NUMBER
488-82830

DESIGN: BLP/DMV DRAWN: KWR APPROVED: DATE: 7-1-98 SCALE: NOTED

SHEET
28
OF
11

BENCHMARK:
Top of 1" Iron 12" Deep, E1/4 Cor.,
Sec. 27, Twp. 27-S, R-2-W.
Elev. = 1396.53 M.S.L.
(209.13 City Datum)

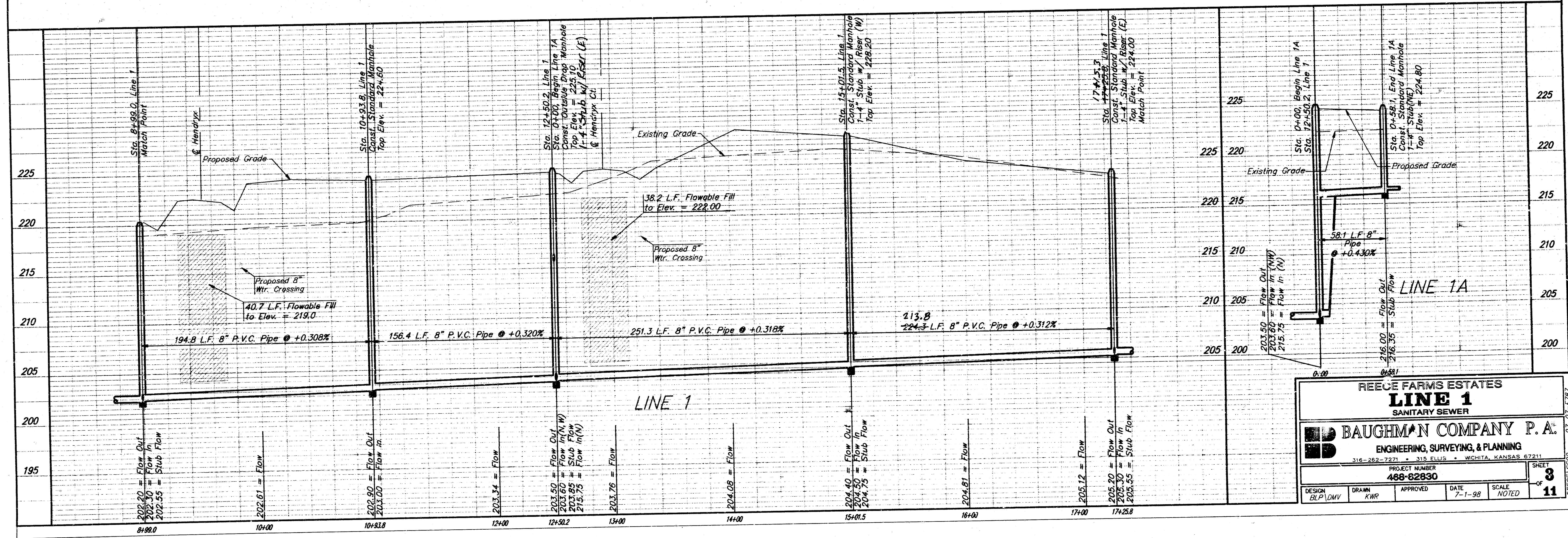
SCALE:
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1" = 5' VERTICAL
• = IRON



SEWER SERVICE TABLE

NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE
5	8" X 4" Tee Saddle	2	A	1	10+41/Rt.	17.5' 11'
6	8" X 4" Tee Saddle	3	A	1	11+45/Rt.	17' 21'
7	4" Stub w/ Riser	4	A	1	12+50.2/Rt.	17.5' 8'
8	8" X 4" Tee Saddle	7	A	1	14+15/Rt.	20.5' 5'
9	8" X 4" Tee Saddle	8	A	1	14+20/Lt.	20.5' 15'
10	4" Stub w/ Riser	9	A	1	15+01.5/Lt.	19.5' 15'
11	4" Stub w/ Riser	6	A	1	17+25.8/Rt.	14.5' 5'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.



REECE FARMS ESTATES
LINE 1
SANITARY SEWER

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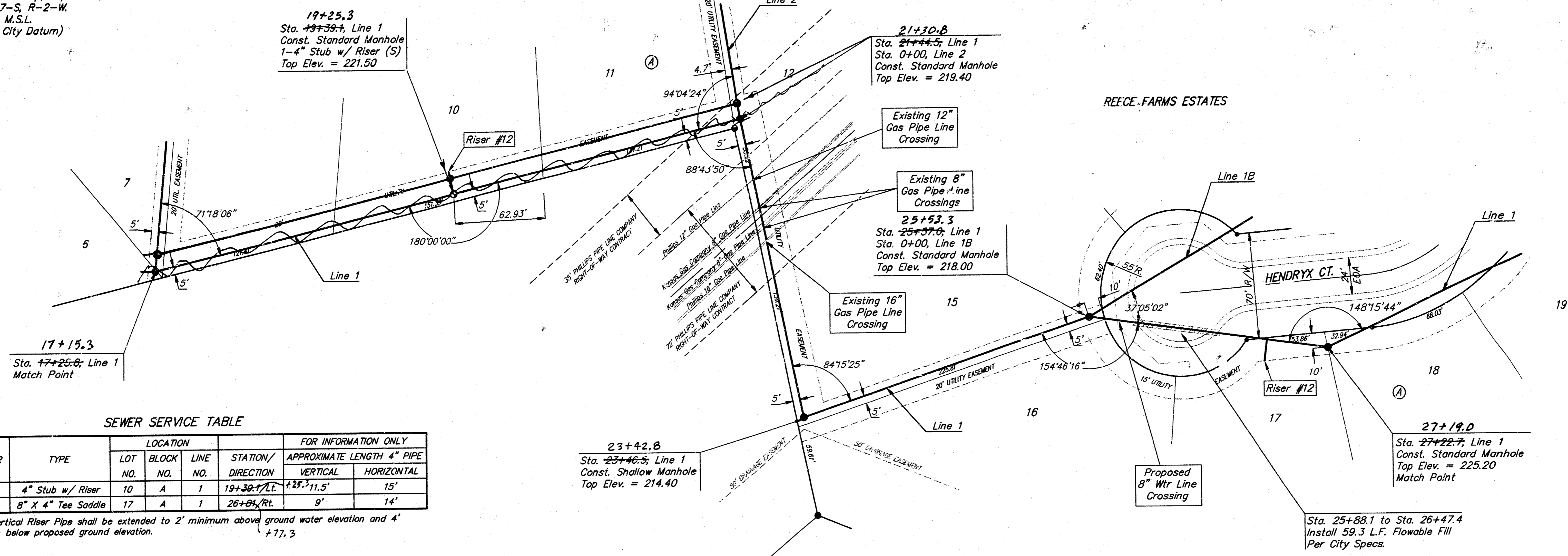
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488-82830

DESIGN: ELP/LMV DRAWN: KWR APPROVED: _____ DATE: 7-1-98 SCALE: NOTED

SHEET **3** OF **11**

97-07-1787 REECE 13302

BENCHMARK:
Top of 1" Iron 12" Deep, E1/4 Cor.,
Sec. 27, Twp. 27-S, R-2-W.
Elev. = 1396.53 M.S.L.
(209.13 City Datum)

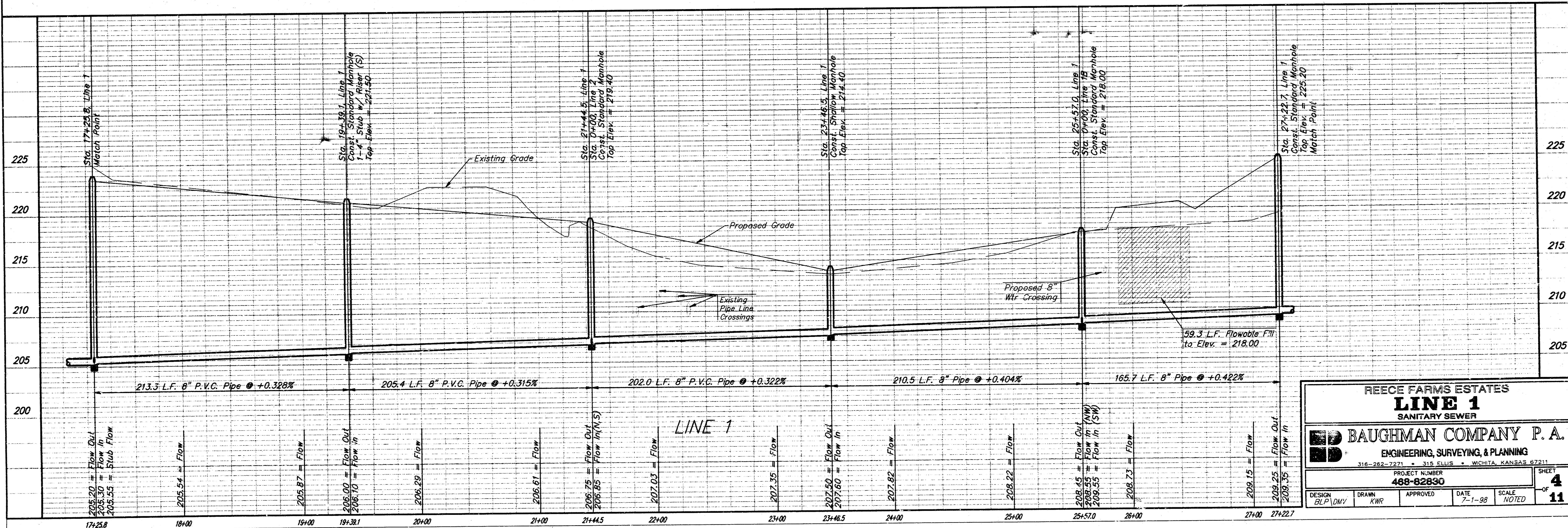


SCALE:
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• = IRON

SEWER SERVICE TABLE

NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE
12	4" Stub w/ Riser	10	A	1	19+30.1/RT	23' 11.5"
13	8" X 4" Tee Saddle	17	A	1	26+84/RT	9'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.
+77.3



REECE FARMS ESTATES
LINE 1
SANITARY SEWER

BAUGHMAN COMPANY P.A.
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PROJECT NUMBER
488-82890

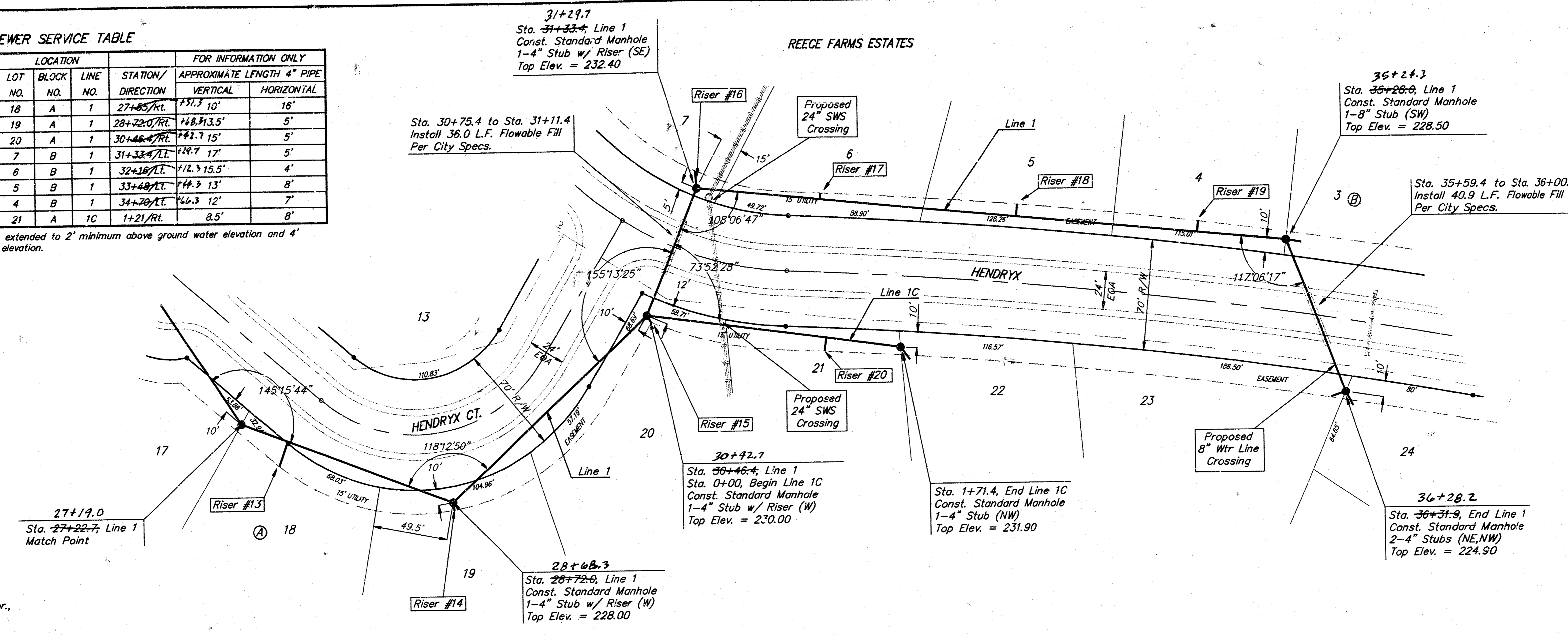
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SEWER SERVICE TABLE

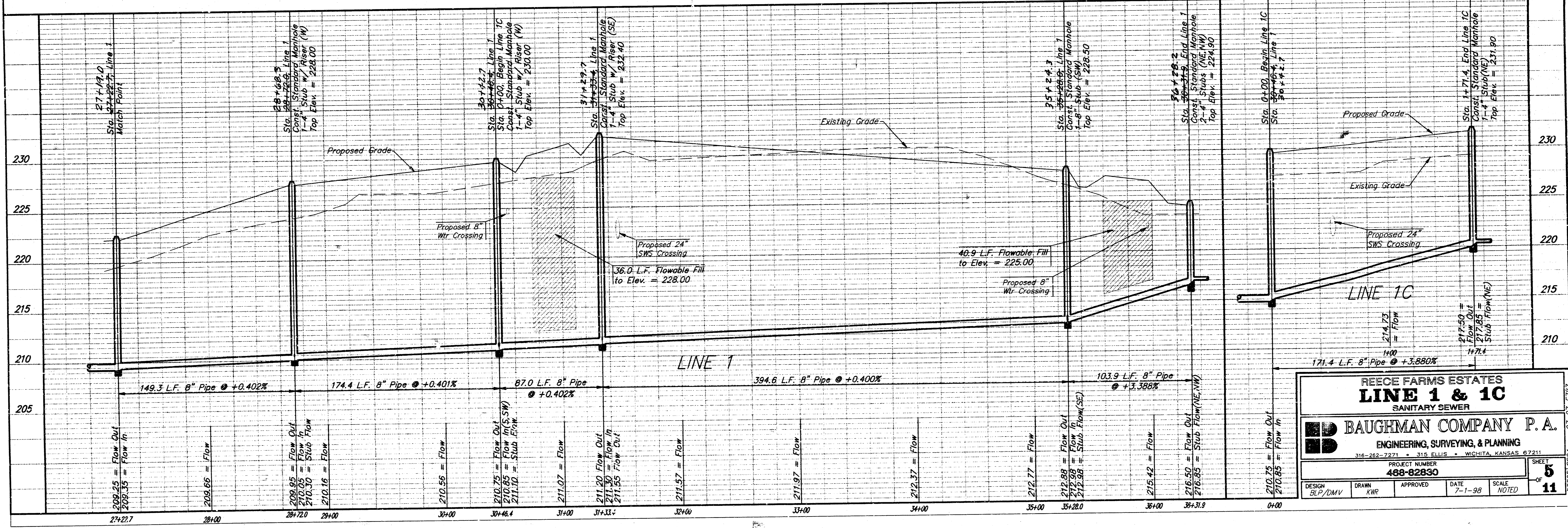
NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE
13	8" X 4" Tee Saddle	18	A	1	27+85/RT.	16'
14	4" Stub w/ Riser	19	A	1	28+22.0/RT.	118.13.5'
15	4" Stub w/ Riser	20	A	1	30+46.4/RT.	141.7.15'
16	4" Stub w/ Riser	7	B	1	31+33.4/RT.	149.7.17'
17	8" X 4" Tee Saddle	6	B	1	32+16/RT.	112.3.15.5'
18	8" X 4" Tee Saddle	5	B	1	33+48/RT.	144.3.13'
19	8" X 4" Tee Saddle	4	B	1	34+20/RT.	146.3.12'
20	8" X 4" Tee Saddle	21	A	1C	1+21/RT.	8.5'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.

BENCHMARK:
Top of 1" Iron 12" Deep, E1/4 Cor.,
Sec. 27, Twp. 27-S, R-2-W.
Elev. = 1396.53 M.S.L.
(209.13 City Datum)



SCALE:
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RECEE FARMS ESTATES
LINE 1 & 1C
SANITARY SEWER

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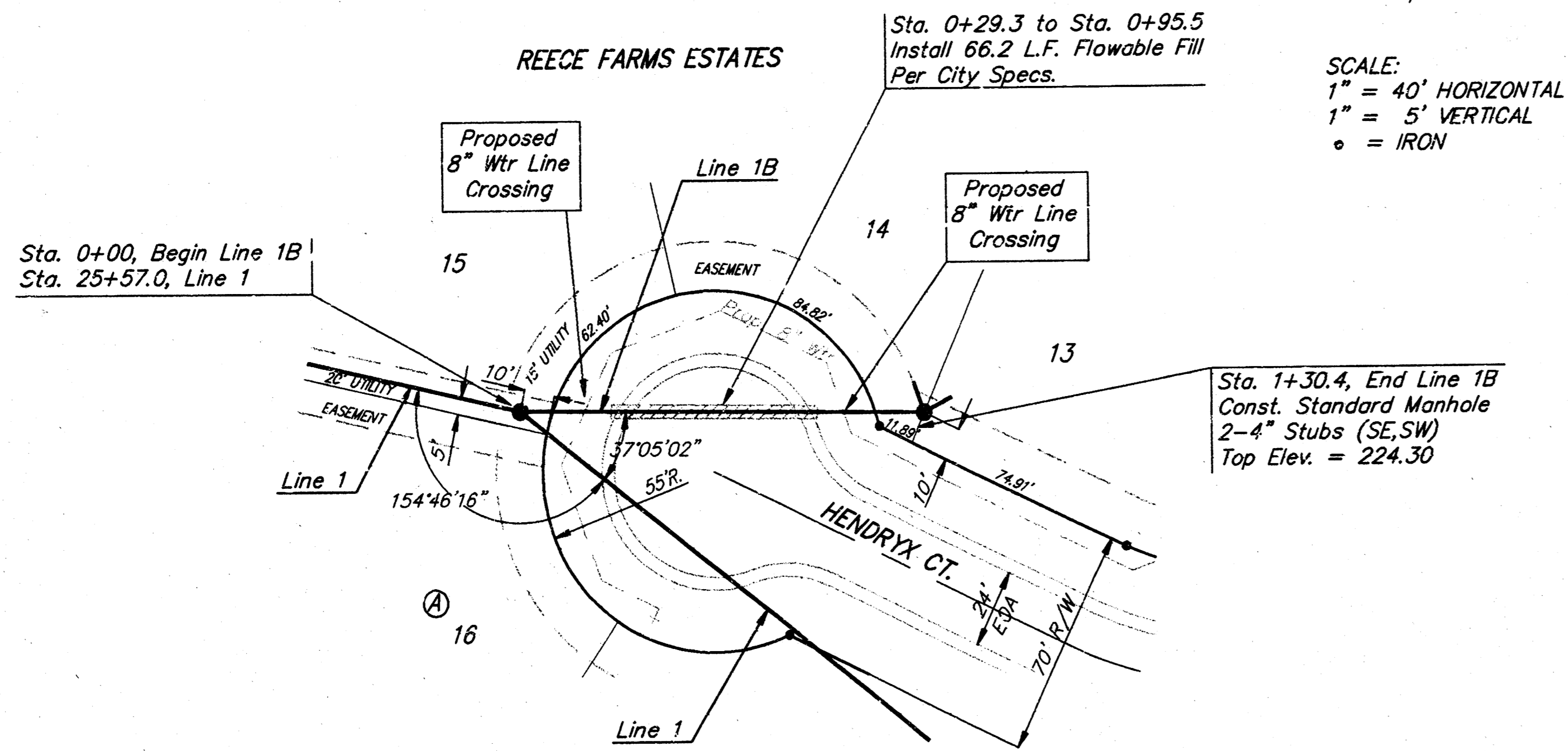
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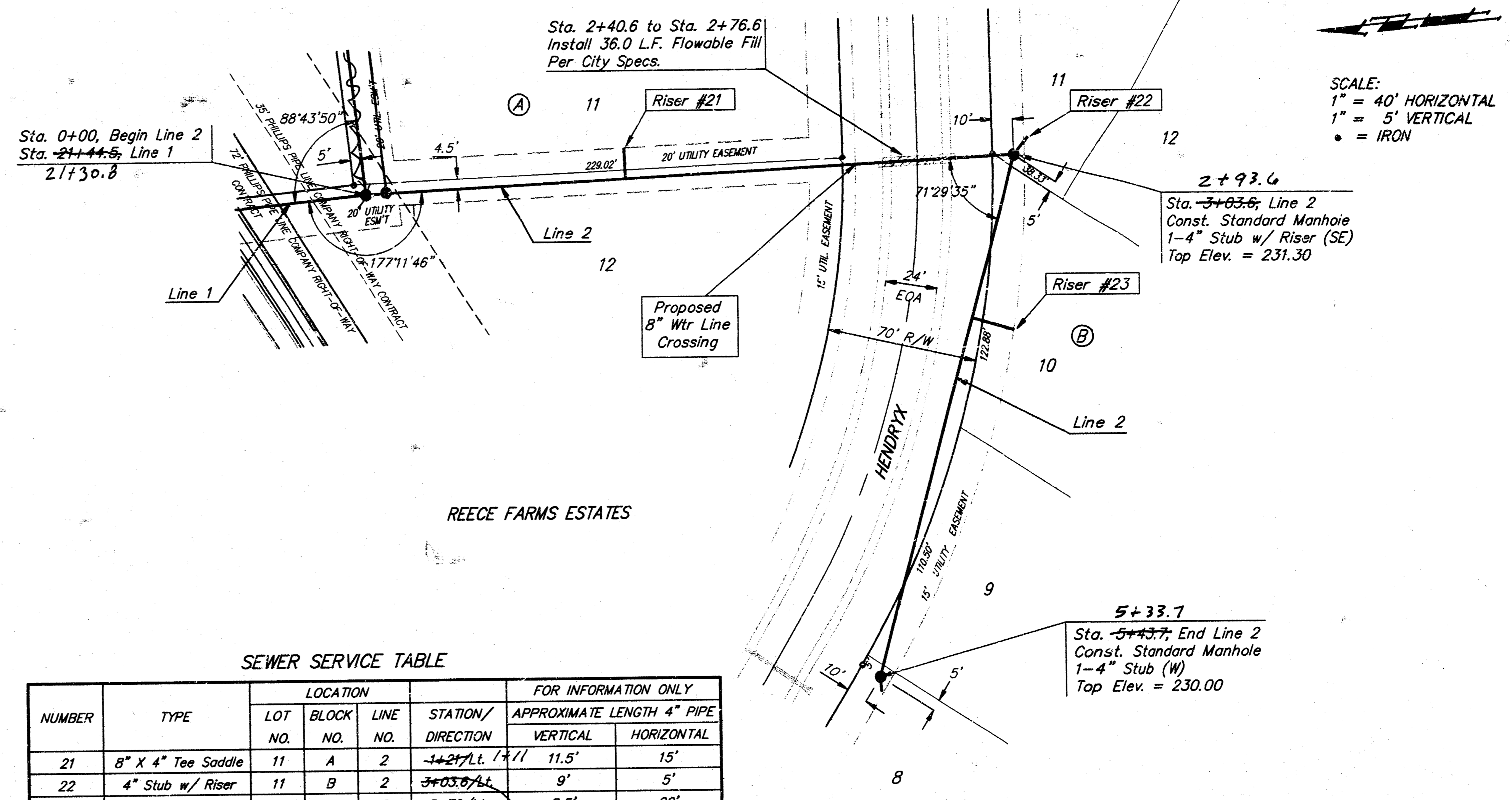
SHEET 5 OF 11

91-07-2787
RECEE LSS04

BENCHMARK:
Top of 1" Iron 12" Deep, E1/4 Cor.,
Sec. 27, Twp. 27-S, R-2-W.
Elev. = 1396.53 M.S.L.
(209.13 City Datum)



SCALE:
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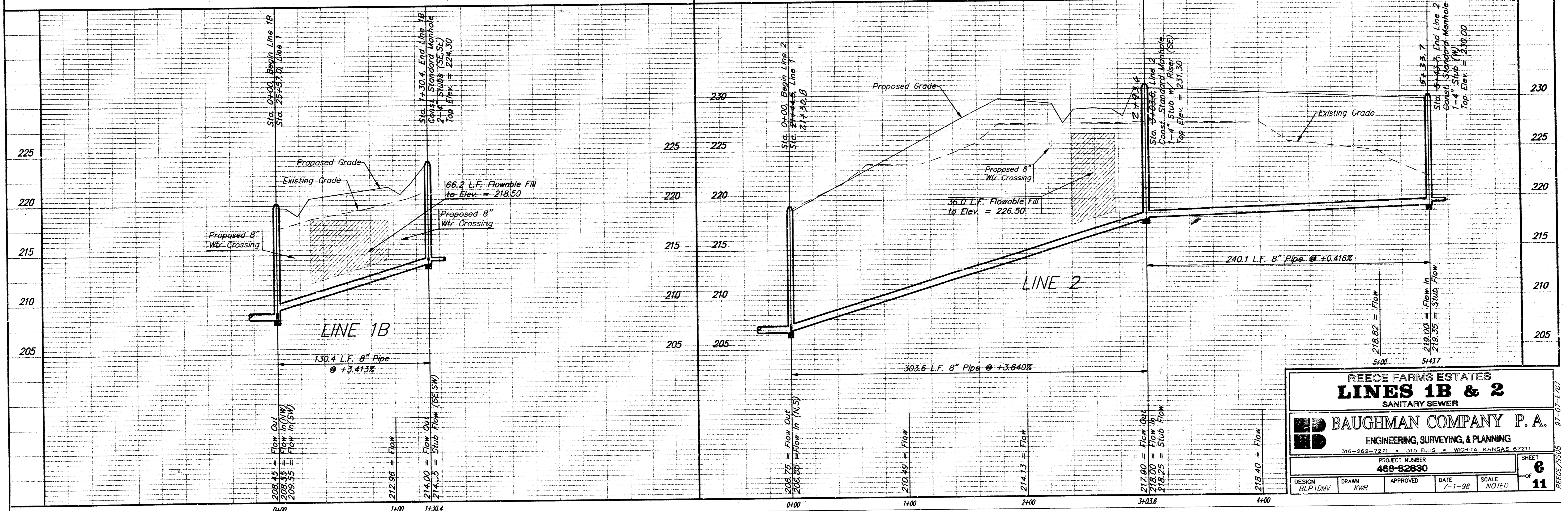


SCALE:
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1" = 5' VERTICAL
• = IRON

SEWER SERVICE TABLE

NUMBER	TYPE	LOCATION				FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE	VERTICAL HORIZONTAL
21	8" X 4" Tee Saddle	11	A	2	3+27/Lt. / 1/1	11.5'	15'
22	4" Stub w/ Riser	11	B	2	3+03.0/Lt.	9'	5'
23	8" X 4" Tee Saddle	10	B	2	3+78/Lt.	8.5'	20'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.



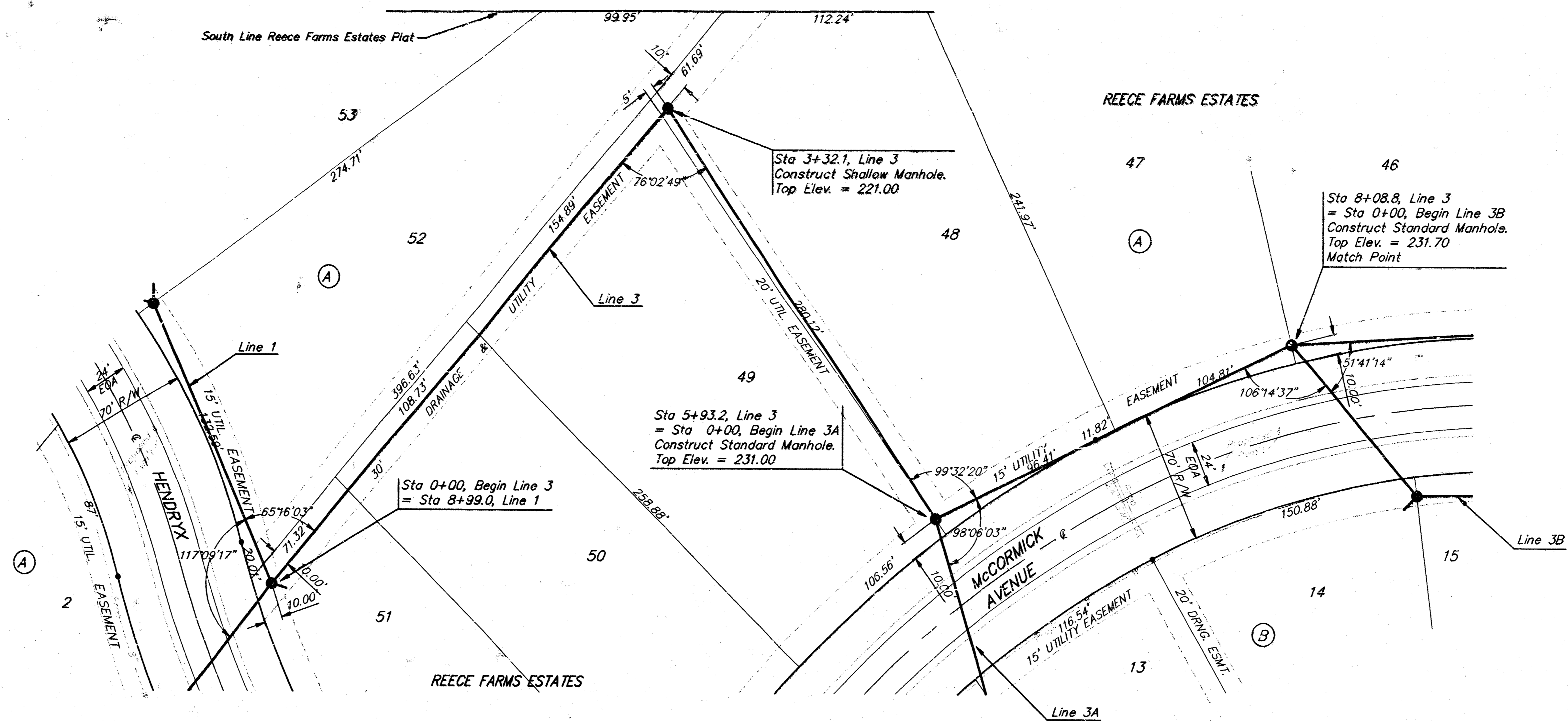
REECE FARMS ESTATES
LINES 1B & 2
SANITARY SEWER

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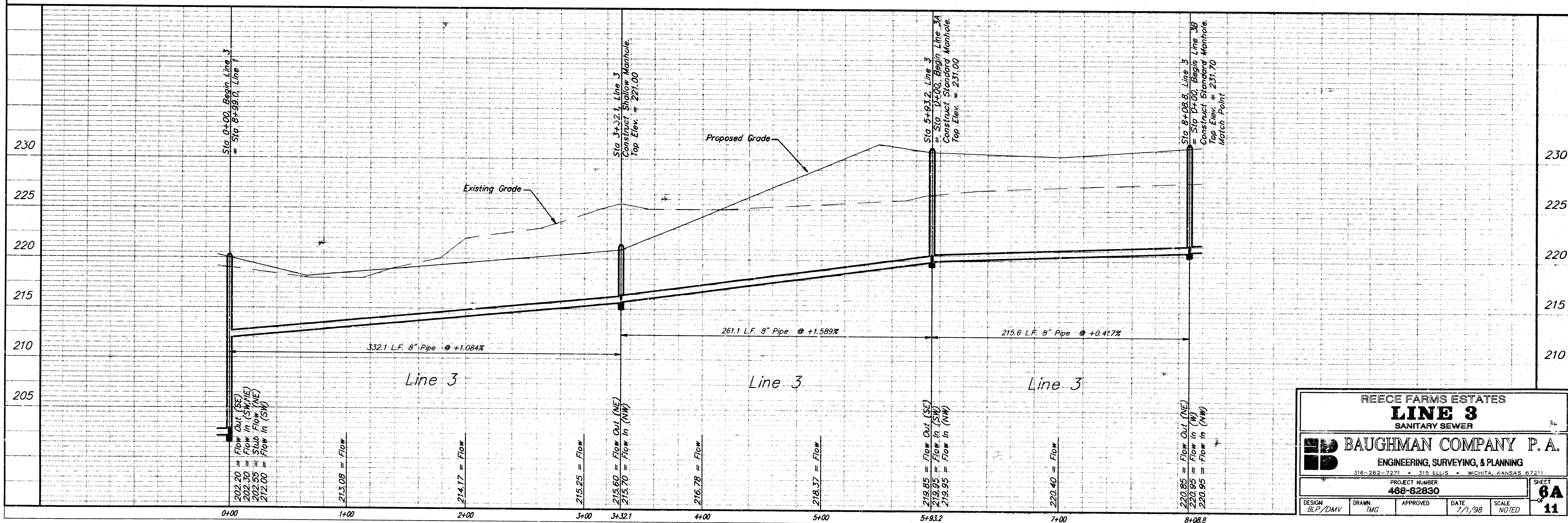
PROJECT NUMBER
488-82830

DESIGN: BLP/OMV DRAWN: KWR APPROVED: [Signature] DATE: 7-1-98 SCALE: NOTED SHEET: **6** OF **11**

BENCHMARK:
 Top of 1" Iron 12" Deep, E1/4 Cor.,
 Sec. 27, 1wp, 27-S, R-2-W.
 Elev. = 1396.53 M.S.L.
 (209.13 City Datum)



SCALE:
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REECE FARMS ESTATES
LINE 3
 SANITARY SEWER

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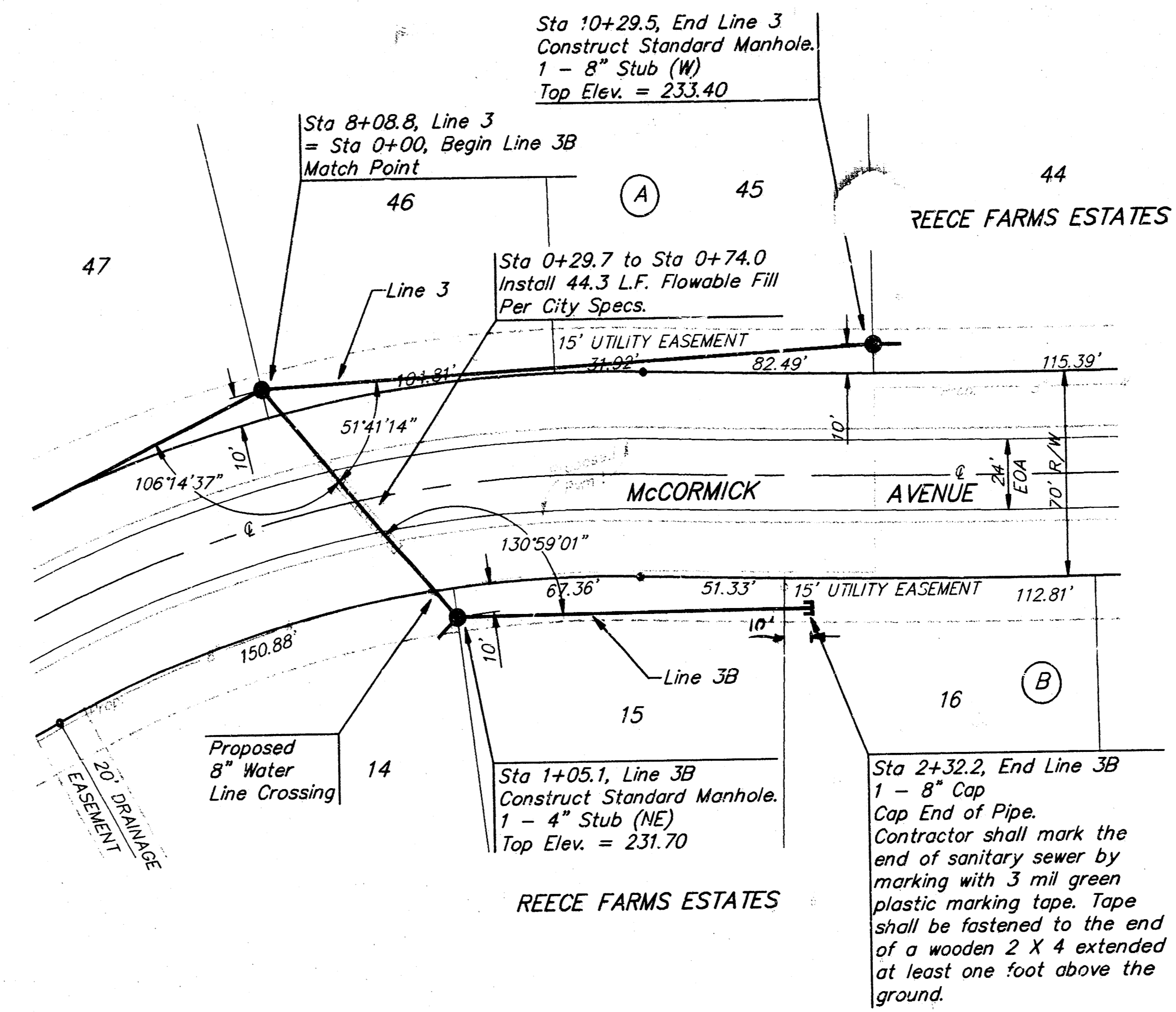
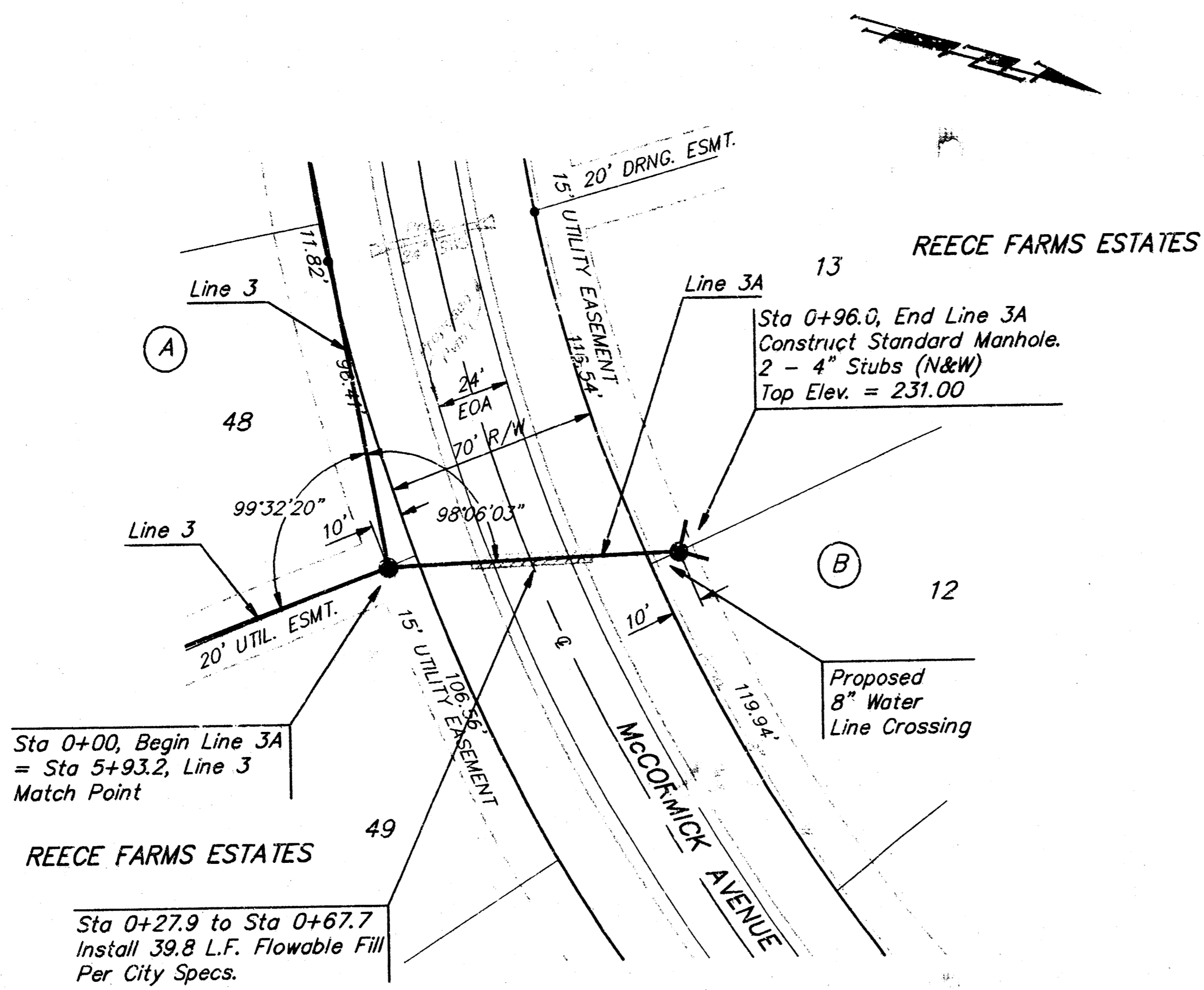
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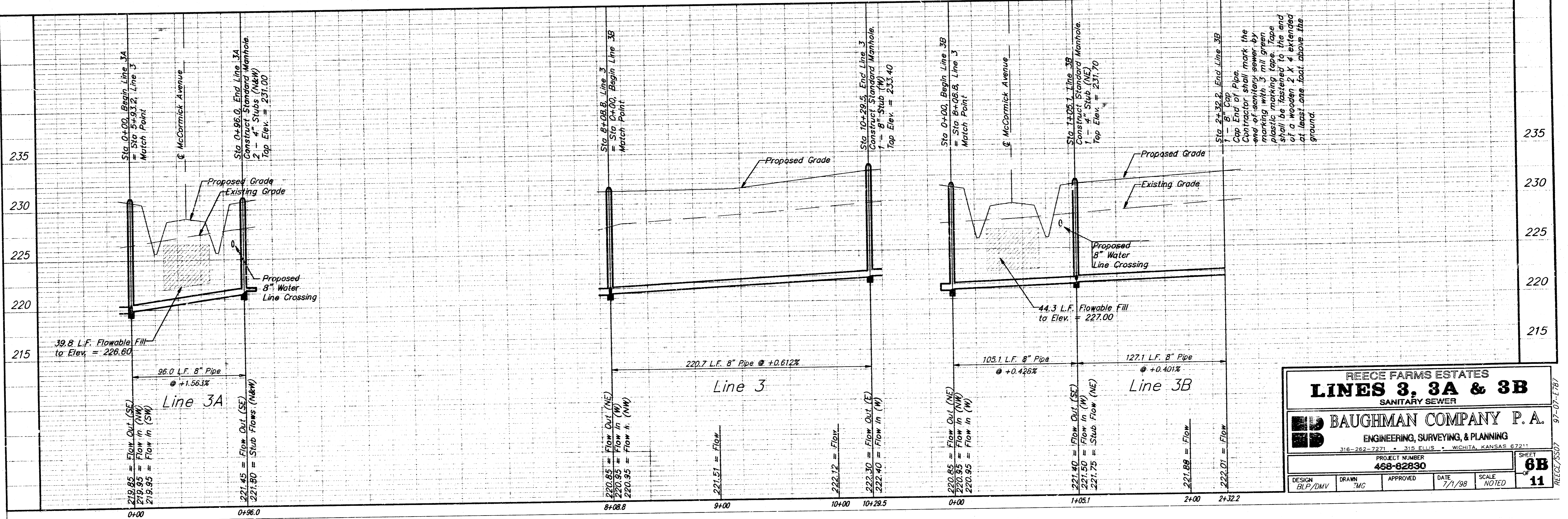
SHEET
6A
 OF
11

97-07-187
 REECE SS06

BENCHMARK:
 Top of 1" Iron 12" Deep, E1/4 Cor.,
 Sec. 27, Twp. 27-S, R-2-W.
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 (209.13 City Datum)



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REECE FARMS ESTATES
LINES 3, 3A & 3B
 SANITARY SEWER

BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING
 316-262-2271 • 316 ELLIS • WICHITA, KANSAS 67211

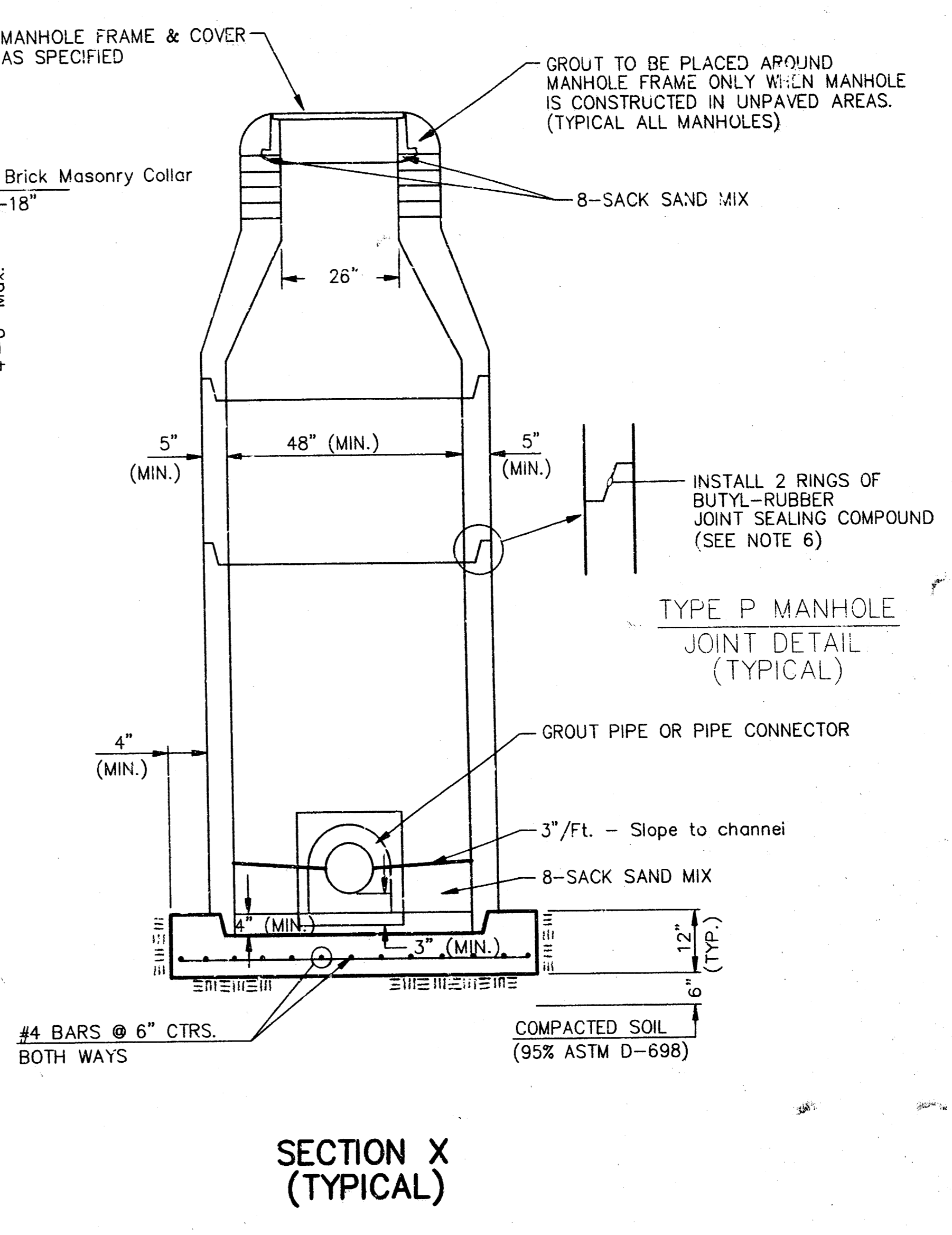
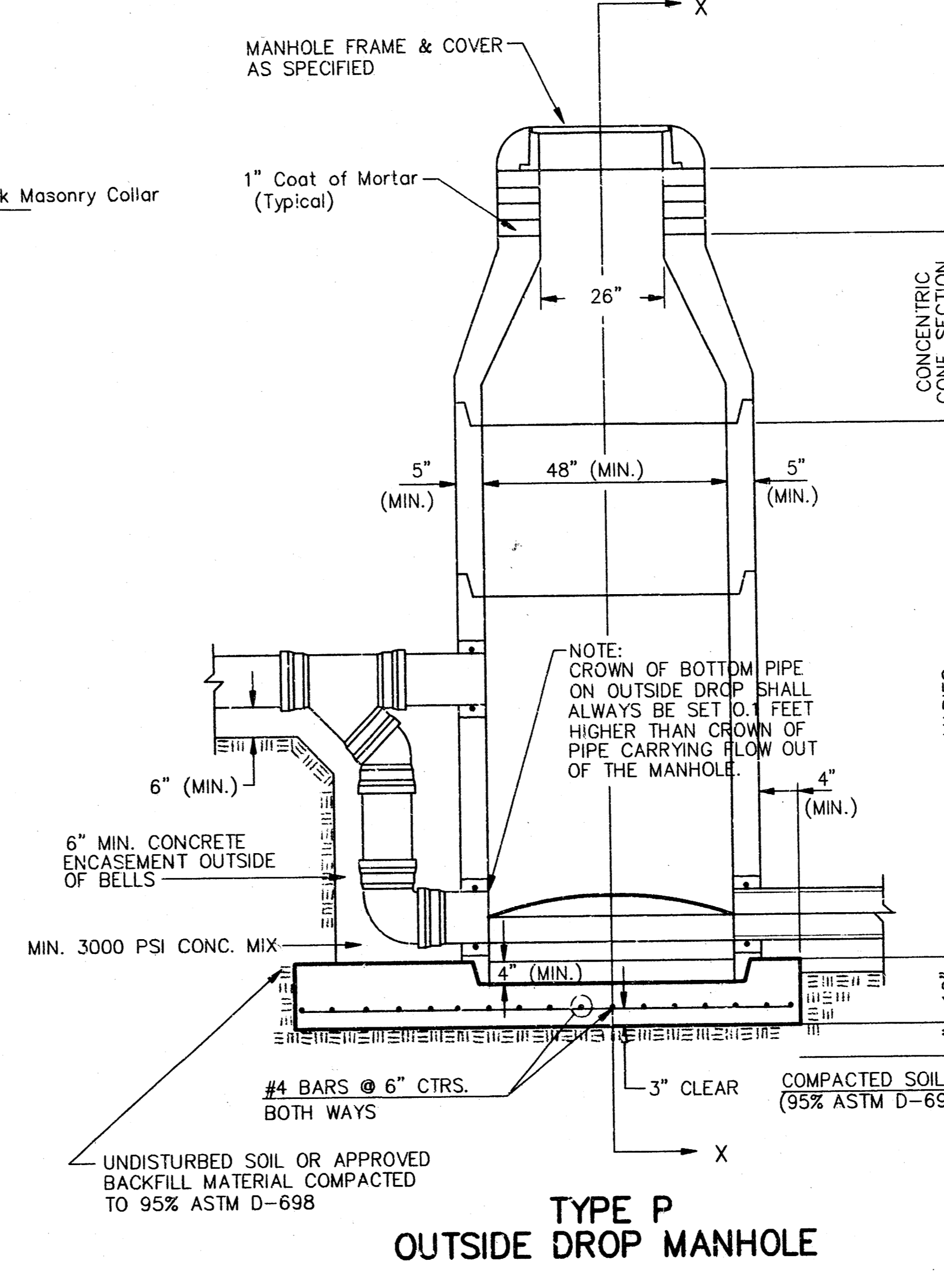
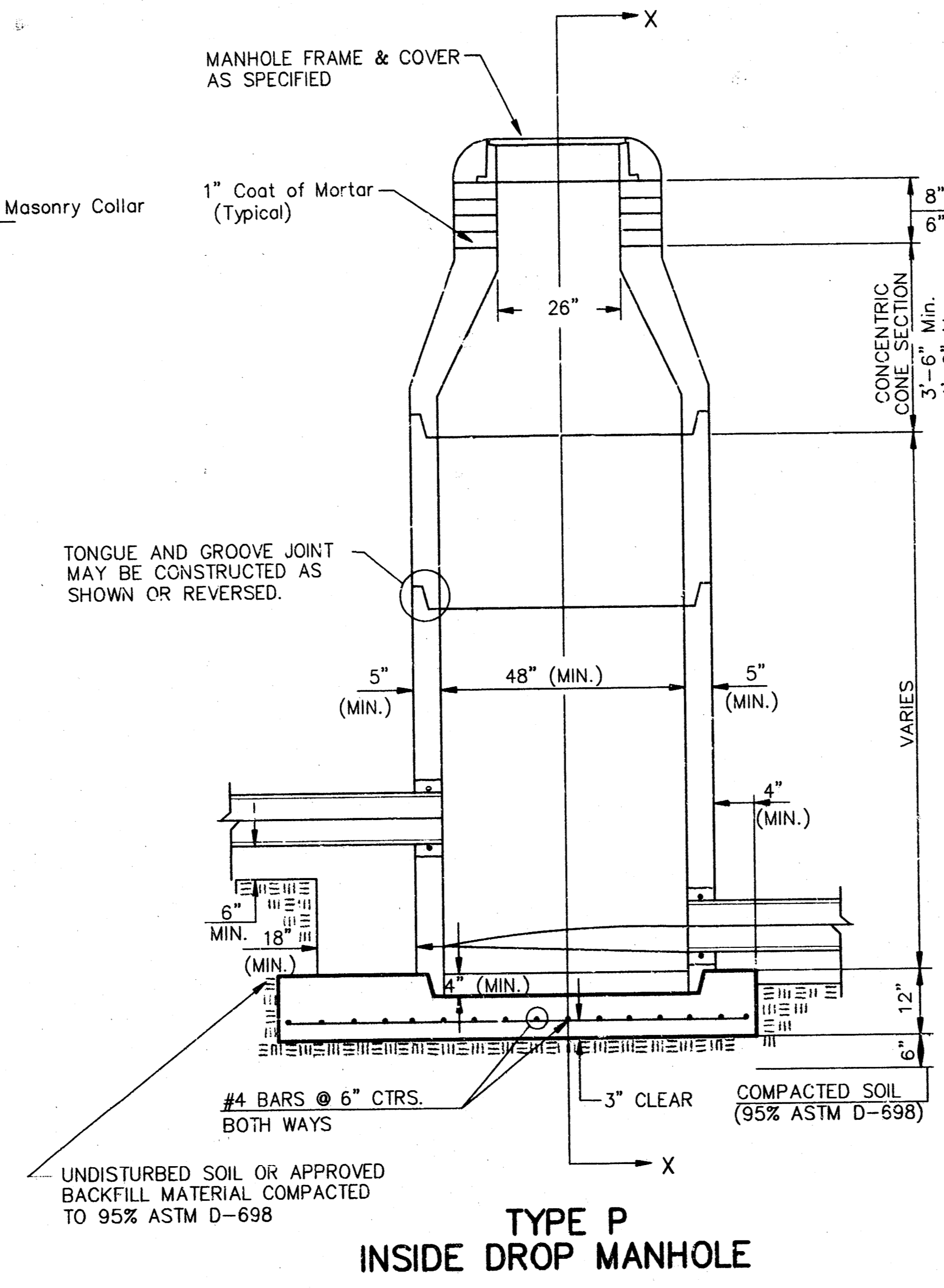
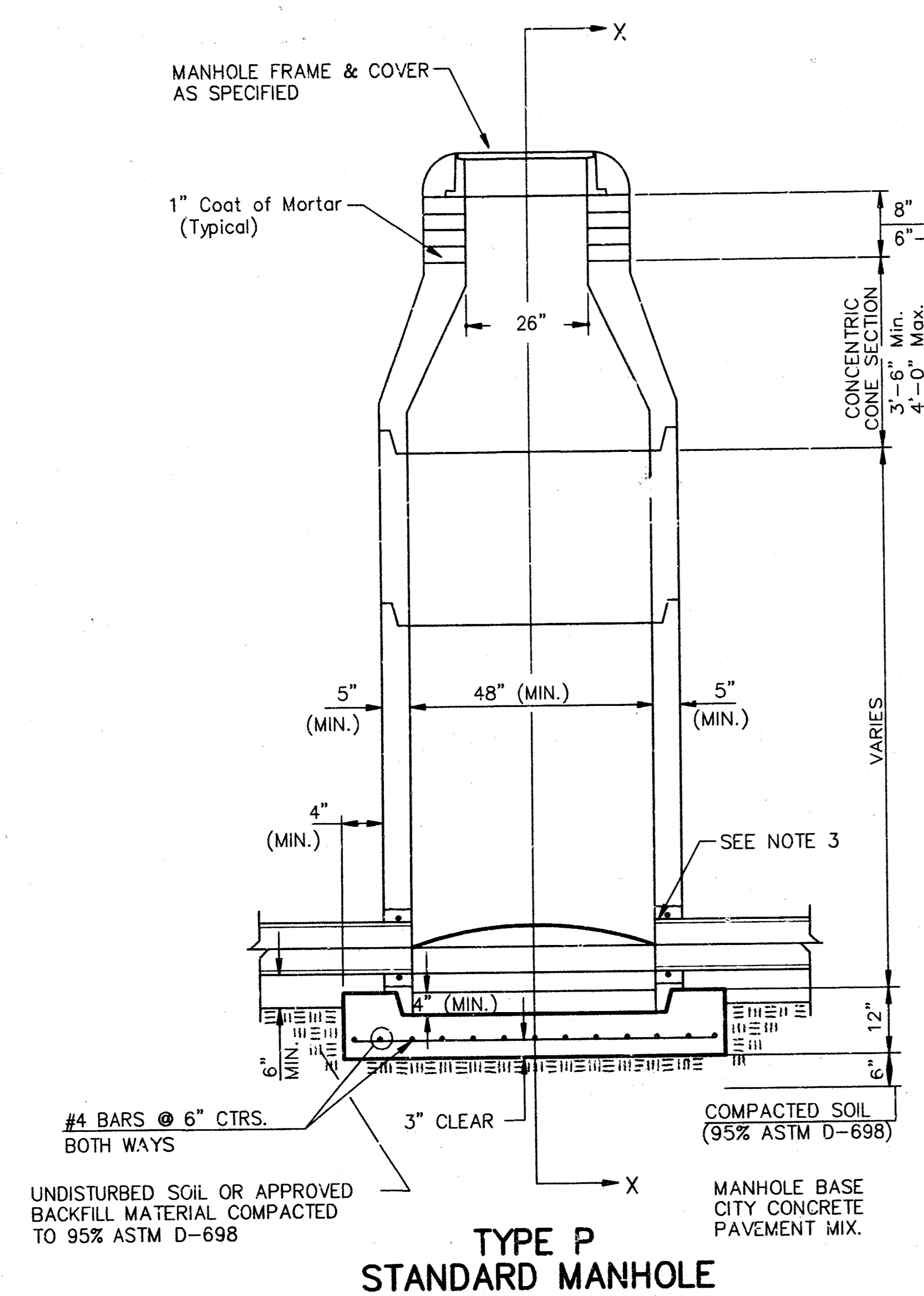
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DESIGN: BLP/DMV DRAWN: TMC APPROVED: [Signature] DATE: 7/1/98 SCALE: NOTED

SHEET
6B
 OF
11

97-07-1781
 REECE/SS07

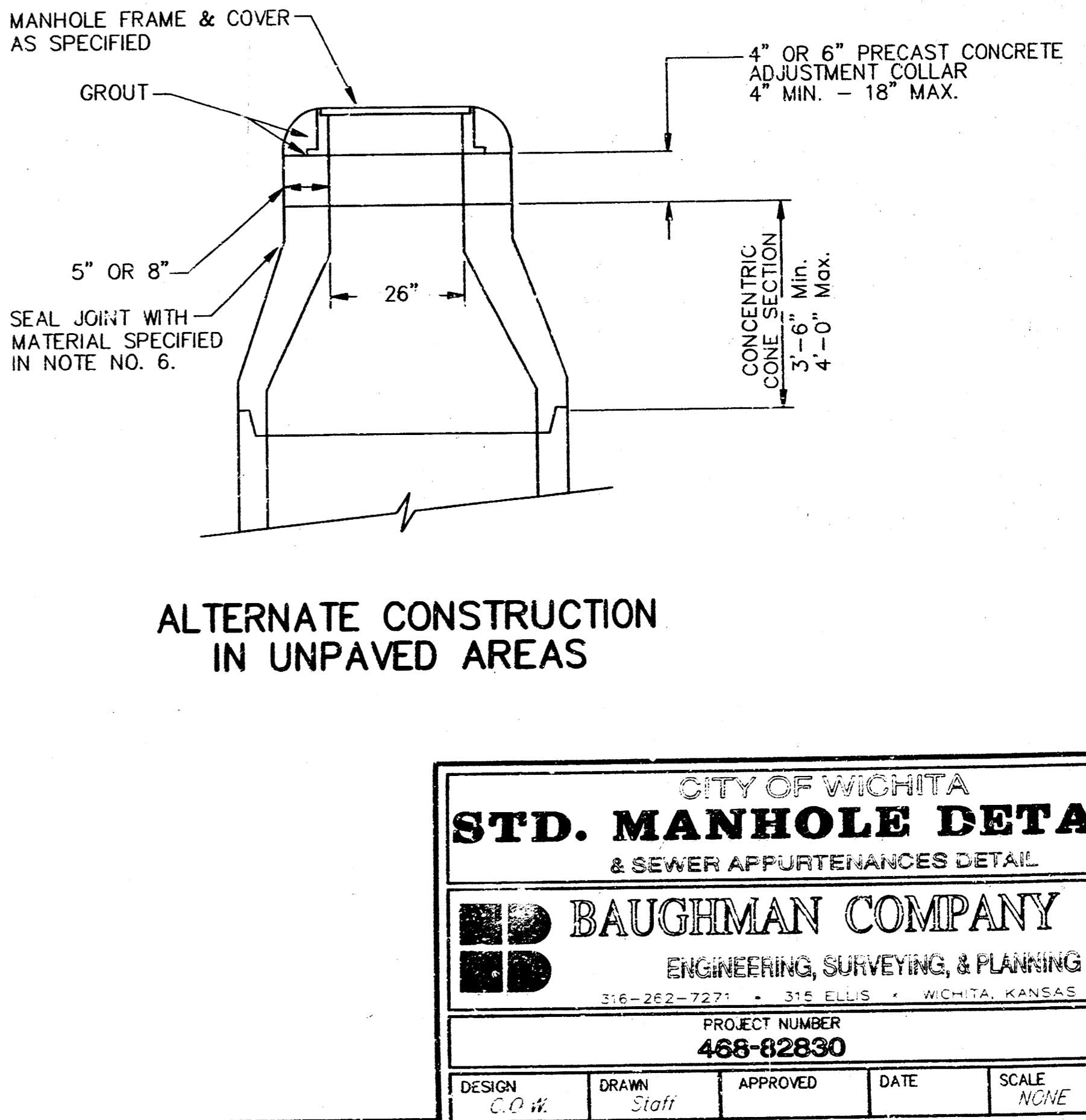
SEWER APPURTENANCES DETAILS



- GENERAL NOTES
- PRECAST MANHOLE NOTES
- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
 - NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
 - APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
 - ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
 - EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
 - JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
 - PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
 - TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
 - LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
 - MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF-CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
- PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

- MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
- THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.

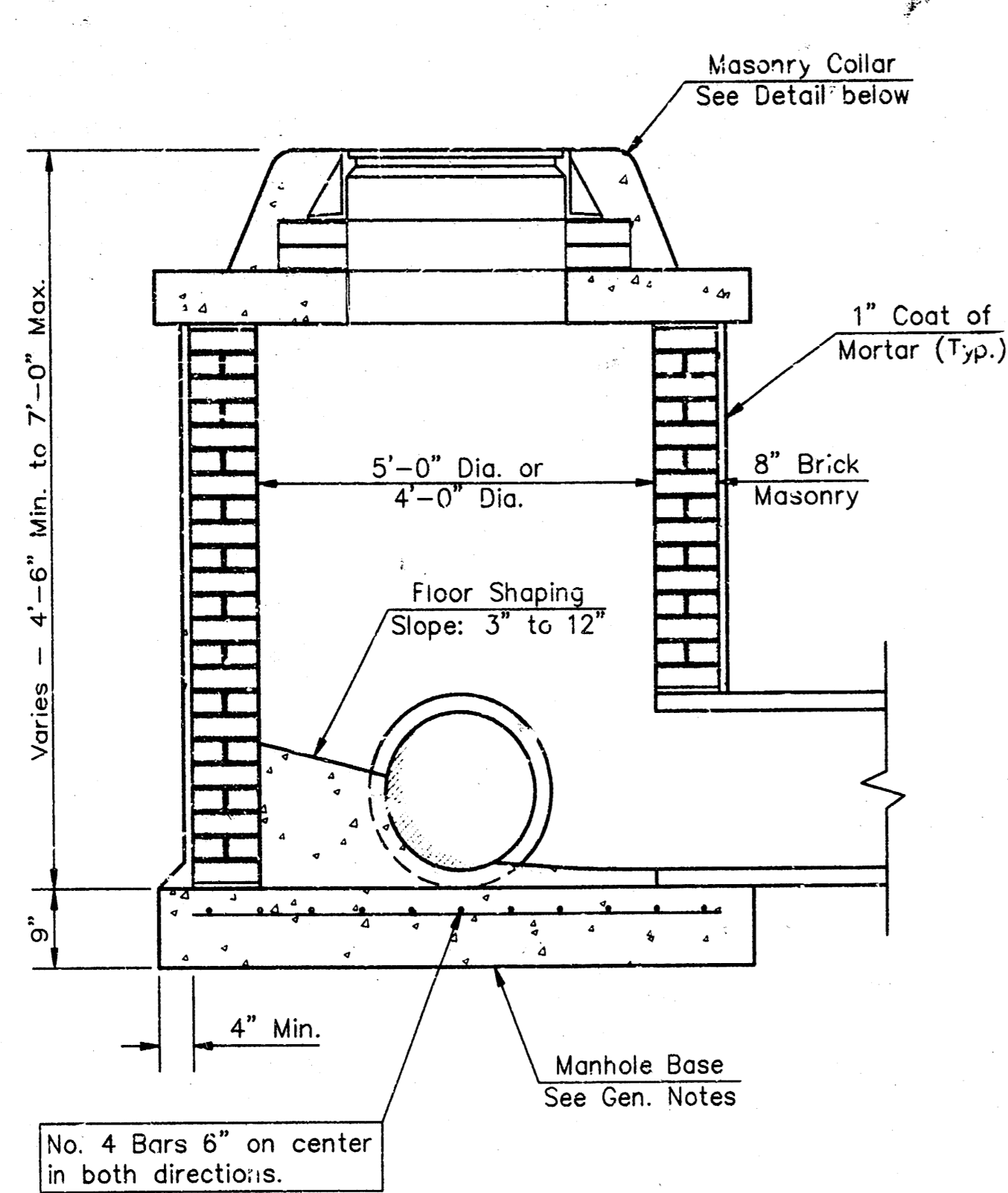


CITY OF WICHITA
STD. MANHOLE DETAILS
 & SEWER APPURTENANCES DETAIL

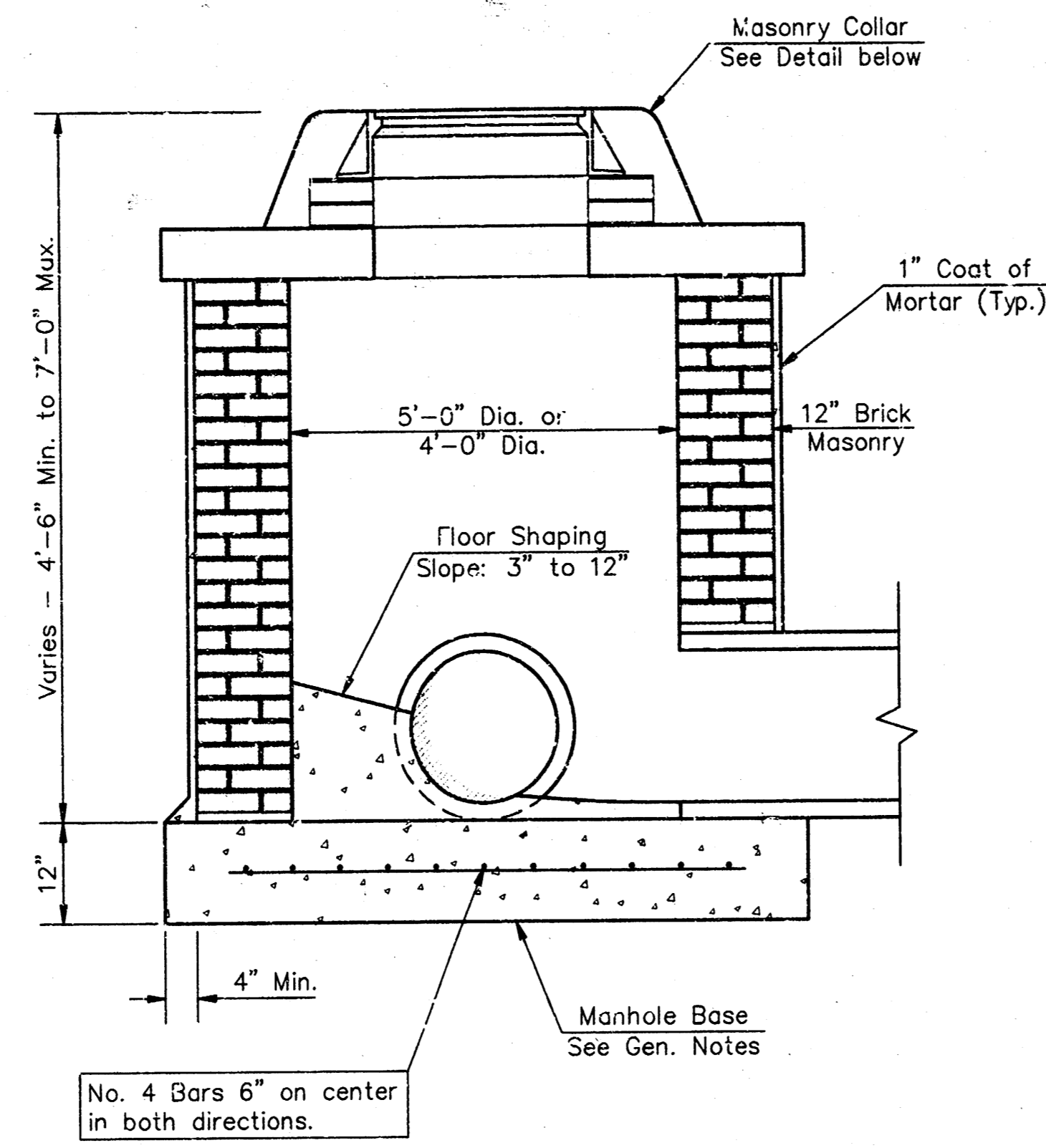
BAUGHMAN COMPANY P.A.
 ENGINEERING, SURVEYING, & PLANNING

PROJECT NUMBER
488-02830

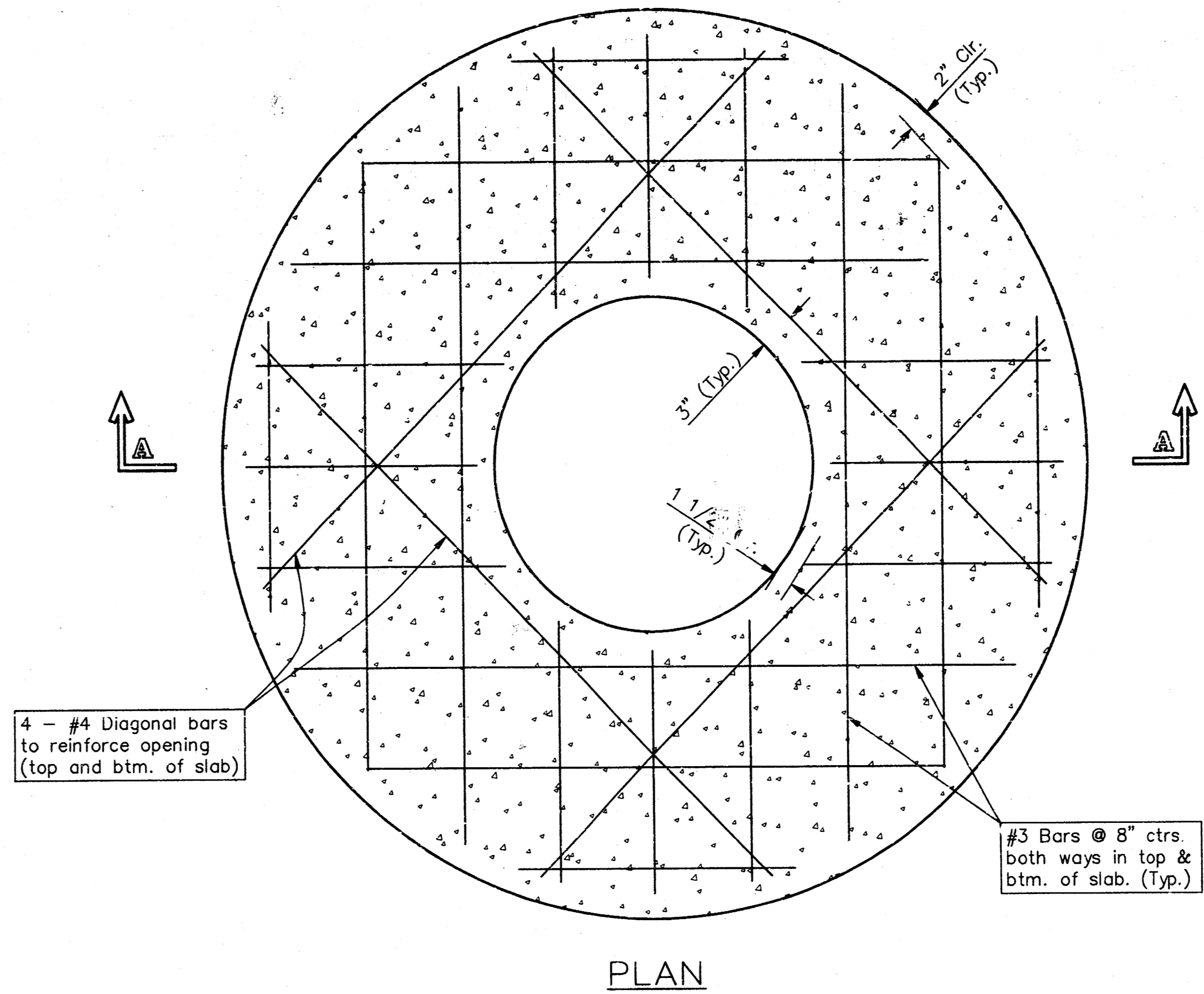
DESIGN: C.W. DRAWN: Staff APPROVED: DATE: SCALE: AS SHOWN SHEET 7 OF 11



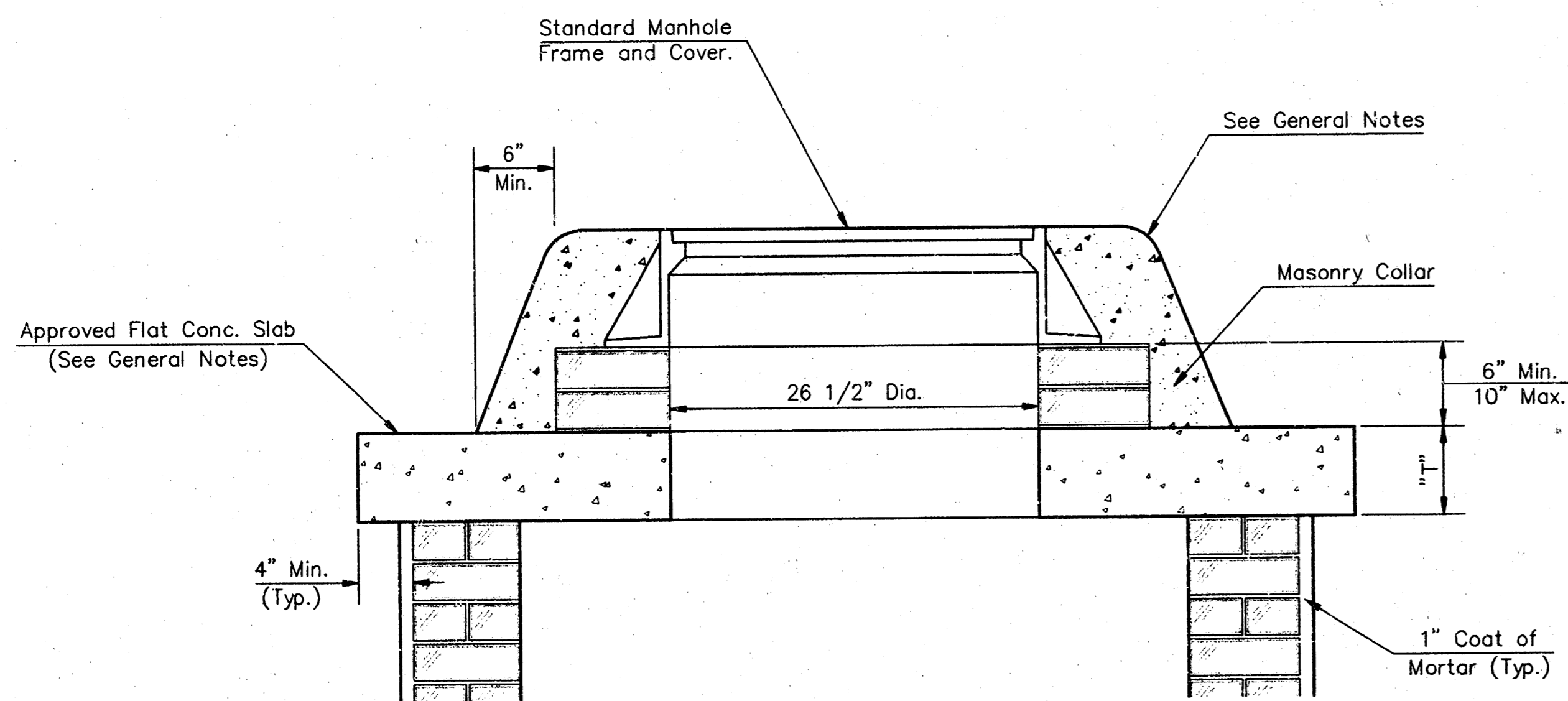
SHALLOW TYPE "A" MANHOLE



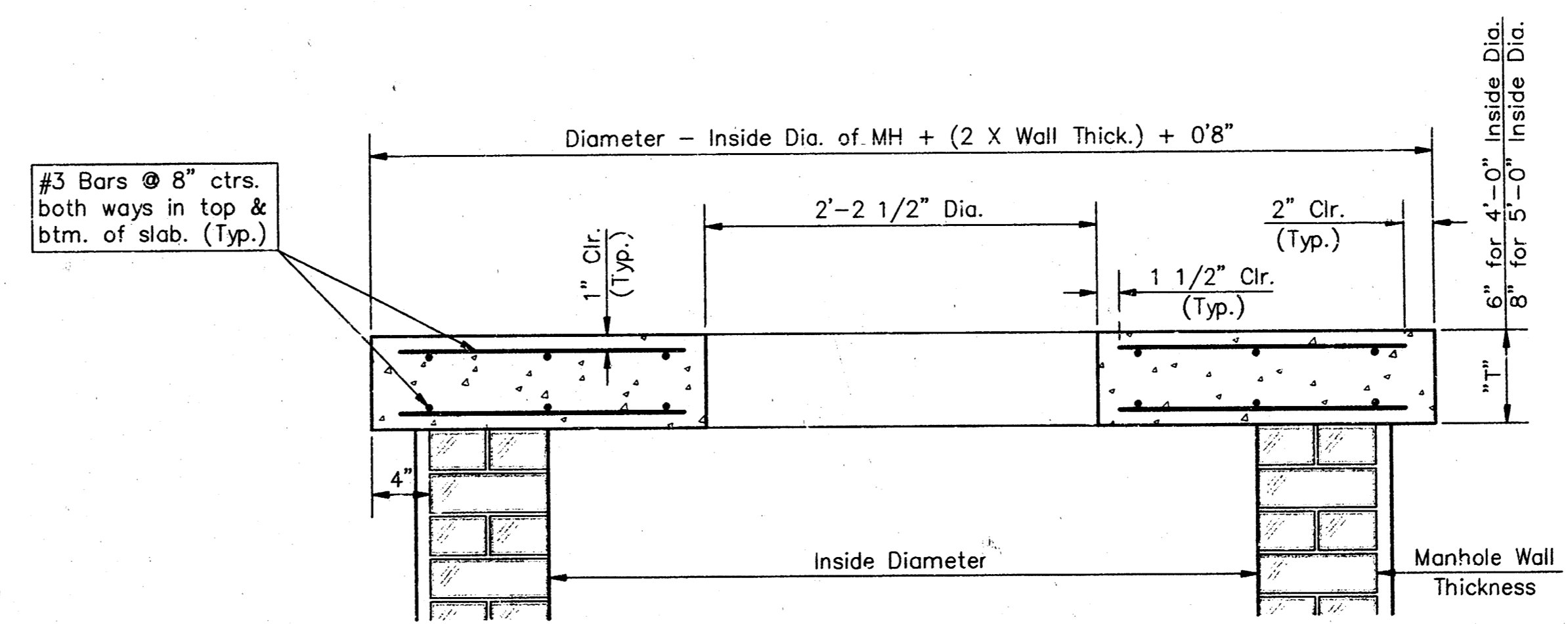
SHALLOW TYPE "B" MANHOLE



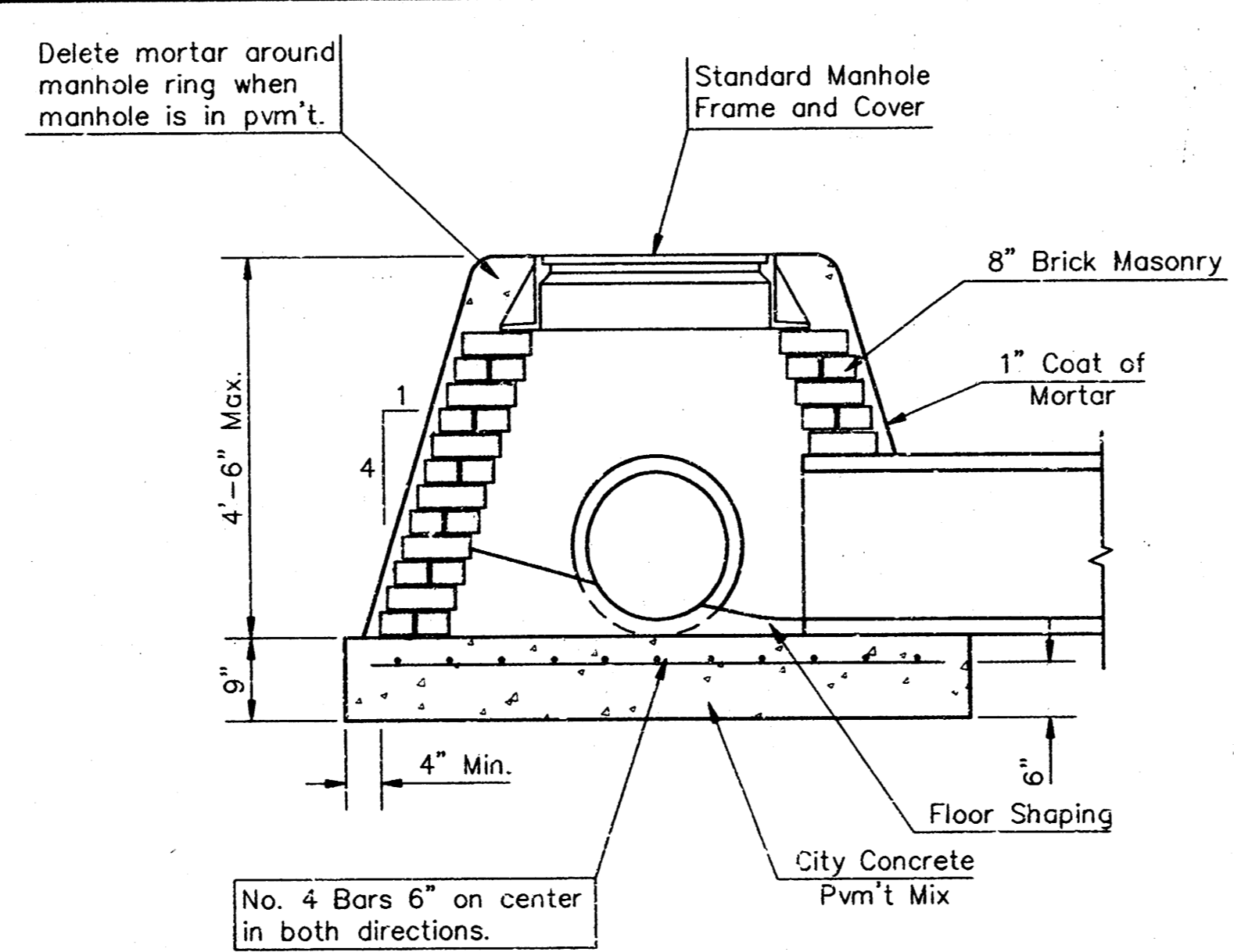
PLAN



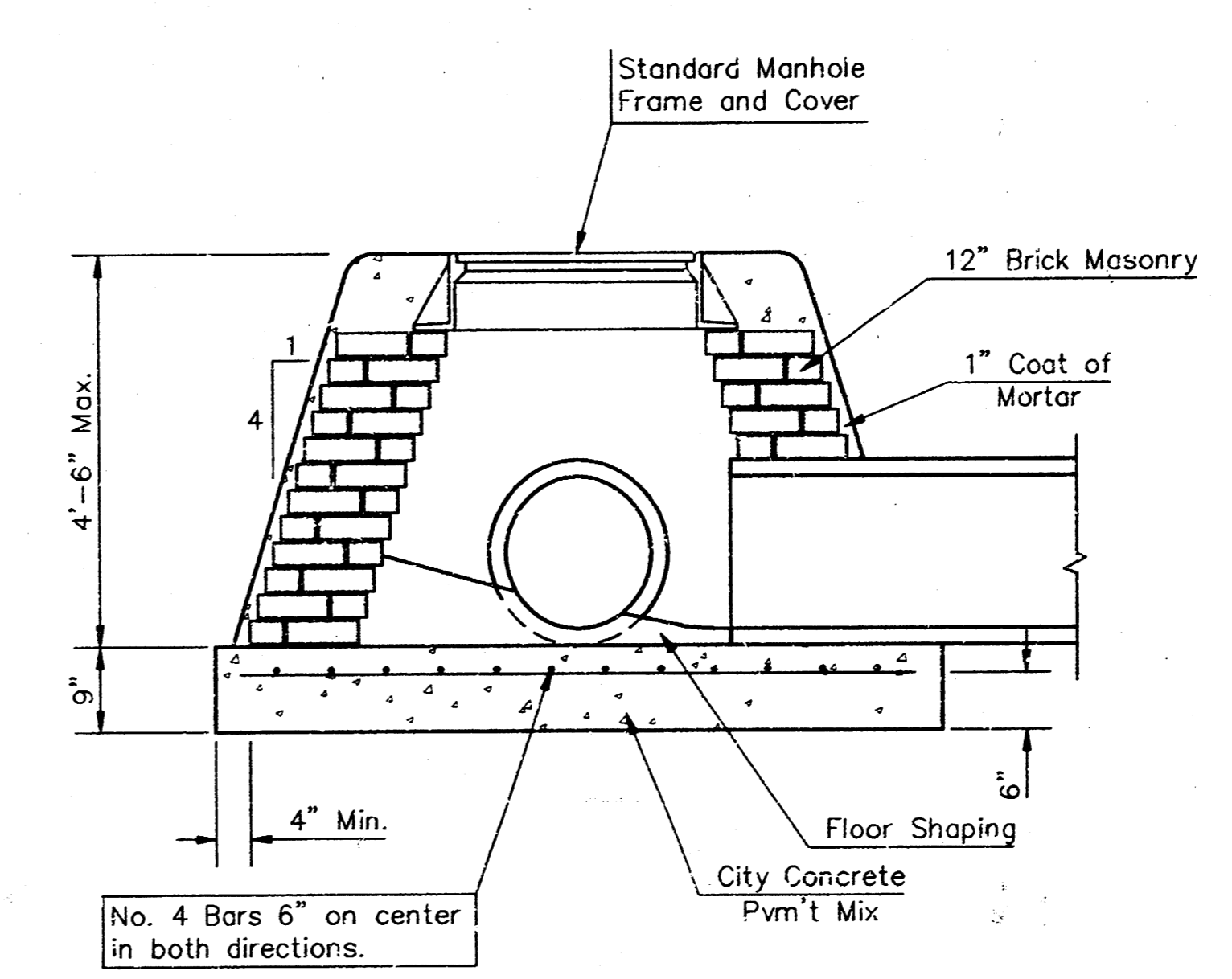
MASONRY COLLAR DETAIL



SECTION A-A
FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



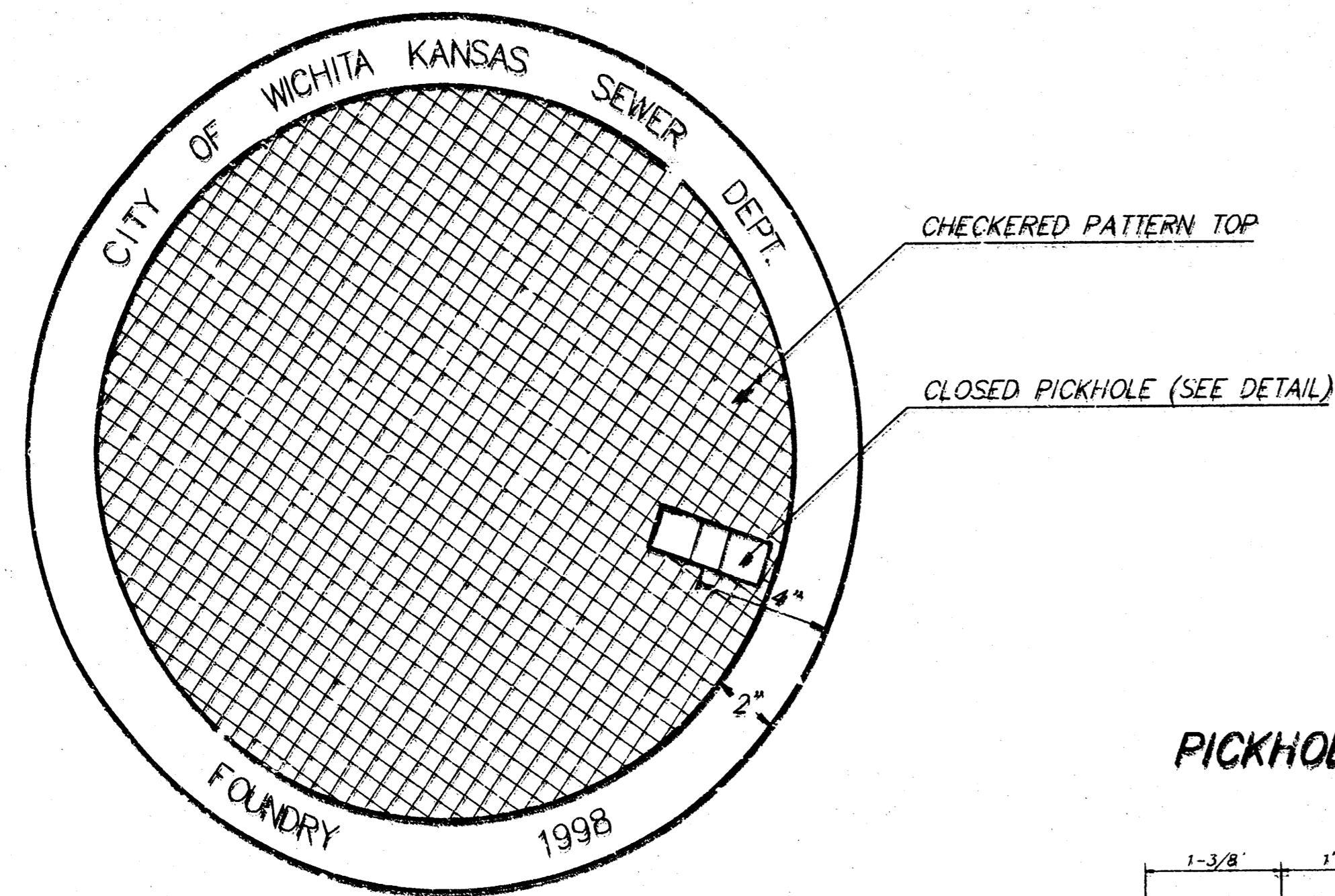
SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

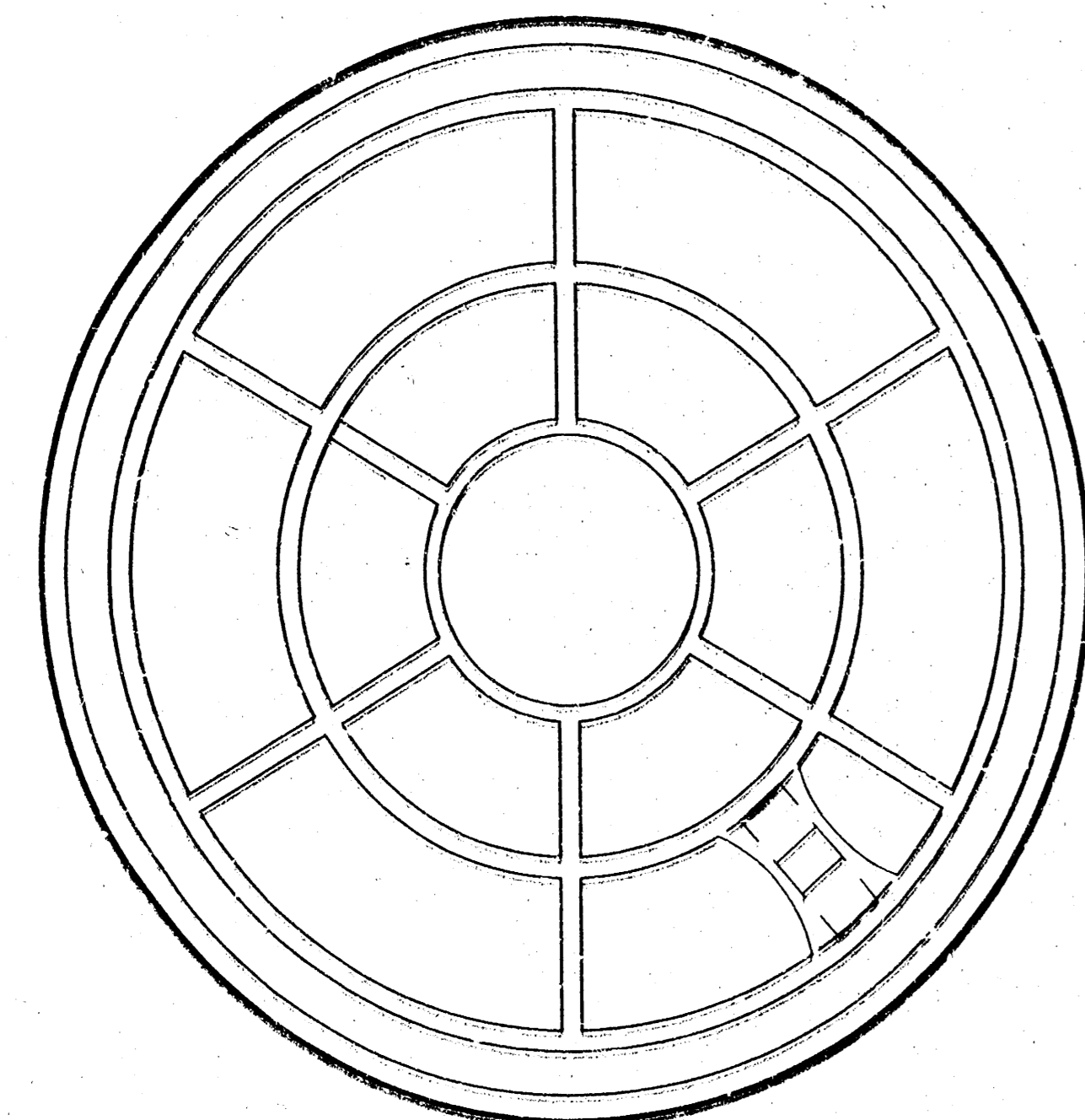
- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4'. Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 5'. Completed manhole shall be without leaks and water tight.
- Reinforcing steel shall be installed in the manhole bases and shall consist of no. 4 bars placed on 6" centers in both directions. The manhole base reinforcement shall be placed 6" above the bottom of the manhole base. All costs for furnishing and installing reinforcing steel shall be included in the unit price bid for the manhole.
- The floors of all manholes shall be shaped with flow channels such that the manholes will be self cleaning and free of areas where solids could be deposited as sewage flows through the manhole from all inlet pipes to the outlet pipe. Flow channels shall be formed to match the bottom halves of the inflowing pipes and the outflowing pipe as shown by the drawings. Manhole floors shall have slopes of 3 inches per foot in the areas outside of the flow channels sloped toward the flow channels. Pipes laid through manholes shall have the top half removed to neat lines for the full inside diameter of the manhole. Manhole floors shall then be shaped around the bottom half of the pipe which forms the flow channel.
- Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain the flexibility of the joint. Cost of cradle within manhole excavation or to clay pipe joints adjacent to manhole shall be included in the unit price bid for the manhole.
- Manhole cover castings and manhole frame castings shall conform to the requirements as indicated in the standard specifications and as shown in the standard detail drawings.
- The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

CITY OF WICHITA, KANSAS
Std. Manhole Detail
 TYPE "A" AND TYPE "B"
BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING
 312-262-2275 • 312 ELLIS • WICHITA, KANSAS 67211
 PROJECT NUMBER
488-02830
 SHEET **8**
 DESIGN: G.O.W. DRAWN: Staff APPROVED: DATE: SCALE: NONE

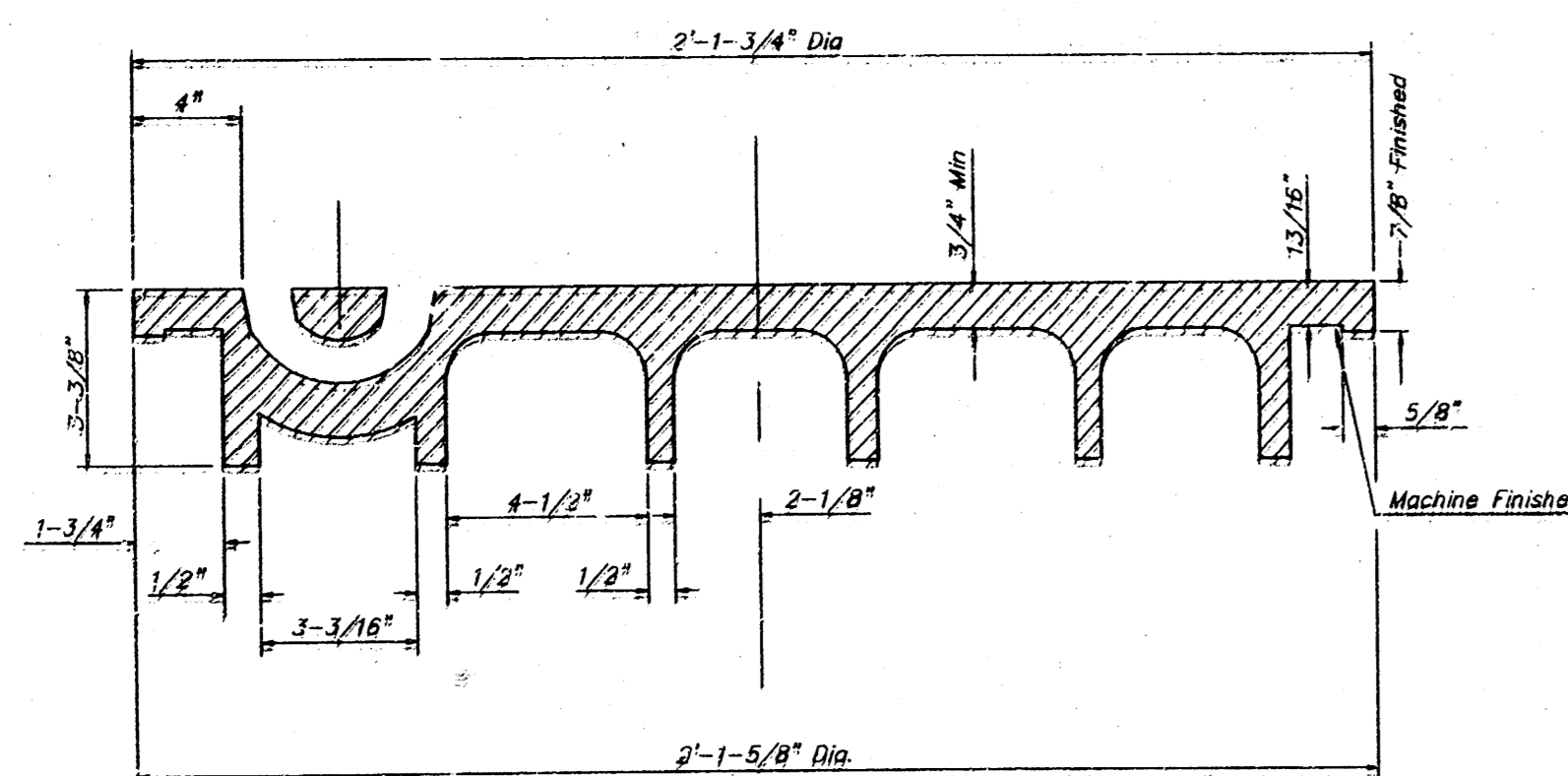
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW



BOTTOM VIEW

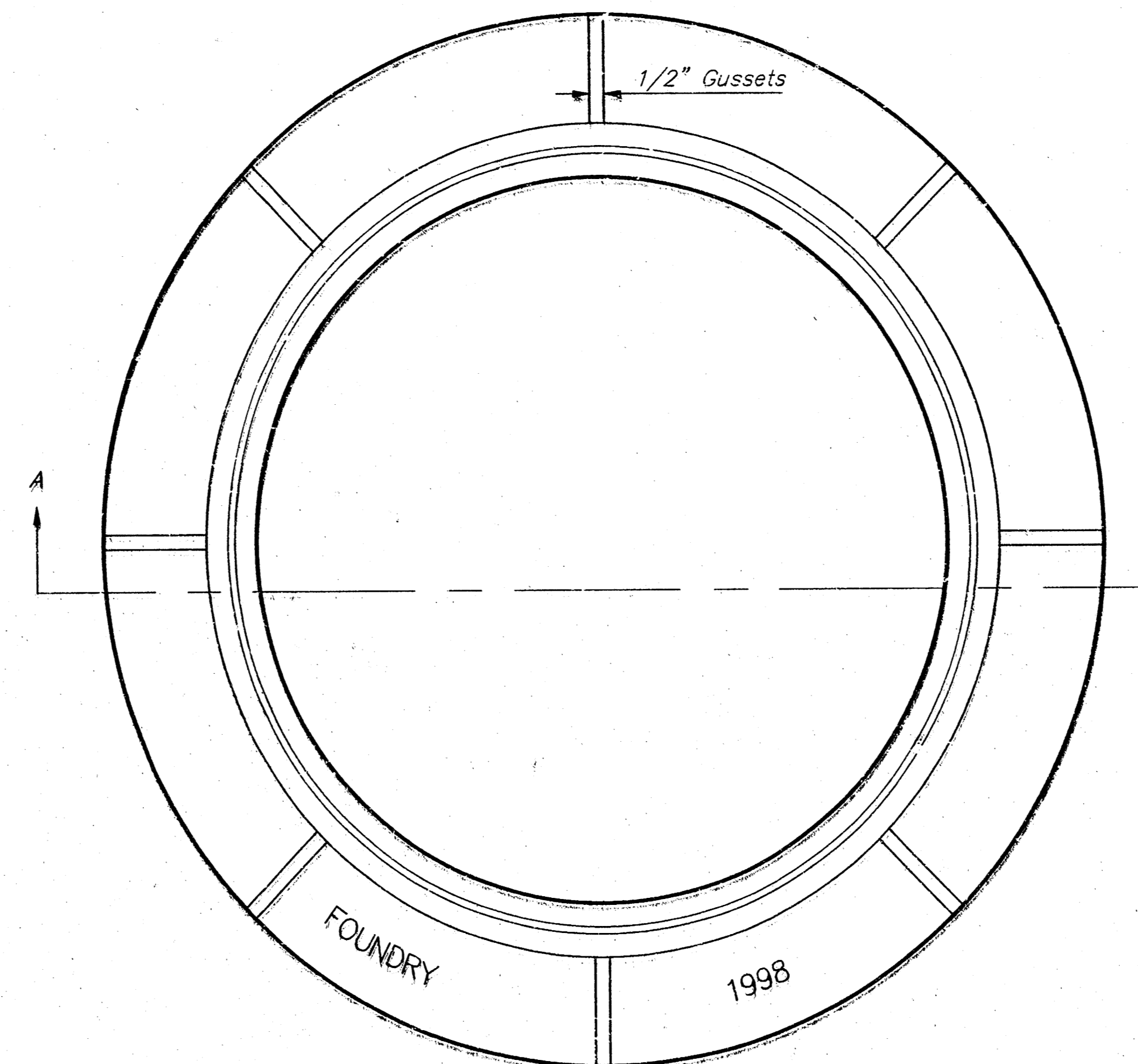


SECTION VIEW

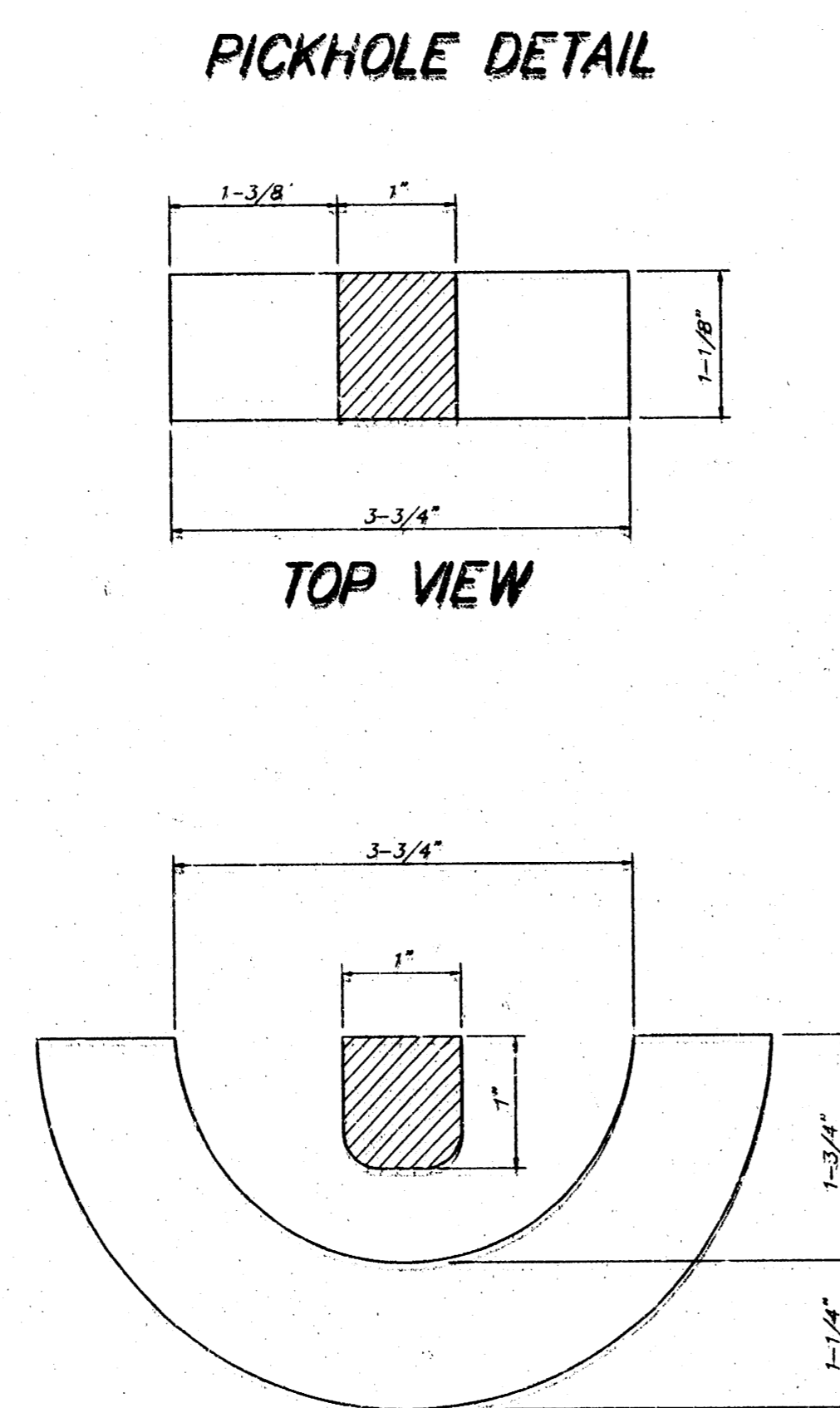
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE FRAME
Weight = 145 Lbs.



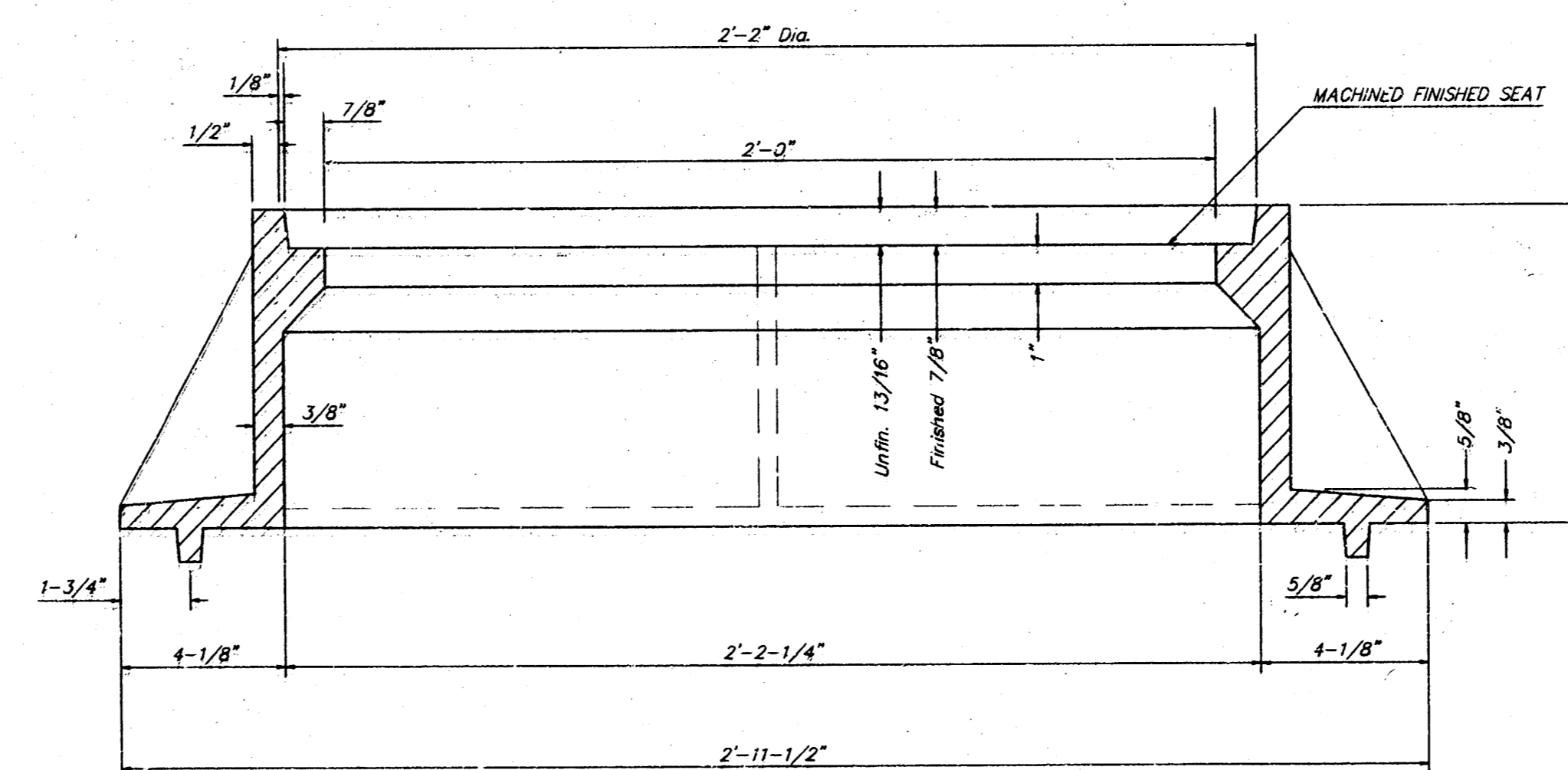
TOP VIEW



PICKHOLE DETAIL

TOP VIEW

SECTION VIEW



SECTION A-A

GENERAL NOTES

MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-49. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

MANHOLE FRAME AND COVER DETAIL				
ADOPTED AS STANDARD DESIGN BY CITY OF WICHITA, KANSAS				
BAUGHMAN COMPANY P. A.				
ENGINEERING, SURVEYING, & PLANNING				
318-262-7271 • 318 E. FULLER • WICHITA, KANSAS 67211				
PROJECT NUMBER 488-82890				SHEET 9
DESIGN C.O.W.	DRAWN Staff	APPROVED	DATE 4/98	SCALE None
				11

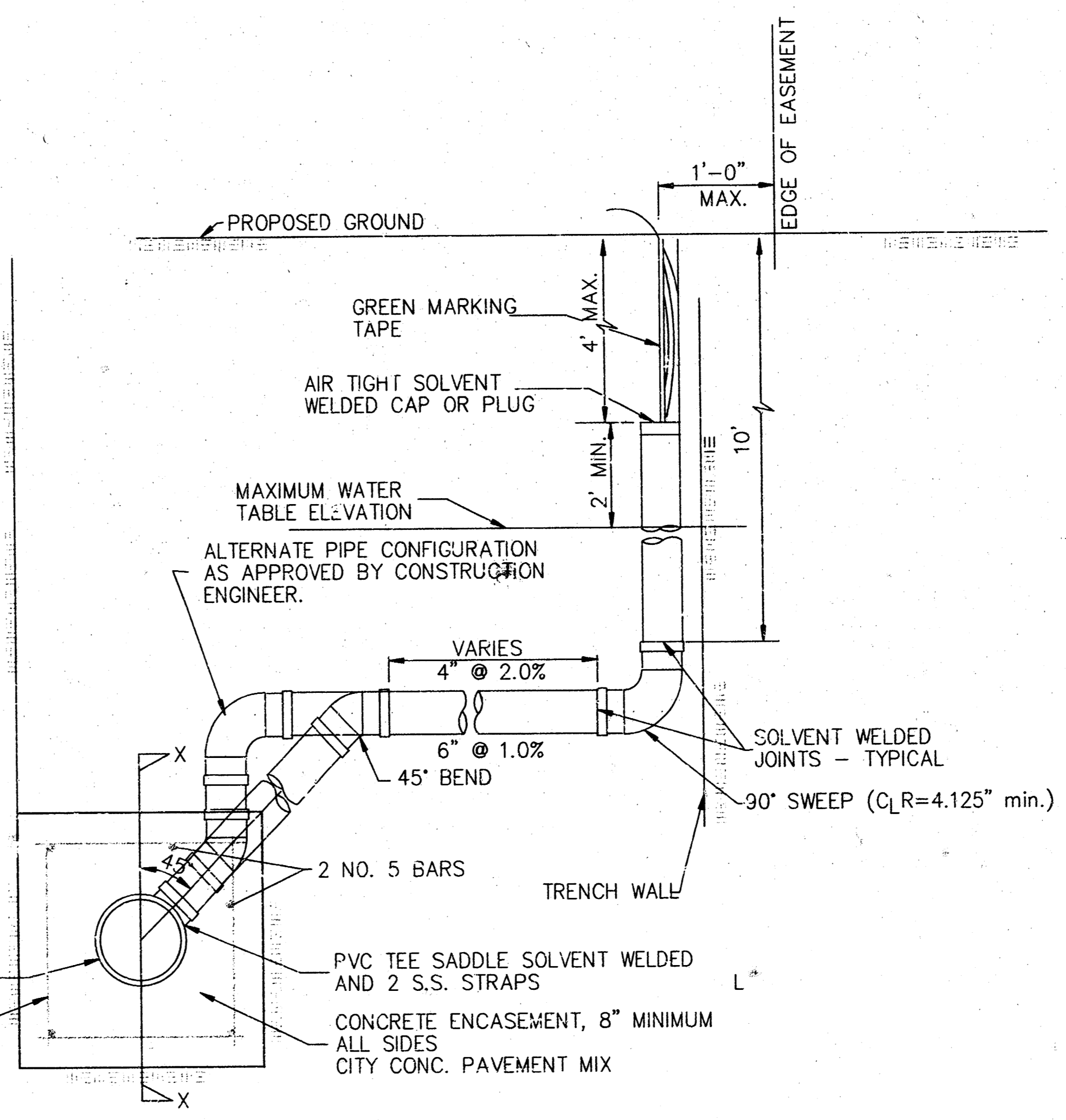
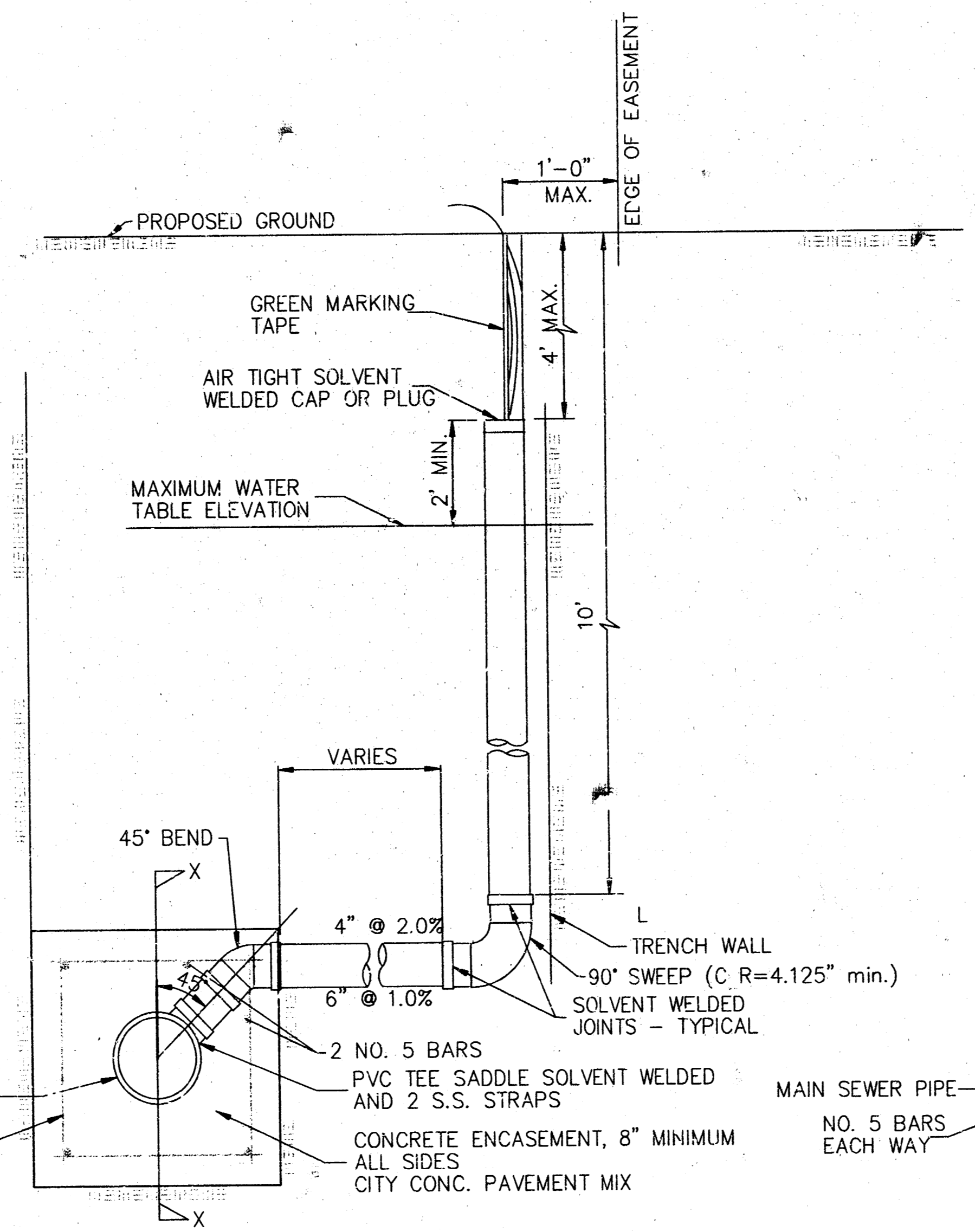
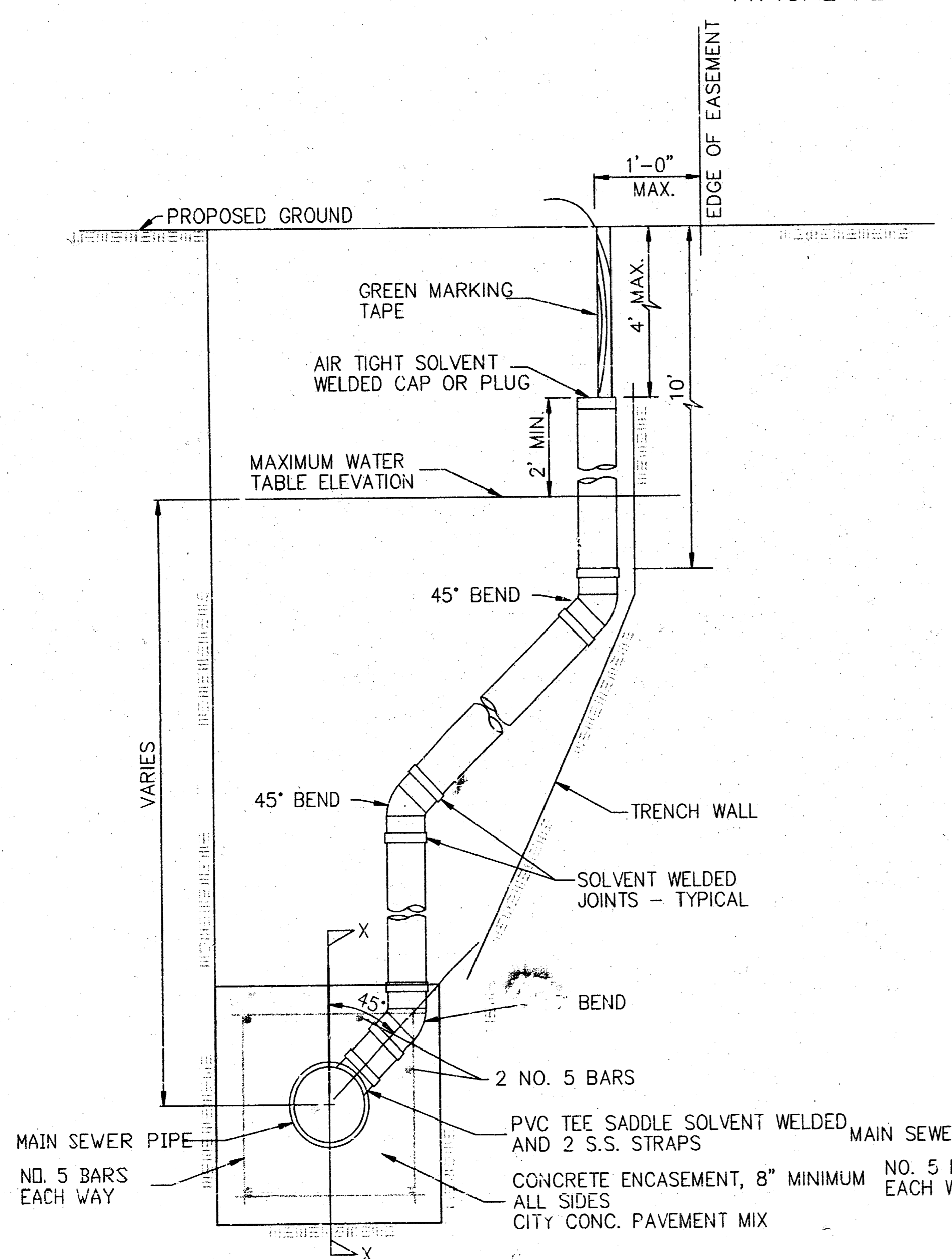
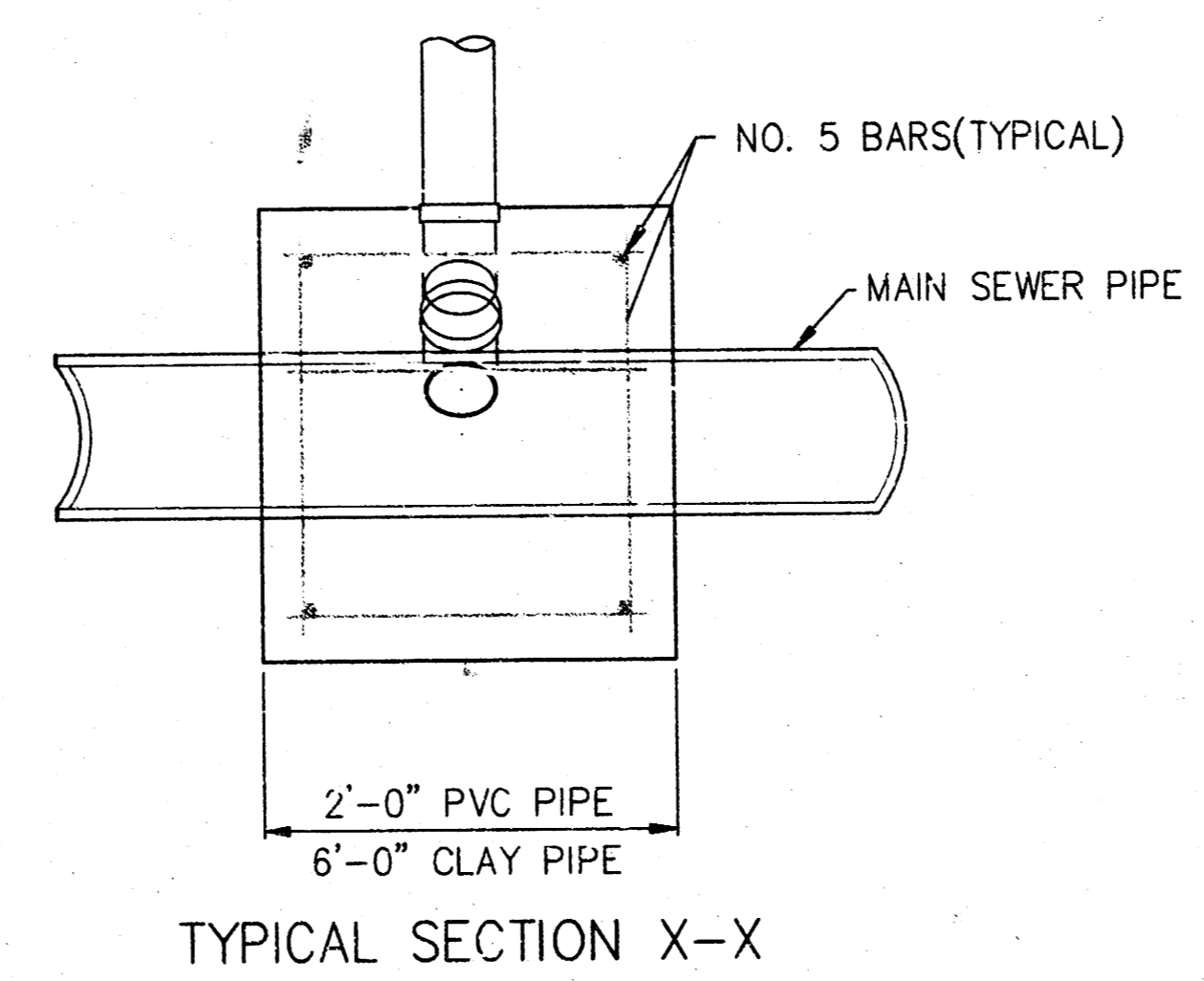
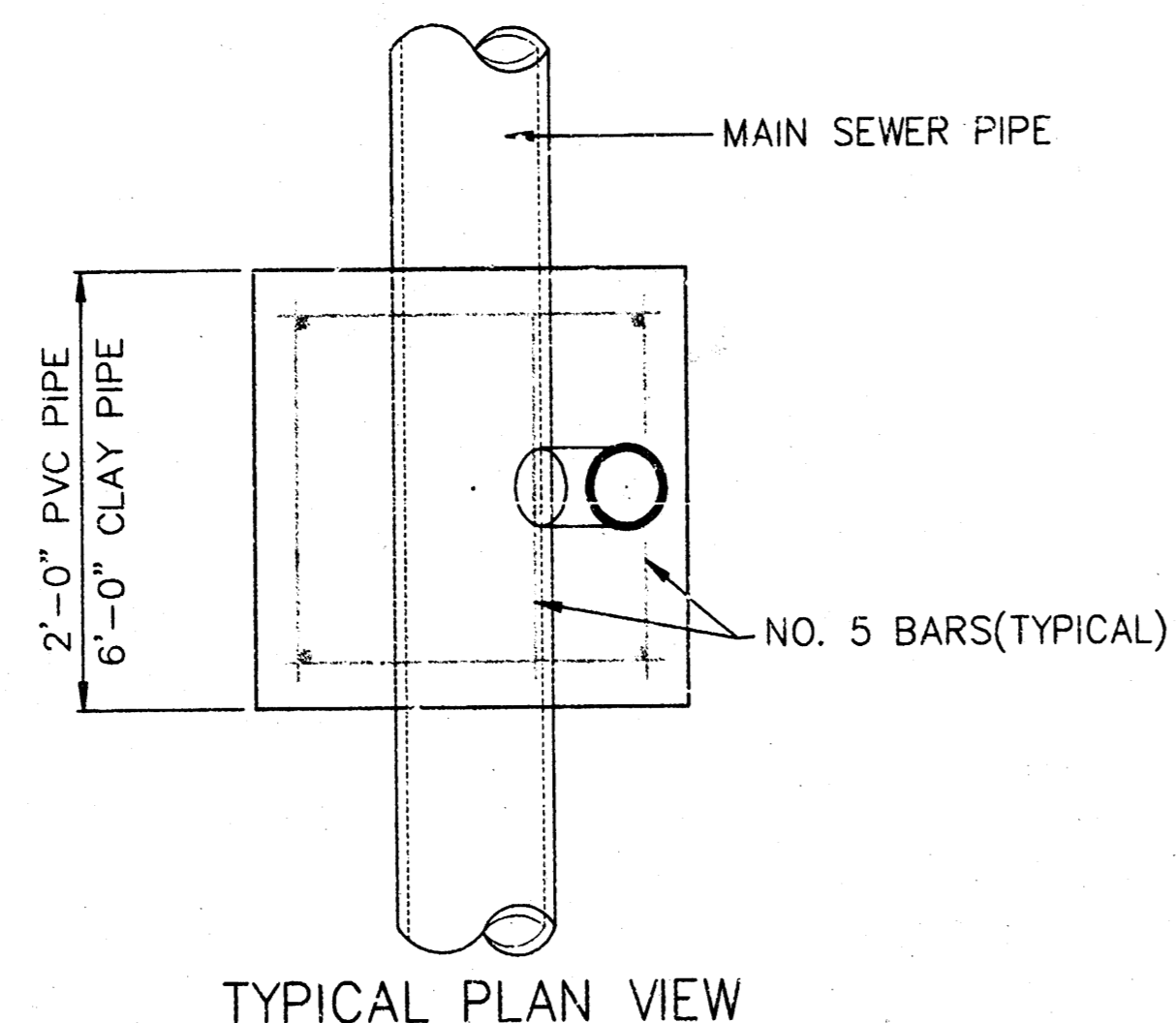
VERTICAL RISER DETAILS

ADOPTED AS STANDARD DESIGN

BY

CITY OF WICHITA, KANSAS

OCTOBER 1992



NOTE: RISER PIPE REQUIREMENTS AT MANHOLE STUBS SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

GENERAL NOTES

1. **RISERS.** Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table. Risers shall also be installed to serve all lots and tracts where the sanitary sewer main depth is greater than 12 feet below the proposed ground elevation. Installation of risers because of field conditions shall be as approved by the Construction Engineer. The location of the risers to serve developed property shall be approved by the property owner and the Construction Engineer.
2. **PIPE STUBS.** Pipe stubs shall be installed in manholes where locations of manholes will provide satisfactory service connection as determined by the Construction Engineer. The vertical distance between the flowline of the manhole pipe stub and the flowline of the sanitary sewer main out of the manhole shall not exceed 2 feet. Risers shall be utilized at manhole pipe stubs as indicated in Note 1. Manhole pipe stubs shall be set such that the top of the stub is not lower than the top of the sanitary sewer main.
3. **SIZING.** Pipe stubs and risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers or pipe stubs are required because of field conditions, the risers and stubs shall be six-inch diameter for commercial or industrial properties and 4" or 6" diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers and stubs shall be approved by the Construction Engineer prior to installation.
4. **RISER OR STUB MATERIAL.** Risers and stubs shall be constructed of Schedule 40 PVC Pipe, meeting the requirements of the latest revision of A.S.T.M. All pipe joints shall be solvent welded.
5. **REINFORCED CONCRETE ENCASEMENT.** Riser connections to clay pipe sanitary sewers shall be reinforced concrete encased both ways from the riser centerline. The reinforced concrete encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet of the riser centerline. Riser connections to PVC Sanitary Sewer mains shall be reinforced concrete encased one foot each way from the riser centerline. The concrete encasement shall be reinforced using reinforcing steel as shown in the appropriate drawing. The concrete shall conform to the City Standard Specifications for concrete pavement.
6. **BEDDING.** Bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted from the depth of the sanitary sewer main to the top of the sanitary sewer riser pipe. Compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.
7. **SUPPORT OF RISERS.** Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and backfilling the riser pipe shall be approved by the Construction Engineer.
8. **PLUGGING.** The ends of the riser pipes and manhole stubs shall be plugged using an airtight solvent welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. Caps or plugs which do not provide an airtight seal will not be accepted.
9. **TOP OF THE RISER PIPE.** The top elevation of the sanitary sewer riser pipe shall be built per plan elevations, unless otherwise directed by the Construction Engineer. Where riser elevations are not shown on the plans, the top of the riser shall be set at an elevation four feet below the proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation two feet (min.) above the maximum water table elevation, regardless of the riser elevation shown on the plans.
10. **MARKING.** Locations of the ends of the sanitary sewer riser pipe shall be marked by fastening green colored plastic tape to the end of the riser. The tape shall be supported by a length of wooden 2 x 4, extending from the top of the riser pipe to the proposed ground surface. The green tape shall be visible and extend one foot above the proposed ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of three inches, specifically manufactured for the purpose of identification of underground sewers.
11. **LOCATION MEASURES.** The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicating the direction from the manhole, the direction and distance from the man, riser size, and elevation of the top of the riser.
12. **RISER LOCATION.** The riser shall be located per plan if shown. If not shown on the plan, the riser shall be located at the center of the lot, within one foot of the property side of the easement for the lot being served. All riser locations shall be approved by the Construction Engineer prior to installation.
13. **PAYMENT.** "Sanitary sewer risers" shall be paid for at the contract unit prices per each, which price shall be full compensation for all pipe, fittings, marking tape, length of wooden 2 x 4, reinforced concrete encasement, support during backfill, backfill, labor, site restoration, and any other items necessary to complete the work.
"Manhole stubs" shall be paid for at the contract unit price per each, which shall be full compensation for all labor, material, and incidentals necessary to complete the work including all pipe, fittings, reinforced concrete encasement, and all other items as required and listed for "Sanitary Sewer Risers".

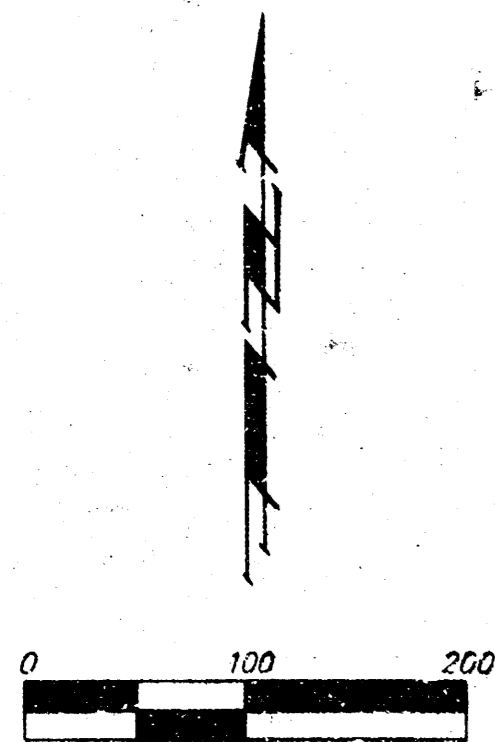
City of Wichita Standard
Riser Details

BAUGHMAN COMPANY P. A.
ENGINEERING, SURVEYING, & PLANNING
315-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER 468-82830		10 of 11
DESIGN	DRAWN	
APPROVED	DATE	SCALE

REECE FARMS ESTATES

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

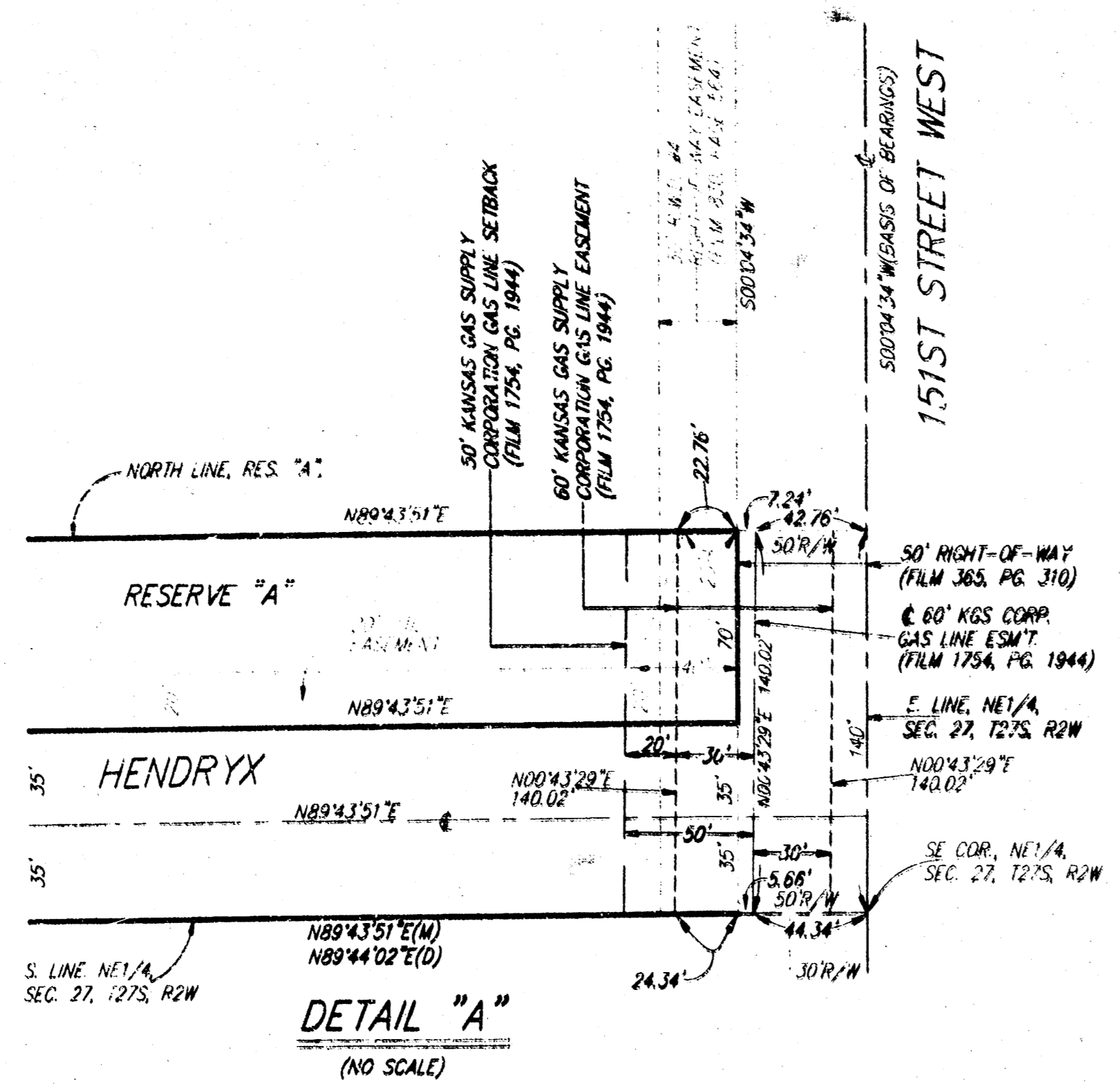


BENCHMARK
TOP OF 1" IRON 12" DEEP, E 1/4 COR.
SEC. 27, TWP. 27-S, R-2-W
ELEV. = 1386.53 M.S.L.
(2008.13 CITY DATUM)

(D) = DESCRIBED
(M) = MEASURED

- = 1/2" IRON (FOUND)
- ⊙ = #4 REBAR W/ "T" 5" CAP (FOUND)
- ⊙ = 3/4" IRON (FOUND)
- ⊙ = 1" IRON (FOUND)
- ⊙ = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- ⊙ = 3/4" IRON W/ TRIMBLE (FOUND)

MINIMUM BUILDING PAD ELEVATION FOR LOWEST OPENING TO THE STRUCTURES			
LOT	BLOCK	CITY DATUM	M.S.L.
1-22	B	228.6	1418
19-28	A	223.6	1411
1,3,4,5	A	222.6	1410



State of Kansas) SS
County of Sedgwick)
We, Baughman Company P.A., Surveyors in
aforesaid county and state do hereby certify that, under the supervision
of the undersigned, we have surveyed and platted "REECE FARMS ESTATES",
an Addition to Wichita, Sedgwick County, Kansas and that the accompanying
plat is a true and correct exhibit of the property surveyed described as follows:
Beginning at a point on the west line of the NE 1/4 of Sec. 27, Twp. 27-S,
R-2-W of the 6th P.M., Sedgwick County, Kansas, which is at an assumed
bearing of S00°11'10"W, 1321.29 feet from the NW corner of said NE 1/4,
thence S00°19'14"W along the west line of said NE 1/4, 1305.99 feet, more
or less, to the SW corner of said NE 1/4, thence N89°44'02"E along the
south line of said NE 1/4, 2632.68 feet, more or less, to the SE corner of
said NE 1/4, thence N00°04'34"E along the east line of said NE 1/4, 140 feet;
thence S89°44'22"W parallel with the south line of said NE 1/4, 414.91 feet;
thence N00°04'34"E parallel with the east line of said NE 1/4, 771.26 feet;
more or less, to the most southerly corner of "MILES WEST WIND LAKES
ESTATES", Sedgwick County, Kansas; thence N57°06'30"W along the
southwesterly line of said "MILES WEST WIND LAKES ESTATES", 253.48 feet;
thence S90°W parallel with the north line of said NE 1/4, 1250.63 feet,
more or less, to the point of beginning.

Existing public easements and dedications being vacated by virtue
of K.S.A. 12 - 512(b).

Baughman Company P.A.

Know all men by these presents that we, the undersigned,
have caused the land described in the Surveyors certificate to be
platted into Lots, Blocks, Streets and a Reserve to be known as "REECE
FARMS ESTATES", an Addition to Wichita, Sedgwick County, Kansas. The
utility easements are hereby granted as indicated for the construction and
maintenance of all public utilities. The drainage easements are hereby
granted as indicated for drainage purposes. The drainage and utility
easements are hereby granted as indicated for drainage purposes and
for the construction and maintenance of all public utilities. The emergency
access easement is hereby granted as indicated for emergency access
purposes and no fences or other obstructions shall be constructed or
placed on or within this easement. The streets are hereby dedicated to
and for the use of the public. Reserve "A" is hereby reserved for
drainage purposes, open space, berms, landscaping, sidewalks, and utilities
as contained in easements. Reserve "A" shall be owned and maintained by
the homeowners association for the addition. McCormick Avenue contingent
street dedication shall become effective in the event that the appropriate
governing body determines the need for the right-of-way for any street
related purposes. This contingent street dedication shall be a covenant
running with the land and shall be binding on all heirs and subsequent
owners of all parts of said property covered by said dedication. All
adulterous rights of access to or from 151st Street West over and across
the east line of Reserve "A" are hereby granted to the appropriate
governing body.

Triple J Development, L.L.C.

We the undersigned, holders of a mortgage,
on the above described property, do hereby consent to this plat of
"REECE FARMS ESTATES", an Addition to Wichita, Sedgwick County,
Kansas.

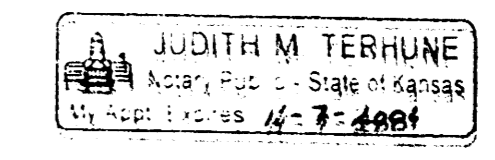
State Bank of Colwich

James D. Cabaret VP

State of Kansas) SS
Sedgwick County)
The foregoing instrument acknowledged before
me on this 3rd day of MARCH, 1998, by JAMES D. ASHCRAFT,
Vice Pres. of the State Bank of Colwich, on behalf of the bank.

Judith M. Terhune, Notary Public

My App. Exp. 11-7-2001

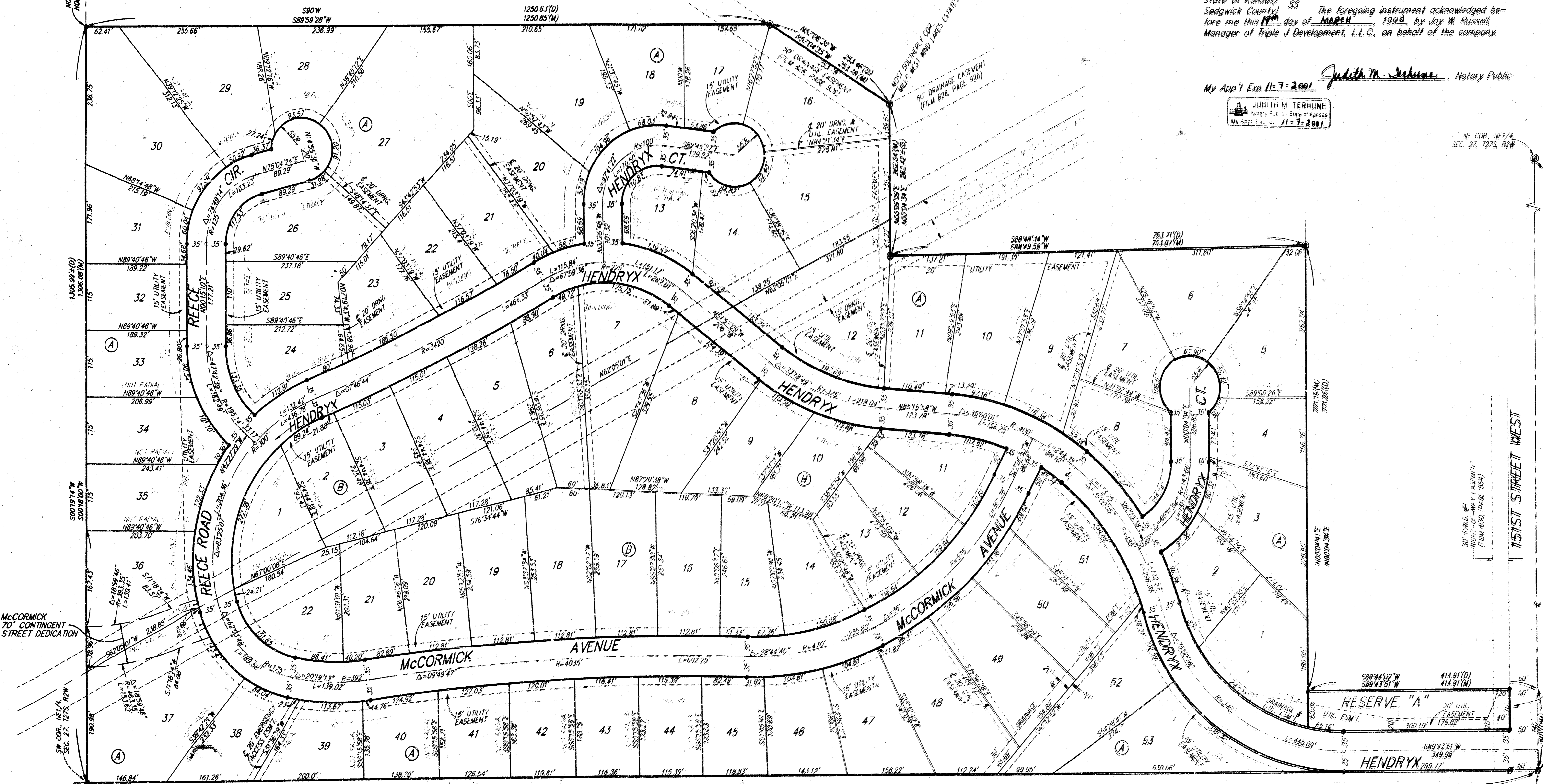
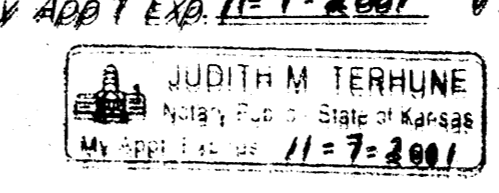


Michael G. Conroy 3-18-98 Surveyor
Michael G. Conroy

State of Kansas) SS
Sedgwick County)
The foregoing instrument acknowledged before
me on this 11th day of MARCH, 1998, by Jay W. Russell,
Manager of Triple J Development, L.L.C., on behalf of the company.

Jay W. Russell, Manager

Judith M. Terhune, Notary Public



Chairman
John C. Feja

Secretary
Marvin S. Kroot

This plat approved and all dedications
shown hereon accepted by the City Council of the City of Wichita,
Kansas, this 11th day of MARCH, 1998.

Bob Knight, Mayor

Pat Burnett, City Clerk

Entered on transfer record this 11th day
of MARCH, 1998.

James Alford, County Clerk

State of Kansas) SS
Sedgwick County)
This is to certify that this plat has been
filed for record in the office of the Register of Deeds, this 11th day
of MARCH, 1998, at a clock P.M. and is duly
recorded.

Larry Conslaver, Register of Deeds

Michael D. Hurtt, Deputy

SEE DETAIL "A"

11/11

