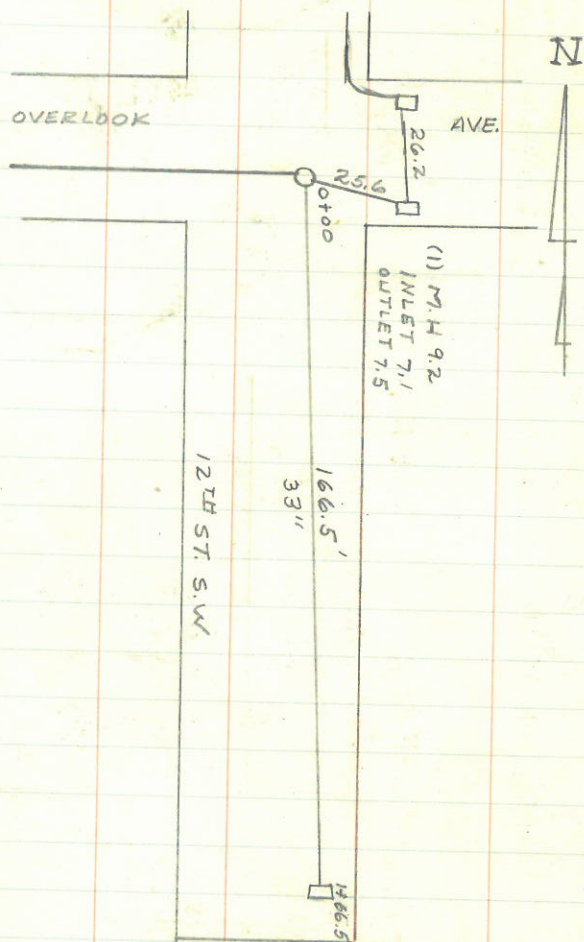
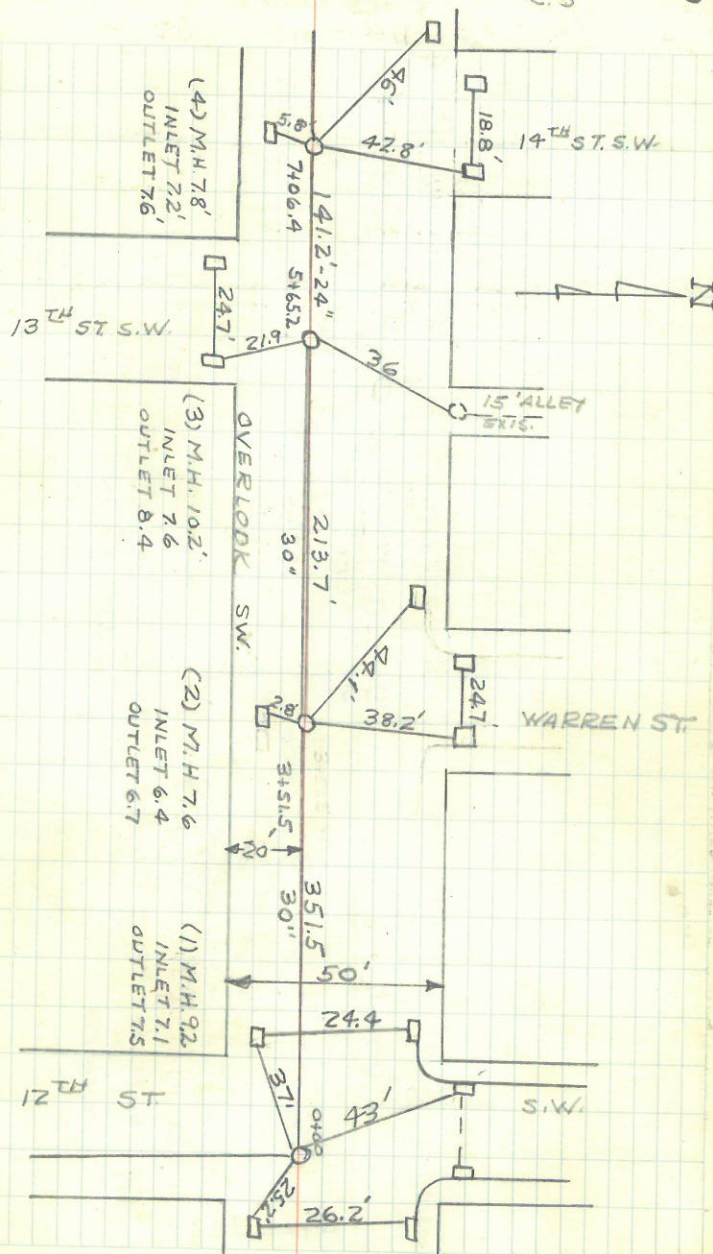


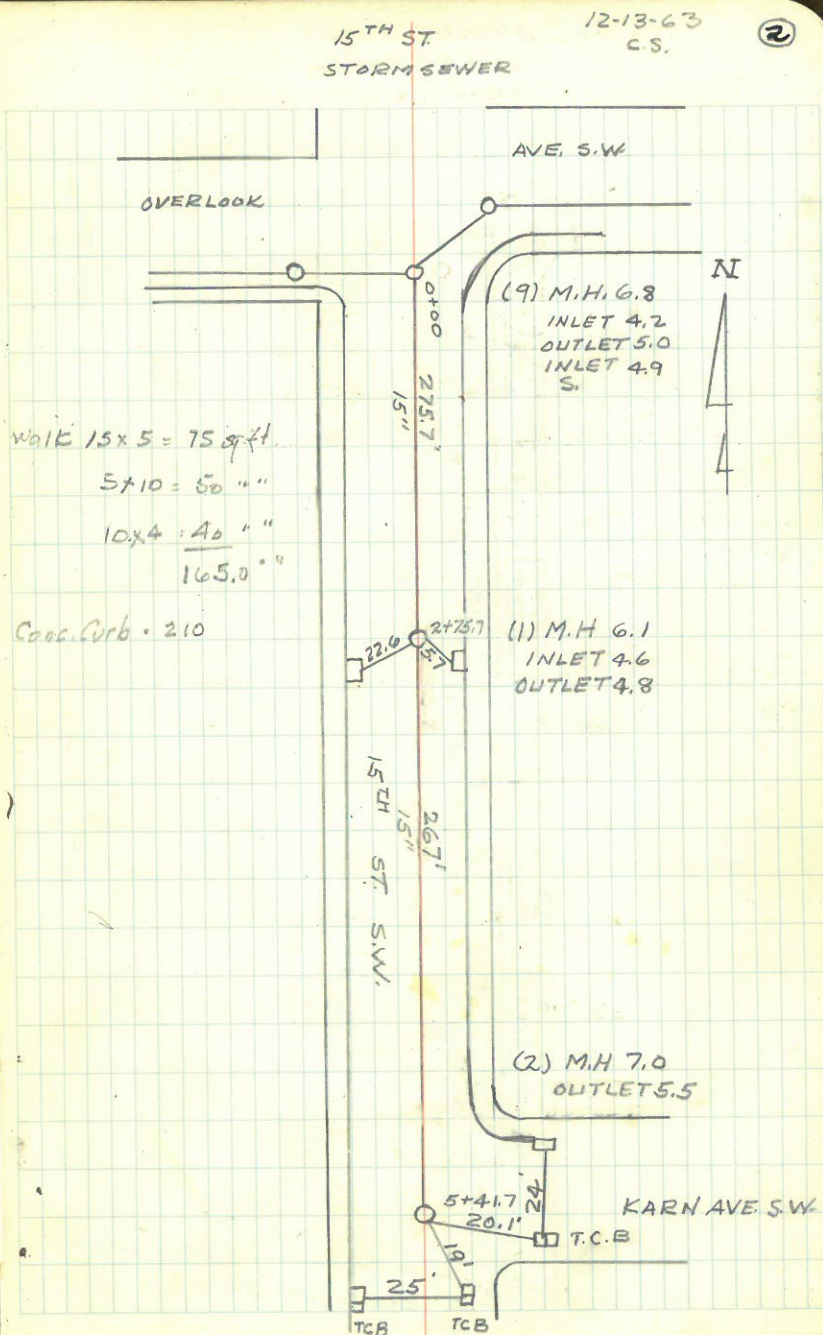
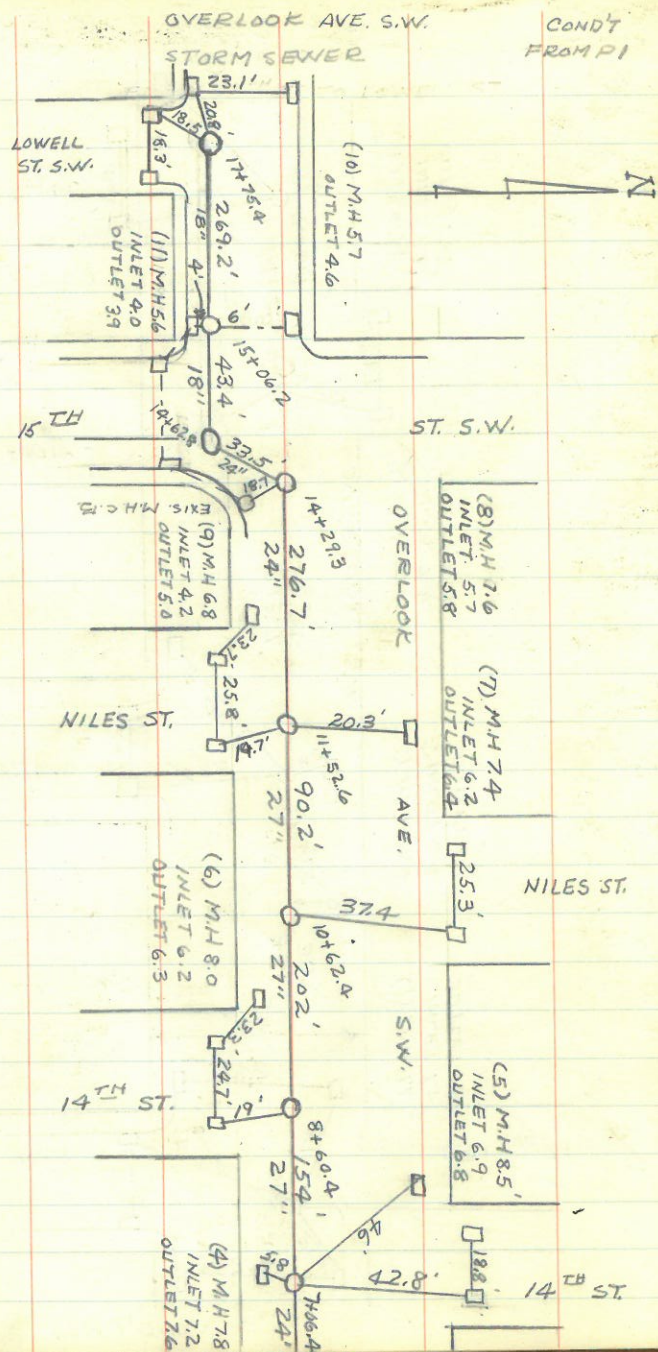
OVERLOOK AVE S.W.
STORM SEWER
FROM 12TH ST. TO LOWELL ST.



12-13-63
C.S.

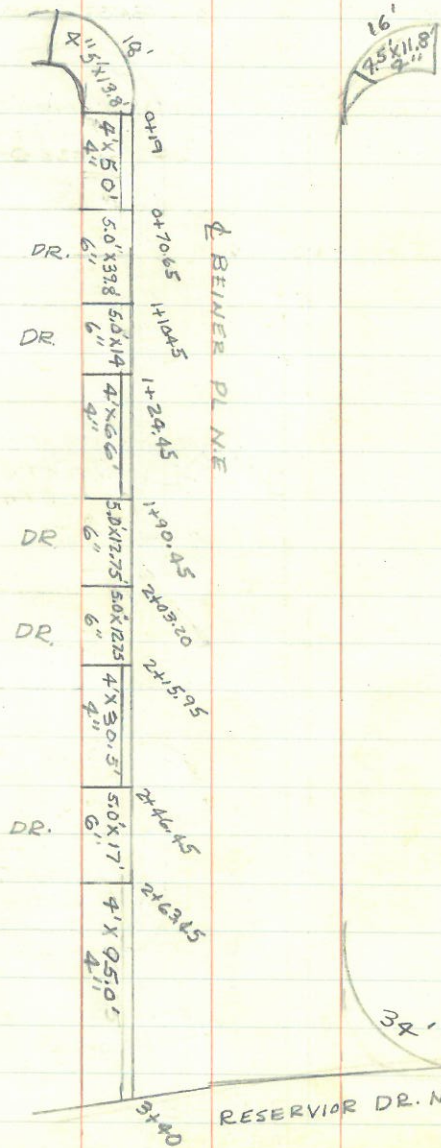


COND'T P2



BEINER PL. N.E.
CURB & GUTTER
SIDEWALK WEST SIDE FINALS

4 HANKINS RD. N.E.



N

12-31-63 (3)

CS
DD
RM

WEST. SIDE CURB

EASTSIDE CURB

18' CIRCLE @ HANKINS N. SIDE 16' CIRCLE @ HANKINS N. SIDE
340' STRAIGHT TO END 283' STRAIGHT TO R @ RESERVIOR OR
34' CIRCLE @ RESERVIOR DR. N. SIDE

TOTAL CIRCLE CURB 68'
STRAIGHT " 623'

CONC. 4" SIDEWALK

CONC. 6" SIDEWALK

$$5' \times 13.8' = 69.0'$$
$$5' \times 39.8' = 199.0'$$
$$4' \times 50.0' = 200.0'$$
$$5' \times 14' = 70'$$
$$4' \times 66' = 264'$$
$$5' \times 12.75 = 63.75'$$
$$4' \times 30.5' = 122'$$
$$5' \times 12.75 = 63.75'$$
$$4' \times 95.0' = 380.0'$$
$$5' \times 17' = \underline{85'}$$
$$4.5 \times 11.8' = 53,10$$

481.50 SQ. FT.

1088.10 sq. FT.

15TH ST. S.W.
CURB & GUTTER FINALS
KARN AVE. S.W. TO LAWN AVE S.W.

WEST SIDE.

540.6' STRAIGHT CURB

EAST SIDE

18' CIRCLE @ KARN S. SIDE

521.7' STRAIGHT TO R @ LAWN

25' CIRCLE @ LAWN N. SIDE.

4-30-64

C.S.
O.D.

(4)

20TH ST. S.W.
CURB & GUTTER FINALS
TREMONT AVE. TO MASS. AVE. S.W.

WEST SIDE

26' CIRCLE @ TREMONT S. SIDE
321.8' STRAIGHT TO RAD @ VERMONT
25.5' CIRCLE @ VERMONT N. SIDE
32' ROADWAY VERMONT
25' CIRCLE @ " S. SIDE
231' STRAIGHT TO RAD @ MASS.
26.5' CIRCLE @ MASS. N. SIDE

6-27-69 (5)
CS.

EAST SIDE

28.5' CIRCLE @ TREMONT S. SIDE
343.5' STRAIGHT TO RAD @ VERMONT
25.5' CIRCLE @ VERMONT N. SIDE
32' ROADWAY " "
25.5' CIRCLE @ " " S. SIDE
231' STRAIGHT TO RAD @ MASS.
26' CIRCLE @ MASS. N. SIDE.

25TH ST. NW.
CURB & GUTTER FINALS
HOWARD ST. NORTHERLY $\pm$ 530'

JULY 27, 1964

WEST SIDE

25.2' CIRCLE AT HOWARD ST. N.W. CORNER
500.7' STRAIGHT TO 530 NORTH OF
HOWARD

6

EAST SIDE

25.8 CIRCLE N.E. CORNER^{AT} HOWARD
501.1' STR. TO 530 N. OF HOWARD

Milbarn Ave N.E.

Curb & Gutter Finals

Stoner Ave South to Thomas Circle

September 12, 1964

West Side

393.7' Straight to Thomas Circle

7

East Side

447.1' Straight to Radius @ Thomas Circle

41.3' Circle S.E. Corner @ Thomas Circle

Colonial Parkway
CURB & Gutter Finials
Thomas Circle N.E. ~ EAST Pt of Lot #12436

8.

North Side

- 29.4' Circle @ Thomas Circle @ N.E. Corner
- 303.2' Straight Curb to Radius @ Woodview
- 25.4' Circle @ Woodview Dr. @ N.W. Corner
- 24.6' Circle @ Woodview Dr. @ N.E. Corner
- 345.7' Straight Curb to Radius @ Deerfield Lane
- 25.0' Circle @ Deerfield Lane @ N.W. Corner
- 25.0' Circle @ Deerfield Lane @ N.E. Corner
- 121.3' Straight Curb to E. Pt of Lot #12436

South Side

- 18.2' Circle @ Thomas Circle @ S.E. Corner
- 934.4' Straight Curb Easterly

Taggart Ave. N.E.
Curb & Gutter Finials
From Wray St to Amherst Rd. N.E.

North Side

- 25.3' Circle Curb @ N.E. Corner of Amherst
- 547.2' Straight Curb Westerly
- 99.7' Straight Curb opp. Lot 12317

11-16-64

O.D.

9.

South Side

- 301.2' Straight opp. Lot # 11359, #11358, #11357
- 100.0' Straight opp Lot # 11354
- 238.0' Straight opp. Lot # 11352, #11351 to Radius
- 25.0' Circle @ Wray St @ S.E. Corner

27TH ST. N.W.

CURB & GUTTER FINIALS

From Lincoln Way W. Northerly to Corp Line

W. Side

26.5' Circle @ N.W. Cor. @ Lincoln Way

1504.2' Straight Curb Northerly to Corp. Line

12-1-64

00

10

E. Side

25.4' Circle Curb @ N.E. Cor. Lincoln Way

1309.3' Straight Curb to Poplar Ave

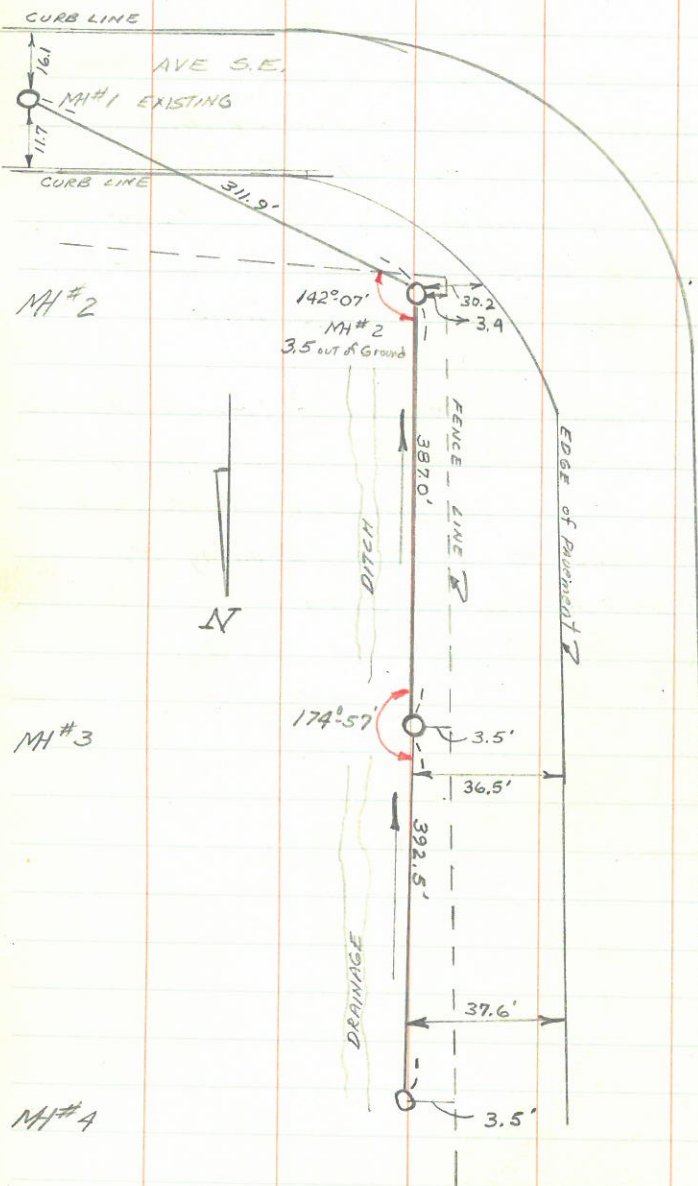
23.5' Circle Curb @ S.E. Cor of Poplar

29.4' Circle Curb @ N.E. Cor of Poplar

135.4' Straight Curb to Corp. Line

*. For Finials on Replace of Concrete Headers,
Sidewalks, building of Retaining wall &
Storm Sewer System See Field Book
211 Page 10 & Paving Drawing No.
P-247 A Acc No 2195

NEW U.S. ROUTE 21
From Edwin Ave. S.E. ~ Northerly
SAN. Sewer Finis



Cold - 20°

1-6-65

ORD

W.L

11

MH#2

E = 9.60

MH#3

E = 8.90'

MH#4

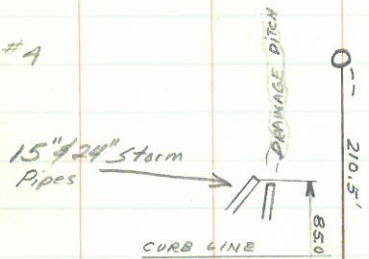
E = 11.8'

New U.S. 21
from Edwin Ave ~ Northerly
San. Sewer Finials

1-6-65

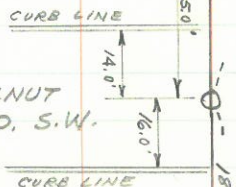
OD ~ Notes
W.D.L. ~ T 12

MH #4



MH #5

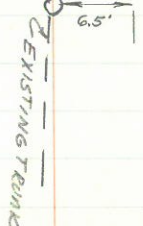
WALNUT
RD. S.W.



MH #6



MH #7



EDGE OF PAVEMENT

U.S. 21

MH #5

$\bar{E} = 23.7'$

INLET E. = 17.4'

INLET N = 13.3'

MH #6

$\bar{E} = 14.85'$

INLET N = 9.10'

MH #7

$\bar{E} = 16.1'$

9TH ST. S. W. San. Sewer Finals

WARM ~ Sunny

WDL ~ X

4-20-21-65 ORD ~ Notes

13

	+	π	-	ELEV	
B.M.	1.60	143.21			141.61
0+00			2.74	140.47	
0+50			2.8	140.4	
1+00			2.8	140.4	
1+30.5			3.18	140.03	
1+49.3			3.05	140.16	
2+00			3.2	140.0	
2+50			3.8	139.4	
3+00			3.9	139.3	
3+19.1			3.99	139.22	
3+44.3			4.11	139.10	
3+50			4.0	139.2	
4+00			4.0	139.2	
4+50			3.8	139.4	
5+00			3.5	139.7	
5+35			3.64	139.57	
5+50			3.4	139.8	
6+00			3.3	139.9	
6+50			3.1	140.1	
7+00			2.3	140.7	
7+04			2.06	141.15	
7+09			2.32	140.89	
TP @	5.99	146.24	2.96	140.25	
7+09			2.60	143.64	
TP	1.11	145.95	1.40	144.84	
T.B.M.			4.28	141.67	141.61

Hyl @ 9TH ST SW opp Webb Ave S.W.

MH #1 ~ EXIST

MEAS. DEPTHS

ELEV. FLOW LINE

7.9' 132.57

MH #2 ~ EXIST.

8.55' 131.48

MH #3 ~ NEW

7.0' 133.16

MH #4 ~ @ Webb ~ EXIST

10.2' 129.02

MH #5 ~ NEW

5.2' 133.90

MH #6 ~ EXIST

MH #7 ~ NEW

OVER FLOW = 2.9' 135.75

5.4' 132.85

MH #8 ~ @ 9TH & OVERLOOK (EXIST)

OVER FLOW = 2.9' 131.19

9.7 128.29

MH #9 ~ NEW

7.3' 136.34

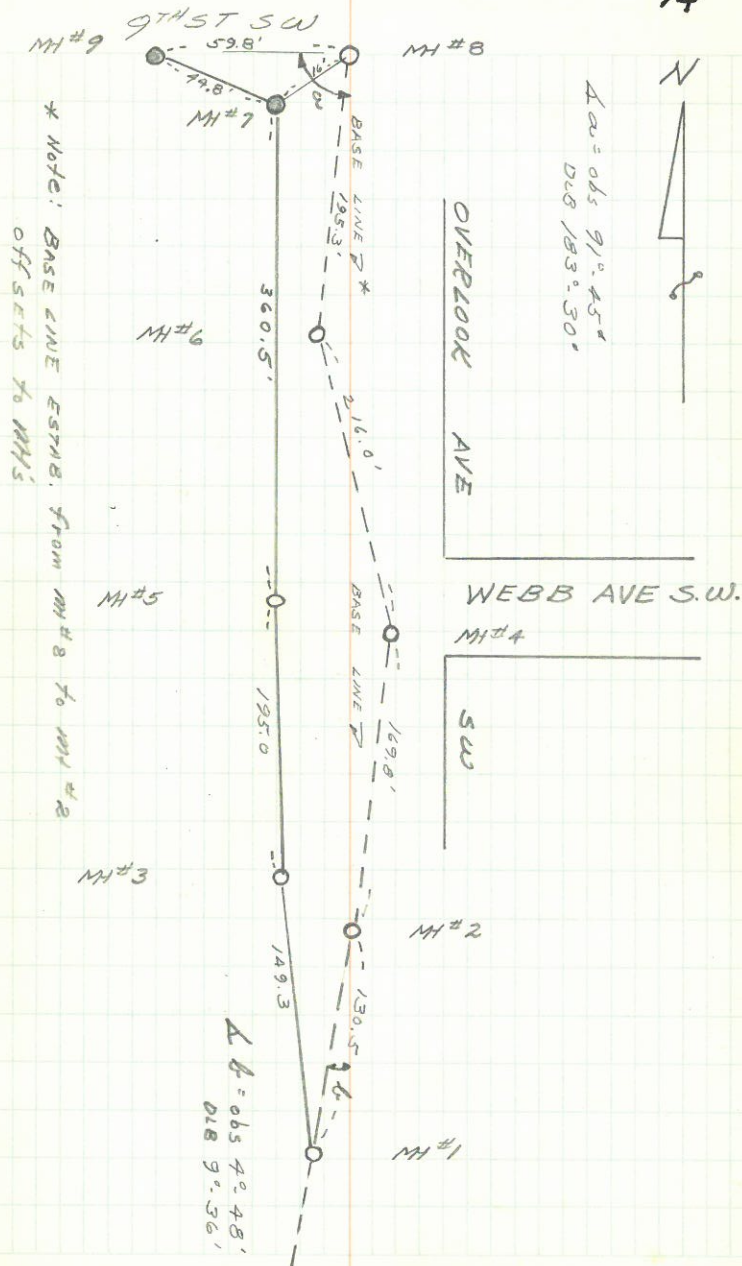
Hyl 9TH & Overlook

SAME AS ABOVE. (CON'T NEXT PAGE)

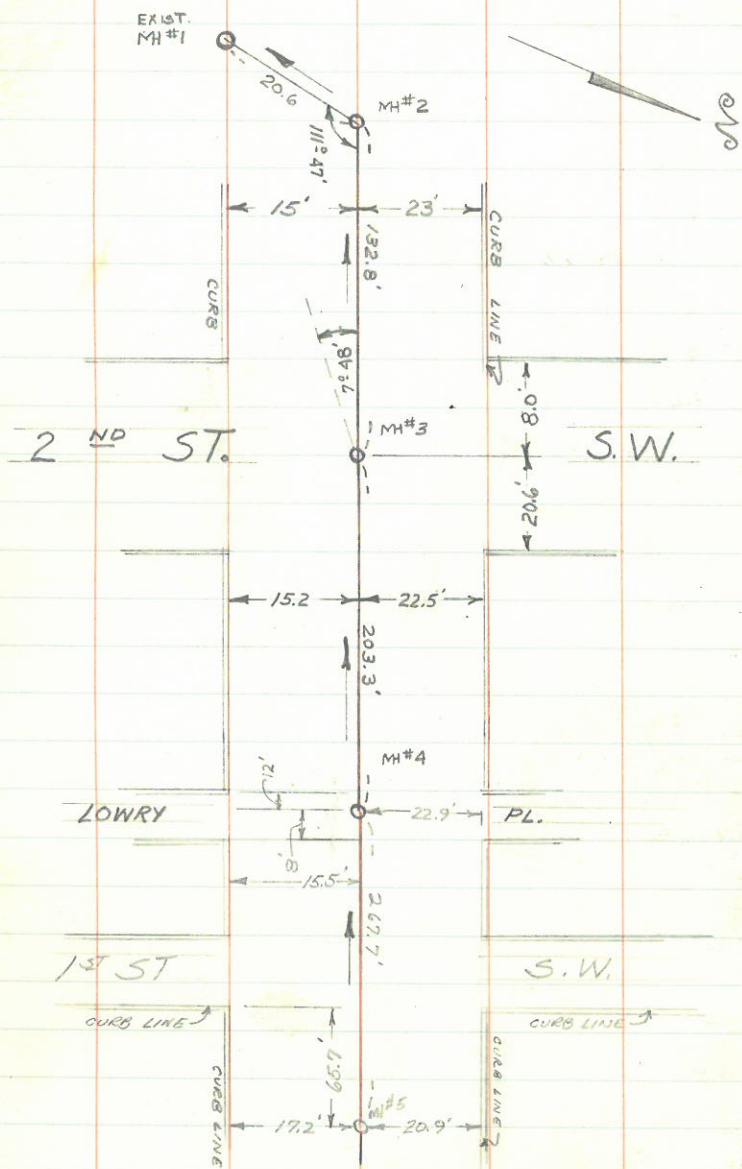
Offsets to MH's from BASE Line

offsets

MH#9	59.8' W.
MH#8	0.0'
MH#7	5.1' W
MH#6	4.3 W.
MH#5	4.05 W
MH#4	2.75 E.
MH#3	5.1 W.
MH#2	0.0'



SIPPO TRUNK RELIEF
SEWER FINIALS



Cold ~ Sunny

12-29-64

15

QA ~ Notes
W.D.L. ~ CHAIN

MH #1 ~ EXISTING

$\bar{E} = 13.3'$

INLET N. = 11.2'

MH #2:

$\bar{E} = 11.4'$

MH #3:

$\bar{E} = 11.6'$

INLET S. = 10.5'

INLET S. = 7.8'

MH #4:

$\bar{E} = 11.95'$

INLET N. = 10.65'

INLET N. = 8.2'

INLET S. = 10.7'

INLET S. 8.5'

MH #5:

$\bar{E} = 16.5$ West

$\bar{E} = 11.2$ East

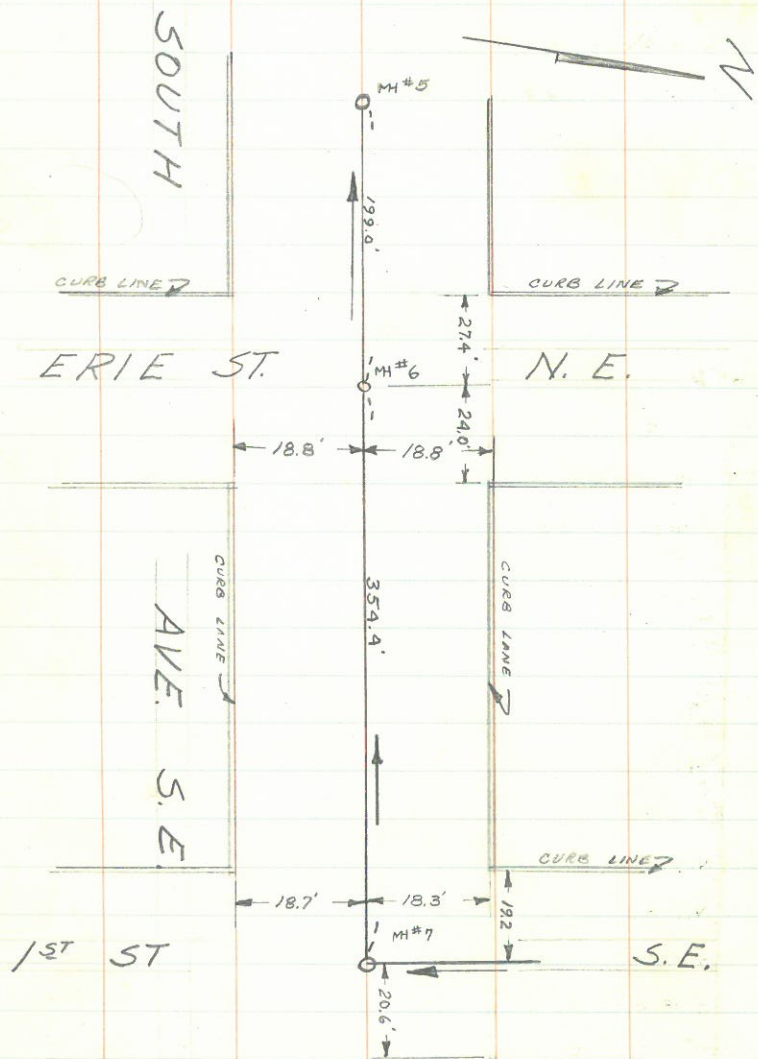
Sippo Trunk Relief
Sewer Finals

Cold ~ Sunny

12-29-64

O.D. - Notes
W.D.L. -

16



MH #6:

$R = 11.2'$

INLET N = 10.15'

MH #7:

$R = 12.6'$

INLET E. = 12.0'

INLET S. = 11.75'

INLET S. = 12.4'

Sippo Trunk Relief Sewers
FINIALS

SOUTH

AVE. S.E.

OAK

AVE S.E.

57.

5. E

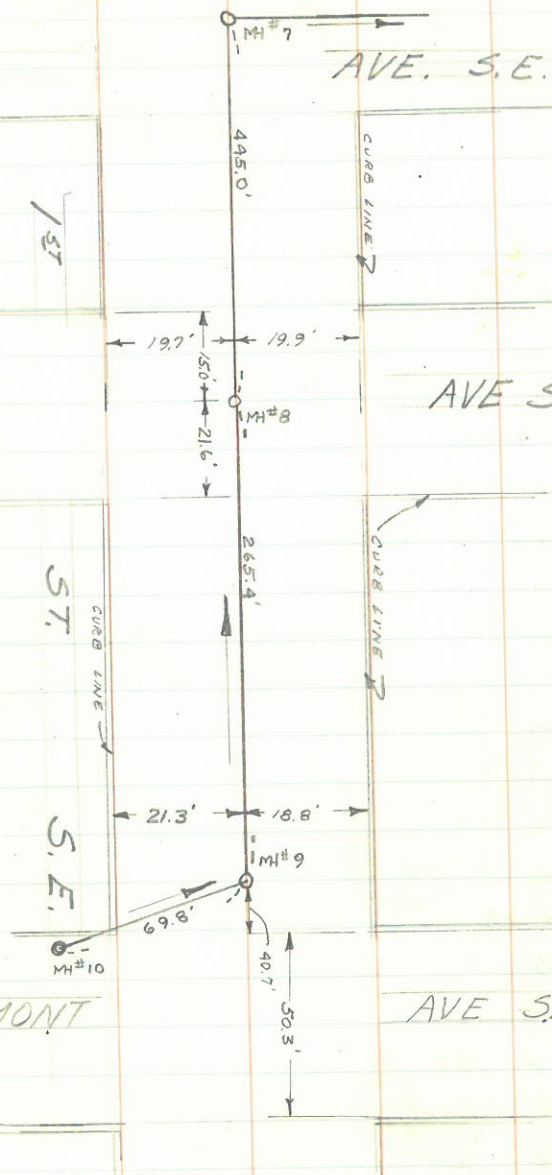
TREMONT

AVE S.E.

12-30-64

GD ~ Notes
W.D.L ~

17


$$MH \neq \emptyset$$
$$E = 11.65$$
$$\text{INLET } E_1 = 10.1'$$

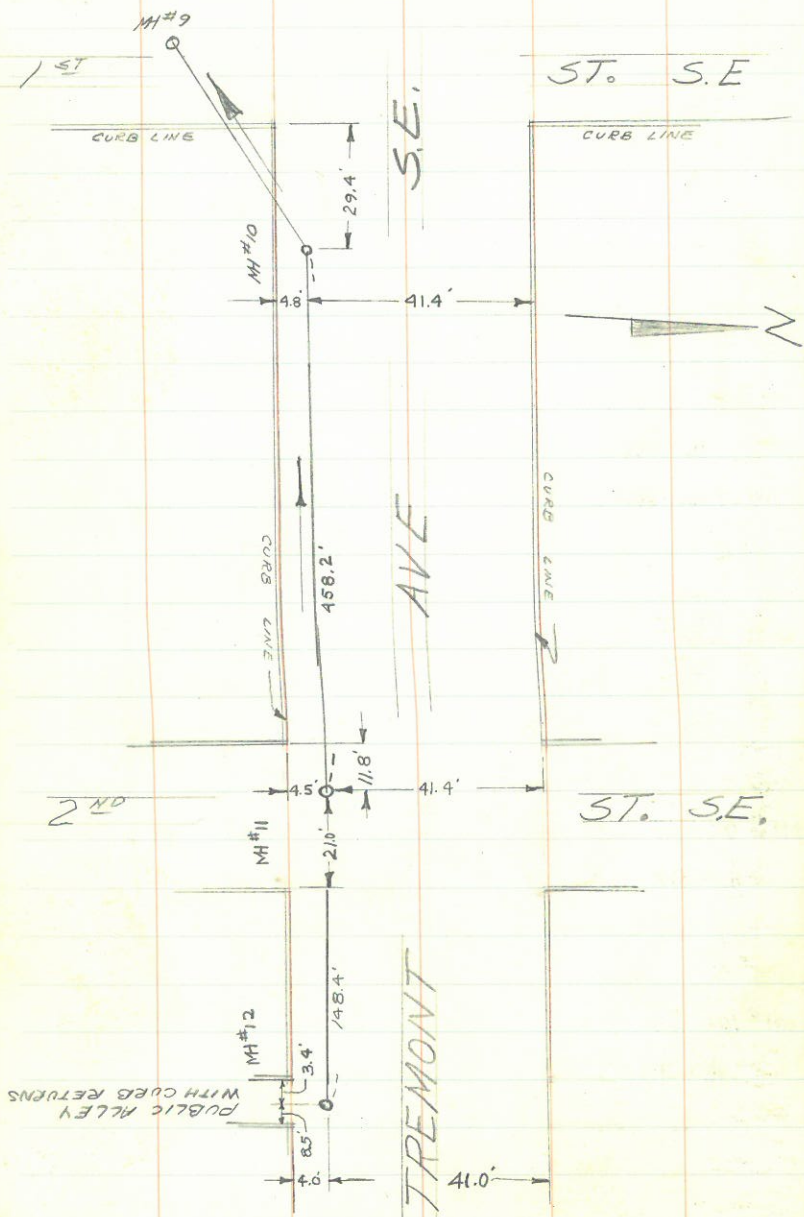
MH # 9.

$$E = 5.7'$$

MH # 10:

$$E = 3.60'$$

Sippo trunk Relief Sewer
FINIALS



Cold

12-30-64

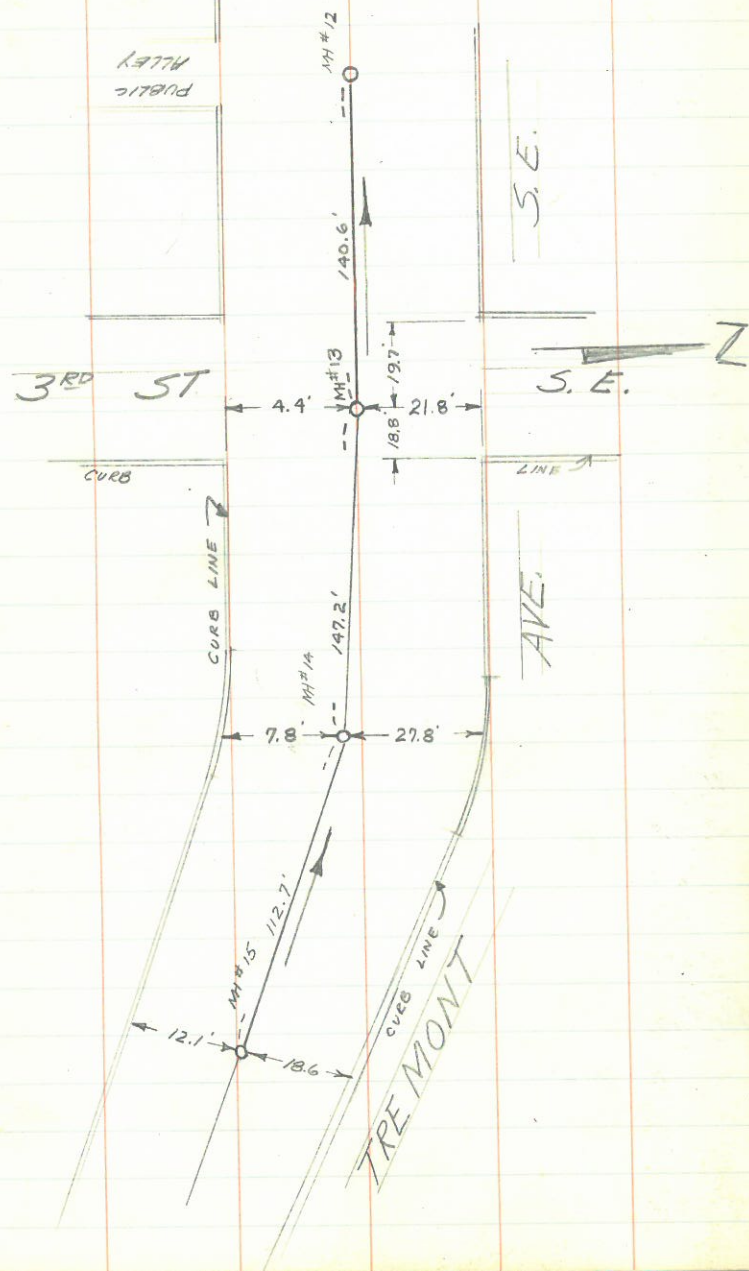
O.D. ~ Notes
W.D.L

18

MH#11
R = 9.75'

MH#12
R = 15.2'

Sipp Trunk Relief Sewer
FINIALS



Cold

12-30-64

OD ~ Notes
NDL

19

MH #13

$H = 12.05'$

INLET S = 10.7'

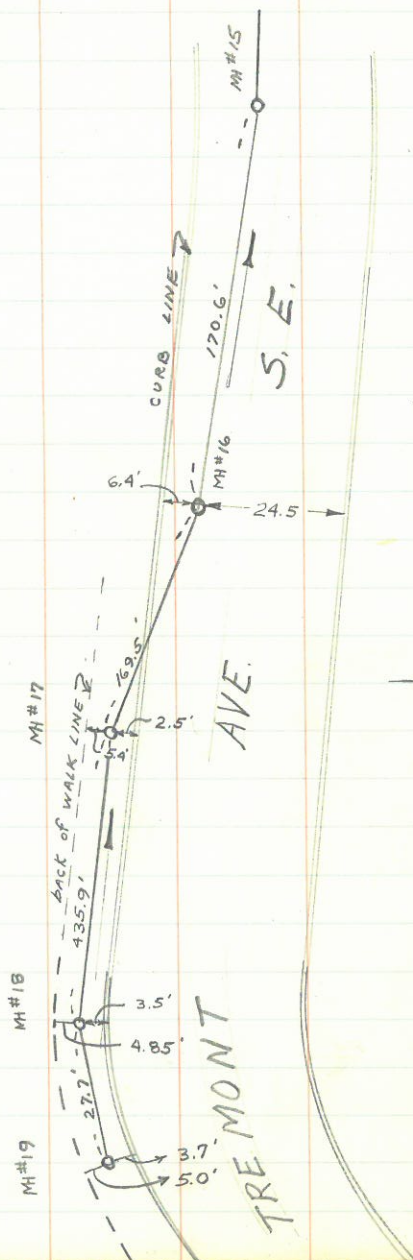
MH #14

$H = 11.4'$

MH #15

$H = 10.2'$

Sippo Trunk Relief Sewer
FINIALS



COOL ~ Sunny

12-31-64

O.D ~ Notes
W.D.L.

20

MH #16

$H = 6.90'$

MH #17

$H = 5.13$ To Top of WALK

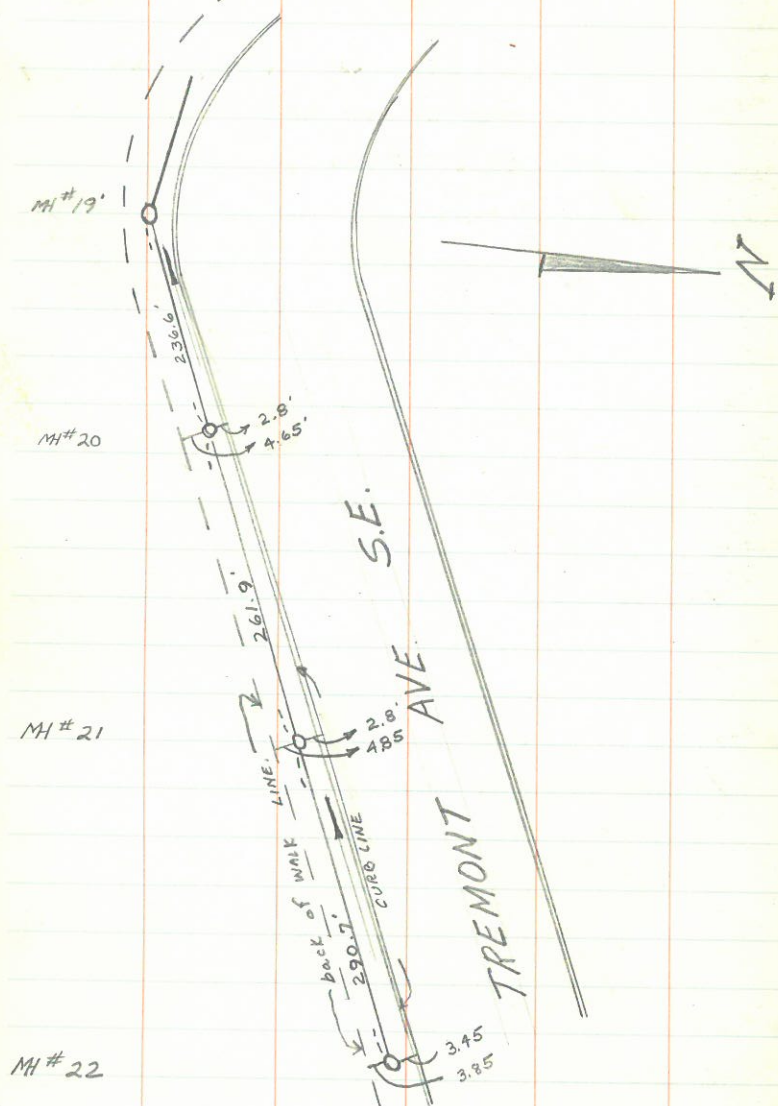
MH #18

$H = 5.20$ To Top of WALK

MH #19

$H = 5.60$ To Top of WALK

Sippo Trunk Relief Sewer
Finials



Cool ~ Sunny

12-31-64

O.D ~ Notes
W.D.L

21

Note: MH's 17 Through 22 ARE IN THE CONC.
WALK. MEASUREMENTS ARE FROM FACE OF
CURB on S. Side of Tremont & back of WALK
S. Side of Tremont.

MH # 20 ~ GRADE CHANGE

INLET = 5.90' To Top of WALK

OUTLET = 6.85' " " " "

MH # 21

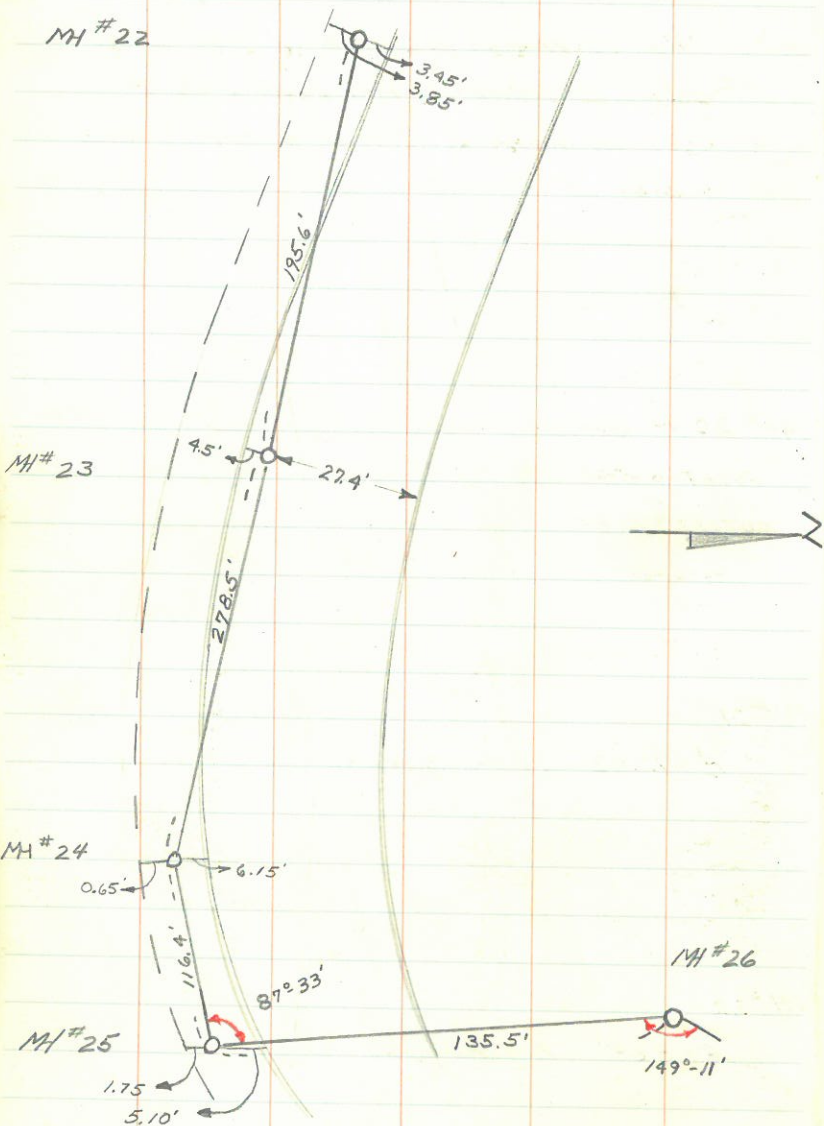
$H = 12.02'$ To top of WALK

MH # 22

$H = 8.85'$ To Top of WALK

Sippo Trunk Relief Sewer
Finals

MH #22



Cold

1-4-65

O.D ~ Notes
W.D.L.

22

Note: @ MH #25 WE BEGAN RUNNING a TRAVERSE
Line from MH to MH WITH EACH ANGLE Turning
ALL ANGLES twice.

MH #23

$\Delta = 7.85'$

MH #24

$\Delta = 8.75'$ To Top of WALK

INLET S. = 8.10' " " " "

MH #25

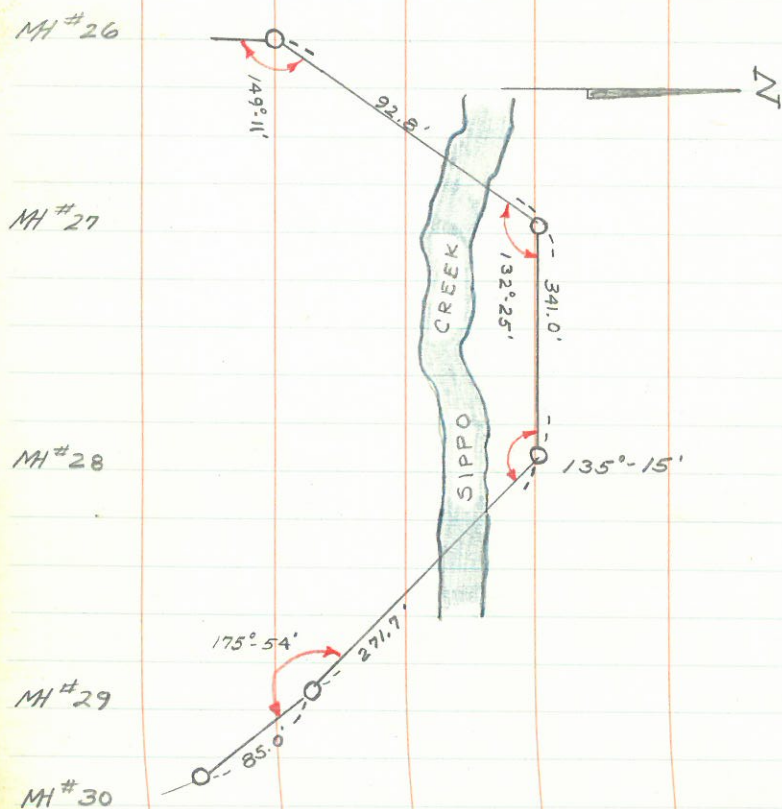
$\Delta = 10.35'$

MH #26

$\Delta = 9.85'$

INLET W. = 8.60

Sippo Trunk Relief Sewer
Finals



1-4-65

O.D. ~ Notes

W.D.L. ~

23

MH #27

$E = 9.10'$

MH #28

$E = 10.65'$

MH #29

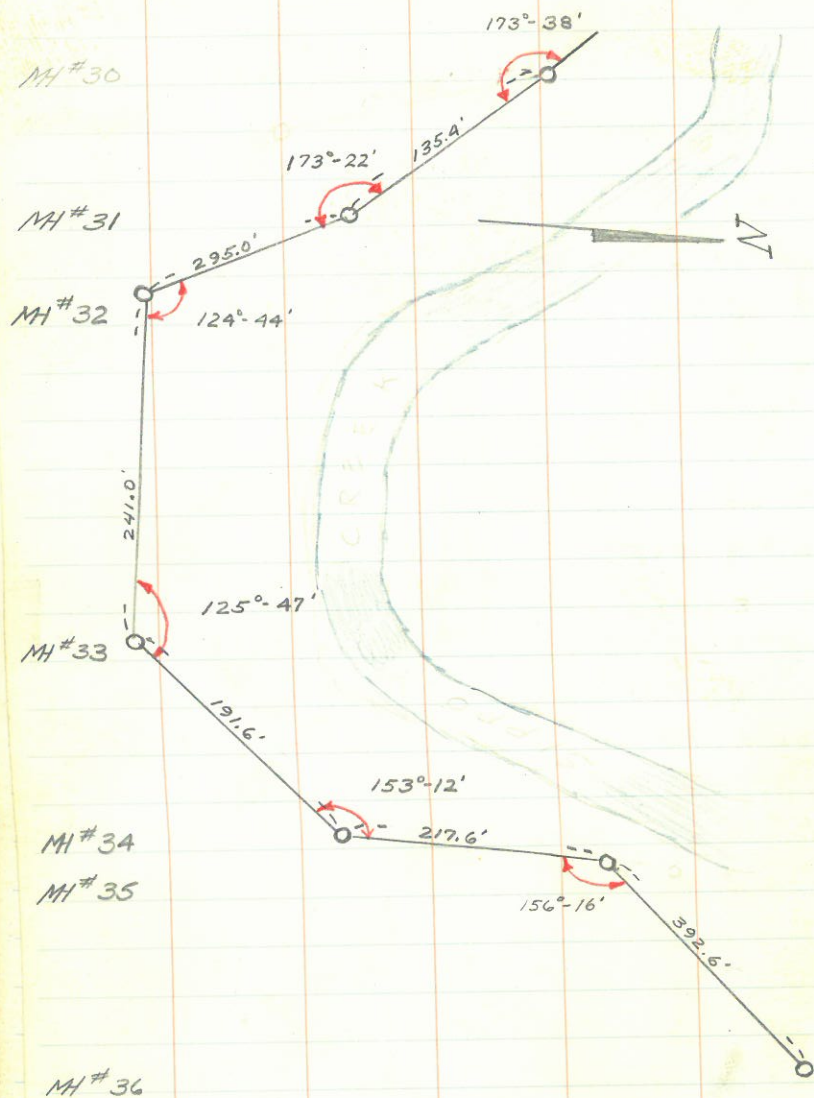
$E = 13.35'$

INLET $E = 8.3'$

MH #30

$E = 7.7'$

Sippo Trunk Relief Sewer
Finals



1-4-65

O.D. ~ Notes
W.D.L ~

24

MH#31

$\text{H} = 8.55'$

MH#32

$\text{H} = 8.95'$

MH#33

$\text{H} = 11.0'$

INLET N. = 6.75'

MH#34

$\text{H} = 7.00'$

MH#35

$\text{H} = 6.10'$

MH#36

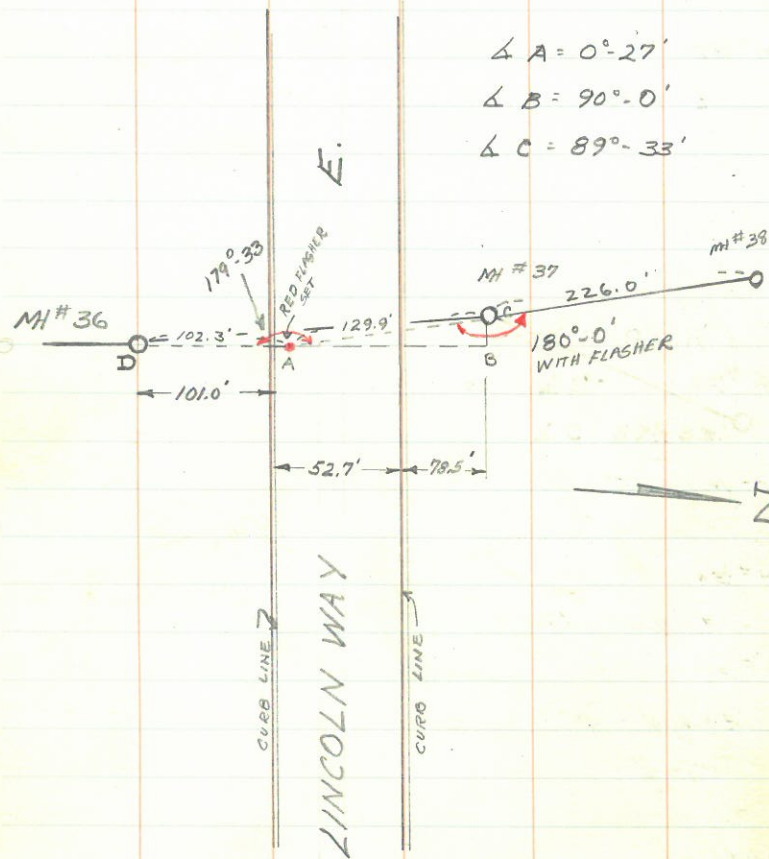
$\text{H} = 10.10'$

INLET E. = 9.05'

INLET N. = 6.10' IN CONC. CASING

INLET E. = 4.70'

Sippo Trunk Relief Sewer
Finals



$$\angle A = 0^\circ - 27'$$

$$\angle B = 90^\circ - 0'$$

$$\angle C = 89^\circ - 33'$$

$$\sin A = \frac{a}{129.9}$$

$$a = 129.9 \times .00785 = \underline{1.02}$$

$$\cos A = \frac{c}{129.9}$$

$$c = 129.9 \times .99999 = \underline{129.88'}$$

$$.102.3$$

$$+ \underline{129.88}$$

$$232.18' = DB$$

$$102' = BC$$

$$\tan D = \frac{1.02}{232.18} = .00439$$

$$\angle D = \underline{0^\circ - 15'} \text{ or } \underline{179^\circ - 45'}$$

Check:

$$\sin D = \frac{a}{b}$$

$$\sin D = \frac{1.02}{b}$$

$$.00439 = \frac{1.02}{b}$$

$$\frac{1.02}{.00439} = b = 232.35 \rightarrow \text{o.k.}$$

$$\text{MEASURED DISTANCE} = 232.20'$$

MH#37

$$E = 12.40'$$

$$\text{INLET E. } 11.35'$$

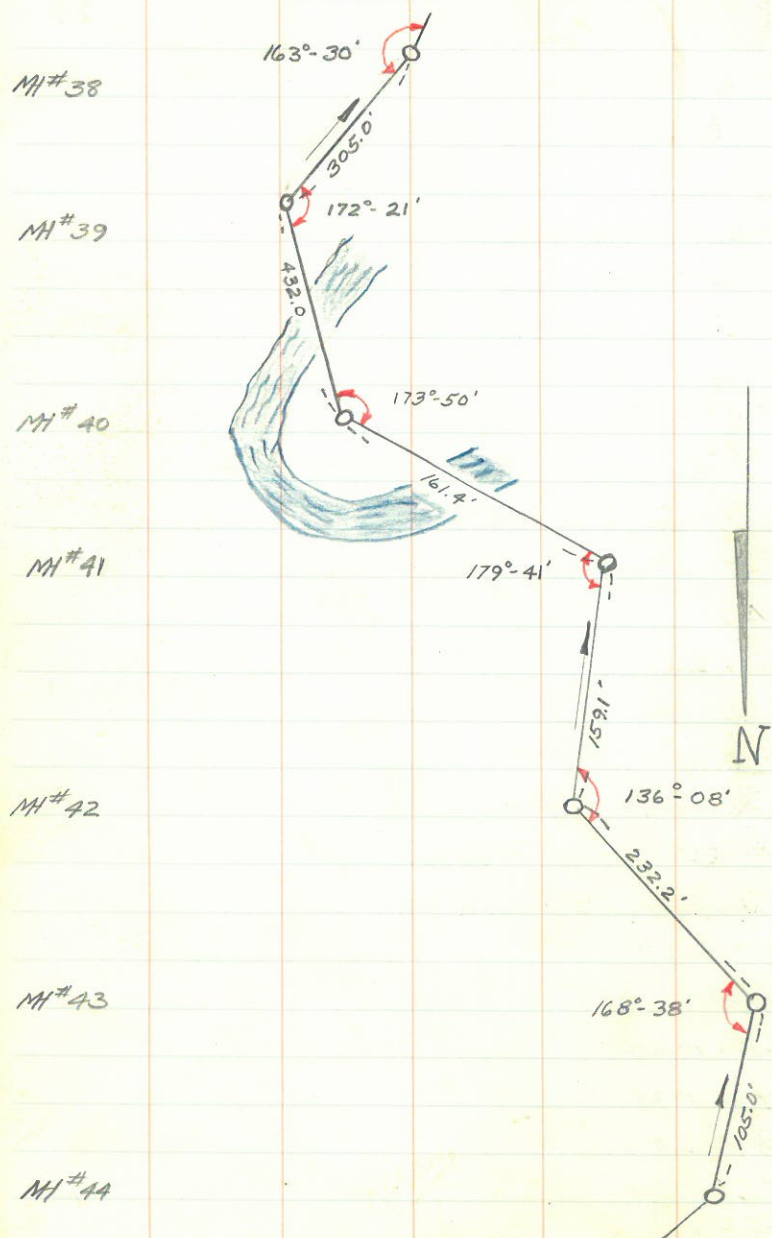
$$\text{INLET E. } 6.7'$$

1-4-65

OD ~ Notes
WDL

25

Sippo Trunk Relief Sewer
Finals



1-5-65

DD
WLD

26

MH#38:

$\Delta E = 6.90'$

MH#39

$\Delta E = 8.75'$

MH#40

$\Delta E = 7.80'$

MH#41

$\Delta E = 9.10$

INLET E. = 8.2

INLET E. = 3.2'

MH#42

$\Delta E = 21.7'$ CHANGE IN grade

INLET H. = 15.0'

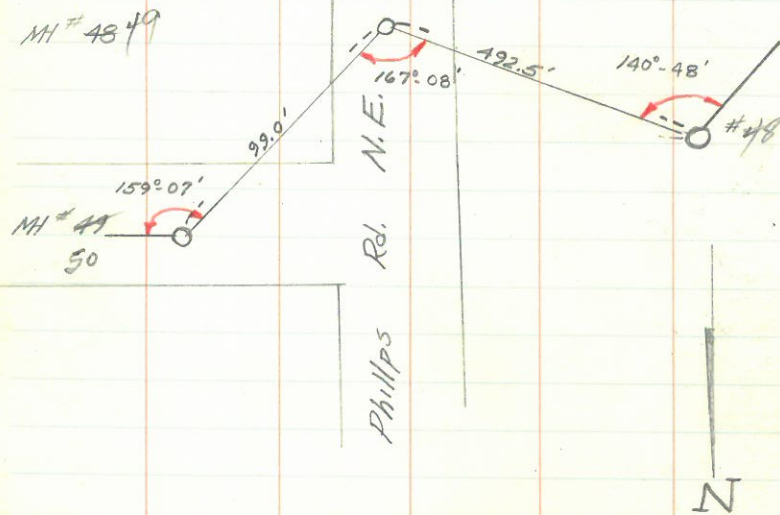
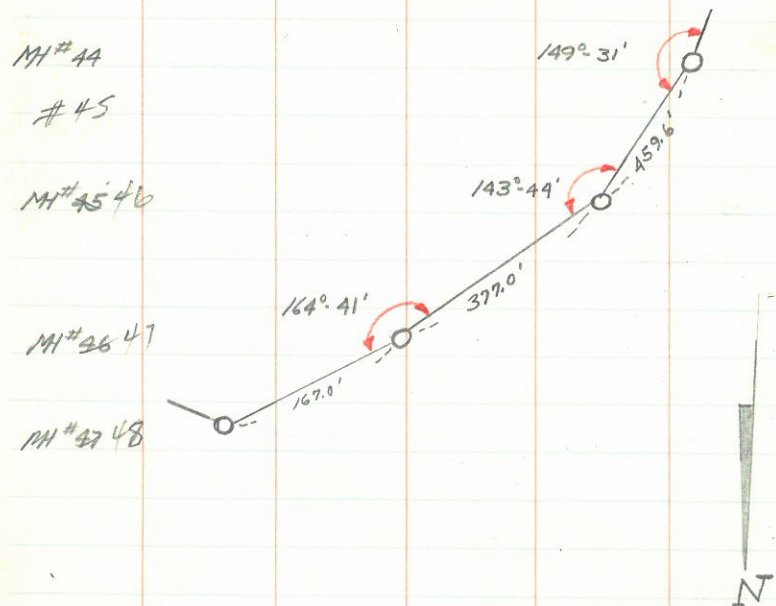
MH#43

$\Delta E = 18.0'$

MH#44

$\Delta E = 18.0'$

Sippo Trunk Relief Sewer
Finals



1-6-65

OD
WLD

27

MH #45 46

FE = 15.4'

MH #46 47

FE = 13.4'

MH #48 49

FE = 11.0'

MH #48 49

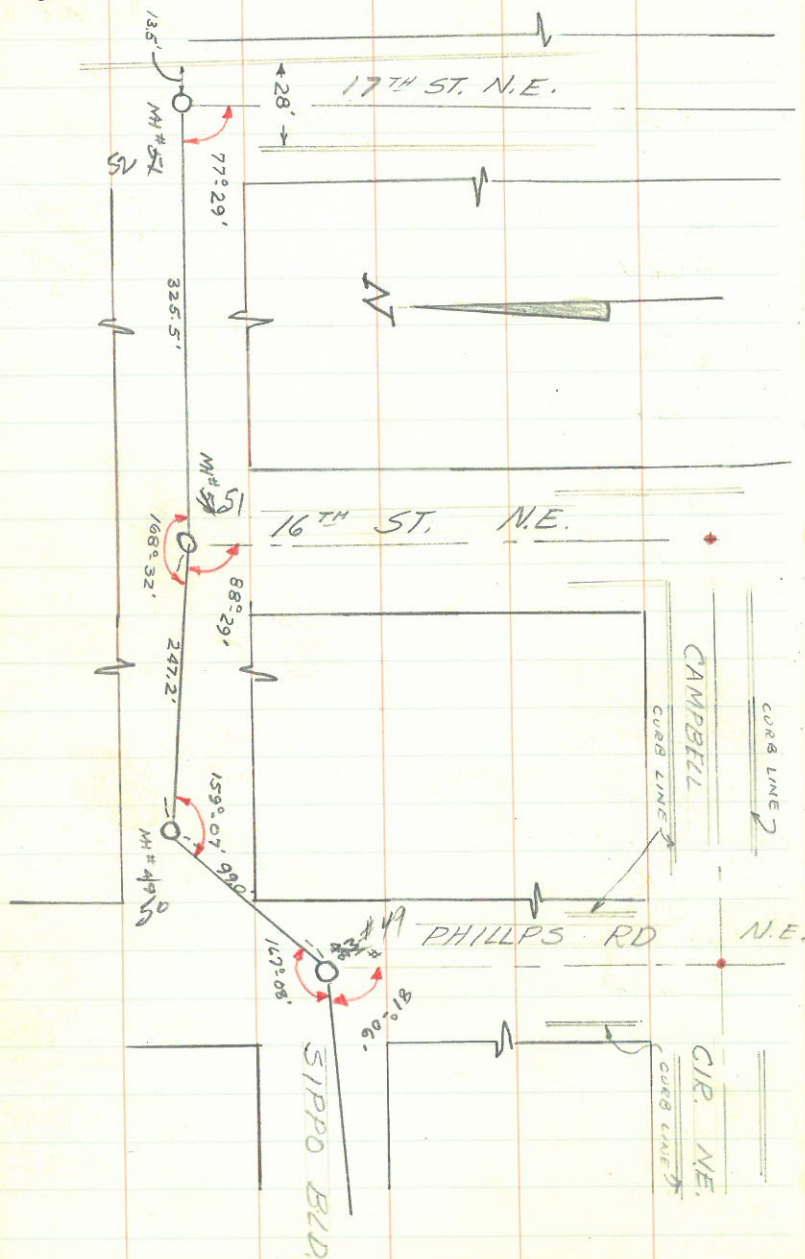
FE = 12.45

INLET S. = 11.0'

MH #49 50

FE = 11.50'

Sippo Trunk Relief Sewer
Finals



1-6-65

OD ~ Notes
WLD

28

HOBART AVE NE.

MH #50 51

IE = 10.35'

INLET S = 8.25'

MH #51 52

IE = 13.2'

INLET S = 10.85'

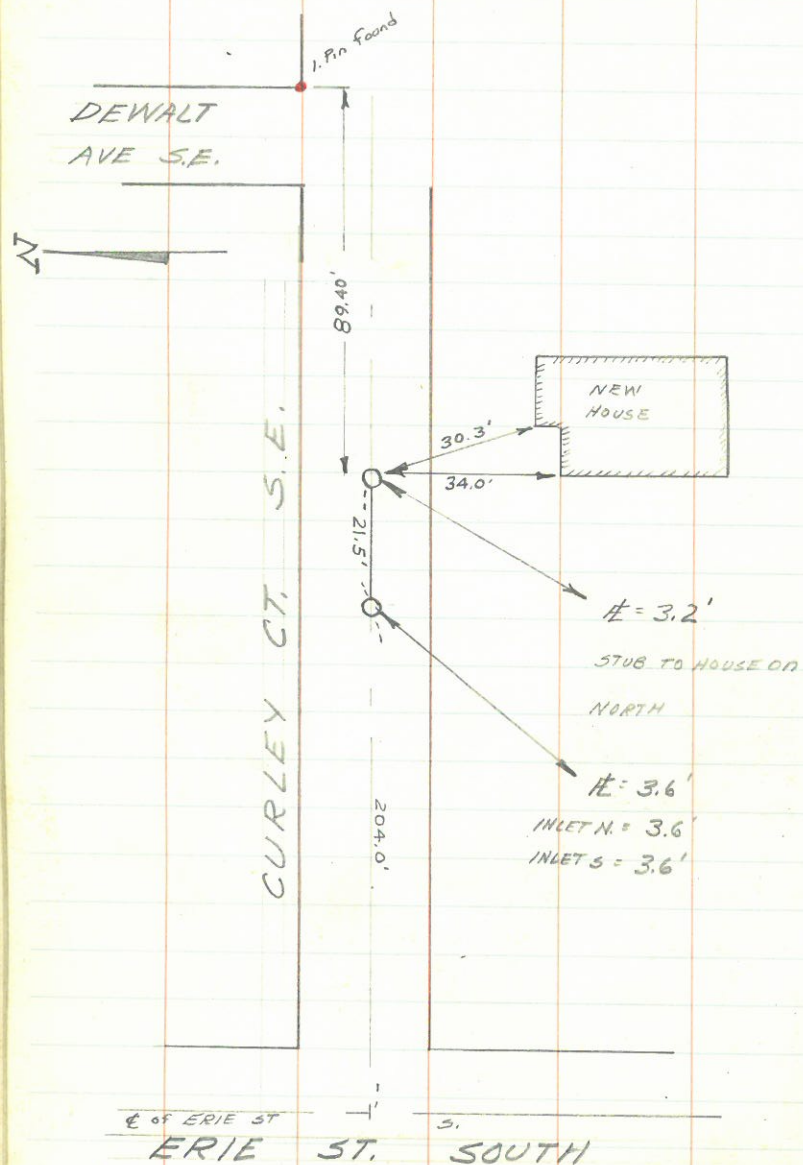
INLET N = 13.15'

CURLEY CT. S.E.
MH LOCATION

12-24-64

OD
WDL

29



SAN. Sewer Final's
(Sisler Buick New Garage)

Lincoln Way ~ N. Side ~

STA.	Description	Depth	Distance of Curb
0+00	MH #1 @ 23 RD ST. SE.	10.75'	4.5' S.
	IN. S.	10.50'	
1+85.3	MH #2	13.60'	10.0' S.
	IN. N.	12.65'	
2+70.3	MH #3	7.30'	13.0' N.
	IN. W.	7.30'	
	IN. S.	7.30'	
	IN. E.	7.30'	
4+00.7	MH #4	6.80'	13.5' N.
	OUTLET W.	7.50'	
4+52.3	MH #5	9.00'	31.2' N.
	STUB N.	8.90'	
	OUTLET W.	8.90'	
6+29.3	Y Located.		

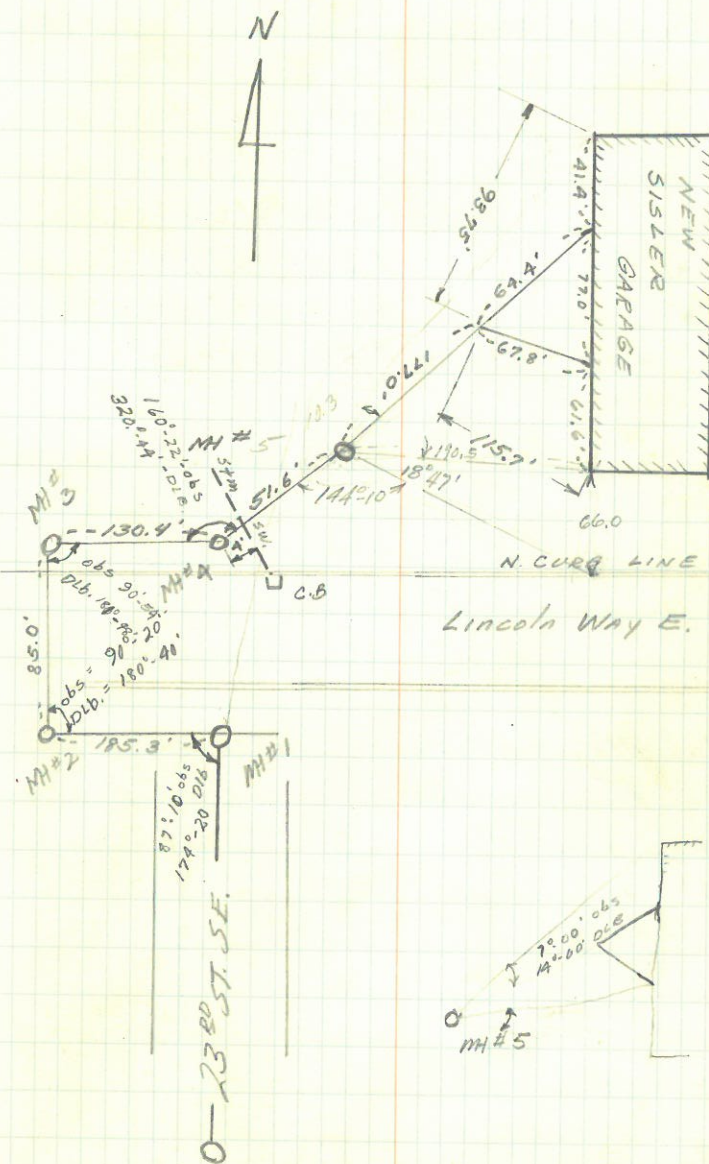
PLOTTED
APRIL 65
S.R. 18 P. 19

Cold ~ Snowing
17°

4-2-65

WDL
ORD

30



Top of MH's ELEV.
(cont from pp 30)

	+	π	-	ELEV
T.B.M.	5.75	293.03		287.28
MH #1			9.09	283.94
MH #2			7.51	283.52
MH #3			6.58	286.45
MH #4 *			5.65	287.38
MH #5 *			3.13	289.90
T.P.	8.84	293.07	8.80	284.23

5.80 287.27 287.28⁰⁰

* Note: MH's 4 & 5 were minus CASTINGS
& covers. Shots taken on top of Brick.

0+00	4.66	291.11	286.45
3+49 MH #1		6.32	284.79
" H of B"		10.19	280.92

PLOTTED
S.R. 18.31

31

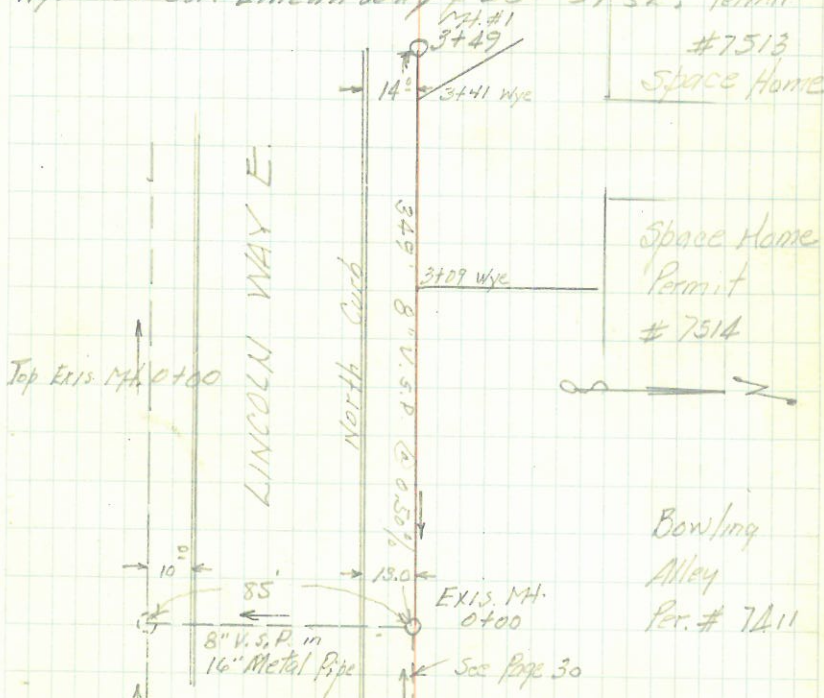
T.B.M. = Hyd SW Cor. Lincoln Way E & 23RD ST SE.

13.60 271.92 H E & W 12.65 272.87 H from North
7.30 = 279.15 H E. W. & S.

+ 0.75 = 288.13

+ 0.75 = 290.65

Hyd SW Cor. Lincoln Way E & 23RD ST SE. Permit



Niles St. S.W.
 Profile of San. Sewer Finals ~ Walnut ~ South

	X	T	-	ELEV.
B.M.	2.25	201.40		199.15
0+00			5.17	196.23
0+50			4.9	196.5
1+00			5.0	196.4
1+50			4.8	196.6
1+93.5			4.65	196.75
2+00			4.6	196.8
2+39			4.9	196.5
TP @	4.40	201.41	4.39	197.01
B.M.			2.26	199.15 199.15

Plotted in Sewer Record
 Book 18:18

4-6-65

ORD Notes
 WDL T

32

Hyd SW Cor. Niles & Walnut Ave SW

MH Rim @ Walnut & Niles Ave SW. #1

MH Rim 193.5' S. of Walnut on Niles

END Curbing on W. Side Niles @

Top Curb @ 2+39

Hyd S.W. Cor. Niles & Walnut RD SW.

MH DEPTHS

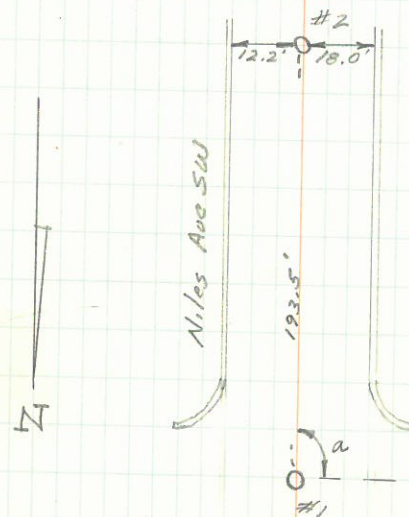
#2 Standard MH
 but full Pipe Straight
 through 8.3 to top of
 pipe

#1 INS. 9.4'

$H = 9.9$

$\Delta a = 92^\circ - 28' . 063$

$184^\circ - 55' . 018$



WALNUT RD SW.

Profile of San. Sewer Fittings ~ Noble Pl. ~ EASTERLY

	+	T	-	ELEV.
--	---	---	---	-------

B.M.	8.72	225.20		216.48
------	------	--------	--	--------

0+00		13.70		211.50
------	--	-------	--	--------

0+20		13.1		212.1
------	--	------	--	-------

0+50		11.7		213.5
------	--	------	--	-------

1+00		8.2		217.0
------	--	-----	--	-------

1+50		3.5		221.7
------	--	-----	--	-------

T.P. 0	8.48	233.34	0.34	224.86
--------	------	--------	------	--------

2+00		7.5		225.8
------	--	-----	--	-------

2+50		5.2		228.1
------	--	-----	--	-------

3+00		4.2		229.1
------	--	-----	--	-------

T.P. 3+30	1.90	231.04	4.20	229.14
-----------	------	--------	------	--------

T.P.	3.21	220.59	13.66	217.38
------	------	--------	-------	--------

			4.13	216.46 216.48
--	--	--	------	---------------

Plotted in Sewer
Record Book 18:20

Cool

4-5-65

OD ~ Notes
UL ~ X

33

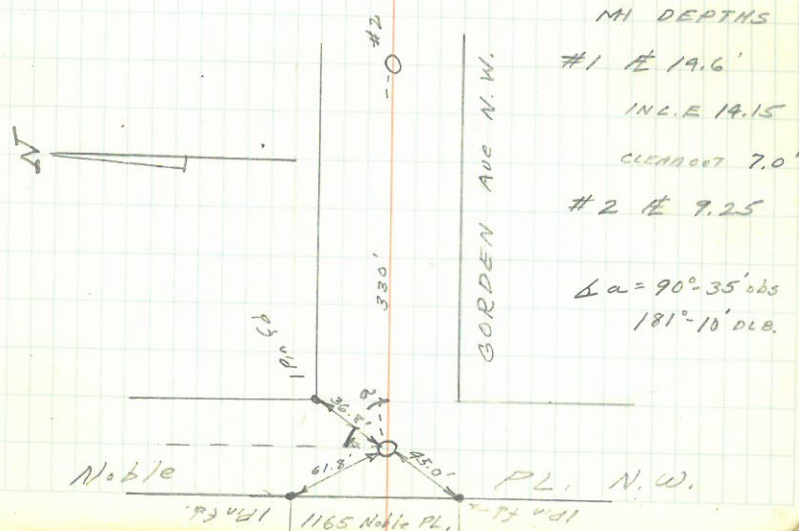
Nail in transformer pole W. side Noble 1st S. of Garden.

MH RIM @ Garden of Noble PL NW. MH #1

E. Gutter line of Noble

Top MH RIM 3+30 MH #2

Nail in transformer pole W. side Noble 1st S. of Garden



MH DEPTHS

#1 @ 19.6'

INCL. E 14.15

CLEARANCE 7.0'

#2 @ 9.25'

$\Delta a = 90^\circ - 35' \text{ obs}$

$181^\circ - 10' \text{ D.B.}$

11TH ST. N.E. @ Oxford Ave N.E.
SAN. SEWER

Cool

4-5-65

OD = Notes
WIX T

34

Δa 147°-05' obs

294°-10' OLB

MH #1 H 8.65

IN 8.60

OUT 8.75

MH #2 H 9.8'

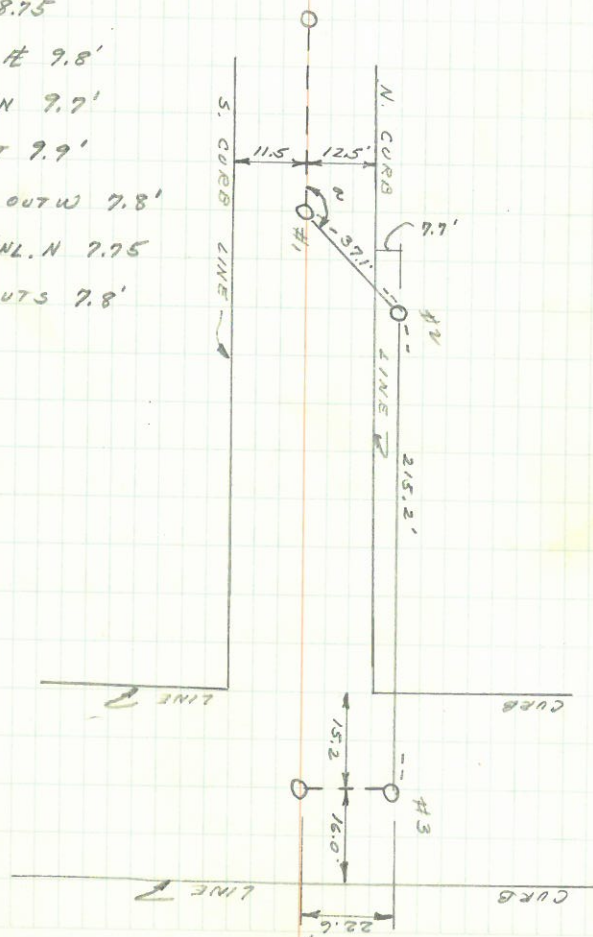
IN 9.7'

OUT 9.9'

MH #3 OUT W 7.8'

INL. N 7.75

OUT S 7.8'



L.J. Smith ELEM. School
San. Sewer Final

	+	π	-	ELEV.
T.B.M.	5.11	179.12		174.01
MH #2			7.98	
MH #1			7.77	
T.B.M.	6.64	179.01	6.75	172.37
	7.91	184.54	2.38	176.63
B.M.			1.13	183.41

		Ground ELEV.	
0+00	5.57	176.71	171.14 MH #2
0+14			6.1 170.6 Gutter @ 172'
0+50			5.6 171.1
1+00			6.1 170.6
1+50			6.8 169.9
2+00			6.3 170.4
2+50			6.4 170.3
3+00			6.1 170.6
3+12			9.3 167.4 @ School

Plotted in
Book 18:20

Cool

4/5/65

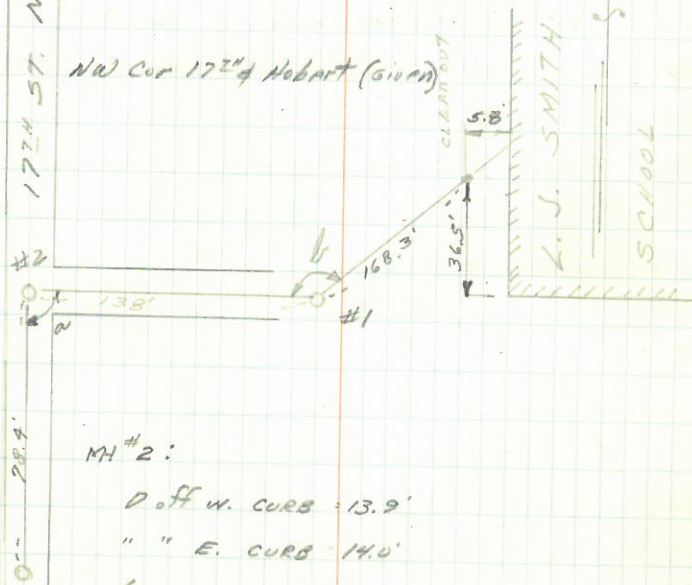
o.p.
WOL

35

Top San MH Rim 90' south of S. School Entrance

Hyd. N.E. in front of School W. side of Lane

Hyd. NW Cor 17th & Hobart (given)



MH #2:

D. off W. CURB = 13.9'

" " E. CURB = 14.0'

$\Delta a = 90^\circ - 15' \text{ obs}$

$180^\circ - 30' \text{ calc.}$

$E = 10.2'$, inlet E. 8.9'

MH #1:

$\Delta b = 136^\circ - 42' \text{ obs}$

$273^\circ - 24' \text{ calc.}$

$E = 7.35'$

26th St S.E. (Harsh Ave to Rhode
Island)
Curb & Gutter & Storm Sewer.

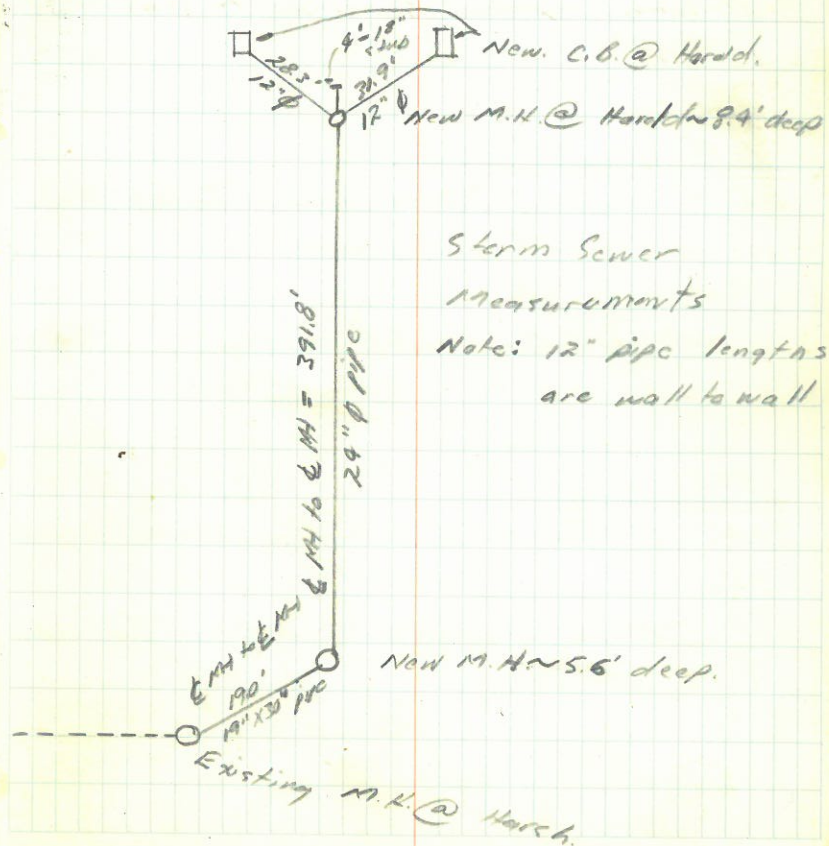
West Side

- | | |
|--------|--|
| 250.7' | Straight to Radius @ Wilson |
| 25.0' | Circle N.W. corner of Wilson |
| 25.2' | " S.W. " " " |
| 335.0' | Straight Wilson Radius to Harold Radix |
| 26.1' | Circle N.W. corner of Harold |
| 25.0' | " S.W. " " " |
| 349.2' | Straight to Radius @ Harsh. |
| 25.0' | Circle N.W. corner of Harsh |

Plotted S.R. 6-P14

East Side

- 633.5' straight Radius @ Rhode Island
to Radius @ Harold
250' circle N.E. corner of Harold
250' " S.E. " " "
349.5' straight to Radius @ Harsh
230' circle NE corner of Harsh.



Thomas Circle Curb & Gutter
Final Measurements

West Side

55.8' Circle Removed & replaced. Radius @ Milburn
56.3' Circle Replaced Curbing ~ Radius @ Milburn
370.0' Straight from Milburn to Station 4+11.1
65.0' Circle Station 4+11.1 to 3+30
253.0' Straight Station 6+33 to Jefferson Rd.
25.2' Circle Thomas Circle to " "
Driveway replaced & removed ~ Address

Jefferson Rd. N.E.

166' Straight Thomas Circle to existing
+ 10' Removed & Replaced

Drives Removed & Replaced {

19th St. N.E.

34.4' Straight Existing to Thomas Circle
5.0' " Removed
Drive removed & replaced (6" thick)

37

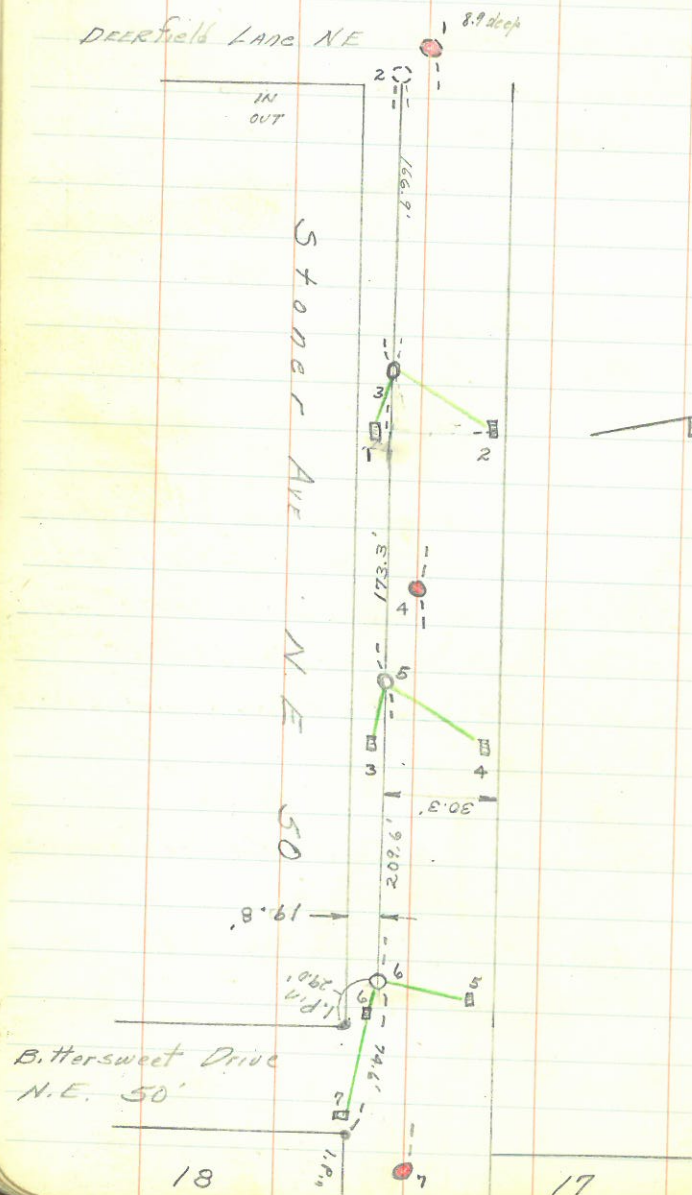
East Side

421.3' Straight Milburn Radius to station 4+11.1
92.6' Circle Station 4+11.1 to 3+30
25.4' Straight Station 3+30 to Col. Pkwy Radius
7.8' Circle Col. Pkwy to Thomas Cir. Radius
219.31' Straight " to 19th St. N.E.
46.8' Circle @ 19th St. N.E.
830 Thomas Circle ~ 8.6' x 11.0'

8.0' Straight (Removed & Replaced) existing
56.9' " existing to 19th St. N.E.
38.9' Circle Jefferson Rd to 19th St. N.E.
Address: 1860 Jefferson ~ 17.8' x 4'
" : 1852 Jefferson ~ 11.0' x 9.3' and 6.0' x 10'

133.1' Straight Jefferson Rd to existing
Address ~ 421 19th N.E. 14.0' x 3.8'

Colonial Hills Sub N^o 4
Final Meas. on Storm & Sanitary
SEWERS



WARM 80°
Clear

8-13-65 M^o ORD
WOL

38

Note: ALL Distances ARE 90° of Main to back wall of C. Basins.

San. MH #1 8.90' Deep, S. Inlet 8.50', N. Inlet 8.50' Deep

Stm MH #2 IN 4.50' OUT W. 4.55' Deep ^{Comp.} Flayed.

Stm MH #2 to Stm MH #3 = 166.9'

Stm MH #3 to C.B. #1 & #2 = 5', C.B. #1 = 9.7' S., C.B. #2 = 20.0' N.

San MH #1 to San MH #4 = 328.5' RGH

San MH #4 to San MH #7 = 324.5' RGH

Stm MH #3, 4.10' outw., 3.90' inlet E., 4.00' Lat N., 4.00' Lat S.

C.B. N^o 1, 2.70' Deep; C. Basin #2 2.75' Deep

Stm MH #3 to Stm MH #5 = 173.3', Stm MH #5 to CB #3 & #4 = 4.8'

CB #3 = 9.6' S., CB #4 = 20' N.

San MH #4, 8.10' Deep

Stm MH #5, 4.25' OUTLET, 3.95' in., Lat. N. 4.00', Lat. S. 4.10' Deep.

C.B. No 3, 3.8' Deep, C.B. #4 2.50' Deep

Stm MH #5 to Stm #6 = 209.6'

Stm MH #6 to C.B. #6 & #5 = 4.2', CB #6 = 8.2 S., CB #5 = 21.7'

Stm MH #6 to CB #7 = 59.2', CB #7 = 26.3' S.

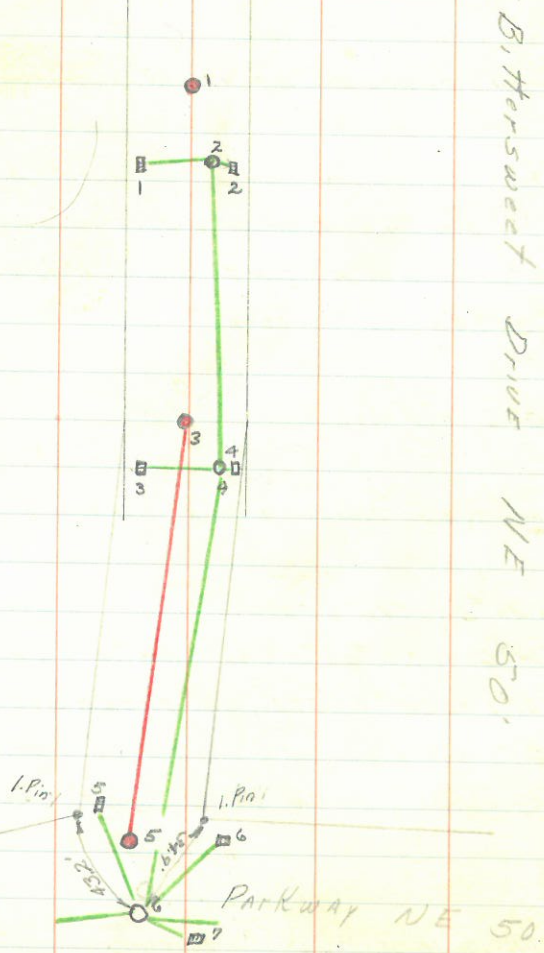
Stm MH #6 OUT. W. 6.40', Lat. N. 6.20', Lat. S. 6.30'

C.B. #5 4.1' Deep, C.B. #6 5.15' Deep, C.B. #7 3.10' Deep

San MH #7 10.20' Deep

Colonial Hill Sub. N^o 4
Final Med. of Storm & San Sewers

Stoner Ave N.E. 50'



Warm 80°
Clear

8-13-65

00
WOL

39

Stm MH #2 to CB #1 & #2 = 1.0' North of MH, CB #1 20.0' CB #2 98'E
Stm MH #2 to Stm MH #4 = 203.0'; CB #3 4.0' N & 24.0' W.
C.B. #4 = 0.0', 5.0' E.
Stm MH #4 to C.B. #5 = 156.5' S & 18.7' E.

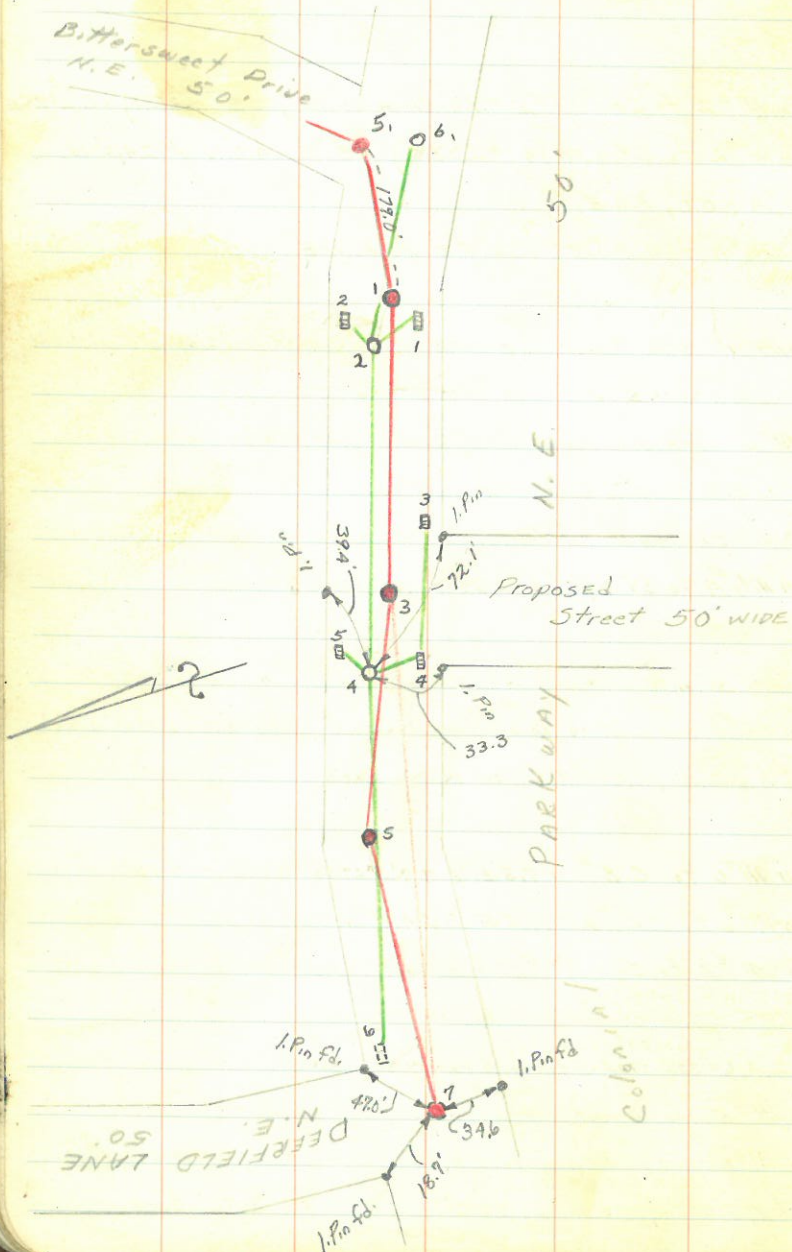
Note:
San. MH #1 11.70' Deep MH Casting off Center MUST Beas Hit by blade

Sump OK
Stm MH #2 OUT S. 5.40' Deep, Lat. W. 4.50', Lat E. 4.30' Deep
C.B. #1 3.5' Deep, C.B. #2 3.5' Deep
San MH #1 to San MH #3 = 298.2' RGH
Stm MH #4 to Stm MH #6 204.3'

San MH #3 11.90' Deep
Casting Not City Stand.
Stm MH #4 OUT S. 5.40' Deep, INL. N 5.25', Lat E. 5.0', Lat W. 4.95'
C.B. #3, 3.2' D., C.B. #4 4.20' Deep

Stm MH #6 to C.B. #7 = 8.5' E & 8.8' S
Stm MH #6 to C.B. #6 = 17.5' E & 24.0' N.
San MH #3 to San MH #5 = 254.0' RGH
169° 01' obs.
L 1,3,5 = 338° 02' OBS. San. Sewer ~
163° 04' obs.
L 2,4,6 = 326° 07' OBS Storm Sewer
San MH #5, INL. N 10.1', INLE E. 10.4', OUT W. 10.55'
Stm MH #6 OUT W. 6.65', INL. E 5.25', Lat S. 4.75', Lat E. 9.65', Lat N 4.75'
INL. N. 6.05'
C.B. #5, 3.60', C.B. #6, 3.65', C.B. #7, 3.70' Deep

Colonial Hills Sub. No 4
San. & Storm Sewer Finale



ORD

WDL

40

Stm MH #6 to Stm MH #2 = 190.2'

Stm MH #6 to C.B. #2 & #3 187.2 W.; CB #2 = 10' N, CB #1 = 19.7'S.

Stm MH #2 to C.B. #3 = 127.0' W. & 19.8'-S

Stm MH #2 to Stm MH #4 = 202.0'

Stm MH #2 to C.B. #5 195.0' W, 18.8'S, Stm MH #2 to C.B. #4 = 199.0' W, 11.0' N

San MH #1, 9.10' Deep
Sump Comp Filled.

Stm MH #2, INL. E, 5.20', OUT. W 5.55', Lat S, 5.30', Lat N, 5.25'.

C.B. #1 3.55', CB #2 3.80, #2 Grate Slide W. of Basin

$\Delta 3,5,1 = 201^{\circ}-02'$ DUB @ Bittersweet & Colonial PKY turning west, San

$\Delta 4,6,2 = 171^{\circ}-40'$ DUB @ " " " " " " Stm.

CB #3, 3.0' Deep

San MH #3, 10.20' H in S 10.15' Deep

$\Delta 1,3,5 = 180^{\circ}$ SAN, $\Delta 3,5,7 = 305^{\circ}-16'$ gLB southerly San.
Sump Comp Filled.

Stm MH #4 OUT. W. 4.60', INL. E 4.05', Lat S 4.10', Lat N 4.30'

6" Field tile N. 4.50' in Stm MH #4

CB #4, INE 2.70', OUT N 2.80' CB #5 3.30' Deep

San MH #5 9.40' H + House Lat N 9.15 + House Lats 9.10'

San MH #7 = H = 6.60' in Lat N. 6.0' to top of pipe (plugged)

Stm MH #4 to Exist Stm MH type CB #6 = 264.8'

C.B. #6 Type MH, IN E 3.10', IN S 2.80', OUT. W 3.20

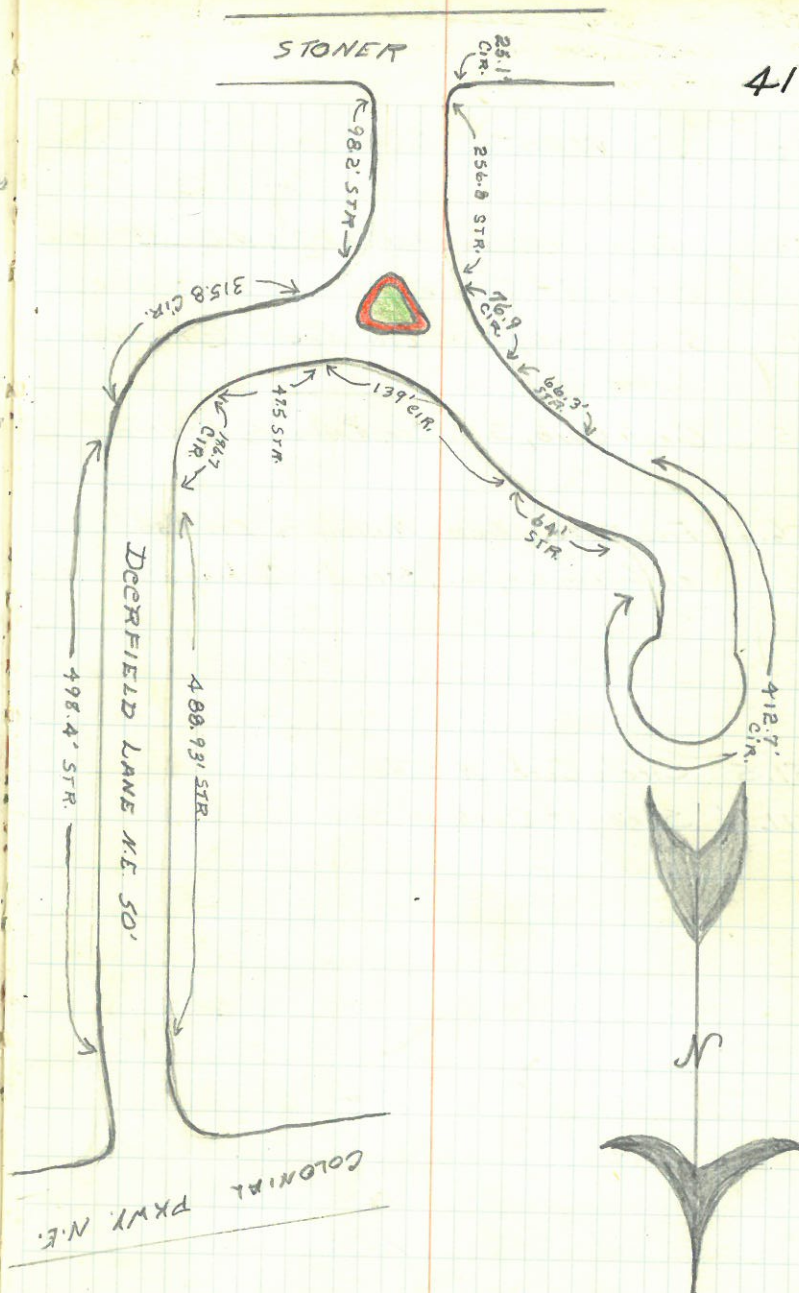
San MH #5, to MH #1 = 179.0', San MH #1 to San MH #3 = 172.4'

San MH #3 to San MH #5 = 167.4', San MH #5 to San MH #7 = 193.5'

DEERFIELD LANE & TIMBERLINE CURB & GUTTER FINALS

498.4' STRAIGHT FROM COLONIAL PKWY. TO STA 5100
315.8' CIRCLE FROM STA 5100 TO STA 8142.44
98.2' STRAIGHT FROM STA 8142.44 TO STONER
25.1' CIRCLE - RADIUS FOR STONER & TIMBERLINE
256.8' STRAIGHT ALONG TIMBERLINE CIRCLE
76.9' CIRCLE FROM STATION 3102.93 TO STA. 3187.78
66.3' STRAIGHT FROM 3187.78 EASTERLY
412.7' CIRCLE - AROUND CIRCLE TO STA. 4148.86
64.0' STRAIGHT FROM STA. 4148.86 TO STA. 3187.78
139.5' CIRCLE FROM STA. 3187.78 WESTERLY
47.5' STRAIGHT ON WESTERLY TOWARD COLONIAL PKWY
186.7' CIRCLE SOUTH WESTERLY TOWARD " "
488.93' STRAIGHT SOUTH TO EXIST. ON COLONIAL PKWY
62.6' CIRCLE AROUND ISLAND
36.0' STRAIGHT IN ISLAND

STRAIGHT	CIRCLE	
498.4	315.8	<u>1,556.13</u> TOTAL OF STRAIGHT
98.2	25.1	
256.8	76.9	<u>1,219.30</u> TOTAL OF CIRCLE
66.3	412.7	
64.0	139.5	
47.5	186.7	
488.93	62.6	
36.0		



24TH ST. N. W.
CURB & Gutter Project by Bruno Constr.
Final Measurements

WEST Side

855.0' From 16+05 to End Rad @ N.W. Cor. of Howard
Straight Curbing

21.0' Circle Curb, N.W. Cor. Radius @ Howard.

30.5' Circle Curb, S.W. Cor. Radius @ Howard.

656.6' From E. Rad. @ Howard Northerly to End Rad
on Lincoln Way W., Straight Curbing.

51.5' Circle Curb W. Side

1511.6' Straight Curb W. Side

ORD
WDC

42

EAST Side

1573.15' From End Rad. @ Lincoln Way W. Northerly to
End Constr. @ 16+05

Grand Total Circle Curb 51.5'
Grand Total Straight Curb 3084.75'

Colonial Hills Sub #4
Level Work to determine Elevs. of
#s of Storm & San. Manholes
+ - ELEV.

B.M.	11.95	248.86		236.91
TP	13.59	262.17	0.28	248.58
T.P.	13.17	274.24	1.10	261.07
			11.38	262.86
			9.42	264.82
T.P.	6.26	280.25	0.25	273.99
			5.65	274.60
			3.20	277.05
B.M.	6.04	284.19	2.10	278.15
			5.42	278.77
T.B.M.	0.35	280.76	3.78	280.41
TP	3.32	271.51	12.57	268.19
			5.39	266.12
TP	1.85	266.69	6.67	264.84
			10.13	256.56
			10.87	255.82
B.M.			10.01	256.68
BM	0.37	257.05		256.68
T.P.	2.24	244.56	14.73	242.32
			6.27	238.29
			7.14	237.42
TP	0.38	231.15	13.79	230.77
			6.45	224.70
			9.44	221.71
TP	0.02	217.34	13.83	217.32
			1.76	215.58

Cloudy & Damp

9-24-65

W.D.C. & T. Notes

ORD - Red

43

Top Hyd. S.E. Deerfield & Stoner

See 213:24

STORM M.H. #3

SANITARY M.H. #4

STORM M.H. #5

STORM M.H. #6

SANITARY M.H. #7

TOP HYD. S.W. CORNER STONER & BITTERSWEET

1ST SAN. M.H. S. OF STONER ON BITTERSWEET #1

R.R. SPIKE IN O.E.C.O. 2721 B2 #8 2ND SOUTH of Stoner, E.S.

STORM M.H. #2 1ST SOUTH OF STONER

SANITARY M.H. #3

STORM M.H. #4

SANITARY M.H. #5 AT BITTERSWEET & COLONIAL PARK

STORM M.H. #6

Hyd. N.W. Cor Colonial PKY & Bittersweet

Hyd. N.W. Cor. Colonial PKY & Bittersweet (Going East on PKY.)

San MH #1

Storm MH #2

San MH #3

Storm MH #4

San MH #5

Plotted
S.R. 18-P 23-24-25

COLONIAL HILLS SUB. #4
LEVEL WORK TO DETERMINE ELEV.
+ + - ELEV

217.34

7.67 209.67

8.05 209.24

B.M. 5.21 212.13 212.18

BACK @ Stoner & Deerfield.

B.M. 0.14 237.05 236.91

4.75 232.30

T.P. 4.36 237.05 4.38 232.67

B.M. 0.12 236.91 236.91 OK

Plotted
5/18-23-24-25

Cold Damp.

9-25-65

WDL T

ORD ROD.

44

C.B. TYPE M.H. #6 Existing

SANITARY M.H. #7 Existing

TOP OF HYD. M.W. COR. OF COLONIAL PKWY. & DEERFIELD

TOP OF HYD. S.E. COR. OF STONER & DEERFIELD

EXISTING SANITARY M.H. #1 AT " "

EXISTING STORM M.H. #2 AT " "

TOP OF HYD. S.E. COR. OF STONER & DEERFIELD

HARSH AVE. S.E.
CURB & GUTTER PROJECT BY VOGT
FINAL MEASUREMENTS

NORTH SIDE

19.9' FROM END RADIUS NORTH ON 16TH
STRAIGHT " @ 16TH S' HARSH
47.3' CIRCLE
2094.9' FROM 0+45 TO END RADIUS @ S.E.
CORNER OF 20TH ST. S.E.
STRAIGHT
24.8' RADIUS @ S.E. COR. OF 20TH ST. S.E.
CIRCLE
24.8' RADIUS @ S.W. " " " " "
CIRCLE
517.0' FROM STATION 22+00 TO END OF
PROJECT
STRAIGHT

5,099.5' TOTAL OF STRAIGHT

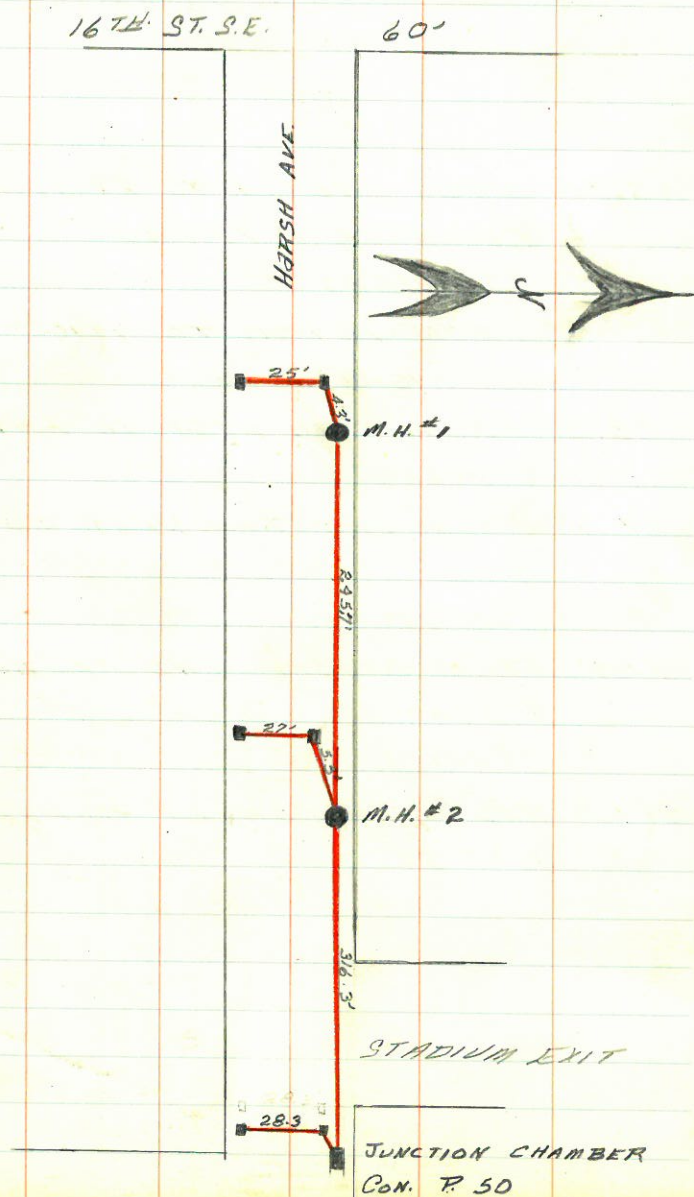
199.5' TOTAL OF CIRCLE

R.G.H
O.R.D
W.D.L 45

SOUTH SIDE

1,511.5' FROM END CON. TO EXISTING
CURBING @ 12+42
STRAIGHT
124.8' FROM 10+20 TO 9+10
STRAIGHT
28.5' FROM 9+10 WEST TO END RAD.
CIRCLE
27.55' FROM END RAD. WEST TO STA.
8+25
CIRCLE
781.4' FROM 8+25 TO END OF RADIUS
@ 0+47
STRAIGHT
46.1' RAD. @ S.W. COR. OF HARSH @
16TH ST.

HARSH AVE. S.E.
STORM SEWER BY VOST.
FINAL MEASUREMENTS



46

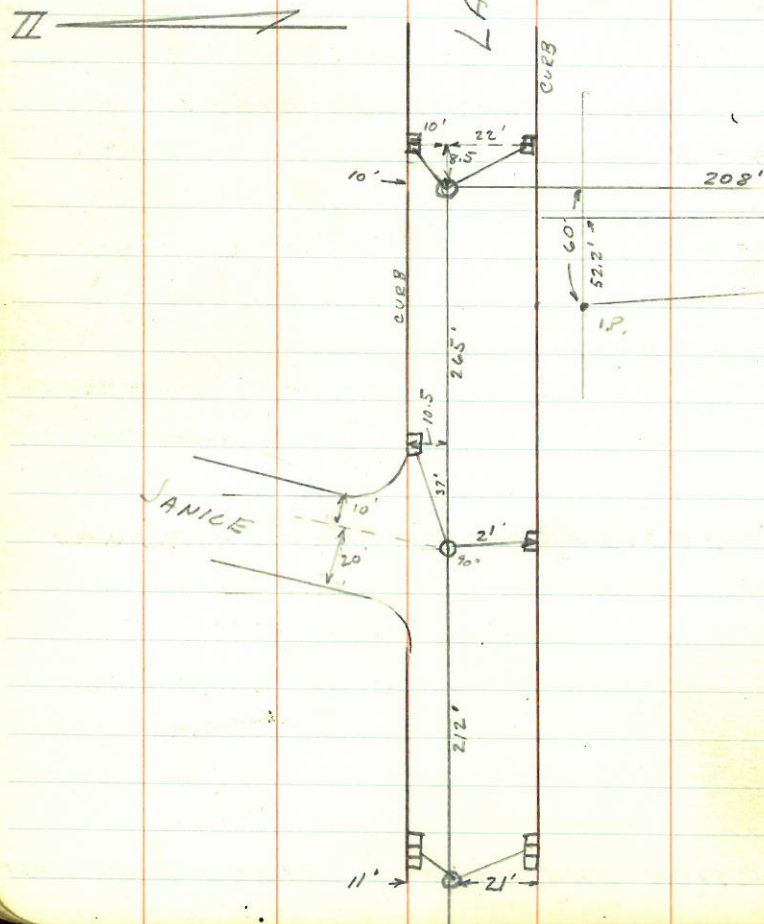
NOTE - MEASUREMENTS ARE FROM CENTER TO CENTER OF M.H.

CATCH BASINS CONSTRUCTED @ 2+85 ±
M.H. #1 LOCATED @ 3+00

M.H. #2 CONSTRUCTED 245.7' EAST OF #1
@ STA. 5+45.7

JUNCTION CHAMBER @ 8+62.5 ~ 316.0' EAST

LAKE AVE N.E.



CURB

2ND ST. N. E

47

11-10-65

R. JF
ORD

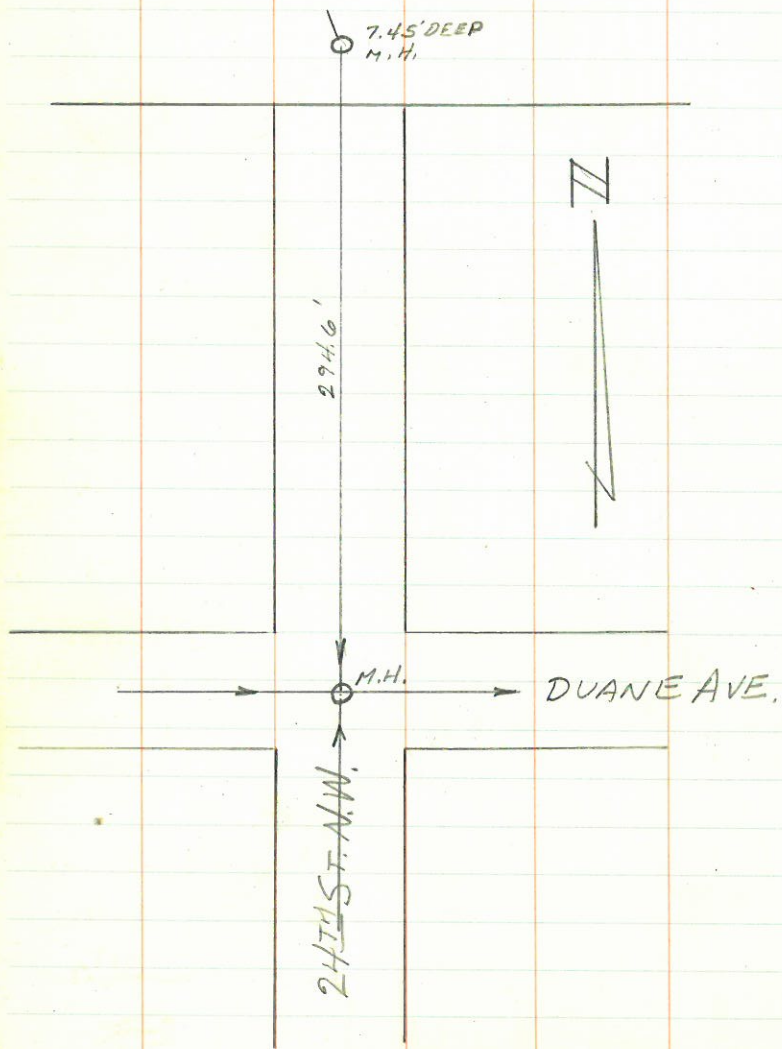
1459

1262

Plotted
S.R. 6-P-20-21

24TH ST. N.W.
SAN. SEWER DUANE AVE. NORTH
TO SCHOOL

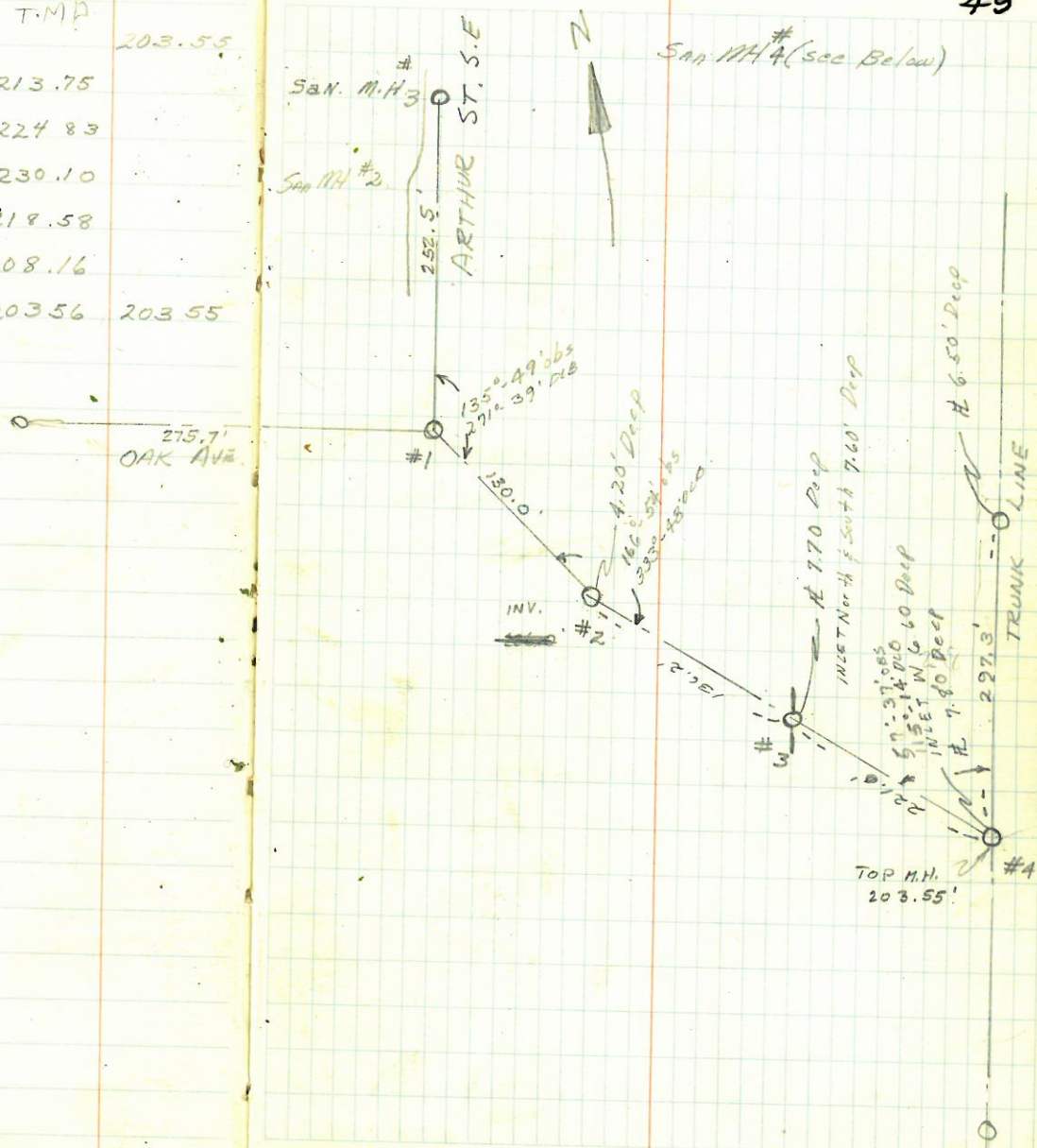
GORRELL SCHOOL



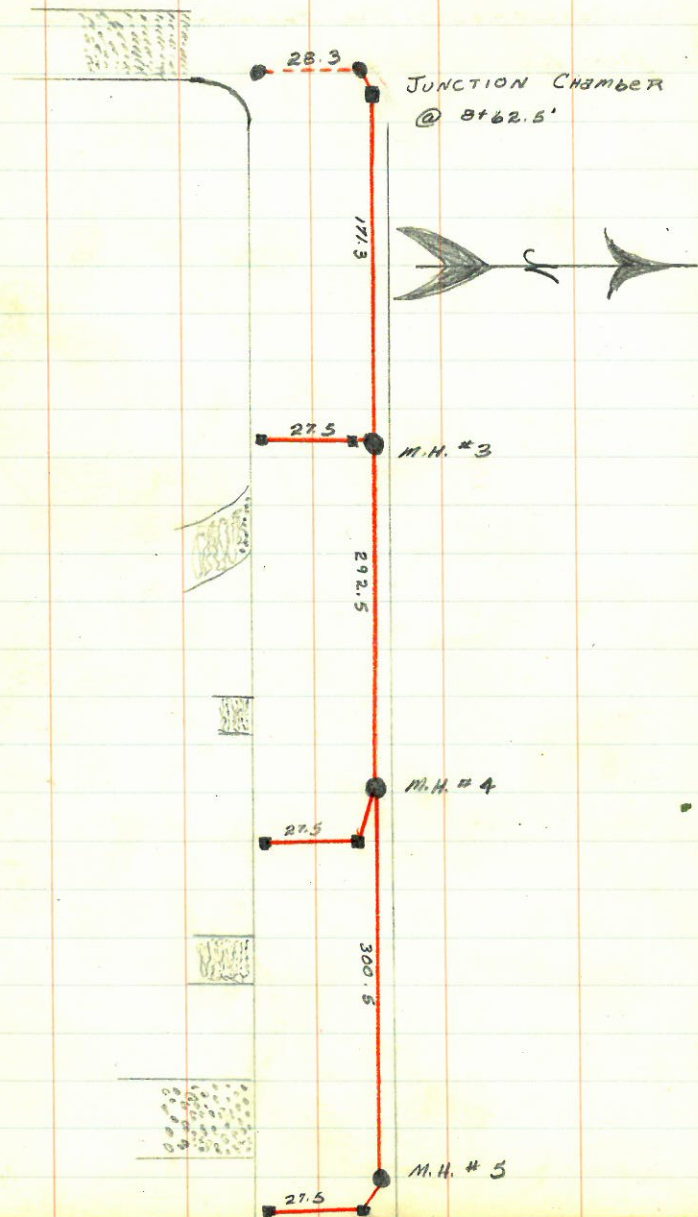
11-12-65
R.J.F.
ORD.
48

YORK VILLAGE

	SAN. SEWER		FINALS		FLEX	
	T	P			T	M.P.
B.M.	13.26	216.81				
2+21.0	12.55	226.30	3.06	213.75		
T.P.	7.79	232.62	1.47	224.83		
3+57.2			2.52	230.10		
T.P.	0.29	218.87	14.04	218.58		
T.P.	4.68	212.84	10.71	208.16		
			9.28	203.56		
					203.55	



HARSH AVE. S.E.
STORM SEWER BY VOET
FINAL MEASUREMENTS



50

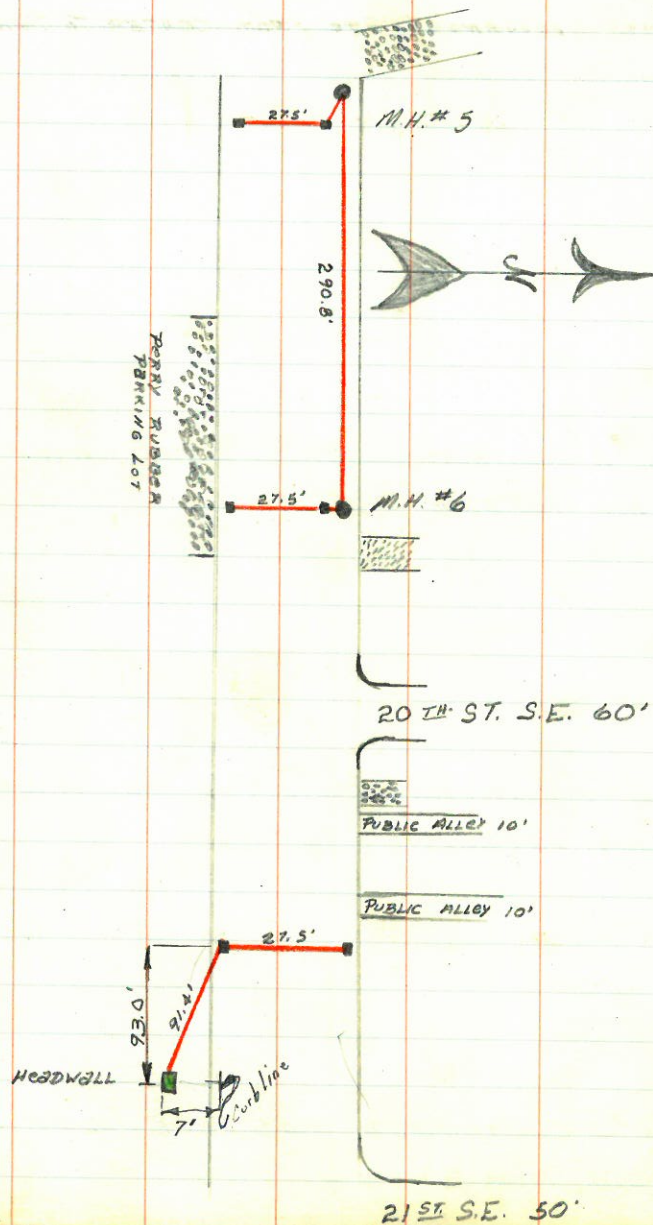
NOTE - MEASUREMENTS ARE FROM CENTER TO CENTER OF M.H.
JUNCTION CHAMBER CONST. @ 8+62.5

M.H. #3 CONSTRUCTED 171.3' E. OF JUNCTION CHAMBER
@ STA. 10+33.8

M.H. #4 CONSTRUCTED 292.5' E. OF M.H. #3
@ STA. 13+26.3

M.H. #5 CONSTRUCTED 300.5' E. OF M.H. #4
@ STA. 16+26.8

HARSH AVE. S.E.
STORM SEWER BY VOGT
FINAL MEASUREMENTS



51

NOTE- DISTANCES ARE FROM CENTER TO CENTER OF M.H.

M.H. #5 @ STA. 16+26.8

M.H. #6 CONSTRUCTED 290.8' EAST OF M.H. #5
@ STA. 19+17.6

CATCH BASINS CONSTRUCTED 91.4' W. OF
HEADWALL @ 21st S.E.

HEADWALL CONSTRUCTED @ STA. 27+20

FINAL MEAS.

4-5-66

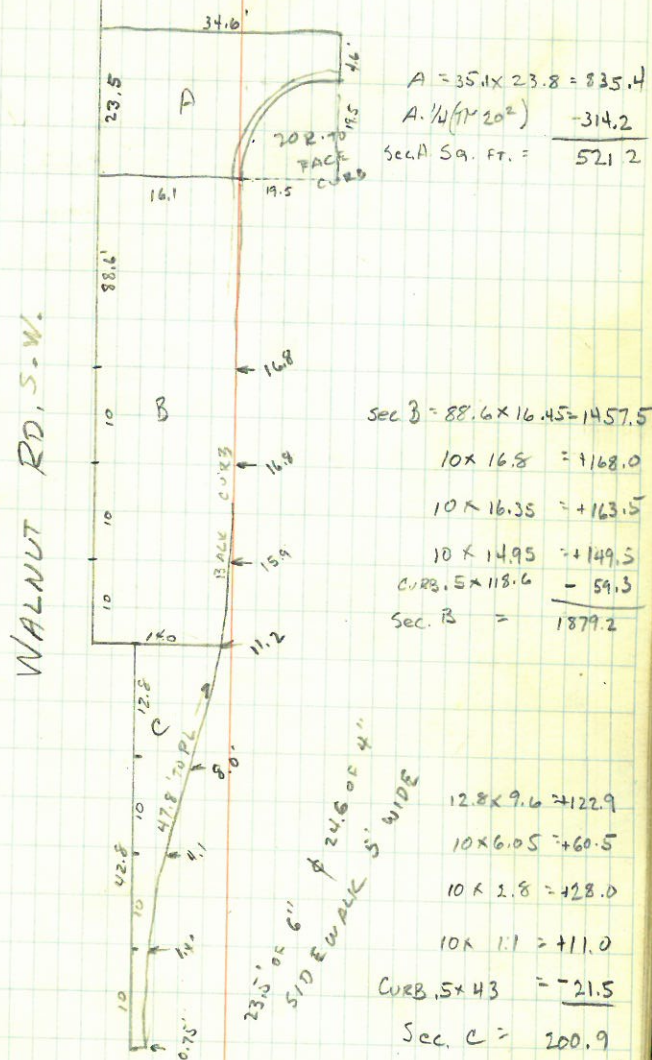
RJE

ORD

WDL

ERIE SO.

52



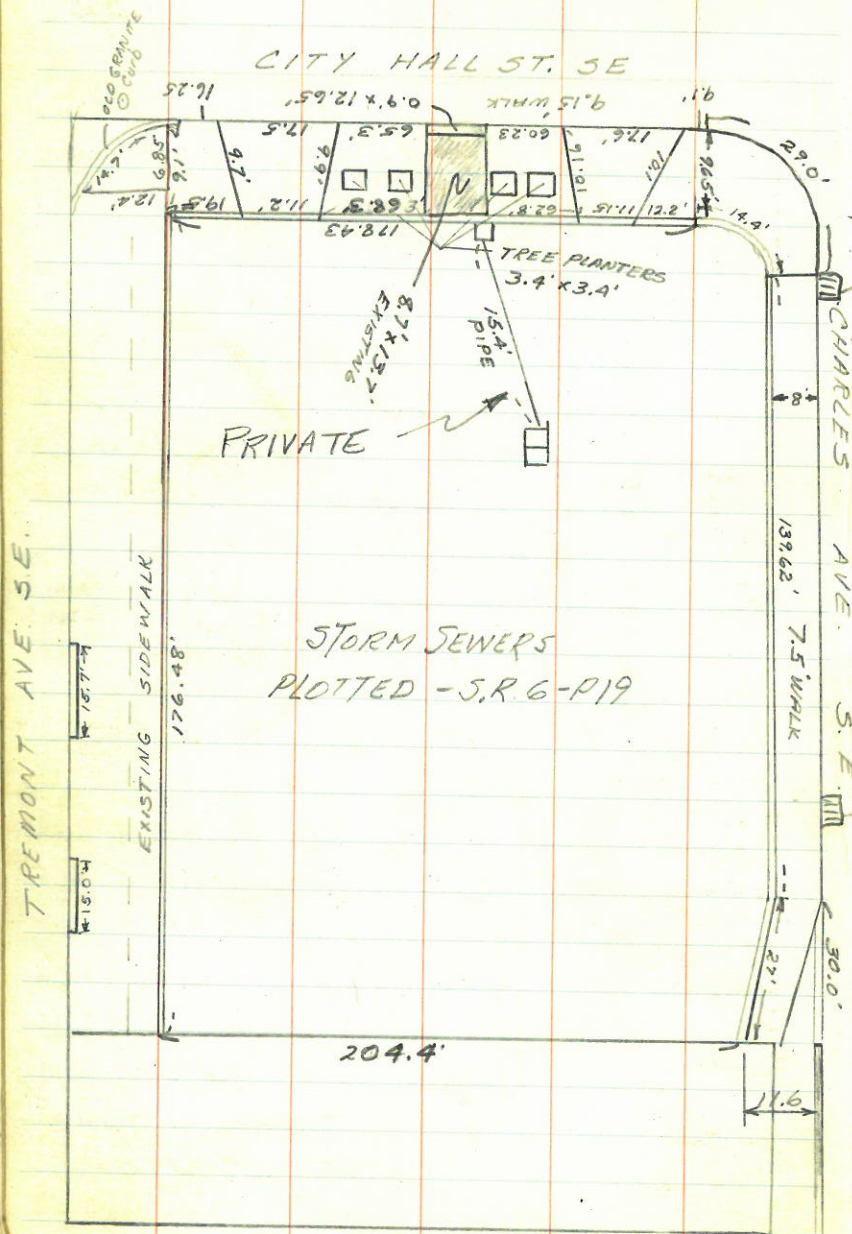
TOTAL PAVED = 1601.3

$$SQ. YDS = 289.0$$

CURB = 47.8 LN. FT.

6" WALK = 117.5 SQ. FT.
4" " = 123.0 " "

Parking Lot # Final Meas.



Warm
Sunny
75°

6-18-66

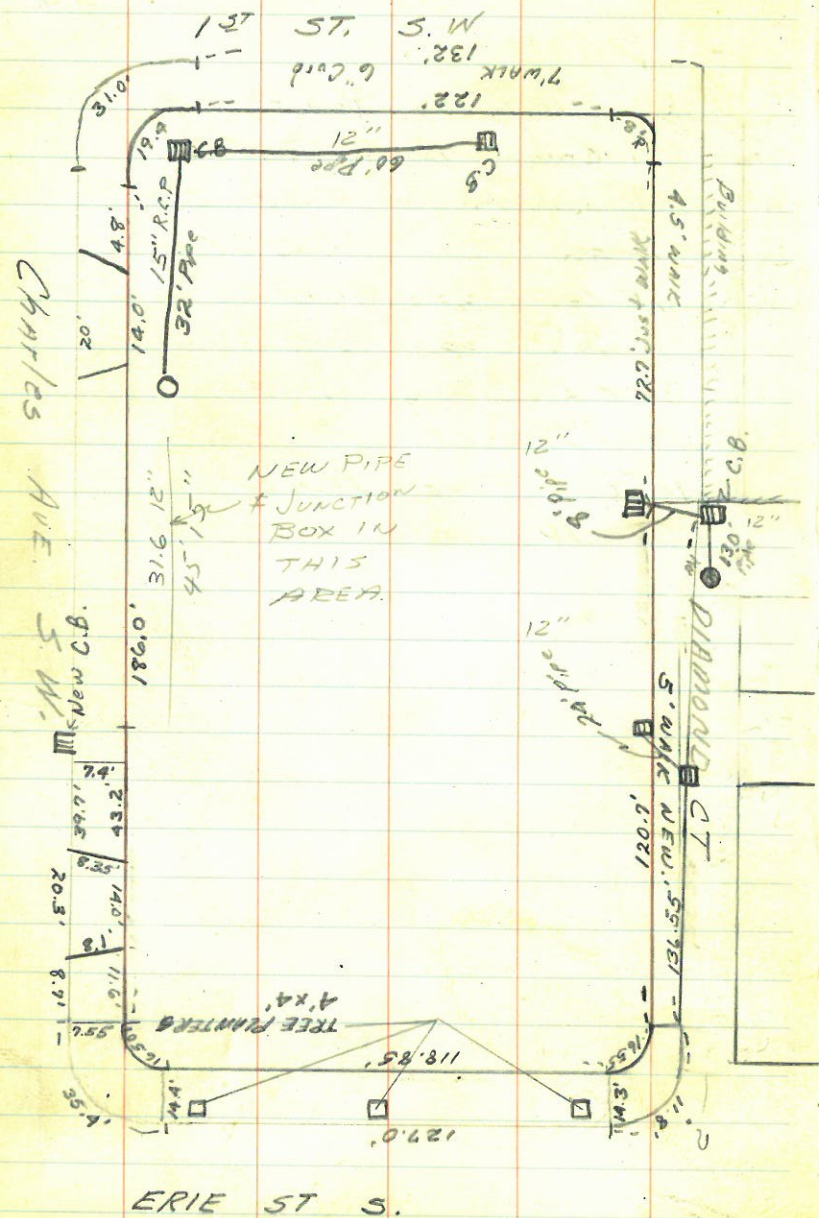
ORD
C. Bowman

53

6" x 18" CURB	963.88 L.F.
4" CONC. WALK	2807.15 L.F.
9" CONC. APRON	263.06 S.F.
BASE	4082 S.Y.
1 1/2" LEVEL CRS	4082 S.Y.
1" SURF. CRS.	4082 S.Y.
TYPE "B" C.B.	1 EA.
REM # REBLT C.B.	2 EA.
12" CONC. PIPE	15.4 L.F.
EXTRA BASE	133.65 TON

C. Basin
Rebuilt 2.57 High

Parking Lot #2 Final Meas.



Sunny
warm
75°

6-18-66

ORD
C. Bowman

54

6" X 18" CURB	1340.45 L.F.
9" CONC. APRON	257.25 S.F.
4" CONC. WALK	5617.13 S.F.
3 1/2" SLAG BASE	3237 S.Y.
1 1/2" LEVEL CRS.	3237 S.Y.
1" SURF. CRS.	3237 S.Y.
TYPE B" C.B.	6 EA.
CURB INLET	1 EA.
15" R.C.P.	77 L.F.
12" R.C.P.	136.6 L.F.
CONC. WALL	8.5 C.Y.
IVY BOXES	13 EA.
WALK REMOVED	
CURB REMOVED	
CONC. WING WALL REM.	
NO. 4 GRAVEL	
EXTRA BASE	100 TON

FINAL MEAS. SAN. SEWER
24TH ST., N.W. CHAUNCEY SOUTH
228.5'

BM.	4.26	233.95		229.69
TPO	6.34	239.23	1.06	232.89
			9.73	229.50
			11.7	238.06
			0.40	238.83
TBM.	0.44	239.01	0.66.	238.57
TPO	1.15	234.03	6.13	232.88
BM			4.35	229.68

Plotted
S.R. 16-P4

7/13/66 RJF
OED
CEB

55

Top hyd on 23RD ST NW W. side Just S. of Chauncey

of 1ST MH South of Chauncey on 24TH ST NW.

Top of Casting 1 ?

Top Existing Roadway @ MH on 24TH ST NW.

RR SpK in OPS Light Pole in front House #124 24TH ST NW

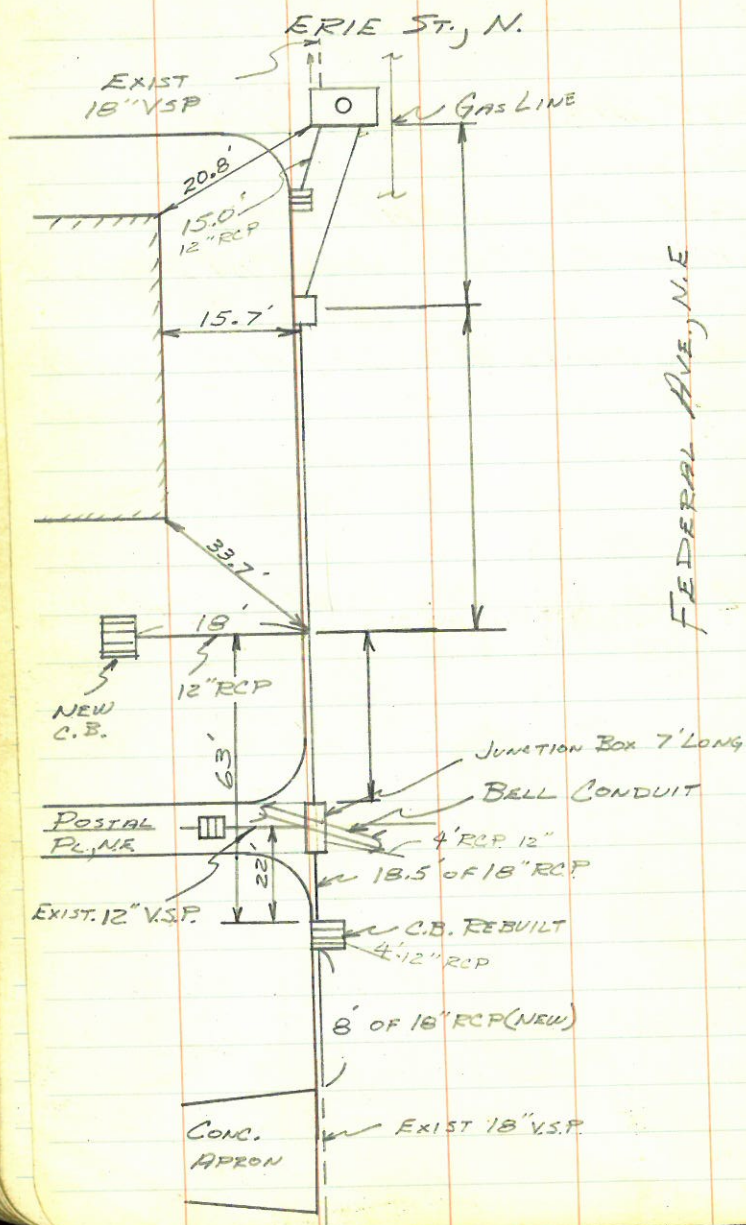
Top hyd on 23RD ST NW. W. side Just S. of Chauncey NW

24TH ST. NW 228.5'

M.H. 5+18
12' NO. OF
CHAUNCEY

CHAUNCEY

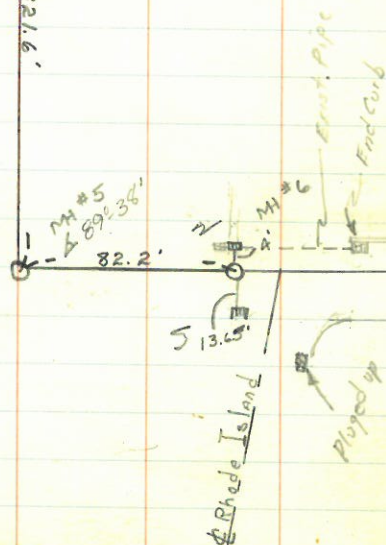
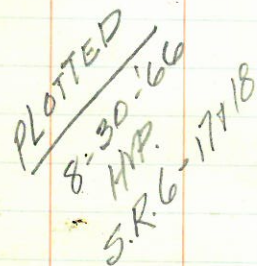
FEDERAL AVE., N.E. STORM SEWER REPAIR



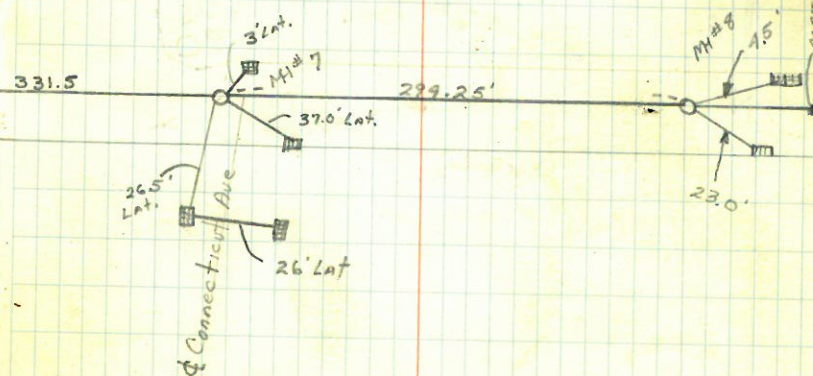
56

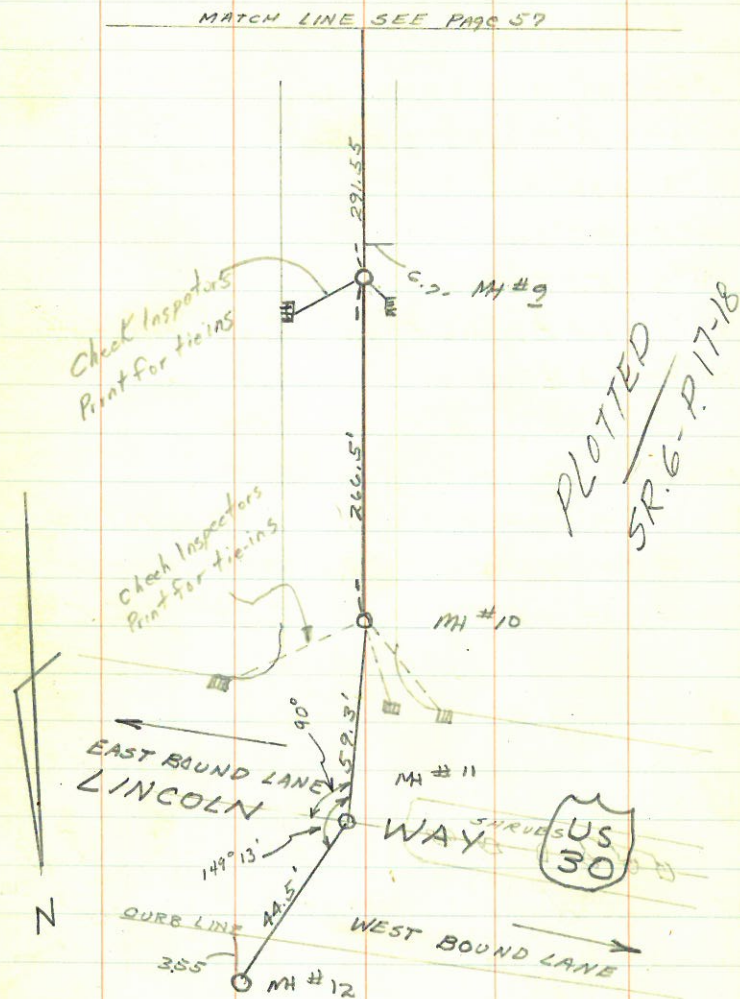
6"x18" CURB = 89.88 L.F.
 4" CONC. WALK = 770.69 S.F.
 RIG. PAVE REP. = 160 S.Y.
 COMP. S.B. = 160 S.Y.
 8" R.C. BASE = 160 S.Y.
 1 1/2" LEV. CRS = 160 S.Y.
 1" SURF. CRS. = 160 S.Y.
 12" RCP = 23 L.F.
 18" RCP = 170 L.F.
 TYPE B" C.B. = 2 EA.
 JUNCTION BOXES = 3 EA.
 12"x18" TEE = 1 EA.
 NO. 4 GRAVEL = 313.75 TON

25TH ST. SE.
(Storm Sewer - Contractor Clark Vogt)
(Inspector William Lewis)



MH#11 to MH#12 = 24" RCP 44.5





MH #9 = 7.2 Out, 6.9' Inlet.

MH #10 = 9.2' #

MH #11 = 9.0' Out S., 9.1' In. W., 9.1' In. E., 8.65' In N.

MH #12 = 7.35 Out S., 6.65' In N. E. to S.

Note: MH #11 Poor Job Around Pipes of Mortar
MH #9 Pipe to be Cut off flush with MH.

3RD ST. N.W.
LOT NO'S 10141-421 PT 10143
SEPTIC TANK
PERMIT NO. 33

JAMES HUFF
1222 - 3RD ST. N.W.

AUG. 23, 1966

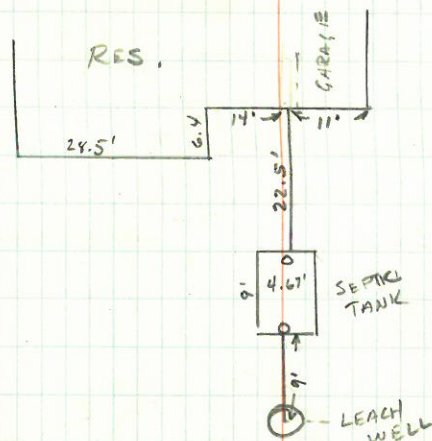
R.J.F.
O.R.D.
C.E.B.

8-26-66

R.F.
O.D.
C.E.B.

59

3RD ST. N.W.



ORD
CEB

60

1 1/2" LEVELING CRS = 1171 S.Y.

1" SURFACE CRS = 1171 S.Y.

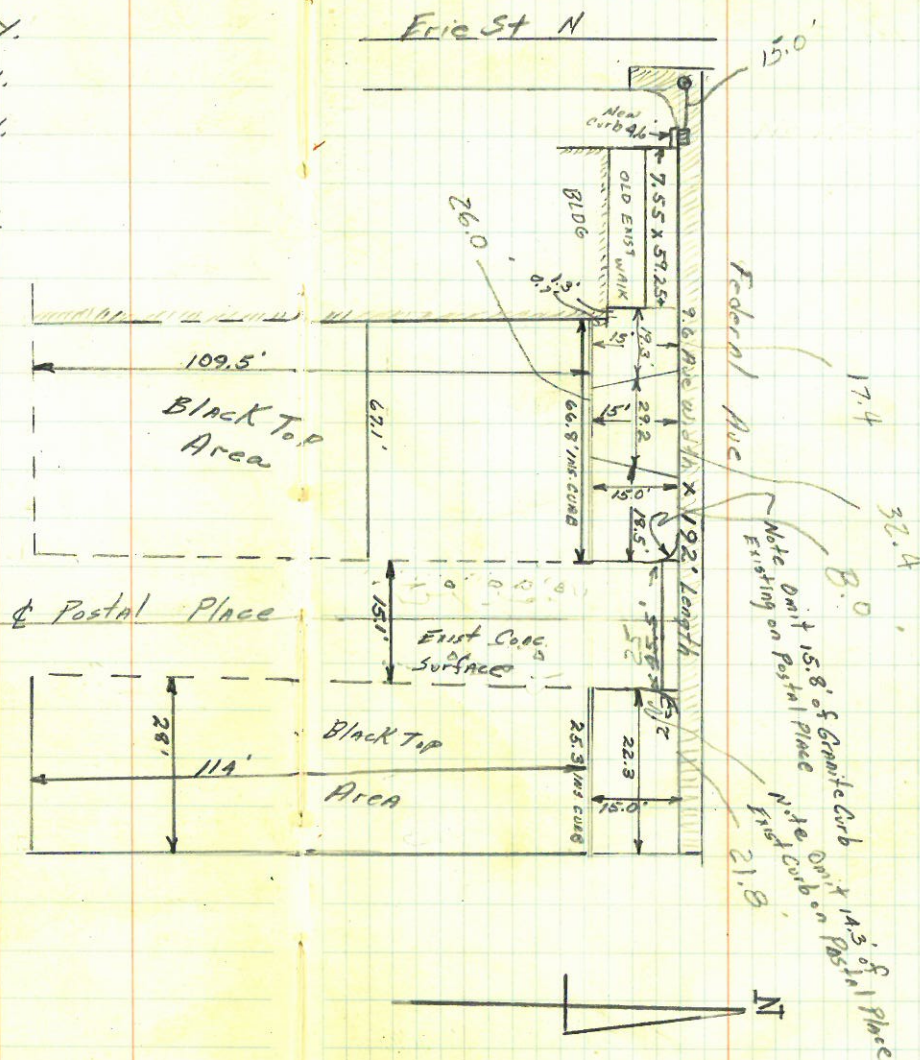
TYPE "B" CATCH BASIN = 1 EA.

6" x 18" CURB = 149.90 L.F.

9" APRON = 423.4 S.F.

4" WALK = 547.19 S.F.

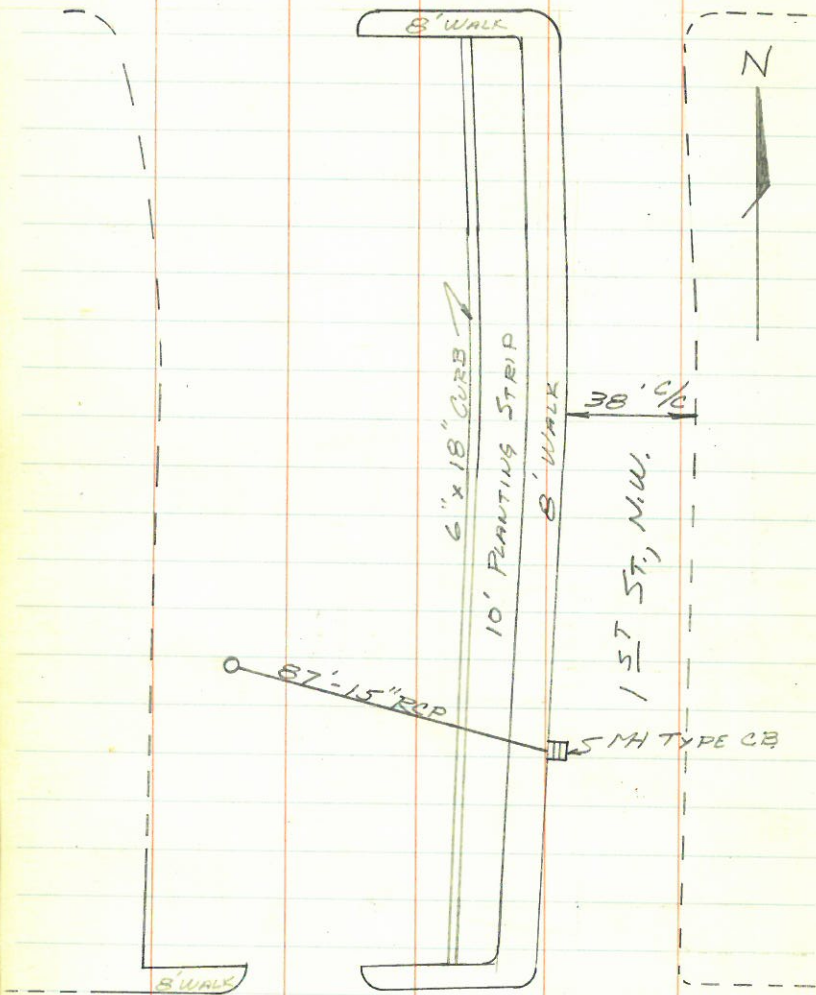
12" RC PIPE = 18.0 L.F.



1.4.5' WALK

COMPLETED 9/8/66

NORTH AVE., N.W.



FEDERAL AVE., N.W.

61

6" x 18" CURB = 750.0 L.F.

4" CONC. WALK = 2786.78 S. F.

$$3\frac{1}{2}" \text{ BASE} = 878 \text{ S.Y.}$$
$$1\frac{1}{2}'' \text{ LEV. CRS.} = 2500 \text{ S. Y.}$$

1" SUR. CRS. = 2500 S.Y.

$$8'' \text{ EC Base} = 472 \text{ S.Y.}$$

15" RCP = 87 L.F.

$$MA \cap B = 1 \text{ EA.}$$

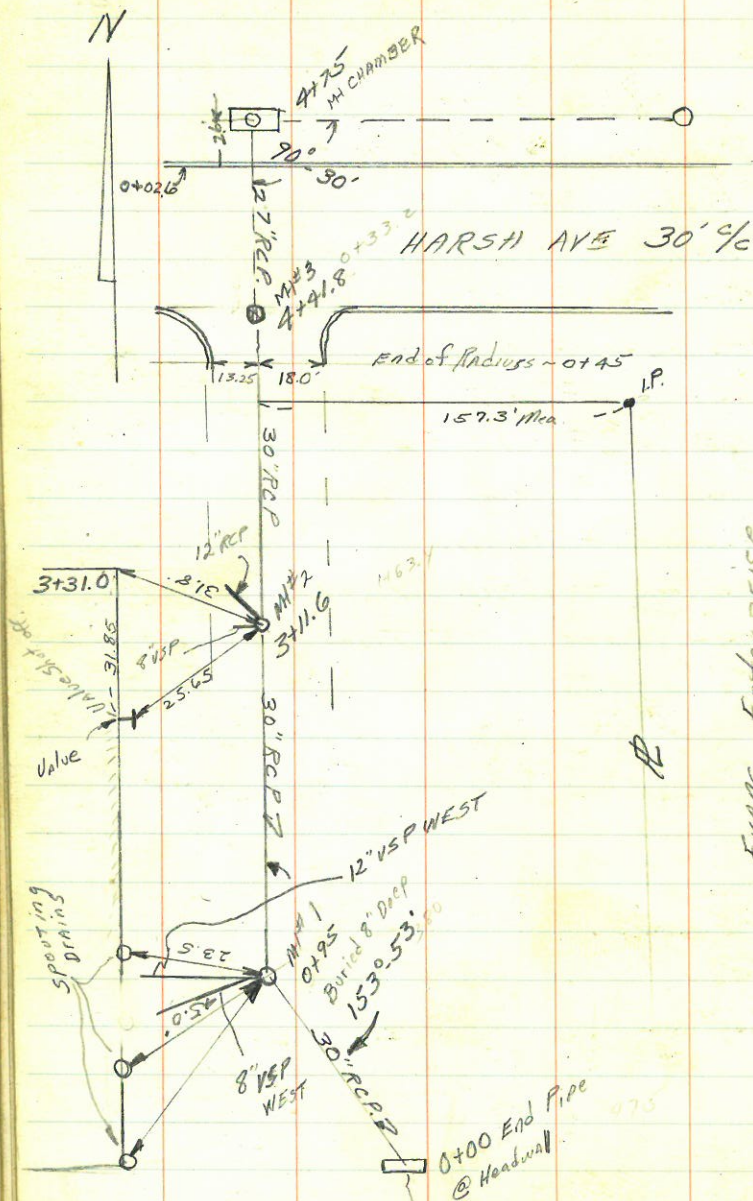
TOP5012 = 106.7 C.Y.

R.C. EXCAV. = 10 C.Y.

EXTRA CONC = 13.42 C.Y.

EXTRA BASE = 75 TON

Storm Sewer Final
Harsh Ave SE, South through Witmer - Jackson



EVANS ENTERPRISE

75° Clear

9/16/66

OD
CB

62

0+00 ~ MH Chamber Top = 155.88
27" RCP ~ 4.3' Deep Across Harsh 151.58

MH #3 IN N. 4.5' Across Harsh Ave 27" 150.37 Top = 154.87
Lat E 12" RCP
Lat W 12" RCP.
OUT S. 4.2' Deep 150.67

MH #2 IN N. 5.4' Deep 149.8 Top = 155.21
OUT S. 5.45 149.76
12" RCP IN W. 4.0 151.21
8" VSP IN W. 4.3 150.9

MH #1 IN N. 5.70' Deep = 148.21 Top = 153.91
OUT S. 6.00 " 147.91
12" IN W. 5.30 " 140.61
8" IN W. 2.2' " 151.71

(PROFILE on next page)

Stm Sewer Finals
Harsh Ave.

	+	Δ	-	ELEV.
BM.	2.01	160.51		158.50
4+75			4.63	155.88
4+72.6			5.51	155.00
4.57.6			5.33	155.18
4+41.8			5.64	154.87
4+00			5.02	155.49
3+50			4.94	155.57
3+11.6			5.30	155.21
3+00			5.14	155.37
2+50			5.27	155.24
2+00			5.50	155.01
1+50			5.64	154.87
1+00			6.16	154.35
0+95			6.60	153.91
0+50			7.32	153.19
0+00			13.90	146.61
TBM	10.12		10.19	150.32
BM			1.94	158.57

63

Top hyd E Side Harsh 9+30.5
Top Stm MH Chamber 0+00
Top of N. Curb on Harsh 0+02.6
of Harsh Ave
Top Stm MH #1

Top Stm MH #2

Top Stm MH #3 Buried 8" Under ground

E of 30" RCP @ Headwall 0+00
Top Conc. Headwall 0+00 E side
Same as above

Sanitary, Storm Final's
Colonial Hills #5

Stoner AVE NE

B/M	6.02	284.17	278.15
0+00 MH #7 (Exist)	7.11	277.06	277.05 oK
0+00	6.72	277.45	
0+50	5.76	278.41	
0+96	4.91	279.26	
1+02.25	4.78	279.39	
1+50	4.75	279.42	
San MH #8	4.97	279.20	
2+00	4.60	279.57	
2+47 ±	4.46	279.71	
3+00	4.81	279.36	
3+50	4.98	279.19	
4+00	6.22	277.95	
4+50	6.62	277.55	
San MH #9	7.58	276.59	
5+00	7.48	276.69	

Oak Crest & Profile

0+00		4.46	279.71
0+50 TP	9.08	290.58	2.67 281.50
1+00		7.30	283.28
1+50		5.22	285.36
2+00		4.58	286.00
2+50		5.09	285.49
2+61.5 TBM		5.49	285.09

Cold - Snow on Ground
Clear

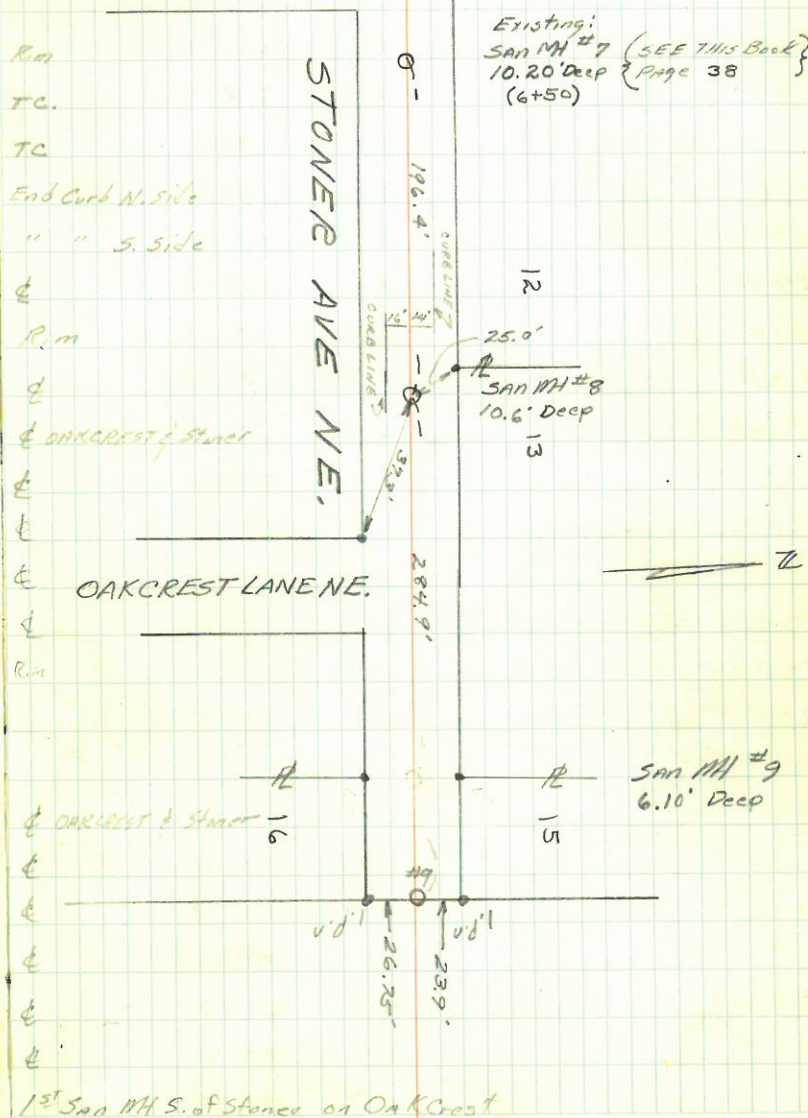
1/167

ORD T&D

CIB P

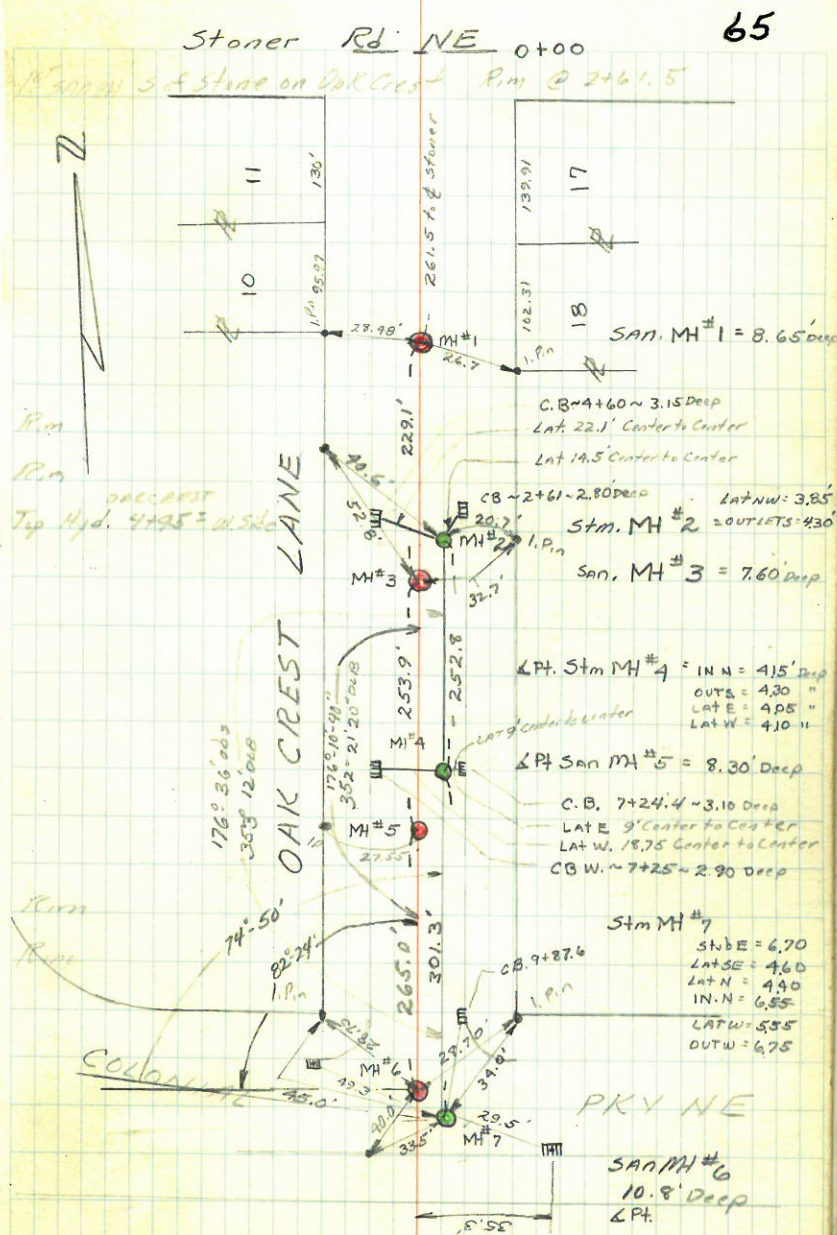
64

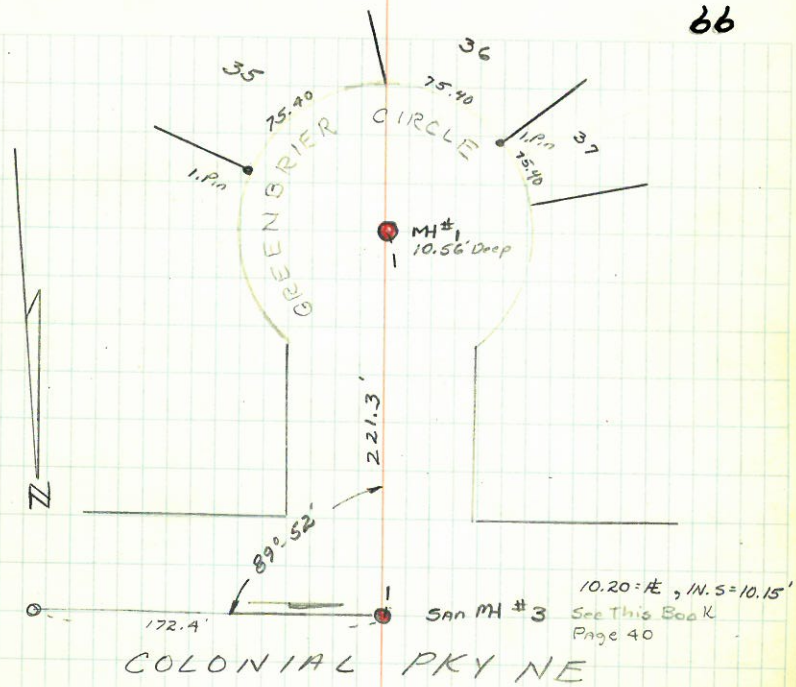
Top hyd @ Stoner & Bittersweet (see THIS Book Page 43)
Bittersweet DR NE.



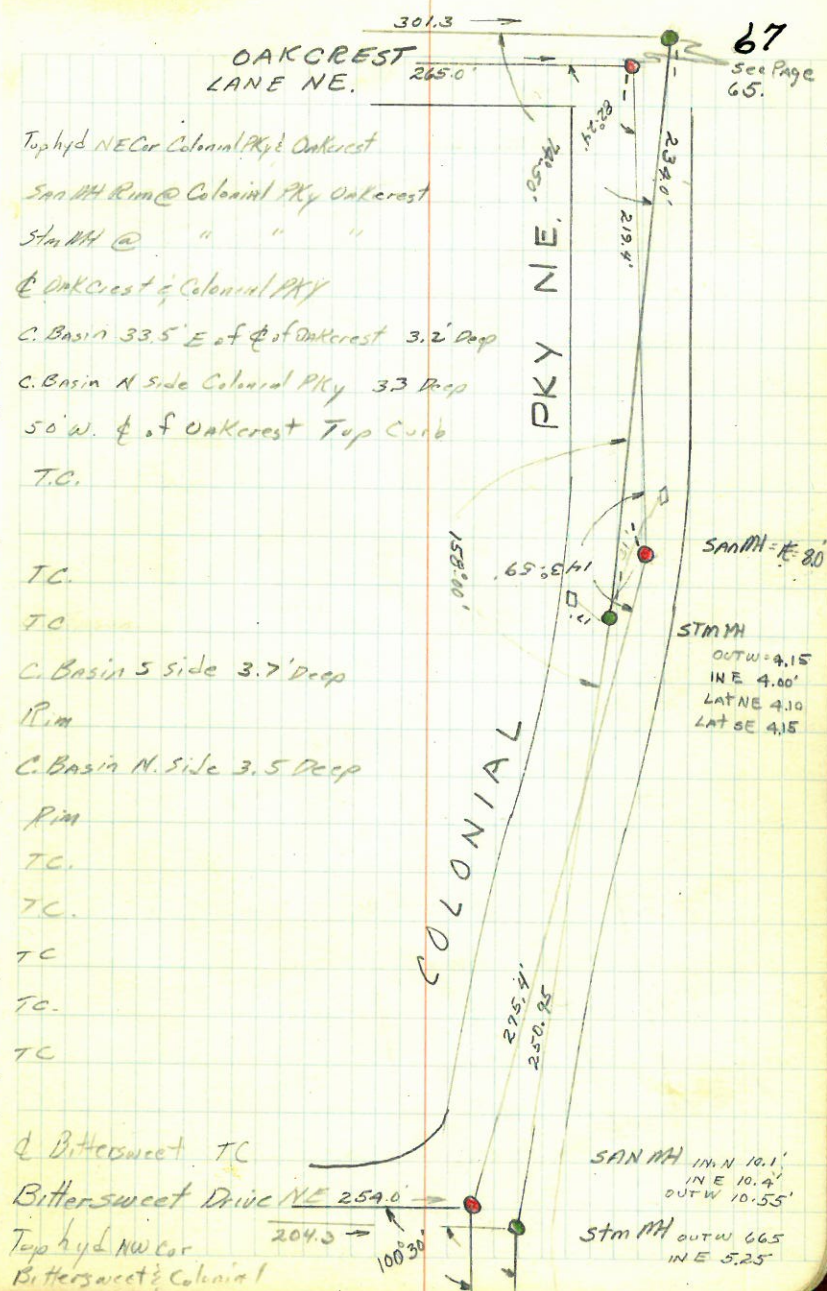
TBM	3.22	288.31		285.09
3+00 E			3.70	284.61
3+50 E			5.10	283.21
4+00 E			6.37	281.94
4+50 E			7.25	281.06
4+61 E CB 2.80' Deep			8.00	280.31
4+60 W CB 3.15' Deep			8.20	280.11
Stm MH #2			8.27	280.04
San MH #3			9.12	279.19
TBM	1.47	284.26	5.52	282.79
5+00 E			4.46	279.80
5+50 E			5.54	278.72
6+00 E			6.93	277.33
6+50 E			7.67	276.57
7+00 E TP 7.02	283.22	8.06		276.20
7+24.4 E CB 3.10' Deep		7.95		275.27
7+25 W CB 2.90' Deep		8.07		275.15
Stm MH #4		7.36		275.86
San MH #5		8.17		275.05
7+50 E		7.02		276.20
8+00 E		6.51		276.71
8+40 E		5.67		277.55
9+00 E		5.27		277.95
9+50		5.76		277.46
10+00		6.38		276.84

SEE Page 67 for Cont.

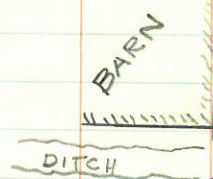




		π		
		283.22		
TBM	112	280.98	3.36	279.86
SAN MH	0100		5.46	275.52
STM MH			4.32	276.66
10+20.5'			4.56	276.42
0+33.5			3.64	277.34
0+40			6.40	274.58
0+50			6.72	274.26
1+00			9.38	271.60
TP @	135	271.81	10.52	270.46
1+50			2.94	268.87
2+00			4.78	267.03
2+02.5			5.42	266.39
SAN MH			5.95	265.86
2+20.6			5.94	265.87
STM MH			6.09	265.72
2+50			6.50	265.31
3+00			8.21	263.60
3+50 TP	121	263.20	9.82	261.99
4+00			3.17	260.03
4+50			5.26	257.94
STM MH			7.77	255.43
4+91 @ Bittersweet TC			8.20	255.00
SAN MH			6.95	256.25
BM			6.55	256.65 256.69



23RD ST NW
STM Sewer Finis



End Curb
2+94.5

Corp. Line
End Curb

23RD ST SW.

12219

12220

1.19.08
90.08

76°49'

38°23'

24.4'

1.19.08
46.56

133.3'

44.0'

39.0'

1.19.08

1.19.08

1.19.08

1.19.08

1.19.08

1.19.08

1.19.08

1.19.08

1.19.08

1.19.08

1.19.08

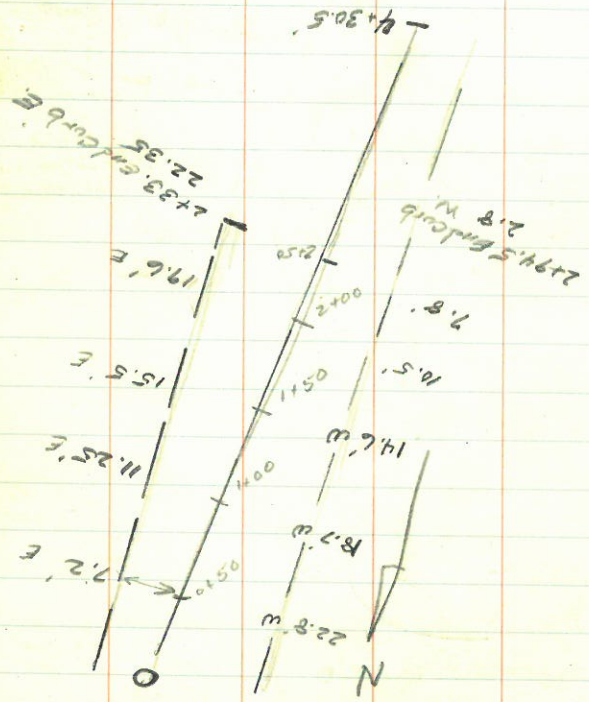
68

N

NH: E outs 4.70
2' Sump Filled Up.

1.19.08

CARLENE AVE SW



Stm. Sewer ~ St Barbs
Lincoln Way @ Alley

EXIST MH ~ # 27" RCP IN. 5.30' Deep
40.5' MH EXIST to MH #1 ~ 27" RCP
MH #1 ~ # 27" RCP 5.20' Deep
Double 15" m.s. 4.95' Deep No Sump

14.8' MH #2 to MH #1 Double 15" RCP

MH #2 ~ # Double 15" ~ 5.10' OUT N.
21" OUTLETS 4.70'

202.5 ~ 21" MH #2 to MH #3

MH #3 15" IN E 5.30
21" OUT N 6.90 + 2' Sump

124.5 MH #3 to MH #4

MH #4 # 15" OUT W 6.90
No Stub on School Prop

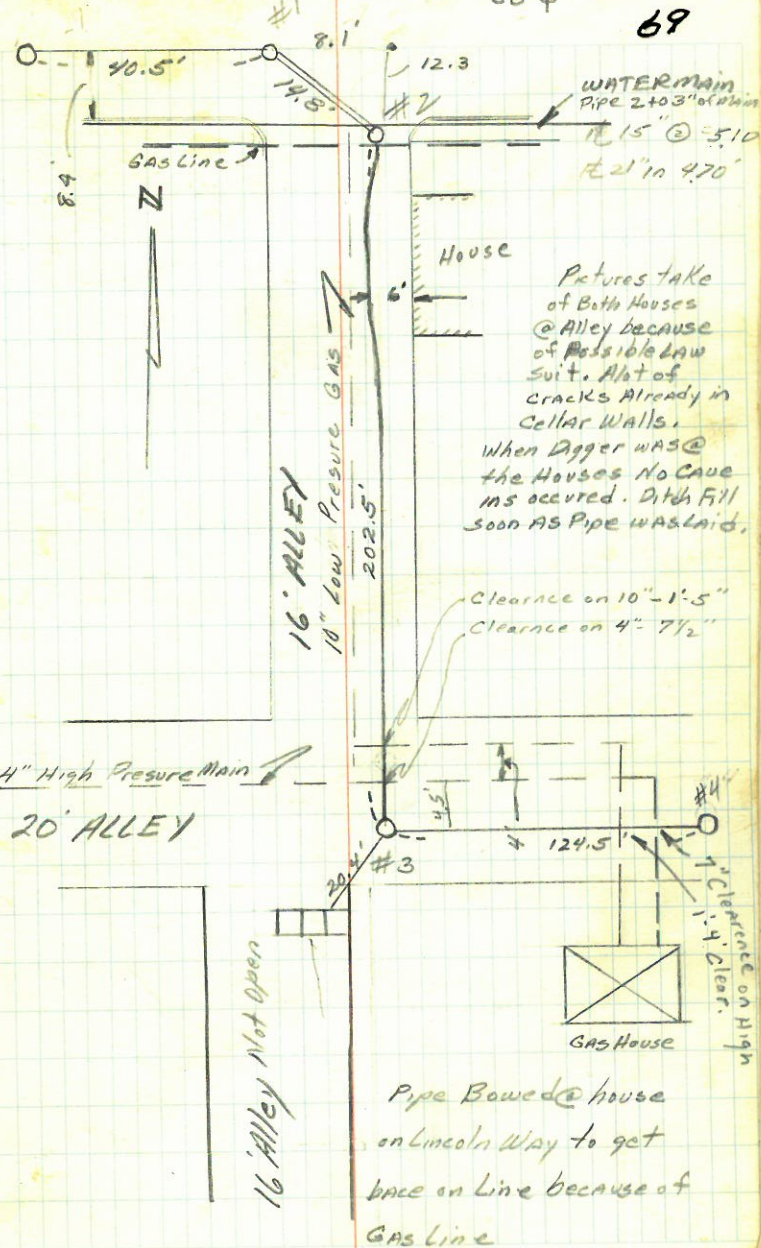
Lat: MH #3 to Triple C. BASIN
20.4 @ MH to Edge of Pipe

Cold - Wet Snow & Rain
20°

3-20-67

ORD ~ T ~ M
CB ϕ

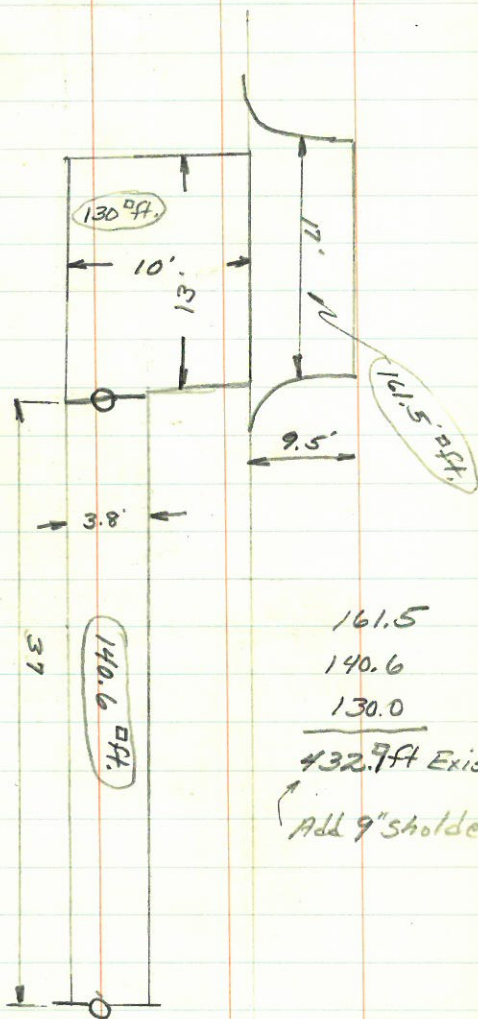
69



Mea. on Perm. Repair
(Extra & Original)

See Page 69

70



161.5

140.6

130.0

432.7 ft Exist

Add 9" sholder

13
97
50

Timothy Circle SW
(Stm Sewer Firms)

BM	0.45	232.17		231.72
0+00		201	230.16	
0+50		242	229.75	
1+00	1.92	225.39	8.70	223.47
1+50		475	220.64	
1+69.7MH		291	217.48	
2+32.7	Æ	13.75	211.64	

Plotted 4-25-66
S.R. 6-P22

4/24/67

Note: Heath Comm. went up to inspect it
and said water coming out of Pipe
15ft to End. Party said Contractor
Put Pipe through back Yard. No Easment
Recorded. Will Let it go ORD.

Cold-Snowing

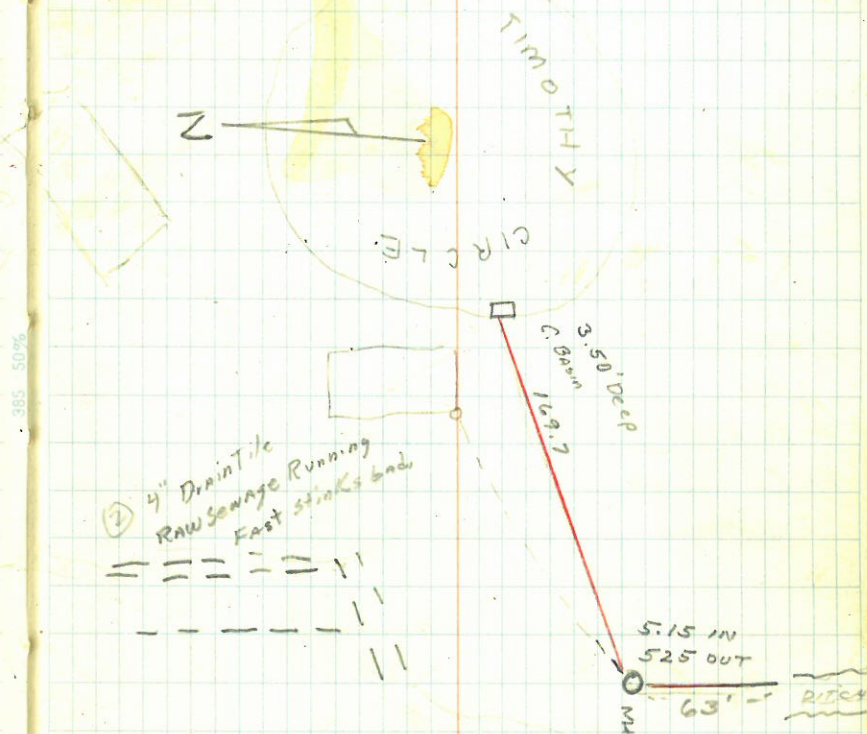
4/24/67

ORD
TH

71

RR Spk in OBT Pole End of Timothy (209-41)

Top CB



Note 4" Drain
tile + apped in to MH
Right Above 12" inlet.

23RD ST N.W.
E Profile Carlene & Southerly

BM 1.61

0+00 2.20

0+50 4.10

1+00 5.5

1+50 7.3

2+00 9.2

2+50 10.5

3+00 12.8

TP 3.20 12.45

3+50 6.1

4+00 7.6

4+30.5 10.60

TPO 10.03 1.23

1.16

14.84

14.84

72

RR Sp Kin PP N. Side Carlene opp 23RD SW

Stn WH @ Carlene & 23RD

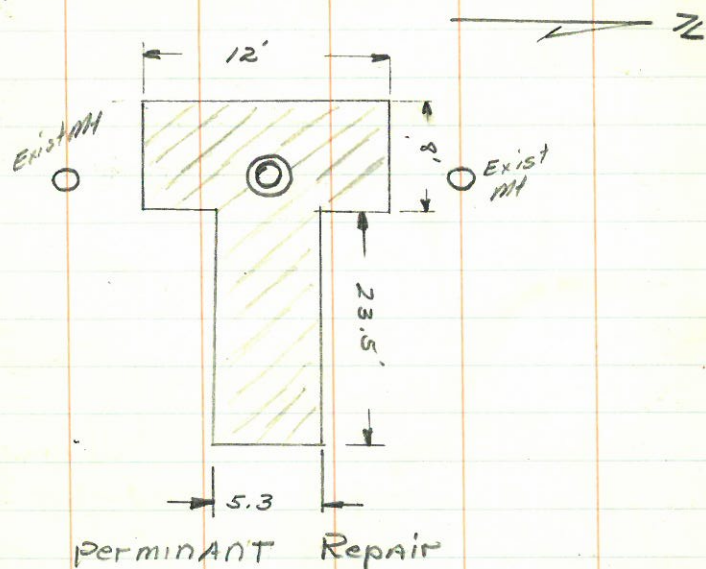
Top Curb @ W. Side 2+94.5

12" Outlet @ Barn

End Curb on E Side 23RD 2+33

RR Sp Kin PP pole N. Side Carlene opp 23RD SW.

Andrew Ave NE
Stm Sewer Fins. 6th East to 7th ST NE



Curb Replacement for C. Basins

Straight Curb 11 Lin ft.
Circle Curb 19.3 Lin ft

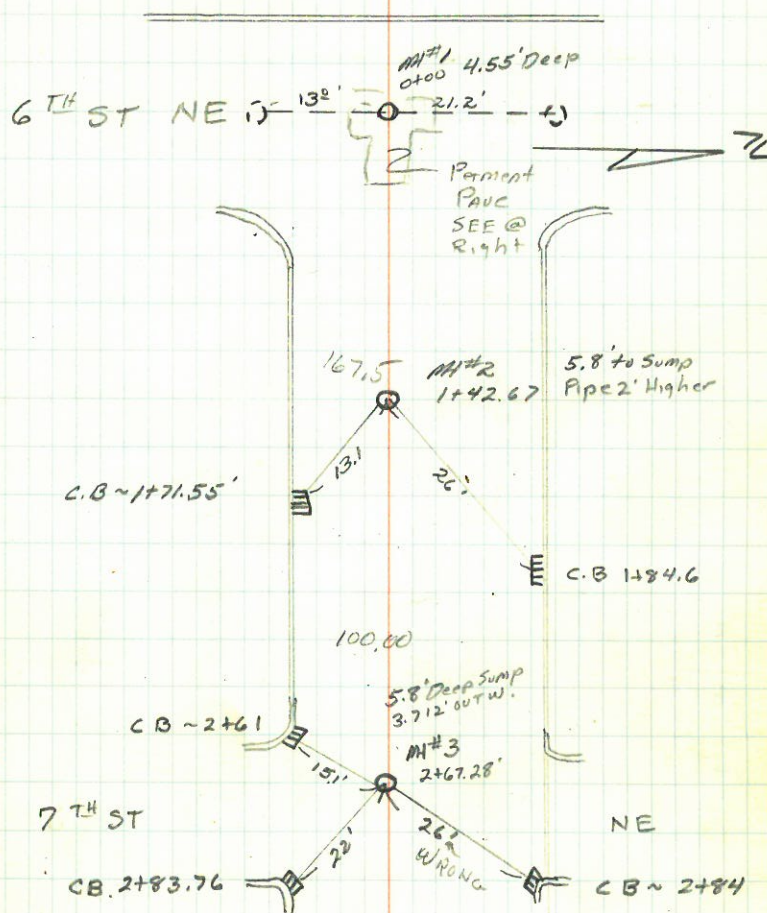
Total Curb 30.3' Replaced.

Sunny Warm

7/20/67

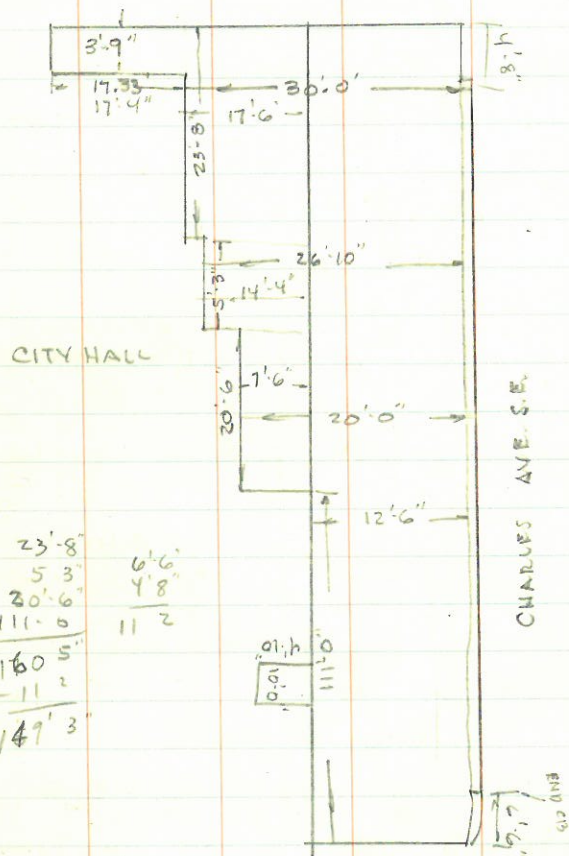
TH
URD

73



Note: Main Pipe Mea. Center to Center of
ManHoles, Lats Mea. Center of MH
to Edge of Pipe @ C. Basin.

CHARES AVE. S.E.
CURB & WALK FINIALS



$$\begin{array}{r} 23'-8'' \\ 5'-3'' \\ 20'-6'' \\ \hline 111'-0'' \\ 11'-2'' \\ \hline 160'-5'' \\ 11'-2'' \\ \hline 149'-3'' \end{array}$$

$$\begin{array}{r} 6'-6'' \\ 4'-8'' \\ \hline 11'-2'' \end{array}$$

10.20.67

74

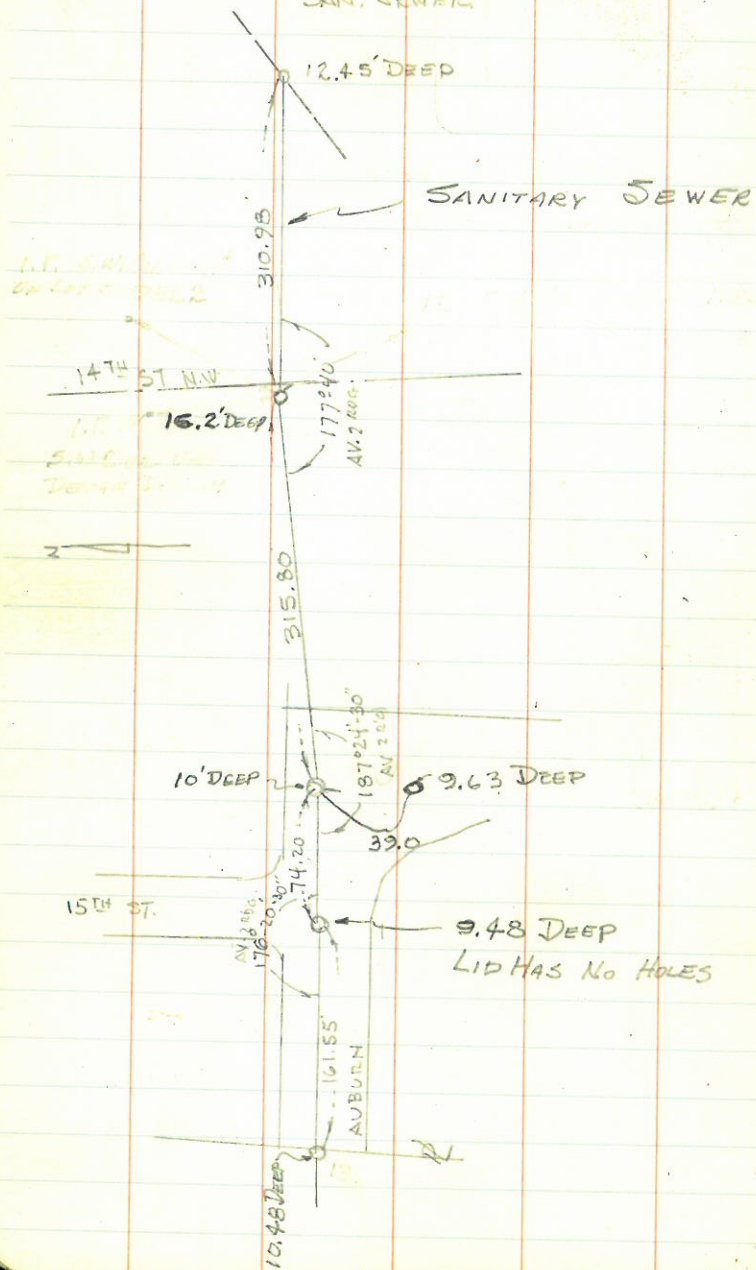
74.8 TON GRAVEL

WALK.

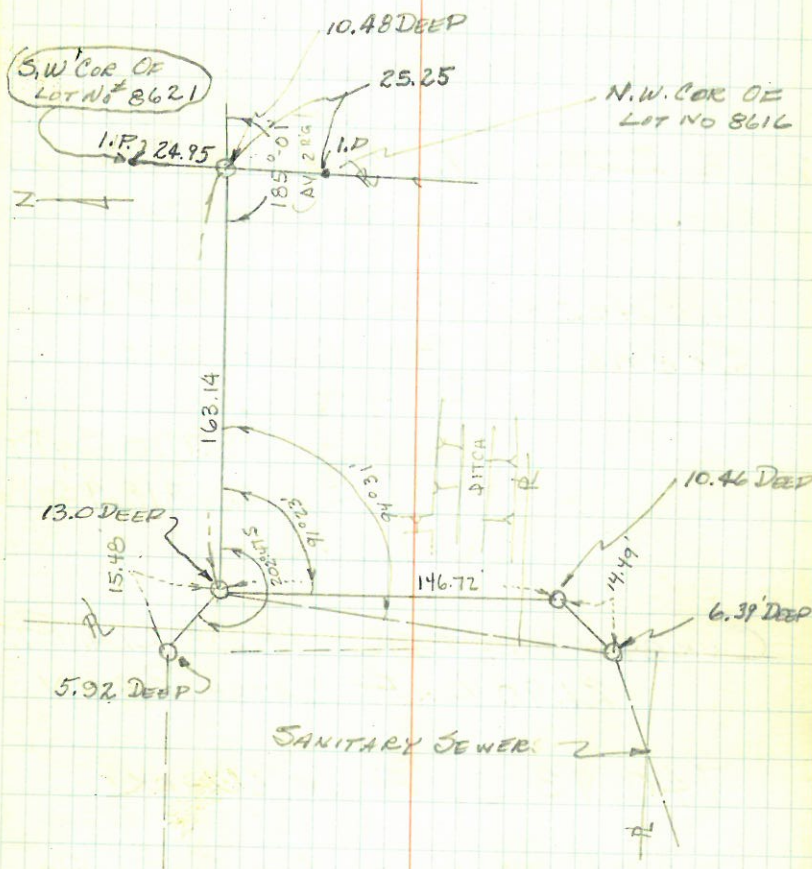
3.75 x 17.33	64.99	
17.5' x 23.67	414.22	
14.33 x 5.25	75.23	
7.5' x 20.5	153.75	75'
160.42 x 12.5	2005.25	125'
4.83 x 10.0	48.30	
	<u>2962</u>	
	200	-200
	<u>2762</u>	2870
	M.	

$$\begin{array}{r} \text{CURB} \\ 160.42 \\ 11.17 \\ \hline 149.25 \end{array}$$

FINIALS AUBURN AVE N.W.
@ 14TH & 15TH
SAN. SEWER



75



FINAL'S AUBURN AVE. N.W.

14TH + 15TH

76

286.5

LENGTH OF STORM

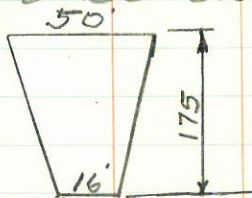
285' - 66" NOTE THESE ARE

286.5 ~~269~~' - 60" - MAXIMUM LENGTH'S

ACTUAL SHOULD BE LESS THAN THIS

THIS AREA EAST OF 14TH ST.

SEEMS TO BE UNSEEDED



5770 Sq Ft
OR 818.9 Sq Yds

CURB & GUTTER - 182.8 LIN. FT.

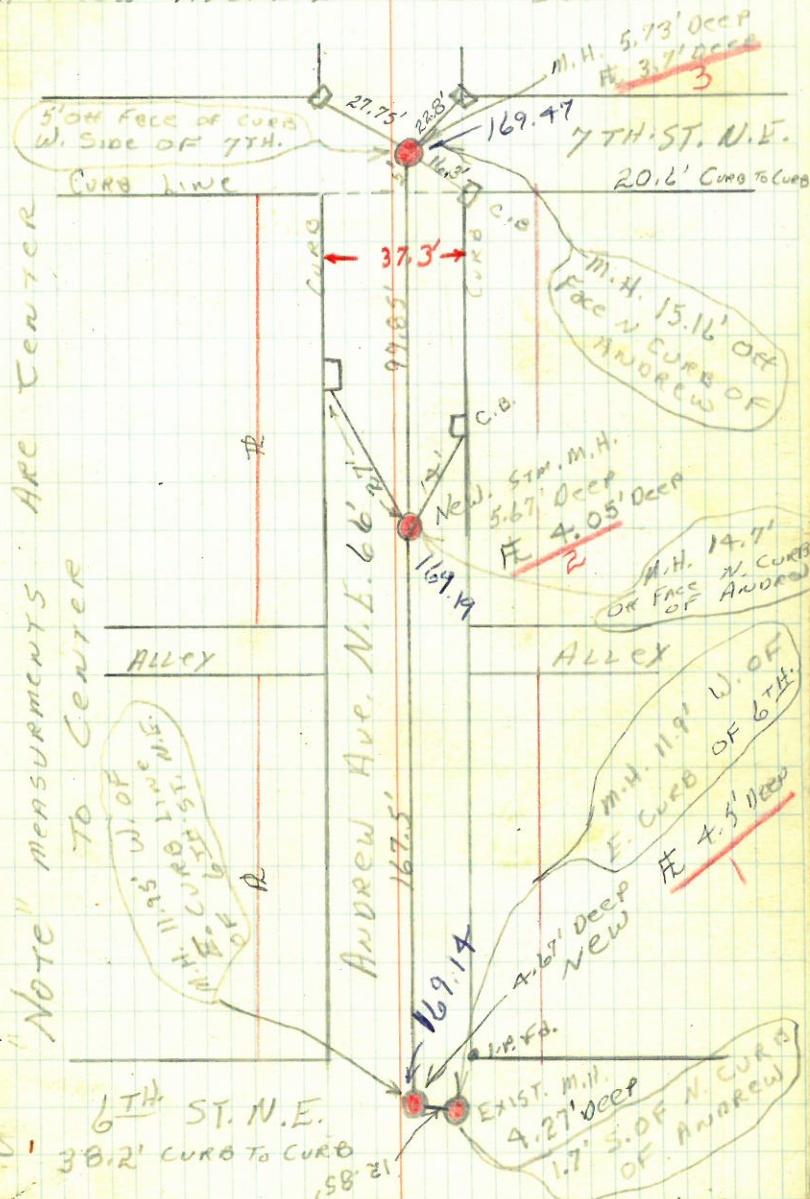
21.90 LIN. FT. CATCH BASIN

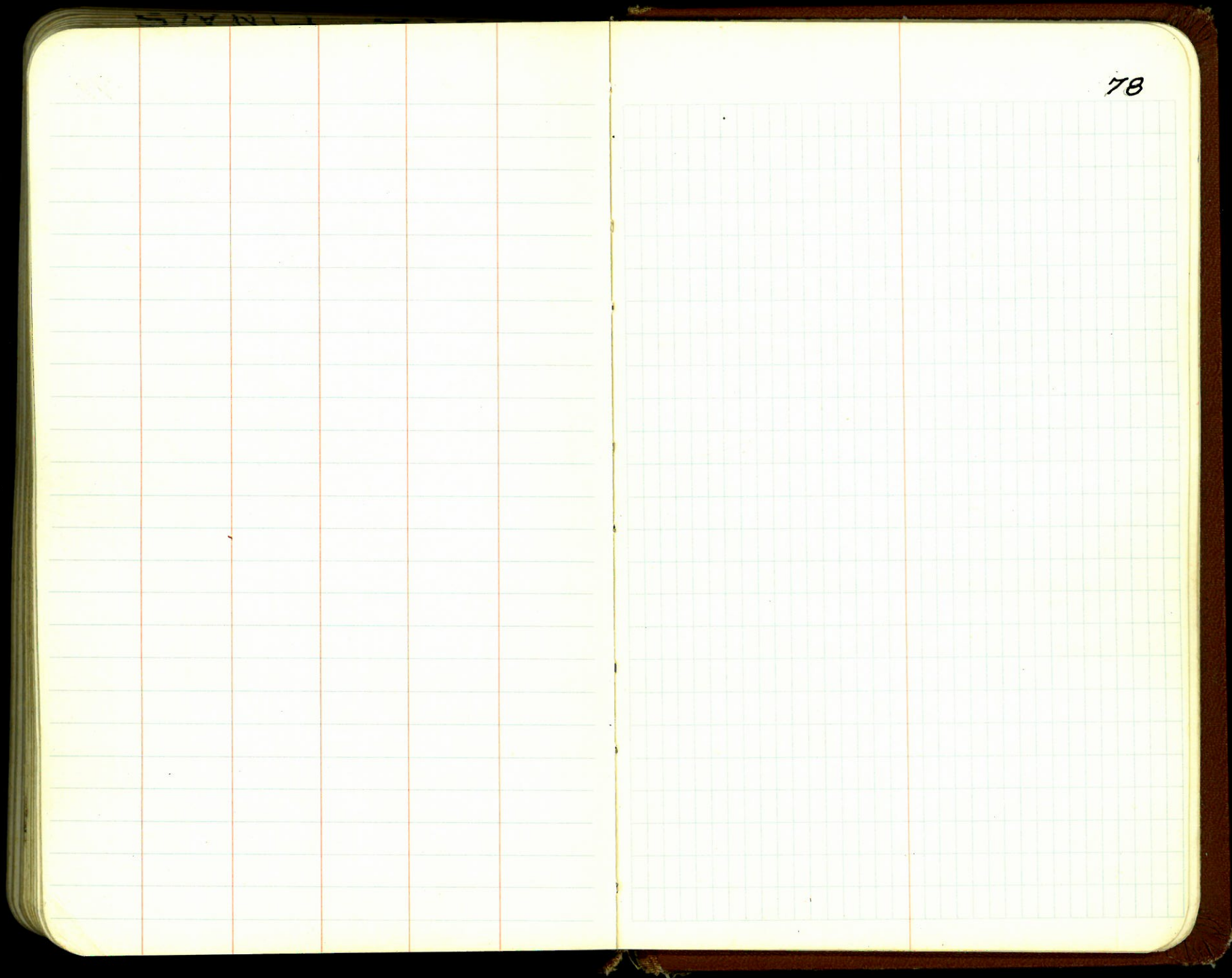
740.93 Sq Ft OF WALK

2354.30 Sq Ft. OF SOD OR

261.58 Sq Yds.

86.18 VERTICAL FEET OF MANHOLE





Date	Index	Page
	Finals Auburn Ave.	75
	N.W. 14 th & 15 th San. sewer	
	Finals Auburn Ave	76
	N.W. 14 th & 15 th	
	Finals curb & gutter	77
	Massachusetts Between	19 th
	20 th St. S.W.E	
8/25/72	Andrew Ave. N.E. stm.	78
	sewer	

	11-12-65-24 th St. N.W. SAN. SEW. (DUANE AVE. TO NORTH)	79 48✓
	YORK VILLAGE SAN. SEWER FINALS	49✓
	65-Harsh Ave Storm Sewer	50-1✓
	Walnut Rd. Widening	52✓
	6-18-66 Parking Lot #1 Final Meas	53✓
	6-18-66 Parking Lot #2 FINAL MEAS	54✓
	7-13-66 24 th St. N. San. Sewer Final Meas	55✓
	St. Sewer Repair Federal Ave	56✓
	St Sewer 25 th St. S.E.	57✓
	8-26-66 3 RD ST. N. SEPTIC TANK	59✓
	9-8-66 PARKING LOT #3 FINALS	60✓
	9-8-66 " " #4 "	61✓
	9-16-66 Harsh Ave St. Sewer FINALS	62-3✓
	1-9-67 COLONIAL HILLS St FINALS	64-7✓
	3-20-67 Stm. Sewer St. Parks Lincoln Way	68-9
	Measurement on Perm Repair	69-70
4/24/67	Timothy circle S.W. stm.	71
	sewer Finals	
	23 rd St. N.W. E Profile	72
	southerly	
7/20/67	Andrew Ave. N.E. storm sewer	73
	finals 6 th east to 7 th St. N.E.	
10/20/67	Charles Ave. S.E. curb & walk	74
	Finals	

INDEX

12-18-63	OVERLOOK AVE. S.W. STORM SEWER.	P-1-2 ✓
12-31-63	BEINER PL. N.E. CURB & GUTTER, SIDEWALK	3 ✓
4-30-64	15 TH ST. S.W. CURB & GUTTER	4 ✓
6-27-64	20 TH ST. S.W. CURB & GUTTER	5 ✓
6-27-64	25 TH ST. N.W. CURB & GUTTER	6 ✓
8-12-64	MILBURN AVE. N.E. CURB & GUTTER	7 ✓
	COLONIAL PKWY. CURB & GUTTER	8 ✓
	Sippo Trunk Relief Sewer	15-28 ✓
11-16-64	TAGGART AVE. N.E. CURB & GUTTER	9 ✓
12-1-64	27 TH ST. N.W. CURB & GUTTER	10 ✓
1-6-65	N.W. U.S. ROUTE 21 SAN. SEWERS 11-12 ✓	
1-22-65	9 TH ST SW ~ SAN SEWER Relief Sewer	13-14 ✓
12-24-65	Curley Ct. SE MH Location	29 ✓
4-2-65	New Sister Buick Garage SAN. FINALS	30-31 ✓
4-6-65	Niles St. S.W. SAN SEWER FINALS	32 ✓
4-5-65	Gorden Ave N.W. " " " " SAN. SEWER	33 ✓
4-5-65	11 TH ST. & OXFORD AVE. N.E. L.J. Smith	34 ✓
4-5-65	ELEM. SCHOOL SAN. SEWER.	35 ✓
	26 TH ST. S.E. CURB & GUTTER	36 ✓
	THOMAS CIRCLE CURB & GUTTER	37 ✓
7-13-65	COLONIAL HILLS STORM & SANITARY	38-40 ✓
	DEERFIELD LANE & TIMBERLINE	41 ✓
	24 TH ST. N.W. CURB & GUTTER FIN.	42 ✓
11-10-65	LAKE & McCADDEN AVE. ST. SEW.	47 ✓
11-12-65	24 TH ST. N.W., DUANE TO NORTH (SAN.) SEWER	48 ✓

IMPROVED TABLES AND INFORMATION

HORIZONTAL STADIA CORRECTIONS

2°-00' — 0.1	21°-00' — 12.8	33°-00' — 29.7
3°-00' — 0.3	21°-30' — 13.4	33°-15' — 30.1
4°-00' — 0.5	22°-00' — 14.0	33°-30' — 30.5
5°-00' — 0.8	22°-30' — 14.7	33°-45' — 30.9
6°-00' — 1.1	23°-00' — 15.3	34°-00' — 31.3
7°-00' — 1.5	23°-30' — 15.9	34°-15' — 31.7
8°-00' — 1.9	24°-00' — 16.5	34°-30' — 32.1
9°-00' — 2.5	24°-30' — 17.2	34°-45' — 32.5
10°-00' — 3.0	25°-00' — 17.9	35°-00' — 32.9
10°-30' — 3.3	25°-30' — 18.6	35°-15' — 33.3
11°-00' — 3.6	26°-00' — 19.2	35°-30' — 33.7
11°-30' — 4.0	26°-30' — 19.9	35°-45' — 34.1
12°-00' — 4.3	27°-00' — 20.6	36°-00' — 34.6
12°-30' — 4.7	27°-30' — 21.3	36°-15' — 35.0
13°-00' — 5.1	28°-00' — 22.0	36°-30' — 35.4
13°-30' — 5.5	28°-30' — 22.8	36°-45' — 35.8
14°-00' — 5.9	29°-00' — 23.5	37°-00' — 36.2
14°-30' — 6.3	29°-30' — 24.3	37°-15' — 36.6
15°-00' — 6.7	30°-00' — 25.0	37°-30' — 37.1
15°-30' — 7.2	30°-15' — 25.4	37°-45' — 37.5
16°-00' — 7.6	30°-30' — 25.8	38°-00' — 37.9
16°-30' — 8.1	30°-45' — 26.2	38°-15' — 38.3
17°-00' — 8.5	31°-00' — 26.5	38°-30' — 38.7
17°-30' — 9.0	31°-15' — 26.9	38°-45' — 39.1
18°-00' — 9.5	31°-30' — 27.3	39°-00' — 39.6
18°-30' — 10.1	31°-45' — 27.7	39°-15' — 40.0
19°-00' — 10.6	32°-00' — 28.1	39°-30' — 40.5
19°-30' — 11.2	32°-15' — 28.5	
20°-00' — 11.7	32°-30' — 28.9	
20°-30' — 12.3	32°-45' — 29.3	

Chains to Feet

1	66
2	132
3	198
4	264
5	330
6	396
7	462
8	528
9	594
10	660

Feet to Chains

100	1.515
200	3.030
300	4.545
400	6.060
500	7.575
600	9.090
700	10.606
800	12.121
900	13.636
1,000	15.151