

Phase II PRIVATE SANITARY SEWER IMPROVEMENTS

to serve **Willowood Estates** CITY OF WICHITA, KANSAS

Michael E. Lindebak, P.E. City Engineer

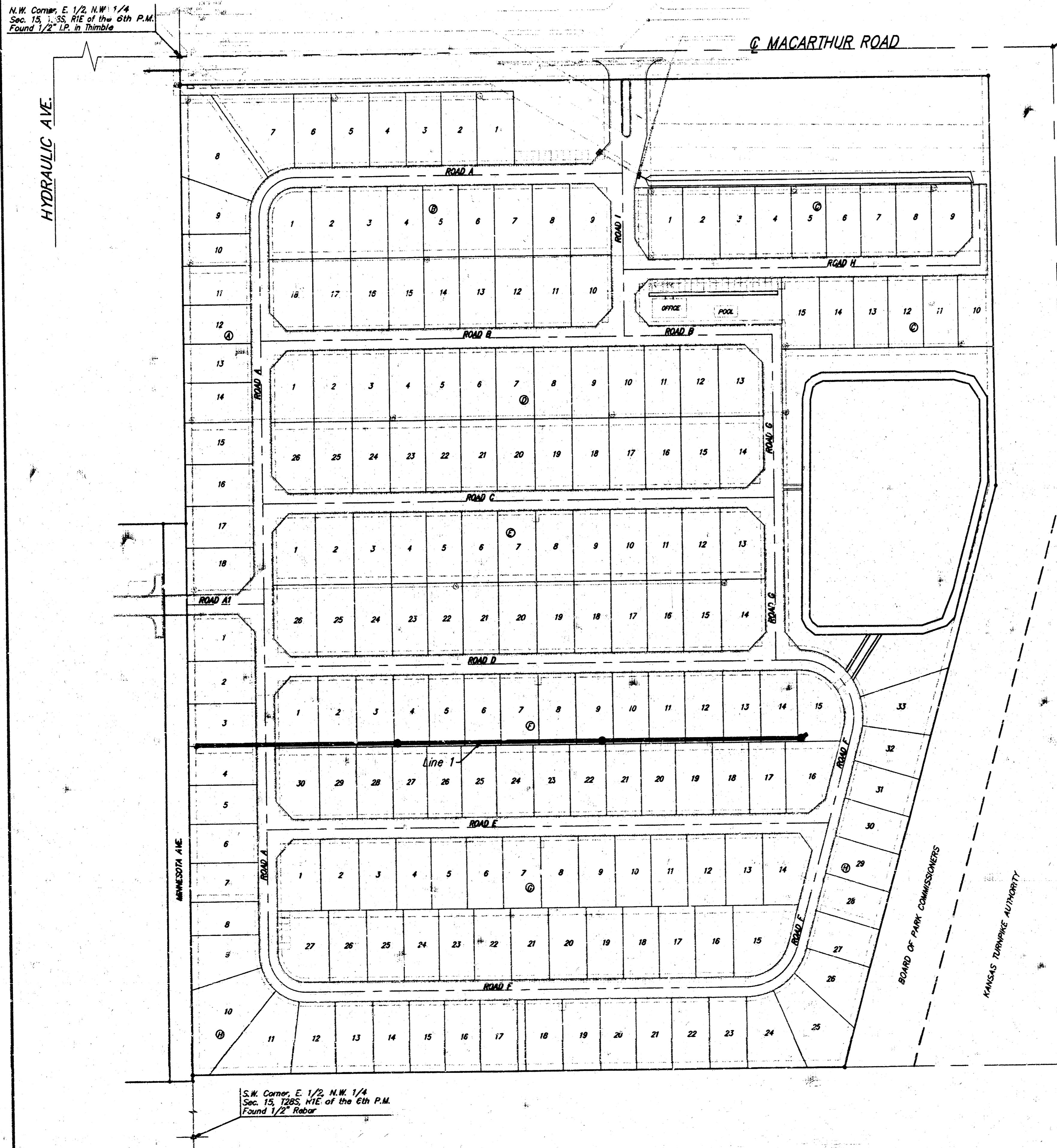
Private Project Number

829 PPS (607861)

August, 1998

N.W. Corner, E 1/2, N.W. 1/4
Sec. 15, T28S, R1E of the 6th P.M.
Found 1/2" I.P. in Driveway

N.E. Corner, N.W. 1/4
Sec. 15, T28S, R1E of the 6th P.M.
Found 1/2" I.P. in Driveway



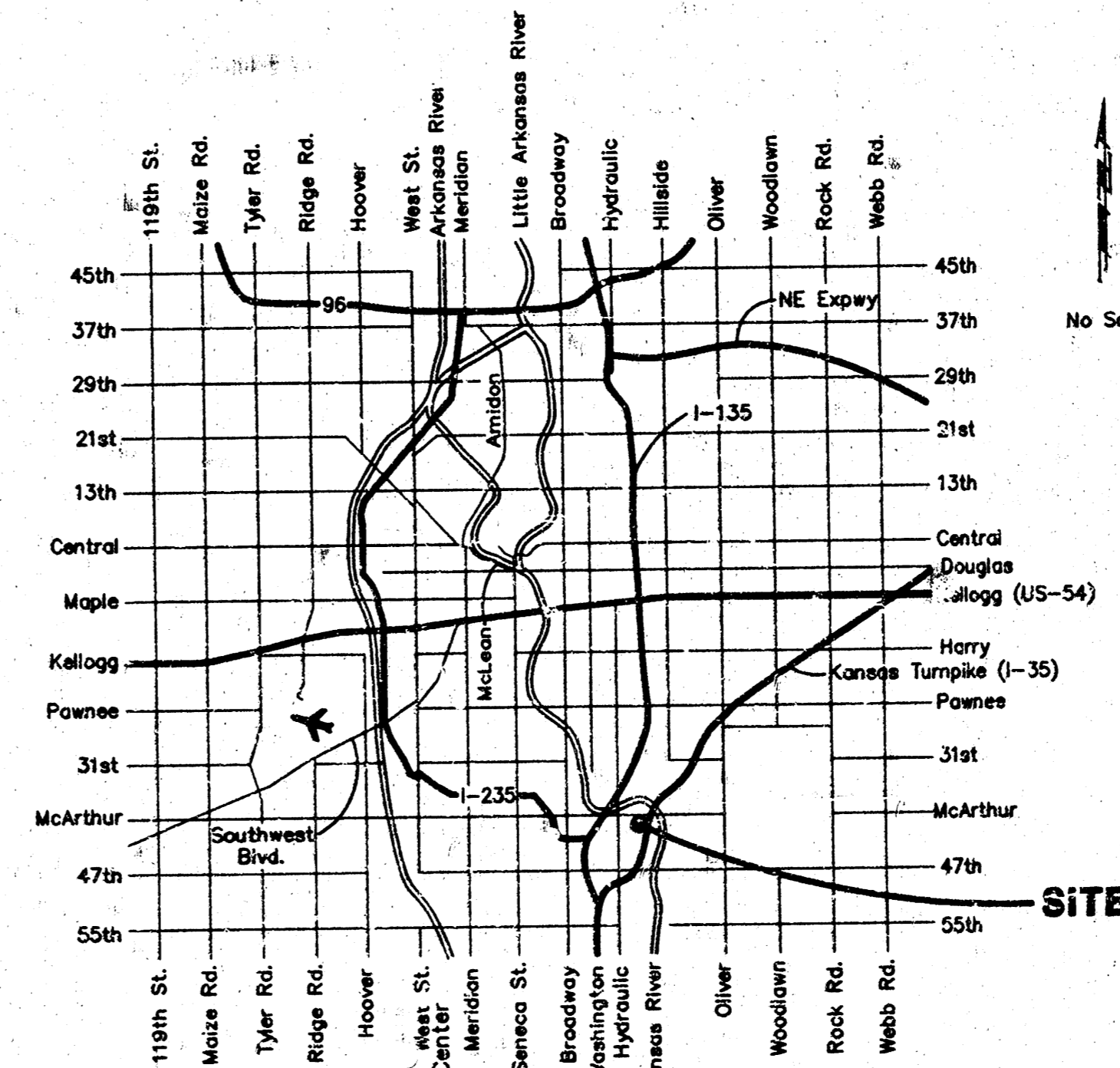
S.W. Corner, E 1/2, N.W. 1/4
Sec. 15, T28S, R1E of the 6th P.M.
Found 1/2" Rebar

S.E. Corner, N.W. 1/4
Sec. 15, T28S, R1E of the 6th P.M.
Found Stone

Sheet Index

Title Sheet	1
Line 1	2
Standard Manhole Detail	3
Shallow Manhole Detail	4
Ring & Cover Detail	5
Willowood Estates Plat	6

Scale: 1" = 100'



BENCHMARK

This "□" on E. @ of Sanitary Sewer MH,
East Side of Emery Park Road, 235 feet
South of MacArthur Road.
Elev. = 85.46 City Datum

This "□" on E. @ of Sanitary Sewer MH,
West Side of Emery Park Road, 1245 feet
South of MacArthur Road.
Elev. = 84.22 City Datum

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:

Multimedia Cablevision	262-0661
K.P.L. Gas Service Company	383-8650
Kansas Gas & Electric Company	383-8600
Peoples Gas Company	942-8350
Southwestern Bell Telephone Company	1-800-344-7233
City of Wichita Water Dept.	268-4908
City of Wichita Sewer Dept.	268-4071
- 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.
- 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.

Booked
P-120
9-12-00
R.P.L.

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Sanitary Sewer URH 8/12/98

NOTE TO CONTRACTORS

Inspection and testing of this project is to be provided by a Licensed Consulting Engineer under contract with the Owner/Developer. Said inspection is to be in accordance with the City of Wichita standard construction engineering practices and performed by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

PROJECT INSPECTED BY: BAUGHMAN CO.
DATE: 11/20/98

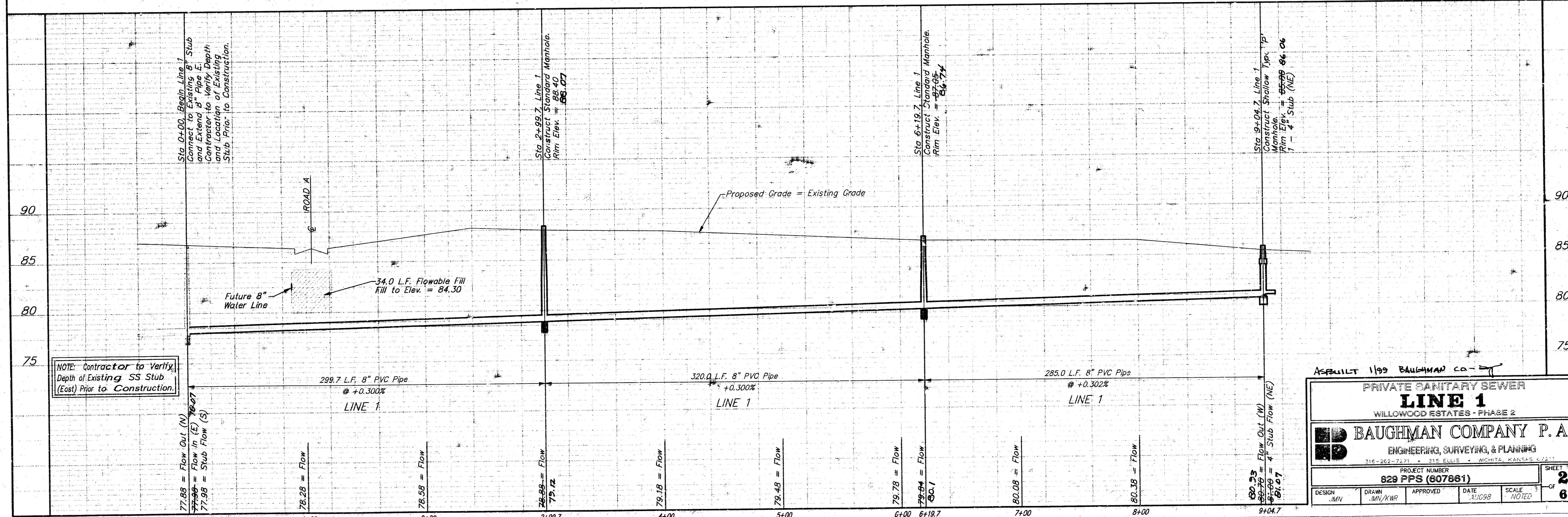
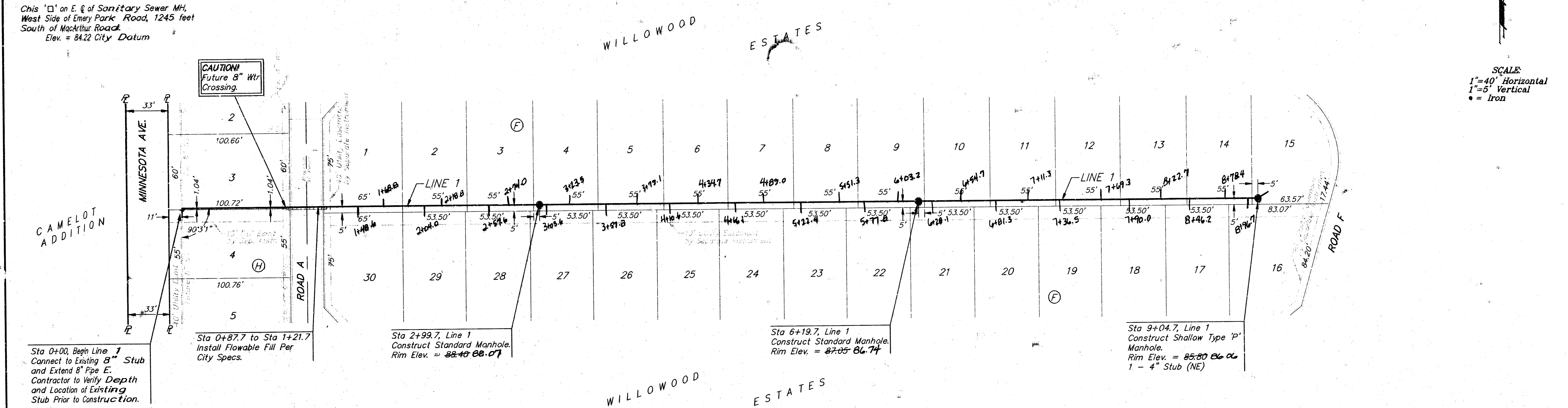
BAUGHMAN COMPANY P. A.
ENGINEERING & SURVEYING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

BENCHMARK

This "□" on E. of Sanitary Sewer MH,
East Side of Emery Park Road, 235 feet
South of MacArthur Road.
Elev. = 85.45 City Datum

This "□" on E. of Sanitary Sewer MH,
West Side of Emery Park Road, 1245 feet
South of MacArthur Road.
Elev. = 84.22 City Datum

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



NOTE: Contractor to Verify
Depth of Existing SS Stub
(East) Prior to Construction.

ASBUILT 1199 BAUGHMAN CO.

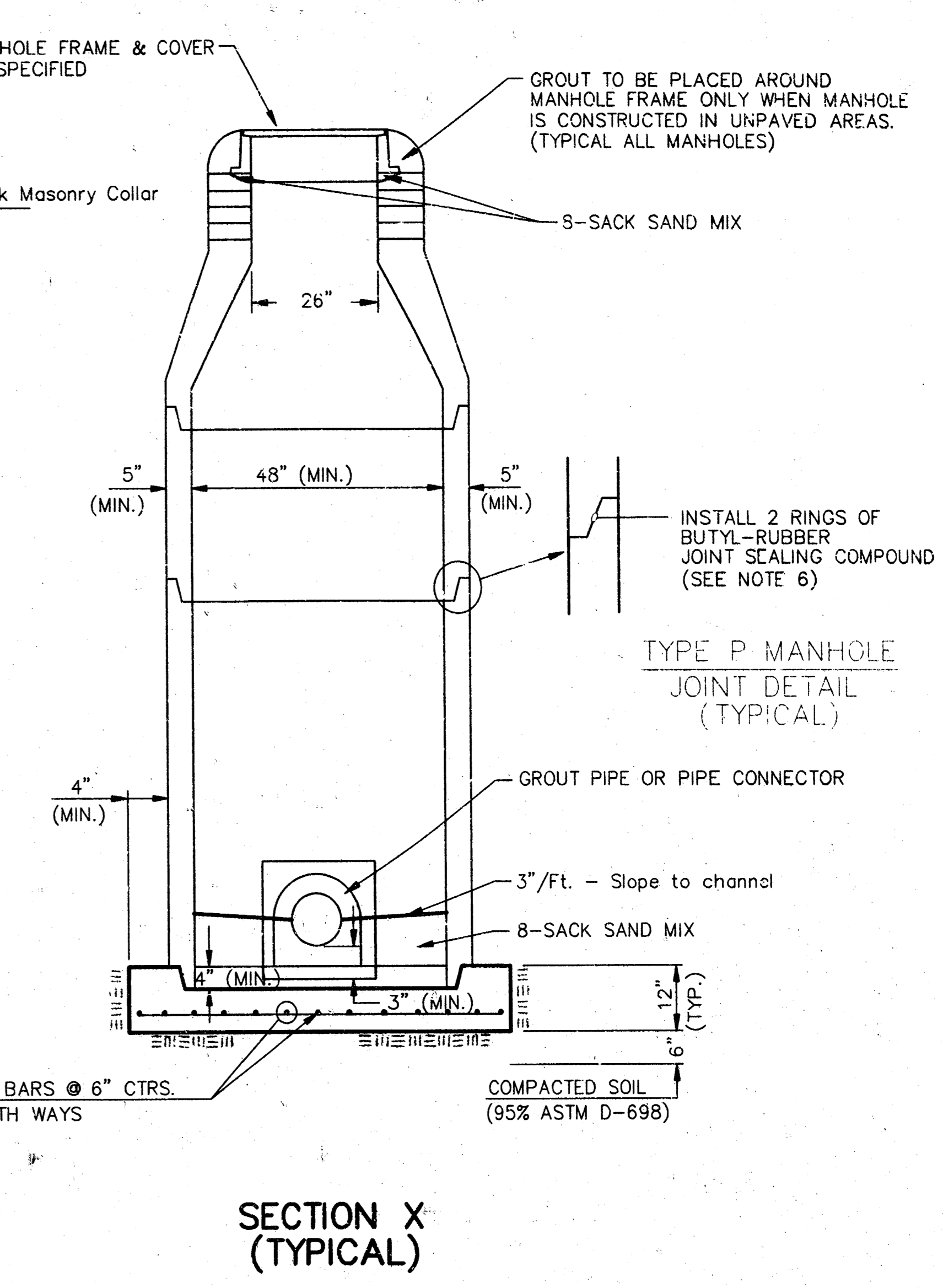
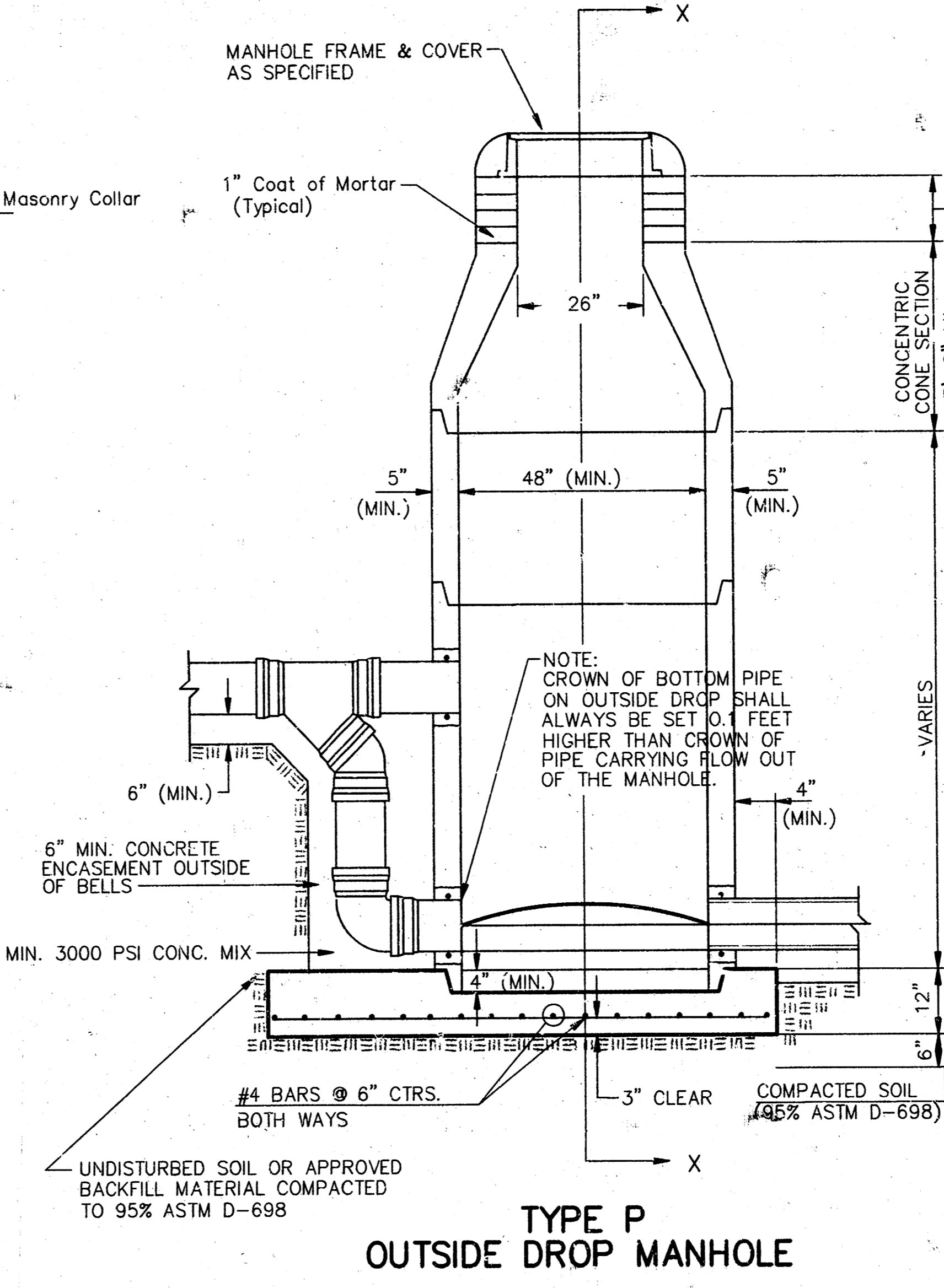
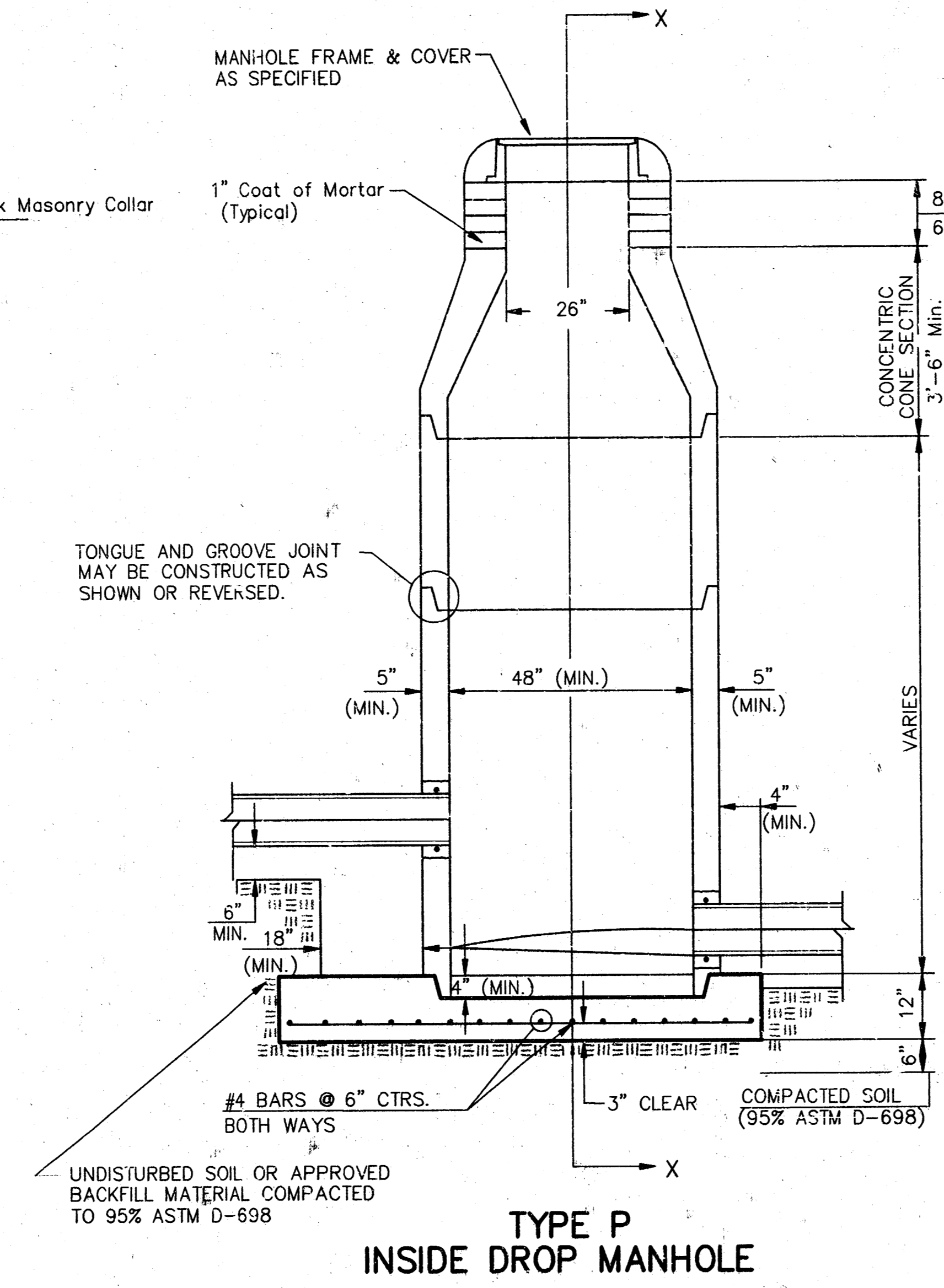
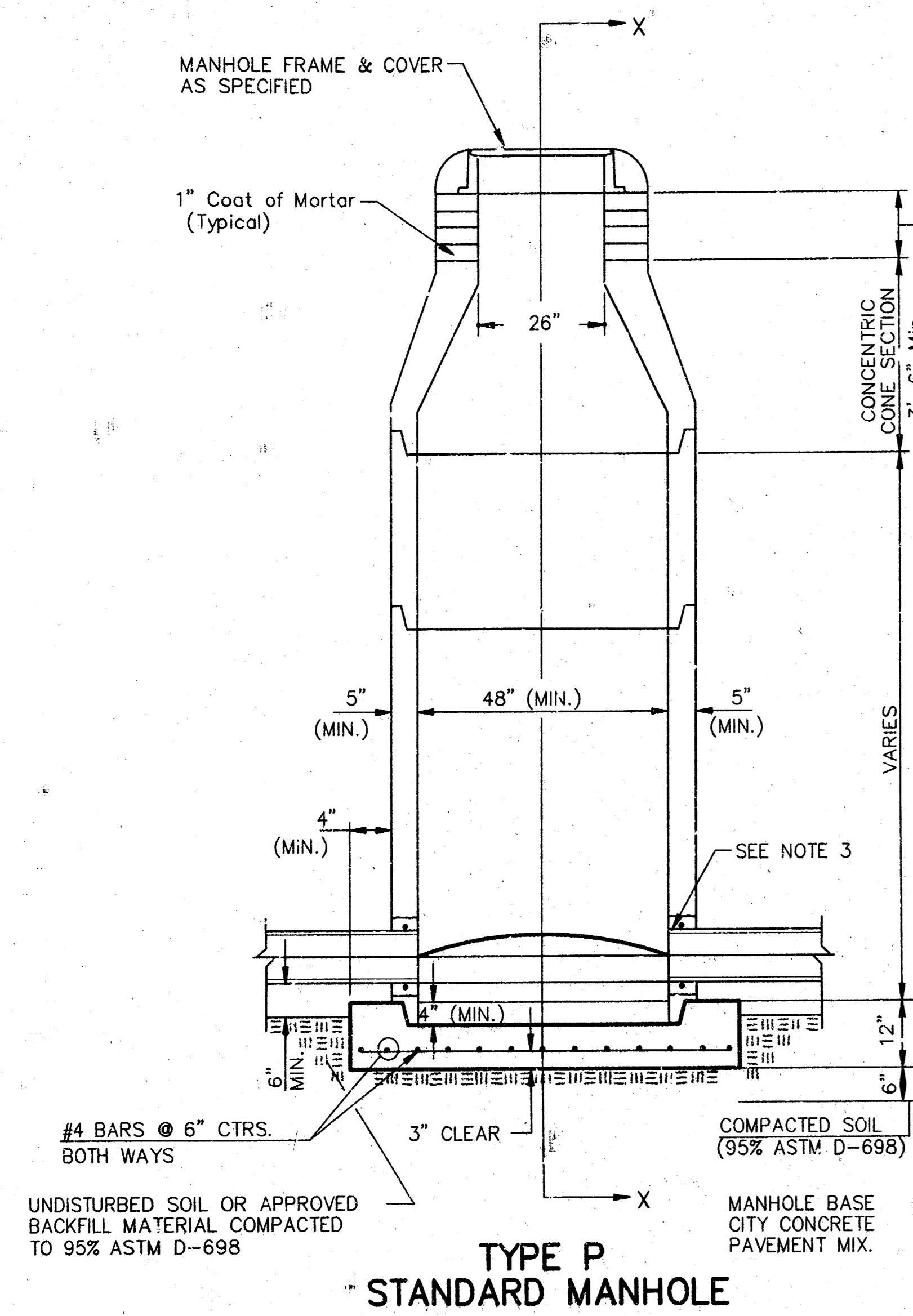
PRIVATE SANITARY SEWER
LINE 1
WILLOWOOD ESTATES - PHASE 2

BAUGHMAN COMPANY P. A.
ENGINEERING, SURVEYING, & PLANNING
314-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER: **829 PPS (607861)** SHEET **2** OF **6**

DESIGN: JMN DRAWN: JMN/KWR APPROVED: DATE: 3/13/98 SCALE: 1"=5' VERT, 1"=40' HORIZ

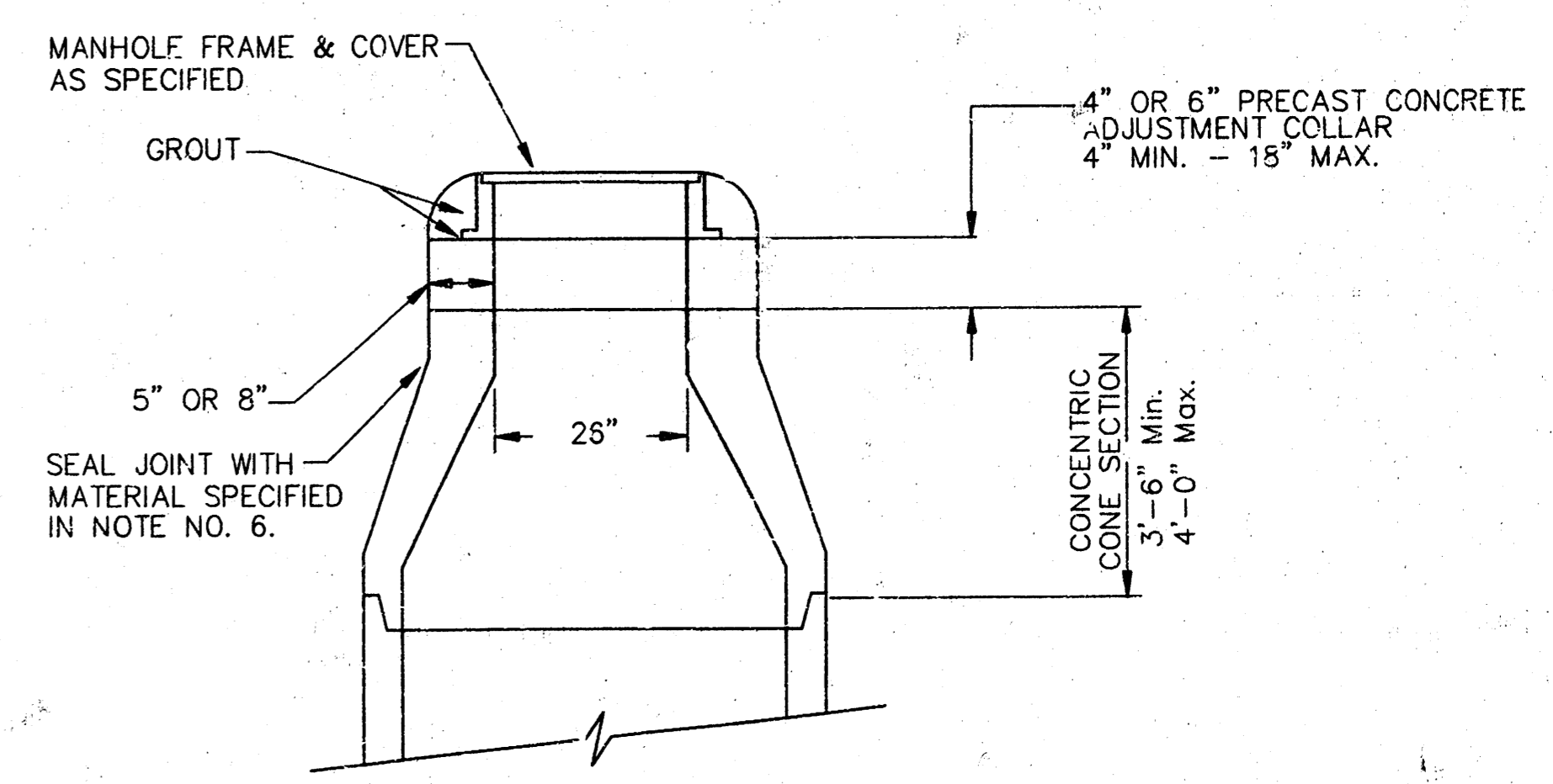
SEWER APPURTENANCES DETAILS



- 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 PIPE 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 TNEEC SERIES 66 HI-BUILD EPOXYLINE, 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 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.

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 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.
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 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.
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.



CITY OF WICHITA

STD. MANHOLE DETAILS

& SEWER APPURTENANCES DETAIL 3

BAUGHMAN COMPANY P. A.

ENGINEERING, SURVEYING, & PLANNING

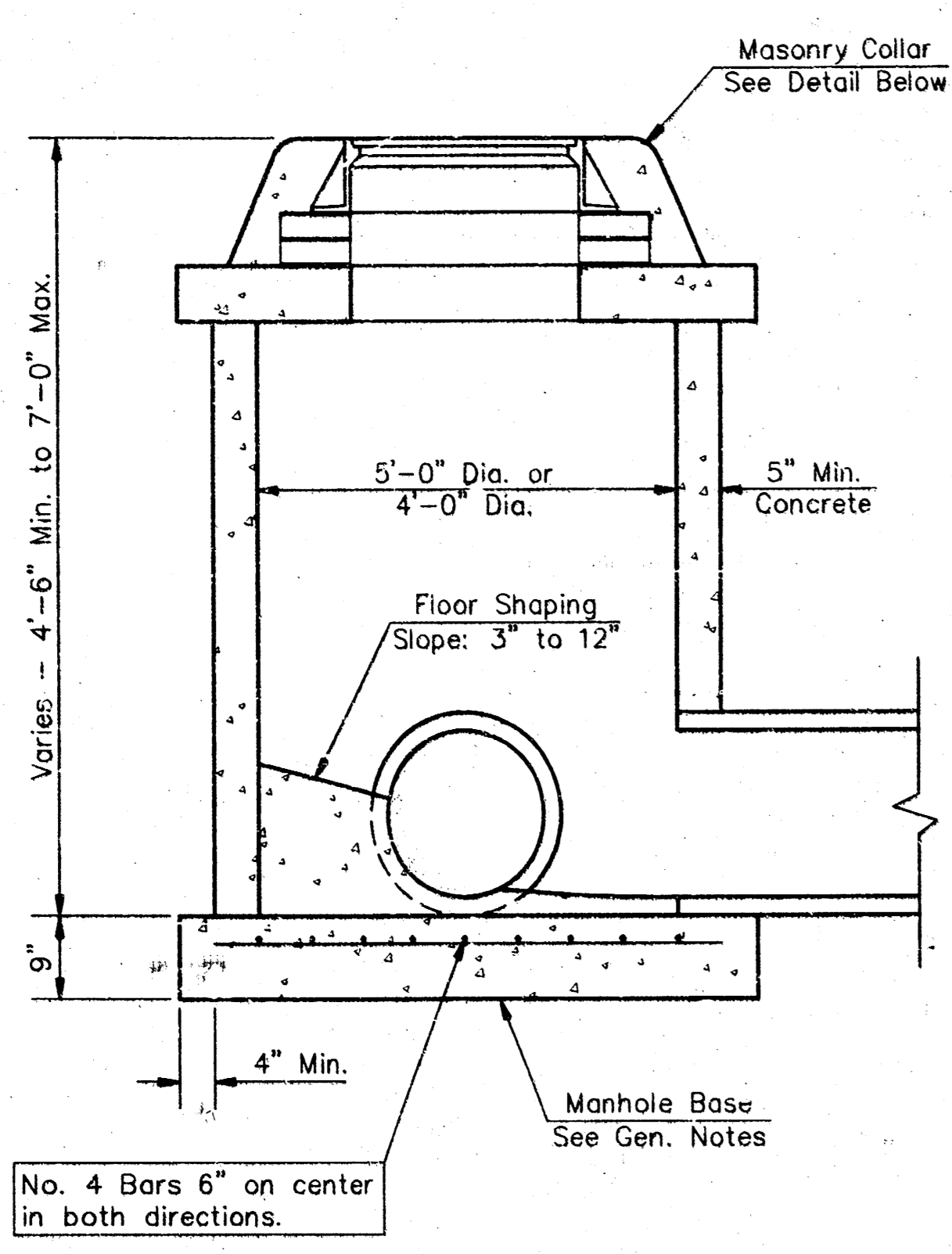
316-262-7271 • 316-262-7272 • WICHITA, KANSAS 67211

PROJECT NUMBER
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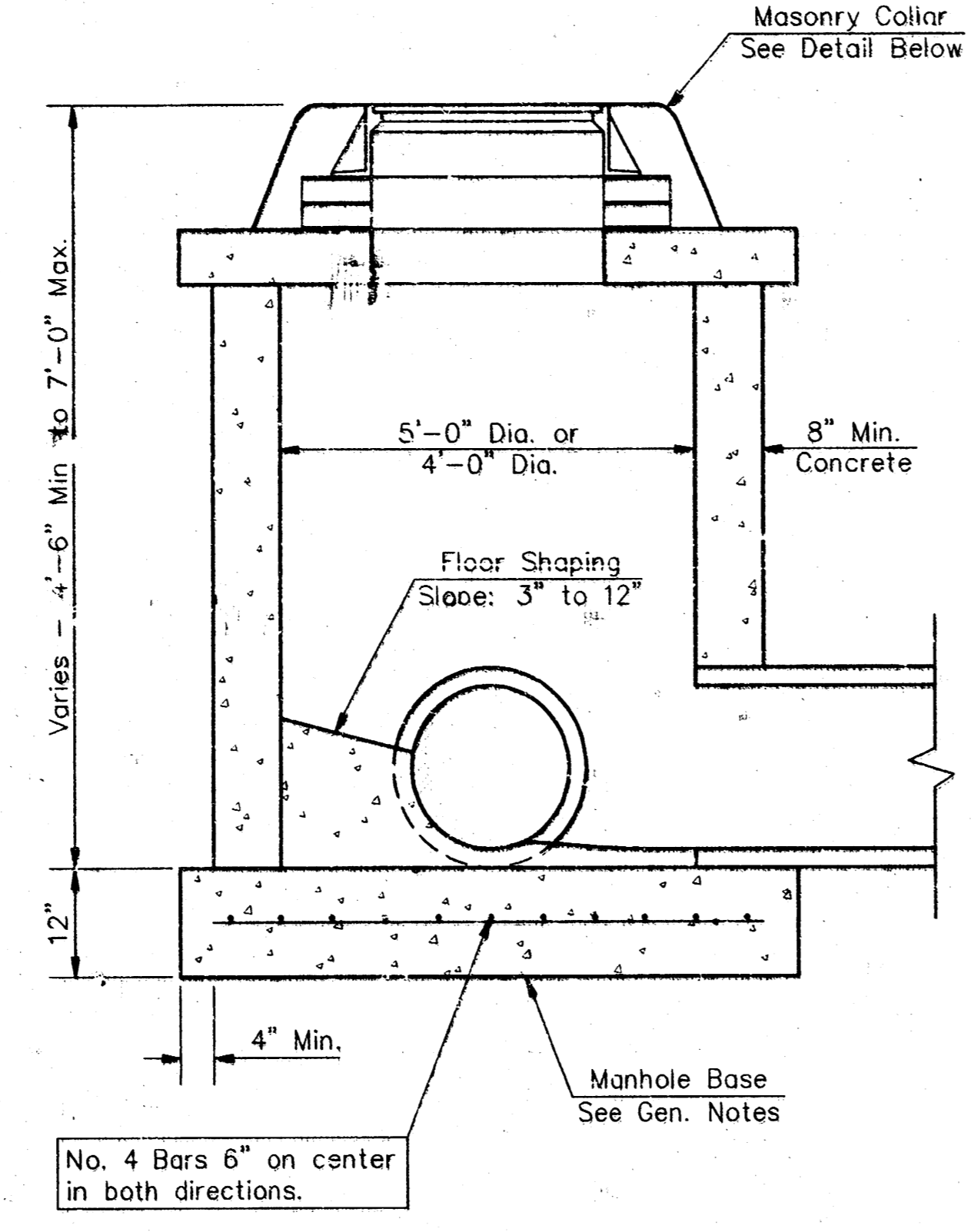
DESIGN DRAWN APPROVED DATE SCALE

AUCSB WAVE

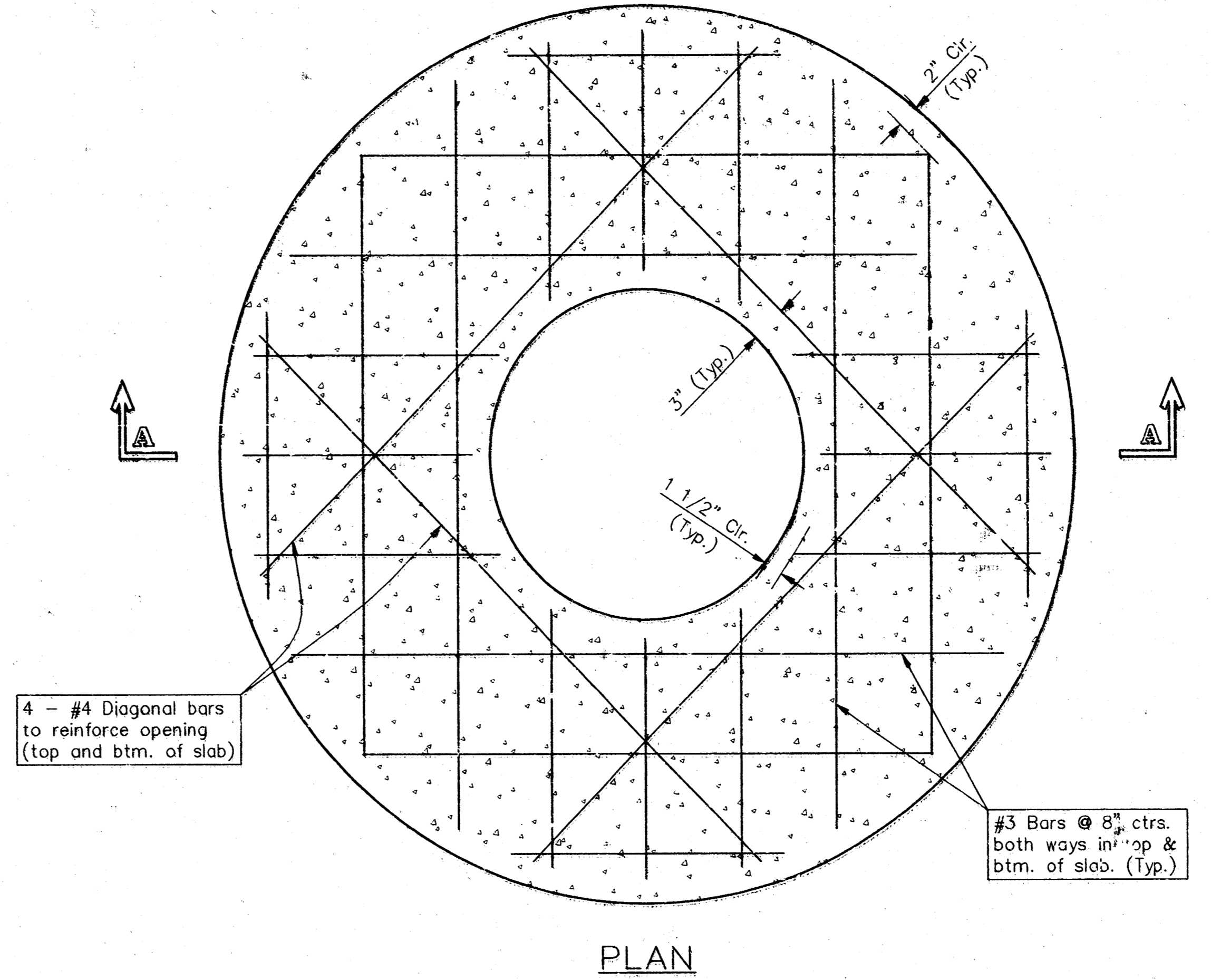
SHEET **3** OF **6**



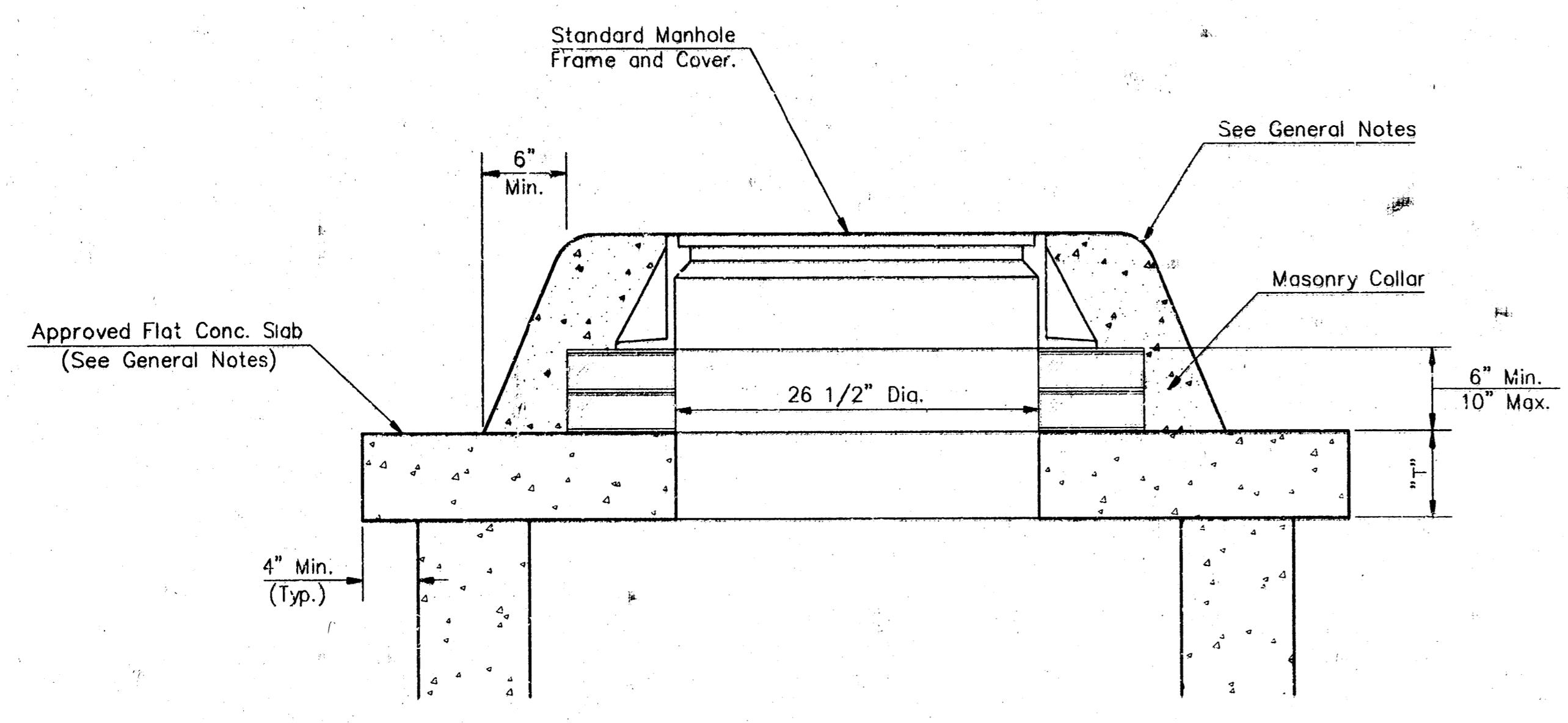
SHALLOW TYPE "P" MANHOLE



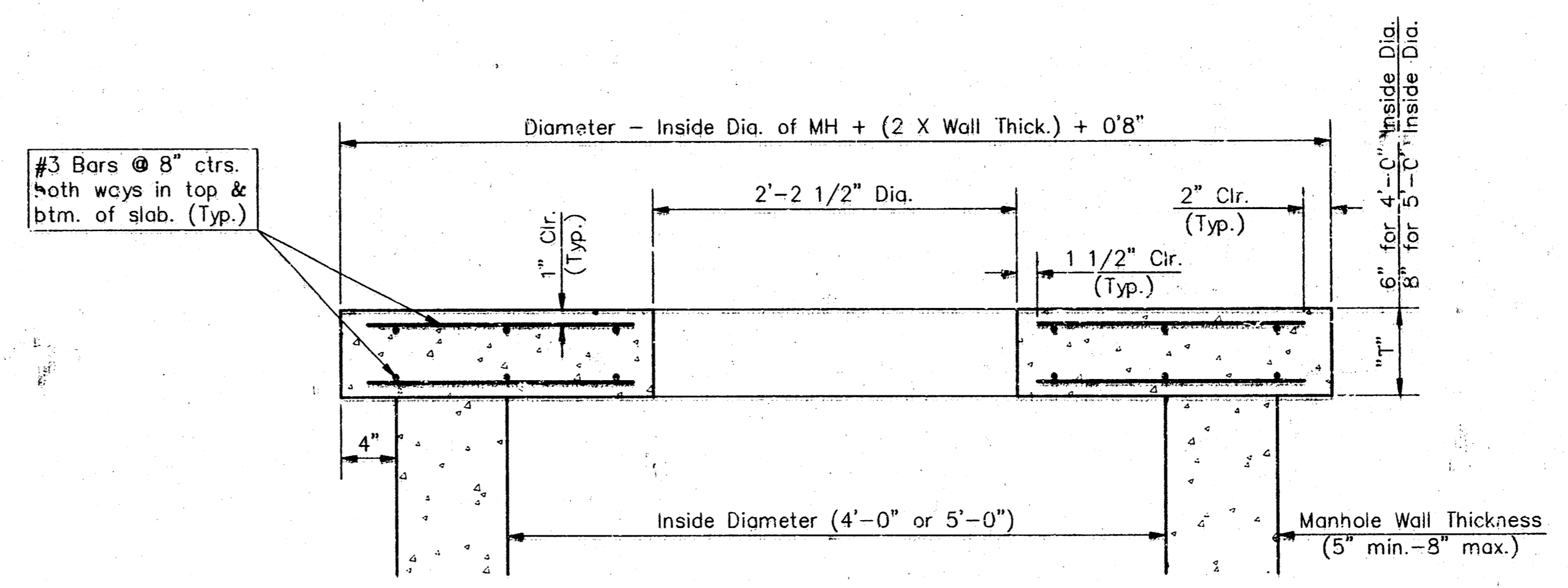
SHALLOW TYPE "C" MANHOLE



PLAN



MASONRY COLLAR DETAIL



SECTION A-A
FLAT CONCRETE SLAB DETAILS

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 for 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. 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 5" 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 "P" and "C" shall be paid for at the unit price bid per each for the type and diameter 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
STANDARD SHALLOW MANHOLES
 TYPE "P" AND TYPE "C"

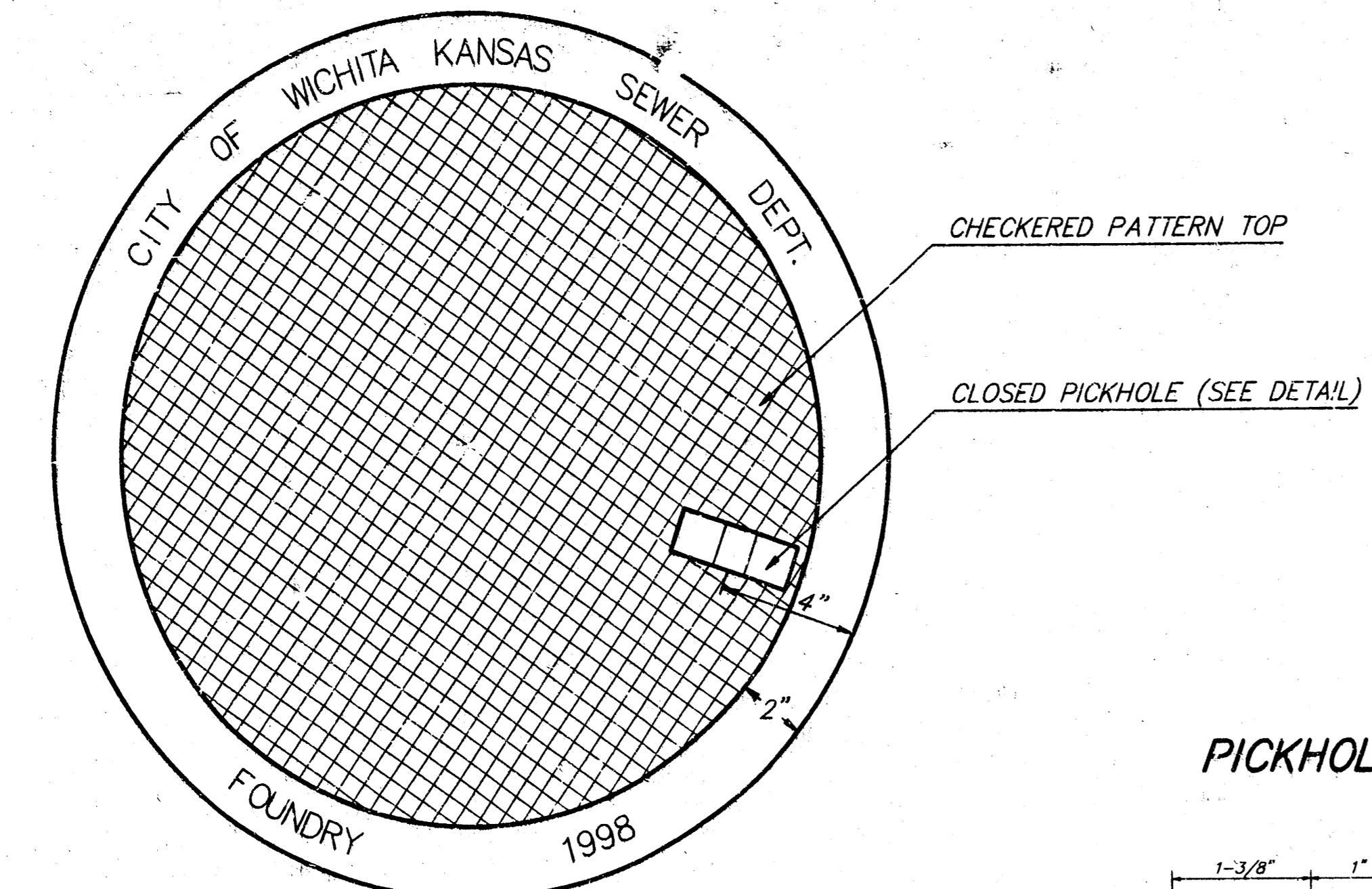
BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING

PROJECT NUMBER
829 PPS (607861)

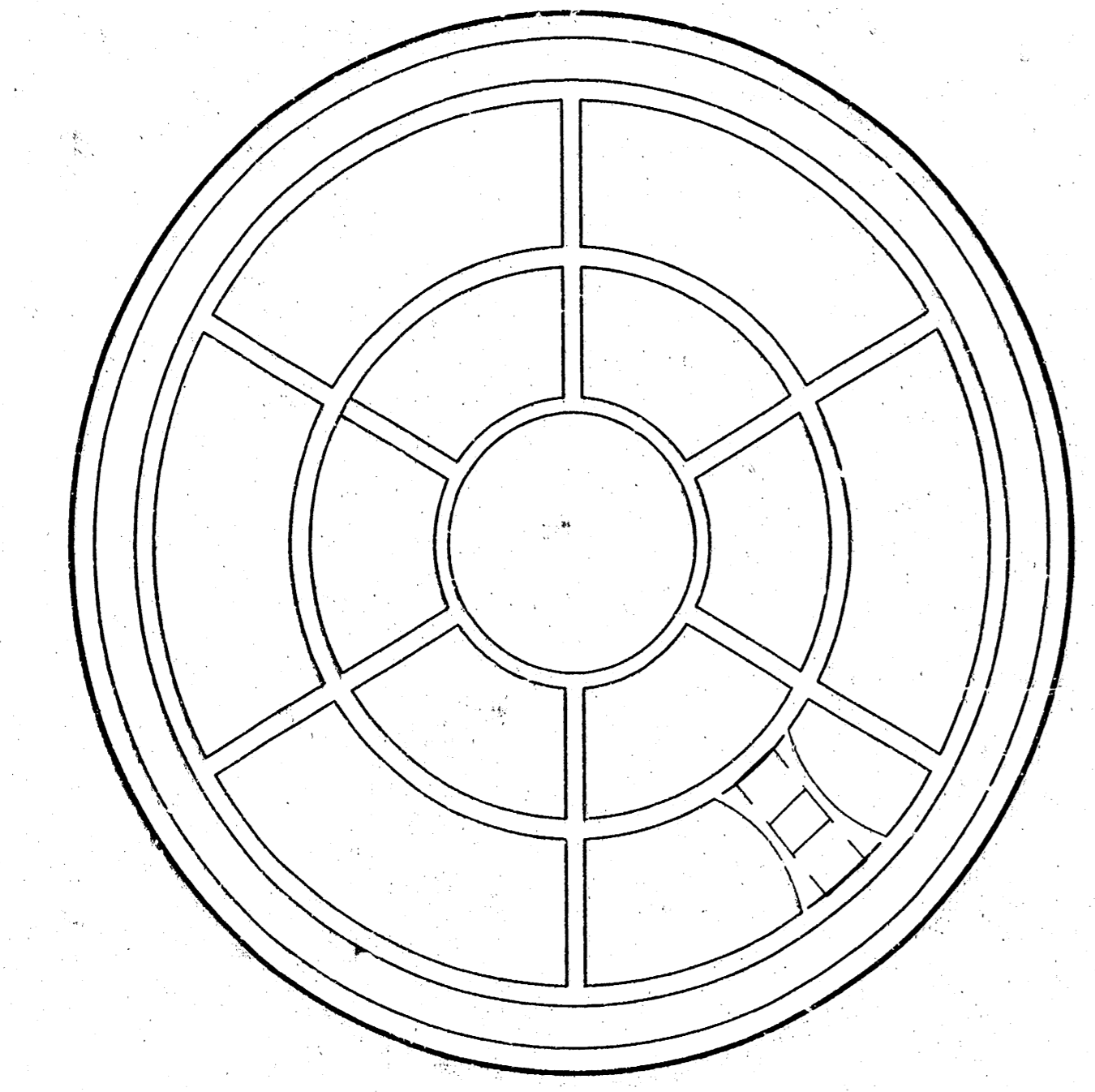
DESIGN	DRAWN	APPROVED	DATE	SCALE
			4/10/98	1/8" = 1'-0"

SHEET **4** OF **6**

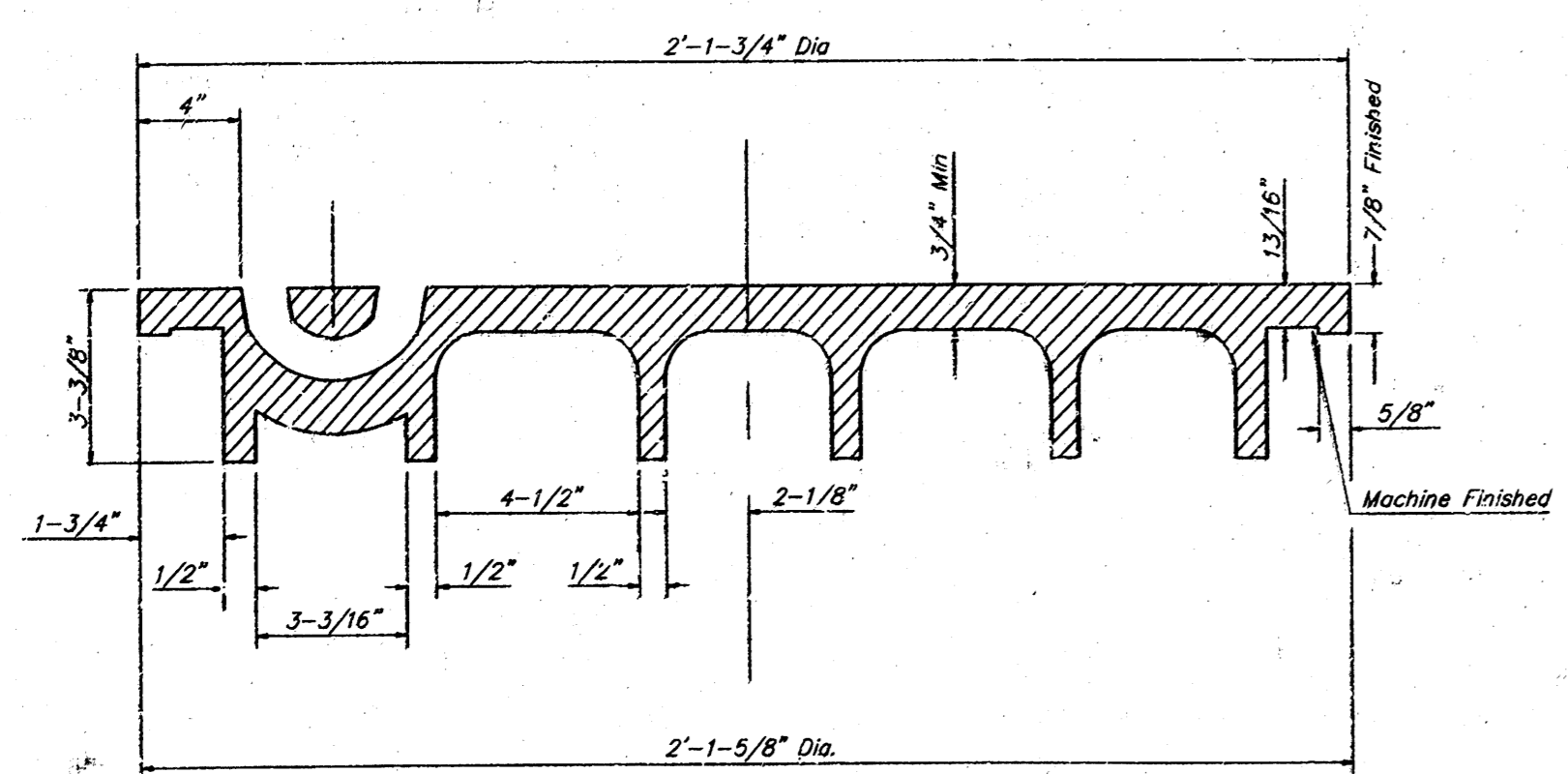
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW

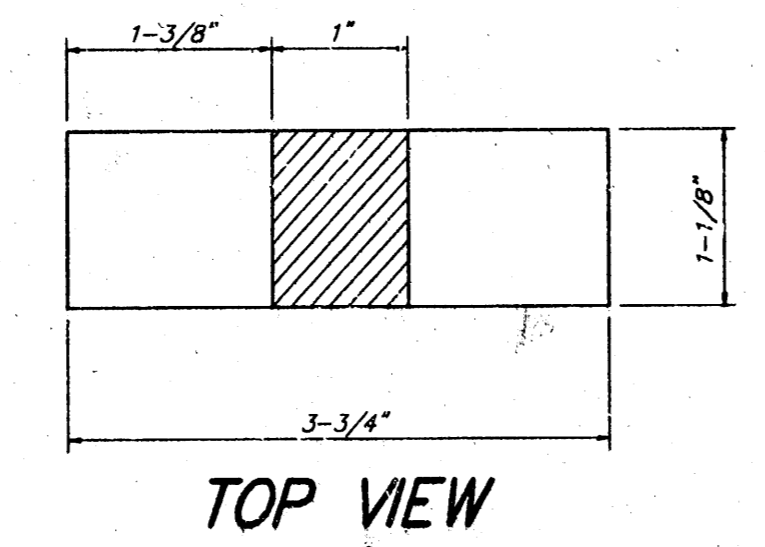


BOTTOM VIEW

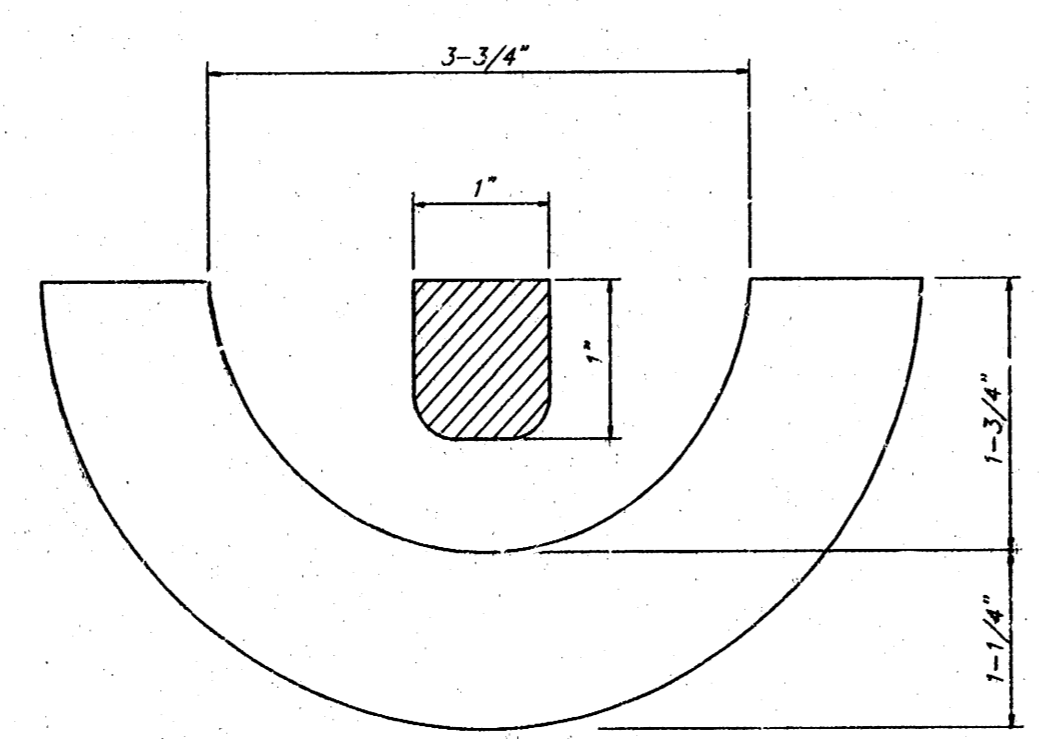


SECTION VIEW

PICKHOLE DETAIL



TOP VIEW

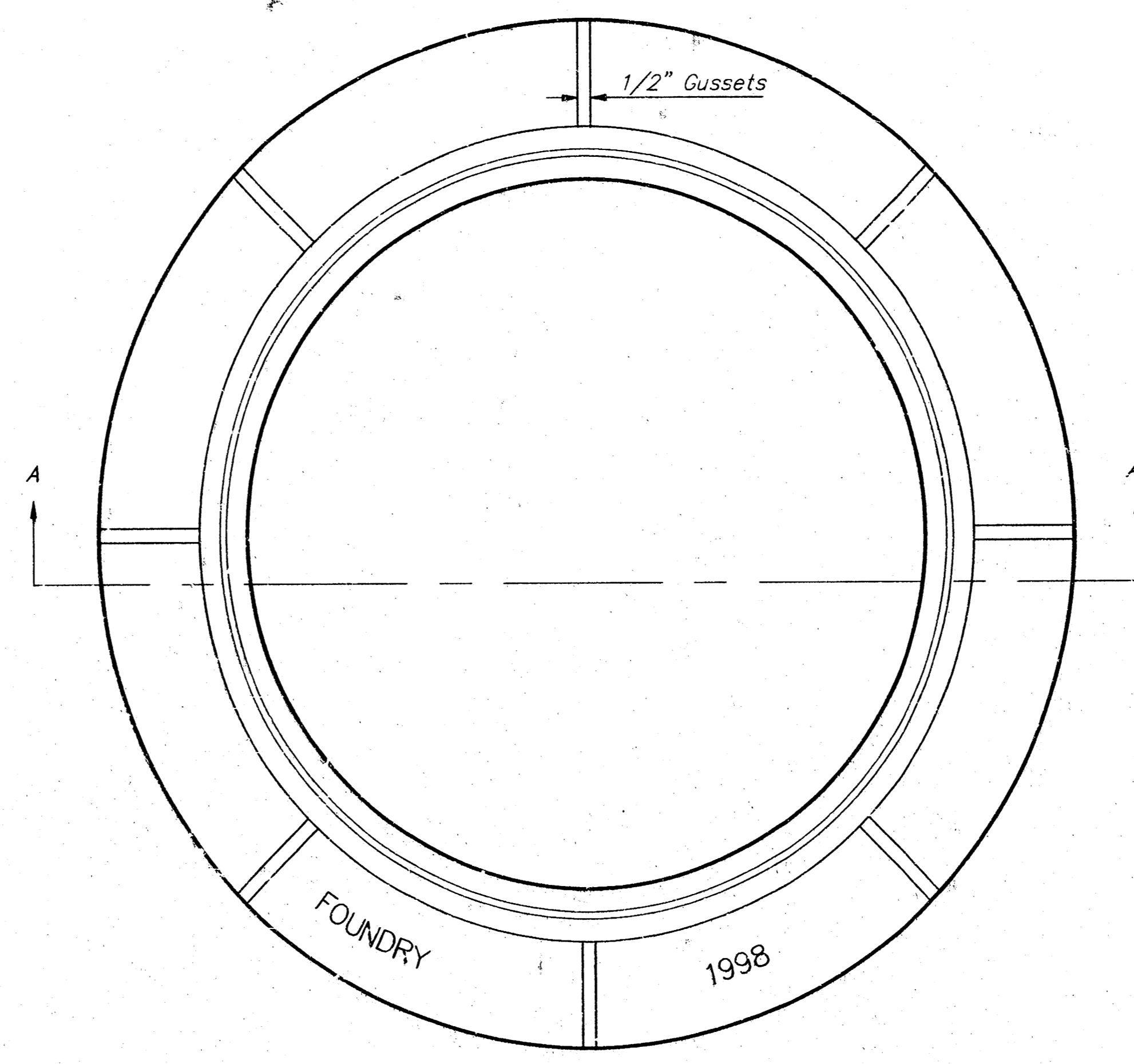


SECTION VIEW

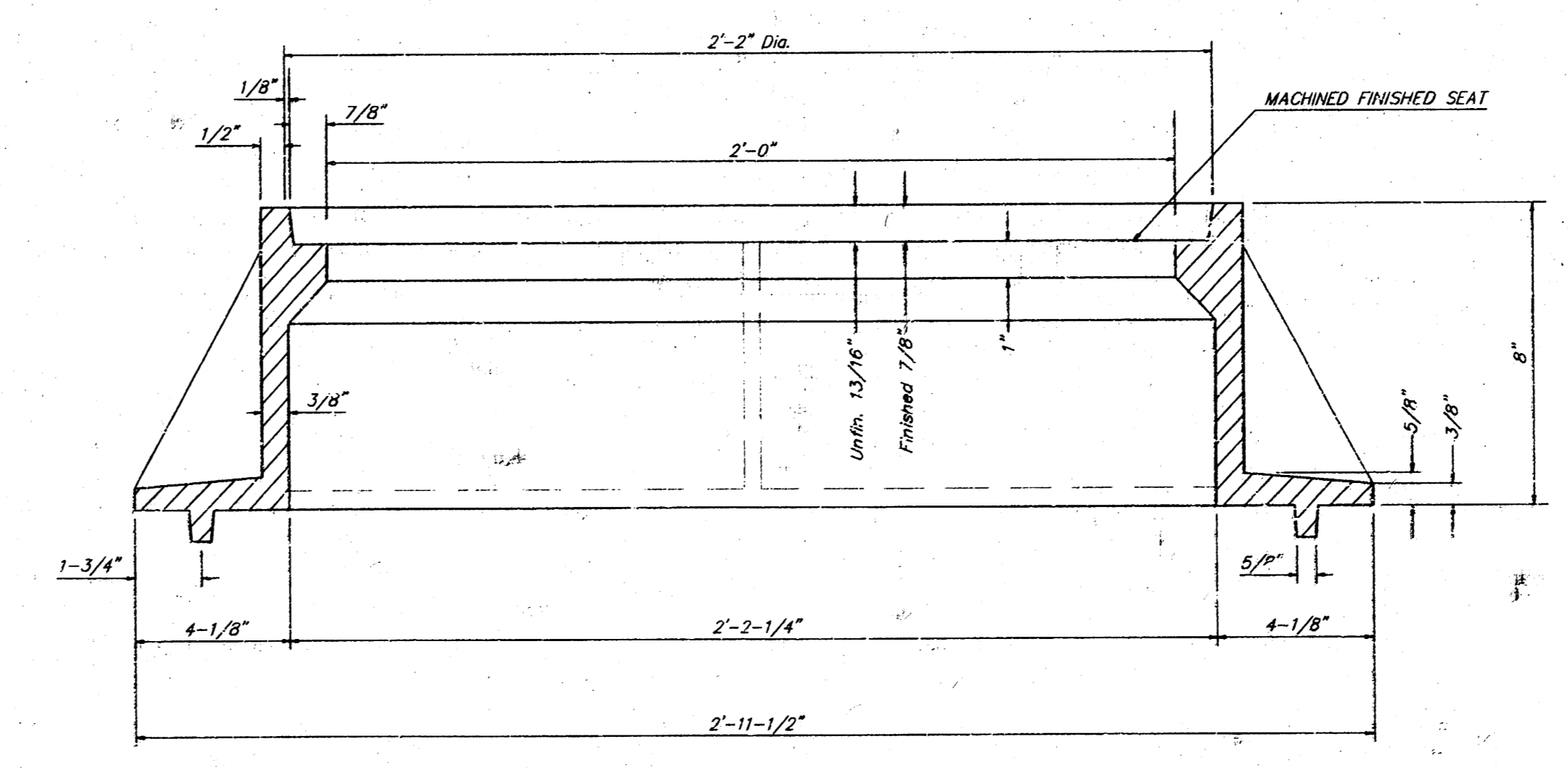
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE FRAME
Weight = 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.

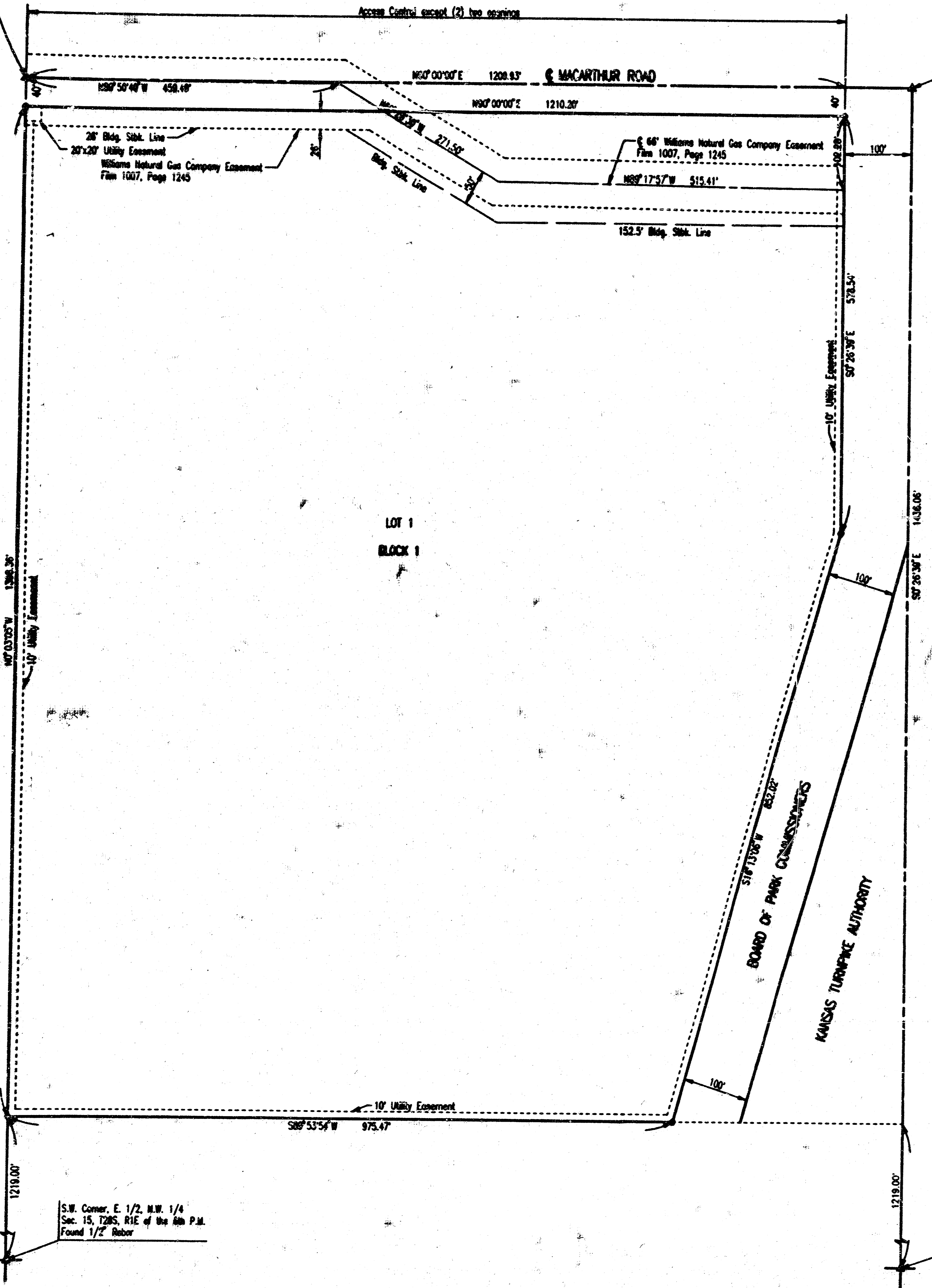
MANHOLE FRAME AND COVER DETAIL			
ADOPTED AS STANDARD DESIGN BY CITY OF WICHITA, KANSAS			
BAUGHMAN COMPANY P.A.			
ENGINEERS, SURVEYING, & PLANNERS			
316-262-7271 • 316-262-7272 • WICHITA, KANSAS 67201			
PROJECT NUMBER		SHEET	
828 PPS (807861)		5	
DESIGN	DRAWN	APPROVED	DATE
C.O.W.	Stoff		AUG/95
SCALE		NONE	
		6	

PC 74-10

WILLOWOOD ESTATES

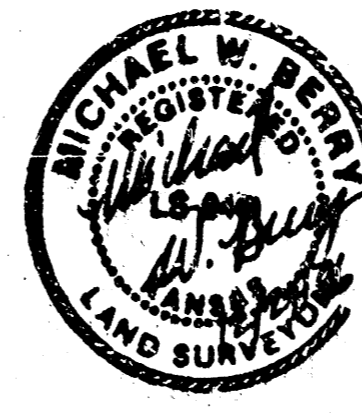
AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

N.W. Corner, E. 1/2, N.W. 1/4
Sec. 15, T28S, R1E of the 6th P.M.
Found 1/2" I.P. in Thimble



N.E. Corner, N.W. 1/4
Sec. 15, T28S, R1E
of the 6th P.M.
Found 1/2" I.P. in Thimble

B.M. - CITY OF WICHITA DISC 31' WEST AND 31' SOUTH
OF THE INTERSECTION OF THE CENTERLINES OF
HYDRAULIC AND MACARTHUR ROAD.
ELEV. = 86.273 CITY DATUM
ELEV. = 1273.673 M.S.L.



SCALE: 1"=100'
• = ROW SET

STATE OF KANSAS)
COUNTY OF SEDGWICK) SS

I, MICHAEL W. BERRY, A REGISTERED LAND SURVEYOR IN AFORESAID STATE AND COUNTY DO HEREBY CERTIFY THAT ON THIS 28TH DAY OF June, 1994, I HAVE CAUSED TO BE SURVEYED AND PLATTED WILLOWOOD ESTATES, AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS, INTO A LOT AND A BLOCK THE SAME BEING A REPLAT OF AND DESCRIBED AS:
LOTS 1 THROUGH 38 IN BLOCK 1; LOTS 1 THROUGH 27 IN BLOCK 2; RESERVE "A" TOGETHER WITH INCLUDED MACARTHUR ROAD COURT, SELMA AND ALTA STREETS, AND ADJACENT MINNESOTA STREET AS ORIGINALLY PLATTED IN EMERY PARK ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS.

ALL PORTIONS OF EMERY PARK ADDITION IN WICHITA, SEDGWICK COUNTY, KANSAS, LOTS, BLOCKS, RESERVE "A" EASEMENTS AND STREETS AS DESCRIBED ABOVE ARE HEREBY VACATED AND REPLATED BY VIRTUE OF K.S.A. 12-512(b) AND (c).
Michael W. Berry
MICHAEL W. BERRY, R.L.S. NO. 546
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

KNOW ALL MEN BY THESE PRESENTS THAT WE, THE UNDERSIGNED PROPERTY OWNERS OF THE LAND AS ABOVE SET FORTH IN THE SURVEYOR'S CERTIFICATE, HAVE CAUSED THE LAND TO BE SURVEYED AND PLATTED INTO A LOT AND A BLOCK, THE SAME TO BE KNOWN AS WILLOWOOD ESTATES, AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS.

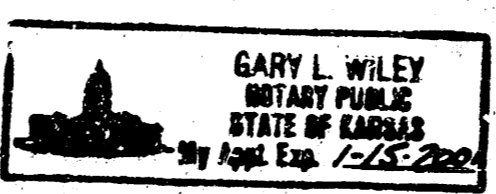
EASEMENTS FOR CONSTRUCTION AND MAINTENANCE OF PUBLIC UTILITIES ARE HEREBY GRANTED.

ALL ABUTTERS' RIGHTS OF ACCESS TO AND FROM MACARTHUR ROAD OVER AND ACROSS THE NORTH LINE OF LOT 1, BLOCK 1, ARE HEREBY GRANTED TO THE CITY OF WICHITA; PROVIDED HOWEVER THAT LOT 1, BLOCK 1 SHALL HAVE ACCESS TO MACARTHUR ROAD AT TWO (2) LOCATIONS, SAID LOCATIONS TO BE DETERMINED BY THE CITY ENGINEER OF THE CITY OF WICHITA, KANSAS.

OWNER: WILLOWOOD MOBILE HOME PARK, INC.
Stanley R. Wehert
BY: STANLEY R. WEHERT, PRESIDENT

STATE OF KANSAS)
COUNTY OF SEDGWICK) SS

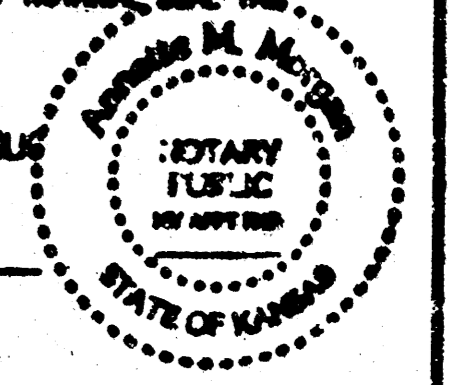
BE IT REMEMBERED ON THIS 24TH DAY OF January, 1997, BEFORE ME A NOTARY PUBLIC IN AFORESAID STATE AND COUNTY, CAME STANLEY R. WEHERT, PRESIDENT OF WILLOWOOD MOBILE HOME PARK, INC. TO ME PERSONALLY KNOWN TO BE THE SAME PERSON WHO EXECUTED THE FOREGOING INSTRUMENT OF WRITING AND DULY ACKNOWLEDGED THE EXECUTION OF SAME FOR AN ON BEHALF AND AS THE ACT AND DEED OF SAID CORPORATION, IN TESTIMONY WHEREOF I HAVE HEREUNTO SET MY HAND AND AFFIXED BY NOTARIAL SEAL THE DAY AND YEAR ABOVE WRITTEN.
Gary L. Wiley
GARY L. WILEY, NOTARY PUBLIC
BY COMMISSION EXPIRES 1-15-2001



WE, COMMERCE BANK AND TRUST, HOLDER OF A MORTGAGE ON THE ABOVE DESCRIBED PROPERTY, DO HEREBY CONSENT TO THE PLATING OF WILLOWOOD ESTATES AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS.
BY: *Barbel E. Dougan*
BARBEL E. DOUGAN, VICE PRESIDENT

STATE OF KANSAS)
COUNTY OF SHAWNEE) SS

BE IT REMEMBERED ON THIS 28TH DAY OF January, 1997, BEFORE ME A NOTARY PUBLIC IN AFORESAID STATE AND COUNTY, CAME BARBEL E. DOUGAN, VICE PRESIDENT OF COMMERCE BANK AND TRUST, TO ME PERSONALLY KNOWN TO BE THE SAME PERSON WHO EXECUTED THE FOREGOING INSTRUMENT OF WRITING AND DULY ACKNOWLEDGED THE EXECUTION OF SAME FOR AN ON BEHALF AND AS THE ACT AND DEED OF SAID BANK, IN TESTIMONY WHEREOF I HAVE HEREUNTO SET MY HAND AND AFFIXED BY NOTARIAL SEAL THE DAY AND YEAR ABOVE WRITTEN.
Annette M. Morgan
ANNETTE M. MORGAN, NOTARY PUBLIC
MY COMMISSION EXPIRES May 11, 1999



THIS PLAT HAS BEEN SUBMITTED TO AND APPROVED BY THE WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION, WICHITA, KANSAS, DATED THIS 19TH DAY OF DECEMBER, 1994.

John C. Foy
JOHN C. FOY, CHAIRMAN
Marvin S. Kroul
MARVIN S. KROUL, SECRETARY



THIS PLAT APPROVED AND ALL DEDICATIONS SHOWN HEREON ARE ACCEPTED BY THE CITY COUNCIL OF THE CITY OF WICHITA, KANSAS, DATED THIS 25TH DAY OF February, 1997.

Bob Kinch
BOB KINCH, MAYOR
Pat Burnett
PAT BURNETT, CITY CLERK

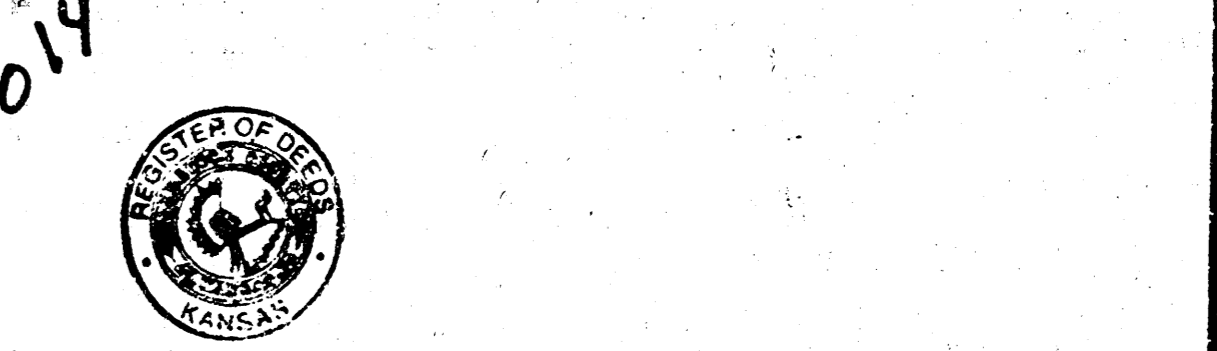


ENTERED ON TRANSFER RECORD THIS 24TH DAY OF April, 1997.

James Alford
JAMES ALFORD, COUNTY CLERK

THIS IS TO CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD IN THE REGISTER OF DEEDS OFFICE AT 2:20 P.M. ON THIS 27TH DAY OF April, 1997.

Larry L. Cozad
LARRY L. COZAD, REGISTER OF DEEDS
Michael D. Hurtt
MICHAEL D. HURTT, DEPUTY



USER: ELW OPER: DEP SCALE: 1"=100.00
SE: 1995096329\002\PMAL.DWG 12-24-1996 9:16:17 am

S.W. Corner, E. 1/2, N.W. 1/4
Sec. 15, T28S, R1E of the 6th P.M.
Found 1/2" Rebar

S.E. Corner, N.W. 1/4
Sec. 15, T28S, R1E
of the 6th P.M.
Found Stone

PC 74-10

13 40 50 41