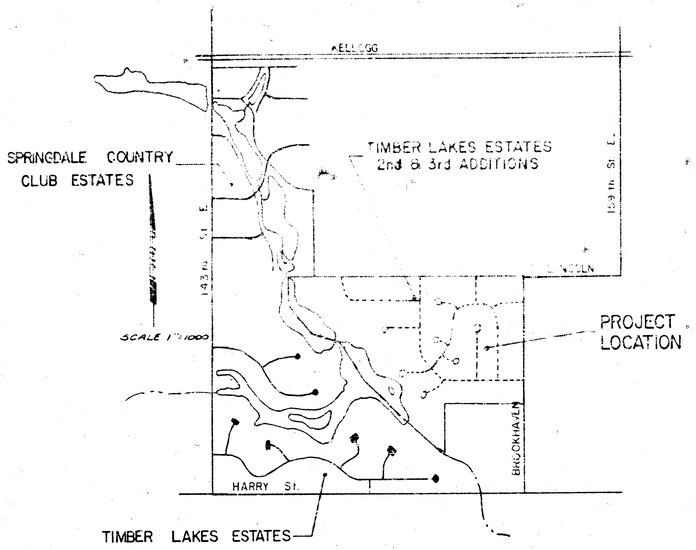
SHEET NO.	
1	

INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	KEY MAP & SCHEDULE
SHEET NO. 3-4	SANITARY SEWER DETAILS
SHEET NO. 5-7	PLAN PROFILES

DEPARTMENT OF PUBLIC WORKS

SEDGWICK COUNTY



LOCATION MAP

CONSTRUCTION PLANS FOR

SANITARY SEWER IMPROVEMENTS

IN

TIMBER LAKES ESTATES SECOND AND THIRD ADDITION

PHASE I

SEPT. 1977

RECEIVED
SEP 26 1977
Engineering Division

CONVENTIONAL SIGNS

WIRE FENCE
HEDGE ROW
RAILROADS
SURVEY LINE
RIGHT OF WAY
TELEPHONE POLE
POWER POLE
COMB. POWER & TELEPHONE
TOWNSHIP LINE
CONSTRUCTION LIMITS
GUARD FENCE
TREES

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

WICHITA, KANSAS

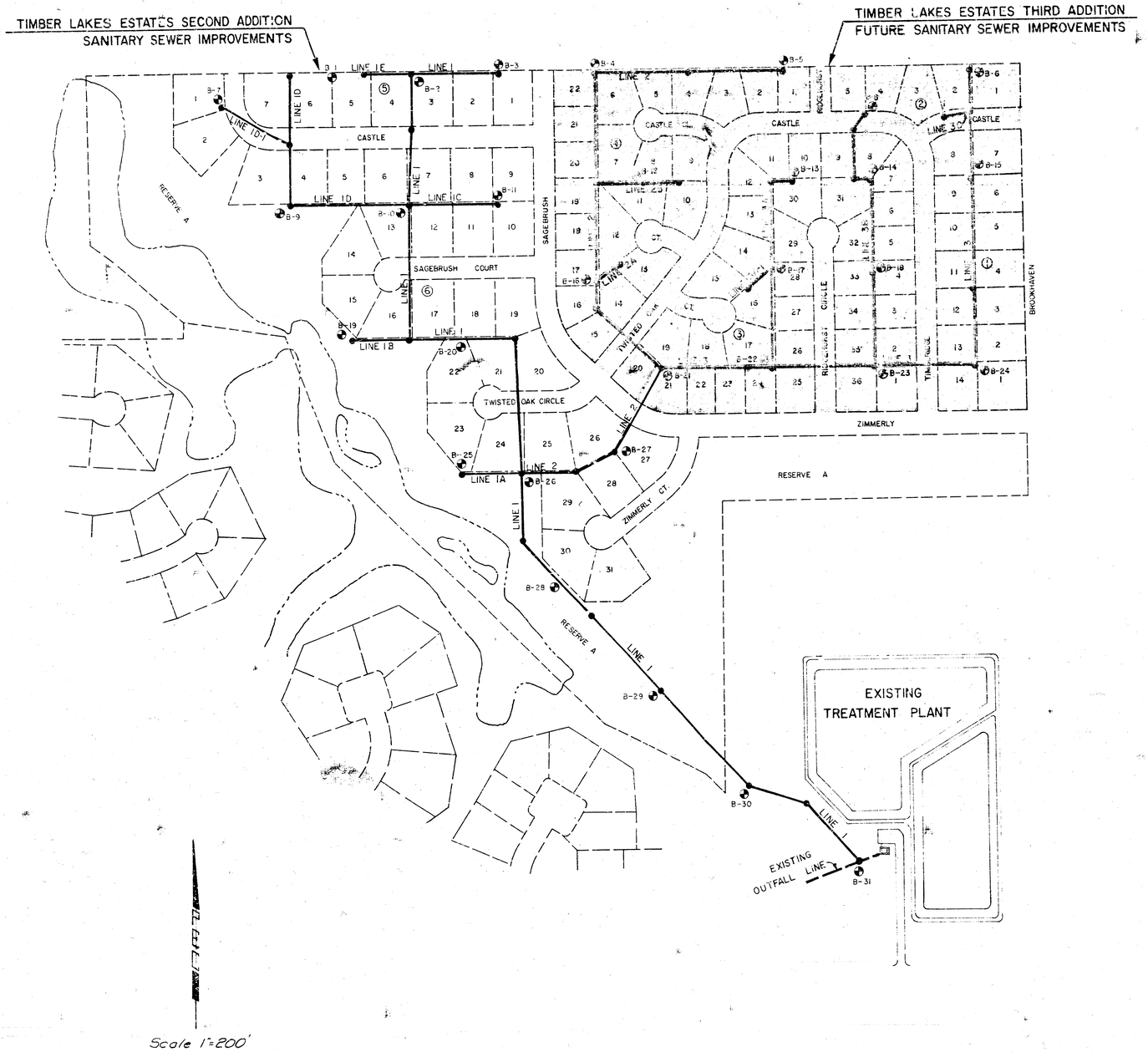
APPROVED
K. W. Lamm
CITY ENGINEER OF WICHITA, KANSAS
DATE 9/20/77

FILED
COPY FILED IN THE OFFICE OF THE SEDGWICK COUNTY CLERK.
Dorothy K. White 9-20-77
COUNTY CLERK DATE

APPROVED
COUNTY ENGINEER/DIRECTOR OF PUBLIC WORKS
DATE

APPROVED DATE
CHAIRMAN PRO-TEM
BOARD OF COUNTY COMMISSIONERS

APPROVED DATE
James F. Richards 9-20-77
WICHITA SEDGWICK COUNTY
DEPARTMENT OF COMMUNITY HEALTH



SEWER LINE SCHEDULE	
LINE NO.	SHEET NO.
1	5-6
1A	6
1B	6
1C	6
1D	7
1D-1	7
1E	7
2	7

BENCH MARK LIST

B.M. REFERENCE - PLANT SITE B.M. R.R. SPIKE IN ROOT AT THE NORTHEASTERLY SIDE 42" DIA. COTTONWOOD AT THE W. SIDE TREATMENT PLANT AREA 60'± W.N.W. OF LIFT STATION. ELEV.= 1289.24 (M.S.L.)

B.M. #1 TOP OF 1/2" REBAR 1285'± S. AND 1'± W. OF N.E. COR. W. 1/2 S.E. 1/4, SEC. 25, T27S, R2E, OF 6TH P.M. ELEV. 1299.5 (M.S.L.)

B.M. #2 R.R. SPIKE IN SOUTHWESTERLY SIDE OF HEDGE TREE (1.0'± ABOVE GROUND) 22'± W. OF N.E. CORNER W. 1/2, S.E. 1/4, SEC. 25 OF 6TH P.M. ELEV. 1298.96 (M.S.L.)

B.M. #4 TOP OF 1/2" PIPE 28'± E. AND 73'± S. OF N.E. COR. S.W. 1/4, SEC. 25, T27S, R2E, OF 6TH P.M. ELEV. 1300.9 (M.S.L.)

No.	Revision

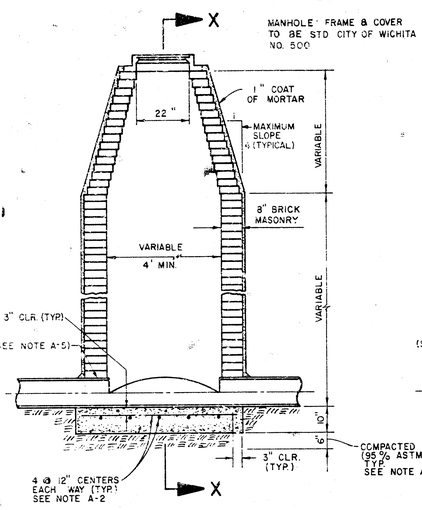
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

KEY MAP & SCHEDULE

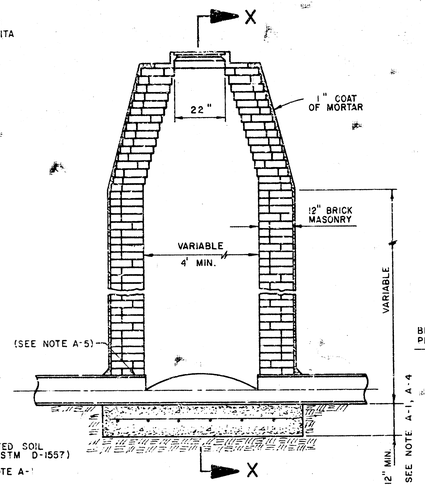
SANITARY SEWER IMPROVEMENTS
TIMBER LAKES ESTATES 2nd & 3rd ADDITIONS

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

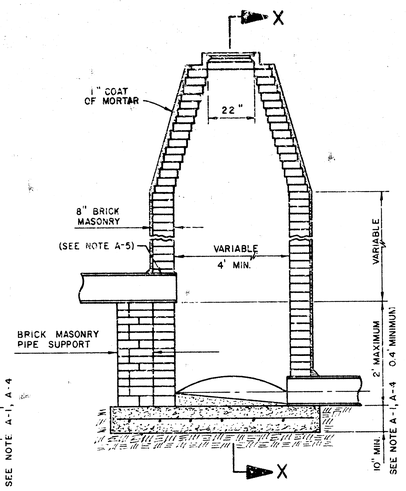
Designed MDS | Job No. 704.98 | 2



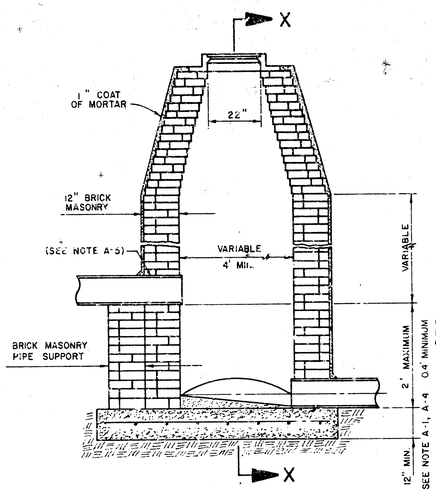
STANDARD MANHOLE
TYPE A



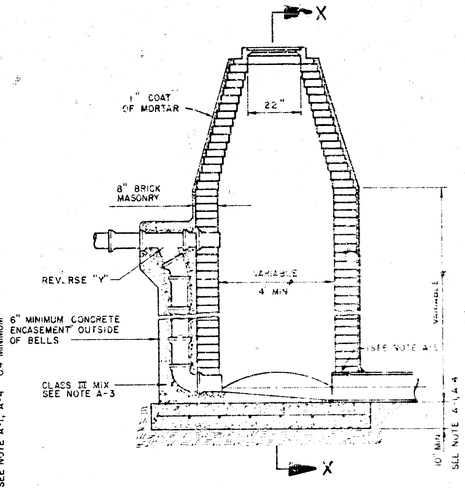
STANDARD MANHOLE
TYPE AA



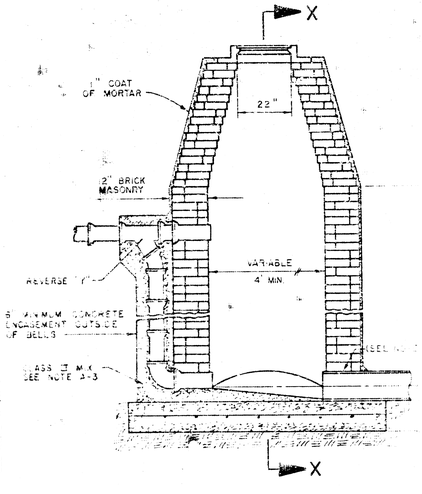
DROP MANHOLE
TYPE B



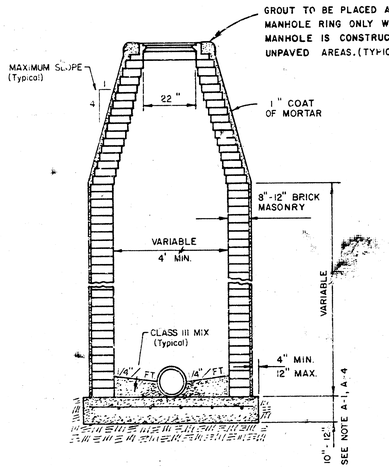
DROP MANHOLE
TYPE BB



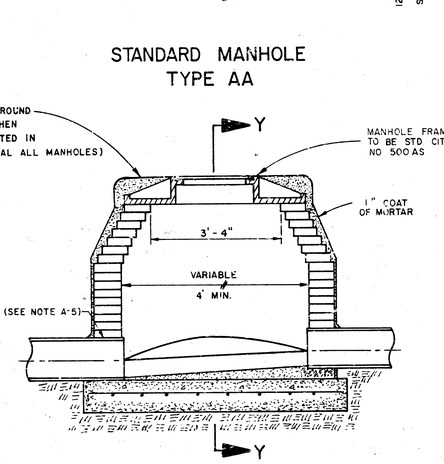
OUTSIDE DROP MANHOLE
TYPE C



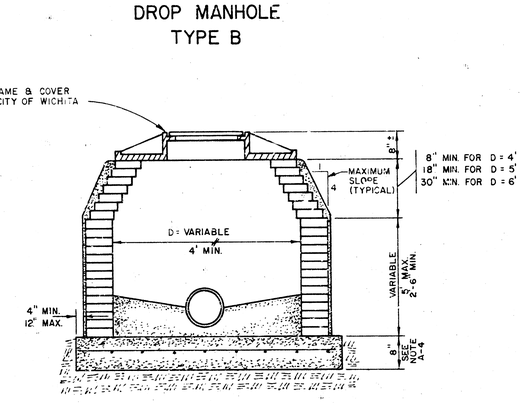
OUTSIDE DROP MANHOLE
TYPE CC



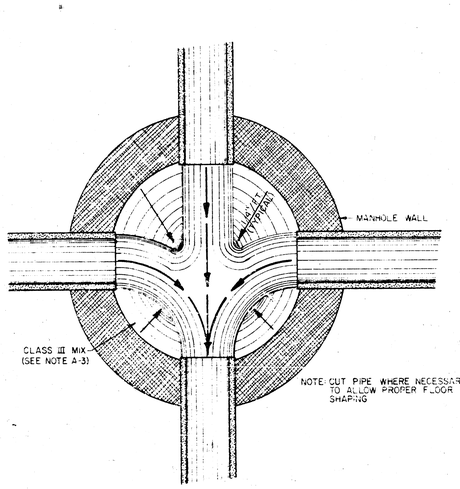
SECTION X



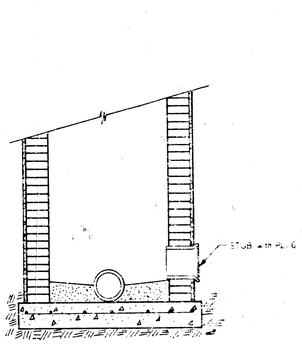
SHALLOW MANHOLE
TYPE D



SECTION Y

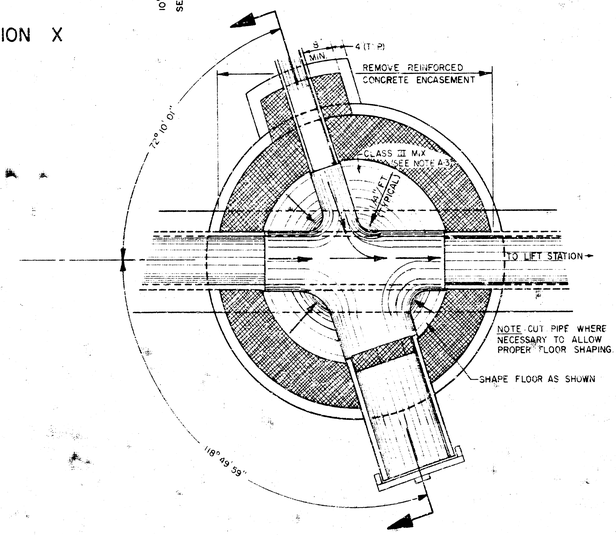


TYPICAL MANHOLE
FLOOR SHAPING

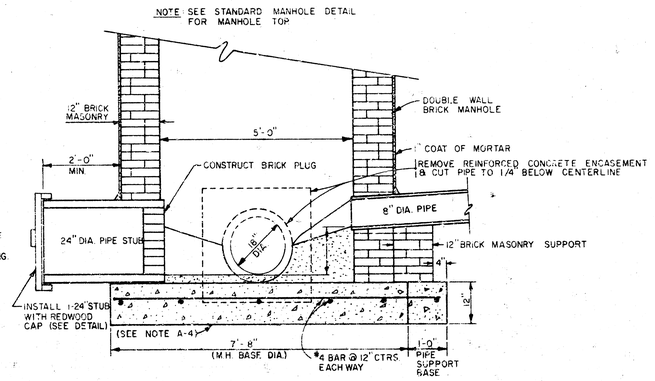


STUB DETAIL

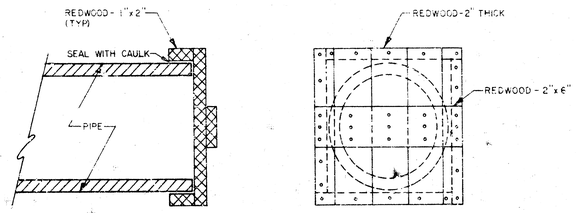
1. AT THE DISCRETION OF THE ENGINEER, THE TOP 4' OF MANHOLE WHERE SUITABLE, THE CONTRACTOR SHALL CONSTRUCT SUBGRADE AS SHOWN ON THE PLANS TO REDUCE THE THICKNESS OF THE MANHOLE TOP AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING IS REQUIRED IN ALL MANHOLES.
3. [illegible] USED IN MASONRY CONSTRUCTION TO BE [illegible] PER [illegible].
4. ALL MANHOLE BASES TO BE CLASS I MIX.
5. [illegible] GASKETS SHALL BE INSTALLED [illegible] PIPE WHERE WHEN PVC, COMPOSITE PIPE, [illegible] ETHYLENE PIPE, OR FLEXIBLE PIPE IS USED.
6. [illegible] PIPE AS MANUFACTURED BY [illegible] SPECIFIED WHEN AVAILABLE.



SPECIAL MANHOLE
FLOOR SHAPING



SPECIAL MANHOLE
SECTION



REDWOOD CAP DETAIL

NOTE CONSTRUCT CAP TO FIT SNUGLY AROUND PIPE

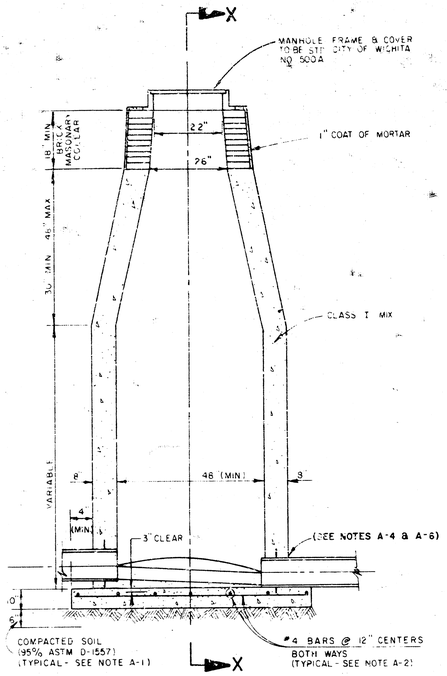
No.	Revision	By	Date

SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G C McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

SANITARY SEWER DETAILS

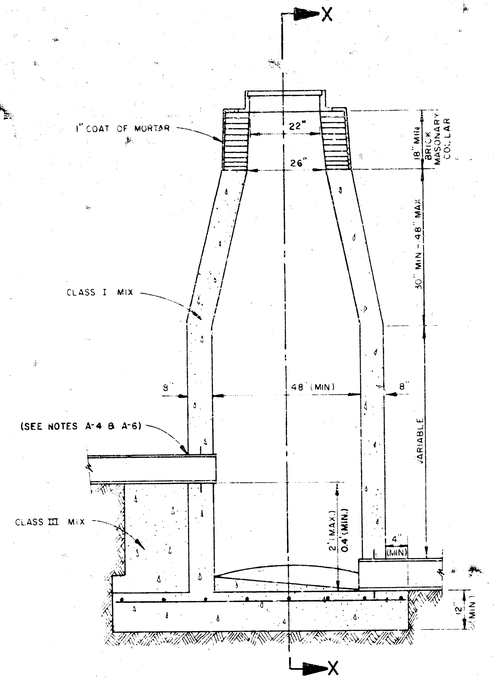
SANITARY SEWER IMPROVEMENTS
TIMBER LAKES ESTATES 2nd & 3rd ADDITIONS

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS



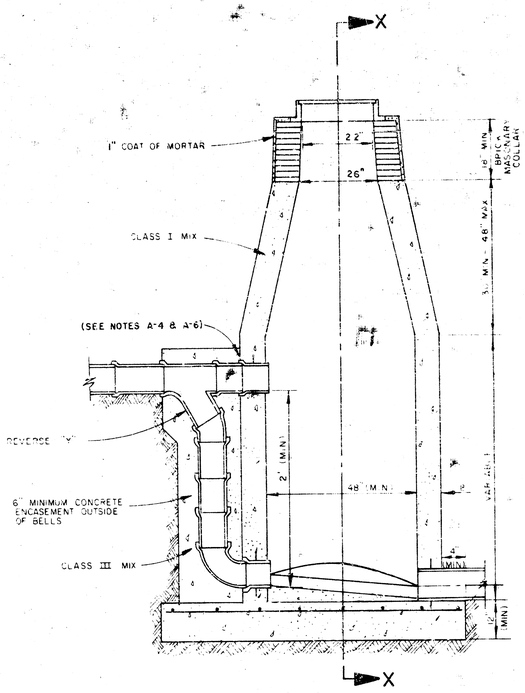
CAST IN PLACE

STANDARD MANHOLE
TYPE "E-A"



CAST IN PLACE

DROP MANHOLE
TYPE "E-B"



CAST IN PLACE

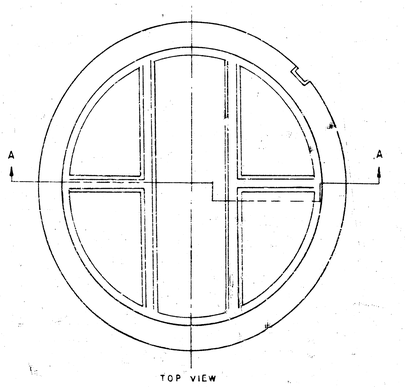
OUTSIDE DROP MANHOLE
TYPE "E-C"

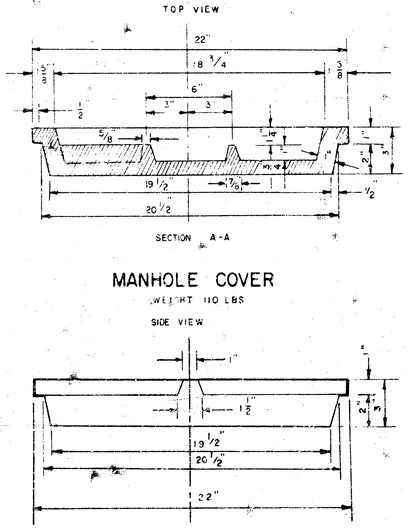


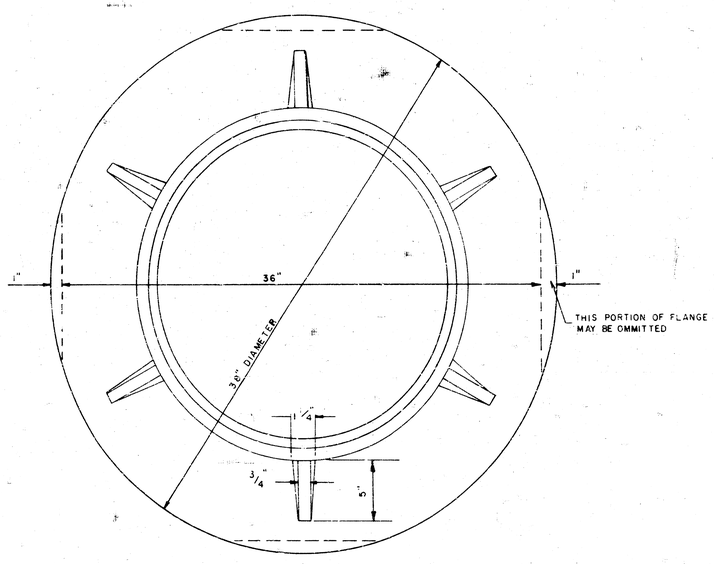
SECTIONAL ELEVATION-INVERT

PRECAST MANHOLES

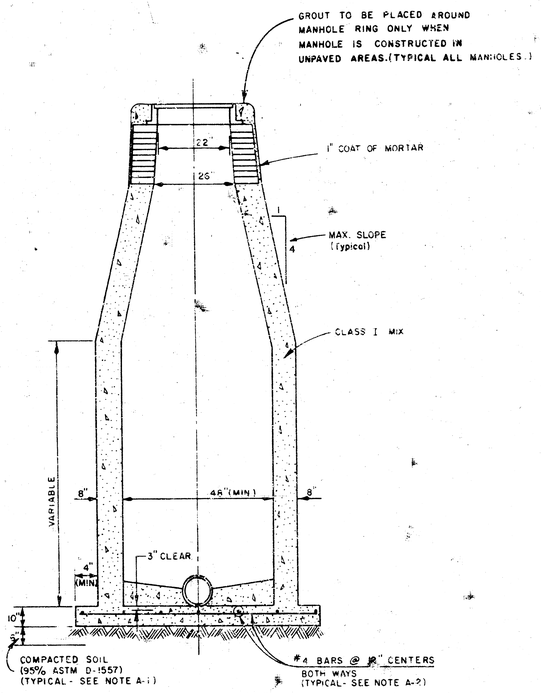
PRECAST MANHOLES MAY BE SUBSTITUTED FOR THE 8" THICK CAST-IN-PLACE MANHOLES. THE MANHOLE BASE AND OUTSIDE MANHOLE PIPE SUPPORTS FOR PRECAST MANHOLES WILL BE THE SAME AS SHOWN FOR CAST-IN-PLACE MANHOLES.







MANHOLE RING



SECTION X

NOTES

A. MANHOLES

1. IF, IN THE OPINION OF THE ENGINEER THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR HAS THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.

2. STEEL REINFORCING IS REQUIRED IN ALL MANHOLE BASES.

3. MORTAR USED IN MASONRY CONSTRUCTION TO BE CLASS I (1:3 MIX).

4. WHEN OPENINGS ARE CUT IN MANHOLE WALL FOR PIPE, PIPE WILL BE GROUTED IN PLACE WITH NON-SHRINKING GROUT. EXTERIOR OF COMPLETED CONNECTION TO BE SEALED WITH APPROVED COATING.

5. CAST-IN-PLACE CIRCULAR CONCRETE MANHOLES ARE TO BE CONSTRUCTED ONLY ON SEWERS NOT SUBJECT TO DETERIORATION DUE TO FORMATION OF HYDROGEN SULFIDE GAS AND IN LOCATIONS WHERE IT IS ASSURED THAT ANY ADJUSTMENT OF THE MANHOLE TOP ELEVATION WHICH MAY BE NECESSARY WILL NOT REQUIRE MODIFICATION OF THE CONCRETE BARREL.

6. WATERSTOP GASKETS SHALL BE INSTALLED IN MANHOLE WALLS WHEN A.B.S. COMPOSITE PIPE, POLYETHYLENE PIPE, OR P.V.C. PIPE IS USED.

7. PRECAST MANHOLES SHALL BE SET 4 INCHES INTO THE MANHOLE BASE.

STANDARD MANHOLES TYPE "E-A", "E-B", AND "E-C" MAY BE BID IN LIEU OF STANDARD MANHOLES "A and AA", "B and BB", AND "C and CC", RESPECTIVELY.

No	Revision	By	Date

SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

SANITARY SEWER DETAILS

SANITARY SEWER IMPROVEMENTS
TIMBER LAKES ESTATES 2nd & 3rd ADDITIONS

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by M.D.S. | Job No. 76488 | Sht 4 of 7
Drawn by | Date JULY 1977

Sta. 0+36.10
Const. M.H. 1
Special Type
See Sht. No. 3

Install 288.90 L.F.
8" Pipe

Sta. 3+25.00
Const. M.H. 2
Type A

Install 333.00 L.F.

Install 333.00 L.F.
8" Pipe

Install 334.00 L.F.
8" Pipe

LINE No. 1-7

20°00'

90°00'

TIMBER LAKES 2ND ADDITION

LINE No. 1-2

45°00'

Sta. 4+85.00
Const. M.H. 3
Type A

Sta. 8+18.00
Const. M.H. 4
Type A

Sta. 11+51.00
Const. M.H. 5
Type A

Sta. 14+85.00
Const. M.H. 6
Type A

Install 160.00 L.F.
8" Pipe

PEE

M.H. 1
Top El.=1298.0

M.H. 2
Top El.=1288.8

M.H. 3
Top El.=1280.3

M.H. 4
Top El.=1277.7

M.H. 5
Top El.=1272.5

M.H. 6
Top El.=1272.9

E Out=1290.36
E In=1280.56

E Out=1279.82
E In=1275.82

E Out=1279.18
E In=1276.32

E In=1277.00

E In=1272.02

E Out=1269.36
E In=1269.16

288.90 L.F. 8" Pipe
@ 0.40%

160.00 L.F. 8" Pipe
@ 0.40%

333.00 L.F. 8" Pipe
@ 0.40%

333.00 L.F. 8" Pipe
@ 0.40%

334.00 L.F. 8" Pipe
@ 0.40%

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00

1300
1290
1280
1270

Sta. 14+85.00
M.H. 6

LINE No. 1-7

45°00'

90°00'

Sta. 16+75.07
Const. M.H. 7
Type A

LINE No. 1a
See Sht. No. 6

Sta. 20+80.07
Const. M.H. 9
Type A

20' Utility Esmt.

LINE No. 1-2

90°00'

180°00'

Install 190.07 L.F.
8" Pipe

Install 250.00 L.F.
8" Pipe

Sta. 19+25.07
Const. M.H. 8
Type A

Identical Points

Install 155.00 L.F.
8" Pipe

LINE No. 2
See Sht. No. 7

TWISTED OAK CIRCLE

Install 331.20 L.F.
8" Pipe

Sta. 24+11.27
Const. M.H. 10
Type A

LINE No. 1-8
See Sht. No. 6

LINE No. 1
See Sht. No. 6

TIMBER LAKES 2ND. ADDITION

SCALE
TYPICAL ALL PLAN-PROFILE SHEETS
PLAN: Lat. & Long. 0 50 100
PROFILE: Horiz. same as above 10
Vertical 5 0

E In=1281.52 (8")
from LINE No. 1a

E In=1281.52 (8")
from LINE No. 2

E In=1284.62 (8")
from LINE No. 1a

190.07 L.F. 8" Pipe
@ 0.40%

250.00 L.F. 8" Pipe
@ 0.39%

156.90 L.F. 8" Pipe
@ 0.30%

331.20 L.F. 8" Pipe
@ 0.40%

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00

1300
1290
1280
1270

SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER
LINE NO. 1
STA 0+36.10 TO STA 24+11.27

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Job No. 76-456
Date Dec. 1977
Designed by M.D.S.
Drawn by K.E.D.
Sht. 5 of 7

Sta. 24+11.27
MH. 10

Line No. 1B
See below

SAGEBRUSH
COURT

Sta. 26+51.27
Const. M.H. 11
Type A

Sta. 27+34.27
Const. M.H. 12
Type A

Line No. 1D
See Sht. No. 7

Sta. 30+15.50
Const. M.H. 13
Type A

Sta. 31+68.53
Const. M.H. 14
Type A

Line No. 1E
See Sht. No. 7

IDENTICAL POINTS

Install 252.00 L.F.
8" Pipe

Install 1-8" Stub

Sta. 34+20.53
Const. M.H. 15
Type AA

Install 1-4" Stub

Line No. 1
See Sht. No. 5

Install 240.00 L.F.
8" Pipe

Install 143.00 L.F.
8" Pipe

Line No. 1C
See below

Install 221.23 L.F.
8" Pipe

Install 153.03 L.F.
8" Pipe

LINE No. 1

20' Utility Easement

10' Utility Easement

180°00'
90°00'
90°00'
90°00'
87°22'51"
1°20'45"
91°07'24"
88°52'36"
88°52'36"
90°00'
45°00'

M.H. 10 Top El.=1287.0
M.H. 11 Top El.=1287.0
M.H. 12 Top El.=1288.0
M.H. 13 Top El.=1290.3
M.H. 14 Top El.=1288.8
M.H. 15 Top El.=1291.6
M.H. 16 Top El.=1291.6

E. Out=1283.42
E. In=1283.52
E. Out=1285.58
E. In=1285.68
E. Out=1285.45
E. In=1285.55
E. Out=1285.36
E. In=1285.46
E. Out=1288.30
E. In=1288.40
E. In=1288.70
E. In=1290.08

E. In=1289.79
from Line No. 1E

E. In=1289.01
from 8" Stub

E. In=1286.44
from Line No. 1C

E. In=1286.58
from Line No. 1B

240.00 L.F. 8" Pipe @ 0.40%
143.00 L.F. 8" Pipe @ 0.40%
221.23 L.F. 8" Pipe @ 1.00%
153.03 L.F. 8" Pipe @ 0.80%
252.00 L.F. 8" Pipe @ 0.40%

24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 31+00 32+00 33+00 34+00

Sta. 0+00.00, Line No. 1A=
Sta. 16+75.07, Line No. 1
M.H. 7

Line No. 2
See Sht. No. 7

Sta. 1+86.00
Const. M.H. 16
Type A

Line No. 1A

20' Utility Easement

Install 186.00 L.F.
8" Pipe

Line No. 1
See Sht. No. 5

Install 1-4" Stub

90°00'
90°00'
90°00'

Sta. 0+00.00, Line No. 1B=
Sta. 24+11.27, Line No. 1
M.H. 10

TIMEER LAKES 2ND ADDITION

Sta. 1+84.00
Const. MH. 17
Type A

Line No. 1B

20' Utility Easement

Install 184.00 L.F.
8" Pipe

Install 1-4" Stub

Line No. 1
See above

90°00'
90°00'

TIMBER LAKES 2ND ADDITION

Sta. 0+00.00, Line No. 1C=
Sta. 27+04.27, Line No. 1
M.H. 12

Line No. 1D
See Sht. No. 7

20' Utility Easem't

Line No. 1C

20' Utility Easem't

Install 265.00 L.F.
8" Pipe

Line No. 1
See above

Sta 2+65.00
Const. M.H. 18
Type A

Install 1-4" Stub

Install 1-4" Stub

90°00'
45°00'
45°00'

M.H. 7 Top El.=1291.52
M.H. 16 Top El.=1290.35
M.H. 10 Top El.=1287.0
M.H. 17 Top El.=1289.45
M.H. 12 Top El.=1288.0
M.H. 18 Top El.=1290.85

E. Out=1284.32
E. In=1284.42
E. Out=1284.02
E. In=1284.12
E. Out=1284.22
E. In=1284.32
E. Out=1287.38
E. In=1287.48
E. Out=1286.24
E. In=1286.34
E. In=1287.60

E. Rt.=1285.60(4")
From Stub

E. Rt.=1287.60(4")
From Stub

E. Lt. & Rt.=1287.70(4")
From Stubs

186.00 L.F. 8" Pipe @ 1.45%
100 L.F. 8" Pipe @ 1.60%
265.00 L.F. 8" Pipe @ 0.40%

0+00 1+00 2+00 0+00 1+00 2+00 0+00 1+00 2+00 3+00

1300 1290 1280 1270

SEDGWICK COUNTY, DEPARTMENT OF PUBLIC WORKS
G.C. McCLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

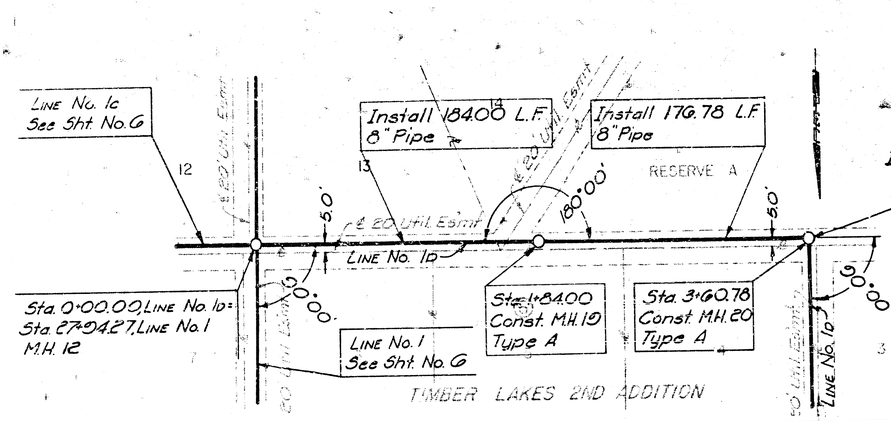
LINE NO. 1 STA 24+11.27 TO STA 34+20.53
LINE NO's 1A, 1B & 1C

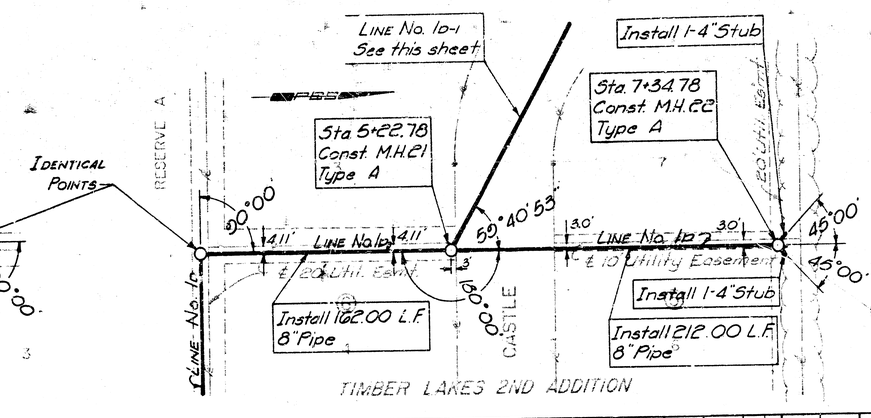
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

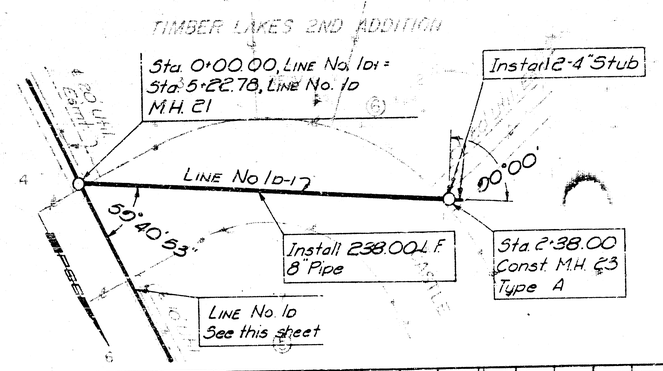
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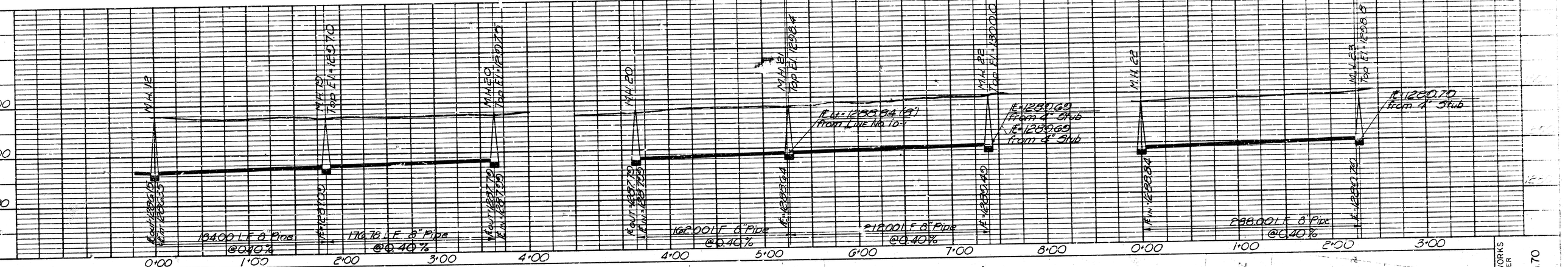
Designed by M.D.S.
Drawn by R.F.

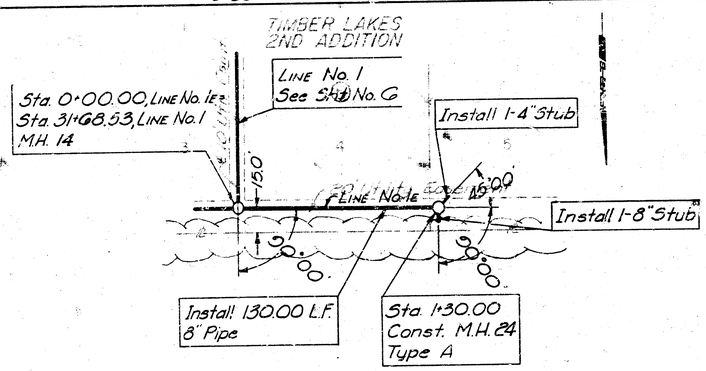
Sht. 6 of 7

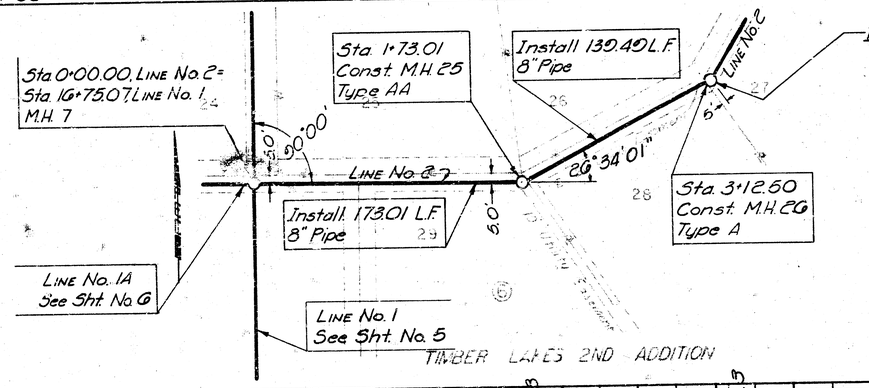


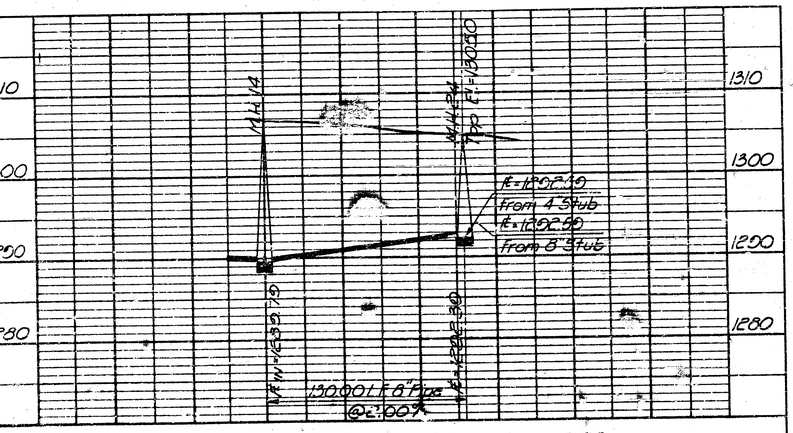


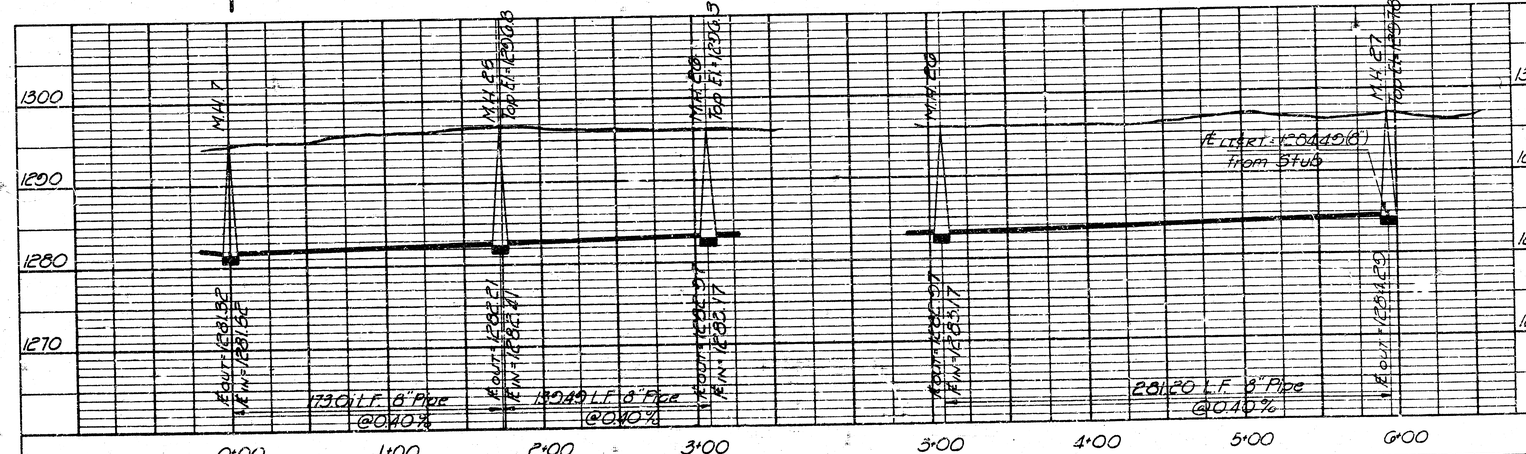












SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

LINE NO.s 1D, 1D-1 & 1E
LINE NO. 2 STA. 0+0000 TO STA. 5+93.70

SANITARY SEWER IMPROVEMENTS
TIMBER LAKES 2ND ADDITION

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Job No. 76488
Designed by M.D.S.
Drawn by R.F.J.
Date JULY 1977

Sht. 7 of 7