PRIVATE SANITARY SEWER EXTENSION TO SERVE WILLOWOOD MOBILE HOME PARK
LOT 1, BLOCK A, CAMELOT ADDITION

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

REV. 6/16/88

PROJECT NUMBER: 468-78-245-80001-000-000-182

SHEET 9 OF 18

DESIGN	DRAWN	APPROVED	DATE	SCALE
C. Bohm	C. Bohm	W.B. Wooten	April 1988	1" = 40'

Rev. As-Built 9-16-88 TCR

(1 of 3)

4-1/8 Bends (6" P.V.C.)
6" P.V.C. (Typ.)
6"
12"
6"

TRAP DETAIL

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. 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.

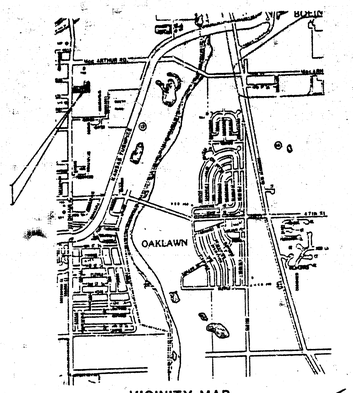
BENCH MARKS

Bench Mark #1: Railroad spike on East side of Power Pole, Located 19' West of Station 0+66, Line 1, Elevation = 84.91

Bench Mark #2: Railroad spike on West side of 24" Hackberry Tree located 47' East of Station 17+52, Line 1 Elevation = 88.05

Bench Mark #3: Railroad spike on East side 24" Elm Tree located 3' West of Station 5+72, Line 6. Elevation = 86.01

SITE VICINITY



VICINITY MAP

APPROVED AS FILED
BY CITY ENGINEER OF WICHITA
Sanitary sewers 9/16 9/19/88
Water
Storm

Station 7+76 Line G; Const. Spc. Shallow Type 'A' Manhole; Top Elev = 85.40

Station 0+63 Line G; Const. Spc. Shallow Type 'A' Manhole; Top Elev = 86.00

Station 2+84 Line G; Const. Spc. Shallow Type 'A' Manhole Top Elevation = ~~84.80~~ 85.23 END PHASE 1 CONSTR.

Station 20+30 Line 1; Const. Shallow Type 'P' Manhole Top Elevation = 86.70

Station 23+10 Line 1; Const. Special Shallow Type 'A' M.H. Top Elev = 86.20

Sta. 17+05 Line 1; Construct Shallow Type 'P' Manhole; Top Elev = 85.20

Sta. 14+63 Line 1 = Sta. 0+00 Line 9; Construct Shallow Type 'P' Manhole, Top Elevation = ~~85.50~~ 84.97

Sta. 14+62 End Phase I Const. Remainder of Sewer & Const. Under Future Project

END PHASE 1 CONSTR.

B.M. #3 86.01

B.M. #2 86.05

1+12 Station ~~1+12~~ Line 1, Construct Std. Manhole. Top Elevation = ~~83.50~~ 84.19

3+48 Station ~~3+48~~ Line 1 = Station 0+00 Line 3; Construct Std. Manhole. Top Elevation = ~~83.50~~ 83.96

5+71 Station ~~5+71~~ Line 1 = Station 0+00 Line 4; Const. Std. Manhole. Top Elevation = ~~85.50~~ 84.27

0+39 Station ~~0+00~~ Line 4 Const. Spc. Shallow Type 'A' Manhole; Top Elev. = ~~83.50~~ 84.28

Station 0+53 Line 1, Install Trap. See Detail Above.

Station 0+42 Line 1 = Sta. 0+00 Line 2; Const. Std. Manhole, Top Elev = ~~84.50~~ 84.84

Station 0+10 Line 2, Install Trap. See Detail Above.

Station 0+20 Connect to Existing 8" Stub. East.

Station 0+00 Existing Manhole

2+55 Station ~~2+55~~ Line 2, Const. Shallow Type 'A' Manhole, Top Elev = ~~84.50~~ 84.91

3+26 Station ~~3+26~~ Line 3; Const. Shallow Type 'P' Manhole, Top Elev = ~~85.50~~ 85.19

9+39 Station ~~9+39~~ Line 1, Construct Std. Manhole, Top Elevation = ~~85.50~~ 86.31

12+26 Station ~~12+26~~ Line 1 = Station 0+00 Line 5; Construct Std. Manhole Top Elevation = ~~86.00~~ 86.61

2+24.7 Station 2+~~50~~ Line 5, Construct Spc Shallow Type 'A' Manhole. Top Elevation = ~~83.50~~ 84.79

North Line Lot 1, Block A Camelot Addition

South Line Lot 1, Block A, Camelot Addition

East Line Lot 1, Block A, Camelot Addition

LINE 1 · LINE 2 · LINE 3 · LINE 4 · LINE 5 · LINE 6 · LINE G

ROAD A · ROAD B · ROAD C · ROAD D

HYDRAULIC AVE. · MINNESOTA

DRAINAGE EASEMENT · RECREATION AREA · CAMELOT ADDITION · DEDICATION

Prop 4" KPL Gas · Prop 2" KPL Gas · Existing 8" Water · Existing 8" Sewer · Utility Easement · Drainage Easement

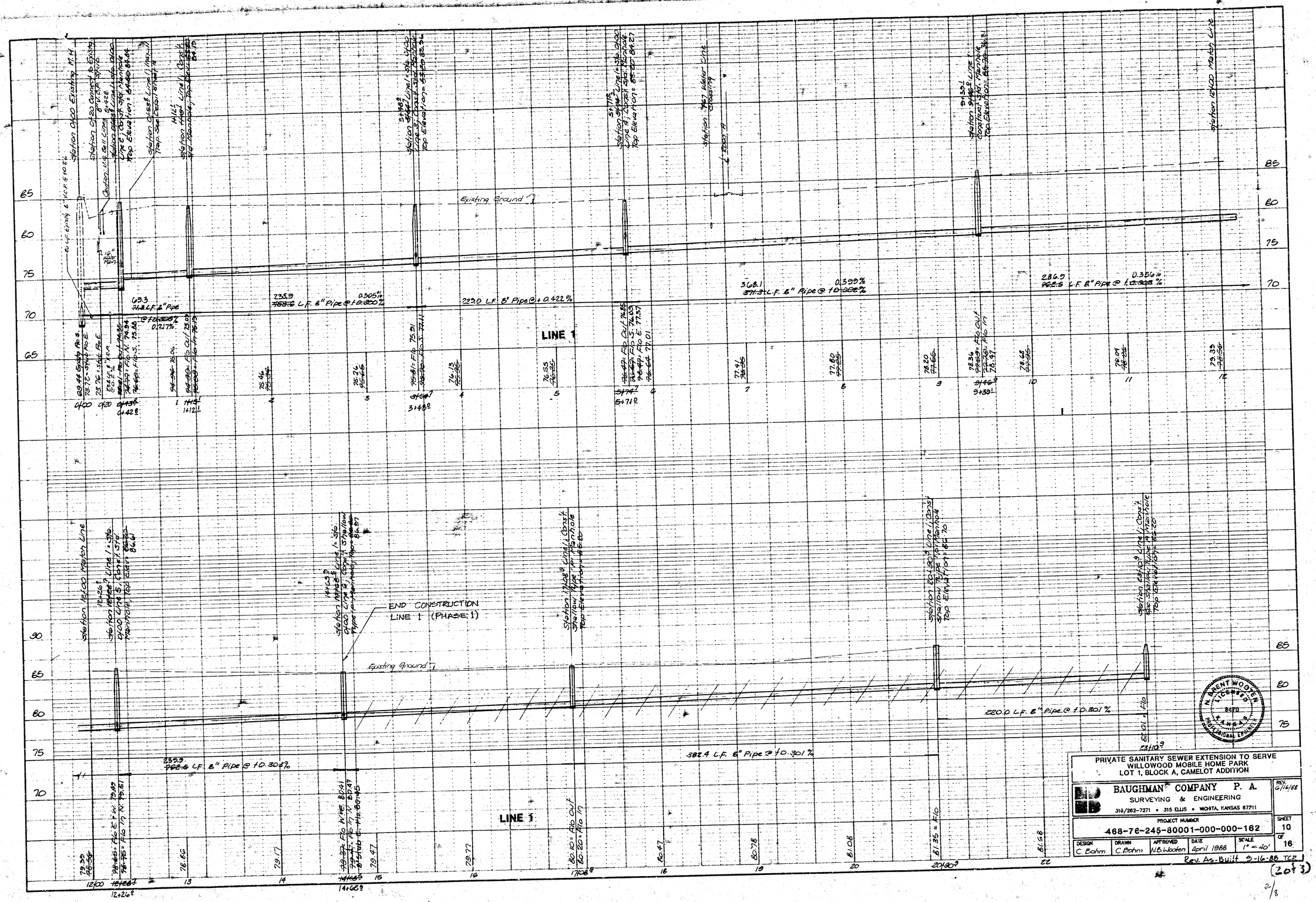
SCALE 1:40 PLAN
1:5 PROFILE

N. BRENT WOOTEN LICENSED KANSAS 8470 PROFESSIONAL ENGINEER

Rev. As-Built 9-16-88

1/8

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PRIVATE SANITARY SEWER EXTENSION TO SERVE
WILLOWOOD MOBILE HOME PARK
LOT 1, BLOCK A, CAMELOT ADDITION

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

REV. 6/14/88	SHEET 10
PROJECT NUMBER 468-76-245-80001-000-000-162	OF 16
DESIGN C. Bohm	DRAWN C. Bohm
APPROVED W.B. Wooten	DATE April 1988
SCALE 1" = 40'	

Rev. As-Built 5-16-88 TCR

(2073)

2/8

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LINE 2

LINE 3

LINE 4

LINE 5

LINE 6

END CONSTRUCTION LINE 6 (PHASE II)

Existing Ground

Note: 20 L.F. PVC (8") W/Solvent Weld Joints in this area

185.0 L.F. 6" Pipe @ +0.31%

PRIVATE SANITARY SEWER EXTENSION TO SERVE
WILLOWOOD MOBILE HOME PARK
LOT 1, BLOCK A, CAMELOT ADDITION

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

REV. 5/14/88

PROJECT NUMBER: 468-76-215-80001-000-000-162

SHEET 11 OF 18

DESIGN	DRAWN	APPROVED	DATE	SCALE
C. Bohm	C. Bohm	N.B. Woolen	April 1988	1" = 40'

Revised 9-16-88 TCB

(3 of 3)

N. BRENT WOOLEN 8470 REGISTERED PROFESSIONAL ENGINEER

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PRIVATE SANITARY SEWER EXTENSION TO SERVE
WILLOWOOD MOBILE HOME PARK
LOT 1, BLOCK A, CAMELOT ADDITION

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

REV.

PROJECT NUMBER
468-76-245-80001-000-000-152

SHEET 9 OF 16

DESIGN	DRAWN	APPROVED	DATE	SCALE
C. Bohm	C. Bohm	N.B. Woolen	April 1988	1"=40'

AS BUILT
RPC 10-10-88

4-1/8 Bends (6" P.V.C.)
6" P.V.C. (Typ.)
6"
6"

TRAP DETAIL

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BENCH MARKS

Bench Mark #1: Railroad spike on East side of Power Pole, Located 19' West of Station 0+66, Line 1, Elevation = 84.91

Bench Mark #2: Railroad spike on West side of 24" Hackberry Tree located 47' East of Station 17+52, Line 1 Elevation = 88.05

Bench Mark #3: Railroad spike on East side 24" Elm Tree located 3' West of Station 5+72, Line 6. Elevation = 86.01

SITE VICINITY

OAKLAWN

VICINITY MAP

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA
Sanitary Sewers EJB 8/19/88
Storm Sewers
Driveway Approaches
Water Mains
Paving

NOTE TO CONTRACTOR

This project will be constructed under the supervision of the CITY ENGINEER and conforming to the SPECIFICATIONS of the CITY OF WICHITA. The CONTRACTOR will pay the City or Wichita for all costs of plan review, inspection and backing per contract.

N

SCALE 1:40 PLAN
1:5 PROFILE

HYDRAULIC AVE.

UNPLATTED

DRAINAGE

DEDICATION

ADDITION

RECREATION AREA

CAMELOT

MINNESOTA

LINE 1 · LINE 2 · LINE 3 · LINE 4 · LINE 5 · LINE 6

ROAD A · ROAD B · ROAD C · ROAD D

1+12.1 Station 1+12.1 Line 1, Construct Std. Manhole. Top Elevation = ~~84.60~~ 84.19

3+48.0 Station 3+48.0 Line 1 = Station 0+00 Line 3; Construct Std. Manhole. Top Elevation = ~~83.80~~ 83.96

5+71.0 Station 5+71.0 Line 1 = Station 0+00 Line 4; Const. Std. Manhole. Top Elevation = ~~83.80~~ 84.27

0+99.0 Station 1+07.3 Line 4 Construct Shallow Type 'P' Manhole; Top Elev. = ~~83.80~~ 84.23

7+78.1 Station 7+78.1 Line G; Const. Shallow Type 'P' Manhole; Top Elev = 85.40

9+63.1 Station 9+63.1 Line G; Const. Shallow Type 'P' Manhole; Top Elev = 86.00

10+09.9 Station 10+09.9 Line I; Const. Shallow Type 'P' Manhole; Top Elev = 86.20

3+84.2 Station ~~3+85~~ 3+84.5 Line G; Const. Shallow Type 'P' Manhole; Top Elevation = ~~84.80~~ 85.23 END LINE G PHASE I

0+53.8 Station 0+53.8 Line 1, Install Trap. See Detail Above.

0+92.8 Station 0+92.8 Line 1 = Sta. 0+00 Line 2; Const. Std. Manhole, Top Elev = 84.60 84.84

0+10 Station 0+10 Line 2, Install Trap. See Detail Above.

0+00 Connect to Existg. 8" Stub. East.

2+38.6 Station 2+38.6 Line 2, Const. Shallow Type 'P' Manhole, Top Elev = 84.60 84.90

3+24.1 Station 3+24.1 Line 3, Const. Shallow Type 'P' Manhole, Top Elev = 85.60 85.19

9+39.11 Station 9+39.11 Line 1, Construct Std. Manhole, Top Elevation = 85.90 86.31

12+26.2 Station 12+26.2 Line 1 = Station 0+00 Line 5; Construct Std. Manhole Top Elevation = 86.50 86.41

2+24.7 Station 2+24.7 Line 5, Construct Shallow Type 'P' Manhole. Top Elevation = 82.20 84.79

14+65.9 Station 14+65.9 Line 1 = Sta. 0+00 Line 6; Construct Shallow Type 'P' Manhole, Top Elevation = 85.20 86.97 END LINE 1 PHASE I

2+92.0 Station 2+92.0 Line 1 = Sta. 0+00 Line 7; Construct Shallow Type 'P' Manhole, Top Elevation = 85.20 86.05

Sta. 17+06.5 Line 1; Construct Shallow Type 'P' Manhole; Top Elev = 85.20

North Line Lot 1, Block A Camelot Addition

East Line Lot 1, Block A, Camelot Addition

South Line Lot 1, Block A, Camelot Addition

B.M. #3 86.01

B.M. #2 86.05

90°10'56" · 91°32'34" · 88°49'04" · 90°07'08"

602.60' · 249.65' · S 89°57'13" E

Iron · Iron · Iron

Existing · Proposed · Utility Easement · Water · Gas · KPL Gas · Sewer · Main · Trap

N. BRENT WOOLEN
LICENSED
8470
KANSAS
PROFESSIONAL ENGINEER

4/8

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PRIVATE SANITARY SEWER EXTENSION TO SERVE
WILLOWOOD MOBILE HOME PARK
LOT 1, BLOCK A, CAMELOT ADDITION

BAUGHMAN COMPANY P. A.
SURVEYING & ENGINEERING
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PROJECT NUMBER	REV.
468-76-245-80001-000-000-162	5/8

DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET OF
C. Bohm	C. Bohm	W.B. Wooten	April 1988	1" = 40'	10 OF 16

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LINE 2

LINE 3

LINE 4

LINE 5

LINE 6

PRIVATE SANITARY SEWER EXTENSION TO SERVE
WILLOWOOD MOBILE HOME PARK
LOT 1, BLOCK A, CAMELOT ADDITION

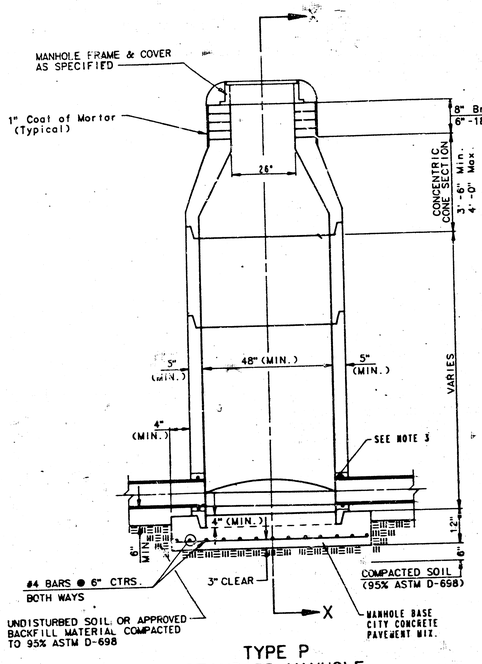
BAUGHMAN COMPANY P. A.
SURVEYING & ENGINEERING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

REV.	PROJECT NUMBER	SHEET	OF
6/8	468-76-245-80001-000-000-162	11	16

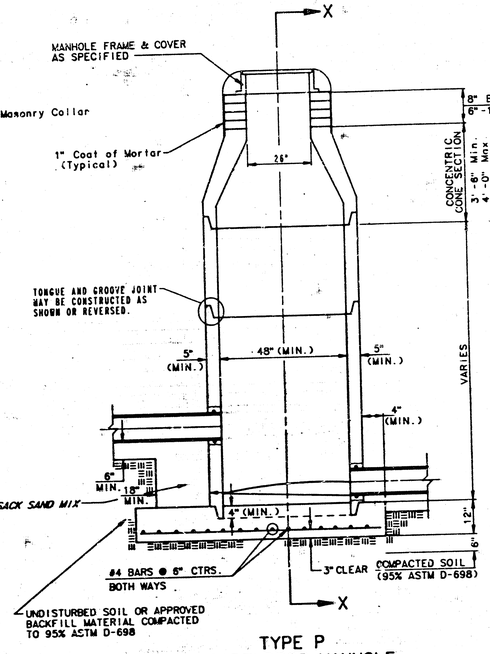
DESIGN	DRAWN	APPROVED	DATE	SCALE
C. Bohm	C. Bohm	W.B. Hoyden	April 1988	1" = 40'

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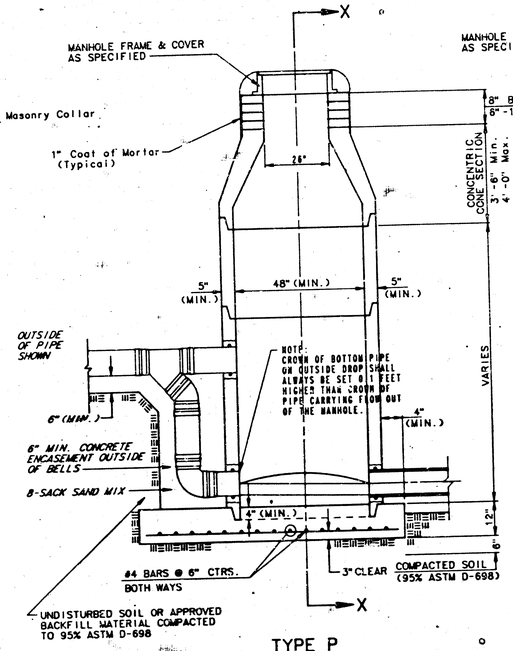
SEWER APPURTENANCES DETAILS
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA



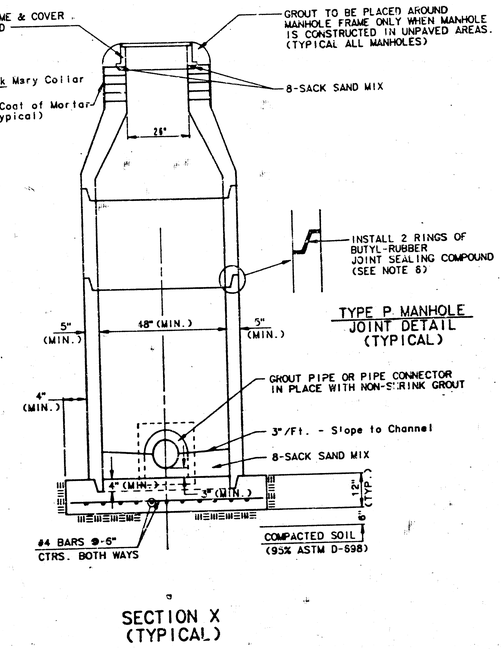
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE



SECTION X
(TYPICAL)

GENERAL NOTES

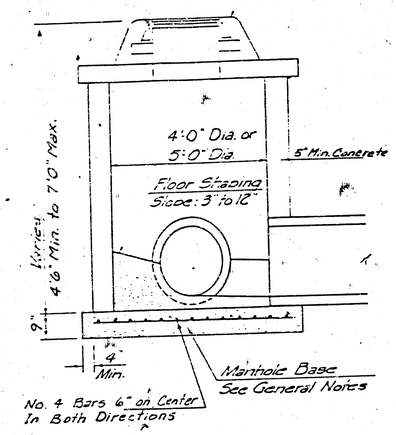
PRECAST MANHOLE NOTES

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 TNEMEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 6 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 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4'. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
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 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.
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 SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
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.

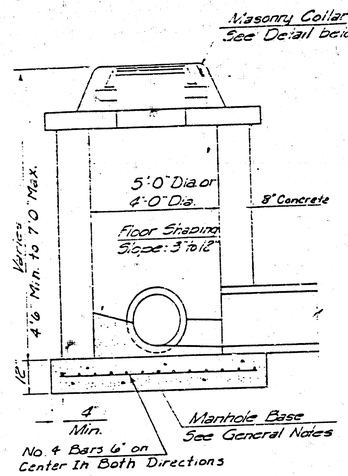
7/8 12/16

Revised: June 12, 1986

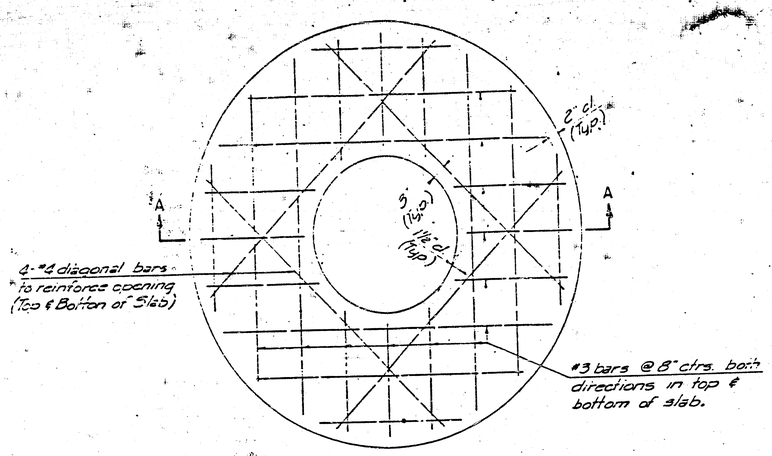
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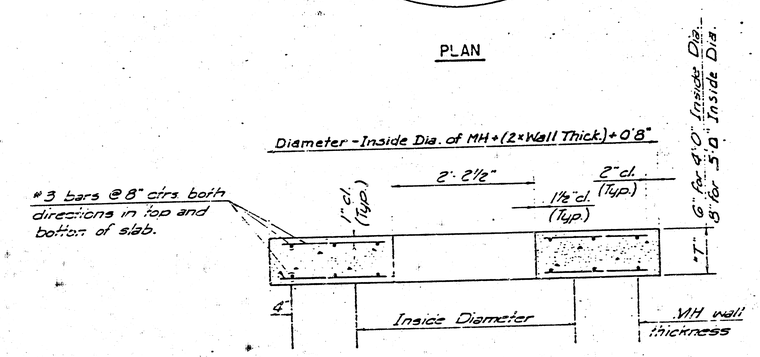
SHALLOW TYPE "P" MANHOLE



SHALLOW TYPE "C" MANHOLE

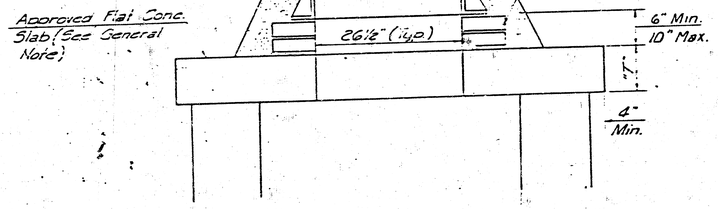


PLAN



SECTION A-A

FLAT CONCRETE SLAB DETAILS



MASONRY COLLAR DETAIL

GENERAL NOTES

1. 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 CEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. ~~PRECAST SECTIONS OF MANHOLES SHALL BE USED BY SPECIAL ORDER IN UNPAVED AREAS. THE MANHOLE TO BE SELECTED FROM STANDARD DETAILS SHOWN.~~ MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4'. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

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

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

4. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

5. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWINGS.

6. THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.

7. STANDARD SHALLOW MANHOLES TYPE "P" AND "C" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE AND DIAMETER INDICATED. ~~STANDARD SPECIAL SHALLOW MANHOLES SHOE BAR AND BOX SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE INDICATED.~~ ALL STANDARD SHALLOW MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

CITY OF WICHITA, KANSAS
STANDARD SHALLOW MANHOLES
TYPE "P" AND "C"

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