CONSTRUCTION PLANS

LIFT STATION AND FORCE MAIN

FOUNTAINS 2ND ADDITION

TO

THE CITY OF WICHITA, KANSAS

LATERAL 133, WAR INDUSTRIES SEWER

MICHAEL E. LINDEBAK, P.E. – CITY ENGINEER

PROJECT NO. 468-82598

INDEX CODE 742841

GENERAL NOTES:

1. Existing utility lines 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 the 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.

3. 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 or a licensed professional engineer in accordance with state laws.

4. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by Contractor with the Engineer's approval. Trees and [illegible] which are not in direct conflict with the proposed new construction shall be saved and protected from damage.

5. All area disturbed by construction operations shall be seeded with rye grass at a rate of 300 lbs./acre immediately following the construction in that area. Prior to seeding, area shall be prepared per City Specifications.

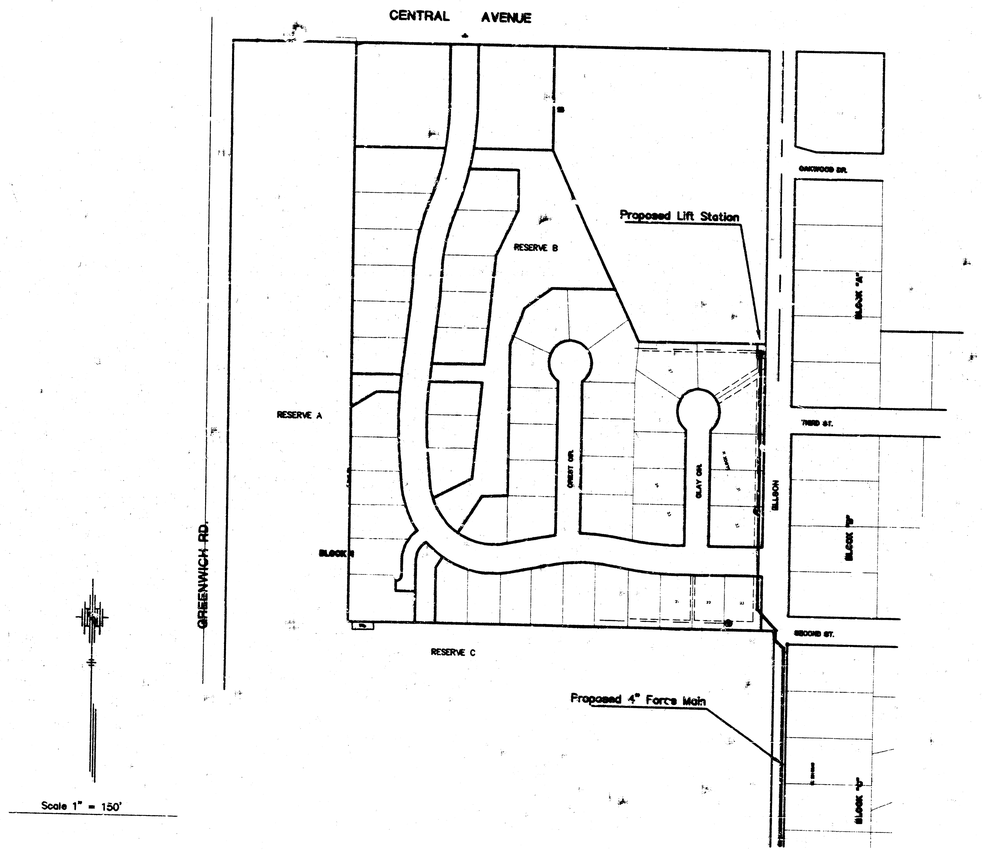
6. The Contractor shall be responsible for coordination of gas as electrical services to be extended and connected to the lift station site as necessary.

7. The lump sum price bid for furnishing and installing lift station and miscellaneous appurtenances complete in place shall include all costs for furnishing and installing the lift station module as indicated on the site plan complete in place and in operation. Such lump sum bid shall include the cost of constructing and/or installing compacted subgrade, concrete pad, power pole, electrical conduit electrical wiring, disconnect switch, electrical power supply, natural gas fuel supply, piping, earthwork, compacted fill, finish grading, and other incidentals necessary to complete the work.

8. The Contractor shall be responsible for the activation and implementation of the lift station to full operational condition as required for acceptance by The City of Wichita.

9. The Contractor shall provide and install appropriate signage for the 4" force main as required. The cost of the signage shall be incidental to the 4" Force Main.

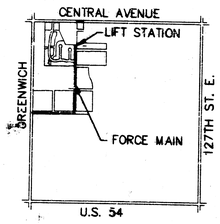
10. Contractor shall coordinate with construction of Lateral 133 War Industries Improvements, Project No. 468-82599.



Scale 1" = 150'

INDEX

TITLE SHEET	SHEET 1
PLAN / PROFILE	SHEET 2 – 5
LIFT STATION SITE PLAN	SHEET 6
LIFT STATION DETAIL	SHEET 7
ELECTRICAL RISER PLAN	SHEET 8
TYPE "P" MANHOLE	SHEET 9
AIR RELASE VAULT DETAIL	SHEET 10
FOUNTAINS 2ND ADDITION PLAT	SHEET 11
GOTT ADDITION	SHEET 12



LOCATION MAP
No Scale

BENCH MARKS

(M.S.L. Datum)

1. Top of iron in thimble at intersection of Central & Greenwich Elev. 1376.44
2. Railroad spike in PP 462'± E. of NW. Cor. Lot 1, Block 1. Elev. 1379.42
3. 3–40d nails in base of 10" elm tree 1330'± S. and 462'± E. of the NW. Cor. of Lot 1, Block 1. Elev. 1379.17

11/15/96

Booked N-263 AS BUILT RDL

NOVEMBER 1996

PLANS PREPARED BY

POE & ASSOCIATES OF KANSAS, INC.

Consulting Engineers

5940 E. Central Suite 200 ◘ Wichita KS 67208 ◘ 316/685-4114

X:\APPS\DCAD\PLOTS\BASE.TXT Tue Nov 12 09:03:11 1996 Jim Parsons Page 6 Arch C

GRAPHIC SCALE
40 0 20 40 80
(In Feet)
1 INCH = 40 FT.
5 0
1 INCH = 5 FT.
(Vert.)

GREENWICH

BLOCK "A"

BROWN & CUMMIN ADD.

BLOCK "B"

DOWELL ST.

DOUGLAS AVE.

PARK VILLAGE

STA: 0+30.59
1-45° Bend

STA: 0+63.54
1-45° Bend

89°57'0"

134°52'1"

Sta. 0+00 Connect to Existing Manhole

Do Not Disturb Raised Timber Planter or Shrubs

Do Not Disturb Trees

Sta. 6+14
Construct Air Release Valve w/ Vault

Sta. 7+50
Match Line

Do Not Disturb Trees

Proposed 4" Force Main

Existing Grade

132.94 L.F. 4" Force Main @ +1.04 %

481.81 L.F. 4" Force Main @ +2.588 %

790.8 L.F. 4" Force Main @ -1.611 %

Sta. 1+32.64-PVI

Sta. 6+14.45-PVI

Flow Out Existing=1363.94

Flow In =1365.94

Flow=1366.94

Flow=1367.27

Flow=1369.00

Flow=1370.26

Flow=1371.56

Flow=1372.65

Flow=1374.13

Flow=1375.42

Flow=1376.70

Flow=1377.98

Flow=1379.27

Flow=1379.64

Flow=1379.06

Flow=1378.26

Flow=1377.42

Flow=1376.65

Flow=1375.84

Flow=1375.04

Flow=1374.23

Flow=1373.43

Flow=1372.62

1390 1385 1380 1375 1370 1365 1360

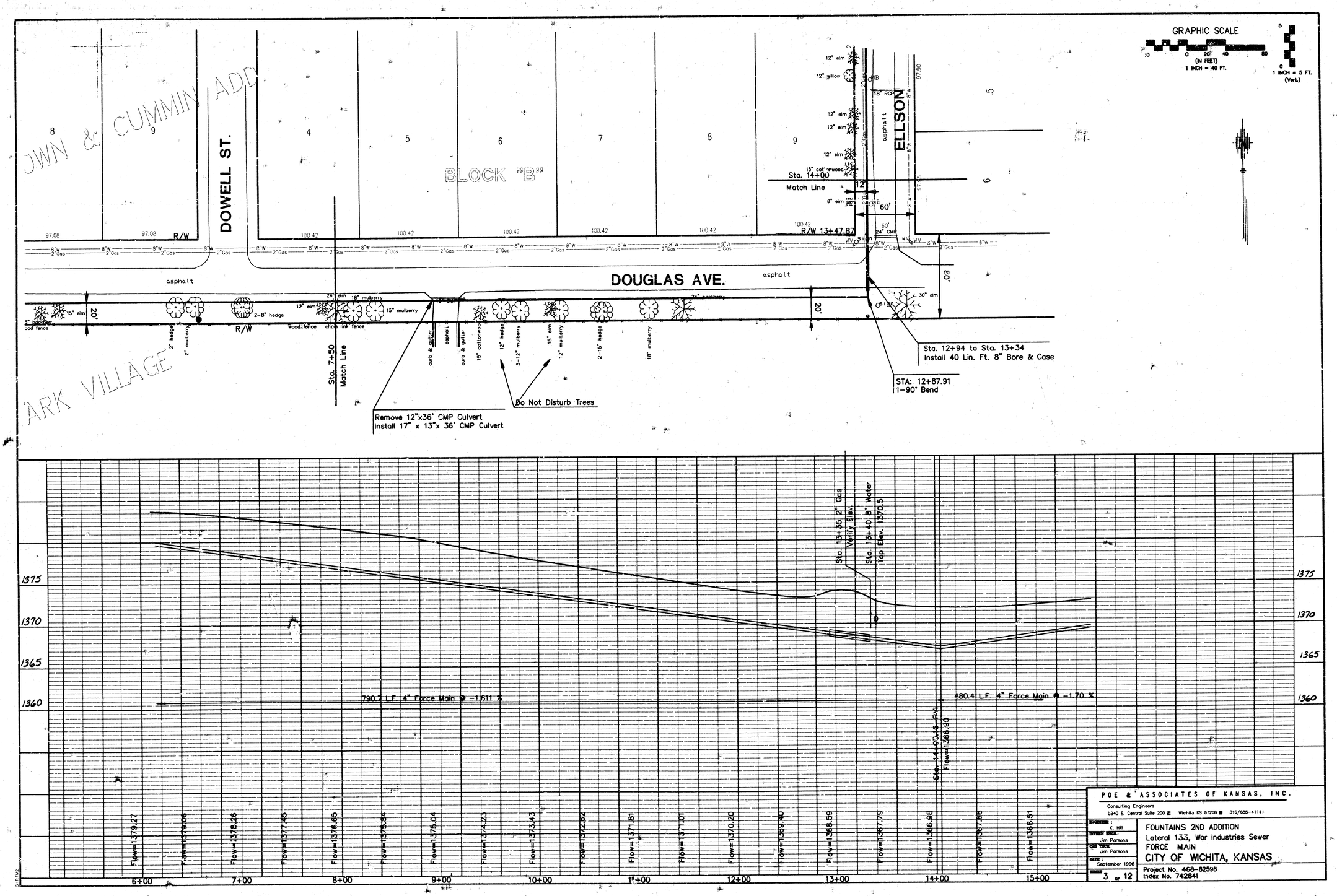
0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00

POE & ASSOCIATES OF KANSAS, INC.
Consulting Engineers
5940 E. Central Suite 200 ■ Wichita KS 67208 ■ 316/685-4114

ENGINEER : K. Hill
DRAWN BY : Jim Parsons
CHK'D BY : Jim Parsons
DATE : September 1996
SHEET 2 OF 12

FOUNTAINS 2ND ADDITION
Lateral 133, War Industries Sewer
FORCE MAIN
CITY OF WICHITA, KANSAS
Project No. 460-82598
Index No. 742841

X:\APPS\DGN\PROJ\FM_BASE Fri Nov 1 10:26:16 1996 Jim Parsons Poe & Assoc.



POE & ASSOCIATES OF KANSAS, INC.
Consulting Engineers
5340 E. Central Suite 200 ■ Wichita KS 67208 ■ 316/685-4114

ENGINEER: K. Hill	FOUNTAINS 2ND ADDITION
PROJECT MGR.: Jim Parsons	Lateral 133, War Industries Sewer
CAD TECH.: Jim Parsons	FORCE MAIN
DATE: September 1996	CITY OF WICHITA, KANSAS
SHEET: 3 of 12	Project No. 468-82598 Index No. 742841

X:\APPS\OCA\P\456\FM_BASE Fri Nov 1 08:32:47 1996 Jim Parsons Poe & Assoc

GRAPHIC SCALE
40 0 20 40 80
(In FEET)
1 INCH = 40 FT.
5 0
1 INCH = 5 FT. (Vert.)

Remove 12"x23' CMP Culvert
Install 17" x 13"x 23' CMP Culvert

Remove 12"x 24' CMP Culvert
Install 17" x 13"x 24' CMP Culvert

Remove 12"x 24' CMP Culvert
Install 17" x 13"x 24' CMP Culvert

Sta. ~~19+53 to Sta. 19+97~~
Install 54 Lin. Ft. 8" Bore & Case

STA: 19+41.70 +81
~~1- 45° Bend~~
90° Bend

STA: ~~19+97.65~~ 20+19
1- ~~45°~~ Bend
90°

Sta. 14+00 Match Line

Sta. 22+50 Match Line

ELLSON

FIRST ST.

UNPLATTED TRACTS

CAUTION
Underground Utilities

Remove & Reset Mailbox
Subsidiary to 4" Force Main

Remove & Reset Mailbox
Subsidiary to 4" Force Main

Remove & Reset Mailbox
Subsidiary to 4" Force Main

CAUTION
Underground Utilities

Proposed 4" Force Main

Existing Grade

Sta. 14+06.16 PVI
Flow=1366.90

Sta. 18+85.61
Flow = 1375.07

Sta. 19+45.6" Water
Top Elev. 1377.3

Sta. 20+07.2" Gas
Verify Elev.

480.4 L.F. 4" Force Main @ +1.70 %

419.7 L.F. 4" Force Main @ +0.921 %

Flow=1366.96
Flow=1367.86
Flow=1368.31
Flow=1369.36
Flow=1370.21
Flow=1371.06
Flow=1371.91
Flow=1372.76
Flow=1373.62
Flow=1374.47
Flow=1375.21
Flow=1375.67
Flow=1376.14
Flow=1376.90
Flow=1377.07
Flow=1377.53

1385 1380 1375 1370

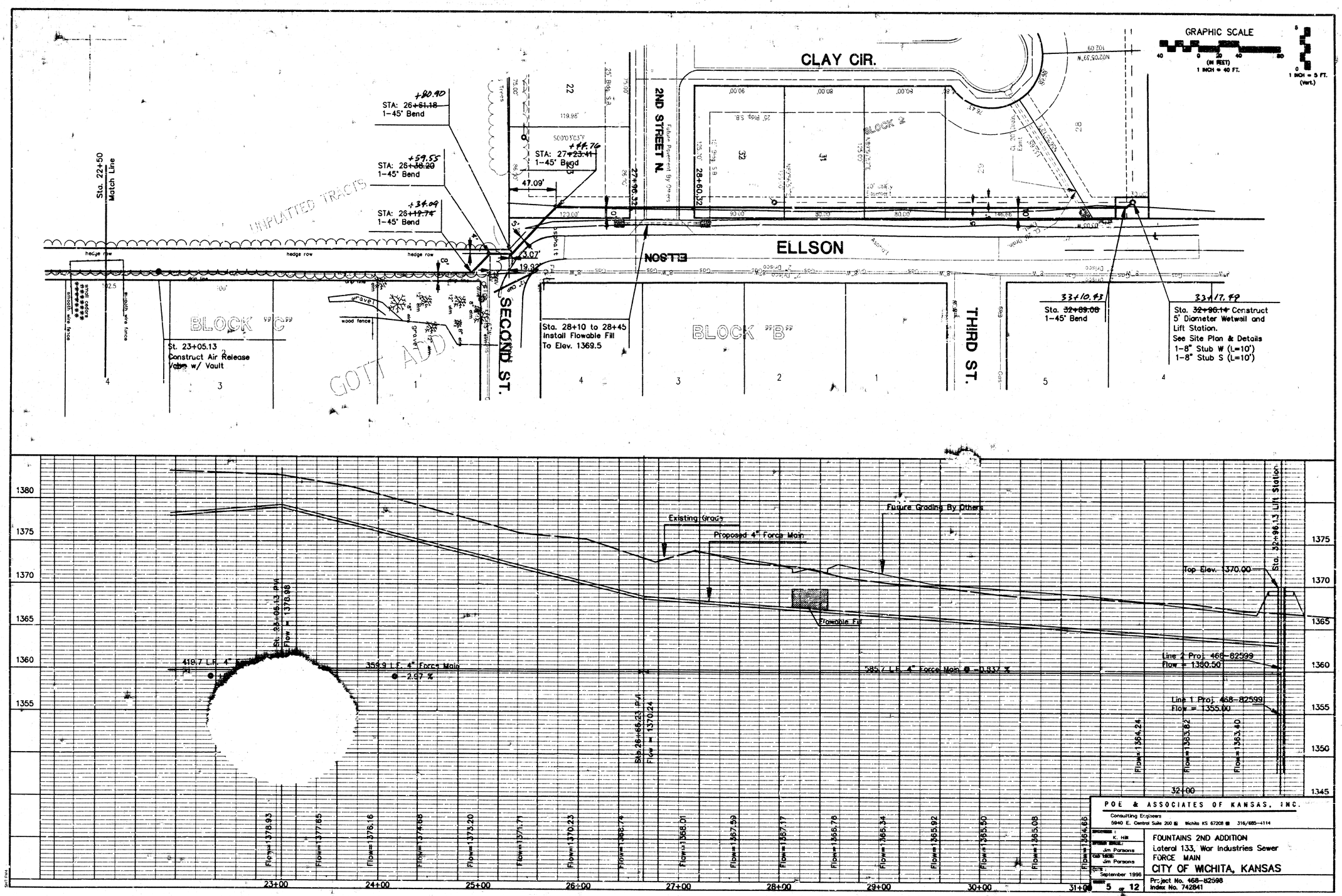
14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

POE & ASSOCIATES OF KANSAS, INC.
Consulting Engineers
9640 E. Central Suite 200 ■ Wichita KS 67208 ■ 316/685-4114

ENGINEER: K. Hill
INTERN ENGR.: Jim Parsons
CAD TECH.: Jim Parsons
DATE: September 1996
SHEET 4 OF 12

FOUNTAINS 2ND ADDITION
Lateral 133, War Industries Sewer
FORCE MAIN
CITY OF WICHITA, KANSAS
Project No. 468-82598
Index No. 742841

X:\APPS\DATA\PLOTS\EM_BASE Tue Nov 12 14:25:16 1996 Jim Parsons Poe & Assoc.



POE & ASSOCIATES OF KANSAS, INC.
Consulting Engineers
5940 E. Central Suite 200 ■ Wichita KS 67208 ■ 316/685-4114

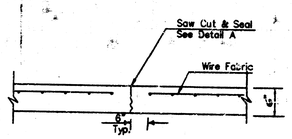
DESIGNED : K. Hill
DRAWN BY : Jim Parsons
CHECKED BY : Jim Parsons
DATE : September 1996

FOUNTAINS 2ND ADDITION
Lateral 133, War Industries Sewer
FORCE MAIN
CITY OF WICHITA, KANSAS

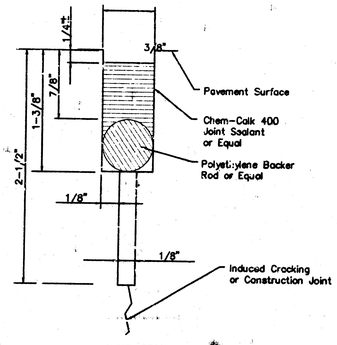
Project No. 468-82598
Index No. 742841

SHEET 5 OF 12

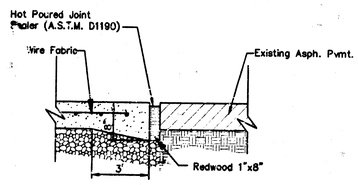
A:\JOBS\DCA\P\456\FM_BASE Fri Nov 1 08:36:55 1996 Jim Parsons Poe & Assoc.



CONTRACTION
JOINT DETAIL (CJ)

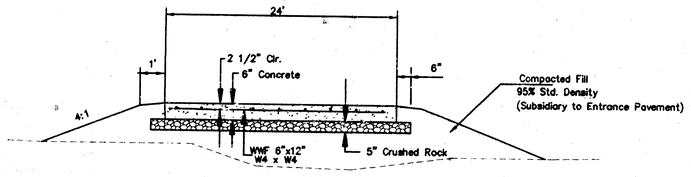


DETAIL A



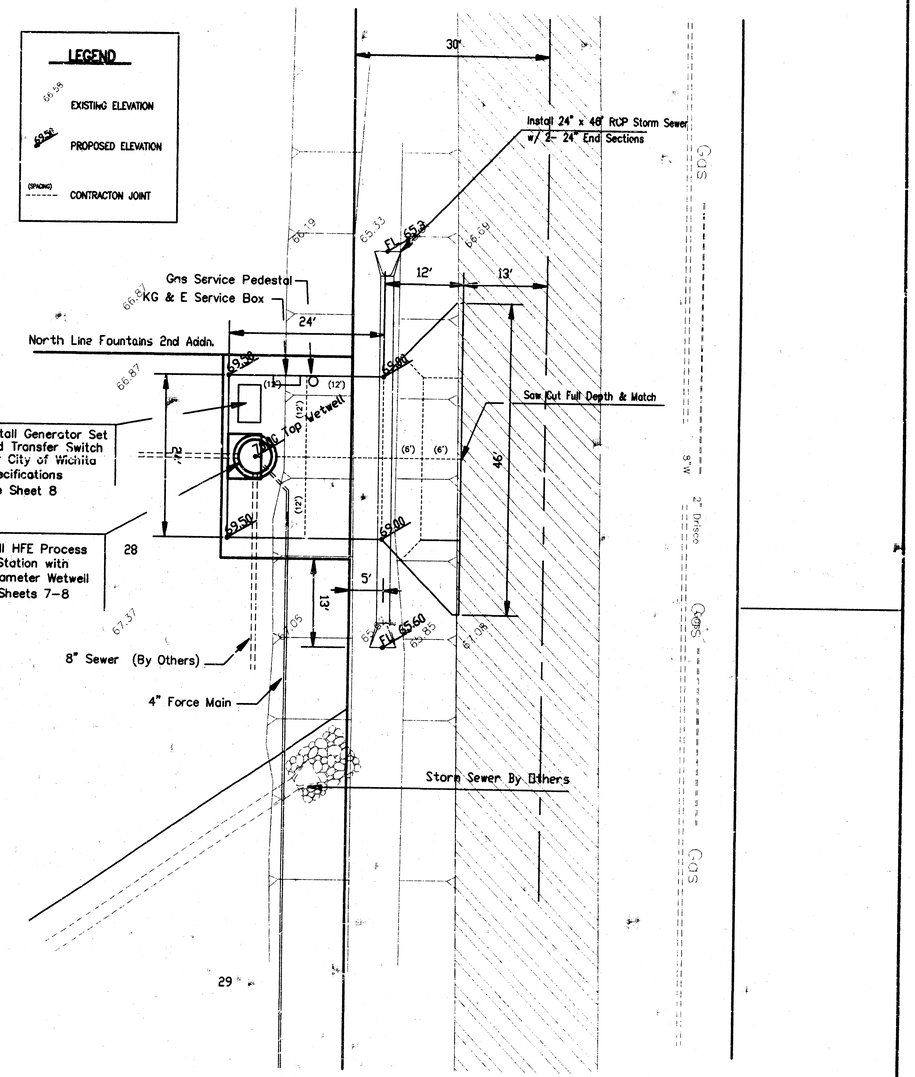
CONNECTION TO EXIST. PAVEMENT

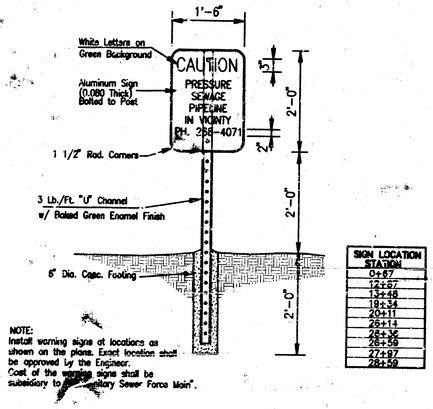
NOTE: Extra thickness to be Subsidiary to Price of Sq. Yds. Pavement



TYPICAL SECTION

LIFT STATION SITE PAVING DETAILS



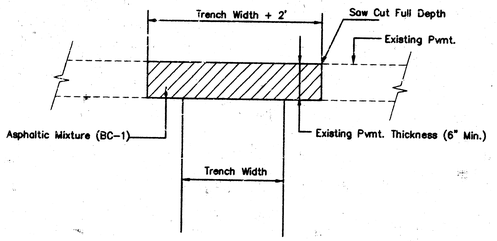


NOTE:
Install warning signs at locations as shown on the plans. Exact location shall be approved by the Engineer.
Cost of the warning signs shall be subsidiary to the Sanitary Sewer Force Main".

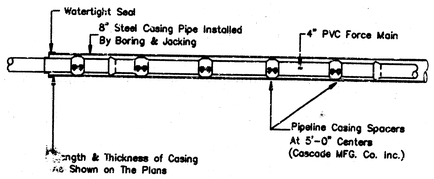
SIGN LOCATION STATION
0+67
12+67
13+48
19+34
20+11
25+14
25+36
26+56
27+97
28+59

METAL WARNING SIGN DETAIL

no scale



PAVING REPLACEMENT DETAIL



TYPICAL PIPELINE INSTALLATION
BY BORING AND JACKING

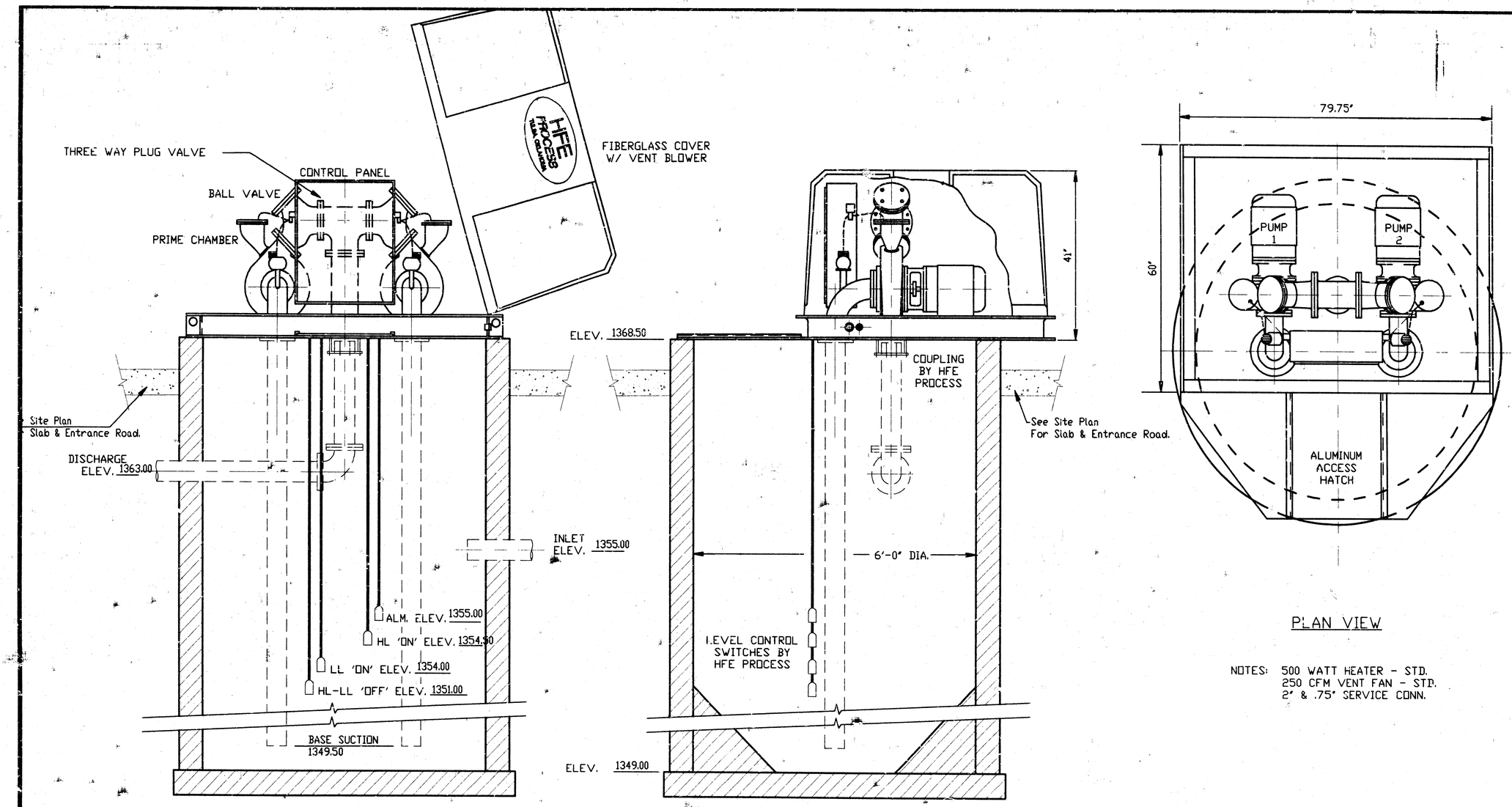
NO SCALE

HFE PROCESS LIFT STATION						
Pump No	Model	Design Flow gpm	Total Dynamic Head	Motor HP	Impeller Diameter	RPM
1	4NNTL	100	52	7.5	8.25"	1760
2	4NNTL	100	52	7.5	8.25"	1760

POE & ASSOCIATES OF KANSAS, INC.
Consulting Engineers
5940 E. Central Suite 200 ■ Wichita KS 67208 ■ 316/685-4114

ENGINEER: K. Hill	FOUNTAINS 2ND ADDITION
DRAFTSMAN: Jim Parsons	Lateral 133, War Industries Sewer
CAD TECH: Jim Parsons	SITE PLAN
DATE: September 1996	CITY OF WICHITA, KANSAS
SHEET 6 of 12	Project No. 468-82598
	Index Code 742841

K:\APPS\DOA\PW456\FN_BASE Wed Nov 13 07:30:54 1996 Jim Parsons Poe & Assoc.



FRONT ELEVATION

SIDE ELEVATION

PLAN VIEW

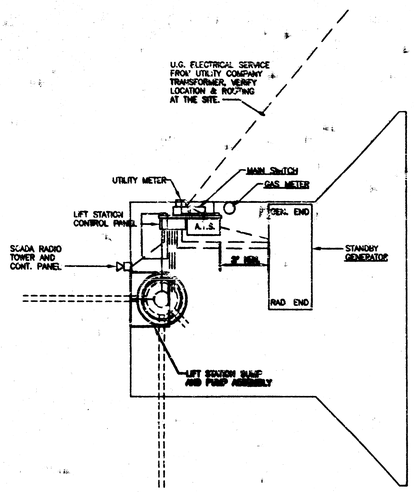
NOTES: 500 WATT HEATER - STD.
250 CFM VENT FAN - STD.
2" & .75" SERVICE CONN.

X:\APPS\DOA\PLV56\PM_BASE Tue Nov 12 08:29:57 1996 Jim Parsons Poe & Assoc.

HFE PROCESS TULSA, OKLAHOMA

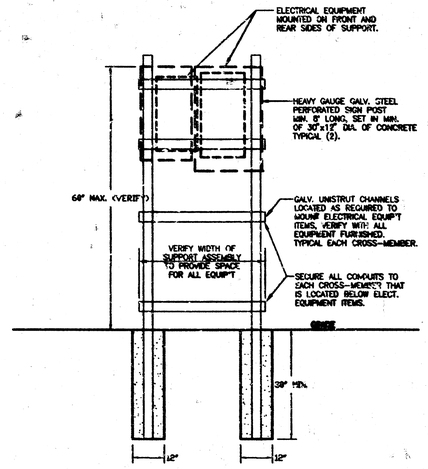
NO.	DATE	REVISION	BY	APP'D	DRAWN
					CHECKED
					APPROVED
					FILE NAME:

SCALE: 1" = 1'-0"
DRAWING NO.
ISSUE
7 of 12



ELECTRICAL PLAN
LIFT STATION

SCALE 1" = 4'-0"



ELECTRICAL EQUIPMENT MOUNTING SUPPORT DETAIL

NO SCALE

FEEDER SCHEDULE

MARK	DESCRIPTION
1	4 #1 IN 1 1/2" PVC CONDUIT
2	4 #1 IN 1 1/2" GRS CONDUIT
3	4 #1 & 1 #6 GROUND IN 1 1/2" GRS CONDUIT
4	4 #1 & 1 #6 GROUND IN 1 1/2" PVC CONDUIT
5	2 #12 & 1 #12 GROUND IN 1/2" PVC CONDUIT
6	3 #8 & 1 #10 GROUND IN 3/4" PVC CONDUIT
7	8 #12 IN 3/4" PVC CONDUIT – VERIFY
8	WIRING TO SCADA CONTROL PANEL & TOWER, VERIFY CONDUCTOR SIZES & QUANTITIES AND CONDUIT SIZE

NOTES:
1. ALL BELOW GRADE CONDUITS TO BE SCH. 40 PVC. TRANSISTION TO SCH. 80 PVC PRIOR TO RISING VERTICALLY TO ABOVE GRADE.
2. ALL RACEWAYS ROUTED ABOVE GRADE SHALL BE SCH. 80 PVC CONDUIT EXCEPT WHERE INDICATED ABOVE TO BE GRS.
3. ALL CONDUCTORS TO BE COPPER, TYPE THWN.

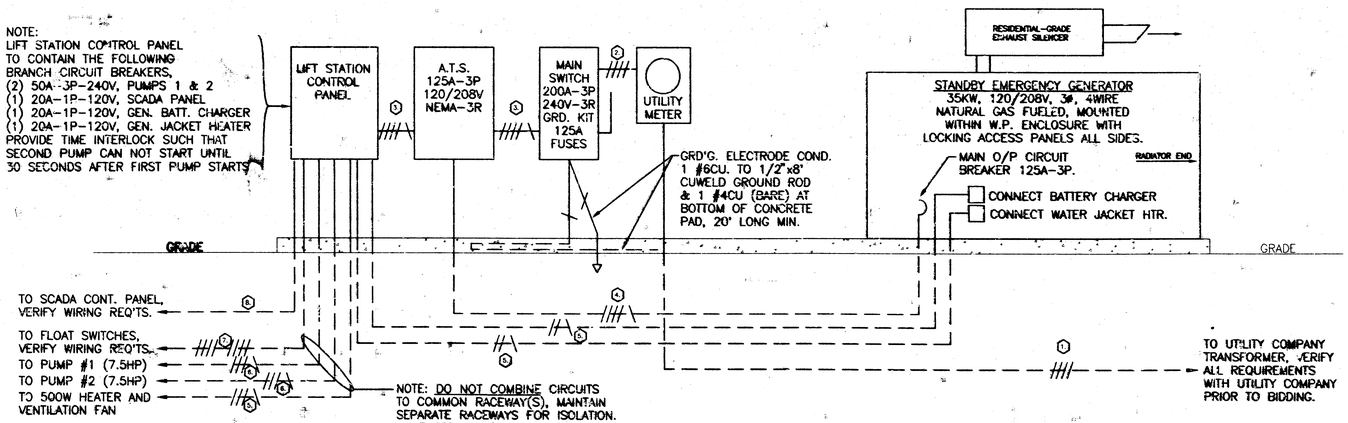
SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING
	GFCI RECEPTACLE, P&S #2091-SI SERIES	1'-3" AFF
	DUPLEX GROUNDED RECEPTACLE	1'-3" AFF
J	JUNCTION BOX	
F	BUSS #SSY BOX COVER UNIT & FUSTAT	(1)
	HEAVY DUTY SAFETY SWITCH (SIZE AS NOTED)	6'-0" TO TOP
	SURFACE MOUNTED ELECTRICAL PANELBOARD	5'-0" TO TOP
	CONDUIT RUN, 2#12 & 1#12 GROUND – 1/2" C.	WALL/CEILING
	CONDUIT RUN, 2#12 & 1#12 GROUND – 1/2" C.	WALL/CEILING
	CONDUIT RUN, 2 CIRCUIT, 3#12 – 1/2" C.	EARTH/FLOOR
WP	WEATHERPROOF	

1. MOUNT FUSTATS IN HOUSING OF EQUIPMENT SERVED.

GENERAL NOTES:

1. VERIFY ALL OUTLET LOCATIONS ON THE JCO PRIOR TO ROUGH-IN.
2. REFER TO ARCHITECTURAL, MECHANICAL AND STRUCTURAL PLANS AND SPECIFICATIONS FOR RELATED INFORMATION.
3. REFER TO THE SPECIFICATION DOCUMENTS FOR DATA NOT INDICATED ON THE ELECTRICAL DRAWINGS.
4. REFER TO THE LIFT STATION PLANS & SPECIFICATIONS FOR EXACT LOCATIONS OF LIFT STATION EQUIPMENT AND CONTROL WIRING REQUIREMENTS.
5. COORDINATE CONDUIT LOCATIONS WITH EQUIPMENT AND CONCRETE FORMS, SUCH THAT CONDUITS WILL NOT BE DAMAGED.
6. ALL RACEWAYS FOR LIGHTING, RECEPTACLE & POWER CIRCUITS SHALL BE PROVIDED WITH FULL-LENGTH, CODE-SIZED, "GREEN" INSULATED GROUNDING/BONDING CONDUCTOR – NO EXCEPTIONS. NOT ALL CIRCUITS ARE SHOWN ON THE PLANS WITH AN INDICATION OF THIS REQUIRED GROUNDING/BONDING CONDUCTOR, IT IS HOWEVER REQUIRED AS IF SHOWN. CONDUCTOR SIZES AS MAY BE INDICATED ON THE PLANS ARE MINIMUMS.
7. ALL RACEWAYS ROUTED BELOW GRADE SHALL BE MIN. SCHEDULE 40 PVC, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. PVC CONDUIT ROUTED ABOVE GRADE SHALL BE SCH. 80 – NO EXCEPTIONS.



LIFT STATION ELECTRICAL RISER DIAGRAM

JAMES L. MARTIN LICENSED 6203 KANSAS PROFESSIONAL ENGINEER
11-1-96

MARTIN ENGINEERING
PROFESSIONAL ASSOCIATE
ELECTRICAL CONSULTANTS

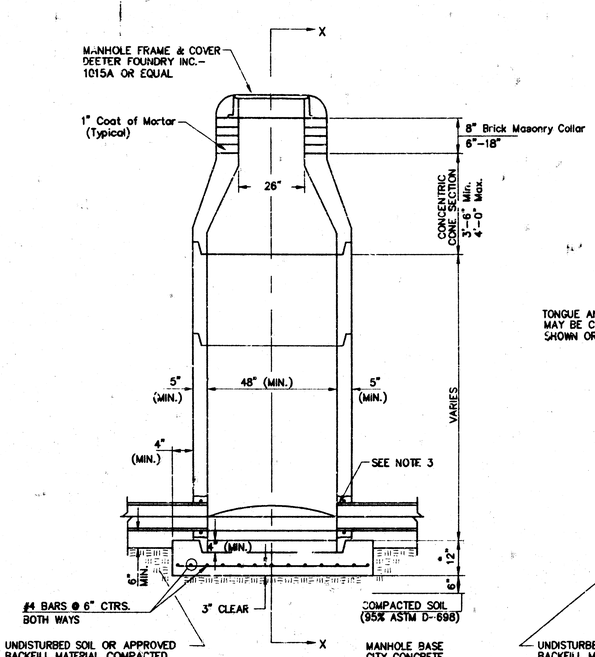
POE & ASSOCIATES OF KANSAS, INC.
Consulting Engineers
3840 E. Central Suite 200 ■ Wichita KS 67208 ■ 316/685-4114

DRAWN BY: K. Hill
ENGINEER CHARGE: Jim Parsons
CHK'D BY: Jim Parsons
DATE: September 1996
SHEET 8 of 12

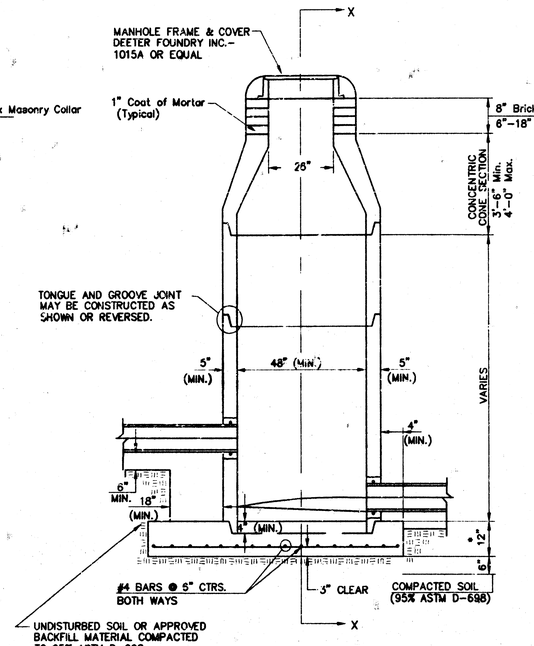
FOUNTAINS 2ND ADDITION
Lateral 133, War Industries Sewer
ELECTRICAL
CITY OF WICHITA, KANSAS
Project No.

X:\APPS\DCA\PLAN\ELEC Tue Oct 1 09:06:14 1996 Jim Parsons Poe & Assoc.

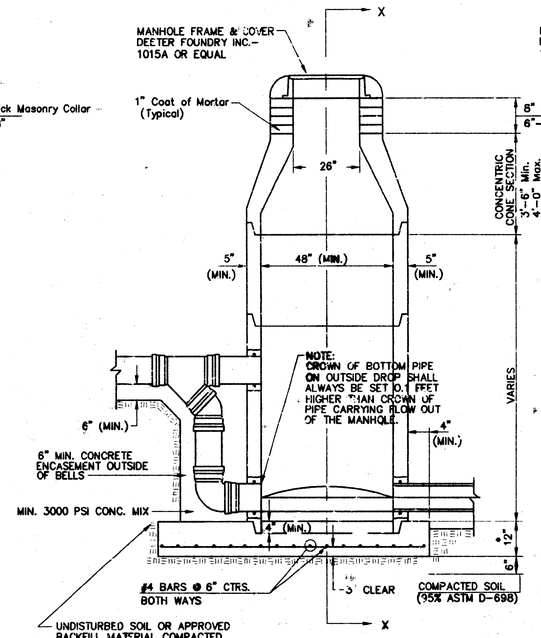
SEWER APPURTENANCES DETAILS



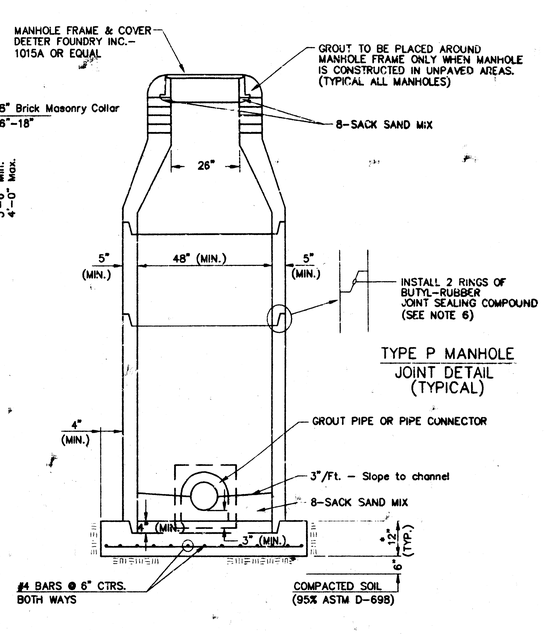
TYPE P
STANDARD MANHOLE



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 REVISIONS 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 THEMEC 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 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 2' 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. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.
*19. ALL MANHOLE BASE CONSTRUCTION THAT OCCURS IN THE FIELD MUST HAVE A MINIMUM OF EIGHT INCHES OF CONCRETE BELOW THE MANHOLE WALL AND THE WALL SECTION SHOULD EXTEND FOUR INCHES INTO THE BASE RESULTING IN A MINIMUM TOTAL BASE THICKNESS OF 12 INCHES. MONOLITHIC BASE SECTIONS CONSTRUCTED IN THE FACTORY AND CURED AS PER ASTM C478 MUST HAVE A MINIMUM EIGHT INCH THICK CONCRETE BASE. BASE SECTIONS CONSTRUCTED IN THE FACTORY UTILIZING A PREVIOUSLY MANUFACTURED MANHOLE WALL SECTION, AS OUTLINED IN THE ABOVE PARAGRAPH, MUST HAVE A MINIMUM BASE THICKNESS OF EIGHT INCHES WITH THE WALL SECTION EXTENDING FOUR INCHES INTO THE BASE AND BE MANUFACTURED IN COMPLIANCE WITH ASTM C478.

Revised Manhole Base See Note 19

THE CITY OF WICHITA

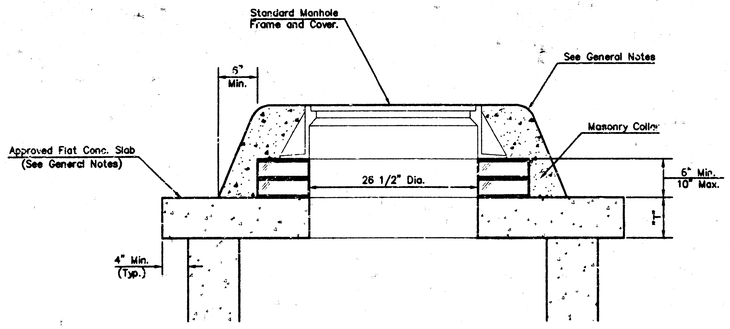
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4351
(316) 268-4314 FAX

STANDARD TYPE 'P' MANHOLES

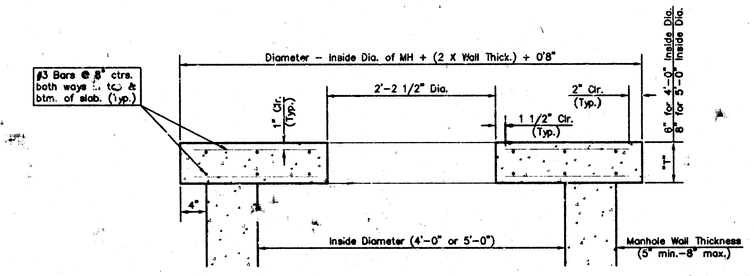
M. E. LINDEBAK P.E. - CITY ENGINEER

PROJECT NUMBER	INDEX CODE
468-82624	XXXXXX
DATE: MAR 96	SHEET 9 OF 12

X:\APPS\LOCAL\P\456\PKH Wed Nov 13 07:42:26 1996 Jim Parsons Poe & Assoc.

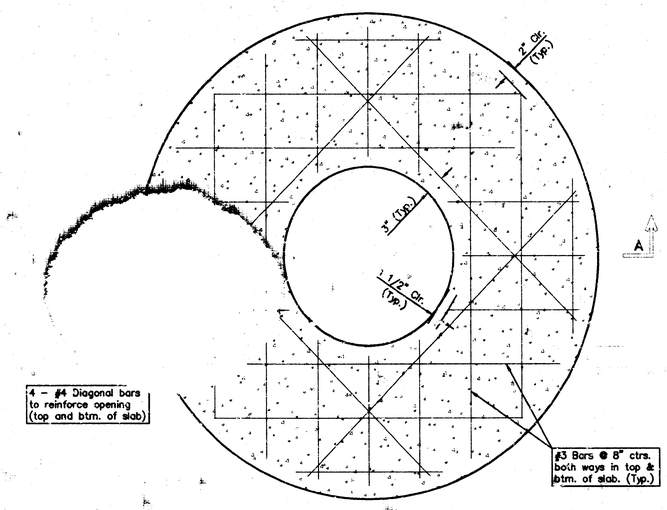


MASONRY COLLAR DETAIL

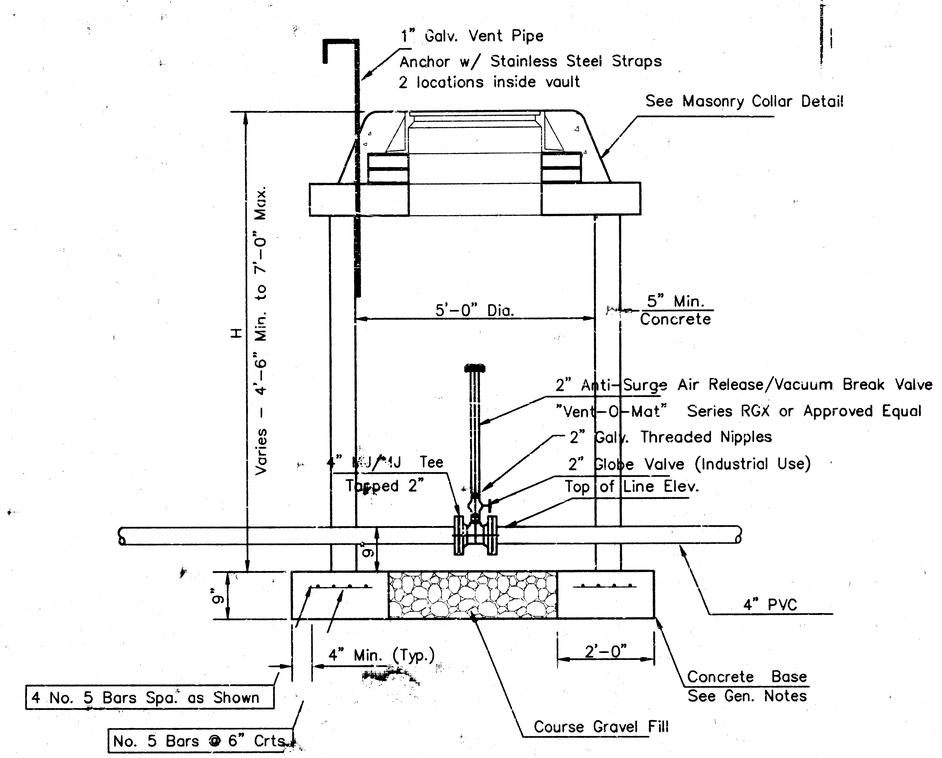


SECTION A-A

FLAT CONCRETE SLAB DETAILS



PLAN



AIR RELEASE/VACUUM BREAK DETAIL

GENERAL NOTES

1. 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 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.
2. 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. Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. Cost of cradle within manhole excavation shall be subsidiary.
4. 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.
5. All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

VAULT SUMMARY			
STATION	TOP LINE ELEV	TOP STRUCTURE ELEV.	H
6+14	1380.00	1385.25	6.0
23+05	1379.33	1383.70	5.1

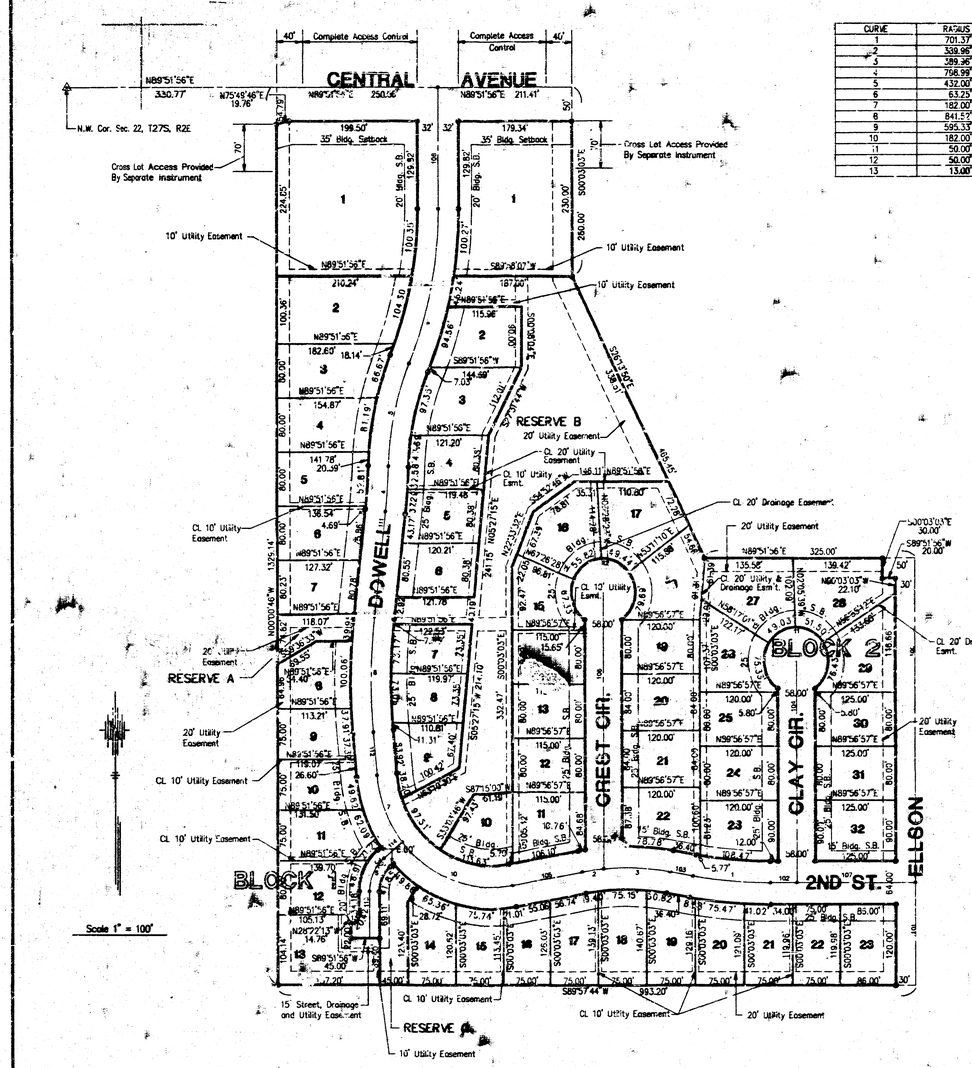
POE & ASSOCIATES OF KANSAS, INC.
Consulting Engineers
2940 E. Central Suite 200 ■ Wichita KS 67208 ■ 316/685-4114

DESIGNED :
ENG. TECH. :
CAD TECH:
DATE : Oct 1996
SHEET 10 OF 12

AIR RELEASE VACUUM BREAK DETAIL

PROJECT No. 468-82568
INDEX No. 742841

X:\APPS\CCA\P\456\AIR-REL Fri Nov 1 11:04:13 1996 Jim Parsons Poe & Assoc.



CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	701.37'	119.71'	60.00'	119.56'	S25°09'40"E	09°46'45"
2	339.96'	34.22'	17.12'	34.20'	S82°10'26"W	05°46'38"
3	389.96'	102.37'	51.49'	102.08'	N87°47'31"W	15°02'27"
4	768.99'	67.15'	33.61'	67.17'	N04°09'28"E	04°49'05"
5	432.00'	156.65'	79.20'	155.79'	N17°08'13"E	20°46'25"
6	63.25'	56.02'	30.00'	54.21'	S25°19'27"W	50°45'00"
7	182.00'	103.63'	53.09'	102.02'	S22°12'08"E	34°11'51"
8	841.52'	171.40'	86.00'	171.11'	S20°43'54"W	11°40'13"
9	595.33'	255.44'	119.28'	233.91'	N11°11'43"E	22°39'54"
10	182.00'	193.88'	107.29'	184.85'	S69°43'13"E	61°02'20"
11	50.00'	252.29'	35.60'	58.00'	S89°56'57"W	289°05'56"
12	50.00'	252.29'	35.60'	58.00'	S89°56'57"W	289°05'56"
13	13.00'	20.42'	13.00'	18.38'	N44°56'57"W	90°00'00"

LINE	DIRECTION	DISTANCE
100	S00°03'03"E	430.80'
101	S60°09'03"E	152.01'
102	N89°56'57"E	41.00'
103	S60°16'18"E	38.40'
104	S00°03'03"E	279.53'
105	N79°39'37"E	111.00'
106	S90°03'03"E	408.70'
107	N89°56'57"E	184.00'
108	N00°38'04"W	179.82'
111	S06°34'00"W	156.64'
112	S85°06'13"E	63.92'
113	S00°03'03"E	68.14'
114	S50°41'57"W	38.00'

Benchmarks
(M.S.L. Datum)

1. Top of iron in thimble at intersection of Centrel & Greenwich Elev. 1376.44
2. Railroad spike in PP 462'± E. of NW. Cor. Lot 1, Block 1. Elev. 1379.42
3. 3-40d nails in base of 10" elm tree 1330'± S. and 462'± E. of the NW. Cor. of Lot 1, Block 1. Elev. 1379.17

This is to certify that this instrument was filed for record in the Register of Deeds Office at 3:00 A.M.-P.M. on the 20th day of June, 1996.

#1535757

Pat Kettler
Pat Kettler, Register of Deeds

Phyllis Hernandez
Ex Rose, Joint Deputy
Phyllis Hernandez

STATE OF KANSAS, COUNTY OF SEDGWICK: SS.

I, Kenny E. Hill, being a duly licensed Land Surveyor in said County and State, do hereby certify that I am in responsible charge of surveying and platting "THE FOUNTAINS 2ND ADDITION" to Sedgwick County, Kansas, being a replat of "The Fountains" and being described as follows:

Commencing at the Northwest corner of the Northwest Quarter (NW1/4) of the Northwest Quarter (NW1/4) of Section 22, Township 27 South, Range 2 East of the Sixth Principal Meridian Sedgwick County, Kansas, thence bearing N 89° 51'56" E along the North line of said Northwest Quarter (NW1/4) of the Northwest Quarter (NW1/4) a distance of 330.77 feet to the point of beginning; thence continuing on a bearing of N 89°51'56" E along said North line a distance of 461.97 feet; thence bearing S 00°03'03" E a distance of 280.00 feet; thence bearing S 26°13'50" E a distance of 485.45 feet; thence bearing N 89°51'56" E a distance of 325.00 feet to a point on the East line of said Northwest Quarter (NW1/4) of the Northwest Quarter (NW1/4); thence bearing S 00°03'03" E a distance of 632.81 feet to a point on the South line of said Northwest Quarter (NW1/4) of the Northwest Quarter (NW1/4); thence bearing S 89°57'44" W along said South line a distance of 993.20 feet; thence bearing N 00°00'46" W a distance of 1329.14 feet to the point of beginning. Previously dedicated easements are hereby vacated by virtue of KSA 512-b.

The accompanying plat is a true and correct exhibit of property surveyed. Dated this 17TH day of MAY, 1996.

KENNY E. HILL — LS-684 — KANSAS — LAND SURVEYOR

Kenny E. Hill, LS. 684

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned, have caused the land described in the Surveyor's Certificate to be platted into lots, blocks, streets and reserves. The streets are hereby dedicated to and for the use of the public. Easements are hereby granted as indicated for the construction and maintenance of drainage and utilities. Reserves A, B and C shall permit drainage, sidewalks, utilities, landscaping and playground equipment or recreational improvements. The reserves shall be owned and maintained by a property owners association its successors and assigns. The minimum low opening elevation for the homes built on lots adjacent to Reserve "A", "B", or "C" is 1370.5 M.S.L. Datum (183.1 City of Wichita Datum). All abutters' rights of access to or from Central Avenue over and across the North line of Lot 1, Block 1, except the West 40 feet, and Lot 1 Block 2, except the East 40', are hereby granted to the City of Wichita.

Klepper Industries, Inc.

Donald L. Bales, President

Karl Solomon

Barbara J. Solomon

STATE OF KANSAS, COUNTY OF SEDGWICK: SS.

This instrument was acknowledged before me on this 17th day of May 1996, by Karl Solomon and Barbara J. Solomon husband and wife.

CAROL R. BARNES — Notary Public - State of Kansas — My Appt. Expires 1-15-2000

My Appointment Expires:

Notary Public
CAROL R. BARNES

STATE OF KANSAS, COUNTY OF SEDGWICK: SS.

This instrument was acknowledged before me on this 17th day of May 1996, by Donald L. Bales, President of Klepper Industries, Inc.

CAROL R. BARNES — Notary Public - State of Kansas — My Appt. Expires 1-15-2000

My Appointment Expires:

Notary Public
CAROL R. BARNES

This plat of THE FOUNTAINS 2ND ADDITION to Wichita, Kansas has been submitted to and approved by the WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION, Wichita, Kansas.

Dated this 4th day of April 1996.

SEAL

WICHITA SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION

Susan Osborne-Howes, Chairman

Marvin S. Kroul, Secretary

This Plat approved and all dedications shown heron, are accepted by the City Council of the City of Wichita, Kansas, this 11TH day of JUNE, 1996.

SEAL

Bob Knight, Mayor

Pat Burnett, Deputy City Clerk

Entered on transfer record this 20th day of June, 1996.

Susan E. Crockett-Spoon, County Clerk
Brent W. Shelton, Chief Deputy

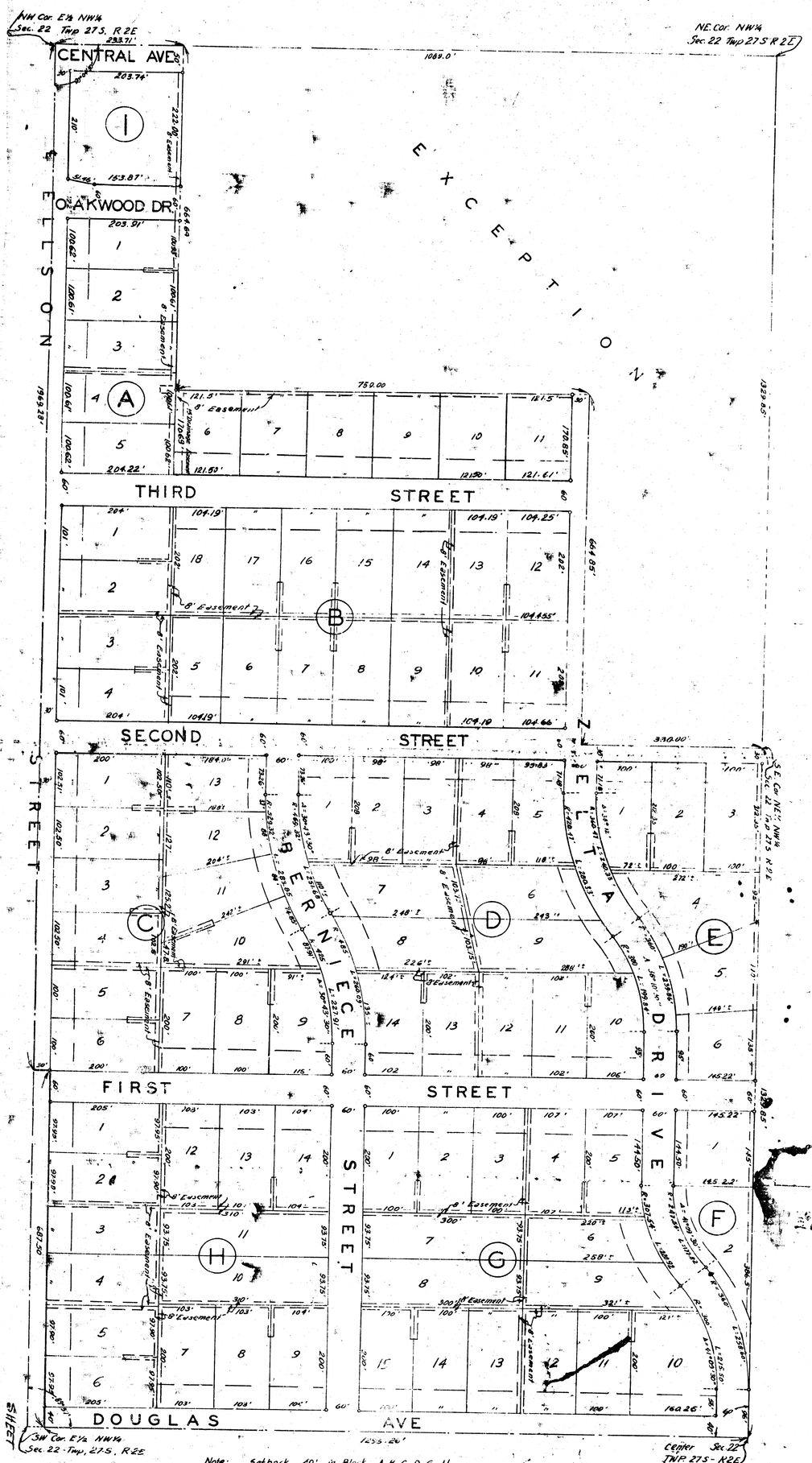
THE FOUNTAINS 2ND ADDITION

TO WICHITA, SEDGWICK COUNTY, KANSAS

20.09 ck

\APPS\DCA\PLAT\56\PLAT Fri May 17 14:08:03 1996 Kelly Henderson - Poe and Associates, Inc.

PC66-4



GOTT ADDITION
SEDGWICK COUNTY, KANSAS

State of Kansas
County of Sedgwick } ss

I, Don C. Moehring, C.E., a Civil Engineer in said State and County, do hereby certify that I have surveyed and platted "Gott Addition", Sedgwick County, Kansas, into Lots, Blocks, Streets, Avenues and Drives, the same being accurately set forth in the accompanying plat, being described as follows: The E½ of the NW¼ of Section 22, Twp 27S, R 2 E of the 6th P.M.; except the W 30.00 feet of the South 687.30 feet thereof and except beginning at the SE cor. of the N ± of the E½ of the NW¼ of said Section 22; thence West along the South Line of the N½ of the N½ of the NW¼ of said Section 22 a distance of 330 feet; thence North parallel with the East Line of the NW¼ of said Section 22 a distance of 664.85 feet; thence West 759.00 feet; thence North 664.69 feet to a point in the North Line of said Sec. 22 and 233.71 feet East of the NW Cor. of the E½ of the NW¼ of said Section 22; thence East a distance of 1089.0 feet to the N.E. Cor. of the NW¼ of said Section 22; thence South a distance of 1329.85 feet to the point of Beginning.

Don C. Moehring C.E.
DON C. MOEHRING C.E. Consulting Civil Engineer

Know all men by these presents, that we, the undersigned property owners of the land as above set forth in the Civil Engineers Certificate, have caused the same to be surveyed and platted into Lots, Blocks, Streets, Avenues and Drives, the same to be known as "Gott Addition" Sedgwick County, Kansas. The Streets, Avenues and Drives are hereby dedicated to and for the use of the Public and Easements for the construction and maintenance of Public Utilities, as indicated on the accompanying plat, are hereby granted.

Asa A. Gott Cordelia Gott

State of Kansas
County of Sedgwick } ss

Be it remembered that on this 19th day of September 19 53 before me, a Notary Public in and for said State and County, came Asa A. Gott and Cordelia Gott, his wife, to me personally known to be the same persons who executed the foregoing instrument of writing and duly acknowledge the same as their voluntary act and deed.

Hubert R. Kuhn, Notary Public
My Commission expires October 22 1955

This Plat of "Gott Addition" Sedgwick county, Kansas, has been submitted to and considered by the City Planning Commission of the City of Wichita, Kansas and is hereby transmitted to the Board of Commissioners of the City of Wichita, Kansas, with the recommendation that such plat be approved as proposed.

Dated this 6 day of Oct 1953

The City Planning Commission of the City of Wichita, Kansas

Vice Chm. Jr., Chairman
Attest: J. Thomas Vice, Secretary

Approved by the Board of City Commissioners this 13 day of Oct 1953.

Walt Kuhn, Mayor
[illegible], City Clerk

Approved by the Board of County Commissioners this 31st day of OCTOBER 1953

[illegible], County Clerk

Entered on transfer record this 2nd day of NOVEMBER 1953

[illegible], County Clerk

16981

State of Kansas
County of Sedgwick } ss

This is to certify that this instrument was filed for record in the Register of Deeds Office on this 2ND day of NOVEMBER 1953 at 11:50 o'clock A. M., and is duly recorded.

Les Ruttenman, Register of Deeds
_____, Deputy

Restrictive Covenants F 553 pg 814-22
Restrictive Covenants F 492 P32
Restrictive Covenant F-476 14477
Restrictive Covenants F 478 pgs 1231 & 1238
Restrictive Covenant F 484 pg 254
Restrictive Covenants F 484, Pgs 923, 934, 925 & 926
" " F 552
Restrictive Covenant F 317 pg 479
Restrictive Covenant F 273 pg 116
Restrictive Covenant F 110 pages 640
Restrictive Covenant F 159 pg 948
REST. COV M311 Page 427 & M311 Page 6
Restrictive Cov. F110 page 644 Rest Cov F:
Restrictive Cov. F110 page 953 Rest Cov pg

12 of 14
14-13-9