

Improvement District

# LATERAL 284, S.W.I.

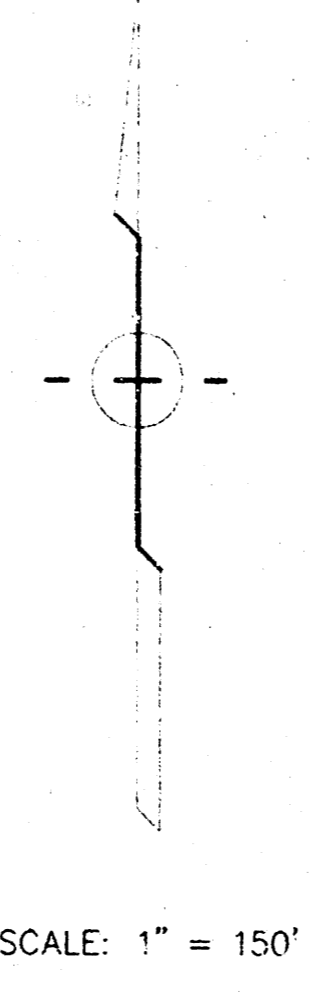
To Serve

## TIMBER RIDGE ADDITION

Project No.

### 468-76-245-81962-000-000-001

CITY OF WICHITA, KANSAS  
 Michael E. Lindebak City Engineer



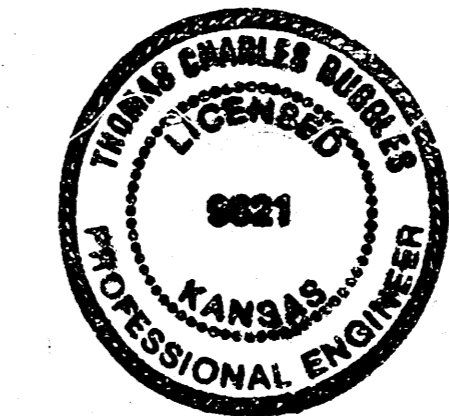
### General Notes

1. 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.
2. 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 on 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 permit regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.
3. The Engineer shall take field ties to all quarter section corners. The Contractor shall set a City survey monument in the required location where such quarter section corners fall within the limits of pavement construction. Survey monuments will be furnished by the City. The Engineer will accurately locate and install the iron at the quarter section corner. This work will not be paid for directly, but shall be considered subsidiary to the other pay items of work in the contract.
4. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
5. The Contractor shall grade the sanitary sewer alignment to the profile and elevation shown on the Easement Grading Plan. All costs for grading shall be subsidiary to the project.

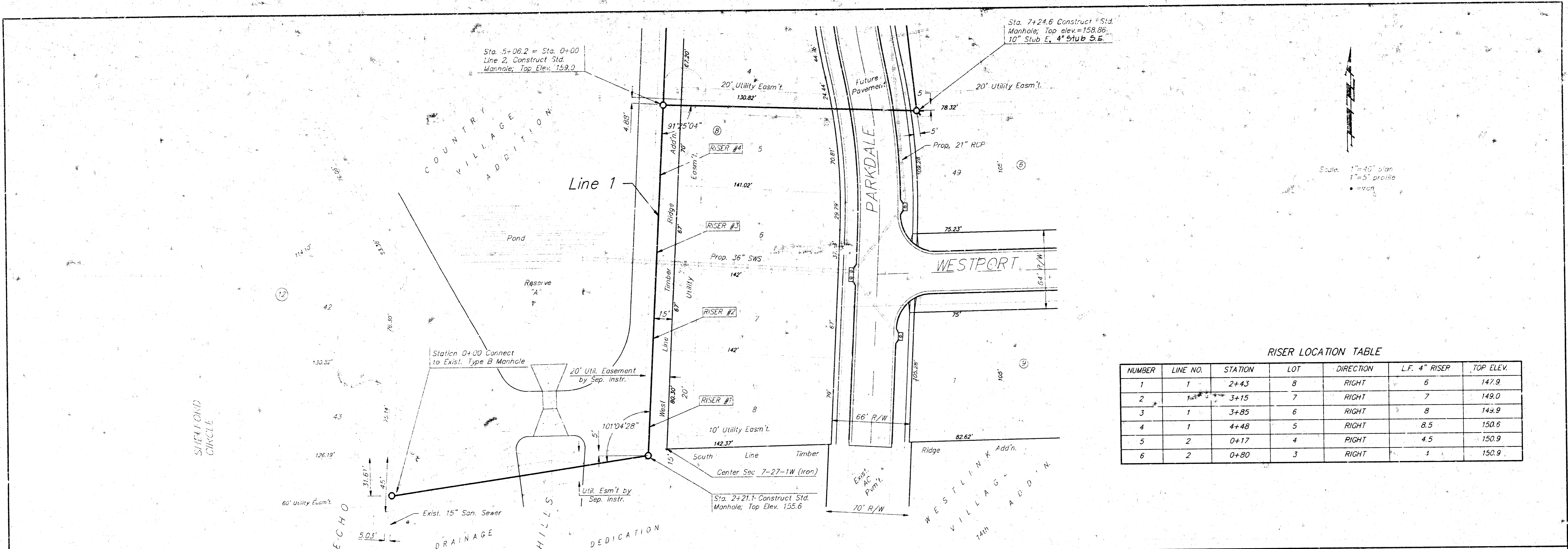
### Index

- |   |                                      |
|---|--------------------------------------|
| 1 | Title & Improvement District         |
| 2 | Line 1                               |
| 3 | Line 1, Line 1A and Line 1B          |
| 4 | Line 1, Line 1C, Line 1D and Line 1E |
| 5 | Line 2 and Line 2A                   |
| 6 | Standard Manhole Detail              |
| 7 | Cleanout Riser Detail                |
| 8 | Vertical Riser Detail                |
| 9 | Easement Grading Plan                |

BENCH MARKS:  
 #1 R.R. Spike in HLP Parkdale and 21st, 16.5' North and 131.6' East of G. Both; Elevation = 164.46 City Datum  
 #2 R.R. Spike in HLP Prescott Cir. and 21st, 52.5' North and 150.0' East of G. Both; Elevation = 167.73 City Datum  
 #3 R.R. Spike in HLP 55.0' North of N. 1/4 Corner 7-27 1W; Elevation = 167.30 City Datum  
 #4 " Cut Top Curb 14.5' South and 15' West S.W. Corner Lot 19, Blk. 1; Elevation = 163.95 City Datum  
 #5 " Cut Top Curb 11.0' South and 1.5' West of S.W. Corner Lot 1, Blk. 9; Elevation = 128.23 City Datum

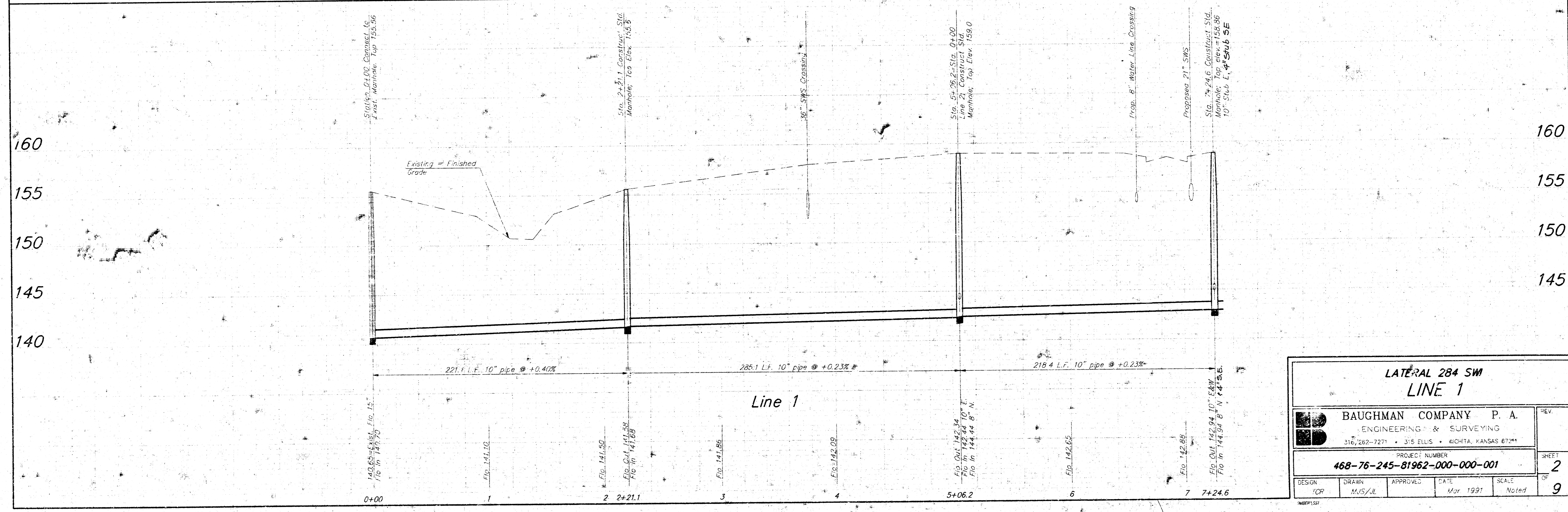


Booked 3-20-76 JKB  
 Revised 5-1-91; Added Bench Marks TCR  
**BAUGHMAN COMPANY P. A.**  
 ENGINEERING & SURVEYING  
 April 3, 1991



RISER LOCATION TABLE

NUMBER	LINE NO.	STATION	LOT	DIRECTION	L.F. 4" RISER	TOP ELEV.
1	1	2+43	8	RIGHT	6	147.9
2	1	3+15	7	RIGHT	7	149.0
3	1	3+85	6	RIGHT	8	149.9
4	1	4+48	5	RIGHT	8.5	150.6
5	2	0+17	4	RIGHT	4.5	150.9
6	2	0+80	3	RIGHT	4	150.9



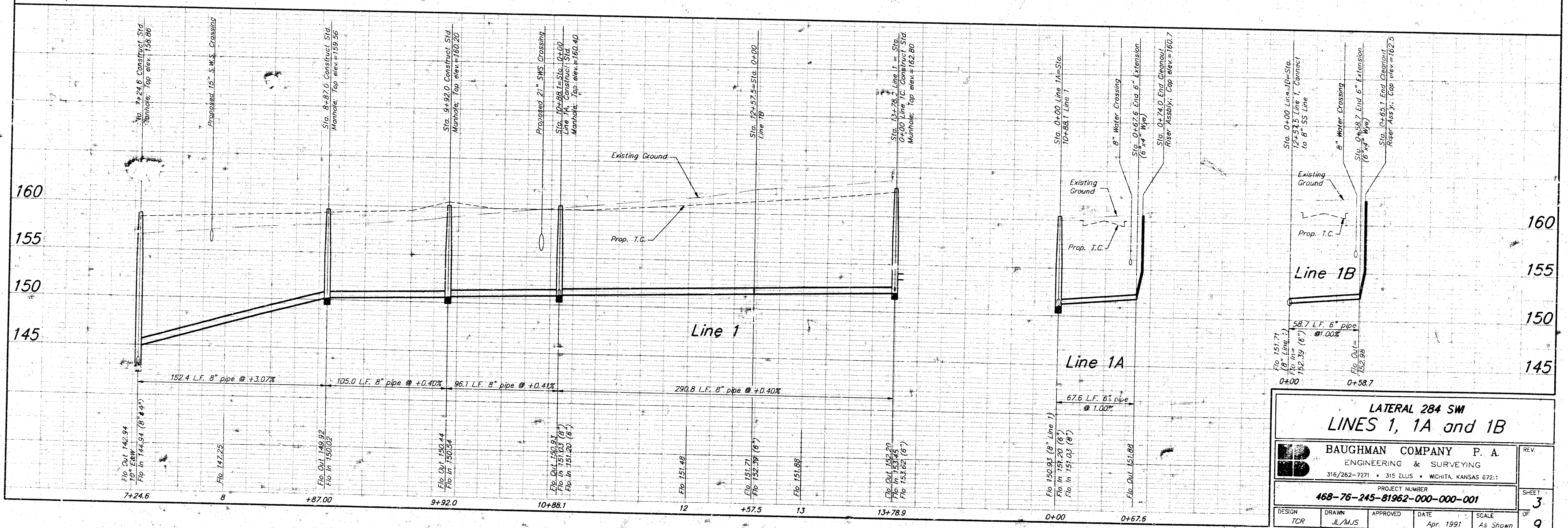
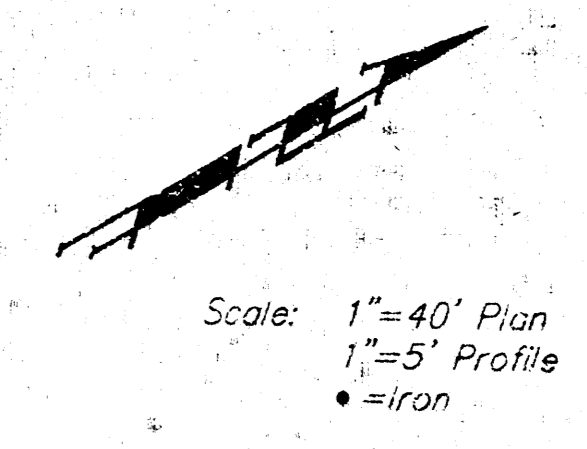
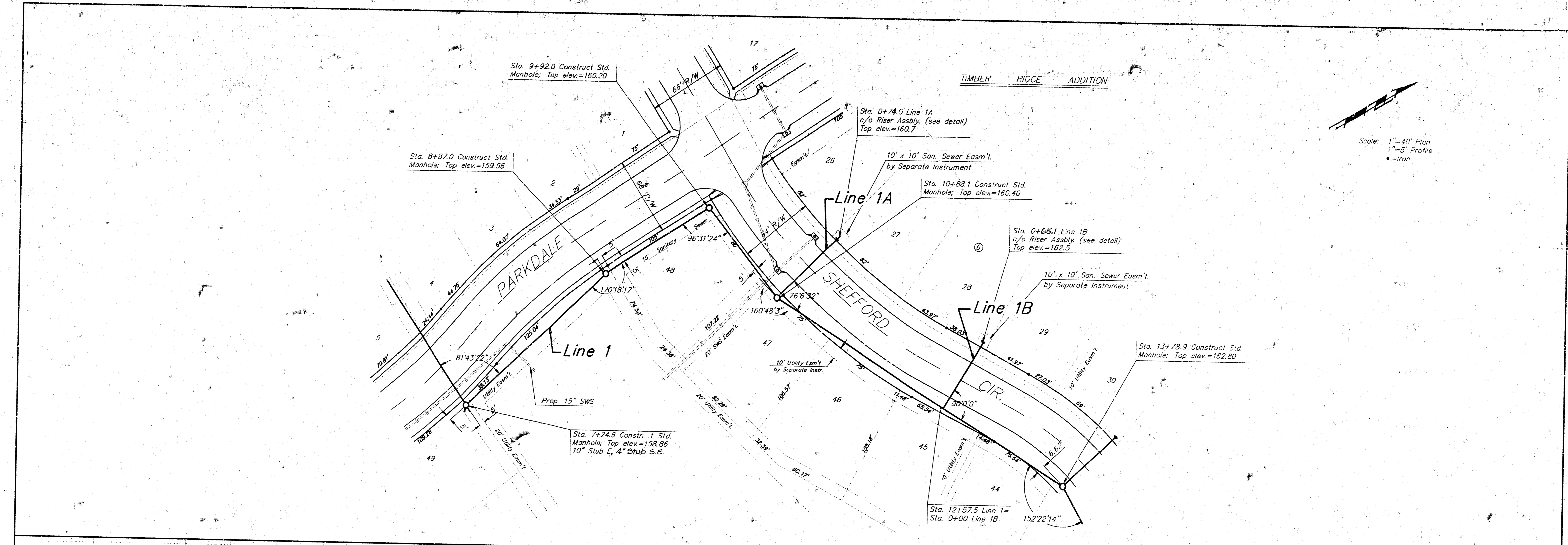
**LATERAL 284 SW  
LINE 1**

**BAUGHMAN COMPANY P. A.**  
ENGINEERING & SURVEYING  
316,262-7271 • 315 ELLIS • WICHITA, KANSAS 67214

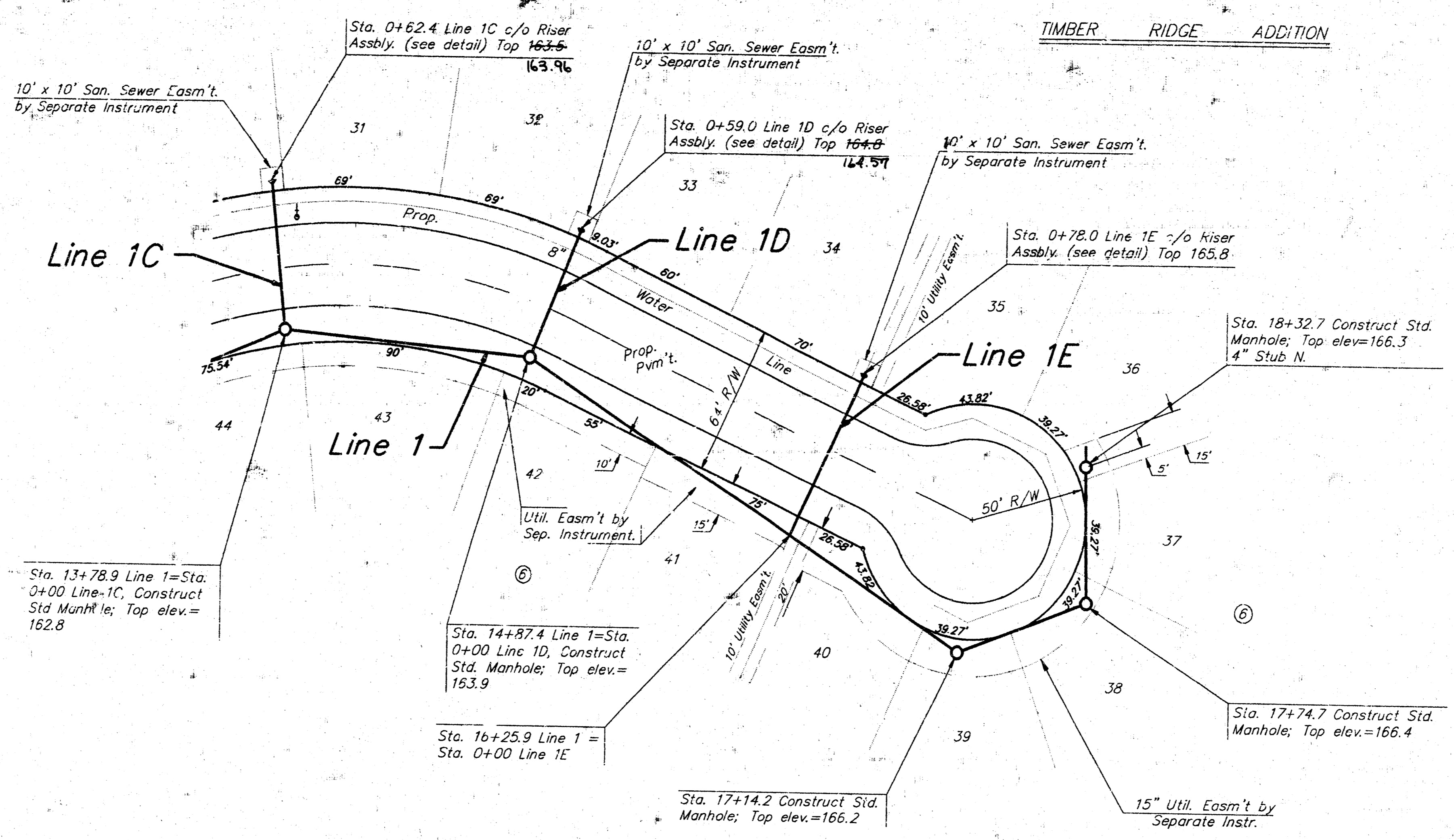
PROJECT NUMBER  
**468-76-245-81962-000-000-001**

DESIGN FOR	DRAWN MUS/LL	APPROVED	DATE Mar 1991	SCALE Noted
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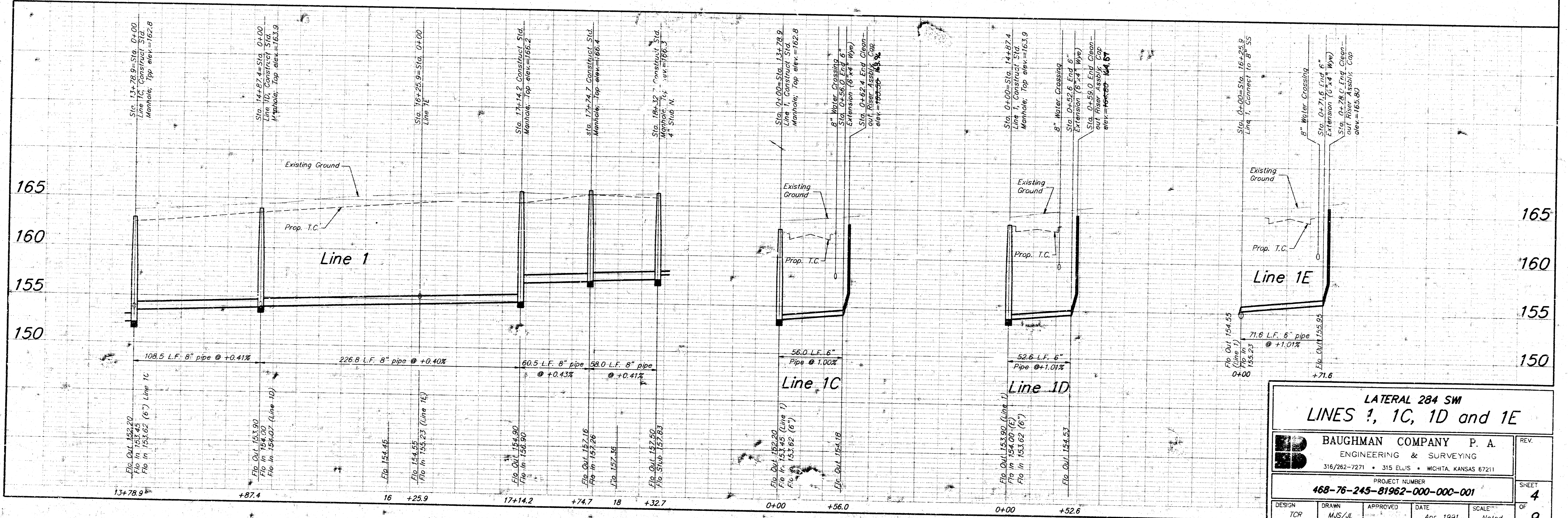
REV. SHEET OF  
2 9



LATERAL 284 SW LINES 1, 1A and 1B					
BAUGHMAN COMPANY P. A. ENGINEERING & SURVEYING 316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211					
PROJECT NUMBER 468-76-245-81962-000-000-001					
DESIGN TCR	DRAWN JL/MJS	APPROVED	DATE Apr. 1991	SCALE As Shown	REV 3 OF 9



Scale: 1"=40' Plan  
1"=5' Profile  
• = iron



**LATERAL 284 SW  
LINES 1, 1C, 1D and 1E**

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

PROJECT NUMBER  
**468-76-245-81962-000-000-001**

DESIGN TCR	DRAWN MJS/JL	APPROVED	DATE Apr. 1991	SCALE Noted	REV. OF <b>4</b> <b>9</b>
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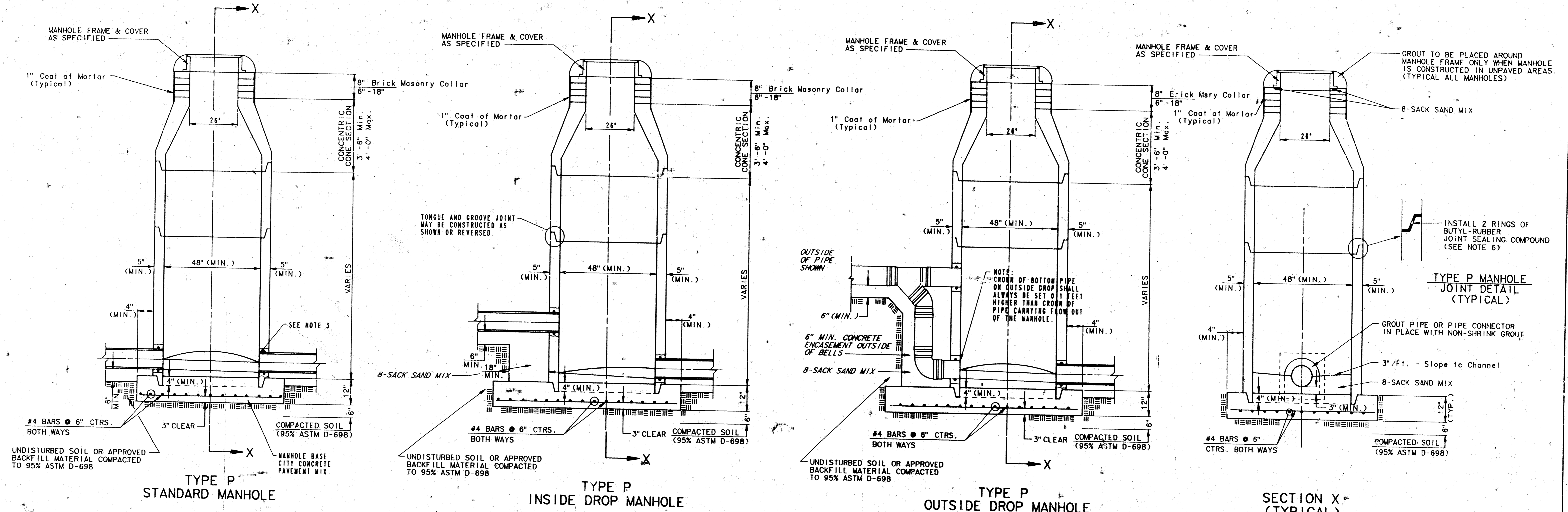


# SEWER APPURTENANCES DETAILS

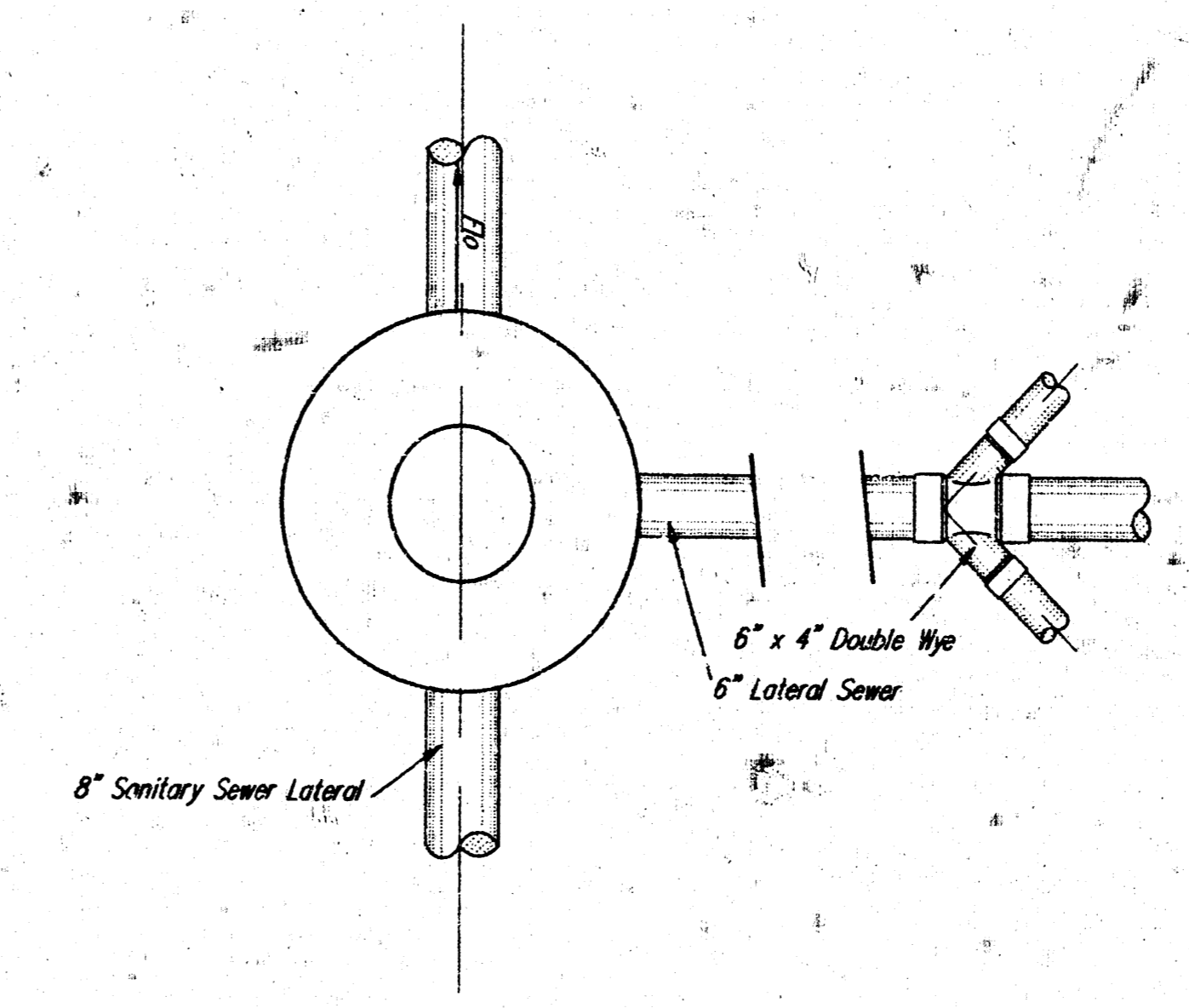
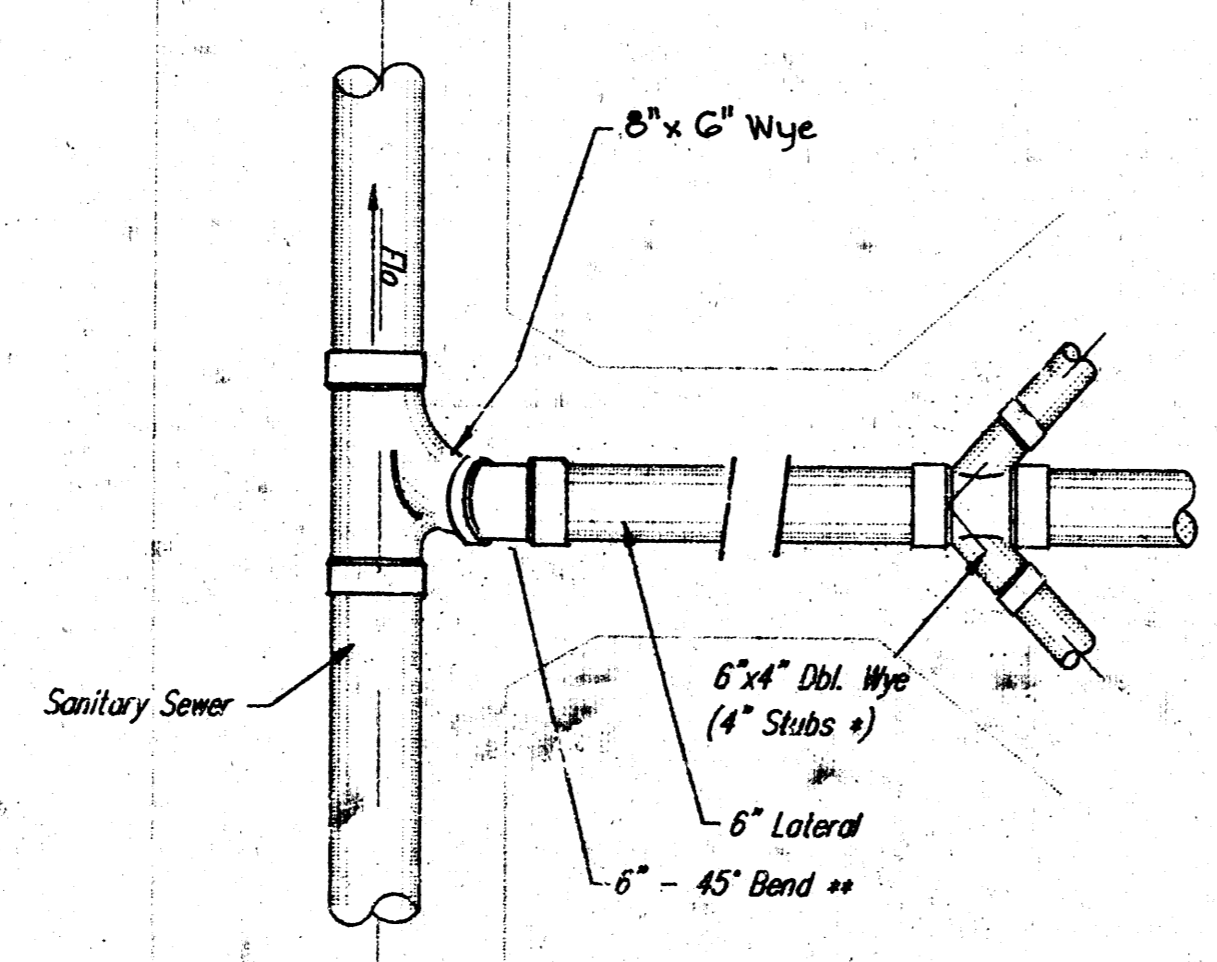
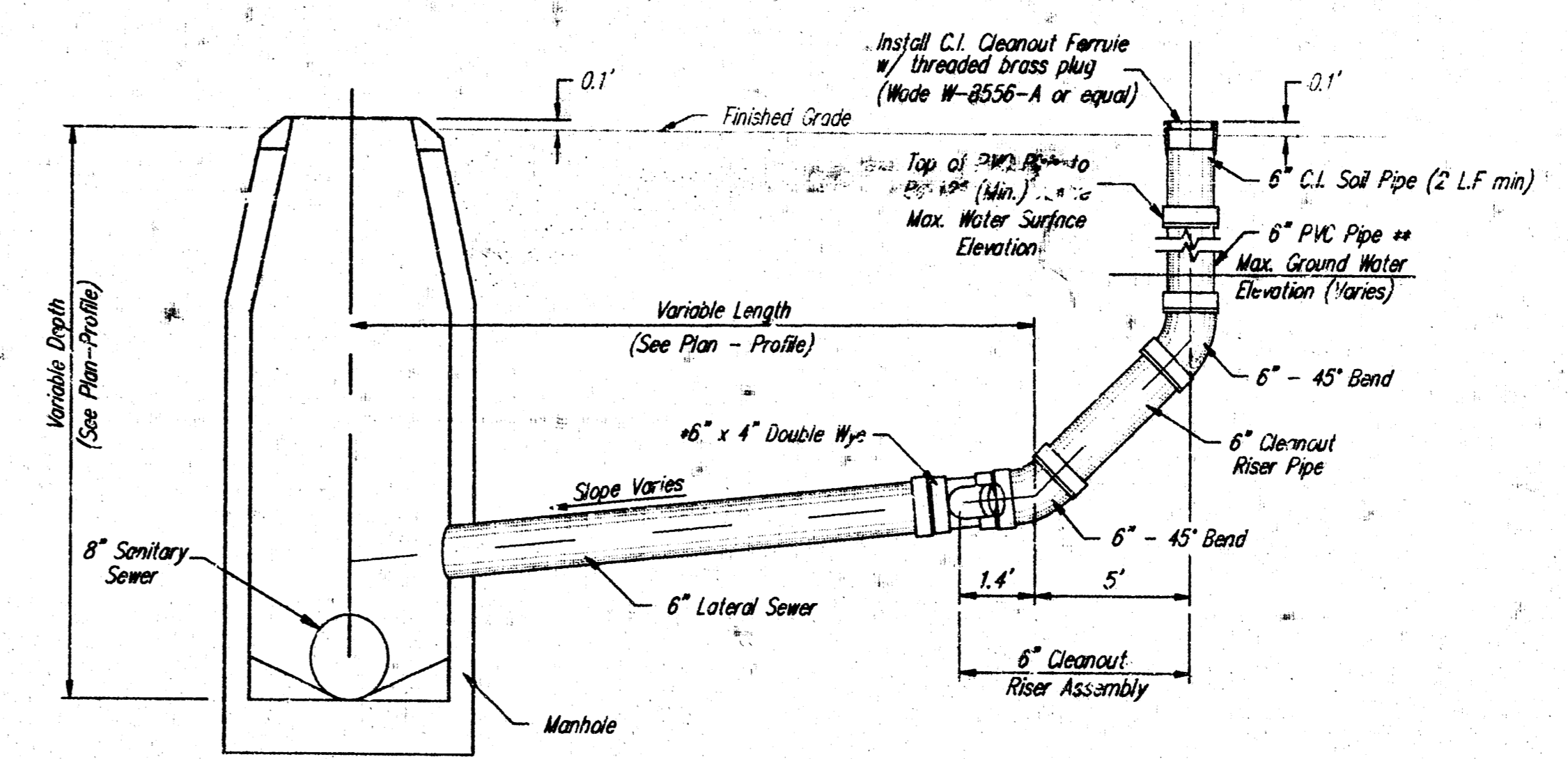
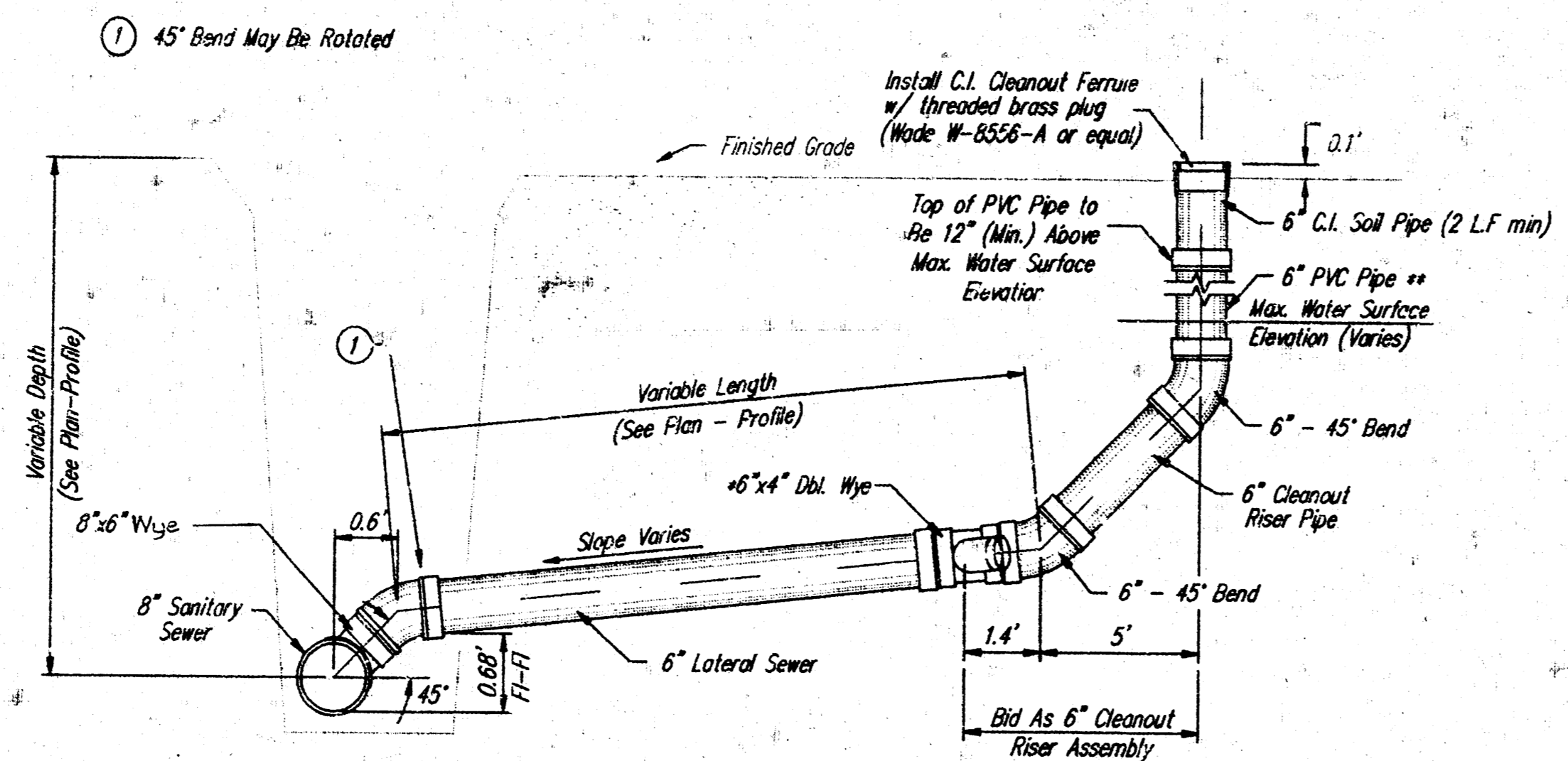
## ADOPTED AS STANDARD DESIGN

### BY

## CITY OF WICHITA



- GENERAL NOTES**
- PRECAST MANHOLE NOTES**
- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
  - NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
  - APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SLEWER SHALL BE GROUDED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
  - ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TRWEC SERIES 88 HI-BUILD EPOXYLINE, DRY THICKNESS OF 8 MILS (MIN.)
  - EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
  - JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
  - PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
  - TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
  - LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
  - MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 3 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
  - REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
  - OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUDED THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUDED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
  - THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF-CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWER FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTLET PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO REAR LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
  - PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
  - MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
  - THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
  - STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
  - A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 6" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR.




\* 4" Branch (each side) To Serve as 4" Stub. Temporary Plug Until Service Connection is Required. Single Wye to E Used Where Indicated on Plan.

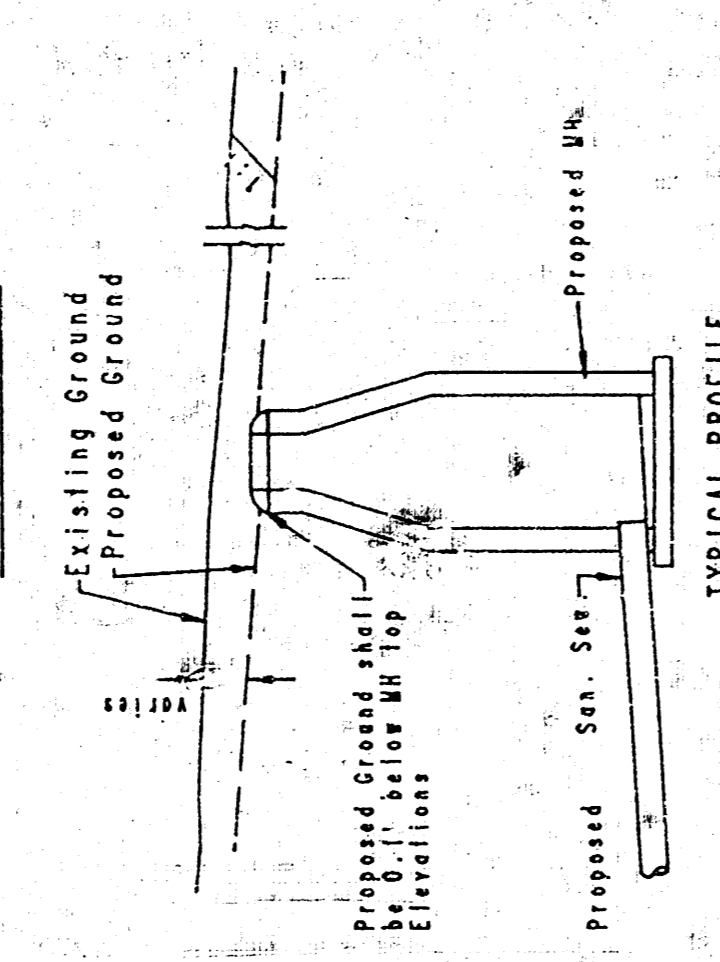
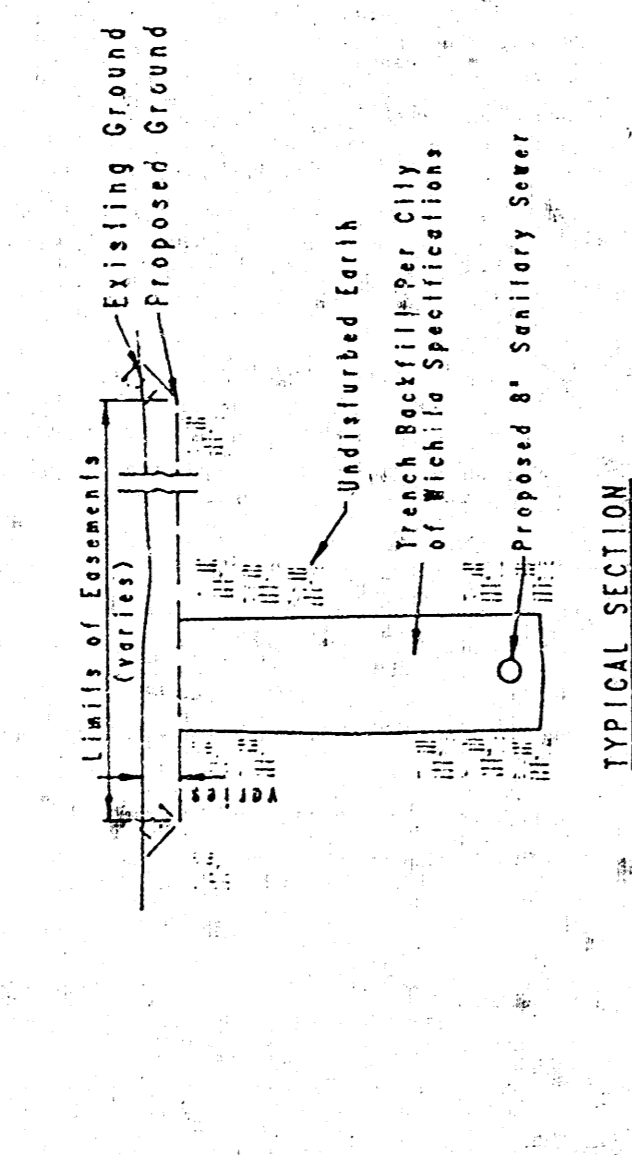
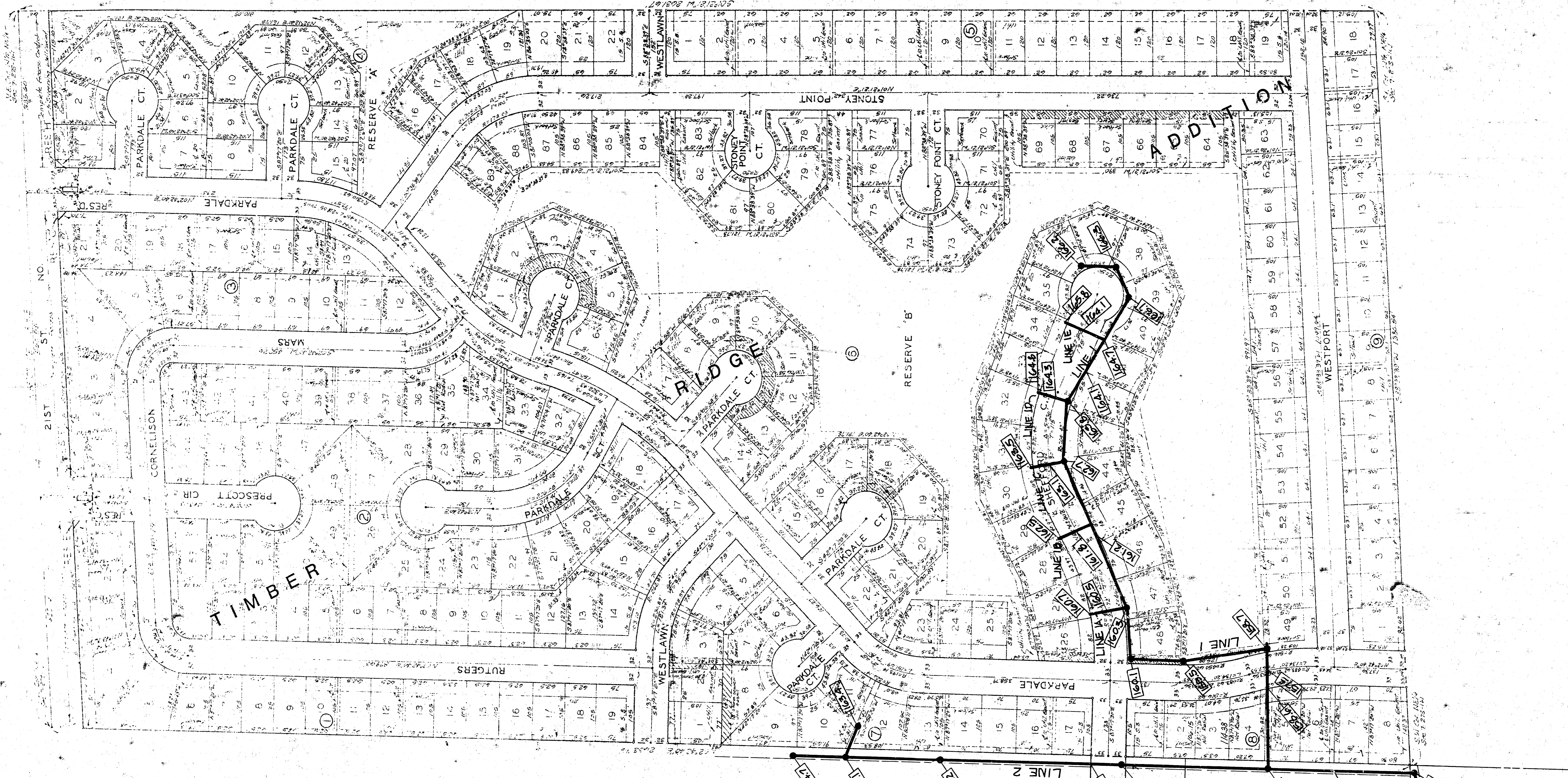
\*\* 6" Lateral to be Air-Tested up to the Top of PVC Pipe, per Standard Specifications

6" CLEANOUT RISER ASSEMBLY DETAIL  
W/ WYE CONNECTION

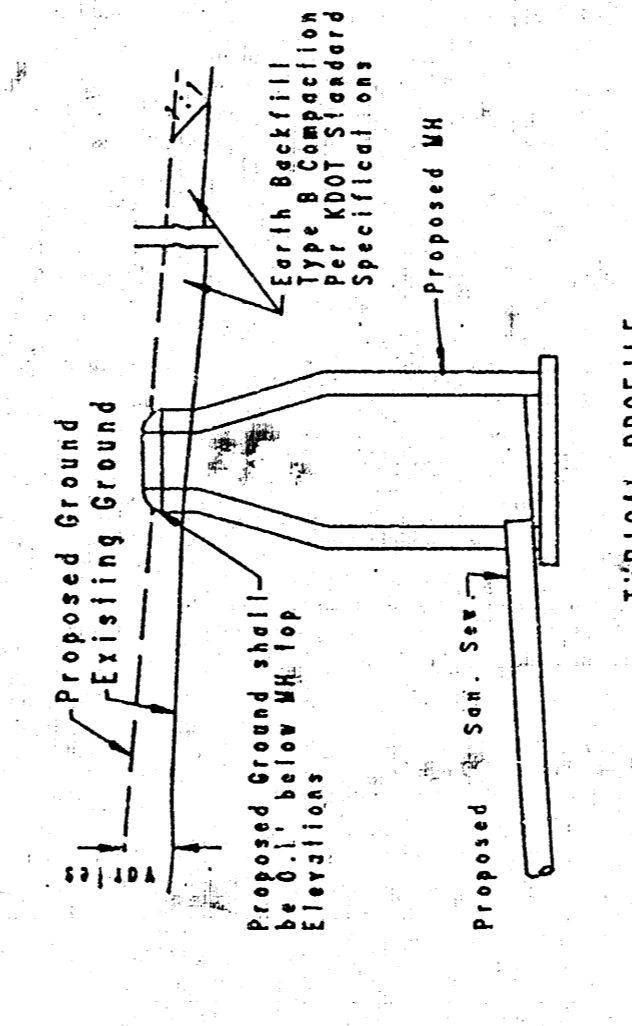
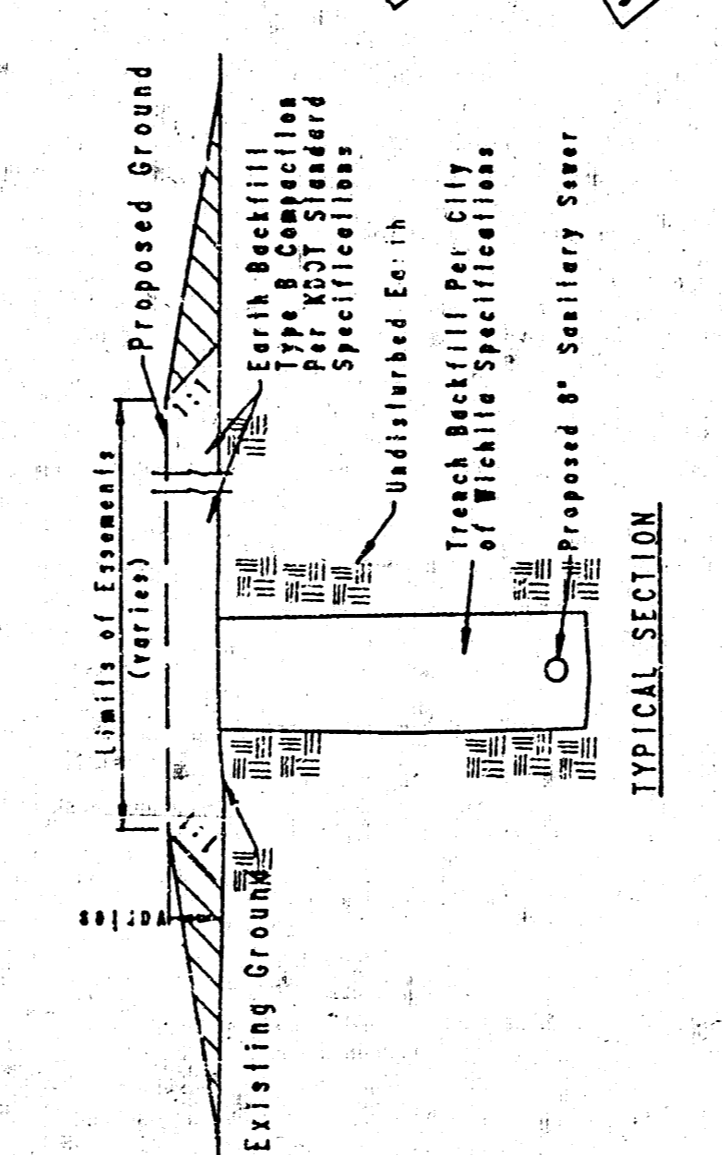
6" CLEANOUT RISER ASSEMBLY DETAIL  
W/ MANHOLE CONNECTION

<b>CLEANOUT RISER ASSEMBLIES</b>					
 <b>BAUGHMAN COMPANY P. A.</b> ENGINEERING & SURVEYING 315/282-7271 • 315 ELLIS • WICHITA, KANSAS 67211					REV.
PROJECT NUMBER <b>468-76-245-81962-000-000-001</b>					SHEET <b>7</b>
DESIGN TCR	DRAWN TCR	APPROVED TCR	DATE Apr. 1991	SCALE NONE	OF <b>9</b>



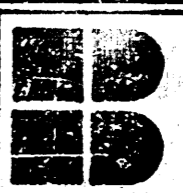


"CUT" SITUATIONS



"FILL" SITUATIONS

16200 Indicated finished grade on ground  
 Note: The easement area shall be graded to the elevations shown for a minimum distance of 5' each way from the centerline of the sewer.

EASEMENT GRADING PLAN				
 <b>BAUGHMAN COMPANY P. A.</b> SURVEYING & ENGINEERING 216/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211				
PROJECT NUMBER				
<b>468-76-245-81962-000-000-001</b>				
DESIGN	DRAWN	APPROVED	DATE	SCALE
TCR	TCR			1" = 100'
				REV. 9