

PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	1993	1	10

# BUREAU OF PUBLIC SERVICES

4MC-065

FILM | 4 | | PAGE 283

MICROFILMED OF RECORD

Page 1 of 3

SEDGWICK COUNTY, KANSAS  
UTILITY EASEMENT

THIS AGREEMENT made and entered into this 3rd day of December, 1993, by and between Downing Development, L.L.C. of Sedgwick County, State of Kansas party of the first part, and the Board of County Commissioners of Sedgwick County, Kansas, acting for said County, party of the second part

WITNESSETH, whereas for the proper construction, maintenance and repairing of sewers and all other public utilities according to plans and specifications now on file in the office of the County Engineer of Sedgwick County, Kansas, upon land owned by party of the first part and described as follows:

*4MC-065 MH 105*  
The south 5 feet of the north 15 feet of Lot 3, Block 2, Belle Terre Addition, Sedgwick County, Kansas.



**BENCHMARKS:**

R.R. Spike in H.L.P. located approx. 35' southwest of the intersec. of Central and 159th St. E. Elev. = 1325.84 M.S.L. Elev. = 138.44 City Datum

**INDEX of SHEETS:**

Title Sheet	1
General Notes & Project Area	2
Line 1 & Line 2	3
Line 3	4
Line 4	5
Line 5	6
Standard Manhole Details	7,8
Backfill Detail	9
Subdivision Plat	10

FILM | 4 | | PAGE 280

MICROFILMED OF RECORD

Page 1 of 3

SEDGWICK COUNTY, KANSAS  
UTILITY EASEMENT

THIS AGREEMENT made and entered into this 8th day of December, 1993, by and between Sproul Construction Company, Inc. of Sedgwick County, State of Kansas party of the first part, and the Board of County Commissioners of Sedgwick County, Kansas, acting for said County, party of the second part

WITNESSETH, whereas for the proper construction, maintenance and repairing of sewers and all other public utilities according to plans and specifications now on file in the office of the County Engineer of Sedgwick County, Kansas, upon land owned by party of the first part and described as follows:

*4MC-065 MH 047*  
The west 5 feet of Lot 1, Block 1, Belle Terre Addition, Sedgwick County, Kansas.

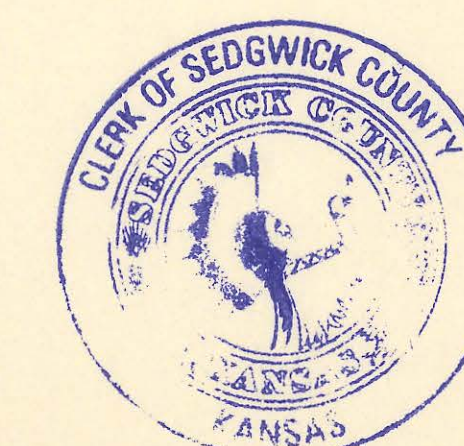
## SANITARY SEWER IMPROVEMENTS

FOR

# BELLE TERRE ADDITION + PHASE II

## WICHITA, SEDGWICK COUNTY, KANSAS

NET LENGTH OF PROJECT	2361	FT.	MILES
NET LENGTH OF BRIDGES		FT.	MILES
NET LENGTH OF ROAD		FT.	MILES
EXCEPTIONS		FT.	MILES
ADDITIONS		FT.	MILES
GROSS LENGTH OF PROJECT		FT.	MILES



As Built 11-12-93

PLANS PREPARED BY:

**B** BAUGHMAN COMPANY P. A.  
ENGINEERING & SURVEYING  
316/262-7221 • 315 ELLIS • WICHITA, KANSAS 67211

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
*Edward C. Spraul*  
COUNTY ENGINEER / DIRECTOR OF PUBLIC SERVICES  
DATE: 5/25/93

APPROVED: \_\_\_\_\_ DATE: 5-25-93  
*Wade C. Spraul*  
CHAIRMAN  
BOARD OF COUNTY COMMISSIONERS

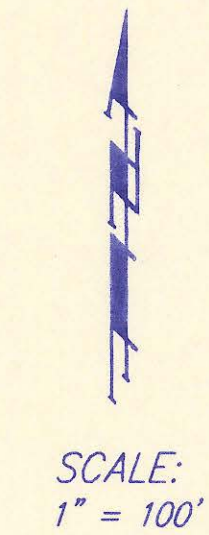
FILED: \_\_\_\_\_  
FILED IN THE OFFICE OF THE SEDGWICK COUNTY CLERK  
*Robert Wooten* 5/26/93  
COUNTY CLERK DATE:

4MC-065

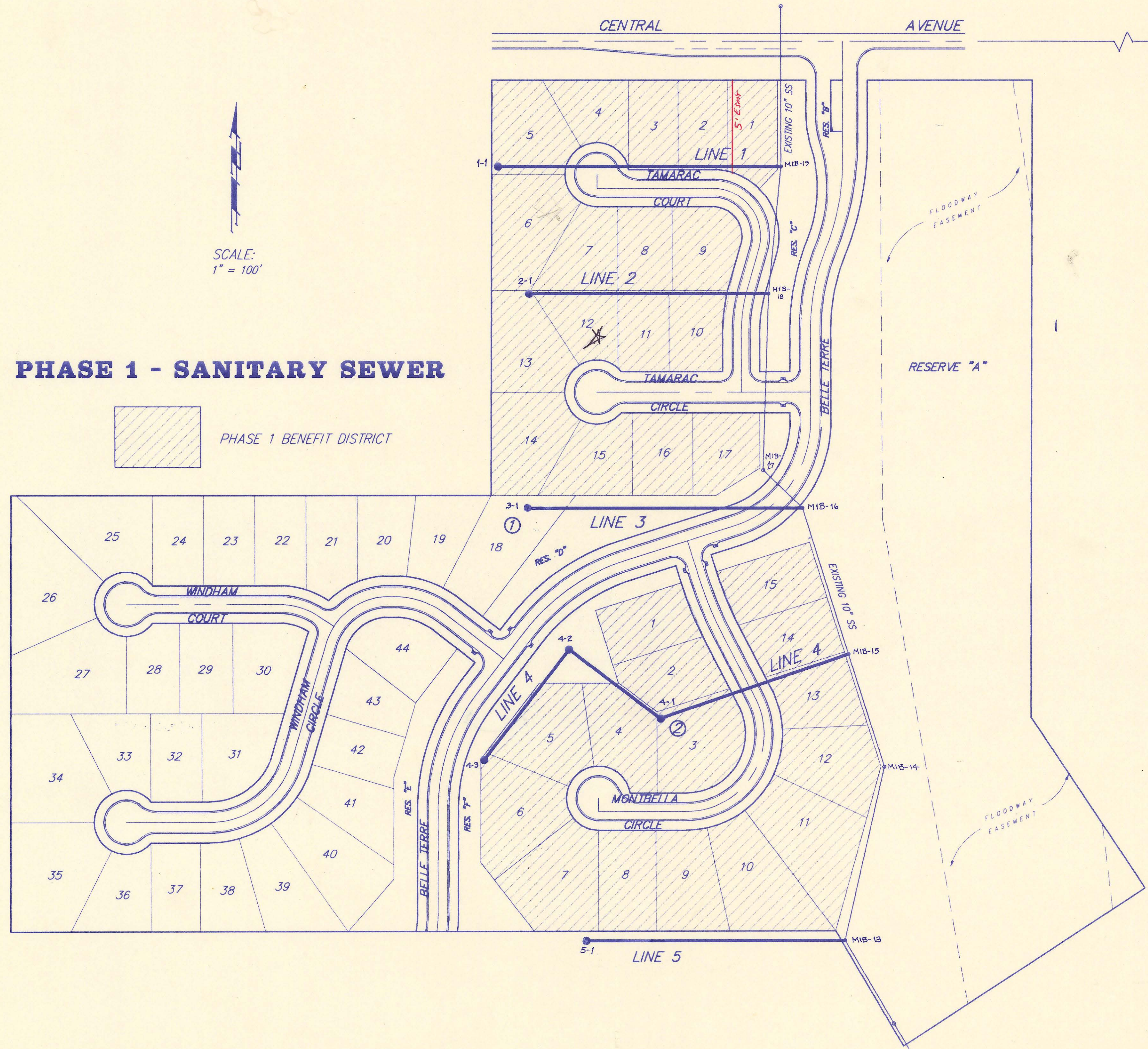
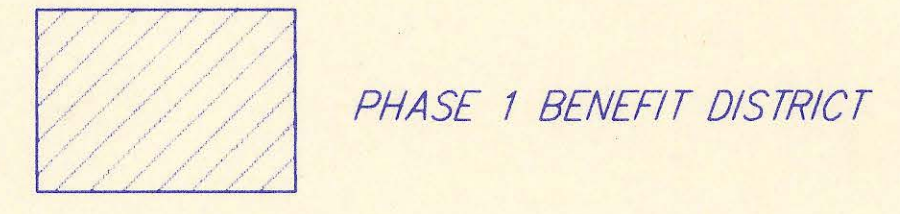
# BELLE TERRE ADDITION

## SEDGWICK COUNTY, KANSAS.

### GENERAL NOTES



### PHASE 1 - SANITARY SEWER



1. All Elevations shown are USGS Datum.
2. At least 72 hours prior to beginning any excavation (excluding weekends and holidays), the Contractor shall contact the Kansas-One-Call system, a utility location service, at 687-2470 to request the following utility companies to locate any existing lines within the project area: Multimedia Cable TV, Wichita Water, Southwestern Bell Telephone, K.G.&E. Gas and K.G.&E. Electric.
3. The buried utilities as shown on the plans are approximate locations only. It should be noted that other buried lines and cables may exist which are not shown on these plans. The Contractor shall exercise extreme caution during trenching operations to avoid damaging these lines. Any lines damaged shall be replaced or repaired immediately as directed by the Engineer at the Contractor's expense.
4. The Contractor shall contact the Sedgwick County Eastern Sewer District (733-0202) at least 24 hours before connecting new sewer pipe to the existing sewer system. The Contractor shall keep any construction debris from entering the existing sanitary sewer during construction. A mechanical plug shall be installed and maintained to isolate the existing sewer from the new construction until the new construction is cleaned, televised, and has been accepted to prevent water or debris from entering the existing sewer. The water used for cleaning shall not be added to the flow of the existing sewer. The cleaning or otherwise accumulated water shall be pumped or otherwise removed prior to televising.
5. All manholes constructed on this project shall have self-sealing frames and shall be coated internally with strong seal MS2-A per project specifications.
6. All pipe joints shall be laid and pushed "full home", with the beveled end of the spigot making full contact with the chamfered area at the throat of the bell or socket, with no separation between them. If separation is determined, the pipe shall be excavated and relaid according to specifications at the Contractor's expense.
7. Excess excavation material and other debris shall be wasted on sites to be provided by the Contractor as approved by the Engineer at no additional cost to the Owner.
8. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a 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.
9. 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.
10. 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.
11. 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.
12. The Contractor shall be responsible for preserving property irons. The Contractor shall 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. Prior to start of construction, the contractor shall flag and return all property corners that may be disturbed by construction operations, and verify these in the field in the presence of the Engineer and the Contractor's surveyor. After construction and before final inspection, a letter signed and sealed by the licensed land surveyor certifying replacement of all disturbed property corners shall be submitted to the Engineer.
13. The Contractor shall contain his operation to permit traffic through and across construction at existing roadways at all times. The Contractor shall erect warning signs, flashing lights, and barricades in compliance with the manual on uniform traffic control devices to ensure safety as directed in the general conditions. The Contractor shall limit the extent of trench to remain open overnight and weekends to less than 50 feet.
14. The Contractor shall restore all ditches, swales, road shoulders, and banks to their original slopes and grades. Where existing entrance pipe, drainage pipe, signs, fences, etc., conflict with the proposed work herein, they shall be removed and replaced or reset. The replacement of all the aforementioned items, including seeding, fertilizer and mulching shall be considered subsidiary to "site clearing and restoration".
15. Easements and right-of-ways provided by the owner for the project are shown in the plans. The Contractor shall be responsible for the acquisition of any additional temporary easements or right-of-ways that he desires to use in completing the work.
16. Positive drainage shall be provided for all areas on or near spoil areas. Natural drainage ways shall be maintained.
17. The Contractor shall provide positive drainage away from all manhole covers.
18. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of 10 days advance notice prior to start of construction in the vicinity of the affected property.
19. All trench backfill shall be either type I or type III unless noted otherwise.
20. Top elevations for manholes are approximate only. Top elevations for manholes shall be set as follows:
  - A. Outside of traveled ways, 0.4 feet above finish grade.
  - B. Paved traveled ways, flush with finish grade.
  - C. Unpaved traveled ways, as directed by the Engineer.
21. The Contractor shall also contact the following at least 72 hours prior to beginning construction to advise them of the intended work and of his proposed schedule:
 

Sedgwick County Bureau of Public Services  
1250 S. Seneca  
Wichita, KS. 67213  
Mr. Jim Weber  
(316) 383-7901
22. It shall be the responsibility of the Contractor to satisfy himself as to the existence of unusual subsurface conditions, and to allow for such conditions in his bid.

### NOTES & PROJECT AREA

## BELLE TERRE ADDITION

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

PROJECT NUMBER  
**SEDGWICK COUNTY, KANSAS**

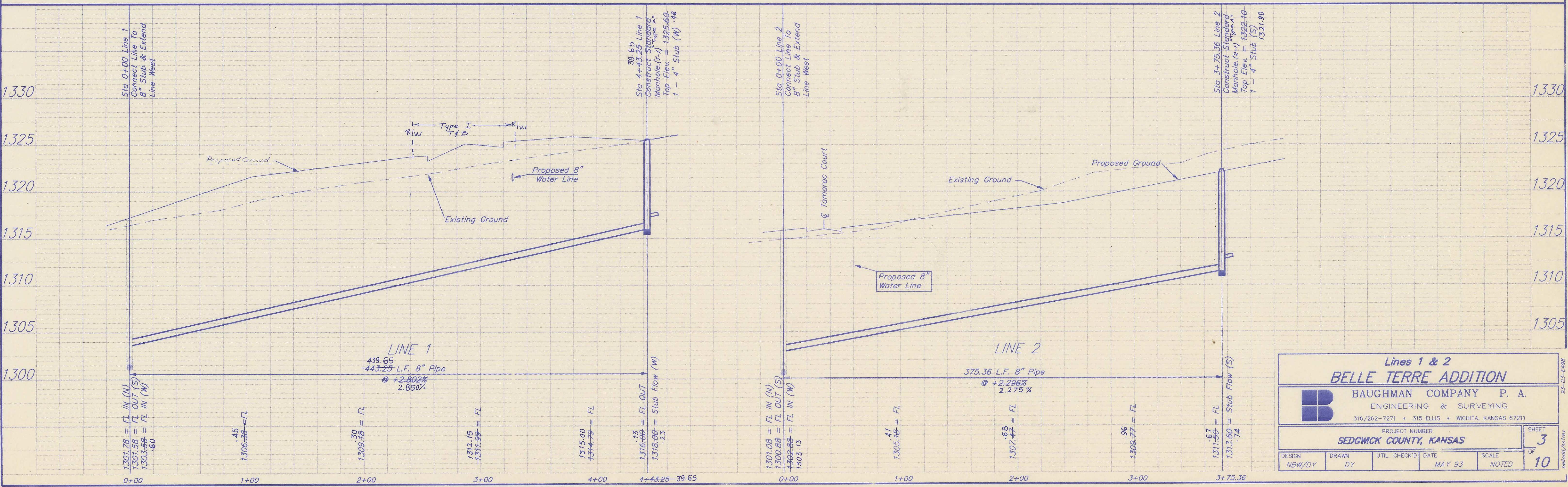
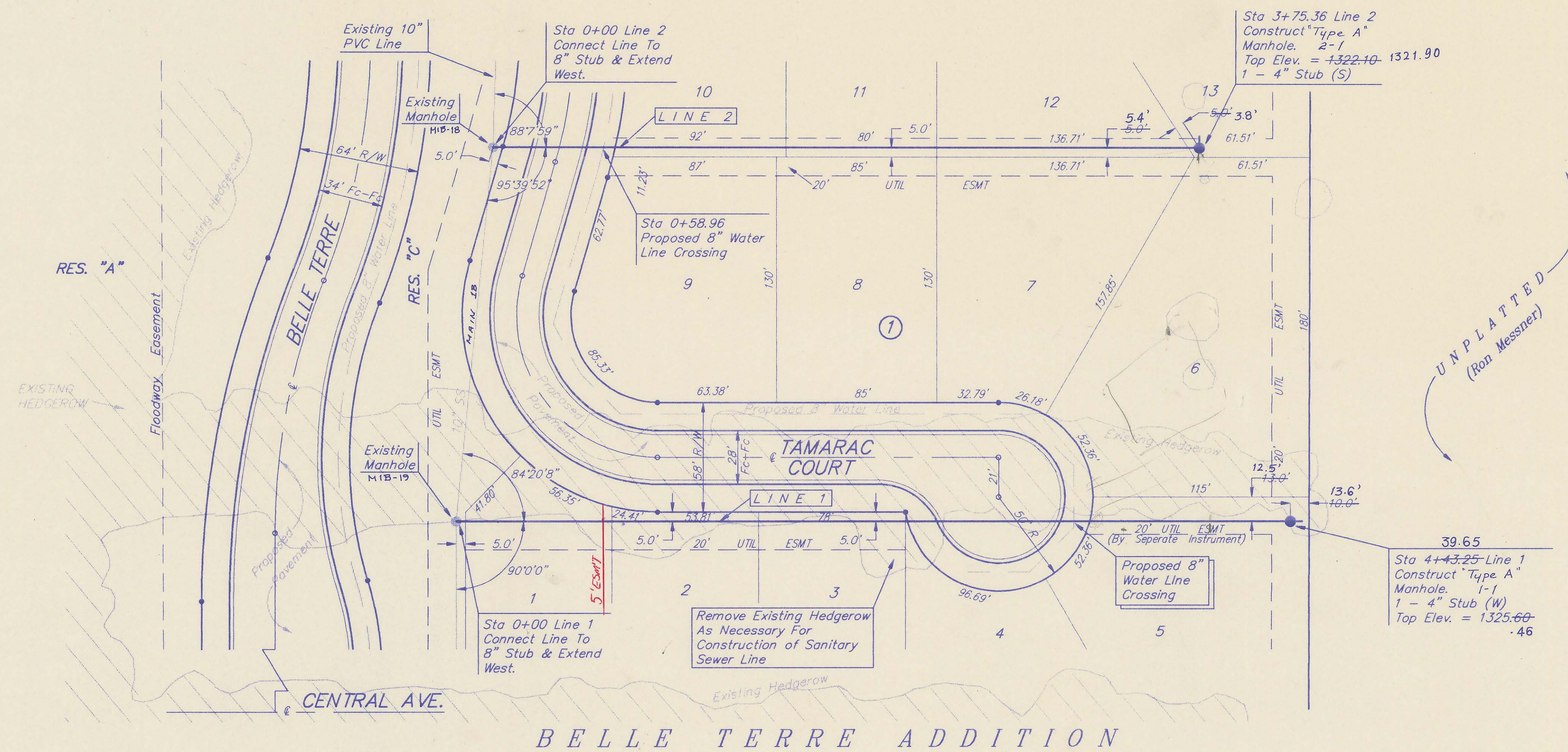
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NBW/DY	DY		MAY 93	NOTED	2 OF 10

83-03-E486  
RELLADD/GENNOTES

**BENCHMARKS:**

R.R. Spike in H.L.P. located approx. 35' Southwest of the Intersection of Central & 159th St. E. Elev. = 1325.84 M.S.L.

R.R. Spike in NE Face PP 12' North & 2' West of the Northeast corner of Reserve "C" (West side of the entrance) Belle Terre Addition. Elev. = 1316.17 M.S.L.



**Lines 1 & 2**  
**BELLE TERRE ADDITION**

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

PROJECT NUMBER  
**SEDGWICK COUNTY, KANSAS**

DESIGN NBW/DY	DRAWN DY	UTIL. CHECK'D DATE	SCALE MAY 93	SHEET NOTED
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SHEET  
**3**  
OF  
**10**

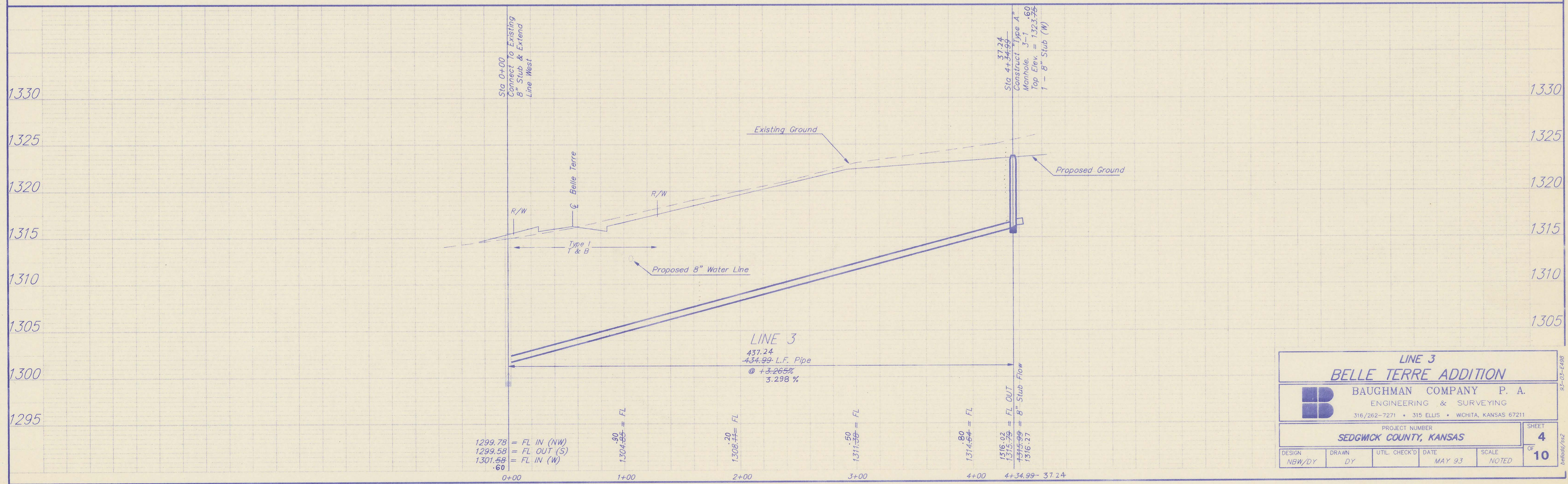
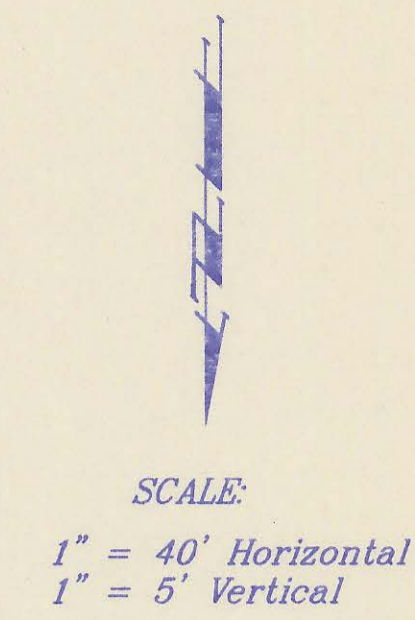
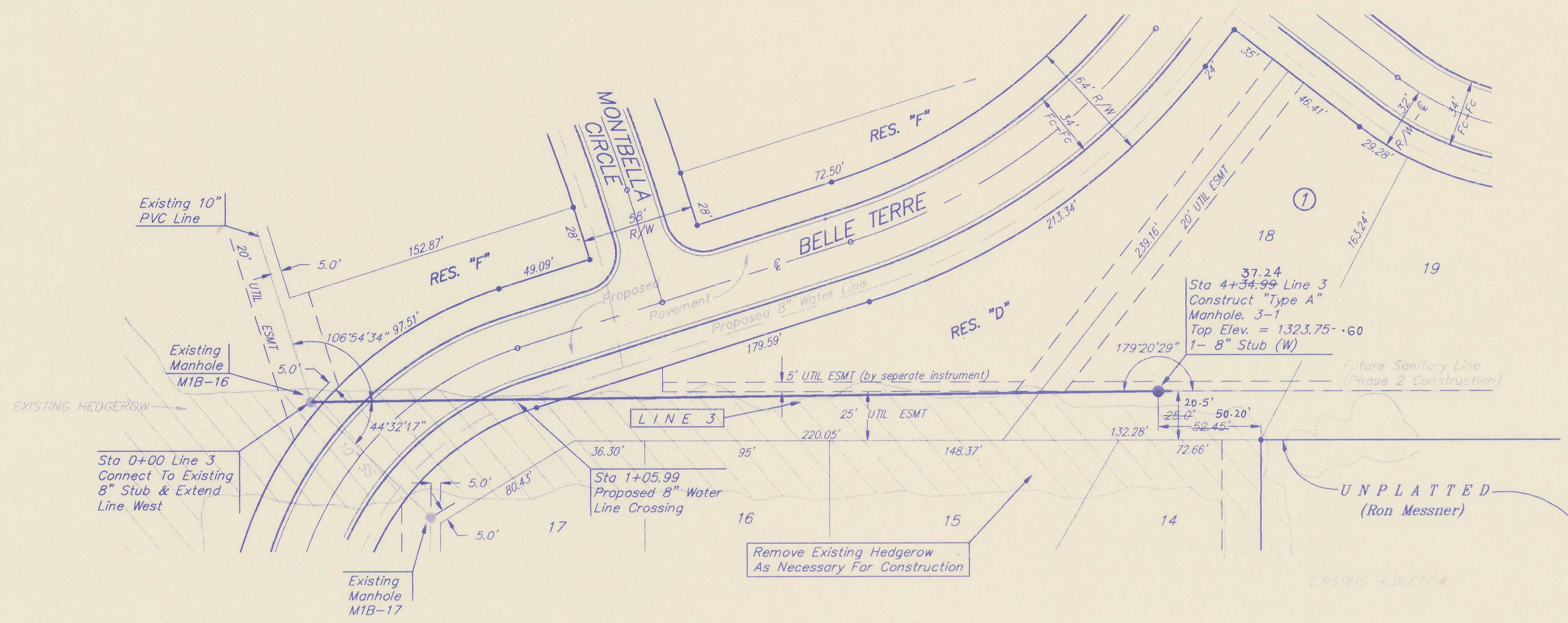
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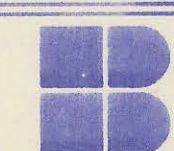
**BENCHMARKS:**

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R.R. Spike in NE Face PP 12' North & 2' West of the Northeast corner of Reserve "C" (West side of the entrance) Belle Terre Addition. Elev. = 1316.17 M.S.L.

**BELLE TERRE ADDITION**

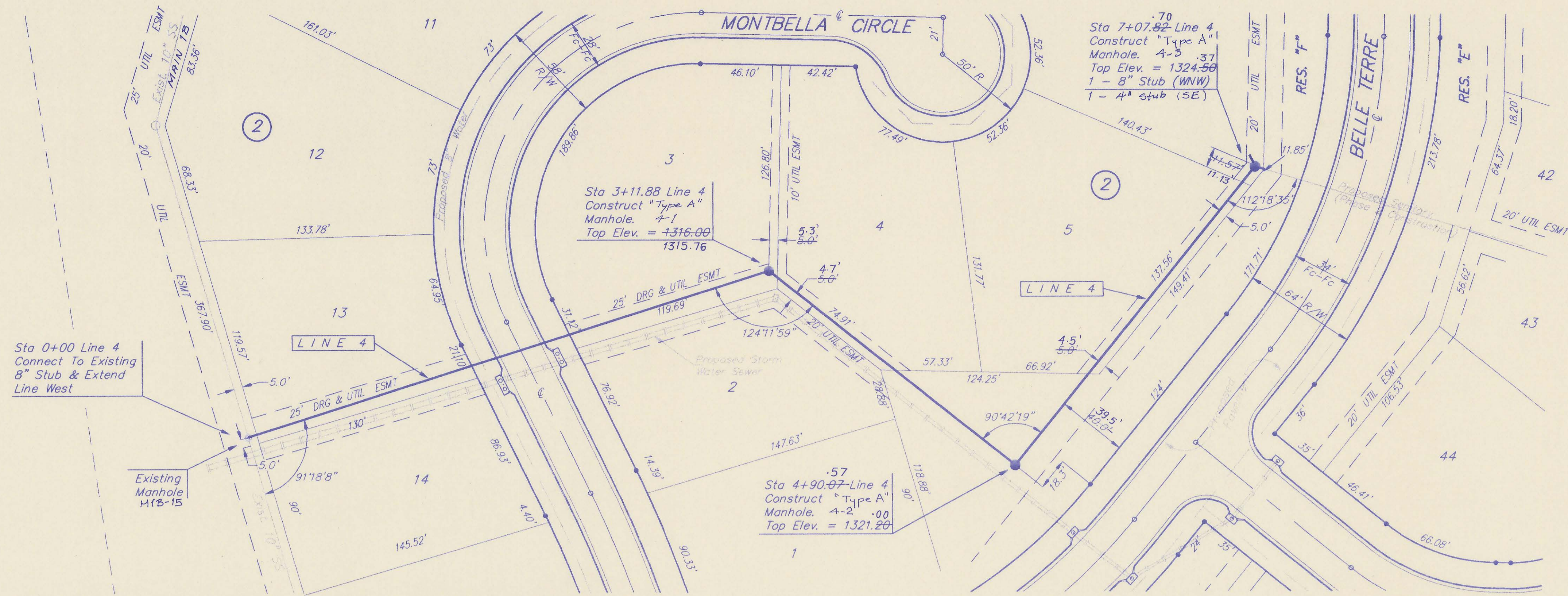


<b>LINE 3</b>			
<b>BELLE TERRE ADDITION</b>			
 <b>BAUGHMAN COMPANY P. A.</b> ENGINEERING & SURVEYING 316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
PROJECT NUMBER <b>SEDGWICK COUNTY, KANSAS</b>			SHEET <b>4</b>
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			OF <b>10</b>

**BENCHMARKS:**

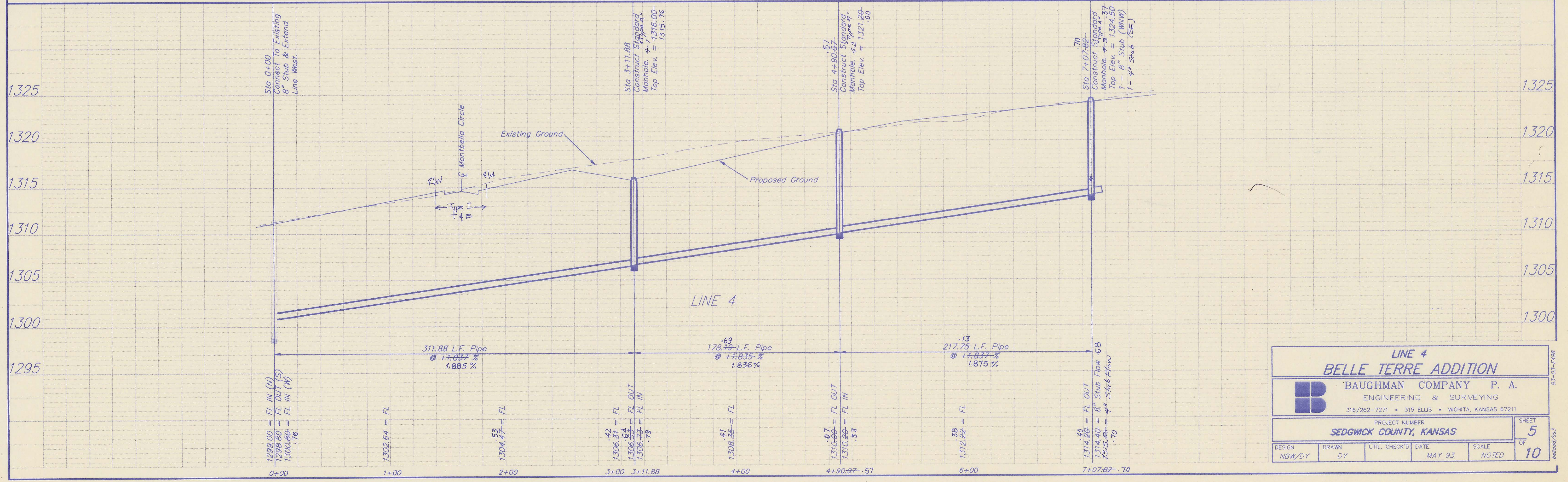
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R.R. Spike in NE Face PP 12' North & 2' West of the Northeast corner of Reserve "C" (West side of the entrance) Belle Terre Addition. Elev. = 1316.17 M.S.L.



**BELLE TERRE ADDITION**

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



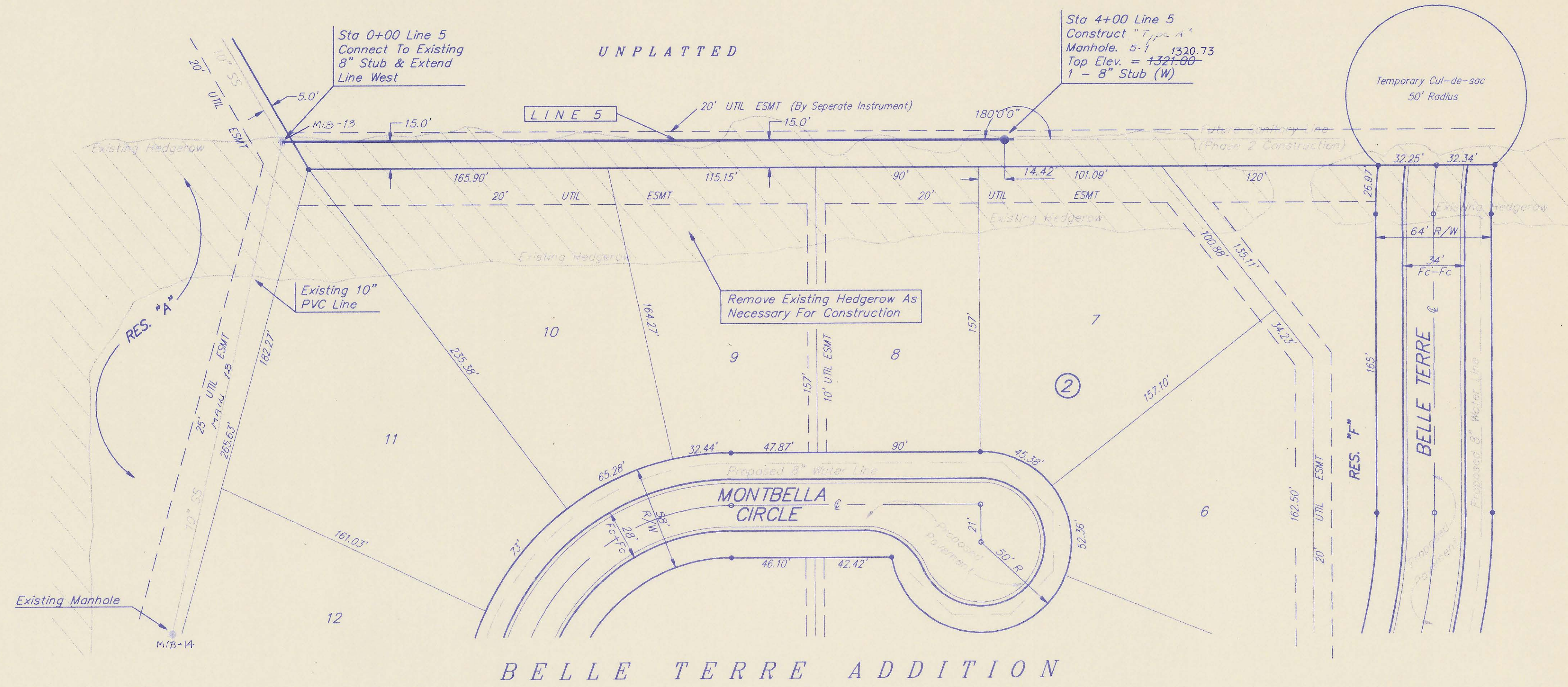
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<b>BELLE TERRE ADDITION</b>			
<b>BAUGHMAN COMPANY P. A.</b> ENGINEERING & SURVEYING 316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
PROJECT NUMBER			SHEET
<b>SEDGWICK COUNTY, KANSAS</b>			<b>5</b>
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SCALE			NOTED
			OF <b>10</b>

93-03-E68

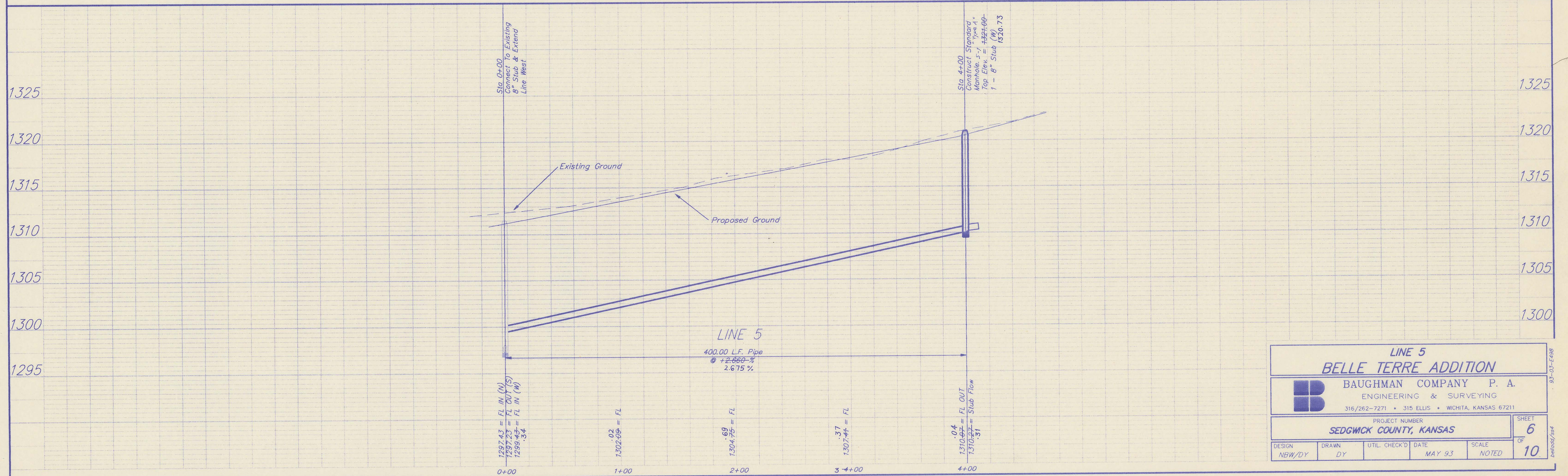
**BENCHMARKS:**

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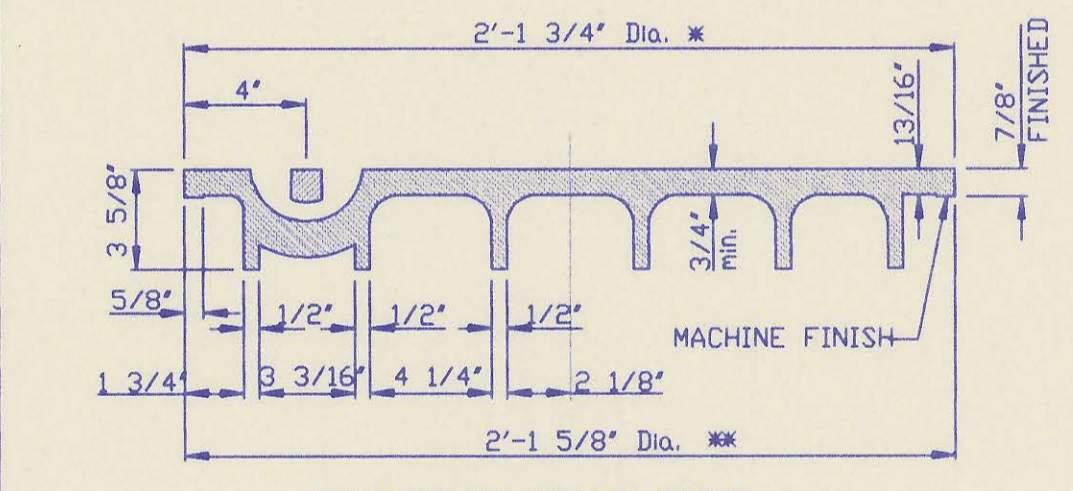
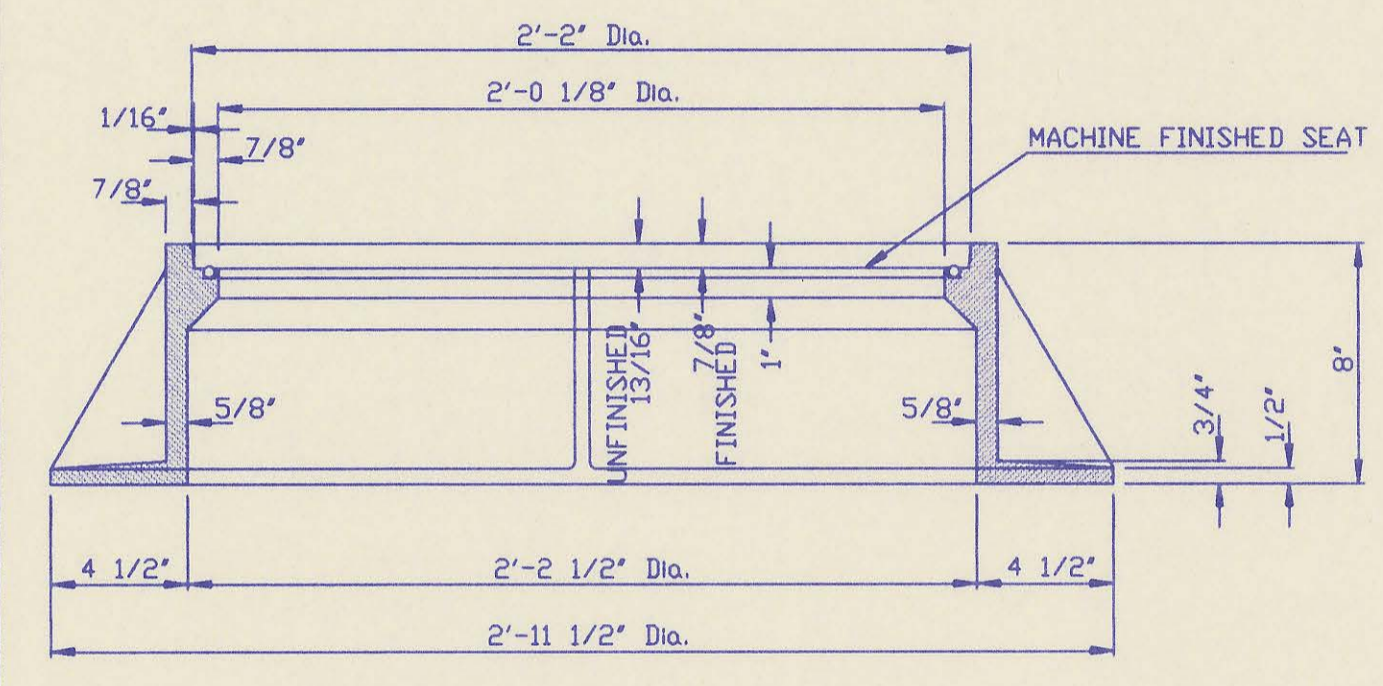
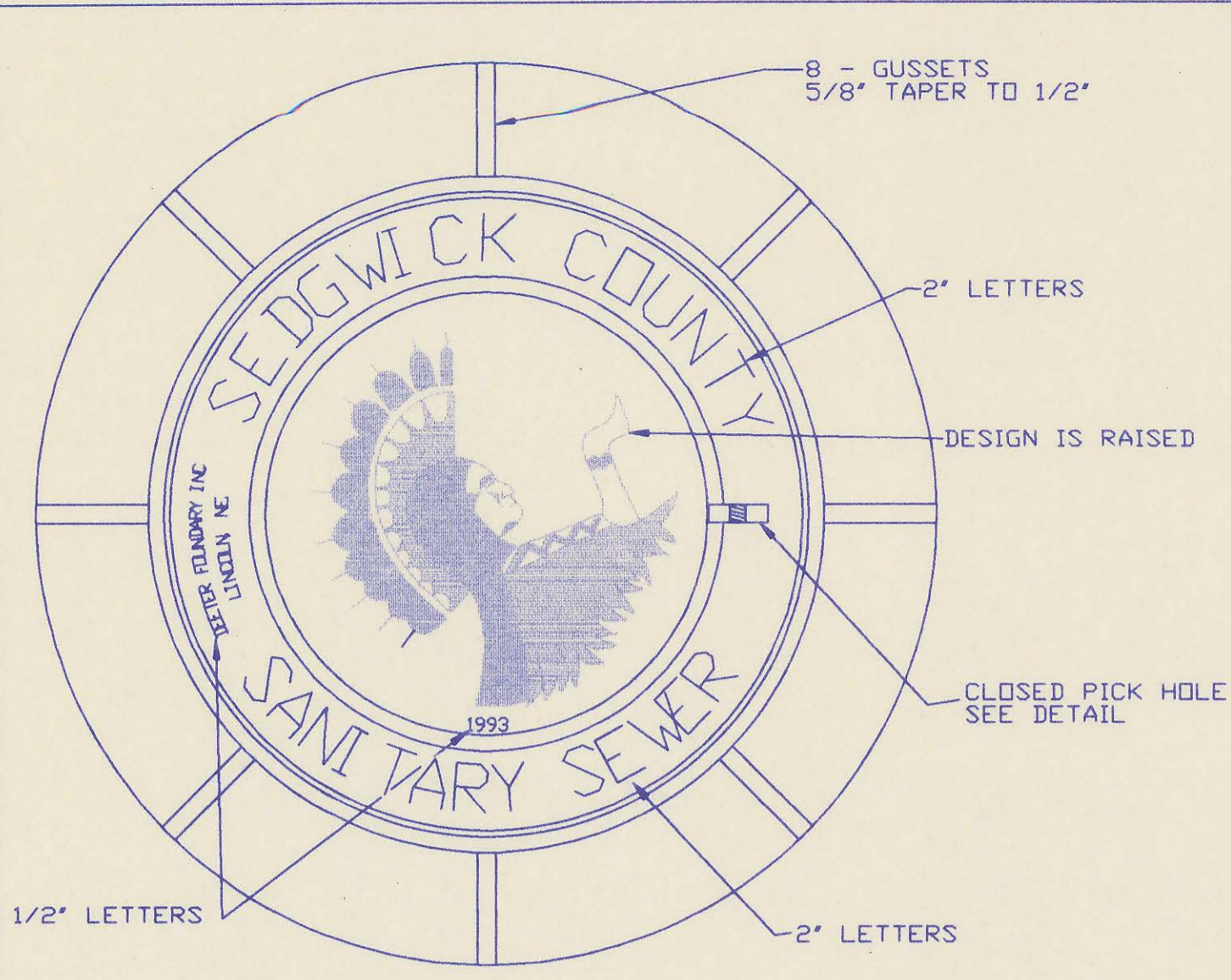
R.R. Spike in NE Face PP 12' North & 2' West of the Northeast corner of Reserve "C" (West side of the entrance) Belle Terre Addition. Elev. = 1316.17 M.S.L.



SCALE:  
1" = 40' Horizontal  
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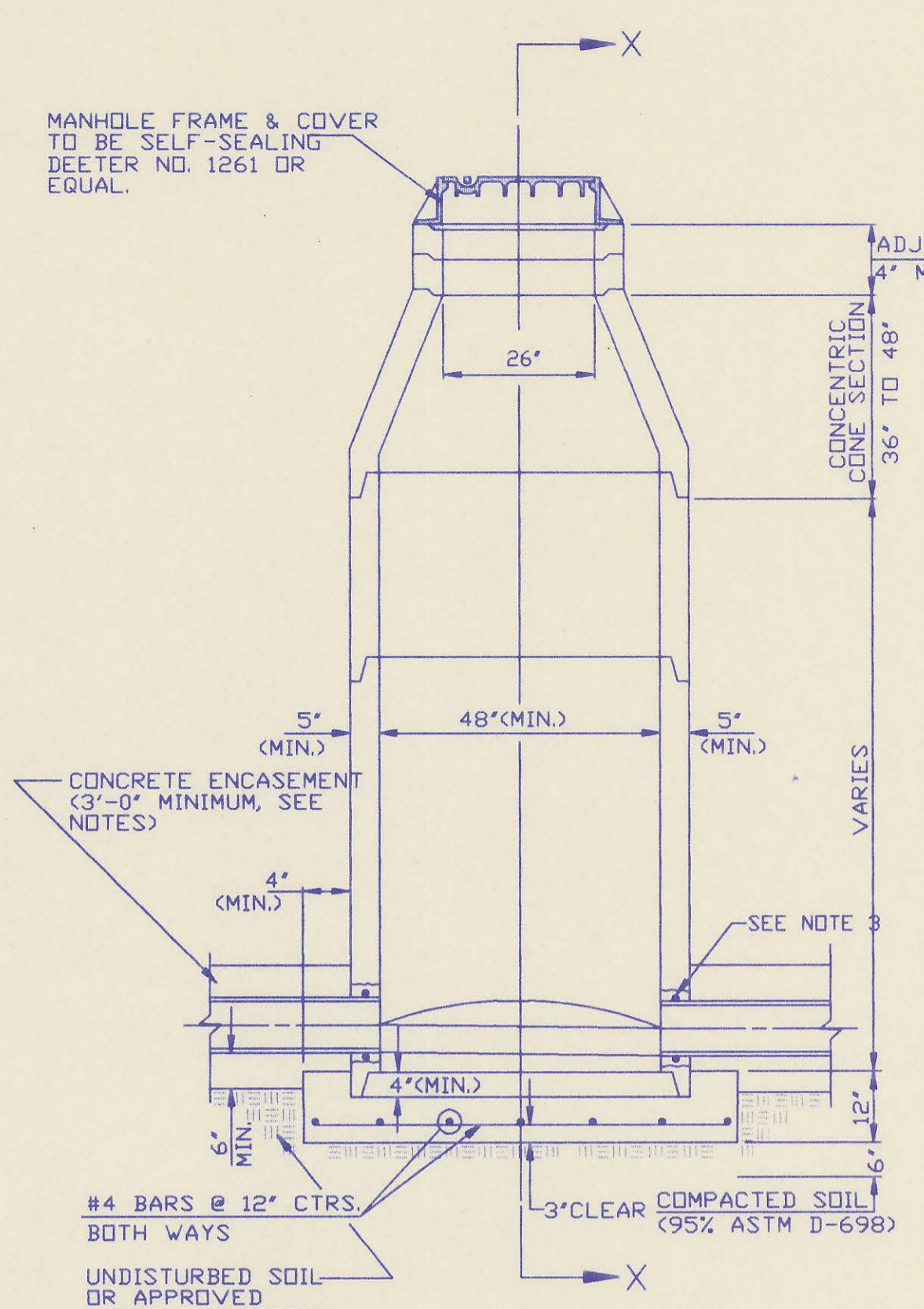
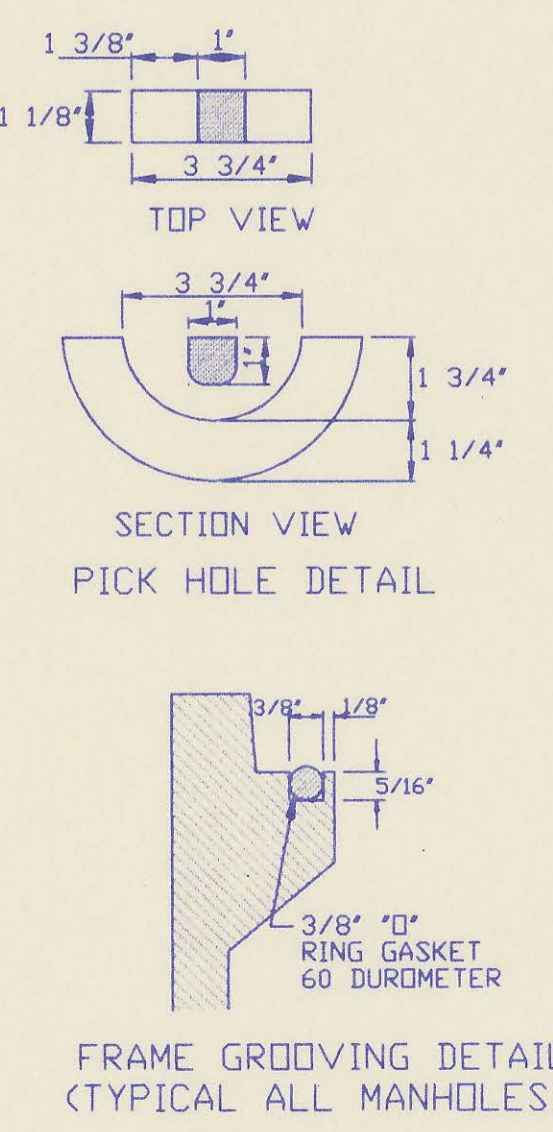


<b>LINE 5</b>				
<b>BELLE TERRE ADDITION</b>				
<b>BAUGHMAN COMPANY P. A.</b> ENGINEERING & SURVEYING 316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211				
PROJECT NUMBER <b>SEDGWICK COUNTY, KANSAS</b>				SHEET <b>6</b>
DESIGN NBW/DY	DRAWN DY	UTIL. CHECK'D DATE MAY 93	SCALE NOTED	OF <b>10</b>

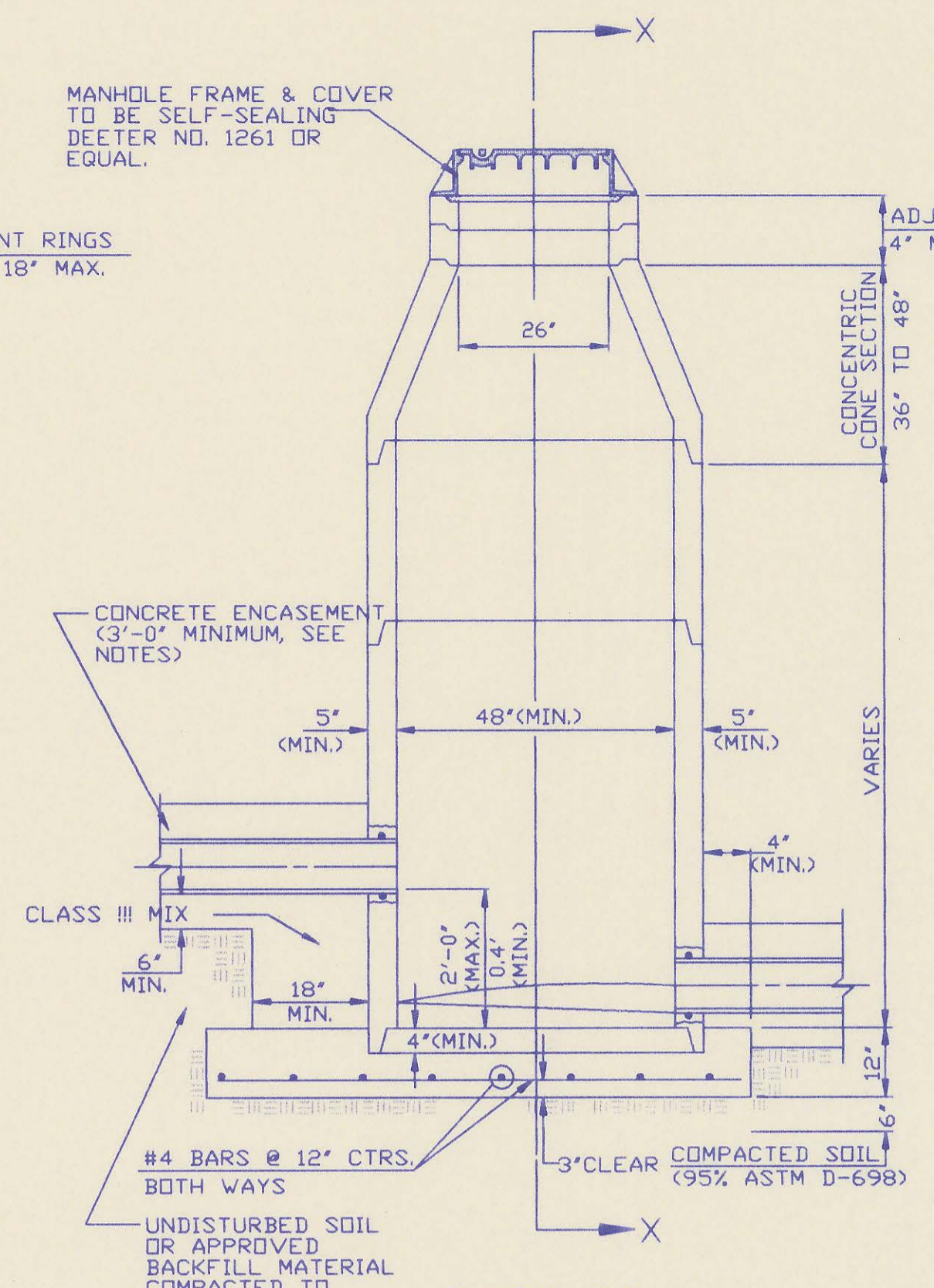


**MANHOLE FRAME AND COVER**  
(TOTAL WEIGHT = 430 LBS.)

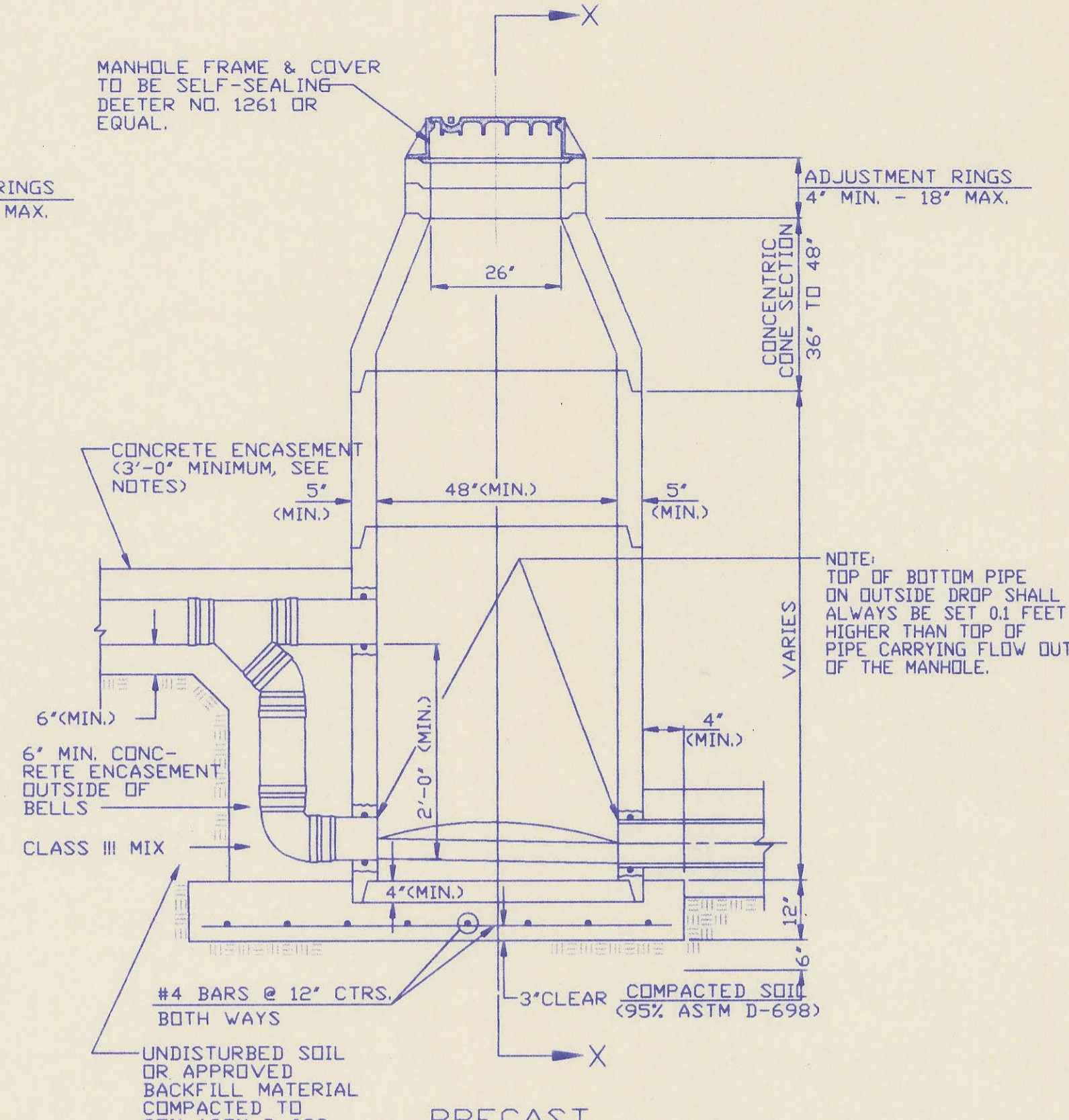
- MANHOLE FRAME AND COVER NOTES**
1. CAST IRON MANHOLE FRAME AND COVER SHALL CONFORM TO ASTM A-48, CLASS 35B, OR BETTER.
  2. CASTINGS ARE TO BE MANUFACTURED TRUE TO PATTERN AND WITH SATISFACTORY FIT OF COMPONENT PARTS. CASTINGS SHALL BE FREE OF DEFECTS. DIMENSIONS AS DETAILED ON PLAN SHALL NOT DEVIATE BY  $\pm 1/16$ " PER FOOT.
  3. NO OTHER LETTERING OR MARKINGS OTHER THAN THOSE DETAILED ON PLAN WILL BE PERMITTED ON CASTINGS.
  4. CASTINGS MUST BE DOMESTICALLY MANUFACTURED IN THE UNITED STATES OF AMERICA.
  5. THE FRAMES AND COVERS SHALL BE FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES SO FITTING PARTS WILL NOT RATTLE OR ROCK UNDER TRAFFIC.
  6. MANHOLE CASTINGS SHALL BE SELF-SEALING DEETER FOUNDRY INC. NO. 1261 OR APPROVED EQUAL, UNLESS OTHERWISE SPECIFIED IN THE SPECIAL CONDITIONS (MINIMUM WT.=430 LBS.). ALL MANHOLE CASTINGS SHALL BE CONSIDERED SUBSIDIARY TO THE UNIT PRICES BID FOR THE VARIOUS MANHOLE TYPES.
  7. GRIND ALL BURRS SMOOTH, CLEAN THOROUGHLY, THEN APPLY SHOP COAT OF ASPHALT BASE PAINT.
  8. THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. THE ENGINEER SHALL RETAIN THE RIGHT TO REJECT CASTINGS NOT CONFORMING TO THE SPECIFICATIONS OR THE APPROVED SHOP DRAWINGS.
  9. THE MANHOLE FRAME SHALL BE FURNISHED WITH AN APPROVED "O" RING GASKET GROOVED INTO THE BEARING SURFACE OF THE MANHOLE FRAME (SEE DETAIL). THE "O" RING GASKET SHALL NOT BE INSTALLED IN THE MANHOLE FRAME UNTIL AFTER FINAL INSPECTION AND ACCEPTANCE OF THE PROJECT BY THE ENGINEER.



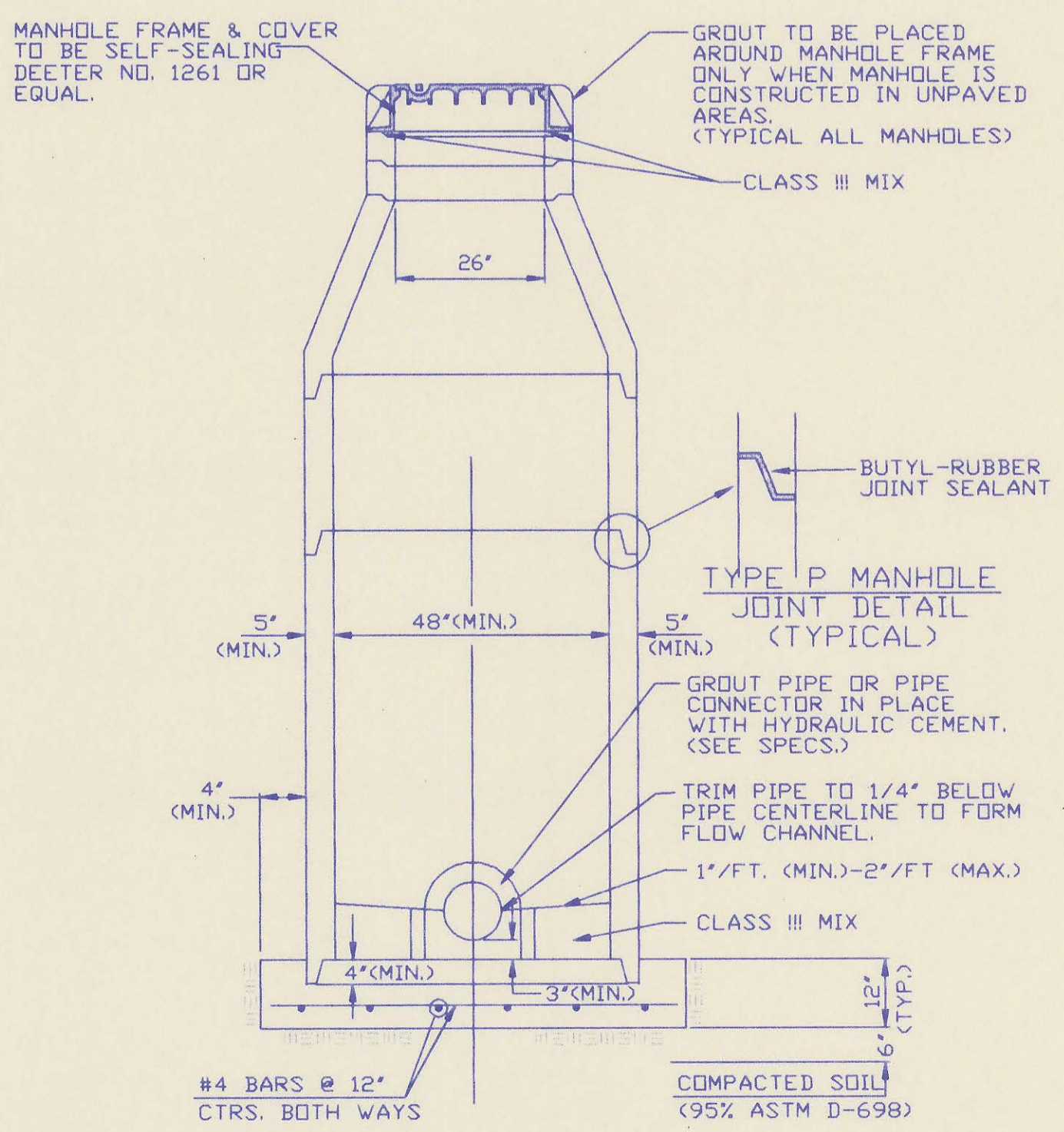
**PRECAST STANDARD MANHOLE TYPE "A"**



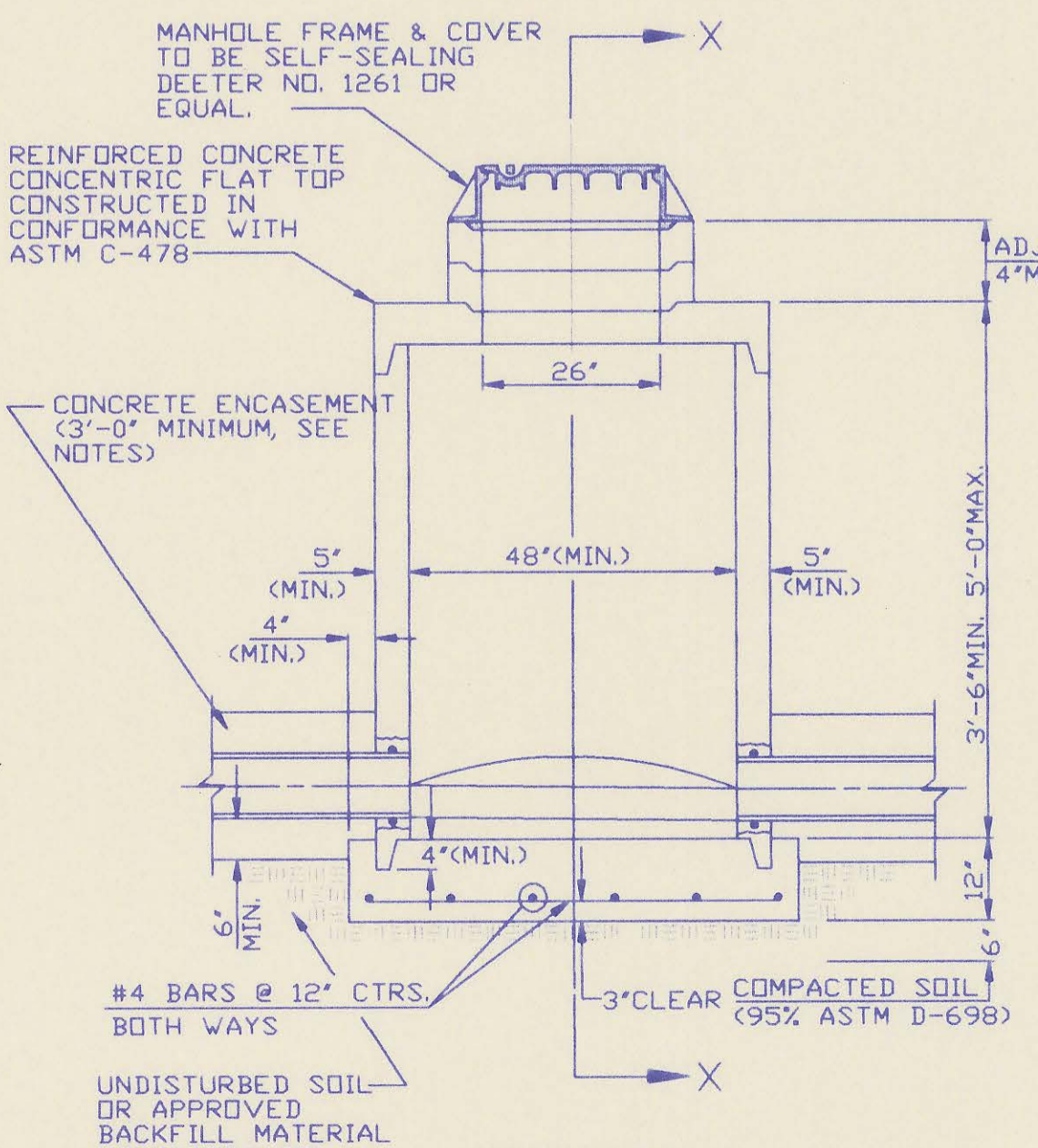
**PRECAST INSIDE DROP MANHOLE TYPE "B"**



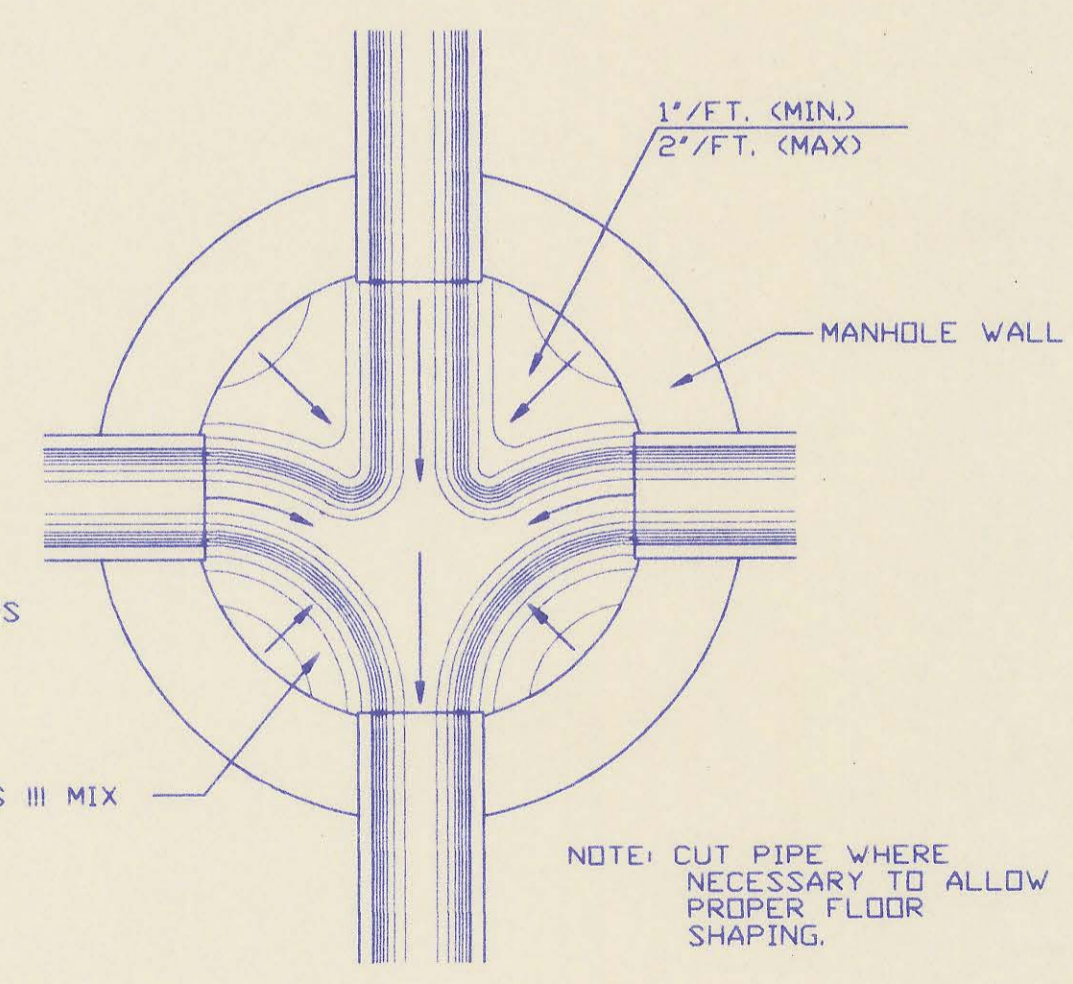
**PRECAST OUTSIDE DROP MANHOLE TYPE "C"**



**SECTION X (TYPICAL)**



**PRECAST SHALLOW MANHOLE TYPE "D"**

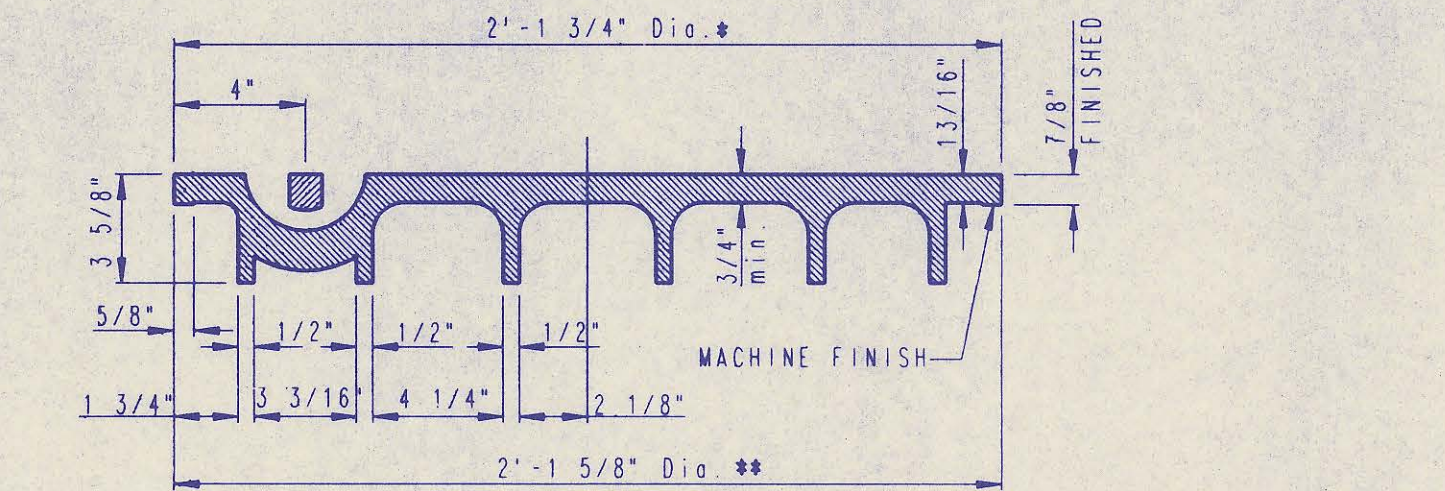
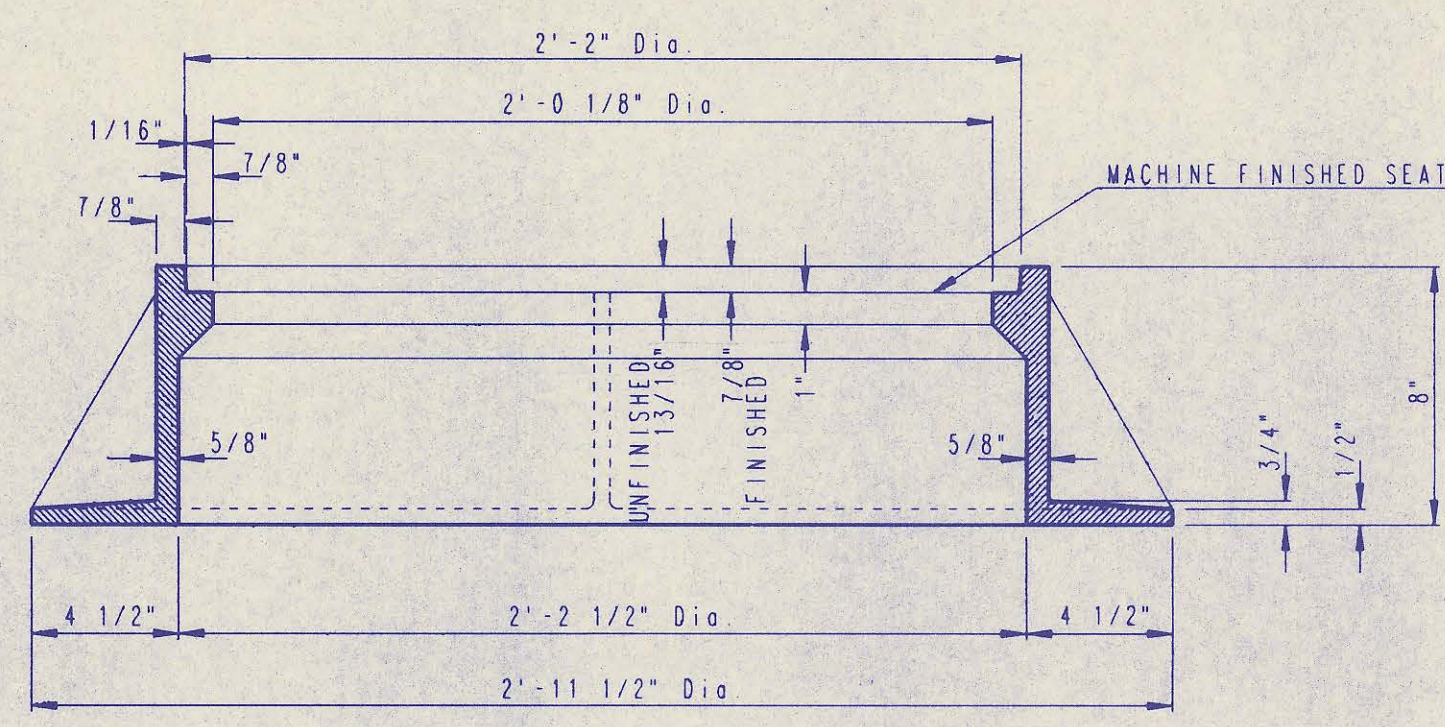
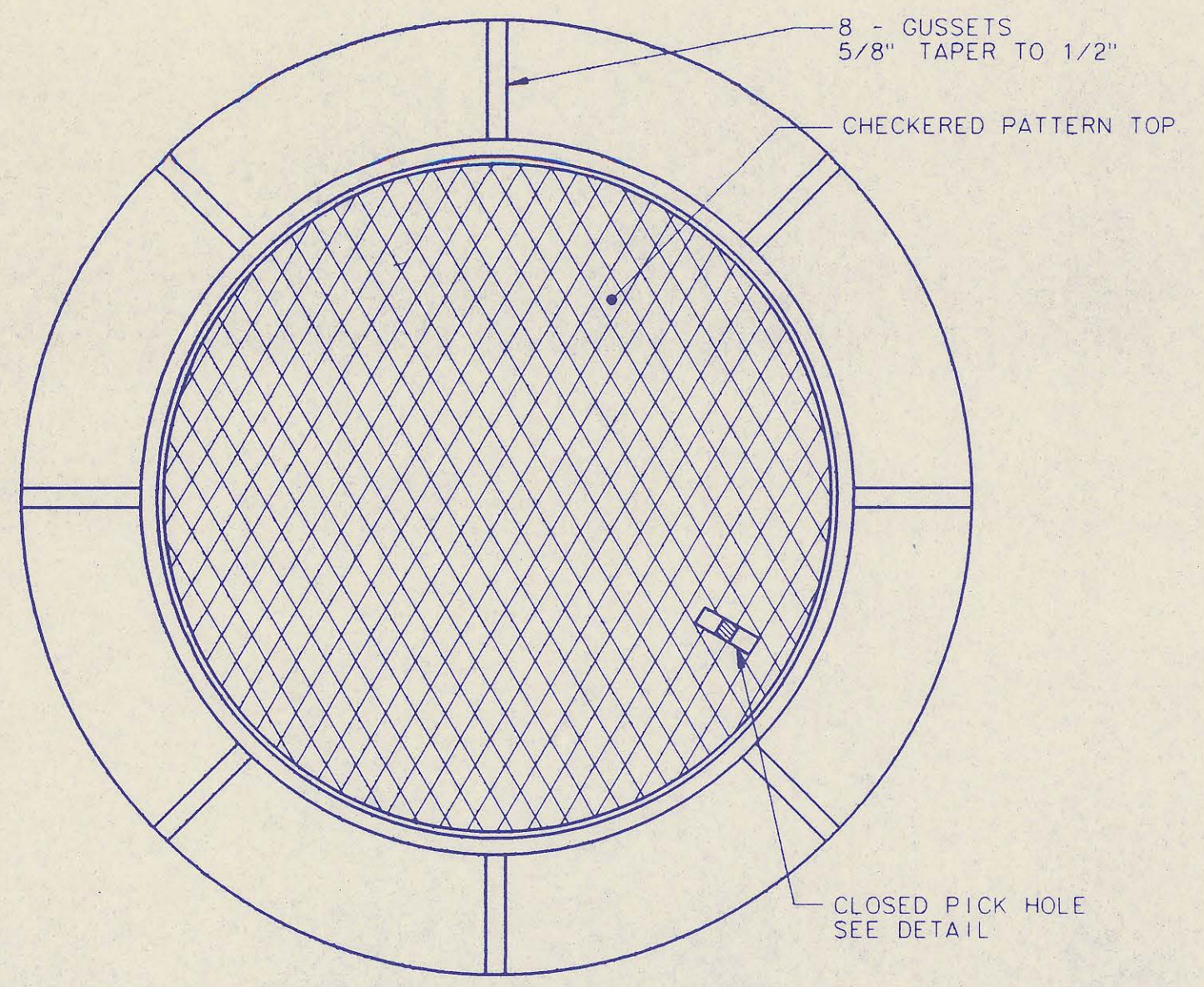


**TYPICAL MANHOLE FLOOR SHAPING**

- PRECAST MANHOLE NOTES**
1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
  2. STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
  3. APPROVED FLEXIBLE WATERSTOP GASKETS WHICH MEET OR EXCEED THE TEST REQUIREMENTS OF ASTM C-923 SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN PLASTIC PIPE IS USED. SEWER PIPE EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL.
  4. THE MANHOLE FRAME SHALL BE SEATED ON AN APPROVED BUTYL-RUBBER SEALANT TO PROVIDE A WATER-TIGHT SEAL BETWEEN THE MANHOLE ADJUSTMENT RING AND THE MANHOLE FRAME.
  5. GASKETED PIPE CAPS SHALL BE PROVIDED BY THE PIPE SUPPLIER, GLUED OR CEMENTED CAPS WILL NOT BE ACCEPTED.
  6. ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
  7. 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.
  8. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C478 AS MODIFIED BY THE SPECIFICATIONS.
  9. CONCRETE FOR MANHOLE BASES SHALL BE CLASS I AS DESCRIBED IN THE SPECIFICATIONS.
  10. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
  11. MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5' INSIDE DIAMETER (MIN.).
  12. INSIDE DIAMETER OF FIVE-FOOT DIAMETER PRECAST MANHOLES SHALL REMAIN CONSTANT TO THE LOCATION OF THE REDUCING FLAT TOP WHICH CONNECTS THE FOUR-FOOT DIAMETER CONE SECTION TO THE FIVE-FOOT DIAMETER MANHOLE BARREL.

No.	Revision	By	Date
3	All Manholes self-sealing/MH Cover	RJ	1/25/93
2	Modified pipe connection note	RJ	6/01/92
1	Manhole Frame and Cover Note 1	RJ	7/16/91

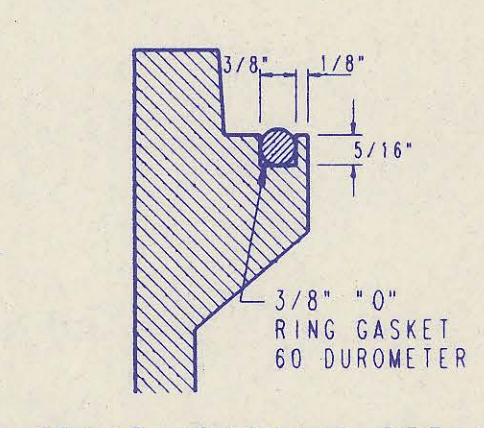
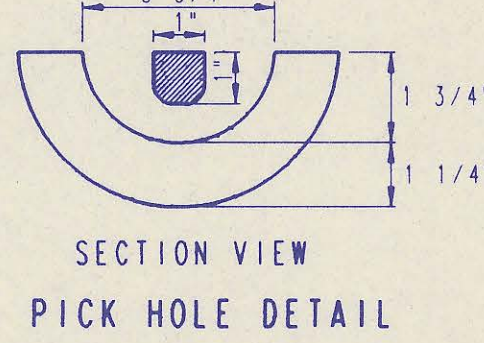
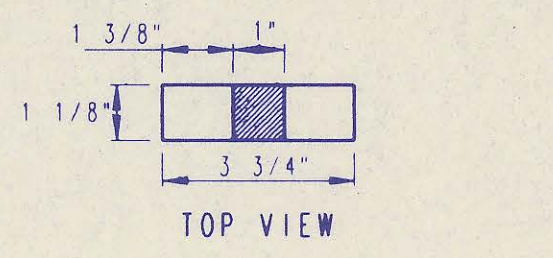
**PRECAST MANHOLE DETAILS**  
ADOPTED AS STANDARD DESIGN SEPTEMBER, 1989  
BY  
SEDGWICK COUNTY BUREAU OF PUBLIC SERVICES  
DAVID C. SPEARS, P.E. DIRECTOR, BUREAU OF PUBLIC SERVICES/COUNTY ENGINEER



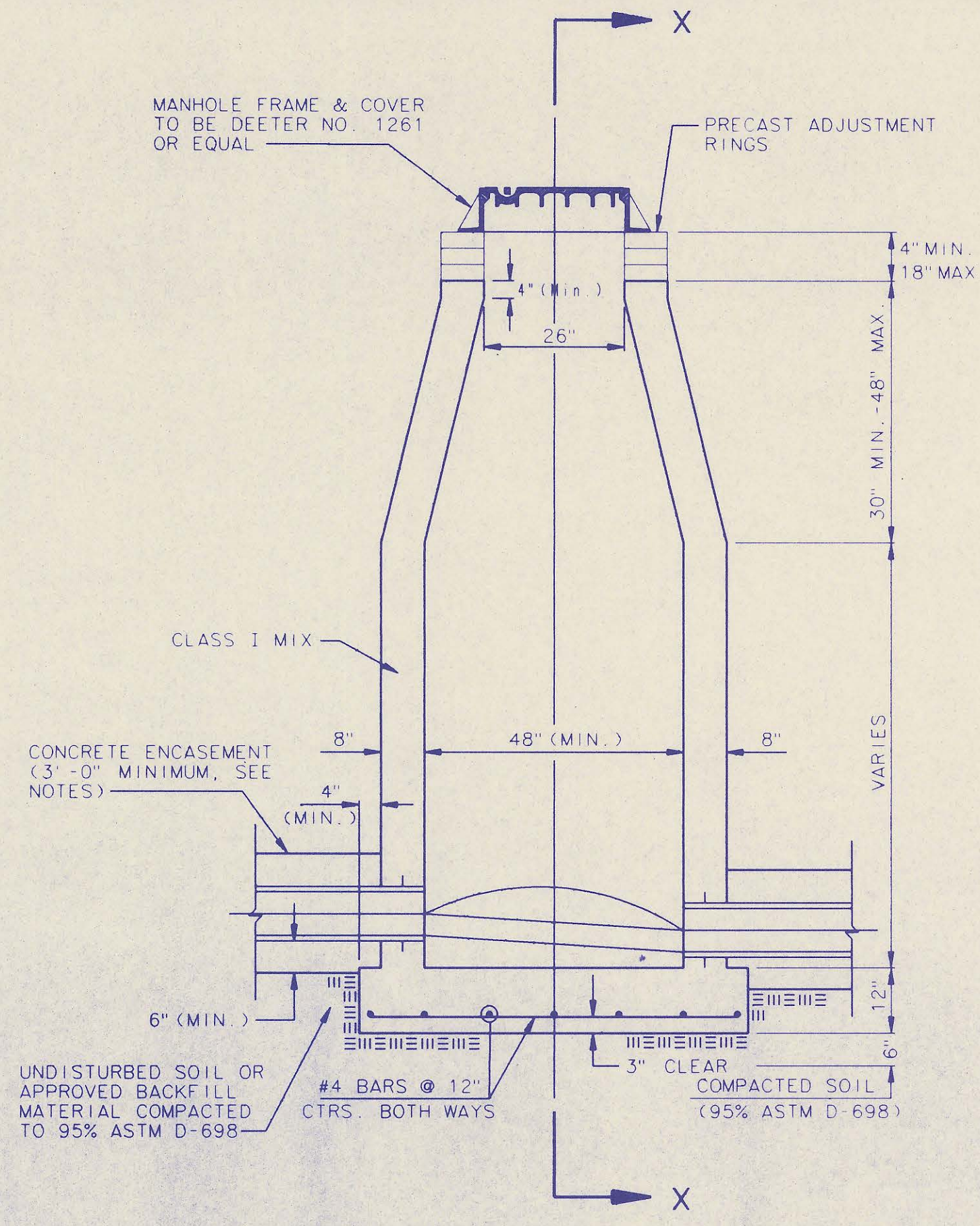
**MANHOLE FRAME AND COVER**  
(TOTAL WEIGHT = 430 LBS.)

**MANHOLE FRAME AND COVER NOTES**

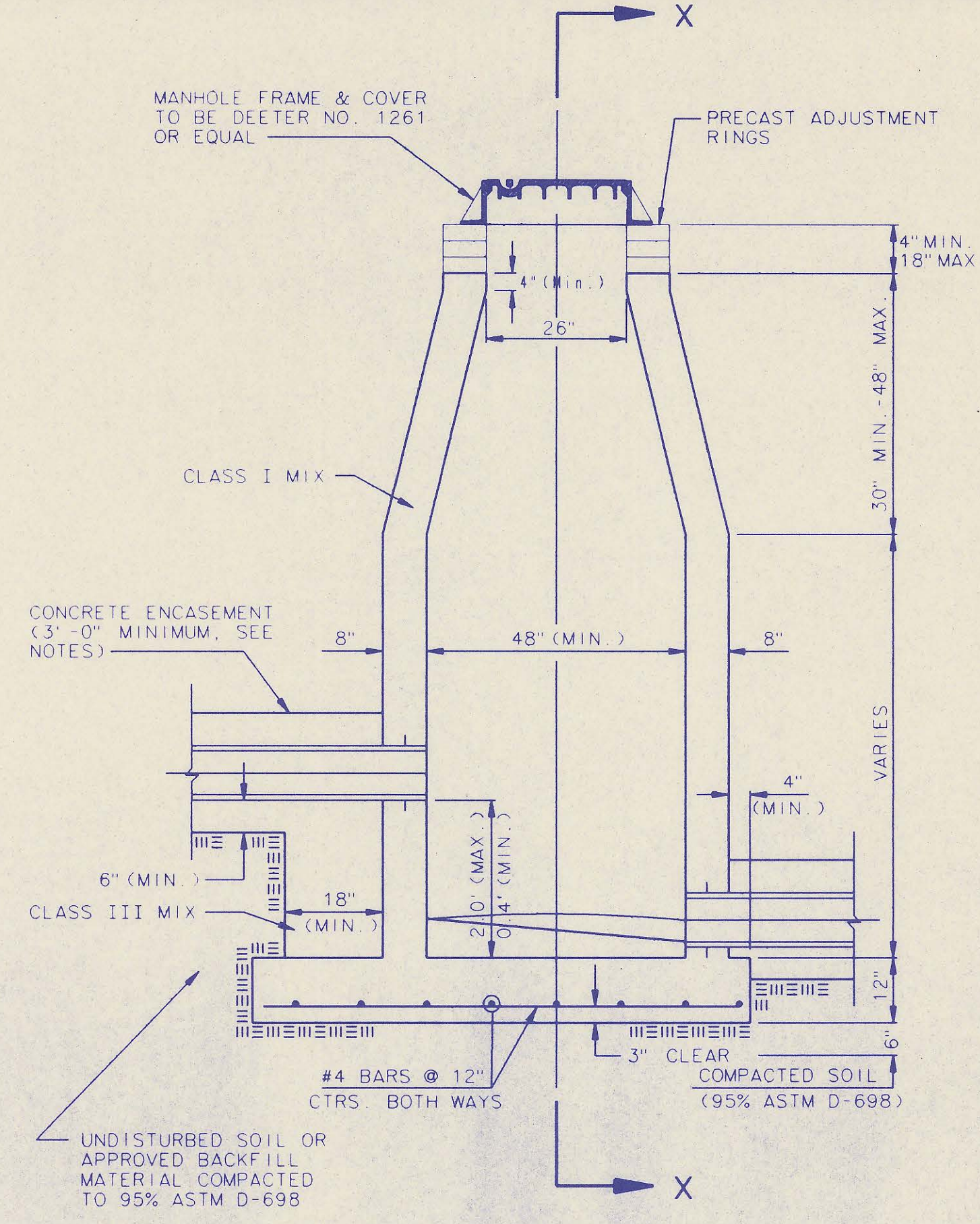
- CAST IRON MANHOLE FRAME AND COVER SHALL CONFORM TO ASTM A-48, CLASS 35B, OR BETTER.
- THE FRAMES AND COVERS SHALL BE OF A NONROCKING TYPE OR WITH MACHINED BEARING SURFACES SO FITTING PARTS WILL NOT RATTLE OR ROCK UNDER TRAFFIC.
- MANHOLE CASTINGS SHALL BE DEETER FOUNDRY INC. NO. 1261 OR APPROVED EQUAL UNLESS OTHERWISE SPECIFIED IN THE SPECIAL CONDITIONS. (MINIMUM WT. = 430 LBS.) ALL MANHOLE CASTINGS, REGARDLESS OF TYPE, SHALL BE CONSIDERED SUBSIDIARY TO THE UNIT PRICES BID FOR THE VARIOUS MANHOLE TYPES.
- GRIND ALL BURRS SMOOTH, CLEAN THOROUGHLY, THEN APPLY SHOP COAT OF ASPHALT BASE PAINT.
- THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. THE ENGINEER SHALL RETAIN THE RIGHT TO REJECT CASTINGS NOT CONFORMING TO THE SPECIFICATIONS OR THE APPROVED SHOP DRAWINGS.
- WHERE SELF-SEALING MANHOLE FRAMES ARE SPECIFIED ON THE PLANS, THE MANHOLE FRAME SHALL BE FURNISHED WITH AN APPROVED "D" RING GASKET GROOVED INTO THE BEARING SURFACE OF THE MANHOLE FRAME (PER DETAIL). THE "D" RING GASKET SHALL NOT BE INSTALLED IN THE MANHOLE FRAME UNTIL AFTER FINAL INSPECTION AND ACCEPTANCE OF THE PROJECT BY THE ENGINEER. THE CONTRACTOR SHALL SUPPLY TO THE OWNER ONE (1) REPLACEMENT "D" RING GASKET FOR EACH SELF-SEALING MANHOLE SPECIFIED.



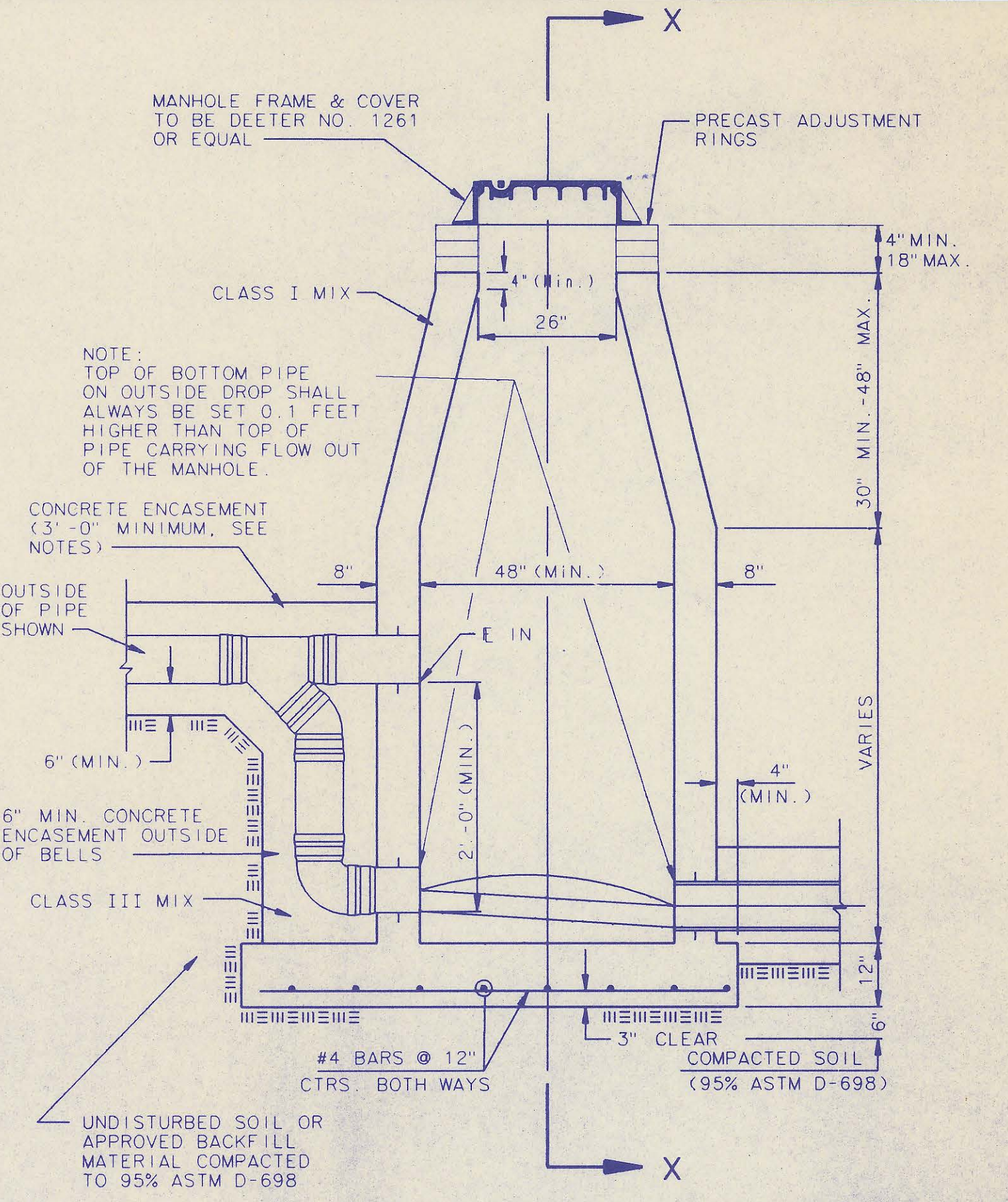
**FRAME GROOVING DETAIL (FOR SELF-SEALING MHS ONLY)**



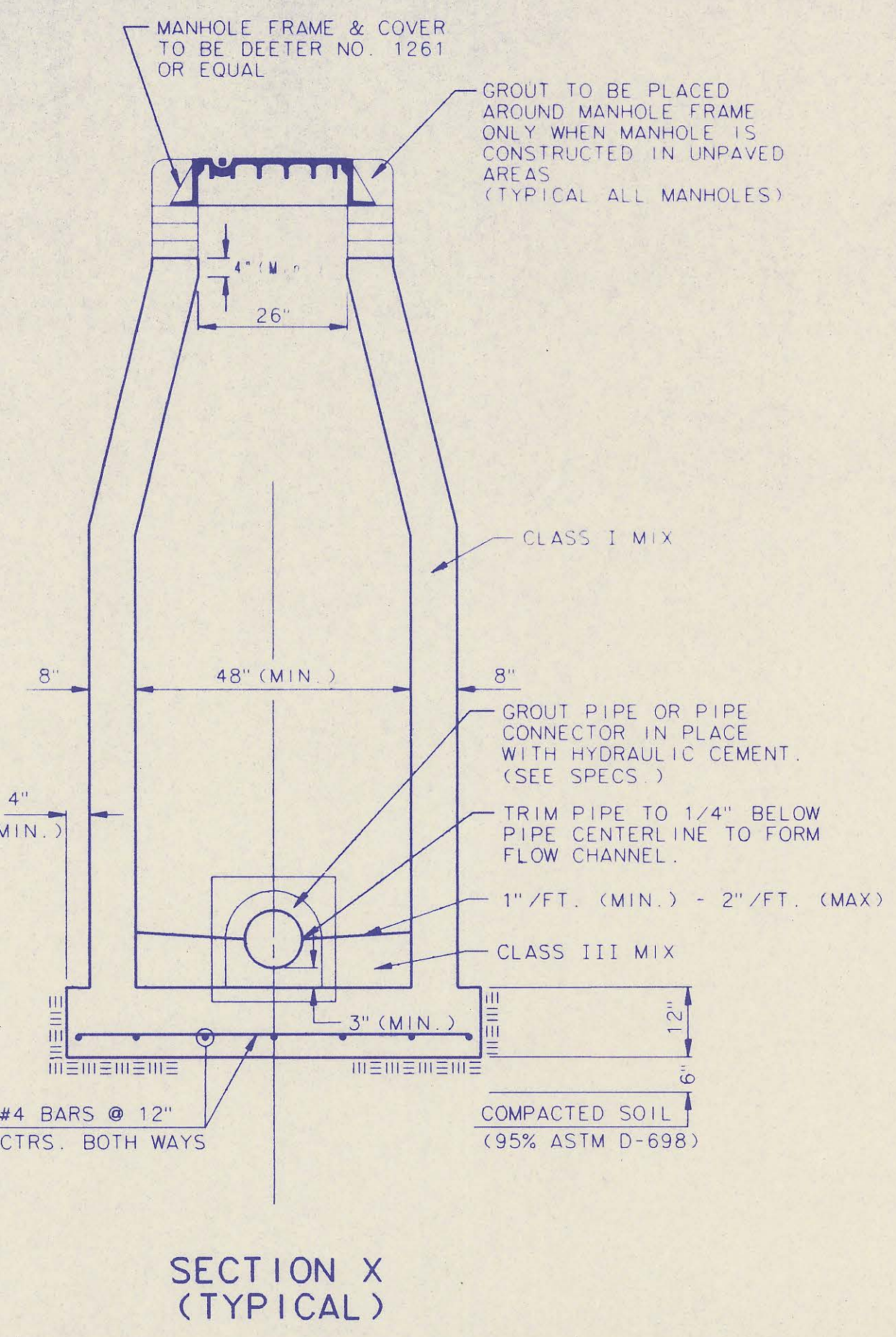
**CAST IN PLACE STANDARD MANHOLE TYPE "A"**



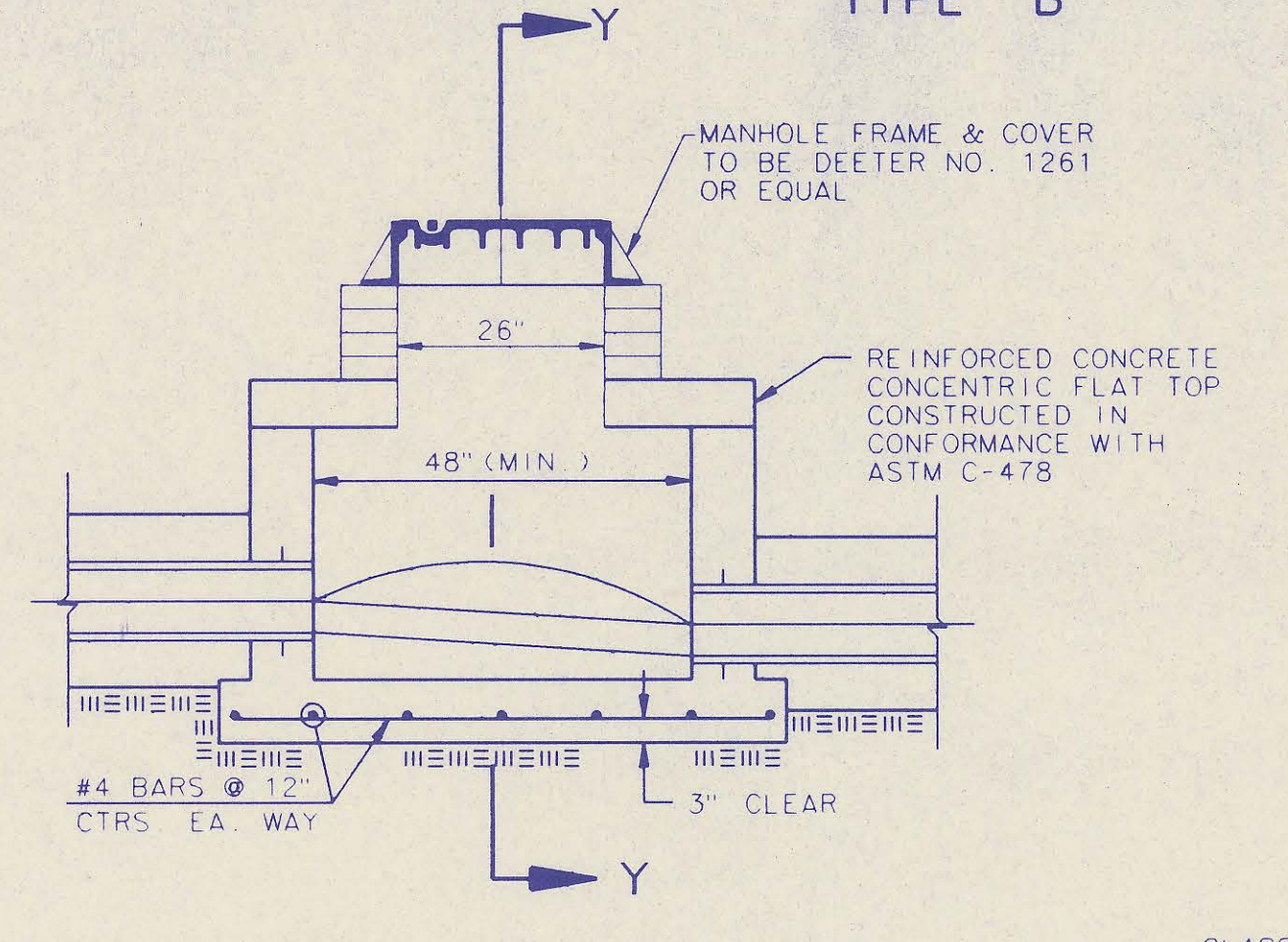
**CAST IN PLACE DROP MANHOLE TYPE "B"**



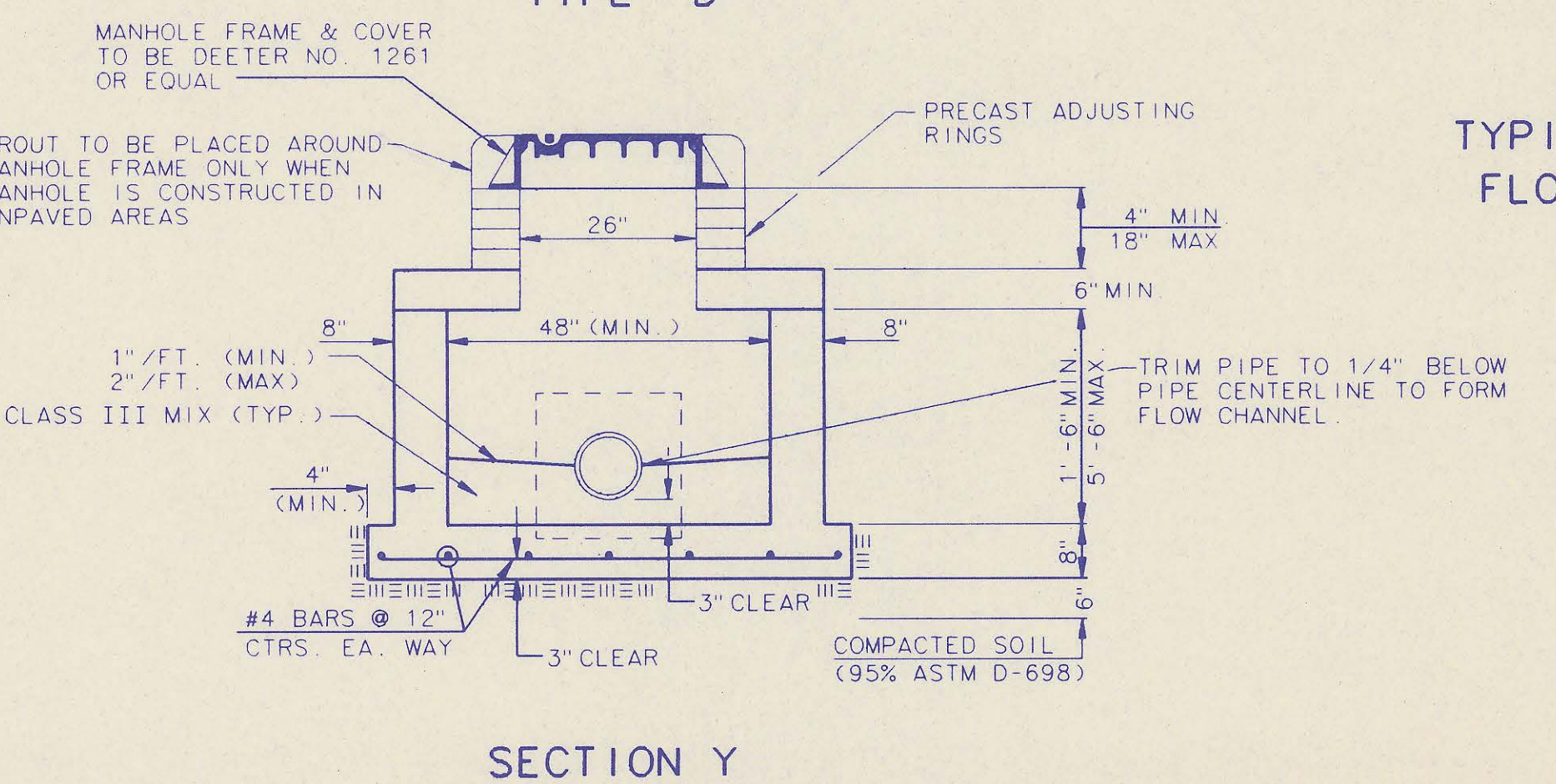
**CAST IN PLACE OUTSIDE DROP MANHOLE TYPE "C"**



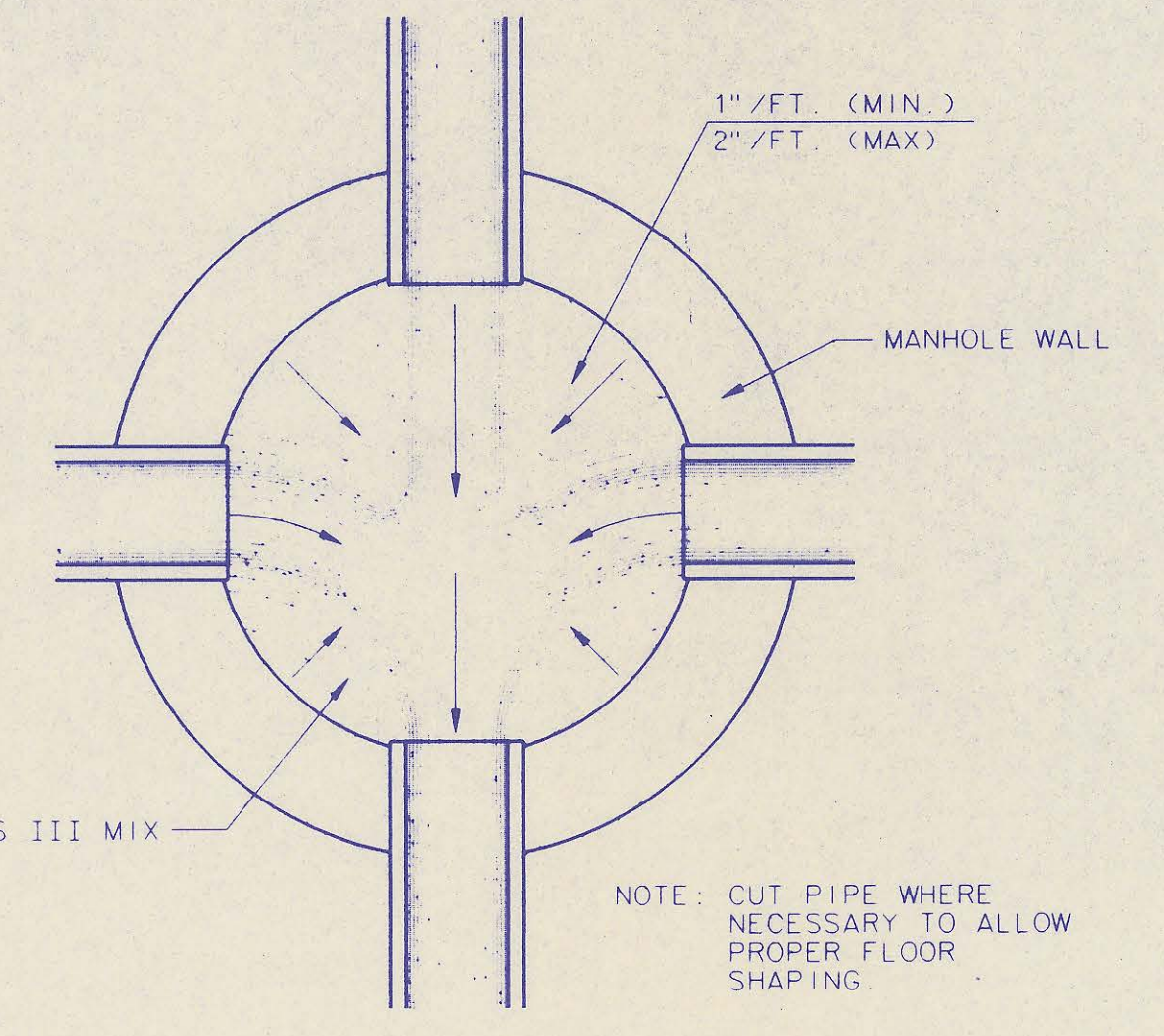
**SECTION X (TYPICAL)**



**SHALLOW MANHOLE TYPE "D"**



**SECTION Y**



**TYPICAL MANHOLE FLOOR SHAPING**

**CAST-IN-PLACE MANHOLE NOTES**

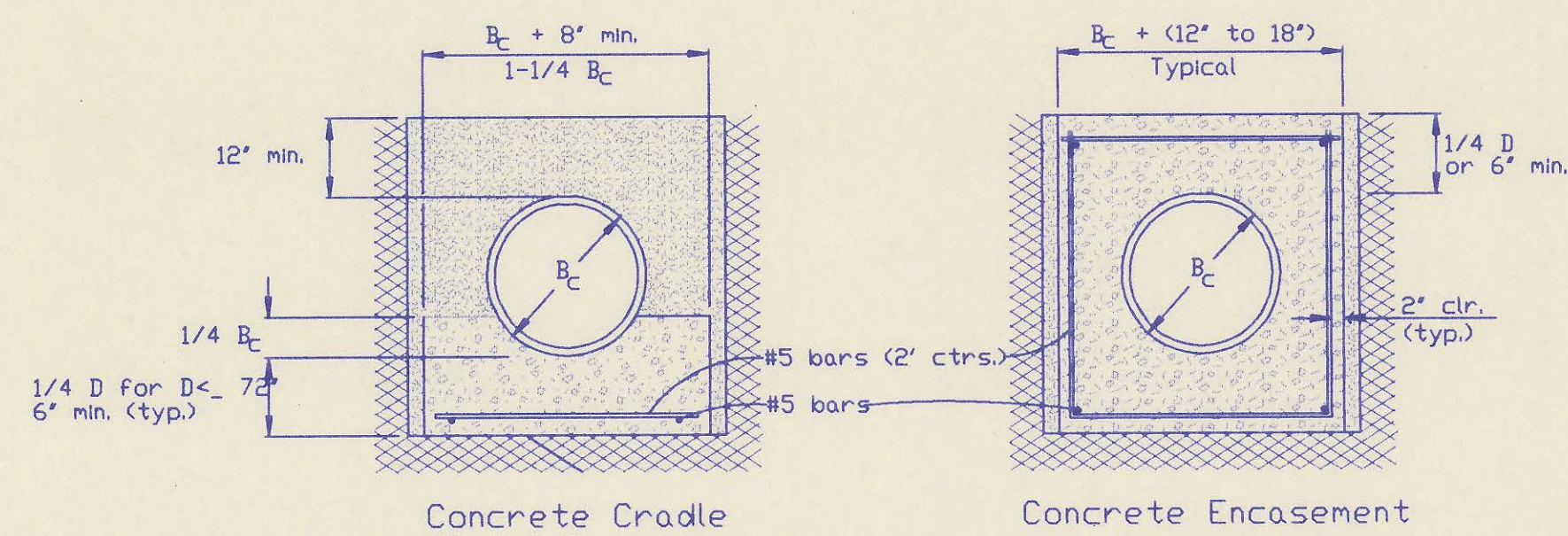
- IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
- STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
- WHEN OPENINGS ARE CUT IN MANHOLE WALLS FOR PIPE, THE PIPE OR PIPE CONNECTOR SHALL BE GROUDED IN PLACE WITH HYDRAULIC CEMENT. EXTERIOR OR COMPLETED CONNECTION SHALL BE SEALED WITH APPROVED COATINGS.
- CAST-IN-PLACE CIRCULAR CONCRETE MANHOLES ARE TO BE CONSTRUCTED ONLY IN LOCATIONS WHERE IT IS OBVIOUS THAT ANY ADJUSTMENT OF THE MANHOLE TOP ELEVATIONS WHICH MAY BE NECESSARY WILL NOT REQUIRE MODIFICATION OF THE CONCRETE BARREL.
- APPROVED FLEXIBLE WATERSTOP GASKETS WHICH MEET OR EXCEED THE TEST REQUIREMENTS OF ASTM C-993 SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN ABS. COMPOSITE PIPE OR PVC PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL.
- THE MANHOLE FRAME SHALL BE SEATED ON AN APPROVED BUTYL-RUBBER SEALANT TO PROVIDE A WATER-TIGHT SEAL BETWEEN THE MANHOLE ADJUSTMENT RING OR BRICK MASONRY COLLAR AND THE MANHOLE FRAME.
- GASKETED PIPE CAPS SHALL BE PROVIDED BY THE PIPE SUPPLIER. GLUED OR CEMENTED CAPS WILL NOT BE ACCEPTED.
- CONCRETE FOR MANHOLE BASES SHALL BE CLASS I AS DESCRIBED IN THE SPECIFICATIONS.
- MANHOLES WITH PIPE SIZES LARGER THAN 15" SHALL HAVE 5" INSIDE DIAMETER.

2	Modified Pipe connection note and MH Note 3	RJ	6/01/92
1	Manhole Frame and Cover Note 1	RJ	7/16/91
No.	Revision	By	Date

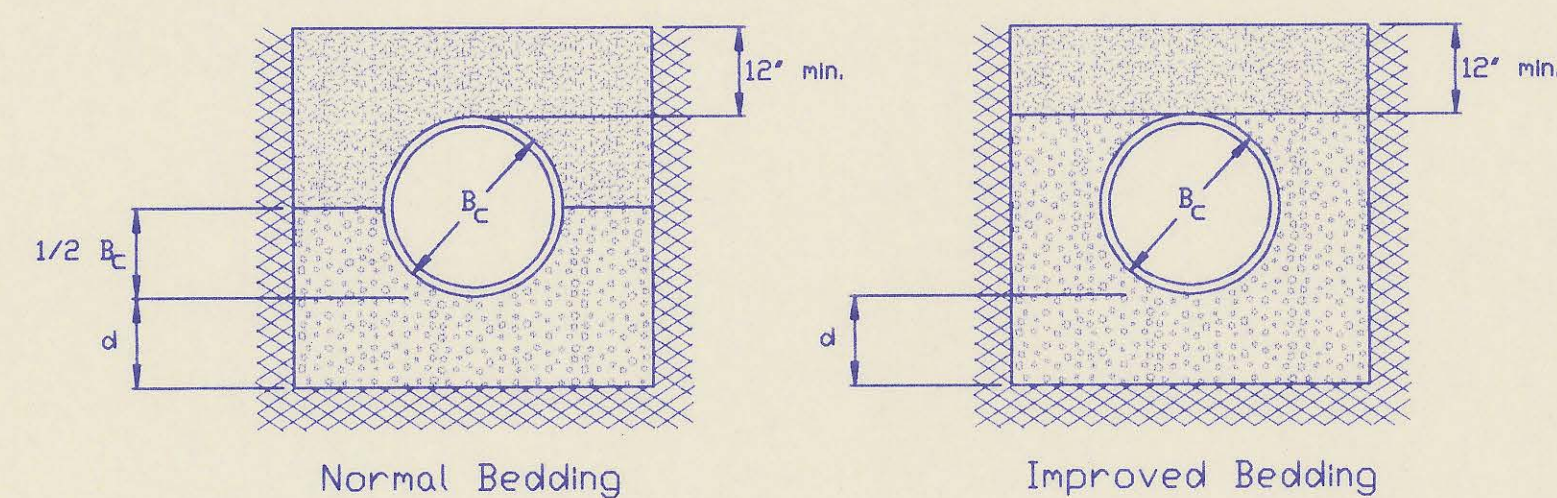
**CAST-IN-PLACE MANHOLE DETAILS 8 of 10**

ADOPTED AS STANDARD DESIGN SEPTEMBER, 1989  
BY  
SEDCWICK COUNTY BUREAU OF PUBLIC SERVICES  
DAVID C. SPEARS, P.E. DIRECTOR, BUREAU OF PUBLIC SERVICES/COUNTY ENGINEER

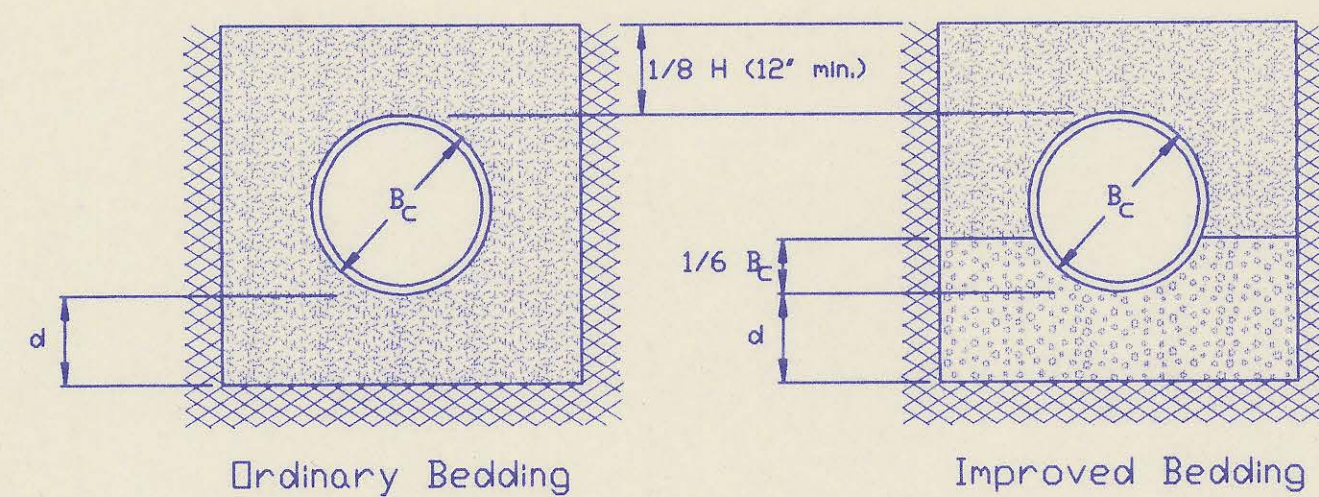
DATE \_\_\_\_\_  
 BY \_\_\_\_\_  
 PLAN \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 CHECKED \_\_\_\_\_



CLASS A



CLASS B



CLASS C

PIPE ZONE BACKFILLING

- $D_c$  = Outside Pipe Diameter
- H = Backfill from Top of Pipe to Existing Ground
- D = Inside Pipe Diameter
- d = Depth of Bedding Material Below Pipe
- [Pattern] = Granular Bedding Material or Sand-Gravel Bedding
- [Pattern] = Compacted Embedment
- [Pattern] = Concrete (Class III)

Depth of Bedding Material Below Pipe		
D	d(min) Soil	d(min) Rock
27' & smaller	4'	6'
30' to 60'	5'	9'
66' & larger	6'	12'

Granular Bedding Material shall be an approved material consisting of durable crushed rock conforming with the requirements of the latest revision of ASTM C-33 Size No. 67 (3/4" to No. 4) to be placed in not more than 6" layers and compacted by slicing with a shovel or vibrating. Soundness, abrasion, and absorption limits shall be as required for coarse aggregates in Section 03010-Concrete Work in the specifications.

Sand-Gravel Bedding Material - sand-gravel mix meeting Type UD-1 of the 1990 Kansas Standard Specifications for State Road and Bridge Construction.

Compacted Embedment shall be an approved sand material free from debris, organic material, and stones with 100% passing the 3/4" sieve to be placed in uniform layers not more than 6" thick and compacted to 90 percent maximum density as determined by ASTM D1557. Granular Bedding Material may be substituted for all or part of Compacted Embedment Materials.

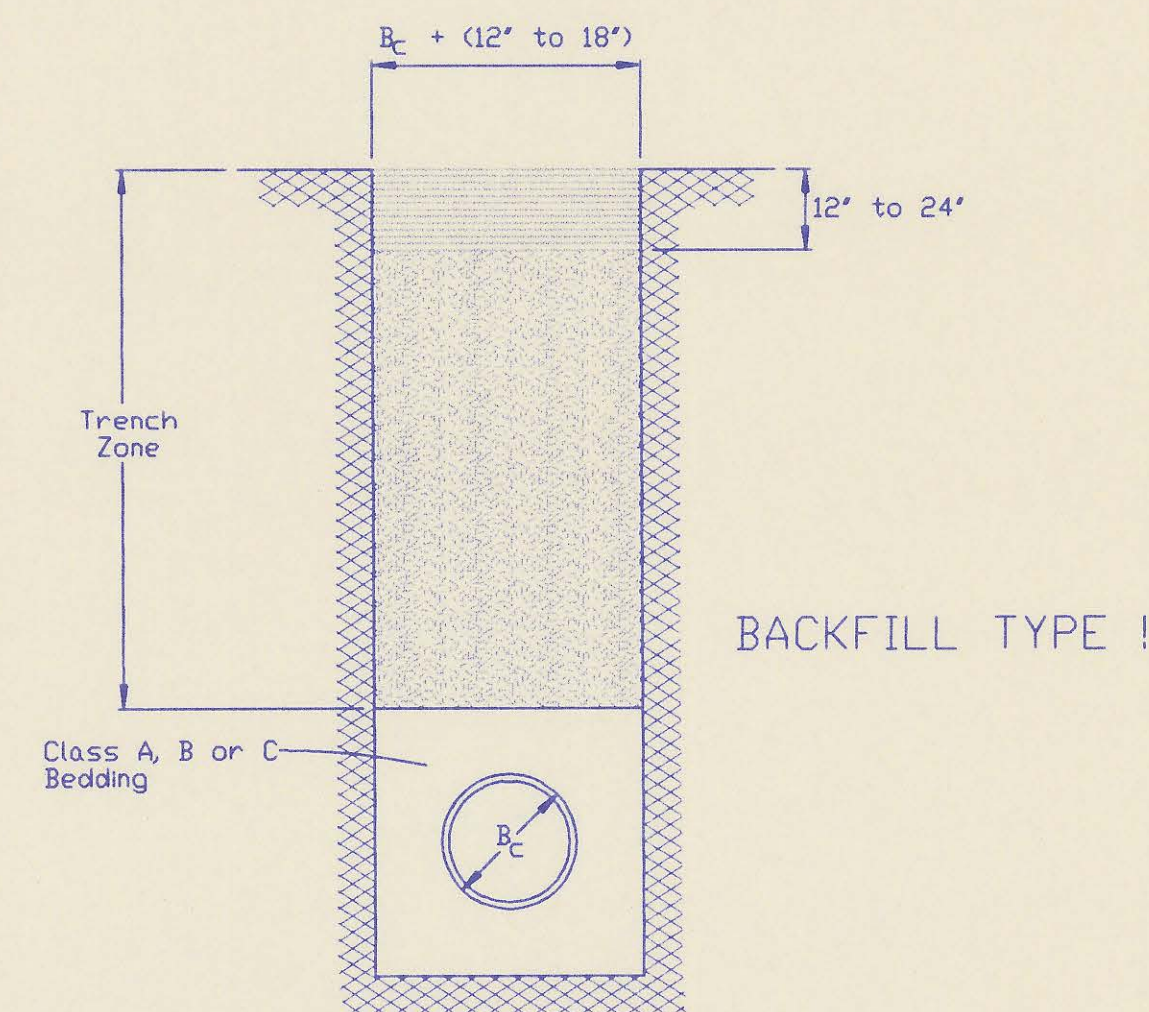
Class A "Concrete Cradle" and/or Class A "Concrete Encasement" is not required unless specified on the plans. However, where unexpected trench conditions exist or improper trenching is performed Class A Bedding may be required as determined by the Engineer.

Class B Bedding shall be used for all flexible pipe.

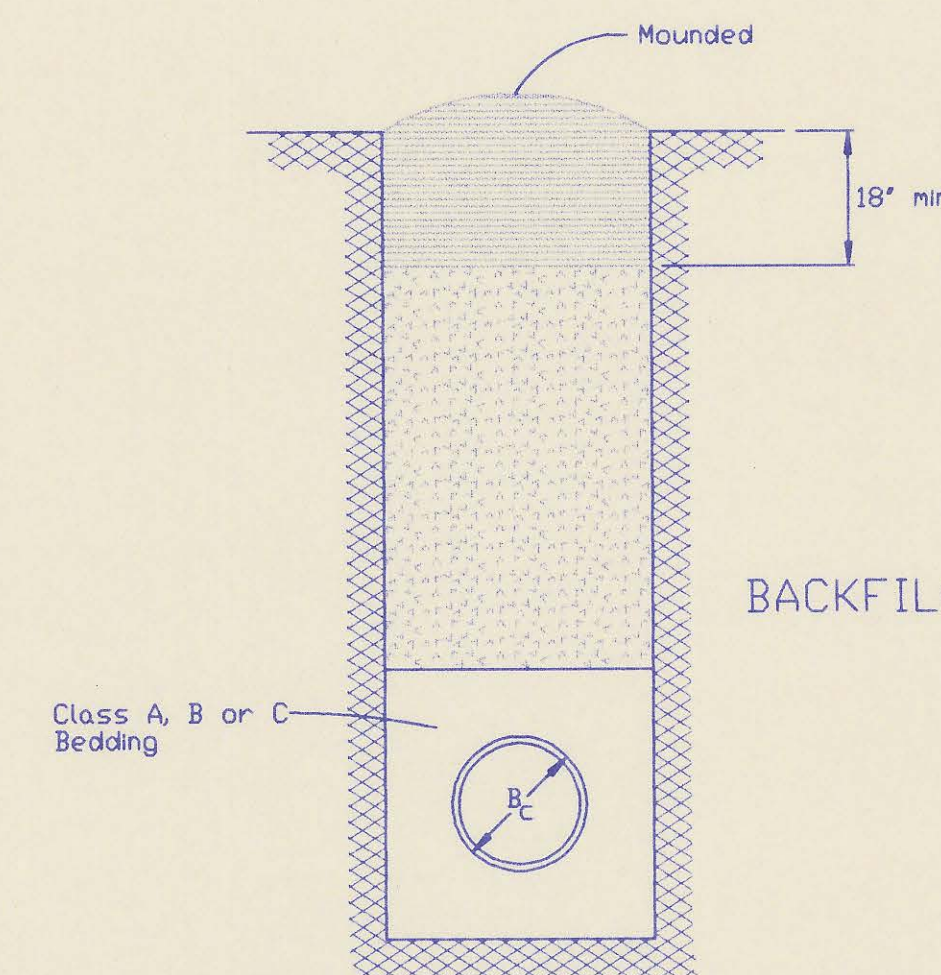
- a. Class B Normal Bedding shall be used for PVC Pipe unless wet conditions are encountered.
- b. Class B Improved Bedding shall be used for other flexible pipe, and for PVC pipe in wet conditions.

Class C Bedding shall be used for all rigid pipe.

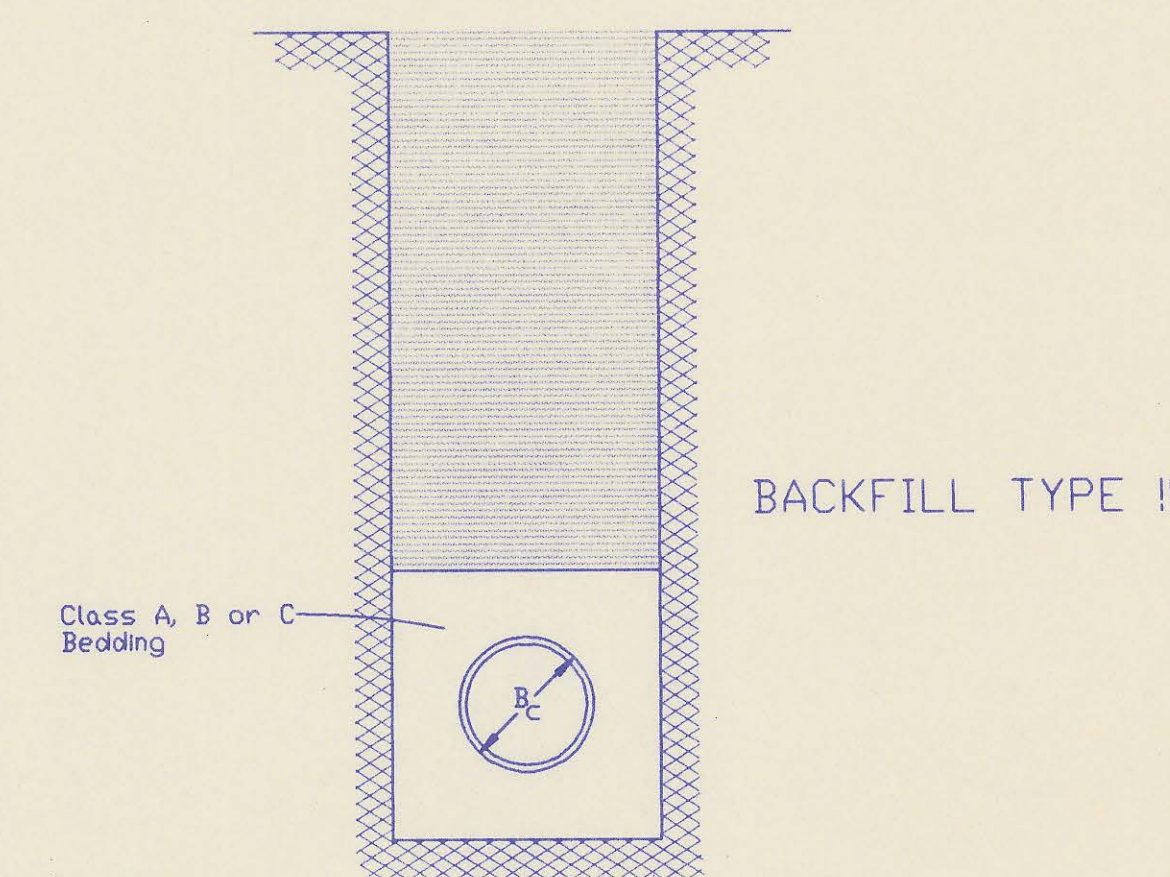
- a. Class C Ordinary Bedding shall be used for all rigid pipe unless wet conditions are encountered.
- b. Class C Improved Bedding shall be used for wet conditions existing in the trench, as directed by the Engineer, at no additional cost to the Owner. The dimensions shall be equal to that required for "rock" excavation (see specifications).



BACKFILL TYPE I



BACKFILL TYPE II



BACKFILL TYPE III

TRENCH ZONE BACKFILLING

- $D_c$  = Outside Pipe Diameter
- [Pattern] = Compacted Granular Backfill
- [Pattern] = Uncompacted Earth Backfill
- [Pattern] = Compacted Earth Backfill

Compacted Granular Backfill material shall be an approved sand material free from debris, organic material and stones with 100% passing the 3/4" sieve and not more than 15% passing a No. 200 sieve) to be jetted and mechanically vibrated into place and compacted to 90% density as determined by ASTM D1557.

Uncompacted Earth Backfill material may be natural soil free from large clods or stones, brush, roots more than 2 inches in diameter, debris, and junk. Flooding with water shall be provided as directed by the Engineer.

Compacted Earth Backfill shall consist of material existing prior to trenching or selected material as directed by the Engineer, and shall be compacted to 90% density as determined by ASTM D1557.

Backfill Backfill material and compaction requirements shall conform to either Type I, Type II or Type III as specified in the plans. One year's maintenance will be required on all backfill.

Backfilling Through Rock Backfilling through rock shall be performed as specified in the paragraph Backfill above, except that the Pipe Zone is increased to provide eighteen (18) inches of cover over the pipe. When approved by the Engineer the remainder of the backfill may be excavated rock provided the excavated rock has been broken up so that earth and rock will thoroughly mix and not result in voids around the larger pieces of rock. Any excess rock remaining after the trench has been backfilled shall be removed or wasted as directed by the Engineer.

Backfilling Under Pavement Backfilling under existing or proposed pavement shall be performed as Backfill Type I to a level of two (2) feet from the bottom of the pavement. The remainder of the trench shall be backfilled with selected material, sufficiently damp to be properly compacted in layers not exceeding six (6) inches in depth, compaction shall be performed with mechanical tampers and continued until a relative density of 95 percent of modified density, in conformance with ASTM D1557 is attained.

Backfilling Under Gravel Streets Where the trench crosses or is in existing gravel surfaced streets, the backfill shall be compacted as provided in the paragraph "Backfilling Under Pavement".

No.	Revision	By	Date

BACKFILL DETAILS  
 ADOPTED AS STANDARD DESIGN SEPTEMBER, 1989  
 BY  
 SEDGWICK COUNTY BUREAU OF PUBLIC SERVICES  
 DAVID C. SPEARS, P.E. DIRECTOR, BUREAU OF PUBLIC SERVICES/COUNTY ENGINEER

# BELLE TERRE ADDITION

## SEDGWICK COUNTY, KANSAS.

State of Kansas) SS  
Sedgwick County)

We, Baughman Company P.A., Surveyors in aforesaid county and state do hereby certify that we have surveyed and platted, "BELLE TERRE ADDITION", Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed described as being that part of the N.E. 1/4 of Sec. 24, Twp. 27-S, R-2-E of the 6th P.M., Sedgwick County, Kansas, described as commencing at the N.E. Corner of said N.E. 1/4; thence with an assumed bearing of S 00°12'56" W along the east line of said N.E. 1/4, 793.74 feet; thence N 89°47'04" W, 50 feet; thence S 58°17'23" W, 204.74 feet; thence S 57°03'52" W, 503.83 feet; thence S 56°32'52" W, 266.66 feet for a point of beginning; thence continuing S 56°32'52" W, 20.98 feet; thence S 56°53'41" W, 429.77 feet; thence N 30°13'27" W, 209.15 feet; thence N 89°59'54" W, 1289.62 feet to a point on the west line of said N.E. 1/4; thence N 00°09'30" E along the west line of said N.E. 1/4, 680 feet to a point 707.7 feet south of the N.W. Corner of said N.E. 1/4; thence S 89°59'54" E, 750 feet; thence N 00°09'30" E, 707.7 feet to a point on the north line of said N.E. 1/4; thence S 89°59'54" E along the north line of said N.E. 1/4, 846.07 feet to a point 1045.01 feet west of the N.E. Corner of said N.E. 1/4; thence S 00°12'56" W, 1055.01 feet; thence S 33°27'08" E, 320.14 feet to the point of beginning. Existing easements and dedications being vacated by virtue of K.S.A. 12-512(b).

Date 4/6/93 Baughman Company, P.A.

Gregory F. Severns Surveyor  
Gregory F. Severns  
KANSAS LAND SURVEYOR  
LS-976

Know all men by these presents that we, the undersigned owners, have caused the land described in the surveyors certificate to be platted into Lots, Blocks, Streets and Reserves to be known as "BELLE TERRE ADDITION", Sedgwick County, Kansas. Reserve "A", is hereby reserved for floodway, lakes, drainage, entry monuments, parks, sidewalks, landscaping, gazebos, a recreation building facility, swimming pool, tennis courts, basketball court, and utility purposes confined to easements as shown. All uses defined for Reserve "A" shall be approved by the appropriate governing body. Reserve "B", is hereby reserved for a guard house, landscaping, streets, and utility purposes. Reserves "C", "D", "E", and "F", is hereby reserved for entry monuments, sidewalks, landscaping, and utility purposes confined to easements as shown. Reserves "A", "B", "C", "D", "E", and "F" 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 floodway easements are hereby reserved for floodway purposes and shall be the responsibility of the homeowners association until such time as the appropriate governing body elects to assume the responsibility for maintenance and improvements of the drainage. No buildings shall be constructed on or within said floodway; nor shall any fill, change of grade, creation of channel or other work be carried on without the permission of said appropriate governing body. With such permission of said appropriate governing body, additional improvements and/or activities may be permitted within said floodway. The wall easement is hereby granted for construction and maintenance of the private wall, utilities may cross the wall easement. The streets are hereby dedicated to and for the use of the public. All abutters rights of access to or from Central Avenue over and across the north line of Lot 1, 2, 3, 4, 5, Blk. 1 and Reserve "C", and over and across the north line of Reserve "A" are hereby granted to the appropriate governing body. The Minimum Building Pad Elevations for the lowest opening to the structures are as shown on the accompanying plat.

Downing Development Company, L.L.C.

Gregory C. Downing President  
Gregory C. Downing

State of Kansas) SS  
Sedgwick County)

The foregoing instrument acknowledged before me, this 6th day of April, 1993, by Gregory C. Downing, President of Downing Development Company, L.L.C. on behalf of Downing Development Company, L.L.C.

My appointment Expires 2-3-95

Mildred E. Franz Notary Public  
Mildred E. Franz

We, the undersigned, holders of a mortgage on the above described property do hereby consent to the plat of "BELLE TERRE ADDITION", Sedgwick County, Kansas.

Prairie State Bank

Randall D. Craven Vice-President  
Randall D. Craven

State of Kansas) SS  
Sedgwick County)

The foregoing instrument acknowledged before me, this 5th day of April, 1993, by Randall D. Craven, Vice-President of Prairie State Bank on behalf of the bank.

My appointment Expires 2-3-95

Mildred E. Franz Notary Public  
Mildred E. Franz

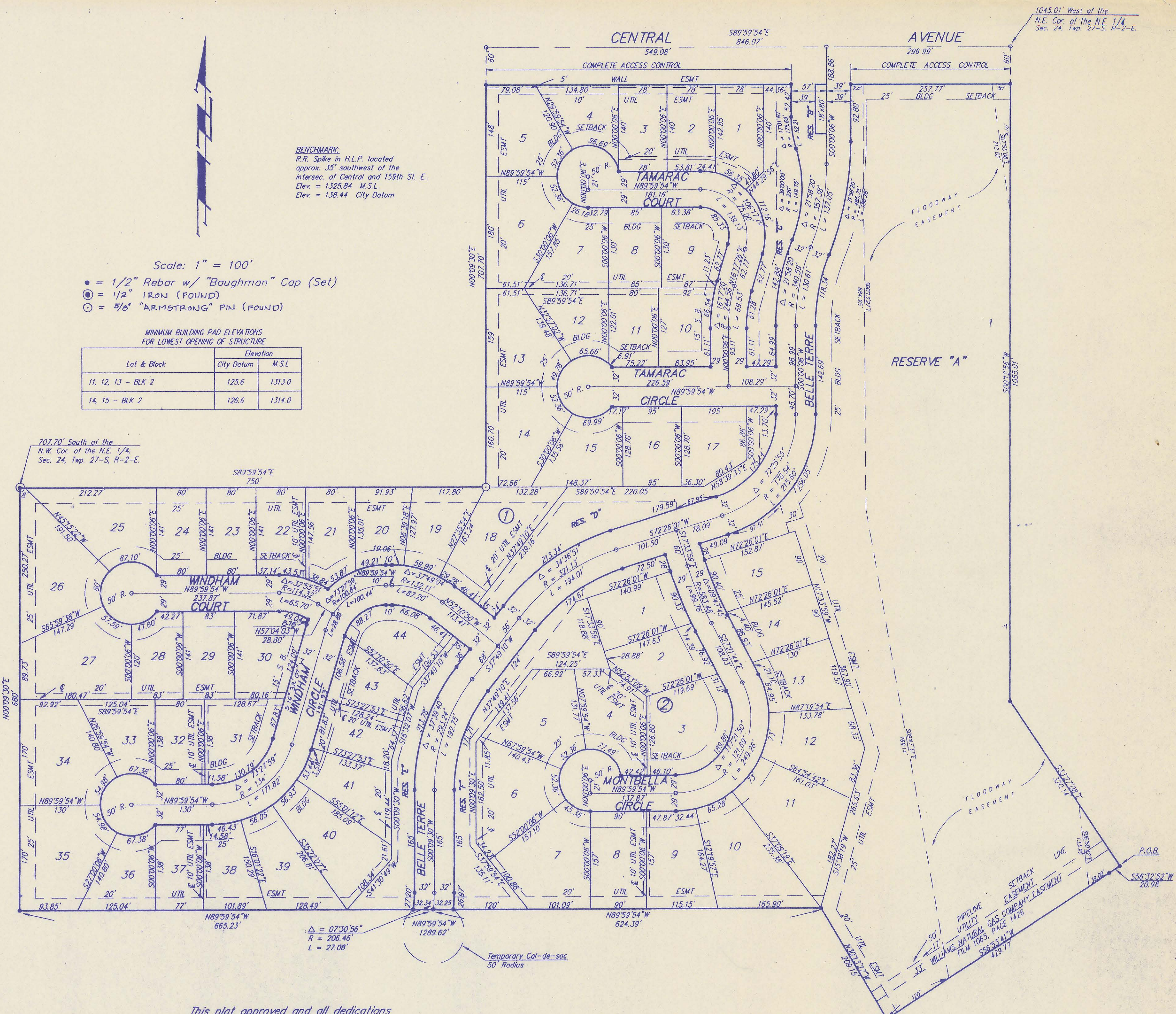
This plat of BELLE TERRE ADDITION, Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 5th day of April, 1993.  
Wichita-Sedgwick County Metropolitan Area Planning Commission.

L. O. Breckenridge Jr. Chairman  
Marvin S. Krout Secretary

This plat approved and all dedications shown hereon accepted by the board of Commissioners of Sedgwick County, Kansas, this 5th day of April, 1993.

Mark F. Schroeder Chairman  
Billy Q. McCray Chairman Pro-Tem  
Betsy Gewin Commissioner  
Paul W. Hancock Commissioner  
Tom Winters Commissioner  
Susan E. Crockett-Spoon County Clerk



This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this 5th day of April, 1993.

Frank M. Ojile Mayor  
Pat Burnett City Clerk  
Susan E. Crockett-Spoon County Clerk

Entered on transfer record this 5th day of April, 1993.

State of Kansas) SS  
Sedgwick County)  
This is to certify that this plat has been filed for record in the office of the Register of Deeds, this 5th day of April, 1993, at 10:00 o'clock AM, and is duly recorded.  
Pat Kettler Register of Deeds  
Ed Resa Deputy

# BUREAU OF PUBLIC SERVICES



**BENCHMARK:**

R.R. Spike in Northeast Face PP  
 12' North & 2' West of Reserve "C"  
 (West side of the entrance)  
 Belle Terre Addition.  
 Elev. = 1316.17 M.S.L.

**INDEX of SHEETS:**

Title Sheet	1
General Notes & Project Area	2
Line 3	3
Line 4	4
Lines 6 & 7	5
Line 5	6
Precast Manhole Detail	7
Backfill Detail	8
Copy of Plat	9

## SANITARY SEWER IMPROVEMENTS

FOR

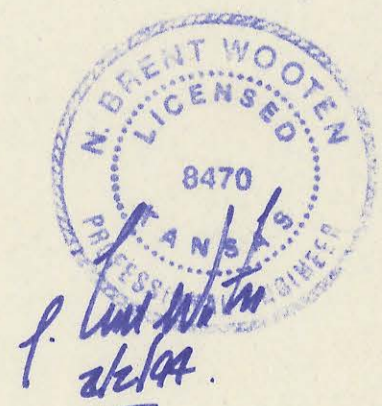
# BELLE TERRE ADDITION - PHASE II

## WICHITA, SEDGWICK COUNTY, KANSAS

JANUARY 1994

As Built April 28, 1994

PLANS PREPARED BY:  
**BAUGHMAN COMPANY P. A.**  
 ENGINEERING & SURVEYING  
 316/282-7271 • 315 ELLIS • WICHITA, KANSAS 67211



APPROVED: *David C. Spence* DATE:  
 COUNTY ENGINEER / DIRECTOR OF PUBLIC SERVICES  
 DATE: 2/7/94

APPROVED: *Betsy Quin* DATE: 2/7/94  
 CHAIR  
 BOARD OF COUNTY COMMISSIONERS

FILED:  
 FILED IN THE OFFICE OF THE SEDGWICK COUNTY CLERK  
*Susan K. [Signature]* DATE: Feb. 9, 1994  
 COUNTY CLERK

NET LENGTH OF PROJECT 2520.5 FT. MILES

# BELLE TERRE ADDITION

## SEDGWICK COUNTY, KANSAS.

### GENERAL NOTES

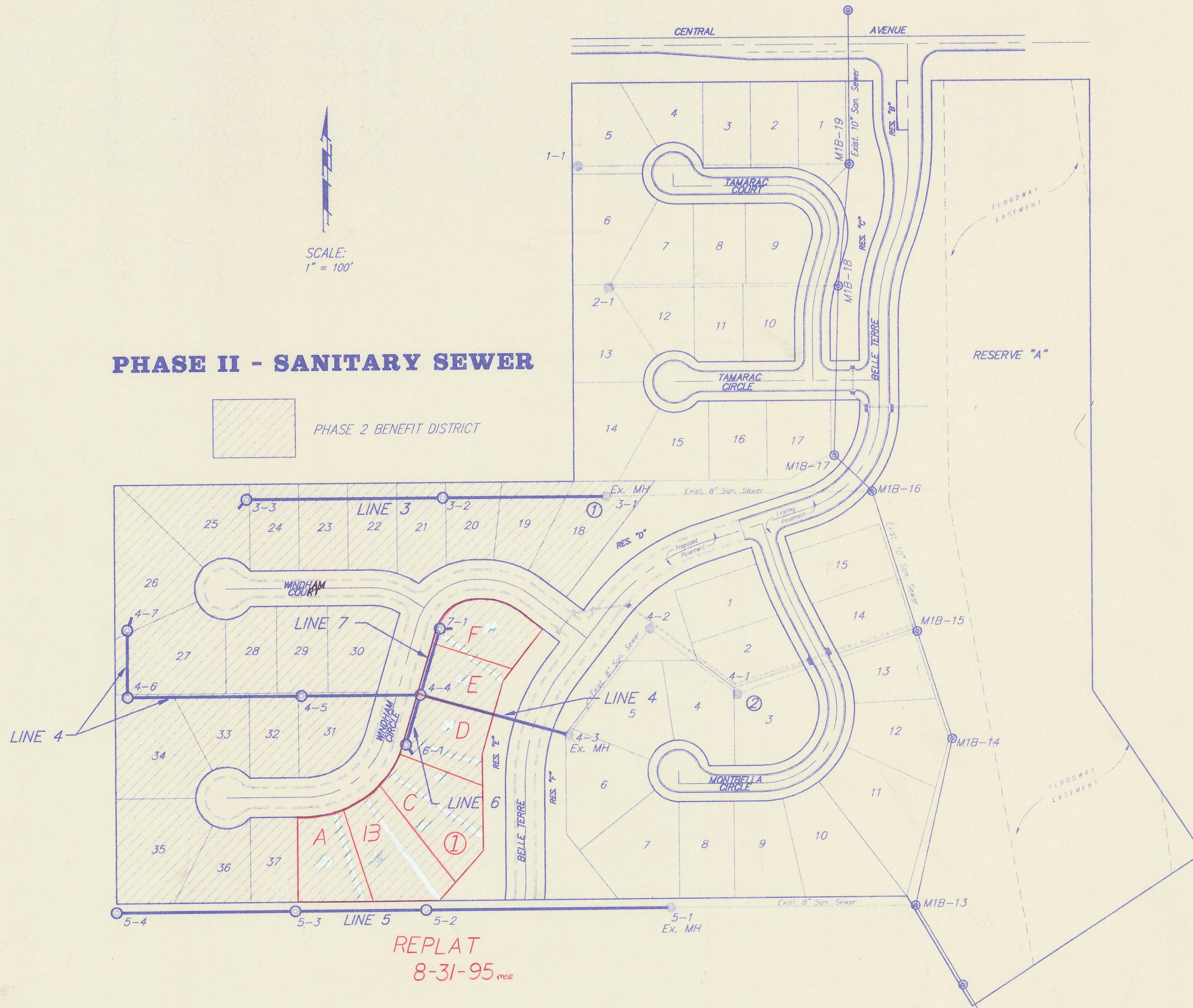
- All Elevations shown are USGS Datum.
- At least 72 hours prior to beginning any excavation (excluding weekends and holidays), the Contractor shall contact the Kansas-One-Call system, a utility location service, at 687-2470 to request the following utility companies to locate any existing lines within the project area: Multimedia Cable TV, Wichita Water, Southwestern Bell Telephone, K.G.&E. Gas and K.G.&E. Electric.
- The buried utilities as shown on the plans are approximate locations only. It should be noted that other buried lines and cables may exist which are not shown on these plans. The Contractor shall exercise extreme caution during trenching operations to avoid damaging these lines. Any lines damaged shall be replaced or repaired immediately as directed by the Engineer at the Contractor's expense.
- The Contractor shall contact the Sedgwick County Eastern Sewer District (733-0202) at least 24 hours before connecting new sewer pipe to the existing sewer system. The Contractor shall keep any construction debris from entering the existing sanitary sewer during construction. A mechanical plug shall be installed and maintained to isolate the existing sewer from the new construction until the new construction is cleaned, televised, and has been accepted to prevent water or debris from entering the existing sewer. The water used for cleaning shall not be added to the flow of the existing sewer. The cleaning or otherwise accumulated water shall be pumped or otherwise removed prior to televising.
- All manholes constructed on this project shall have self-sealing frames.
- All pipe joints shall be layed and pushed "full home", with the beveled end of the spigot making full contact with the chamfered area at the throat of the bell or socket, with no separation between them. If separation is determined, the pipe shall be excavated and relaid according to specifications at the Contractor's expense.
- Excess excavation material and other debris shall be wasted on sites to be provided by the Contractor as approved by the Engineer at no additional cost to the Owner.
- 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.
- 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 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.
- The Contractor shall be responsible for preserving property irons. The Contractor shall 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. Prior to start of construction, the contractor shall flag and return all property corners that may be disturbed by construction operations, and verify these in the field in the presence of the Engineer and the Contractor's surveyor. After construction and before final inspection, a letter signed and sealed by the licensed land surveyor certifying replacement of all disturbed property corners shall be submitted to the Engineer.
- The Contractor shall contain his operation to permit traffic through and across construction at existing roadways at all times. The Contractor shall erect warning signs, flashing lights, and barricades in compliance with the manual on uniform traffic control devices to ensure safety as directed in the general conditions. The Contractor shall limit the extent of trench to remain open overnight and weekends to less than 50 feet.
- The Contractor shall restore all ditches, swales, road shoulders, and banks to their original slopes and grades. Where existing entrance pipe, drainage pipe, signs, fences, etc., conflict with the proposed work herein, they shall be removed and replaced or reset. The replacement of all the aforementioned items, including seeding, fertilizer, and mulching shall be considered subsidiary to "site clearing and restoration".
- Easements and right-of-ways provided by the owner for the project are shown in the plans. The Contractor shall be responsible for the acquisition of any additional temporary easements or right-of-ways that he desires to use in completing the work.
- Positive drainage shall be provided for all areas on or near spoil areas. Natural drainage ways shall be maintained.
- The Contractor shall provide positive drainage away from all manhole covers.
- The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of 10 days advance notice prior to start of construction in the vicinity of the affected property.
- All trench backfill shall be either type I or type III unless noted otherwise.
- Top elevations for manholes are approximate only. Top elevations for manholes shall be set as follows:
  - Outside of traveled ways, 1.0 feet above finish grade.
  - Paved traveled ways, flush with finish grade.
  - Unpaved traveled ways, as directed by the Engineer.
- The Contractor shall also contact the following at least 72 hours prior to beginning construction to advise them of the intended work and of his proposed schedule:
 

Sedgwick County Bureau of Public Services  
1250 S. Seneca  
Wichita, KS. 67213  
Mr. Jim Weber  
(316) 383-7901
- It shall be the responsibility of the Contractor to satisfy himself as to the existence of unusual subsurface conditions, and to allow for such conditions in his bid.
- Easement Grading shall be paid and performed as part of the Paving and Storm Water Sewer Project.

### PHASE II - SANITARY SEWER

SCALE:  
1" = 100'

PHASE 2 BENEFIT DISTRICT



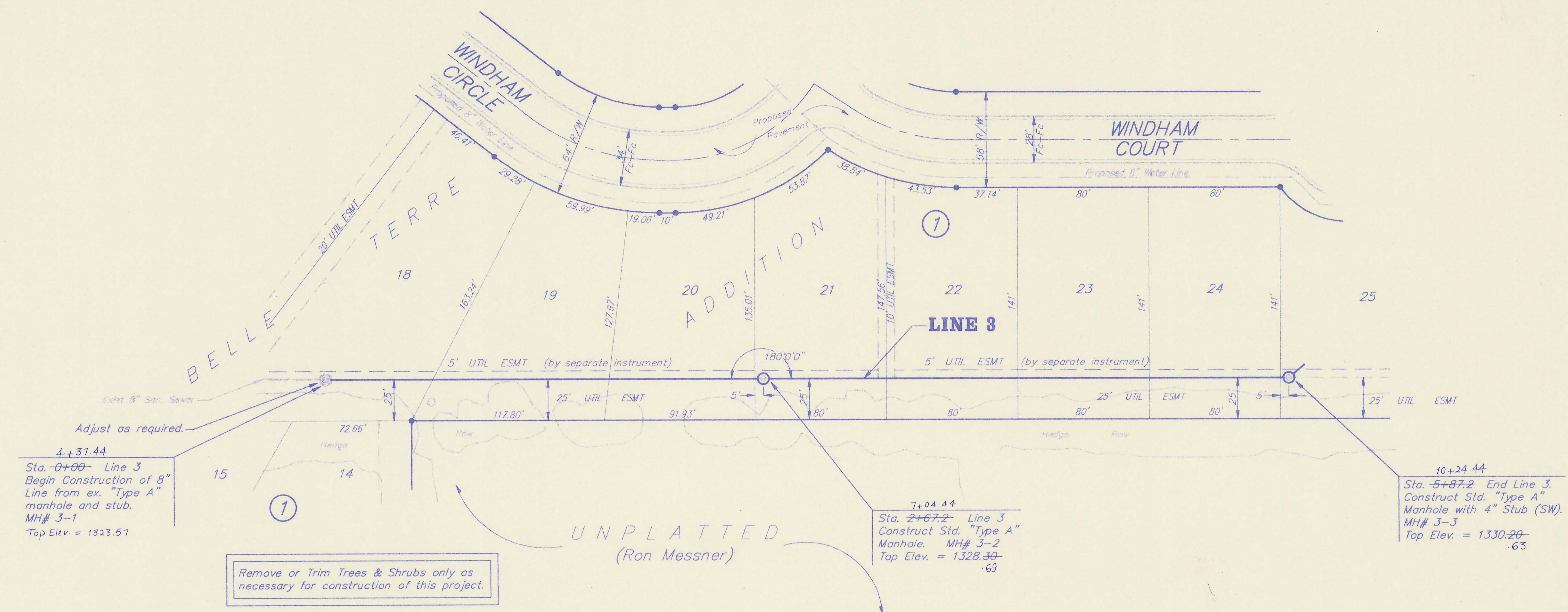
REPLAT  
8-31-95

NOTES & PROJECT AREA	
BELLE TERRE ADDITION - PHASE II	
BAUGHMAN COMPANY P. A. ENGINEERING & SURVEYING 316/282-7271 • 315 ELLIS • WICHITA, KANSAS 67211	
PROJECT NUMBER	1250 S. Seneca
DESIGN	DATE
DY	JAN. 94
DRAWN	SCALE
GLD	NOTED
UTIL. CHECK'D	SHEET
	2
	9

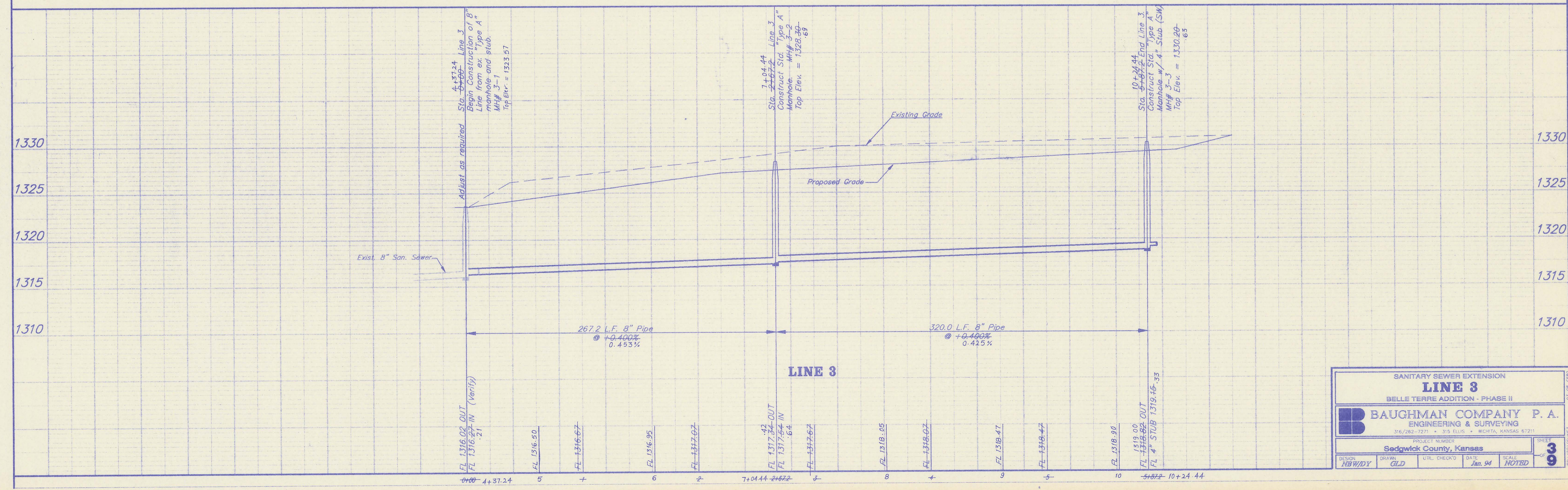
**Benchmark:**

R.R. Spike in Northeast Face PP  
12' North & 2' West of Reserve "C"  
(West side of the entrance)  
Belle Terre Addition  
Elev. = 1316.17 M.S.L.

SCALE:  
1" = 40' Horiz.  
1" = 5' Vert.  
• = Iron



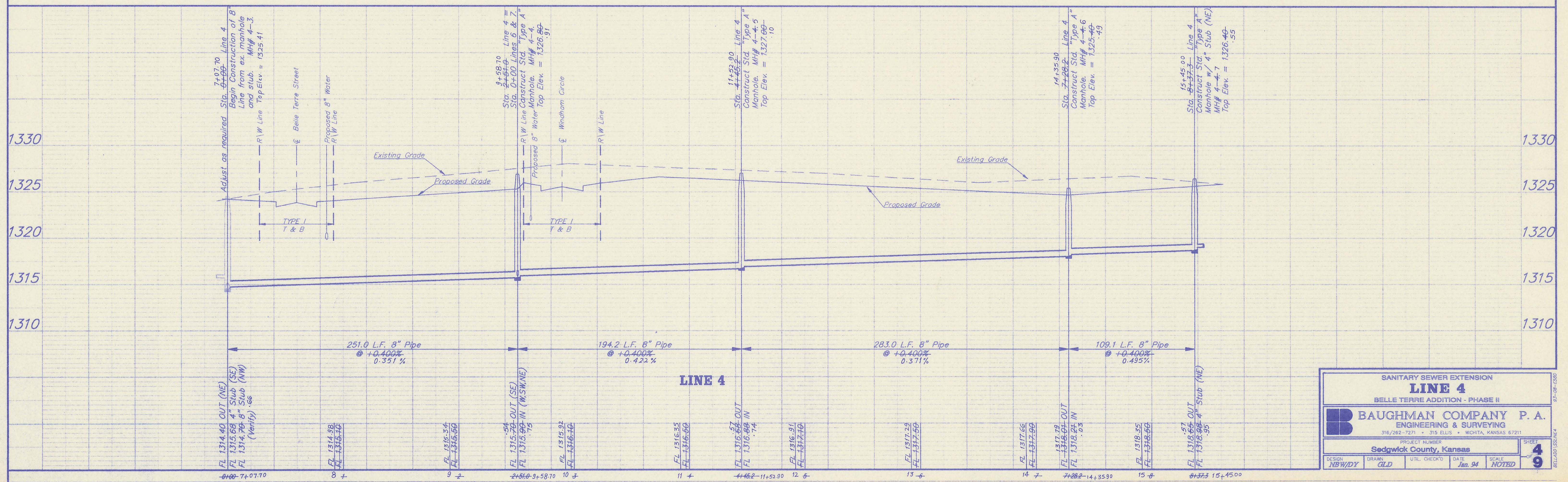
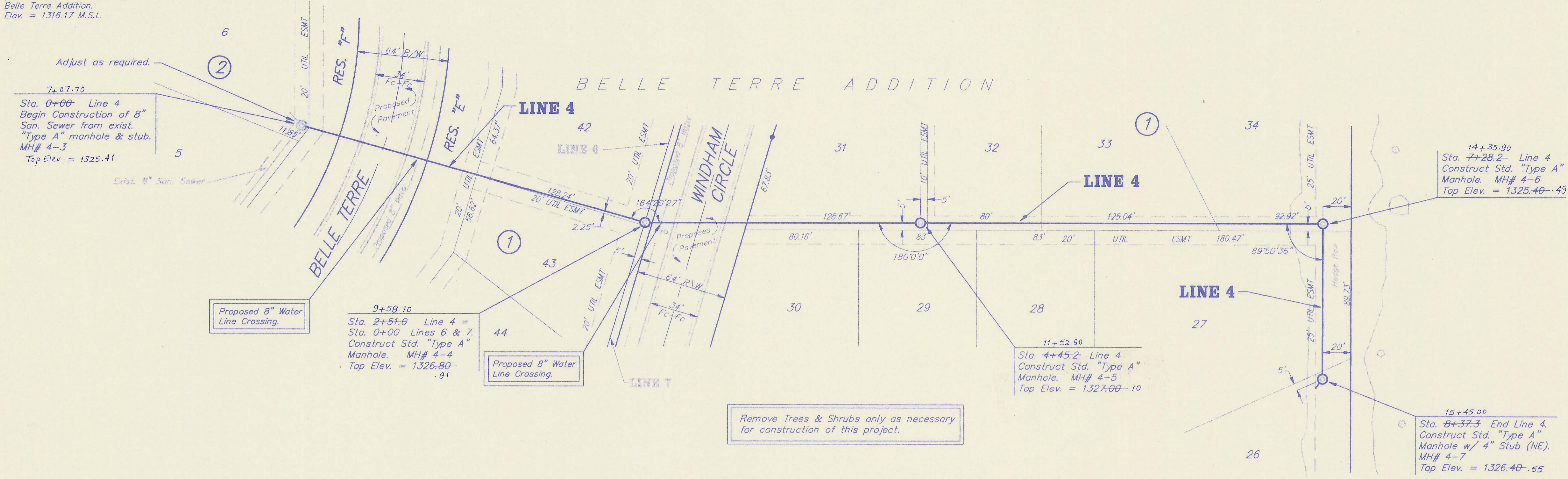
Remove or Trim Trees & Shrubs only as necessary for construction of this project.



SANITARY SEWER EXTENSION				
<b>LINE 3</b>				
BELLE TERRE ADDITION - PHASE II				
BAUGHMAN COMPANY P. A. ENGINEERING & SURVEYING 316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211				
PROJECT NUMBER Sedgwick County, Kansas				
DESIGN NRW/DY	DRAWN GLD	UTIL. CHECKED	DATE Jan. 94	SCALE NOTED
SHEET 3				9

**Benchmark:**

R.R. Spike in Northeast Face PP  
12' North & 2' West of Reserve "C"  
(West side of the entrance)  
Belle Terre Addition.  
Elev. = 1316.17 M.S.L.



SANITARY SEWER EXTENSION  
**LINE 4**  
BELLE TERRE ADDITION - PHASE II

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

PROJECT NUMBER: Sedgwick County, Kansas

DESIGN: NBW/DY	DRAWN: GLD	UTIL. CHECK'D:	DATE: Jan. 94	SCALE: NOTED
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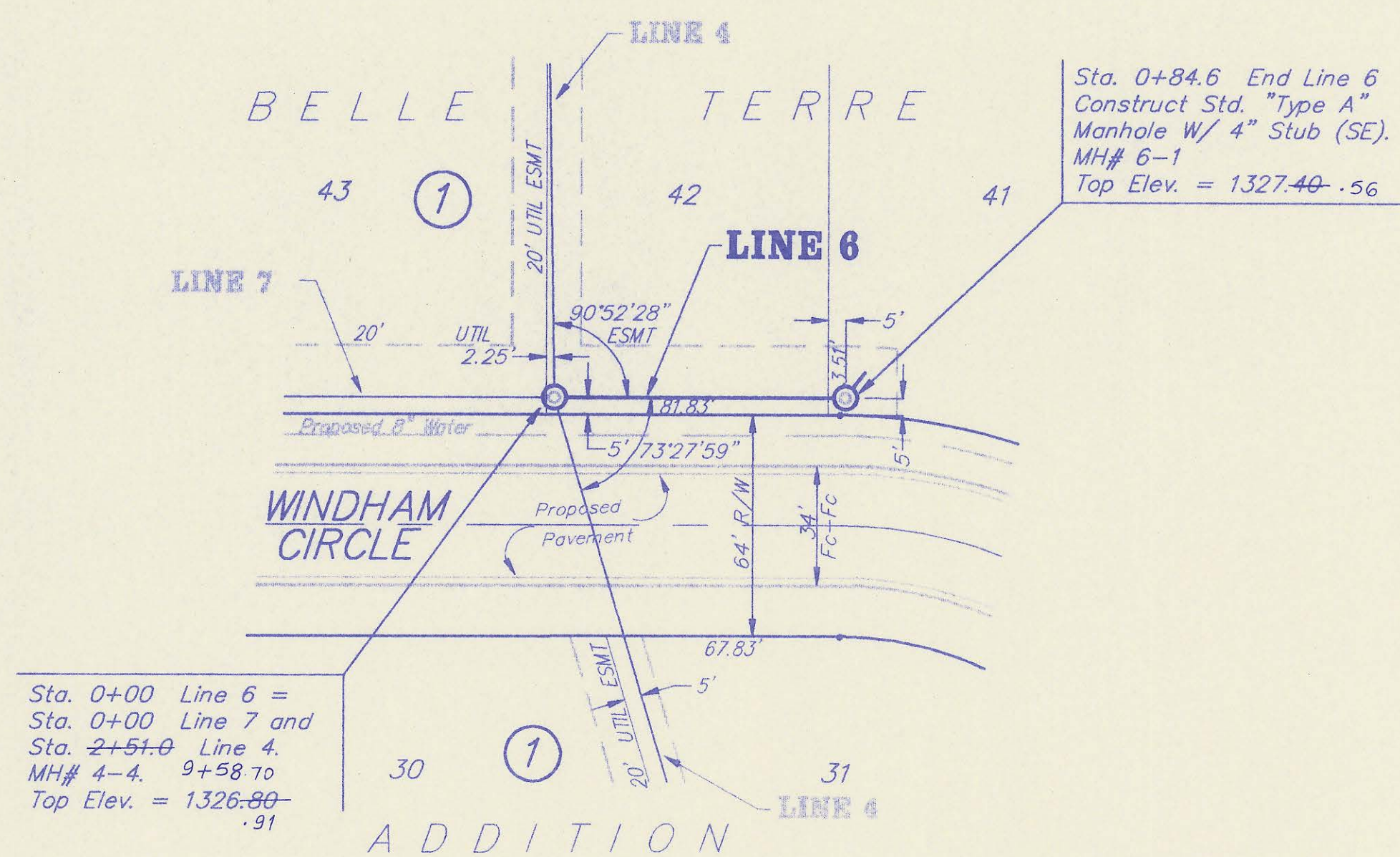
SHEET 4 OF 9

**Benchmark:**

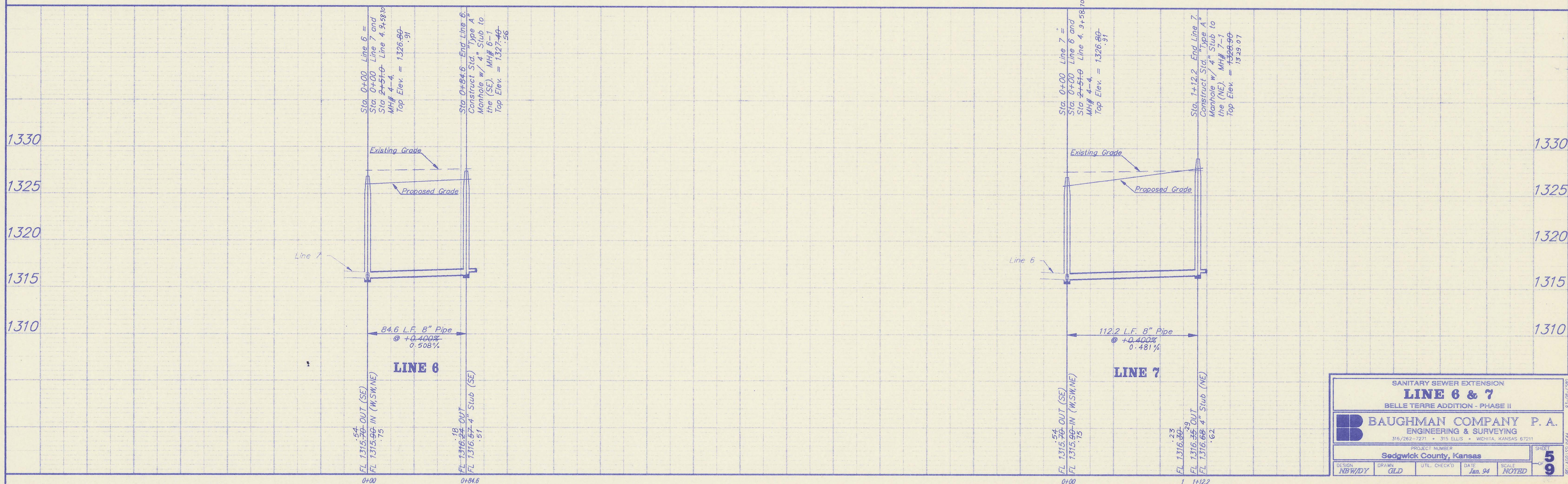
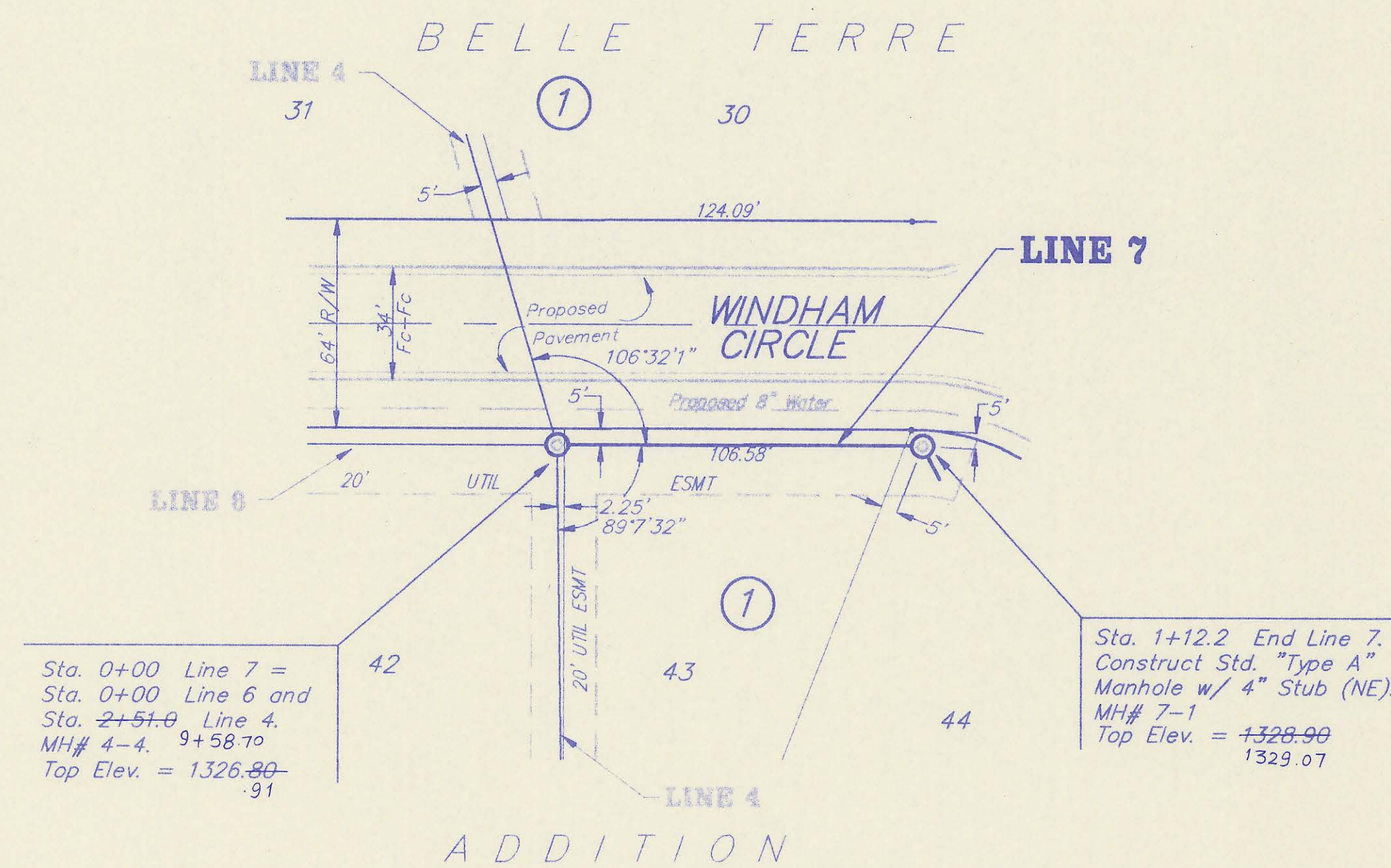
R.R. Spike in Northeast Face PP  
12' North & 2' West of Reserve "C"  
(West side of the entrance)  
Belle Terre Addition.  
Elev. = 1316.17 M.S.L.



SCALE:  
1" = 40' Horiz.  
1" = 5' Vert.  
• = Iron



SCALE:  
1" = 40' Horiz.  
1" = 5' Vert.  
• = Iron



SANITARY SEWER EXTENSION  
**LINE 6 & 7**  
BELLE TERRE ADDITION - PHASE II

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

PROJECT NUMBER: Sedgwick County, Kansas

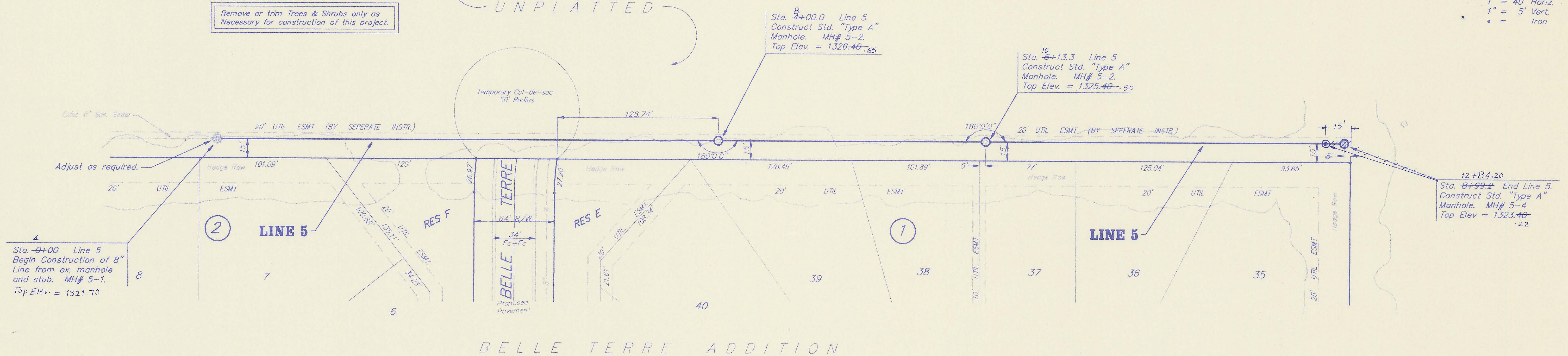
DESIGN: NBW/DY	DRAWN: GLD	UTIL. CHECK'D:	DATE: Jan. 94	SCALE: NOTED	SHEET: 5 OF 9
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**Benchmark:**

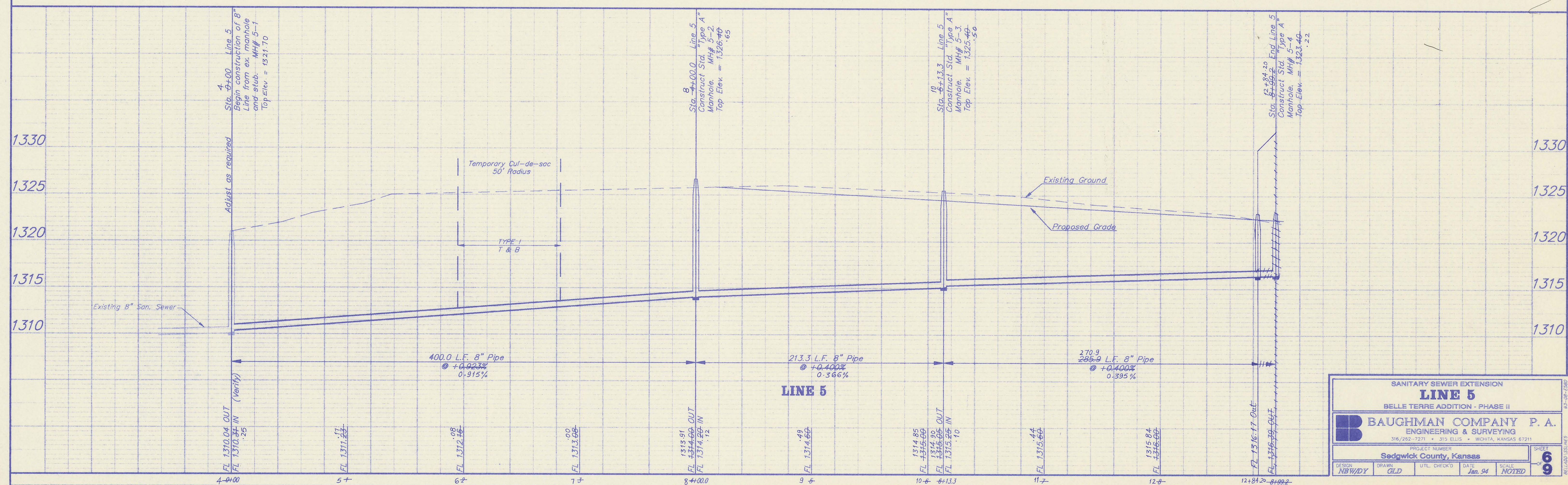
R.R. Spike in Northeast Face PP  
12' North & 2' West of Reserve "C"  
(West side of the entrance)  
Belle Terre Addition.  
Elev. = 1316.17 M.S.L.

Remove or trim Trees & Shrubs only as  
Necessary for construction of this project.

SCALE:  
1" = 40' Horiz.  
1" = 5' Vert.  
• = Iron



BELLE TERRE ADDITION



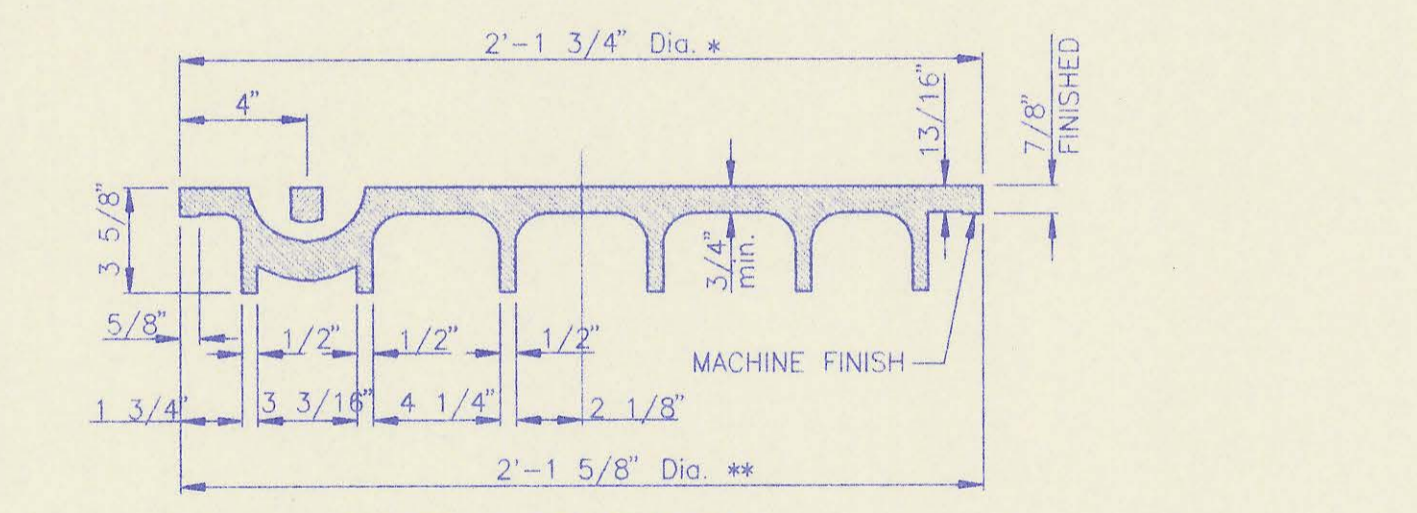
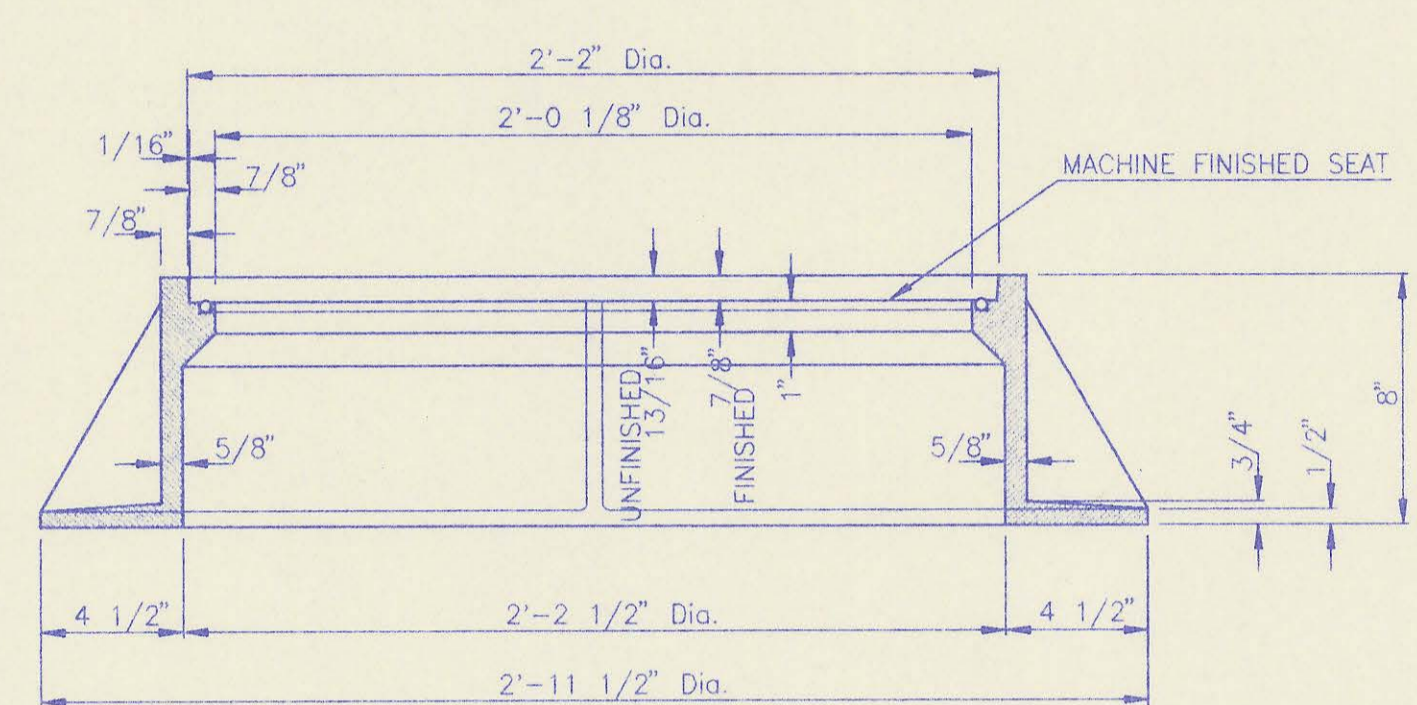
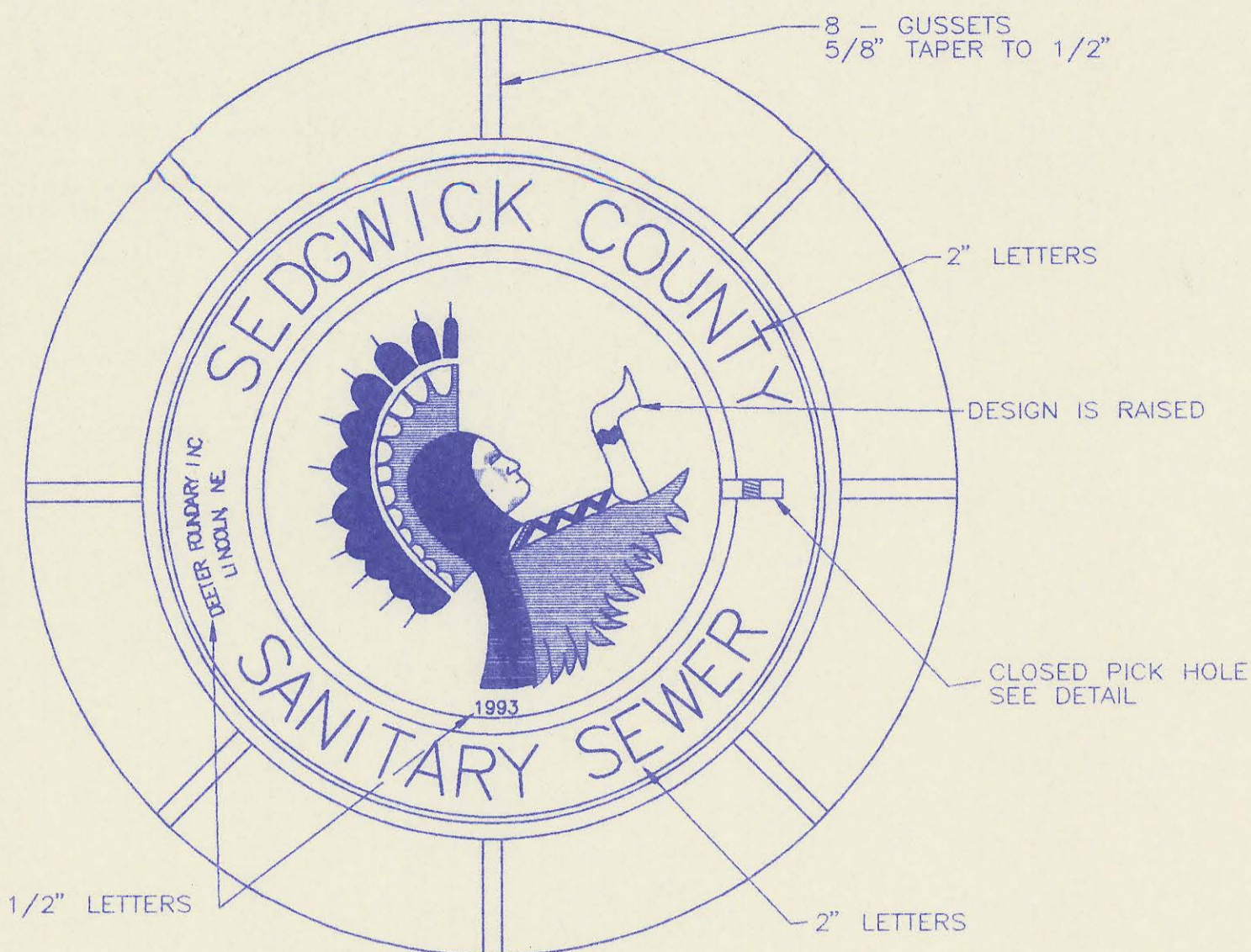
SANITARY SEWER EXTENSION  
**LINE 5**  
BELLE TERRE ADDITION - PHASE II

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

PROJECT NUMBER  
Sedgwick County, Kansas

DESIGN NBW/DY	DRAWN GLD	UTIL CHECK'D	DATE Jan. 94	SCALE NOTED
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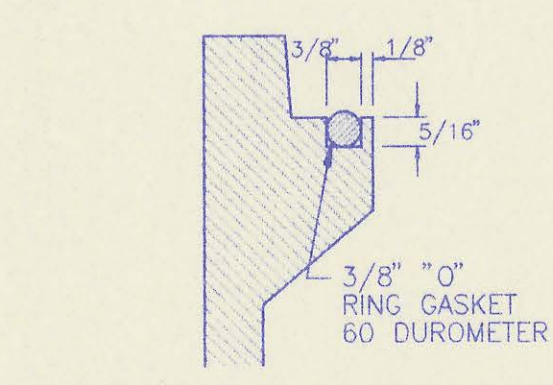
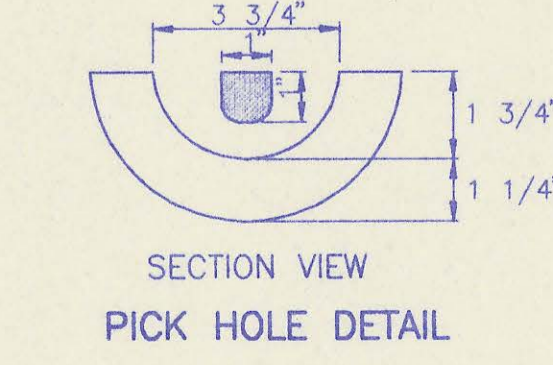
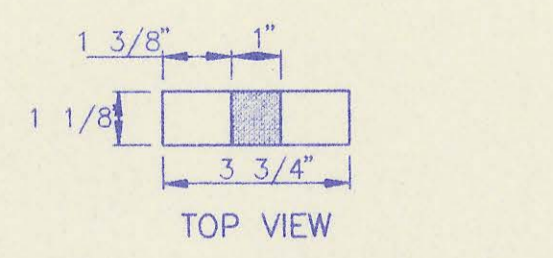
SHEET  
OF  
**6**  
9



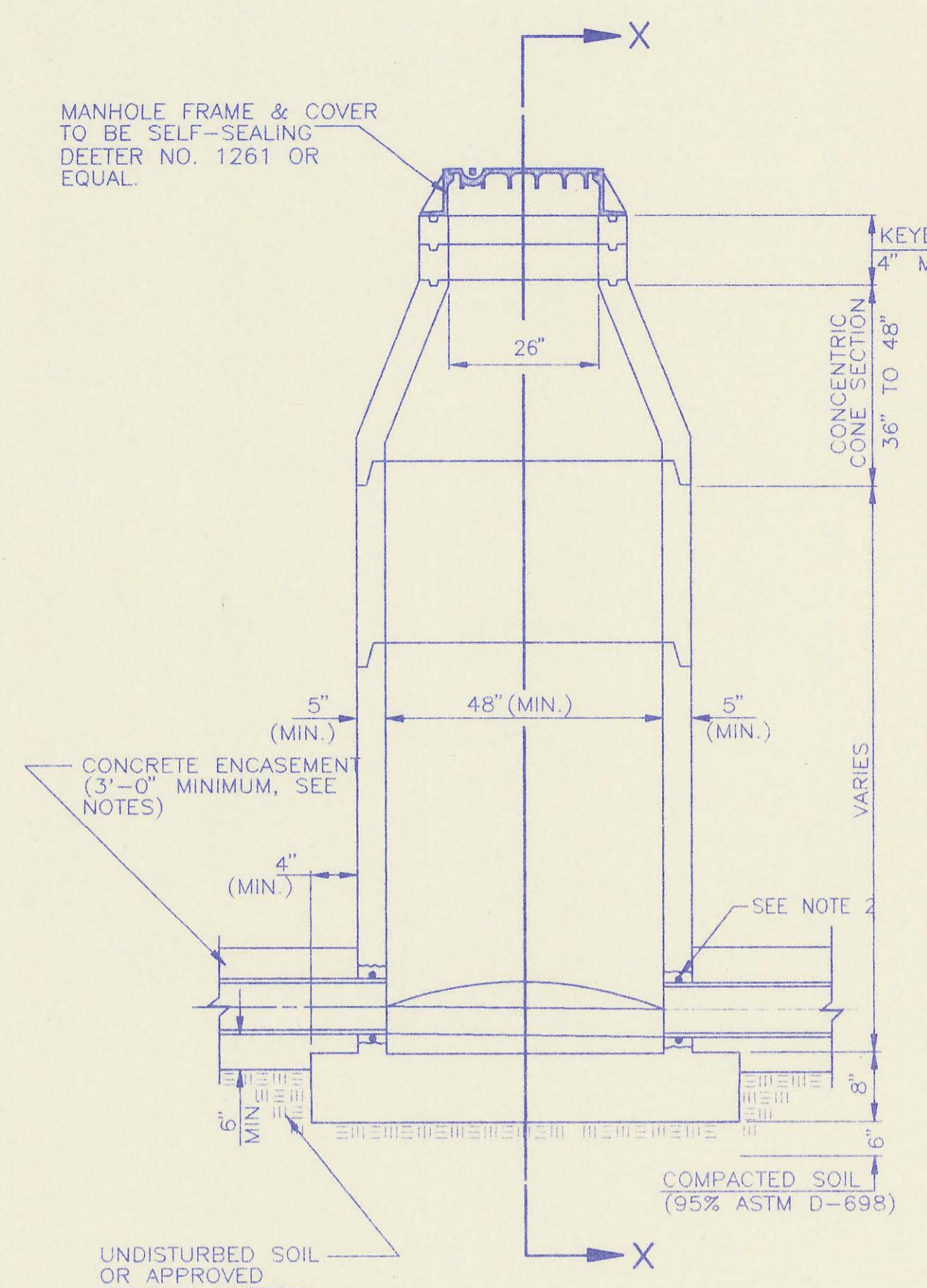
**MANHOLE FRAME AND COVER**  
(TOTAL WEIGHT = 430 LBS.)

**MANHOLE FRAME AND COVER NOTES**

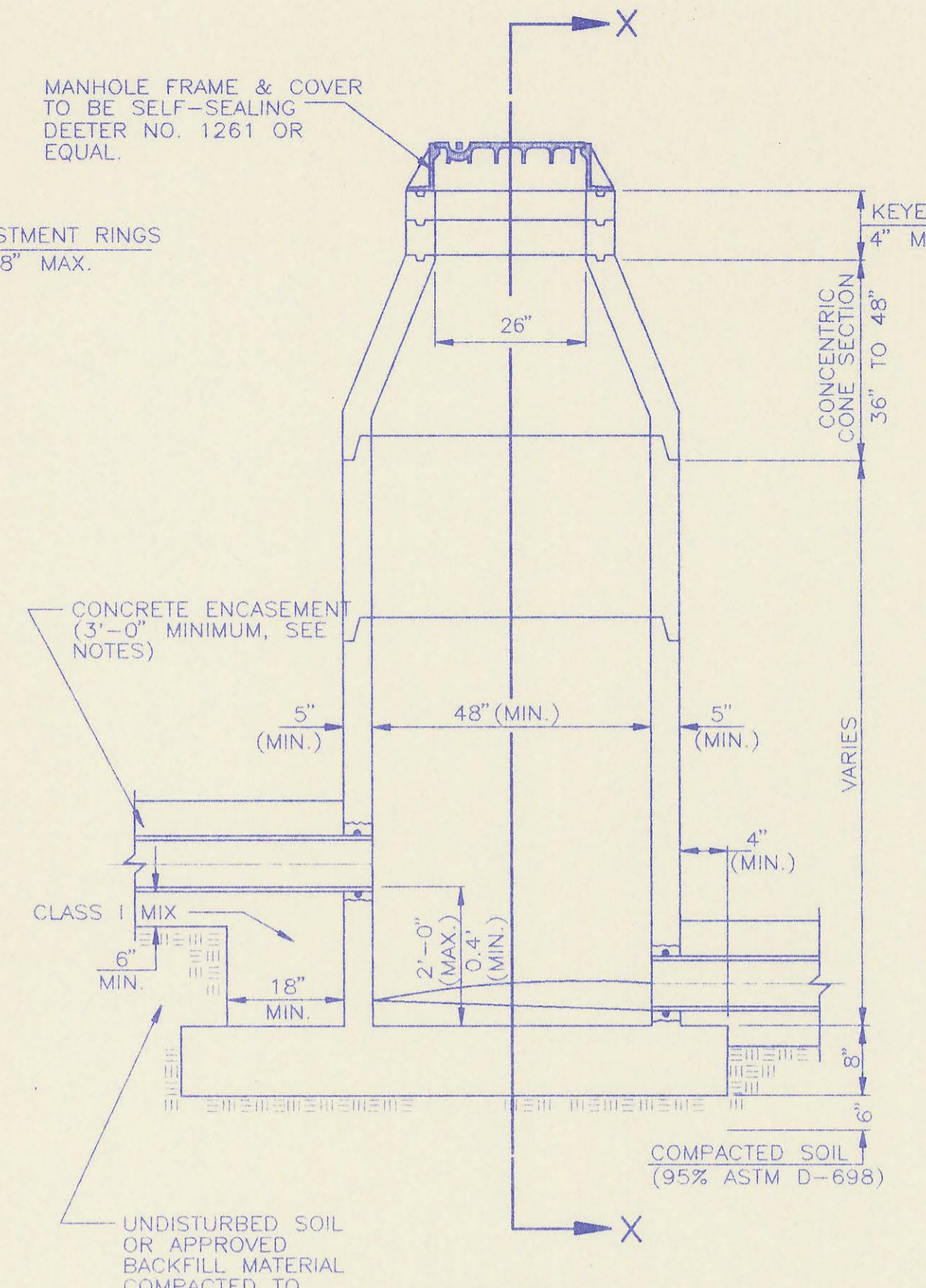
1. CAST IRON MANHOLE FRAME AND COVER SHALL CONFORM TO ASTM A-48, CLASS 35B, OR BETTER.
2. CASTINGS ARE TO BE MANUFACTURED TRUE TO PATTERN AND WITH SATISFACTORY FIT OF COMPONENT PARTS. CASTINGS SHALL BE FREE OF DEFECTS AND ALL BURRS SHALL BE GROUND SMOOTH. DIMENSIONS AS DETAILED ON PLAN SHALL NOT DEVIATE BY  $\pm 1/16$  PER FOOT.
3. NO OTHER LETTERING OR MARKINGS OTHER THAN THOSE DETAILED ON PLAN WILL BE PERMITTED ON CASTINGS.
4. CASTINGS MUST BE DOMESTICALLY MANUFACTURED IN THE UNITED STATES OF AMERICA.
5. THE FRAMES AND COVERS SHALL BE FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES SO FITTING PARTS WILL NOT RATTLE OR ROCK UNDER TRAFFIC.
6. MANHOLE CASTINGS SHALL BE SELF-SEALING DEETER FOUNDRY INC. NO. 1261 OR APPROVED EQUAL UNLESS OTHERWISE SPECIFIED IN THE SPECIAL CONDITIONS (MINIMUM WT. = 430 LBS.). ALL MANHOLE CASTINGS SHALL BE CONSIDERED SUBSIDIARY TO THE UNIT PRICES BID FOR THE VARIOUS MANHOLE TYPES.
7. THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. THE ENGINEER SHALL RETAIN THE RIGHT TO REJECT CASTINGS NOT CONFORMING TO THE SPECIFICATIONS OR THE APPROVED SHOP DRAWINGS.
8. THE MANHOLE FRAME SHALL BE FURNISHED WITH AN APPROVED CONTINUOUS "O" RING GASKET GROOVED INTO THE BEARING SURFACE OF THE MANHOLE FRAME (PER DETAIL). THE "O" RING GASKET SHALL BE FACTORY INSTALLED IN THE MANHOLE FRAME WITH 100% SILICON SEALANT-DOW CORNING OR EQUAL.



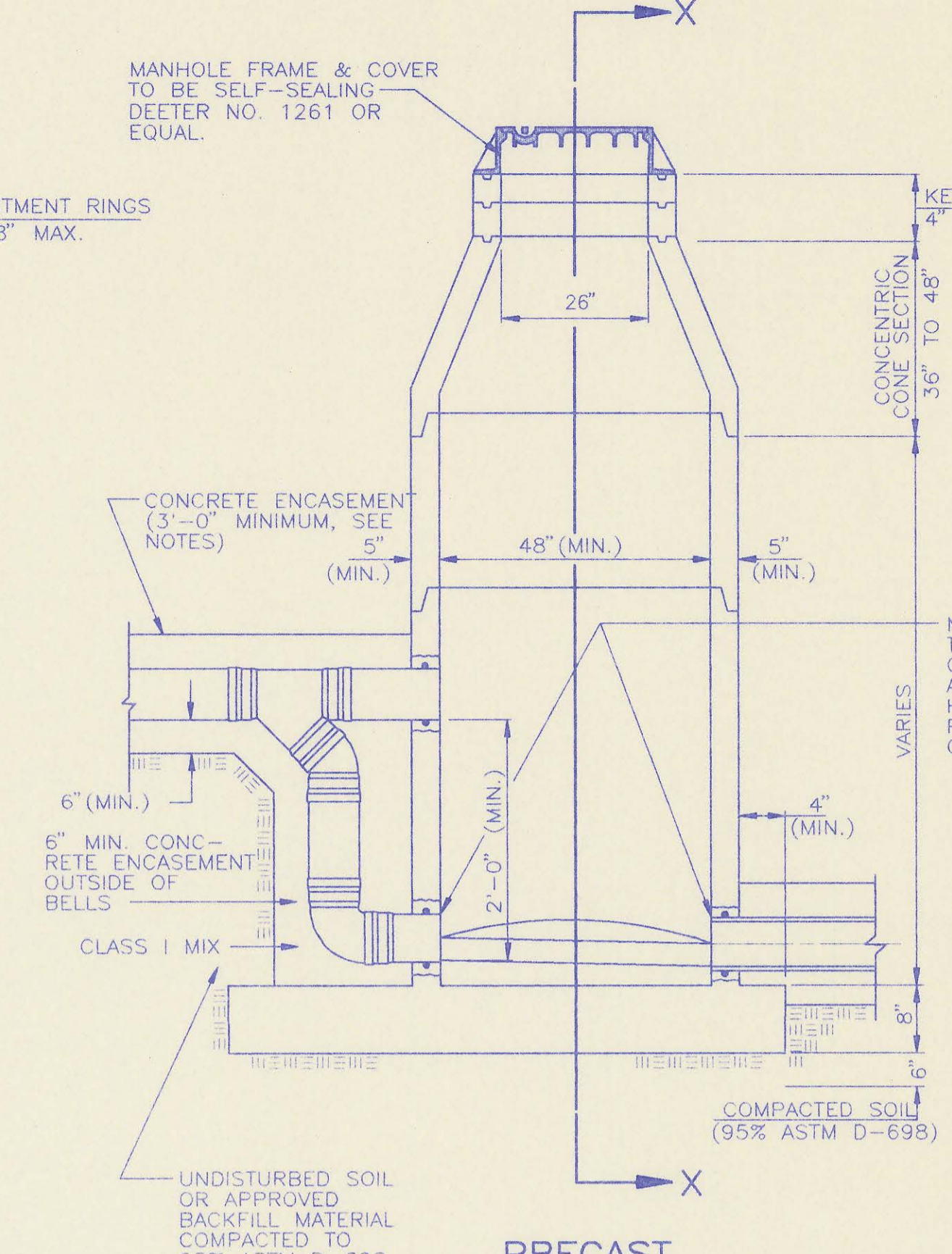
FRAME GROOVING DETAIL (TYPICAL ALL MANHOLES)



PRECAST STANDARD MANHOLE TYPE "A"



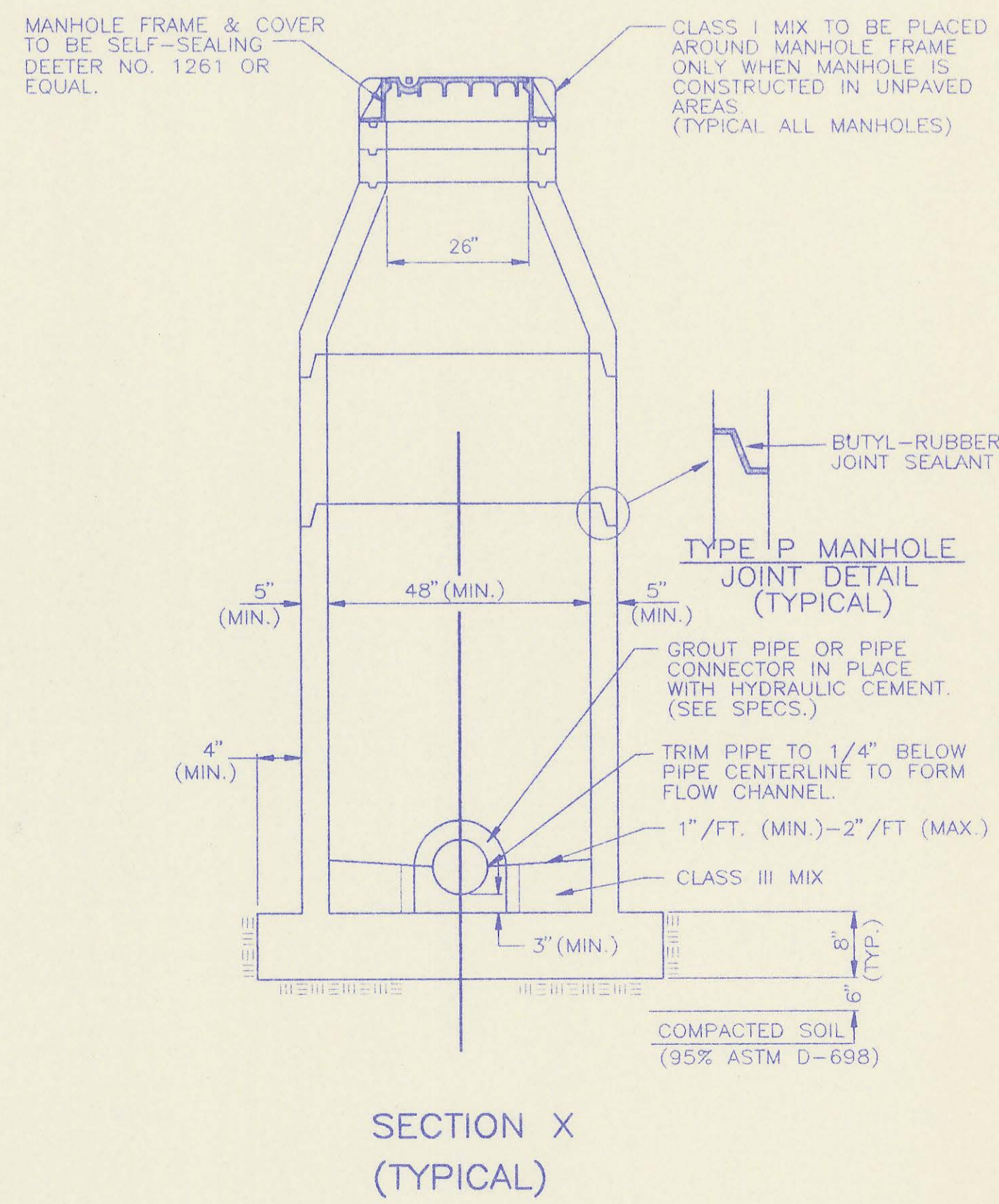
PRECAST INSIDE DROP MANHOLE TYPE "B"



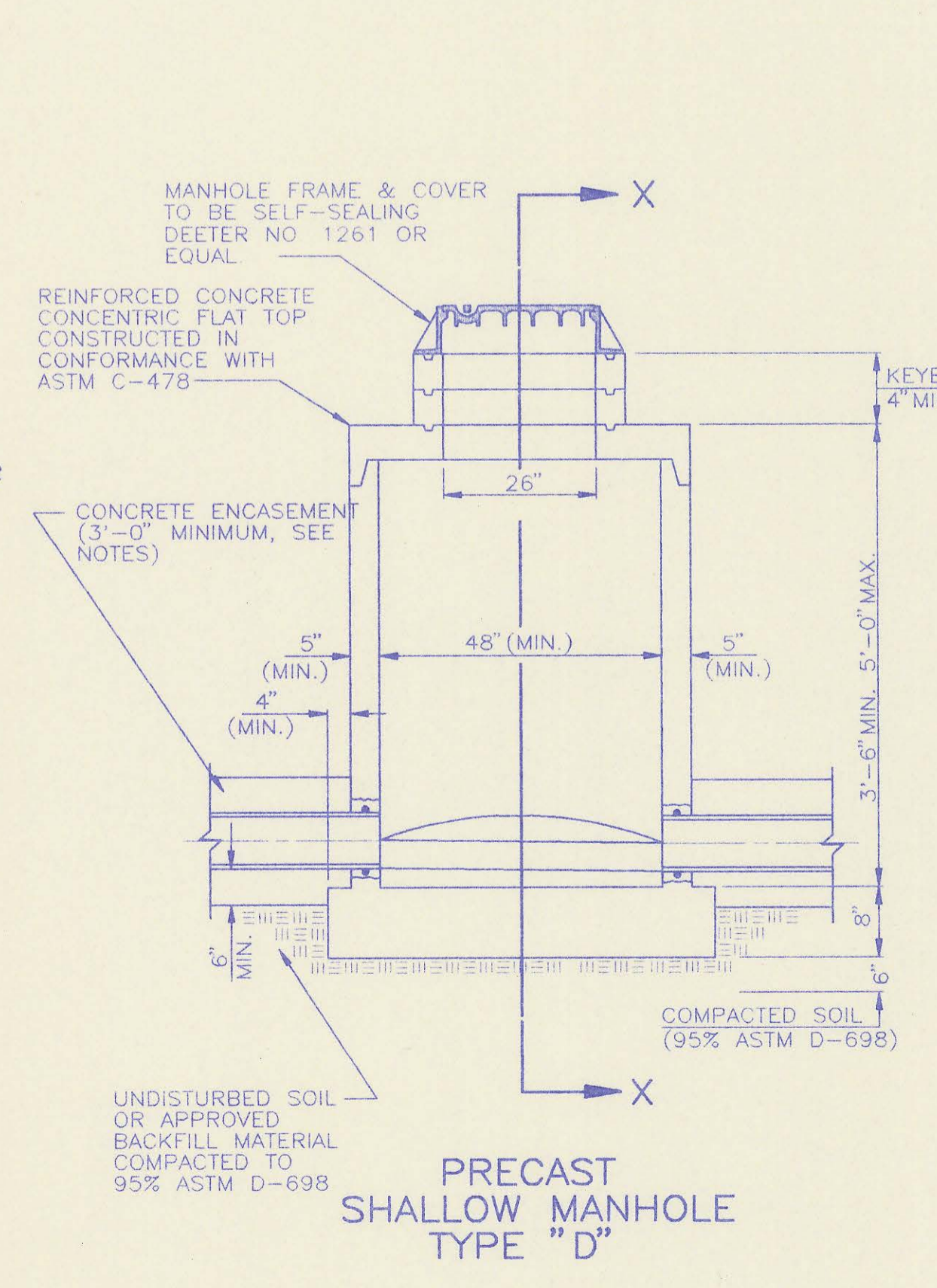
PRECAST OUTSIDE DROP MANHOLE TYPE "C"

**PRECAST MANHOLE NOTES**

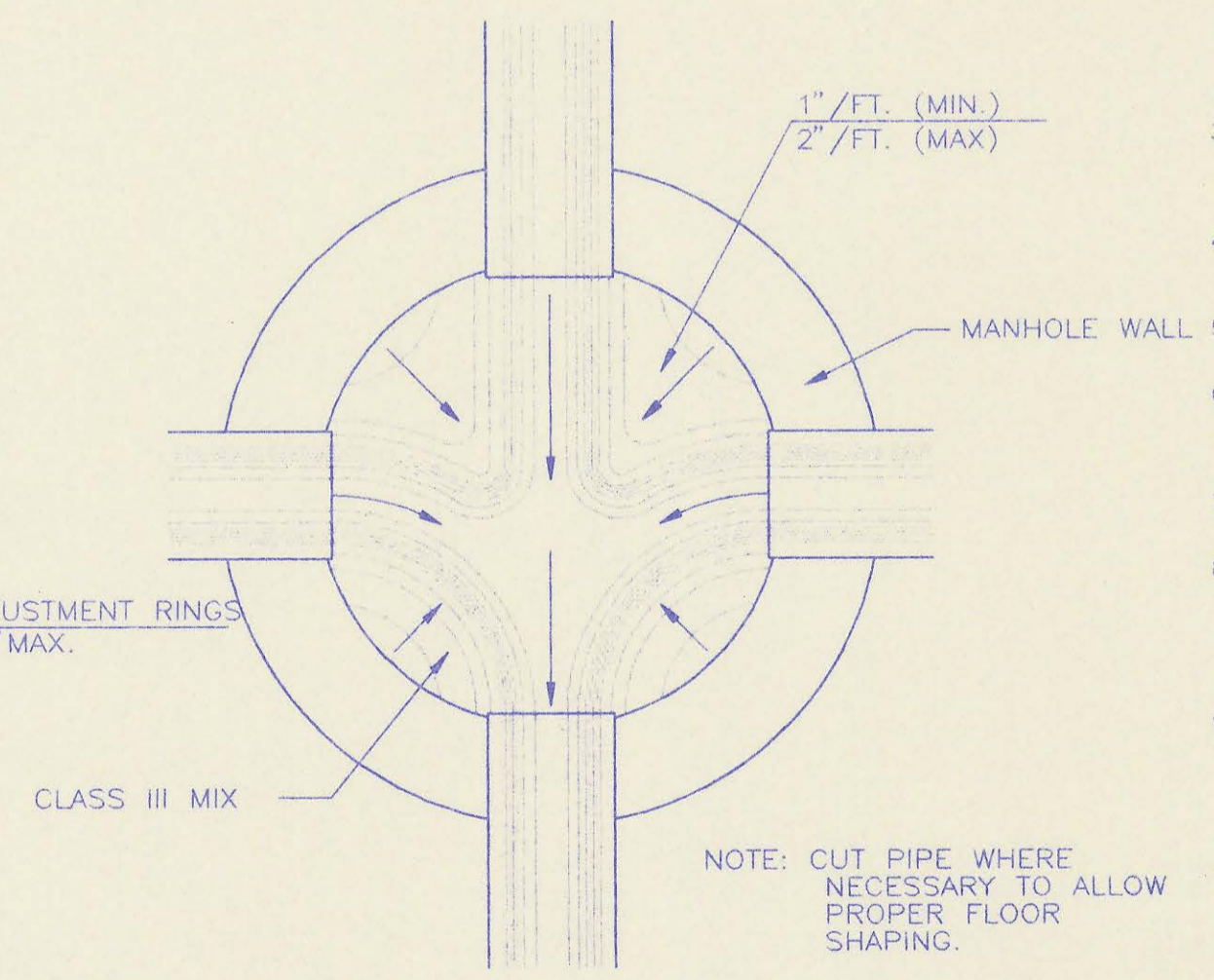
1. IF IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL OVER EXCAVATE TO A SUITABLE SUBGRADE CONDITION AND CRUSHED ROCK SHALL BE PLACED AND COMPACTED TO THE REQUIRED GRADE.
2. "ALOK" OR APPROVED EQUAL FLEXIBLE WATER-STOP GASKETS WHICH MEET OR EXCEED THE TEST REQUIREMENTS OF ASTM C-923 SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL. SEWER PIPES EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CLASS I CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL.
3. THE MANHOLE FRAME SHALL BE SEATED ON AN APPROVED BUTYL-RUBBER SEALANT TO PROVIDE A WATER-TIGHT SEAL BETWEEN THE MANHOLE ADJUSTMENT RING AND THE MANHOLE FRAME.
4. GASKETED PIPE CAPS SHALL BE PROVIDED BY THE PIPE SUPPLIER, GLUED OR CEMENTED CAPS WILL NOT BE ACCEPTED.
5. ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
6. 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.
7. MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5' INSIDE DIAMETER (MIN.).
8. INSIDE DIAMETER OF FIVE-FOOT DIAMETER PRECAST MANHOLES SHALL REMAIN CONSTANT TO THE LOCATION OF THE REDUCING FLAT TOP WHICH CONNECTS THE FOUR-FOOT DIAMETER CONE SECTION TO THE FIVE-FOOT DIAMETER MANHOLE BARREL.
9. MANHOLES SHALL BE SUPPLIED WITH PRECAST MONOLITHICALLY CAST BASE SECTIONS UNLESS OTHERWISE APPROVED. ALL PRECAST CONCRETE MANHOLE SECTIONS AND BASES SHALL CONFORM TO THE LATEST REVISION OF ASTM C478 AS MODIFIED BY THE SPECIFICATIONS.
10. WHERE MANHOLE STUBS ARE SHOWN ON THE PLANS, THE STUB SHALL EXTEND AT LEAST 5 FEET FROM THE INSIDE WALL OF THE MANHOLE WITH A MINIMUM OF 3 FEET OF CONCRETE ENCASEMENT. THE CONTRACTOR SHALL PREVENT ANY CONCRETE FROM BEING WITHIN 1 FOOT OF THE END OF THE STUB.  
4" STUBS SHALL BE SET AT 2.0% GRADE.  
6" STUBS SHALL BE SET AT 1.0% GRADE.
11. MANHOLE SECTIONS SHALL BE SUPPLIED WITH RECESSED LIFTING EYES. LIFTING EYES RECESSES SHALL BE GROUDED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THROUGH THE MANHOLE WALL WILL NOT BE ACCEPTED.



SECTION X (TYPICAL)



PRECAST SHALLOW MANHOLE TYPE "D"

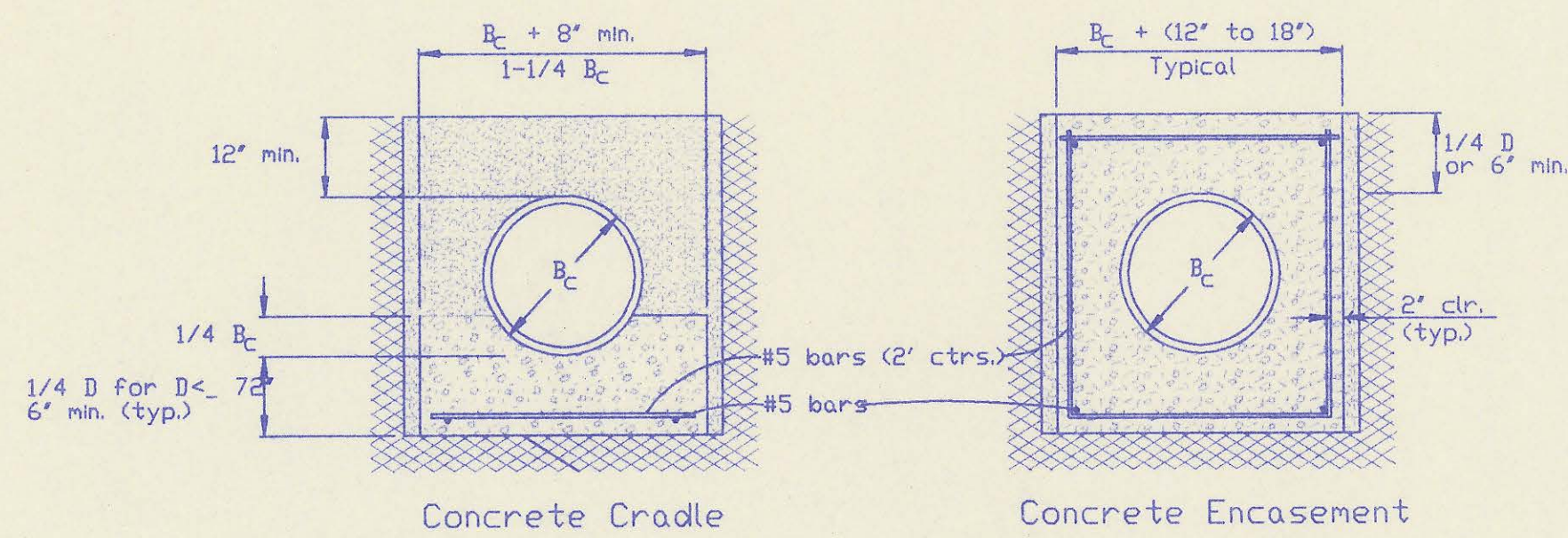


TYPICAL MANHOLE FLOOR SHAPING

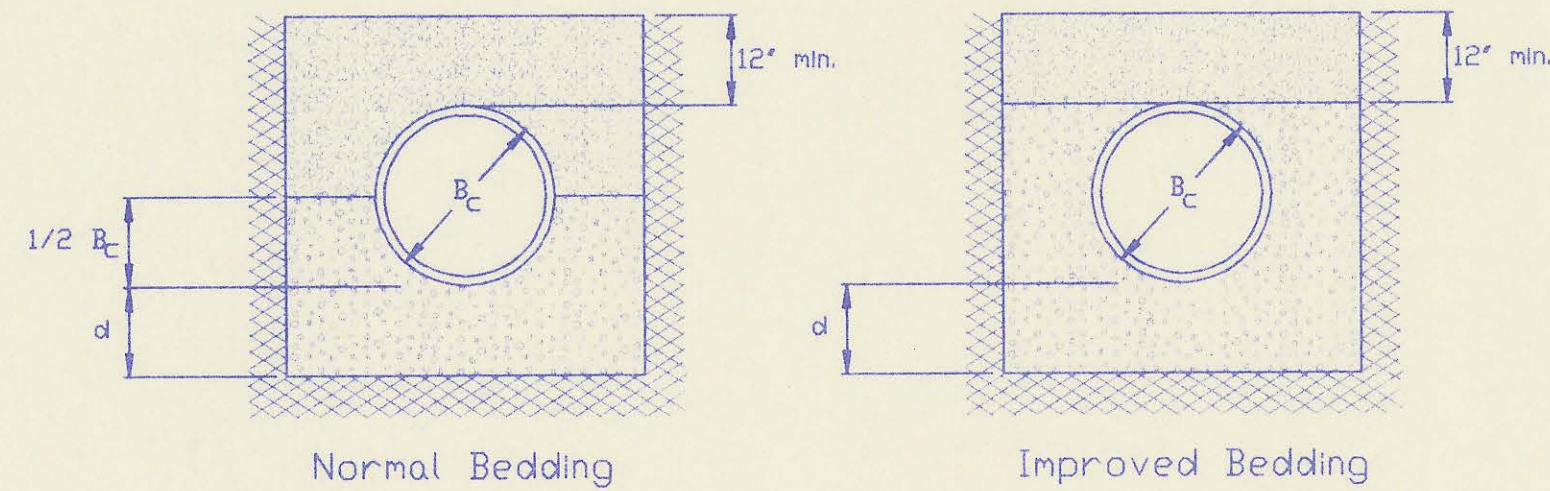
No.	Revision	By	Date
4		RJ	8/27/93
3		RJ	1/25/93
2		RJ	6/01/92
1		RJ	7/16/91

**PRECAST MANHOLE DETAILS**

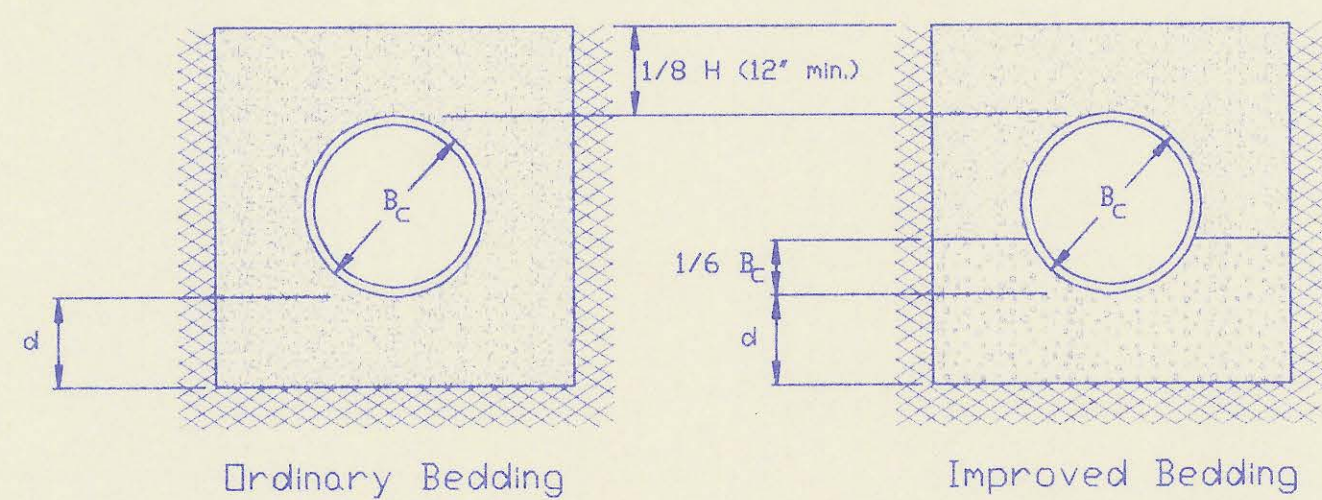
ADOPTED AS STANDARD DESIGN SEPTEMBER, 1989  
BY  
SEDGWICK COUNTY BUREAU OF PUBLIC SERVICES  
DAVID C. SPEARS, P.E. DIRECTOR, BUREAU OF PUBLIC SERVICES/COUNTY ENGINEER



CLASS A



CLASS B



CLASS C

PIPE ZONE BACKFILLING

- $R_c$  = Outside Pipe Diameter
- H = Backfill from Top of Pipe to Existing Ground
- D = Inside Pipe Diameter
- d = Depth of Bedding Material Below Pipe
- [Pattern] = Granular Bedding Material or Sand-Gravel Bedding
- [Pattern] = Compacted Embedment
- [Pattern] = Concrete (Class III)

Depth of Bedding Material Below Pipe		
D	d(min) Soil	d(min) Rock
27' & smaller	4'	6'
30' to 60'	5'	9'
66' & larger	6'	12'

Granular Bedding Material shall be an approved material consisting of durable crushed rock conforming with the requirements of the latest revision of ASTM C-33 Size No. 67 (3/4" to No. 4) to be placed in not more than 6' layers and compacted by slicing with a shovel or vibrating. Soundness, abrasion, and absorption limits shall be as required for coarse aggregates in Section 03010-Concrete Work in the specifications.

Sand-Gravel Bedding Material - sand-gravel mix meeting Type UD-1 of the 1990 Kansas Standard Specifications for State Road and Bridge Construction.

Compacted Embedment shall be an approved sand material free from debris, organic material, and stones with 100% passing the 3/4" sieve to be placed in uniform layers not more than 6" thick and compacted to 90 percent maximum density as determined by ASTM D1557. Granular Bedding Material may be substituted for all or part of Compacted Embedment Materials.

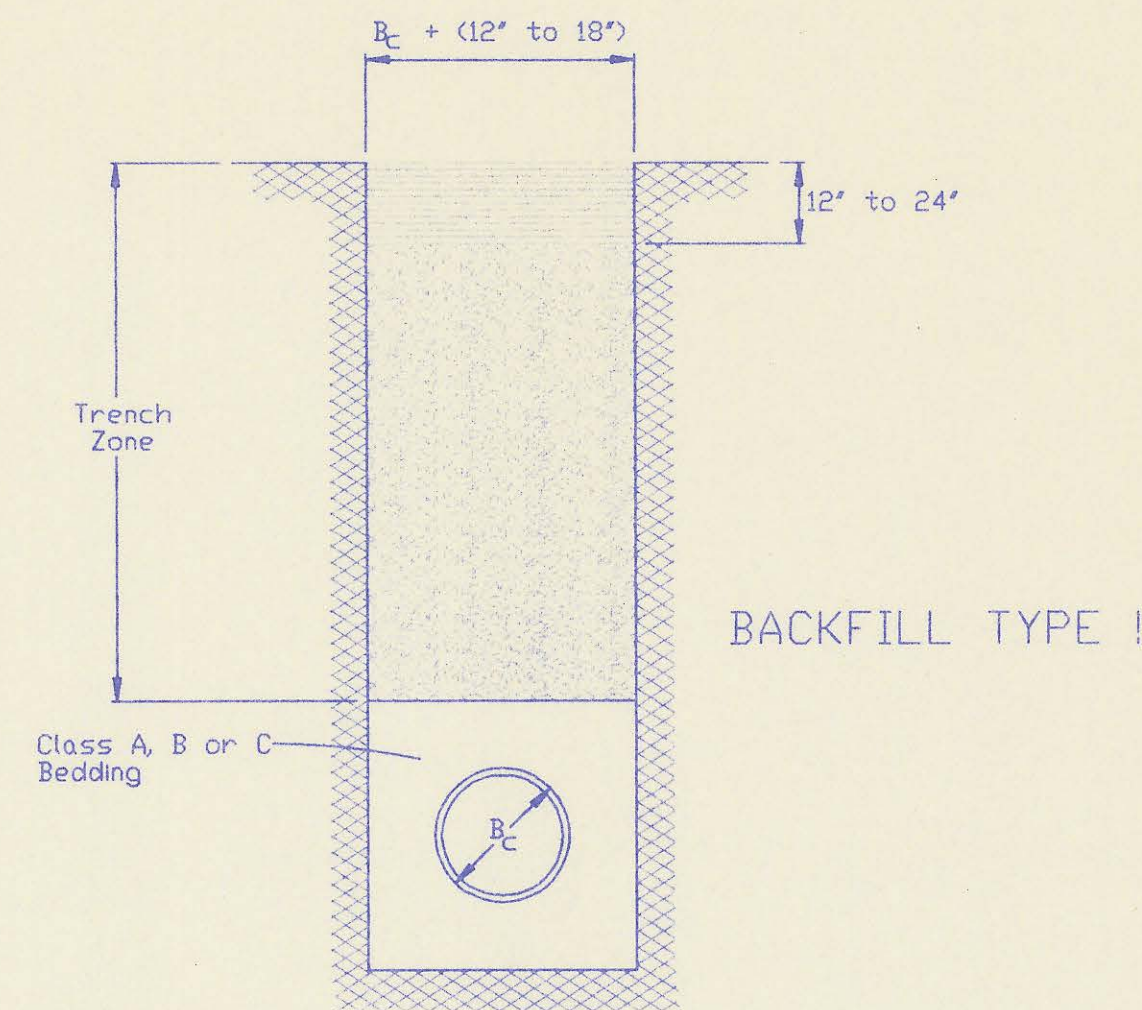
Class A "Concrete Cradle" and/or Class A "Concrete Encasement" is not required unless specified on the plans. However, where unexpected trench conditions exist or improper trenching is performed Class A Bedding may be required as determined by the Engineer.

Class B Bedding shall be used for all flexible pipe.

- a. Class B Normal Bedding shall be used for PVC Pipe unless wet conditions are encountered.
- b. Class B Improved Bedding shall be used for other flexible pipe, and for PVC pipe in wet conditions.

Class C Bedding shall be used for all rigid pipe.

- a. Class C Ordinary Bedding shall be used for all rigid pipe unless wet conditions are encountered.
- b. Class C Improved Bedding shall be used for wet conditions existing in the trench, as directed by the Engineer, at no additional cost to the Owner. The dimensions shall be equal to that required for "rock" excavation (see specifications).



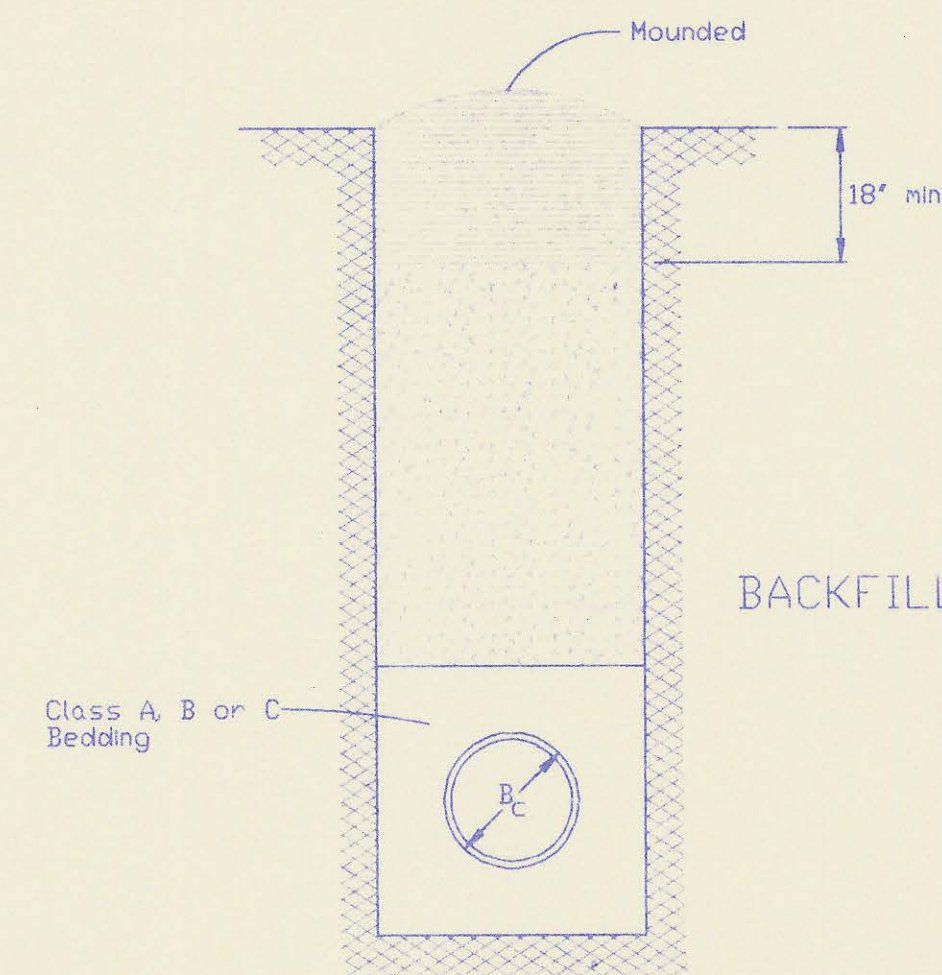
BACKFILL TYPE I

- $R_c$  = Outside Pipe Diameter
- [Pattern] = Compacted Granular Backfill
- [Pattern] = Uncompacted Earth Backfill
- [Pattern] = Compacted Earth Backfill

Compacted Granular Backfill material shall be an approved sand material free from debris, organic material and stones with 100% passing the 3/4" sieve and not more than 15% passing a No. 200 sieve) to be jetted and mechanically vibrated into place and compacted to 90% density as determined by ASTM D1557.

Uncompacted Earth Backfill material may be natural soil free from large clods or stones, brush, roots more than 2 inches in diameter, debris, and junk. Flooding with water shall be provided as directed by the Engineer.

Compacted Earth Backfill shall consist of material existing prior to trenching or selected material as directed by the Engineer, and shall be compacted to 90% density as determined by ASTM D1557.



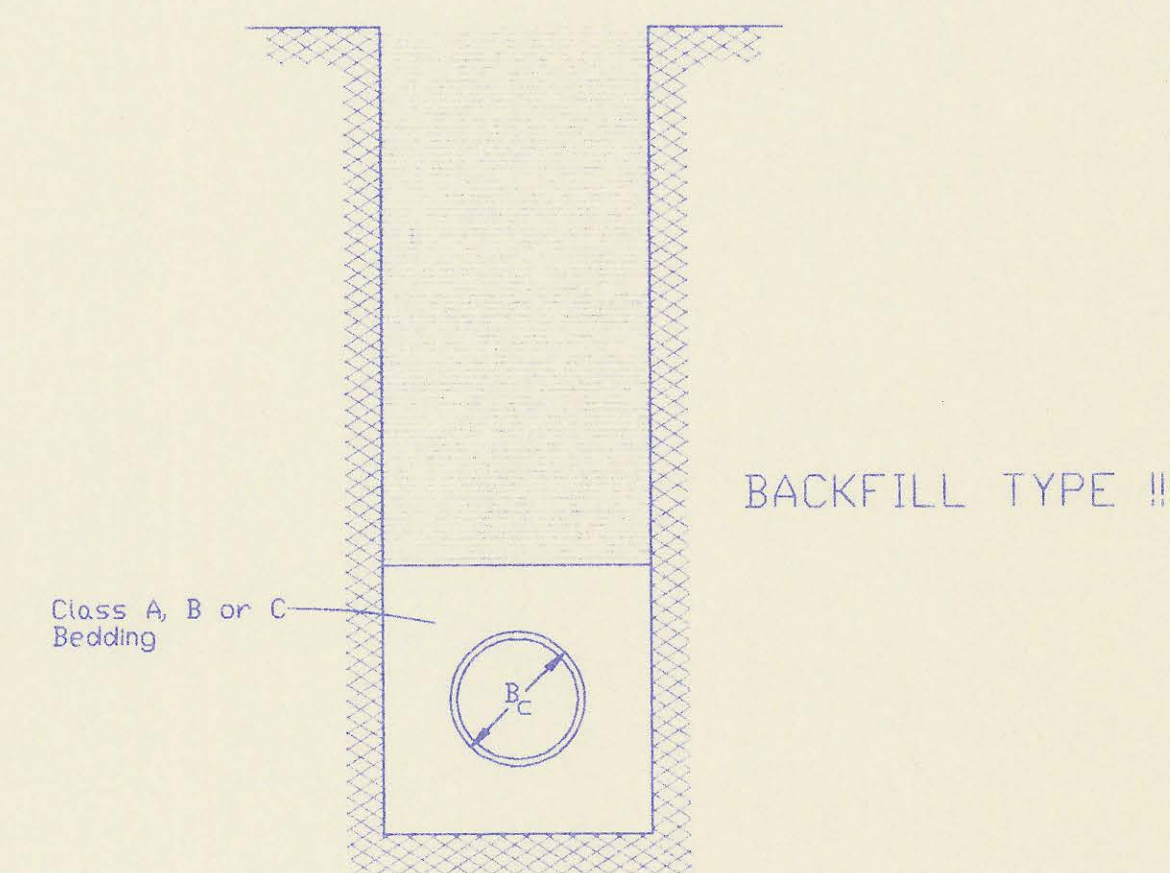
BACKFILL TYPE II

Backfill Backfill material and compaction requirements shall conform to either Type I, Type II or Type III as specified in the plans. One year's maintenance will be required on all backfill.

Backfilling Through Rock. Backfilling through rock shall be performed as specified in the paragraph Backfill above, except that the Pipe Zone is increased to provide eighteen (18) inches of cover over the pipe. When approved by the Engineer the remainder of the backfill may be excavated rock provided the excavated rock has been broken up so that earth and rock will thoroughly mix and not result in voids around the larger pieces of rock. Any excess rock remaining after the trench has been backfilled shall be removed or wasted as directed by the Engineer.

Backfilling Under Pavement. Backfilling under existing or proposed pavement shall be performed as Backfill Type I to a level of two (2) feet from the bottom of the pavement. The remainder of the trench shall be backfilled with selected material, sufficiently damp to be properly compacted in layers not exceeding six (6) inches in depth, compaction shall be performed with mechanical tampers and continued until a relative density of 95 percent of modified density, in conformance with ASTM D1557 is attained.

Backfilling Under Gravel Streets. Where the trench crosses or is in existing gravel surfaced streets, the backfill shall be compacted as provided in the paragraph "Backfilling Under Pavement".



BACKFILL TYPE III

TRENCH ZONE BACKFILLING

PLAN	CHECKED	CHECKED
BY		
DATE		

No.	Revision	By	Date
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BACKFILL DETAILS  
 ADOPTED AS STANDARD DESIGN SEPTEMBER, 1989  
 BY  
 SEDGWICK COUNTY BUREAU OF PUBLIC SERVICES  
 DAVID C. SPEARS, P.E., DIRECTOR, BUREAU OF PUBLIC SERVICES/COUNTY ENGINEER

# BELLE TERRE ADDITION

## SEDGWICK COUNTY, KANSAS.

State of Kansas)  
Sedgwick County) SS

We, Baughman Company P.A., Surveyors in aforesaid county and state do hereby certify that we have surveyed and platted, "BELLE TERRE ADDITION", Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed described as being that part of the N.E. 1/4 of Sec. 24, Twp. 27-S, R-2-E of the 6th P.M., Sedgwick County, Kansas, described as commencing at the N.E. Corner of said N.E. 1/4; thence with an assumed bearing of S 00°12'56" W along the east line of said N.E. 1/4, 793.74 feet; thence N 89°47'04" W, 50 feet; thence S 58°17'23" W, 204.74 feet; thence S 57°03'52" W, 503.83 feet; thence S 56°32'52" W, 266.66 feet for a point of beginning; thence continuing S 56°32'52" W, 20.98 feet; thence S 56°53'41" W, 429.77 feet; thence N 30°13'27" W, 209.15 feet; thence N 89°59'54" W, 1289.62 feet to a point on the west line of said N.E. 1/4; thence N 00°09'30" E along the west line of said N.E. 1/4, 680 feet to a point 707.7 feet south of the N.W. Corner of said N.E. 1/4; thence S 89°59'54" E, 750 feet; thence N 00°09'30" E, 707.7 feet to a point on the north line of said N.E. 1/4; thence S 89°59'54" E along the north line of said N.E. 1/4, 846.07 feet to a point 1045.01 feet west of the N.E. Corner of said N.E. 1/4; thence S 00°12'56" W, 1055.01 feet; thence S 33°27'08" E, 320.14 feet to the point of beginning. Existing easements and dedications being vacated by virtue of K.S.A. 12-512(b).

Date 4/6/93 Baughman Company, P.A.  
Gregory F. Severns, Surveyor



Know all men by these presents that we, the undersigned owners, have caused the land described in the surveyors certificate to be platted into Lots, Blocks, Streets and Reserves to be known as "BELLE TERRE ADDITION", Sedgwick County, Kansas. Reserve "A", is hereby reserved for floodway, lakes, drainage, entry monuments, parks, sidewalks, landscaping, gazebos, a recreation building facility, swimming pool, tennis courts, basketball court, and utility purposes confined to easements as shown. All uses defined for Reserve "A" shall be approved by the appropriate governing body. Reserve "B", is hereby reserved for a guard house, landscaping, streets, and utility purposes. Reserves "C", "D", "E", and "F", is hereby reserved for entry monuments, sidewalks, landscaping, and utility purposes confined to easements as shown. Reserves "A", "B", "C", "D", "E", and "F" 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 floodway easements are hereby reserved for floodway purposes and shall be the responsibility of the homeowners association until such time as the appropriate governing body elects to assume the responsibility for maintenance and improvements of the drainage. No buildings shall be constructed on or within said floodway; nor shall any fill, change of grade, creation of channel or other work be carried on without the permission of said appropriate governing body. With such permission of said appropriate governing body, additional improvements and/or activities may be permitted within said floodway. The wall easement is hereby granted for construction and maintenance of the private wall, utilities may cross the wall easement. The streets are hereby dedicated to and for the use of the public. All abutters rights of access to or from Central Avenue over and across the north line of Lot 1, 2, 3, 4, 5, Blk. 1 and Reserve "C", and over and across the north line of Reserve "A" are hereby granted to the appropriate governing body. The Minimum Building Pad Elevations for the lowest opening to the structures are as shown on the accompanying plat.

Downing Development Company, L.L.C.

Gregory C. Downing, President  
Gregory C. Downing

State of Kansas)  
Sedgwick County) SS

The foregoing instrument acknowledged before me, this 2nd day of April 1993, by Gregory C. Downing, President of Downing Development Company, L.L.C. on behalf of Downing Development Company, L.L.C.

My appointment Expires 2-3-95

Mildred E. Franz, Notary Public

We, the undersigned, holders of a mortgage on the above described property do hereby consent to the plat of "BELLE TERRE ADDITION", Sedgwick County, Kansas.

Prairie State Bank  
Randall D. Craven, Vice-President

State of Kansas)  
Sedgwick County) SS

The foregoing instrument acknowledged before me, this 5th day of April 1993, by Randall D. Craven, Vice-President of Prairie State Bank on behalf of the bank.

My appointment Expires 2-3-95

Mildred E. Franz, Notary Public

This plat of BELLE TERRE ADDITION, Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

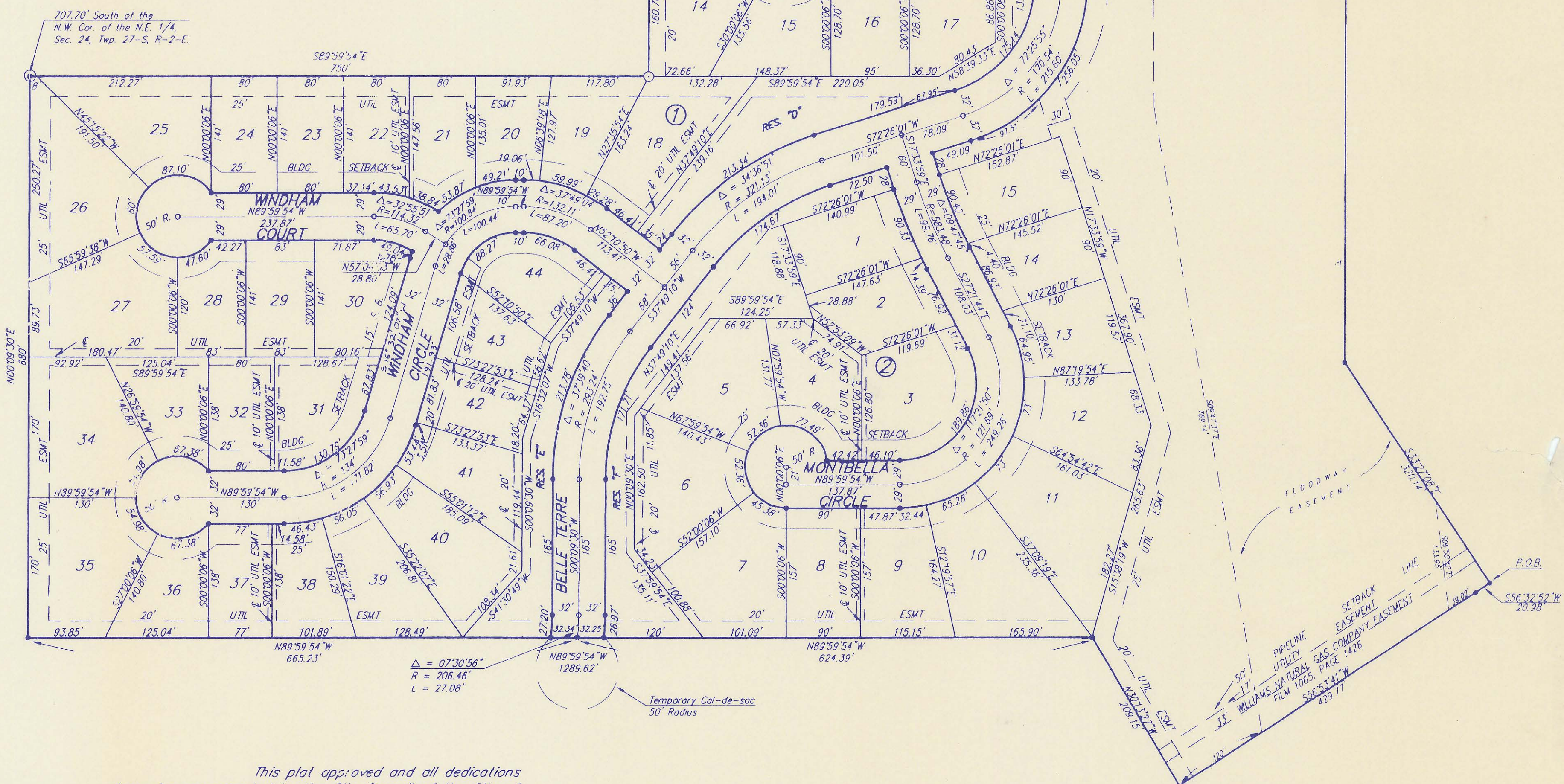
Dated this 5th day of April 1993.  
Wichita-Sedgwick County Metropolitan Area Planning Commission.

L. O. Breckenridge Jr., Chairman

Marvin S. Krout, Secretary

This plat approved and all dedications shown hereon accepted by the board of Commissioners of Sedgwick County, Kansas, this 5th day of April 1993.

Mark F. Schroeder, Chairman  
Billy O. McCray, Chairman Pro-Tem  
Betsy Gewin, Commissioner  
Paul W. Hancock, Commissioner  
Tom Winters, Commissioner  
Susan E. Crockett-Spoon, County Clerk



This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this 5th day of April 1993.

Frank M. Ojile, Mayor  
Pat Burnett, City Clerk  
Susan E. Crockett-Spoon, County Clerk

State of Kansas)  
Sedgwick County) SS  
This is to certify that this plat has been filed for record in the office of the Register of Deeds, this 5th day of April 1993, at 10:00 o'clock AM, and is duly recorded.  
Pat Kettler, Register of Deeds  
Ed Reso, Deputy

Entered on transfer record this 5th day of April 1993.