

SANITARY SEWER IMPROVEMENTS TO SERVE LARK 4TH ADDITION

Private Project Number
673 PPS (607861)

CITY OF WICHITA, KANSAS
Michael E. Lindebak, City Engineer

GENERAL NOTES:

1. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas One-Call 687-2470

The Contractor must notify the following in case of an emergency:

Cablevision 262-4270
or
K.P.L. Gas Service Company 263-2061
Kansas Gas & Electric Company 263-7511
Arkia Gas Company 264-1141
or
Southwestern Bell Telephone Company 942-8350
City of Wichita Water Department 263-8161
City of Wichita Sewer Maintenance 271-2611
268-4308
268-4071

2. 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.

3. Properties within project limits may have underground sprinkler systems in public right-of-way which conflict with new construction. Contractor will be required to remove such improvements should they not be removed by their owner at the time of construction of the project. The Contractor will be required to salvage all sprinkler heads and/or valves and give such material to their owner. Portions of underground sprinkler systems not in conflict with new construction shall be protected from damage and shall remain in place. All work in connection with underground sprinkler systems shall be considered as subsidiary to the contract pay items of work.

4. The Contractor shall notify pipeline companies at least 24 hours in advance of any work being performed across and/or adjacent to pipelines.

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

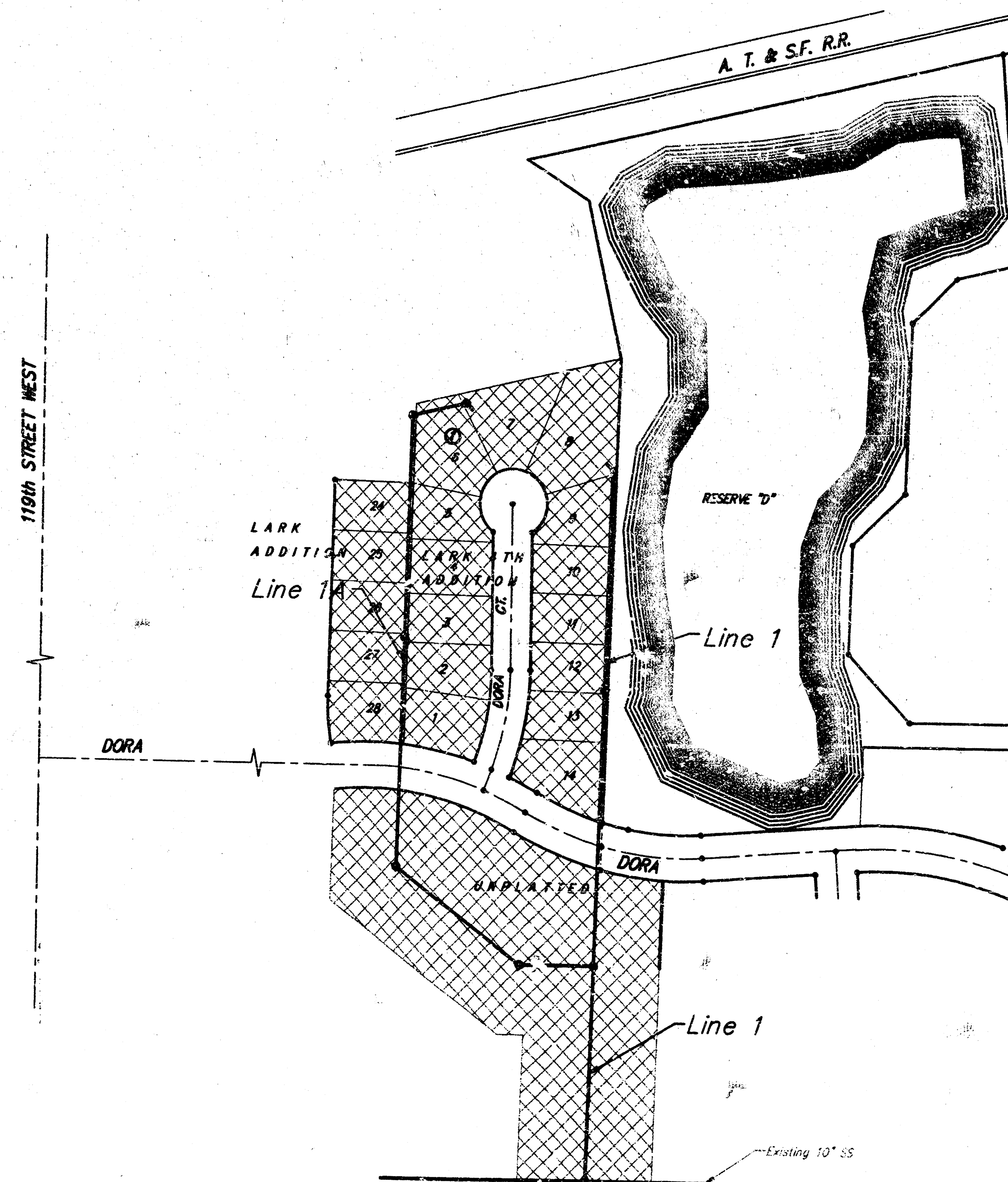
6. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.

7. The Contractor shall be responsible for maintaining continuous flow of sewage through construction. Contractor's proposed method for maintaining sewage flow shall be approved by the Engineer. Cost of maintaining flow of sewage through construction will not be paid for directly and this cost shall be considered as subsidiary to the other pay items of work.

8. 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.

9. Contractor shall grade the sanitary sewer alignment to the profile and elevations shown on the easement grading plan. All costs for grading shall be paid as lump sum for easement grading.

10. All areas disturbed by construction operations shall be seeded with ryegrass at a rate of 300 lbs/acre immediately following construction in that area.



Scale: 1" = 150'

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA
Sanitary Sewers 11/22/96 VRH

NOTE TO CONTRACTORS

Inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

Benefit District:

Booked
N. 272
9/19/97
RDL

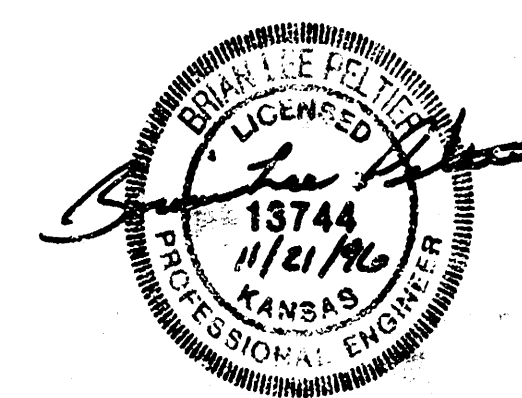
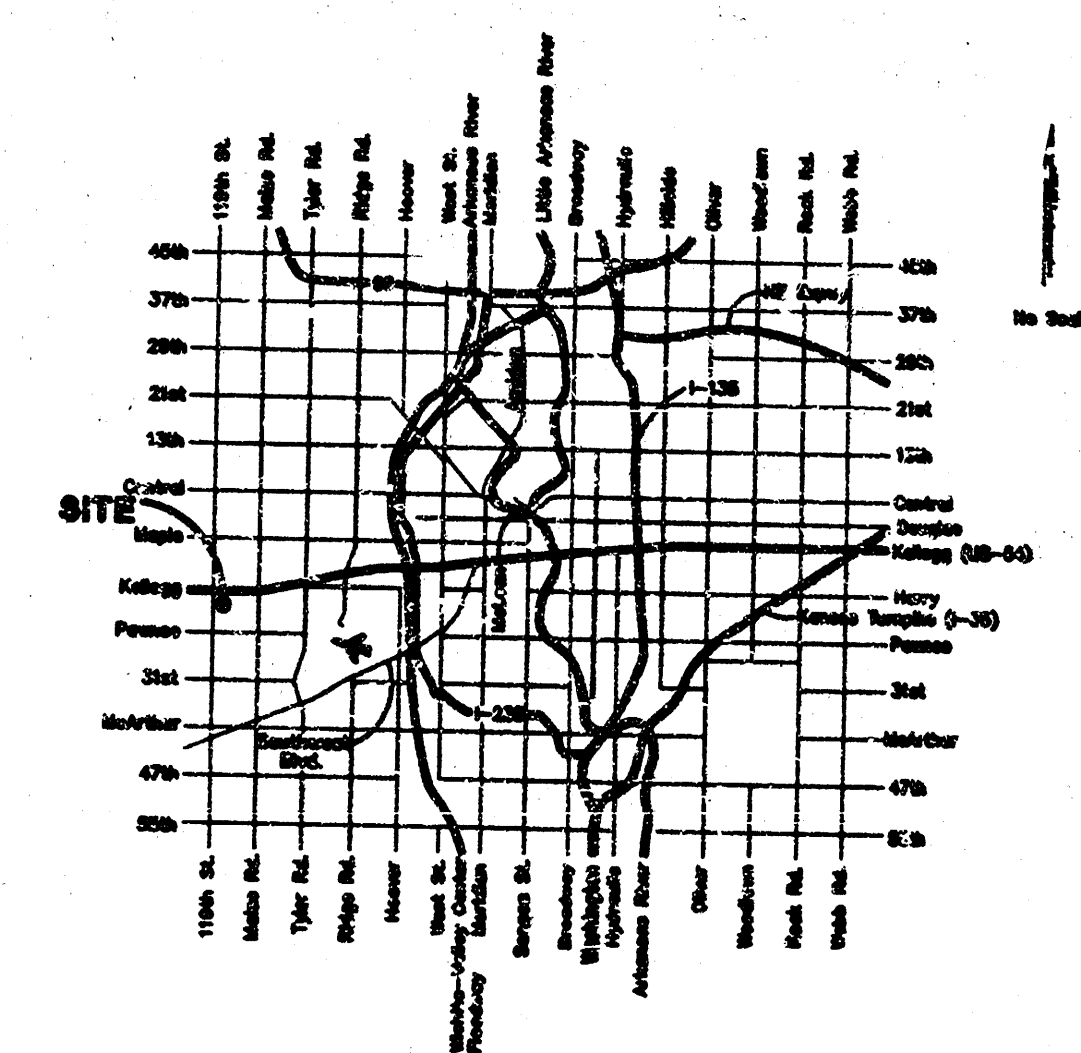
BENCHMARK:

BM #1 "X" On Top of Curb Located on the East Side of Shefford 12.5' South of the North Line of Pawnee Mesa Addition. Elevation = 143.56 (City Datum)

BM #2 R.R. Spike in East Side of P.P. Located 112.5' North of the North R/W of Dora and 41.5' East of the E of 119th Street West. Elevation = 145.26 (City Datum)

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- 1 Title Sheet
- 2 Line 1
- 3 Line 1A
- 4 Standard Manhole Detail
- 5 MH Cover & Frame Detail
- 6 Riser Detail
- 7 Easement Grading Plan
- 8 Copy of Plat



INSPECTOR: LYLE POWERS BAUGHMAN CO.
ASBUILT: 4/5/97 JFB BAUGHMAN CO.

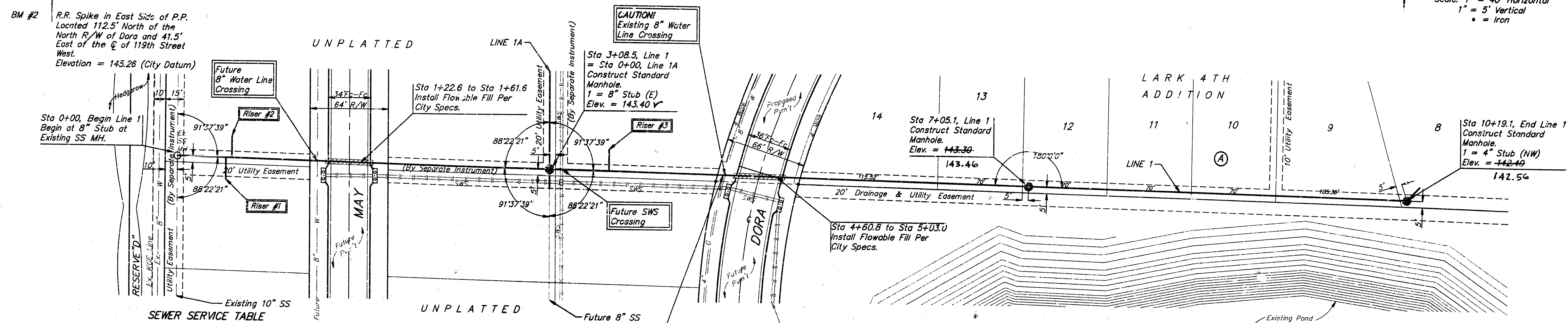
BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

673PPS

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on the East Side of Shefford
12.5' South of the North Line
of Pawnee Mesa Addition.
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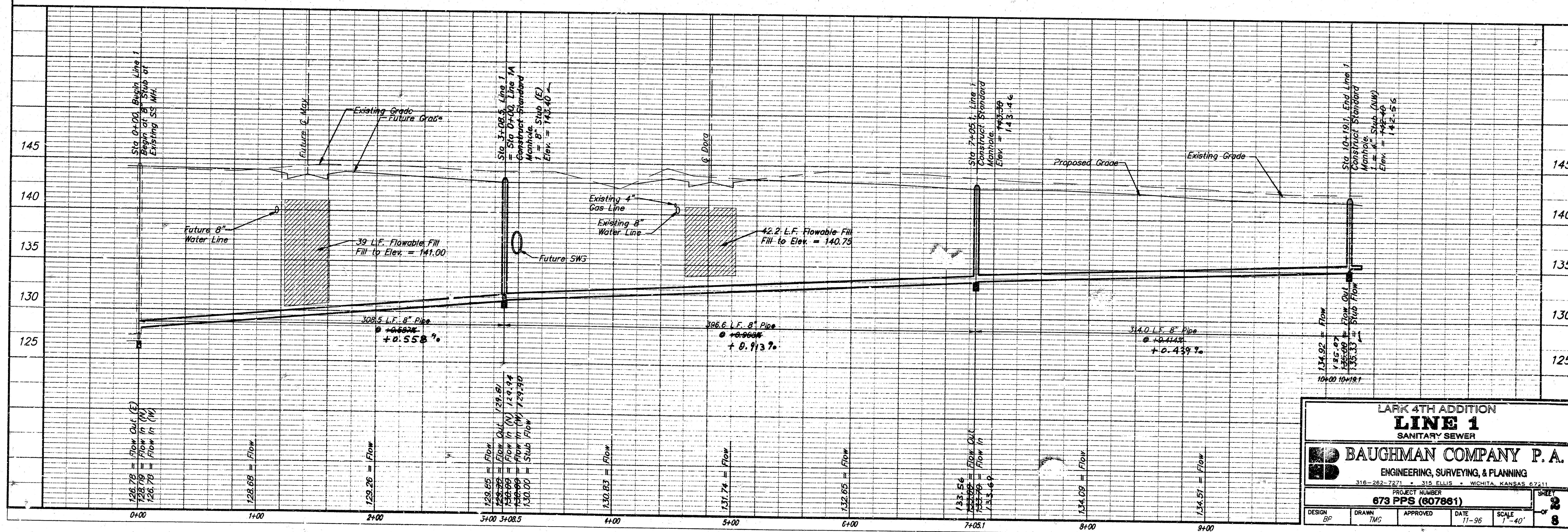
Scale: 1" = 40' Horizontal
1" = 5' Vertical
• = Iron



NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY		
		LOT NO.	BLOCK NO.	LINE NO.	STATION/ DIRECTION	APPROXIMATE LENGTH 4" PIP	
					VERTICAL	HORIZONTAL	
1	8" X 4' Tee Saddle	UNPLANTED		1	0+40.0/RL	13.0'	10'
2	8" X 4' Tee Saddle			1	0+45.0/Lt	13.0'	5'
3	8" X 4' Tee Saddle			1	3+57.8/Lt	7.5'	5'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.

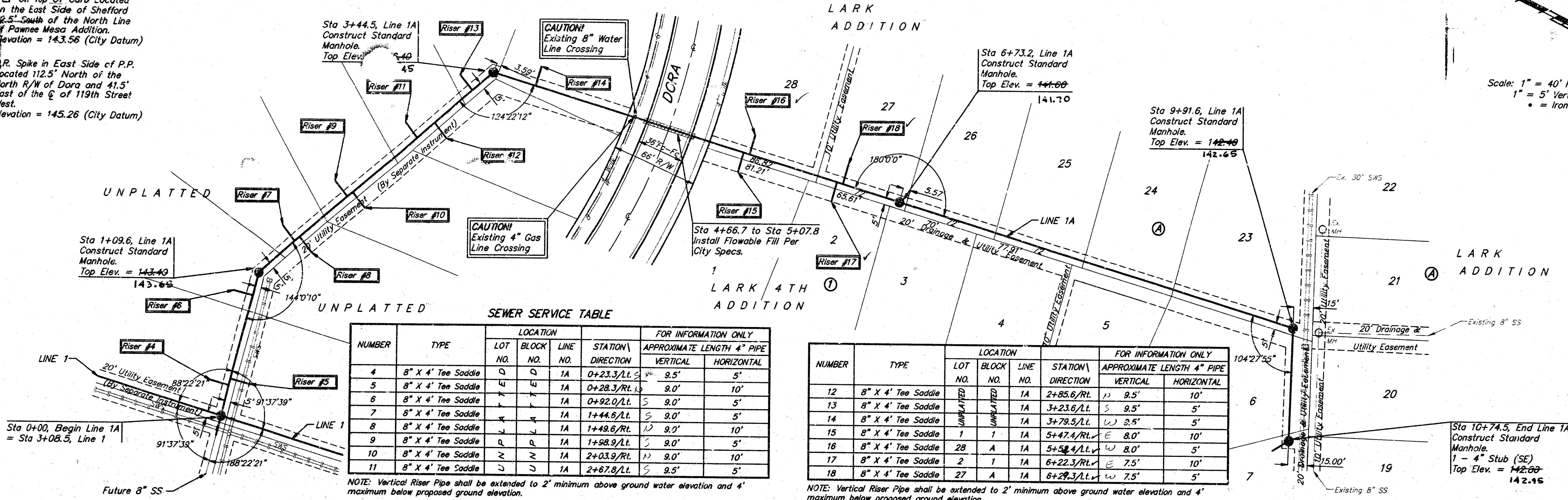
ASBUILT: 4/5/97 9FB



BENCHMARKS:

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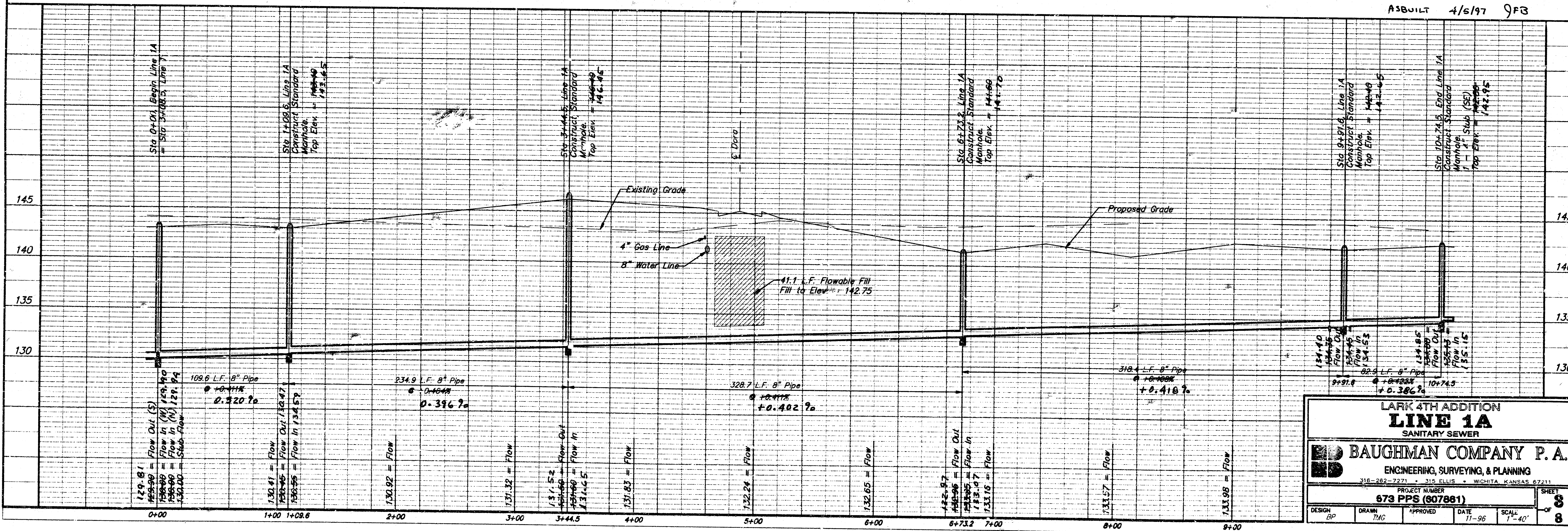
SEWER SERVICE TABLE

NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION\ DIRECTION	APPROXIMATE LENGTH 4" PIPE VERTICAL HORIZONTAL
4	8" X 4" Tee Saddle	Q	Q	1A	0+23.3/Lt.	9.5' 5'
5	8" X 4" Tee Saddle	U	U	1A	0+28.3/Rt.	9.0' 10'
6	8" X 4" Tee Saddle	X	X	1A	0+92.0/Lt.	9.0' 5'
7	8" X 4" Tee Saddle	X	X	1A	1+44.6/Lt.	9.0' 5'
8	8" X 4" Tee Saddle	X	X	1A	1+49.6/Rt.	9.0' 10'
9	8" X 4" Tee Saddle	Q	Q	1A	1+98.9/Lt.	9.0' 5'
10	8" X 4" Tee Saddle	Z	Z	1A	2+03.9/Rt.	9.0' 10'
11	8" X 4" Tee Saddle	Q	Q	1A	2+67.8/Lt.	9.5' 5'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.

NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION\ DIRECTION	APPROXIMATE LENGTH 4" PIPE VERTICAL HORIZONTAL
12	8" X 4" Tee Saddle	UNPLATTED	UNPLATTED	1A	2+85.6/Rt.	9.5' 10'
13	8" X 4" Tee Saddle	UNPLATTED	UNPLATTED	1A	3+23.6/Lt.	9.5' 5'
14	8" X 4" Tee Saddle	UNPLATTED	UNPLATTED	1A	3+79.5/Lt.	9.5' 5'
15	8" X 4" Tee Saddle	1	1	1A	5+47.4/Rt.	8.0' 10'
16	8" X 4" Tee Saddle	28	A	1A	5+58.4/Lt.	8.0' 5'
17	8" X 4" Tee Saddle	2	1	1A	6+22.3/Rt.	7.5' 10'
18	8" X 4" Tee Saddle	27	A	1A	6+29.3/Lt.	7.5' 5'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.



ASBUILT 4/6/97 9FB

**LARK 4TH ADDITION
LINE 1A
SANITARY SEWER**

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-252-2221 • 316 ELLIS • WICHITA, KANSAS 67211

673 PPS (607881)

DESIGN: BP, DRAWN: TAG, APPROVED: [Signature], DATE: 7-96, SCALE: 1"=40', SHEET: 8 OF 8

Fig. 1. *S. aureus* strains used in the study.



10



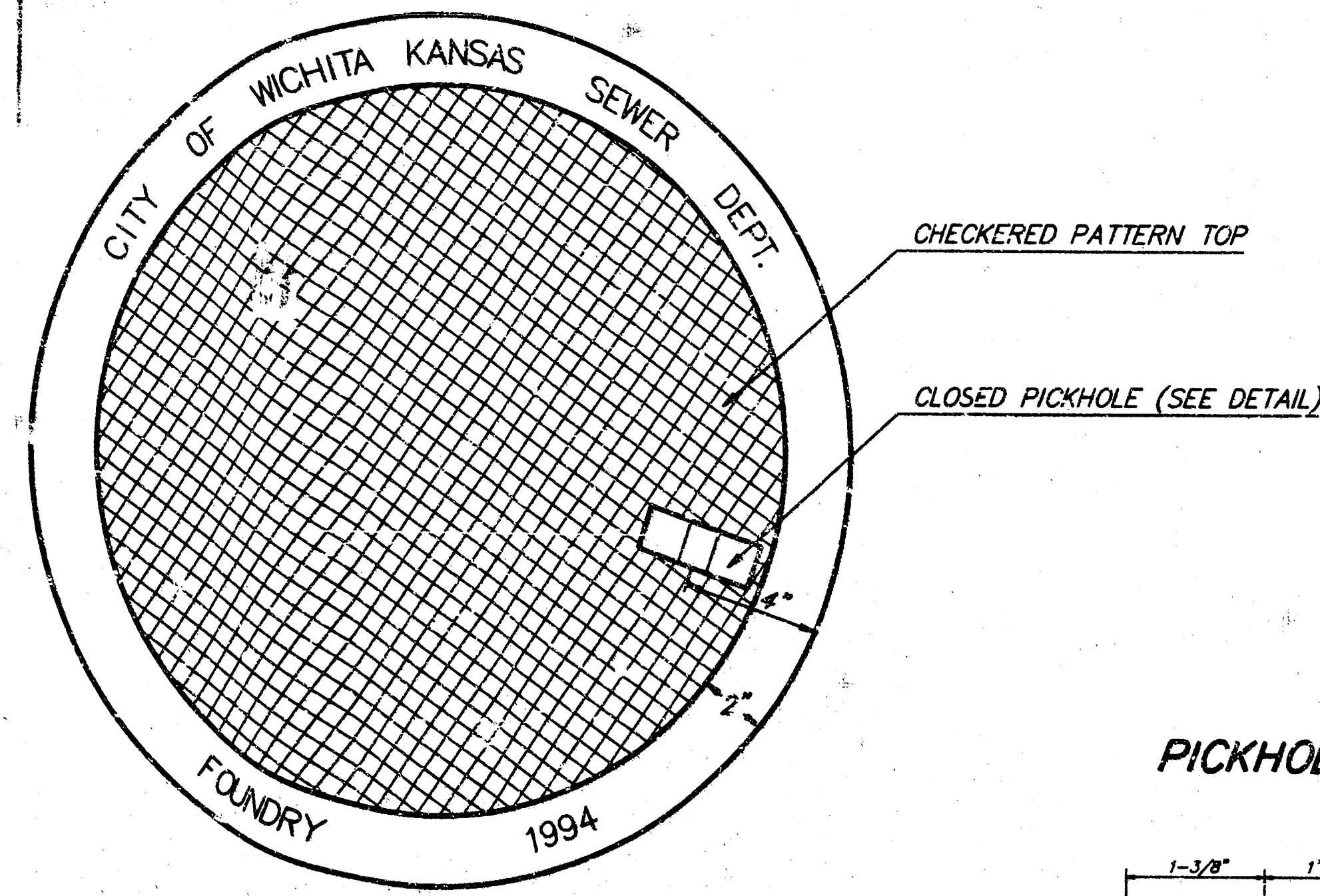
VOLUME 1

CLARK 4 | PMH 96-08-E455

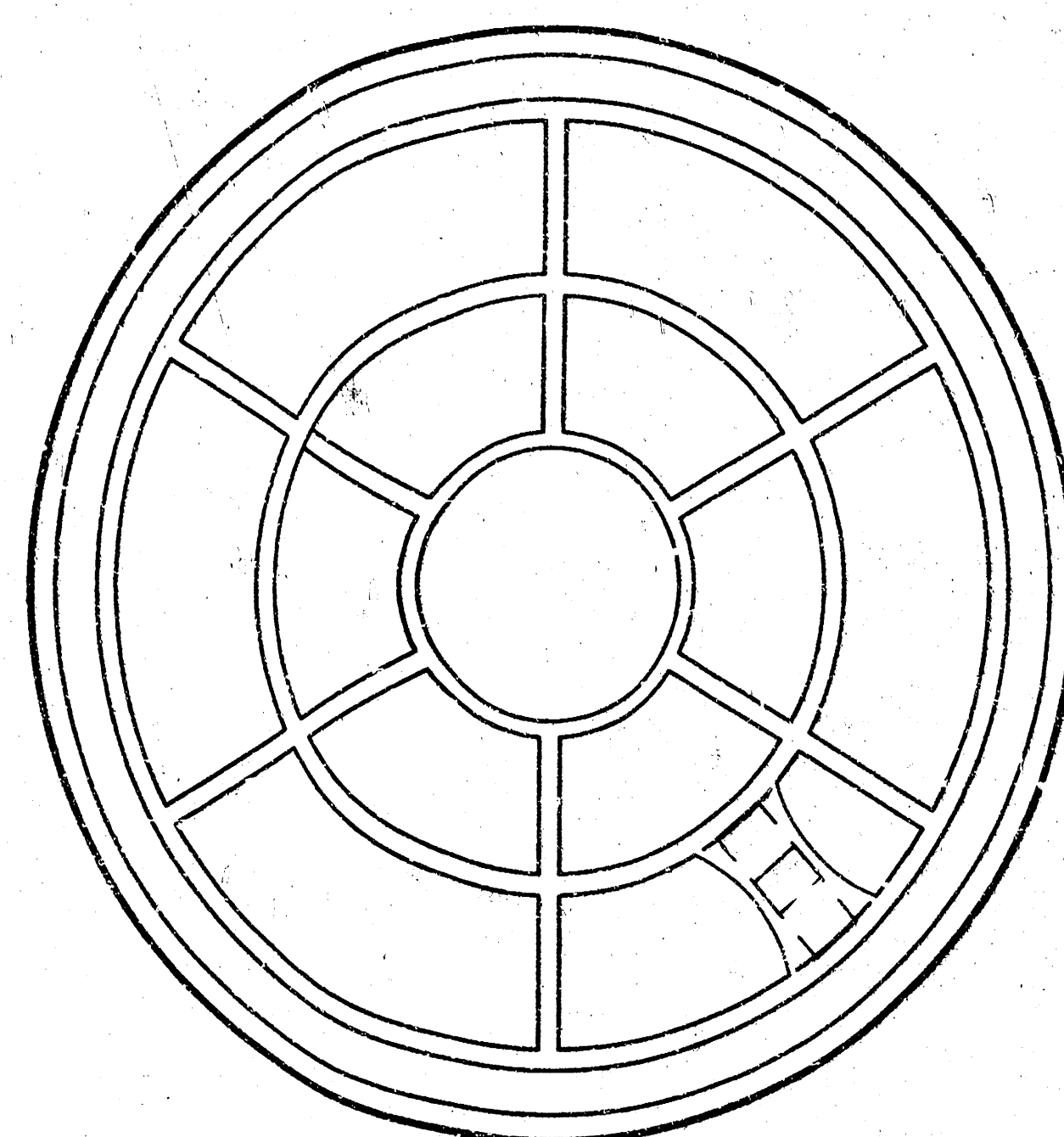
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE COVER
Weight = 180 Lbs.

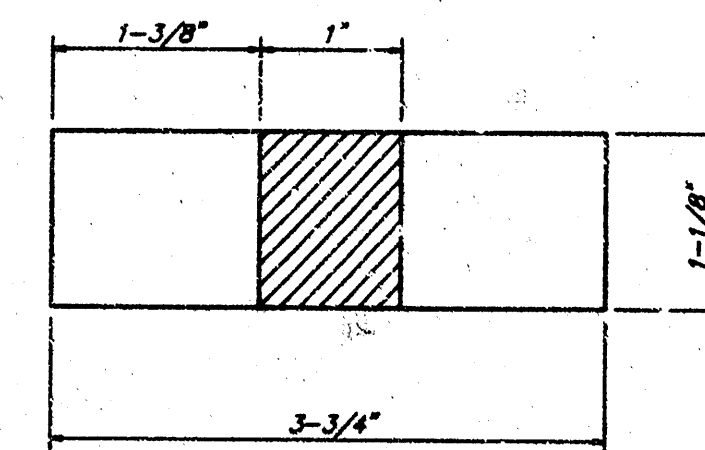


TOP VIEW

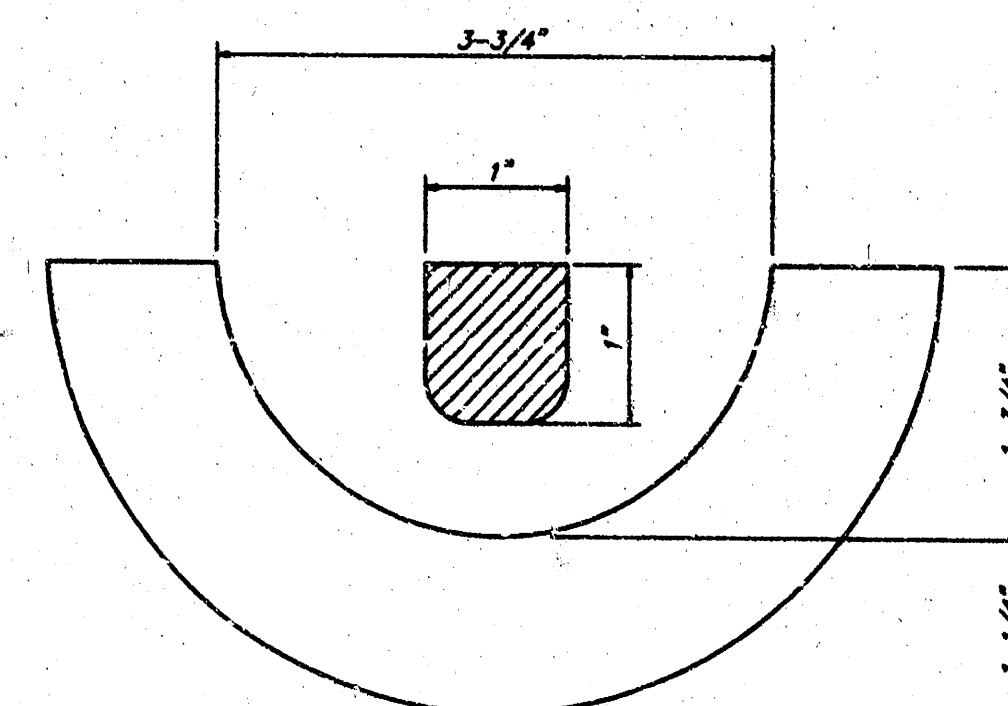


BOTTOM VIEW

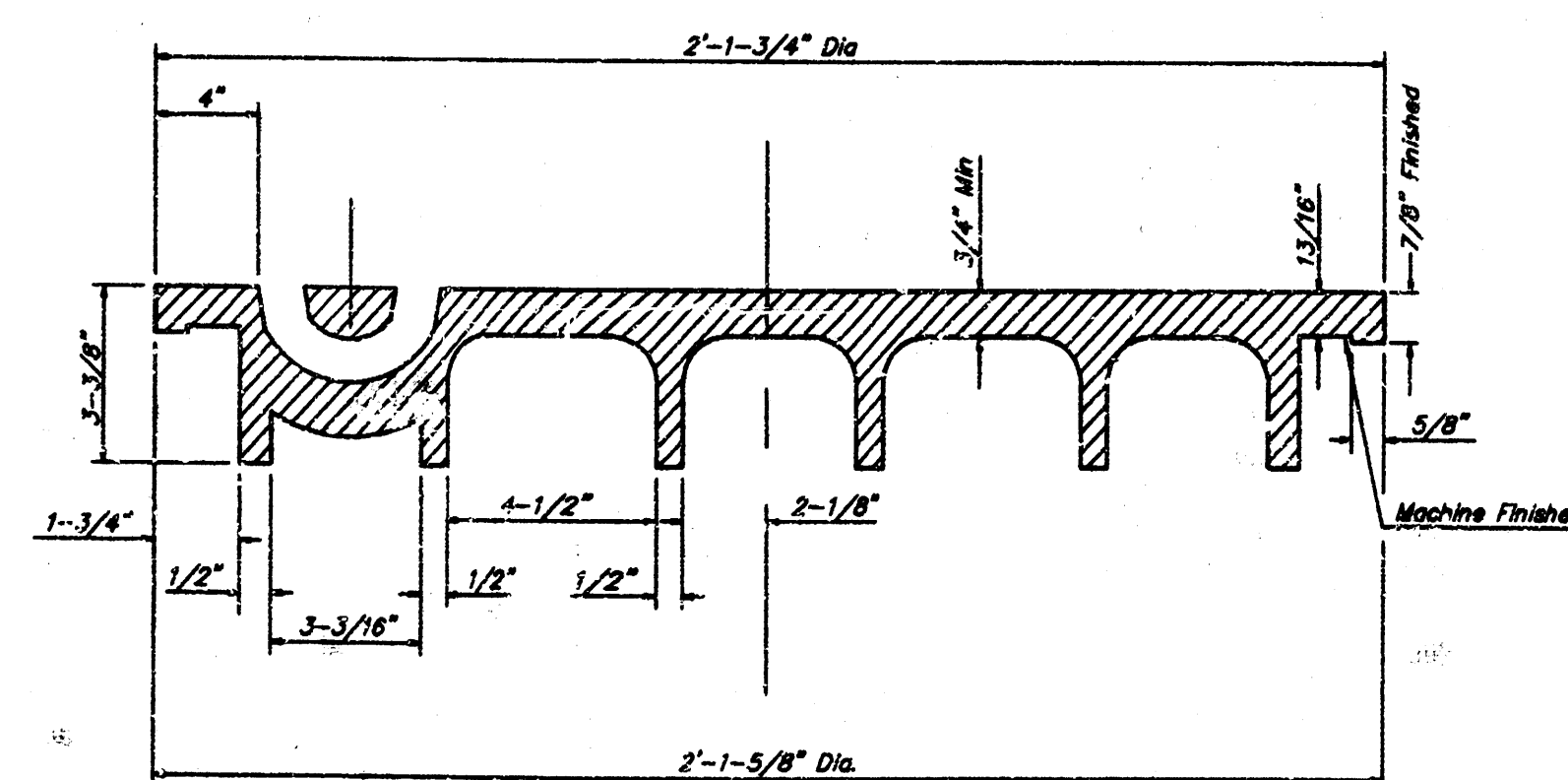
PICKHOLE DETAIL



TOP VIEW

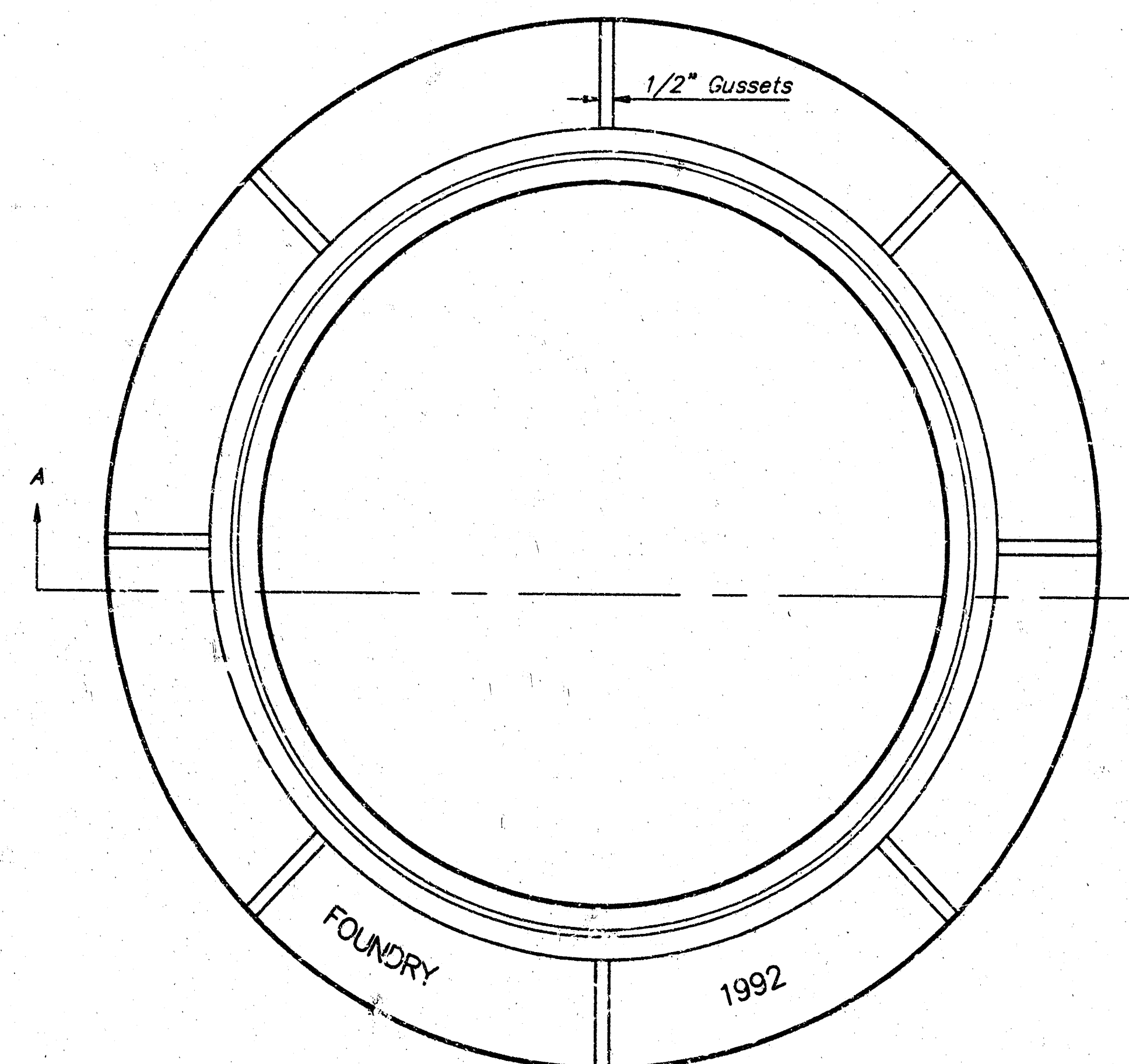


SECTION VIEW

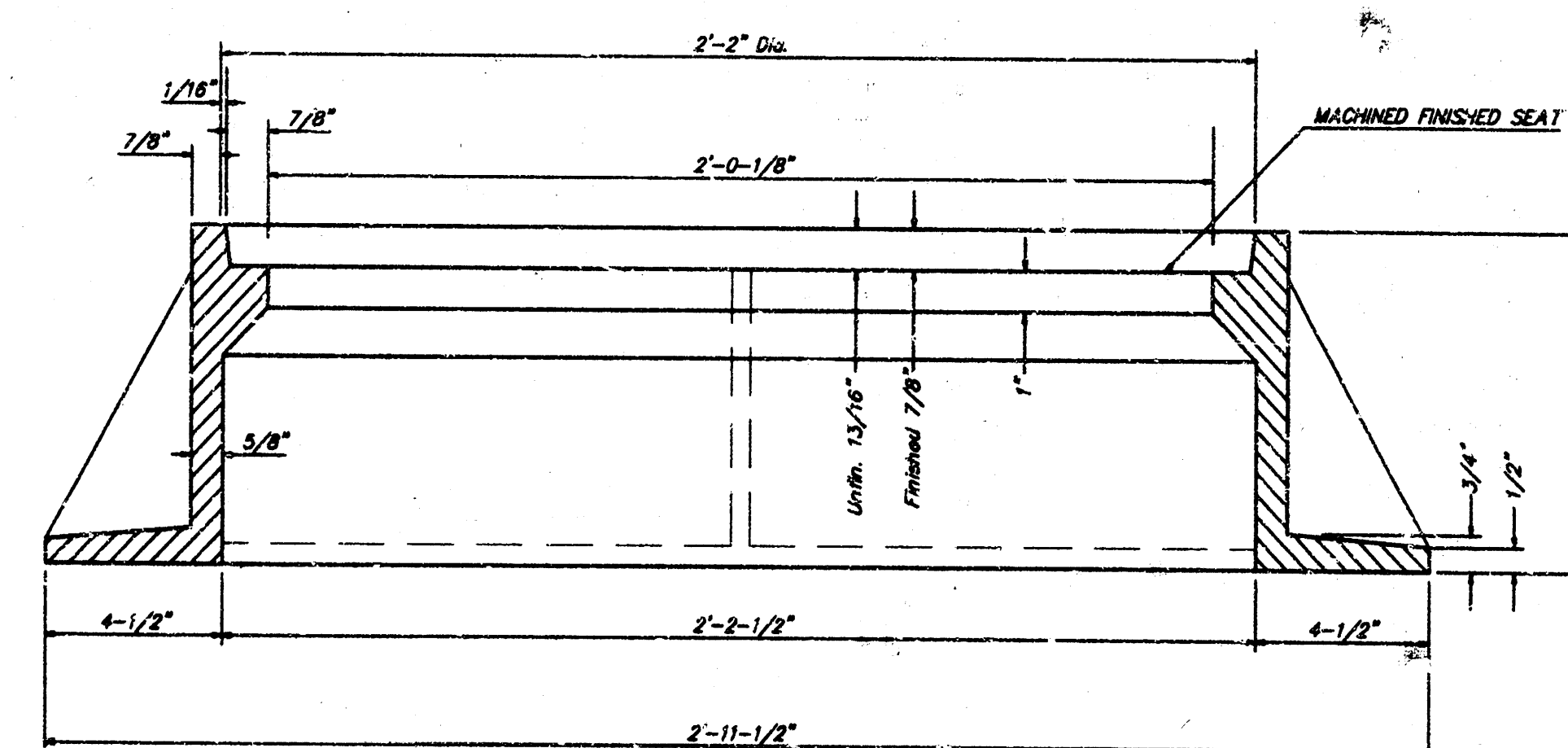


SECTION VIEW

MANHOLE FRAME
Weight = 240 Lbs.



TOP VIEW



SECTION A-A

GENERAL NOTES

MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUTS SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

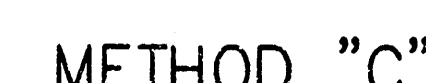
MANHOLE FRAME AND COVER DETAIL
ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-282-7271 • 316-282-7272 • WICHITA, KANSAS 67211

PROJECT NUMBER
873 PPS (607881)
DESIGN DRAWN APPROVED DATE SCALE
Staff NONE 11-96 NONE

SHEET
5
OF
8

BY
CITY OF WICHITA, KANSAS
OCTOBER 1992



NOTE: RISER PIPE REQUIREMENTS AT MANHOLE STUBS SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

GENERAL NOTES

1. **RISERS.** Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table. Risers shall also be installed to serve all lots and tracts where the sanitary sewer main depth is greater than 12 feet below the proposed ground elevation. Installation of risers because of field conditions shall be approved by the Construction Engineer. The location of the risers to serve existing property lots shall be approved by the property owner and the Construction Engineer.
2. **PIPE STUBS.** Pipe stubs shall be installed in manholes where locations of manholes will provide satisfactory sewer connection as determined by the Construction Engineer. The minimum distance between the manhole and the manhole pipe stub and the flowline of the sanitary sewer main out of the manhole shall not exceed 2 feet. Risers shall be utilized at manhole pipe stubs as indicated in Note 1. Manhole pipe stubs shall be set such that the top of the stub is not lower than the top of the sanitary sewer main.
3. **SIZING.** Pipe stubs and risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers or pipe stubs are required because of field conditions, the risers and stubs shall be six-inch diameter for commercial or industrial properties and four-inch diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers and stubs shall be approved by the Construction Engineer prior to installation.
4. **RISER OR PVE SUB MATERIAL.** Risers and stubs shall be constructed of SDR 35 PVC Pipe. Schedules shall conform to the requirements of the latest revision of A.S.T.M.. All pipe joints shall be solvent welded.
5. **REINFORCED CONCRETE ENCASUREMENT.** Riser connections to clay pipe sanitary sewers shall be reinforced concrete encased both above and below the riser. The reinforced concrete encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet from the riser centerline. Riser pipe shall be reinforced. Sanitary Sewer mains shall be reinforced concrete encased one foot each way from the riser centerline. The concrete encasement shall be reinforced using rebar. Reinforcement shall be as shown on appropriate drawing. The concrete shall conform to the City Standard Specifications for concrete pavement.
6. **BEDDING.** Bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted from the depth of the sanitary sewer main to the top of the riser. Riser pipe shall be compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical well or sloped wall trenches. Bedding material and construction shall be approved by the Construction Engineer prior to installation.
7. **SUPPORT OF RISERS.** Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and bedding the riser pipe shall be approved by the Construction Engineer.
8. **PLUGGING.** The ends of the riser pipes and manhole stubs shall be plugged using an airtight sloped welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. The riser plugs which do not provide an airtight seal will not be accepted.
9. **TOP OF THE RISER PIPE.** The top elevation of the sanitary sewer riser pipe shall be built per elevations, unless otherwise directed by the Construction Engineer. Where riser elevations are not shown on the plans, the top of the risers shall be set at the proposed ground surface. The proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation two feet (min.) above the maximum water table elevation, regardless of the riser elevation shown on the plans.
10. **MARKING.** Locations of the ends of the sanitary sewer riser pipe shall be marked by fastening green colored plastic tape to the end of the riser. The tape shall be supported by a length of wooden 2 x 4, extending from the top of the riser to the proposed ground surface. The tape shall be visible and extend one foot above the proposed ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of 1/2 inch. The tape shall be secured for the purpose of identification of underground sewers.
11. **LOCATION MEASURES.** The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicating the direction from the manhole, the direction and distance from the main, riser size, and elevation of the top of the riser.
12. **RISER LOCATION.** The riser shall be located per plan if shown. If not shown on the plan, which price shall be full compensation for all pipe, fittings, marking tape, length of wooden 2 x 4, reinforced concrete encasement, support during backfill, backfill, and labor, and restoration, and any other items necessary to complete the work.
13. **PAYMENT.** "Sanitary sewer risers" shall be paid for at the contract unit price per riser, which price shall be full compensation for all pipe, fittings, marking tape, length of wooden 2 x 4, reinforced concrete encasement, support during backfill, backfill, and labor, and restoration, and any other items necessary to complete the work.

"Manhole stubs" shall be paid for at the contract unit price per each, which shall be full compensation for all labor, material, and incidentals necessary to complete the work including all pipe, fittings, reinforced concrete encasement, and all other items as required and listed for "Sanitary Sewer Risers".

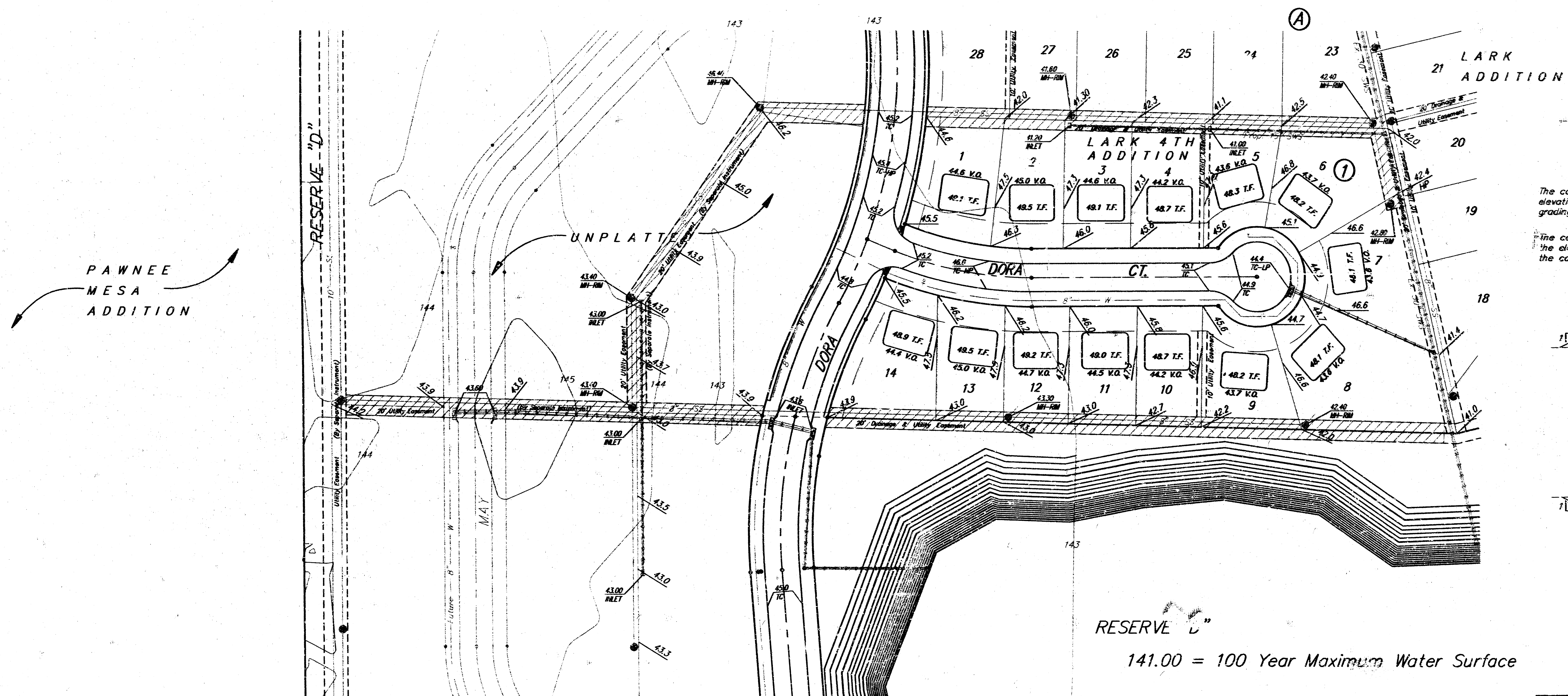
City of Wichita Standard Riser Details				
 BAUGHMAN COMPANY P.A. ENGINEERING, SURVEYING, & PLANNING 316 - 2627-7271 • 315 - 5815 • WICHITA, KANSAS 67211				
PROJECT NUMBER: 673 PPS (607988)				SHEET 3
DESIGN	DRAWN	APPROVED	DATE 06-06-96	SCALE 1"=40'

BENCHMARKS:

BM #1 - 1" On Top of Curb Located on the East Side of Shefford 12.5' South of the North Line of Pawnee Mesa Addition. Elevation = 143.56 (City Datum)

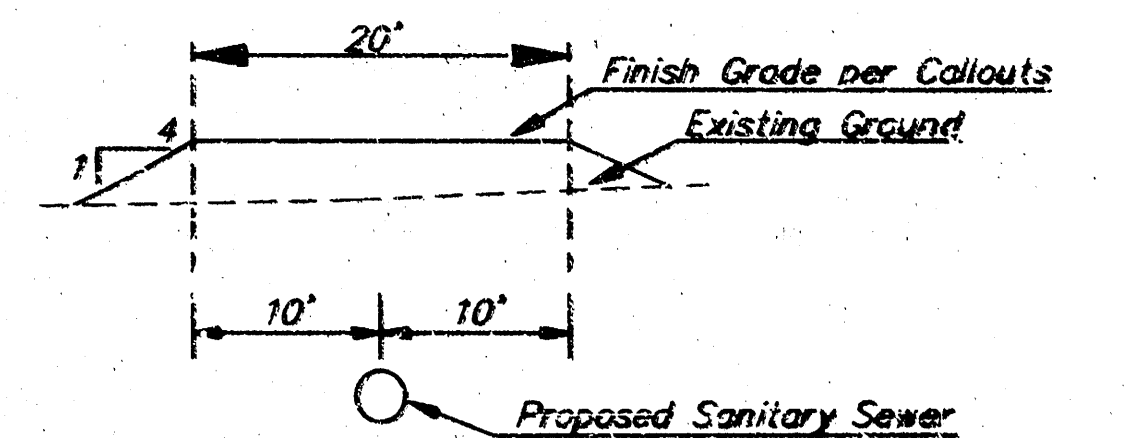
BM #2 - R.R. Spike in East Side of P.P. Located 112.5' North of the North R/W of Dora and 41.5' East of the C of 119th Street West. Elevation = 145.26 (City Datum)

Scale: 1" = 60' Horizontal
• = Iron

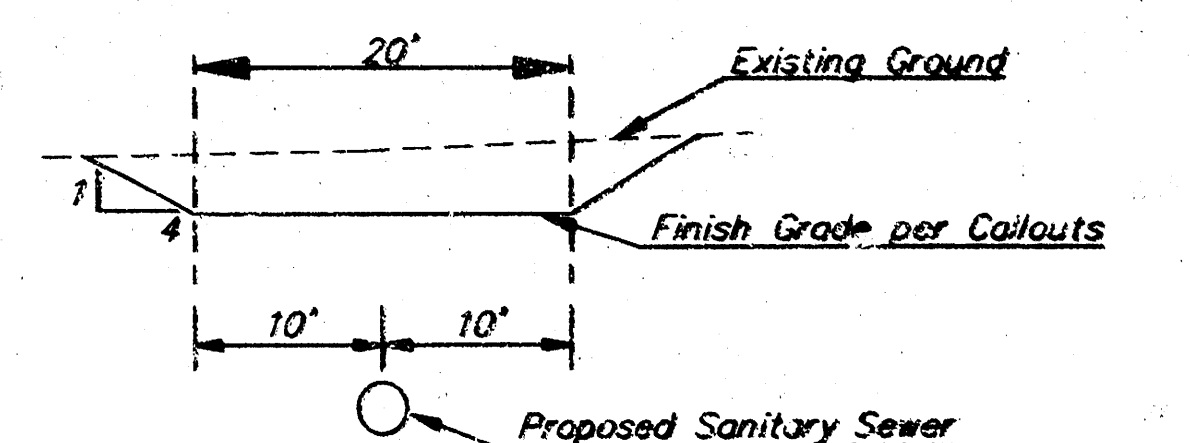


The contractor shall grade the easements as shown to the elevations given on the easement grading plan. All costs for grading shall be incidental to the Easement Grading Bid Item.

The contractor shall 'straight' grade the easements between the elevations given. Where a callout designates 'Match', the contractor will grade to the existing ground elevation.



TYPICAL FILL SECTION

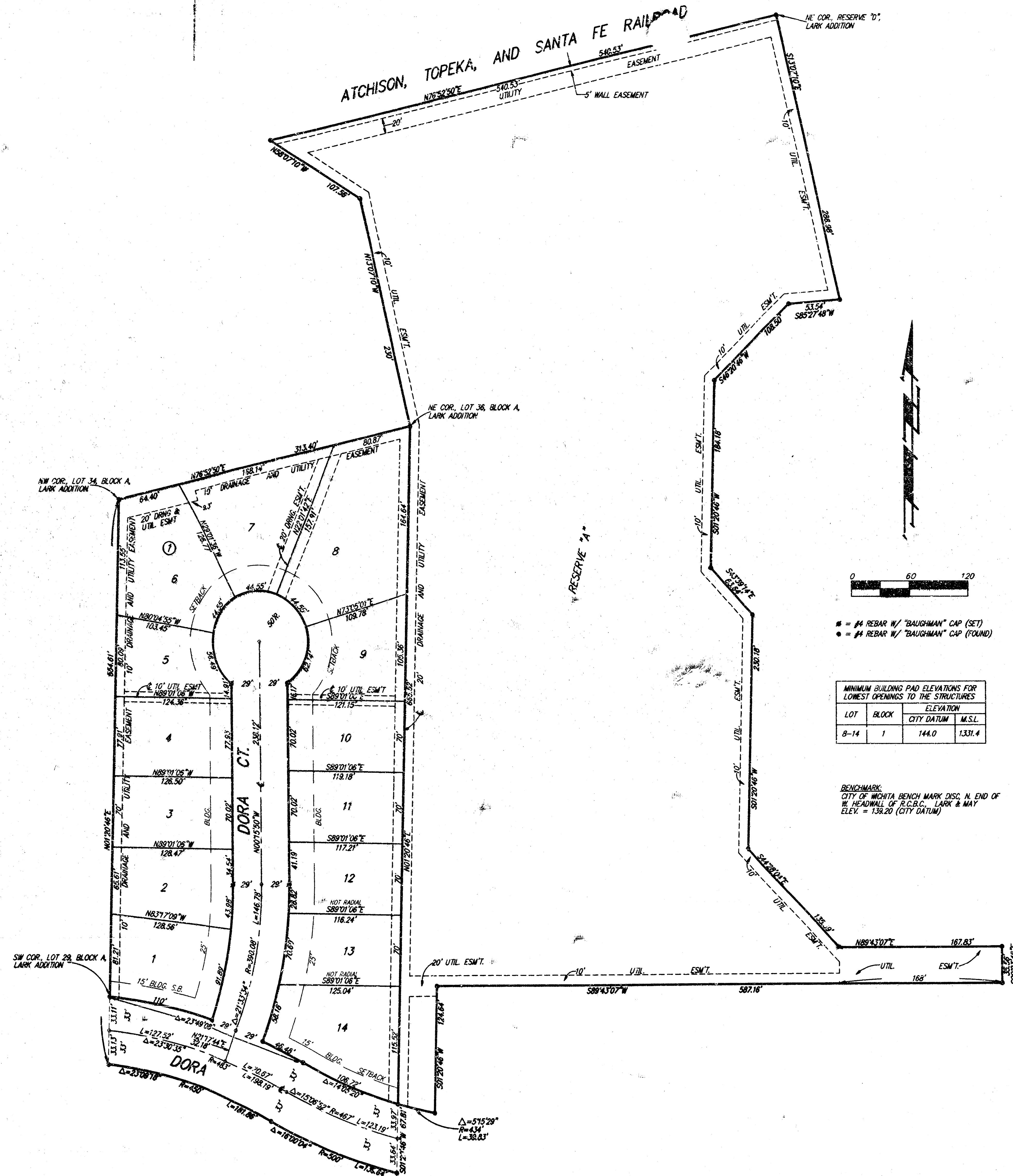


TYPICAL CUT SECTION

EASEMENT GRADING

LARK 4TH ADDITION			
ESMT. GRADING PLAN			
SANITARY SEWER			
BAUGHMAN COMPANY P.A.			
ENGINEERING, SURVEYING, & PLANNING			
315-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211			
PROJECT NUMBER			
073 PPS (007861)			
DESIGN	DRAWN	APPROVED	DATE
GP	TAC		11-96
SCALE			1" = 40'
SHEET			7
OF			8

LARK 4TH ADDITION WICHITA, SEDGWICK COUNTY, KANSAS



State of Kansas) SS We, Baughman Company, P.A., Surveyors in
Sedgwick County) do hereby certify that we have surveyed
and platted "LARK 4TH ADDITION", Wichita, Sedgwick County, Kansas and
that the accompanying plat is a true and correct exhibit of the
property surveyed, described as follows: A tract of land in the NW1/4
of Sec. 31, Twp. 27-S, R-1-W of the 6th P.M., Sedgwick County,
Kansas, described as and being a replat of the following: Lots 29,
30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, and 45,
Block A, Lark Addition, Wichita, Sedgwick County, Kansas, together
with Reserve "D" as platted in said Lark Addition, together with
Dora Ct. as platted in said Block A, and together with that part of
Dora as platted in said Lark Addition lying east of the west line of
said Lot 29 as extended south to the south line of said Dora.

Existing public easements and dedications being vacated by
virtue of K.S.A. 12-512(b).
Baughman Company, P.A.

Gregory F. Severns
Surveyor

Know all men by these presents that we,
the undersigned, have caused the land in the surveyors certificate to be
platted into Lots, a Block, Streets, and a Reserve to be known as "LARK 4TH
ADDITION", Wichita, Sedgwick County, Kansas. The utility easements are
hereby granted as indicated for the construction and maintenance of all
public utilities. The drainage easement is hereby granted as indicated
for drainage purposes. The drainage and utility easements are hereby
granted as indicated for drainage purposes and for the construction and
maintenance of all public utilities. The wall easement is hereby granted as
indicated for the construction and maintenance of a private wall and
utility main lines and service lines shall be allowed to cross this easement.
The streets are hereby dedicated to and for the use of the public.
Reserve "A" is hereby reserved for drainage purposes, lakes, landscaping,
sidewalks, gazebos, and utilities as confined to easements. Reserve "A"
shall be owned and maintained by the Homeowners Association for the
addition. The Minimum Building Pad Elevations for the lowest opening
to the structures shall be as shown on the face of the plat.

Paul E. Kelsey

State of Kansas) SS The foregoing instrument acknowledged be-
fore me, this _____ day of _____, 1996, by Paul E. Kelsey,
a single person.

My App't. Exp. _____

We, the undersigned, holders of a mortgage
on the above described property, do hereby consent to this plat of
"LARK 4TH ADDITION", Wichita, Sedgwick County, Kansas.

State Bank of Colwich

State of Kansas) SS The foregoing instrument acknowledged be-
fore me, this _____ day of _____, 1996, by
_____ of the State Bank of Colwich, on
behalf of the bank.

My App't. Exp. _____ Notary Public

This plat of "LARK 4TH ADDITION", Wichita,
Sedgwick County, Kansas has been submitted to and approved by
the Wichita-Sedgwick County Metropolitan Area Planning Commission,
Wichita, Kansas.
Dated this _____ day of _____, 1996.
Wichita-Sedgwick County Metropolitan Area Planning Commission

Susan Osborne-Howes
Chair

Marvin S. Krout
Secretary

This plat approved and all dedications
shown hereon accepted by the City Council of the City of Wichita,
Kansas, this _____ day of _____, 1996.

Bob Knight
Mayor

Pat Burnett
City Clerk

Entered on transfer record this _____ day
of _____, 1996.

Susan E. Crockett-Spoon
County Clerk

State of Kansas) SS This is to certify that this plat has been
filed for record in the office of the Register of Deeds, this _____ day
of _____, 1996, at _____ o'clock _____ M., and is duly recorded.

Pat Kettler
Register of Deeds
8/8
Deputy