LATERAL 238, SOUTHWEST INTERCEPTOR

SANITARY SEWER IMPROVEMENTS

FOR

WESTWOOD HEIGHTS SECOND ADDITION

Lots 8 through 15, inclusive, Block 11

Lots 6 through 25, inclusive, and Lots

28 through 30, inclusive, Block 13.

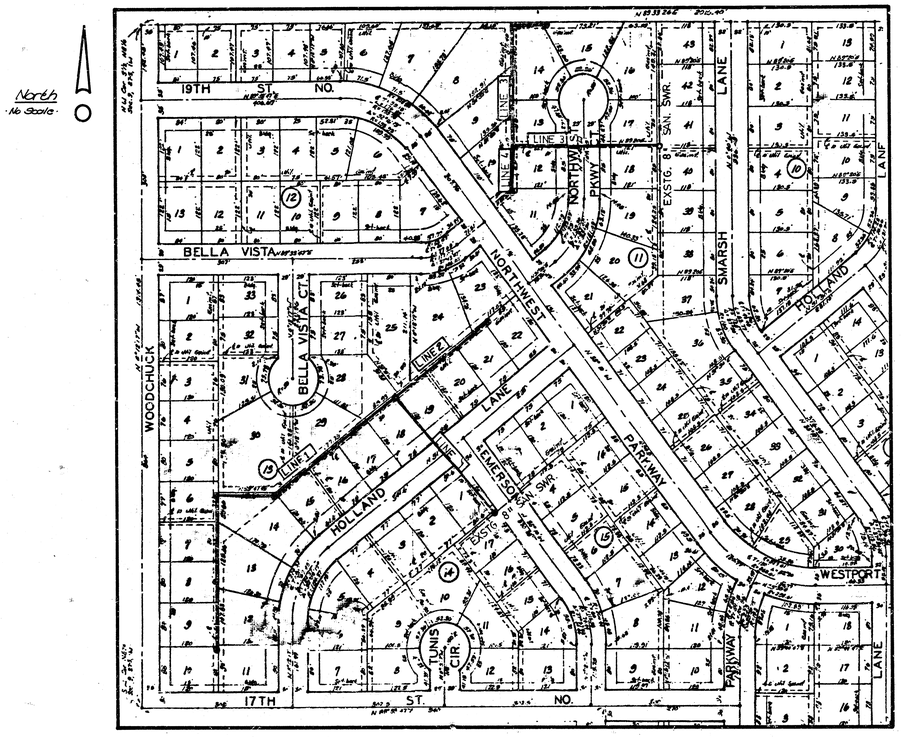
PROJECT NUMBER

468·76·245·81674·000·000·C01

GENERAL NOTES

1. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are disturbed by his construction operations. Such irons shall be re-established by a licensed land surveyor or professional engineer, in accordance with state laws.

2. The Contractor shall excavate and remove the existing pipe plug at Sta. 1+24, Line 3, in order to verify the pipe flo elevation prior to proceeding with construction.



☐ BENEFIT DISTRICT

BENCH MARKS

1. City Disc. 42' no. and 36.5' east of ¼ sec. cor., intersection of Ridge Road at 17th Street No.
   Elev. = 142.51 city datum

2. 'b' cut in Top of curb, east side 22' north of intersection Holland Ln. at Northwest Parkway; on Northwest Parkway.
   Elev. = 155.47 city datum

3. 'b' cut, 2' east of extg. end of return on the northerly side Northwest Parkway, located near west end Lot 20, Blk. 11, Westwood Heights Second Addn.
   Elev. = 164.62 city datum

4. 'b' cut, 5.5' west, of end of extg. curb (east of extg. cb inlet) South side 17th Street No., located near the N.E. cor. of Westlink 16th Addn.
   Elev. = 157.26 city datum

CITY of WICHITA, KANSAS

MICHAEL E. LINDEBAK
CITY ENGINEER

INDEX of SHEETS

Title and Benefit District	1
Plan / Profile sheets	2-4
Type 'P' Manhole Detail	5
Type 'C' Manhole Detail	6

AS BUILT
RPL
7-20-87

TITLE SHEET

N. BRENT WOOTEN LICENSED 8670 KANSAS PROFESSIONAL ENGINEER

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

Design	Drawn	Approved	Date	Scale	Sheet	No.
N.B. Wooten	Geo. Jr.		April, 87	1"=400' 1"=5'	1	C

1/6

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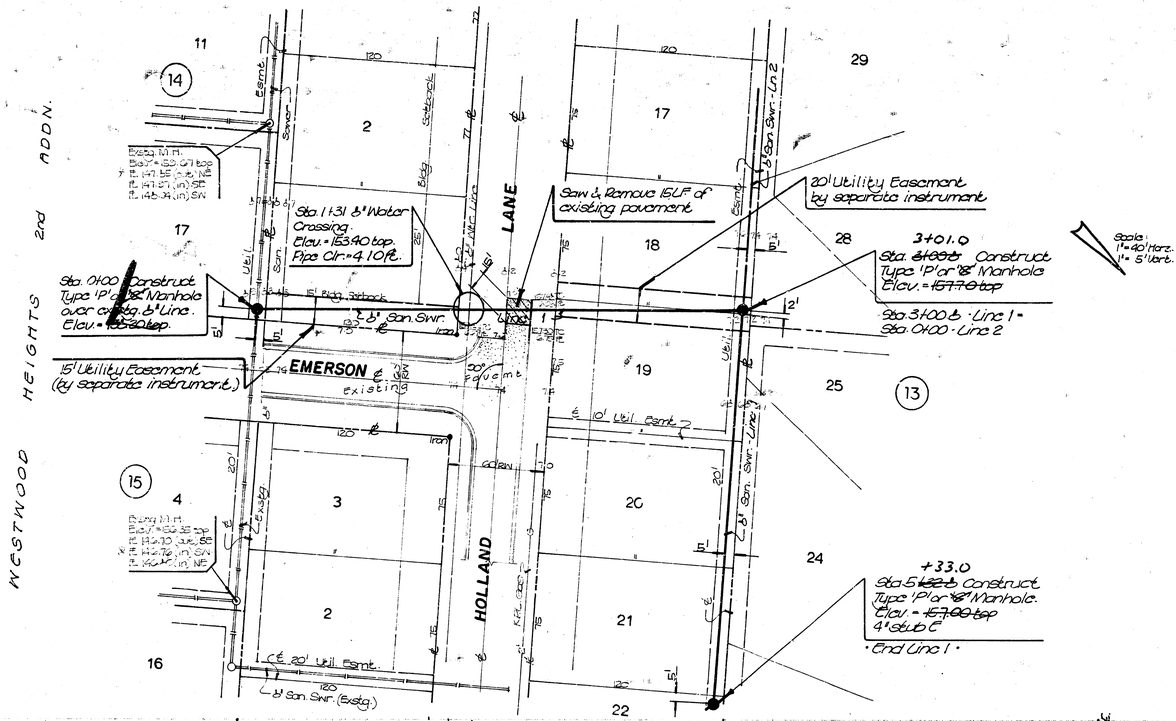
Benchmarks:

1. City Disc. 42'no and 33.5'east of ½sec cor., intersection of Ridge Road at 17th Street No.
Elev. = 142.61 city datum

2. 'b' cut in Top of curb east side 22' north of intersection Holland Ln. at Northeast Parkway on Northwest Parkway.
Elev. = 136.97 city datum

3. 'b' cut 2' east of existg end of return on the northerly side Northwest Parkway, located half-west and Lot 20, Blk 17, Westwood Heights Second Addn.
Elev. = 149.82 City datum

4. 'b' cut 5.5' west of end of existg curb back of existg cb. on 17th Street No. located near the N.E. cor. of Westlink Tech Addn.
Elev. = 157.26 city datum



Note: Saw Joint shall be incidental to Pavement Removal Bid Item.

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

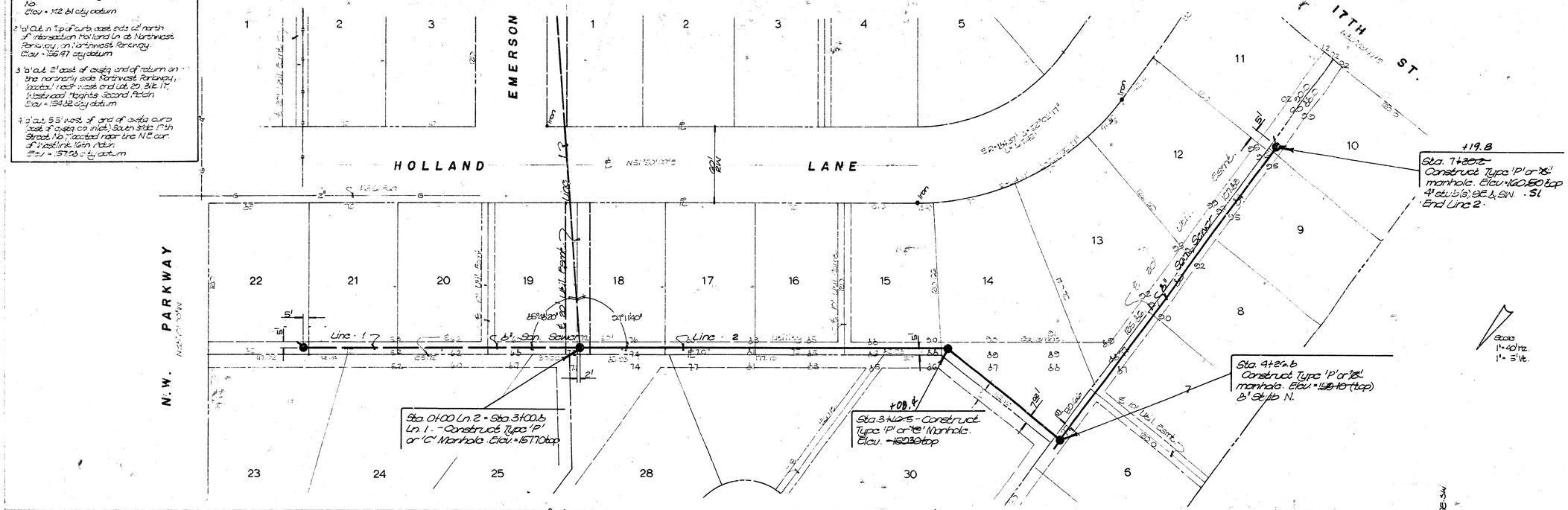
• Line 1 •

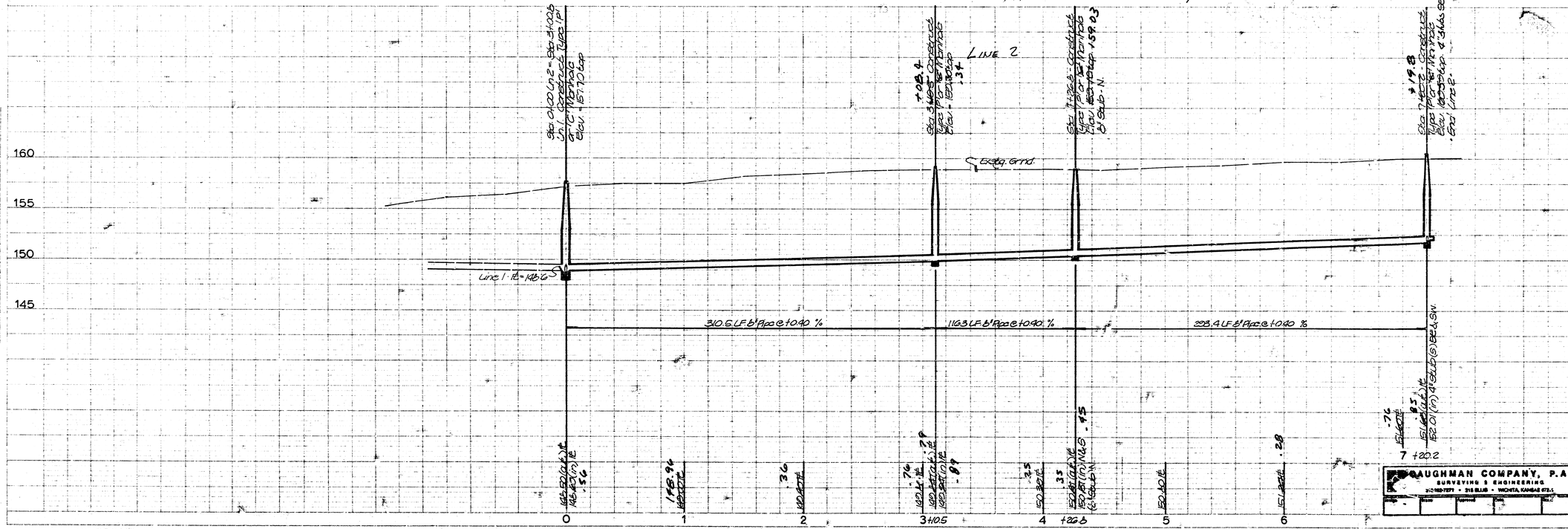
PLAN & PROFILE OF STREET AND STORM SEWER

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Benchmarks:

1. City Desc: 42 no and 33.3' east of W. asso. corn. intersection of Ridge Road at 17th Street N.
   Elev. = 142.61 city datum
2. 'g' cut in Top of curb east end of north 4' intersection Holland Ln at Northwest Parkway, on Northwest Parkway.
   Elev. = 156.97 city datum
3. 'b' cut 2' east of ewtg end of return on the northerly side Northwest Parkway, located 1 rod west end Lot 20, Blk 17, Westwood Heights Second Addn.
   Elev. = 154.32 city datum
4. 'b' cut 55' west of end of ewtg curb (east of ewtg co inlet) South side 17th Street, No. located near the N.E. cor. of Eastlink 16th Addn.
   Elev. = 157.28 city datum





PROFILE — SHEET NO. — NOTE BOOK — CHECKED — No.

HIGHWAY TRAFFIC AND DEFENSE
PLATE 1-SINGLE PLAN AND PROFILE FULL LINE
PRINTED IN U.S.A.

McCAUGHAN COMPANY, P.A.
SURVEYING & ENGINEERING
316-682-7571 • 315 BLUE • WICHITA, KANSAS 67202

• Line-1 & 2 •

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Benchmarks:

1. City Disc. #2 no. and 35' east of N.E. cor., intersection of 2nd ave. and 4th in Strock Nc.
   Elev. = 142.61 city datum
2. 'a' cut in Top of curb, east side 12' north of intersection Holland Ln. at Northwest Parkway, on Northwest Parkway.
   Elev. = 156.97 city datum
3. 'a' cut 2' east of existing end of return on the northerly side Northwest Parkway, located near west end Lot 20, Blk. 11, Westwood Heights Second Addn.
   Elev. = 154.82 city datum
4. 'a' cut 55' west of, and at existing curb (east of existing co. inlet) South side 17th Street, 12' located near the N.E. cor. of 1st Unit 13th Addn.
   Elev. = 157.78 city datum

Scale: 1"=40' Horz. 1"= 5' Vert.

Sta. 0+00 Existing M.H. Elev. = 152.67 top Ift = 14.03 (in) E.

Begin Construction Sta. 1+24 - Connect to existing 8" line. Remove Plug.

12" Water Crossing Elev. = 152.75 ft. Pipe Clearance = 5.32 ft.

Sta. 2+00 Ln 3 = Sta. 0+00 Ln 4 Construct Type 'P' or 'C' Manhole. Elev. = 157.80 top. (2)

N.W. PARKWAY

N.W. PARKWAY CT.

8" San. Sewer Line 3

Line 4

Remove Trees as Necessary for Construction

Sta. 2+00 Ln 3 = Sta. 0+00 Ln 4 Manhole Elev. = 157.00 top

Sta. 5+22.8 Construct Type 'P' or 'C' Manhole. Elev. = 157.00 top. 8" Stub W.

+24.7

Sta. 0+45 Construct Type 'P' or 'C' Manhole. Elev. = 156.80 top 4" stub (SE.) End Line 4.

+86.4

Sta. 5+44.9 Construct Type 'P' or 'C' Manhole. Elev. = 157.00 top 4" stub (SE.) End Line 3.

+89.9

NORTHWEST PARKWAY

N.W. PARKWAY COURT

N.L. Westwood Heights Second Addn.

Note: Tree removal marked thus:

Sta. 0+00 Ln 3 - Existing Manhole Elev. = 152.67 top

Sta. 1+24 - Connect to existing 8" line - Elev. = 153.36 pipe

12" Water Crossing (Pipe Cl. = 5.32)

Sta. 2+00 Ln 3 = Sta. 0+00 Ln 4 Construct Type 'P' or 'C' Manhole Elev. = 157.80 top

Sta. 0+45 Construct Type 'P' or 'C' Manhole Elev. = 156.80 top 4" stub (SE.) End Line 4.

Sta. 2+00 Ln 3 = Sta. 0+00 Ln 4 Manhole Elev. = 157.00 top

Sta. 5+22.8 Construct Type 'P' or 'C' Manhole Elev. = 157.00 top 8" stub (W.) End Line 3.

Sta. 5+44.9 Construct Type 'P' or 'C' Manhole Elev. = 157.80 top 4" stub (SE.) End Line 3.

Existing Ground

Existing 8" Line

162.0 LF 8" Pipe @ +0.90 %

LINE 3

88.0 LF 8" Pipe @ 0.90 %

232.6 LF 8" Pipe @ +0.90 %

662 LF 8" Pipe @ +0.90 %

LINE 4

LINE 3

+0.90 %

BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/686-7271 • 315 ELLIS • WICHITA, KANSAS 67211

Sheet 4 of 6

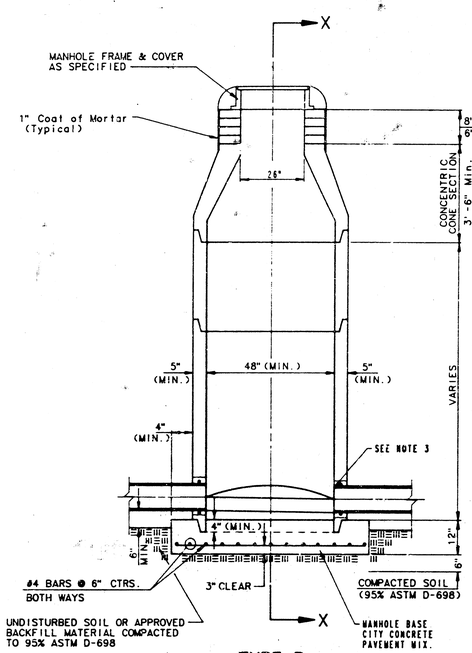
• Line 3&4 •

PLATE 1-SINGLE PLAN AND PROFILE SHEET

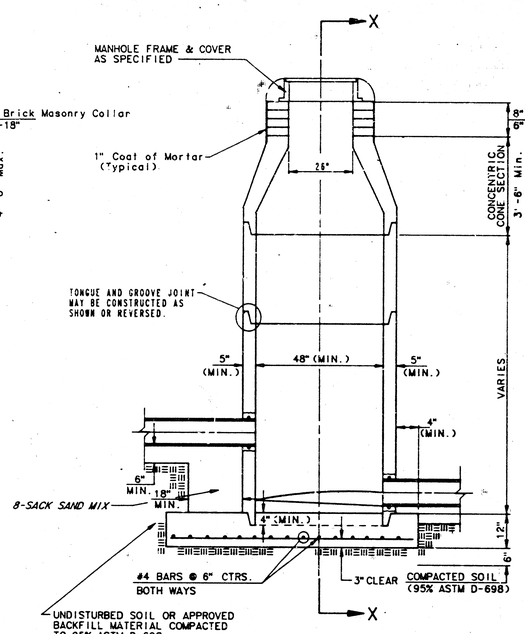
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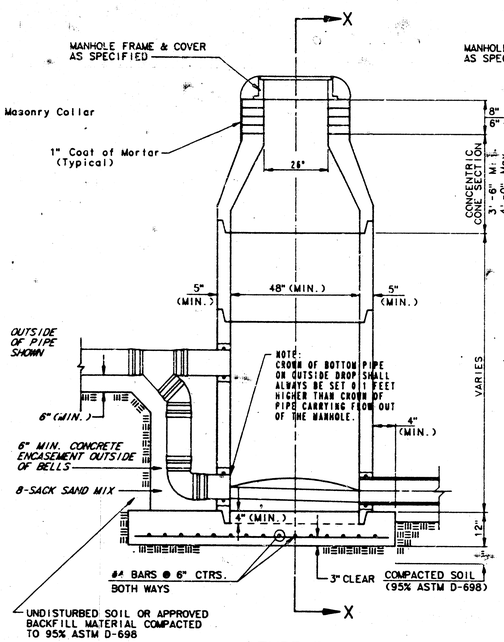
SEWER APPURTENANCES DETAILS
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA



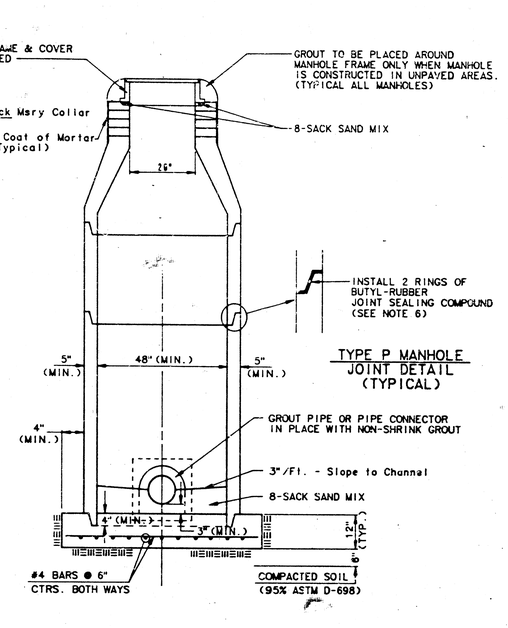
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE



TYPE P MANHOLE
JOINT DETAIL
(TYPICAL)

SECTION X
(TYPICAL)

GENERAL NOTES

PRECAST MANHOLE NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS INEWEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 6 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4'. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
12. OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO TEE 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.
13. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPES TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO MEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
14. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE 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.
15. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
16. THE VERTICAL 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.
17. STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
18. A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR.

468-76-245-81674-000-000-001

Revised: June 12, 1985

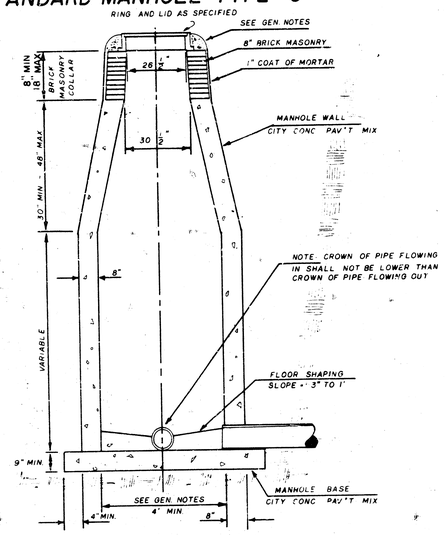
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SEWER APPURTENANCES DETAILS

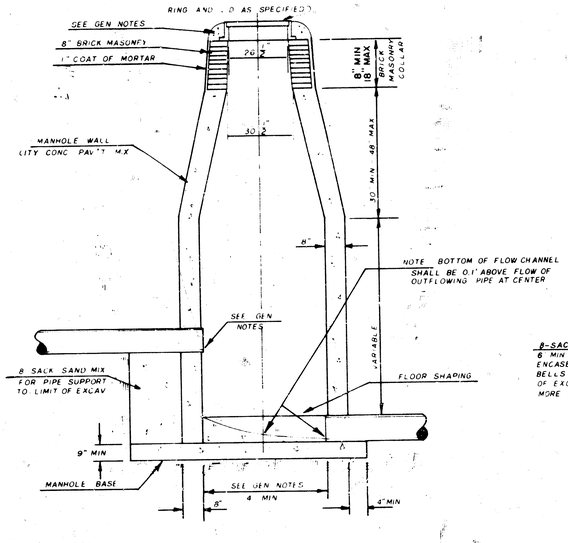
ADOPTED AS STANDARD DESIGN
BY

City of Wichita, Kansas

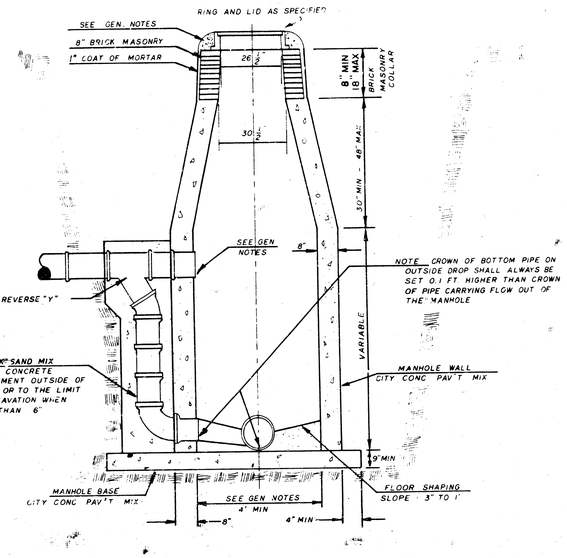
STANDARD MANHOLE TYPE "C"



INSIDE DROP MANHOLE TYPE "C"



OUTSIDE DROP MANHOLE TYPE "C"



GENERAL NOTES

1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND 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. TYPE "C" MANHOLES CAN BE CONSTRUCTED ONLY WHERE PIPE SIZES ARE 8" OR SMALLER. THE INSIDE DIAMETER OF TYPE "C" MANHOLES SHALL BE 4'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. REINFORCING STEEL SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

3. AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE FOR INSIDE AND OUTSIDE DROP MANHOLES. THE UPPER INLET PIPE SHALL BE GROUTED INTO THIS OPENING WITH NON-SHRINK GROUT. THE EXTERIOR OF THIS COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT.

4. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLE SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.

5. 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.

6. 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.

7. 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.

8. STANDARD MANHOLES TYPE "C" AND STANDARD INSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

SHEET 6 OF 6

468-76-245-81674-000-000-001

JNL JAN. 1982

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