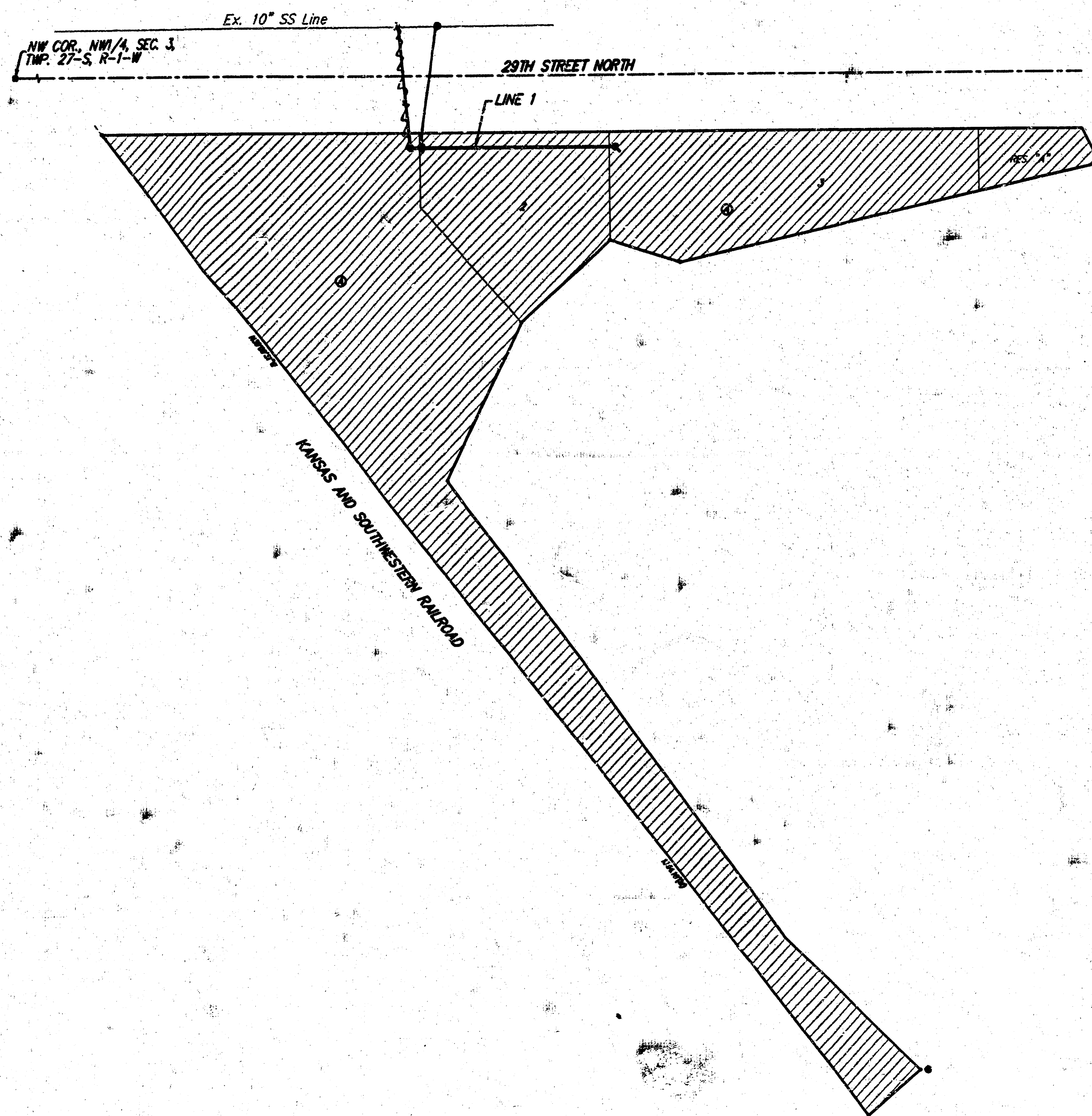


Scale: 1" = 200'



Benefit District

SANITARY SEWER IMPROVEMENTS

to serve

BAREFOOT BAY ESTATES

CITY OF WICHITA, KANSAS

Neil Cable, P.E. City Engineer

Private Project Number

1402 PPS (607861)

Benchmarks

0.4 MI. EAST OF RIDGE RD. ON 29TH ST. N. -
CITY OF WICHITA BENCHMARK DISC AT
NE CORNER OF CONCRETE BRIDGE ON
TOP OF HUBGUARD.
ELEV. = 142.51 CITY DATUM

Sheet Index

Title Sheet	1
Line 1	2
Standard Manhole Detail	3
Manhole Ring Detail	4
Copy of Plat	5

GENERAL NOTES:

- 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:

Cox Communications	262-4270
Kansas Gas Service	1-888-482-4950
Westar Energy	383-8650
Aquila Energy	1-800-303-0357
Southwestern Bell	268-2245
City of Wichita Water Dept.	268-4563
City of Wichita Sewer Maint.	268-4024
City of Wichita Storm Sewer Maint.	268-4090
City of Wichita Traffic Maint.	268-4034
Conoco Pipeline Co.	1-800-231-2551
Williams Pipeline Co.	529-6500
Phillips Pipeline Co.	1-800-756-8230

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

- All existing and proposed erosion control measures including silt fencing, erosion control mat, straw bales, inlet barriers, and cost entrance shall be maintained throughout construction by the contractor and until project is accepted by the City of Wichita. The on-site engineer shall complete weekly reports on the status of erosion control measures. The contractor shall be required to comply with maintenance and/or replacement of erosion control measures as determined by the on-site engineer until project is accepted by City of Wichita. Maintenance and/or replacement of erosion control measures to be paid by L.S. bid item "Erosion Control Budget".

- Easements will be graded by others with the mass grading plan, as part of the storm drain improvements. Easements shall be returned to original grade upon completion of construction.

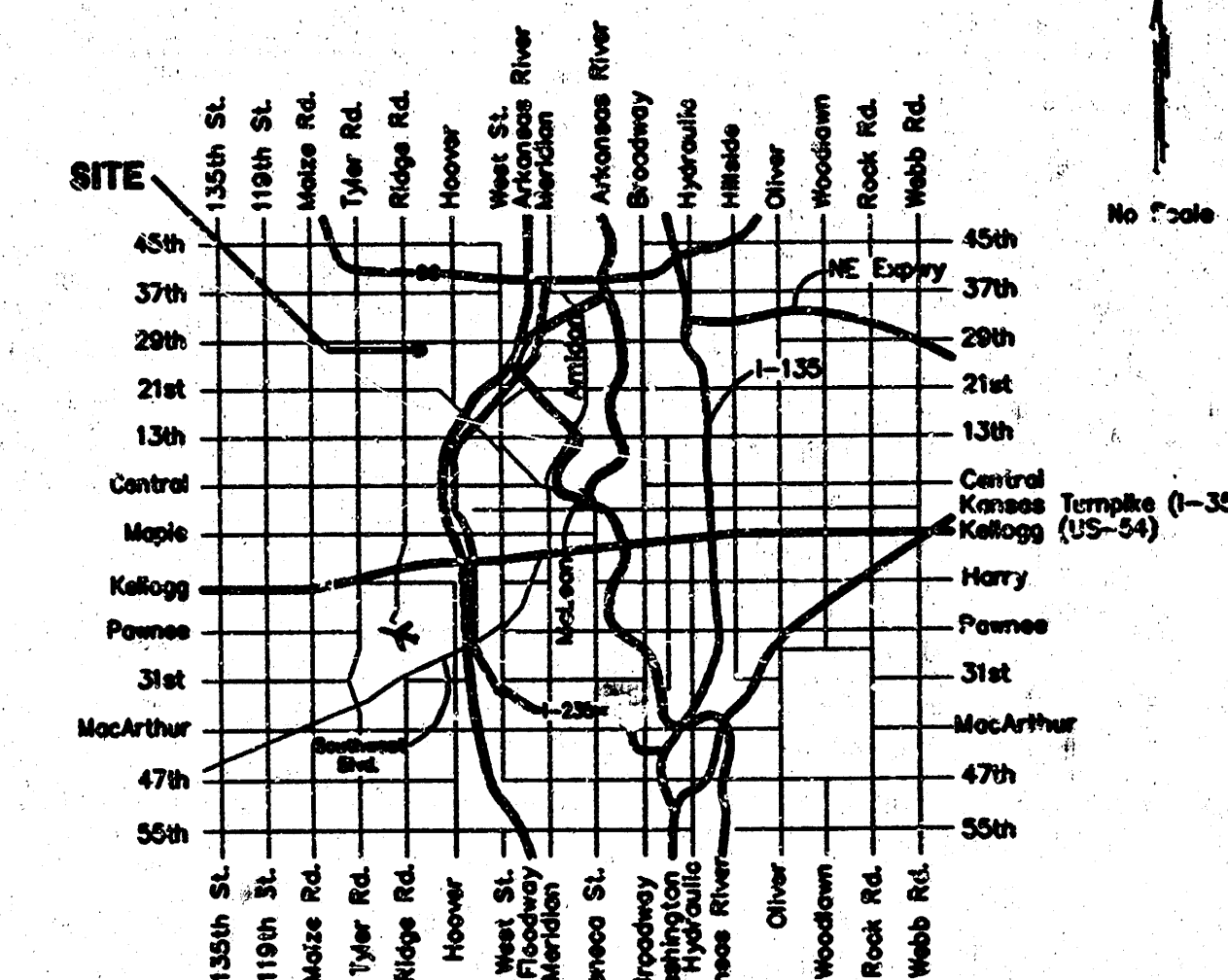
- When connecting to existing manhole or stub, the contractor shall reshape manhole bottom or adjust the existing stub's alignment or elevation as necessary. Cost shall be subsidiary to project.

- 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.

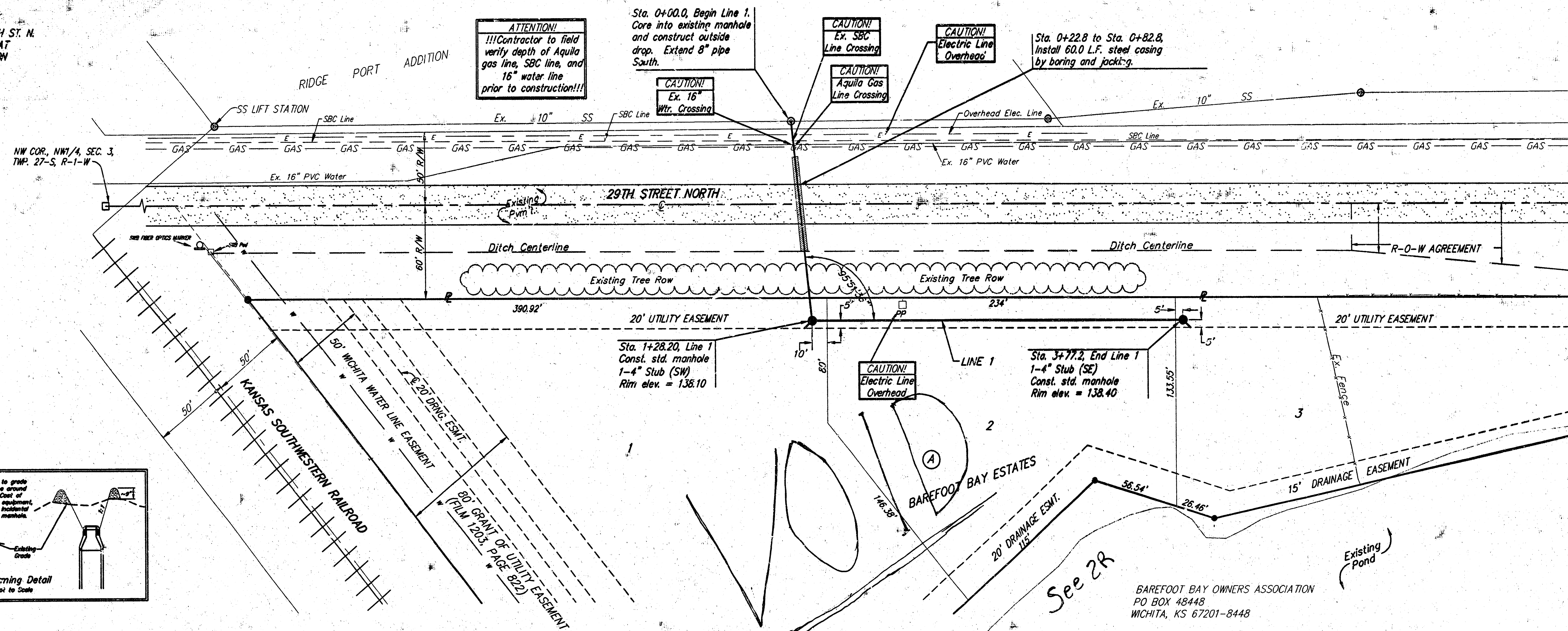
- All areas disturbed during construction shall be seeded at 300 lbs./acre with Rye Grass immediately following construction in that area. Contractor shall prepare ground per City Specifications.

- Work shall begin on this project on the issued "Notice to Proceed" date. Mass Grading may or may not be complete prior to this. Sanitary Sewer Construction shall be in accordance with the construction sequence with that of the Mass Grading Contractor.

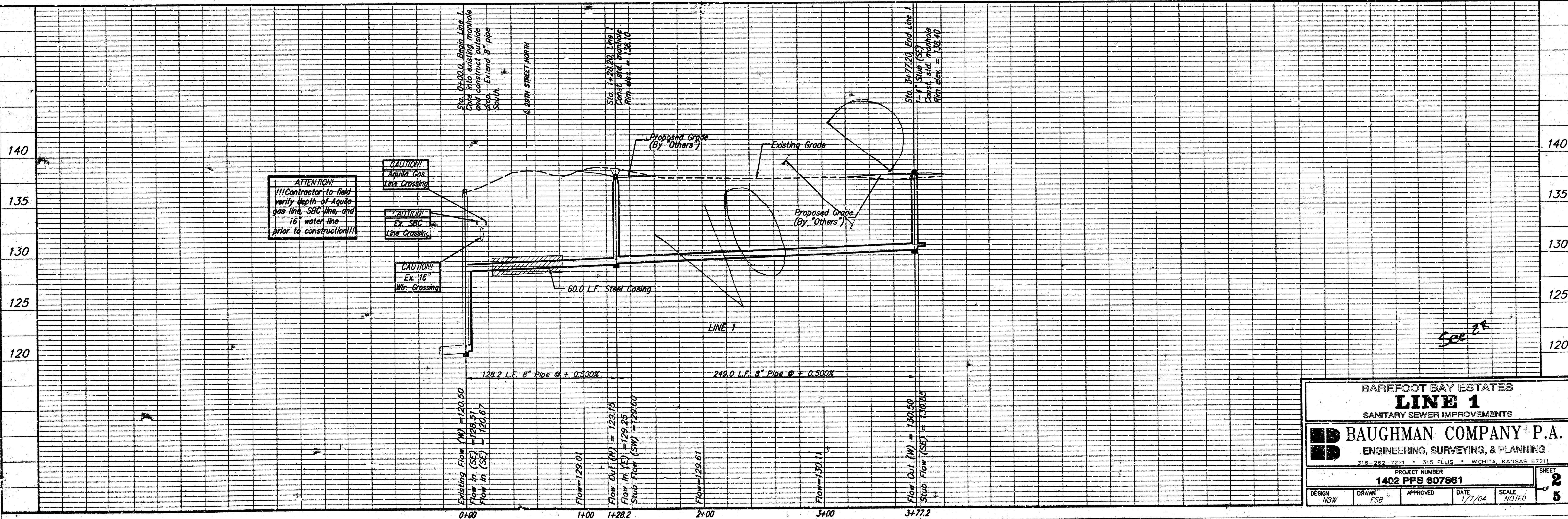
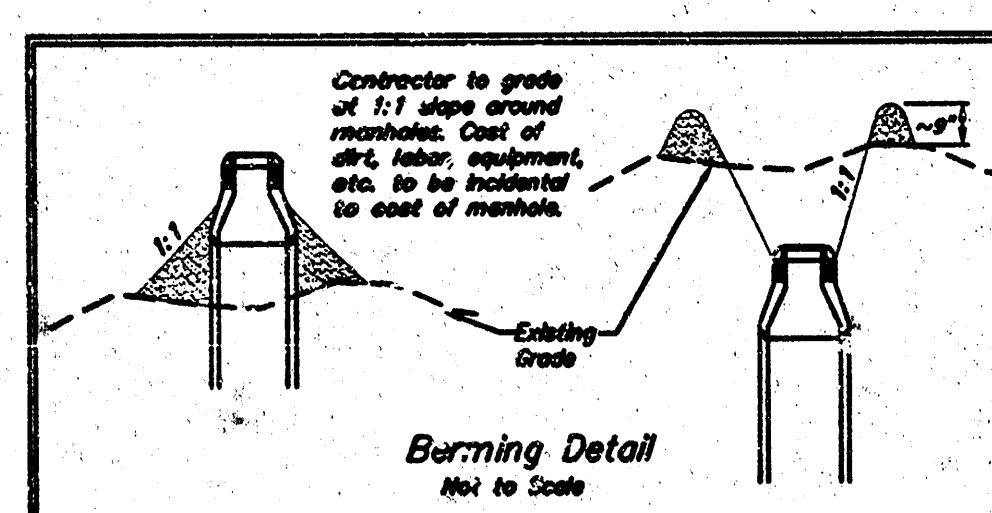
- Contractor shall keep one lane open to through traffic at all times. Contractor to use flagman, proper traffic control devices, etc. at all times. Cost of keeping through lane open is incidental to cost of new sewer pipe.



BENCHMARK:
0.4 MI. EAST OF RIDGE RD. ON 29TH ST. N.
CITY OF WICHITA BENCHMARK DISC AT
NE CORNER OF CONCRETE BRIDGE ON
TOP OF HUGLIARD
ELEV. = 142.51 CITY DATUM

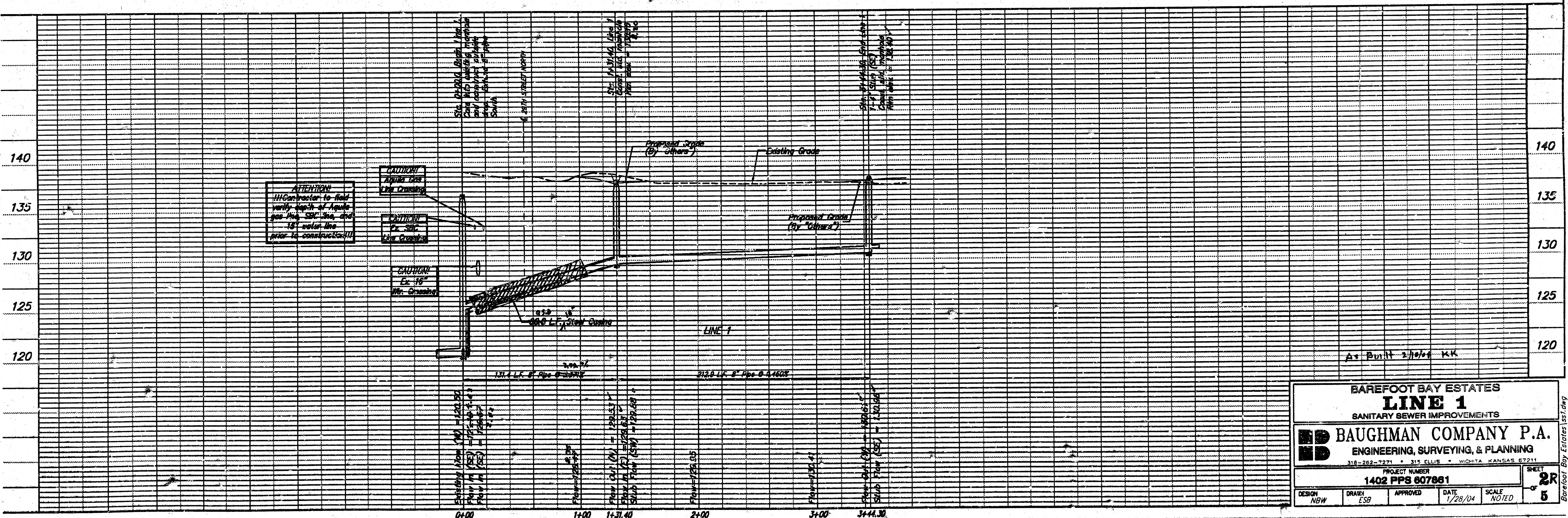
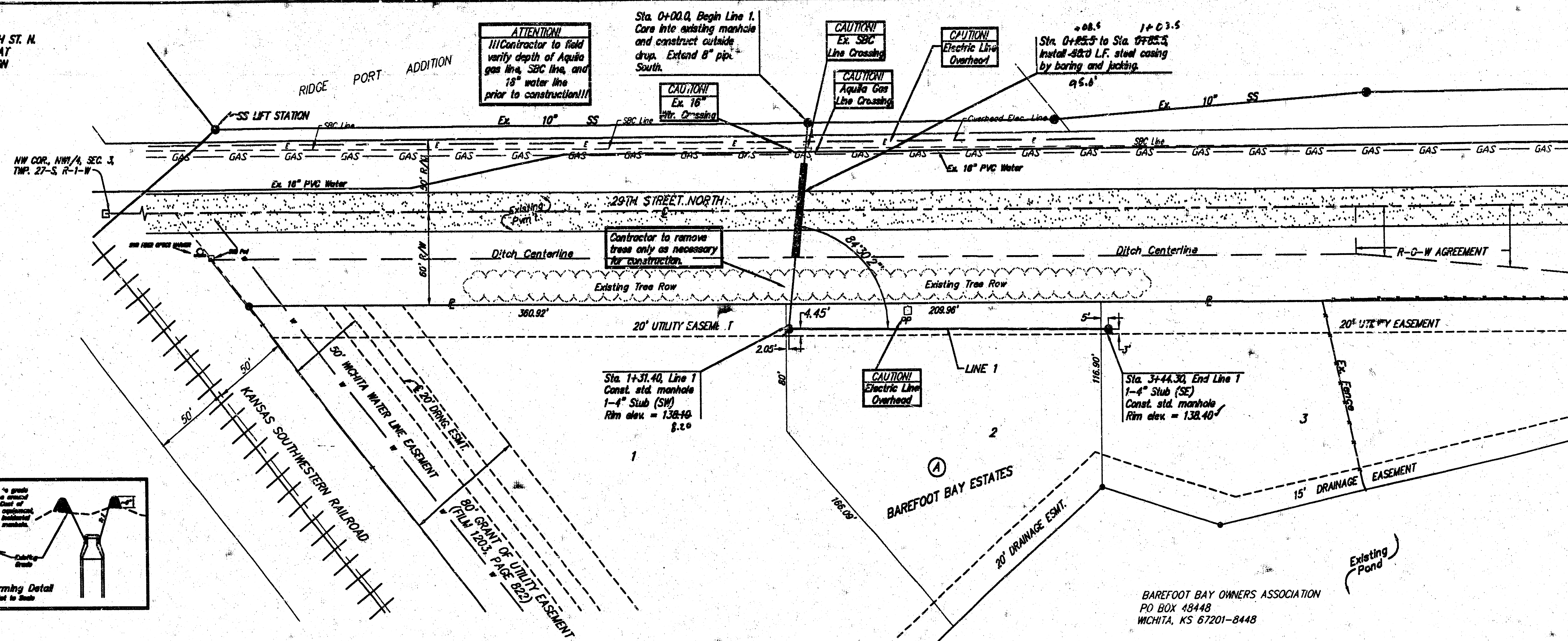
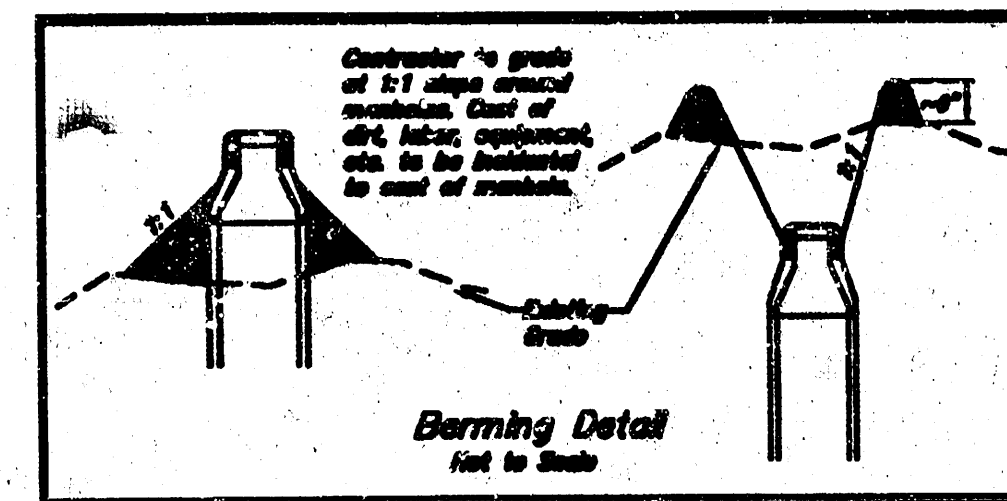


Scale: 1" = 40' Horizontal
1" = 5' Vertical
● = Iron



BAREFOOT BAY ESTATES LINE 1 SANITARY SEWER IMPROVEMENTS				
BAUGHMAN COMPANY P.A. ENGINEERING, SURVEYING, & PLANNING 316-262-7271 • 316-ELLS • WICHITA, KANSAS 67211				
PROJECT NUMBER 1402 PPS 607861				
DESIGN NSW	DRAWN ESB	APPROVED	DATE 1/7/04	SCALE NOTED
				SHEET 2 OF 5

BENCHMARK:
0.4 MI. EAST OF RIDGE RD. ON 29TH ST. N.
CITY OF WICHITA BENCHMARK DISC AT
NE CORNER OF CONCRETE BRIDGE ON
TOP OF HUBBARD
ELEV. = 142.51 CITY DATUM



BAREFOOT BAY ESTATES
LINE 1
SANITARY SEWER IMPROVEMENTS

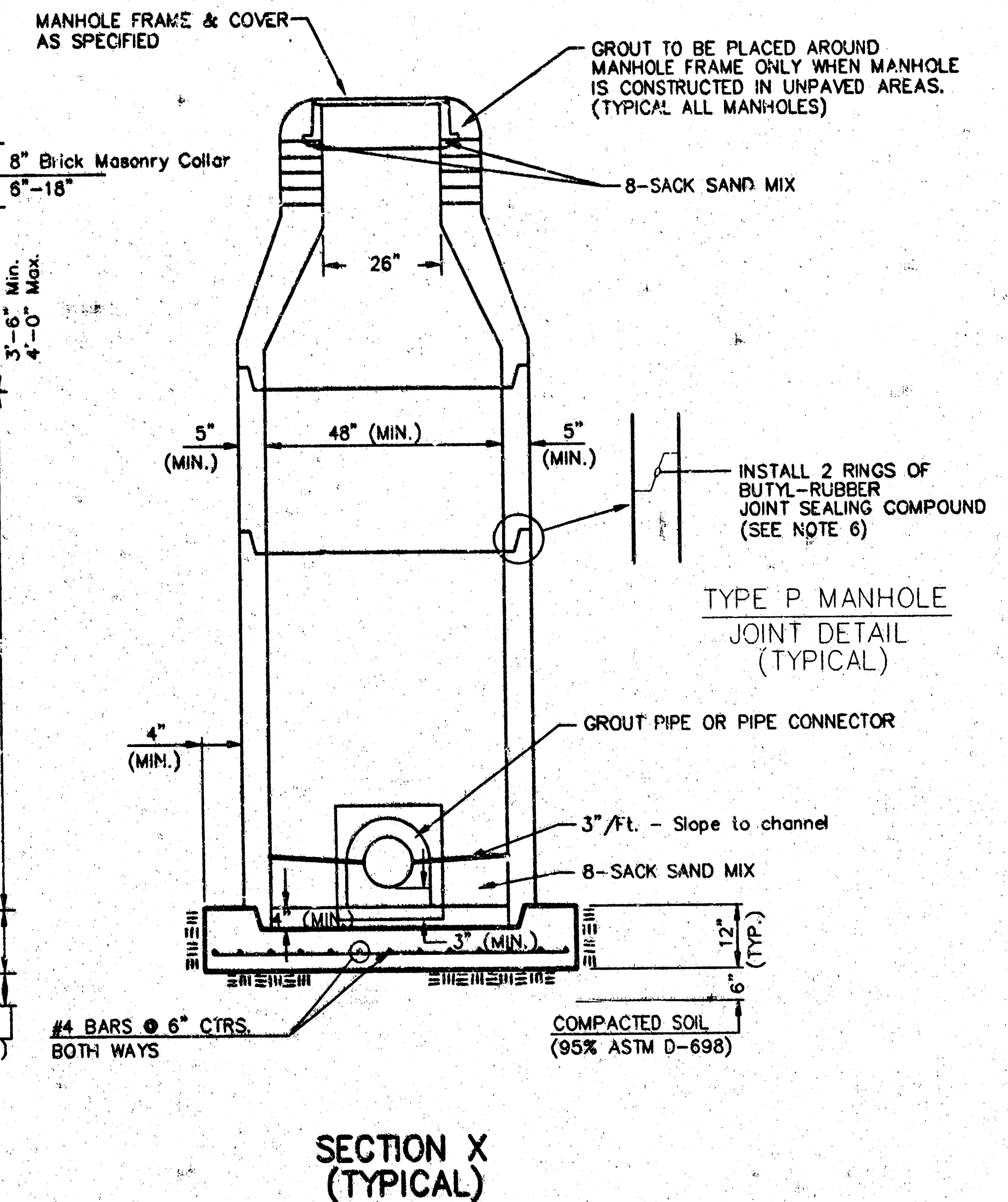
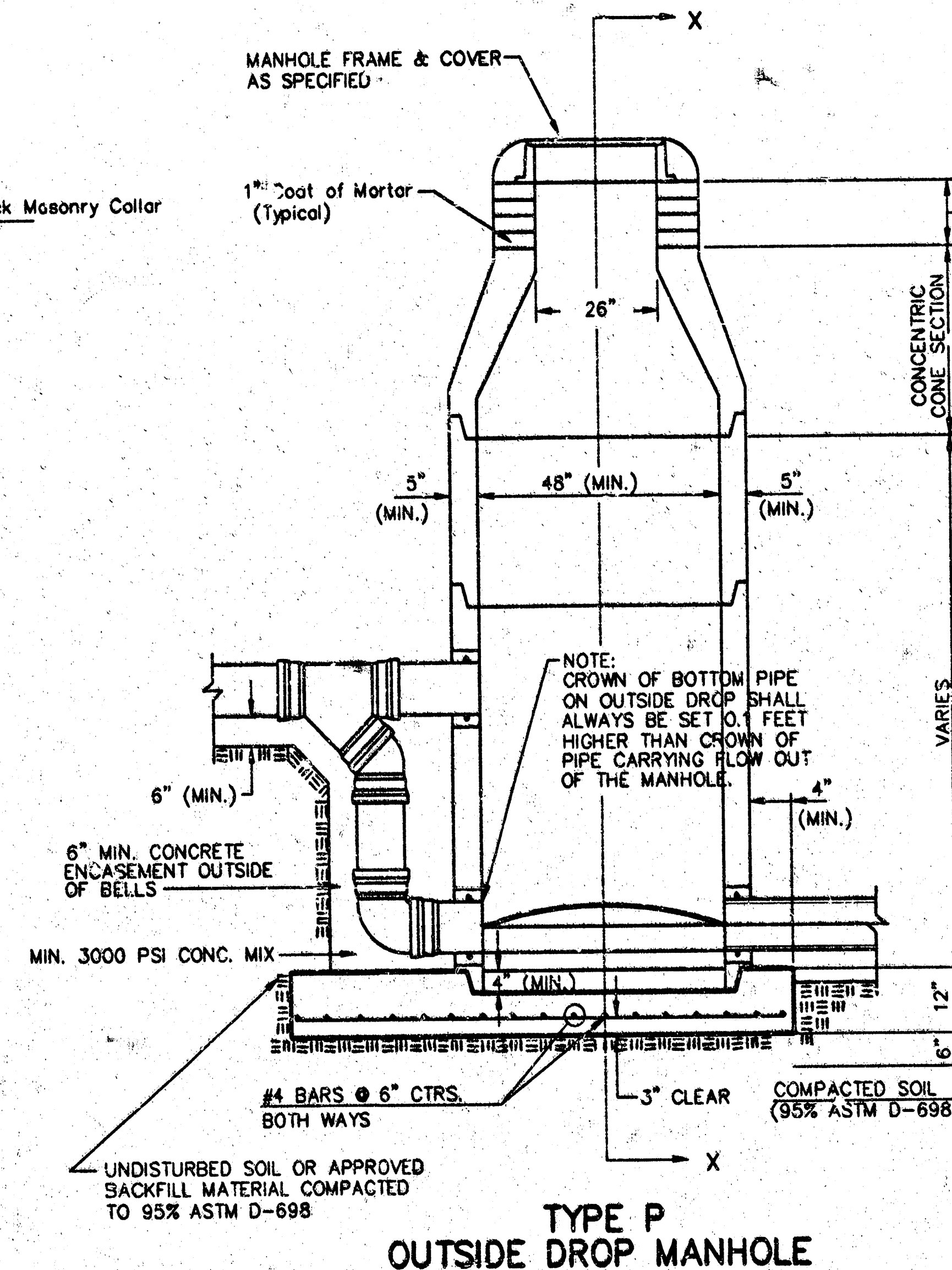
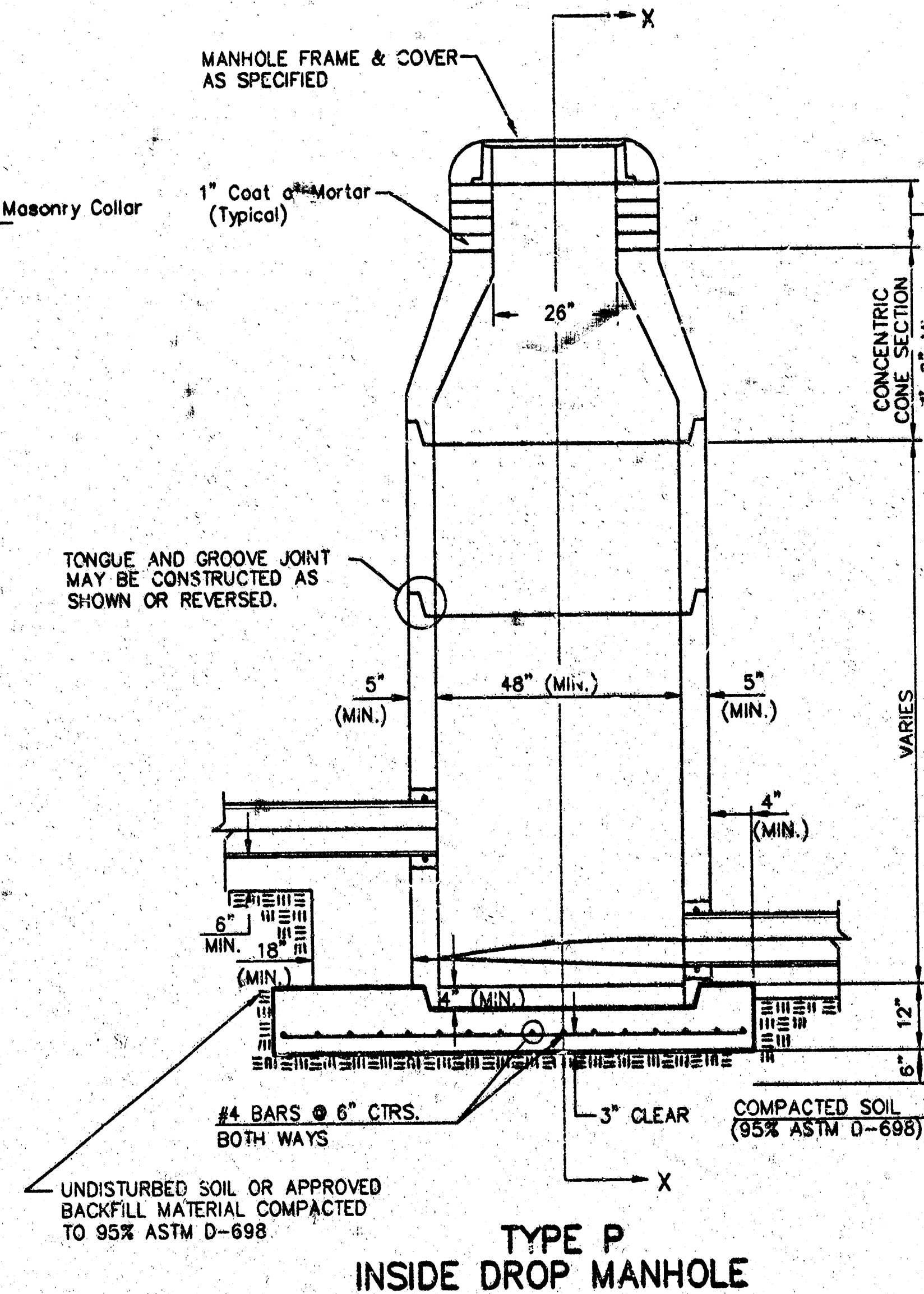
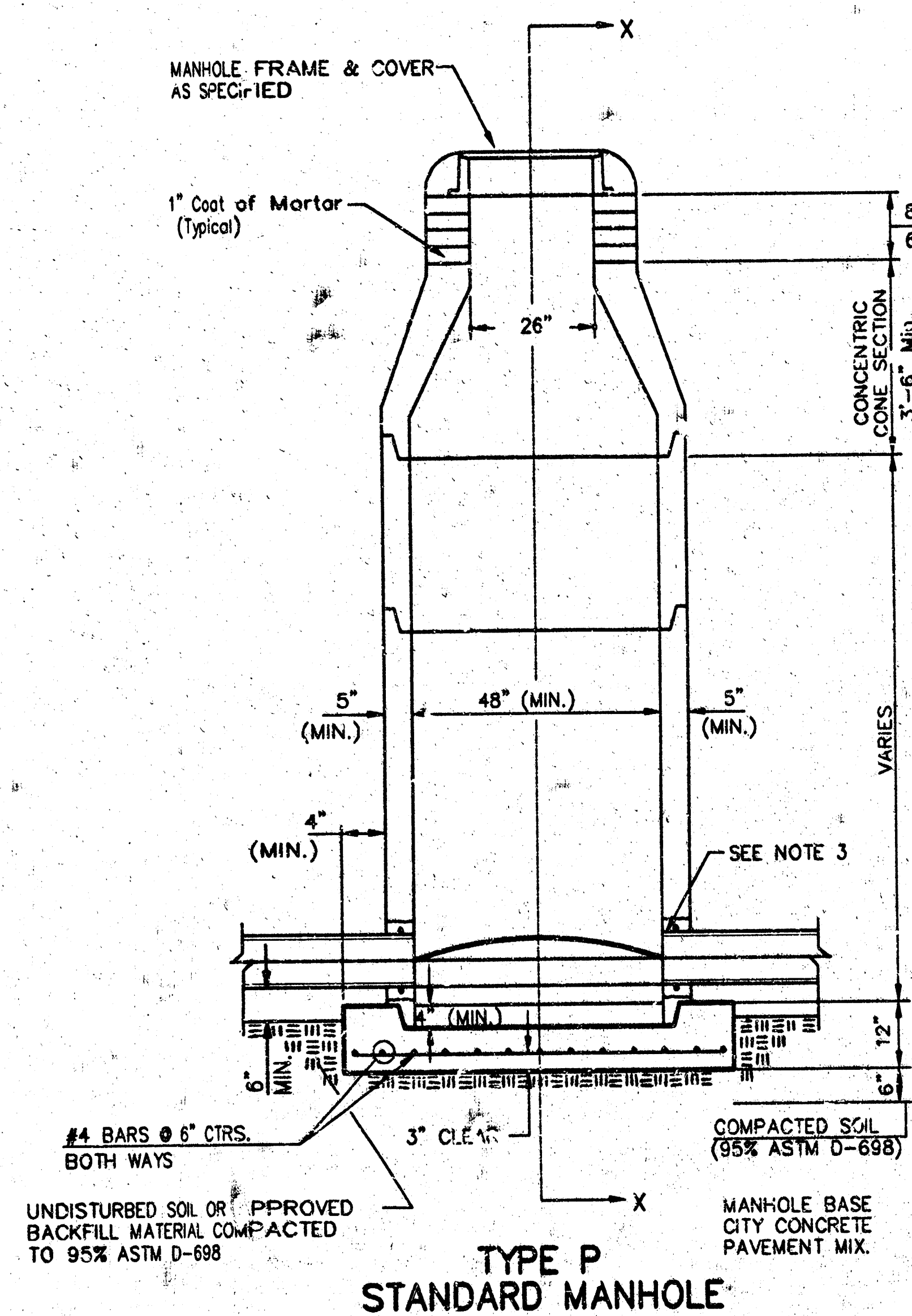
BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
310-282-7271 • 315 ELLIS • WICHITA, KANSAS 67202

PROJECT NUMBER
1402 FPS 607861

DESIGN: NGW DRAWN: ESB APPROVED: DATE: 1/28/04 SCALE: NOTED

SHEET
2R
OF
5

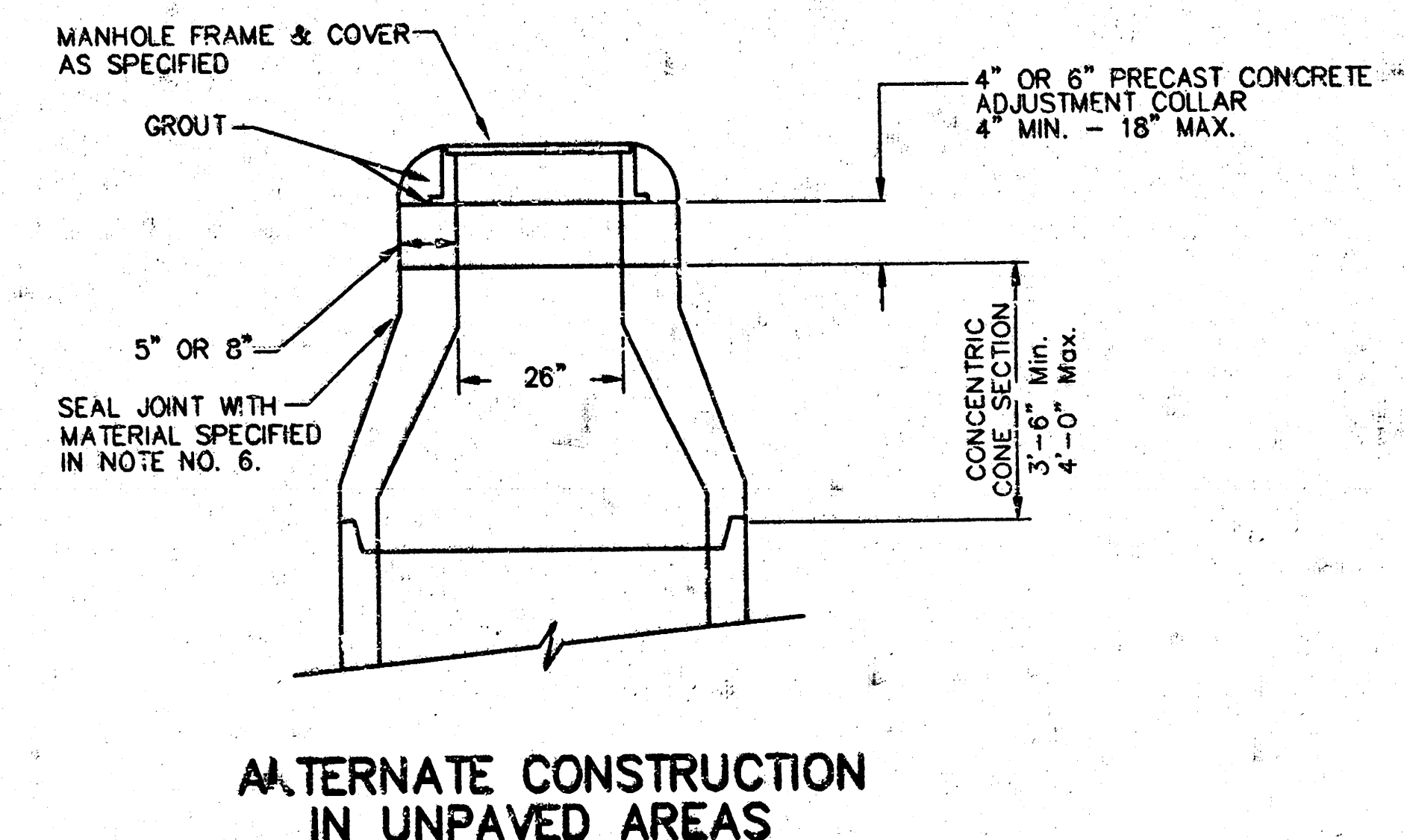
SEWER APPURTENANCES DETAILS



- GENERAL NOTES**
PRECAST MANHOLE NOTES
1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
 2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
 3. 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.
 4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS OF MECC SERIES 60 H-BUILD EPOXY/URENE, DRY THICKNESS OF 8 MILS (MIN.).
 5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
 6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
 7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
 8. 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.
 9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
 10. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 BAGS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT SPECIFICATIONS USING CITY STANDARD PAVING 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.

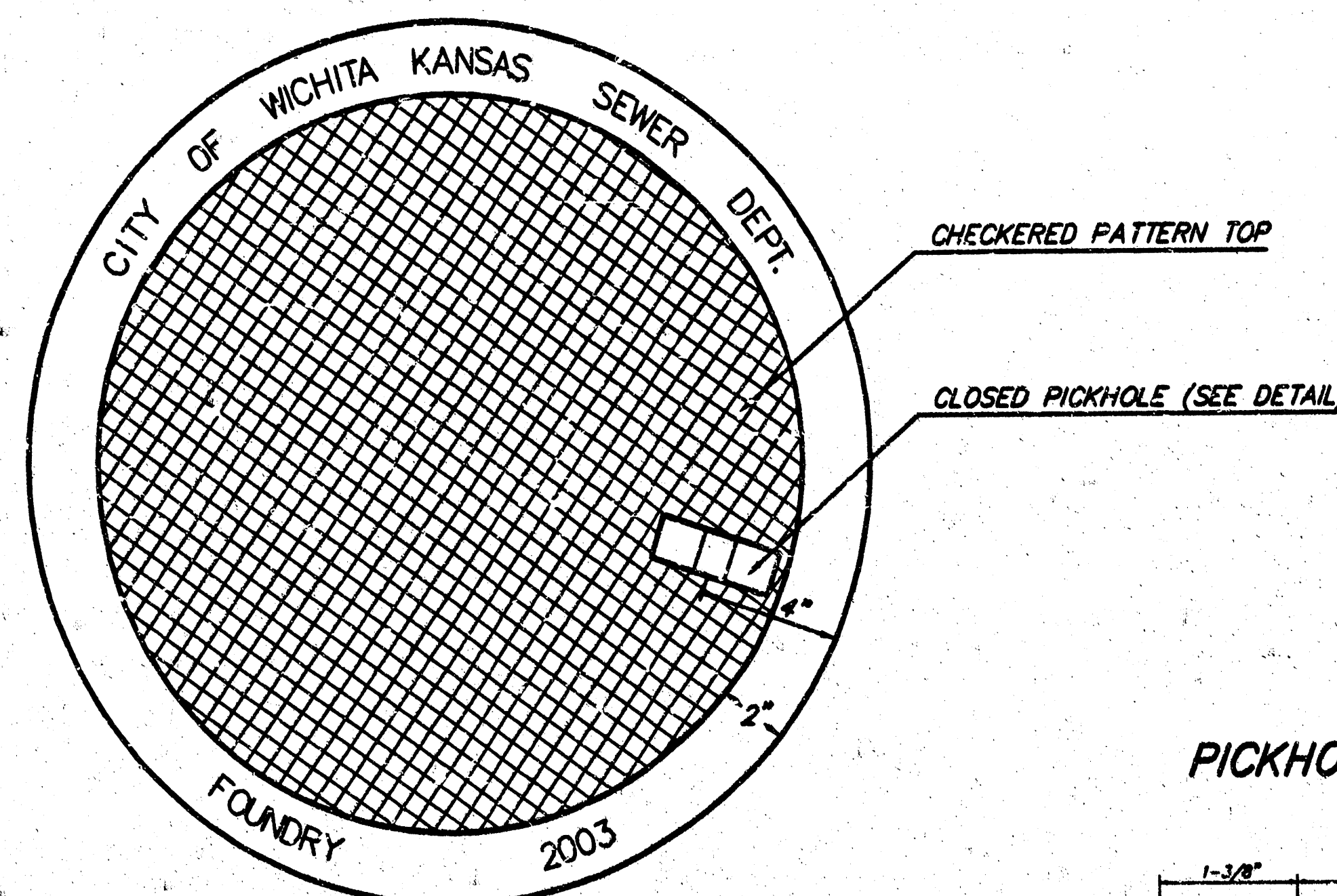
11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
12. OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS OUT 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 NON-SHRINK 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.
13. 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 REAR 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.
14. 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.

15. 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.
16. 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.
17. 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.
18. 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.



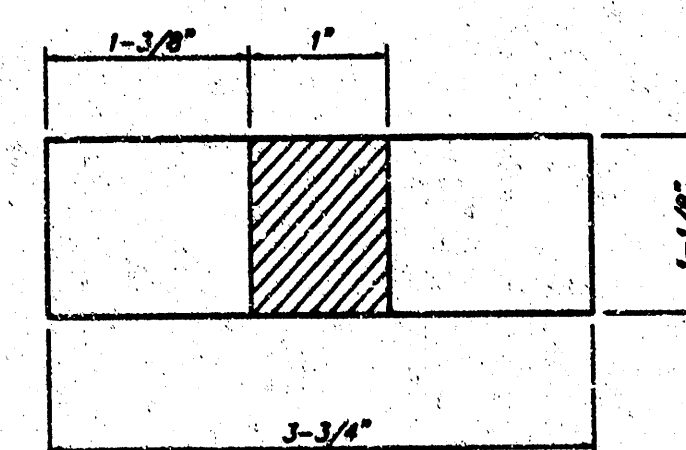
STD. MANHOLE DETAILS			
SEWER APPURTENANCES			
ED BAUGHMAN COMPANY P.A.			
ENGINEERING, SURVEYING, & PLANNING			
316-262-7221 • 316-262-7222 • 316-262-7223 • WICHITA, KANSAS 67211			
PROJECT NUMBER: 1402 PPS 607861			
DESIGN	DRAWN	APPROVED	DATE
STAFF	STAFF	STAFF	1/7/04
SCALE			SHEET
NONE			3 OF 5

MANHOLE COVER
Weight = 180 Lbs.

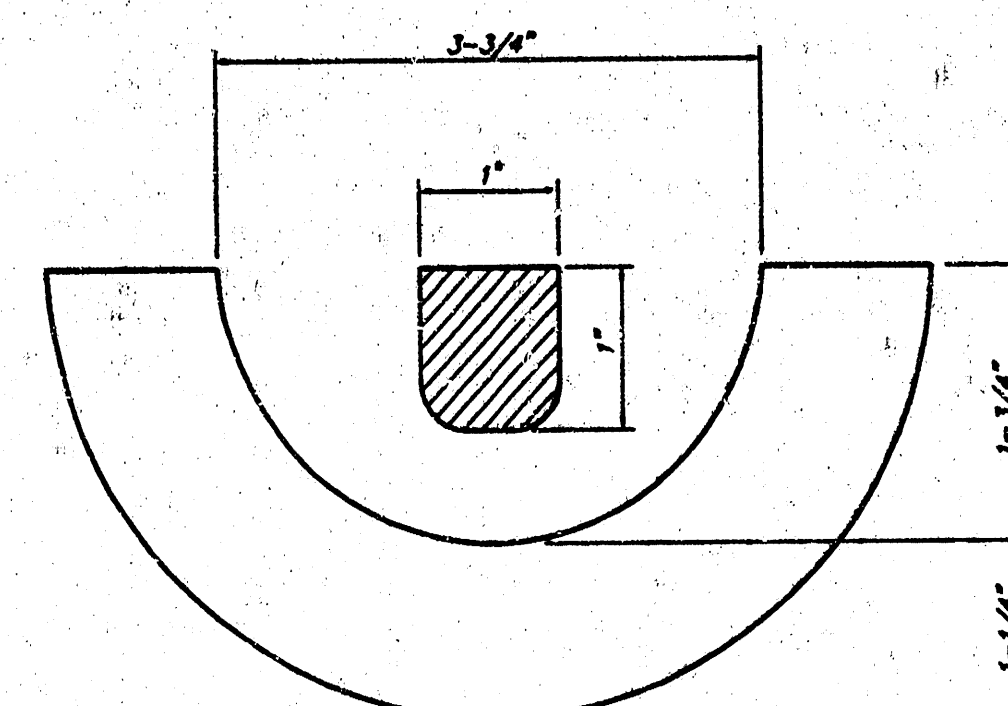


TOP VIEW

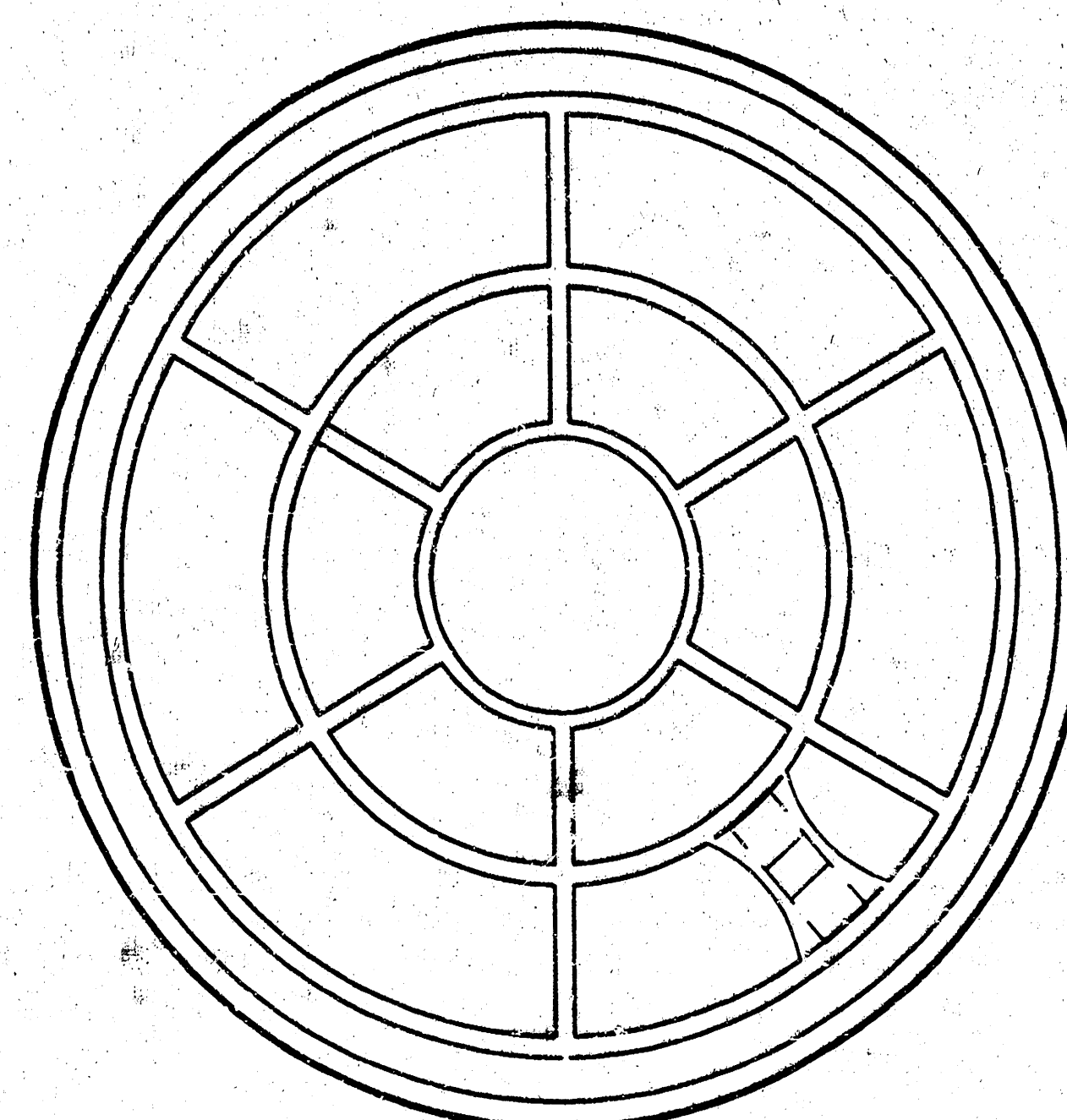
PICKHOLE DETAIL



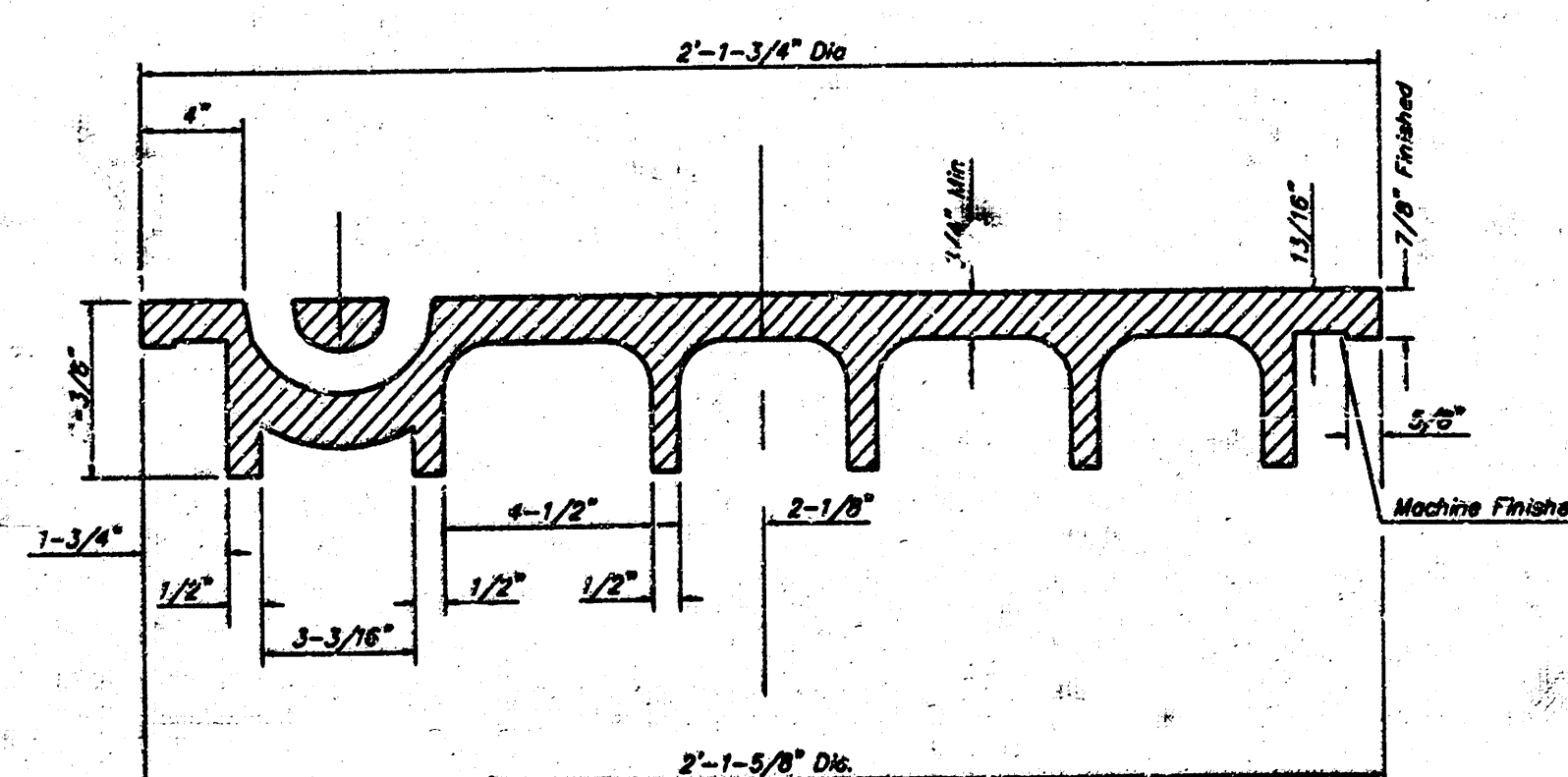
TOP VIEW



SECTION VIEW



BOTTOM VIEW

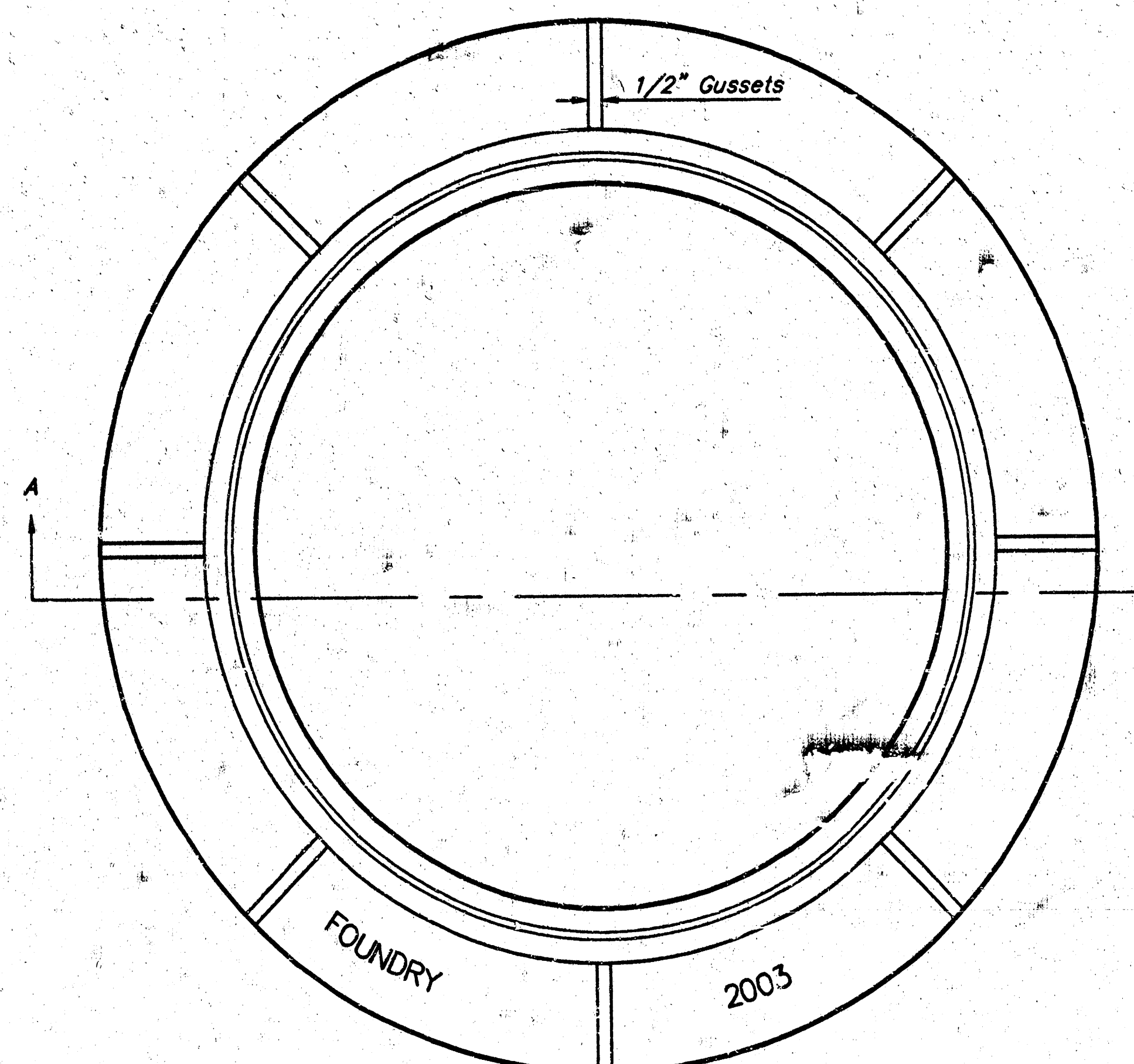


SECTION VIEW

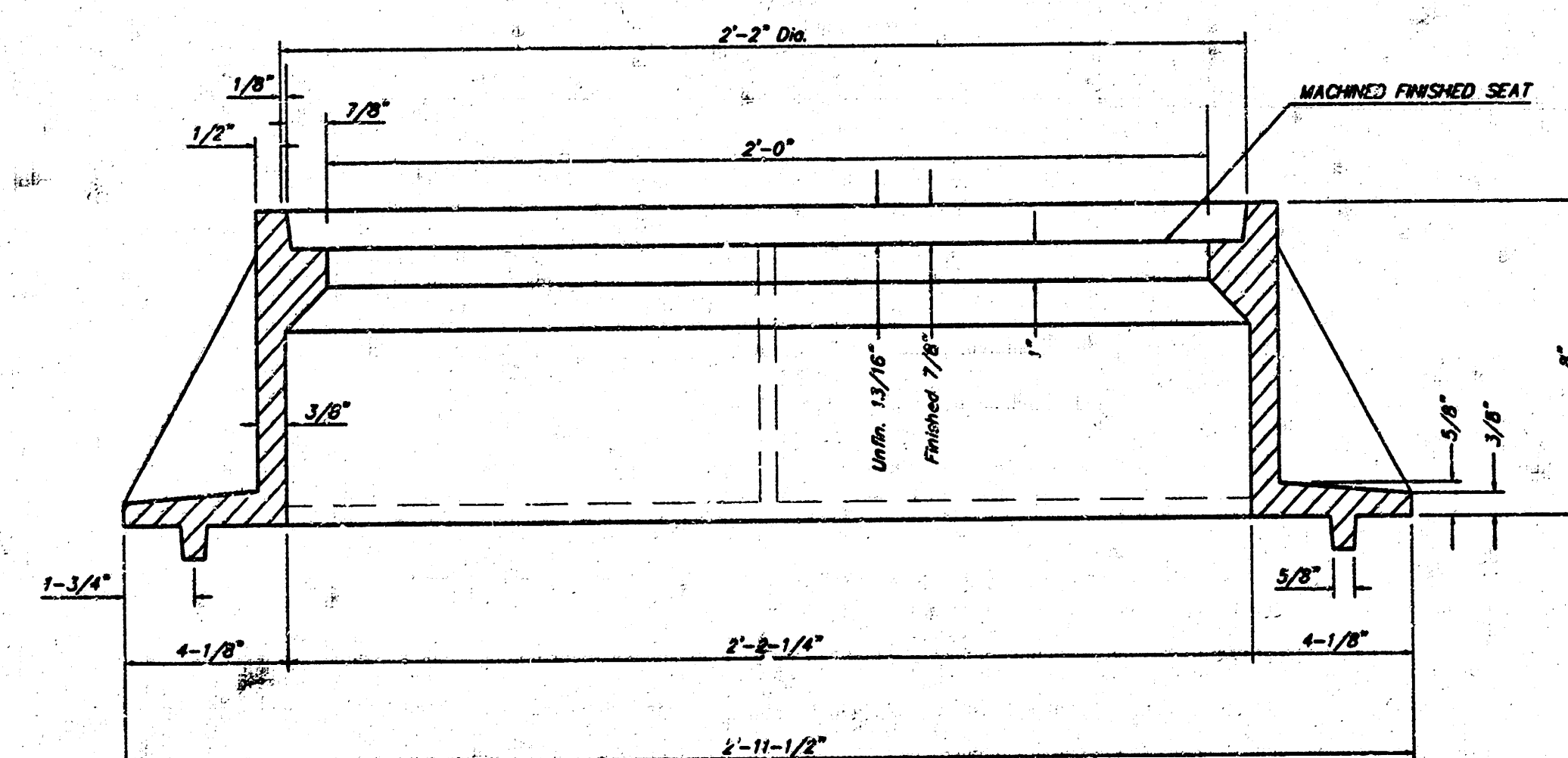
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE FRAME
Weight = 145 Lbs.



TOP VIEW



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.

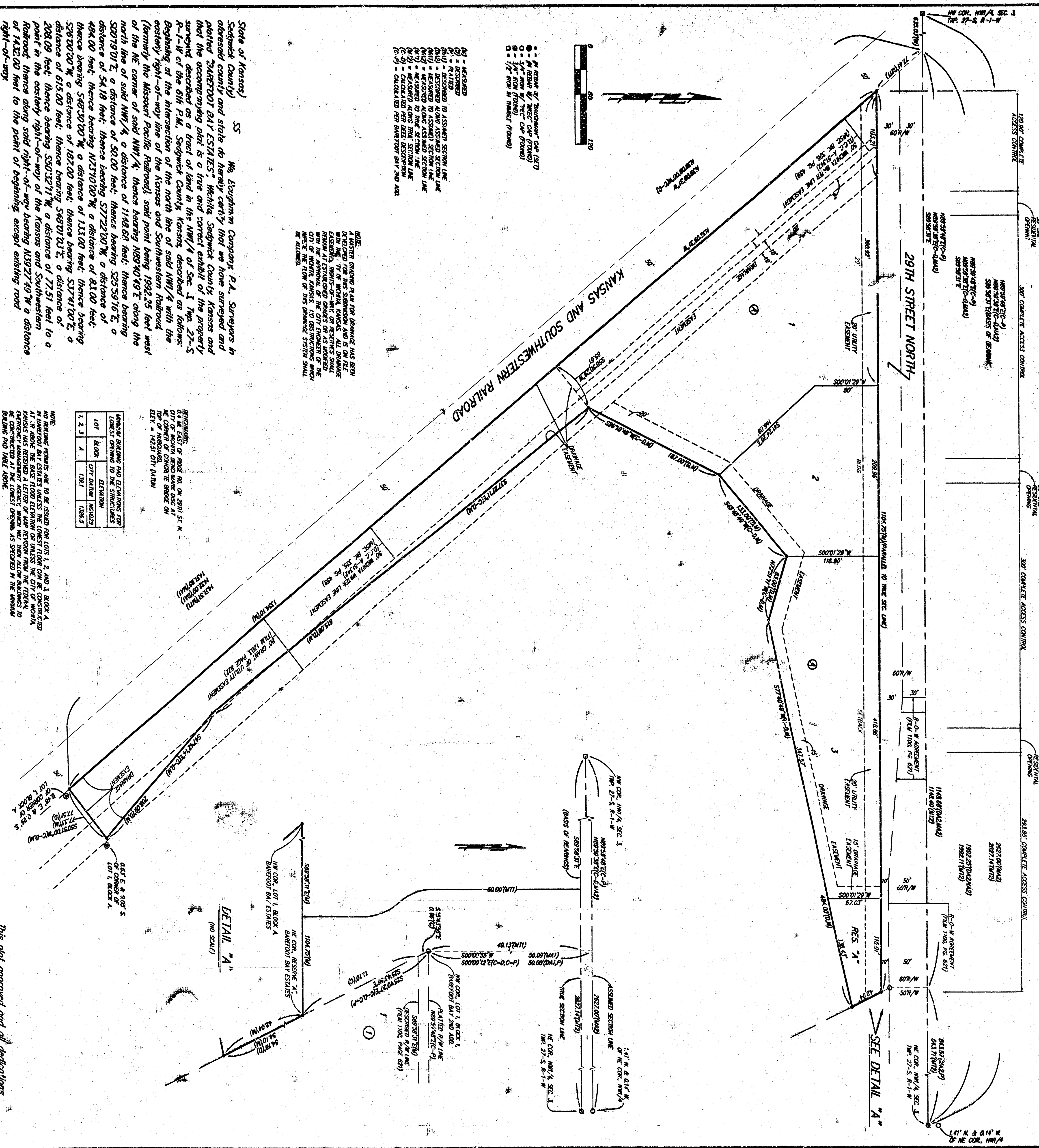
MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME 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. ENGINEERING, SURVEYING, & PLANNING 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211				
PROJECT NUMBER 1402 PPS 807861				SHEET 4
DESIGN STAFF	DRAWN STAFF	APPROVED	DATE 1/04	SCALE NONE
				OF 5

**BARFOOT BAY ESTATES
WICHITA, SEDGWICK COUNTY, KANSAS**



State of Kansas)
 (Sealed County)
 SS
 We, Burlington Company P.A., Surveyors in and for Sealed County, Kansas and state do hereby certify that we have surveyed and measured, THURGOOD RAY ESTABLISH, Heirs, Sealed County Kansas and the heirs of said THURGOOD RAY, a tract of land and correct exhibit of the property described as a tract of land in the NW¹/₄ of Sec. 3, Twp. 25-S, R. 1-W of the 6th P.M., Sealed County, Kansas, described as follows:
 Beginning at the intersection of the north line of said NW¹/₄ with the southerly right-of-way line of the Kansas and Southwestern Railroad, the NE corner of said NW¹/₄, thence bearing 108°40'19"E along the north line of said NW¹/₄, a distance of 1,148.68 feet, thence bearing S70°19'01"E, a distance of 50.00 feet, thence bearing S25°56'16"E, a distance of 54.18 feet, thence bearing N73°22'00"W, a distance of 434.00 feet, thence bearing N73°01'00"W, a distance of 43.00 feet, thence bearing S48°30'00"W, a distance of 1,133.00 feet, thence bearing S78°30'00"W, a distance of 181.00 feet, thence bearing S79°41'00"E, a distance of 615.00 feet, thence bearing S48°01'00"E, a distance of 615.00 feet, thence bearing S50°12'11", a distance of 27.51 feet to a southerly right-of-way line of the Kansas and Southwestern Railroad, thence along said right-of-way bearing N81°27'19"W a distance of 144.00 feet to the point of beginning, acre(s) and/or rod(s) of say:
 (Easting plus documents and declarations)
 (Witnessed by W of K.S.A. 12-512(b))
 Burlington Company, P.A.

[illegible]

Michael G. Convey Survayer

We, the undersigned holders of a mortgage on the property, do hereby consent to this part of "BANKRUPTCY" of Sedgwick County Kansas.

Canaway Bank, N/A
The First National Bank of Canaway Springs

_____, Mayor
Curtis Moyers
_____, City Clerk
Karen Schofield

the undersigned, have caused the land in the surveyors certificate to be plotted into Lots, a Block, a Street, and a Reserve, to be known as **BAKERDILL BAY ESTATES** - Whittle, Sandgate County, Kansas. The utility easement is hereby granted as indicated for the construction and use of water mains and sewer lines, and the street is hereby granted as indicated for drainage purposes. The street is hereby dedicated to and for the use of the public. Reserve "A" is hereby reserved for drainage purposes, landscaping, open space, and utilities as confined to easement. Reserve "A" shall be owned and maintained by the owner of Lot 1, Block "A". All others' rights of access shall be as depicted on the face of this plat and are hereby granted to the City of Wichita, Kansas. The Minimum Building Foot Elevation for the lowest portion of the structures on Lots 1, 2, and 3, Block "A", shall be 1361.1 City Datum. (12625 INCHES).

State of Kansas SS The foregoing instrument, acknowledged before me and my _____ day of _____, 20____, by _____ of _____ County, Kansas, _____ of _____ Bank, F/A/C The First National Bank of Conway Springs, on behalf of the bank.

My Exp. _____

Notary Public

Index 1, Reboile, L.S. #1246
Deputy County Surveor
Stogimack County, Kansas
Entered on transfer record this _____ day
of _____, 19____
County Clerk

State of CA) ss The foregoing instrument acknowledged before
me, this 10 day of SEPTEMBER, 1998, by Michael D. Shell and
Constance D. Shell, husband and wife.

This plot of "BAREFOOT BAY ESTATES" to County, Kansas has been submitted to and approved by _____ day of _____, _____ County Metropolitan Area Planning Commission

Raymond J. Murrell *Chair*

_____, *Notary Public*
My App't. Exp. _____

John L. Schlegel, Secretary