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12-02

CONSTRUCTION PLANS
SANITARY SEWER EXTENSIONS
MOORINGS 7TH ADDITION
TO
THE CITY OF WICHITA, KANSAS

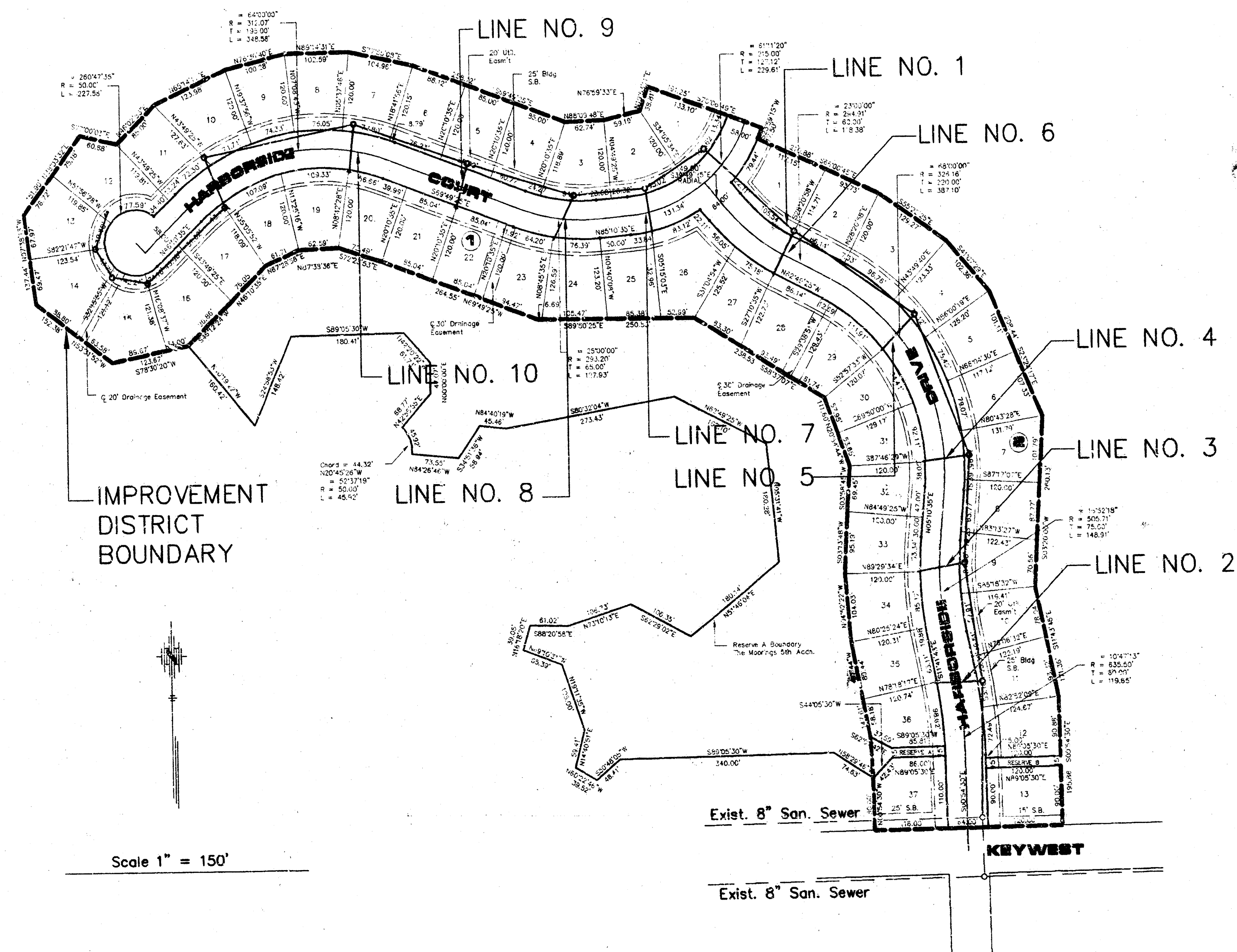
MICHAEL E. LINDEBAK, P.E. - CITY ENGINEER
LATERAL 80, SANITARY SEWER #23
PROJECT NO. 468-82273
INDEX CODE 741561

GENERAL NOTES:

- Existing utility lines 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.
- 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 an 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 flood plain 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.

- 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 the work.
- 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 or a licensed professional engineer in accordance with state laws.
- 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 the proposed new construction shall be saved and protected from damage.
- Contractor shall vacuum test all manholes according to the City of Wichita standard specifications.
- The only site grading required by the sewer contractor is that fill indicated by the cross sections shown on Sheet No. 5.



INDEX

TITLE SHEET	SHEET 1
LINE NO. 1 - 5	SHEET 2
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COMPACTED FILL DETAIL	SHEET 5
TYPE "P" MANHOLE	SHEET 6
TYPE "C" MANHOLE AND CLEANOUT DETAIL	SHEET 7
MOORINGS 7TH ADDITION PLAT	SHEET 8

BENCH MARKS

(City of Wichita Datum)

- "x" cut on center 10' curb inlet E. side cul-de-sac of Portwest Court in the Moorings 5th Addition. Elev. 142.30
- City of Wichita Disc 59' W. and 32.3' N. of center of Meridian and Keywest. Elev. 141.85
- "□" cut in curb 60' West centerline Harborside on North side of Keywest. Elev. 144.01

SEPTEMBER 1993

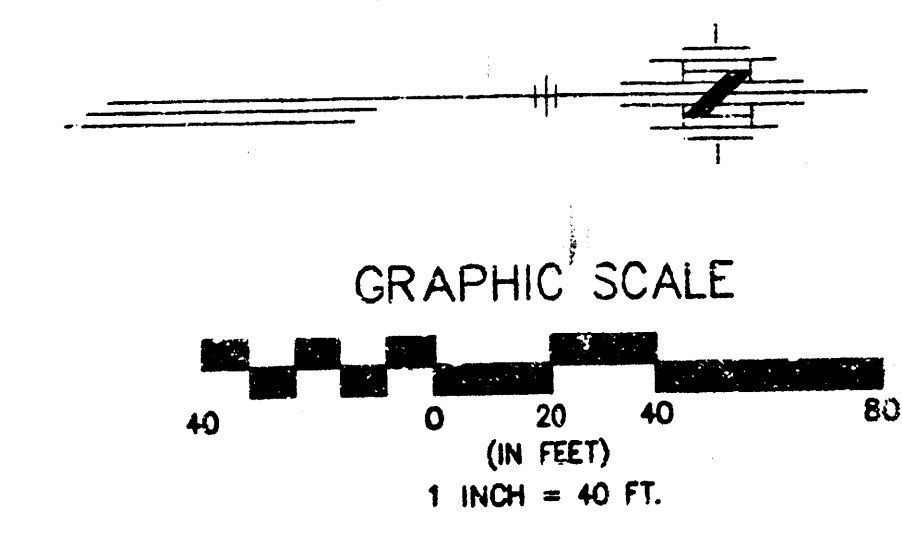
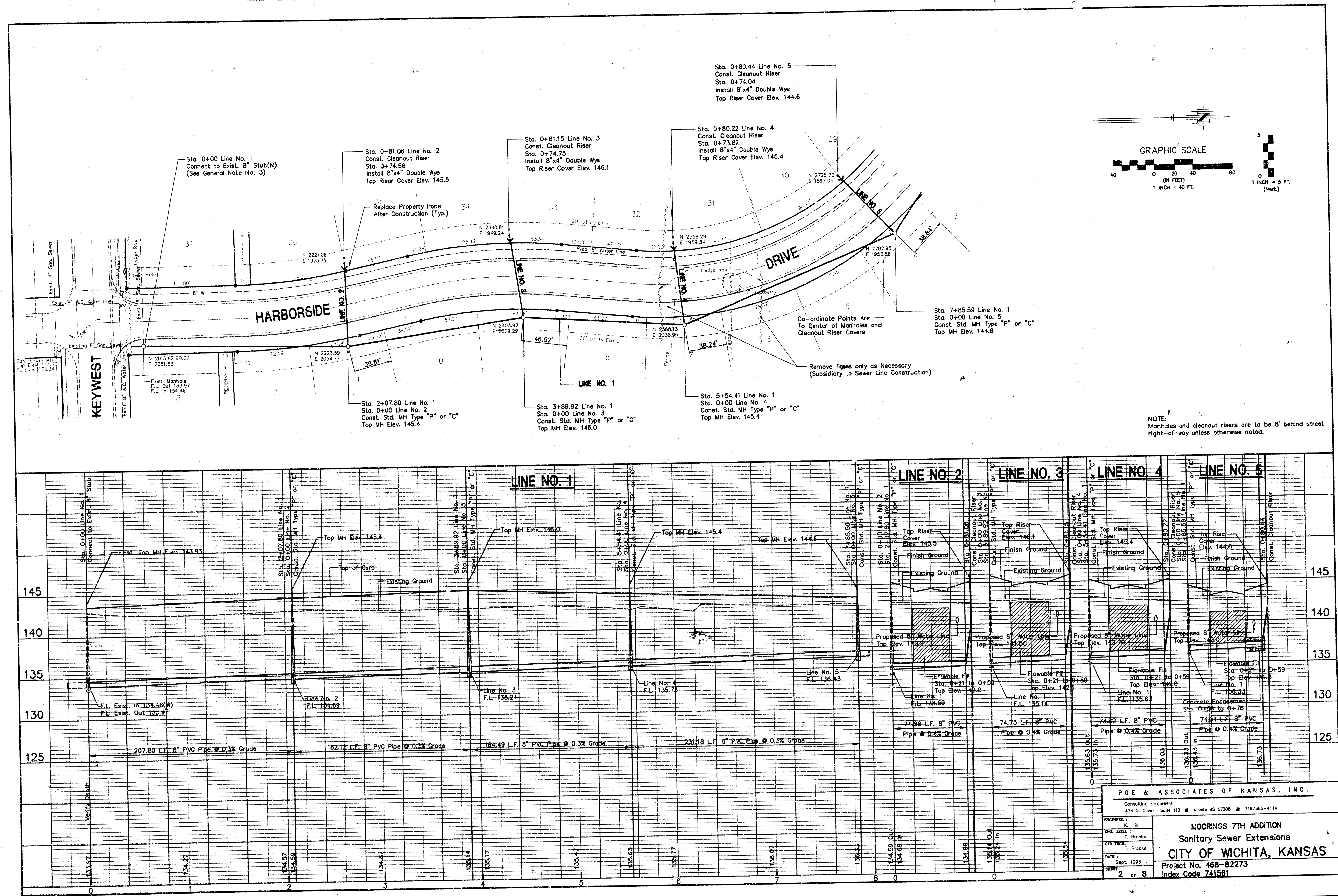
PLANS PREPARED BY
POE & ASSOCIATES OF KANSAS, INC.
Consulting Engineers
434 N. Oliver Suite 110 Wichita KS 67208 316/685-4114

Booked
PER plan
R.D.
12-5-94

Kenny E. Hill
10-7-93

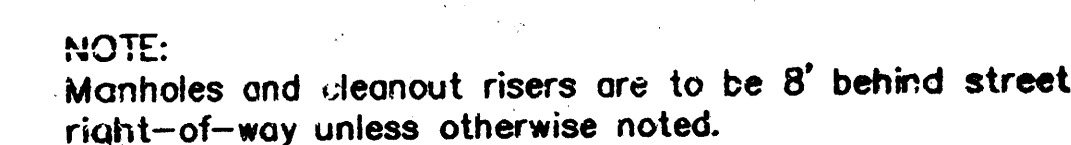
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12_c2

X:\APPS\DWG\1538\SS1 Mod Out 6 10-31-23 1993 Steve Schmitt



NOTE:
Manholes and cleanout risers are to be 8' behind street right-of-way unless otherwise noted.

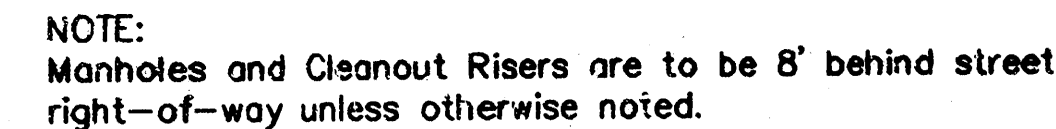
POE & ASSOCIATES OF KANSAS, INC.	
Consulting Engineers 434 N. Oliver Scale 110 Wichita KS 67208 316/685-4114	
ENGINEER K. Hill	MOORINGS 7TH ADDITION Sanitary Sewer Extensions CITY OF WICHITA, KANSAS Project No. 468-82273 Index Code 741561
ENG. PRICE T. Brooks	
CAD TECH T. Brooks	
DATE Sept. 1993	
REVISION 2 of 8	



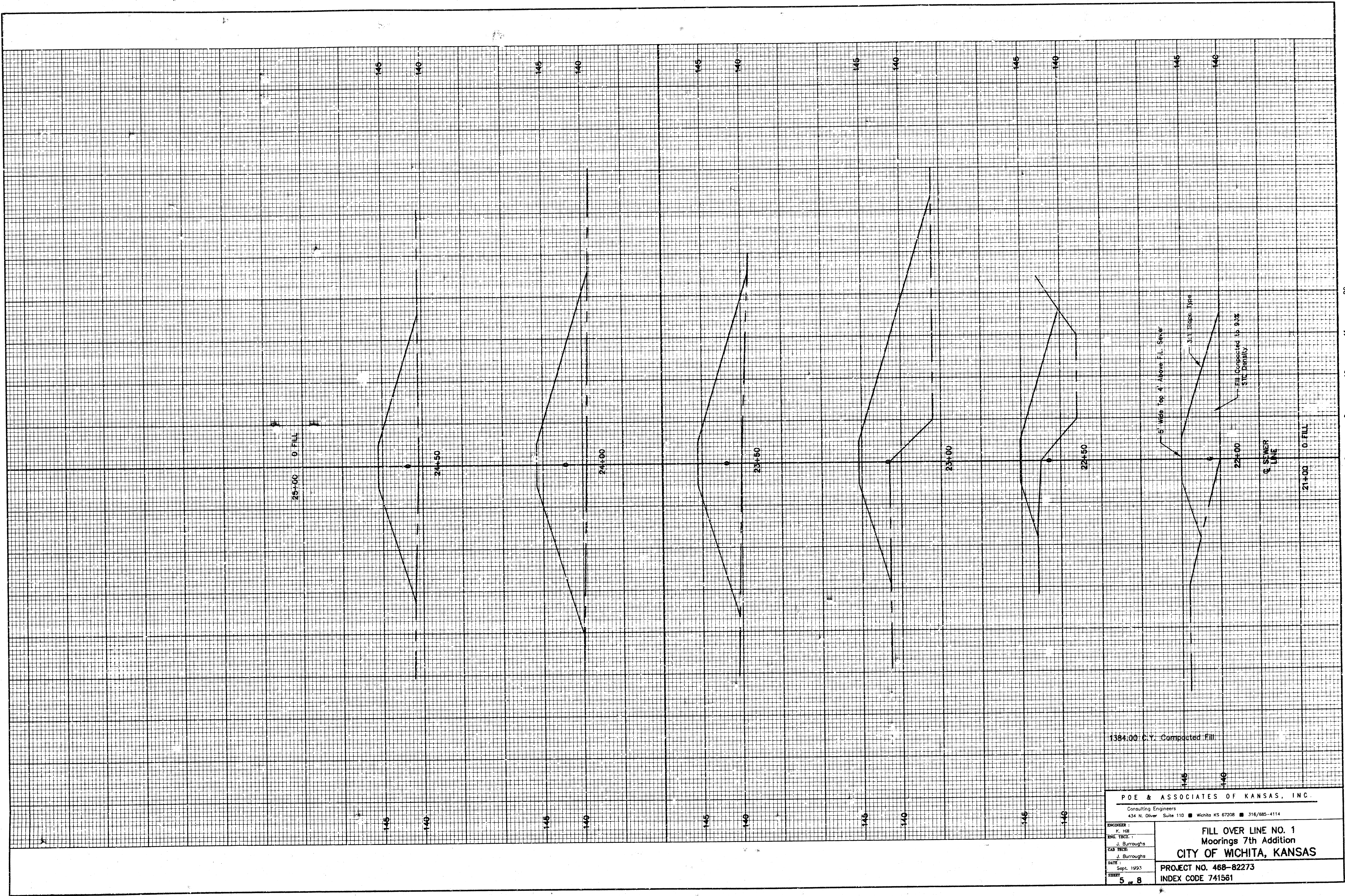
Consulting Engineers
434 N. Oliver, Suite 110 ■ Wichita KS 67208 ■ 316/685-4114

ENGINEER :	K. Hill
ENG. TECH. :	T. Brooks
CAD TECH:	T. Brooks
DATE :	Sept. 1993

MOORINGS 7TH ADDITION
Sanitary Sewer Extensions
CITY OF WICHITA, KANSAS
Project No. 468-82273
Index Code 741561



ENGINEER :	K. H2	MOGRINGS 7TH ADDITION Sanitary Sewer Extensions CITY OF WICHITA, KANSAS Project No. 468-52273 Index Code 741561
ENG. TECH. :	T. Brooks	
CAD TECH. :	T. Brooks	
DATE :	Sept. 1993	
SHEET :	4 of 8	



1384.00 C.Y. Compacted Fill

POE & ASSOCIATES OF KANSAS, INC.
Consulting Engineers
434 N. Oliver Suite 110 Wichita KS 67208 316/885-4114

ENGINEER:
K. Hill
CUB TRCE:
J. Burroughs
DATE:
Sept. 1993
SHEET:
5 of 8

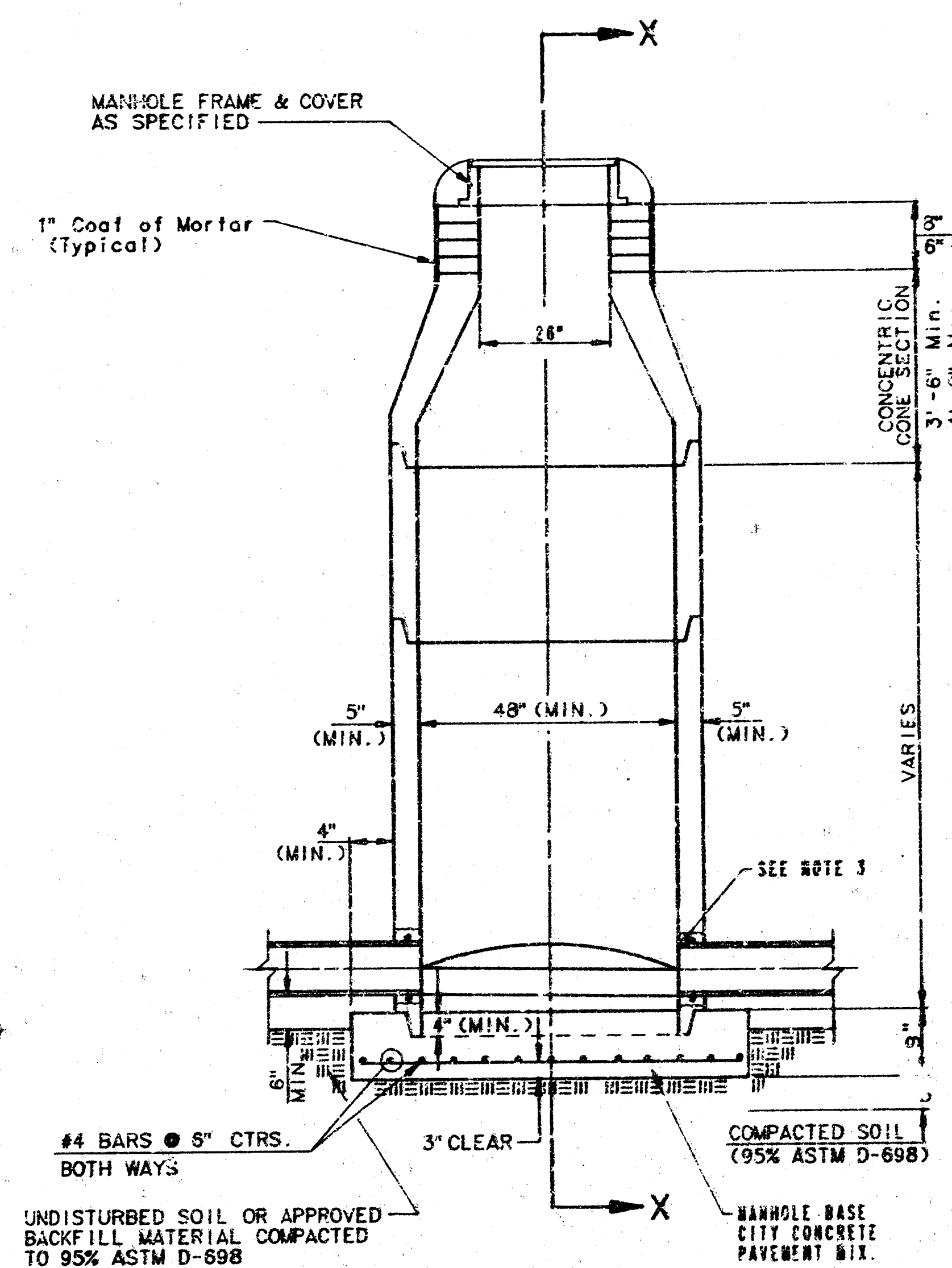
FILL OVER LINE NO. 1
Moorings 7th Addition
CITY OF WICHITA, KANSAS
PROJECT NO. 468-82273
INDEX CODE 741561

SEWER APPURTENANCES DETAILS

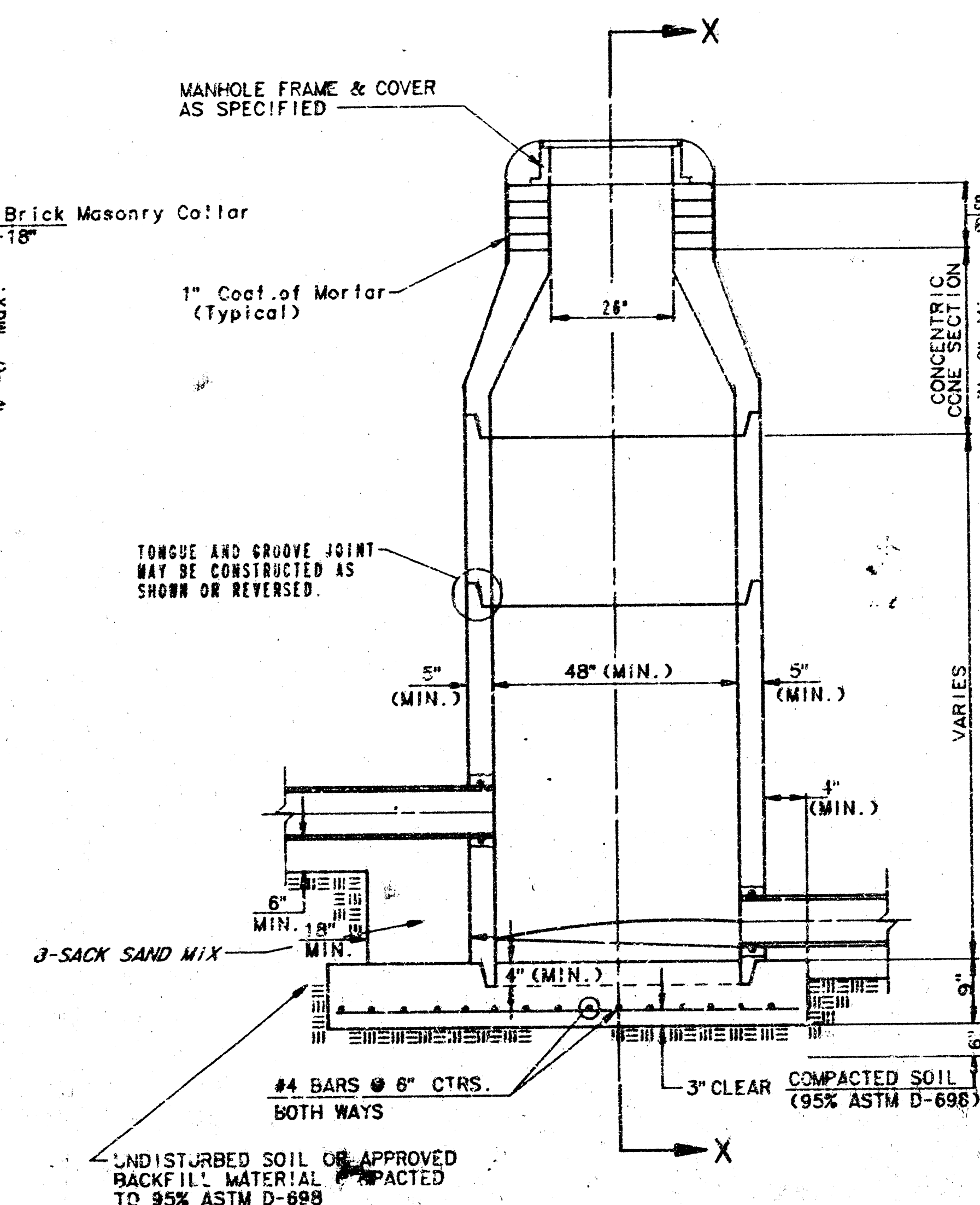
ADOPTED AS STANDARD DESIGN

BY

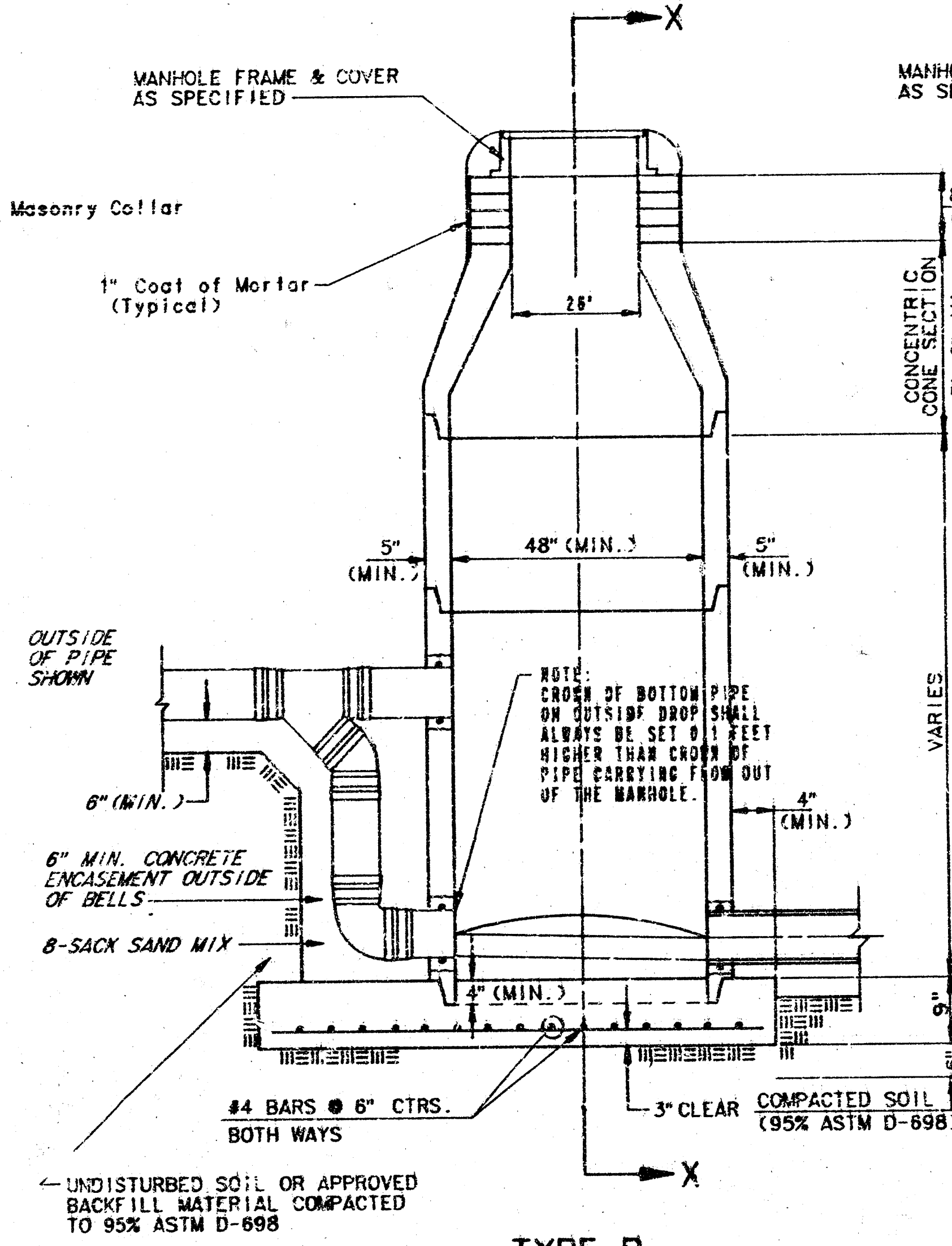
CITY OF WICHITA



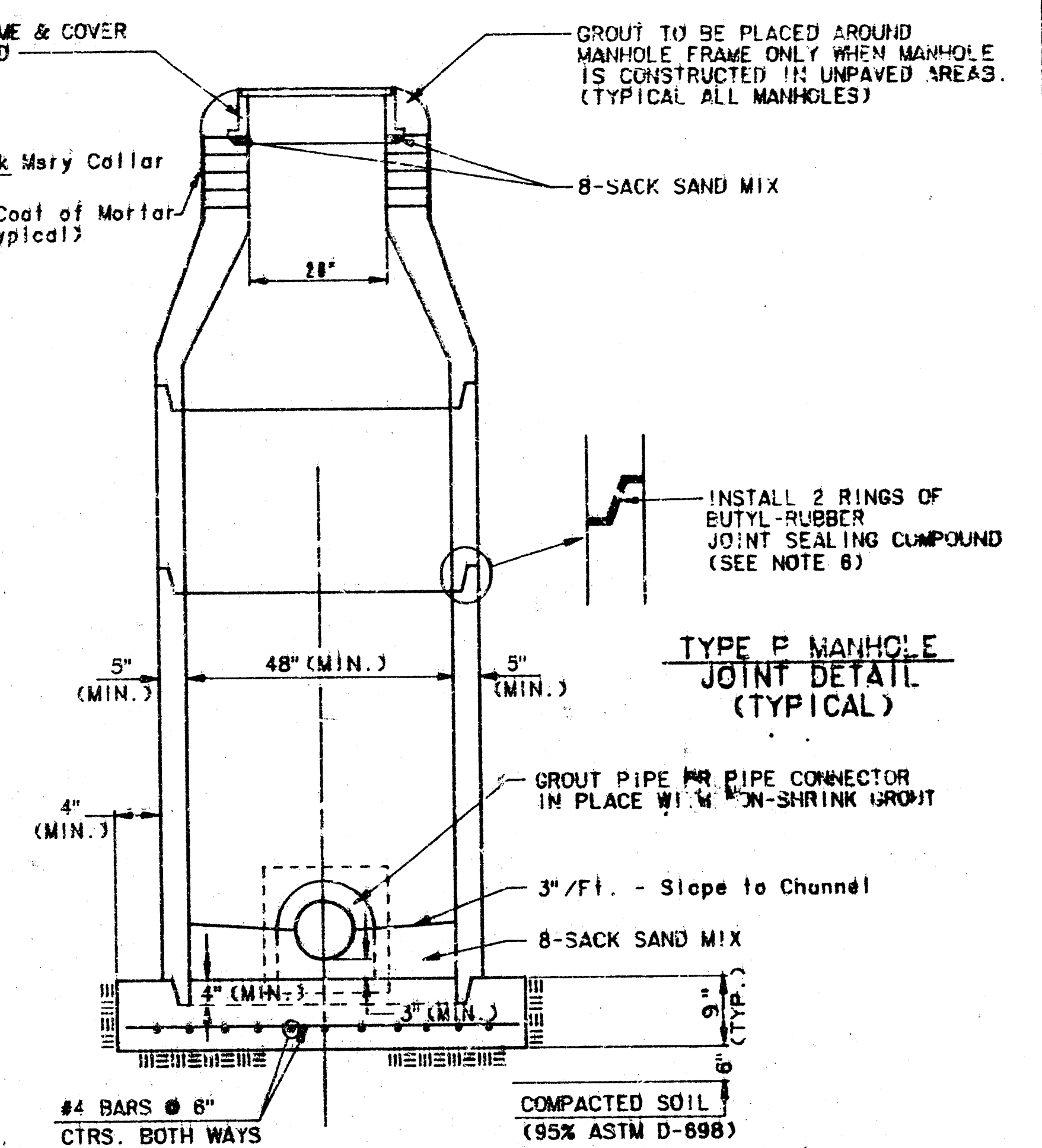
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE



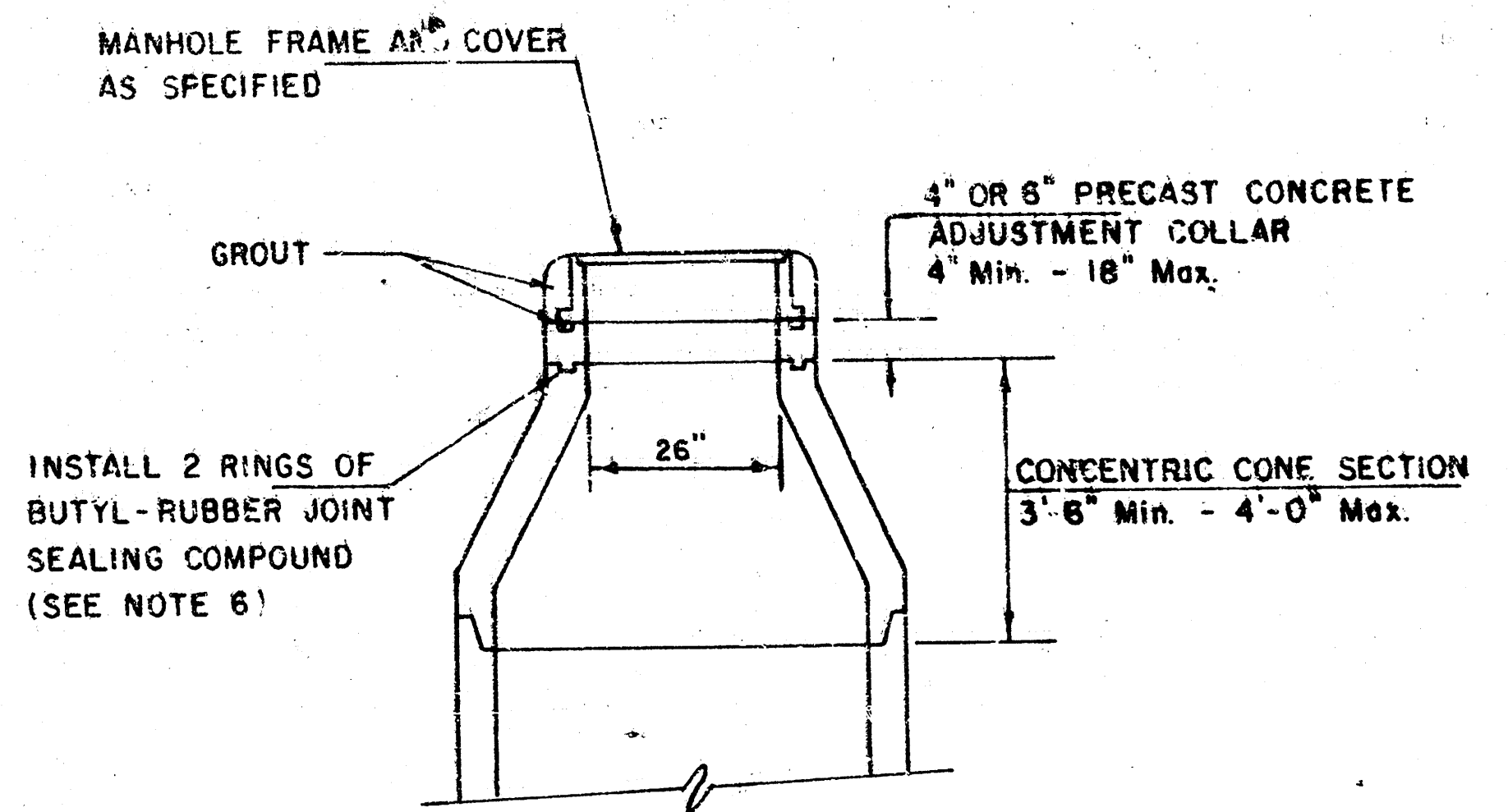
SECTION X
(TYPICAL)

GENERAL NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION 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 TRENEC 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 INSURE SUFFICIENT MINIMUM THICKNESS OF SLAB 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 INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTION 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 OUTLET 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 CRAWLED 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 FREE FALL DROP INSIDE MANHOLES SHALL NOT EXCEED 2'. NEVER BE SET LOWER THAN THE CROWN OF THE INFLOWING 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 CORE. 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.



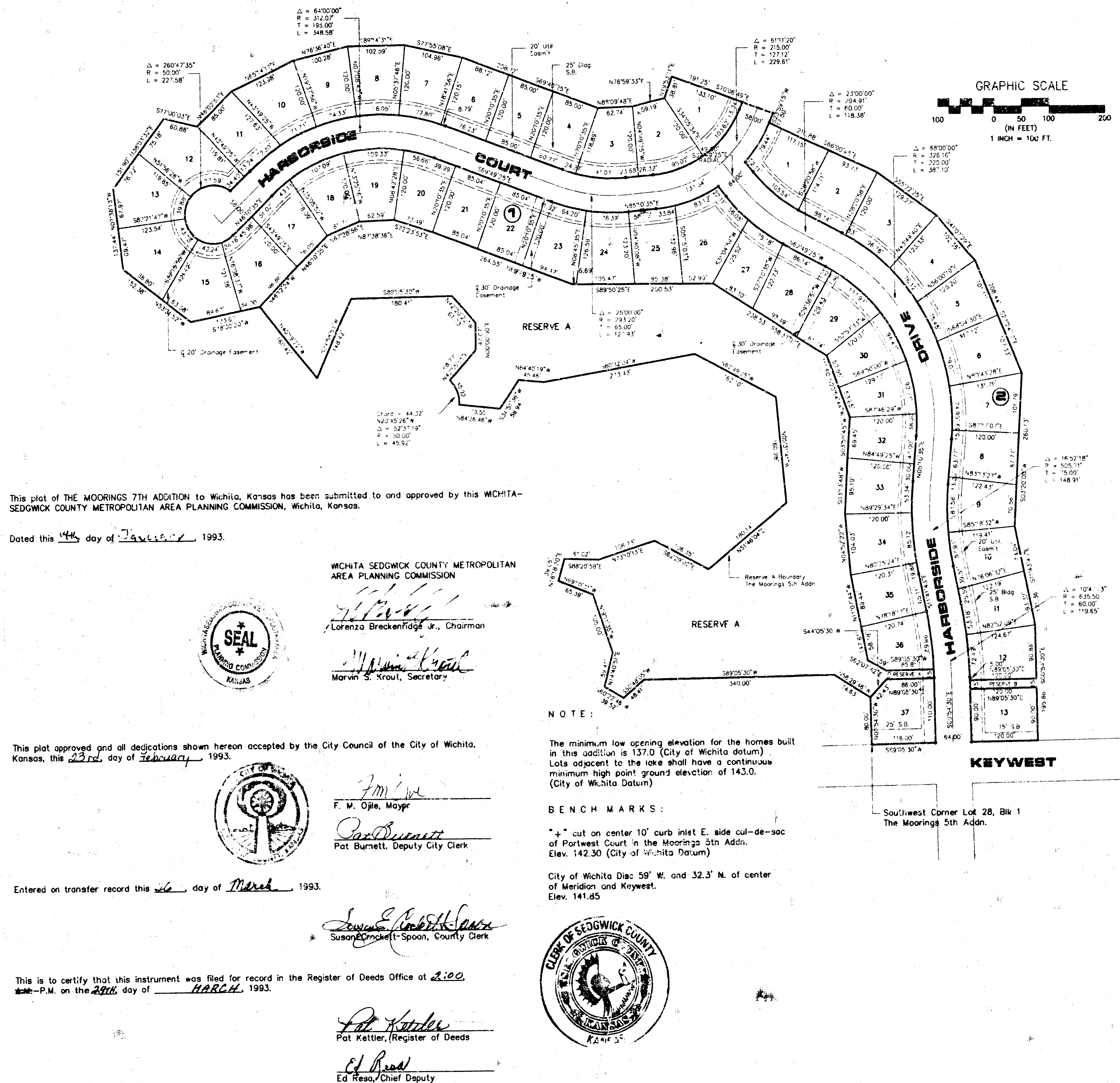
ALTERNATE CONSTRUCTION
IN UNPAVED AREAS

MOORINGS 7th ADDITION
PROJECT NO. 468-82273
INDEX CODE 741561

NOTE NO. 16 REVISED JAN. 1991
Revised 3-21-89
Revised 8-10-88
Revised June 12, 1988

City of Wichita, Kansas

MOORINGS 7th ADDITION
PROJECT NO. 468-82273
INDEX CODE 741561
NOTE NO. 7 REVISED JAN 1991



STATE OF KANSAS, COUNTY OF SEDGWICK: ss.

I, Kenny E. Hill, being a duly licensed Land Surveyor in said County and State, do hereby certify that I have been in responsible charge of surveying and plotting "THE MOORINGS 7TH ADDITION" to Wichita, Kansas, part of which is a replat of Reserve A and Lot 28, Block 1, The Moorings 5th Addition. The Moorings 7th Addition is located in Section 24, Township 26 South, Range 1 West of the 6th P.M. Sedgwick County, Kansas being described as follows:

Beginning at the southwest corner Lot 28, Block 1 in said Moorings 5th Addition: thence N00° 54' 30"W for a distance of 80.00 feet; thence N58° 29' 46"W for a distance of 74.63 feet; thence S89° 05' 30"W for a distance of 340.00 feet; thence S50° 48' 03"W for a distance of 48.41 feet; thence N50° 22' 48"W for a distance of 39.52 feet; thence N14° 40' 51"E for a distance of 59.41 feet; thence N19° 11' 35"W for a distance of 105.00 feet; thence N69° 10' 31"W for a distance of 65.39 feet; thence N16° 18' 20"E for a distance of 39.05 feet; thence S88° 20' 58"E for a distance of 61.02 feet; thence N73° 10' 13"E for a distance of 106.73 feet; thence S62° 29' 02"E for a distance of 106.35 feet; thence N51° 46' 04"E for a distance of 180.14 feet; thence N05° 31' 41"W for a distance of 180.28 feet; thence N62° 49' 25"W for a distance of 162.10 feet; thence S80° 32' 04"W for a distance of 273.43 feet; thence N84° 40' 19"W for a distance of 45.46 feet; thence S34° 51' 36"W for a distance of 58.94 feet; thence N84° 26' 46"W for a distance of 73.55 feet; thence on a circular curve east of a chord bearing N20° 45' 26"W having a length of 44.32', said circular curve having a radius of 50.00', for an arc distance of 45.92 feet; thence N42° 55' 55"E for a distance of 68.77 feet; thence N00° 00' 00"E for a distance of 47.07 feet; thence N42° 20' 22"W for a distance of 61.73 feet; thence S89° 05' 30"W for a distance of 180.41 feet; thence S24° 58' 53"W for a distance of 148.42 feet; thence N40° 19' 22"W for a distance of 180.42 feet; thence S78° 30' 20"W for a distance of 123.67 feet; thence N53° 31' 52"W for a distance of 152.38 feet; thence N07° 38' 13"W for a distance of 137.44 feet; thence N38° 03' 32"E for a distance of 151.90 feet; thence S77° 00' 03"E for a distance of 60.88 feet; thence N46° 02' 53"E for a distance of 85.00 feet; thence N65° 14' 17"E for a distance of 123.98 feet; thence N76° 36' 40"E for a distance of 100.28 feet; thence N89° 14' 31"E for a distance of 102.59 feet; thence S77° 55' 08"E for a distance of 104.96 feet; thence S69° 49' 25"E for a distance of 59.19 feet; thence N19° 53' 11"E for a distance of 62.74 feet; thence N76° 58' 33"E for a distance of 191.25 feet; thence S23° 59' 15"W for a distance of 17.50 feet; thence S68° 00' 45"E for a distance of 210.88 feet; thence S55° 22' 25"E for a distance of 129.27 feet; thence S41° 07' 29"E for a distance of 102.36 feet; thence S23° 24' 17"E for a distance of 208.44 feet; thence S03° 20' 00"W for a distance of 260.13 feet; thence S11° 43' 45"E for a distance of 171.36 feet; thence S00° 54' 30"E for a distance of 195.86 feet; thence S89° 05' 30"W for a distance of 300.00 feet to the point of beginning, except for any portion thereof dedicated for street right-of-way.

The accompanying plot is a true and correct exhibit of property surveyed.

Dated this 20th day of January, 1993.

Kenny E. Hill, L.S.
Kenny E. Hill, L.S.

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned, have caused the land described in the Surveyor's Certificate to be platted into lots, blocks, streets and reserves. The streets are hereby dedicated to and for the use of the public. Easements are hereby granted as indicated for the construction and maintenance of drainage and utilities. Reserves A and B are reserved for a lake, boat dock, drainage, recreation facilities and open space. The reserves are to be owned and maintained by a property owners' association its successors and assigns. The minimum low opening elevation for the homes built in this addition is 137.0 (City of Wichita Datum). Lots adjacent to the lake shall have a continuous minimum high point ground elevation of 143.0 (City of Wichita datum). Vacation of the previously platted dedications are by virtue of K.S.A. 12-512 (b).

MIBAC, Inc.

C. Bill Bachman, President
C. Bill Bachman, President

STATE OF KANSAS, COUNTY OF SEDGWICK: ss.

This instrument was acknowledged before me on this 20th day of January, 1993, by C. Bill Bachman, President of MIBAC, Inc.

Notary Public
Carol R. Barnes

My Appointment Expires: April 25, 1996

THE MOORINGS 7TH ADDITION

TO WICHITA - SEDGWICK COUNTY, KANSAS

MOORINGS 7th ADDITION
PROJECT NO. 468-82273
INDEX CODE 741561

PC 35-8
10-1-8