

PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	1993	1	9

BUREAU OF PUBLIC SERVICES

4MC-067



INDEX of SHEETS:

1. TITLE SHEET
2. GENERAL NOTES & PROJECT AREA
- 3.-5. SEWER LINE PLANS & PROFILES
6. EASEMENT GRADING PLAN
7. PRECAST MANHOLE DETAIL
8. BACKFILL DETAILS
9. ESTATES AT BELLE TERRE PLAT

SANITARY SEWER IMPROVEMENTS

FOR

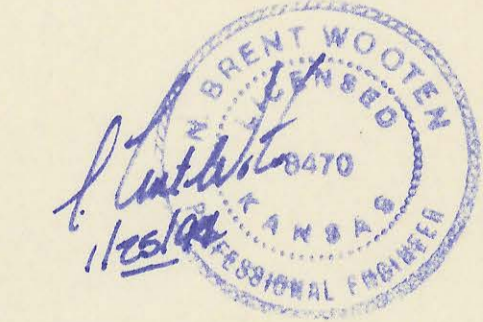
ESTATES AT BELLE TERRE ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

As Built 4-1-94

PLANS PREPARED BY:

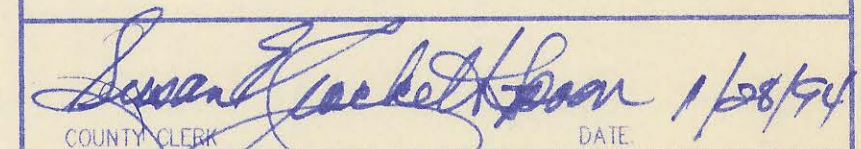
BAUGHMAN COMPANY P. A.
 ENGINEERING & SURVEYING
 316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211



2ND

APPROVED: _____ DATE: _____
Edward C. Spence
 COUNTY ENGINEER / DIRECTOR OF PUBLIC SERVICES
 DATE 1/27/94

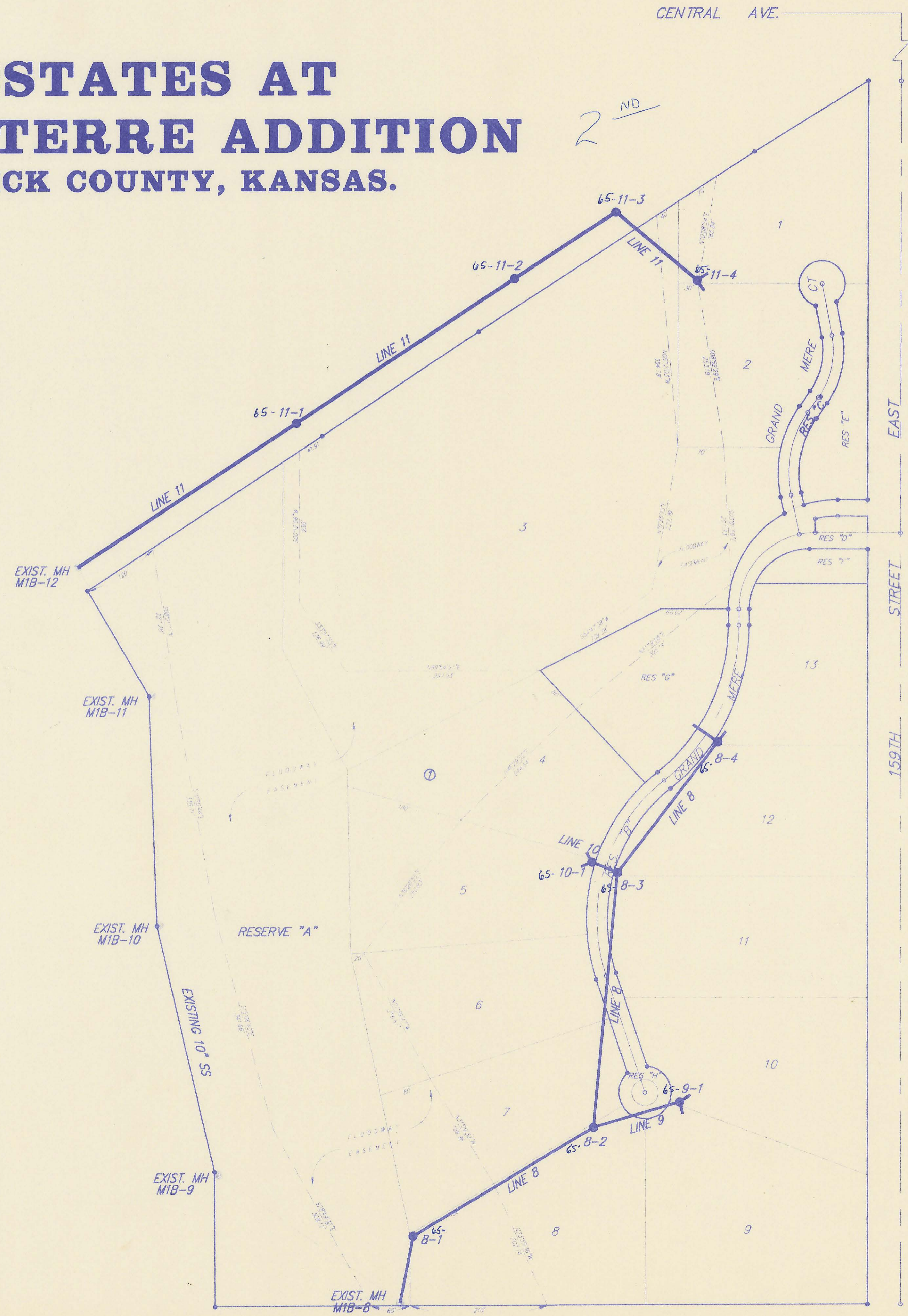
APPROVED: _____ DATE: 1/27/94
Betty Quinn
 CHAIR
 BOARD OF COUNTY COMMISSIONERS

FILED:
 FILED IN THE OFFICE OF THE SEDGWICK COUNTY CLERK

 COUNTY CLERK DATE 1/28/94

NET LENGTH OF PROJECT	2394	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

4MC-067

ESTATES AT BELLE TERRE ADDITION SEDGWICK COUNTY, KANSAS.



SANITARY SEWER

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, K.G.&E. Electric, & Williams Natural Gas.
- 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 and shall be coated internally with strong seal MS2-A per project specifications.
- 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.
- 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, 0.4 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.
- Contractor shall grade the sanitary sewer alignment to elevations shown on the easement grading plan.

SCALE:
1" = 100'
• = Iron

NOTES & PROJECT AREA ESTATES AT BELLE TERRE

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

PROJECT NUMBER
SEDGWICK COUNTY, KANSAS

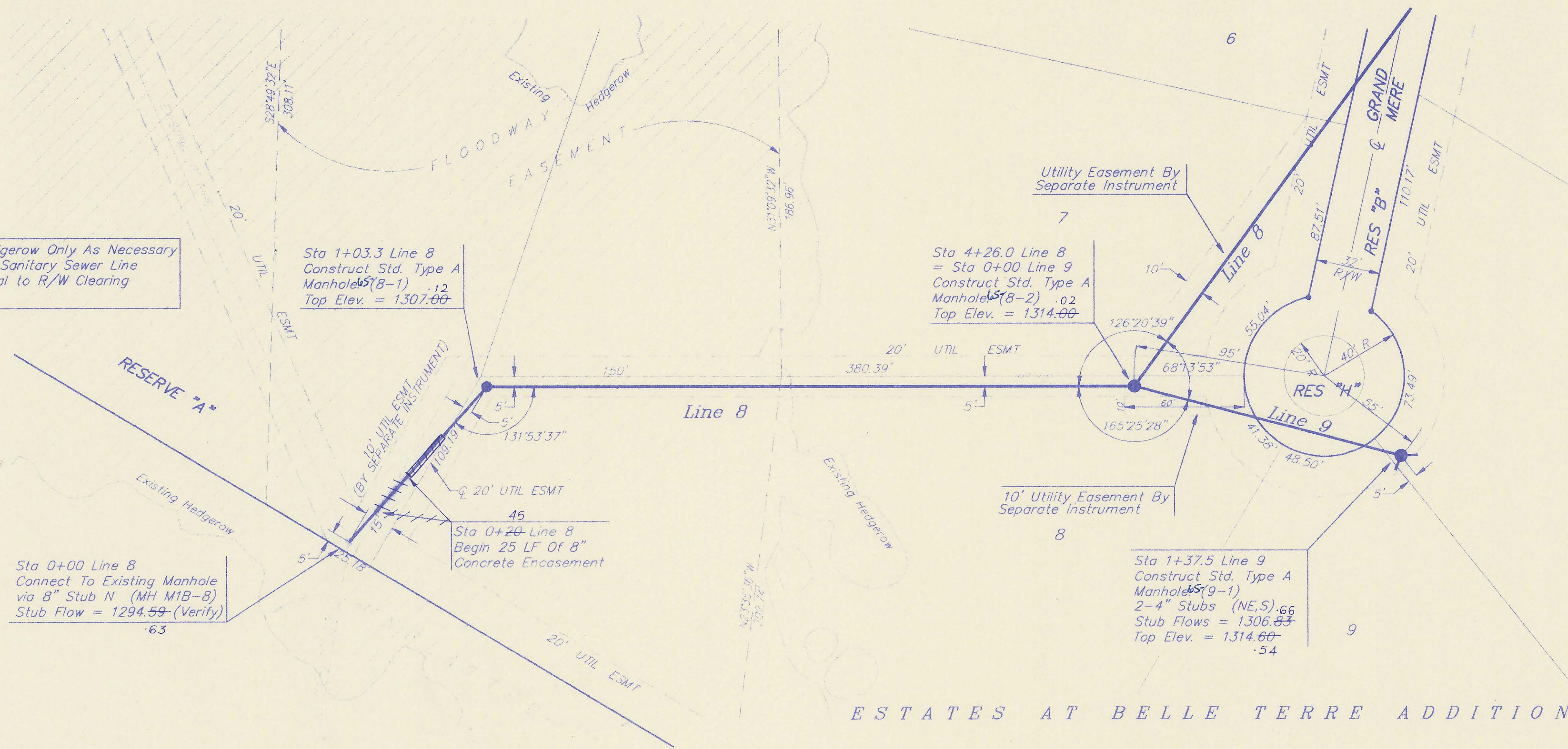
DESIGN NBW/DY	DRAWN DY	UTIL. CHECK'D DATE	SCALE NOTED	SHEET 2 OF 9
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21-03-EGC

BENCHMARK:

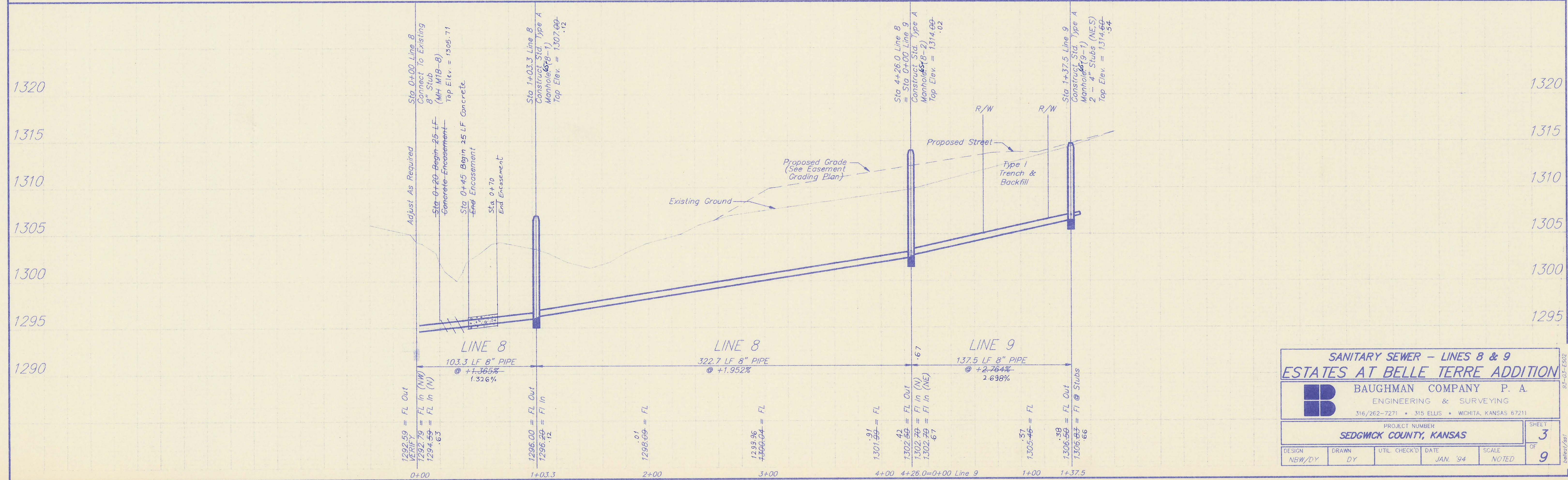
R.R. Spike in N.E. Face of Power Pole Located 12' North & 2' West of the Northeast Corner of Reserve "C", (W. of entrance) of Belle Terre Addition. Elevation = 1316.17 MSL

Remove Existing Hedgerow Only As Necessary For Construction Of Sanitary Sewer Line (Cost to be incidental to R/W Clearing & Site Clearing).



North
 SCALE:
 1"=40' Horizontal
 1"=5' Vertical
 • = Iron

ESTATES AT BELLE TERRE ADDITION



SANITARY SEWER - LINES 8 & 9
ESTATES AT 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: JAN. '94 SCALE: NOTED

SHEET **3** OF **9**

BENCHMARK:

R.R. Spike in N.E. Face of Power Pole Located 12' North & 2' West of the Northeast Corner of Reserve "C", (W. of entrance) of Belle Terre Addition. Elevation = 1316.17 MSL

Sta 2+05 Begin 25 LF 8" Concrete Encasement

Remove Existing Hedgerow Only As Necessary For Construction Of Sanitary Sewer Line (Cost to be incidental to R/W Clearing & Site Preparation).

49.12
Sta 4+48.6 Line 11
Construct Std. Type A Manhole (11-1) Install
Top Elev. = 1312.50 55

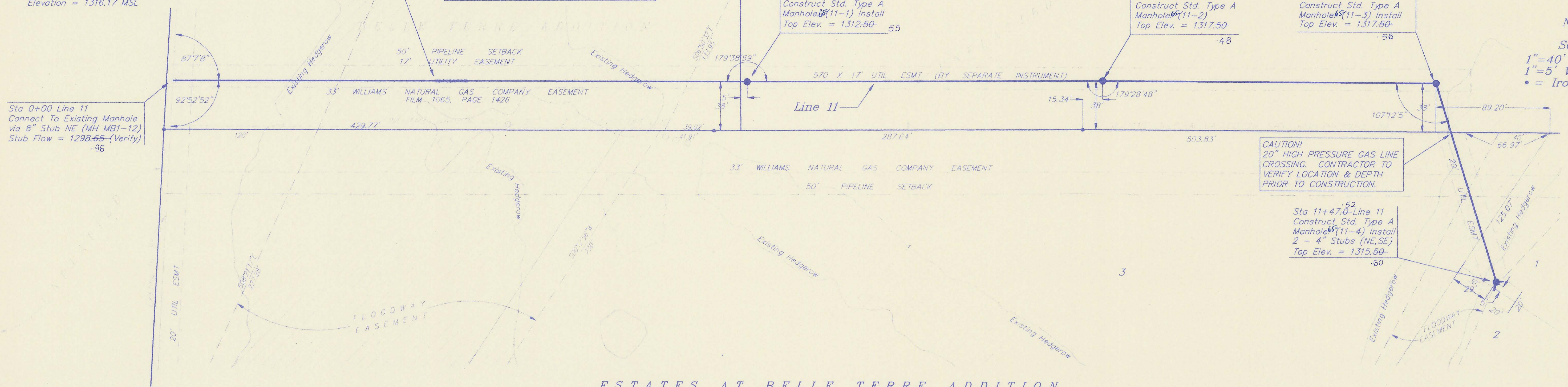
26.42
Sta 7+25.9 Line 11
Construct Std. Type A Manhole (11-2) Install
Top Elev. = 1317.50 48

.92
Sta 9+86.4 Line 11
Construct Std. Type A Manhole (11-3) Install
Top Elev. = 1317.50 56

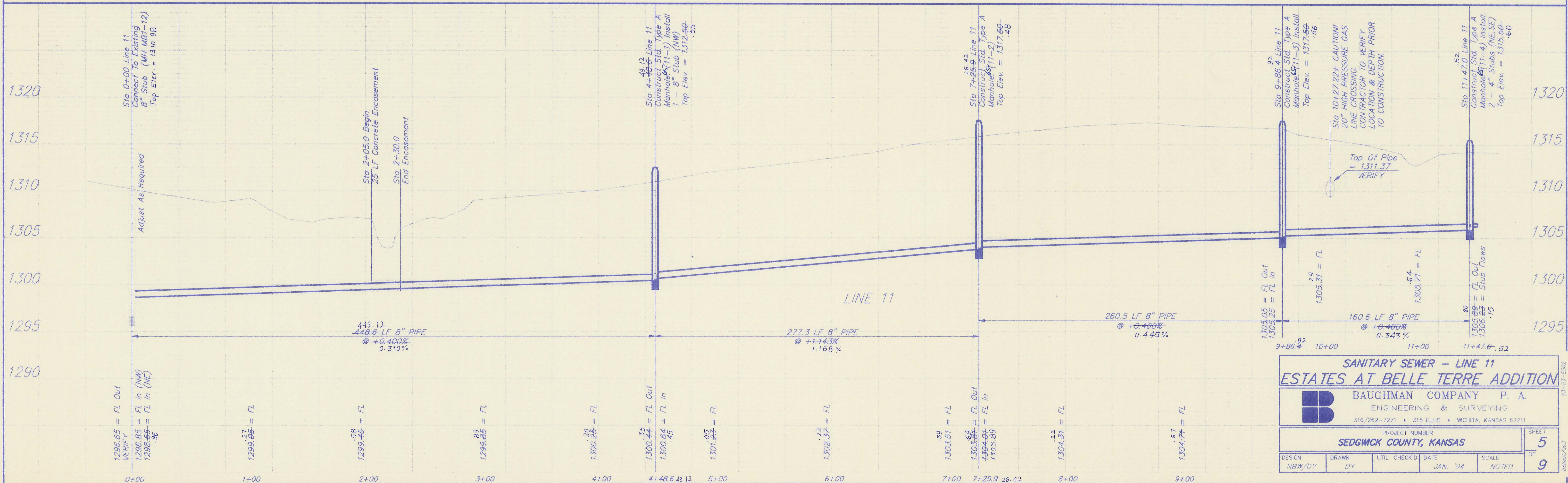
.52
Sta 11+47.5 Line 11
Construct Std. Type A Manhole (11-4) Install
2 - 4" Stubs (NE, SE)
Top Elev. = 1315.50 60

North

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



ESTATES AT BELLE TERRE ADDITION



SANITARY SEWER - LINE 11
ESTATES AT BELLE TERRE ADDITION

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

PROJECT NUMBER
SEDGWICK COUNTY, KANSAS

DESIGN	DRAWN	UTIL. CHECK'D	DATE	SCALE
NBW/DY	DY		JAN '94	NOTED

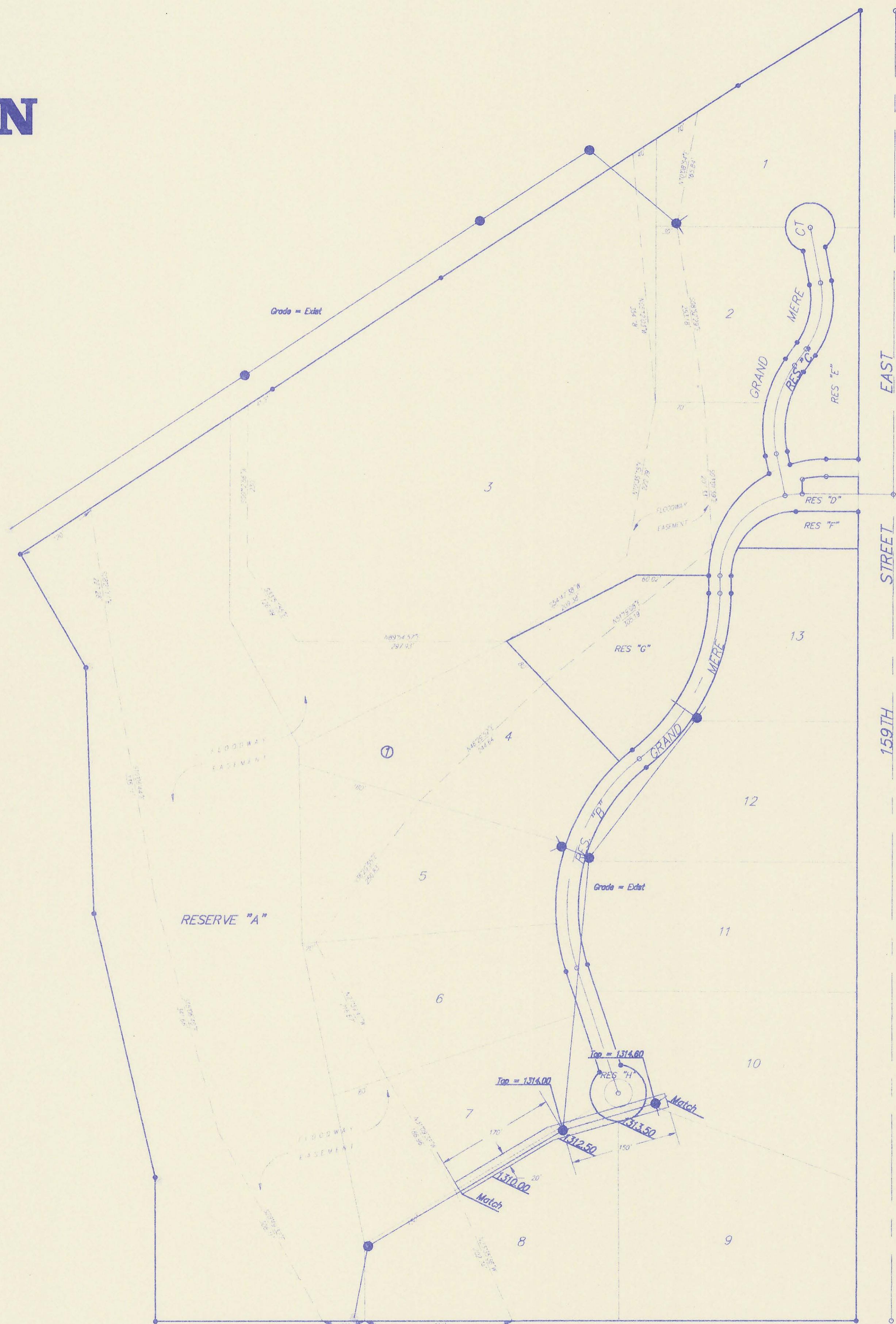
SHEET
OF
5
9

93-07-E502

ESTATES AT BELLE TERRE ADDITION SEDGWICK COUNTY, KANSAS.

Easement Grading Plan

SCALE:
1" = 100'
• = Iron

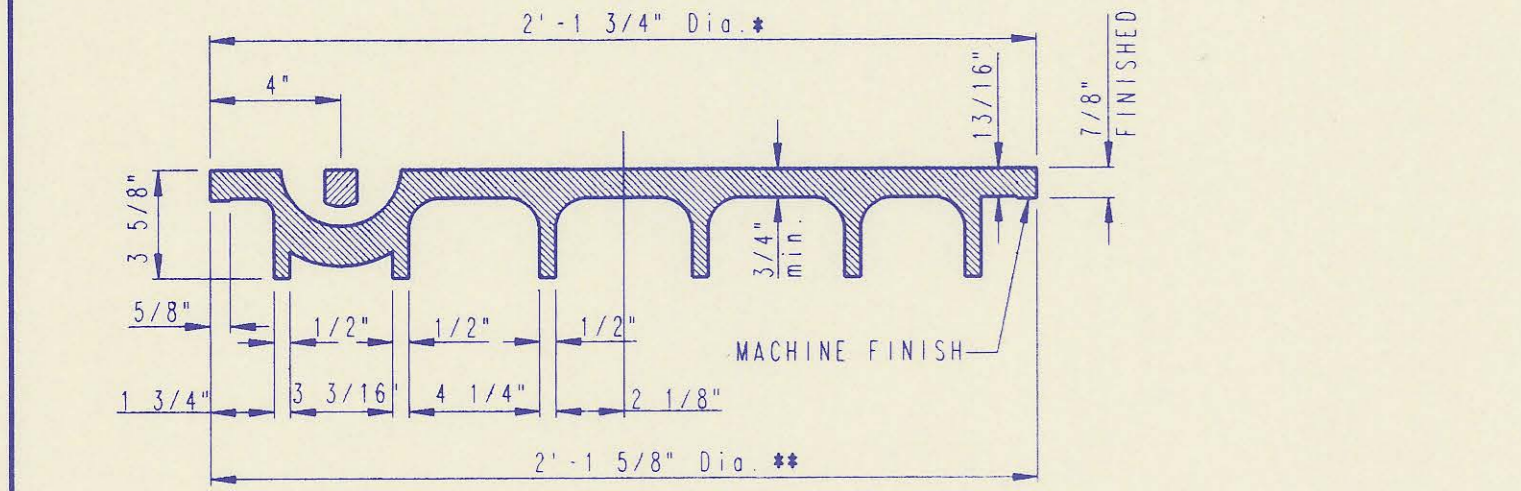
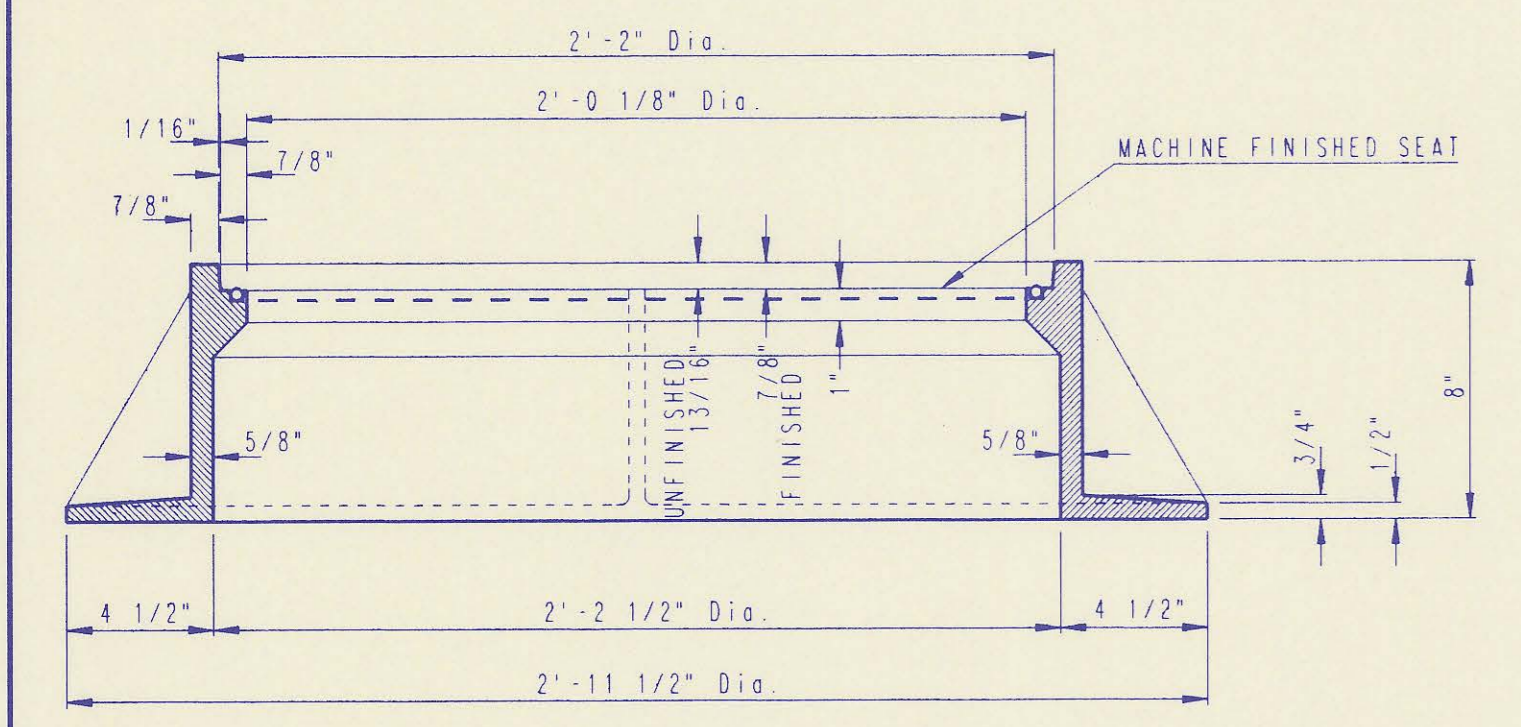
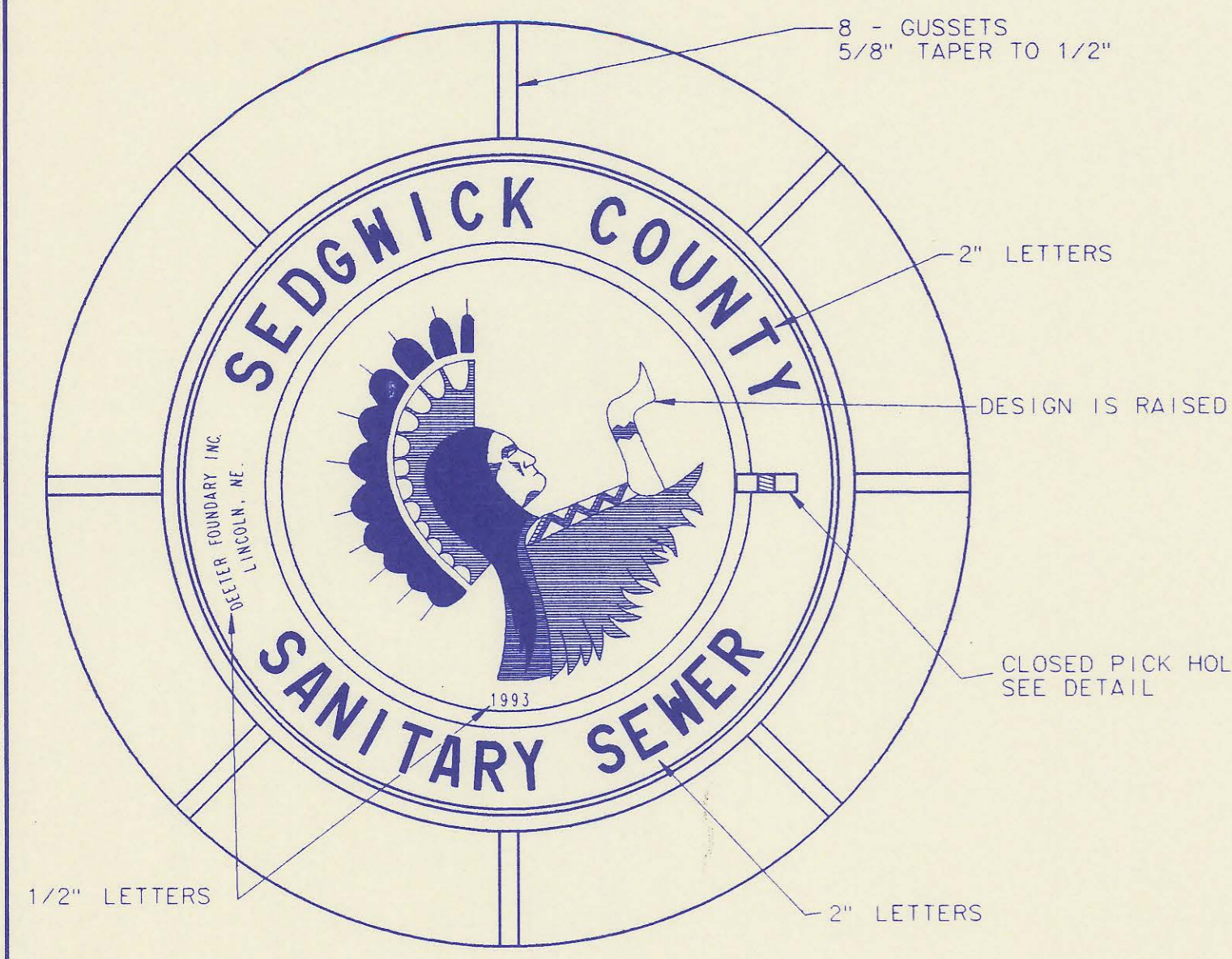


NOTE:
Cost of Easement Grading Shall Be Subsidiary
To Trench & Backfill Costs.
ESTIMATED QUANTITY OF FILL = 448 C.Y.

Area Of Grading

EASEMENT GRADING PLAN ESTATES AT BELLE TERRE				
BAUGHMAN COMPANY P. A. ENGINEERING & SURVEYING 316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211				
PROJECT NUMBER SEDGWICK COUNTY, KANSAS				SHEET 6 OF 9
DESIGN NBW/DY	DRAWN DY	UTIL. CHECK'D	DATE JAN '94	SCALE NOTED

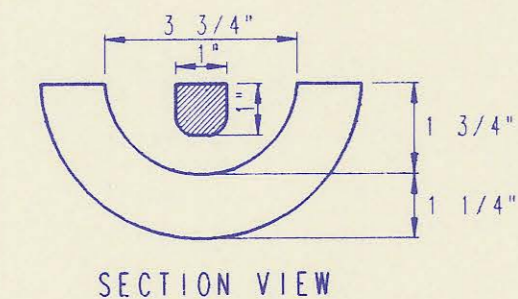
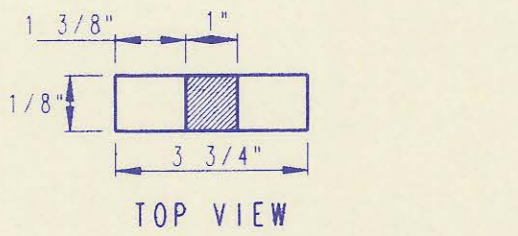
93-01-F502
BELLETERRE/SEDGWICK



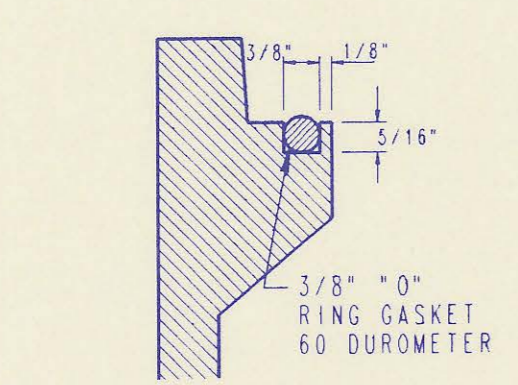
MANHOLE FRAME AND COVER
(TOTAL WEIGHT = 430 LBS.)

MANHOLE FRAME AND COVER NOTES

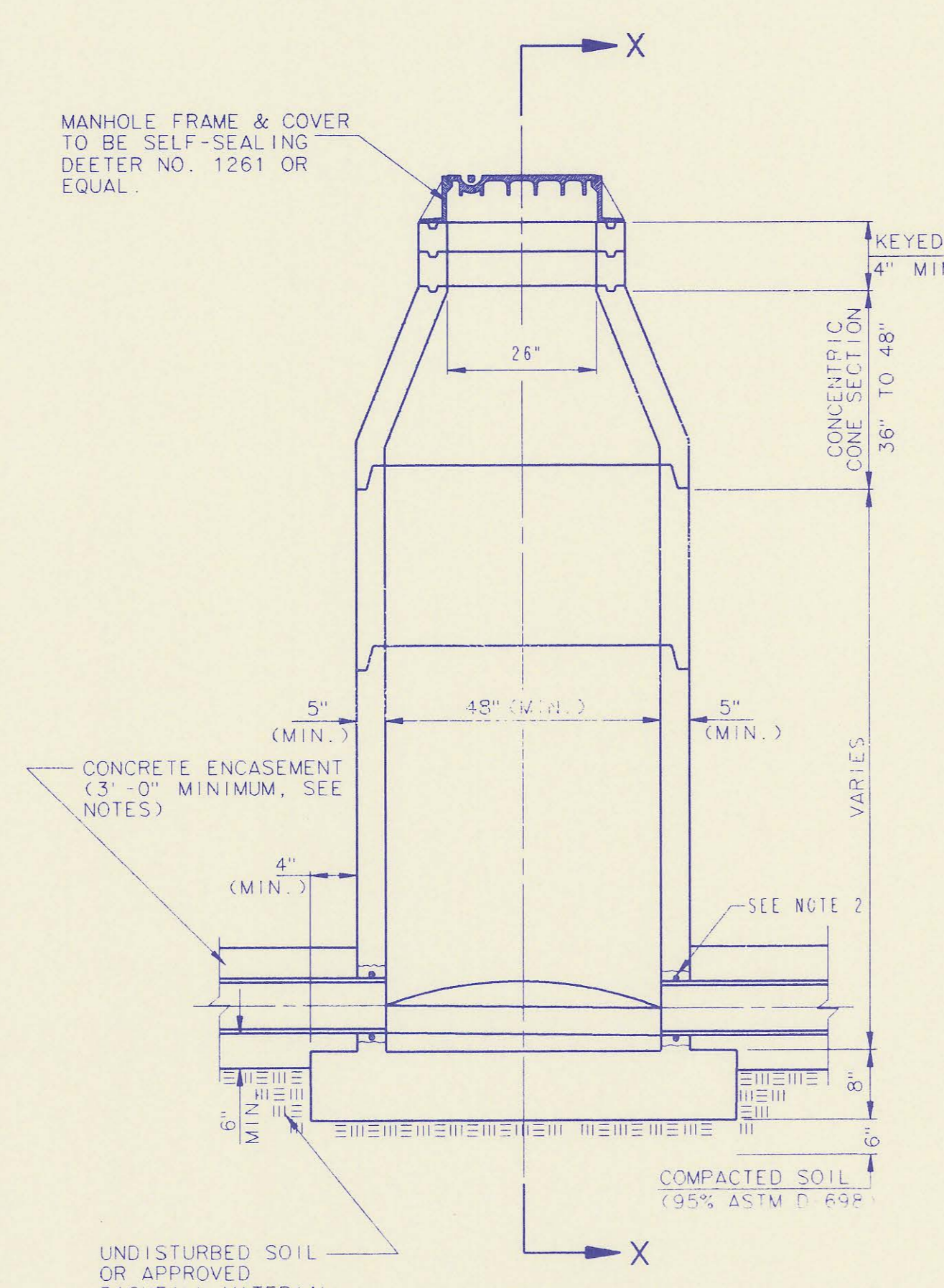
1. CAST IRON MANHOLE FRAME AND COVER SHALL CONFORM TO ASTM A-48, CLASS 35B, OR BETTER.
2. CASTINGS ARE TO BE MANUFACTURED TRUE TO PATTERN AND WITH SATISFACTORY FIT OF COMPONENT PARTS. CASTINGS SHALL BE FREE OF DEFECTS AND ALL BURRS SHALL BE GROUND SMOOTH. DIMENSIONS AS DETAILED ON PLAN SHALL NOT DEVIATE BY ± 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.



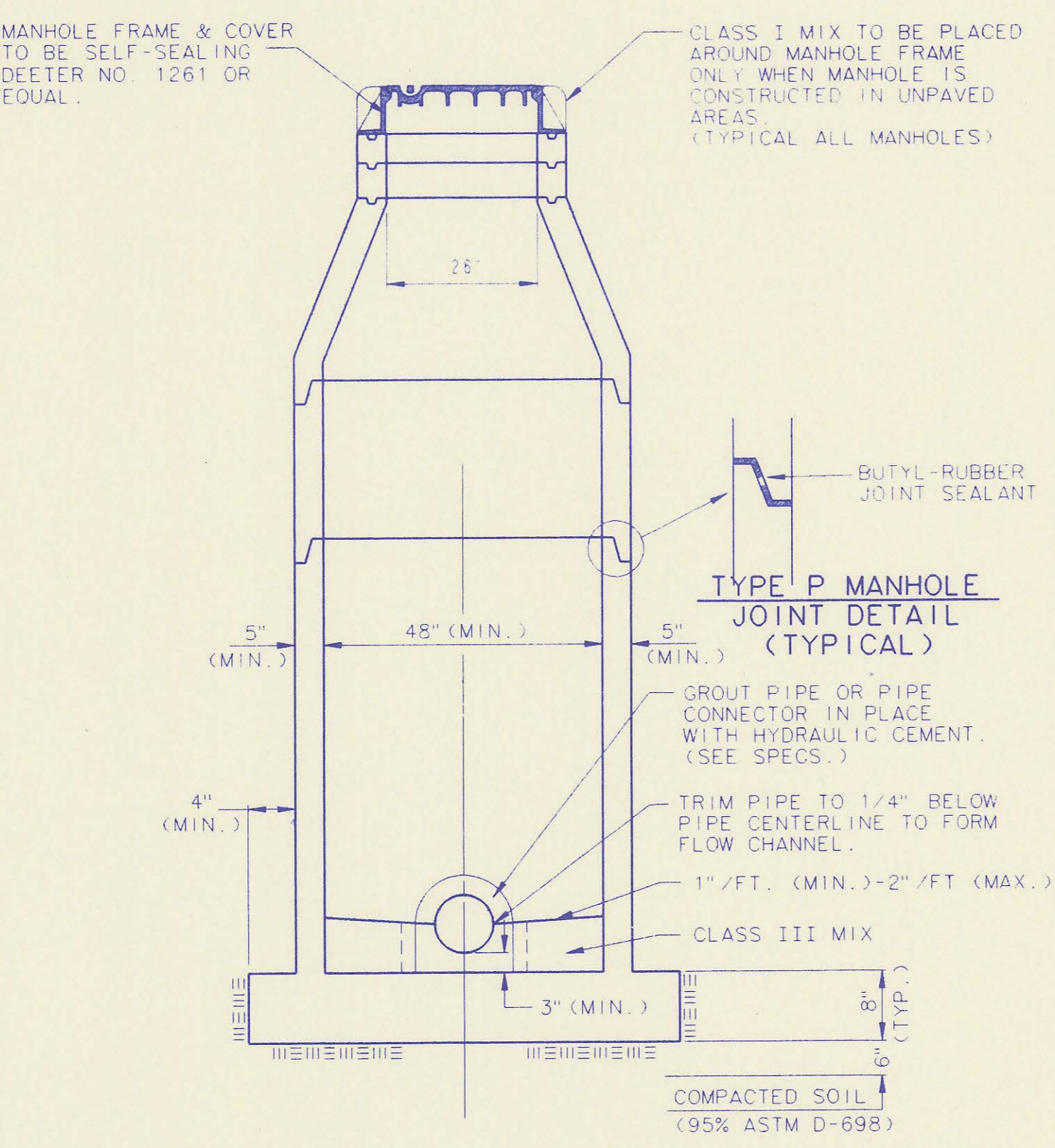
PICK HOLE DETAIL



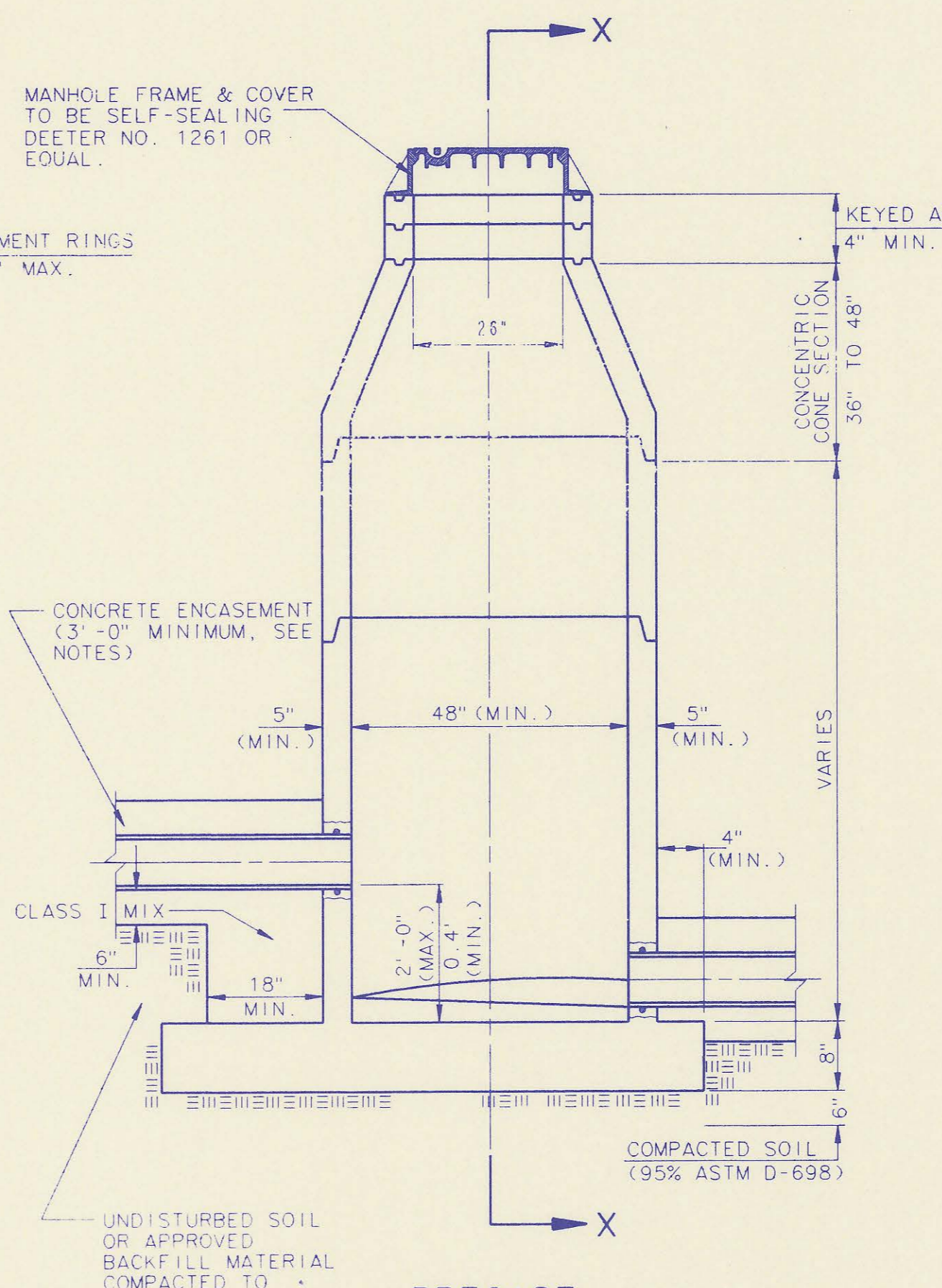
FRAME GROOVING DETAIL (TYPICAL ALL MANHOLES)



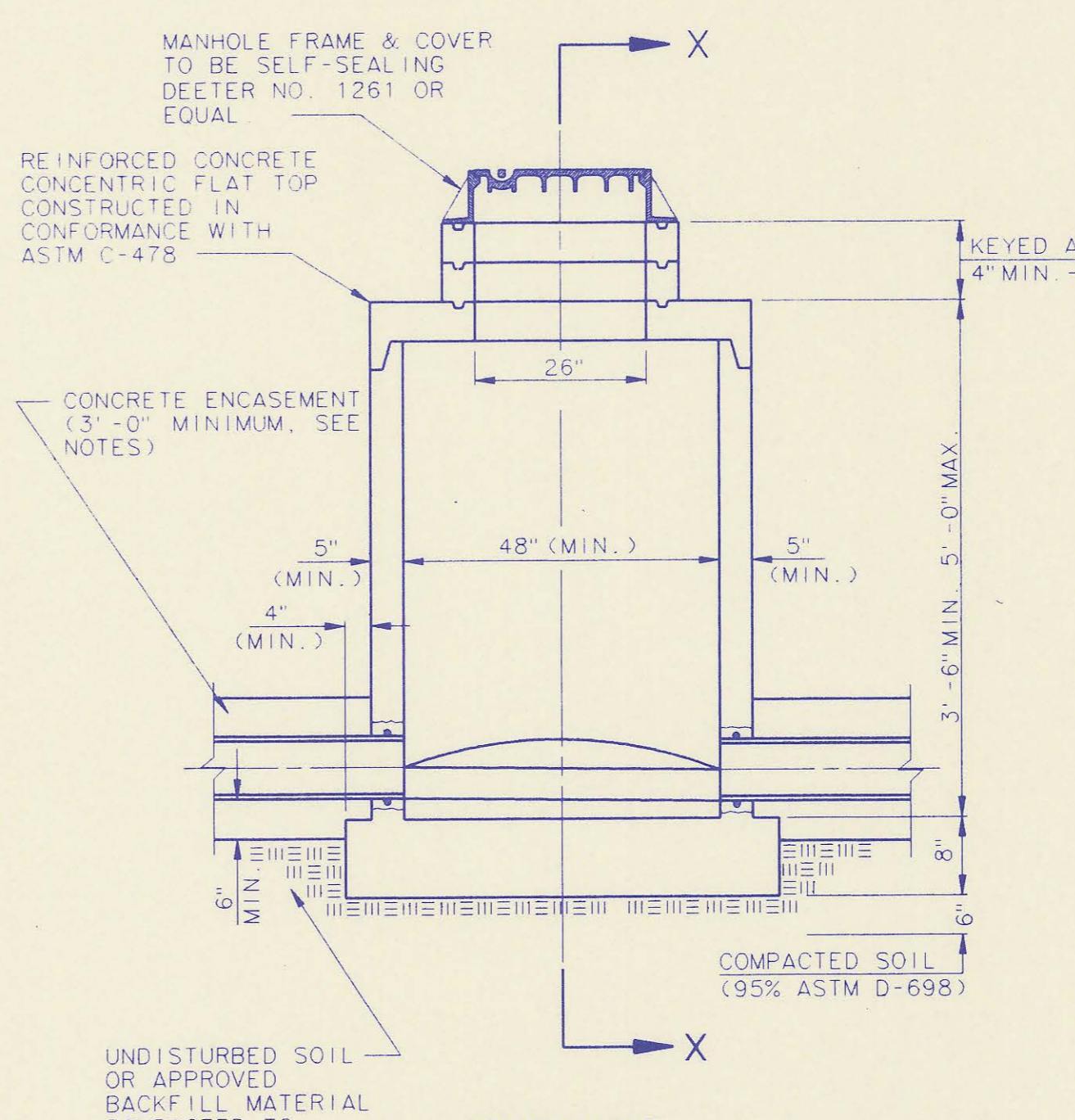
PRECAST STANDARD MANHOLE TYPE "A"



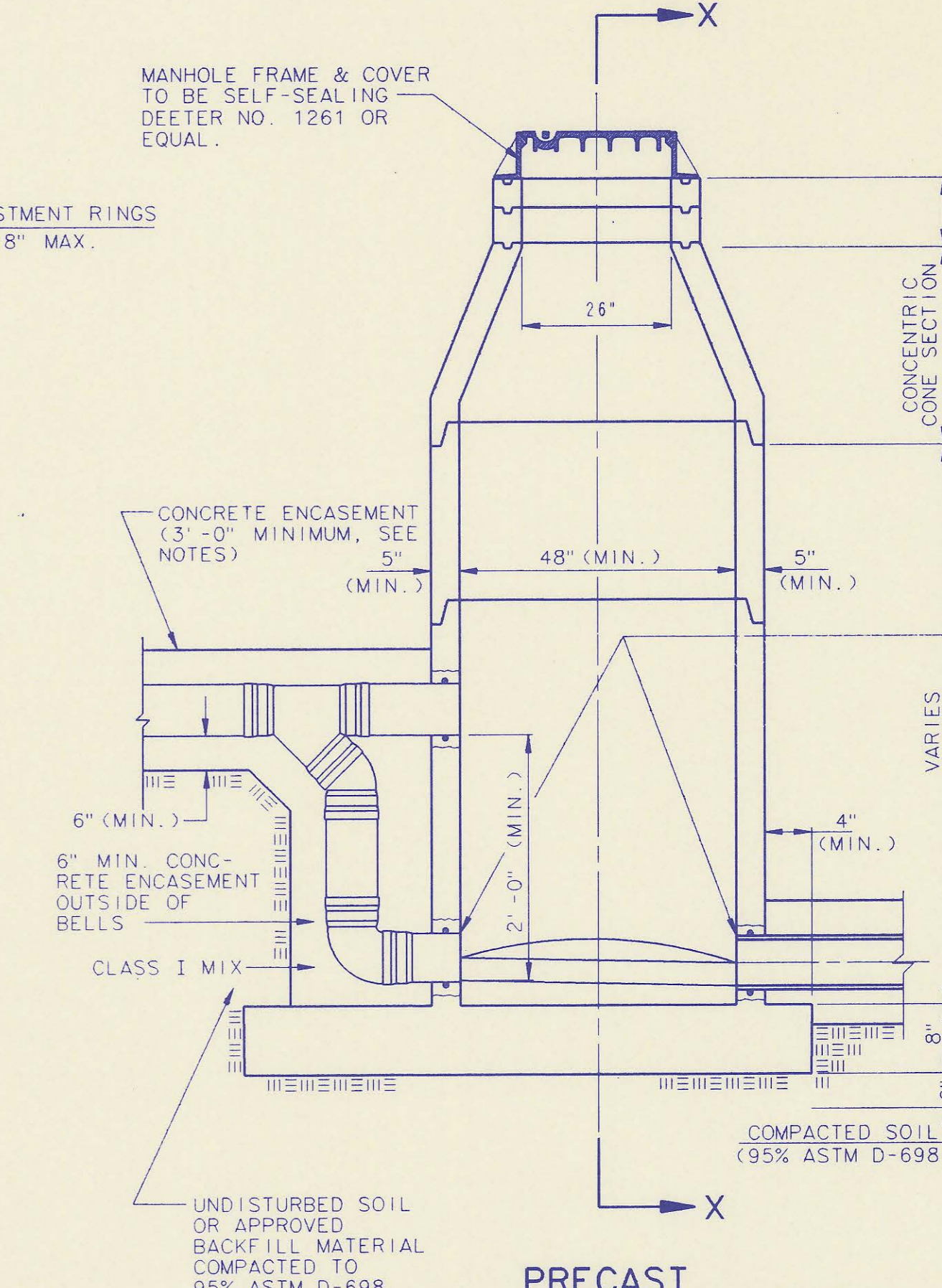
SECTION X (TYPICAL)



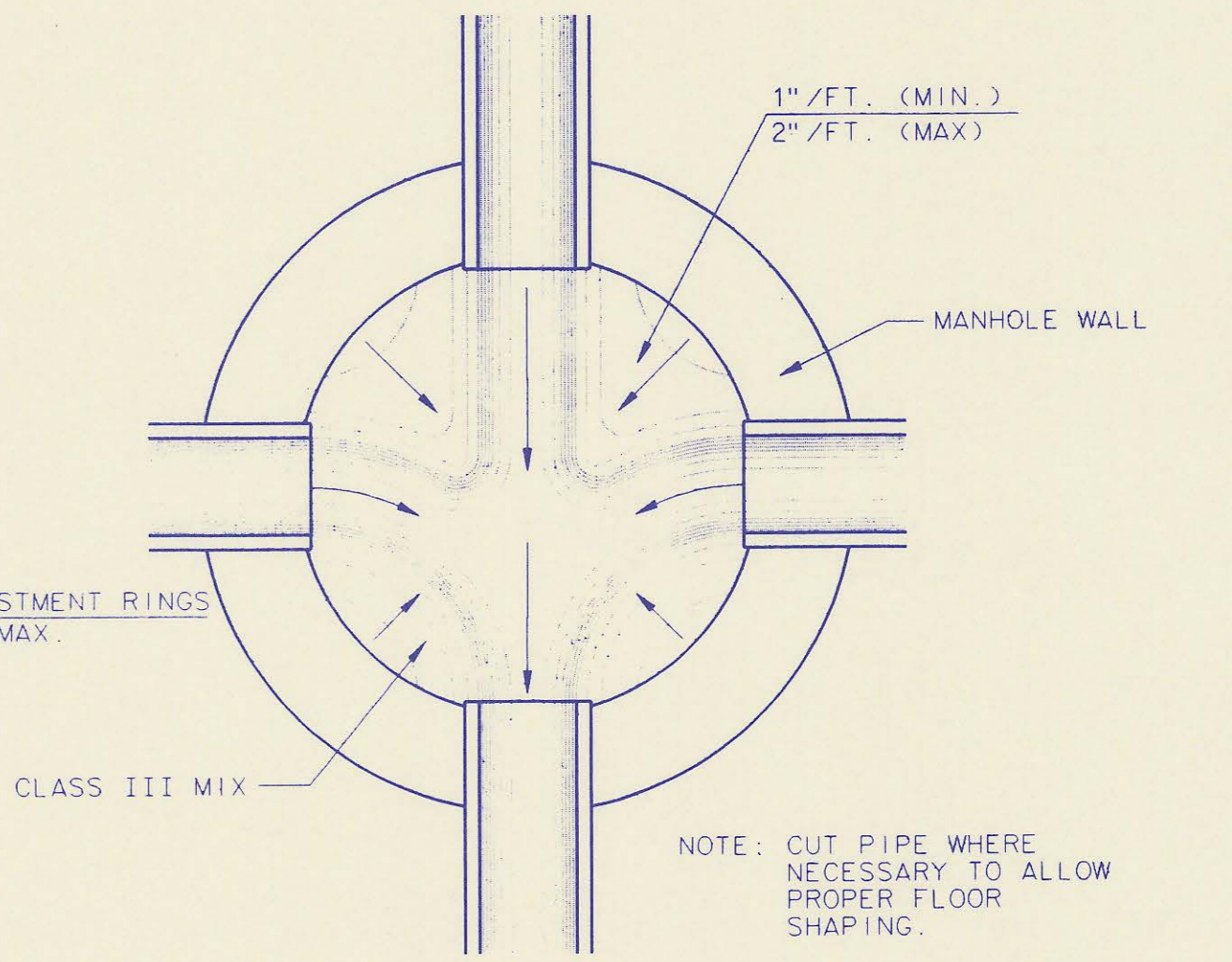
PRECAST INSIDE DROP MANHOLE TYPE "B"



PRECAST SHALLOW MANHOLE TYPE "D"



PRECAST OUTSIDE DROP MANHOLE TYPE "C"

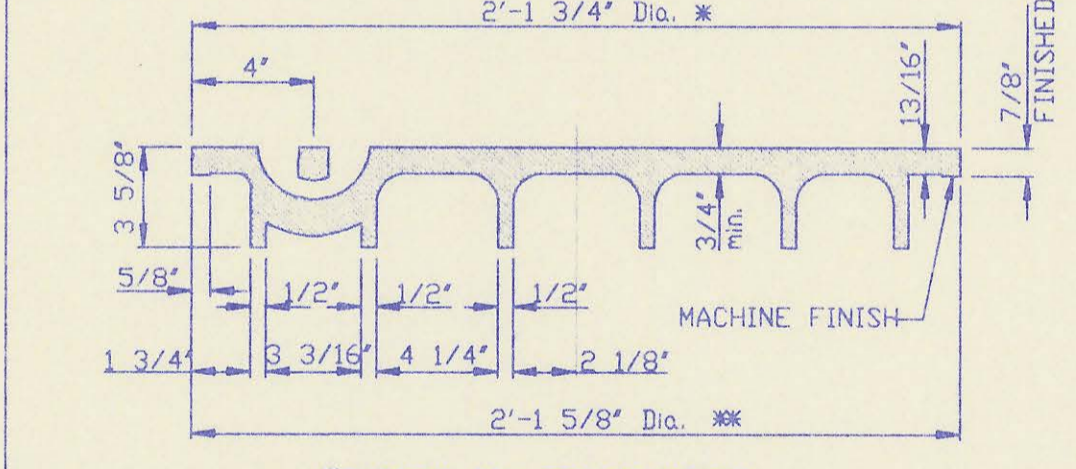
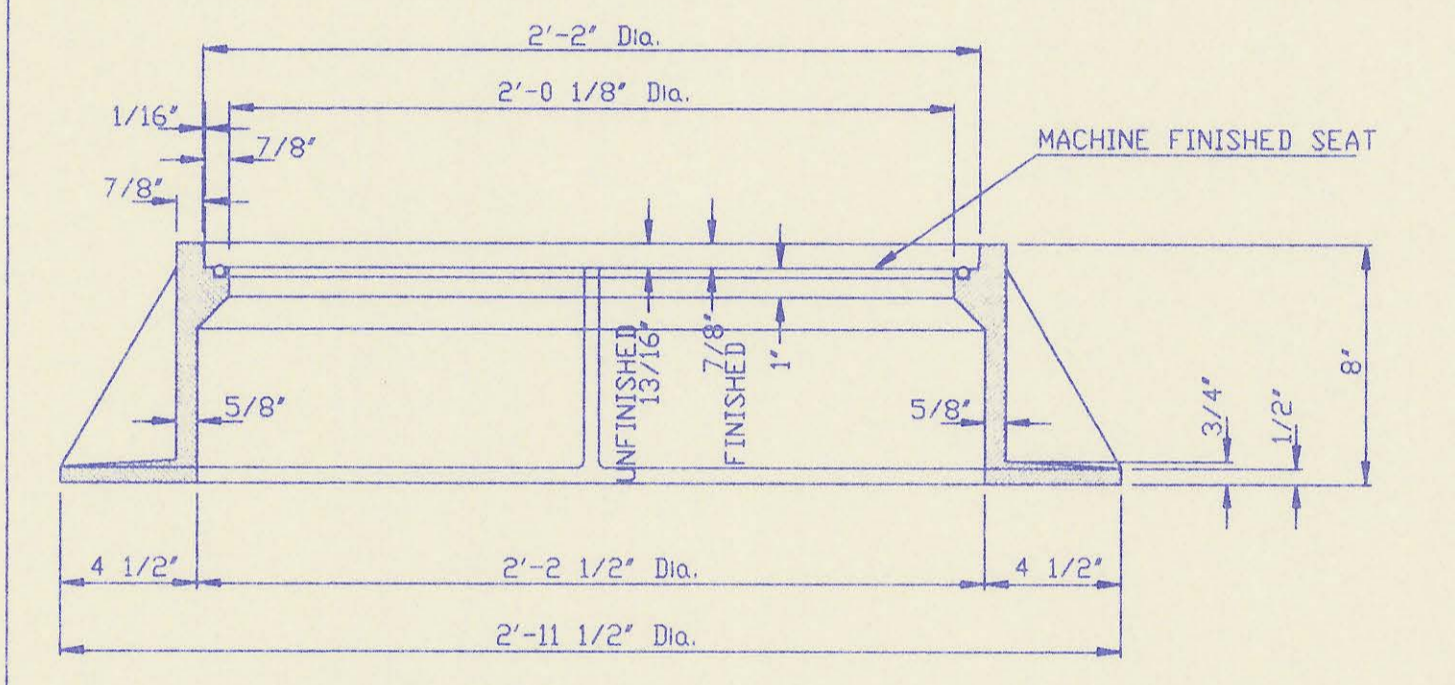
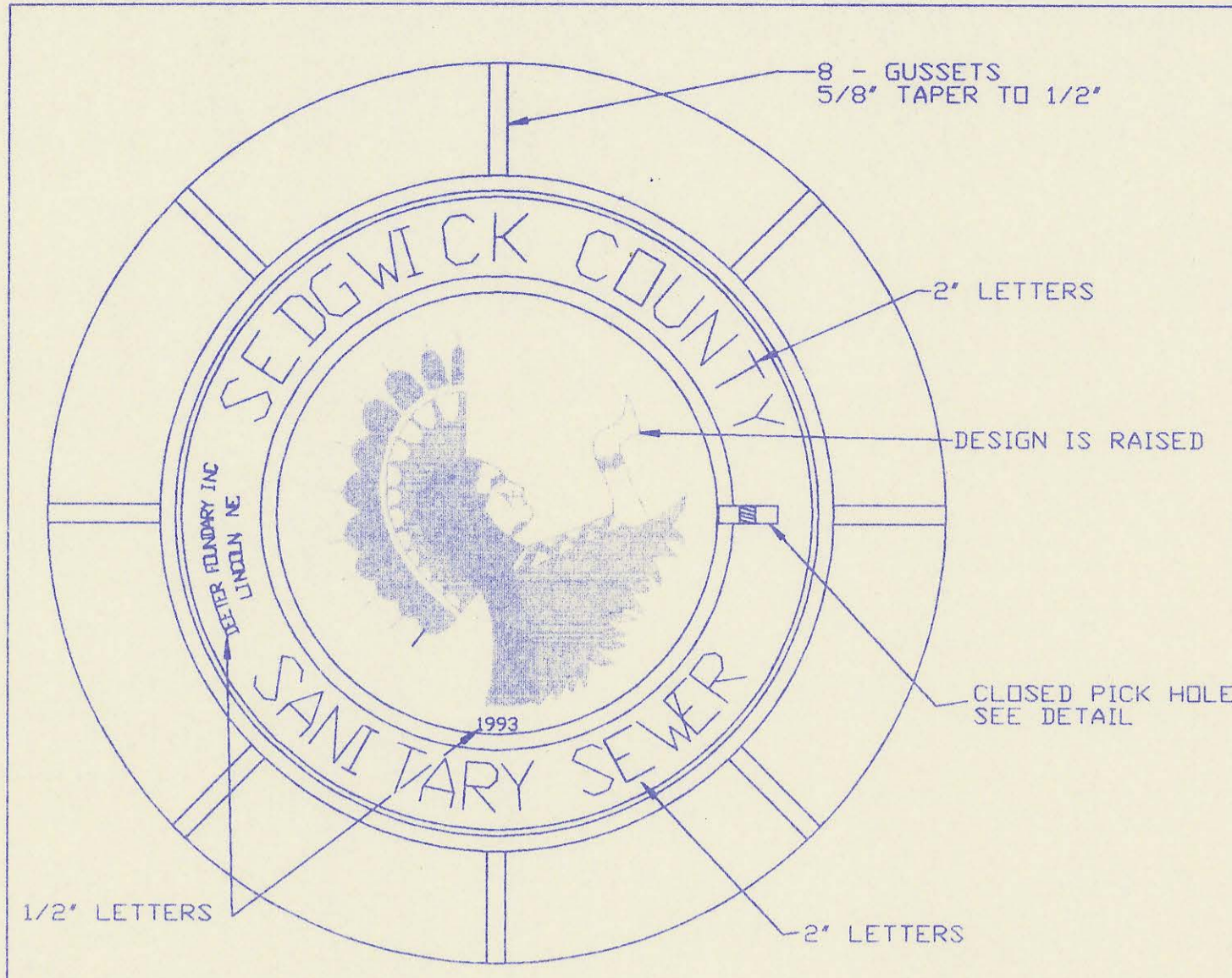


TYPICAL MANHOLE FLOOR SHAPING

- PRECAST MANHOLE NOTES**
1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL OVEREXCAVATE 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 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. GROUTED 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 C-478 AS MODIFIED BY THE SPECIFICATIONS.
 10. WHERE MANHOLE STUBS ARE SHOWN ON THE PLANS, THE STUB SHALL EXTEND TO 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 EYE RECESSES SHALL BE GROUDED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THRU THE MANHOLE WALL WILL NOT BE ACCEPTED.

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

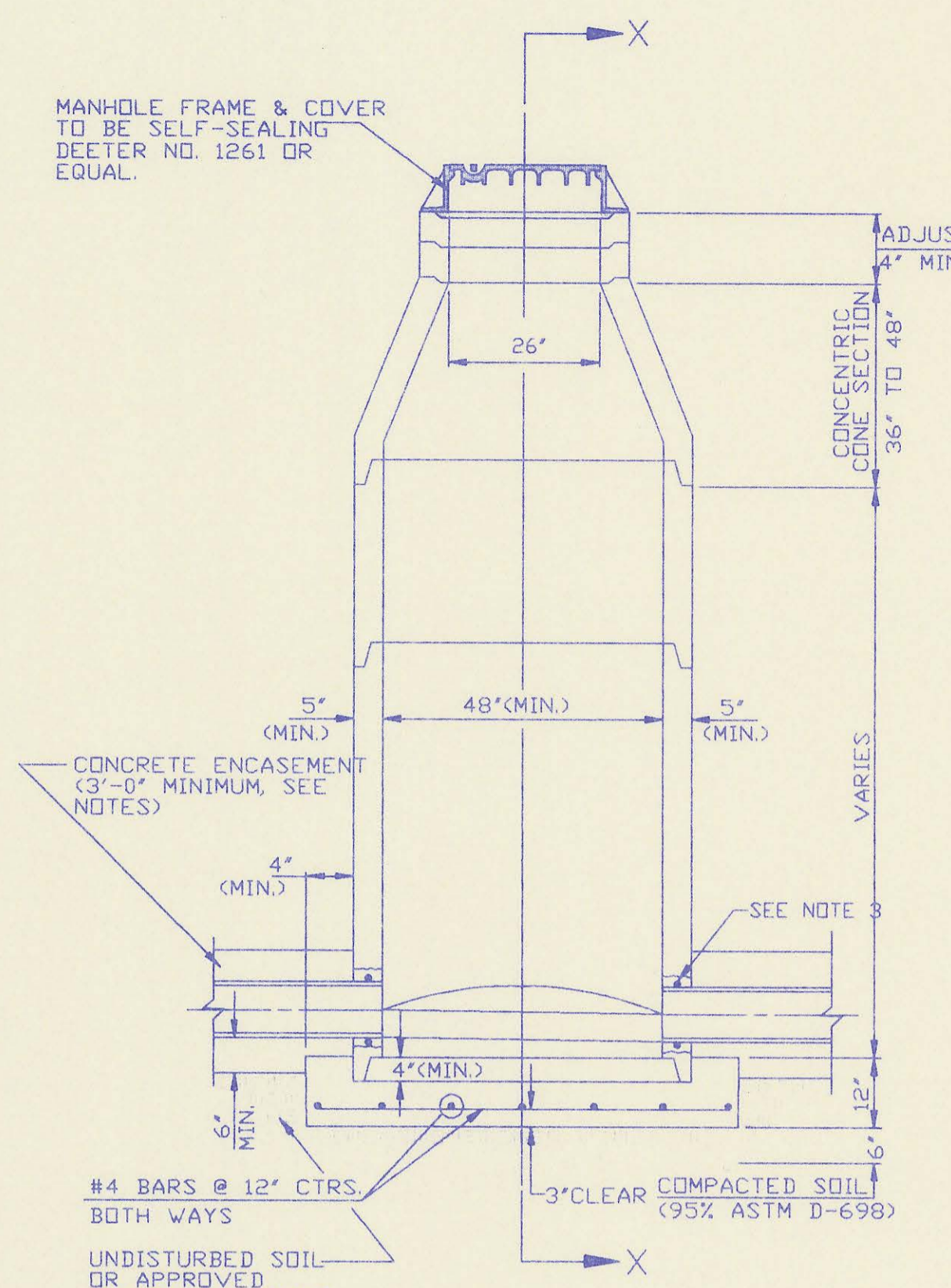
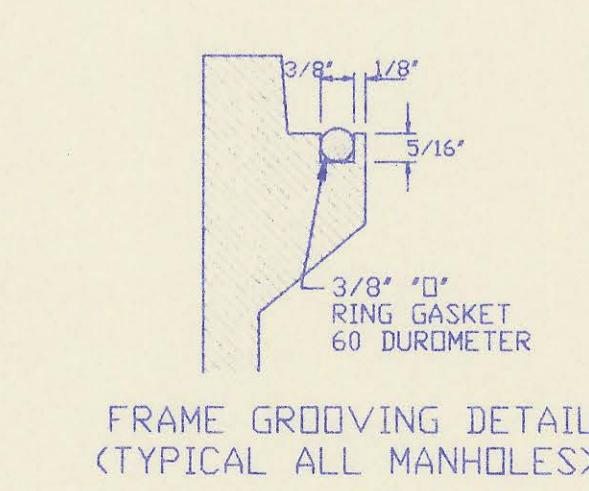
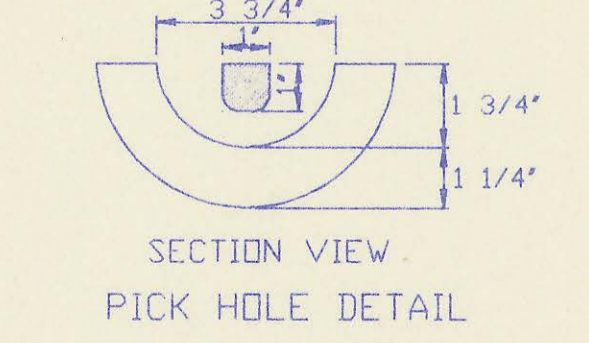
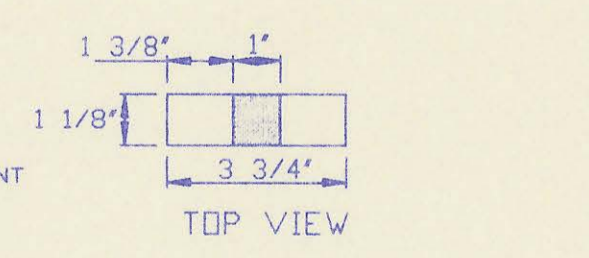
PRECAST MANHOLE DETAILS
ADOPTED AS STANDARD DESIGN SEPTEMBER, 1989
BY
SEDGWICK COUNTY BUREAU OF PUBLIC SERVICES
DAVID C. SPEARS, P.E. DIRECTOR, BUREAU OF PUBLIC SERVICES/COUNTY ENGINEER



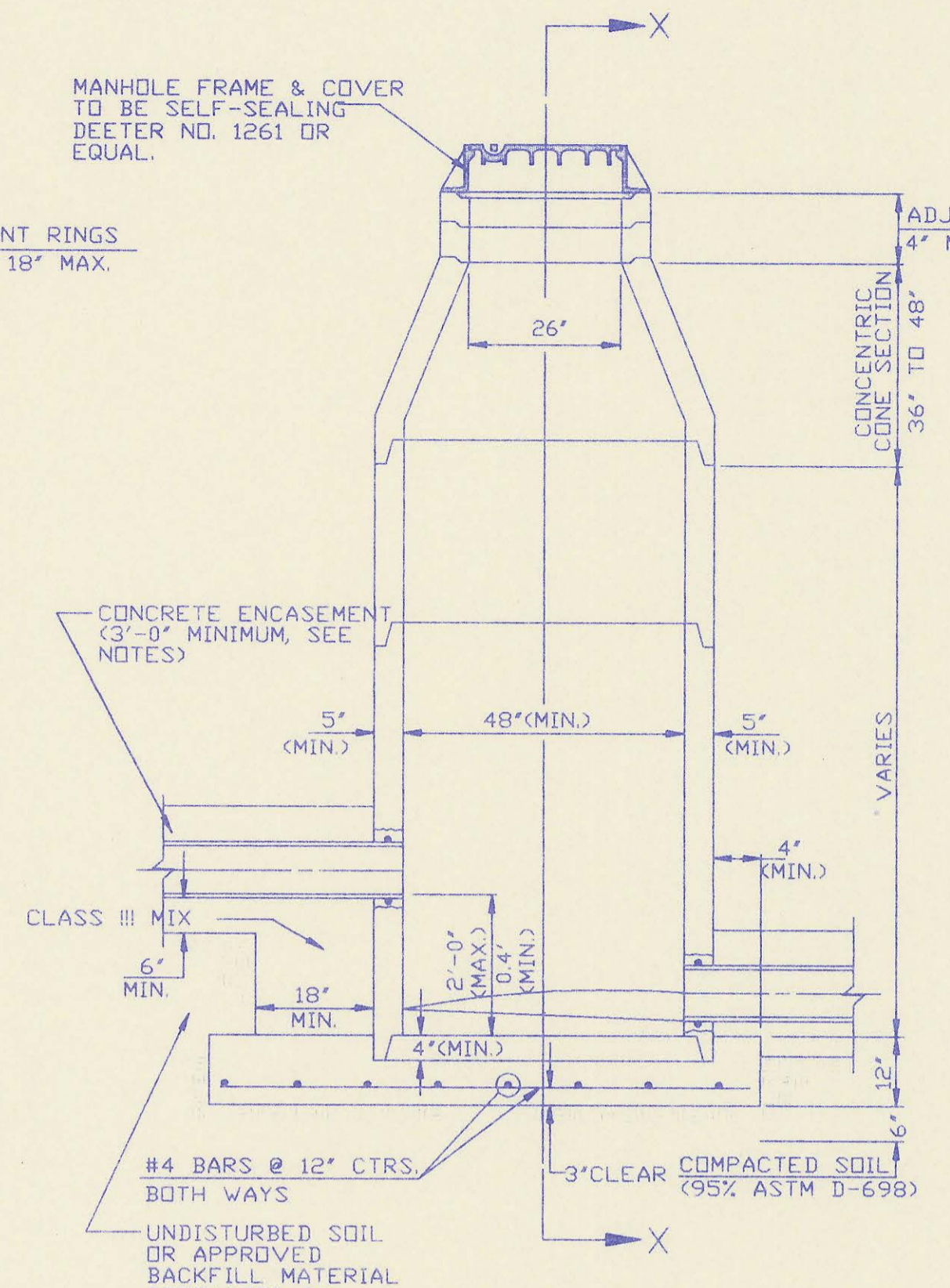
MANHOLE FRAME AND COVER
(TOTAL WEIGHT = 430 LBS.)

MANHOLE FRAME AND COVER NOTES

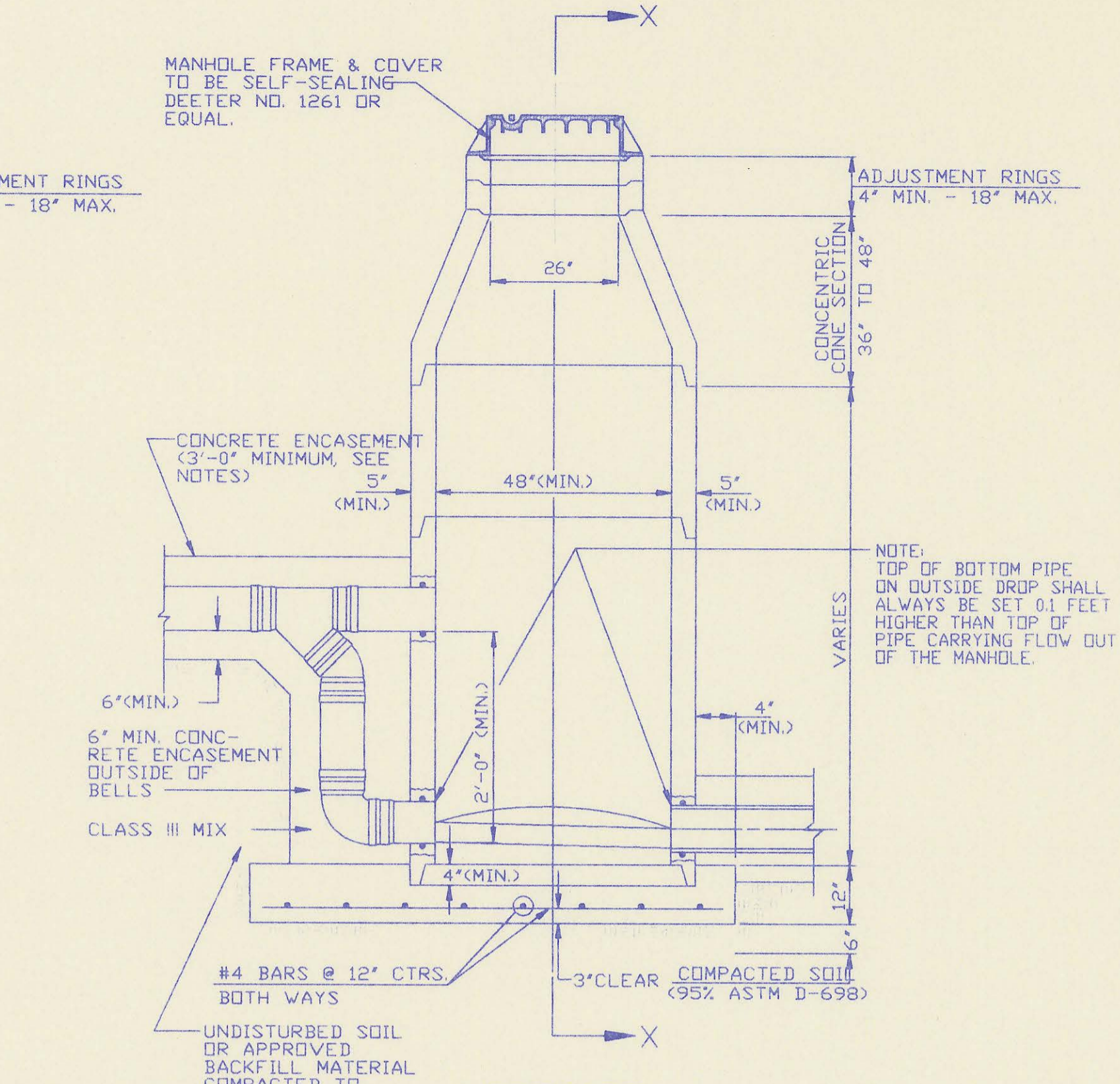
1. CAST IRON MANHOLE FRAME AND COVER SHALL CONFORM TO ASTM A-48, CLASS 35B, OR BETTER.
2. CASTINGS ARE TO BE MANUFACTURED TRUE TO PATTERN AND WITH SATISFACTORY FIT OF COMPONENT PARTS. CASTINGS SHALL BE FREE OF DEFECTS. DIMENSIONS AS DETAILED ON PLAN SHALL NOT DEVIATE BY 1/16" PER FOOT.
3. NO OTHER LETTERING 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 GROVED 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.



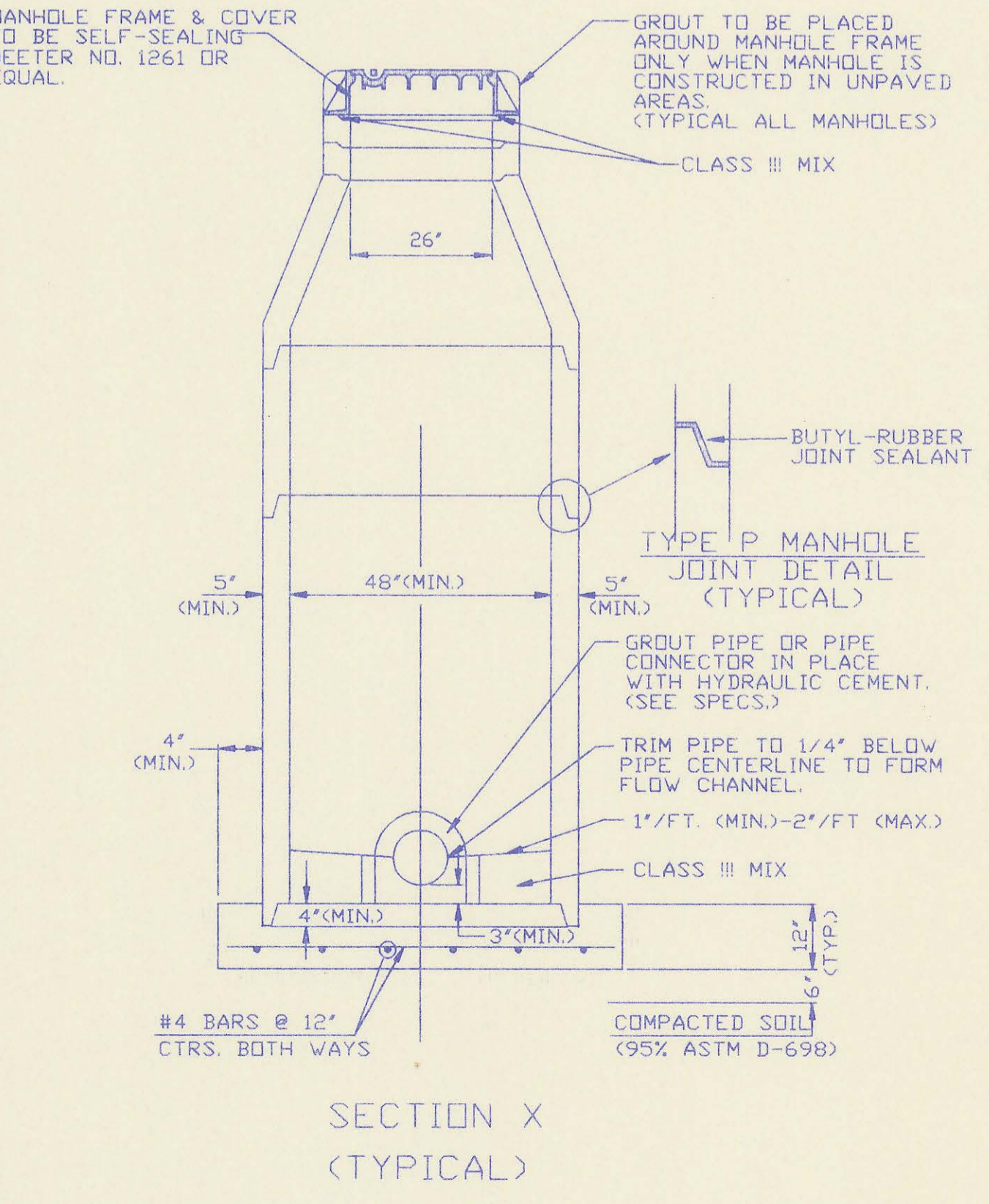
PRECAST STANDARD MANHOLE TYPE "A"



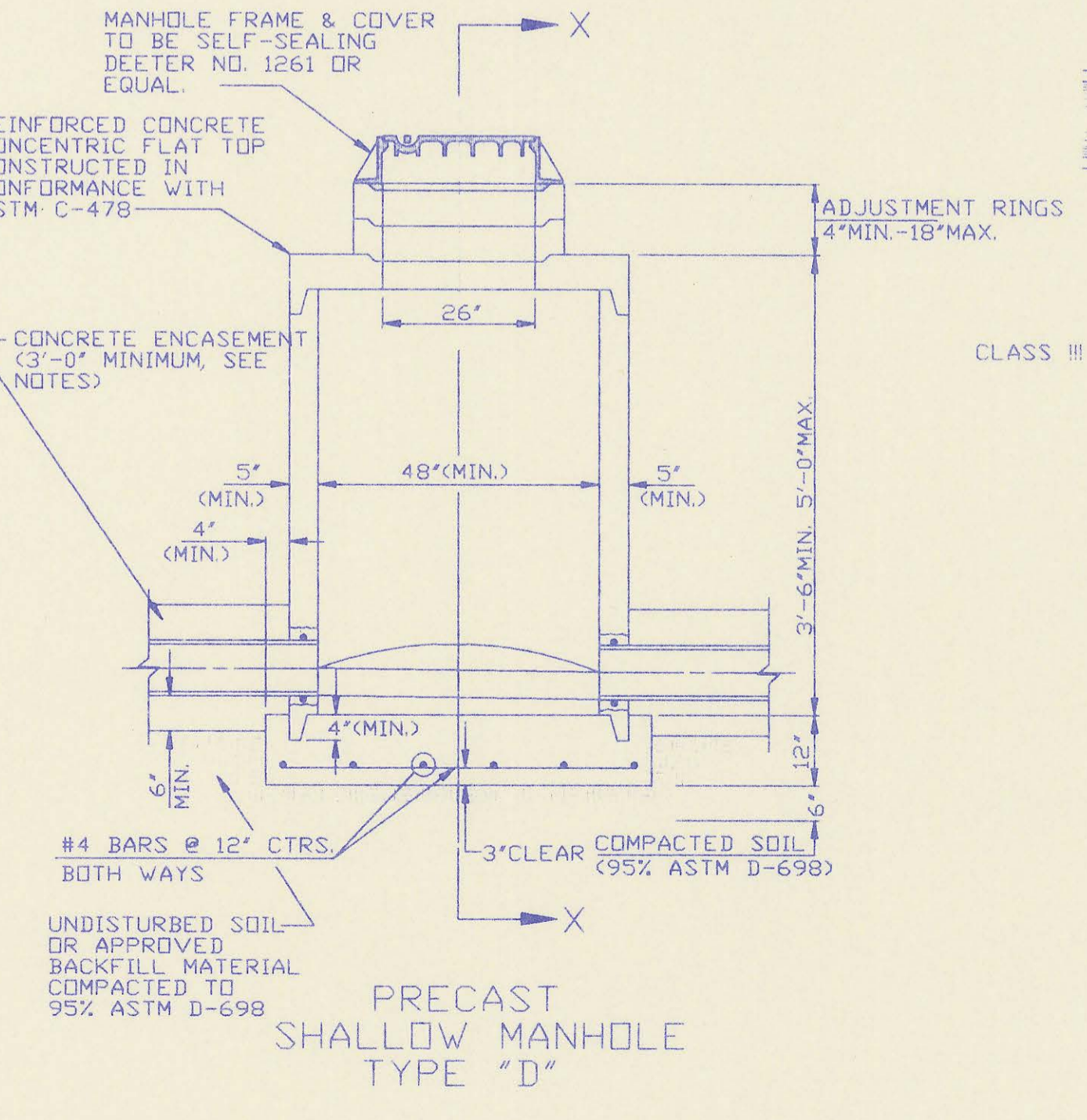
PRECAST INSIDE DROP MANHOLE TYPE "B"



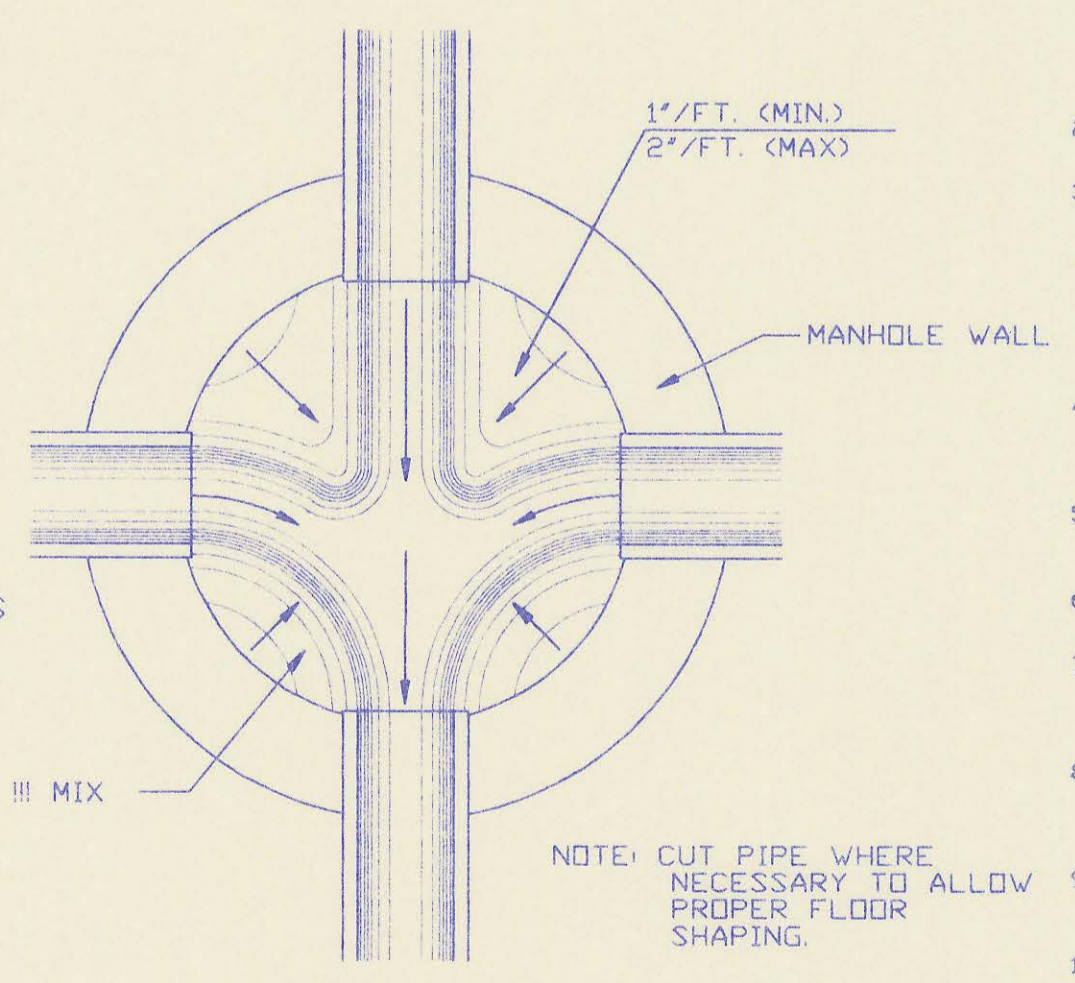
PRECAST OUTSIDE DROP MANHOLE TYPE "C"



SECTION X (TYPICAL)



PRECAST SHALLOW MANHOLE TYPE "D"



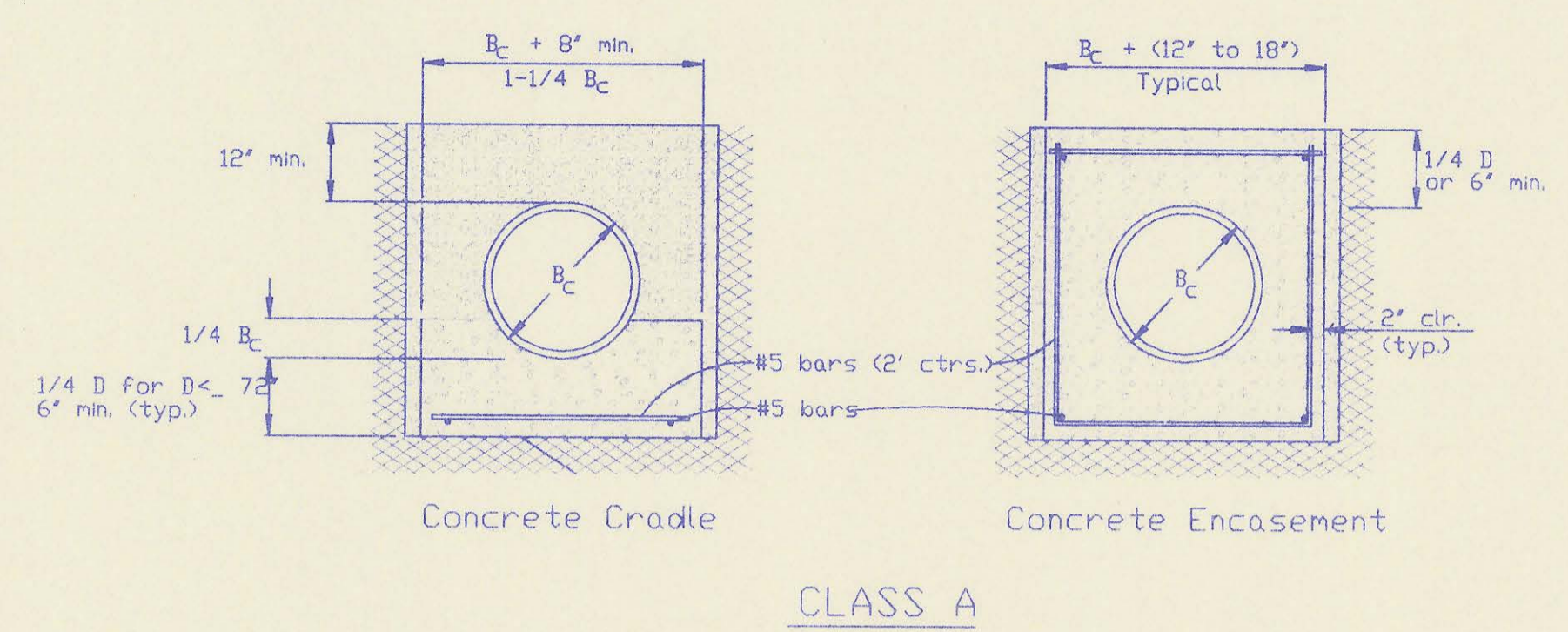
TYPICAL MANHOLE FLOOR SHAPPING

PRECAST MANHOLE NOTES

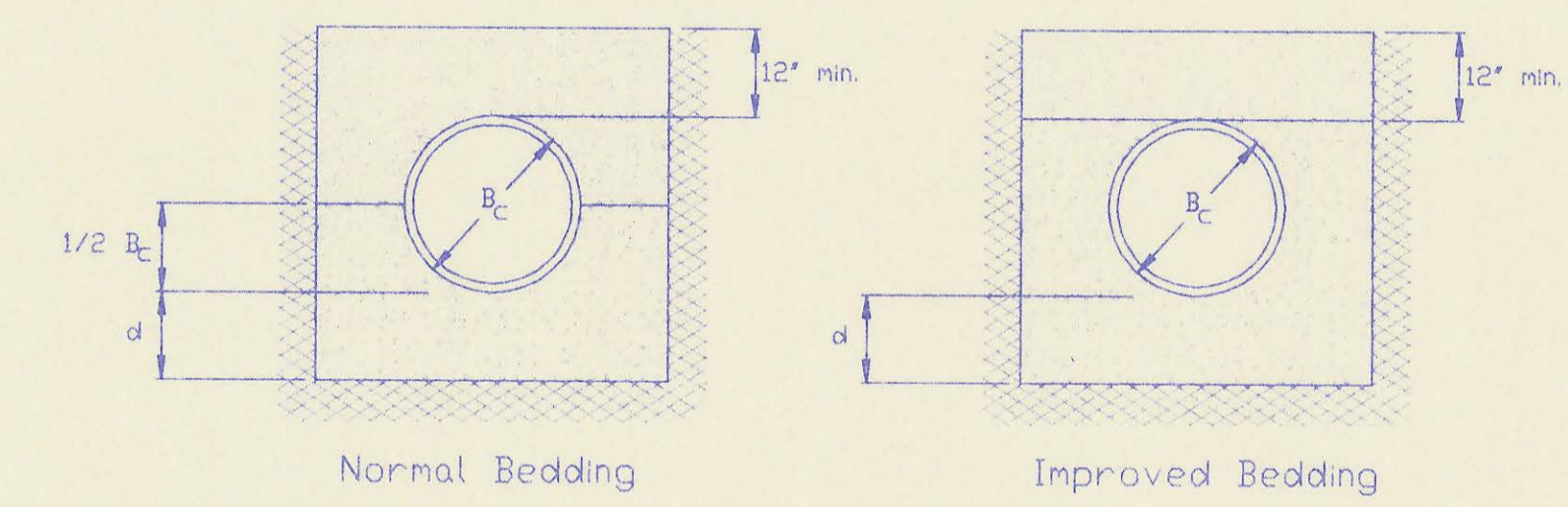
1. IF IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
3. APPROVED FLEXIBLE WATERSTOP GASKETS WHICH MEET OR EXCEED THE TEST REQUIREMENTS OF ASTM C-903 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, GLOUED 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 C-478 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 INSIDE 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

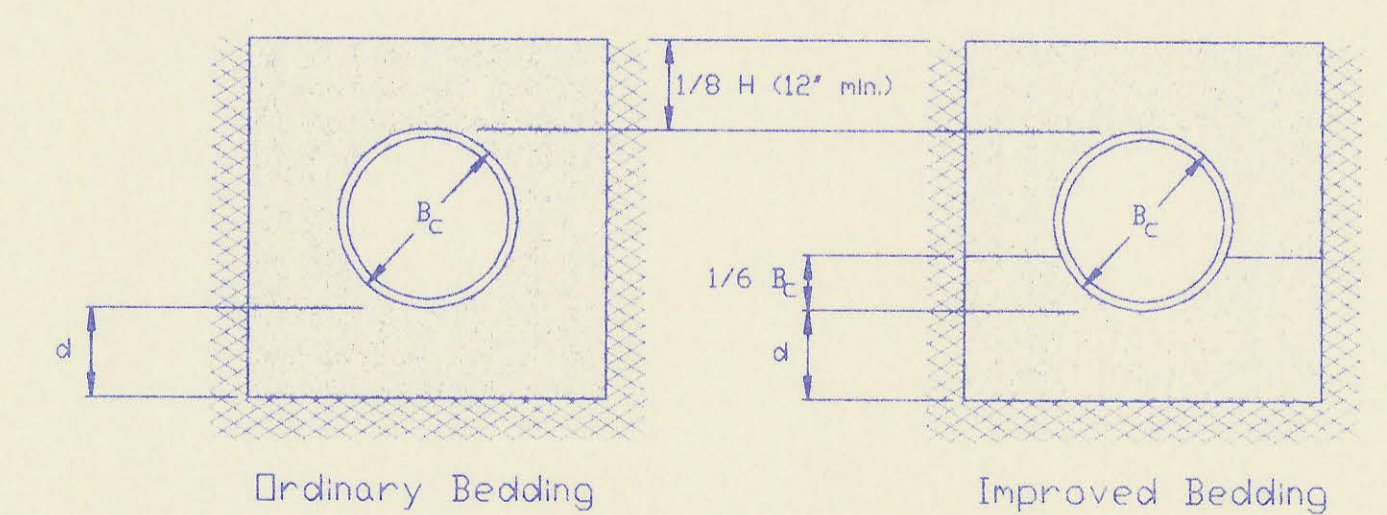
PRECAST MANHOLE DETAILS
ADOPTED AS STANDARD DESIGN SEPTEMBER, 1989
BY
SEDGWICK COUNTY BUREAU OF PUBLIC SERVICES
DAVID C. SPEARS, P.E. DIRECTOR, BUREAU OF PUBLIC SERVICES/COUNTY ENGINEER



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.

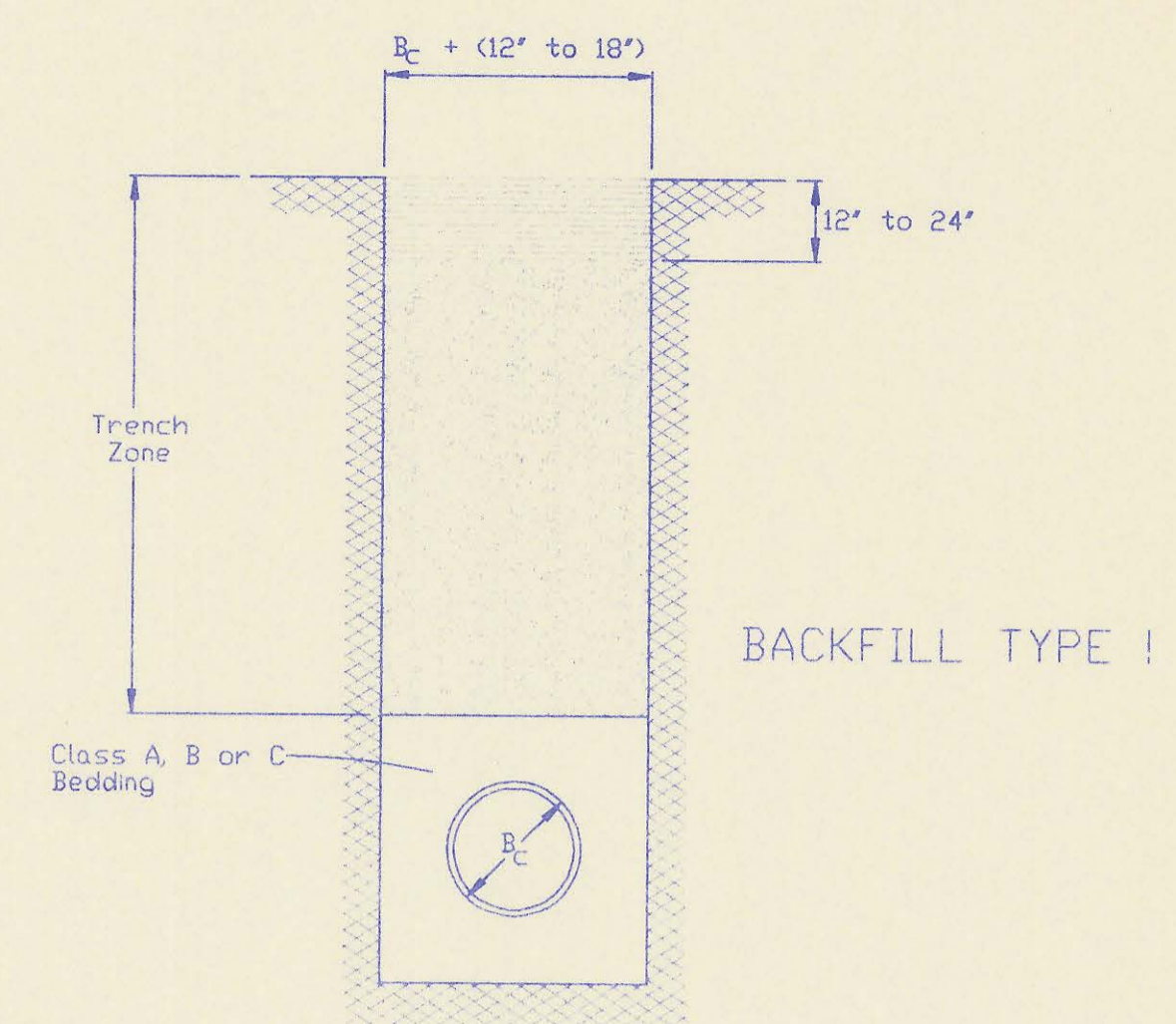
Class A "Concrete Cradle" and/or Class A "Concrete Encasement" is not required unless specified on the plans. However, where unexpected trench conditions exist or improper trenching is performed Class A Bedding may be required as determined by the Engineer.

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).



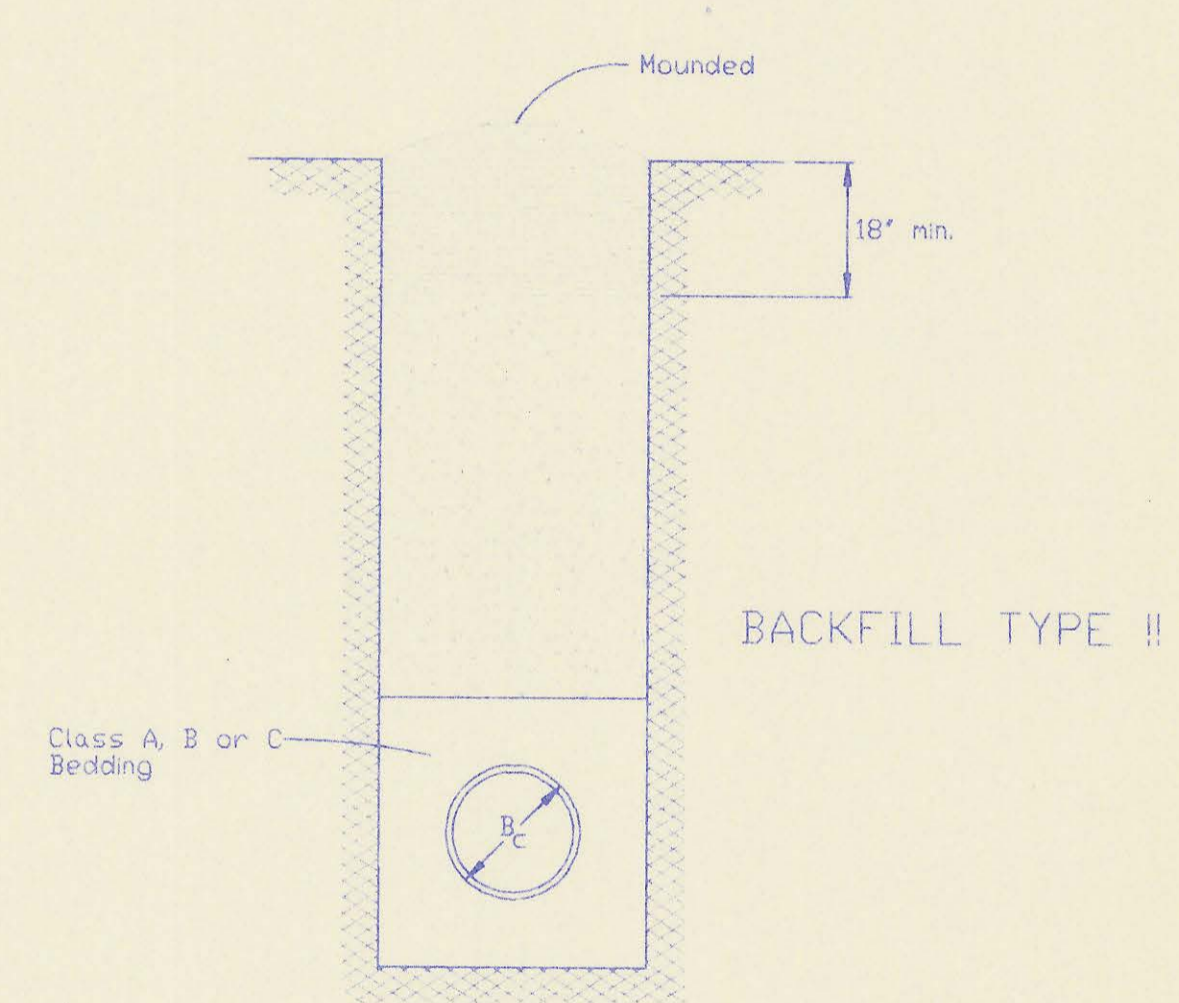
BACKFILL TYPE I

- 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.



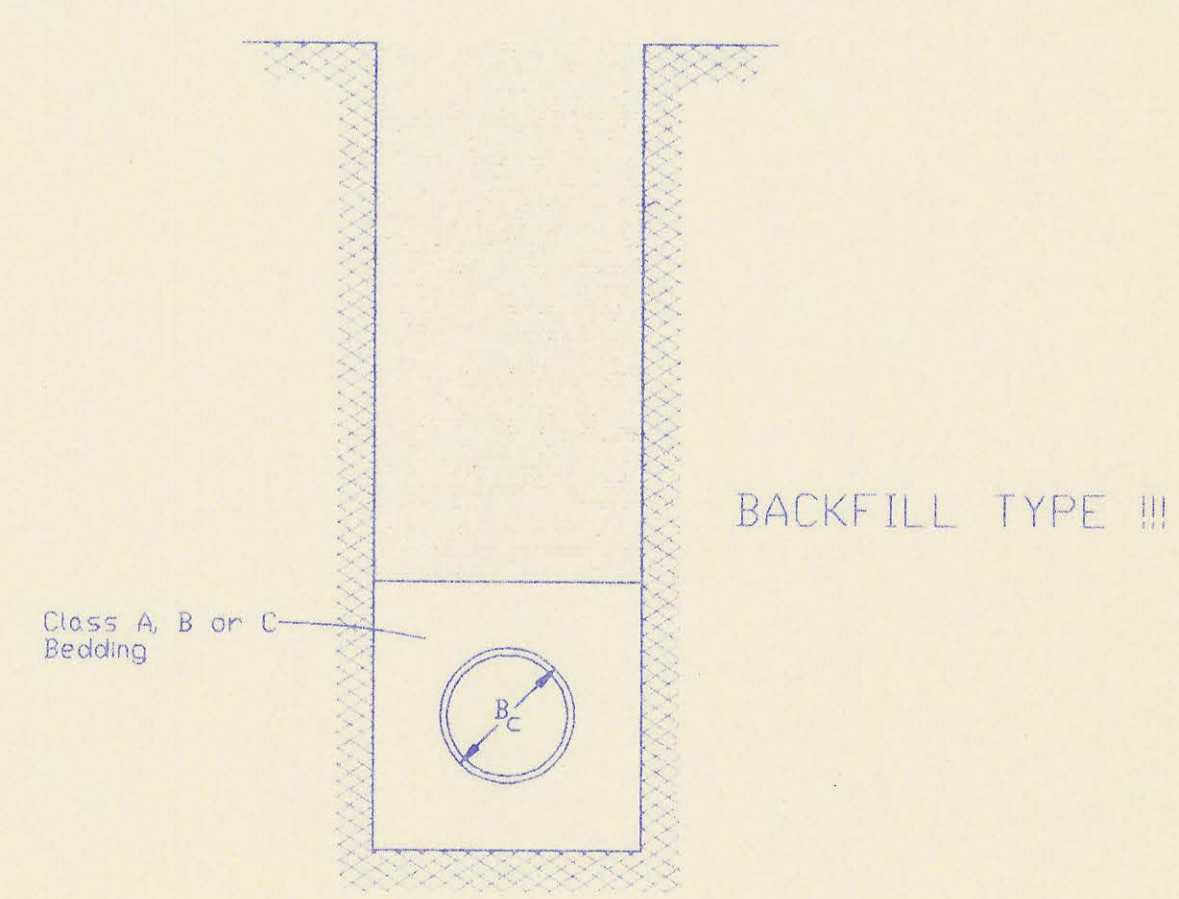
BACKFILL TYPE II

Backfill Backfill material and compaction requirements shall conform to either Type I, Type II or Type III as specified in the plans. One years 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
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			

ESTATES AT BELLE TERRE

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, "ESTATES AT BELLE TERRE", 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 007'25" W along the east line of said N.E. 1/4, 793.74 feet for a point of beginning; 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, 287.64 feet; thence S 56°53'41" W, 429.77 feet; thence S 30°13'27" E, 185.87 feet; thence S 01°49'37" E, 349.73 feet; thence S 13°02'36" E, 384.49 feet; thence S 00° 01'34" E, 205 feet to a point on the south line of said N.E. 1/4; thence N 89°58'26" E, 1048.43 feet to the S.E. Corner of said N.E. 1/4; thence N 00°12'56" E, 1863.91 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
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, a Block, and Reserves to be known as "ESTATES AT BELLE TERRE", Sedgwick County, Kansas. Reserve "A", is hereby reserved for floodway, lakes, drainage, parks, sidewalks, landscaping, gazebos, recreation building facility, swimming pool, tennis courts, basketball courts, and utility purposes confined to easements as shown. All uses defined for Reserve "A" shall be approved by the appropriate governing body. Reserves "B" and "C" are hereby reserved for private streets, drainage, and utility purposes. Reserve "D" is hereby reserved for streets, guard house, landscaping, and utility purposes. Reserves "E" and "F" are hereby reserved for entry monuments, sidewalks, landscaping, and utility purposes confined to easements as shown. Reserve "G" is hereby reserved for sidewalks, landscaping, and utility purposes confined to easements as shown. Reserve "H" is hereby reserved for streets, water features, and utility purposes. Reserves "A", "B", "C", "D", "E", "F", "G", and "H" 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 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. 159th Street East is hereby dedicated to and for the use of the public. All abutters rights of access to or from 159th Street East over and across the east line of Lot 1, 9, 10, 11, 12, 13, and over and across the east line of Reserve "E" and Reserve "F" 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.

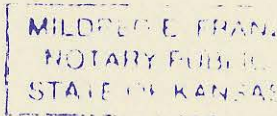
Downing Development Company, L.L.C.

Gregory C. Downing
Gregory C. Downing
President

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
Mildred E. Franz
Notary Public

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

Prairie State Bank

Randall D. Craven
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
Mildred E. Franz
Notary Public

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

Dated this 25th day of February 1993,
Wichita-Sedgwick County Metropolitan Area
Planning Commission.



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

This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this 20th day of April 1993.



Elma Broadfoot
Elma Broadfoot
Mayor

Pat Burnett
Pat Burnett
City Clerk
DEPUTY

Scale: 1" = 100'
● = 1/2" Rebar w/ "Baughman Cap" (set)
○ = NAIL IN CAP (SET - W. SIDE OF TREE)

Lot & Block	Elevation	
	City Datum	M.S.L.
1, 2, 3, 4, - BLK 1	123.6	1311.0
5 - BLK 1	120.6	1308.0
6 - BLK 1	118.6	1307.0
7, 8 - BLK 1	118.6	1306.0

This plat approved and all dedications shown hereon accepted by the board of Commissioners of Sedgwick County, Kansas, this 19th day of May 1993.

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



Entered on transfer record this 24th day of May 1993.

Susan E. Crockett-Spoon
Susan E. Crockett-Spoon
County Clerk

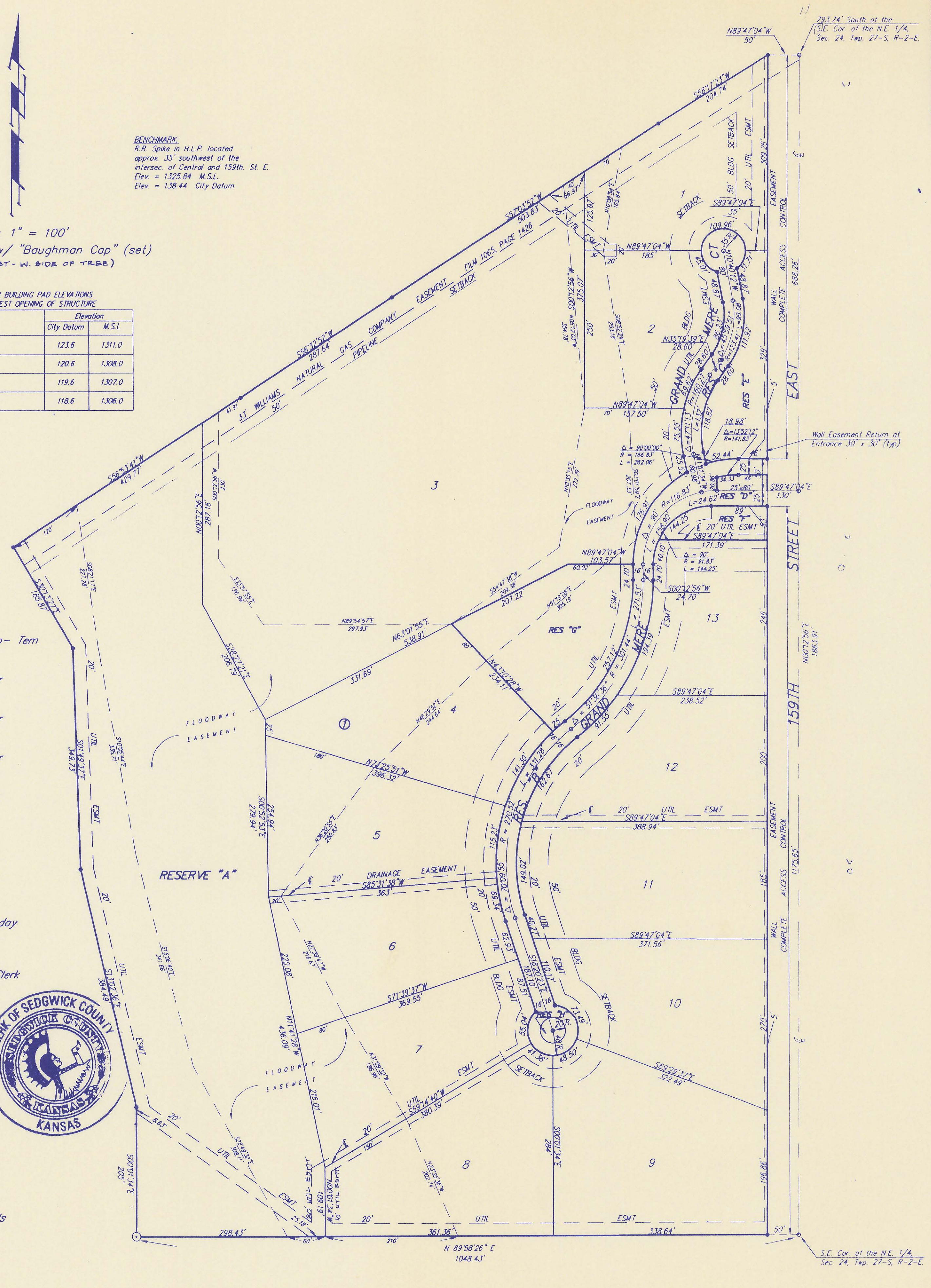
1291480

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 24th day of MAY 1993, at 3:30 o'clock P.M. and is duly recorded.

Pat Kettler
Pat Kettler
Register of Deeds

Ed Resa
Ed Resa
Deputy



20.00
at