

SANITARY SEWER IMPROVEMENTS TO SERVE AUBURN HILLS 2ND ADDITION LATERAL 4, COWSKIN INTERCEPTOR

Project Number
488-76-245-82831-000-000-001

Index Code
742866

CITY OF WICHITA, KANSAS
Michael E. Lindebak, City Engineer

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 687-2470

The Contractor must notify the following in case of an emergency:

Cablevision	262-4270
or	263-2061
K.G.E. Gas Service Company	383-8650
Kansas Gas & Electric Company	383-8600
Peoples Natural Gas Company	942-7600
Southwestern Bell Telephone Company	1-571-2511
City of Wichita Water Department	358-4908
City of Wichita Sewer Maintenance	268-4071

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. Existing utilities and their locations, 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.

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.

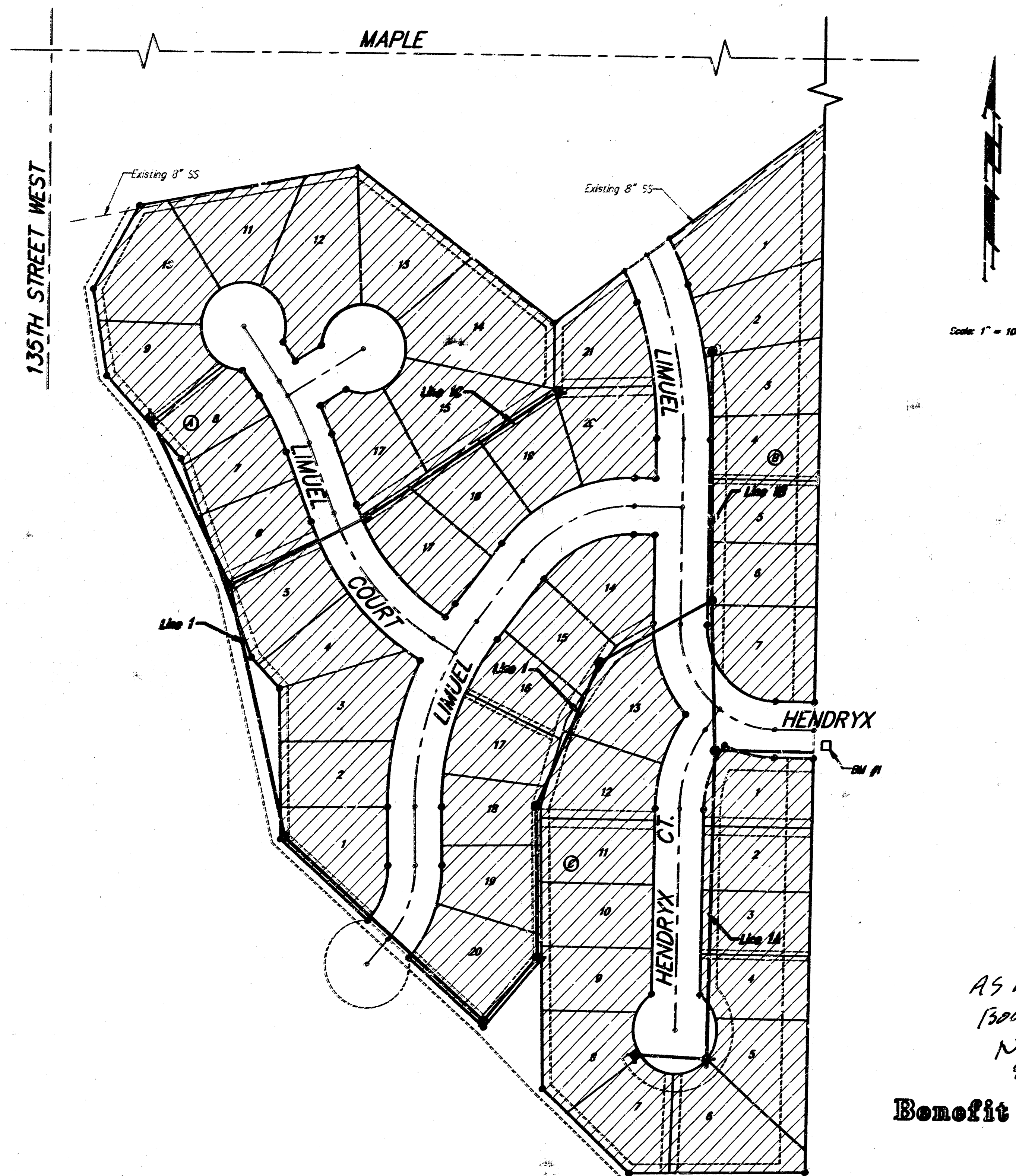
4. The Contractor shall be responsible for maintaining continuous flow of sewage through construction. Contractor's proposed method for maintaining sewage flow shall be approved by the Engineer. Cost of maintaining flow of sewage through construction will not be paid for directly and this cost shall be considered as subsidiary to the other pay item of work.

5. The Contractor shall be responsible for preserving property lines. The Contractor will be required to re-establish any property lines which are damaged or destroyed by his construction operations. Such lines shall be re-established by a licensed land surveyor in accordance with state laws.

6. Contractor shall grade the sanitary sewer alignment to the profile and elevations shown on the easement grading plan. All costs for grading shall be included in lump sum bid item "Easement Grading".

7. All areas disturbed by construction operations shall be seeded with rye grass at a rate of 6 lbs. per 1000 sq. feet. Contractor to prepare ground to city specifications.

8. 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 unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a final pile would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.



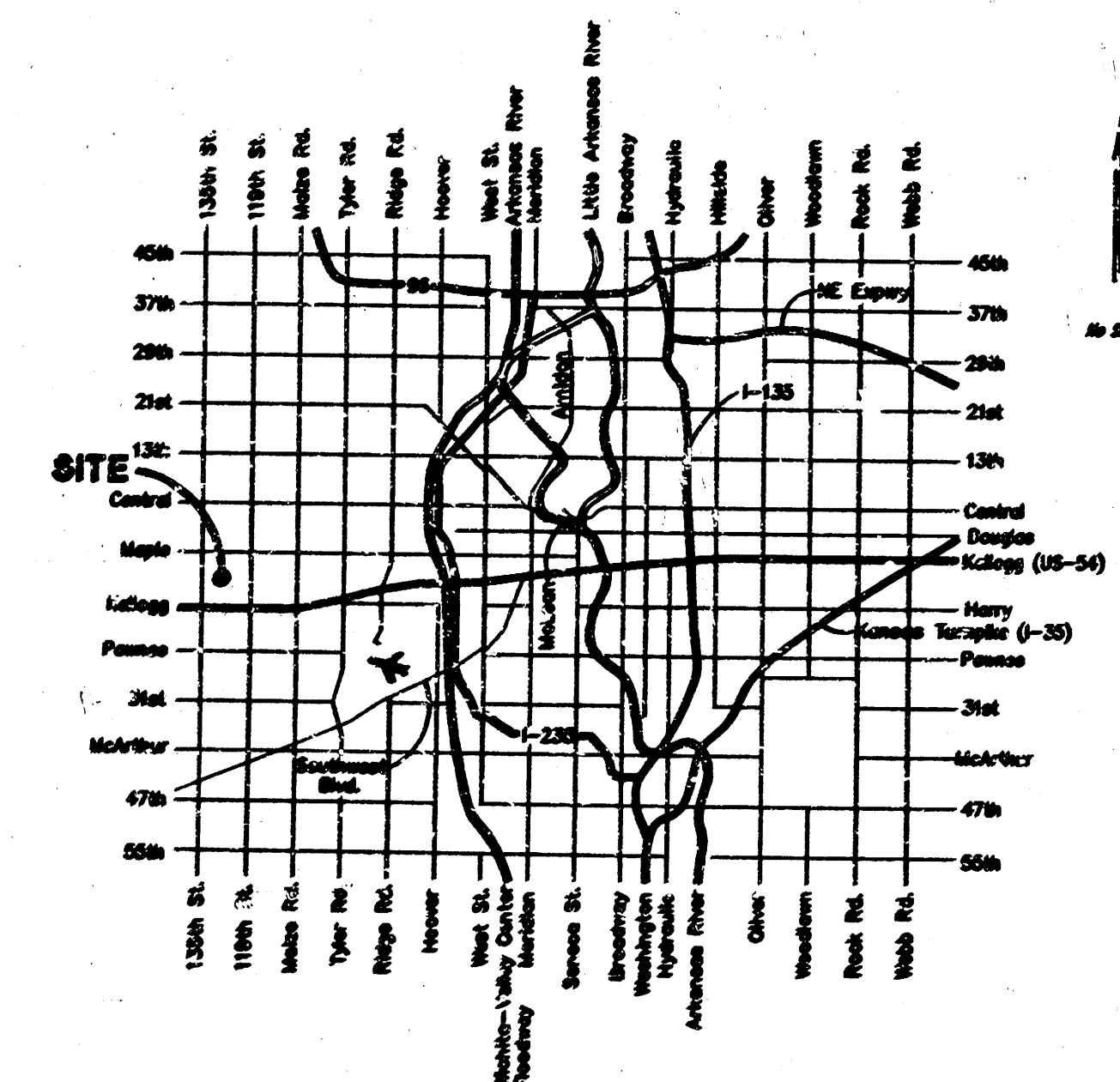
Benchmarks:

BM #1 "□" On Top of Curb Located on the South Side of Hendryx 15' West of the East Line of Auburn Hills 2nd Addition. Elev. = 134.32 City Datum

BM #2 "□" On Top of Curb Located at 14.29' North and 38.05' West of the Northeast corner of Lot 13, Block B, Auburn Hills Addition. Elev. = 144.83 City Datum

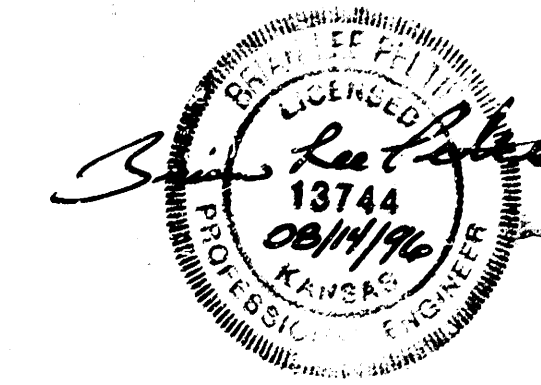
Index:

- 1 Title Sheet
- 2 Line 1 & 1B
- 3 Line 1A
- 4 Line 1
- 5 Line 1C
- 6 Line 1C
- 7 Standard Manhole Detail
- 8 MH Cover & Frame Detail
- 9 Riser Detail
- 10 Easement Grading Plan
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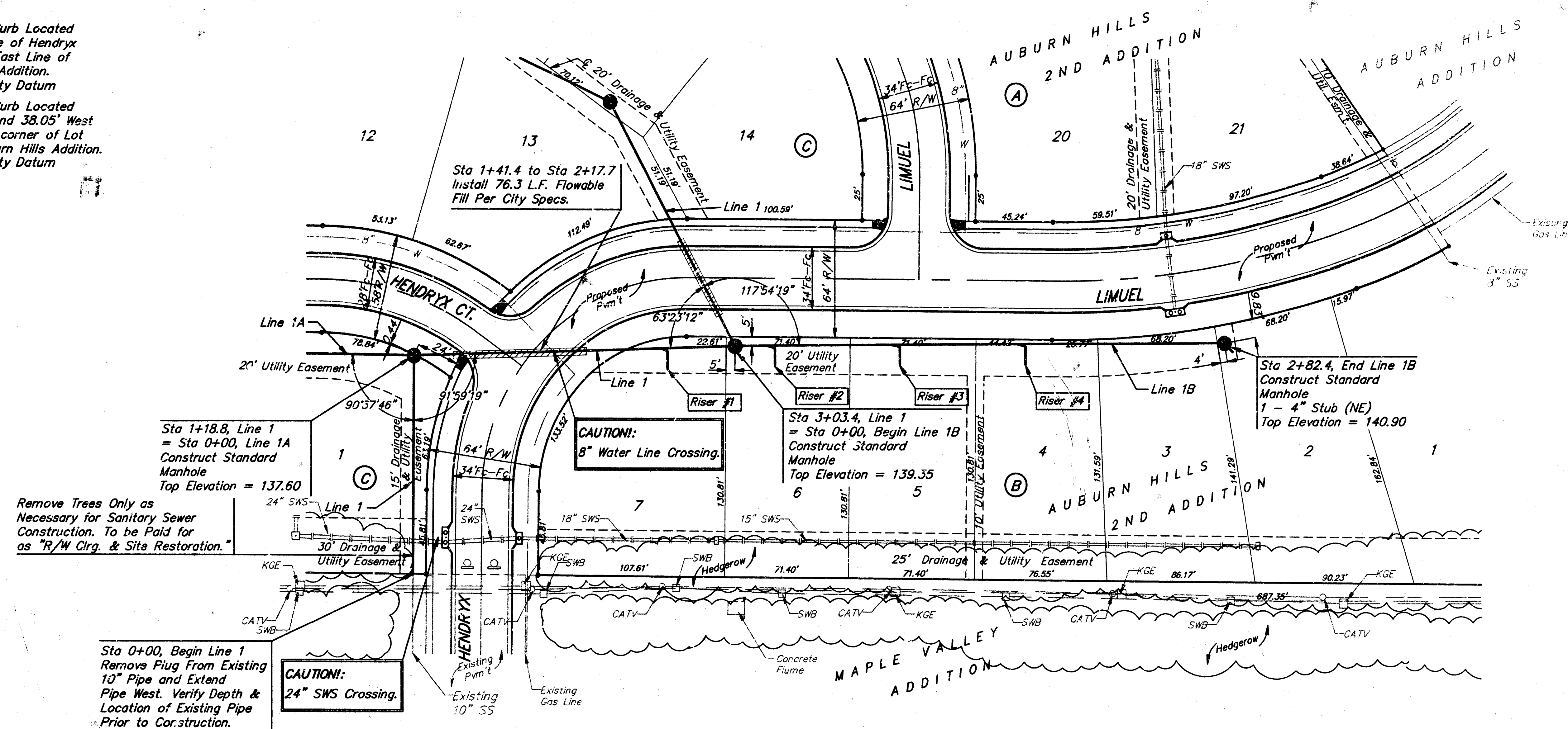
Benefit District:

AS BUILT
Booked
N-251
9/10/96



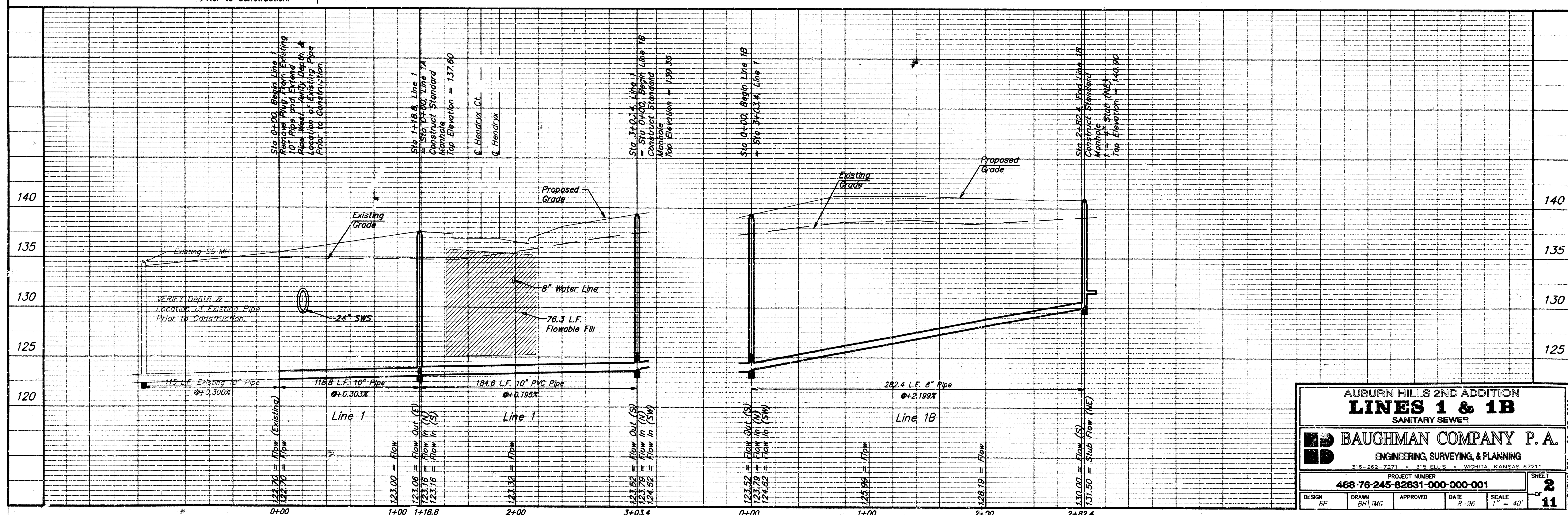
BM #1 "□" On Top of Curb Located on the South Side of Hendryx 15' West of the East Line of Auburn Hills 2nd Addition.
Elev. = 134.32 City Datum

BM #2 "□" On Top of Curb Located at 14.29' North and 38.05' West of the Northeast corner of Lot 13, Block B, Auburn Hills Addition.
Elev. = 144.63 City Datum

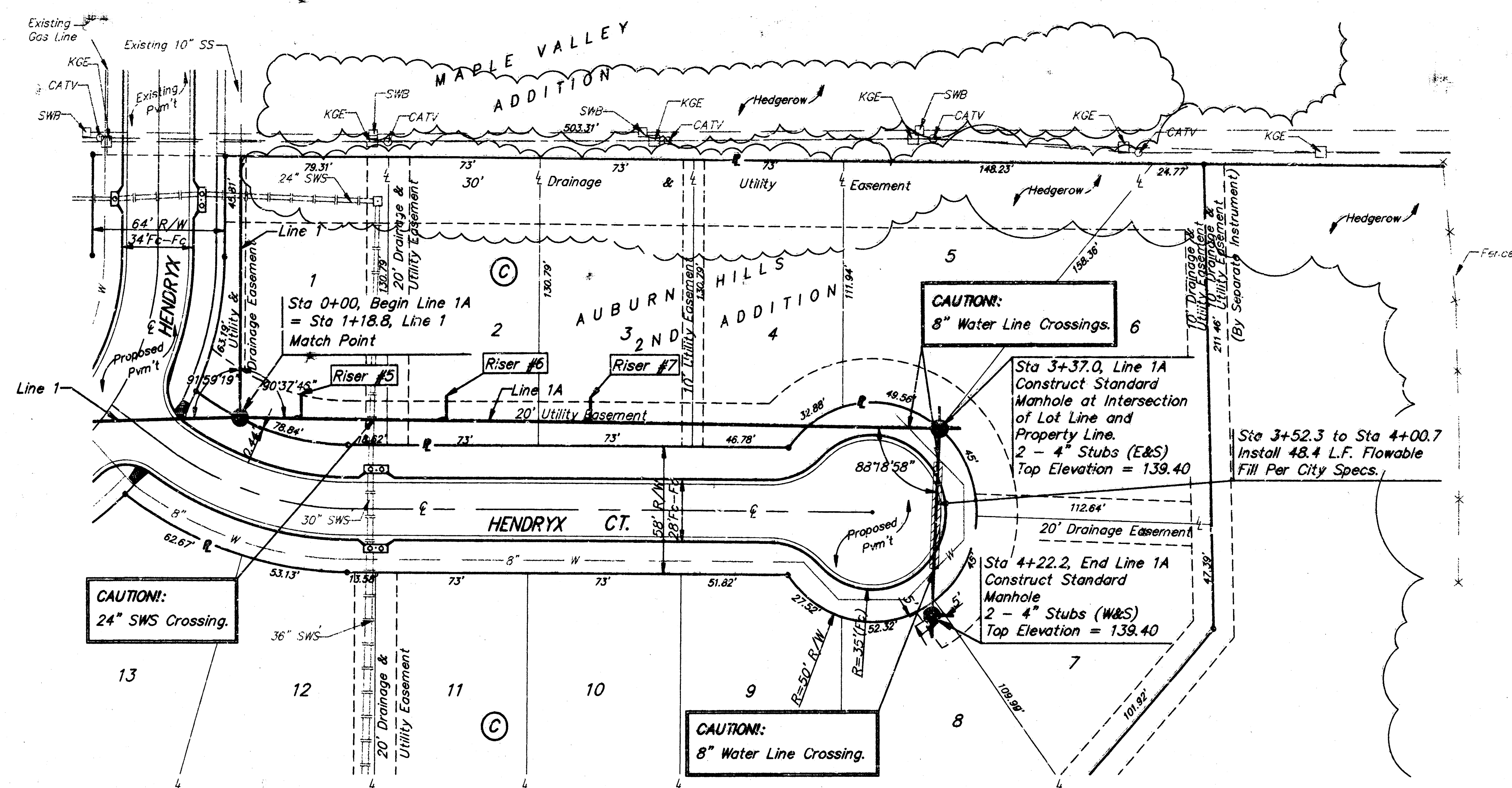


Scale: 1" = 40' Horizontal
 1" = 5' Vertical
 • = Iron

NUMBER	LINE NO.	STATION	LOT	DIRECTION	L.F. 4" RISER	TOP ELEV.
1	1	2+60	7	RIGHT	10	133.4
2	1B	0+18	6	RIGHT	12	136.2
3	1B	0+90	5	RIGHT	11.5	137.3
4	1B	1+62	4	RIGHT	10	137.4



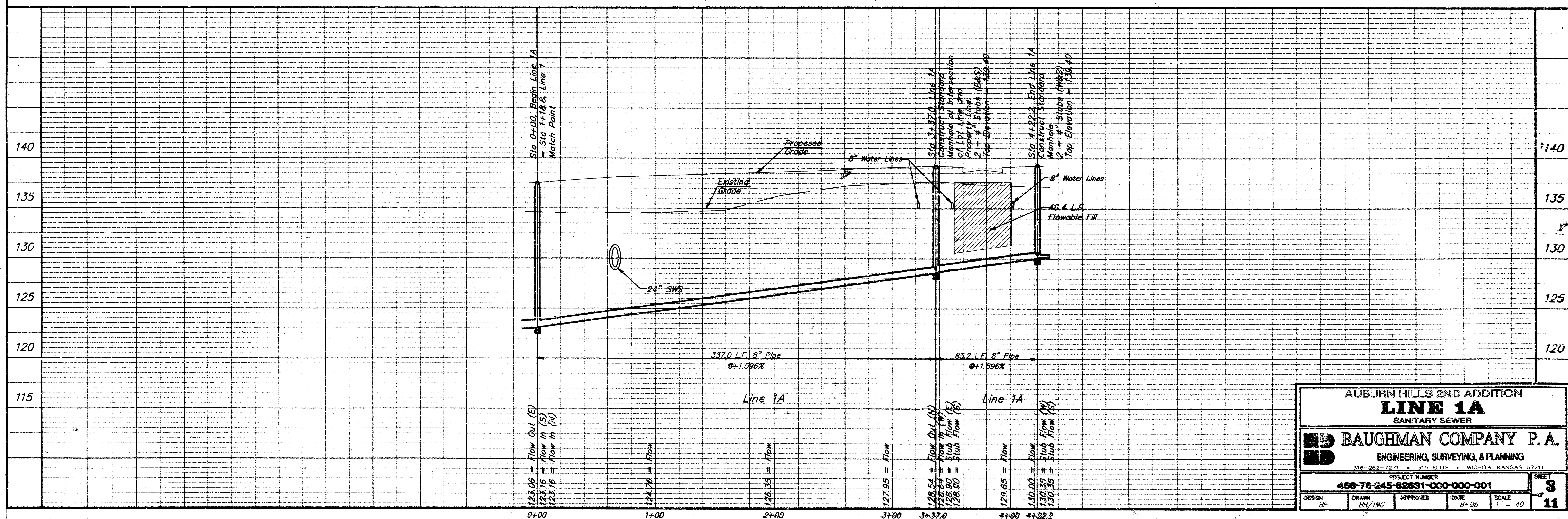
BENCHMARKS:
 BM #1 "□" On Top of Curb Located on the South Side of Hendryx 75' East of the East Line of Auburn Hills 2nd Addition. Elev. = 134.32 City Datum
 BM #2 "□" On Top of Curb Located at 14.29' North and 38.05' West of the Northeast corner of Lot 13, Block B, Auburn Hills Addition. Elev. = 144.83 City Datum



Scale: 1\"/>

RISER LOCATION TABLE

NUMBER	LINE NO.	STATION	LOT	DIRECTION	L.F. 4\"/>
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AUBURN HILLS 2ND ADDITION
LINE 1A
 SANITARY SEWER

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

PROJECT NUMBER: **468-78-245-82631-000-000-001**

DESIGN: BF	DRAWN: BH/TMG	APPROVED:	DATE: 8-96	SCALE: 1\"/>
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SHEET **3** OF **11**

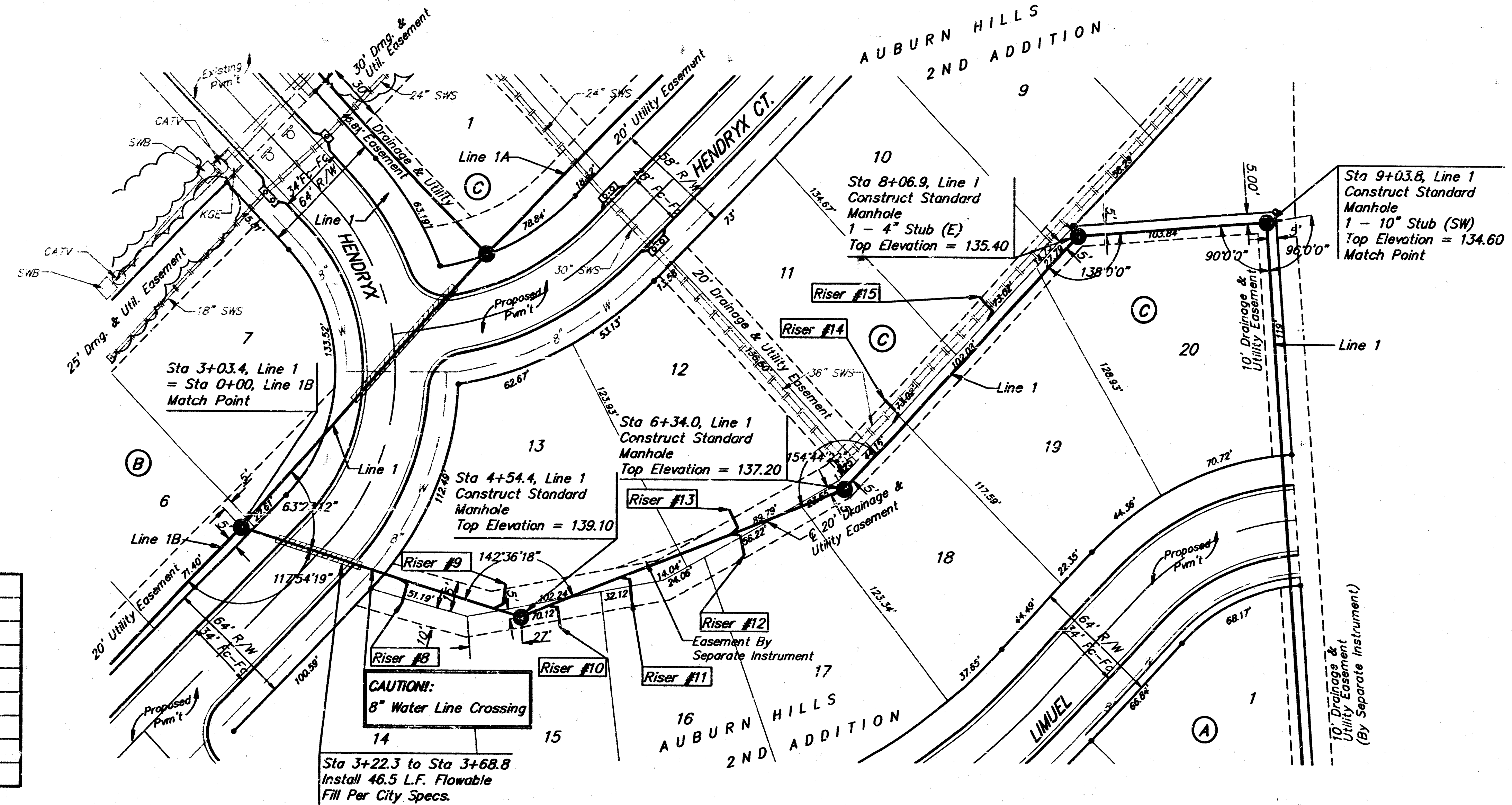
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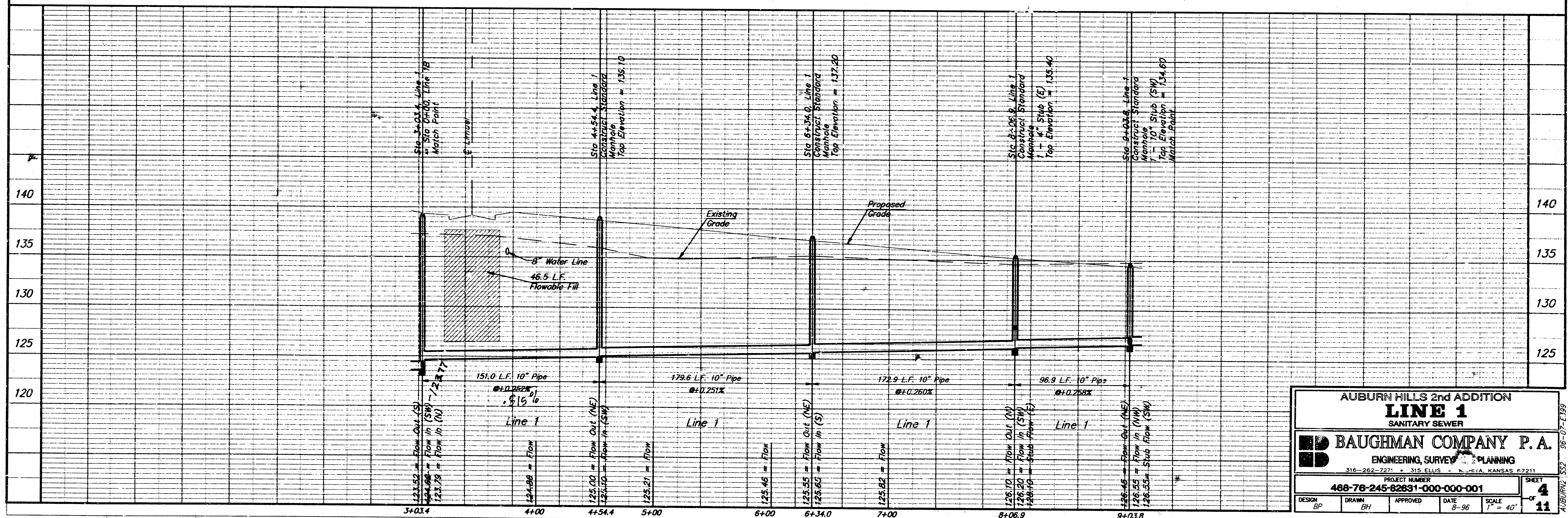
BM #2 "□" On Top of Curb Located at 14.29' North and 38.05' West of the Northeast corner of Lot 13, Block B, Auburn Hills Addition. Elev. = 144.83 City Datum

RISER LOCATION TABLE

NUMBER	LINE NO.	STATION	LOT	DIRECTION	L.F. 4" R/R	TOP ELEV.
8	1	3+90	14	RIGHT	10.5	135.4
9	1	4+40	13	LEFT	10	135.0
10	1	4+70	15	RIGHT	10	135.1
11	1	5+10	16	RIGHT	9	134.3
12	1	5+70	17	RIGHT	8.5	133.9
13	1	5+7	12	LEFT	8.5	133.9
14	1	6+75	11	LEFT	7.0	132.7
15	1	7+45	10	LEFT	6.5	132.5



Scale: 1" = 40' Horizontal
1" = 5' Vertical
• = Iron



AUBURN HILLS 2nd ADDITION
LINE 1
SANITARY SEWER

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

PROJECT NUMBER: **488-76-245-82631-000-000-001**

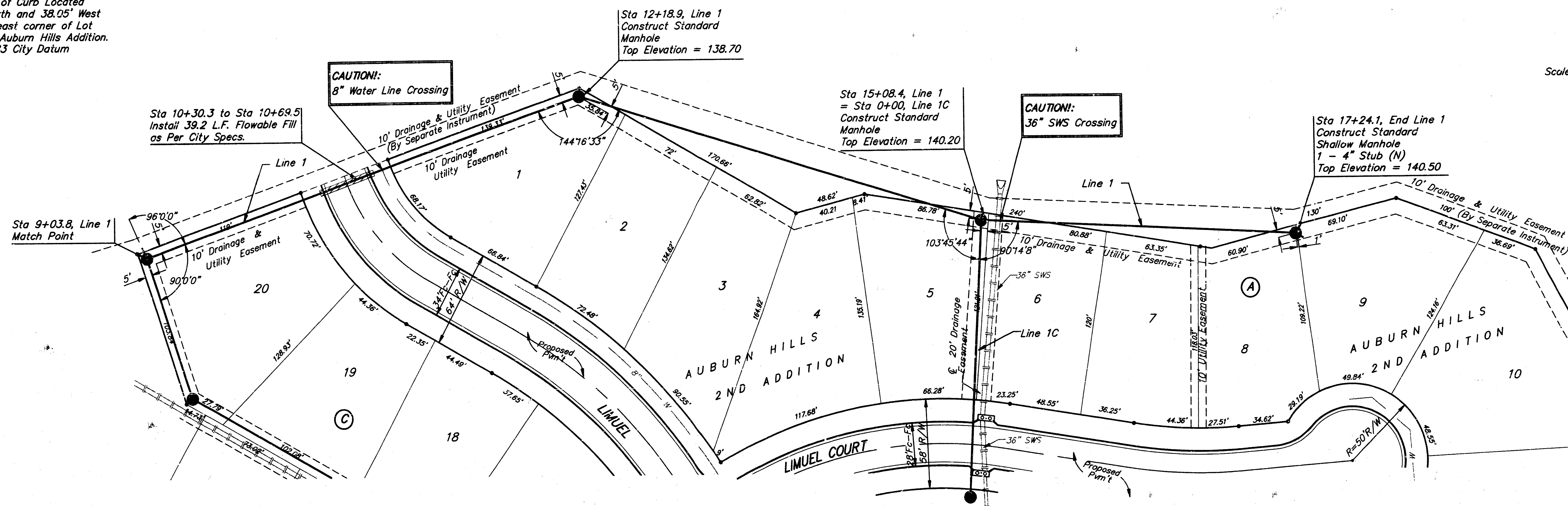
DESIGN	DRAWN	APPROVED	DATE	SCALE
BP	BH		8-96	1" = 40'

SHEET **4** OF **11**

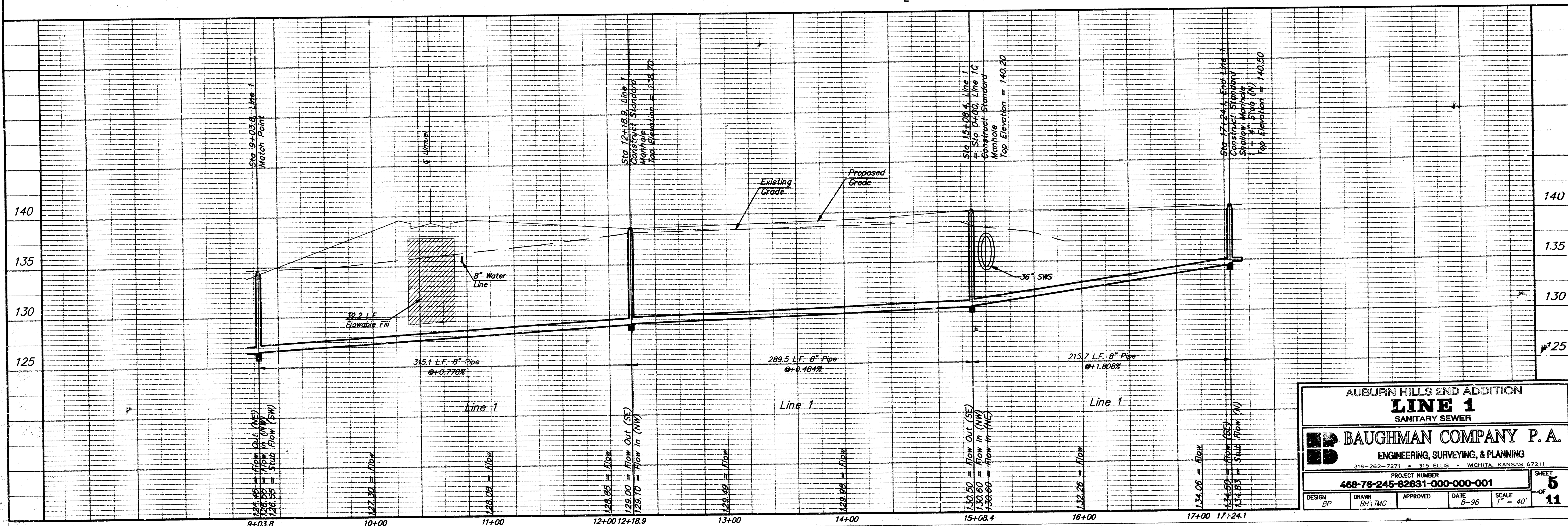
BENCHMARKS:

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Scale: 1" = 40' Horizontal
1" = 5' Vertical
• = Iron



AUBURN HILLS 2ND ADDITION
LINE 1
SANITARY SEWER

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-282-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
488-78-245-82631-000-000-001

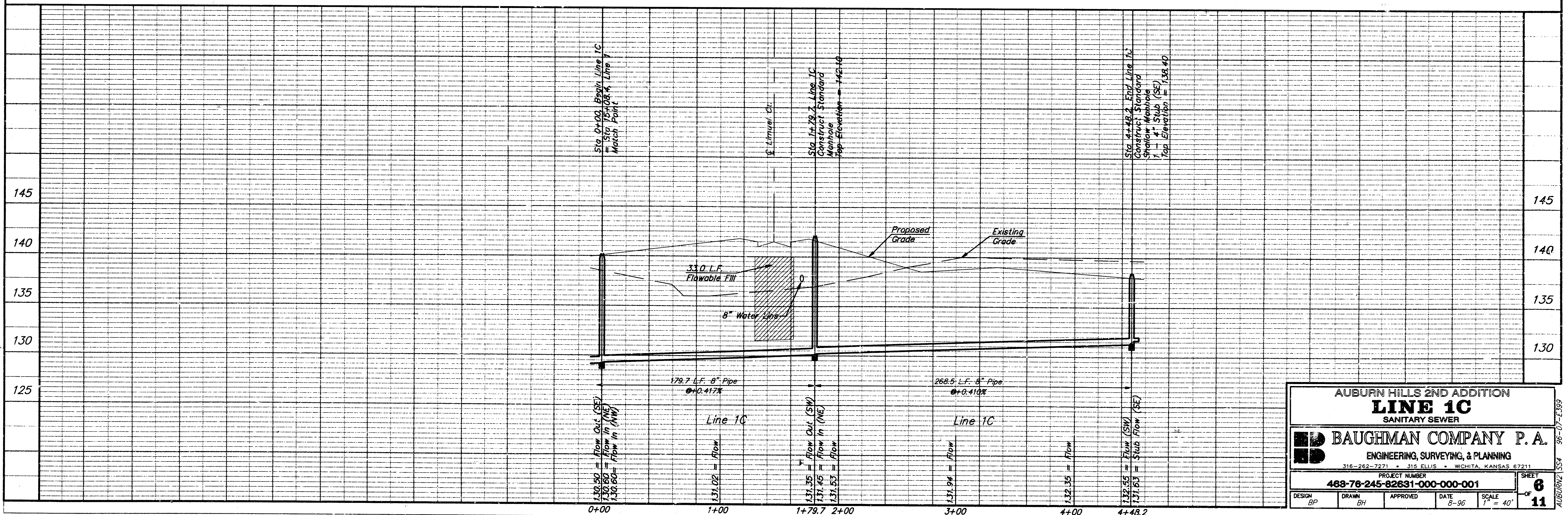
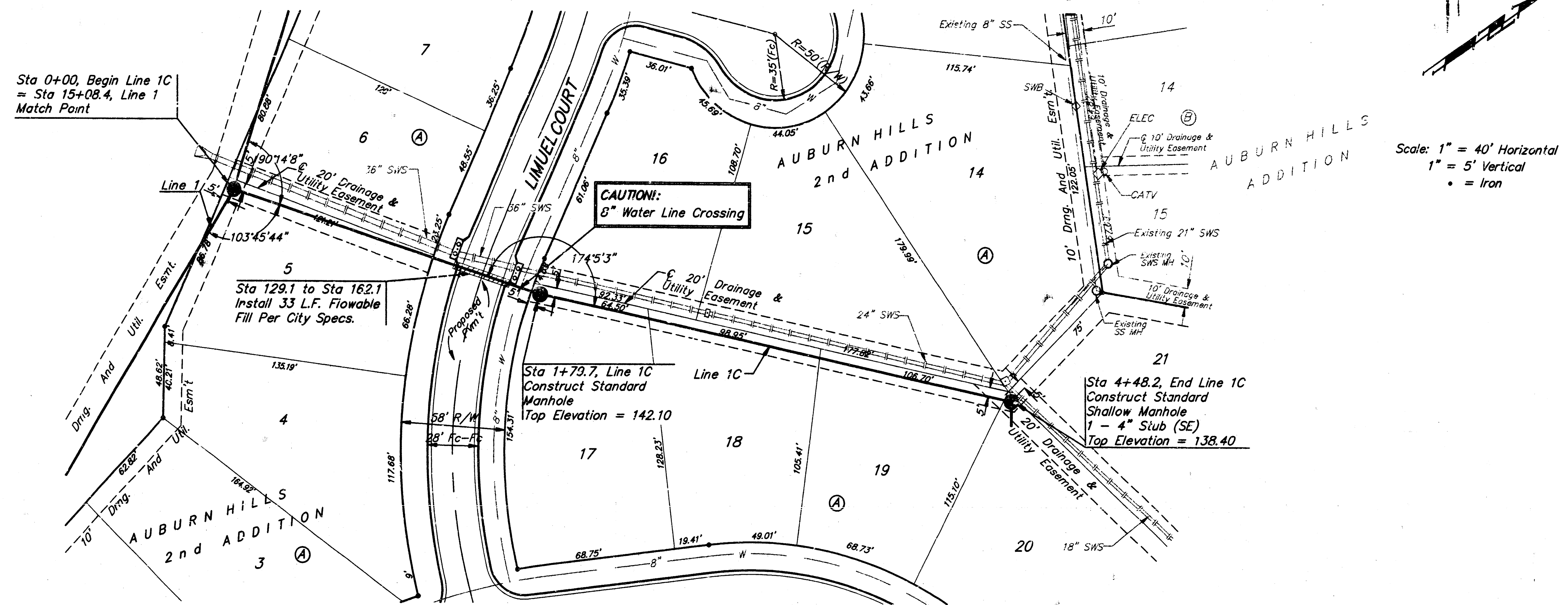
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SHEET **5** OF **11**

BENCHMARKS:

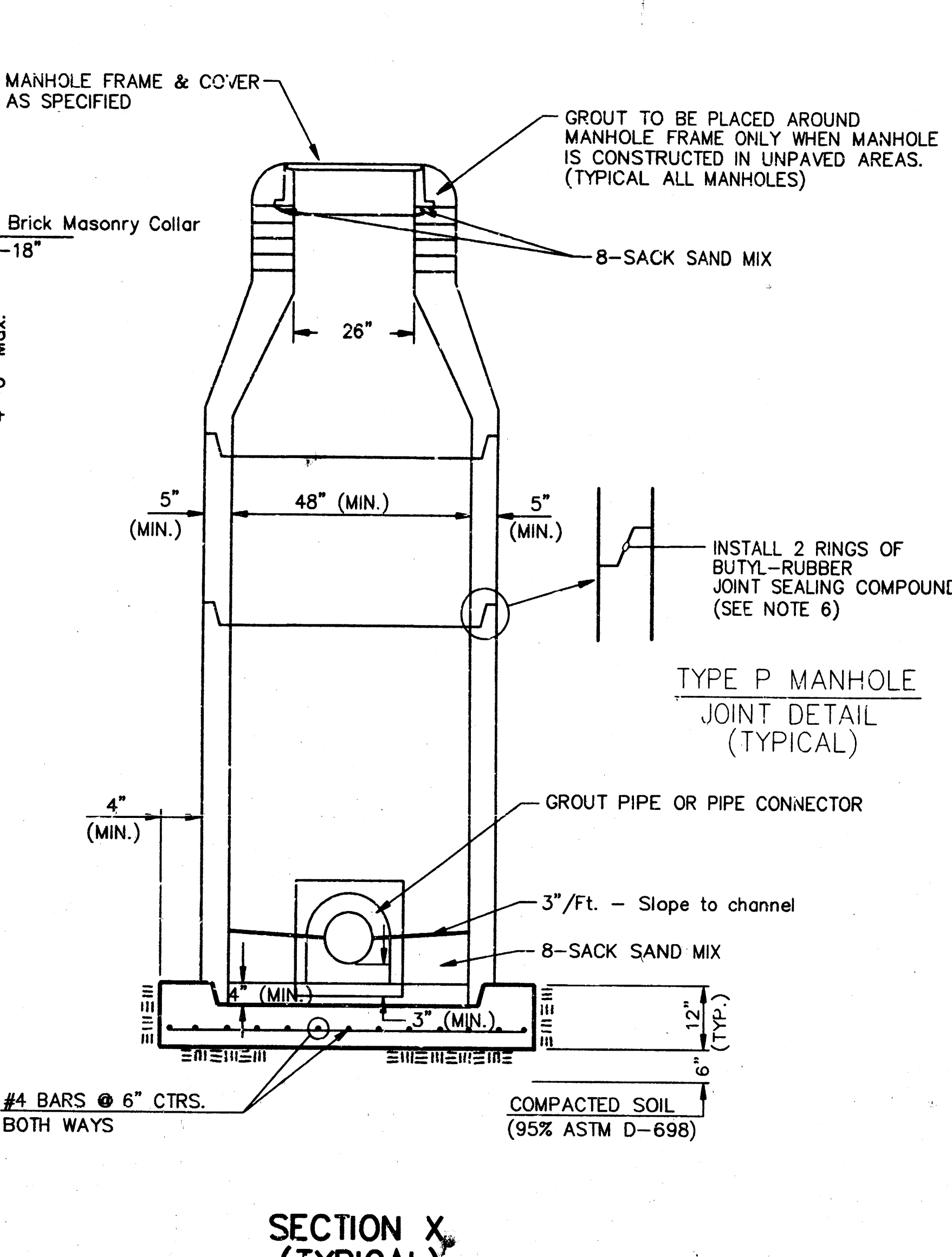
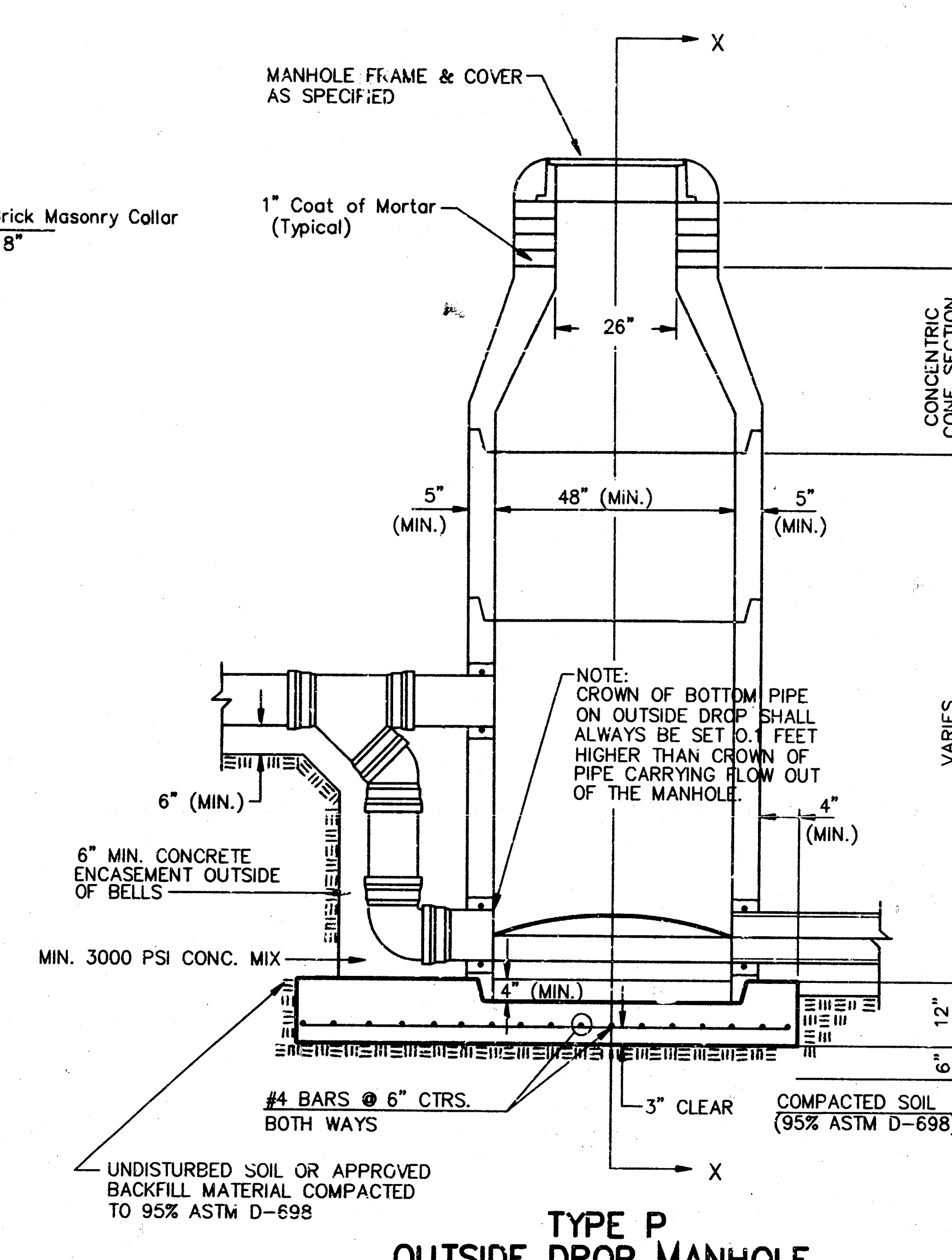
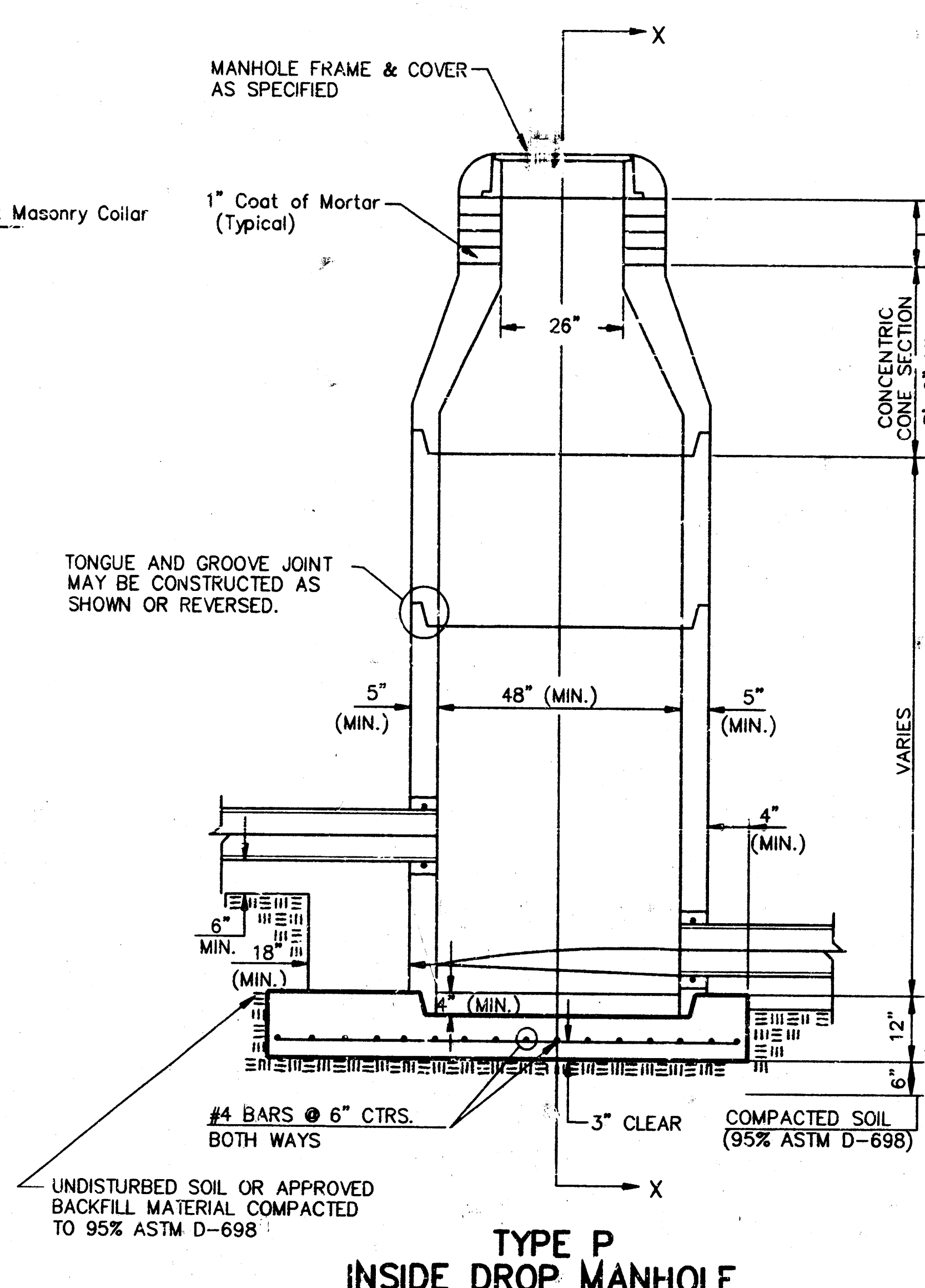
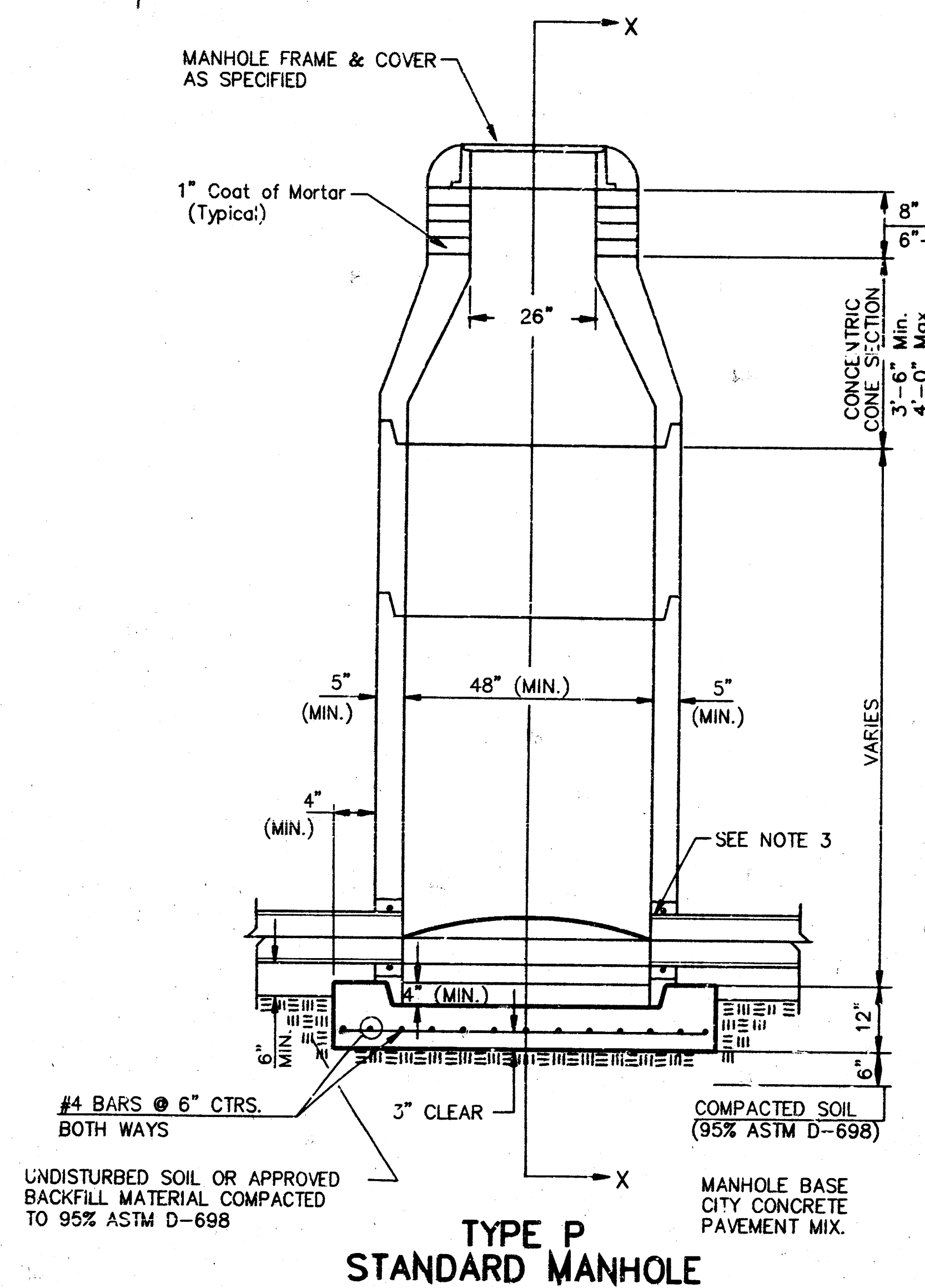
BM #1 "□" On Top of Curb Located on the South Side of Hendryx 15' West of the East Line of Auburn Hills 2nd Addition. Elev. = 134.32 City Datum

BM #2 "□" On Top of Curb Located at 14.29' North and 38.35' West of the Northeast corner of Lot 13, Block B, Auburn Hills Addition. Elev. = 144.63 City Datum



AUBURN HILLS 2ND ADDITION			
LINE 1C			
SANITARY SEWER			
BAUGHMAN COMPANY P.A.			
ENGINEERING, SURVEYING, & PLANNING			
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
PROJECT NUMBER			
463-76-245-82631-000-000-001			
DESIGN	DRAWN	APPROVED	DATE
BP	BH		8-96
SCALE			1" = 40'
SHEET			6
OF			11

SEWER APPURTENANCES DETAILS

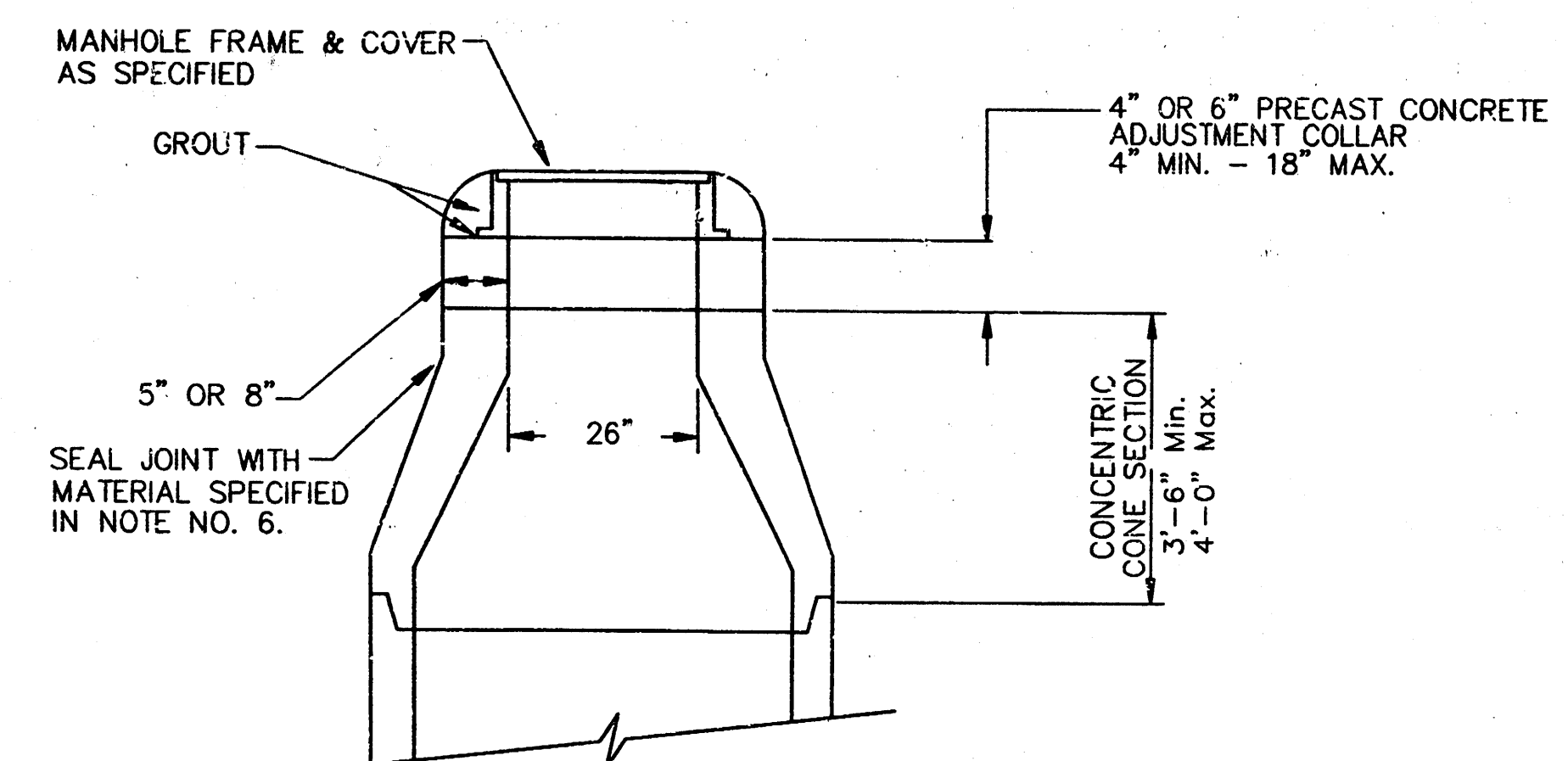


GENERAL NOTES

- 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 PIPE SHALL BE GROUDED 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 TNEWC SERIES 66 HI-BUILD EPOXYLINE, 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 GROUDED 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 GROUDED 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 DETAILS

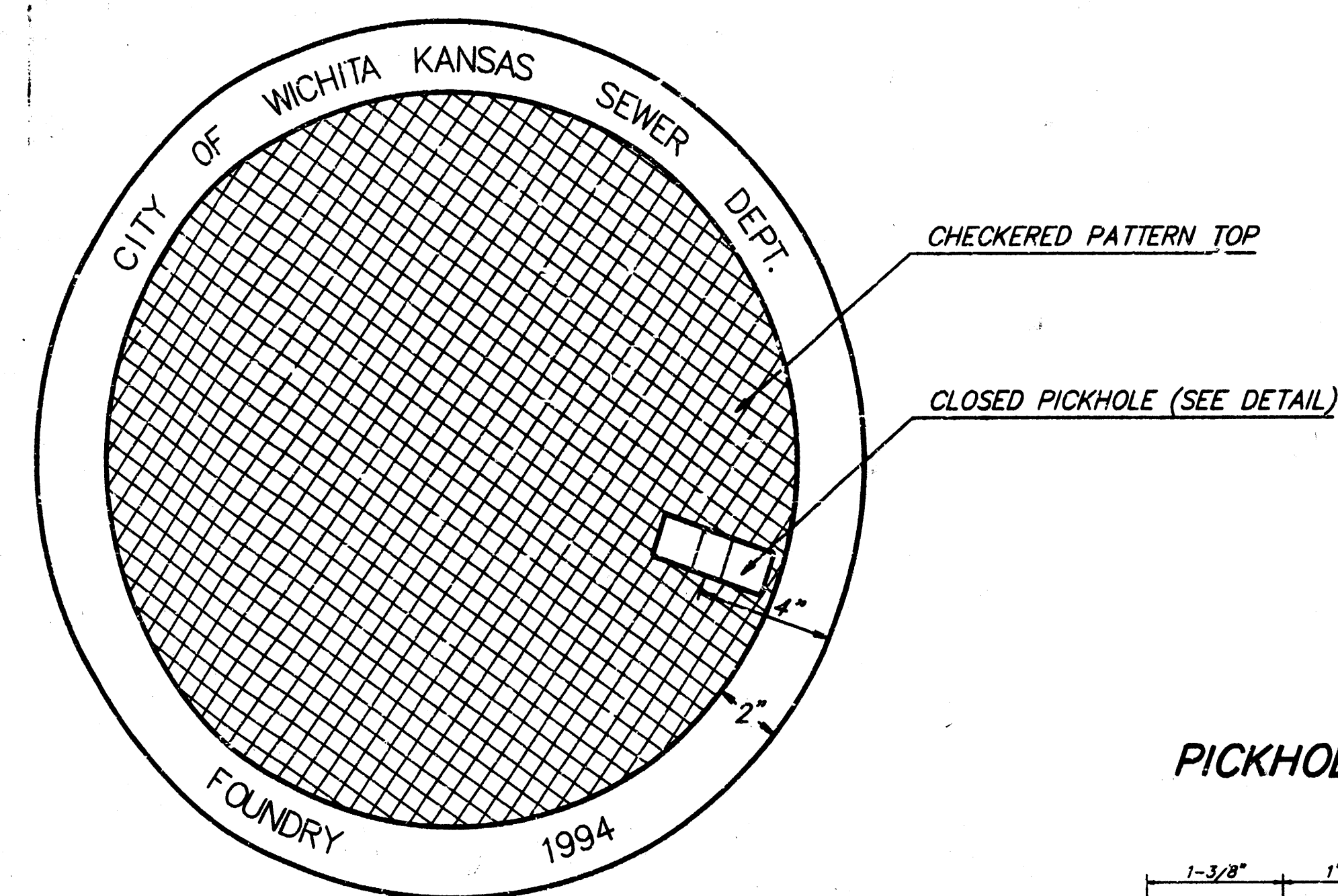
BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING

316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

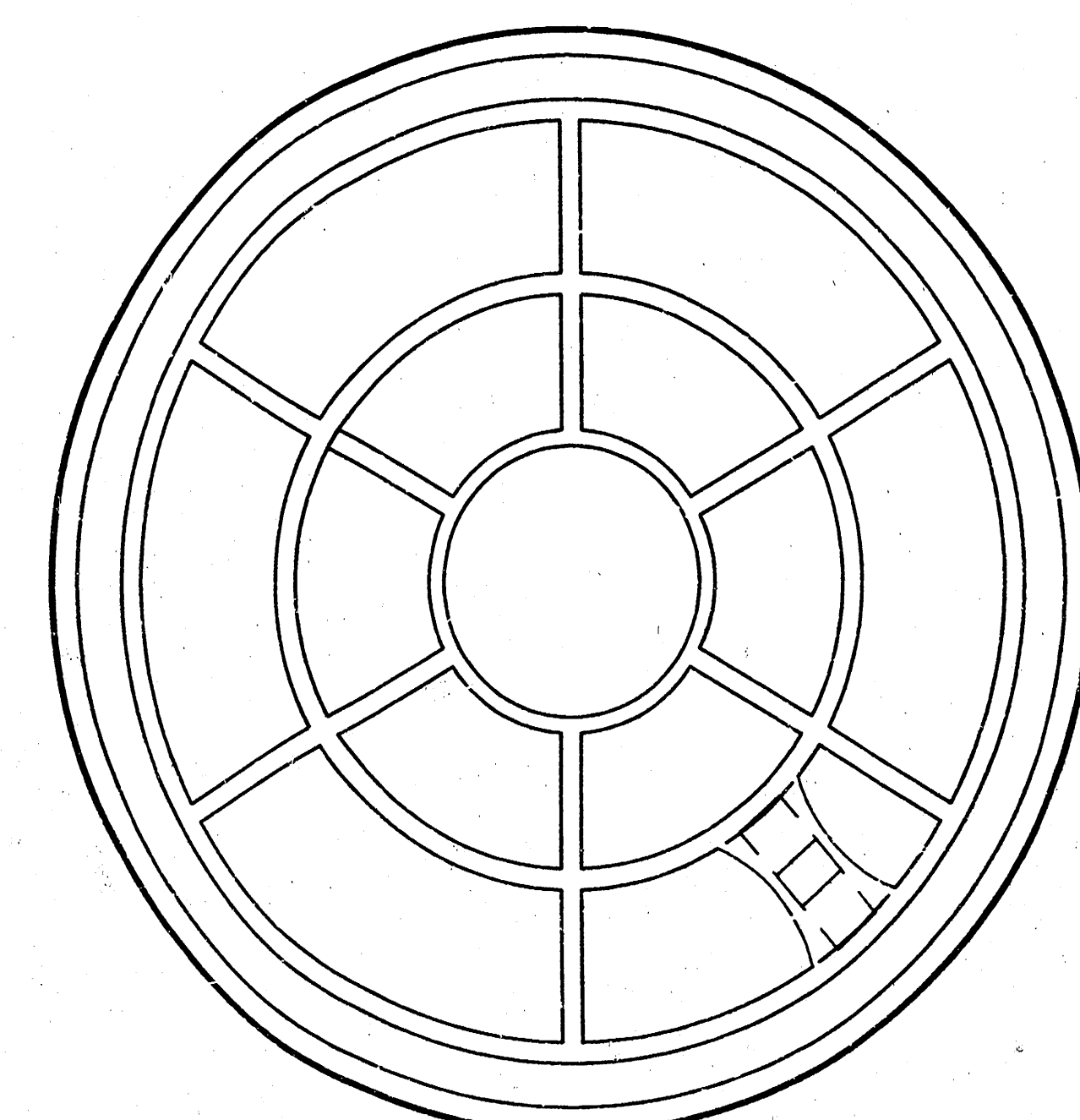
PROJECT NUMBER
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DESIGN DRAWN NOV. 93 APPROVED DATE 7-96 SCALE NONE SHEET 7 OF 11

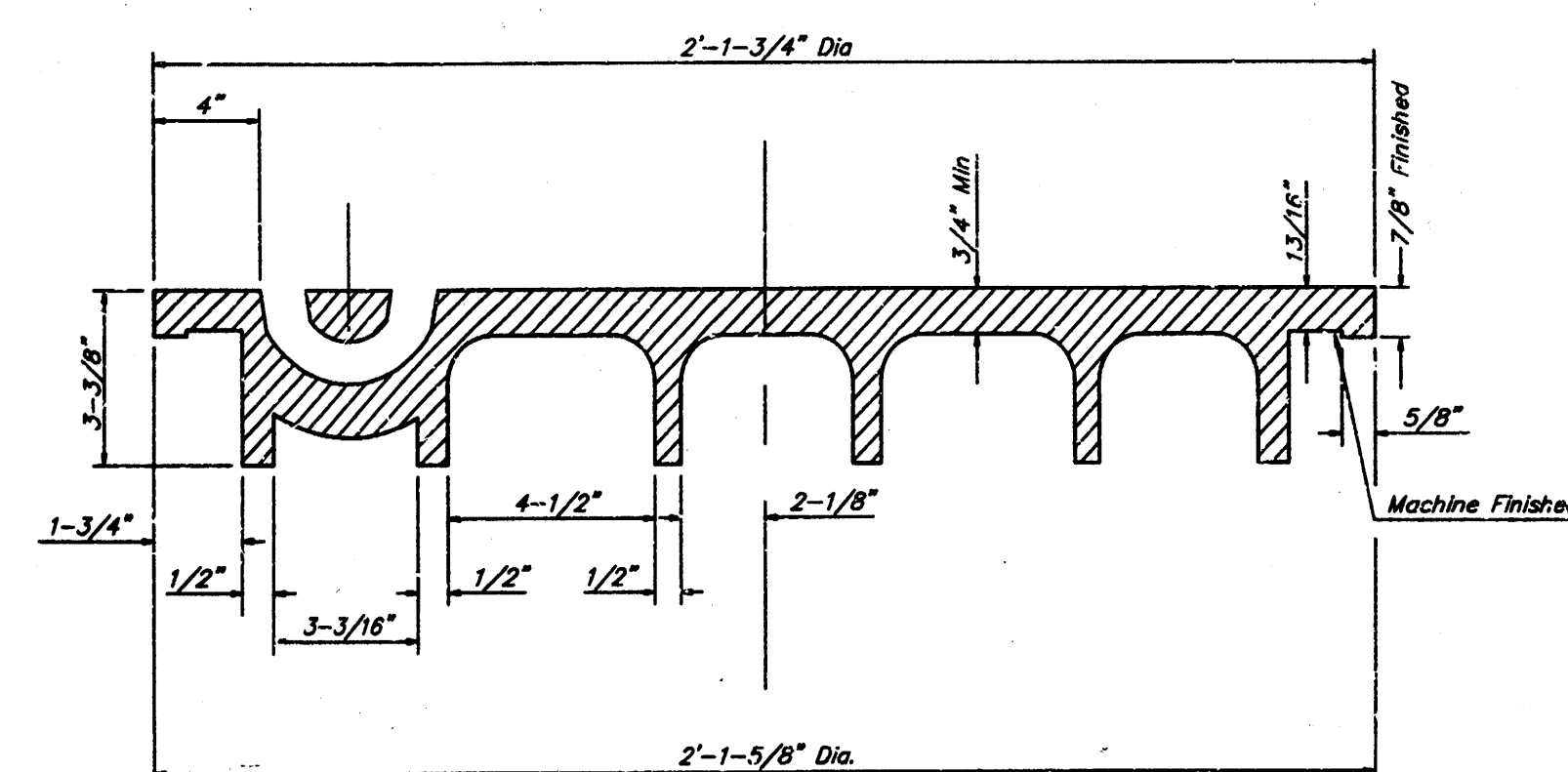
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW

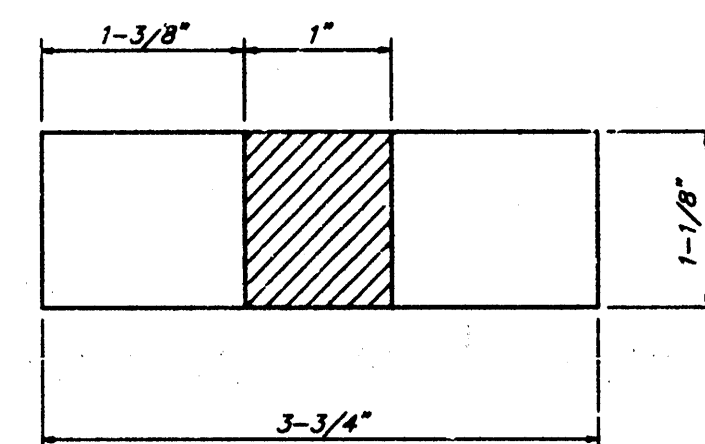


BOTTOM VIEW

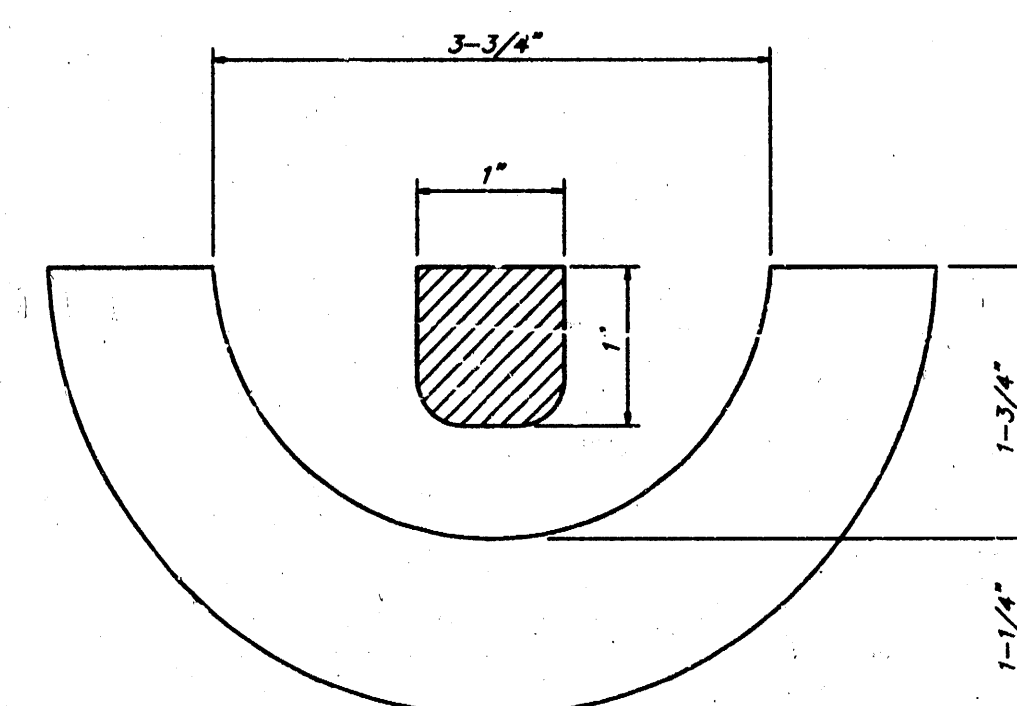


SECTION VIEW

PICKHOLE DETAIL



TOP VIEW

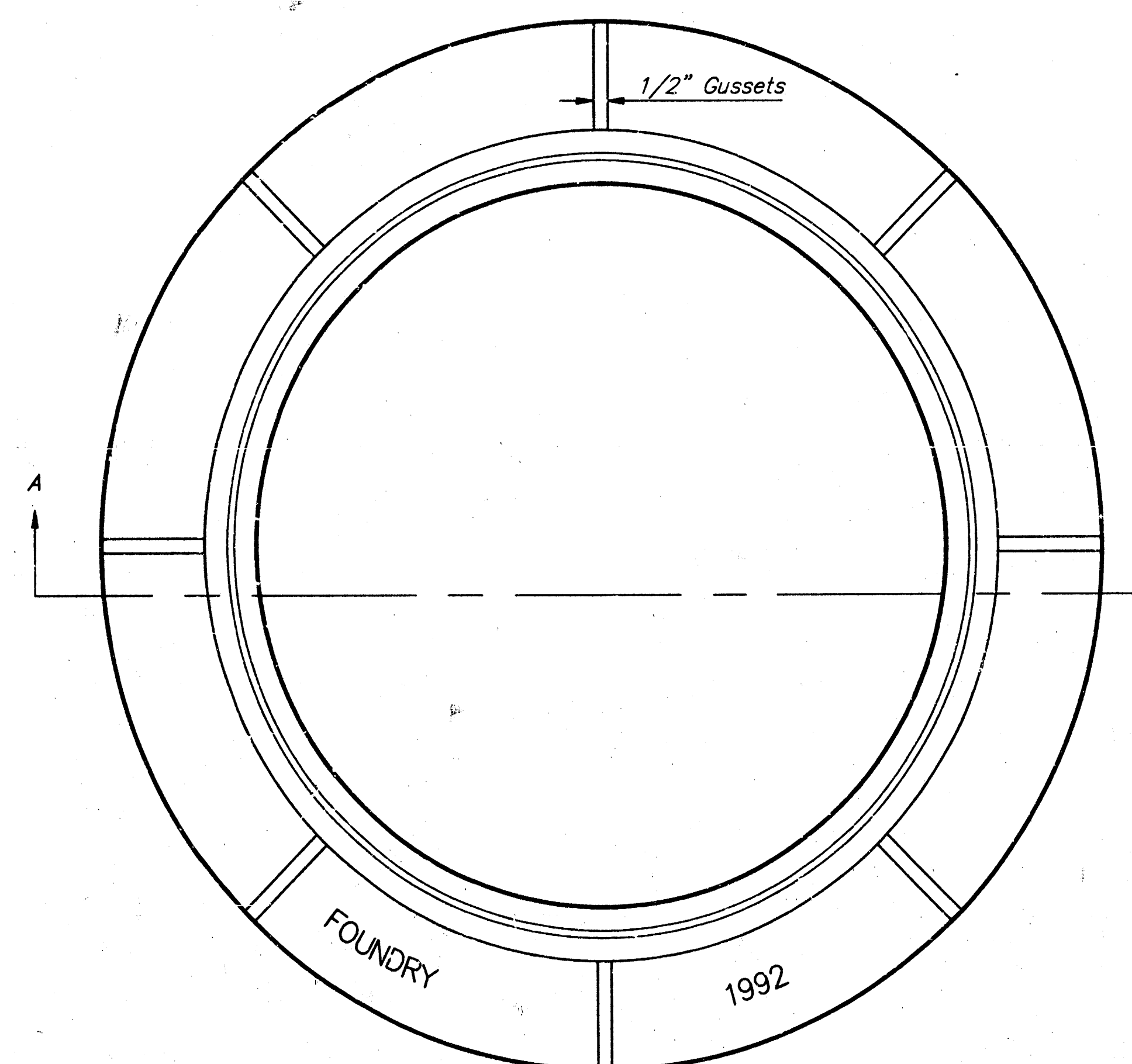


SECTION VIEW

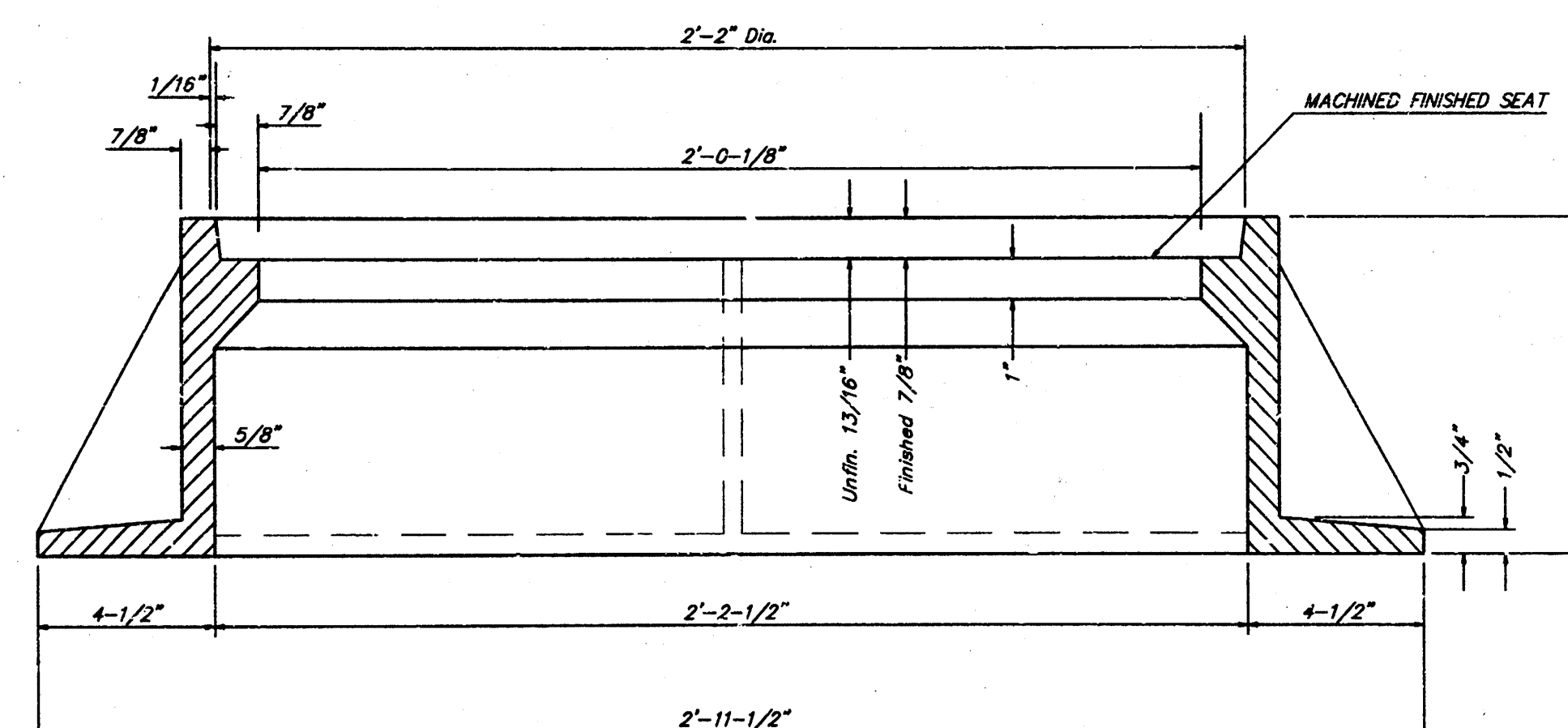
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE FRAME
Weight = 240 Lbs.



TOP 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-48. 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

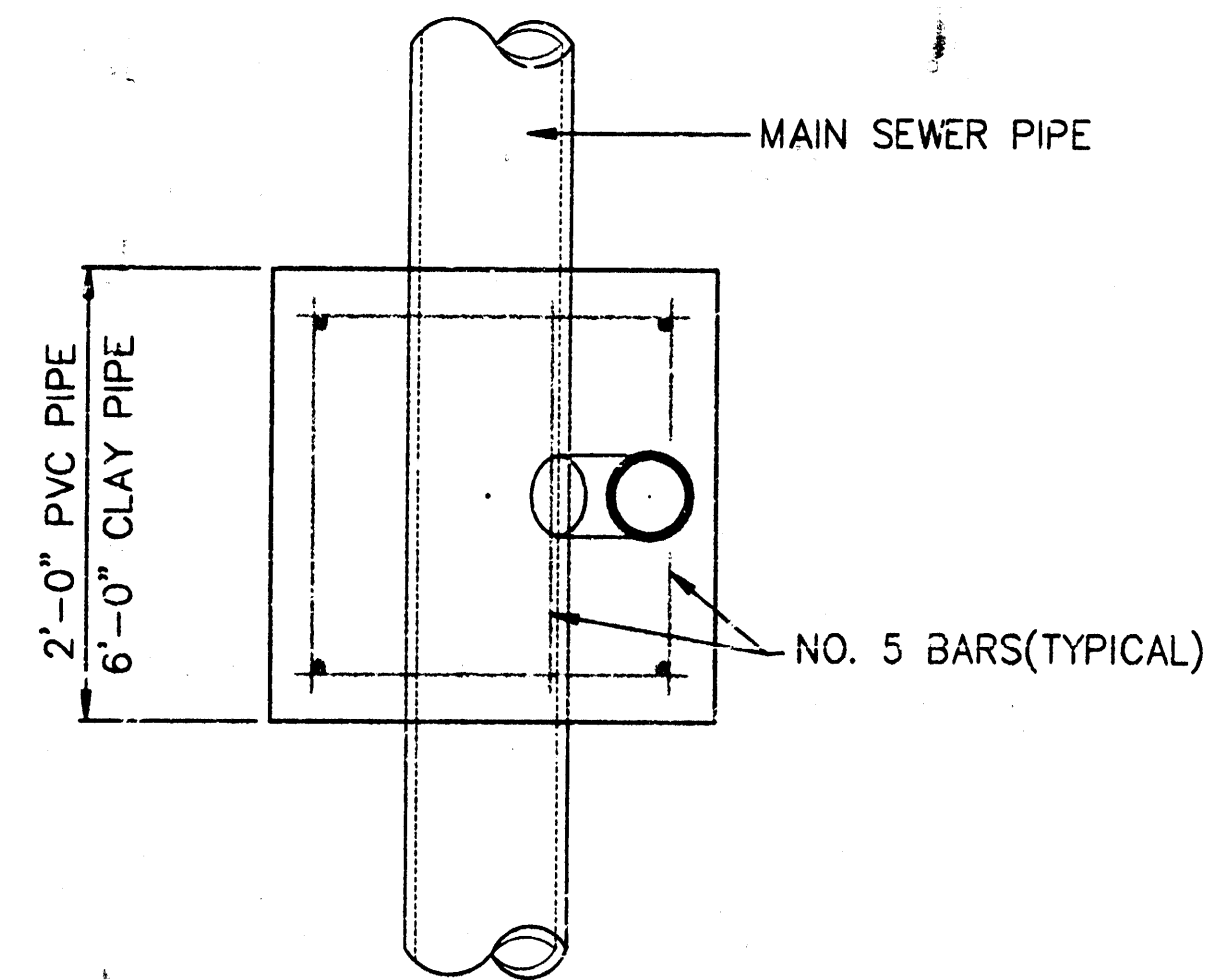
BAUGHMAN COMPANY P. A.
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316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
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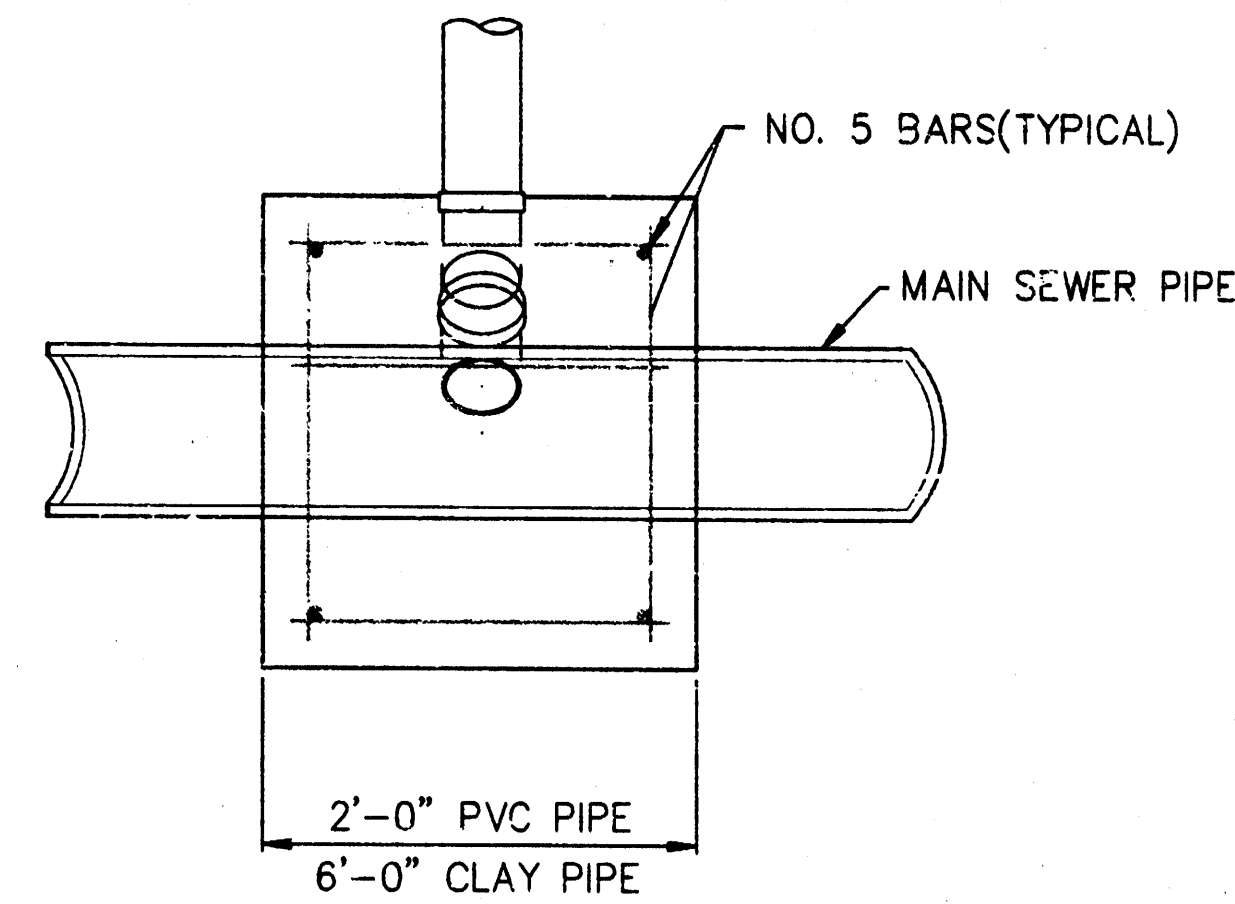
DESIGN DRAWN APPROVED DATE 7-96 SCALE NONE

SHEET
8
OF
11

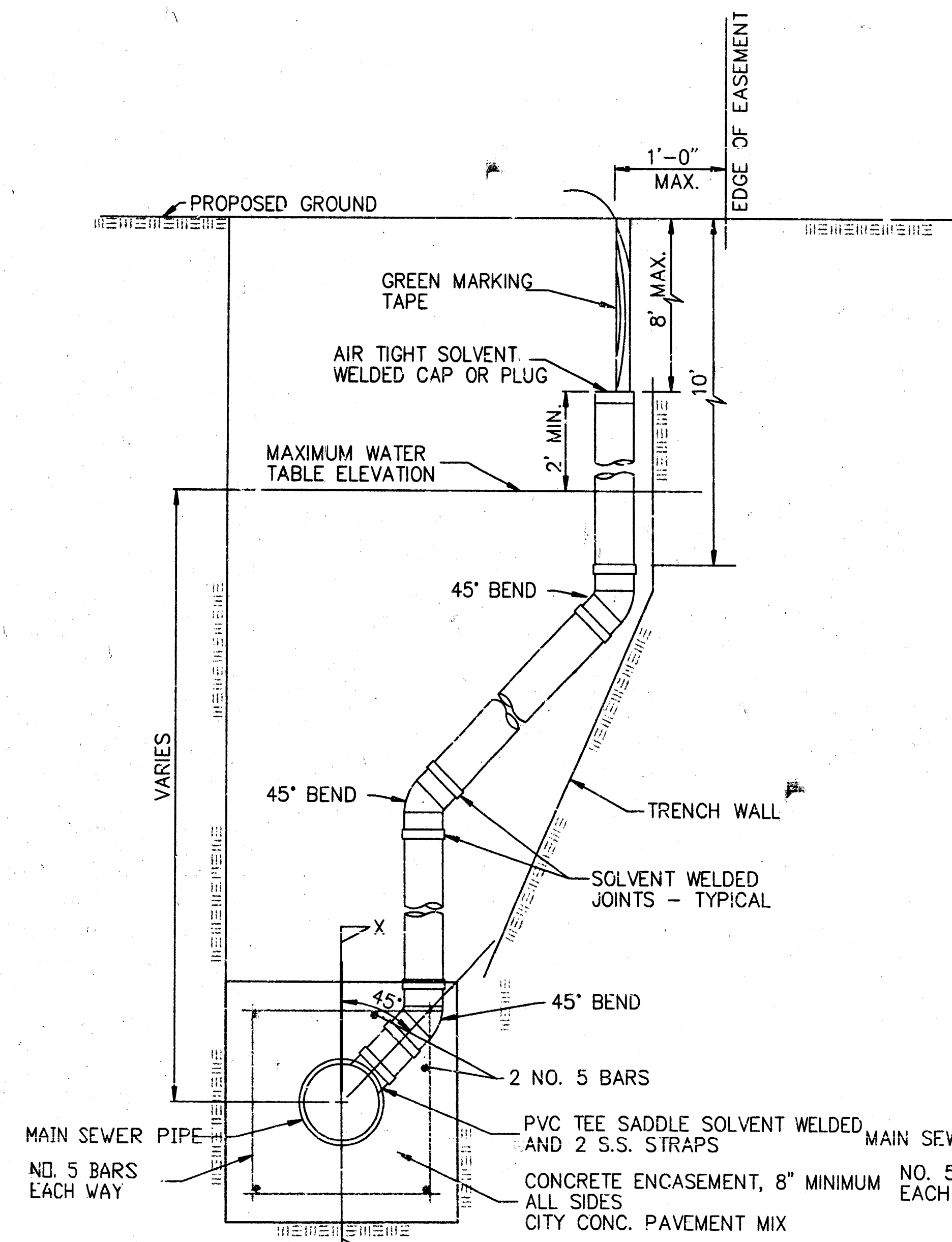
VERTICAL RISER DETAILS
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA, KANSAS
OCTOBER 1992



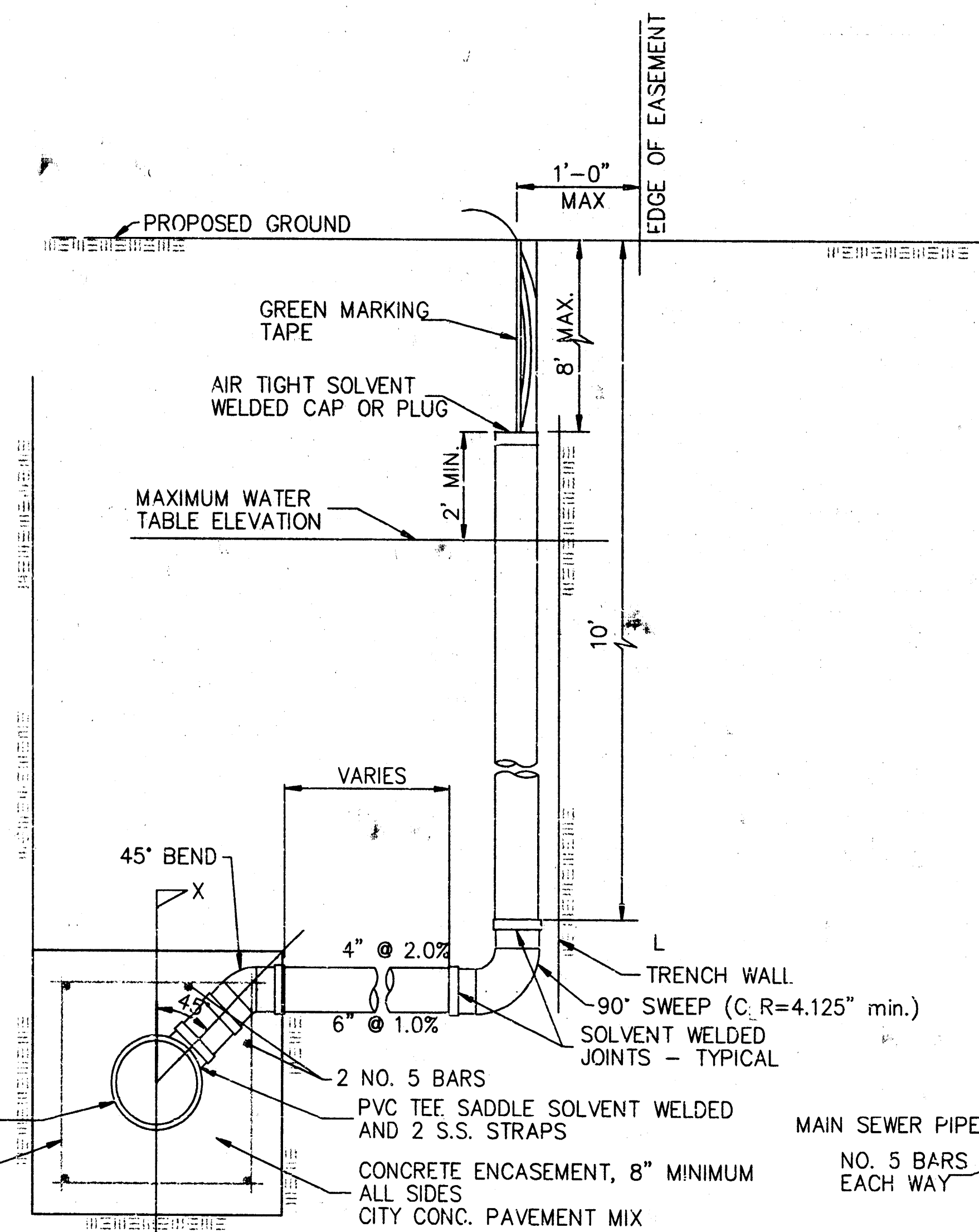
TYPICAL PLAN VIEW



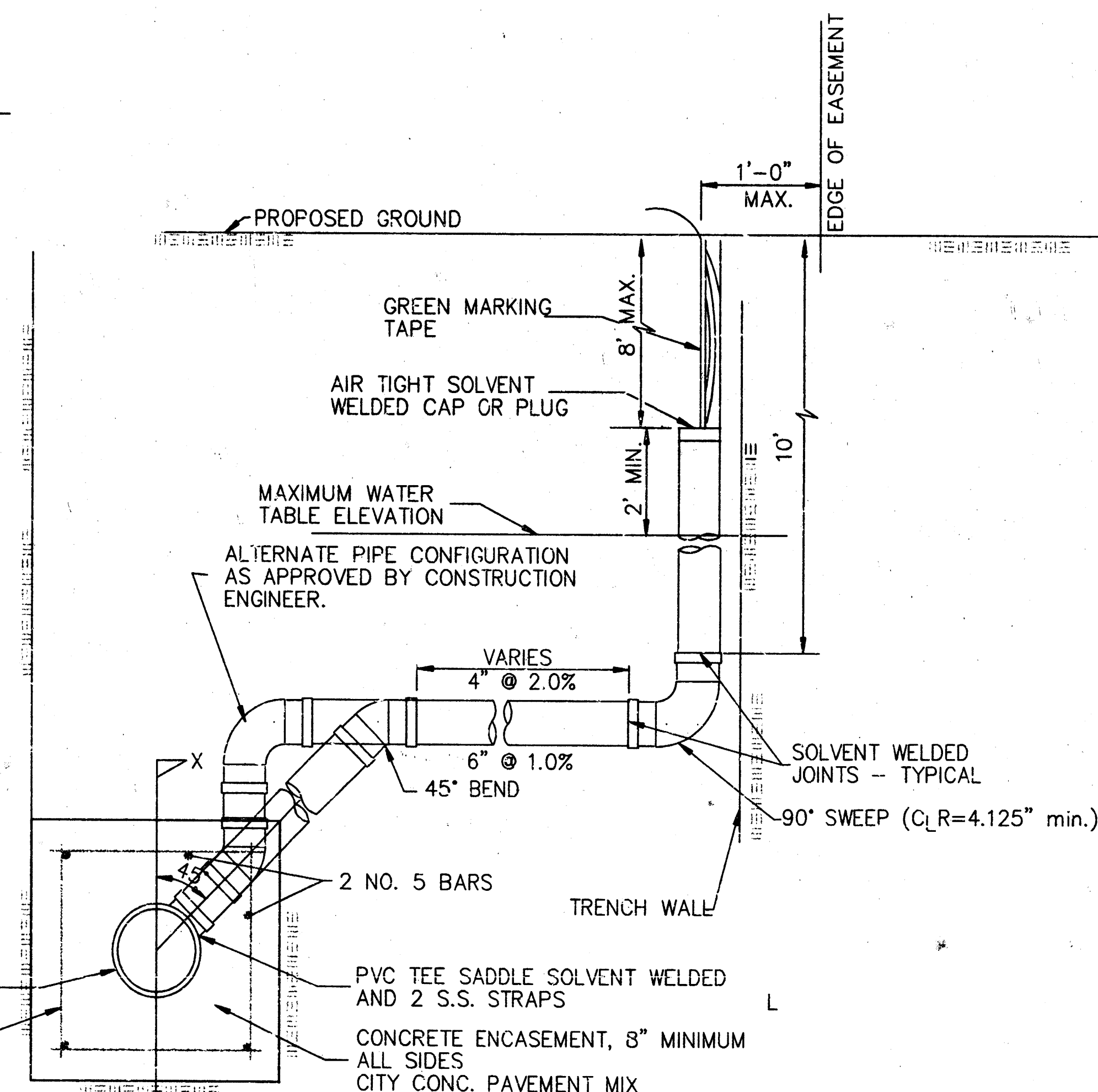
TYPICAL SECTION X-X



METHOD "A"



METHOD "B"



METHOD "C"

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

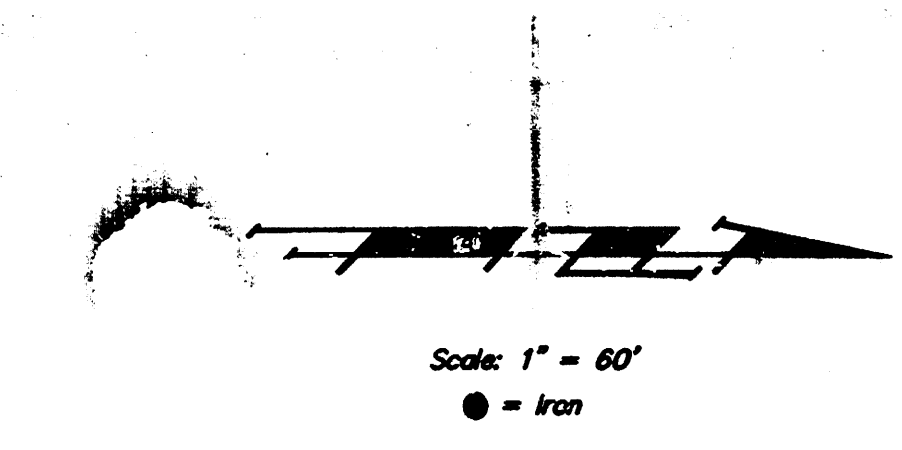
- ### GENERAL NOTES

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 is at or above the water table 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 riser for the 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. The connection as detailed on the drawings shall be approved 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 12 inches. 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 by field conditions, the risers and stubs shall be six-inch diameter for commercial or industrial properties and 4" or 6" diameter for residential properties. The minimum 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 SDR 35 PVC Pipe or 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 at least 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 main 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 Specification for concrete pavement.
6. **BEDDING.** Bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type I. 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 I or II shall be used at 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 backfills. The bedding 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 the riser pipe construction for all pipes. Cop 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. When elevations are not shown on the plans, the top of the risers 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 pipe. 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 flexible and extend at least four feet above the 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 riser pipe construction for all pipes from the nearest manhole, indicating the direction from the manhole, the direction and distance from the main, 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, or at the center of the lot with 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 price for each riser, including but not limited to, 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 include but not be limited to, compensation for 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".

"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".

BENCHMARKS:
 BM #1 "□" On Top of Curb Located
 on the South Side of Hendryx
 15' West of the East Line of
 Auburn Hills 2nd Addition.
 Elev. = 134.32 City Datum
 BM #2 "□" On Top of Curb Located
 at 14.29' North and 38.05' West
 of the Northeast corner of Lot
 13, Block B, Auburn Hills Addition.
 Elev. = 144.83 City Datum

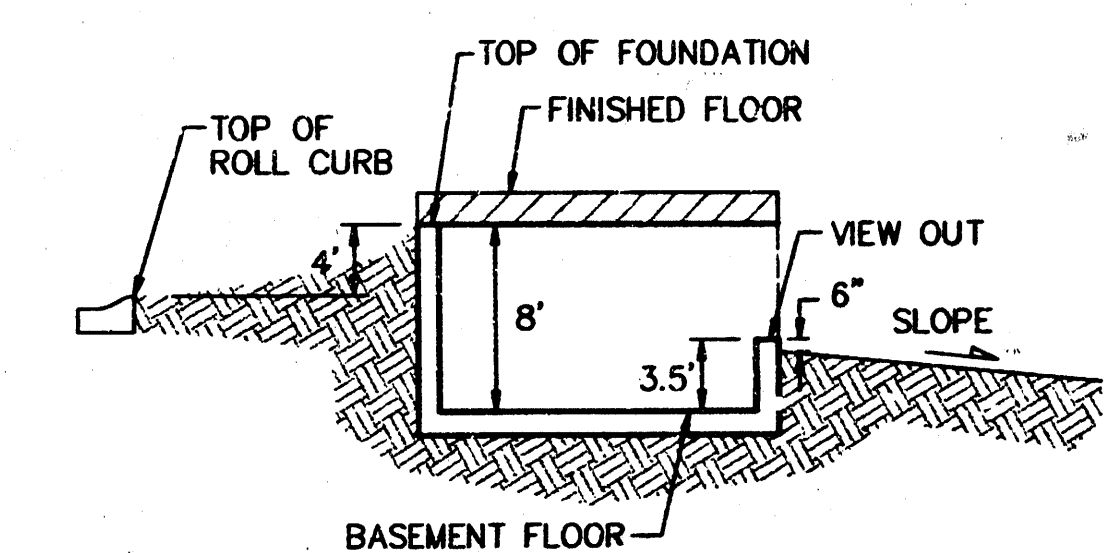


NOTE:

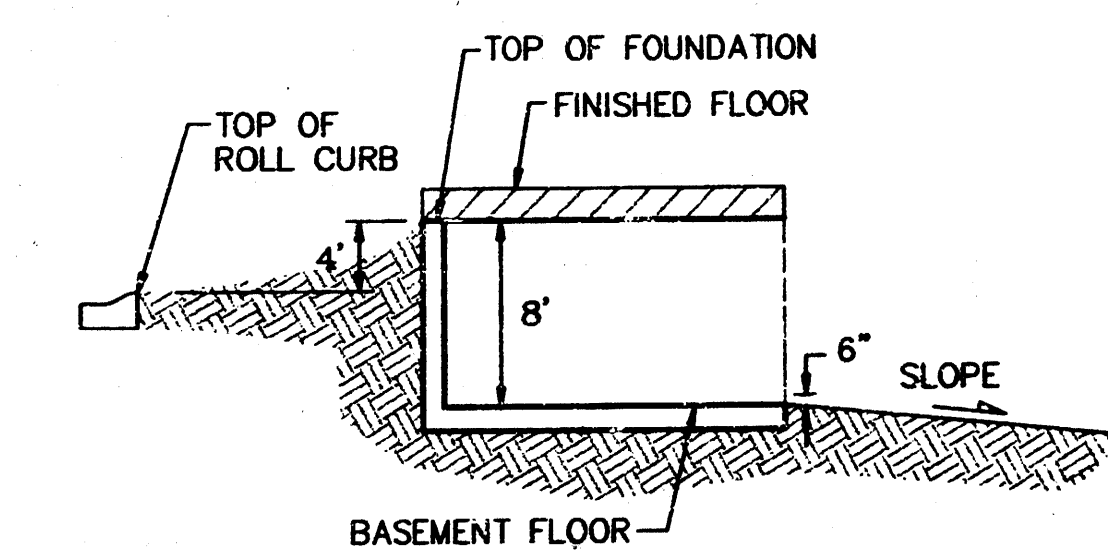
Proposed top of foundation and garage floor elevations are shown on plans. Contractor to set finish floor elevation.

All street elevations shown on plans are for top of curb (full height).

View-out elevations are denoted as XXX.X V.O.
 Walk-out elevations are denoted as XXX.X W.O.



TYPICAL VIEW OUT
 NO SCALE



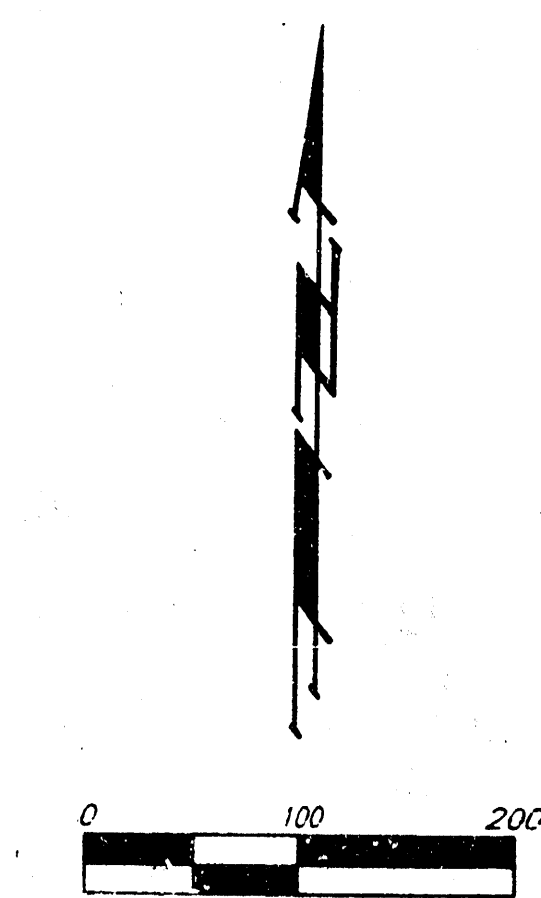
TYPICAL WALK OUT
 NO SCALE

EASEMENT GRADING

AUBURN HILLS 2ND ADDITION			
EASEMENT GRADING PLAN			
WICHITA, KANSAS			
BAUGHMAN COMPANY P.A.			
ENGINEERING, SURVEYING, & PLANNING			
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
PROJECT NUMBER			
468-76-245-82831-000-000-001			
DESIGN	DRAWN	APPROVED	DATE
BP	BP/TMG		8-96
SCALE			SHEET
1" = 60'			10
			11

AUBURN HILLS 2ND ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

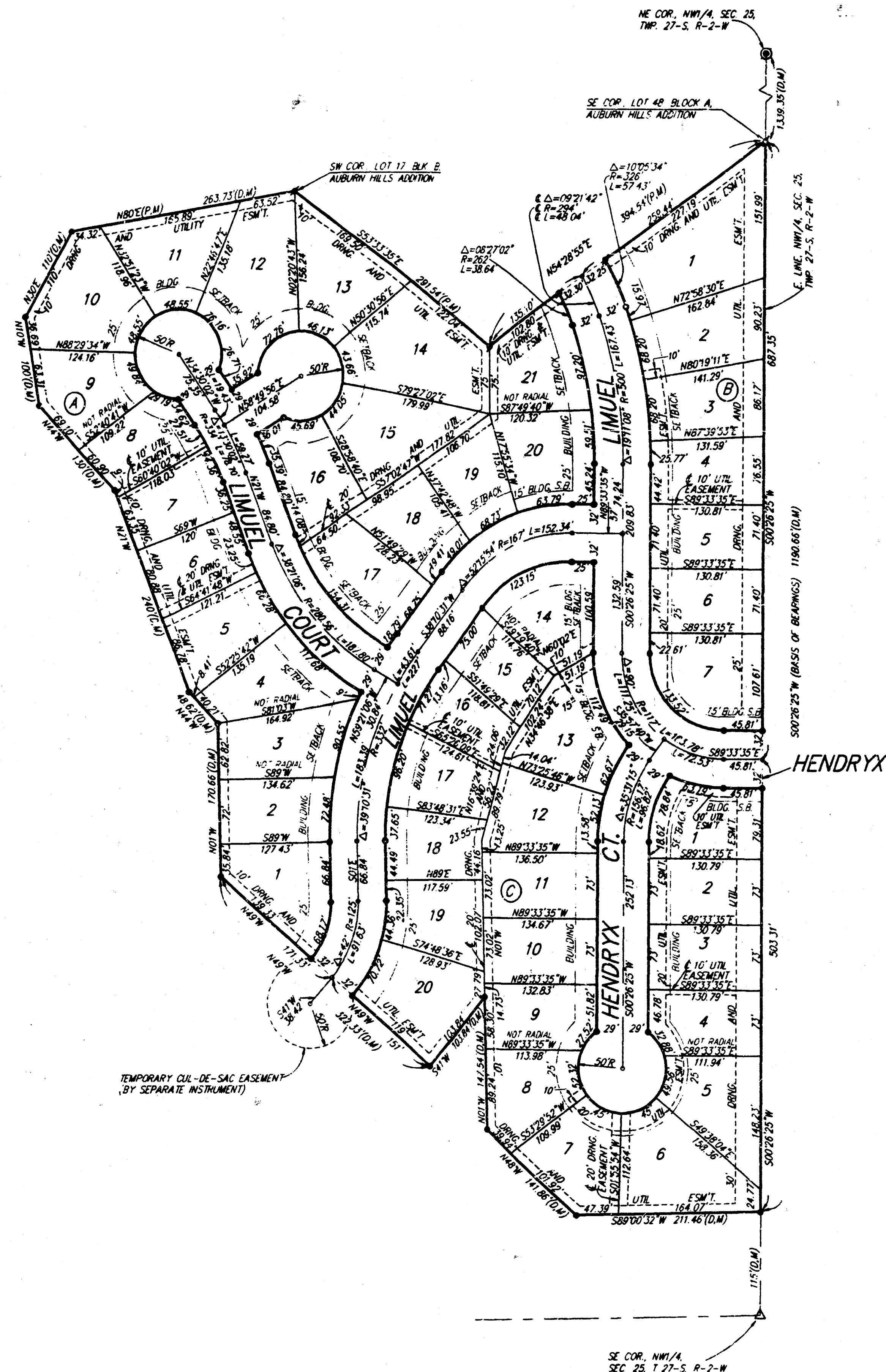


- = 1/4 REBAR W/ BAUGHMAN CAP (SET)
- = 1/4 REBAR W/ BAUGHMAN CAP (FOUND)
- Δ = 4"x4" STONE (FOUND)
- ⊙ = 1/2" IRON PIPE (FOUND)
- (D) = DESCRIBED
- (P) = PLATTED
- (M) = MEASURED

BENCH MARKS: CITY DISC - 34.3' E. & 3.3' N. OF S.W. CORNER OF NW 1/4, SEC. 25, T-27-S, R-2-W
ELEV. = 156.63 CITY DATUM
154.03 M.S.L.

CITY DISC - 135TH ST. W. & MAPLE, 30' N. & 15' E. OF B.O.P.
ELEV. = 150.00 CITY DATUM
157.60 M.S.L.

LOT	BLOCK	ELEVATION	
		CITY DATUM	M.S.L.
10	A	143.4	1330.8
9	A	143.0	1330.4
8	A	142.2	1329.6
7	A	141.9	1329.3
6	A	141.6	1329.0
5	A	141.2	1328.6
4	A	140.8	1328.2
3	A	140.6	1328.0
2	A	140.3	1327.7
1	A	140.0	1327.4
20	C	138.6	1326.0
9	C	138.1	1325.5
8	C	137.9	1325.3
7	C	137.4	1324.8
6	C	136.4	1323.8



State of Kansas)
County of Sedgwick) SS 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 "AUBURN HILLS 2ND ADDITION", Wichita, Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed, described as follows: That part of the N.W. 1/4 of Sec. 25, Twp. 27-S, R-2-W of the 6th P.M., Sedgwick County, Kansas, described as beginning at the SE Corner of Lot 48, Block A, Auburn Hills Addition, Wichita, Sedgwick County, Kansas, said point being on the east line of NW 1/4, 1339.35 feet south of the NE Corner of the said NW 1/4; thence S00°26'25"W along the east line of said NW 1/4, 1190.66 feet to a point 115 feet north of the SE Corner of said NW 1/4; thence S89°00'32"W, 211.46 feet; thence N48°W, 141.86 feet; thence N01°W, 147.54 feet; thence S41°W, 103.84 feet; thence N49°W, 322.33 feet; thence N01°W, 170.66 feet; thence N44°W, 48.62 feet; thence N21°W, 240 feet; thence N44°W, 130 feet; thence N10°W, 100 feet; thence N30°E, 110 feet to a point on the south line of Lot 13, Block B, in said Auburn Hills Addition; thence N80°E, 263.73 feet to the SW Corner of Lot 17, Block B, in said Auburn Hills Addition; thence S53°33'35"E, 291.54 feet to the southerly most point of Lot 20, Block B, in said Auburn Hills Addition; thence N54°28'55"E, 394.54 feet 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.

Michael G. Conrey 7-15-96, Surveyor
Michael G. Conrey

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, and Streets to be known as "AUBURN HILLS 2ND ADDITION", Wichita, Sedgwick County, Kansas. The utility easements are hereby granted as indicated for the construction and maintenance of all public utilities. The drainage and utility easements are hereby granted as indicated for drainage purposes and for the construction and maintenance of all public utilities. The drainage easement is hereby granted as indicated for drainage purposes. The streets are hereby dedicated to and for the use of the public. The Minimum Building Pad Elevations for lowest opening to the structures shall be as shown on the face of the plat.

Auburn Hills, Inc.

Jay W. Russell, President
Jay W. Russell

State of Kansas)
Sedgwick County) SS The foregoing instrument acknowledged before me this 15th day of JULY, 1996, by Jay W. Russell, President, Auburn Hills, Inc., on behalf of the corporation.

My App't Exp. 5/5/97 Philip J. Meyer, Notary Public
PHILIP J. MEYER

This plat of "AUBURN HILLS 2ND ADDITION", Wichita, Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.
Dated this ____ day of ____, 1996.
Wichita-Sedgwick County Metropolitan Area Planning Commission.

_____, Chair
Susan Osborne-Howes

_____, Secretary
Marvin S. Krout

This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this ____ day of ____, 1996.

_____, Mayor
Bob Knight

_____, City Clerk
Pat Burnett

Entered on transfer record this ____ day of ____, 1996.

_____, County Clerk
Susan E. Crockett-Spoon

State of Kansas)
Sedgwick County) SS This is to certify that this plat has been filed for record in the office of the Register of Deeds, this ____ day of ____, 1996, at ____ o'clock ____ M., and is duly recorded.

_____, Register of Deeds
Pat Kettler

_____, Deputy
Ed Resa