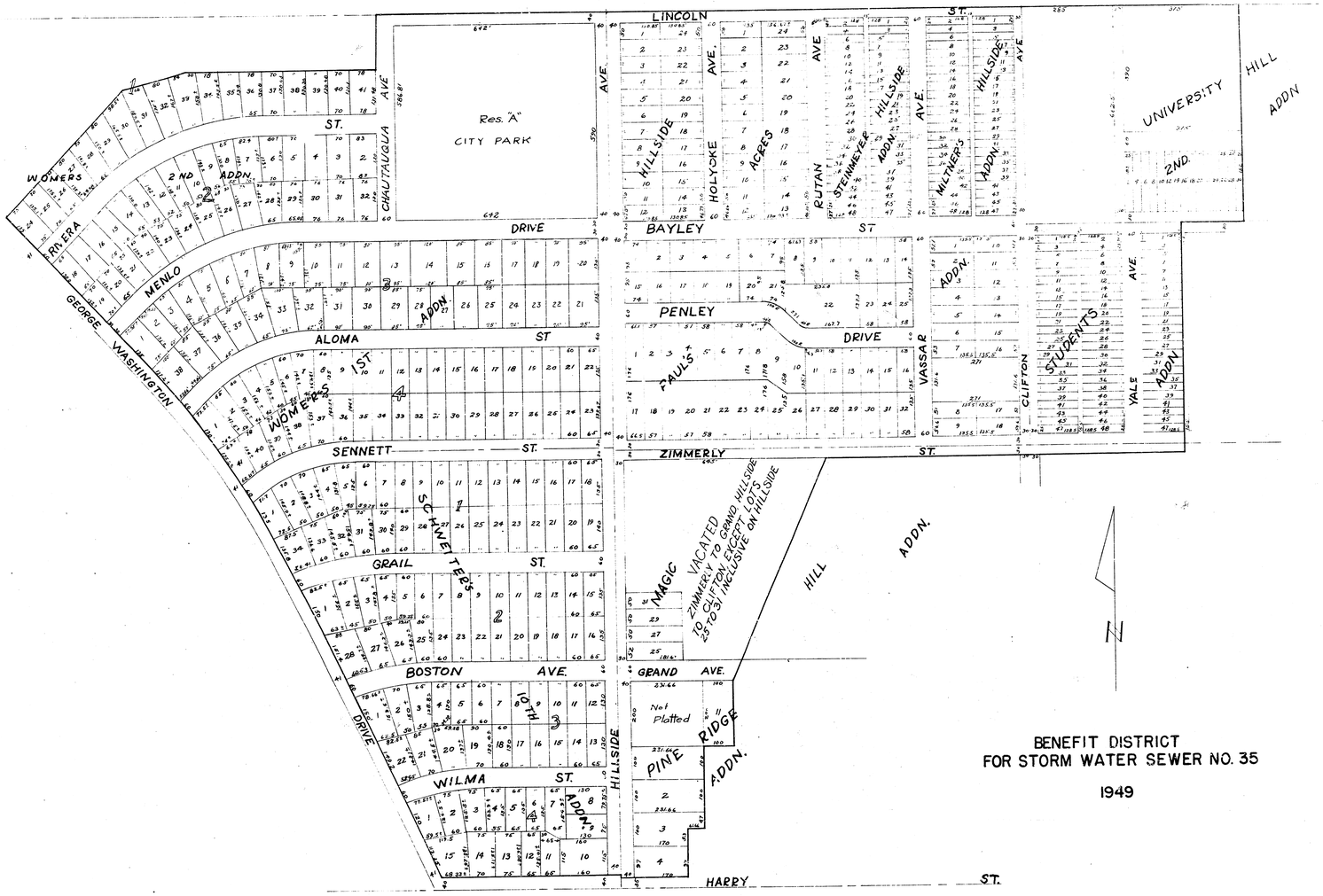
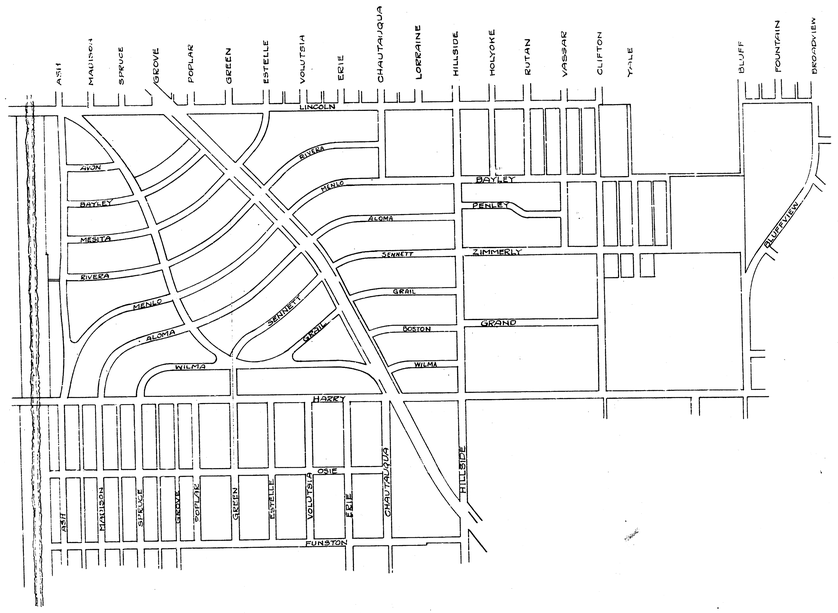


BENEFIT DISTRICT
FOR STORM WATER SEWER NO. 35

1949

FOUNTAIN

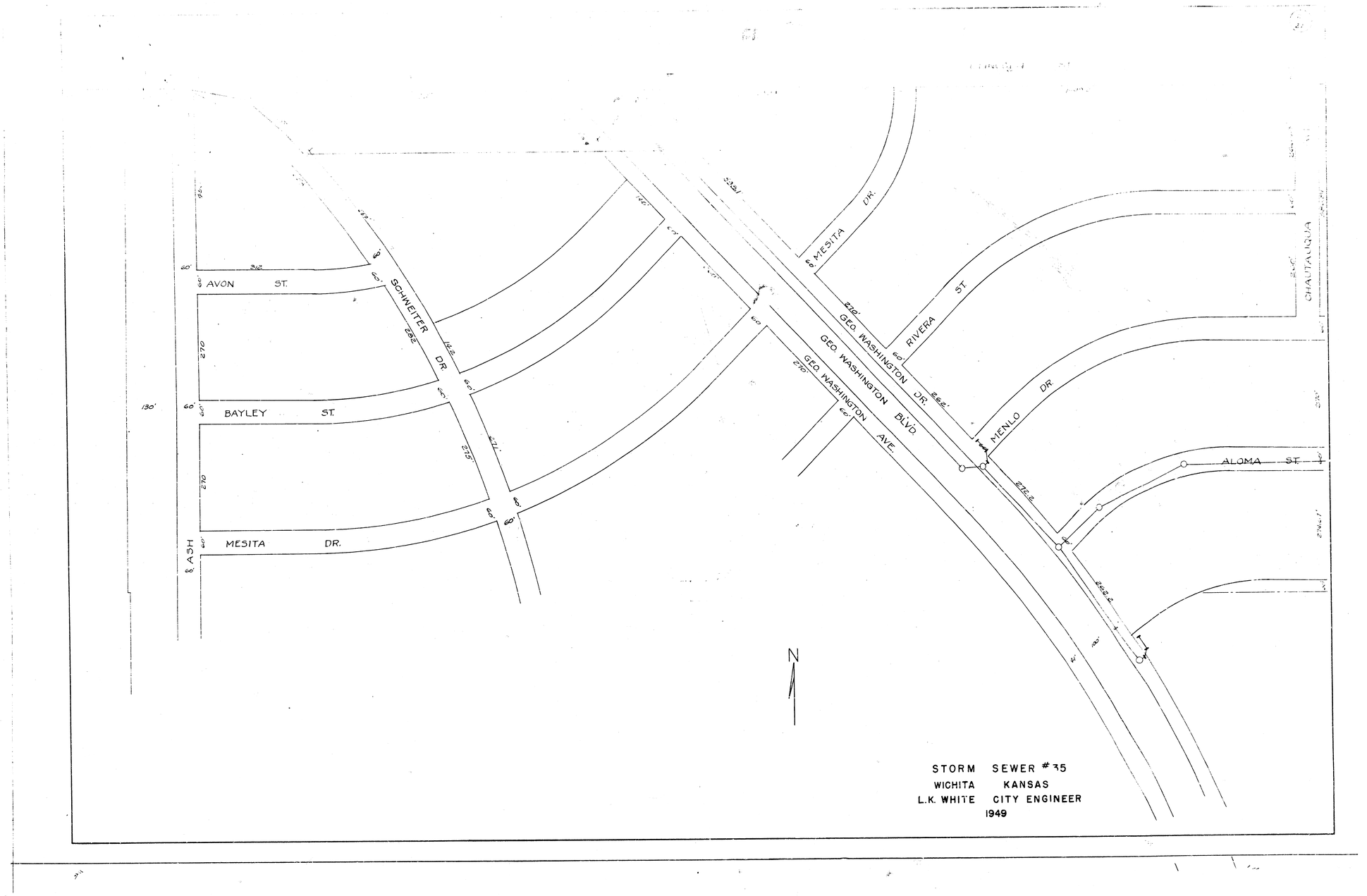
N



INDEX OF SHEETS

NO	TITLE
1	Title Sheet
2-4	Layout
5-16	Plan Profile
17-20	Manhole Inlet & Outfall Details
21	Station Manhole Details

STORM SEWER #35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949


AVON ST.
SCHWEITER DR.
BAYLEY ST.
MESITA DR.
ASH
MESITA DR.
GEO. WASHINGTON BLVD.
GEO. WASHINGTON AVE.
GEO. WASHINGTON DR.
RIVERA ST.
MENLO DR.
ALOMA ST.
CHAUTAUQUA
N
STORM SEWER #35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

3
21

℄ LINCOLN ST.

℄ LINCOLN ST.

CHAUTAUQUA AVE

HOLYOKE AVE

RUTAN AVE.

AVE.

MENLO DR.

BAYLEY ST.

PENLEY DRIVE

ALOMA ST.

HILLSIDE AVE

VASSAR AVE

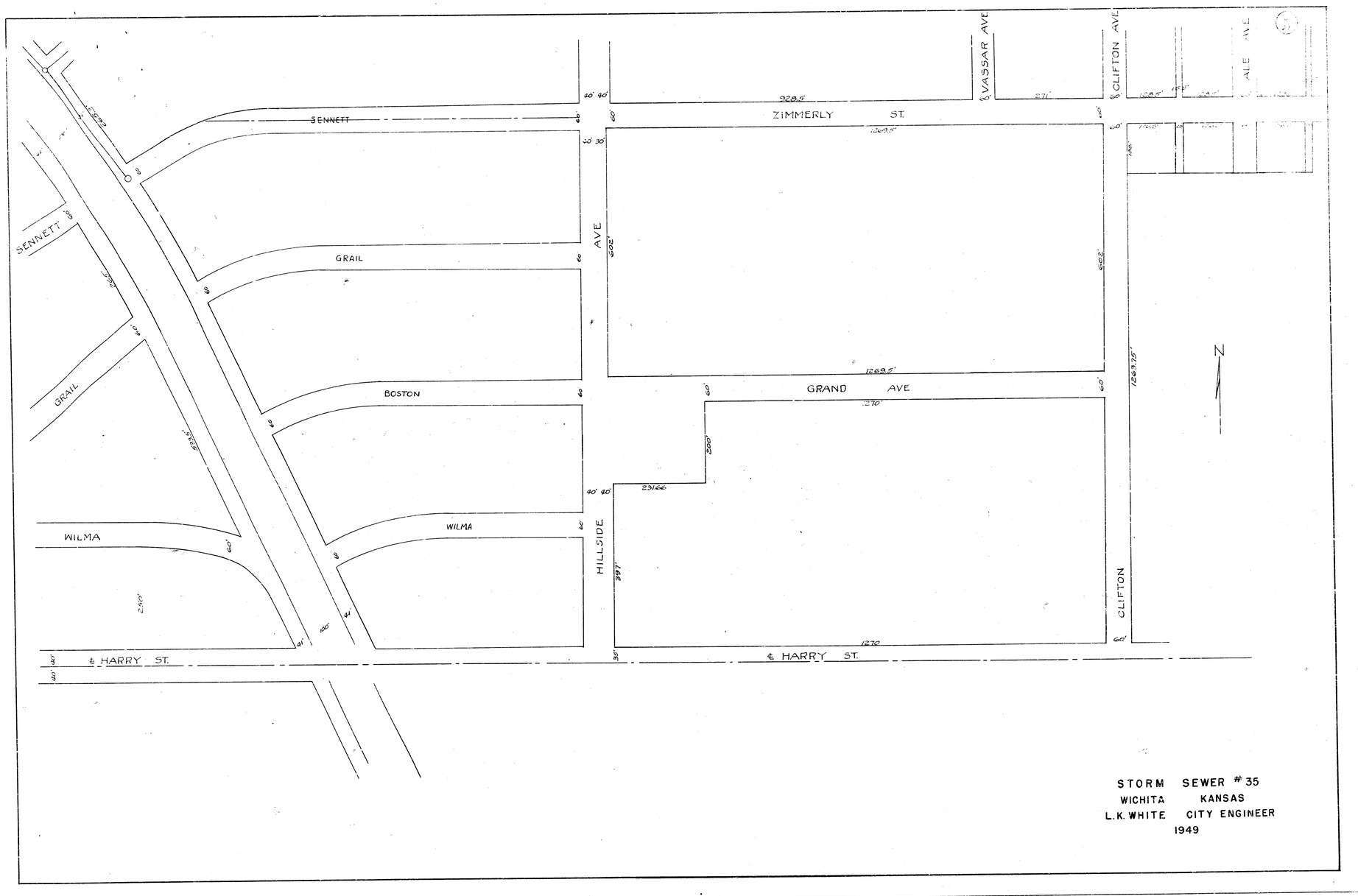
YALE AVE

ZIMMERLY ST.

CLIFTON

N

STORM SEWER # 35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949


SENNETT
ZIMMERLY ST.
VASSAR AVE
CLIFTON AVE
ALE AVE
SENNETT
GRAIL
AVE
GRAIL
BOSTON
GRAND AVE
WILMA
WILMA
HILLSIDE
CLIFTON
E HARRY ST.
E HARRY ST.
N
STORM SEWER # 35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

The existing 27" line from this Manhole to Canal to be abandon

Sta. 2+55.4 Const Manhole
Install 60"x 252' RCP
See Sh. No 18 for details
Remove & Replace 40 Sq Yds Pavt

Sta 0+00 Const Outfall
See Sh. No 17 For Details

This Manhole to be removed and lines from Inlets Tapped in to top of 60" line

Sta: 3+86 Const Manhole
Install 54"x 128' R.C.P.
See Sh. 19 for details
Remove & Replace 108 Sq. Yds Pavt.
And 40 Lin. Ft. of Int Ch.

Remove & Replace 283 Sq Yds of Conc Drive

Remove these Trees

Sta 1+00 Begin Sand Fill
Continue Sand Fill to Sta 6+36

8" Gas Line

8" Water Line

6" Gas Line
New 62" Storm Sewer
Present Storm Sewer to be Abandon

8" San. Sewer

Gas Lines

℄ Ash

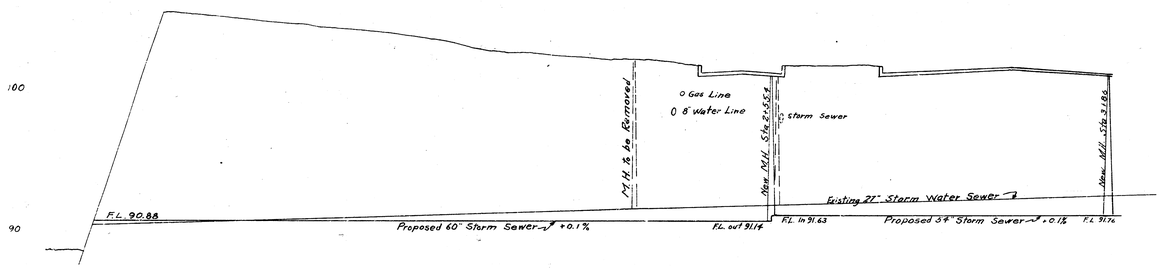
℄ Schweiter Drive

℄ Lincoln

8" L.P. Gas Line

Present 27" SWS

B.M. N.W. Cor. S.W. Wing Canal Bridge
Elev. 106.77



STORM SEWER #35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

Manhole Sta 3+86

℄ Lincoln Street

Sta 5+26 Const. Manhole
Install 54" x 140' R.C.P
See Sh. 20 for details
Remove & Replace 233 Sq. Yds Pavt.
And 150 Lin Ft Int. Cb.

Sand Fill

Sand Fill

Sta 6+26 Const Manhole
Install 54" x 96' R.C.P
See Sh. 19 For Details
Remove & Replace 193 Sq Yds Pvt.
And 115 Lin Ft Int Cb.

54" Storm Sewer

℄ of 10' Easement Across Reserve of Schweiters Eight Addition is 15.5' South of the South PL on Lincoln Street.

10" Gas Line

℄ Schweiter Drive

8" Water Line

Sta 6+36 End Sand Fill Begin Compaction of dirt by Flushing

Pavement on Schweiter Dr.

10.0

20

M.H. Sta 3+86

M.H. Sta 5+26

M.H. Sta 6+26

54" Storm Water Sewer +0.10%

54" Storm Sewer +0.10%

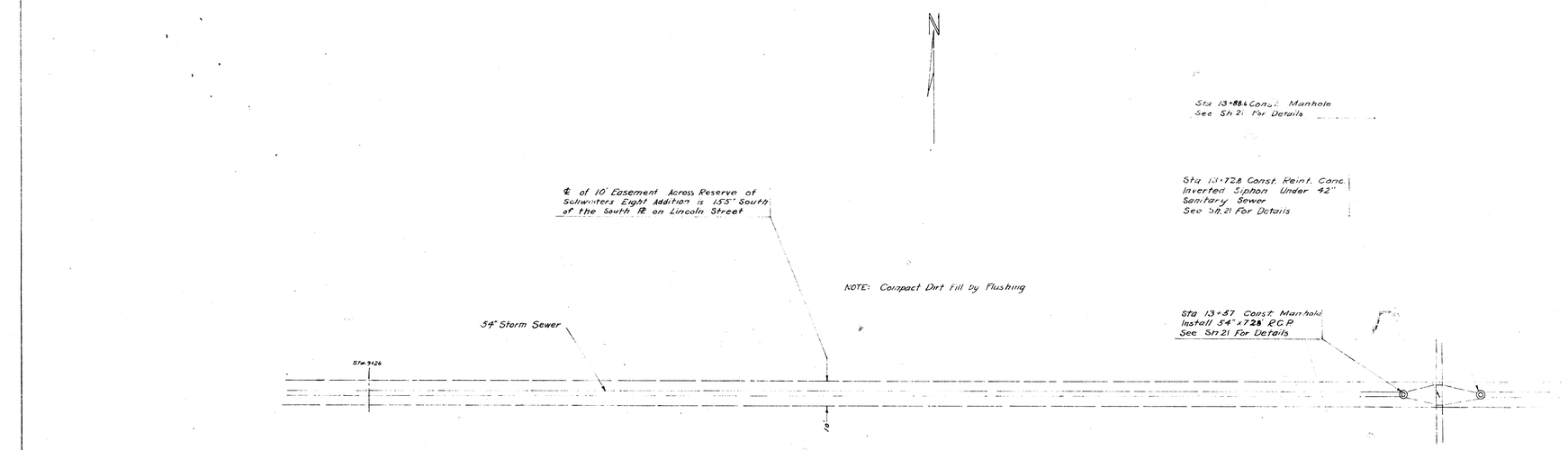
F.L. 91.76

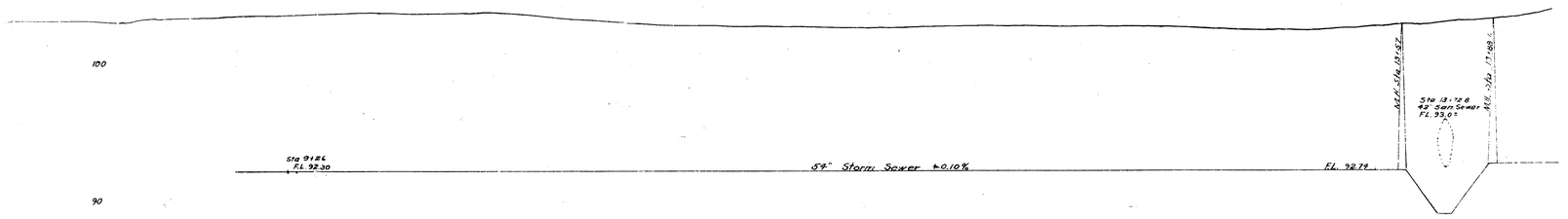
F.L. 91.90

F.L. 92.00

Sta 9+26
F.L. 92.30

STORM SEWER #35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949





STORM SEWER 35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

Sta 15+92.6= Sta 16+05 Const Manhole
Install 54"x 24" R.C.P.
See Sh. 18 for Details
Remove & Replace 106 Sq. Yds of Pavt.
And 40 Lin Ft of Int. Cb.

NOTE: The 54" S.W. Line is in the ditch along Geo. Washington Blvd. This ditch may be filled with surpluss dirt and shall be left in a smooth condition suitable for sanding & grass.

16" Water Line

Sta 15+92.6 End Sand Fill

℄ of Survey

54" SWS. Line

Geo. Washington Blvd.

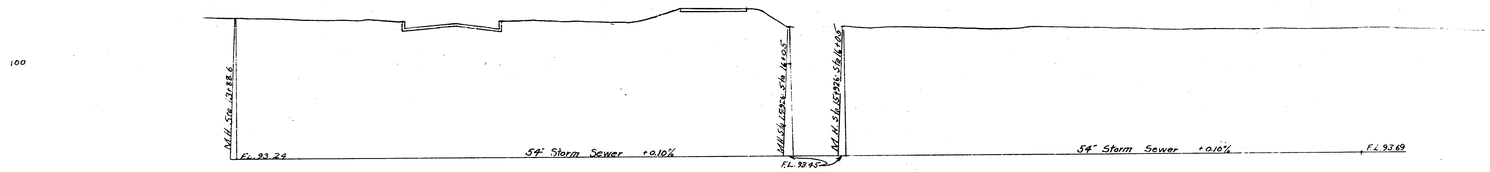
8" Water Line

Geo Washington Ave.

℄ of 10' Easement Across Reserve of Schweiters Eight Addition is 155' South of the South Pt on Lincoln Street

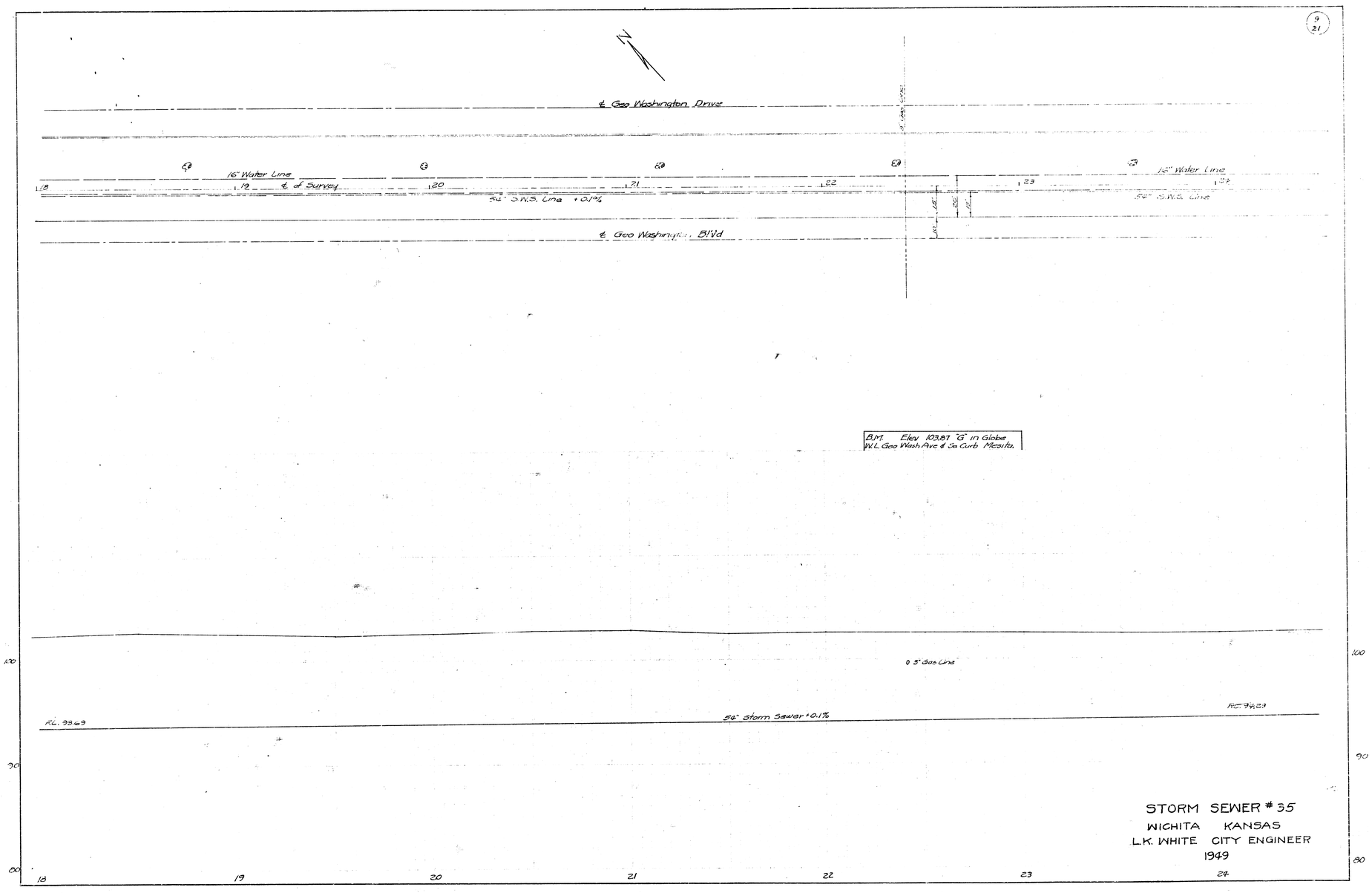
Sta 14+40 End Dirt Fill Begin Sand Fill

Manhole Sta 13+88.6



STORM SEWER #35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

13 14 15 16 17 18


℄ Geo Washington Drive
16" Water Line
℄ of Survey
54" S.W.S. Line +0.1%
15" Water Line
54" S.W.S. Line
℄ Geo Washington Blvd
B.M. Elev 103.87 "G" in Globe
W.L. Geo Wash Ave & Sa Curb Metalic
0.5" Gas Line
F.L. 93.69
54" Storm Sewer +0.1%
F.L. 94.23
18
19
20
21
22
23
24
100
90
80
STORM SEWER # 35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

Const. 2'x3' Standard Inlet
Install 18"x32" R.C.P.
F.L. out 18" 98.32 0.5%
Remove & Replace 16 Sq Yds Pvt.

Sand Fill

Const. 2'x3' Standard Inlet
Install 24"x32" R.C.P.
F.L. in 3" 98.15 0.5%
F.L. out 24" 98.75 0.5%
F.L. Pav't. 100.80

Install 3" cast iron pipe in San. Sewer where it passes thru S.W. Sewer

℄ Mavis Drive

3" San Sewer

℄ Geo Washington Drive

Const. Drop Inlet
See Sh. No 20 for detail

Const. 20 Ft. of 26' Pavement 23 sq yds.

58" S.W.S. Line 0.1%

Remove Tree

Sand Fill

16" Water Line

℄ of Survey

58" S.W.S. Line + 0.1%

Sta 26+90 Begin Sand Fill
Continue Sand Fill to Sta 27+90

8" Water Line

℄ Geo Washington Blvd

16" Water Line runs Thru Manhole See Detail

8" San. Sewer
3" Gas Line

Sta 27+42 Const. Manhole
Install 58" X 1136 R.C.P.
F.L. in 58"
F.L. out 58"
Elev. Pav't 103.0±
Remove & Replace 75 Sq Yds. Pvt.
Replace 20 Lin. Ft. of Curb
See Sh. No. 20

Sta 27+104 Const. Manhole
Install 54" X 16' R.C.P.
F.L. in 30" 94.71 1%
F.L. in 54" 94.11 0.1%
F.L. out 54" 94.11 0.1%
See Sh. No. 18

Const. 2'x5' Standard Inlet
Install 30"x32" R.C.P.
F.L. in 24" 97.53
F.L. out 30" 97.03 1%
F.L. Pav't 100.80

Remove 8' of 24" R.C.P.
Plug end of 24" pipe

Const. 2'x5' Standard Inlet over 30" Line

NOTE: All Sewer Ditches Under Existing or Proposed Pvt Shall be Sand Fill

8 - 5/8 ϕ bars in top

Brick

8" C.I. pipe for San Sewer

Round Brick Manhole with a Rein. Conc. Top
No Scale

B.M. 109.10 X N.L. RIVETED
N.E. Geo. Wash. Blvd. PAVT.

B.M. 103.78 X N.L. MENCO
N.E. Geo. Wash. Blvd. PAVT.

Elev Top 16" water Line is 99.06

Water line

16" Water Line

Manhole

Geo Line

8" San Sewer

F.L. 92.29

54" Storm Sewer +0.1%

F.L. 94.60

F.L. 94.71

36" Storm Sewer +0.1%

F.L. 94.94

100
90
80

22" 25 26 27 28 29 30

STORM SEWER # 35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

Sta. 32+67.75 Const. Manhole
Install 48" x 20¢ R.C.P.
F.L. in 48" 95.88
F.L. out 48" 95.38
Proposed Pavt Elev. 101.83
See Detail this Sheet

Sta. 35+00 Const. Manhole
Install 48" x 23.5' R.C.P.
F.L. in 48" 96.94
F.L. out 48" 96.39
Proposed Pavt Elev. 102.05
See Detail This Sheet

11
21

N

R.

Proposed ℄ Aloma

+67.75

32

33

34

35

48" S.W.S. Line 0.2% No. 1

Sand Fill

48" S.W.S.

36" S.W.S. Line No. 3

℄ 48" S.W.S.

℄ 52" S.W.S. Line #1

Equation Sta. 30+61.07 = Sta. 30+80

94°-30'

94°-30'

94°-27'

30

℄ of Survey

Sta. 30+61.07 Const. Manhole
Install 54" x 29¢ R.C.P.
F.L. in 95.5 Line No. 1
F.L. out 95.0 Line No. 1
Proposed Pavt Elev. 101.55
F.L. in 96.21 36" Line No. 3
See Detail Sheet No 17

NOTE: All Sewer Ditches Under Existing or Proposed Pavt Shall be Sand Fill.

4' Square Manhole
No Scale

4" Reinforcing ½ # 6" c/to

B.M. 103.21 X N.L. Aloma
N.E. Geo. Wash. Blvd. Pavt.

℄ Grade of Pavt.

Elev Pavt 101.55

Equation = 1+61.07

Sta. 1+80

Sta. 1+67.75

Sta. 3+00

F.L. 94.97

F.L. 93.5

F.L. 96.39

52" S.W. Sewer 0.1%

48" Storm Sewer + 0.2%

100

90

80

30

31

32

33

34

35

36

STORM SEWER # 35

WICHITA KANSAS

L.K. WHITE CITY ENGINEER

1949

12
21

N

12

36 37 38 Proposed ℄ Alama 39 45° SW. 0.2% 40 41

Sand Fill

B.M. 163.21 X. N.L. Alama
W.E. Geo. Wash Blvd. Pavt.

Pavt. ℄ grade

100 90

FL. 96.54

Line No 1 48" Storm Sewer +0.2%

FL. 97.76

100 90 80

36 37 38 39 40 41 42

STORM SEWER # 35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

13
21

Const. 2'x5' Standard Inlet over 36" Line

N

Sta. 44+90 Const. Manhole
Sta. 44+93 = Sta. 3+30 on Line #2
Install 98' x 39" R.C.P.
FL. in 36" 99.32 +0.2% Line #1
FL. in 36" 99.32 +0.2% Line #2
FL. in
FL. out 48" 98.12 +0.2%

Sand Fill Under Proposed Part

℄ Grade Fault N

℄ Fault Hanley

8" Water

Gas Line

℄

This outlet to be removed
Existing pipe to be abandoned if less than 18" in diameter. If existing pipe is 18" or over Const. Manhole here and connect to Storm Sewer Manhole with 18" R.C.P.

℄ Hillside

8" Water Line

Proposed ℄ Aloma

48" S.W.S. Line 0.2% No.1

104.92 Pull Ins.

Install 18" x 98' R.C.P. from existing inlet to Manhole See Note above

Const. 2'x5' Standard Inlet over 36" Line

Sand Fill Under Proposed Part

B.M. 103.21 X N.L. ALOMA N.E. Geo. Wash. Blvd. Part.

B.M. 106.05 "G" IN GLOBE E. Co. HILLSIDE N.L. BAYLEY

B.M. 106.02 "X" ON CURB W. Curb HILLSIDE N.L. ZIMMERLY E.

℄ Grade Fault N

Sta. 44+90
FL. in 99.32
FL. out 98.32

FL. 97.74

48" Storm Sewer Line No 1 +0.2%

100 V.C.

P.T. Sta. 44+50
Elev. 103.29 ℄ Fault

STORM SEWER # 35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

NOTE: All Sewer Ditches Under Existing and proposed Pavt. Shall be Sand Filled

Z

Const. 2x5 Standard Inlet
Install 15" x 21' R.C.P.
F.L. out 15" 102.06 2% Grade
Proposed F.L. Pav't 104.3

Sta. 98+25 Const. Manhole
Install 36" x 3.36' R.C.P.
F.L. in 15" 101.78
F.L. in 24" 100.99 1.37%
F.L. out 36" 99.99 0.2%

Const. 2x5 Standard Inlet over 36" Line (No.)

Sta. 99+30 Const. Manhole
Sta. 99+30 ↑ Sta. 97+00 on Line"
Install 18" x 300' R.C.P.
F.L. in 24" 99.32 2.25 Grade"
F.L. in 36" 99.12 2.25 Grade"
F.L. in 18" 103.82
F.L. out 18" 98.32 0.2%

Const. 2x5 Standard Inlet over 36" Line (Shown on SW.S Line "A")

Remove 10 Lin.Ft. of Curb & Gutter
Remove & Replace 16 Sq.Yds. Pav't.
Const. 2x5 Standard Inlet
Install 24" x 60' R.C.P.
F.L. in 15" 102.52 2%
F.L. out 24" 101.79 1.37%
F.L. Pav't 105.3

Remove 5 Lin.Ft. of Curb
Const. 2x5 Standard Inlet
Install 15" x 29' R.C.P.
F.L. in 15" 103.14 1%
F.L. out 15" 103.04 2%
F.L. Pav't 106.10.

Remove 5 Lin.Ft. Curb
Remove & Replace 9 Sq.Yds. Pav't
Const. 2x5 Standard Inlet
Install 15" x 32' R.C.P.
F.L. out 15" 103.45 1%
F.L. Pav't 106.01

BM "X" on W Curb Hillside & N.L. Zimmerly
Elev. 106.02

Proposed 4" Pavt.
Sand Fill
Concrete Valve Box
4" Water Line Private
Gas Line
4" Zimmerly
8" Water Line
8" Water Line
Gas Line
2" Water Line
Parsley Drive
1 St. Ho.
1 St. Ho
1 St. Ho.
1 St. Ho.
Hillside Ave
Curb Line
Curb Line

F.L. in 100.99
F.L. out 99.99
36" Storm Sewer Line #1 + 0.2%
F.L. in 99.32
F.L. out 98.32

48 47 46 45

STORM SEWER # 35
WICHITA KANSAS
L. K. WHITE CITY ENGINEER
1949

From line "Z"

Z

NOTE: All Sewer Detours Under Existing or Proposed Pvt. to Install Be Sand Filled

Sta. 14+90 on SWS =
Sta. 0+00 on SWS Line #2

Const. 2'x5' Standard Inlet over 36" Line

Sta. 3+30 Const. Manhole
Remove & Replace 7 Sq. Yds. Pav't.
F.L. in 15" 102.06 3%
F.L. in 24" 102.30 1.73%
F.L. out 100.31 0.3% 36"
Elev. Pavement 105.5'
Install 36" x 332' R.C.P.

Remove 5 Lin. Ft. of Curb
Const. 2'x5' Standard Inlet
Install 15" x 16' R.C.P. F.L. out 102.51 3%
F.L. Pav't 104.83
Remove & Replace 7 Sq. Yds. Pav't.

Remove 15 Lin. Ft. Curb & Gutter
Remove & Replace 36 Sq. Yds. Pav't.
Const. Double 2'x5' Inlet
Install 24" x 60' R.C.P.
F.L. out 24" 102.35 1.73%
F.L. in 15" 103.10 1%
F.L. Gutter 105.5

Remove 5' Lin. Ft. Curb
Remove & Replace 16 Sq. Yds. Pav't.
Const. 2'x5' Standard Inlet
Install 15" x 32' R.C.P.
F.L. out 15" 103.65 1%
F.L. Gutter 105.9

Remove 5' Lin. Ft. of Curb
Const. 2'x5' Standard Inlet
Install 15" x 24' R.C.P.
F.L. in 15" 103.39 1%
F.L. out 15" 103.36 1%
F.L. Gutter 105.9

B.M. "G" in Globe E.C. Hillside N.E. Bayley
Elev. 106.05

1 St Ho.

15th Ho.

Gas Lines

2" Water Lines

Parsley Drive

Manle Drive

Bayley

Hillside Ave.

4" Gas Line

5" Water Line

V. Gutter

Sand Fill

36" @ 0.3%
Line #2

F.L. in 99.32

F.L. out 98.32

36" Storm Sewer Line No. 2 + 0.3%

F.L. out 100.31

100

90

80

0+00

1

2

3

STORM SEWER # 35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

From line "Y"

Const. 2'x5' Standard Inlet
Install 28"x32" R.C.P.
F.L. out 24" 97.75 0.1%
Proposed F.L. Pav't 100.5

Manhole Sta. 30+61.07 Shown on Sheet #10
Sta. 30+61.07 = Sta. 0+00 on Line #3

Proposed ℄ Alarm

℄

Proposed ℄ Sanitary

Const. 2'x5' Standard Inlet
Install 28"x28" R.C.P.
F.L. in 24" 97.72 0.1%
F.L. out 28" 97.76 0.1%
Proposed F.L. Pav't 100.5

Construct Non-Monolithic Inlet on Lateral
Sewer Cross 8.30' Dr. Sta. 30+75
Cast Iron Pipe in Sta. 0.

Const. 2'x5' Standard Inlet
Install 36"x16" R.C.P.
F.L. in 24" 97.69
F.L. out 36" 96.60
Proposed F.L. Pav't 100.5

Proposed Geo. Washington Drive

54" S.W.S. ?

F.L. 94.21

10' 30'

36" S.W.S. Line #3 ↓ 0.1%

Sand Fill

Const. 2'x5' Standard Inlet
Install 15"x16" R.C.P.
F.L. out 98.50
Proposed F.L. Pav't 100.5

Sta. 3+60 Const. Manhole
Install 36"x36" R.C.P.
F.L. in 36" 94.97 0.2%
F.L. in 15" 93.40 0.7%
F.L. out 36" 96.57 0.1%

NOTE: All Sewer Ditches Under Existing or Proposed Pavt. Shall be Sand Fill

B.M. 103.21 X N.L. Alonga
W.E. Geo. Wash. Blvd. Pavt.

Elev. Inv. 101.85

Elev. Pav't. 101.17±

Sta. 1+60

F.L. in 36.2±

36" Storm Sewer Line #3 +0.1%

F.L. out 95.2±

54" S.W.S. Line #1
+0.1%

100

90

80

0+00

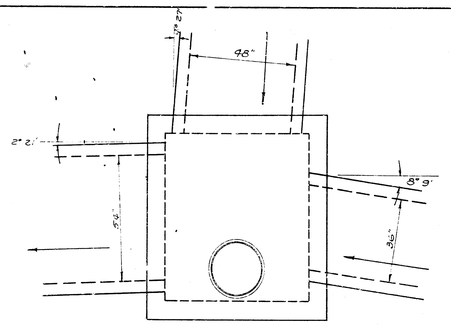
1

2

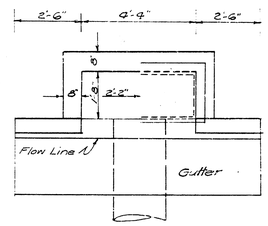
3

1+60

STORM SEWER # 35
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949

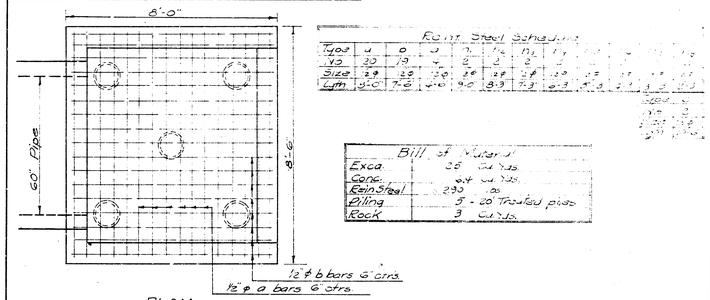


LAYOUT MANHOLE STA 30+61.07



PLAN CATCH BASINS

NOTE: Where inlets are to be installed in streets that are paved, the minimum length of curb and gutter to be removed shall be 9'-4".
"floors of Inlets shall be shaped as shown.
No additions in concrete quantities shall be made for shaping floor of Inlets.
Concrete for floors of Inlets shall contain 7 sacks of cement per Cu. Yd. with only sufficient water so that moisture will flush to the surface when tamped in place.



PLAN

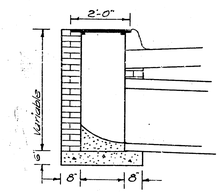
Reinf. Steel Schedule

Type	a	b	c	d	e	f	g	h	i	j	k
No	30	19	4	6	2	2	2				
Size	#8	#8	#8	#8	#8	#4	#8				
Lgth	9'-0	7'-6	10'-0	9'-0	8'-3	7'-3	6'-3	4'-3	2'	1'-2	10'-3

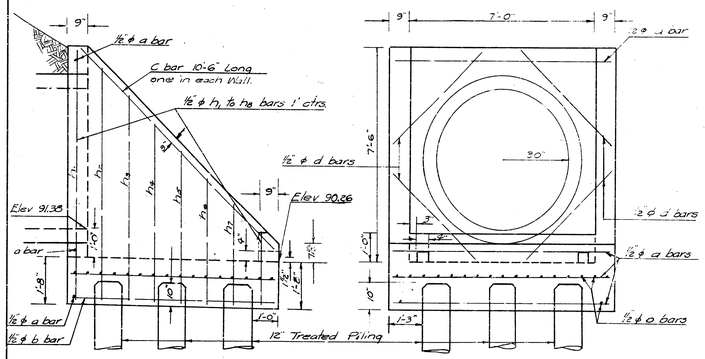
Bill of Material

Excn.	35 Cu. Yds.
Conc.	6.4 Cu. Yds.
Rein. Steel	290 lbs.
Piling	5 - 20' Treated piles
Rock	3 Cu. Yds.

HALF SECTION HALF ELEVATION

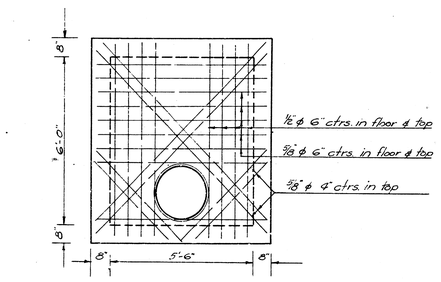


CROSS-SECTION
Scale 1/2"=1'

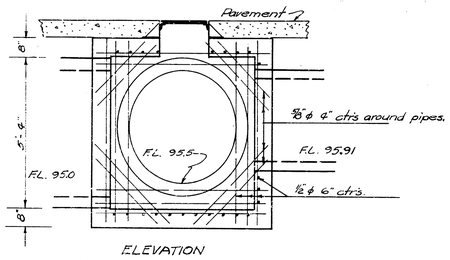


SIDE ELEVATION FRONT ELEVATION

DETAILS OF OUTFALL



PLAN
Showing Rein. Steel in Floor & Top

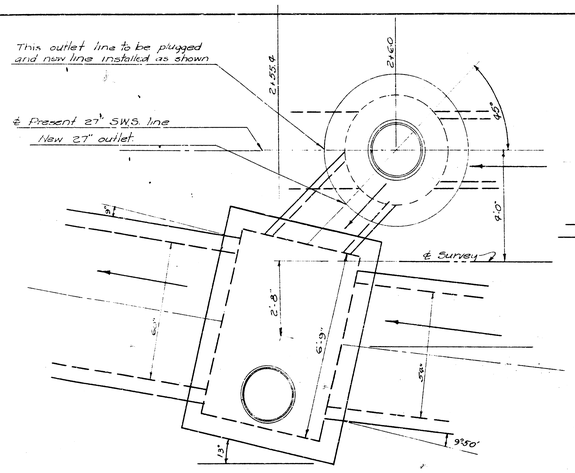


ELEVATION
Showing Rein. Steel in Walls
Scale 1/2"=1'

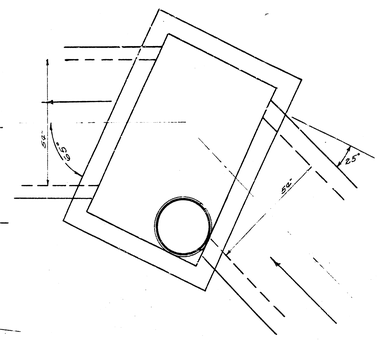
NOTE: Concrete for Manholes shall contain not less than 1.65 Barrels of cement per cu. yd. In no event shall the total water content exceed 6.25 gallons per sack of cement. The mixture of fine and coarse aggregate shall be such as will produce a maximum density and the most workable mixture.
In general pipes will enter and leave the Manhole at various positions. Where possible bend bars around pipes. Where pipes are large use 5/8" ϕ diagonal bars as shown.
Floors of Manholes to be shaped for flow and drainage with concrete.
No deductions in concrete quantities shall be made for pipe openings.
No additions in concrete quantities shall be made for shaping floor of Manholes.
Internal vibrator to be used for placing concrete.

NOTE: Excavation is figured 1 Ft. outside of walls.
All walls to be formed on both sides. Bevel all exposed edges with a 3/4" triangular moulding.
Concrete to be mixed the same as noted for Manholes.
No deduction of concrete quantities for pipe openings or pile heads.
Broken pavement or rocks shall be placed from front of headwalls to edge of Canal bed. This bed of rock to be not less than 2 Ft. thick.

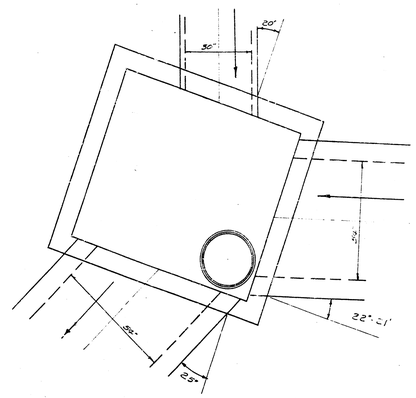
STORM SEWER #35
LAYOUT & DETAILS
OF
MANHOLE INLETS & OUTFALL
WICHITA, KANSAS
L.K. WHITE CITY ENGINEER



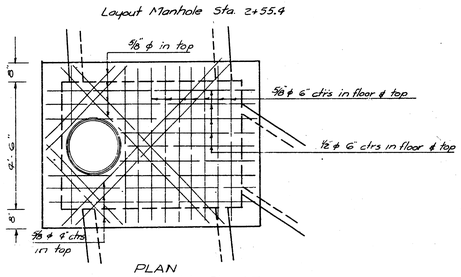
Layout Manhole Sta. 2+55.4



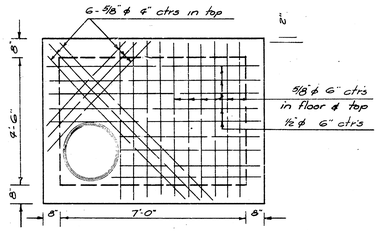
Layout Manhole Sta. 15+926=16+05



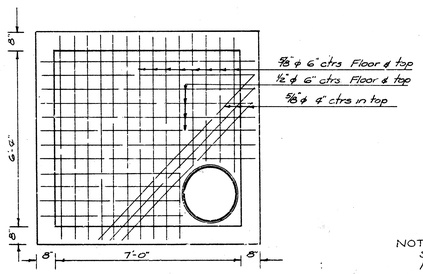
Layout Manhole Sta. 27+70.4



PLAN
Showing Rein. Steel in Floor ℄ Top

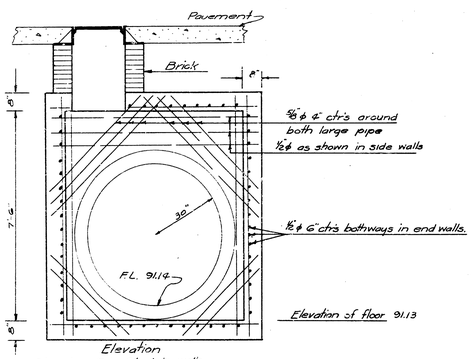


PLAN
Showing Rein. Steel in Floor ℄ Top

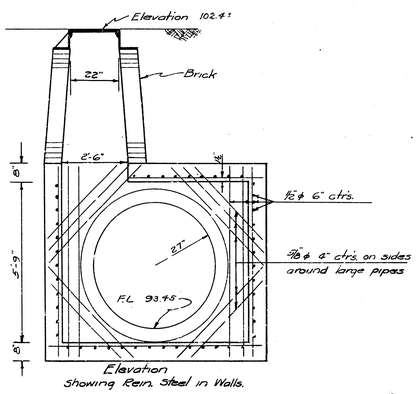


PLAN
Showing Rein. Steel in Floor ℄ Top

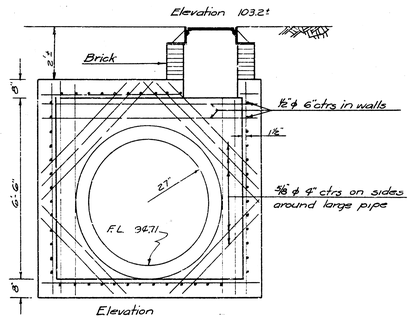
NOTE: See note on Sheet No.18. Same applies to all concrete Manholes.



Elevation
Showing Rein. Steel in walls

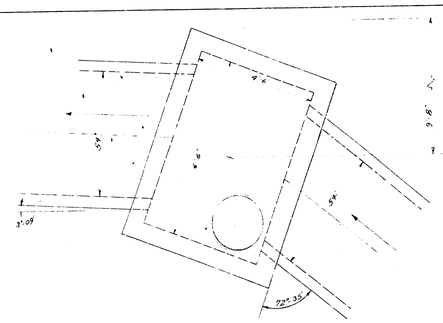


Elevation
Showing Rein. Steel in Walls.

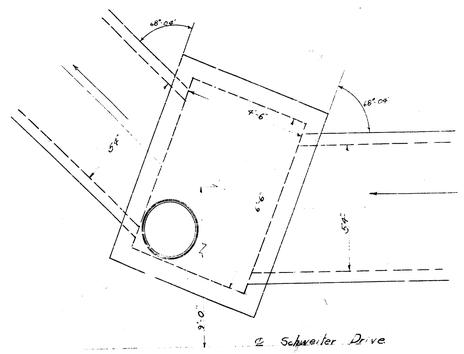


Elevation
Showing Rein. Steel in Walls

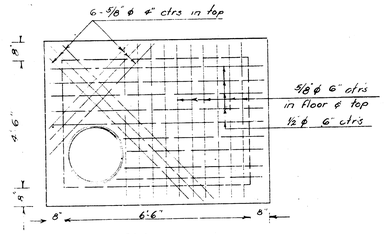
STORM SEWER # 35
LAYOUT ℄ DETAILS
OF
MANHOLES
WICHITA, KANSAS
L.K. WHITE CITY ENGINEER
1949
Scale 1/2" = 1'



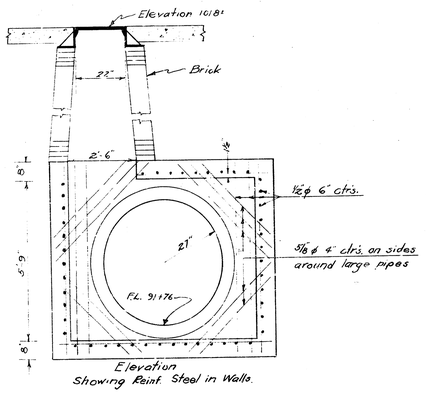
Layout Manhole Sta. 3+86



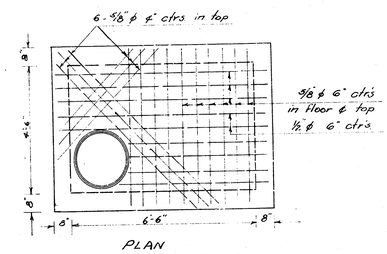
Layout Manhole Sta. 6+26



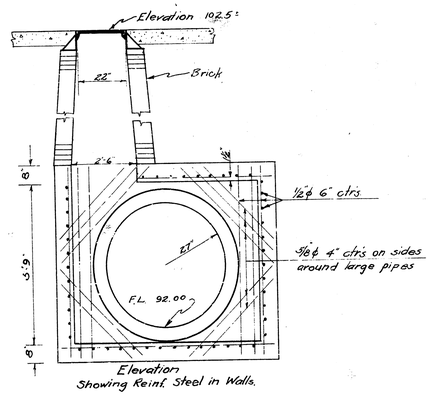
PLAN
Showing Reinf. Steel in Floor & Top



Elevation
Showing Reinf. Steel in Walls.

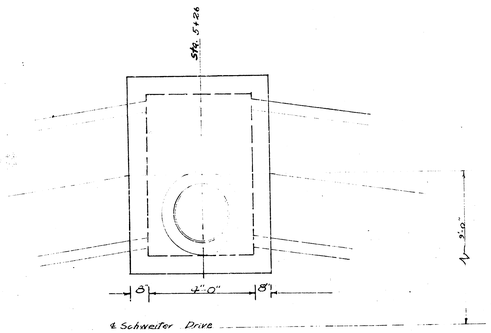


PLAN
Showing Reinf. Steel in Floor & Top

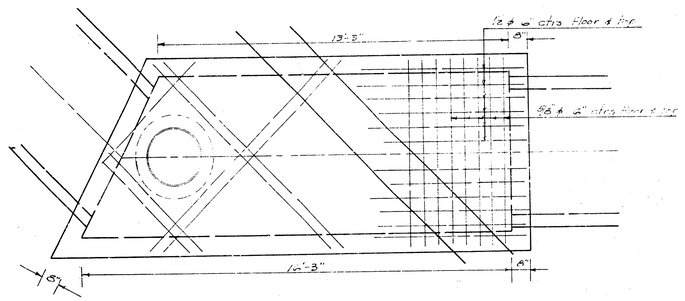


Elevation
Showing Reinf. Steel in Walls.

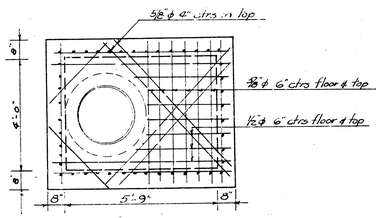
STORM SEWER #35
LAYOUT & DETAILS
OF
MANHOLES
WICHITA, KANSAS
L.K. WHITE CITY ENGINEER
1949



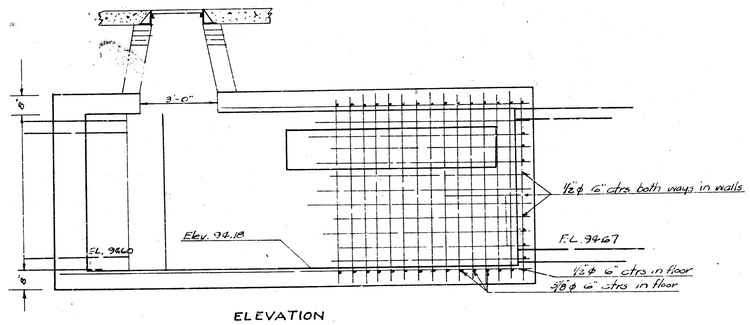
Layout Manhole Sta. 5+26



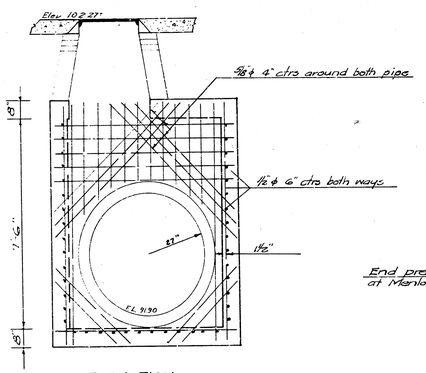
Layout Manhole Sta. 27+42
Showing Rein. Steel in Floor & Top



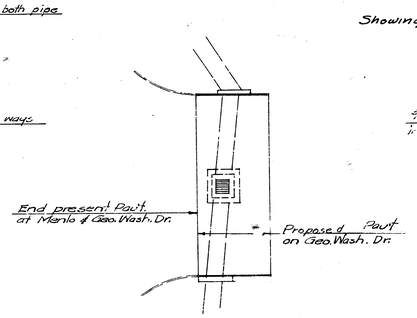
PLAN
Showing Rein. Steel in Floor & Top



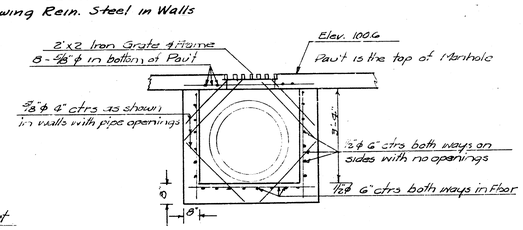
ELEVATION
Showing Rein. Steel in Walls



ELEVATION
Showing Rein. Steel in Walls



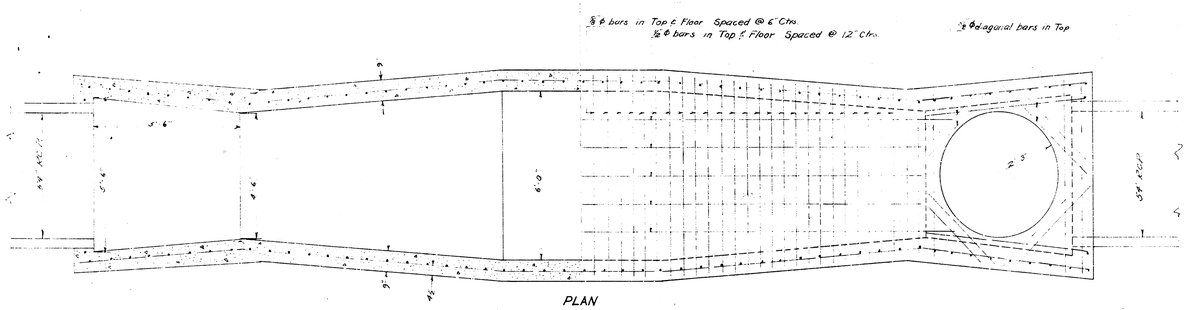
Layout Drop Inlet Left of Sta. 27+70



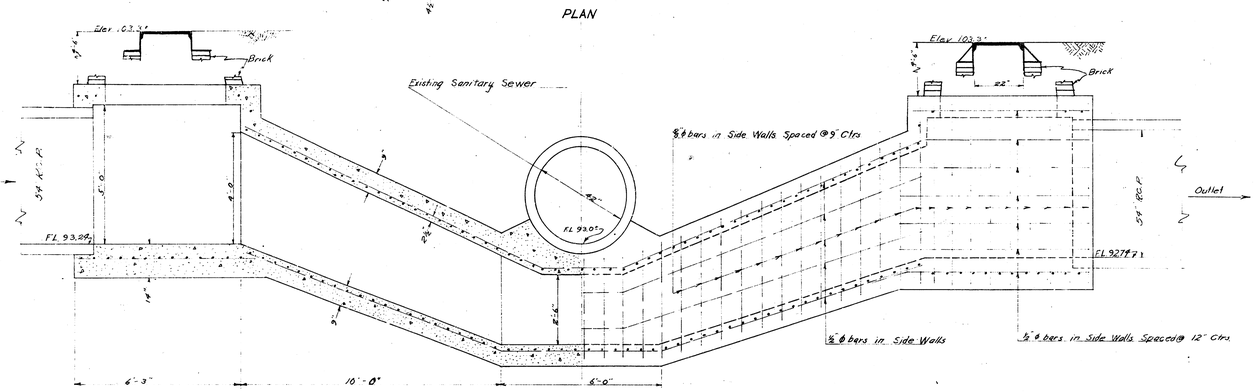
ELEVATION DROP INLET

The inlet is 3'-8" x 3'-8" on the inside
Rein. Steel to be installed as shown

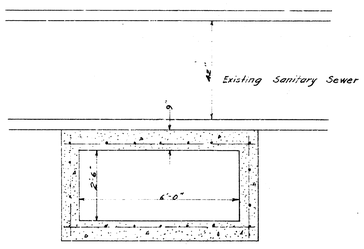
STORM SEWER # 35
LAYOUT & DETAILS
OF
MANHOLES
WICHITA KANSAS
L.K. WHITE CITY ENGINEER
1949



PLAN



MANHOLE STA. 13+88.6 — LONGITUDINAL SECTION — MANHOLE STA 13+57



TRANSVERSE SECTION

BILL OF MATERIAL.	
Excavation	205 Cu. Yds.
Concrete	28 Cu. Yds.
Reinf. Steel	1880 Lbs.
2 Brick Manholes	4'-6" High

NOTE: Excavation is figured 1 ft. outside of walls.
All walls to be formed on both sides.
Bevel all exposed edges with ¾" triangular Moulding.
Concrete to be mixed the same as noted for manholes, see sheet 17.
No deduction of concrete quantities for pipe openings.

STORM SEWER # 35
LAYOUT AND DETAILS
FOR
INVERTED SIPHON
WICHITA, KANSAS
L.K. WHITE CITY ENGINEER