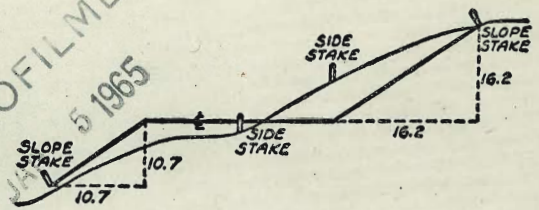
2277

SEWER



Distances from Side Stakes for Cross-Sectioning

Slope 1 to 1. Roadway of Any Width

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

TABLE XIII—CORRECTIONS FOR TANGENTS AND EXTERNALS

These corrections are to be added to the approximate values, found by dividing the tangent, or external, for a 1° curve (Table VIII) by the degree of curve, in order to obtain the true tangents, or externals. Intermediate values may be obtained by interpolation.

FOR TANGENTS ADD

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	03	.06	09	13	16	19	.22	.25	.28	.31	34	38	42	.46
15°	04	10	14	19	24	.29	.34	.39	45	.51	.53	58	.63	.68
20°	06	.13	19	.26	.32	.39	.45	.51	.58	.65	.72	79	.84	.90
25°	.08	16	24	.33	40	49	.58	67	.75	.83	90	.99	1.06	1.14
30°	10	19	.29	39	49	.59	.69	79	.89	.99	1.09	1.20	1.29	1.39
35°	11	22	.34	47	.58	.69	.70	.81	.92	1.04	1.29	1.42	1.54	1.66
40°	13	.26	.40	.53	.67	.80	.93	1.06	1.20	1.34	1.49	1.64	1.79	1.94
45°	15	.30	44	60	76	91	1.06	1.21	1.37	1.52	1.70	1.87	2.04	2.21
50°	17	.34	.51	.68	.85	1.02	1.19	1.36	1.54	1.72	1.91	2.10	2.29	2.48
55°	19	38	.57	76	.95	1.14	1.32	1.52	1.72	1.92	2.14	2.35	2.56	2.77
60°	21	42	.63	.84	1.05	1.27	1.49	1.71	1.94	2.17	2.38	2.60	2.83	3.07
65°	23	46	.69	.93	1.16	1 40	1.64	1.88	2.13	2.38	2.63	2.88	3.13	3.39
70°	25	.51	76	1.02	1.28	1.54	1.80	2.06	2.33	2.60	2.88	3.16	3.44	3.72
75°	.27	.56	.83	1.12	1.40	1.69	1.98	2.27	2.57	2.87	3.16	3.47	3.78	4.09
80°	30	.61	.91	1.22	1.53	1.84	2.15	2.46	2 78	3.10	3.44	3.78	4.12	4.46
85°	33	66	1.00	1.33	1.68	2.02	2.36	2 70	3.05	3.40	3.77	4.14	4.55	4 89
90°	36	.72	1.09	1.45	1.83	2.20	2.57	2.94	3.32	3.70	4.10	4.50	4.91	5.32
95°	39	79	1.19	1.55	2.00	2.40	2.80	3.20	3.61	4.02	4.40	4.98	5.38	5.83
100°	43	.86	1.30	1.74	2.18	2.62	3.06	3.50	3.95	4.40	4.88	5.37	5.85	6.34
110°	51	1.03	1.56	2.08	2.61	3.14	3.67	4.21	4 76	5.31	5 86	6.43	7 01	7 60
120°	62	1.25	1 93	2.52	3.16	3.81	4 45	5.11	5.77	6 44	7 12	7.80	8.50	9 22

FOR EXTERNALS ADD

Central Angle	Degree of Curve													
	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
10°	.001	.003	.004	.006	.007	.008	.009	.011	.012	.014	.015	.017	.018	.020
15°	.003	.007	.010	.014	.018	.023	.027	.029	.032	.035	.039	.043	.047	.051
20°	.006	.011	.017	.022	.028	.034	.038	.045	.051	.057	.063	.070	.076	.083
25°	.009	.018	.027	036	.046	.056	.065	.074	.083	.093	.106	120	127	135
30°	.013	.025	.038	.051	.065	.078	.090	.103	.116	.129	.149	.170	.179	.188
35°	.018	.035	.054	.072	.086	.109	.131	.153	.175	.197	.213	.230	.247	.264
40°	.023	.046	.070	.093	.117	.141	.172	.203	.234	.265	.277	.290	.315	.341
45°	.030	.060	.093	.119	.153	.184	.216	.254	.289	.325	.351	.378	.411	.445
50°	.037	.075	.116	.151	.189	.227	.266	.305	.345	.384	.425	.467	.508	.550
55°	.046	.093	.142	.188	.236	.283	.332	.381	.420	.479	.530	.582	.641	.700
60°	.056	.112	.168	.225	.283	.340	.398	.457	.516	.575	.636	.697	.774	.851
65°	.067	.135	.204	.273	.343	.412	.483	.554	.625	.697	.711	.845	.922	1.01
70°	.080	.159	.240	.321	.403	.485	.568	.652	.735	.819	.906	.994	1.08	1.17
75°	.095	.182	.286	.383	.480	.578	.678	.777	.877	.977	1.07	1.18	1.29	1.39
80°	.110	.220	.332	.445	.558	.671	.787	.903	1.02	1.13	1.25	1.38	1.50	1.62
85°	.128	.259	.391	.524	.657	.790	.926	1.06	1.20	1.34	1.47	1.62	1.76	1.91
90°	.149	.299	.450	.603	.756	.910	1.07	1.22	1.38	1.54	1.70	1.87	2.03	2.20
95°	.174	.350	.522	.706	.985	1.06	1.25	1.43	1.62	1.80	1.99	2.18	2.38	2.58
100°	.200	.401	.604	.809	1.01	1.22	1.43	1.64	1.85	2.06	2.28	2.50	2.73	2.96
110°	.268	.536	.806	1.08	1.35	1.63	1.91	2.20	2.48	2.76	3.05	3.35	3.66	3.96
120°	.360	.721	1.08	1.45	1.82	2.19	2.57	2.95	3.33	3.72	4.11	4.50	4.91	5.32

INDEX Pg.

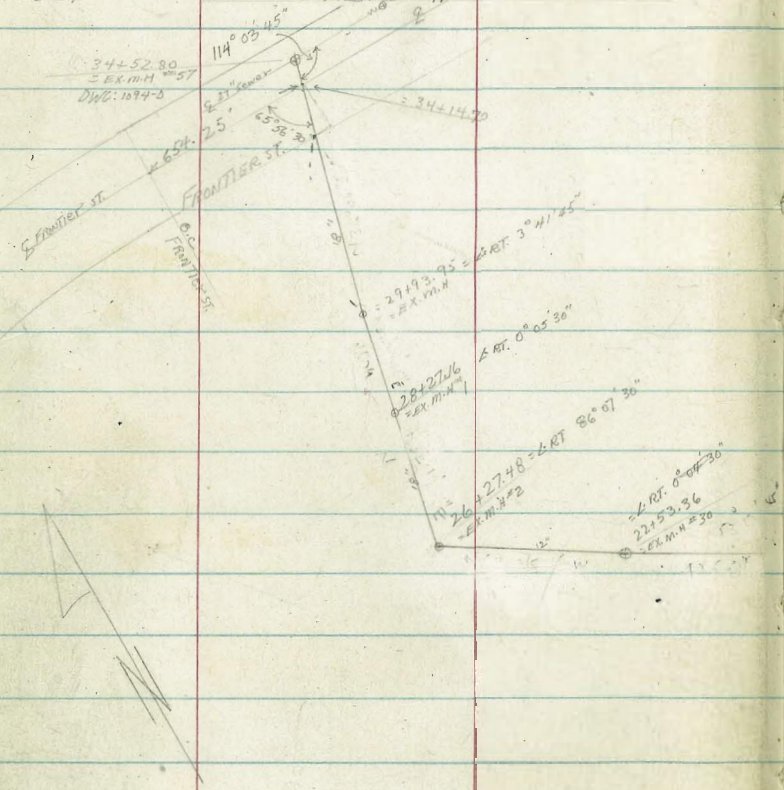
Clark
Shephard
Bruner
ONeil

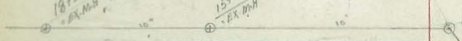
8-12-53

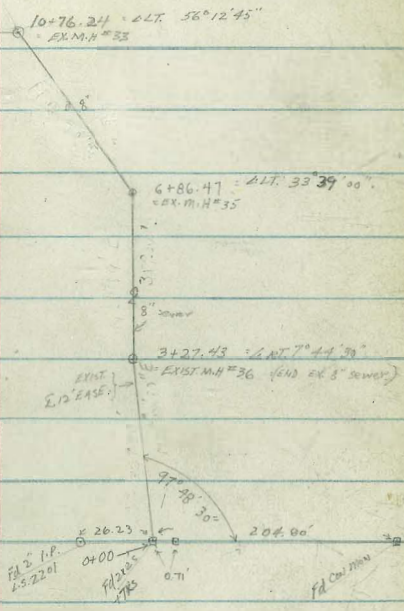
W.O. 62324

ALIGNMENT & DISTANCES to EXIST. STRUCTURES ALONG & EXIST. SANIT. SEWER - FRONTIER HOUSING - WING ST. to FRONTIER ST.

Ref: DWG. "D-561
" 4931-B. " 2199-D
" " 10778







N'sly LINE
P.L. 210

Notes. { M.H. Numbers From DWG D-561
P.H.A. Proj. # GAL-4782

ALIGNMENT & Loc. Bldgs - EX. SANIT. SEWER
FRONTIER HOUSING — WING ST. to Frontier ST.

NOTE: (Only those structures falling within 30' ℄ EX. SEWER are shown.

7+62.82	15.0' LT to SE Corn 8' Fence (end Fence)		
7+27.5	(End Bldg. & Bag 8' Fence) 30.33 LT to N'Ely Corn Bldg (at 90° to ℄ Sewer)		
6+86.47 = EX. M.H #35	∠ LT 33° 39' 00" LT	22.8 LT to Fc N'ly Pkg Area ON RT.	CB (on split Angle)
5+75.54	(Bag. Bldg) 24.1 LT. to S'Ely Corn Bldg.		
3+27.43 = EX. M.H #36 (See note on Pg 1 re: Numbering M.H's)	= ∠ RT 7° 44' 30"	8.6' LT to Fc. N'ly CB. Grinnell 23.4 RT to Fc S'ly CB Grinnell (32' both CB's Grinnell)	} at 90° to Ex. Tang.
2+14.6	= N'ly CB Fc. Centre circle		
2+05.7	= S'ly CB Fc Centre CB.		
1+78.9	S'ly CB Fc. BANJO - GRINNELL		
0+00 = 2x2 Hub ON N'ly Line Pl. 210 & ℄ EXIST 12' EASEMENT. ∨℄ WING ST. SW'ly			

Frontier - Sewer (cont)

12+89	20.6 RT END Bldg	
12+14	11.5 RT ℄ Pole (No #)	
12+00	= N'ly CB Fc. Grinnell	
11+60.4	20.45 RT Beg Bldg (Bldg 20.75' Deep) 0.30' RT END Fence	
11+20	0.40' RT Beg 8' Board Fence	
10+76.24 = M.H #33 Ex'g T.	∠ LT 56° 12' 45"	20' RT ℄ Pole (no #) at 90° to BK tang.
9+92.79	= Fc E'ly CB Grinnell	
9+18.84	30.3' LT = END Bldg (N'ely Corn)	
8+43.42	N'ly CB Fc at ℄ Sewer	
8+07.82	N'ly CB Fc. at ℄ Sewer	
7+90.92	25.7 LT Beg Bldg (S.E'ly Corn)	

Frontier-Sewer-(Con T.)

16+37.75	23.8 RT. ENS Bldg		
16+14	23' RT Beg Bldg		
15+44.7	12.0' RT ℄ Pole (No #)		
15+04.01 = E.M.H 32	= P.O.T	7.75 RT to N'ly	CB. GRINNELL
13+71.5	9.0' RT ℄ Pole (No #)		
13+59.25	= N'ly " " " RT (N'ly)		
13+49.7	= N'ly CB Line Fordham St (S'ly)		
13+17.7	= S'ly CB Line Fordham to H. (S'ly)		
13+09	= S'ly CB Line Fordham to RT (N'ly)		
13+01	16.0' RT ℄ Pole (No #)		
12+94.1	7.75 RT = E.C N'ly CB.		

Frontier - Sewer (cont.)

19+59.55	23.0' RT END Bldg	
19+28.8	23.8 RT Beg Bldg	
18+70.55	23.8 RT. END Bldg	
18+49.8	23.0' RT Beg Bldg	
18+36	12.0' RT ℄ Pole (No #)	
18+26.65 = Ex. M.H #31	= P.O.T	7.85 RT to CB FC
17+13.75	23.0' RT END Bldg	
16+93	23.8 RT. Beg Bldg	
16+81.7	12.0' RT ℄ Pole (No #)	

FRONTIER - SEWER (CONT.)

23+42.75	23.8' RT END Bldg		
23+22	23.0' RT Beg Bldg		
22+97.5	12.3 RT ℄ Pole (No #)		
22+53.36 = Ex. M.H. #30	∠ RT 0° 04' 30"	24.0' LT to CB - 90° BK Long Bldg Area ON RT.	
21+86.15	23.0' RT END Bldg		
21+65.4	23.8 RT Beg Bldg		
21+43	12.5' RT ℄ Pole (No #)		
21+07.15	23.8' RT END Bldg		
20+86.4	23.0' RT Beg Bldg		
19+93	12.5' RT ℄ Pole (No #)		

FRONTIER - SEWER (CONT.)

25+57.5	22.6' RT Beg Bldg	
25+38.5	11.9 RT ℄ Deadman	
25+17.5	12.0' RT ℄ Pole (No #) 19.3 RT ℄ Deadman	
25+06.2	= ~~Projected~~ Wkly CB Line HARTWICK Across E Sewer	
25+03	2.0' RT ℄ E Hyd.	
24+95.17	= Wkly CB ℄, HARTWICK - At entrance ℄ ENS GRINNELL	to PKG Area - RT
24+43	12.2 RT ℄ Pole (No #)	
24+22.75	23.0' RT ENS Bldg	
24+02	23.8 RT Beg Bldg	

Frontier - Sewer (cont.)

28+56	18.9 LT ℄ Light St'd.	
28+48	23.8 LT end Bld (at 90° ℄ Sewer)	
28+27.16 = Ex. M.H #1	∠ RT. 0° 05' 30"	
28+23.6	25.15 LT Beg Stucco Bldg (Store)	
28+23.	20.3 LT END Fence	
27+96	22.1 LT END Blk Wall & Beg 5' Board	Fence
26+52.	31.9 LT Beg 5' Conc. Blk Wall (SE'ly	Wall of Trailer Court
26+27.48 = Ex. M.H #2	∠ RT 86° 07' 30"	
25+93.3	12.5 RT ℄ Pole (No #)	
25+78.25	23.4 RT END Bldg	

Ex. Frontier Sewer (Cont.)

30+90 19 Lt ℄ 12" Tree

30+53 19 LT ℄ 12" Tree

29+93.95 = Ex. M.H. { 10.2 LT N'ly Edge Pav. Purdue (Purdue Cold-Lay Pav. Strip 21' wide)

29+70 = N'ly Wall Eng. House

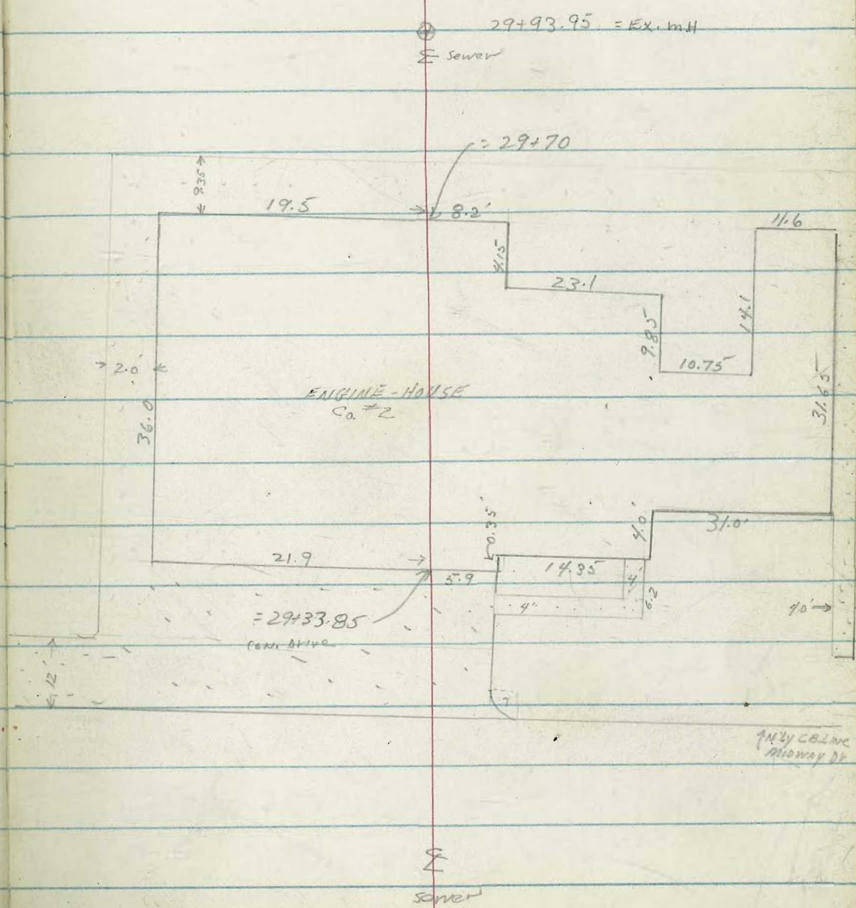
(See sketch at Rt. For Loc. Bldg in Ref. to ℄ Sewer)

29+33.85 = S'ly Wall Fire-Engine House Co. #2

29+13.5 18.2 RT ℄ Pole # JP 473

29+12.75 = N'ly CB Fc. Midway Drive (Driveway Engine House)

28+56.75 = S'ly CB Fc. Midway Drive



EXIST SEWER FRONTIER (CONT.)

34+35.80	= N'ly Edge Pav. Frontier ST.
33+92	= S'ly Edge Pav Frontier ST.
33+53	9.5' LT N'wly END Cold-Lay strip Pavdge 10.5 RT +. S'ly END " " " "
3+95	18.6' LT. ℄ 14" Tree
3+87	18.0' LT ℄ 10" Tree
3+70	18.0' LT ℄ 8" Tree
3+62	18.0' LT ℄ 10" Tree
3+13	18.5' LT ℄ 12" Tree

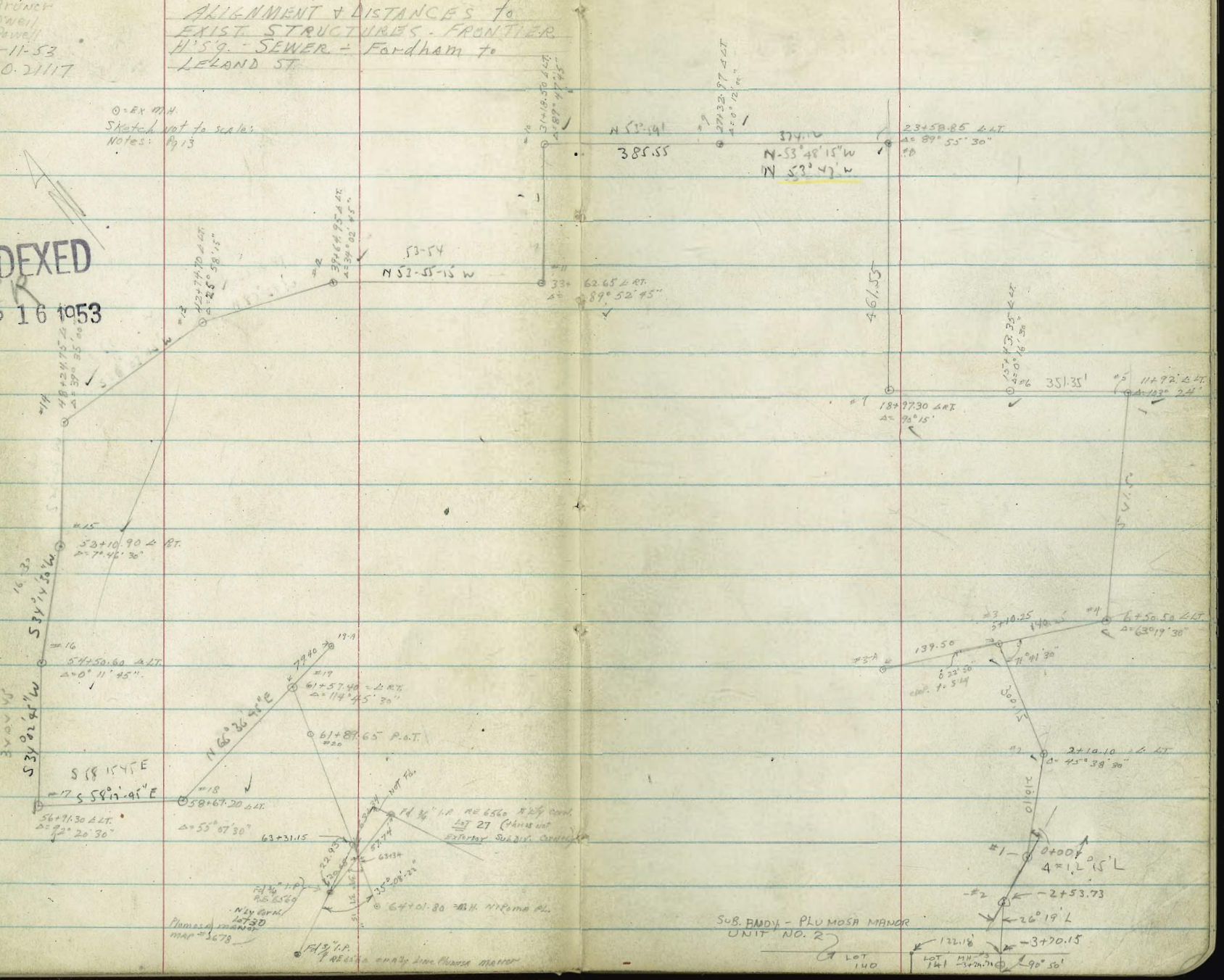
EXIST SEWER FRONTIER (CONT.)

34+52.80 = EX MH & 27" Sewer Frontier ST.
= ∠ RT. 65° 56' 15"

Clark
Brüner
Owell
Powell
9-11-53
W.O. 21117

ALIGNMENT & DISTANCES to EXIST. STRUCTURES - FRONTIER H'Sg. - SEWER - Fordham to LELAND ST.

⊙ = EX M.H.
Sketch not to scale.
Notes: Pg 13



FRONTIER H'S'NG SEWER:
Fordham to LeLand ST.

Note: Only those structures within 30' ℄ EX. SEWER are shown.

1+51 = E'ly CB E. Fordham.

1+19 5.5 Lt END 3' Con. Walk

1+17.5 = W'ly CB E. Fordham { TYPE G CB's 1.5' Con. gutt's
Beg asph. Pav.

1+00 25.6' Rt N.E. Corn Bldg

0+99.3 = E'ly Edge Walk

0+90 = W'ly Edge Walk (W'ly - S'ly walk)

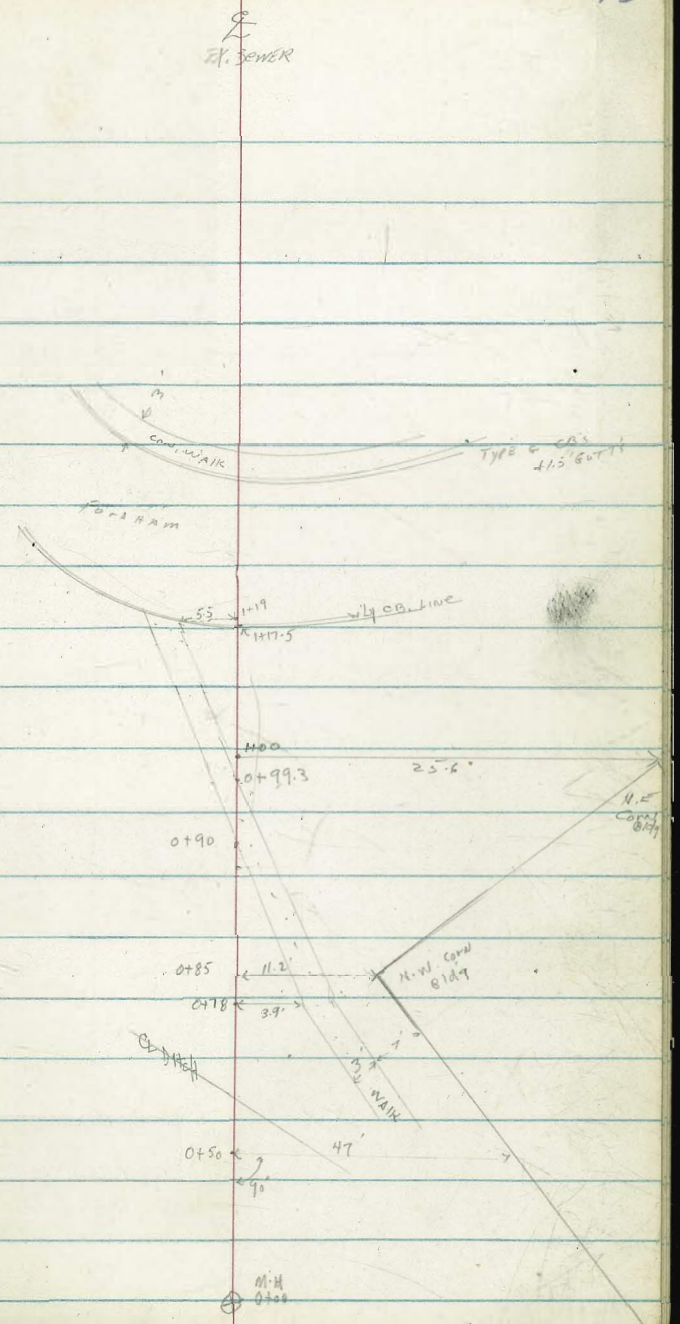
0+85 11.2 Rt to N.W. Corn. Bldg.

0+78 3.9 Ft. to ℄ Con. Walk

0+64.5 ℄ 5' wide Drainage Ditch

0+50 47 Rt to {N'ly W'ly} Wall. Bldg

0+00 = EXIST. M.H 117' W'ly Fordham ST.
(Steel M.H & Cover) (See Sketch opp Pg.)



Frontier SEWER (Cont.)

3+19 11.1 RT Beg Bldg (N.W'ly Corn.)

3+08 E'&W'ly 5' Board Fence
12. RT to END
8.3 LT " "

2+93 = ℄ E&W'ly 3' Wide Cold-Lay Drainage Ditch

2+66 {E'ly & W'ly} 7' Board Fence
{7.0 LT to END
{13.5 RT. to END

2+57 13.1 RT END Bldg (N.E'ly Corn.)

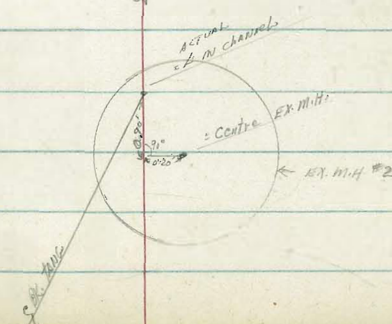
2+36 13.1 RT Beg Structure (Bldg.) N.W Corn

2+26 { 7' Board Fence (E'ly & W'ly)
{ 7.1 LT W'ly END Fence
{ 13.2 RT to E'ly END Fence

2+10.10 = M.H #2 ∠ LT. 45°38'30" (See Det. Rt. For Loc. M.H.)
(Con. M.H & Wood Cover)

1+54.7 = E'ly Edge Con. Walk (3' wide - Meets BK CB)

1+52 17.4 RT ℄ Fire Hyd.



FRONTIER SEWER (CONT)

Note: 15' LT AT 90° to For. tang. to ℄ 3' N'ly conc. gutt.

5+10.25 = M.H. #3 (see sketch Pg 12 For Loc. #3 M)
(Conc. M.H + Wood cover)

4+92.5 = ℄ 3' conc. gutt.

4+73.6 = S'Ly CB Fc Fordham Pl.
Beg. Asph. Pav.

4+47 E & W'Ly 7' Fence
11.0' LT to END Fence
15.0' RT " " "

4+35.1 13.6 RT END Bldg (N'Ely Corn)

4+14.4 { 16.9 RT Beg Bldg (N.W'ly Corn)
= E & W'Ly 7' Board Fence
15.1 LT END OF Fence
10.9 " " " }

3+48 E & W'Ly 7' Board Fence
11.4 LT to END
9.1 RT " "

3+40 9.5 RT. END Bldg (N'Ely Corn)

FRontier SEWER (CONT.)

7+11.6 = N'W'Ly CB Fc Fordham ST.
(Type G 3' Comb. gutt. & CB)

7+03. = N'W'Ly Edge 3.5' Comb Conc-WALK, CB - Fordham ST.)

6+96.5 LT. Beg Bldg (S-W'Ly Corn)

6+94 3.0' LT ℄ Pole (no #)

6+93.2 = N'Ly Edge WALK

6+90.1 = S'Ly Edge of 3' Conc. WALK // to FordhamPl.

6+00 0.15' LT ℄ DEADMAN

6+77 = N'Ly Edge 3' Conc. WALK (WALK meets CB)

6+73 = N'Ly CB Fc FordhamPl (on ℄ for. tang.)

∠ LT 63° 19' 30"
6+50.50 = M.H. #4 { 19.6' LT at 90° Bk tang. to N'Ly CB Fc FordhamPl.
12.5 RT " " " " " S'Ly " " "
(Conc. M.H. & Wood Cover)

Frontier Sewer (Cont.)

8+66	1.5 RT W'ly Edge 2.0' Conc Walk at Approx 90° to Fordham	
8+54	= W'ly Edge 3.0' Wide Conc. Walk (Trash & Garbage area) 1.0' LT CB Fc 2.5' RT. S'ly Edge Walk	
8+44	= CB Fc S'ly Fordham St.	
8+27	9.8 RT Beg 1' Board Fence	
8+21	= N'ly Edge of S'ly 3' Conc. Gutt. Fordham St. End Pay	
8+14	40.3 RT to S-E'ly Corn. Bldg.	
8+05.5	21.1 RT to N-E'ly Corn. Bldg.	
8+00	7' RT to S'ly CB Fc Fordham St.	
7+50	7.5 RT to N'ly Fc. Bldg	
7+19.6 =	S'ly Edge Conc (3') Gutt Beg Pay.	
7+15.3	17.5 LT End Bldg (S-E'ly Corn).	

Frontier Sewer (Cont.)

10+21	13.0' RT ℄ Pole No III
9+91.5	22.2 RT · END Bldg (N'ely Corn.)
9+84	= N'ly Edge of S'ly 3.0' Conc. Gutt-Fordham
9+73	21.1 RT to Bldg Fc. 11.2 RT. to N'ly Edge Conc. Walk (END Walk here)
9+64.1	= CB·Fc - S'ly Fordham
9+55	9.5 RT N'ly Edge 3.0' Walk (Beg Widening here to meet Bldg 19.6 RT. to Fc. Bldg here
9+16	6.4 RT to N'ly Edge Walk. (END Widening)
9+80	5.2 RT N'ly Edge 3.0' Walk (widens here to meet Bldg) 3.5 LT to CB Fc (S'ly CB Fordham) 15.1 RT to N'ly Fc. Bld (continued)
8+68	END 3' Conc Walk along CB (Trash + garbage area) 1.3 RT END 2.0' Walk (90° to Fordham) (2.8 RT. Begin) N'ly Edge 3.0' Conc. Walk approx. ∥ to Fordham
8+67.7	12.6 RT Beg Bldg (N W'ly Corn.)

FRontier Sewer (CONT.)

11+64 = S'WLY Edge WALK (3.0 Conc walk meets type @ CBS+ 3.0 gutt.s KONYON ST. (No walk along N'LY CB LINE KONYON)

11+59.3 6.1 RT ℄ EXIST Water gATE

11+28 20.0' LT to N'ELY Corn. Bldg

11+18.5 9.2 LT to S'ELY Corn. Bld

11+16.3 = ELY Edge 2.0 walk

11+14.2 = W'LY Edge 2.0 Conc WALK approx 90° to Fordham

9

11+05 = BK 3.0' Conc WALK along N'LY CB Fordham

9 10+96.1 = N'LY CB FC. Fordham

8 10+87.3 = S'LY Edge N'LY - 3.0 Conc gutt. Fordham

42.2 LT to S'LY FC. Bldg.

8 10+50 18.1 RT to FC. S'LY CB. FORDHAM
15.5 LT to " N'LY " "

FRONTIER Sewer (cont.)

15+58.55	℄ 21.4 LT to NEly Edge	2.5 x 3.0 Inlet
	℄ 5.6 RT to S'ely Edge 8.1 to CB Fc	25' 3.0 INLET
15+43.35 = M.H #6 P.O.T.	8.1 RT CB Fc 23.9 LT CB Fc.	N'Ely Kenyon S'Ely Kenyon
15+00	8.3 RT CB Fc	
14+96	℄ 16' Drive Lt.	
14+00	8.2 RT Fc CB	
13+00	8.2 RT Fc CB.	
12+00	8.2 RT Fc. CB.	
11+92 = M.H #5 L.Lt. 103° 24' (Conc. M.H - mod cover)	8.2' RT 90° For. tang. to NELy CB Fc. Kenyon 23.8 Lt " " " " S'ely " " "	
11+70.5	= Edge gutt. Beg Pav.	
11+67.4	= CB Fc - S'Ely Kenyon	

FRONTIER SEWER (CONT.)

9.8' RT CB Fc. 91° BK dang.

18+97.30 M.H #7
∠ RT 90° 15'
(Conc. M.H. - Wood Cover)

18+68 25.2 RT END Bldg (W'ly Corn)

18+47 24.2 RT Bay Bldg (S'Ly Corn)

18+00 9.3 RT CB Fc.

17+79 16.6 Drive RT. Enters PKg area

17+11 23.5 RT END Bldg. (W'Ly Corn)

17+00 8.9 RT CB Fc.

16+90 24.3 RT Bay Bldg (S'Ly Corn)

16+00 8.4 RT CB Fc
23.6 LT CB Fc

FRONTIER Sewer (Cont.)

21+92	35.6 RT Beg Bldg
21+90	34.5 LT Beg Bldg 14.3 LT END Fence
21+51	15.0' LT Beg 7' Board Fence
21+50	Beg LAWN-area
21+00	END LAWN
20+91	15.0 LT END Fence
20+52	35.1 RT END Bldg (N'ly corn)
20+51	15.0 LT Beg 7' Board Fence 35.2 LT END Bldg (E'ly corn)
19+24	29.9 to S'ly corn Bldg 30 RT W'ly corn Bldg
19+07.1	= CB Fc. NE'ly Kenyon - Beg LAWN BR. CB Fc
19+04.1	Edge 3.0' Con. gutt. END PAV

Frontier Sewer (Cont.)

29+27.5 14.2 LT Beg 6' Board Fence

28+49 12.5 RT ⊄ Pole No #

27+67 21.7 RT Beg 5' Conc. Blk Wall

27+32.97 M.H #9 (=26+27.48 Wing to Frontier St. Sewer) Pg 8
∠ LT 0° 12' 00"

Note: For outs to Exist. improvements M.H #8 to #9 See Pgs 6-8 this Book

24.0 LT CB Fc. At 90° PK (and PK'C around PT.

23+58.85 M.H #8 =(22+53.36 ON Wing to Frontier St. Sewer-Line) Pg 6
∠ LT 89° 55' 30"

23+37.8 N'ly Edge gutter Beg Pav.

23+34.8 = CB. Fc S'Wly Grinnell

23+19 30.1 RT END Bldg (N'ly Corn)

23+18 29.7 LT END Bldg (E'ly Corn)

Frontier Sewer (Cont.)

31+90.9 =	CB Fc. SE'ly PKG Area - Duke Beg. Pave
30+87.4 =	Bk Edge 3.0 Walk PKG Area SE'ly Duke
30+78	13.6' LT END Bldg (N'ly Corn)
30+42	10.0 LT END Conc. Porch
30+33	10.0 LT Beg. Conc. Porch (Porch meets Bldg)
29+99	13.1 RT ℄ Pole No #
29+92	4.4 LT ℄ 2.5 x 2.5 Conc. SLAB
29+86.5	10.2 LT END Conc. Porch
29+77.5	10.3 LT Beg. Conc. Porch (Porch meets Bldg)
29+72.5	4.4 LT ℄ 2.5 x 2.5 Conc. SLAB
29+53	13.8 LT END Fence - Beg Bldg (S'E'ly Corn)
29+52	22.3 RT END Conc. Ret. WALL

FRONTIER SEWER (CONT.)

36+00 7.7 LT CB.FC

35+26 22.6' LT END Bldg (N'ly CORN)

35+00 7.7 LT CB, FC

34+01 22.6' LT Bay Bldg (S'Ely CORN)

34+00 7.9 LT CB FC (S'Wly EARLHAM ST.) & 3.00 CONC. GUTTS TYPE G CB'S
24.1 RT " " N'Ely "

33+77 15.9 RT ℄ SAN DIEGO CITY M.H. – SEWER

33+62.65 M.H. #11 (IN EARLHAM ST.)
∠ RT 89°52'45"
(CONC. MH - WOOD COVER)

33+00 26.15 RT CB FC

32+00 26.25 RT CB. FC.
PKG AREA LT.

{26.4 RT AT 90° FOR TANG. to N'WLY CB FC. DUKE ST.

31+18.50 M.H. #10
∠ LT 89°47'45"
(CONC M.H. WOOD COVER)

31+08.8 ℄ 3' CONC. GUTT.

Frontier - Sewer (Cont.)

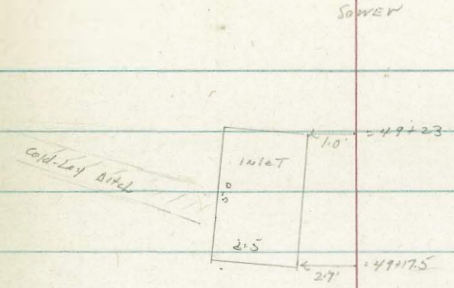
41+98.5	27.0	LT N'W'ly Corn. Bldg.
41+78	20.7	LT N'E'ly Corn Bldg.
41+15		= CB Fc. LT.
41+00	0.30	LT FC CB
40+94	6.4	LT ℄ Fire Hyd
40+86	8.3	LT ℄ Pole No #
40+54	20.5	LT N'Ly Corn. Bldg
40+33	26.8	LT S'E'ly Corn Bldg
39+64.95 = M.H. 12 ∠ LT 34° 02' 45"		7.3' RT CB Fc at 90° BK tang. 25.0' LT CB Fc " " " "
38+73.6	27.5	LT N'Ly Corn Bldg
38+54.6	23.2	LT S'E'ly Corn Bldg
38+10	10.4	LT ℄ Fire - Hyd
37+42	16.1	RT ℄ Ex. San Diego City M.H.

Frontier Sewer (Cont.)

46+02	13.3 RT ℄ Pole No #
45+36	℄ 16.0' Drive RT – Enters Pkg Area
45+00	8.1 RT CB Fc
44+68	22.9 RT End Bldg
44+47.5	23.7 RT Beg Bldg
44+15	13.2 RT ℄ Pole No #
43+67	25.4 Rt End Bldg (S'W'ly Corn.)
43+46.4	23.6 RT Beg Bldg (S.E'ly Corn)
43+00	24.8 LT. CB Fc. 7.2 RT CB Fc.
42+74.70 M.H #13 ∠ LT 25° 58' 15" (Con. M.H. Wood Cover)	1.9 RT to S'ly Edge At 90° to For. Tang. 3.0' N'ly Gutter Barnardst. (Drive on RT - Pkg Area)

FRONTIER SEWER (Cont.)

49+17.5	2.7 LT Beg inlet (see sketch Rt.)
48+95	8.4 LT ℄ DEAD MAN
48+89.4	14.2 LT NWly corn. Bldg
48+88	1.0 LT ℄ Anchor Pole # 5 / 8951-H
48+85.5	5 Sly CB Fc. BARNARD
48+69	25.2 LT NEly corn Bldg
48+62	7.2 LT NLy Edge 2.5×3.0 Inlet (on ℄ inlet)
48+24.75	11.0 RT ℄ 2.5×3.0 Inlet MH #14 ∠ LT 39° 35' (Con. with Wood curb)
48+22	13.6 RT ℄ Pole No 4
48+00	7.75 RT CB Fc
46+24	23.8 RT. END Bldg
46+03	22.7 RT Beg Bldg



FRONTIER SEWER (cont.)

55+59 — 13.0' RT ℄ Pole No #

54+50.60 = M.H. #16
∠LT 0° 11' 45"
4.9 RT Edge 3.6' CONC SWTR (PKG AREA RT.)

53+14.5 — 13.7 RT ℄ Pole No #

53+00 — 8.3 RT CB. FC

16.7 RT. CB FC AT 90° FOR. TANG
52+10.90 = M.H #15
∠ RT 7° 46' 30"
(CON. MH - WOOD COVER)
15.3 LT CB FC " " " "

51+00.6 = CB. FC. BARNARD (SAG)

50+62 — 3.7 RT ℄ Fire Hyd.

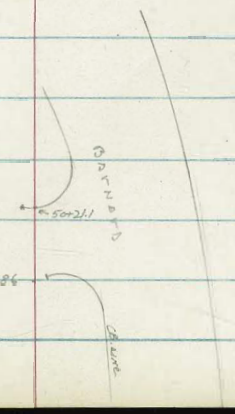
50+21.1 = CB. FC, CB - Return
2.6' LT to CB END (Return PKG Area)

49+86 — 1.2 RT = CB. END - Return CB. AT PKG AREA

49+80 — 15.9 RT ℄ Pole No #

49+17.5 — 2.7 LT END INLET

℄ Sewer



FRontier SEWER (CONT.)

60+96	= ℄ 4.0' wide Cold-Lay ditch (ditch // to CB)
60+66.3	= S'ly CB Fc LELAND
60+00	21.4 LT. CB Fc 10.9 RT CB Fc.
58+67.20 = M.H #18 ∠ LT 55° 07' 30" (Conc. M.H. - Wood Cover)	6.3' RT CB Fc 90° To For TANG 29.1 LT " " " " " "
58+60	12.7 LT ℄ EXIST. SD. City M.H
58+00	4.5 LT CB Fc (ON CURVE)
57+40	5.1 LT. = E.C CB RET. LeLAND ST. (TYPE G CBS 1.5 GOTT'S
57+27	16.8 LT ℄ Fire Hyd.
57+19.5	14.5 LT ℄ 2.5 x 3.0 inlet (in CB return)
56+91.30 M.H. #17 ∠ LT 92° 20' 30"	8.1 RT CB FC AT 90° BK TANG.
56+76	5.5 RT to S'ly Edge 2.5x3.0 inlet (ON ℄ inlet)
56+68	12.7 RT ℄ Pole No #
56+00	8.0' RT CB Fc

FRONTIER SEWER (CONT.)

62+19 — 6.0 LT to N.W. Corn. Bldg
6.0 LT END Picket Fence

61+92 — 6.3 LT Bag 4.0 Picket Fence

61+89.65 = M.H. #20
P.O.T.
Conc. & Steel cover

61+71.1 = Fc. 5.0 HEADWALL, 1.0' thick
2.5 LT & 2.5 RT to END of WALL

61+57.40
∠ RT. 114° 45' 30"
(Conc. & Steel. M.H.)

P.O.T. to S'ly CB Fc. AT 98° BK. TANG.

+79.4 = M.H. #19-A
(Con. MH & Wood Cover)

+ 50.1 = S'ly CB Fc. LELAND ST.

+ 25' ahead = ℄ 4.0 Cld-Lay Ditch

Note: 79.40' ahead to M.H. 19-A - ABove Notes show improvements
+ DIST'S ARE ahead OF M.H. #19 (below)

61+57.40 M.H. #19 8.1 H to S'ly CB Fc. LELAND

FRONTIER SEWER (CONT)

64+01.80	6.3 RT NWLY CB FC. = M/H NIPOMA PL.
63+39	6.6 RT = END CB NWLY NIPOMA PL
63+30.5 =	Edge Pav. NIPOMA PL.
63+29.5	= Barricade (Steel-wire & 6"x8" Posts) (along edge PAV.)
62+86.5	30.1 LT = END CB - S'ELY NIPOMA PL.
62+75.5	= ℄ 5' Wide C. Lay ditch
62+69	= ℄ 5' wide Cold-Lay DRAINAGE ditch
62+55.5	= ℄ E & WLY Fence (5.5 RT END OF Fence; 20.7 LT END OF Fence)
62+38	14.4 LT SWLY CORN Bld
62+21.5	= 8' E & WLY Board Fence (6.4 LT END Fence; 19.6 RT " ")

Proposed sewer → not used.

Myrtle Ave. - Also (46th St.)

Alley Blk 8, Bungalow Pk

W.O.# 32383

12-16-53
C.H.S.
Begg
oltman
Schelin

• denotes Fd L+T.

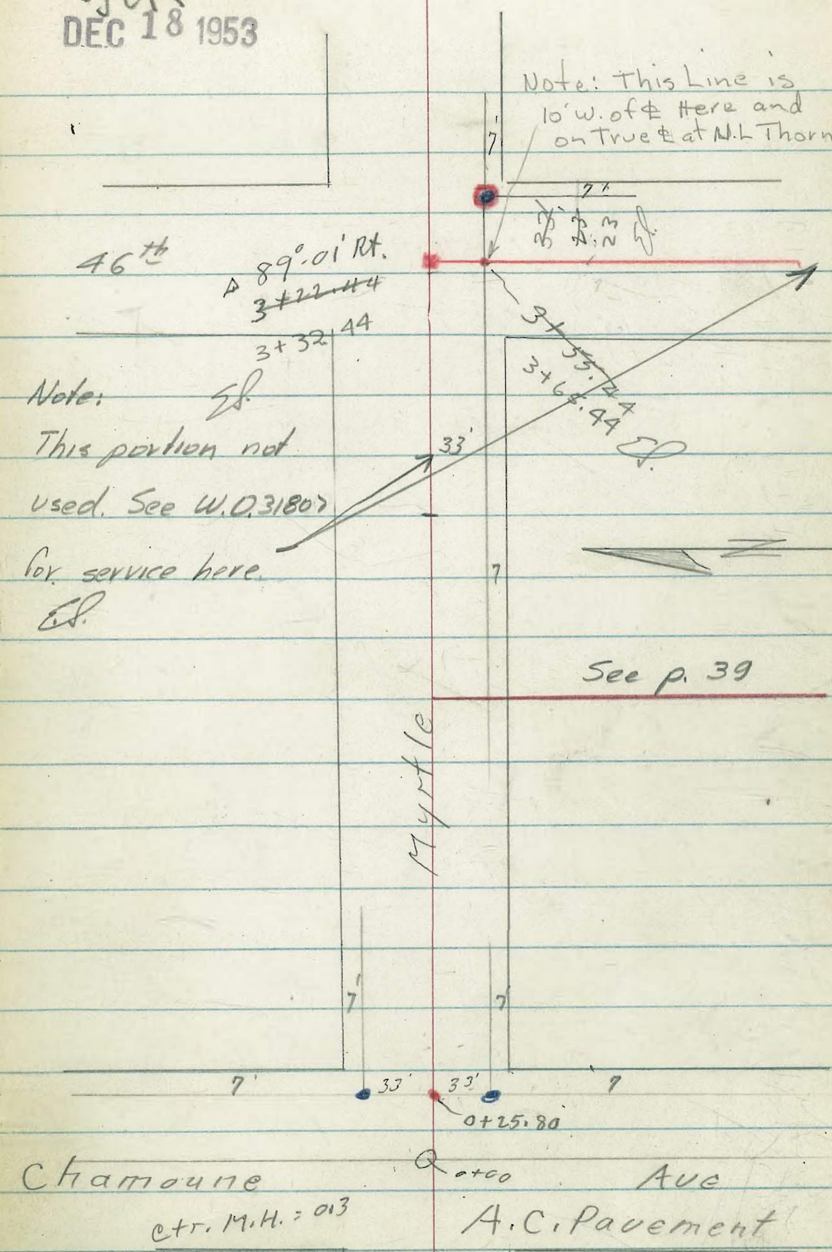
▣ " {Fd 2/2 Hub partly rotten — replaced with new 1/2+ disk

• = set nail

■ ~ " 1/2 Hub

B.M. =

F - denotes floor level



Myrtle Ave
also 46th St.

℄

1+00 — 332.18 — 5.5

0+60 — 45' Rt. = ℄ House — 333.08 — 4.6 — 45 — Gnd — 335.28 — 2.4 — 45 — F

F. denotes floor level

0+52 — 48' Lt. = ℄ House — 336.08 — 1.6 — 48 — F. — 337.78 — 2.9 — 48 — Gnd

Notes Reduced 1-25-54 Clark

0+50 — 333.68 — 4.0

= end A.C. Pave.

0+32.80 = Ely line Chamoune — 334.08 — 3.60

0+00 = .3 North of Ctr. M.H. cover — 334.84 — 2.84 — 31868 — 19.00 — 0.3 — IE

337.68

1.79 337.68 — 335.89 — N.W. B.P. Chamoune + Myrtle

℄

2+50

9.9 327.78

2+45 47' Lt. = ℄ House

331.28 327.38
6.4 8.3
47 47
F Gd.

2+00 47' Lt. = ℄ House

332.18 330.38 328.78
5.5 7.3 8.9
47 47
F. Gd

1+74 = ℄ Cross trench for water line under construction

← Wt-line. I.E = 325.00
From profile

1+50

7.1 330.58

333.58 331.88
4.1 5.8
48 48
F. Gd.

1+32 48' Lt. = ℄ House

331.28 333.38
6.4 4.3
45 45
Gd F

1+13 45' Rt. = ℄ House

337.68

3+55 44 = Sly. 7' line Myrtle

3+50

Mail boxes on 4/4" posts.

3+28 - 3' Rt. = Ctr. of cluster of 5

T.P. 3.1C 329.49 OK 11.35 328.33 (?) 326.33
Hub.

3+22 44 Δ 89.01 Rt.

3+00

2+80 - 47' Lt. = ℄ House

House Faces 46 Rt

2+70 50' Rt. = ℄ House.

℄

3.0 326.49

3.0 326.49

329.49 (OK)

11.35 326.33
Hub
+ Gd.

10.4 327.28

8.8 328.88
47
F

9.9 329.78
47
Ord

10.3 327.38
50
Ord

8.8 328.88
50
F

337.68

℄ = 10' Rt. of True ℄

5+00

317.89
9.6

4+93 - 82' Lt. = ℄ House

Back of Lot is Low.

324.69 323.39
4.8 6.1
82 82
F Grd

4+78 - 100' Lt. = Pick up Pt. - 18" cut

22.7
100 = gr.

20.8
322.49
7.3

4+50

42' Rt. = ℄ House

4+30 70' Lt. = ℄ House

325.39 324.29 323.39 324.49 324.49
4.1 5.2 6.1 5.0 3.0
70 70 42 42
F Grd Grd F.

4+15 - 131' Lt. = Pt of Pick up by Tank - 2' cut will do for House in Back

19.1
131 = gr.

4+00

324.89
4.6

3+97 = 116' Lt. = Pick up pt. - 18" cut of lot.

Now House to go on front

18.05 = Cone walk

3+90 - 116 Lt. = ℄ House

318.29 318.09 319.89 323.49 325.29
11.2 11.4 9.6 4.0 4.2
116 116 100 30
F Grd

329.49

℄

Roadway
Existing grade of 46th St.
Could be raised

7+00

10.5 318.89

6+45 53' Rt. = ℄ House

11.3 318.19 | 9.9 319.59 | 8.2 321.29 | 6.5 322.99 | 4.6 324.89
29 | 31 | 53 | 53 F

6+00

11.1 318.39

5+50 95' Lt. = ℄ House

6.6 322.89 | 9.3 320.19 | 10.7 318.79
95 | 95
F. | Gd

5+45 - 132' Lt. = Pick up Pt. - 12" cut.

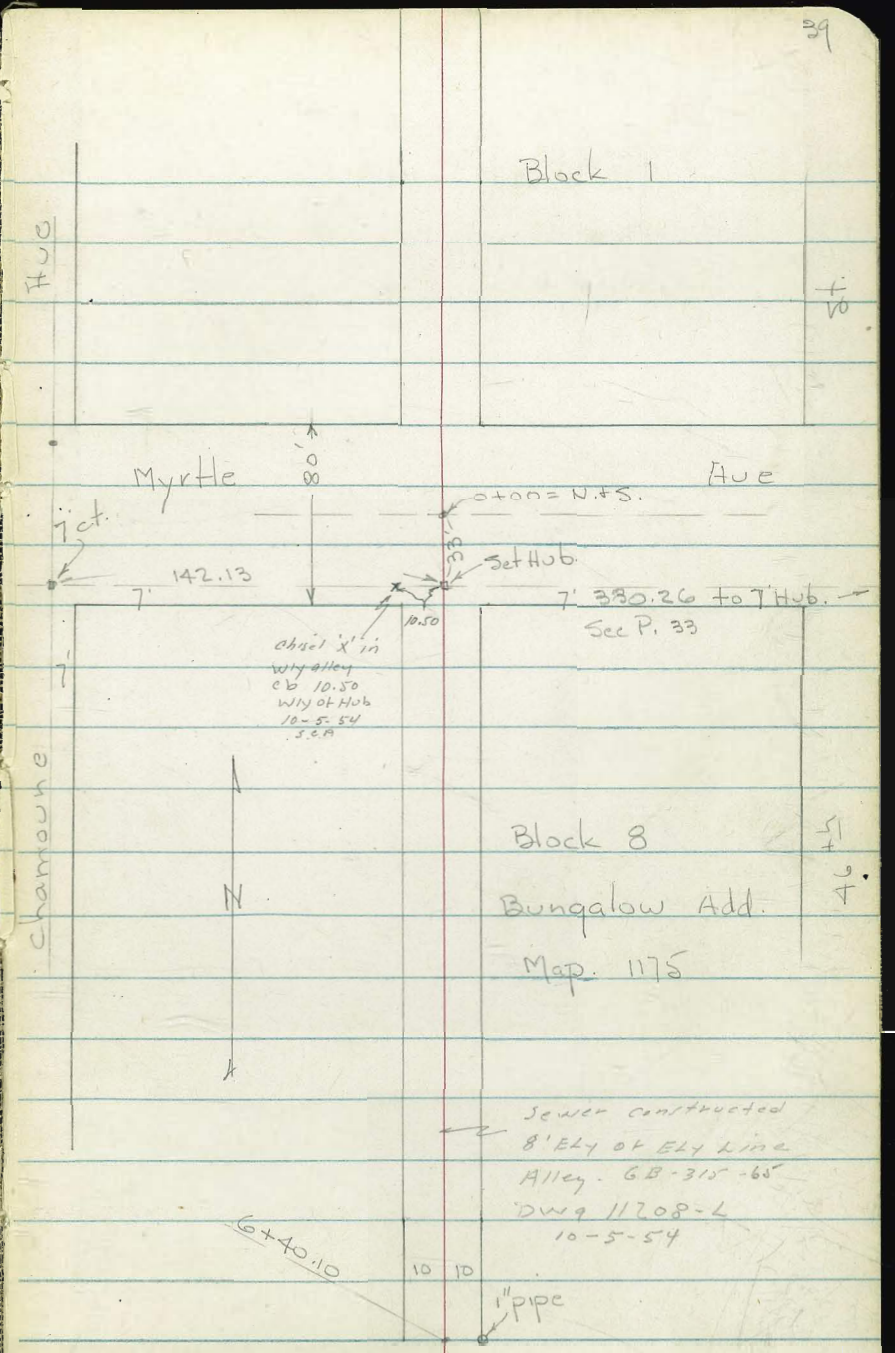
21.2
132 - gr.

5+35 44 Rt. = ℄ House

6.7 320.79 | 3.4 326.09
44 | 44
Gd. | F

329.49

Proposed Sewer
Myrtle Ave, Alley Blk 8
Bungalow Park.



Survey for Prop. Sewers in Alley's - Block 1+8 Bungalow Add. - See Sketch P. 39 - W.O. 32383 - 3-1-54 - 7.0.

Beg. Levels along ℄ Alley - Blk. 1 (To N.)

	Lt.	℄	Rt.
2+40 - in Canyon	19.9		
2+00 = edge of Canyon	27.0		
1+77 - 66' Rt. = Pick up - 4" Soil pipe from House (Ely.)	29.0	25.36 66 = Top 4" pipe	27.45 floor.
Why. House - shown below Can get in this Line.			
1+50 - 14' Rt. = S.W. Cor House	30.2	31.27 = floor 14	
1+20	31.2		
See P. 35 & 36 for houses to E.			
0+80 - 39' Rt - Pick up Pt. -2' cut Below gr. will do.	31.5	30.1 = Gr. 39	32.42 floor House
0+57 - 5' Rt. = ℄ 36" Pepper			
0+40 = N.L. Myrtle	30.8		
0+00 = ℄ Alley & Myrtle (Myrtle)	30.0		
B.M. = B.P. - N.W. Chamoune &	335.89 P. 34		

300' fig. Not Noted
Actual Elev. shown

Beg. Levels in Block 8.

	Lt.	℄	Rt.
3+38 – 108' ~~Lt = Poss. pt. of pick up?~~ (No information)	24.93 floor.	24.4 81.2 SW. Cor. House	30.0
3+05 – 92' Lt = Pick up Pt. – (New information) 1 cut.	24.4 92' conc. 1 cut will do		
3+00			30.3
2+60		26.2 65	29.7
2+00 – 97' Lt. = Pick up Pt. – 1 cut will do.	24.1 = gr.	26.00 floor	28.9
1+60		24.6 80 Back Lot	28.5
1+18 – 94.5' Lt. = S.W. Cor. House – Pick up pt.		25.2 gr. 18" cut. 27.75 94.5 = floor.	29.0
0+80 – 63' Lt. = Pick up Pt. By Tank – 18" cut will do.	27.0 gr. 29.76 82.6 = floor – Back of House	27.6 gr.	29.6
0+40 = S.L. Myrtle			29.9
0+00 = ℄ Myrtle			30.0

Side of Alley – S.L. Myrtle
Set B.M. – Spike in Pole on W. 330.72

	Lt.	℄	Rt.
6+40.10			30.3
6+10 – 2 Houses on Lt are on Sewer in Thorn.			31.3
5+75	26.50 95 = Top 4" Soil pipe To Tank		31.6
5+40			31.4
5+18 – 88' Lt. = Pick up pt. – 18" cut.	27.75 floor House	26.8 88 = gr.	31.6
4+85			31.4
4+35			30.7
3+85	25.8 80 Vac. Lot.		30.5

Clark
Shephard
Bruner
O'Neil
7-1-54
W.O. 32471

PROPOSED SEWER - WOODMAN ST. BENSON ST. RITCHEY ST. SKYLINE DR. & MEDYO ST.

INDEXED
JUL 26 1954

REF: T.S. # 3244, 3231, 3232, 3224, 3220
3221, 3213

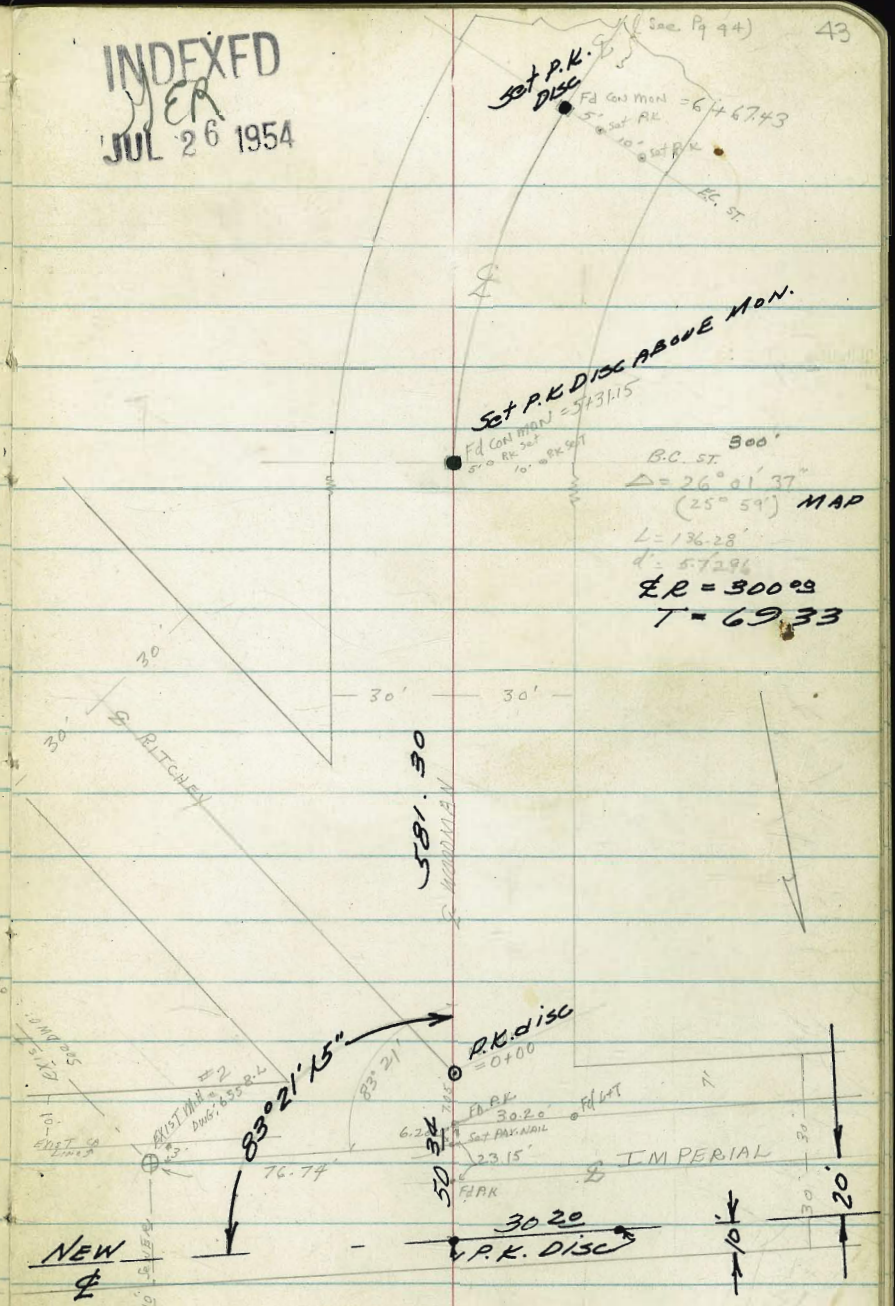
MAPS # 1546, 1228, 749, 1227, 1474, 1380

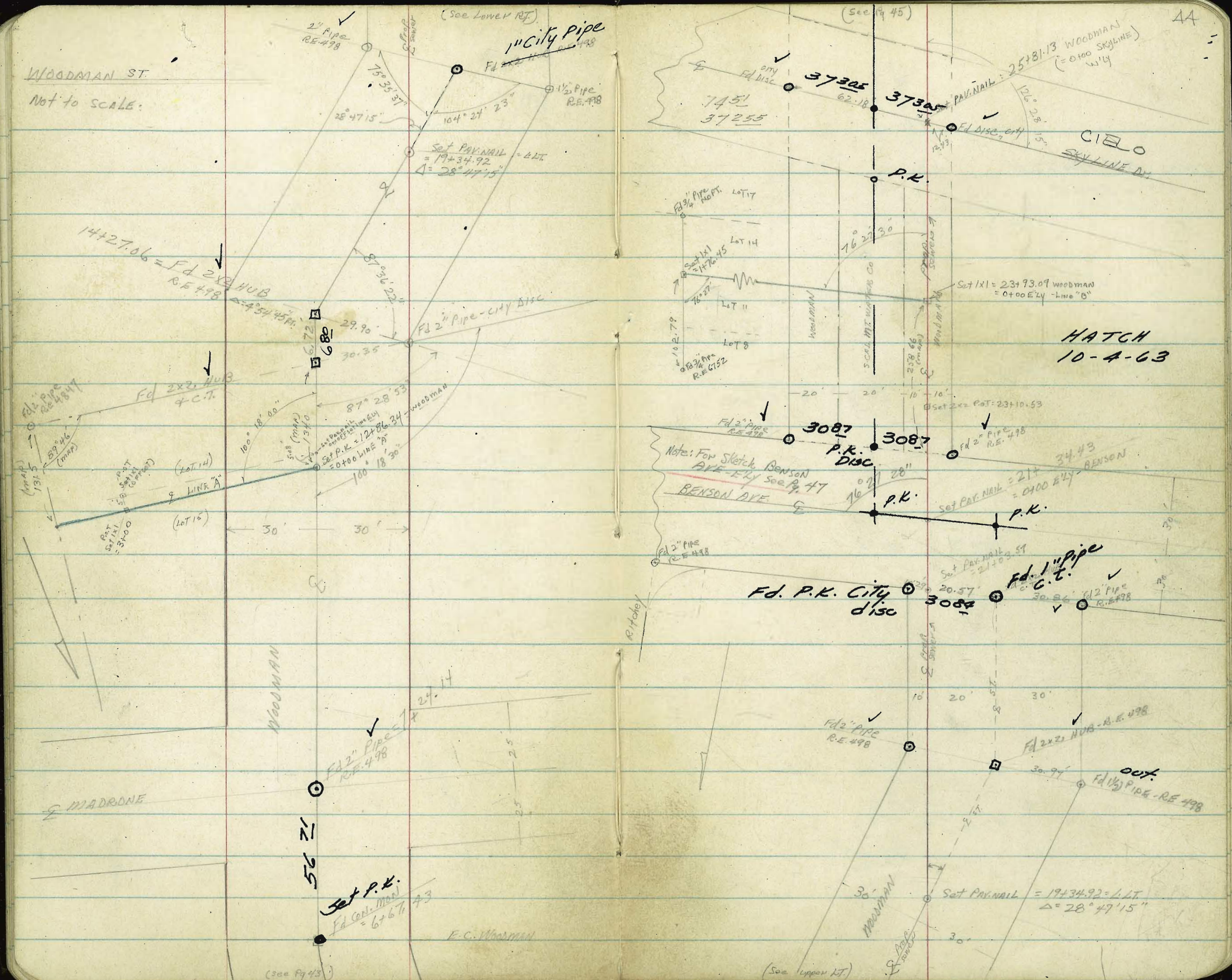
DWG'S: 6558-L, 2397-L

Sketch not to scale
Notes: Pg. 48 - WOODMAN
" 58 - SKYLINE
" 64 BENSON

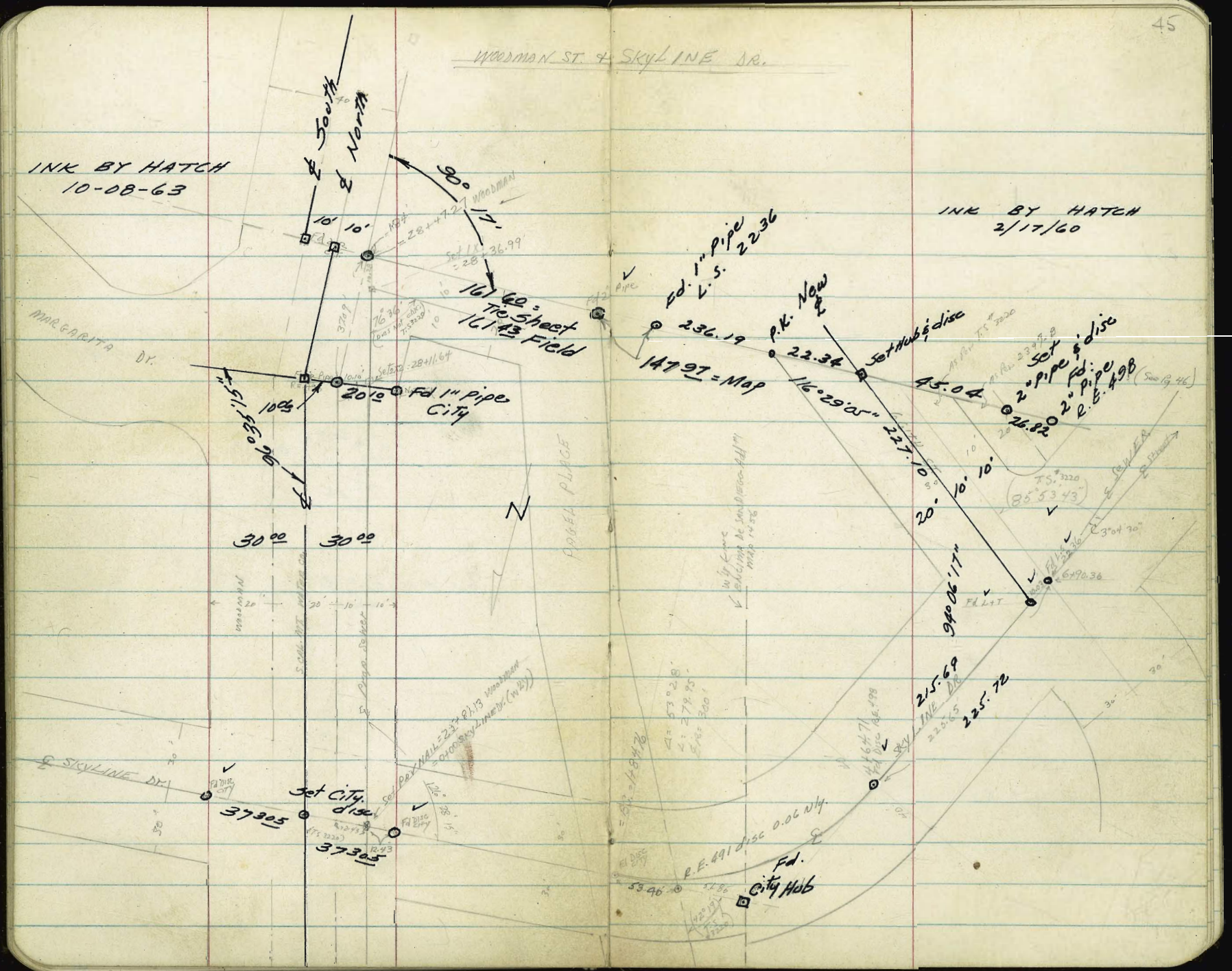
Note: Blue-Line DATA = ADDN'L. = Lines "A" + "B"
Notes: Pg 73 LINE "A"
Pg 77 " "B"

(See Pg 44)

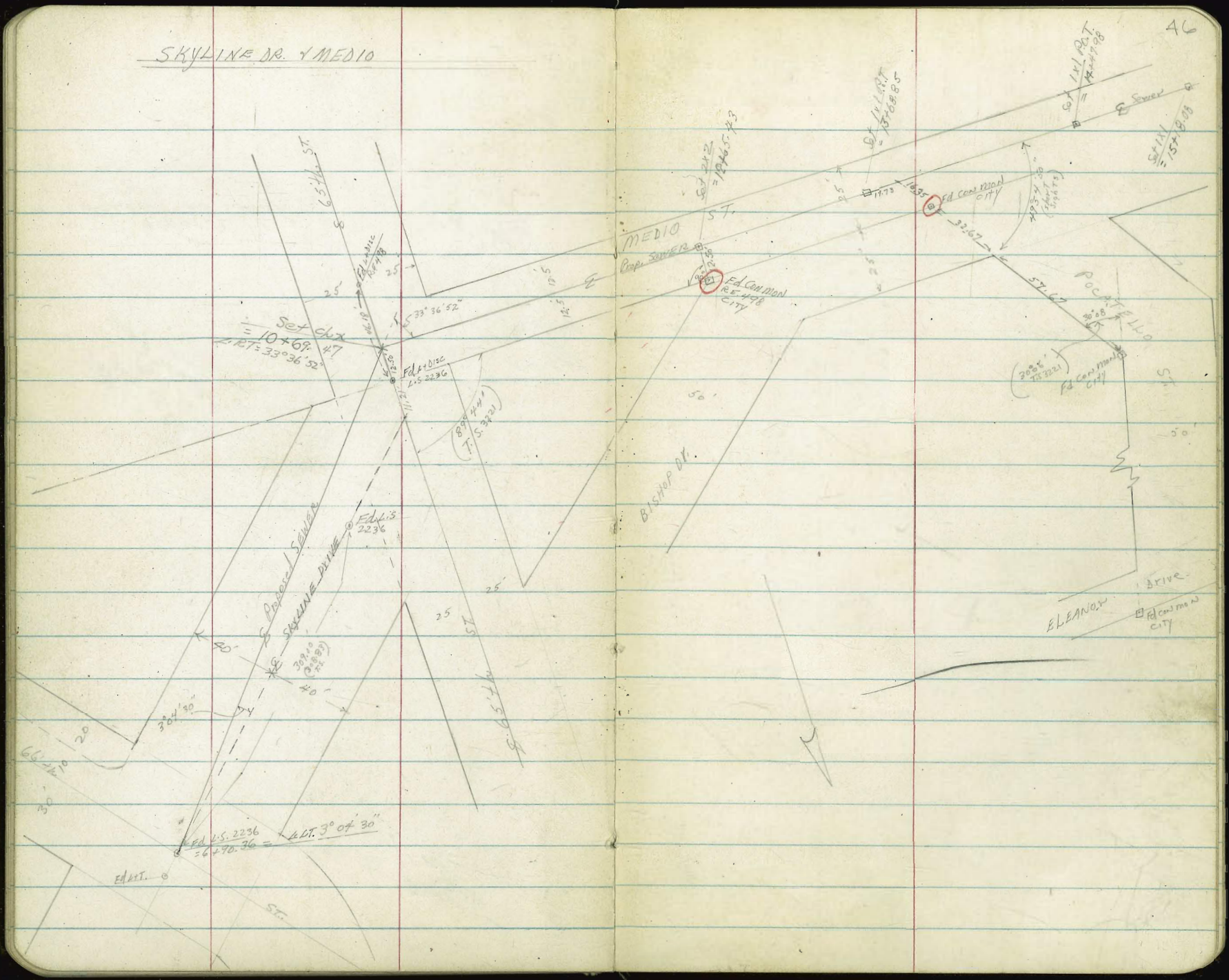


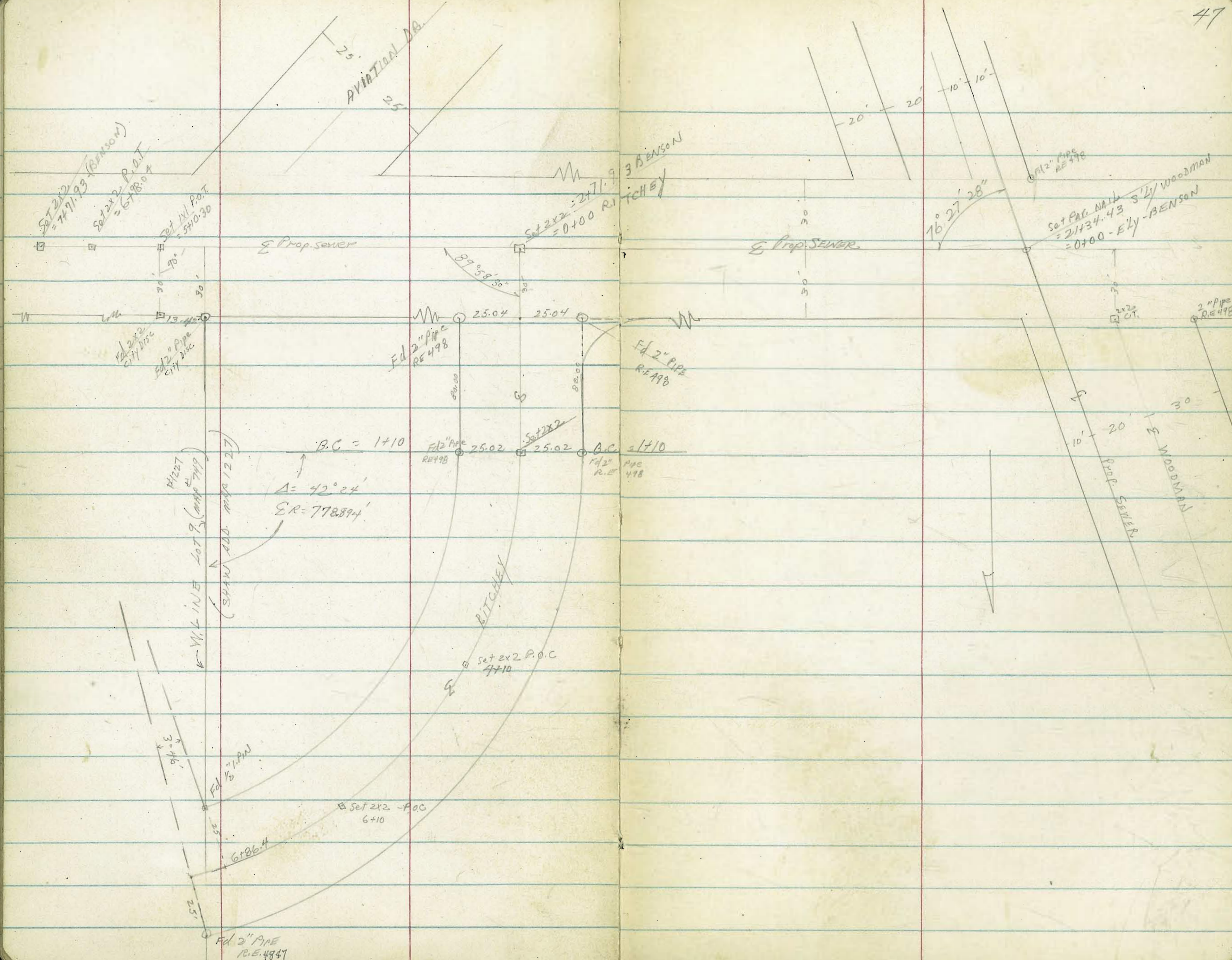

WOODMAN ST.
Not to SCALE:
(See Lower Rt.)
2" Pipe R.E.498
1" City Pipe
1½" Pipe R.E.498
75°35'37"
28°47'15"
104°27'23"
Set PAV. NAIL = 19+34.92 = L.T.
Δ = 28°47'15"
14+27.06 = Fd 2x2 HUB R.E.498 Δ=4°54'45"Rt.
87°36'22"
29.90
30.35
Fd 2" Pipe - City Disc
6.72
6.80
Fd 2x2 HUB & C.T.
87°28'53"
Set P.K. = 12+86.34 = WOODMAN = 0+00 LINE "B"
100°18'00"
100°18'30"
59°46' (map)
LINE "A"
(LOT 14)
(LOT 15)
30'
30'
WOODMAN
Fd 2" Pipe R.E.498
℄ MADRONE
56.71
Set P.K.
Fd Con. Mon. = 6+67.43
E.C. Woodman
(See Pg 43)
(See Pg 45)
City Fd Disc
3730.5
3730.5
62.18
74.5'
3725.5
PAV. NAIL = 25+81.13 WOODMAN (= 0+00 SKYLINE) W'ly
Fd Disc - City
CIELO
SKY LINE Dr.
P.K.
Fd ¾" Pipe No PT. LOT 17
LOT 14
Set 1x1
76°27'30"
Set 1x1 = 23+93.09 WOODMAN = 0+00 E'ly - Line "B"
LOT 11
LOT 8
HATCH
10-4-63
Set 2x2 PoT: 23+10.53
Fd 2" Pipe R.E.498
3087
3087
P.K. Disc
Fd 2" Pipe R.E.498
Note: For Sketch BENSON AVE - E'ly See Pg. 47
BENSON AVE.
76°27'28"
P.K.
Set PAV. NAIL = 21+34.43 = 0+00 E'ly - BENSON
P.K.
Fd 2" Pipe R.E.498
Ritchey
Fd. P.K. City disc
3084
Fd. 1" Pipe C.T.
20.57
30.86
Fd 2" Pipe R.E.498
Fd 2" Pipe R.E.498
Fd 2x2 HUB - R.E.498
30.94
out.
Fd 1½ Pipe - RE 498
Set PAV. NAIL = 19+34.92 = L.T.
Δ = 28°47'15"
WOODMAN
(See Upper Lt.)

WOODMAN ST. & SKYLINE DR.



SKYLINE DR. & MEDIO




AVIATION DR.
25'
25'
Set 2x2 = 7+71.93 (BENSON)
Set 2x2 P.O.T. = 6+98.04
Set Nl P.O.T. = 5+10.30
90°
30'
30'
13.42'
Fd 2x2 City Disc
Fd 2" Pipe City Disc
℄ Prop. sewer
Set 2x2 = 2+71.93 BENSON = 0+00 RITCHEY
89°59'50"
25.04
25.04
Fd 2" Pipe RE 498
Fd 2" Pipe R.E 498
80.00
80.00
B.C. = 1+10
Fd 2" Pipe RE 498
25.02
Set 2x2
25.02
B.C. = 1+10
Fd 2" Pipe R.E 498
Δ = 42°24'
℄ R = 778.894'
W. LINE LOT 9 (MAP 1227)
(SHAW ADD. MR 12/27)
RITCHEY
Set 2x2 P.O.C 4+10
Fd 1/2" I. Pin
3.46'
25'
6+86.4
Set 2x2 - P.O.C 6+10
25'
Fd 2" Pipe R.E. 4847
20'
20'
10'
10'
Fd 2" Pipe RE 498
30'
30'
℄ Prop. SEWER
76°27'28"
Set Pk Nail = 21+34.43 S'Ly WOODMAN = 0+00 - E'Ly - BENSON
2x2 CT.
2" Pipe R.E 498
30'
10'
20'
℄ WOODMAN
Prop. SEWER

WOODMAN

Note: STATIONS given For All EXIST. DWELLINGS;
STATIONS, OUTS & Elev's ON All DWELLINGS below (EXIST ST. Elev.)

STA.		(E'LY) LT.	℄	RT (W'LY)
0+92.2	17.7' LT ℄ 18" CON. CULVERT. (E'LY END CULVERT.)	232.64 / 6.43 / 17.7 F.L		
0+75			236.89 / 2.18	
0+50		235.19 / 3.88 / 10	235.01 / 4.06	234.85 / 4.22 / 10
0+25			232.56 / 6.51	
0+02	7.5' LT (AT 90°) ℄ WATER-GATE			
0+00		230.27 / 8.80 / 10	230.24 / 8.83	230.00 / 9.07 / 10
0-05	35.5' LT = ℄ 7'x7' CONC. METER - VAULT; (AT 83°21' OFF For. TANG.) { 8" C.I. Pipe RUNS Approx. 90° ℄ IMP. 35.5 LT ℄ SEWER LINE - Proposed	222.58 / 16.49 / 35.5 Bott. Conc. VAULT; 223.39 / 15.68 / 35.5 Approx F.LINE C.I. Pipe RUNNING 90° ℄ IMP.; 229.65 / 9.42 / 35.5 TP. CONC. VAULT.		
0-10.10	S'LY CB LINE IMP. E'LY: CB END 44.4' LT. (AT 83°21' OFF For. TANG)	229.42 / 9.65 / 76.74 TPCB; 228.87 / 10.20 / 76.74 G; 229.57 / 9.50 / 44.4 TP.CB; 229.11 / 9.96 / 44.4 G; 229.64 / 9.43 / 10	229.63 / 9.44	229.32 / 9.75 / 10
0-13.25	{ 83°21' OFF For. TANG - See Sketch Pg 43) 76.74' LT = ℄ EXIST. M.H #2 (DWG 6558-L)	216.24 / 22.83 F.L. M.H 76.74 LT; 228.88 / 10.19 Rim M.H; 229.12 / 9.95 / 50 ON PAV.; 229.47 / 9.60 / 25; 229.54 / 9.53 / 10	229.49 / 9.58	229.27 / 9.80 / 10
0-13.65	36.1 LT = ℄ WATER GATE			
B.M.	8.67 239.07		239.07	

Note: { IMP. PAVED - A.C SURFACE
WOODMAN - COLD-LAY SURFACE - Approx 20' wide - Average

B.M.: 230.40 = L + C.T. W'LY LINE WOODMAN & S'LY T' LINE IMPERIAL (Bench Books) DWG #6558-L = 230.30)

Notes reduced by [signature] 1-5-55

WOODMAN (CONT.)

3+50				
3+00	℄ House 43 LT ℄			
2+87	℄ House 30.7 RT ℄			
2+58	℄ House LT 43' ℄			
2+50				
T.P.		9.64	252.93	0.33	243.29
2+10	℄ House RT			
1+50				
1+17	14.9 RT ℄ Mtly END 18" Conc. Culvert			
T.P.		5.27	243.62	0.72	238.35
1+00				

LT. ℄ RT.

250.04 2.89 5 | 250.43 2.50 | 250.54 2.39 5

248.68 4.25 +3 Fl. Elev | 247.45 5.43 5 | 247.74 5.19 | 247.83 5.10 5

247.70 5.23 30.7 Fl. Elev

248.55 4.38 Flow Elev. 4.3

245.02 7.91 5 | 245.31 7.62 | 245.45 7.48 5

252.93

244.12 +0.50 60 | 242.3 1.3 30 | 242.91 0.71 5 | 243.23 0.39 | 243.26 0.36 5 | 248.0 +4.4 30 | 237.42 6.2 50

241.21 2.71 5 | 240.94 2.68 | 240.85 2.77 5

237.14 6.48 14.9 Fl. Inc

243.62

238.30 0.77 5 | 238.35 0.72 | 238.23 0.84 5

239.07

WOODMAN (CONT.)

Station					LT.	℄	RT.
7+00					267.49 (4.56 / 5)	267.55 (4.50)	267.62 (4.43 / 5); 267.63 (4.42 / 5)
6+67.43 = E.C Woodman (= ℄ Exist House Lt.)					266.5 (5.6 / 10); 265.98 (6.07 / 5 Edge Pav.)	266.18 (5.87)	265.97 (6.08 / 10 Pav); 265.62 (6.43 / 15 Pav)
6+22.00					265.6 (6.5 / 10); 264.63 (7.42 / 4 Edge Pav)	264.80 (7.25)	264.53 (7.52 / 10 Pav); 264.18 (7.87 / 15 Pav)
5+76.58					265.8 (6.3 / 75); 262.9 (9.2 / 30); 264.0 (8.1 / 10); 263.82 (8.23 / 4 Edge Pav.)	263.78 (8.27)	263.51 (8.54 / 10 Pav); 263.04 (9.01 / 15 Pav); 4.9 / 30 grd Rises
(All outs & Loc's Radial)							
5+31.15 = B.C Woodman; Δ = 26°01'37" Rt.; ℄ R = 300'; L = 136.28 (Curve in 3 pts. For Elev's & Profile; L = 45.426' each)					262.08 (9.97 / 5)	262.30 (9.75)	262.35 (9.70 / 5)
T.P.	10.27	272.05	2.52	261.78 = ℄ Common Pt. BC Woodman (= 5+31.15)		272.05	
5+00					259.9 (4.4 / 75); 251.8 (12.5 / 30 Low Pt.); 5 Edge Pav.	260.89 (3.41)	260.87 (3.43 / 5); 266.30 (+2.0 / 30) grd rises
4+50					257.61 (6.69 / 5 Ely Edge Pav here)	257.73 (6.57)	257.64 (6.66 / 5)
4+00					255.90 (8.4 / 75); 248.40 (15.9 / 30 Low Pt.); 253.50 (10.80 / 5 Ely E. Pav here)	253.83 (10.47)	253.72 (10.58 / 5); 254.80 (9.5 / 30); 257.80 (6.5 / 50)
T.P.	11.48	264.30	0.11	252.82		264.30	

Note: ℄ Paving does not always coincide with ℄ Street

WOODMAN (cont.)

T.P.	11.03	294.47	0.58	283.44
10+00		(typical section this area)		
~~9+73 = E HOUSE LT.~~				
9+67 = E HOUSE RT.				
9+50				
9+00				
8+50				
8+32 = E HOUSE RT.				
8+00				
T.P.	12.13	284.02 (Rod)	0.16	271.89
7+72 = E HOUSE LT.				
7+50				
7+28	5' LT = E WATER GATE			
7+24.14 = E MADRONE				

LT.			E			RT
290.12	285.22	283.35	283.37	283.17	286.22	292.12
+6.1 / 50	+1.2 / 30	0.67 / 5	0.65	0.85 / 5	+2.2 / 80	+8.10 / 50
280.47		280.54		280.47		
3.55 / 5		3.48		3.55 / 5		
277.77		277.82		277.73		
6.25 / 5		6.20		6.29 / 5		
275.32		275.29		275.02		
8.70 / 5		8.73		9.00 / 5		
272.47		272.46		272.29		
11.55 / 5		11.56		11.73 / 5		
		284.02				
269.55		269.57		269.40		
2.50 / 5		2.48		2.65 / 5		
273.9	269.1	268.13	268.25	268.16		285.6
+1.8 / 75	3.0 / 30	3.92 / 5	3.80	3.89 / 5	1.0 / 30	+13.5 / 75
		272.05				

WOODSMAN (cont)

14+00				
13+50				
13+10	= ℄ HOUSE LT. (approx 250'+ E'ly of WOODSMAN) (Tp of Hill)			
13+00				
12+50				
12+25	= approx ℄ HOUSE LT (near Tp hill)			
T.P.	11.81	306.25	0.03	294.44

(See map #227 – LOTS not 90° to WOODSMAN)

12+00	= APP. ℄ HOUSE LT. (near Tp hill) 265+ FT E'ly WOODSMAN			
11+56	= ℄ HOUSE RT.			
11+50				
11+00				
10+50				

LT.	℄	RT.
306.01	306.00	305.78
0.24 / 5	0.25	0.47 / 5
303.21	303.24	303.05
2.94 / 5	3.01	3.20 / 5
300.19	300.20	300.04
6.06 / 5	6.05	6.21 / 5
297.30	297.32	297.01
8.95 / 5	8.93	9.24 / 5
	306.25	
294.42	294.36	294.28
0.05 / 5	0.11	0.19 / 5
291.51	291.51	291.43
2.96 / 5	2.96	3.04 / 5
288.60	288.64	288.46
5.87 / 5	5.83	6.01 / 5
285.99	286.04	285.82
8.48 / 5	8.43	8.65 / 5
	294.47	

WOODMAN (CONT.)

17+50				
17+10 = E HOUSE RT.				
17+00				
16+50				
T.P.	12.82	330.43	0.60	317.61
16+00				
15+50				
15+00				
14+50				
Set T.B.M. on 2x2 Hub (14+27.06 ℄ RT.)			10.77	307.44
14+27.06 = ℄ RT. Δ = 4° 54' 45" (typical Section this Area cuts on Split ℄)				
T.P.	12.07	318.21	0.11	306.14

LT.	℄	RT.
325.46	325.33	325.17
4.97 / 5	5.10	5.26 / 5
322.48	322.37	322.13
7.95 / 5	8.06	8.30 / 5
319.56	319.54	319.35
10.87 / 5	10.89	11.08 / 5

330.43

316.76	316.71	316.56
1.45 / 5	1.50	1.65 / 5
313.94	313.86	313.71
4.27 / 5	4.35	4.50 / 5
311.32	311.21	311.03
6.89 / 5	7.00	7.18 / 5
308.70	308.69	308.47
9.51 / 5	9.52	9.74 / 5

314.1	309.6	308.1	307.36	307.43	307.30	312.0	318.5	
4.1 / 75	8.6 / 50	10.1 / 30	10.85 / 5	10.78	10.91 / 5	6.12 / 30	+0.3 / 50	

318.21

WOODMAN (CONT.)

20+50				
20+34	= Edge Pav.			
20+00	℄ House Lt.			
T.P.	12.51	354.73	0.71	342.16
19+50				
19+34.92 = ∠ Lt. Δ = 28°41′15″ ℄ Proposed Sewer				(Sect. 90° BK. TANG.)
19+00				
18+53 = ℄ House Rt.				
18+50	= ℄ House Lt.			
T.P.	13.10	342.87	0.66	(229.77) 329.77 PRR
18+00				

LT. ℄ RT.

Station	Readings (elevation / rod / distance)
20+50	349.1 5.6 10 grd · 348.5 6.2 5 grd · 357.8 6.9 grd · 347.39 7.34 Edge Pav · 347.73 7.00 10 Pav
20+34	8.38
20+00	grd rises · 354.73 0.00 30 · 343.73 11.00 5 Edge Pav. here · 344.27 10.46 · 344.49 10.24 5 · 344.77 9.96 10 · 343.7 11.0 30 · 342.0 12.7 50 Low-Pt. · 345.6 9.1 75 grd rises
T.P.	354.73
19+50	340.04 2.83 5 · 340.35 2.52 · 340.65 2.22 5
19+34.92	352.5 +9.6 50 · 344.7 +1.8 30 · 338.23 4.64 15 Edge Pav here · 338.95 3.92 5 · 339.11 3.76 · 339.29 3.58 5 · 339.07 3.80 9 Edge Pav. · 337.7 5.2 30 Low-Pt. · 338.1 4.8 50 · 338.9 4.0 75 (Pav'g curves irreg. to Lt.)
19+00	335.82 6.95 5 · 336.00 6.87 · 336.12 6.75 5
18+50	332.29 10.58 5 · 332.27 10.60 · 332.17 10.70 5
T.P.	342.87
18+00	328.76 1.67 5 · 328.65 1.78 · 328.47 1.96 5
	330.43

WOODMAN (CONT.)

						LT.		℄	RT.
22+34	6.5 RT Beg 3' wide Con. Wall (Bk. edge meets Con. Wall)								
22+23.5	9.5 RT Beg 3' Con. Wall								
22+19	9.6 RT ℄ 20" Palm tree								
22+00						359.65 / 7.71 / 18 W'ly Edge Pav. here (Pav. edge irreg. here)	359.9 / 7.5 / 10 gr'd	360.3 / 7.1 / gr'd	361.9 / 5.5 / 10 gr'd
20+65	6.7 RT. ℄ Fire-HYD.								
Set T.B.M on 2" I. Pipe R.E. 498 S'wly Corner Benson & Woodman			11.13	356.23					
21+55	7' RT ℄ Pole # 17062-5								
21+50						356.14 / 11.22 / 10 on Pav.	356.0 / 11.4 / 3 W'ly Edge Pav.	355.9 / 11.5 / gr'd	355.6 / 11.8 / 10
21+41	= Edge Pav.							355.36 / 12.00 / W'ly edge Pav. here	
21+40	5' LT = ℄ Water-gate								
21+34.43	= ℄ BENSON (cuts 90° to ℄) (0+00 E'ly on Benson - See Pg. 64)					354.85 / 12.51 / 10 Pav.		354.76 / 12.60	354.68 / 12.68 / 3 Edge Pav. ; 354.5 / 12.9 / 10
T.P.		13.06	367.36	0.43	354.30			367.36	
21+03.55	= N. Line Benson (Pav. Edge irreg. here)					352.1 / 2.6 / 10	351.78 / 2.95 / 8 Edge Pav.	351.69 / 3.04	351.85 / 2.88 / 10
20+64	7.3 LT. S'wly Corn. Vault								
20+61	= Edge Pav.							348.73 / 6.73 / = Edge Pav.	
20+58	7.3 LT W'ly Edge (N'wly Corn) Con. Vault (Shut-off Valve)								
20+55	= ℄ House RT.								

354.73

Woodman (cont.)

25+50

25+40 = ℄ House Lt.

25+00

24+50

24+06 10.2 Lt ℄ w/y edge 5'x5' Woods-Vault (Water Valve)

24+00

23+83 2.7 Rt ℄ Pole # 177343

T.P. 12.43 390.31 0.60 377.88

23+50

23+08 7.5 Rt ℄ 18" Pepper Tree

23+00 (Pavt. averages 18' wide)
Note: E'ly ½ Woodman Paved S'ly of Benson (Cold-Lay)

22+73 { = ℄ House 90' Lt.
11.7 Rt End gar.

22+63 9.2 Rt. End Conc. Ft Car Port. 1 Reg Single gar.

T.P. 11.69 378.48 0.57 366.79

22+51 { 8.4 Rt Beg Conc. Floor - Car - Port.
9.0 Rt (to Ft.) End Conc. Wall
6.0 Rt End Walk

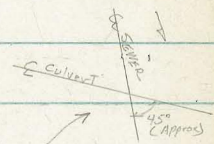
22+50

22+40 ℄ House Rt.

	Lt.	℄	Rt.
	389.1		389.7 390.1
	1.R 10		0.6 0.2 10
392.5	384.76	384.41	385.0 385.5 386.3 390.21
+2.2 75	5.55 47 E'ly edge Pav't	5.90 32 W'ly Edge Pav't	5.3 10 4.8 4.0 10 0.10 50
	381.9		383.0 383.7
	8.4 10		7.3 6.6 10
	379.41	379.4	379.6 380.2
	10.90 39 Edge Pav't	10.9 10	10.7 10.1 10
	374.9		390.31 375.6 376.3
	3.6 6		2.9 2.2 10
374.2	371.33	371.34	371.2 371.3 372.2 372.5
4.3 75	7.15 46 E'ly Edge	7.14 28. W'ly Edge Pav't here	7.3 10 7.2 6.3 10 6.0 50
			+6.1 390 Fl. elev.
			378.48
365.3			366.2 366.3
2.1 10			1.2 1.1 10 End at Wall
			367.36

WOODMAN (CONT.)

Station	BS	HI	FS	Elev. / Notes
27+50				
T.P.	1.00	382.35	12.75	381.35
27+00				
26+50				
26+30	5' LT ℄ DEADMAN			
26+25	4.7 LT ℄ DEADMAN			
26+08	= APPROX. ℄ WOODEN CULVERT (24" DIAMETER) (NOT ∥ to SKYLINE)			
26+04	4.0 LT ℄ Pole # 177344			
26+00				
25+93.8 =	S'ly Edge Pav.		(CUTS Along Edge Pav.)	
25+90	11.8' RT = ℄ Deadman			
25+81.13 = ℄ SKYLINE				
25+68.8 =	N'ly Edge Con Pav. Skyline		(CUTS Along Edge Pav.)	
	(Note: Cold-Lay Pav-Woodman ends at Skyline Dr.)			
25+64	= Edge Cold Lay Pav (N'n'ly Skyline & Woodman)			
(25+66)	6.6 LT ℄ Water-gate			
T.P.	4.22	394.10	0.43	389.88 = PAV. NAIL ℄ Prop Sewer & ℄ SKYLINE (=25+81.13)



Station	LT.	℄	RT.
27+50	378.6 (5.8 / 10)	378.65 (3.7)	380.1 (2.3 / 10)
T.P.		382.35	
27+00	385.1 (9.0 / 75); 381.3 (12.8 / 50); 381.0 (13.1 / 30); 381.0 (13.1 / 10)	383.1 (11.0)	384.1 (10.0 / 10); 387.2 (6.8 / 50); 389.7 (4.3 / 75)
26+50	386.1 (7.9 / 10)	387.4 (6.7)	388.2 (5.8 / 10)
26+25 – 26+08	381.25 (12.85 / 137) F.line E'ly END culvert		385.94 (8.16 / 27) FL. W'ly End
26+00	389.3 (4.8 / 10)	389.30 (4.8)	389.3 (4.8 / 10)
25+93.8	389.65 (4.75 / 10)	389.63 (4.47)	389.67 (4.43 / 10)
25+81.13		389.88 (4.22)	
25+68.8	389.65 (4.45 / 10)	389.74 (4.36)	389.77 (4.33 / 10)
25+64		389.33 (4.77)	
T.P.		394.10	

Beg. SKYLINE

WOODMAN (conc.)

(all outs on curve radial)

Station					LT.	℄	RT.
1+84.76 = B.C		LT.			grd rises; 391.92 (8.13 / 10)	392.61 (7.44)	392.80 (7.25 / 10); 388.8 (11.3 / 30); 484.4 (15.7 / 60)
DATA { Δ 53°28'; ℄ R = 300'; ℄ L = 279.95 }			Curve div. 50' Arcs For Profile & outs				
T.P.	6.47	400.05	0.60	393.58		400.05	
1+50					391.52 (2.66 / 10)	391.94 (2.24)	391.98 (2.20 / 10)
1+00					grd rises; 394.4 (+0.2 / 30); 390.98 (3.20 / 10)	391.14 (3.04)	390.98 (3.20 / 10); 390.4 (3.8 / 30); 384.1 (10.1 / 95)
0+50					390.15 (4.03 / 10)	390.37 (3.81)	390.17 (4.01 / 10)
0+00 SKYLINE (25+81.13 WOODMAN) sketch Pg 44			(Pav. = 20' conc. strip ℄ skyline)		389.71 (4.47 / 10 Edge Pav)	389.89 (4.29)	389.67 (4.51 / 10 Edge Pav)
(Beg. SKYLINE)							
T.P.	13.33	394.18	1.50	380.85		394.18	
28+36.99 = ℄ Pacel			(outs along ℄ Pacel)		371.8 (10.6 / 10)	373.6 (8.8)	376.4 (6.0 / 10); 380.3 (2.1 / 50); 386.7 (+4.3 / 100)
28+00					368.8 (13.6 / 100 Low pt.); 374.0 (8.4 / 50); 374.4 (8.0 / 30); 373.6 (8.8 / 10)	374.8 (7.6)	377.0 (5.4 / 10)
						382.35	

SKYLINE (CONT.)

Station	Remarks	LT.	℄	RT.
6+50		397.71 (2.34 / 10)	397.96 (2.09)	397.83 (2.22 / 10); 397.1 (3.0 / 40); 395.7 (4.4 / 75)
6+10	= E. HOUSE LT.			
6+00	grd rises	397.81 (2.24 / 10)	398.05 (2.00)	397.78 (2.27 / 10); 395.5 (4.6 / 40); 393.5 (6.6 / 75)
5+50		397.45 (2.60 / 10)	397.73 (2.32)	397.53 (2.52 / 10)
5+00		396.90 (3.15 / 10)	397.2 (2.9)	397.24 (2.81 / 10)
4+64.71	= E.C SKYLINE	401.4 (+1.3 / 40); 396.06 (3.99 / 10)	396.60 (3.45)	396.9 (3.2 / 10); 397.0 (3.1 / 17); 392.4 (7.7 / 27); 392.2 (7.9 / 40); 389.1 (11.0 / 75); 386.0 (14.1 / 125)
4+34.76	rises	401.6 (+1.5 / 40); 398.7 (1.4 / 23); 395.5 (4.6 / 17); 395.50 (4.55 / 10)	395.21 (4.84)	396.54 (3.51 / 10); 396.6 (3.5 / 17); 391.4 (8.7 / 27); 390.9 (9.2 / 40); 387.5 (12.6 / 75)
3+84.76	grd rises	401.6 (+1.5 / 40); 398.7 (1.4 / 24); 394.6 (5.5 / 18); 394.68 (5.37 / 10)	395.39 (4.66)	395.71 (4.34 / 10); 395.7 (4.4 / 17); 389.2 (10.9 / 31); 389.0 (11.1 / 40); 384.5 (15.6 / 75); 381.0 (19.1 / 125)
3+34.76	℄ House LT.; grd rises	401.1 (+1.0 / 40); 398.8 (1.3 / 25); 393.9 (6.2 / 17); 393.95 (6.10 / 10)	394.58 (5.47)	394.82 (5.23 / 10); 394.9 (5.2 / 17); 388.6 (11.5 / 29); 388.1 (12.0 / 40); 384.0 (16.1 / 75)
2+84.76	rises	399.4 (0.7 / 30); 398.1 (2.0 / 24); 393.2 (6.9 / 16); 393.21 (6.84 / 10)	393.97 (6.08)	394.35 (5.70 / 10); 394.5 (5.6 / 18); 388.5 (11.6 / 30); 383.2 (16.9 / 75); 378.7 (21.4 / 125)
2+34.76	rises	399.1 (1.0 / 30); 398.2 (1.9 / 26); 392.5 (7.6 / 17); 392.66 (7.39 / 10, Edge Pav)	393.35 (6.70)	393.69 (6.36 / 10, Edge Pav); 389.9 (10.2 / 30)

400.05

SKYLINE (CONT.)

Station	Notes	LT.	℄	RT.
9+98	4.3 RT ℄ water gate			
T.P.	2.58 387.58 13.07 385.00			
	Note: N'ly Edge Pav. Skyline built irregular curve at 65th			
9+50		385.2 12.9/75; 386.7 11.4/10	387.07 11.0 N'ly Edge ON Edge C: Lay shoulder	387.42 10.65/4.1 E.Pav; 388.15 9.92/24.3 N'ly Edge
9+45	= ℄ House RT.			
9+00		391.0 7.1/10	390.7 7.4 grd	390.68 7.39/1.5 E.Pav; 390.69 7.38/21.6 N'ly Edge; 395.0 3.1/40 grd rises
8+74	= S'ly Edge Pav.		392.06 6.01	
8+50		388.2 9.9/75; 393.1 5.0/10; 393.14 4.93/1.2 E.P.	393.17 4.90	393.10 4.97/19 E.P; 396.6 1.5/30 grd rises
8+00		395.01 3.06/4 E.P.	395.09 2.98	395.08 2.99/16 E.P
7+60	= ℄ House 56' LT.	394.15 3.92/56 Fl. Elev.		
7+50		396.42 1.65/6.4 E.P.	396.54 1.53	396.41 1.66/13.6 E.Pav
7+00	(All cuts 90° to ℄ Prop Sewer)	395.4 2.7/100; 397.32 0.75/10 Edge Pav	397.34 0.73; 397.47 0.60	397.29 0.78/10; 399.8 +1.7/40; 399.6 +1.5/75; 397.8 0.3/100
6+90.36	= ℄ Skyline & 66th to N'ly (T.S.# 3220) ∠ LT. 3° 04' 30"			
T.P.	0.59 398.07 2.57 397.48 = L.S. 2236 ℄ Skyline & 66th		398.07	

SKYLINE (Cont.)

Station	Description	LT.		℄	RT.	
11+50		390.8 (9.6 / 50)	395.8 (4.6 / 12.5)	398.9 (1.5)	401.4 (+1.0 / 12.5)	
11+23	= ℄ House Rt.					
11+00			387.2 (13.2 / 12.5)	389.1 (11.3) 400.35	390.6 (9.8 / 12.5)	
T.P.	13.33 400.35 0.56 387.02					
10+89	4.9 LT = ℄ Pole # P 76867					
10+85	= Shoulder BANK		385.8 (1.8 / 12.5)	385.6 (2.0)	388.9 (+1.3 / 12.5)	
10+82	= Toe Cut BANK W'ly 65'±L		380.3 (7.3 / 10)	381.28 (6.3)	382.2 (5.4 / 10)	
10+74.97	= W'ly Edge Pav 65'±L		380.18 (7.40 / 10 along Edge Pav)	380.96 (6.62)	383.1 (4.5 / 20 ON Asph.)	
10+69.47	= ∠ RT. 33° 36' 52" (outs 90° Bk Tang) ℄ 65'±L ∦ ℄ MEDIO		379.06 (8.52 / 20 ON PAV)	380.83 (6.75)	381.18 (6.40 / 5.4 Edge PAV.)	
10+50		377.4 (10.2 / 100)	380.74 (6.84 / 4 E. Pav curve)	381.15 (6.43)	383.22 (4.36 / 20 ON Asph. PAV over Con.)	
10+42	= N'ly Edge Con PAV. (ON Curve)			381.38 (6.20)		
10+00			383.0 (4.6 / 10)	383.61 (3.97 C.L. AV)	384.16 (3.42 / 7.1 E. PAV.)	385.27 (2.31 / 27.6 E. PAV) +6.0 / 46

387.58

SKYLINE (CONT.)

13+59	43'	LT ℄ House		
13+50				
13+26	3.4	LT ℄ Deadman		
13+00				
12+98	3.9	LT ℄ Pole # P176868		
12+78				
T.P.	8.41	434.22	0.02	425.81
12+67				
Set T.B.M (+12+65.43) 2x2 HUBE			4.35	421.48
12+50				
T.P.	13.30	425.83	0.24	412.53
12+00				
T.P.	12.77	412.77	0.35	400.00

LT. | ℄ | RT.

13+59: 418.94 — 15.28 / 43 Fl. Elev.

13+50: LT: 418.8 (15.4 / 15 Toe cut), 428.9 (5.3 / 14 shoulder cut), 428.7 (5.5 / 12.5); ℄: 429.2 (5.0); RT: 429.2 (5.0 / 12.5), 429.2 (5.0 / 16 Toe bank), 435.1 (+0.9 / 27 shoulder bank), 436.4 (+2.2 / 37.5), 440.2 (+6.0 / 50)

13+26: LT: 420.9 (13.3 / 20), 422.8 (11.4 / 12.5 Toe cut), 425.8 (8.4 / 9 shoulder cut); ℄: 426.7 (7.5); RT: 428.7 (5.5 / 12.5), 429.6 (4.6 / 37.5 Toe cut bank), 434.2 (0.0 / 39 TP cut bank), 436.2 (+2.0 / 50)

13+00: LT: 423.3 (10.9 / 12.5); ℄: 425.9 (8.3); RT: 426.6 (7.6 / 12.5)

T.P.: 434.22 (H.I.)

12+67: LT: 420.6 (5.2 / 12.5); ℄: 423.2 (3.6); RT: 425.5 (0.3 / 12.5)

12+50: LT: 409.8 (16.0 / 50), 417.7 (8.1 / 12.5); ℄: 419.7 (6.1); RT: 421.0 (4.8 / 12.5)

T.P.: 425.83

12+00: LT: 406.9 (5.9 / 12.5); ℄: 409.1 (3.7); RT: 410.8 (2.0 / 12.5)

T.P.: 412.77

SKYLINE, (CONT.)

T.P.	8.33	359.31	13.33	358.98
T.P.	0.71	372.31	9.15	371.60
T.P.	1.52	380.75	12.92	379.23
15+56	= ℄ HOUSE 68.5 RT.			
15+50				
T.P.	0.26	392.15	12.67	391.89
T.P.	0.55	404.56	13.22	404.01
15+00				
T.P.	0.48	417.23	13.22	416.75
14+50	= BRK = shoulder slope to w/y (UNIFORM slope)			
14+00				
T.P.	8.21	429.97	12.46	421.76
13+70	= ℄ HOUSE RT.			

LT. ℄ RT.

15+56: 388.71 — 3.44 / 68.5 Fl. elev.

15+50: 387.9 — 4.3 / 12.5; 388.3 — 3.9 (℄); 389.2 — 3.0 / 12.5; 389.9 — 2.3 / 37.5

392.15

404.56

15+00: 401.2 — 16.0 / 12.5; 403.1 — 14.1 (℄); 404.1 — 13.1 / 12.5; 405.6 — 11.6 / 37.5

417.23

14+50: 415.7 — 14.3 / 20; 416.4 — 13.6 / 12.5; 417.3 — 12.7 (℄); 417.8 — 12.2 / 12.5; 420.1 — 9.9 / 50

14+00: 416.6 — 13.4 / 20; 416.9 — 13.1 / 16 Toe cut; 424.0 — 6.0 / 12.5 Top cut bank; 425.2 — 4.8 (℄); 426.0 — 4.0 / 2; 430.0 — 0.0 / 7; 429.2 — 0.8 / 12.5; 429.4 — 0.6 / 25 Toe bank; 433.1 — +3.1 / 32 Brk; 434.1 — +4.1 / 37.5; 437.5 — +7.5 / 50 Top bank

429.97

BEG. BENSON

SKYLINE (Conc.)

1+50							371.70 6.89 10 on Pav	371.12 7.47 Edge Pav here	370.0 8.6 10	
1+43	(this is house LT STA. 22+73 on WOODMAN - Pg 56) = ℄ HOUSE RT approx 4' ABOVE EXIST St. Level									
1+40	= ℄ HOUSE LT.									
T.P.	12.79	378.59	0.59	365.80				378.59		
					grd rises	370.1 + 3.7 30	365.1 1.3 10 on Pav	364.50 1.89	364.46 1.93 1.5 E. Pav. here	364.2 2.2 10
1+00										
0+50							358.23 8.16 10	358.25 8.14	357.96 8.43 5 Edge Pav here	358.2 8.2 10
	Note: Benson has 16' (average) Cold-Lay Strip along N'ly side st.									
0+00 (= 21+34.43 WOODMAN Notes Pg 55 Sketch Pg 47)								354.74 11.65		
B.M.	10.16	366.39		356.23 = S'W'ly 2" Pipe WOODMAN + BENSON - Pg 55 (RE. 498)				366.39		

(Beg. BENSON)

(END SKYLINE)

Chk:			9.78	343.38 = 343.44 = L+Disc	N.W'ly Corn. Detroit + 65th
T.P.	4.33	353.16	10.48	343.83	

Note: (this L+Disc is in approx. ℄ of EXIST. 20' wide Conc. strip Pav. (on curve) at 65th + Detroit) For Future Ref.

BENSON (CONT)

Sta.	B.S.	H.I.	F.S.	Elev.
T.P.	12.17	416.20	0.57	404.03
4+00				
3+50				
T.P	13.05	404.60	0.16	391.55
3+00				
Note: (Cold-Lay strip Benson average 28' wide Ely Ritchey)				
Set T.B.M on 2x2 Hub (2+71.93)			6.07	385.64
2+71.93 = ℄ Ritchey = 0+00 N'ly - Pg. 69				
2+50				
T.P.	13.17	391.71	0.05	378.54
2+00				
1+90 = ℄ House 40' Lt. (this house faces Ritchey - elev shown because it may be easier to sewer off Benson than Ritchey)				

LT. — ℄ — RT.

H.I. 416.20

4+00: grd rises; 409.7 (+5.1 / 50); 402.7 (1.9 / 30); 401.95 (2.65 / 10); 401.48 (3.12 / 3 Edge Pav); ℄ 402.4 (2.2); 398.8 (5.8 / 10); 394.4 (10.2 / 30 Low Pt.); 396.8 (7.8 / 50); grd rises

3+50: 395.38 (9.22 / 10); 395.08 (9.52 / 3 Edge Pav); ℄ 396.0 (8.6); 391.8 (12.8 / 10)

H.I. 404.60

3+00: 394.0 (+2.3 / 50); 389.7 (2.0 / 30); 389.42 (2.29 / 10); 389.10 (2.61 / 2.0 Edge Pav.); ℄ 389.81 (1.9); 387.7 (4.0 / 10); 383.3 (8.4 / 30 Low Pt.); 386.6 (5.1 / 75); grd rises

2+71.93: ℄ 386.11 (5.6)

2+50: 383.51 (8.20 / 10); 383.17 (8.54 / 1 Edge Pav); ℄ 383.3 (8.4); 382.5 (9.2 / 10)

H.I. 391.71

2+00: 377.94 (0.65 / 10 on Pav.); ℄ 377.09 (1.50 Edge Pav.); 376.3 (2.3 / 10); 374.0 (4.6 / 30); 373.0 (5.6 / 50 Low Pt.); 373.6 (5.0 / 75)

1+90: 383.49 (+4.90 / 40 Fl. elev)

378.59

BENSON (CONT.)

						℄	
T.P	13.24	442.29	0.22	429.05			
Sot T.B.M. on 2" I.Pipe N'Ly line Benson & Lot 9			0.22	429.05			
5+07		BRK			430.3 / 1.0 (10)	428.9 / 0.4	428.5 / 0.8 (10)
5+06		BRK			426.2 / 3.1 (10)	424.6 / 4.6	423.0 / 6.0 (10)
5+00						424.3 / 5.0	
4+96.5		4.5 LT ℄ Deadman					
4+92		= BRK			425.9 / 3.4 (10)	424.5 / 4.8	423.0 / 6.3 (10)
T.P.	13.37	429.27	0.30	415.90		429.27	
4+69		= Toe Slope Ahead			411.8 / 4.4 (10)	410.30 / 5.9	410.31 / 5.89 (10)
4+68		= N'Ely edge PAV (on curve)				410.31 / 5.89	
4+51		= ℄ House Lt 60' (this house faces on Ritchey)					
4+50					408.44 / 7.76 (10) on PAV	408.32 / 7.88	408.08 / 8.12 (10); 408.00 / 8.20 (14.5) edge PAV
4+17		= S'Ly edge PAV. (PAV curves S'Ly here into AVIATION Dr)				404.29 / 11.91	

416.20

BENSON (CONT.)

T.P.	11.65	478.09	0.19	466.44
6+42				
6+25	7.6	RT ℄ Deadman		
6+24	1.6	RT ℄ Deadman		
6+00				
T.P.	12.39	466.63	0.26	454.24
5+86				
5+77				
5+64		℄ House RT - Approx. 25' RT. of Approx. 17'± ABOVE Ex. Level St. (this house Faces on AVIATION)		
5+50				
T.P.	12.49	454.50	0.28	442.01
5+39	BHK			
5+20	BHK			

LT. ℄ RT.

465.0 464.4 464.8

1.6/10 2.2 1.8/10

457.8 459.1 456.3 456.23 456.1 456.5

8.8/100 7.5/50 10.3/10 10.4 10.5/10 10.1/50 Misses

466.63

454.4

0.1

452.2

2.3

446.1 442.2 442.0 442.2 441.0 435.1

8.4/50 12.3/10 12.5 12.3/10 13.5/50 19.4/100 Low PT Misses grid misses

454.50

437.9 437.7 436.9

4.4/10 4.6 5.4/10

434.1 434.7 434.0

8.1/10 7.6 8.3/10

442.29

BENSON (CONT.)

(Cont Pg 69)

T.P.	0.24	378.18	12.97	377.94
T.P.	0.03	390.91	12.70	390.88
T.P.	0.44	403.58	13.16	403.14
T.P.	0.04	416.30	13.00	416.26
T.P.	0.22	429.26	12.68	429.04
T.P.	0.67	441.72	12.65	441.05
T.P.	0.57	453.70	13.29	453.13
T.P.	0.81	466.42	12.48	465.61
ST. T.B.M. (2x2 P.O.T. (6+98.04)			2.95	475.14

Station	LT.	℄	RT.
8+00	457.59 (20.5 / 95); 465.2 (12.9 / 50); 473.5 (4.6 / 30); 475.8 (2.3 / 10)	476.5 (1.6)	477.1 (1.0 / 10); 478.1 (0.0 / 30); 479.4 (+1.3 / 50)

Drops off sharply (left); Slight rise (right)

7+55 = ℄ House 48' R.T. (under construction) (Fl. elev. Approx 2.8' ABOVE EXIST. ℄ ST.)

Station	LT.	℄	RT.
7+50	465.7 (0.9 / 10)	477.6 (0.5)	466.5 (0.1 / 10)
7+00	460.0 (18.1 / 100); 460.3 (6.3 / 50); 475.9 (2.2 / 10)	475.5 (2.6)	475.9 (2.2 / 10); 477.1 (1.0 / 50)
6+50	467.3 (10.8 / 10)	467.1 (11.0)	466.8 (11.3 / 10)

Steep slope (left); Flat (right)

478.09

RITCHEY

						LT.	℄	RT.
0+80	= ℄ HOUSE RT. (shown 4+51 LT. Benson)					383.48 14.6 Fheler		
0+53	= ℄ House 74.5 LT. (shown 1+90 LT. Benson)							
0+50						387.55 10.53 / 10	387.98 10.10 E'ly edge AV	390.3 7.8 / 10
	note: Cold-Lay strip Ritchey Av. 15' wide							
0+29	= N'ly Edge					385.93 12.15 / 10	387.16 10.92	388.0 10.1 / 10
0+02	= S'Ly Edge Cold-Lay						385.87 12.21	
0+00	Ritchey = 2x2 ℄ Benson (= 2+71.93 Benson)							
B.M	12.44	398.08		385.64 = 2x2 ℄ Benson + Ritchey STA. 2+71.93 Benson - Pg 65			398.08	
		Beg Ritchey (end Benson)						
CK:			8.91	356.27 = 356.23 = 2"	1. Pipe SWly Corn WOODMAN + BENSON - Pg 55			
T.P.	0.30	365.18	13.30	364.88				

RITCHEY (CONT.)

3+10

3+04 ℄ House 52' LT.

2+60

2+50 = ℄ House, 61' LT

T.P. 5.27 401.45 1.90 396.18

2+10 = ℄ HOUSE RT. (Sets on Bk. Lot.) TR. hill

1+72 = ℄ House 39' LT

1+60

all cuts on curve RADIAL

1+10 B.C. RT (Curve div. 50' arcs For Profile tests)

Curve DATA: {Δ - 4½° 24' / ℄ R = 778.894'}

1+00

LT. ℄ RT.

392.2 396.01 395.95 395.80 396.5 403.0
9.3 / 25 — 5.44 / 10 Edge Pav — 5.50 — 5.65 / 5 Edge Pav — 5.0 / 10 — +1.5 / 25

388.0
13.5 / 52 Fl. Elev.

393.1 395.36 395.55 395.35 395.6 402.2
8.4 / 25 — 6.09 / 10 Edge Pav. — 5.90 — 6.10 / 8 Edge Pav — 5.9 / 10 — +0.7 / 25

388.36
13.09 / 61 Fl. Elev.

401.45

391.4 394.86 395.13 394.88 401.2
6.7 / 25 — 3.22 / 10 W Edge Pav. — 2.95 — 3.20 / 6 E. Edge Pav. — 1.4 / 10 — +3.1 / 25 rises

391.75
6.33 / 39 Fl. Elev.

393.90 393.89 393.79 396.1
4.18 / 10 — 4.19 — 4.29 / 2 E. Edge Pav. — 2.0 / 10

387.0 391.20 391.10 392.7 403.1
11.1 / 50 — 6.88 / 10 on Pav. — 6.98 Edge Pav. — 5.4 / 10 — +5.0 / 50 rises

390.44 390.41 392.0
7.64 / 10 on Pav. — 7.67 E. Pav — 6.1 / 10

398.08

RITCHEY (CONT)

Station				
T.P.	0.95	396.97	6.73	396.02
6+60	Note: 182. S'ly of S'ly Line Ritchey + W'ly Line Lot 9 (See sketch P.947) Along Line of Lot 9 & hence 32' E'ly of Lot 9 is a Single dwelling			
6+10				
T.P.	6.92	402.75	5.62	395.83
5+60				
5+10				
4+60				
4+50	E House 71' LT			
Set T.B.M.	2+2 P.O.C. (4+10)		4.68	396.77
4+10				
3+60				

Station	LT.	℄	RT.
6+60	395.3 (7.5 / 25); 397.03 (5.72 / 10 Edge Pav)	397.65 (5.10)	397.46 (5.29 / 5 Edge Pav); 399.2 (3.6 / 10); 406.0 (+3.2 / 25) rises
6+10	378.15 (24.6 / 75 drops off); 492.4 (10.4 / 25); 395.1 (7.7 / 10); 395.4 (7.4 / 7 Edge Pav)	395.85 (6.9); 402.75	395.64 (7.11 / 8 Edge Pav); 396.2 (6.6 / 10); 406.3 (+3.5 / 25) rises
5+60	389.6 (11.9 / 25); 393.6 (7.7 / 10); 394.57 (6.88 / 6 Edge Pav)	395.01 (6.44)	395.03 (6.42 / 7 Edge Pav); 395.55 (5.90 / 10); 402.5 (+1.0 / 25) rises
5+10	381.55 (19.9 / 75 Drops off); 391.5 (10.0 / 25); 394.7 (6.8 / 10); 396.05 (5.40 / 9 Edge Pav.)	396.10 (5.35)	395.79 (5.66 / 7 Edge Pav); 396.5 (5.0 / 10); 402.6 (+1.1 / 25)
4+60	392.9 (8.6 / 25); 396.69 366 (4.76 / 10 Edge Pav)	397.20 (4.25)	397.18 (4.27 / 6 Edge Pav); 399.3 (2.2 / 10); 404.9 (+3.4 / 25)
4+50	387.65 (13.80 / 71 Fl. elev.)		
4+10	395.2 (6.3 / 25); 396.34 (5.11 / 13 Edge Pav); 396.40 (5.05 / 10)	396.80 (4.65)	396.69 (4.76 / 5 Edge Pav); 397.8 (3.7 / 10); 405.7 (+4.2 / 25)
3+60	394.3 (7.2 / 25); 396.04 (5.41 / 10 edge pav)	396.17 (5.28); 401.45	396.01 (5.44 / 5 Edge Pav); 396.95 (4.50 / 10); 404.6 (+3.1 / 25)

RITCHEY (CONT.)

Chk:	11.26	385.71 = 385.64 =	2x2 & Hub Ritchey & Benson	

LINE "A"

0+70	Brlc			
T.P.	12.95	319.78	0.74	306.83
0+50				
0+34.5	10' Lt & 8" Euc. Tree			
0+32	= ℄ 8" Euc. Tree			
0+31	= 4' Barbed-wire Fence			
0+30	= Tp. Bank			
0+28	10' Rt = ℄ 14" Eucalyptus Tree			
0+25	= Bott. Ditch			
0+17	Tp Dirt Berm			
0+13.5	= Edge Pvt.			
0+00	= (12+86.34 Woodman's Lp)			
B.M.	0.13	307.57		307.44 = 2X2 HUB L

℄ Woodman Sta. 147+27.06 Pg 53

(N'ly) Lt. ℄ Rt.

305.9	306.1	306.5
13.9	13.7	13.3
	319.78	
301.0	301.7	302.3
6.6	5.9	5.3
299.4	298.7	299.0
9.2	8.9	8.6
296.7	297.2	297.9
10.9	10.4	9.7
	299.7	
	7.9	
298.25	298.81	299.47
9.32	8.76	8.10
Grid Flood		
	299.31	
	8.26	
	307.57	

LINE "A" (CONT.)

2+22 = BVK				
2+14 = BVK				
2+00				
T.P.	12.76	358.57	0.12	345.81
1+60 = BVK				
T.P.	13.29	345.93	0.06	332.64
1+50				
1+35 = BVK				
T.P.	12.99	332.70	0.07	319.71
1+00				

	LT.	℄	RT.
2+22 = BVK	350.6	353.6	355.9
	8.0/10	5.0	2.7/10
2+14 = BVK	350.5	352.3	354.1
	8.1/10	6.3	4.5/10
2+00	346.0	347.6	349.0
	12.6/10	11.0	9.6/10
T.P.		358.57	
1+60 = BVK	332.4	333.8	335.2
	13.5/10	12.1	10.7/10
T.P.		345.93	
1+50	330.3	331.4	332.3
	2.4/10	1.3	0.4/10
1+35 = BVK	327.2	328.3	329.1
	5.5/10	4.4	3.6/10
T.P.		332.70	
1+00	315.8	317.2	317.8
	4.0/10	2.6	2.0/10
		319.78	

LINE "A" (CONT.)

Station	Notes				LT.	℄	RT.
					383.6 / 0.6 8 TP; 379.2 / 4.4 8 Toe		
3+03	8 LT = End Wood wall						
3+00	38.5 RT = NWly Corn Bldg.				376.8 / 6.8 10; 379.0 / 4.6 4.5 Toe; 382.9 / 0.7 4 TP wall	383.1 / 0.5	383.4 / 0.2 10; 384.84 / +1.22 38.5 Fl.
2+96	8' RT ℄ 24" Pepper Tree					382.4	
2+95.5	= Tp wall ℄					1.2 (Flush with grid)	
2+95	= Toe Wooden Retaining-Wall				376.7 / 6.9 10	378.6 / 5.0	382.7 / 0.9 10; 3; 382.8
2+88	10 RT = Tp. Ret. wall						4.9 Toe wall; 0.8 TP wall
2+86	= Brk				372.7 / 10.9 10	374.3 / 9.3	377.1 / 6.5 10
2+74	4 RT ℄ 3" Lemon Tree						
T.P.	12.52	383.62	0.07	371.10		383.62	
2+71	12' RT ℄ 2" Lemon Tree						
2+57	8.3 RT ℄ 2" Fruit Tree						
2+50					361.2 / 10.0 10	362.8 / 8.4	364.7 / 6.5 10
T.P.	12.66	371.17	0.06	358.51		371.17	

LINE "A" (CONT.)

Station	B.S.	H.I.	F.S.	Elev.	Remarks	LT.	℄	RT.
chk:			4.96	396.84 = 396.77 = 2x2	P.OC 4+10 ℄ Ritchey - pg 71			
T.P.	9.32	401.80	2.01	392.48				
3+59.5 =	W'ly side House :{ 20' LT = N W'ly corn / 20.5 RT = S'ly corn. House					387.3 / 7.2 / grd	387.31 / 7.18 / Fl House	
3+50	2.8 RT = N'ly end 5' conc. Ret. wall 8" wide					386.5 / 8.0 / 10	386.9 / 7.6	387.3 / 7.2 / 10
3+47	25.3 LT End house							
3+23	38.5 RT End House							
3+21	{ 15.6 LT = S.W Corn. Bldg / = 6" Conc. Wall at 90° to ℄ / 3.8 RT = end wall					386.39 / 8.10 / 15.6 / FL.		
T.P.	12.51	394.49	1.64	381.98			394.49	

LINE "B"

				(NLy) LT.	℄	RT
1+50				1.8/10	1.1	0.6/10
1+00				6.0/10	5.2	4.6/10
0+53	~Tp BANK			8.8/10	7.8	7.4/10
0+48	=E, Edge Pav & toe cut-BANK			11.91/10	11.26	10.79/10
0+40	℄ Pav				11.18	
0+32	= Wly edge Pav			12.42/10	12.11	11.66/10
0+17	= BVK			13.8/10	13.2	12.5/10
0+15	5.7 RT = ℄ Blow-out valve (5'x5' Box Wood)					
0+00 = 1x1 ℄ Prop. Sewer Woodman =(23+93.09 Woodman)					12.7	
B.M.	1.70	391.58	389.88 = Pav. Nail ℄ & ℄ Prop. Sewer Line Woodman = 25+81.13 — pg 57	SKYLINE	391.58	

LINE "8" (Con T.)

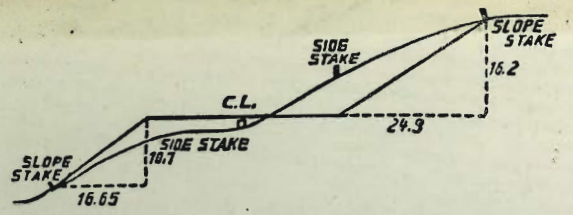
					Lt.	℄	Rt.
Chk:			6.78	389.87=389.88=STG-B.M.			
T.P.	6.39	396.65	12 90	390.26			
2+51	{ 5.6' Lt = N. Wly Corn House 39' Rt S wly Corn "				+ 10.5 Fl.		
2+37.5 = Wly Face Conc Blk Ret. Wall - (90° to Line)							
1+76.45 = Ely Line Lots 11 & 14					10.4/10	9.6	9.1/10
T.P.	12.20	403.16	0.62	390.96		403.16 T	

16.15
285
1900

C.S
46

18+55

75° 3C



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.20	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

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