

Lat. 118, War Industries Sewer
SANITARY SEWER IMPROVEMENTS
 to serve
Pebblebrook Addition - Phase 2
 CITY OF WICHITA, KANSAS

Michael E. Lindelak, P.E. City Engineer

Project Number

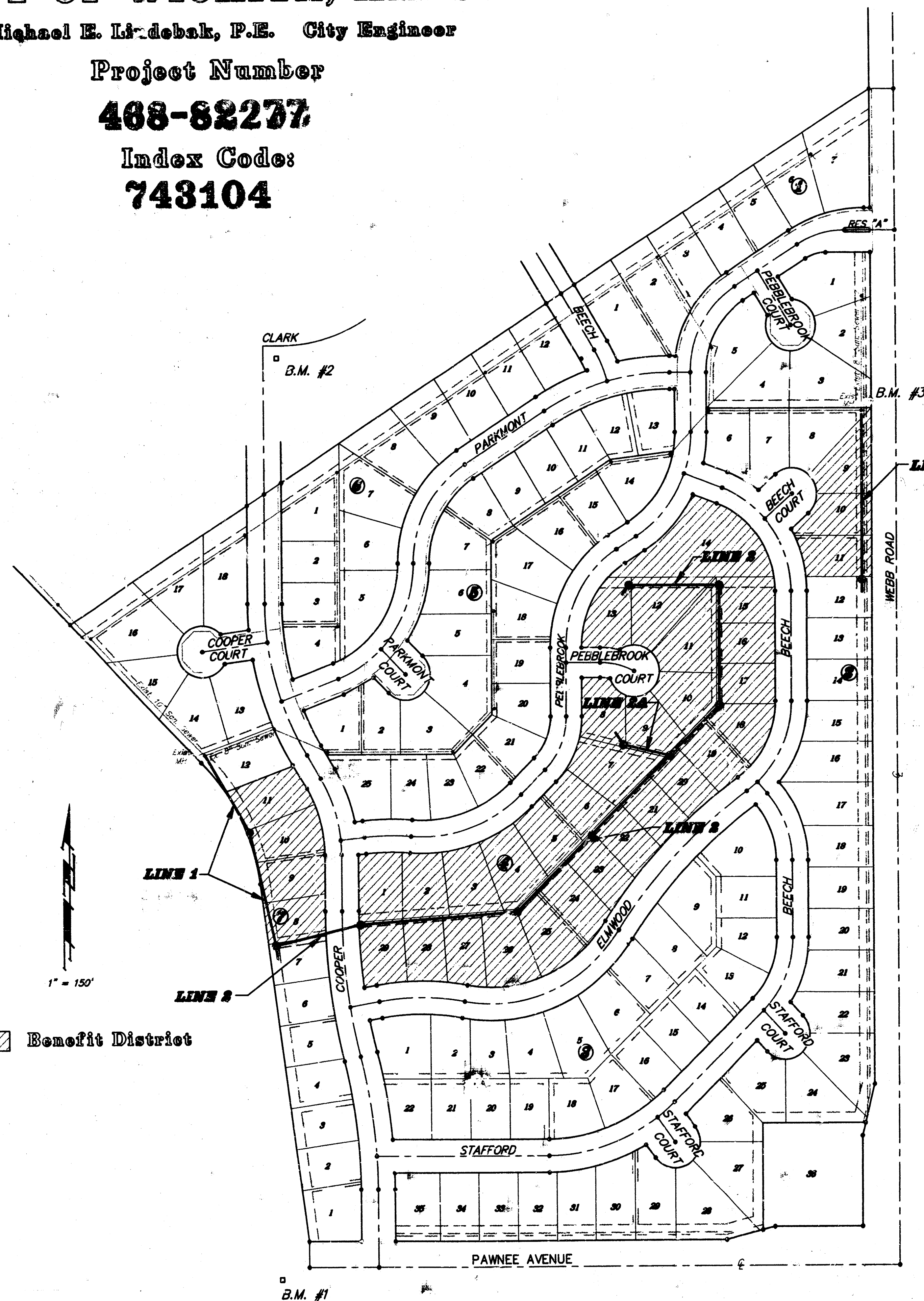
468-82237

Index Code:

743104

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 262-0681
 K.P.L. Gas Service Company 383-8650
 Kansas Gas & Electric Company 383-8600
 Peoples Gas Company 942-8350
 Southwestern Bell Telephone Company 1-571-2611
 City of Wichita Water Dept. 268-4908
 City of Wichita Traffic Engineering 289-4446
- 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. If a 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 irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
- Contractor shall grade the sanitary sewer alignment to the profile and elevations shown on the easement grading plans. All costs for grading shall be paid as lump sum for easement grading.
- 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.
- 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.
- When connecting to existing MH or stub, the contractor shall reshape MH bottom or adjust the existing stub's alignment or elevation as necessary. Cost shall be subsidiary to other bid items.



BENCHMARKS:

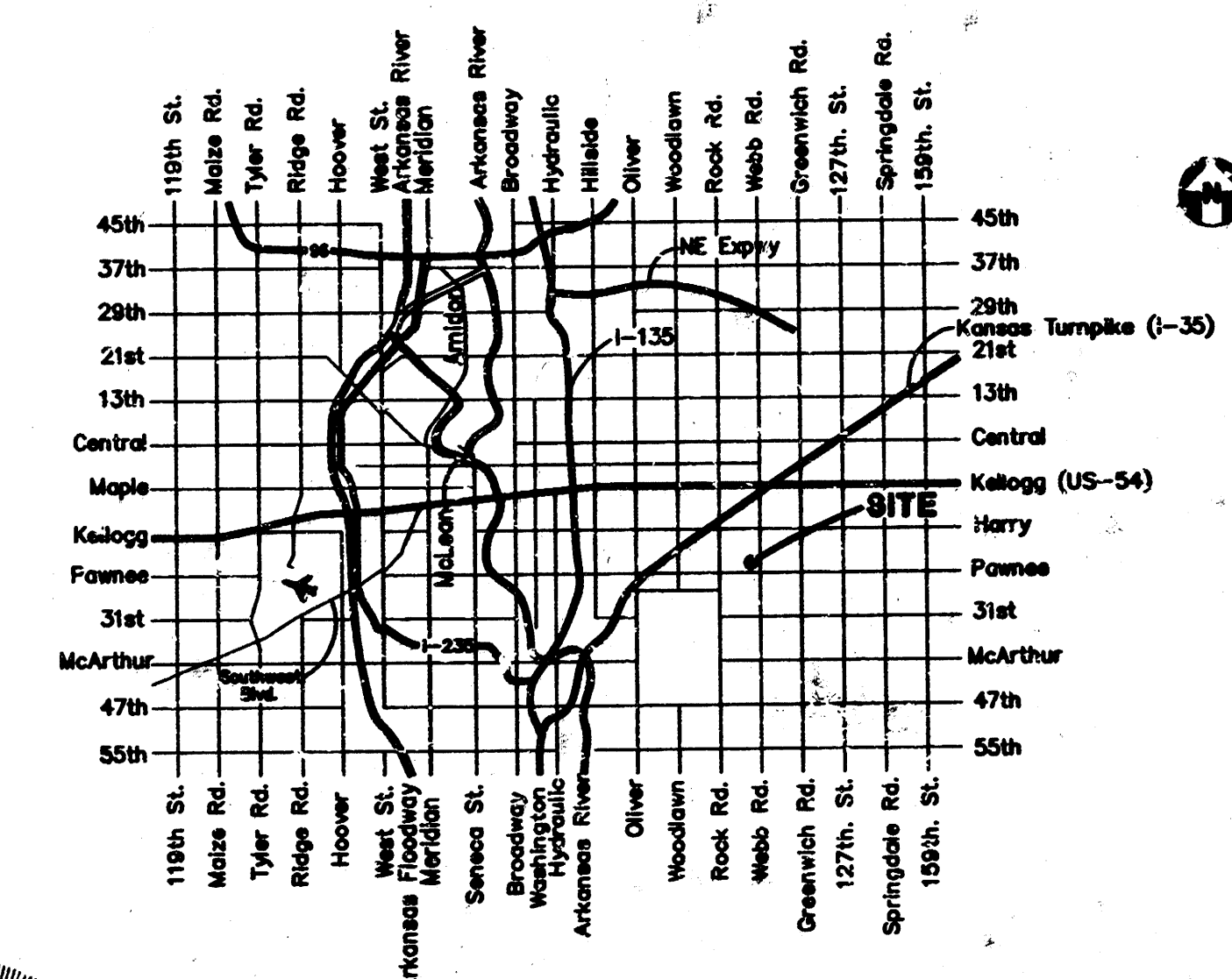
"□" Cut on top of the S.E. Corner of the Headwall 1253 feet W. & 32 feet S. of the E's of Pawnee Ave. & Webb Rd. Elev. = 186.89 (City Datum)

"□" Cut of the top of curb at the E. end of the Return at the S.E. Corner of Cooper & Clark. Elev. = 182.87 (City Datum)

R.R. Spike in the E. side of the High Line Pole 1667.86 feet N. & 51.57 feet W. of the E's of Pawnee Ave. & Webb Rd. Elev. = 190.70 (City Datum)

INDEX:

TITLE SHEET	1
LINE 1	2
LINE 2 & 2A	3-4
LINE 3	5
STANDARD MANHOLE DETAIL	6
SHALLOW MANHOLE DETAIL	7
RISER DETAIL	8
EASEMENT GRADING PLAN	9
COPY OF PLAT	10



BENCHMARKS:

"□" Cut on top of the S.E. Corner of the Headwall 1258 feet W. & 32 feet S. of the C's of Pawnee Ave. & Webb Rd. Elev. = 186.89 (City Datum)

"□" Cut of the top of curb at the E. end of the Return at the S.E. Corner of Cooper & Clark. Elev. = 182.87 (City Datum)

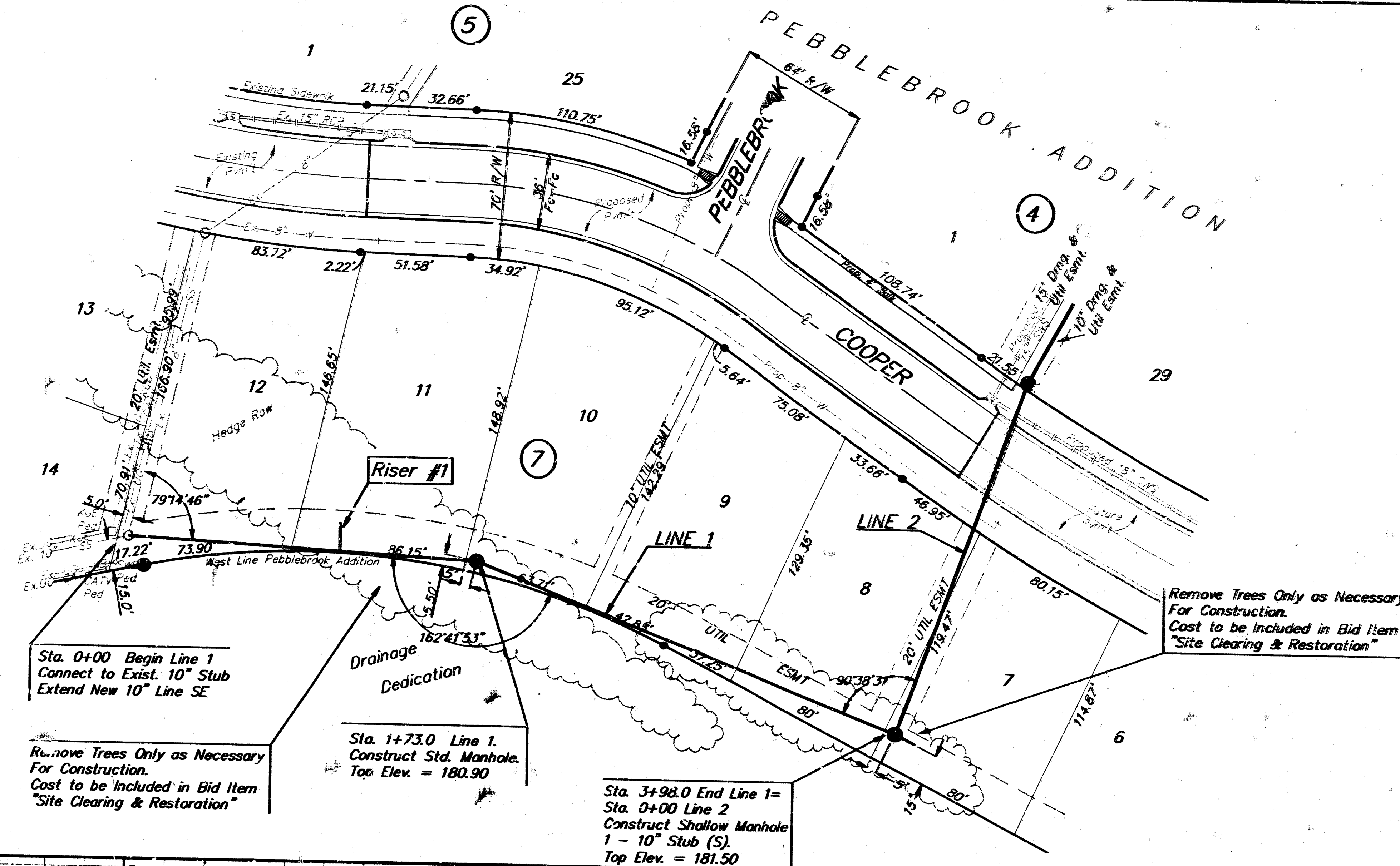
R.R. Spike in the E. side of the High Line Pole 1667.86 feet N. & 51.57 feet W. of the C's of Pawnee Ave. & Webb Rd. Elev. = 190.70 (City Datum)

Contractor to verify location and depth of existing manhole and stub. Any adjustment necessary shall be considered incidental to project cost.

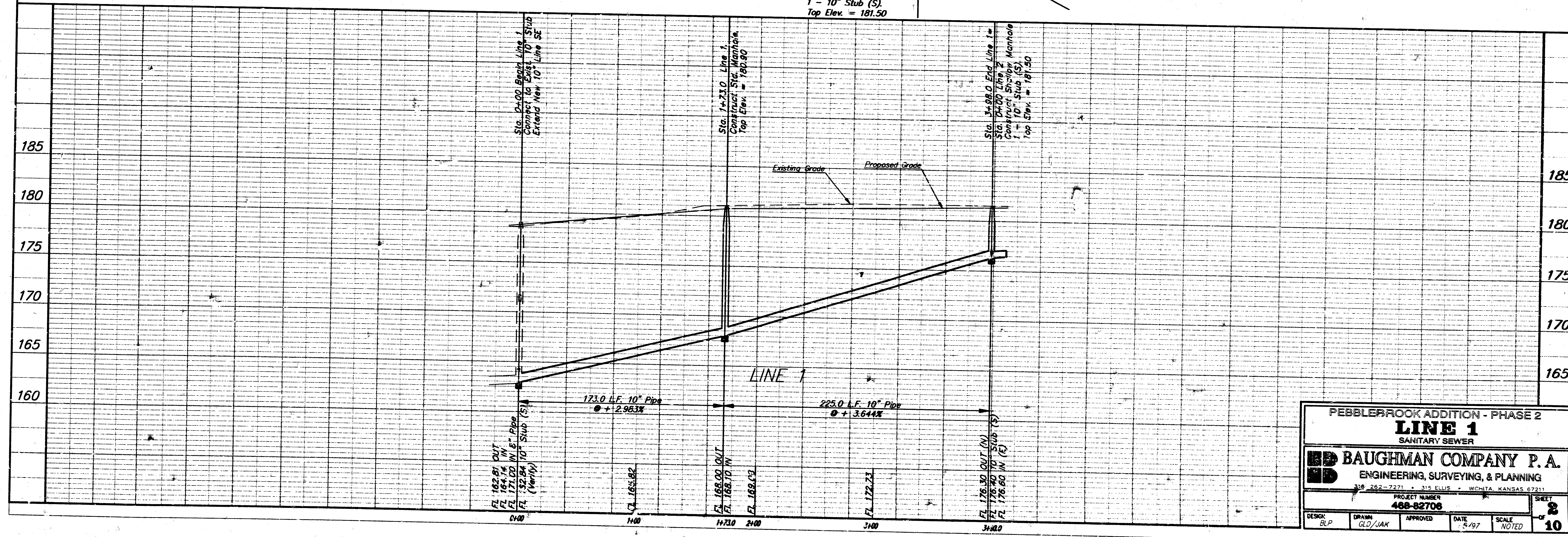
SEWER SERVICE TABLE

NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY		
		LOT NO.	BLOCK NO.	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE	
1	8" X 4" Tee Saddle	11	7	1	1+06/LL	VERTICAL	HORIZONTAL
						10'	13.7'

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



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



PEBBLEBROOK ADDITION - PHASE 2			
LINE 1			
SANITARY SEWER			
BAUGHMAN COMPANY P.A.			
ENGINEERING, SURVEYING, & PLANNING			
310 252-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
PROJECT NUMBER		SHEET	
468-82706		2	
DESIGN	DRAWN	APPROVED	DATE
BLP	GLD/JAK		5/97
SCALE		NOTED	
		10	

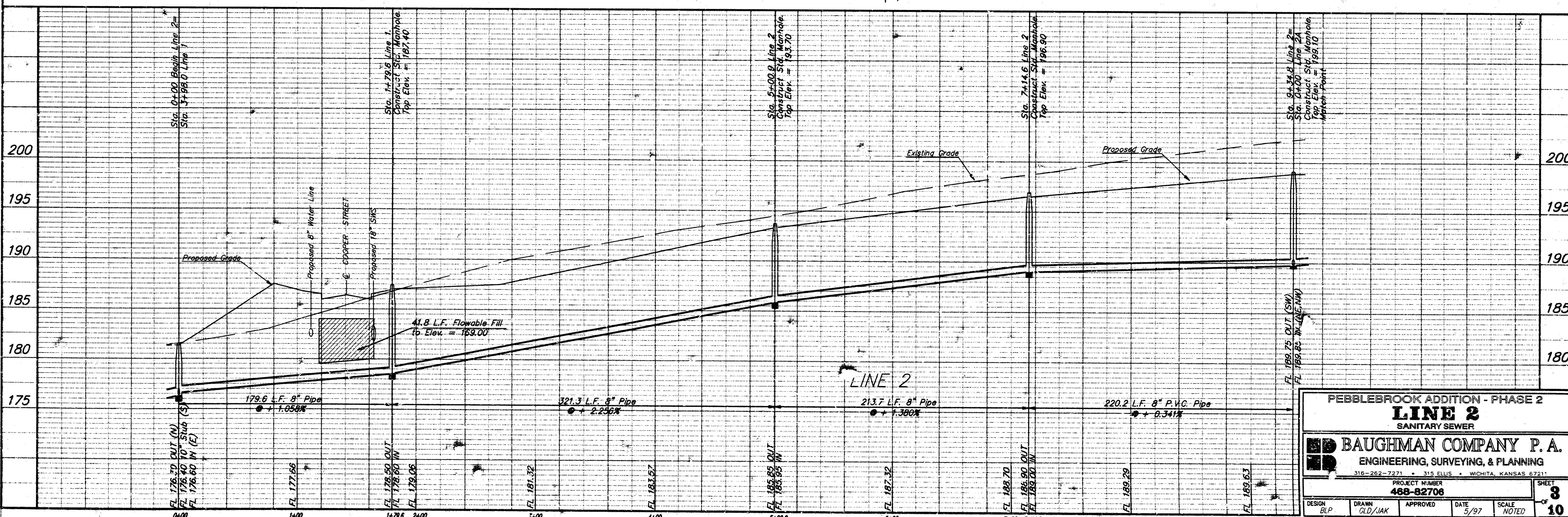
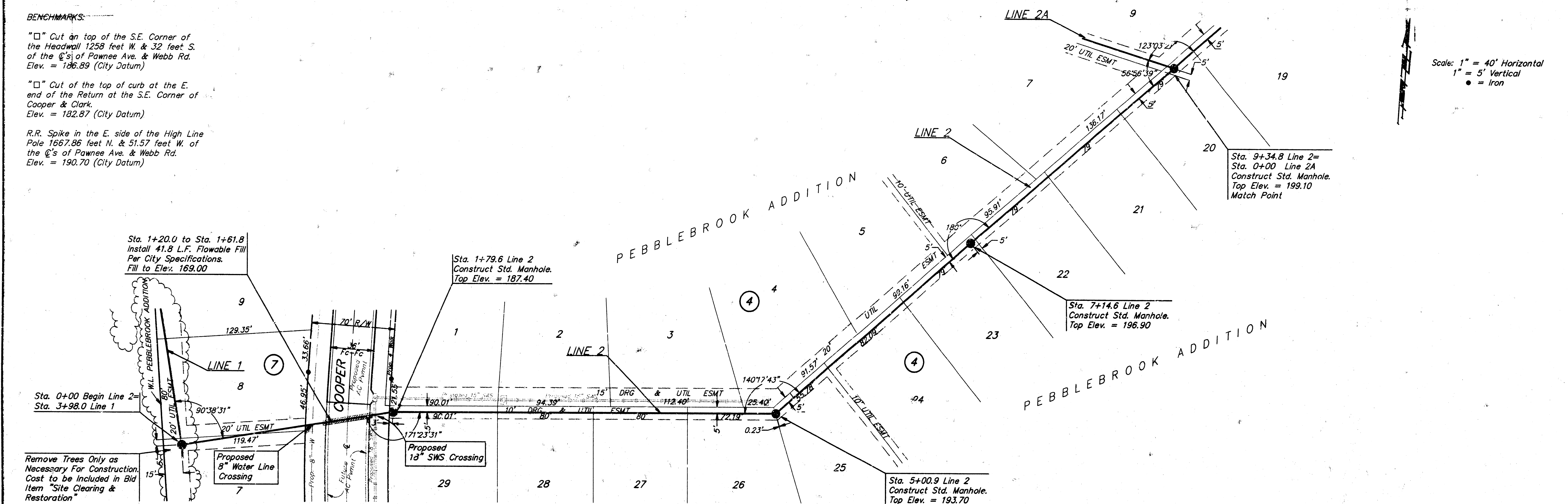
BENCHMARKS:

"□" Cut in top of the S.E. Corner of the Headwall 1258 feet W. & 32 feet S. of the C's of Pawnee Ave. & Webb Rd. Elev. = 186.89 (City Datum)

"□" Cut of the top of curb at the E. end of the Return at the S.E. Corner of Cooper & Clark. Elev. = 182.87 (City Datum)

R.R. Spike in the E. side of the High Line Pole 1667.86 feet N. & 51.57 feet W. of the C's of Pawnee Ave. & Webb Rd. Elev. = 190.70 (City Datum)

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



PEBBLEBROOK ADDITION - PHASE 2
LINE 2
 SANITARY SEWER

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

PROJECT NUMBER: **468-82706**

DESIGN: BLP DRAWN: GLD/JAK APPROVED: [Signature] DATE: 5/97 SCALE: NOTED

SHEET **3** OF **10**

BENCHMARKS:

"□" Cut on top of the S.E. Corner of the Headwall 1258 feet W. & 32 feet S. of the C's of Pawnee Ave. & Webb Rd. Elev. = 188.89 (City Datum)

"□" Cut on top of curb at the E. end of the Return at the S.E. Corner of Cooper & Clark. Elev. = 182.87 (City Datum)

R.R. Spike in the E. side of the High Line Pole 1667.86 feet N. & 51.57 feet W. of the C's of Pawnee Ave. & Webb Rd. Elev. = 190.70 (City Datum)

Sta. 14+88.3 End Line 2
Construct Shallow Manhole
1-4" Stub (SW).
Top Elev. = 197.30

Remove Trees Only as Necessary
For Construction.
Cost to be included in Bid Item
"Site Clearing & Restoration"

Sta. 13+05.8 Line 2
Construct Std. Manhole.
Top Elev. = 198.60

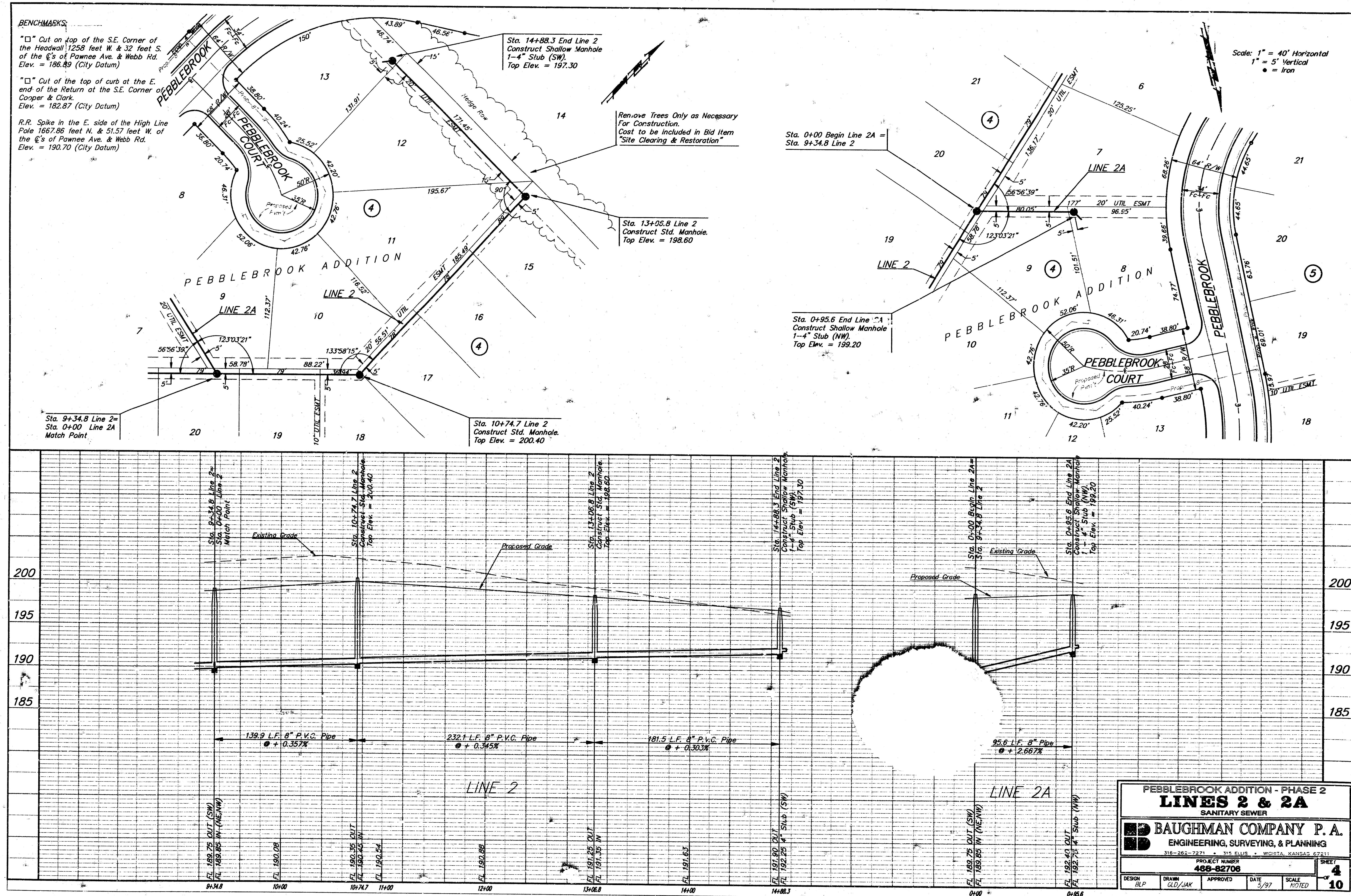
Sta. 10+74.7 Line 2
Construct Std. Manhole.
Top Elev. = 200.40

Sta. 9+34.8 Line 2 =
Sta. 0+00 Line 2A
Match Point

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

Sta. 0+00 Begin Line 2A =
Sta. 9+34.8 Line 2

Sta. 0+95.6 End Line 2A
Construct Shallow Manhole
1-4" Stub (NW).
Top Elev. = 199.20



BENCHMARKS:

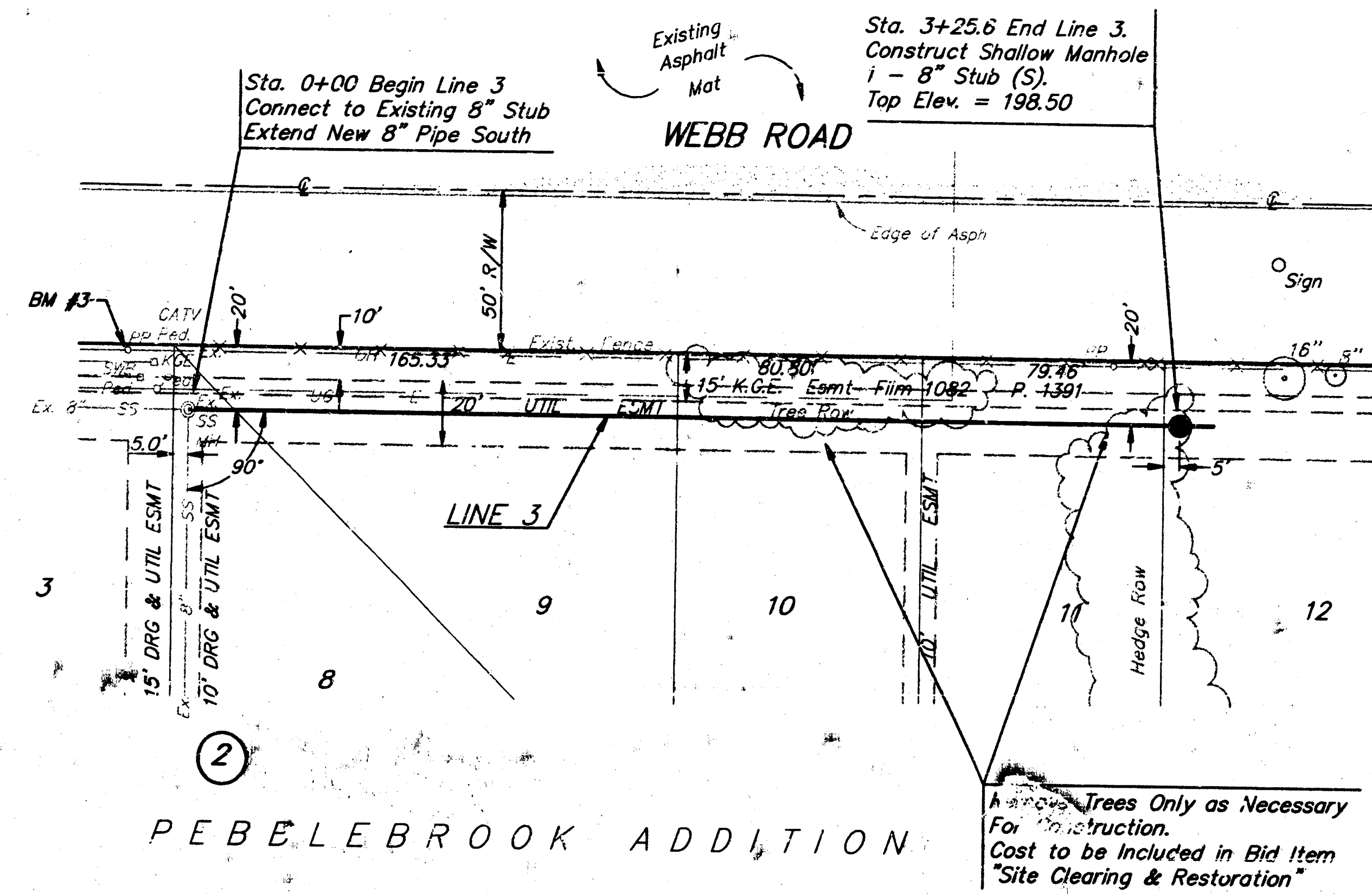
"□" Cut on top of the S.E. Corner of the Headwall 1258 feet W. & 32 feet S. of the C's of Pawnee Ave. & Webb Rd. Elev. = 186.89 (City Datum)

"□" Cut on top of curb at the E. end of the Return at the S.E. Corner of Cooper & Clark Elev. = 182.87 (City Datum)

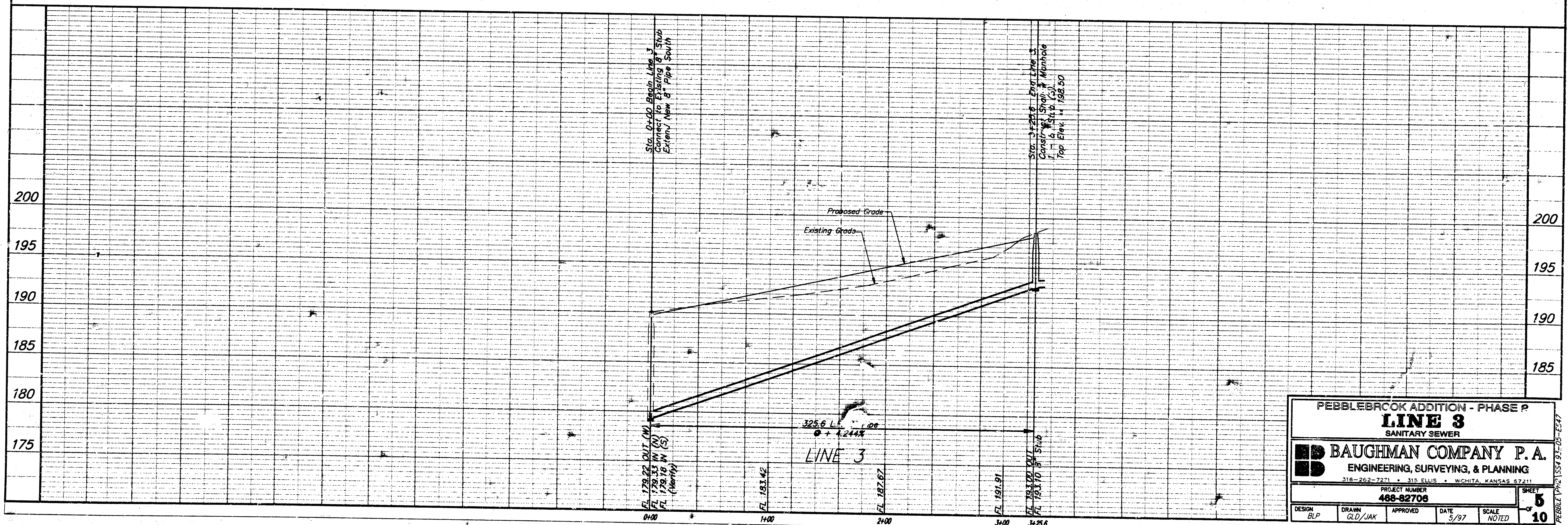
R.R. Spike in the E. side of the High Line Pole 1667.86 feet N. & 51.57 feet W. of the C's of Pawnee Ave. & Webb Rd. Elev. = 190.70 (City Datum)

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

Contractor to verify location and depth of existing manhole and stub. Any adjustment necessary shall be considered incidental to project cost.

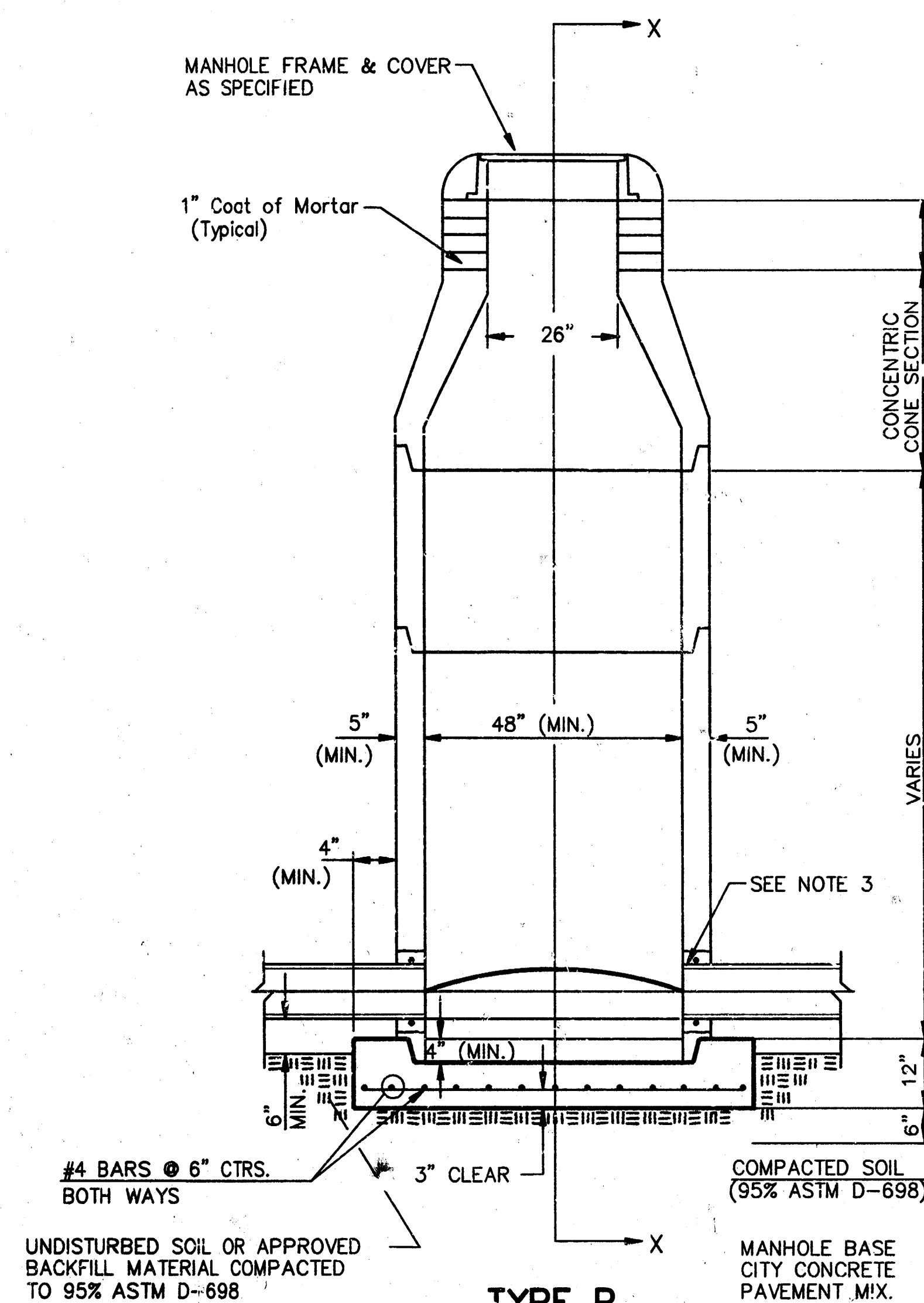


PEBBLEBROOK ADDITION

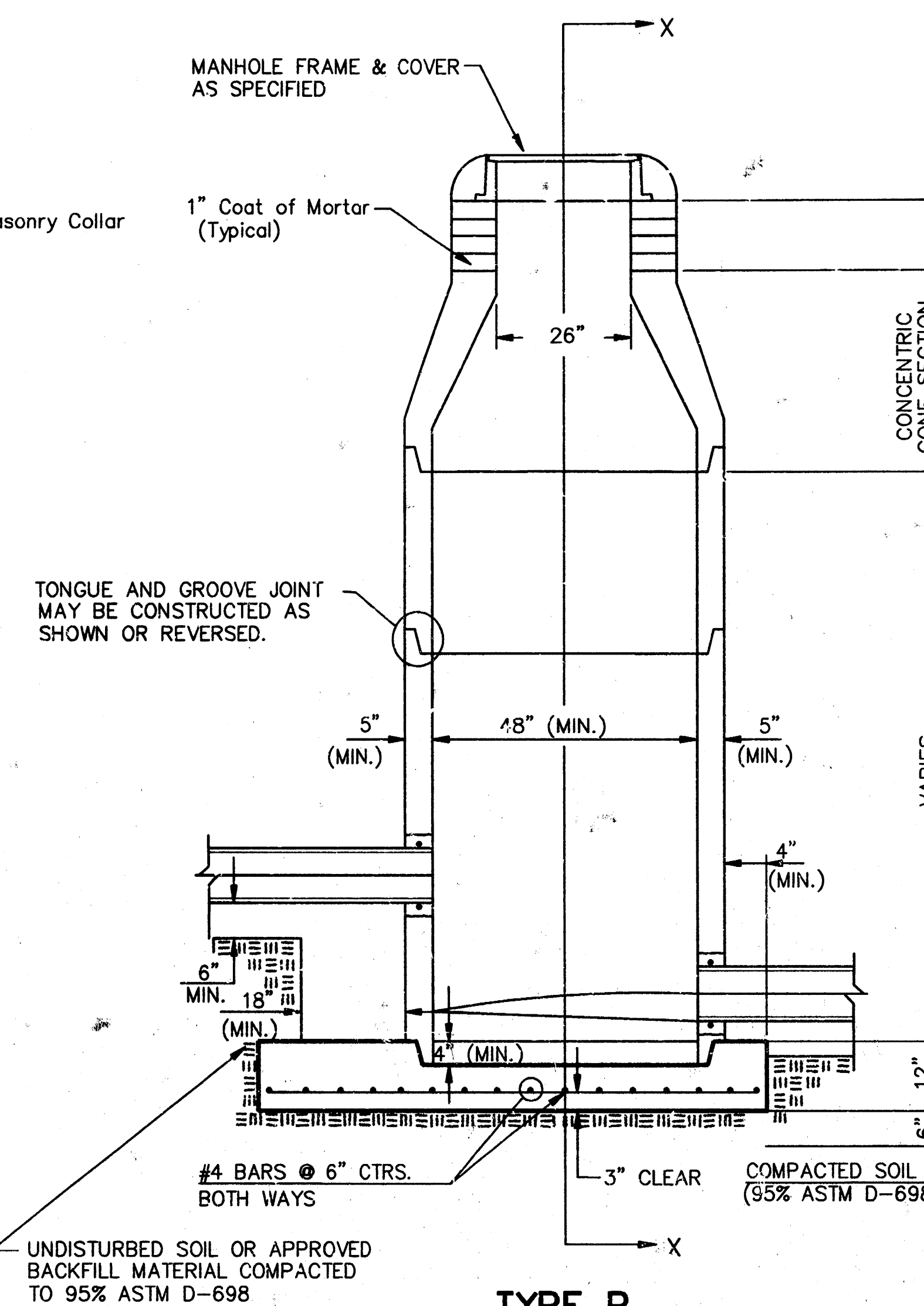


PEBBLEBROOK ADDITION - PHASE P				
LINE 3				
SANITARY SEWER				
BAUGHMAN COMPANY P.A.				
ENGINEERING, SURVEYING, & PLANNING				
318-263-7271 • 315 ELM • WICHITA, KANSAS 67211				
PROJECT NUMBER 488-82706				
DESIGN BLP	DRAWN GLD/JAK	APPROVED	DATE 5/97	SCALE NOTED
				SHEET 5 OF 10

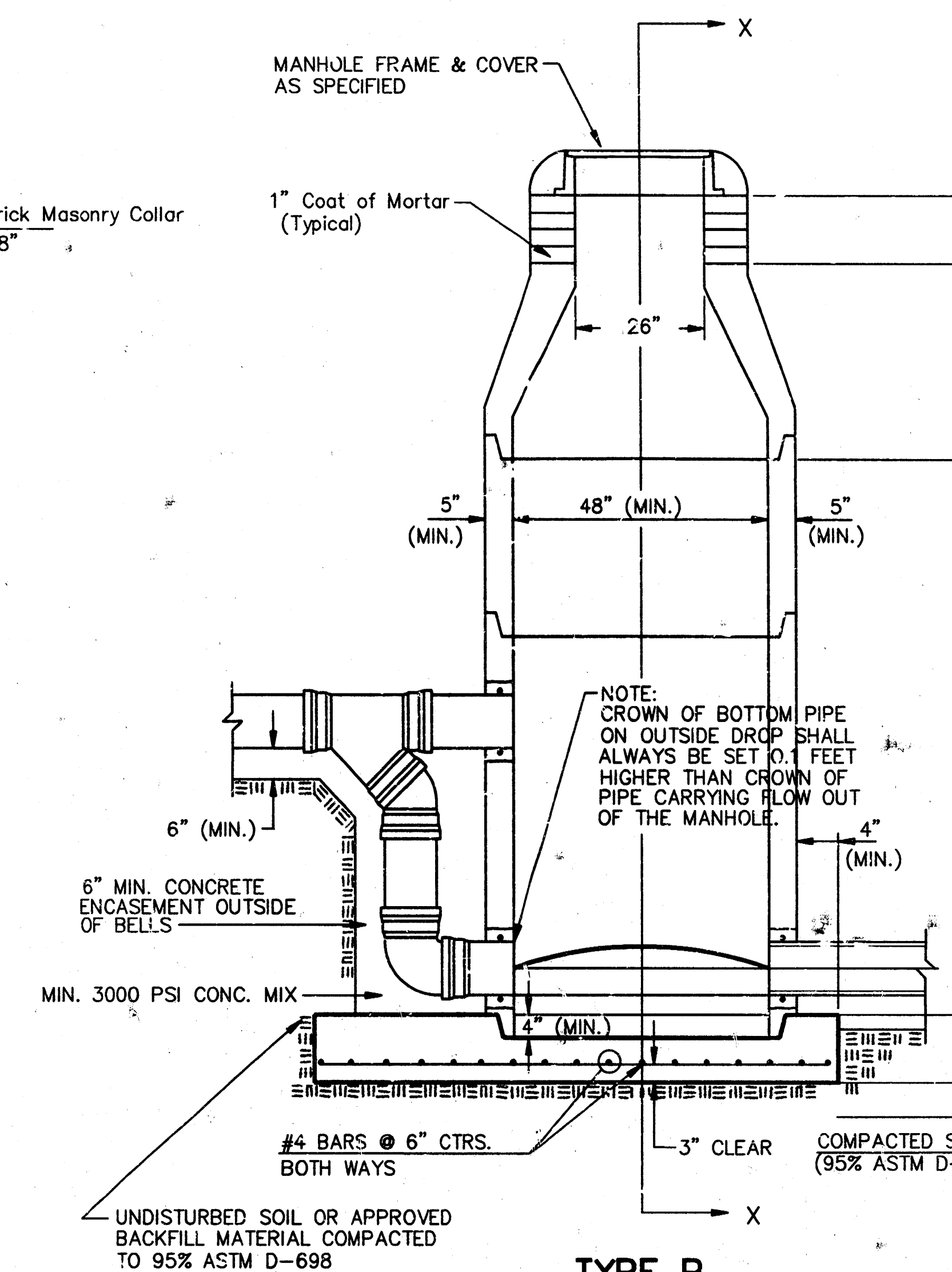
SEWER APPURTENANCES DETAILS



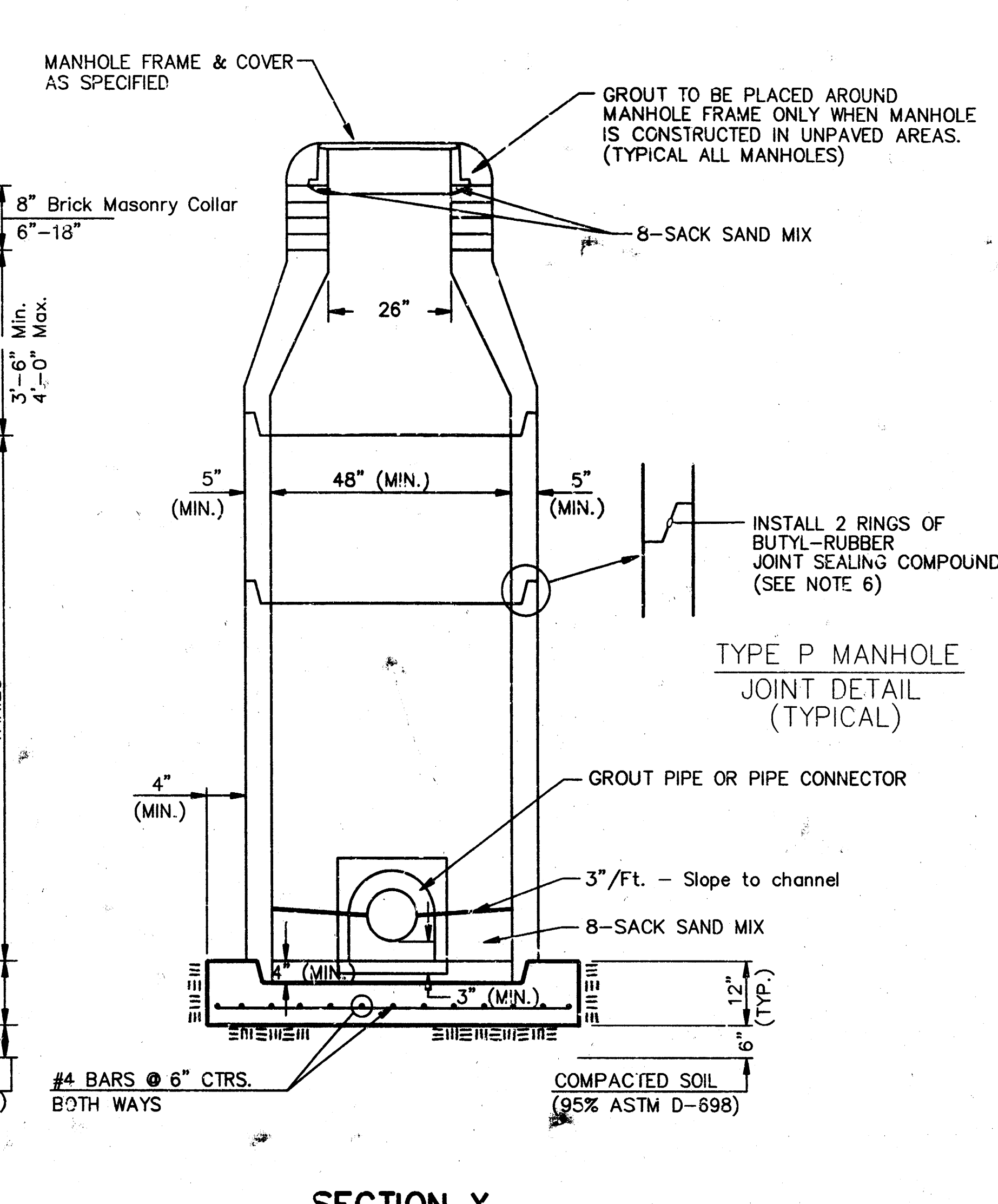
**TYPE P
STANDARD MANHOLE**



**TYPE P
INSIDE DROP MANHOLE**



**TYPE P
OUTSIDE DROP MANHOLE**



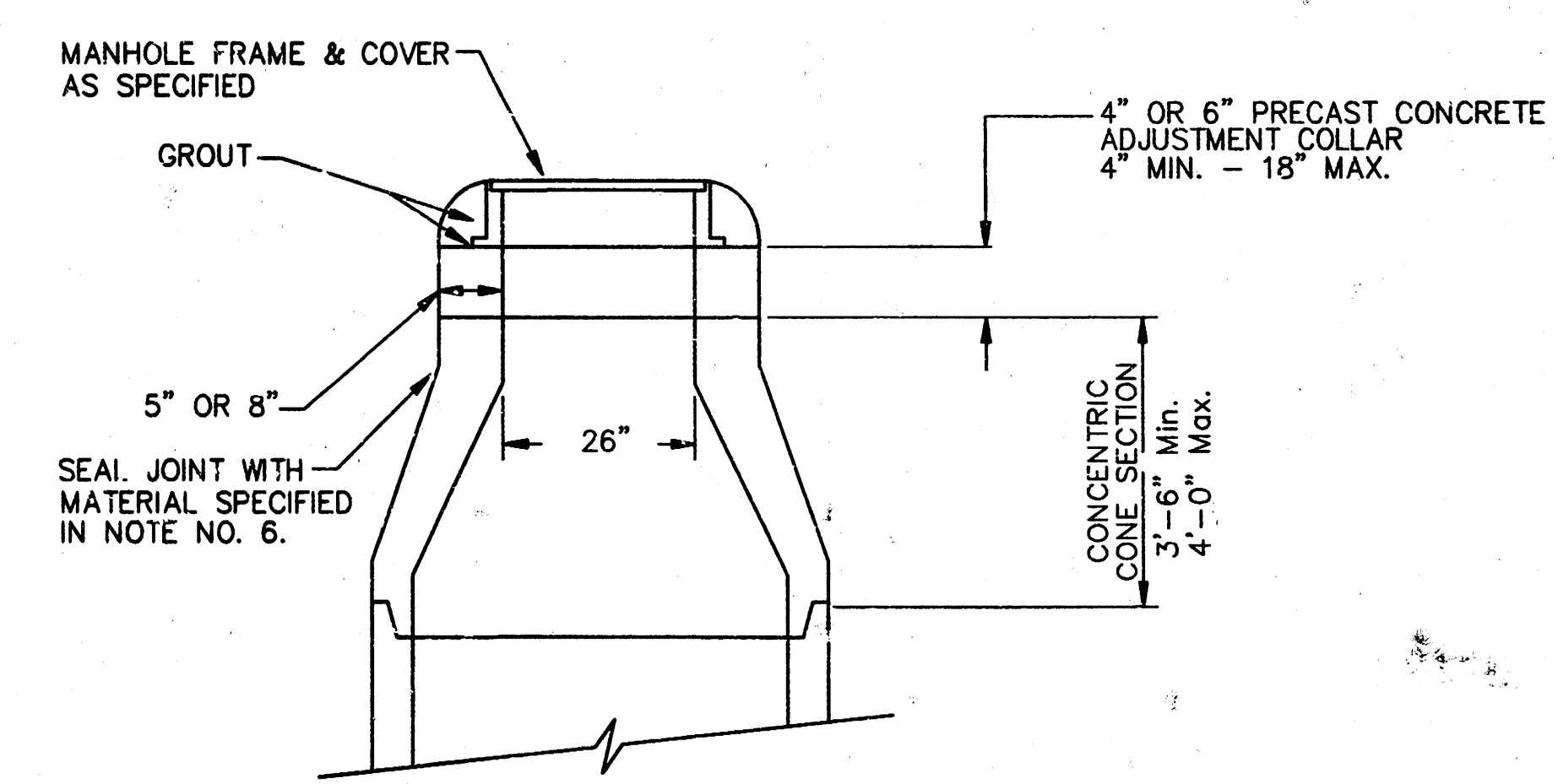
**SECTION X
(TYPICAL)**

GENERAL NOTES

- PRECAST MANHOLE NOTES**
- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
 - NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
 - APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
 - ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNEC SERIES 66 HI-BUILD 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.

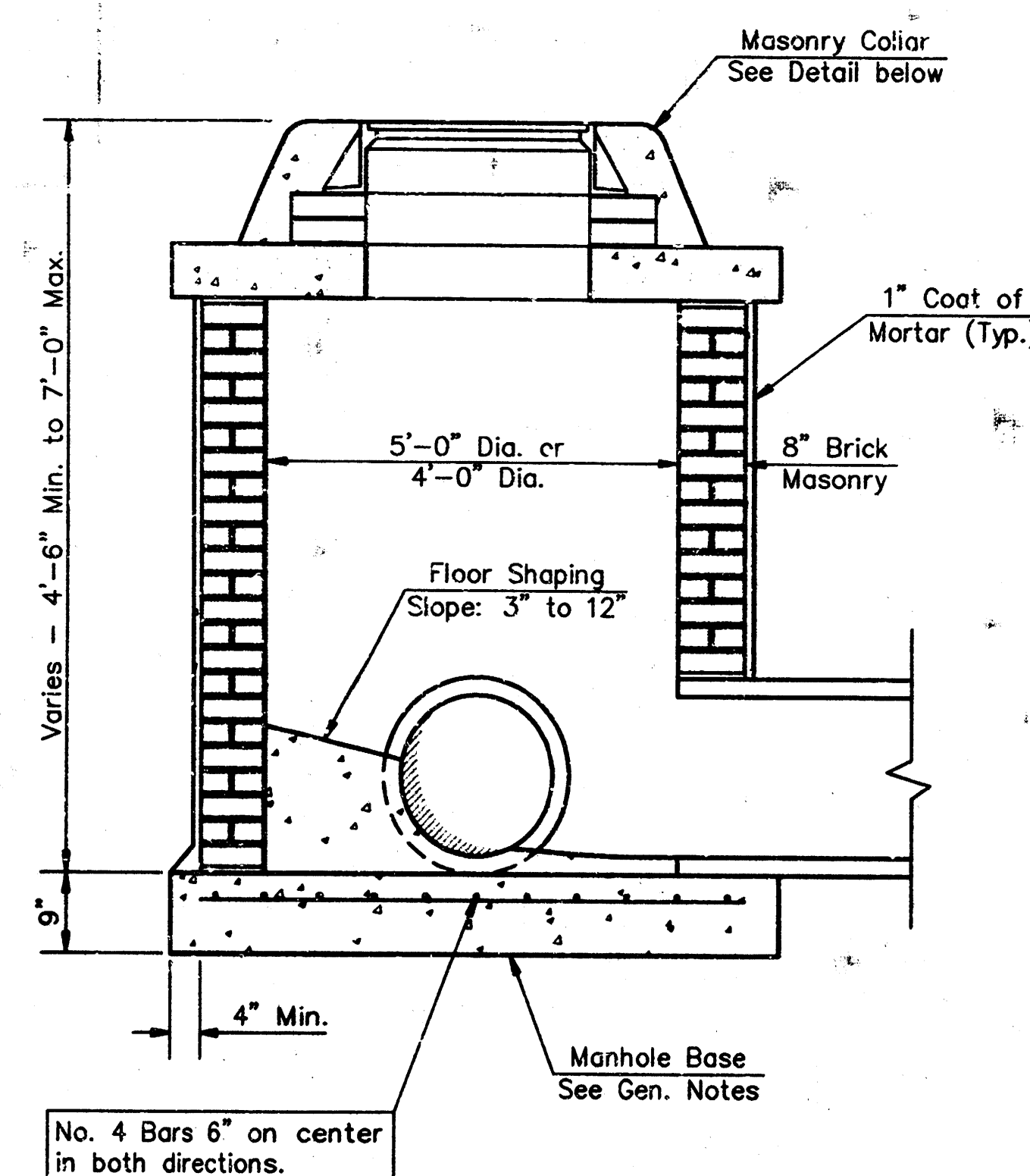
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED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

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

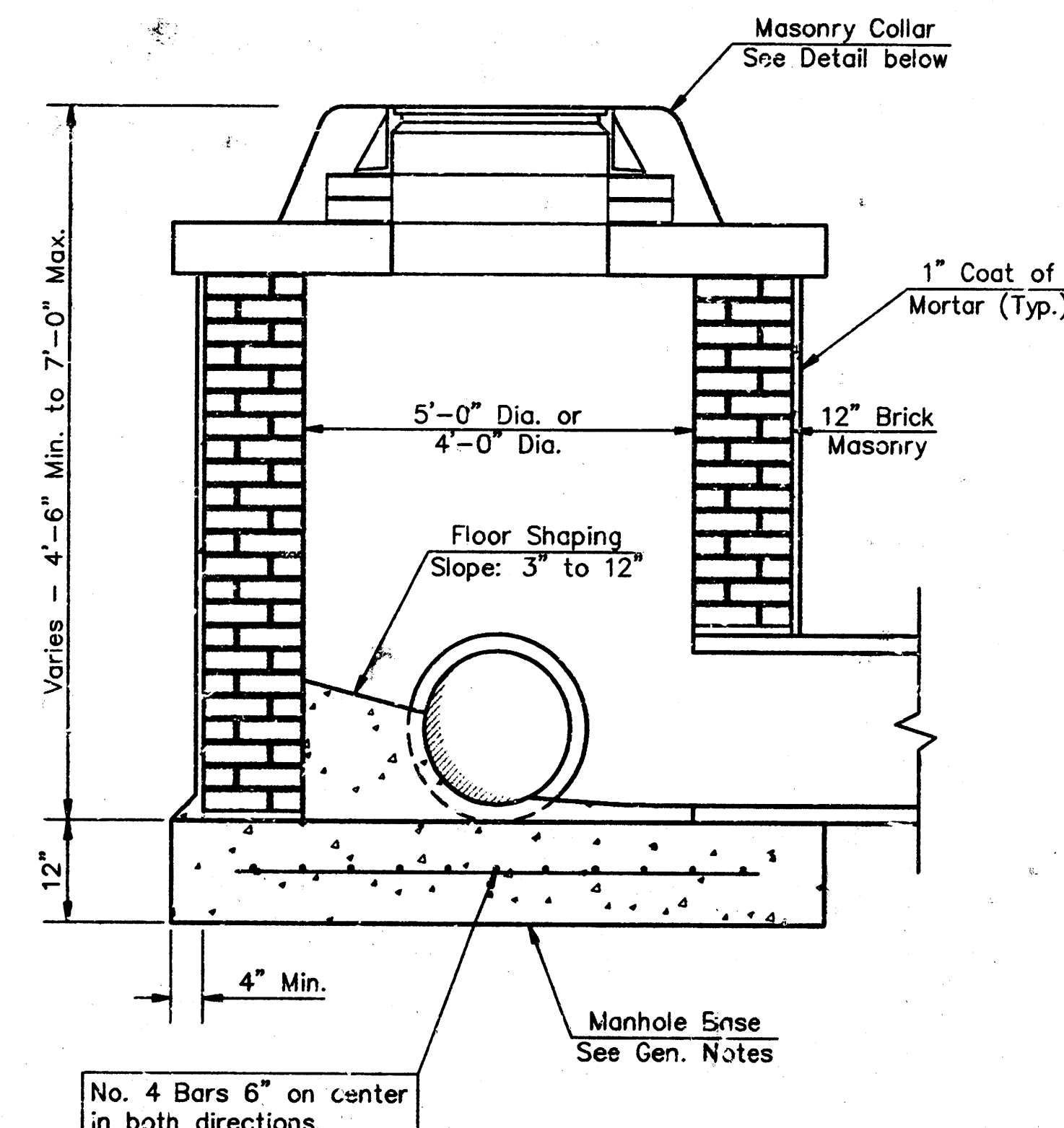


**ALTERNATE CONSTRUCTION
IN UNPAVED AREAS**

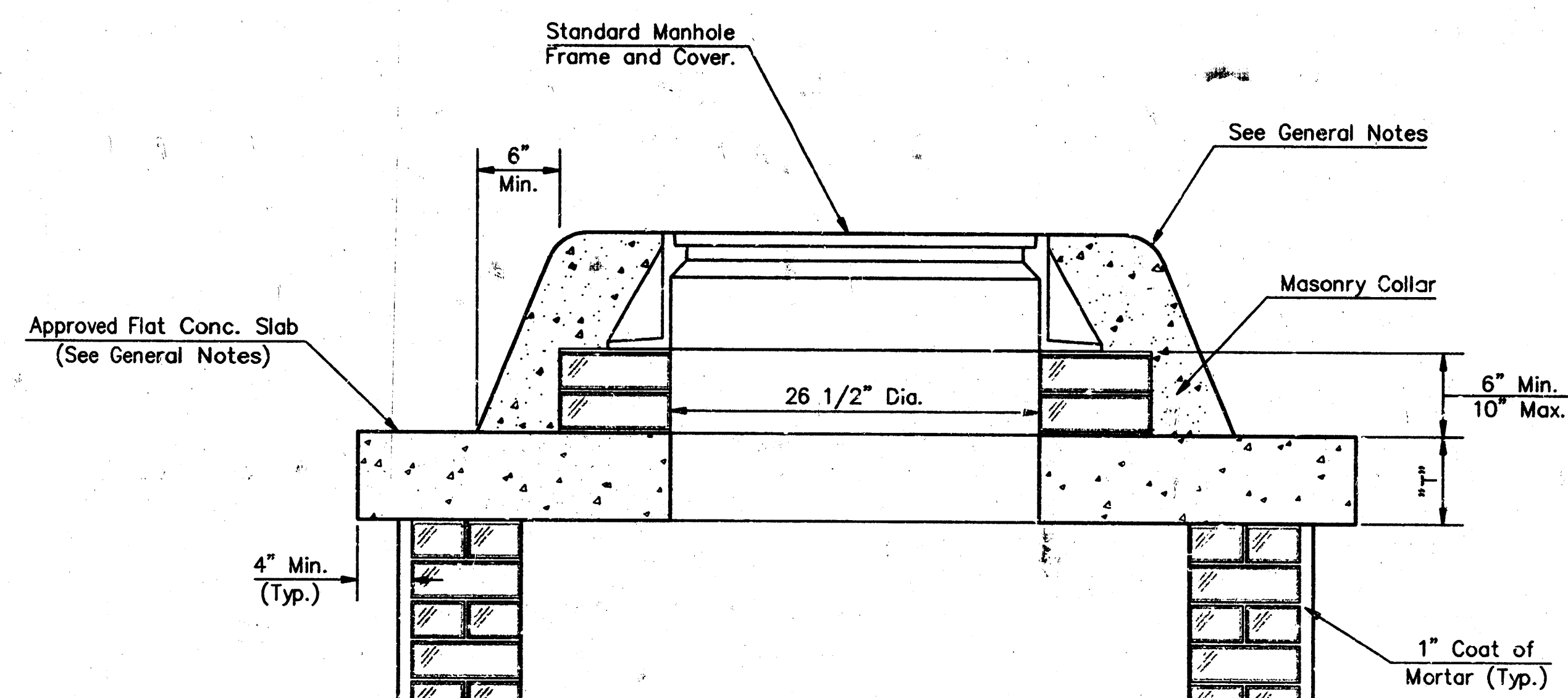
CITY OF WICHITA					
STD. MANHOLE DETAILS					
& SEWER APPURTENANCES DETAILS					
BAUGHMAN COMPANY P.A.					
ENGINEERING, SURVEYING, & PLANNING					
316-262-7271 • 315 ELLIS • WICHITA, KANS. 67211					
PROJECT NUMBER					
DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
			5-97	NONE	10



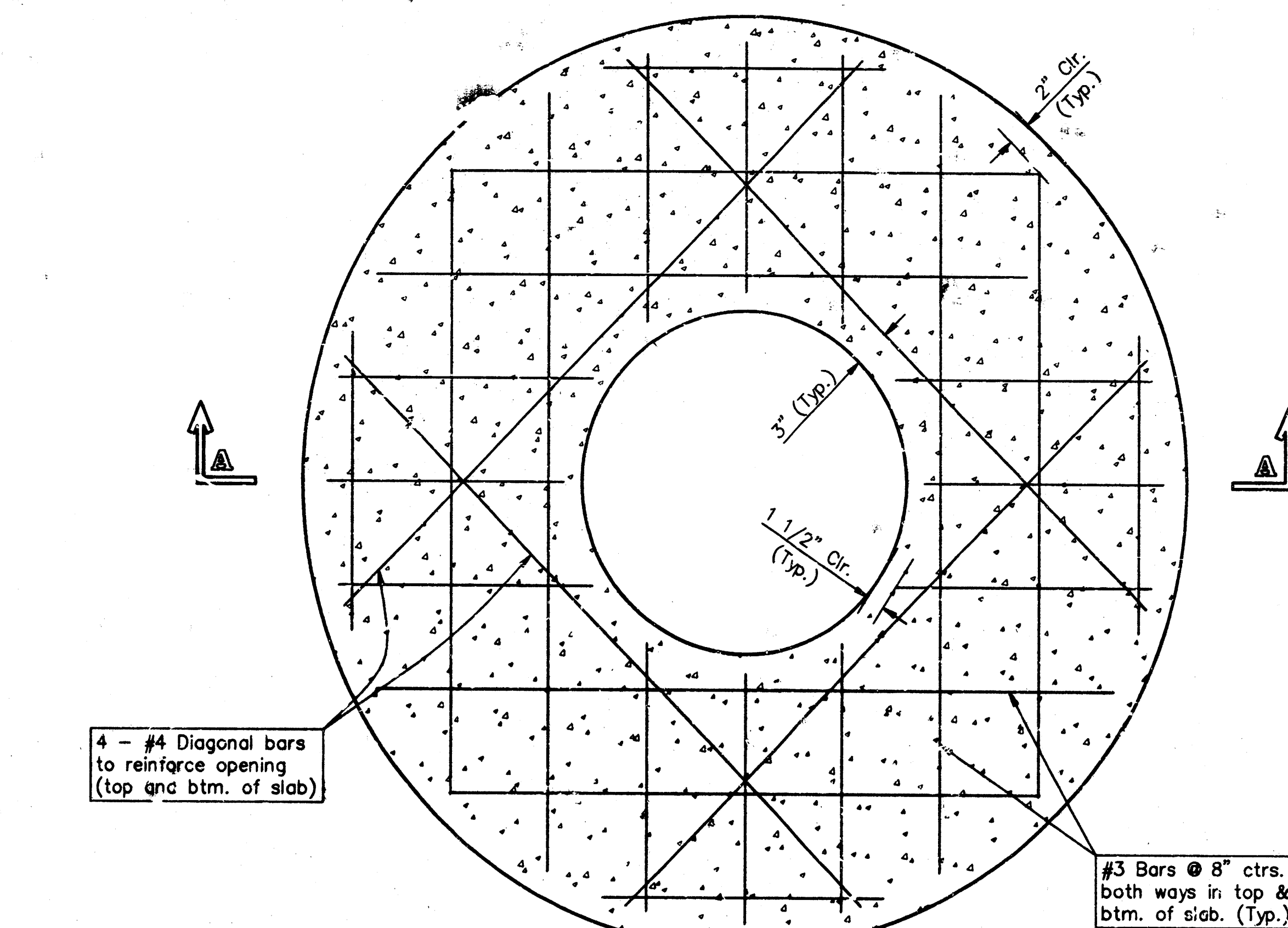
SHALLOW TYPE "A" MANHOLE



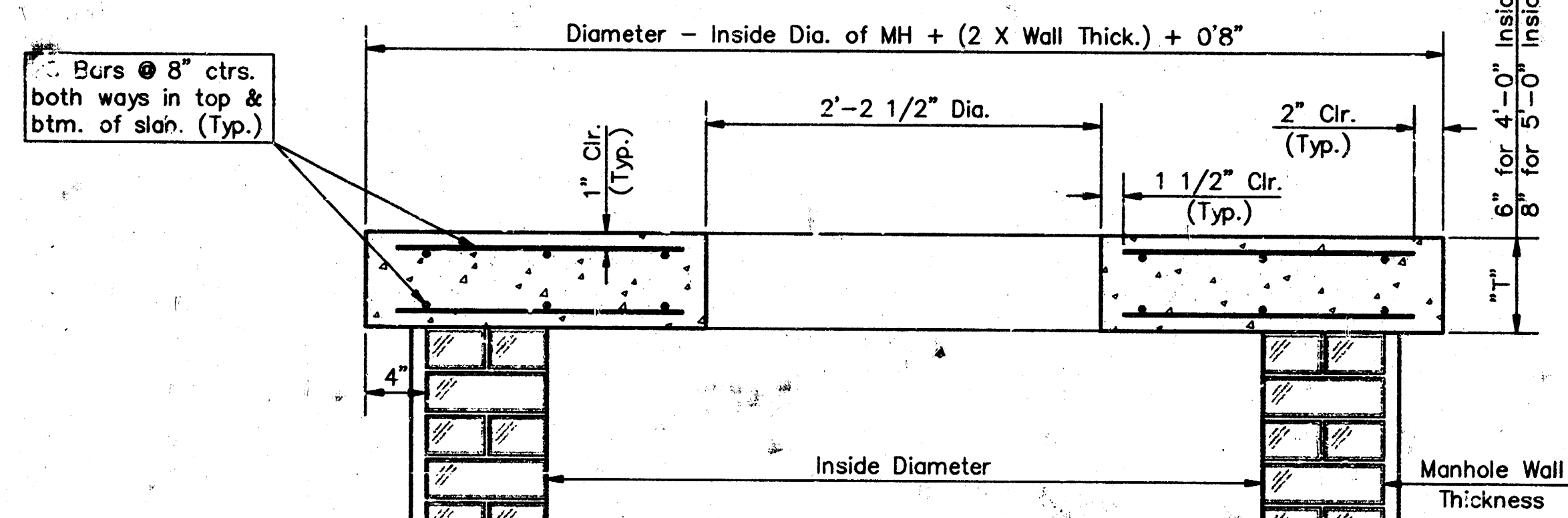
SHALLOW TYPE "B" MANHOLE



MASONRY COLLAR DETAIL

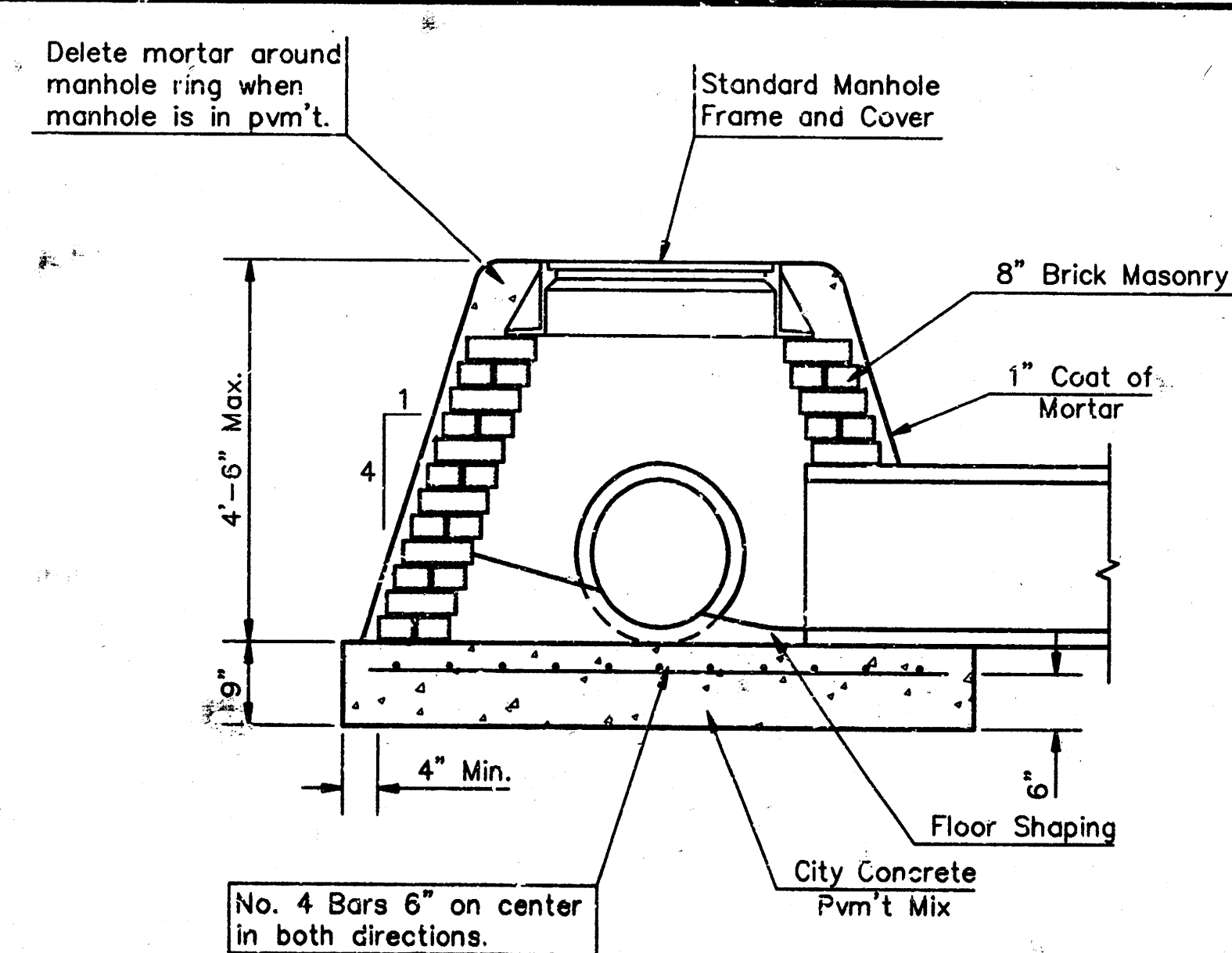


PLAN

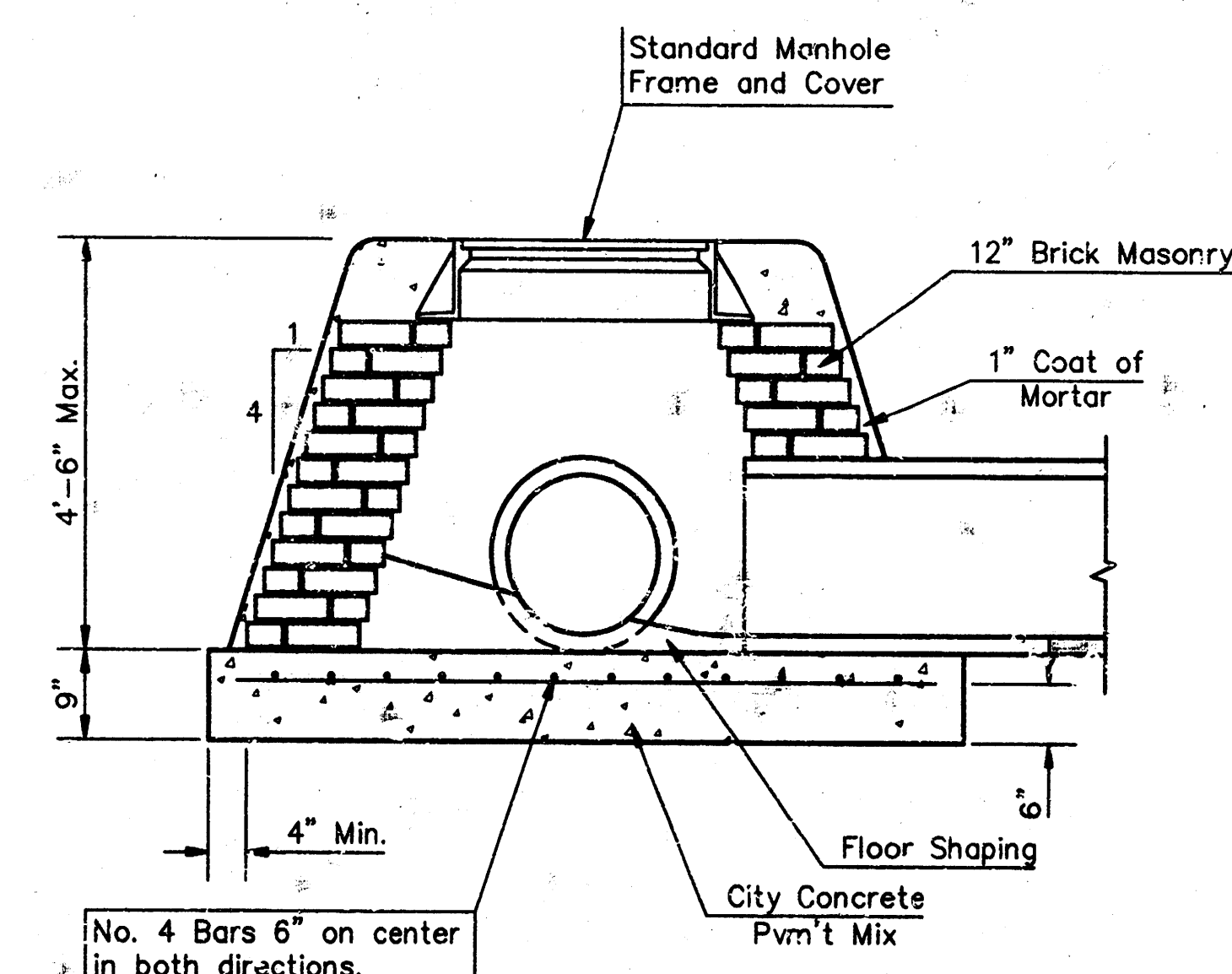


SECTION A-A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



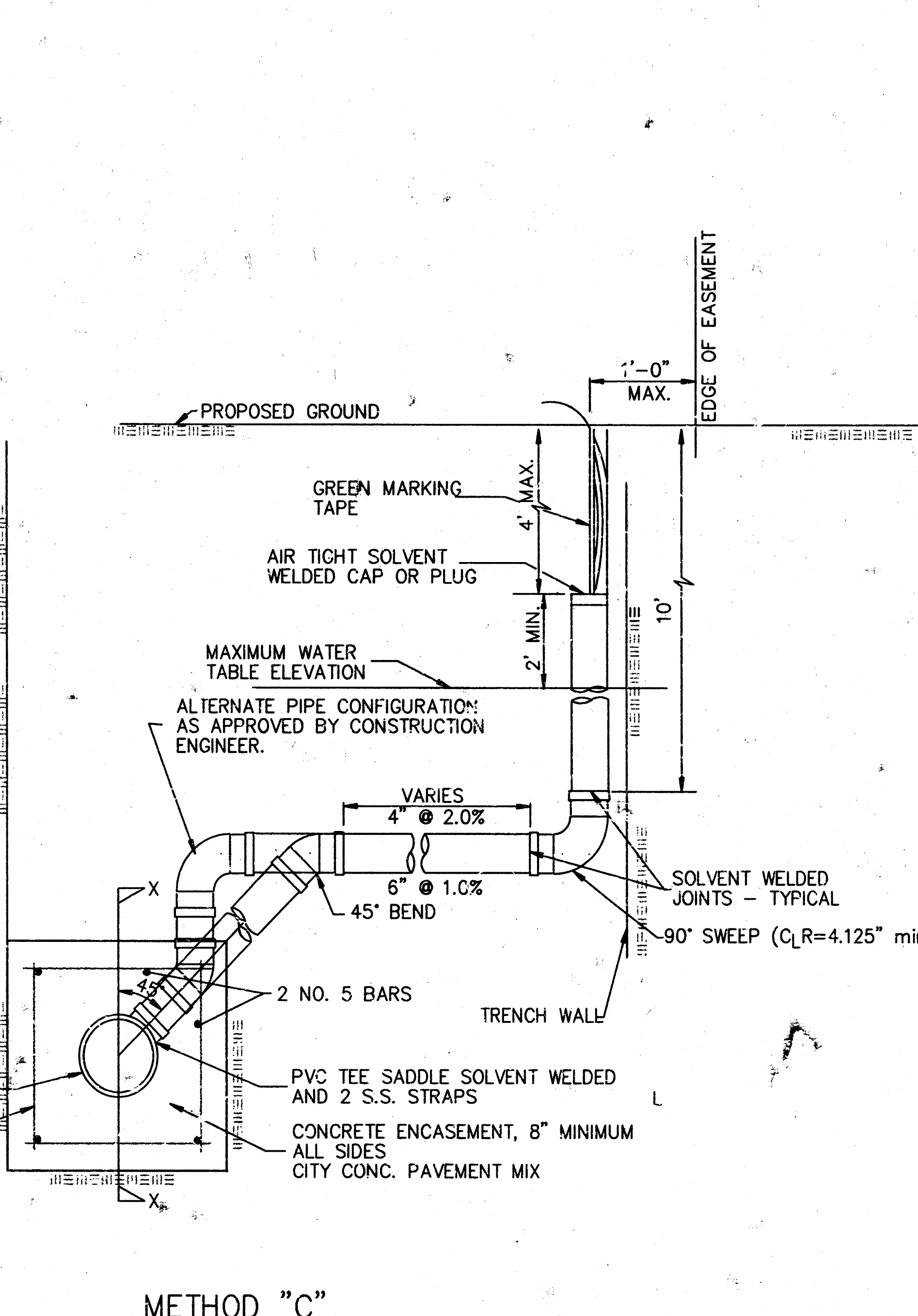
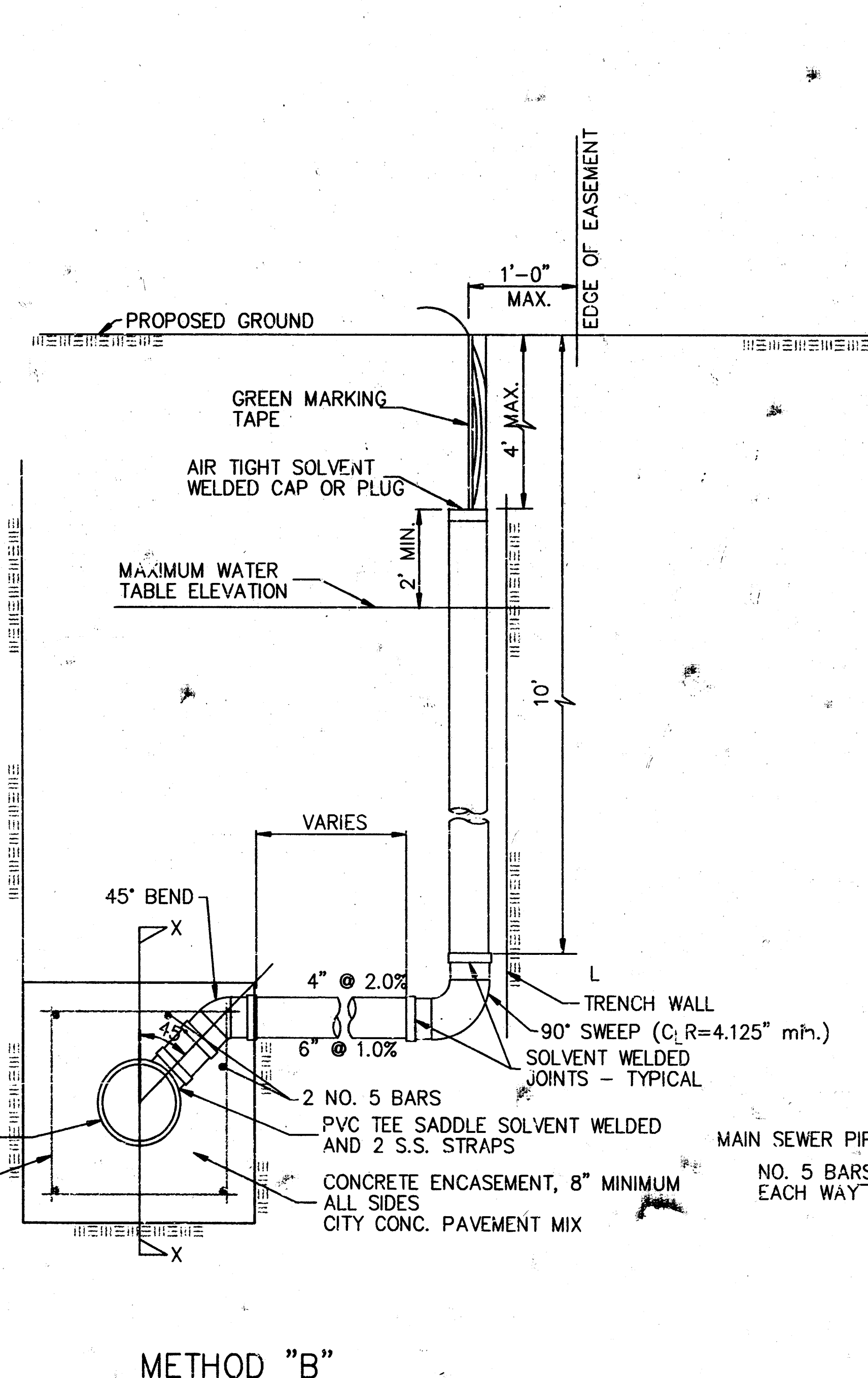
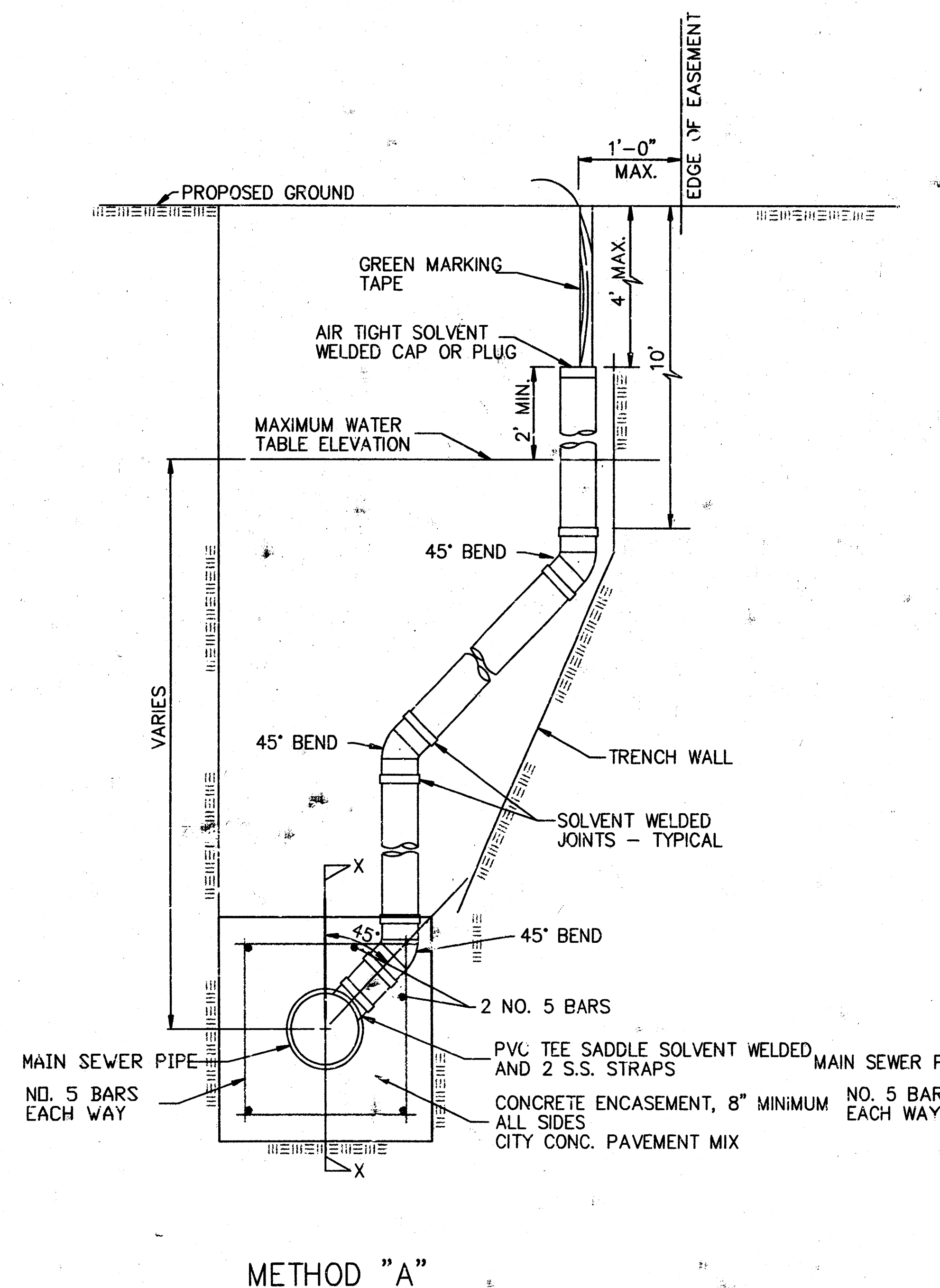
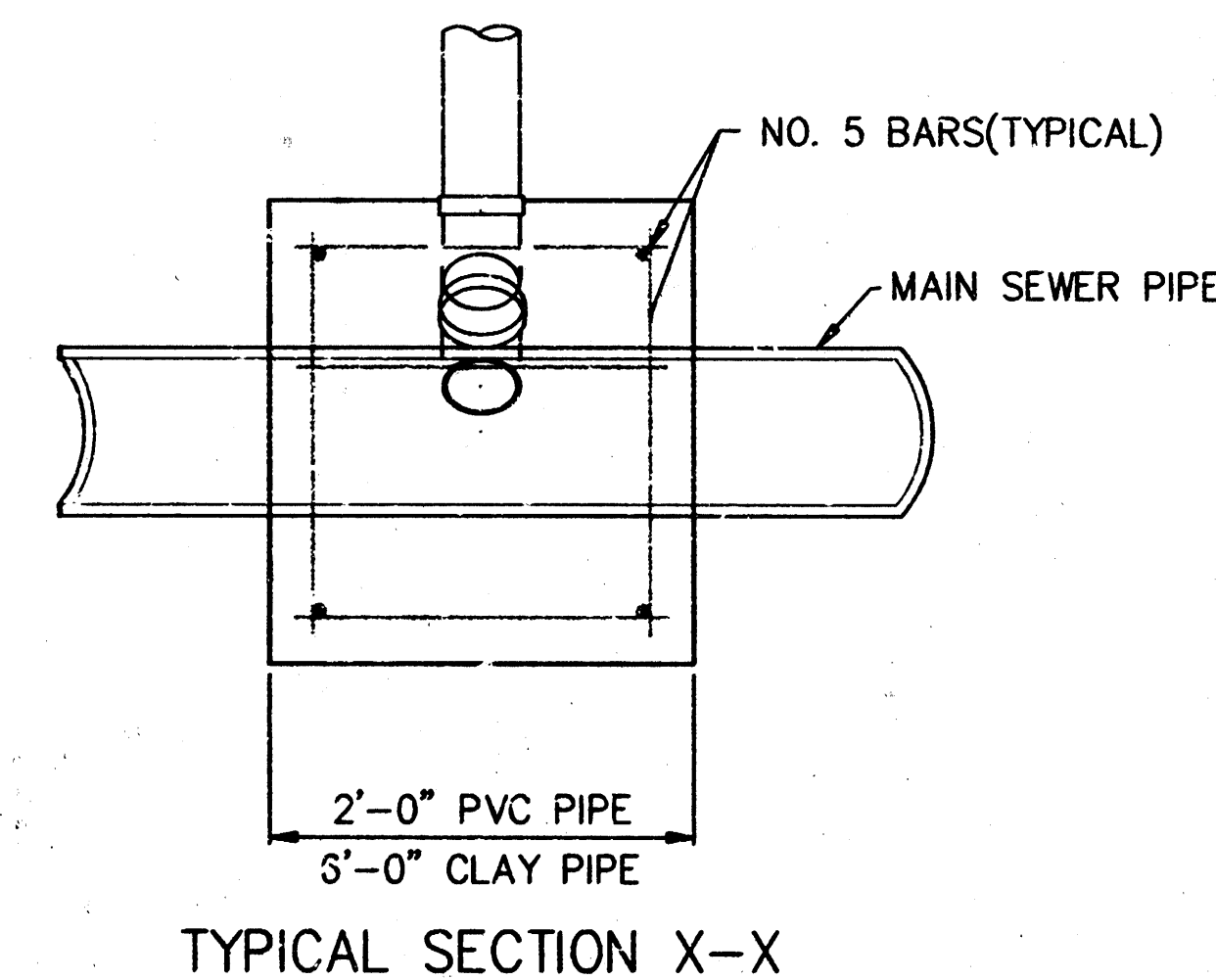
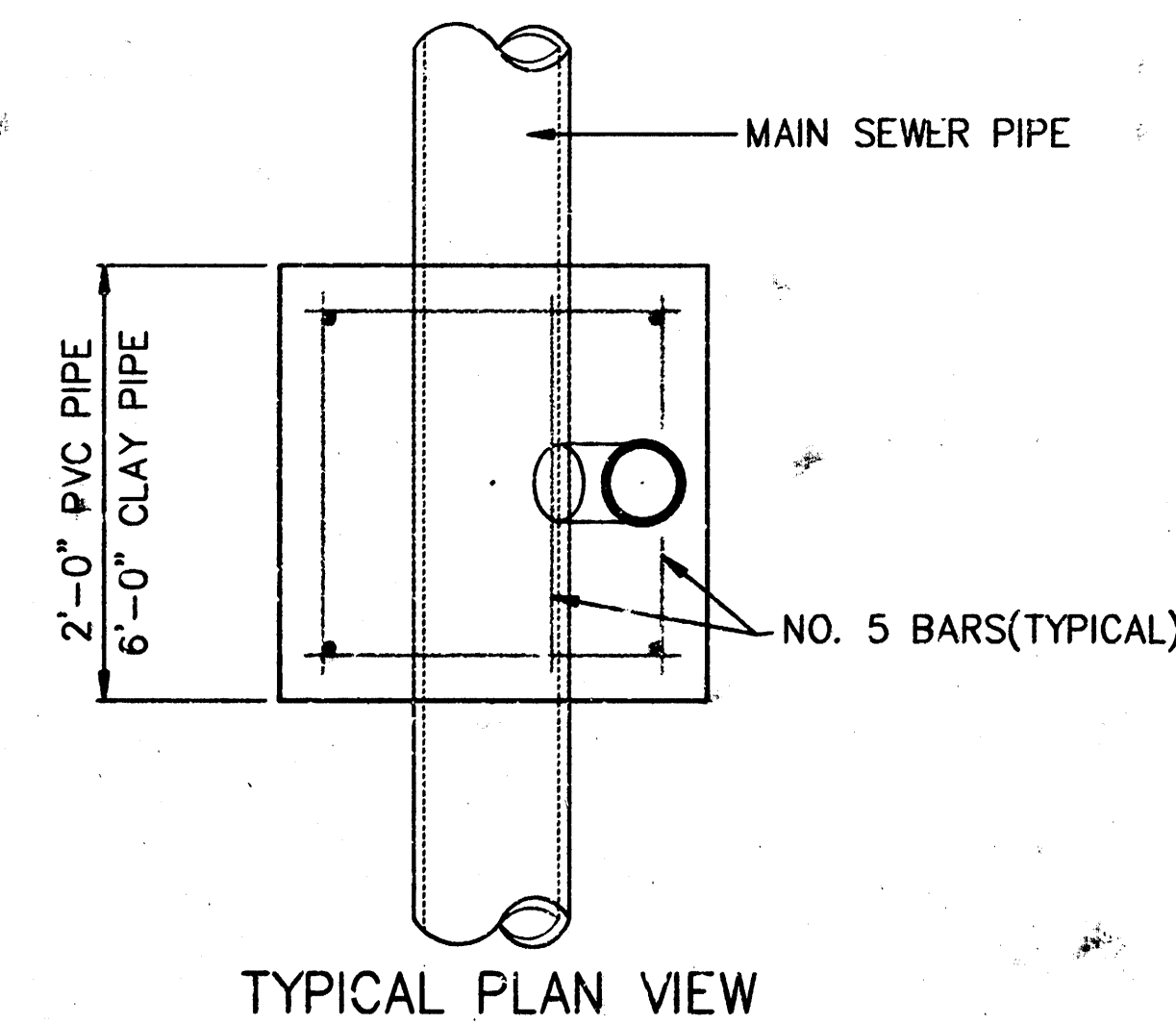
SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

1. 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. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4'. Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 5'. Completed manhole shall be without leaks and water tight.
2. Reinforcing steel shall be installed in the manhole bases and shall consist of no. 4 bars placed on 6" centers in both directions. The manhole base reinforcement shall be placed 6" above the bottom of the manhole base. All costs for furnishing and installing reinforcing steel shall be included in the unit price bid for the manhole.
3. 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.
4. 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.
5. 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.
6. The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
7. Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
8. All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

CITY OF WICHITA, KANSAS			
STD. SHALLOW MANHOLES			
TYPE "A" AND TYPE "B"			
BAUGHMAN COMPANY P.A.			
ENGINEERING, SURVEYING, & PLANNING			
315 E. 22nd St. - 7271 WICHITA, KANSAS 67211			
PROJECT NUMBER			
DESIGN	DRAWN	APPROVED	DATE
C.O.W.	Staff		5-97
SCALE			10
NONE			

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



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

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

City of Wichita Standard
Riser Details

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

PROJECT NUMBER
468-82708

DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
			5-97	NONE	8 OF 10

BENCHMARK:
City of Wichita, Bench Mark Disc,
53' S. and 47' W. of the Centerline
Intersection of Webb Road and
Pawnee Avenue.
Elev. = 205.68 City Datum
Elev. = 1393.08 MSL Datum

NOTE:
Proposed minimum finish floor
elevations are shown on plans.
Contractor to set garage floor elevation.

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

This grading plan is designed with
View-out and Walk-out basements.
Spot elevations shown in backyards
are for minimum openings.

XXXX W = Minimum opening for Walk-out
XXXX V = Minimum opening for View-out
XXXX M = Minimum opening

**MINIMUM BUILDING PAD ELEVATIONS
FOR LOWEST OPENING OF STRUCTURE**

Lot & Block	City Datum	MSL
1 - Blk 7	186.0	1373.4
2 - Blk 7	185.0	1372.4
3 - Blk 7	184.0	1371.4
4 - Blk 7	183.0	1370.4
5 - Blk 7	182.5	1369.9
6, 7 - Blk 7	182.0	1369.4
8 - Blk 7	181.5	1368.9
9 - Blk 7	181.0	1368.4
10, 11 - Blk 7	180.5	1367.9
12, 14, 15, 16 - Blk 7	180.0	1367.4

= Easements To Be Graded

The contractor shall grade the easements as shown to the
elevations given on the easement grading plan. All costs for
grading shall be incidental to the Easement Grading Bid Item.

The contractor shall 'straight' grade the easements between
the elevations given. Where a callout designates 'Match',
the contractor will grade to the existing ground elevation.

Width Varies
(See Plan)
Finish Grade per Callouts
Existing Ground

Easement Line Easement Line

TYPICAL FILL SECTION

Width Varies
(See Plan)
Existing Ground
Finish Grade per Callouts

Easement Line Easement Line

TYPICAL CUT SECTION

Approximate Easement Grading Quantity:
2698 yd³ Cut (For Info Only)

1" = 60'
• = Iron

**PEBBLEBROOK ADDITION
ESMT GRADING PLAN**

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

PROJECT NUMBER
DESIGN: G.A.N. DRAWN: J.A.K. APPROVED: DATE: 5-97 SCALE: 1"=60' SHEET: 9 OF 10

PEBBLEBROOK ADDITION WICHITA, SEDGWICK COUNTY, KANSAS



1" = 100'

- = 1/2" Baughman Rebar Set
- = 1/2" Iron Found
- = 1/2" Baughman Rebar Found
- = 1/2" Baughman Rebar Found

MEASUREMENTS AND ELEVATIONS
FOR LOWEST ELEVATION OF STRUCTURE

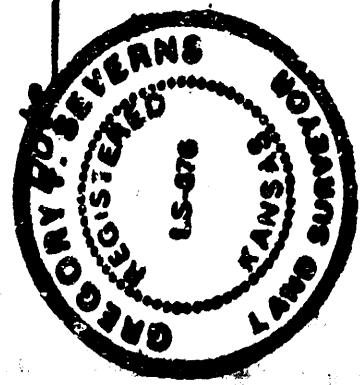
Lot #	Area	Elevation	Area
1-16	16.0	1573.4	
17-32	16.0	1312.4	
33-48	16.0	1312.4	
49-64	16.0	1312.4	
65-80	16.0	1312.4	
81-96	16.0	1312.4	
97-112	16.0	1312.4	
113-128	16.0	1312.4	
129-144	16.0	1312.4	
145-160	16.0	1312.4	
161-176	16.0	1312.4	
177-192	16.0	1312.4	
193-208	16.0	1312.4	
209-224	16.0	1312.4	
225-240	16.0	1312.4	
241-256	16.0	1312.4	
257-272	16.0	1312.4	
273-288	16.0	1312.4	
289-304	16.0	1312.4	
305-320	16.0	1312.4	
321-336	16.0	1312.4	
337-352	16.0	1312.4	
353-368	16.0	1312.4	
369-384	16.0	1312.4	
385-400	16.0	1312.4	
401-416	16.0	1312.4	
417-432	16.0	1312.4	
433-448	16.0	1312.4	
449-464	16.0	1312.4	
465-480	16.0	1312.4	
481-496	16.0	1312.4	
497-512	16.0	1312.4	
513-528	16.0	1312.4	
529-544	16.0	1312.4	
545-560	16.0	1312.4	
561-576	16.0	1312.4	
577-592	16.0	1312.4	
593-608	16.0	1312.4	
609-624	16.0	1312.4	
625-640	16.0	1312.4	
641-656	16.0	1312.4	
657-672	16.0	1312.4	
673-688	16.0	1312.4	
689-704	16.0	1312.4	
705-720	16.0	1312.4	
721-736	16.0	1312.4	
737-752	16.0	1312.4	
753-768	16.0	1312.4	
769-784	16.0	1312.4	
785-800	16.0	1312.4	
801-816	16.0	1312.4	
817-832	16.0	1312.4	
833-848	16.0	1312.4	
849-864	16.0	1312.4	
865-880	16.0	1312.4	
881-896	16.0	1312.4	
897-912	16.0	1312.4	
913-928	16.0	1312.4	
929-944	16.0	1312.4	
945-960	16.0	1312.4	
961-976	16.0	1312.4	
977-992	16.0	1312.4	
993-1008	16.0	1312.4	
1009-1024	16.0	1312.4	
1025-1040	16.0	1312.4	
1041-1056	16.0	1312.4	
1057-1072	16.0	1312.4	
1073-1088	16.0	1312.4	
1089-1104	16.0	1312.4	
1105-1120	16.0	1312.4	
1121-1136	16.0	1312.4	
1137-1152	16.0	1312.4	
1153-1168	16.0	1312.4	
1169-1184	16.0	1312.4	
1185-1200	16.0	1312.4	
1201-1216	16.0	1312.4	
1217-1232	16.0	1312.4	
1233-1248	16.0	1312.4	
1249-1264	16.0	1312.4	
1265-1280	16.0	1312.4	
1281-1296	16.0	1312.4	
1297-1312	16.0	1312.4	
1313-1328	16.0	1312.4	
1329-1344	16.0	1312.4	
1345-1360	16.0	1312.4	
1361-1376	16.0	1312.4	
1377-1392	16.0	1312.4	
1393-1408	16.0	1312.4	
1409-1424	16.0	1312.4	
1425-1440	16.0	1312.4	
1441-1456	16.0	1312.4	
1457-1472	16.0	1312.4	
1473-1488	16.0	1312.4	
1489-1504	16.0	1312.4	
1505-1520	16.0	1312.4	
1521-1536	16.0	1312.4	
1537-1552	16.0	1312.4	
1553-1568	16.0	1312.4	
1569-1584	16.0	1312.4	
1585-1600	16.0	1312.4	
1601-1616	16.0	1312.4	
1617-1632	16.0	1312.4	
1633-1648	16.0	1312.4	
1649-1664	16.0	1312.4	
1665-1680	16.0	1312.4	
1681-1696	16.0	1312.4	
1697-1712	16.0	1312.4	
1713-1728	16.0	1312.4	
1729-1744	16.0	1312.4	
1745-1760	16.0	1312.4	
1761-1776	16.0	1312.4	
1777-1792	16.0	1312.4	
1793-1808	16.0	1312.4	
1809-1824	16.0	1312.4	
1825-1840	16.0	1312.4	
1841-1856	16.0	1312.4	
1857-1872	16.0	1312.4	
1873-1888	16.0	1312.4	
1889-1904	16.0	1312.4	
1905-1920	16.0	1312.4	
1921-1936	16.0	1312.4	
1937-1952	16.0	1312.4	
1953-1968	16.0	1312.4	
1969-1984	16.0	1312.4	
1985-2000	16.0	1312.4	

REMARKS:
City of Wichita Bench Mark Disc.
5.3' S. and 47' W. of the Centerline
Intersection of Webb Road and
Pawnee Avenue
Elev. = 2025.68 City Datum
Elev. = 1381.08 MSL Datum

State of Kansas) SS
Sedgwick County)

We, Baughman Company P.A., Surveyors in aforesaid county and state, hereby certify that we have surveyed and plotted, PEBBLEBROOK ADDITION, Wichita, Sedgwick County, Kansas, and that the accompanying plat is a true and correct exhibit of the property surveyed described as being a plat of Lots 18, 19, 20, 21, 22, and 23, Blk. 1, and Lots 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14, Blk. 4, and Lots 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Know all men by these presents that we, the undersigned owners, have caused the land described in the surveyors certificate to be plotted into Lots, Blks, Streets and a Reserve to be known as "PEBBLEBROOK ADDITION", Wichita, Sedgwick County, Kansas. Reserve "A" is hereby reserved for entry monuments, landscaping and for street and utility purposes. Reserves "A" shall be owned and maintained by the homeowners association for the addition. The utility easements are hereby granted for the construction and maintenance of all public utilities. The drainage easements are hereby granted for drainage purposes. The drainage and utility easements are hereby granted as indicated for drainage purposes and for the construction and maintenance of all public utilities. The streets are hereby dedicated to and for the use of the public. All abutters rights of access to or from Pawnee Avenue over and across the south line of Lot 1, Blk 7 and Lots 28, 29, 30, 31, 32, 33, 34, 35, 36, Blk 2, except that Lot 36 shall have one access to or from Webb Road over and across the rights of access to or from Webb Road over and across the west line of Lot 7, Blk 1 and Lots 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 36, except that Lot 36 shall have one access to Webb Road over the north 100', are hereby granted to the City of Wichita. Access to Lot 36, Blk 2 shall be as determined by the City Engineer. The Minimum Building Foot Elevation for the lowest opening to the structures are as shown on the accompanying plat.



Gregory F. Sovens
Surveyor

State of Kansas) SS
Sedgwick County)

The foregoing instrument acknowledged before me, this 24th day of February, 1993, by Margaret K. Kessler, Trustee of the Margaret K. Kessler Revocable Trust dated 9-7-89, on behalf of the Trust. My Appointment Expires 1-3-94.

Shirley R. McCall
Notary Public

State of Kansas) SS
Sedgwick County)

The foregoing instrument acknowledged before me, this 4th day of February, 1993, by Margaret K. Kessler, Trustee