#777

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.

792-795

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

Page

Chesterton Pipeline 1-12 ✓

Chesterton P.L. Profile 15-21

Kearney Mesa P.L. Realignment + Profile 23-29, mod
STA 30+00 - 46+82.44

Chesterton realignment. 29-30.

" " ✓ mod 30-49

X-Sections Chesterton Water Tank 1 dd. 50

Realignment - Profiled X-sects - Chesterton P.L. 1 dd. 51-52

Diameter & Measurements - Chesterton Tank 1 dd ✓ 52

Constr. Notes - Chesterton P.L. alice ✓ 54-70

Misc. Elev.s Chesterton Tank alice ✓ 72-73

Misc. Details " " 74.

& Profile & Alignmt Prelim Line From CHESTERSON TANK Northerly to City Boy alice ✓ 75-77

Chesterton Tank Survey alice ✓ 78

Chesterton Pump Plant Site survey & X-Sects. alice ✓ 79-81

Proposed 24" Main in P.L. 1202 - Chesterton Nov. of 82

Proposed 16" Main in P.L. 1202 83 con

Chesterton Tank, Cross-Section of Proposed New Tank Site alice ✓ 84-85

Chesterton - Proposed Tank Location Showing Existing 10" C.I. Pipelines 86.

(THATS ALL) ✓ alice

Grade for 21" C.I. 90° Bend Also Revised X-Sections of Proposed Tank Site ✓ 21

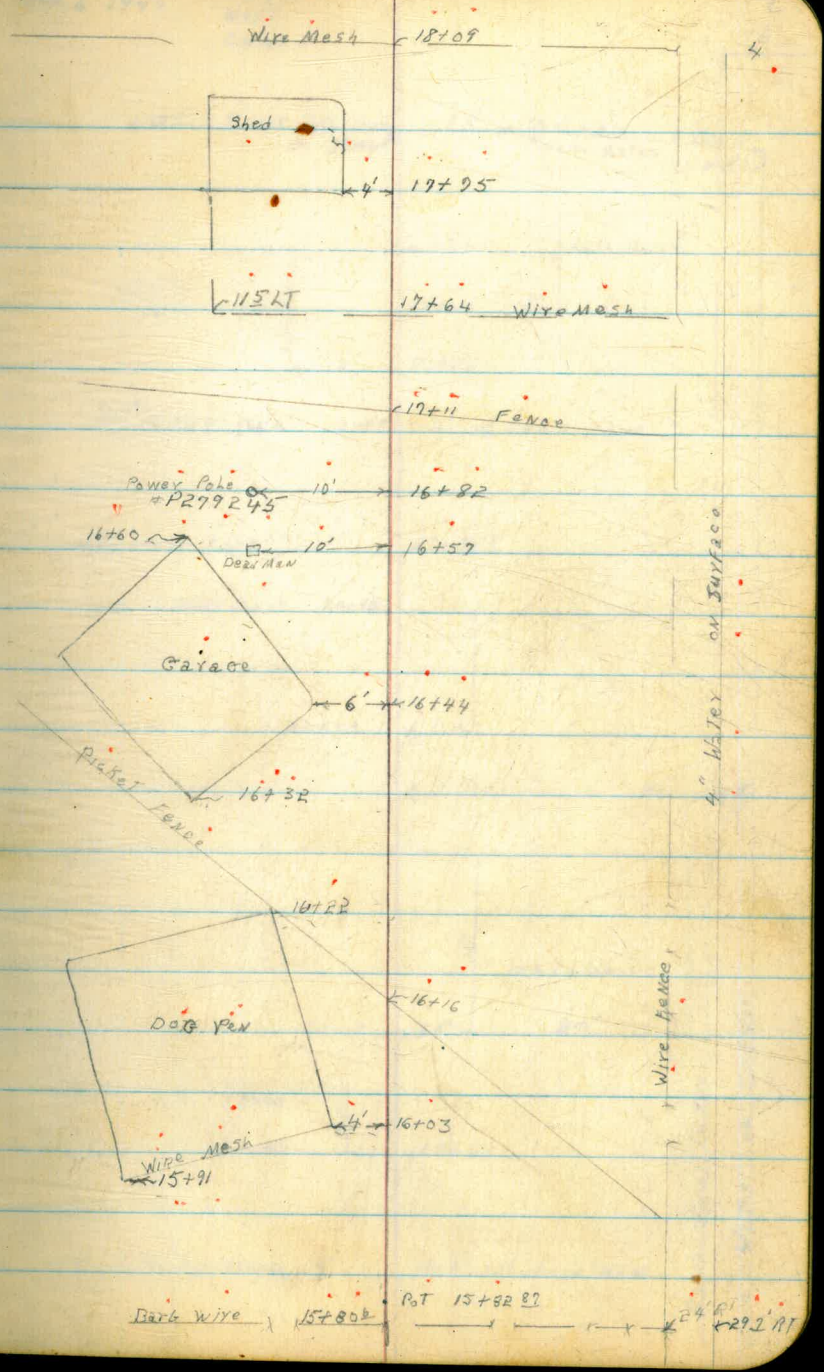
Property Corners & 2' offset for Fence — Chesterton Stand Pipe alice ✓ 78

June 3, 1949
Rainey Shipman
West
Payne

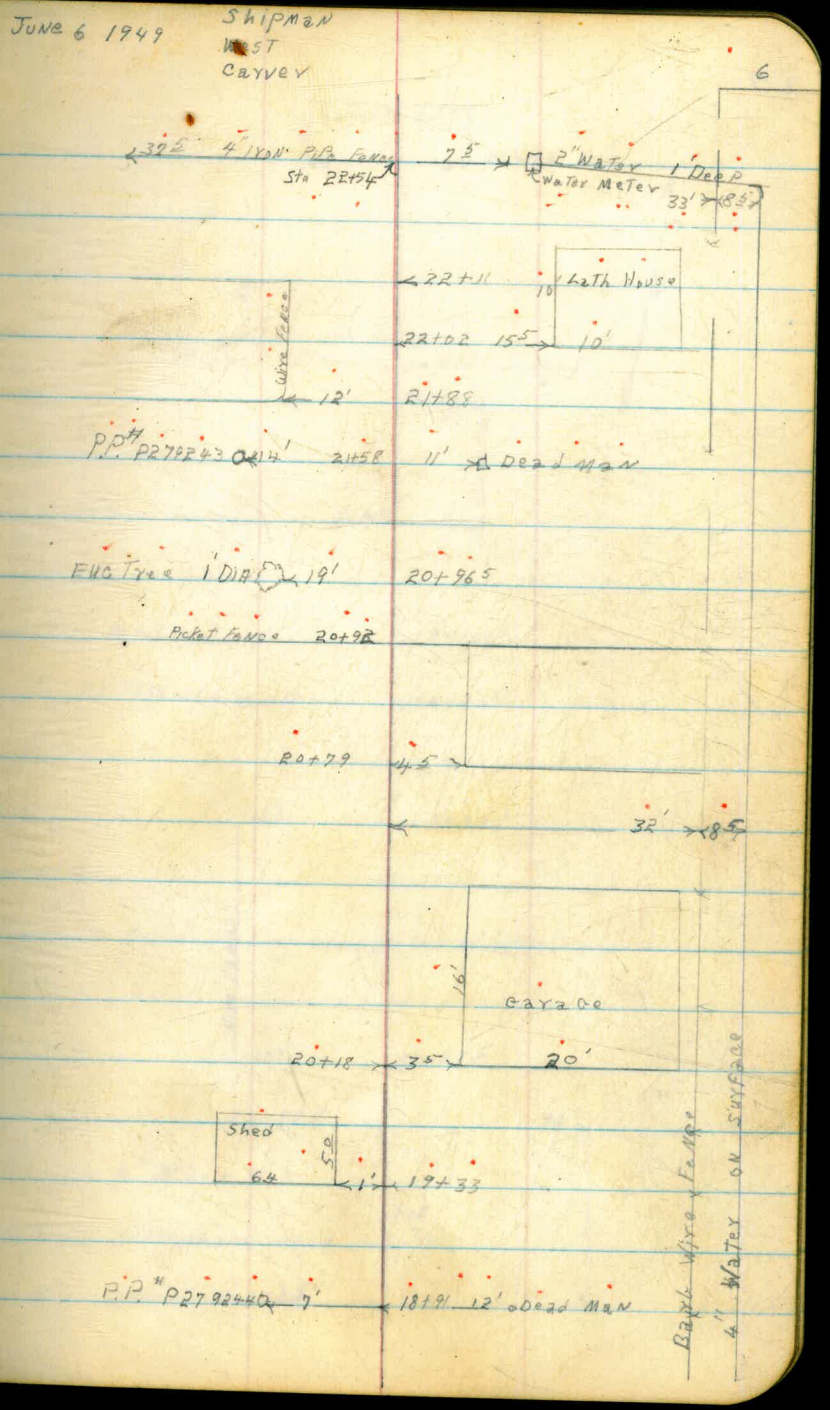
1

2

7°01'30" LT.
℄ 12+31.19 BK
℄ 12+80.86 Ahd.
10+96
Gladiolas
8+47
7+65 BOTTOM
7+00 S EDGE DRAW
P.O.T. Sta. 6+41.2'
Sta. 6+12
35'
Gladiolas
Gladiolas
PL.
1199
NORTHSIDE DRIVE
98°30"
8"
Sta. 1+90
90°00'
Sta. 1+71.4
Pueblo
Lot Line
W
X
3" water x-ing Sta. 1+73
on ground
Fence
x-ing Sta. 1+62
83°05'
90°00'
Kearny Mesa PL.
Kearny Mesa Sta. 110+70 = 0+00

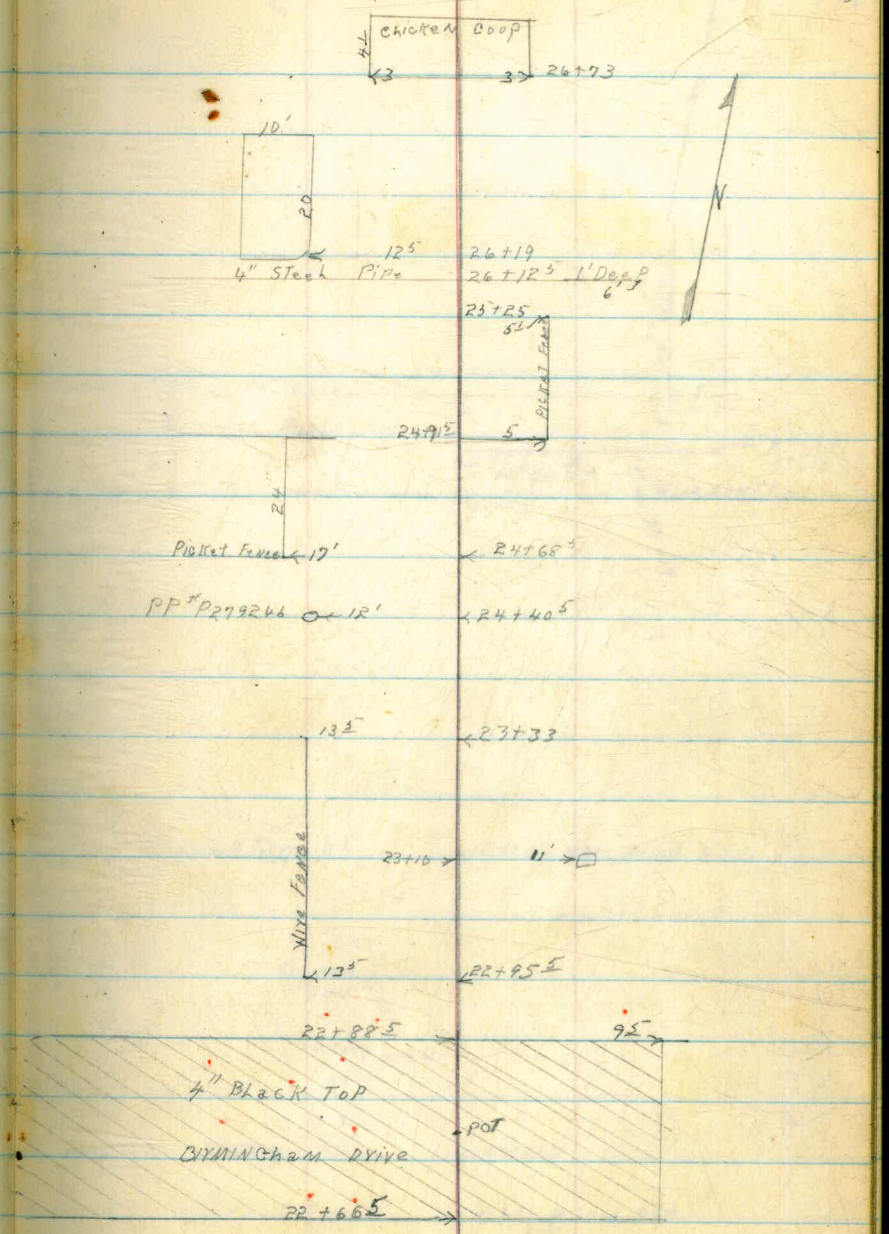

Wire Mesh
18+09
Shed
4'
17+95
115 LT
17+64
Wire Mesh
17+11
Fence
Power Pole
#P27924S
10'
16+82
16+60
Dead Man
10'
16+57
Garage
6'
16+44
Picket Fence
16+32
16+22
16+16
Dog Pen
4'
16+03
Wire Mesh
15+91
4" Water on Surface
Wire Fence
Dark Wire
15+80±
POT 15+82.87
24'
29.2' RT

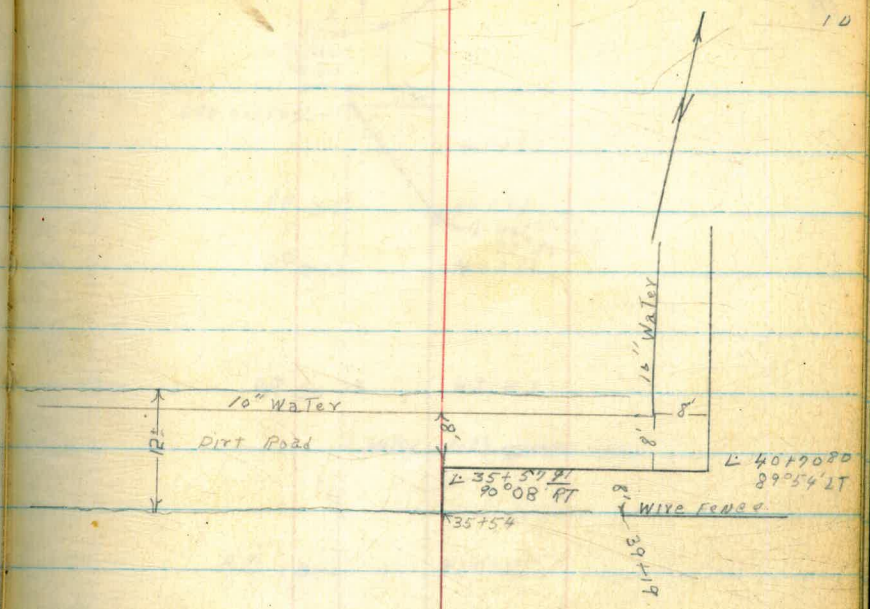
June 6 1949 Shipman West Cayver



7

8


Chicken Coop
4'
3'
3'
26+73
10'
20'
12.5'
26+19
4" Steel Pipe
26+12.5
1' Deep
6'
25+25
5'
Picket Fence
24+91.5
5'
24'
Picket Fence
17'
24+68.5
PP# P279246
12'
24+40.5
13.5'
23+33
Wire Fence
23+10
11'
13.5'
22+85.5'
22+88.5'
95'
4" Black Top
Pot
Bynning Ham Drive
22+66.5'
N



Telephone Pole ⊗ 11.8' ← 29+01.90 □ Dead Man

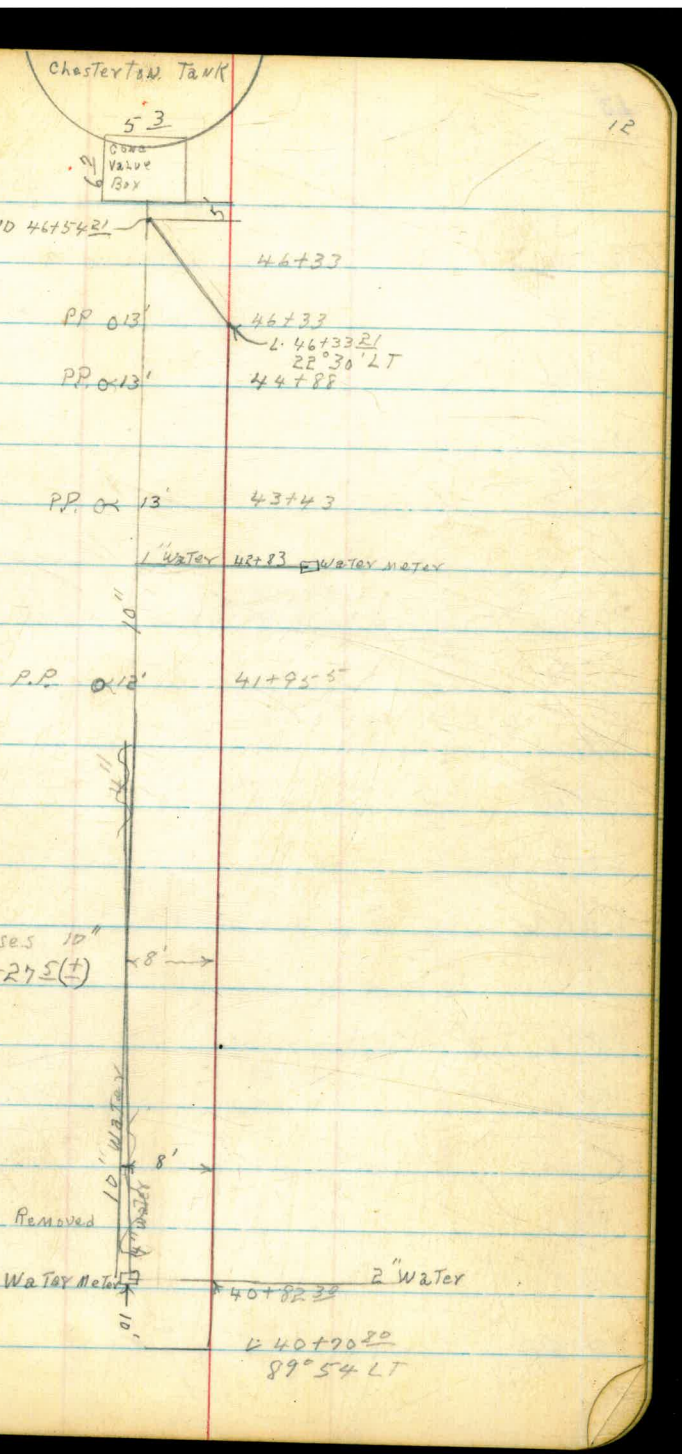
Shacken Pen

29+57 ⊗ 12'

20'

EUC Tree 8" Dia ⊗ 23.5' ← 27+22.5'

PP# P279247 ⊗ 11.5' ← 29+01.8' □ Dead Man LT


Chester T&N. Tank
5
3
Gate Valve Box
2
5
END 46+54 21
46+33
PP 0.13'
46+33
L 46+33 21
22°30' LT
PP 0.13'
44+88
PP 0.13'
43+43
1" Water
42+83
Water Meter
10"
P.P. 0.12'
41+95.5
4" crosses 10"
41+27.5 (±)
8'
10" Water
8'
4" Water Line Removed
Water Meter
2" Water
40+82.38
10'
L 40+70.80
89°54 LT

Levels on Chesterton P.L.
June 6, 1949

Shipman
West
Carver

	+	H	−	Elev		
BM	0.49	452.29 ~~446.17~~			~~451.32~~ ~~445.20~~	ON Base of Chesterton Tank
46+54.21			2.7		449.6	END of Pipeline
46+33.21			3.9		448.4	
46+00			7.7		444.6	
45+50			7.2		445.1	
45+00			10.7		441.6	
T.P.	1.29	440.60 ~~434.48~~	12.98	439.31 ~~433.19~~		
44+50			2.7		437.9	
44+00			5.5		435.1	
43+50			7.1		433.5	
43+00			7.9		432.7	
42+50			8.5		432.1	
42+00			9.7		430.9	
41+50			11.5		429.1	
T.P.	0.59	428.26 ~~422.14~~	12.93	427.67 ~~421.55~~		
41+00			1.2		427.1	
40+70.80			2.2		426.1	
40+50			4.1		424.2	
40+00			8.5		419.8	

Bench 6.12' too low. JK 6.20

		↑ ~~422.14~~ 428.26		Elev	
39+50			12.0		416.3
T.P.	0.01	417.32 ~~411.20~~	10.95	417.31 ~~411.19~~	
39+00			5.2		412.1
38+50			9.5		407.8
38+00			13.2		404.1
T.P.	0.92	406.55 ~~400.43~~	11.69	405.63 ~~399.51~~	
37+50			4.0		402.6
37+00			4.5		402.1
36+50			5.8		400.8
36+00			7.8		398.8
35+57.81			9.9		396.7
35+00			11.0		~~395.6~~
34+50			12.3		394.3
T.P.	2.23	395.77 ~~389.65~~	13.01	393.54 ~~387.42~~	
34+00			2.6		393.2
33+50			5.1		390.7
33+00			5.8		390.0
32+50			7.4		388.4
32+00			7.8		388.0

Gunney at 34+25

		+	H	−	Elev	
			395.77			
3	31+50		~~389.65~~	7.4		388.4
7	31+00			8.0		386.8
3	30+50			10.5		385.3
3	T.P	0.90	387.21	9.26	386.51	
			~~381.09~~		~~380.39~~	
3	30+00			2.8		384.4
1	29+50			4.4		382.8
3	29+60			4.5		382.7
3	T.P			2.52	378.57	
3	28+50			5.0		382.2
3	28+00			5.5		381.7
3	27+50			6.3		380.9
3	27+00			7.0		380.2
3	26+50			7.7		379.5
	26+00			8.0		379.2
	25+50			7.7		379.5
	25+00			8.6		378.6
	T.P	2.21	381.32	8.10	379.11	
			~~375.20~~		~~372.99~~	
	24+50			2.8		378.5
	24+00			3.5		377.8

T.B.M. ON SPIKE ON P.P. # 448249H STA 29+00

	+	~~395.20~~ 381.32	-	ELEV
23+50			4.8	377.1
23+00			4.7 ~~3.8~~	376.6
N.E.Dge Blacktop			4.95	376.57
S.E.Dge "	"		5.08	376.24
22+50			5.5	375.8
22+00			6.5	374.8
21+50			7.7	373.6
21+00			10.0	371.3
20+50			12.9	368.4
T.P.	1.44	369.80 ~~363.68~~	12.96	368.36 ~~362.24~~
20+00			4.0	365.8
19+50			5.7	364.1
19+00			8.3	361.5
18+50			10.4	359.4
T.P.	3.17	360.98 ~~354.86~~	11.99	357.81 ~~351.69~~
18+00			3.3	357.7
17+50			4.1	356.9
17+15 T.P.	3.52	359.65 ~~353.53~~	4.85	356.13 ~~350.01~~
17+00			3.8	355.9

GWW 20+47

	+	↑ ~~353.53~~ 359.65	−	Elev	
16+50			4.1		355.6
16+00			4.7		355.0
15+50			5.3		354.4
15+00			6.5		353.2
14+80			7.4		352.3
14+60			8.5		351.2
14+37			7.4		352.3
14+00			5.8		353.9
13+50			7.2		352.5
13+00			7.1		352.6
12+50			6.8		352.9
12+00			7.3		352.4
TP	0.93	354.46 ~~348.34~~	6.12	353.53 ~~347.41~~	
11+50			2.7		351.8
11+00			3.4		351.1
10+50			3.1		351.4
10+00			2.8		351.7
9+50			3.5		351.0
9+00			3.7		350.8

CHESTERTON PIPE LINE 6-6-49

	+	~~349.34~~ 354.46	−	Elev	
8+50			6.9		347.6
8+00			11.8		342.7
7+65			17.3		337.2
7+00			7.6		346.9
6+41 31			5.7		348.8
6+00			5.8		348.7
		357.76		349.15	
TP	8.61	~~351.64~~	5.31	~~343.03~~	
5+50			9.6		348.2
5+00			9.4		348.4
4+50			8.6		349.2
4+00			7.1		350.7
3+50			6.7		351.1
3+00			5.5		352.3
2+50			5.4		352.4
2+00			4.6		353.2
1+50			4.4		353.4
1+00			4.1		353.7
0+50			5.0		352.8
0+00			6.19	~~345.45~~	351.57
		356.59			
TP	4.82	~~350.47~~	5.99	~~345.65~~ 352.47	351.77
			3.92	~~346.55~~	BM on Hy 395

Reduced & checked
8.16.49 RM

352.46 (− 6.12) = 346.34

CHESTERTON TANK

GRADE FOR 24" C.I. 90° BEND ALSO REVISED X-SECTIONS OF PROPOSED TANK SITE

BM	0.01	451.83	451.82	on Fig of Existing Tank
		2.79	449.04	Spike on pp pole Mrk'd CL (TO GRADE FOR TANK)
		12.81	439.02	GRADE ℄ PIPE 442.23 — F321 (℄ of pipe for 90° BEND)
		8.01	443.82	C/59 (7) East ℄ pipe
		10.03	441.80	F043 (7) South ℄ pipe

0+00 = SW Cor Existing Tank Site

0+20

0+40

0+60

0+80

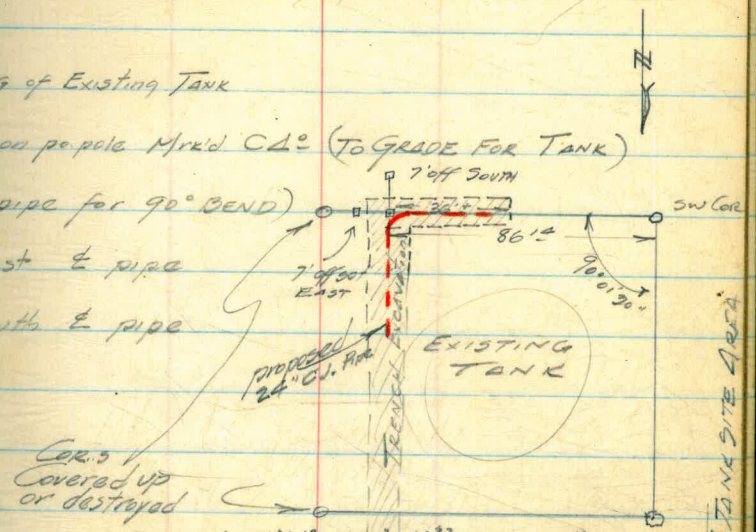
PROPOSED 2nd TANK SITE (See page 84-86 this book)

1+00 = 100' So. / SW Cor. Existing Tank Site

CK BM	0.01	451.82

JUNE 26, 1952 21

BEATTY, POWELL, FISH



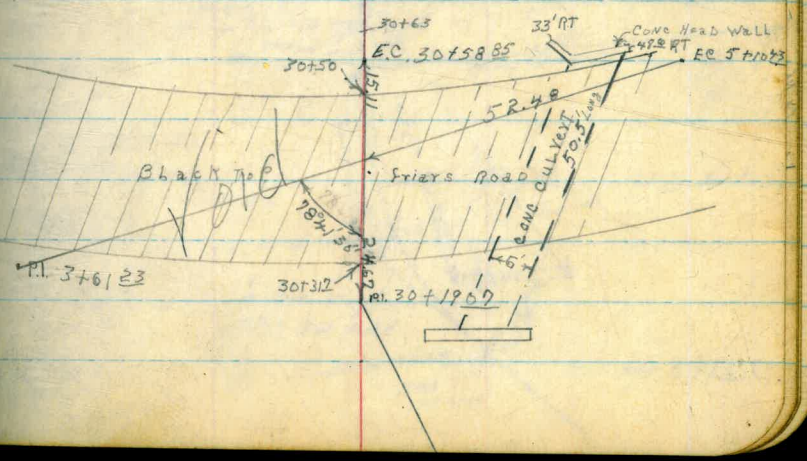
440.23	440.43	442.03	442.33	443.4	446.1	447.0	
11.6	11.4	9.8	9.5	8.4	5.7	4.8	
100	97	92	79	73	55	40	— 0
Loose	Loose	Loose					

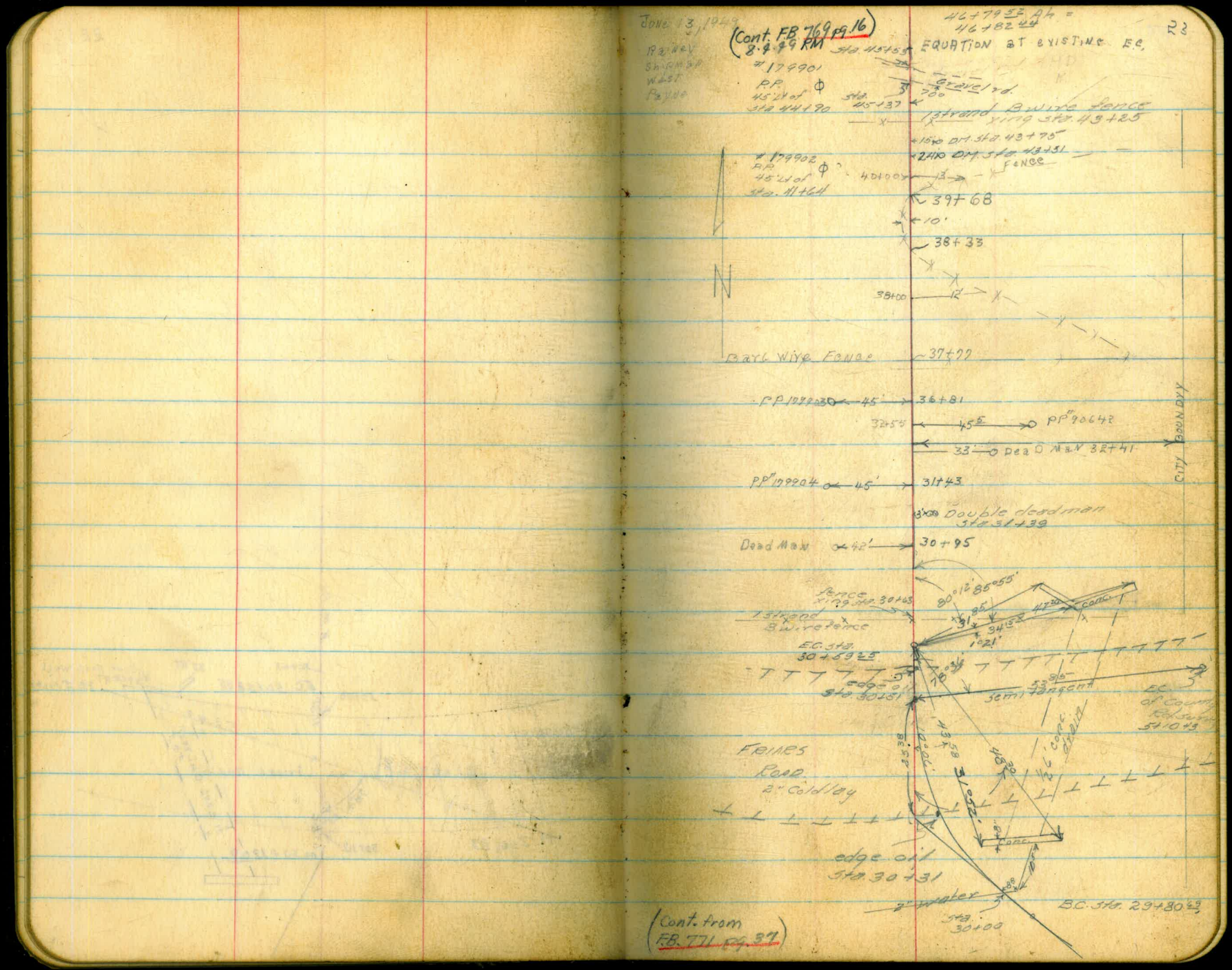
438.3	440.93	440.8	441.5	446.7	446.1	
13.5	10.9	11.0	10.3	5.1	5.7	
100	93	78	70	46	40	— 0
Loose	Loose	Loose	Loose			

440.5	440.6	439.8	440.6	445.3	445.8	445.1	
11.3	11.0	12.0	11.2	6.3	6.1	6.7	
100	97	90	74	54	49	40	— 0
Loose	Loose	Loose	Loose				

440.1	440.3	441.4	443.6	445.4	445.1	
11.7	11.5	10.2	8.2	6.4	7.7	
100	92	77	69	59	40	0
Loose	Loose	Loose				

WEST FROM EXISTING TANK 0.01 ELEVATION SOUTHERLY TO LINE


K.M. Bl.
30+63
33' RT
Cone Head Wall
E.C. 30+58.85
47.2 RT
E.E. 5+10.23
30+50
11.51'
52.48
Black Pipe
Friars Road
Cone Culvert
50.5 Long
78°41'
46'
P.I. 3+61.23
30+31.2
P.I. 30+19.67


June 13, 1949
(Cont. FB 769 pg 16)
8.9.49 RM
Rainey Shipman West Payne
#179901
R.P. 45'Lt of Sta 444+90
#179902
R.P. 45'Lt of Sta. 41+64
46+79.52 Ah = 46+82.49
EQUATION @ EXISTING E.C.
Sta 45+55
67.21' rd.
Sta 45+37
1 strand B.wire fence xing Sta. 43+25
+1540 Ort. Sta. 43+75
+2410 Ort. Sta 43+31
Fence
40+00
13
397.68
10'
38+33
38+00
12
N
Barb Wire Fence
37+99
PP 104230
45'
36+81
32+54
45'
PP 90642
33'
Dead End 32+41
CITY BOUNDARY
PP 179904
45'
31+43
Double deadman Sta 31+39
Dead Man
42'
30+95
80°12'
85.55'
Fence xing Sta. 30+43
13 strand B.wire fence
31'
85'
94.5'
1.21'
E.C. Sta. 30+59.25
Edge of oil Sta. 30+31
10°36'
53.95'
Semi Tangent
EC of Curve Sta 30+43
FRAMES
Rear.
2" cold lay
edge of oil
Sta. 30+31
43.58'
25.38'
100'
1" conc. drain
31.52'
Conc.
10'
2" water
Sta. 30+00
B.C. Sta. 29+80.63
(Cont. from FB 771 Pg. 37)

Profile on K.M. Realignment Sta 30+59.25 To 46+82.44

(Cont. from FB. 771 pg. 45 8-4-99 RM)

STA	+	H	−		
B.M.	7.09	90.13			83.04
30+59.25			9.3		80.8
30+64			6.4		83.7
Top Culvert			9.1	-	81.0
Culvert Flow Line			14.1		76.0
T.P	10.21	99.88	0.46	89.67	
31+00			6.6		93.3
31+50			1.7		98.2
T.P	12.22	111.92	0.18	99.70	
32+00			8.4		103.5
32+50			2.8		109.1
T.P	13.09		2.10	109.82	
		122.91			
33+00			7.6		115.3
33+50			1.0		121.9
T.P	12.94	135.27	0.58	122.33	

June 13, 1949
Shipman
West
Payne

25

	LT	RT
BM on spike in Friars Road		
90.0	81.9	
0.1	8.2	
R5	R5	
93.9	91.9	86.8
6.0	8	13.1
R5	11	R5
98.5	97.8	94.5
1.4	2.1	5.4
R5	16	R5
104.2	102.9	
7.7	9.0	
R5	R5	
110.0	108.6	
1.9	3.3	
R5	R5	
115.9	115.8	
7.0	7.1	
R5	R5	
122.7	122.0	
0.2	0.9	
R5	R5	

June 14, 1949

Shipman
West

Sta	+	H	-		
		135.27			
34+00			6.8		128.5
T.P.	12.55	147.41	0.41	134.86	
34+50			10.0		137.4
T.P.	12.96	160.37	0.0	147.41	
35+00			9.8		150.6
T.P.	12.70	172.98	0.29	160.08	
35+50			10.6		162.2
36+00			0.3		172.5
T.P.	12.92	185.47	0.03	172.25	
36+50			3.5		182.0
T.P.	5.75	190.73	0.49	184.98	
37+00			1.7		189.0

129.4	128.9
5.9	6.4
25	25
140.4	136.6
7.0	10.8
25	25
147.4	153.8
13.0	6.6
25	25
168.1	156.9
4.7	15.9
25	25
178.2	165.4
+5.4	7.4
25	25
195.2	171.7
+9.7	13.8
25	25
180.9	178.7
9.8	12.0
25	25

	+		−		
		190.93			
37+50			4.5		186.2
T.P.	3.39	185.97	8.35	182.38	
38+00			5.6		180.2
38+43			12.0		173.8
38+50			10.2		175.6
39+00			8.6		177.2
T.P.	12.99	197.72	1.04	184.73	
39+50			9.7		188.0
40+00			0.2		197.5
T.P.	12.90	210.60	0.02	197.70	
T.P.	11.09	220.76	0.93	209.67	
40+50			6.8		214.0

197.7	175.6		
+7.0	15.1		
25	25		
189.5	174.8	171.3	165.6
+3.7	11	14.5	2DR
25	12	18	30
183.2	169.1		
2.6	16.7		
25	22		
188.8	174.5	173.9	
+3.0	11.3	11.9	
25	4	23	
197.7	182.1	179.3	
0.0	15.6	18.4	
25	15	18	
185.9	186.1	183.1	
11.8	11.6	14.6	
25	25	33	
225.6	198.7		
+4.8	22.1		
25	25		

STH.	+	↑	−		
		220.76			
T.P	7.96	223.39	5.33	215.43	
41+00			1.5		221.9
T.P	4.31	214.84	12.86	210.53	
41+50			6.2		208.6
T.P.	10.59	223.39	2.04	212.80	
T.P.	12.59	235.98	0.00	223.39	
42+00			6.4		229.6
T.P	12.96	248.59	0.35	235.63	
42+50			7.2		241.4
43+00			1.8		246.8
T.P.			0.39	248.20	
	11.85	260.05			
43+50			6.1		254.0

215.4 / 8.0 / 25 = 210.0 / 13.4 / 25

220.1 / +5.3 / 25 = 214.8 / 5.0 / 10 = 206.7 / 8.1 / 25

226.9 / 9.1 / 25 = 227.0 / 9.0 / 25

		260.05			
44+00			3.9		256.2
44+50			1.9		258.2
T.P.			0.67	259.33	
	12.89	272.27			
45+00			11.3		261.0
45+50			9.0		263.3
46+00			4.7		267.6
46+50			0.0		272.3
ck to P.I. Sta 46+1.922			2.47	269.80	Corr. 269.76

Checked & Reduced pg. 25-29
6-15-49 RM.

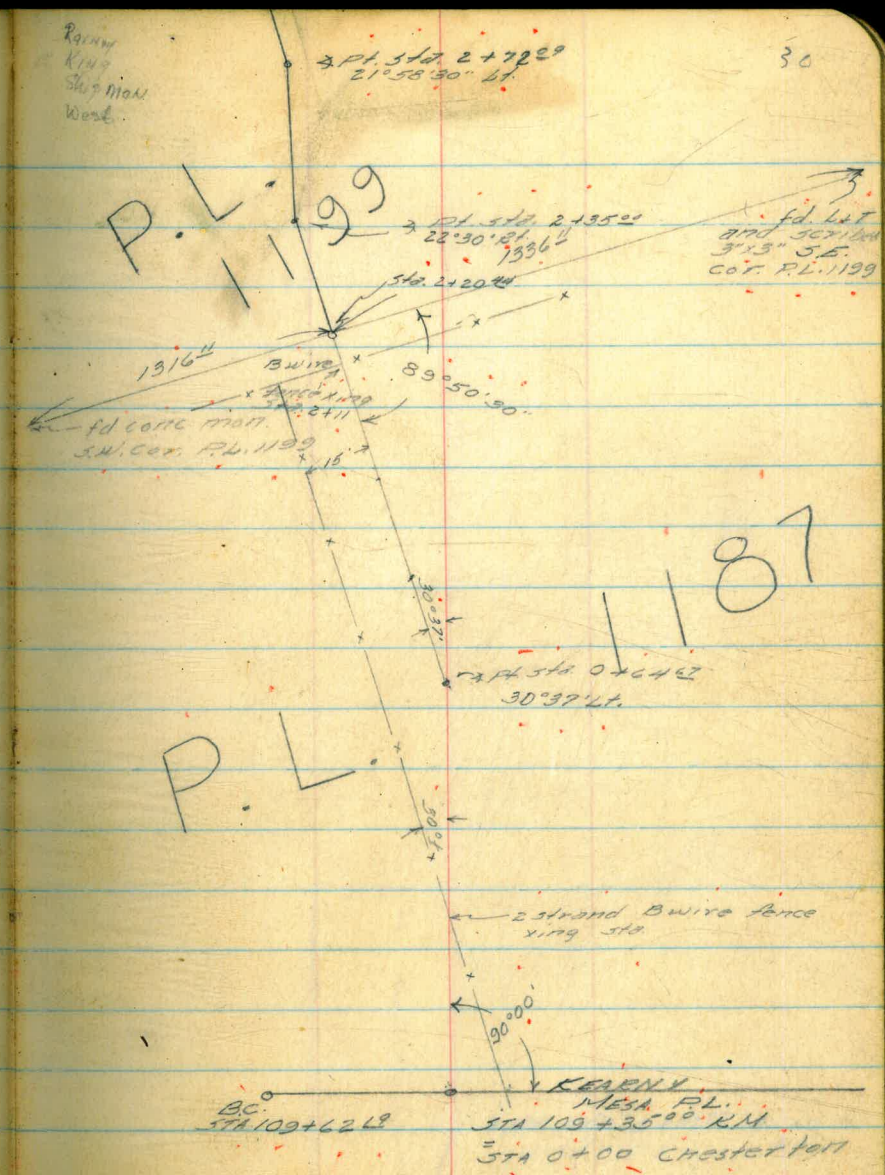
(See F.B. 769 pg 32
8-4-49 RM

10-24-49 REVISION CHESTERTON PIPELINE

Knight Skipman West Rainey - Notes

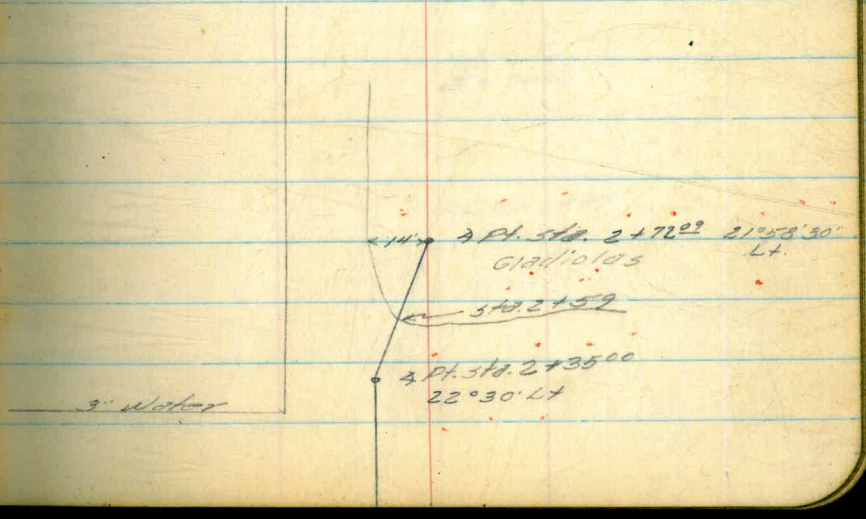
Rainey Knight Skipman West

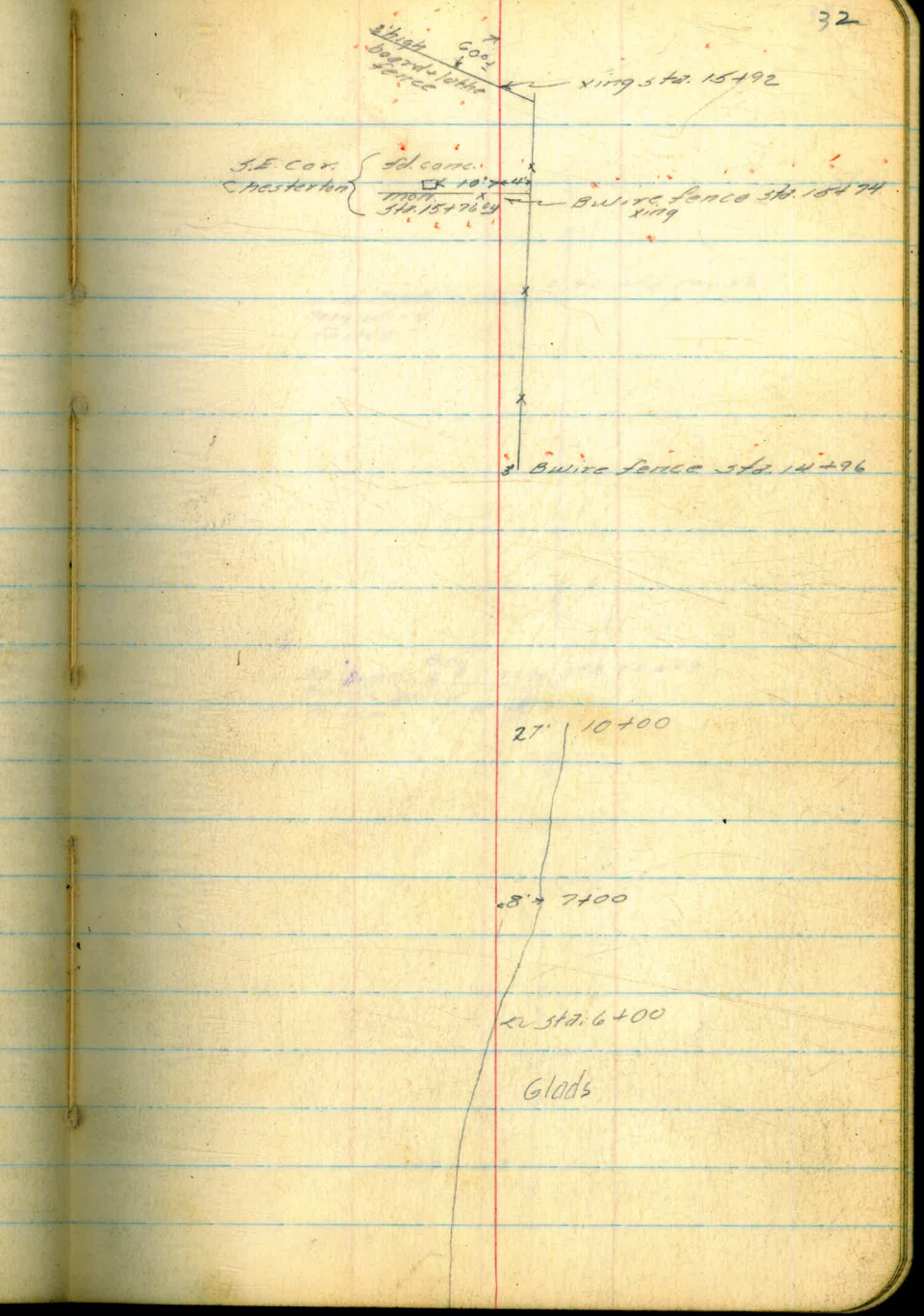
30

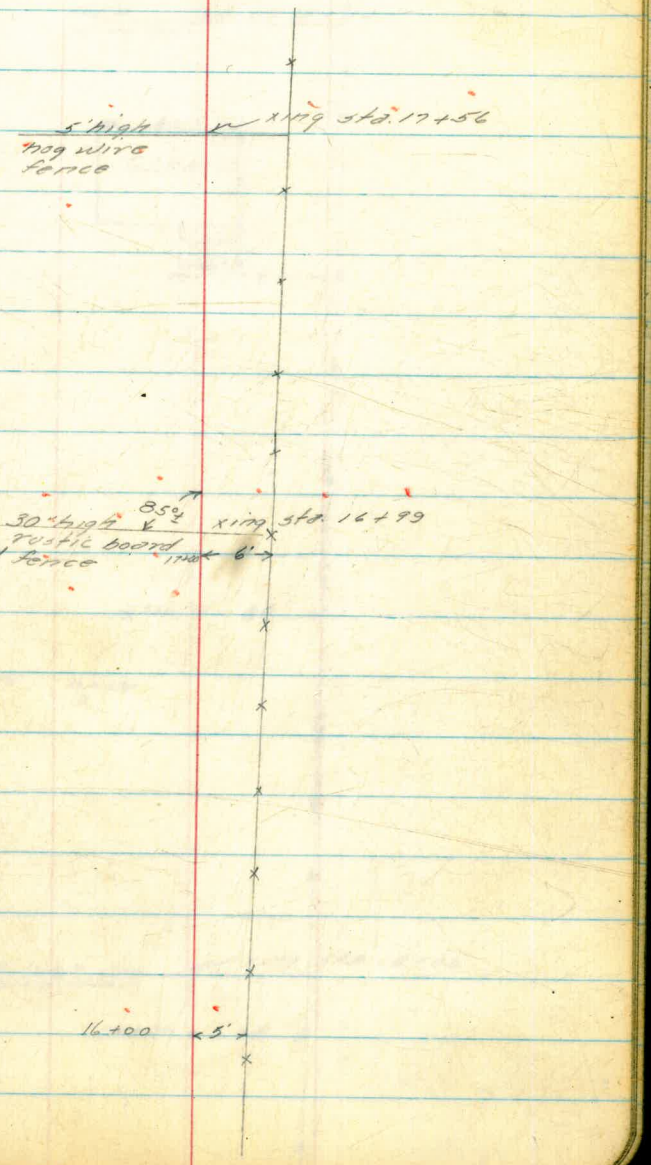


SEE REVISED BEGINNING PAGE 51

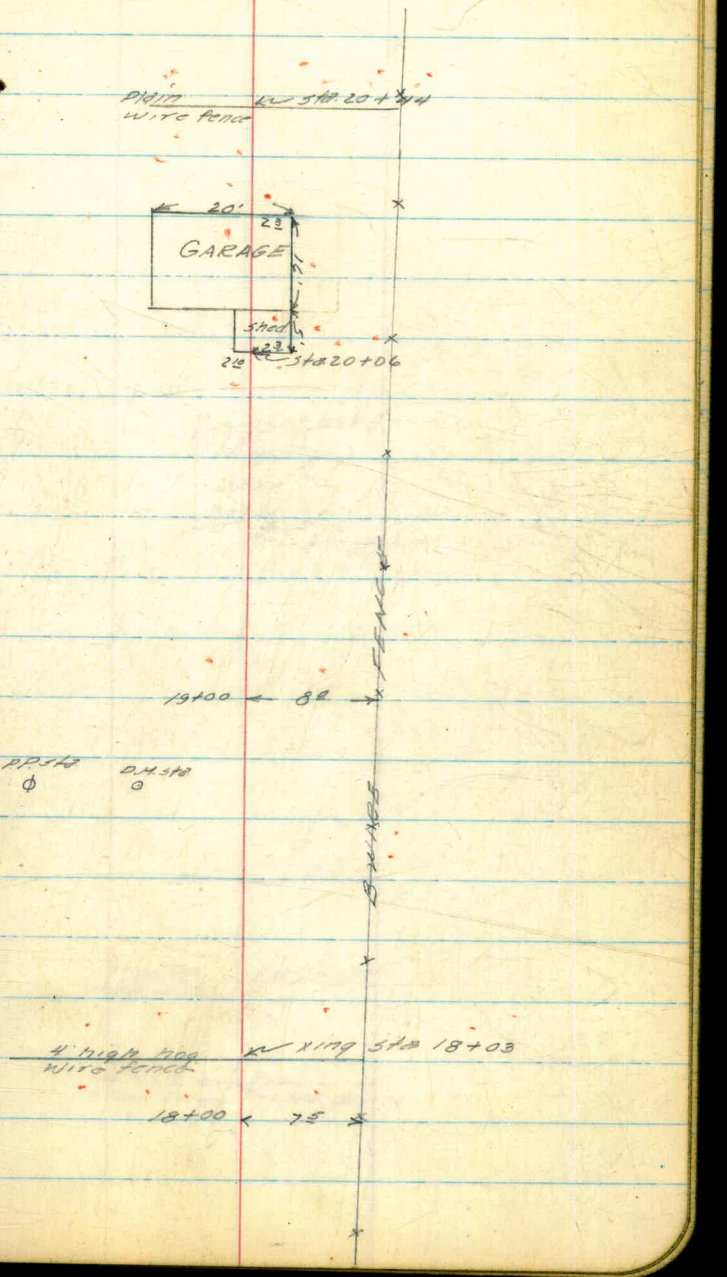
EE.

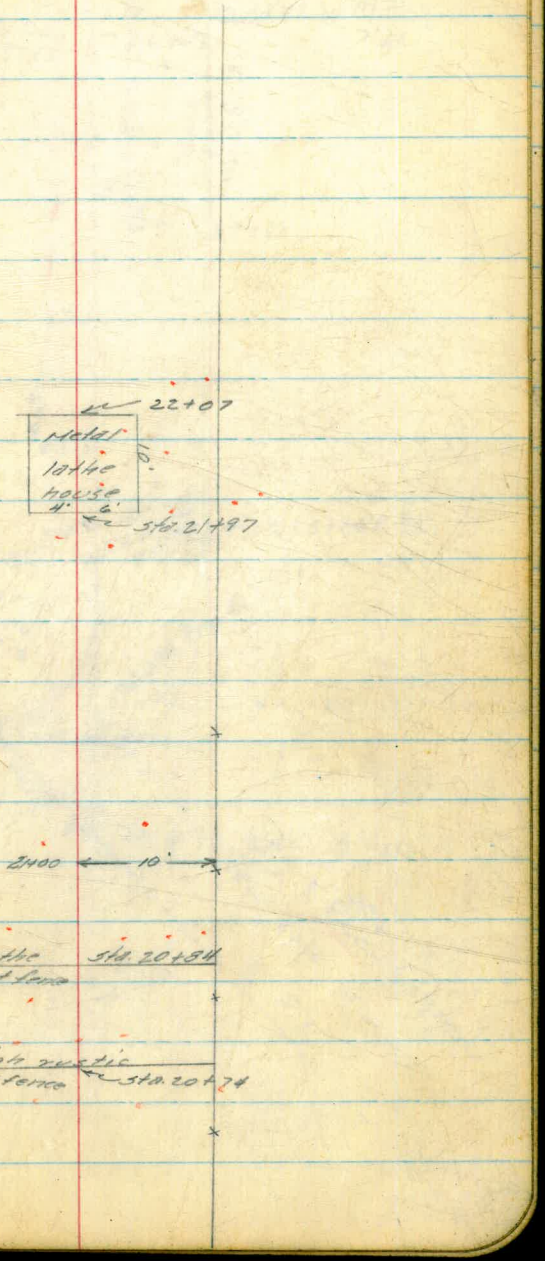

Pt. Sta. 2+72.2
Gladiolas
21°58'30"
Lt.
Sta. 2+52
Pt. Sta. 2+35.0
22°30' Lt
3" Water

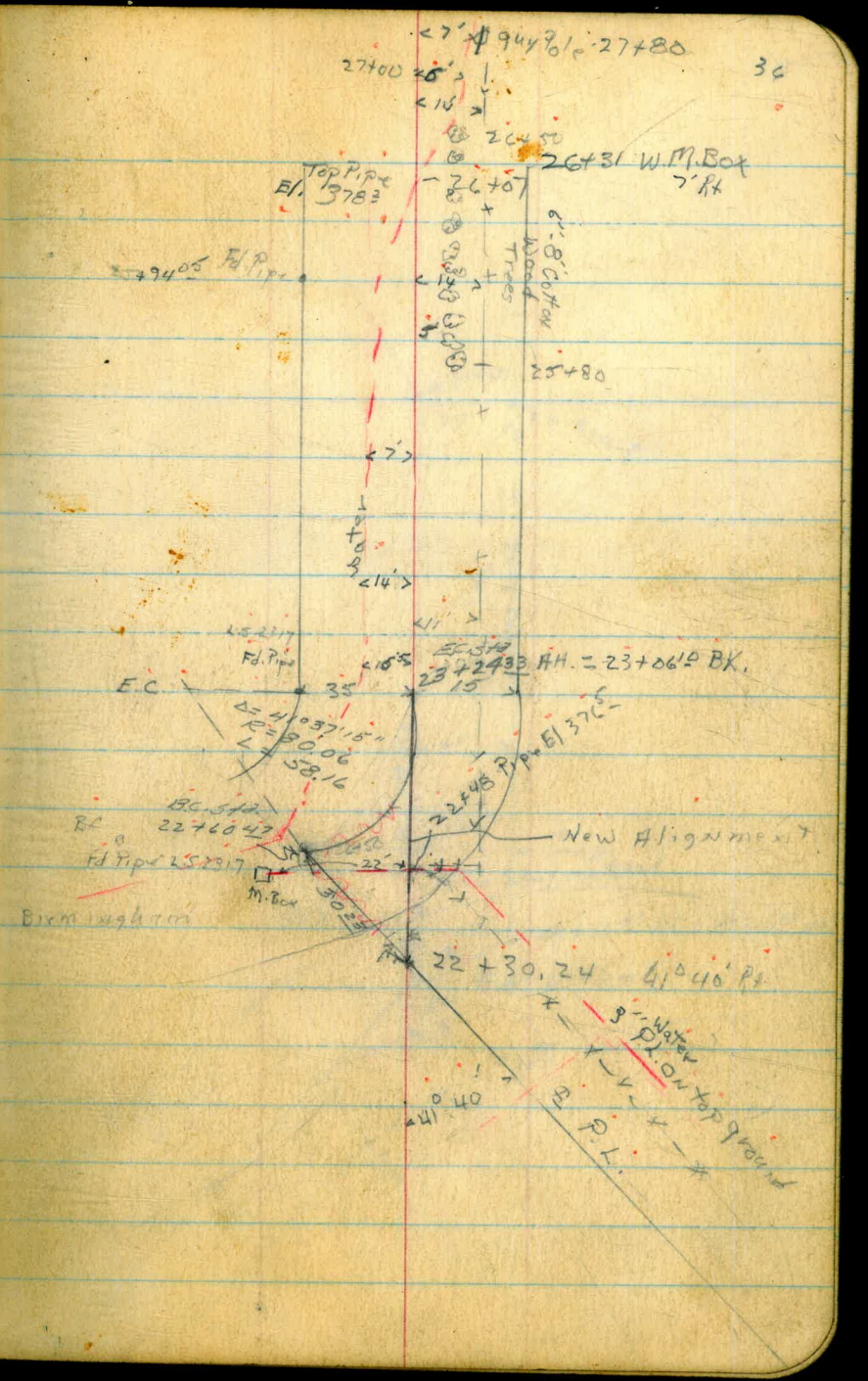

6' high board on lattice fence
Cor.
xing Sta. 15+92
S.E. Cor. Chesterton
Sd. conc. mon. Sta. 15+76.24
B wire fence xing
Sta. 15+74
B wire fence Sta. 14+96
27°
10+00
8°
7+00
Sta. 6+00
Glads

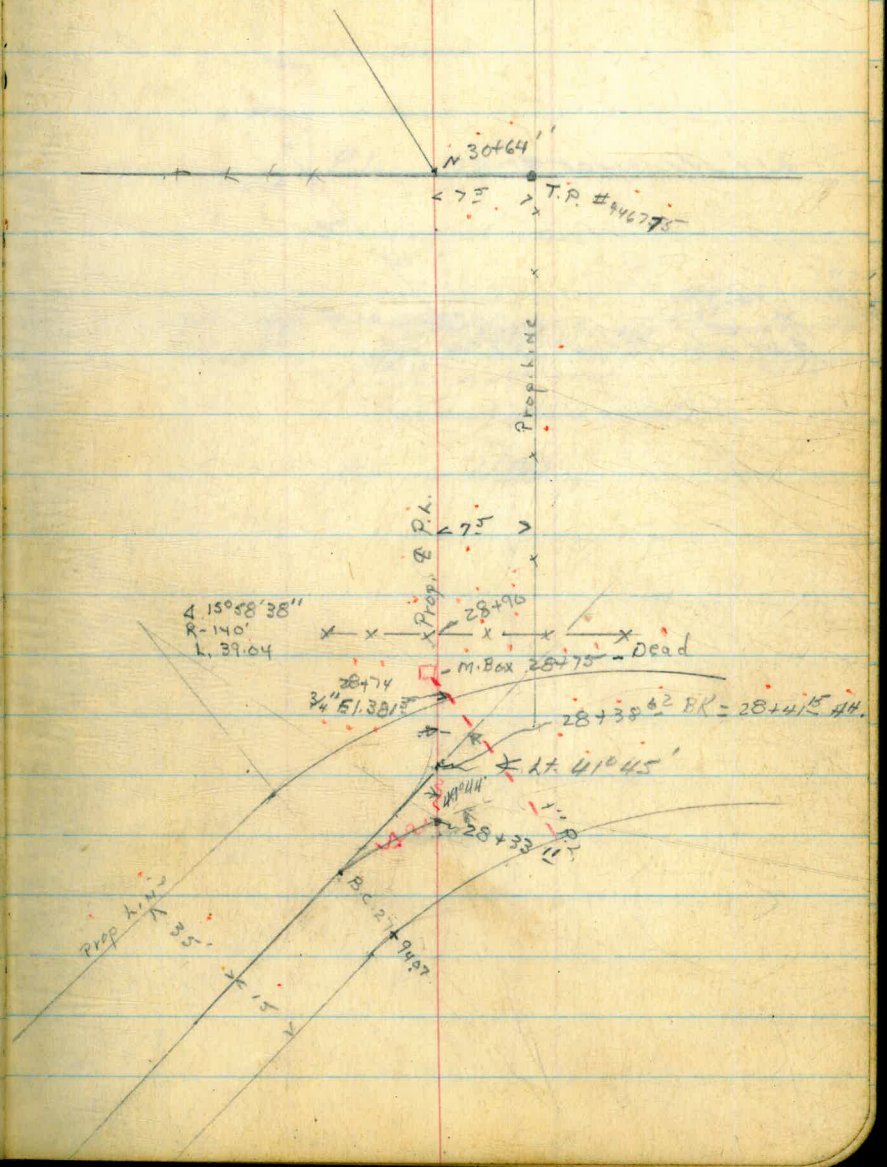

5' high
hog wire
fence
xing sta. 17+56
85°
30" high
rustic board
rail fence
xing sta. 16+99
6'
16+00
5'

REVISION OF
CHESTERTON PL.



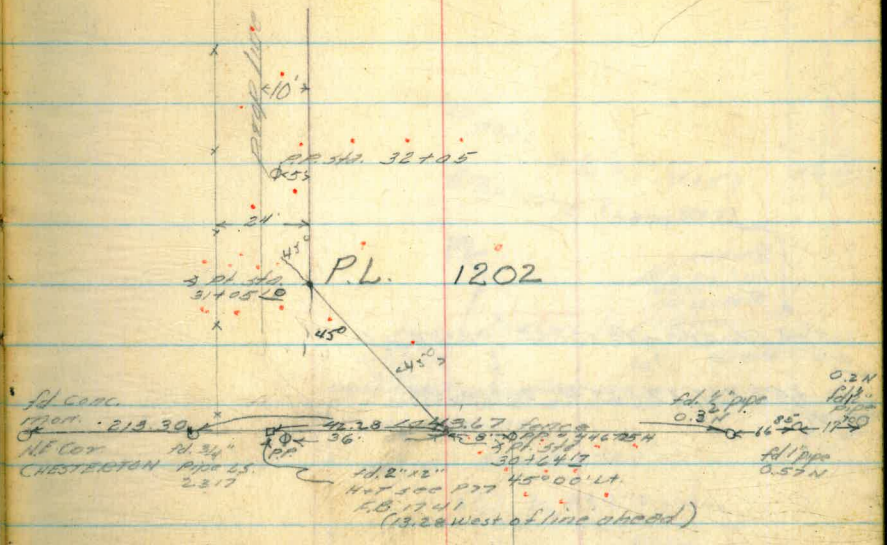

22+07
Metal
lathe
house
10'
4'
Sta. 21+97
21+00
10'
3' high
Picket fence
Sta. 20+84
2' high rustic
Wood fence
Sta. 20+74


27+00
27+80
26+31 W.M. Box
7' Rt
26+50
26+70
Top Pipe El. 378.3
9'-8" Cotton Wood Trees
25+80
24+94.05 Fd Pipe
E.C. 35
Fd. Pipe
23+24.33 AH. = 23+06.2 BK.
23+15
Δ = 41°37'15"
R = 80.00
L = 58.16
Pipe El. 376.-
22+48
New Alignment
B.C. 22+60.43
Fd Pipe 25.23 N
M. Box
Birmingham
22+30.24 41°40' Rt
8"-Water
P.I.
41°40'


N 30+64
T.P. #946775
Prop. Line
P.I.
Prop.
28+90
Δ 15°58'38"
R-140'
L. 39.64
M.Box 28+75 - Dead
28+74
3/4" 51.38
28+38.62 BK = 28+41.5 AH.
Lt. 41°45'
28+33
Prop Lt.
35'
B.C. 27
9497

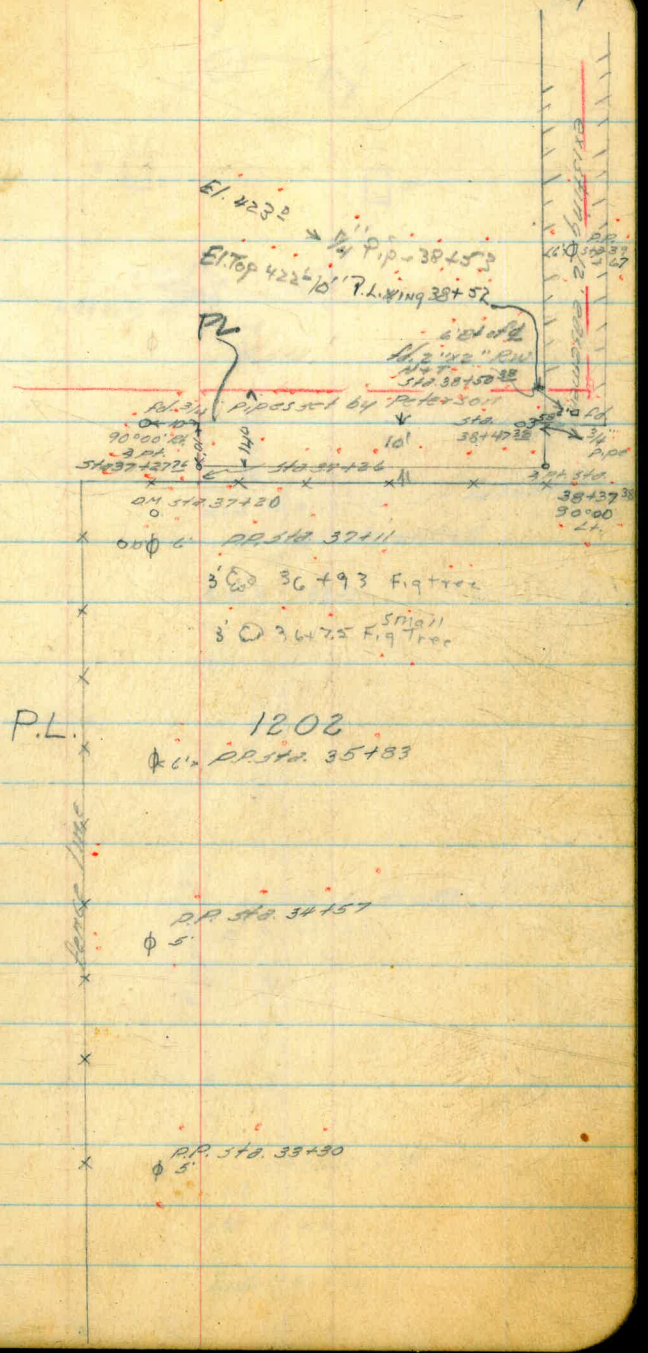
℄ Pl. Sta. 31+05 45°

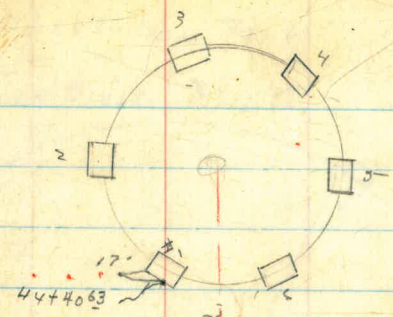
℄ Pl. Sta. 30+64 45°00' Lt.



℄ Pt. Sta. 38+39.38 90°00' Lt.

℄ Pt. Sta. 37+27.26 90°00' Rt.





Existing R.L.

Fd 2"x2" B.W. Mt 44+07.58

6'Φ RP Sta 44+05

<10° > 43+00

Proposed R.L.

6'Φ RP Sta 42+59

<10° > 42+00

EXISTING 12' EASEMENT

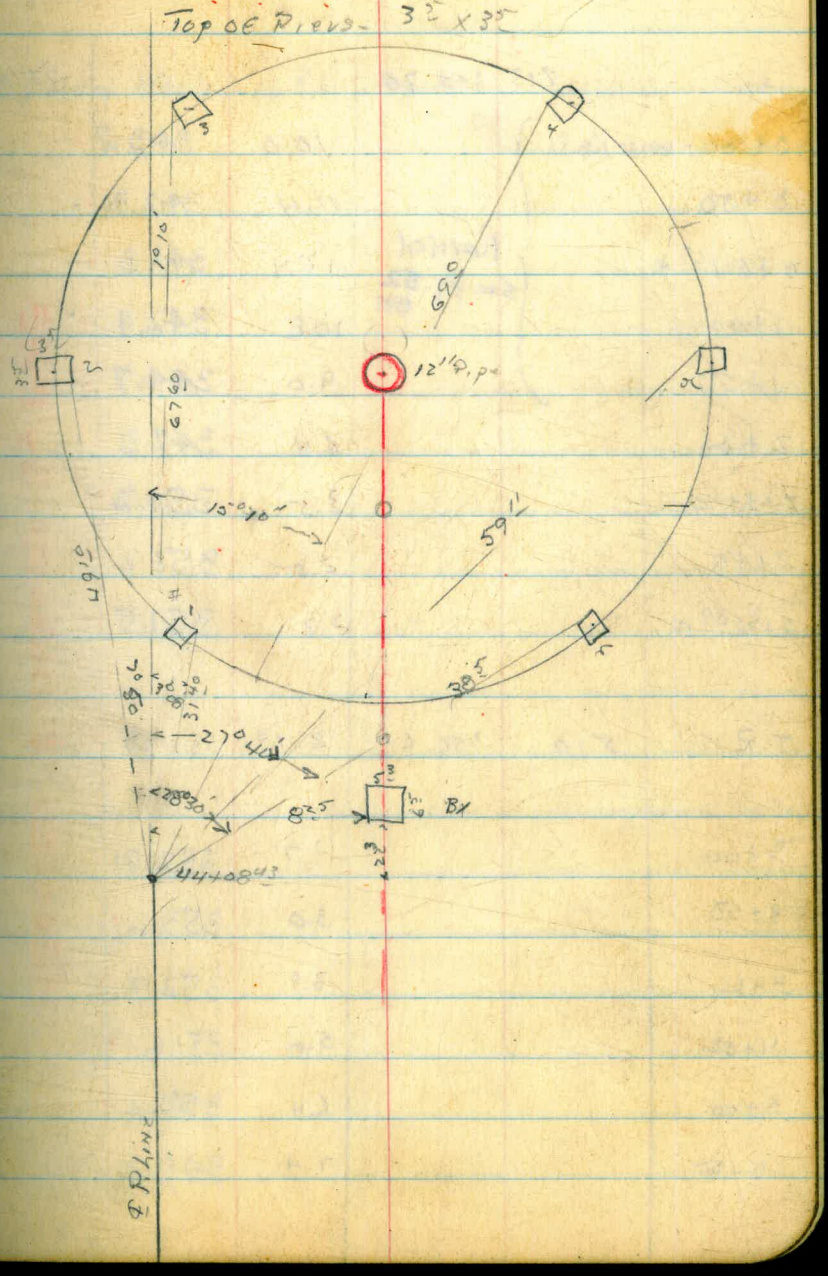
< 13' >

6'Φ RP Sta 41+13

<10° > 41+00

<10° > 39+00

Chesterton Tank



Profile Chesterton P.I. (New line)

11-14-49
King
West
Shipman

	2.13	353.70		351.57
0+00 = 109+35 B.M. P.I.			10.0	343.7
0+50			11.4	342.3
0+64.67 ℄		Revised See Pg. 52 EE	12.4	341.3
1+00			10.8	342.9
1+50			9.0	344.7
2+00			6.4	347.3
2+35.4			3.5	350.2
2+50			2.5	351.2
2+72.09 ℄			2.2	351.5
T.P.	5.10	356.61	2.19	351.51
3+00			3.7	352.91
3+50			3.0	353.6
4+00			3.9	352.7
4+50			5.0	351.6
5+00			6.4	350.2
5+50			7.4	349.2

REDUCED & CHECKED BY EWE. 12-15-49

ON Gilkey 110+20. B.M. P.I. Page 20

356.61

6+00			8.0	348.6
6+50			9.2	47.4
7+00			10.0	46.6
7+50			10.6	46.0
8+00			10.8	45.8
8+50			11.5	45.1
8+75	Ditch		12.9	43.7
9+00			9.8	46.8
T.P.	9.62	357.94	8.29	348.32
9+50			8.7	349.2
10+00			8.2	49.7
10+50			7.0	50.9
11+00			7.5	50.4
11+50			6.7	51.2
12+00			5.1	52.8
12+50			4.7	53.2
13+00			5.1	52.8

		357.94		
13+52			4.9	353.0
14+00			3.6	54.3
14+50			6.0	51.9
14+65			6.5	51.4
15+00			4.9	53.0
15+50			3.6	54.3
T. B. M.	12.65	367.82	2.77	355.17
16+00			12.6	355.2
16+50			11.9	55.9
17+00			11.7	56.1
17+50			11.0	56.8
18+00			10.0	57.8
18+50			8.4	59.4
19+00			5.3	62.5
19+50			2.5	65.3
20+00			1.6	66.2
T. P.	12.10	378.59	1.33	366.49

ON CONC. MON. 6'24-5 Lt. 15+72.4 — 2. 15+76.04 EE.

		378.59		
20+50			8.8	369.8
20+84			7.0	71.6
20+85			5.9	72.7
21+00			5.7	72.9
21+50			4.1	74.5
22+00			3.0	75.6
22+30.24 *			2.2	76.4
22+52			2.1	76.5
T.B.M.	6.84	384.02	1.41	377.18
23+00			7.9	376.1
23+50			7.1	76.9
24+00			6.8	77.2
24+50			6.0	78.0
25+00			5.9	78.1
25+50			5.5	78.5
26+00			5.2	78.8
26+50			3.8	80.2

on E.C. Prop. Drive Pipe No. 5 at Pot 23+04.10

		384.02		
27+00			2.9	381.1
27+50			1.9	82.1
28+00			1.2	82.8
28+38.2 BK 28+41.5			1.5	82.5
28+50			1.5	82.5
T.P.	12.80	395.47	1.35	382.67
29+00			11.8	383.7
29+50			10.9	84.6
30+00			9.7	85.8
30+50			7.6	87.9
30+64 ±			6.6	88.9
31+05.10 ±			6.0	89.5
31+50			3.7	91.8
32+00			1.9	93.6
T.P.	11.50	406.05	0.92	394.55

		406.05		
32+50			9.4	396.7
33+00			6.6	399.5
33+50			4.6	401.5
34+00			2.7	403.4
T.P	12.57	417.63	0.99	405.06
34+50			11.5	406.1
35+00			9.0	08.6
35+50			7.5	10.1
36+00			6.2	11.4
36+50			4.6	13.0
37+00			3.1	14.5
37+27.4			2.2	15.4
T.P.	12.92	428.14	2.41	415.22
37+50			8.3	419.8
38+00			7.2	20.9

		428.14		
28+37.38 ±			3.8	424.3
28+50			3.2	24.9
39+00			1.3	26.8
T.P.	10.25	437.04	1.35	426.79
39+50			8.0	429.0
40+00			6.9	30.1
40+50			5.6	31.4
41+00			5.1	31.9
41+50			3.8	33.2
42+00			1.6	35.4
T.P.	10.62	447.00	0.66	436.38
42+50			8.8	438.2
43+00			5.1	41.9
43+50			1.8	45.2
T.P.	7.55	452.40	2.15	444.85

		452.40			
44+00			5.0	447.4	
44+08.43			4.9	447.5	
B.M			0.51	451.89	451.42 CONC. Pier Water Tank
	Cont'd. on P-50 cc				
BM	0.11	451.93		451.82	7/23/52 Beatty
TP	0.95	446.02	6.86	445.07	
TP	0.38	433.38	13.02	432.00	
TP	0.90	421.52	12.76	420.62	
(W)	Hub T/curb	FO 9.7	6.56	414.98	415.97
E	" "	FO 1.9	5.47	416.05	416.24
	(5) F.H.		5.59	415.93	416.10 8'LT. 37+01.9
			Bottom 18"		408.8 FO 2.2 To E C6.3 To E 11.
TP	0.49	415.36	6.65	414.87	414.9 on 3/2" I.P
TP	0.33	406.36	9.33	406.03	
	(5) F.H.		6.23	400.12	400.0 8'LT 32+52.70
			Bottom 18"		391.2 Col C8.4
TP	2.37	396.33	12.35	394.01	
CK			6.36	389.97	389.99 Nail in pole

REDUCED & CHECKED BY E.W.E. 12-15-49

X-Sections & Profile
Chesterton R.L.
At " Tank

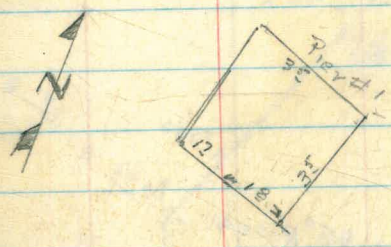
King-Notes 1-19-50 clear
Shipman Cool
West

5-0

B.M.	1.02	452.84		451.82
44+00			5.6	447.2
+25			4.4	448.4
+50			3.3	449.5
+75			3.4	449.4
45+00			2.1	450.7
B.M.			1.01	451.81

Lt. RT

Top Conc. Pier #8



9.8/30	6.6/12	5.0/10	4.9/19	6.9/30
6.7/30	5.2/12	3.2/9	3.8/30	
6.4/30	4.8/12	2.7/11	1.8/17	3.1/34
5.0/30	4.1/12	2.4/12	2.5/34	
4.3/30	3.0/12	1.8/12	2.4/30	

Chesterton R.L.

Chesterton Rd.
Realignment - 0+00 - 1+65.80
For Pump House

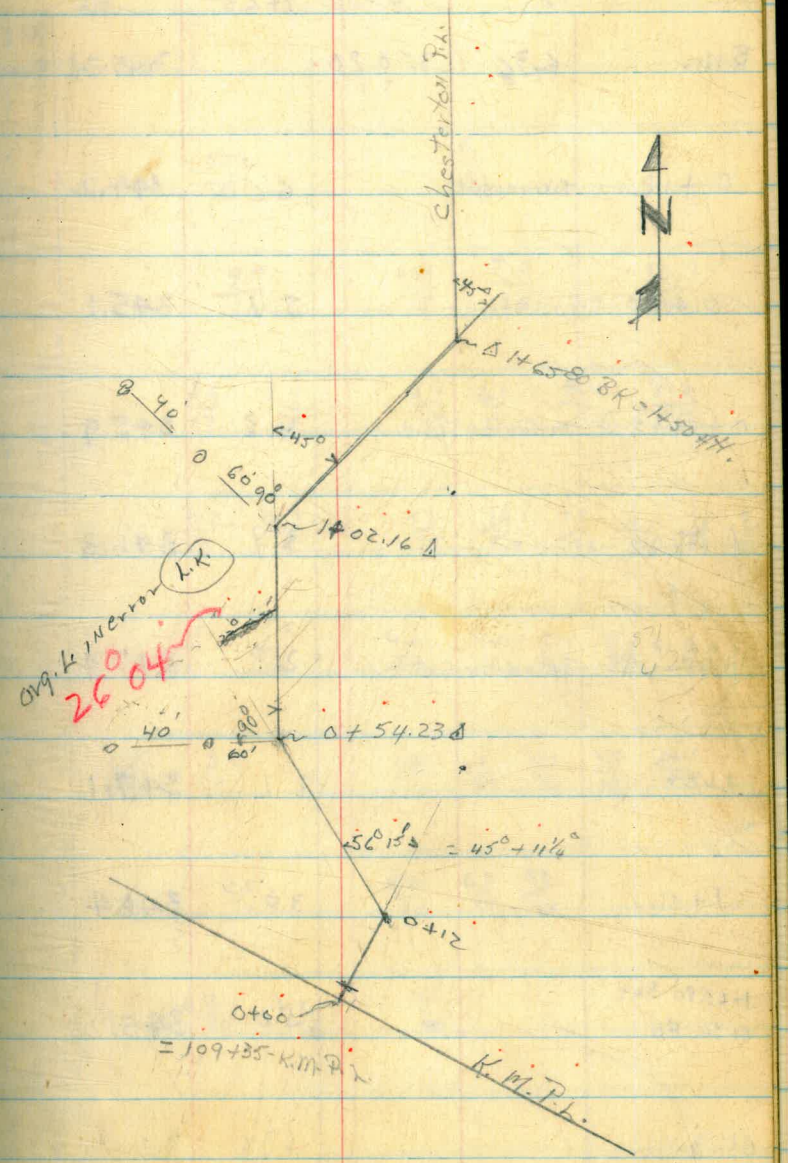
∠	1+50 Ahd.	45° Lt.
	1+65.80 BK =	
∠	1+02.16	45° Rt.
∠	0+54.23	33° 50' 30" Rt.
∠	0+12	56° 15' Lt.
	0+00	

King T
Shipman
West

1-23-50

Clear - cool

51



Chesterton P.K.

Profiles & X-Sections on Relocation for Pump House

0+00 - 1+65

King-Notes
Shipman-R
West-T

1-23-50

clear - cool

5-2

B.M.	6.36	350.20		343.84	N.E. Cor Gingrich
0+12	Taken on split		6.0	344.2	
0+25			5.1	345.1	
0+54.23 △	Taken on split		4.3	345.9	
0+75			3.9	346.3	
1+02.16 △	Taken on split		2.8	347.4	
1+25			3.1	347.1	
1+50			3.8	346.4	
1+65.80 BK = 1+50 AH.			5.0	345.2	
ck. B.M.			6.34	343.84	

Lt.

4 N Box 10+35 - K.M.Ph.

5.2 / 10

4.5 / 10

1.6 / 17 — 3.4 / 3

2.2 / 10 — 2.7 / 21

1.5 / 10 — 1.9 / 6

0.5 / 28 — 2.5 / 10

+0.1 / 50 — 0.9 / 35 — 2.5 / 12

+0.1 / 50 — 2.4 / 25 — 3.2 / 18

Rt.

6.7 / 10

6.8 / 13 — 8.0 / 26 — 9.1 / 29 — 10.9 / 40

4.9 / 13 — 6.1 / 17 — 8.4 / 50 — 9.2 / 55

4.2 / 13 — 16 / 5.4 — 7.3 / 32 — 8.0 / 36 — 8.8 / 50 — 9.6 / 55

4.6 / 17 — 7.0 / 42 — 5.3 / 46 — 8.9 / 55 — 9.4 / 60

4.8 / 17 — 7.3 / 39 — 8.9 / 40 — 9.3 / 52 — 10.1 / 55

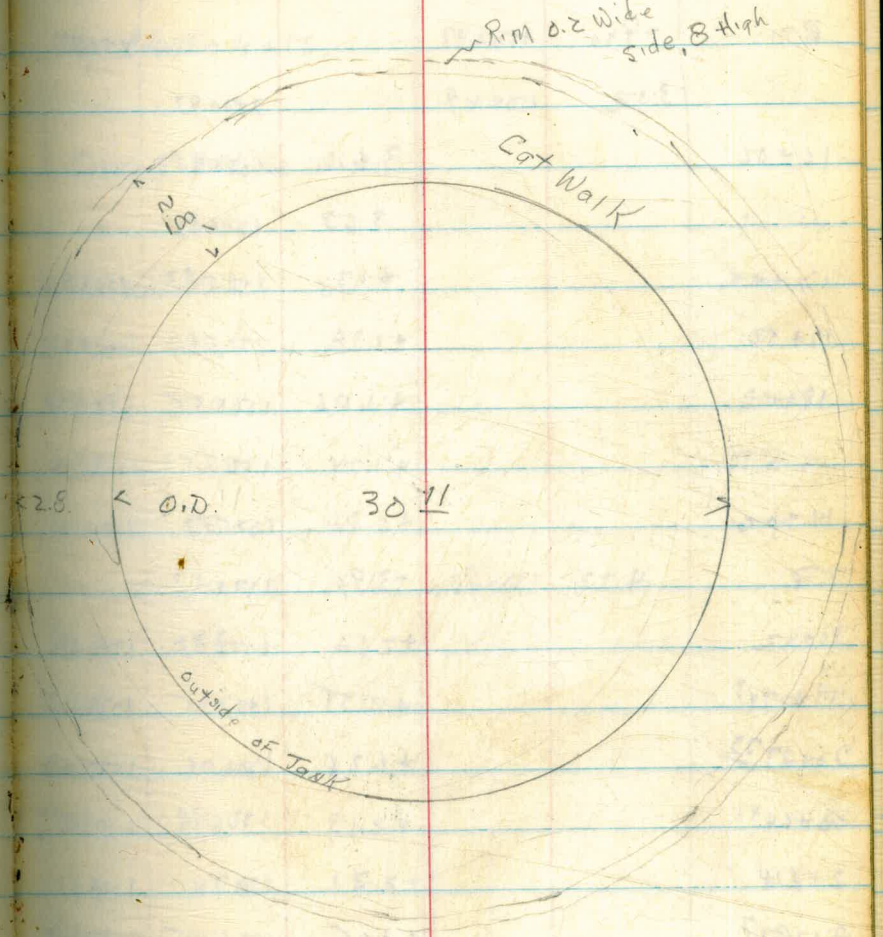
5.2 / 10 — 6.2 / 14 — 8.3 / 32

7.1 / 20

Chesterton Water Tank

King
Shipman
West

1-23-50



Dulzura Conduit
Flume-6 - Flume #7

King Baker West. 9-11-50

B.M.	-9.40	1500.97			1510.37	Top #dwll - 16+56
	3.52	1504.49		1500.97		
16+56			3.60	1500.89		Conc. End Flume #6
"			3.63	1500.86		" " " "
17+00			+1.34	1505.83	1500.86	4.97
17+50			+1.38	1505.87	1500.83	5.04
18+00			+1.06	1505.55	1500.80	4.75
+50			+1.04	1505.53	1500.76	4.77
19+00			+0.88	1505.37	1500.72	4.65
T.T.	4.27	1504.80	-3.96	1500.53		
19+42			+2.52	1507.32	1500.69	6.63
19+73			+2.55	1507.35	1500.67	6.68
20+27 73			+1.26	1506.06	1500.63	5.43
20+64 81			+2.19	1506.99	1500.61	6.38
21+18			+2.31	1507.11	1500.51	6.54
21+97 7			+1.65	1506.45	1500.51	5.94
22+14 81			+1.55	1506.35	1500.50	5.85
22+88 57			+2.36	1507.16	1500.45	6.71

1504.80

23+29.44			+2.24	1507.08	1500.41	6.67
24+30.39			+2.27	1507.07	1500.35	6.72
24+61.34			+1.72	1506.52	1500.33	6.19
T.P	3.98	1503.79	-4.99	1499.81		
25+12.6			-0.67	1503.12	1500.29	2.83 - Scratch on wall
25+37.4			+0.90	1504.69	1500.27	4.43
26+00			+1.11	1504.90	1500.23	4.67
26+50			-1.02	1502.77	1500.20	2.57 Top wall in Tunnel
27+00			-1.43	1502.36	1500.16	2.20 - Scratch on wall
27+50			+0.78	1504.59	1500.13	4.44
T.P	4.42	1504.18	-4.03	1499.76		
28+00			+0.33	1504.51	1500.09	4.42
+50			+0.22	1504.40	1500.06	4.34
29+00			+0.15	1504.33	1500.02	4.31 4.31
T.P.	4.53	1504.13	-4.50	1499.60		
29+50			-1.22	1502.91	1499.99	2.92 on wall
30+00			+0.19	1504.32	1499.96	4.36
T.P.	2.73	1502.36	-4.50	1499.63		
30+50			+1.97	1504.33	1499.33	4.40

1502.36

T.P.	+3.90	1503.20	-3.06	1499.30		
31+05			+1.00	1504.20	1499.88	4.31
31+99			-4.00	1499.20		Step up 1x Floor
+19			-3.32	1499.88		Top concrete New Floor
31+93			-3.45	1499.75	1499.78	Bottom Flume #2 - DK61

Dutzura Conduit.
Tunnel # 6
Profile & Cuts.

King Baker West 9-13-30

37.

T.B.M.	0.68	1461.72			1461.04	Top Lt. Wall 547+09 - Bk. 671
3 547+59			+1.74	1463.46	1456.97	6.49
3 gr.			-4.75	1456.97		
548+00			+1.78	63.50	52.93	6.57
gr			-4.14			
3 548+20			-5.0			Top Floor in Concrete part of Tunnel
+45° gr			-4.52			
+45°			+0.93	62.65	52.89	5.76
549+00			43.30	65.02	58.84	8.18
gr			-4.5			
+50			+1.30	63.02	52.79	6.23
gr.			-4.1			
550+00			+2.01	63.73	52.74	6.99
gr.			-4.2			
+50			+2.03	63.75	52.69	7.06
gr.			-4.4			
551+00			+1.60	63.32	58.64	6.68
gr			-4.5			
T.R.	-2.24	14608	+1.60	1463.32		

		1461.08				
551+50			+2.65	63.73	56.59	7.14
qr			-3.5			
552+00			+3.13	64.21	56.54	7.67
qr			-3.9			
552+50			+2.22	63.30	56.49	6.81
qr			3.9			
553+00			+3.05	64.13	56.44	7.69
qr			-4.1			
+50			+2.61	6369	5639	7.30
qr.			-4.2			
554+00			+2.43	63.53	56.34	7.19
qr			-3.9			
+50			+2.94	6402	56.29	7.73
qr			-4.6			
555+00			+2.37	63.45	56.24	7.21
qr			-4.2			
+50			+2.85	63.93	56.19	7.74
qr			-4.0			
P.T	-2.87	1461.06	+2.85	1463.98		

1461.06

556+00	+2.01	63.07	56.14	6.93
9r	-4.3			
3 +50	+1.71	62.77	56.09	6.68
9r	-4.2			
557	+1.87	62.93	56.04	6.89
9r	-4.4			
+33	-4.33	1456.73	1456.80	C 0.73 - Ginney in Q Tunnel Portal - CK40BR671
+35	-1.47	1459.59		T.B.M. 6' Rt 557+35 - On Rt. of Rock - painted

Chesterton P.L.

King 7
Baker Level
West ch-etc,

9-14-50 CLEAR-WARM 60

351.18

B.M.	6.32	357.50			351.18
T.B.M.	8.00	354.94	-10.56	346.94	
0+54.23 (6)			8.6	346.3	339.0
1+02.16 (6)			8.0	346.9	338.2
1+50 (6)			9.2	345.7	339.2
1+65.80 BK (6)			10.0	344.9	339.3
1+50 Ah (6)			9.9	345.0	339.3
2+04.44 (6)			7.6	347.3	341.9
2+41.53 (6)			5.9	349.0	344.2
2+41.53 (5)			5.7	349.2	349.2
2+50 (5)			5.0	349.9	344.5

Top Conc. Mon - Hgh 395 - R.M. 7-L-#2

N.W. Cor. K.M.P.L. G.V. chamber 109435 = 0+00 chesterton

C 7 3/

C 8 7/

C 6 5/

C 5 6/

C 5 7/

C 5 4/

C 4 8/

C 5 0/

C 5 4/

Chesterton Pl. 5'0 OFFSET

King Baker West

9-14-50

354.94

3+00	③			2.3	352.6	346.4	C 6 2
+50	⑧			1.3	353.6	346.7	C 6 9
4+00	⑤			2.1	352.8	346.3	C 6 5
+50	⑧			3.4	351.5	346.0	C 5 5
5+00	⑤			4.6	350.3	345.0	C 5 3
5+50	⑤			5.7	349.2	344.0	C 5 2
6+00	⑤			6.5	348.4	343.0	C 5 4
T.P.		2.30	350.78	6.46	348.48		9 IN 4+4 @ 6+0.
6+50	⑧			3.3	347.5	342.0	C 5 5
7+00	⑤			4.1	346.7	341.1	C 5 4

Chesterton P.L.
5' OFF

King
West
Baker

9-14-50

62

		350.78			
7+50 (5)			4.6	346.2	340.2
8+00 (8)			5.4	345.4	339.3
8+50 (9)			5.4	345.4	338.5
8+75			6.0	344.8	338.5
9+00 (3)			4.1	346.7	339.5
T.B.M.	11.26	357.95	4.09	346.69	
9+25			9.5 ~~9.8~~	485	476.0
+50			8.9	49.1	47.5
+75			8.8	49.2	43.5
10+00			8.1	49.9	44.0
10+50			7.2	50.8	44.5

C 6 0

C 6 4

C 6 9

C 6 3

C 7 2

GINNEY - 9+00

7.5

6.6

5.7

5.9

C 3

Chesterton Pk-

King Baker & West

9-14-50

357.95

11+00			7.3	50.7	45.0	5.7
11+50			6.4	51.6	45.5	6.1
12+00			4.9	53.1	46.0	7.1
+50			4.6	53.4	46.0	7.4
13+00			5.2	52.8	46.0	6.8
+50			4.3	53.7	46.0	7.7
14+00			3.9	54.1	46.0	8.1
+50			5.5	52.5	46.0	6.5
+63			6.2	51.8	46.0	5.8
15+00			5.4	52.6	47.0	5.6

Chesterton P.L.

King Baker T West. 9-14-5 V

		357.95				
15+50			3.5	54.5	48.5	6.0
16+00			2.5	55.5	48.9	6.6
+50			1.8	56.2	49.3	6.9
16+75			1.4	56.6	49.5	7.1
T.P.	10.86	347.43	1.38	356.57	?	
17+00			11.2	56.2	350.0	6.2
17+50			10.3	57.1	51.0 ~~53.5~~	6.1 ~~6.6~~
18+00			9.1	58.3	52.0	6.3
+50			7.5	59.9	54.0	5.9
19+00			4.7	62.7	56.5	6.2

Chesterton P.2.

King West Baker St

9-14-50

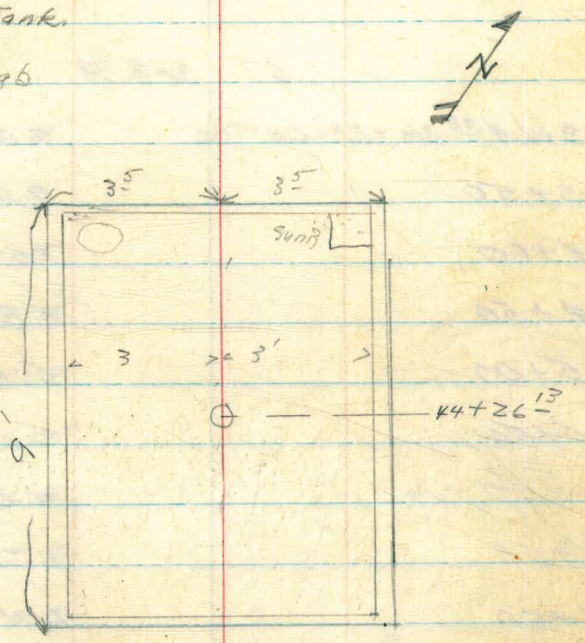
65

		367.43				
19+50			1.7	65.7	59.0	6.7
20+00			1.0	66.4	61.5	4.9
T.P.	10.58	377.06	0.95	366.48		
20+50			7.3	69.8	64.0	5.8
21+00			3.9	73.2	66.5	6.7
21+50			2.3	74.8	68.7	6.1
22+00			0.9	76.2	69.0	7.2
T.P.	5.28	381.44	0.90	376.16		
22+40.24			4.8	76.8	69.2	7.4
B.M.			4.17	377.27		

Chesterton P.L.
Constr. Hts. to det. G.K. Box 44+26 13

King West 9-28-50 46

B.M.	0.27	452.09			451.82	Top Conc. Pier Tank.
						Cut - Top Slab
N.E Cor (8')	clr		2.45	449.64	440.90	8.74
S.E Cor (8')			2.72	449.37	441.22	8.15
S.W. Cor (8')			5.00	447.09	441.40	5.69
N.W. Cor (8')			4.50	447.59	441.15	6.44
			0.27	451.82		



Chesterton Const.
5' Offsets

Sept. 29, 1950 Rainey King West

67

				377.27	Pipe	
	6.67	383.94				
23+24.33 Ah = 23+08.95 Bk			7.8	376.1	369.7	6.4
23+50			7.5	376.4	370.0	6.4
24+00			7.0	376.9	370.4	6.5
24+50			5.8	378.2	370.9	7.2 ~~7.3~~
25+00			5.8	378.1	371.4	6.7
25+50			5.5	378.4	371.9	6.5
26+00			4.8	379.1	372.3	6.8
26+50			3.2	380.7	373.4	7.3
27+00			2.4	381.5	374.5	7.0
T.P. #1			1.70	382.24		
	8.40	390.64				
27+50			8.0	382.6	375.6	7.0
28+00			8.0	382.6	376.5	6.1
28+38.62 Bk = 28+41.15 Ah			8.1	382.5	377.2	5.3
			8.0	382.6	377.2	5.4
28+50			7.9	382.7	377.4	5.3
29+00			6.7	383.9	378.3	5.6

Chesterton P.L.
5' Offsets

Rainey
King
West

9-29-50

390.64

29+50				6.0	384.6	379.2	5.4
30+00				4.7	385.9	380.0	5.9
30+50				2.6	388.0	382.0	6.0
30+61 42' BL				1.0	389.5	382.5	7.0
30+61 42' AH				1.39	389.25	382.5	6.7
~~31~~ T.P. 9.70		398.95					
31+02.10			9.6	389.4	384.0	C 54	
31+50			7.4	391.6	385.9	5.7	
32+00			5.0	394.0	388.0	6.0	
32+50			2.0	397.0	391.0	6.0	
T.P.	13.24	410.91	1.28	397.67			
33+00			11.2	399.7	394.0	5.7	
+50			9.3	401.6	395.6	6.0	
34+00			7.2	403.7	397.5	6.2	
+50			4.4	406.5	400.2	6.3	
35+00			2.2	408.7	403.0	5.7	
+50			0.6	410.3	404.4	5.9	
T.P.	10.77	421.06	0.62	410.29			

64 Rainey

		421.06						
36+00			9.7	411.4	405.7	5.7		
+50			7.2	413.9	407.1	6.8		
37+00			6.1	415.0	408.6	6.4		
△ +27.26			5.3	415.8	410.0	5.8		
37+50			4.1	417.0	411.5	5.5	3.40	420.96 417.5
38+00			8.3	420.8	415.2	5.6	36+00	7.8 413.1 407.1 405.7 - 7.4
T.P	10.06	430.79	0.33	420.73			36+50	6.6 -14.3 - 407.1 - 7.1
38+37.38 PT			6.7	424.1	418.1	6.0	37+27.24	5.4 - 15.5 - 410.0 - 5.4
PT			6.0	424.8	418.1	6.7		
+50			5.4	425.4	419.0	6.4		
39+00			3.7	427.1	421.0	6.1		
+~~50~~ 25			2.0	428.8	422.0	6.8		
~~40+00~~ 39+~~94~~ 50			1.3	429.5	422.6	6.9		
T.P.	12.12	~~341.57~~	1.34	429.45		ON GIRDER		
40+00			10.7	30.9	424.0	6.9		
+50			9.8	31.8	425.0	6.8		
41+00			9.1	32.5	424.0	6.5		
+50			7.9	33.7	427.5	6.2		
42+66			5.8	35.8	429.5	6.3		

		441.57				
42+50			2.5	39.1	432.5	6.6
T.P.	8.11.90	453.07	0.40	441.17		
43+00			10.2	42.9	435.5	7.4
43+50			7.6	45.5	429.5	6.0
B.M.	1.23	453.07	1.23	451.84		
43+66			6.8	446.3	440.3	6.0
44+15			4.00	449.1	442.9	6.2
			1.23	451.84	451.91	

FEB. 26, 1951
BEATTY
LEONARD
WELKER

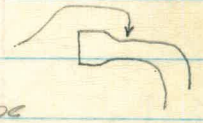
MISC. ELEVS
CHESTERTON TANK

B.M.	3.00	454.82	451.82	Top Conc. Pier N°2
			7.02	447.80	Top 10" EWB 12" C.I. Pipe - 4½' Nor. of G.V., Nor Chamber
			5.1	49.7	Nat Grd AT Pier #1 (inside)
			5.3	49.5	" " " " #2 "
			4.9	49.9	" " " " #3 "
			4.3	50.5	" " " " #4 "
			4.6	50.2	" " " " #5 "
			4.0	50.8	" " " " #6 "
			3.9	50.9	" " 10' Toward Pier #6 from C 10" EWB 12" Down pipe
			4.5	50.3	" " 6' " " " " " " "
			4.4	50.4	" " 16" EWB C 12" Down pipe C TANK
			5.6	49.2	NAT GRD AT Pier #1 (outside)
			7.0	47.8	" " " " #2 "
			5.1	49.7	" " " " #3 "
			4.3	50.5	" " " " #4 "
			6.2	48.6	" " " " #5 "
			4.7	50.1	" " " " #6 "
			6.1	48.7	" " 10' from Pier #1 (outside)
			7.2	47.6	" " " " #2 "

MISC. ELEV.S
CHESTERTON TANK

454 82

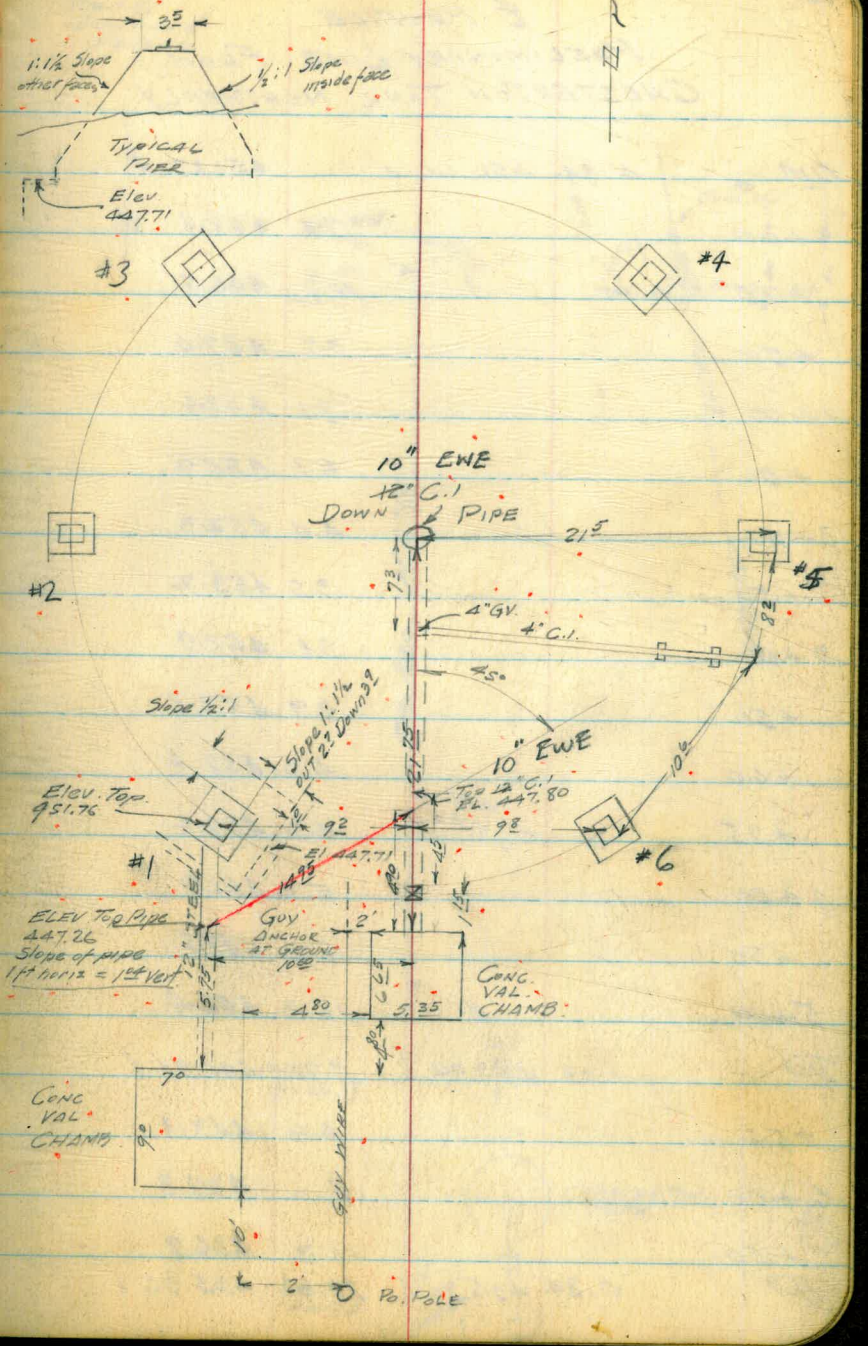
5.2	449.62	NAT. GRD. 10' from Pier #3 outside
4.1	50.7	" " " " #4 "
9.2	45.6	" " " " #5
4.9	49.9	" " " " #6
3.21	51.61	Top 4" C.I Blow-off line (Top ell)
3.07	51.75	" " " " " End of pipe
3.01	51.81	" " " " 6' from end of pipe
3.49	51.33	Top of orig Valve Chamber
3.46	51.36	Top of NEW " "
7.11	447.71	Top Conc Foot Pier N°1
2.06	51.76	Top of Pier N°1



FEB. 26, 1951

CHESTERTON TANK

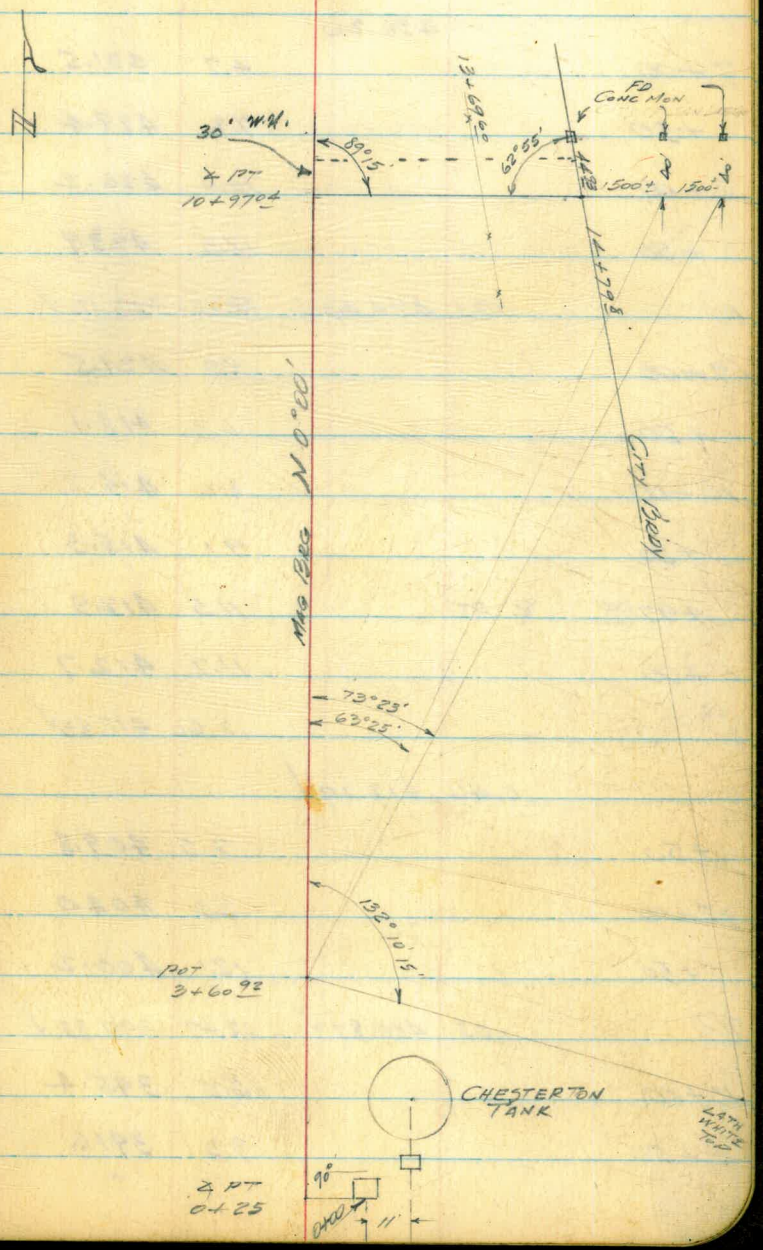
DETAILS



℄ PROFILE
PRELIMINARY LINE FROM CHESTERTON TANK NORTHERLY

May 8 1951
Beatty
Leonhard
Nelson

BM	4.84	456.66 ✓		451.82
0+00			7.9	448.8
+25	(℄ PT.)		10.2	446.5
+50			9.7	447.0
1+00			8.1	448.6
+50			6.1	450.6
2+00			4.4	452.3
+50			3.5	453.2
3+00			3.8	452.9
+50			3.9	452.8
+60			4.3	452.4
+75			4.3	452.4
4+00			5.7	451.0
+50			8.2	448.5
5+00			10.3	446.4
TP	1.03	447.99 ✓	9.70	446.96 ✓
+50			4.9	443.1
6+00			8.2	439.8
+50			11.3	436.7
TP	0.84	436.20 ✓	12.63	435.36 ✓



℄ PROFILE
CHESTERTON TANK NORTH

		436.20		
7+00			4.7	431.5
+50			7.8	428.4
8+00			10.0	426.2
+50			12.3	423.9
P		1.31	424.43 ✓	13.08	423.12 ✓
9+00				2.9	421.5
+50				6.3	418.1
10+00				8.2	416.2
+50				9.1	415.3
+97.00	℄ PT.			11.5	412.9
11+00				11.7	412.7
P				12.60	411.83 ✓
		0.46	412.29 ✓		
+50				2.5	409.8
12+00				8.3	404.0
+50				12.1	400.2
P		1.05	400.87 ✓	12.47	399.82 ✓
13+00				5.5	395.4
+50				9.3	391.6

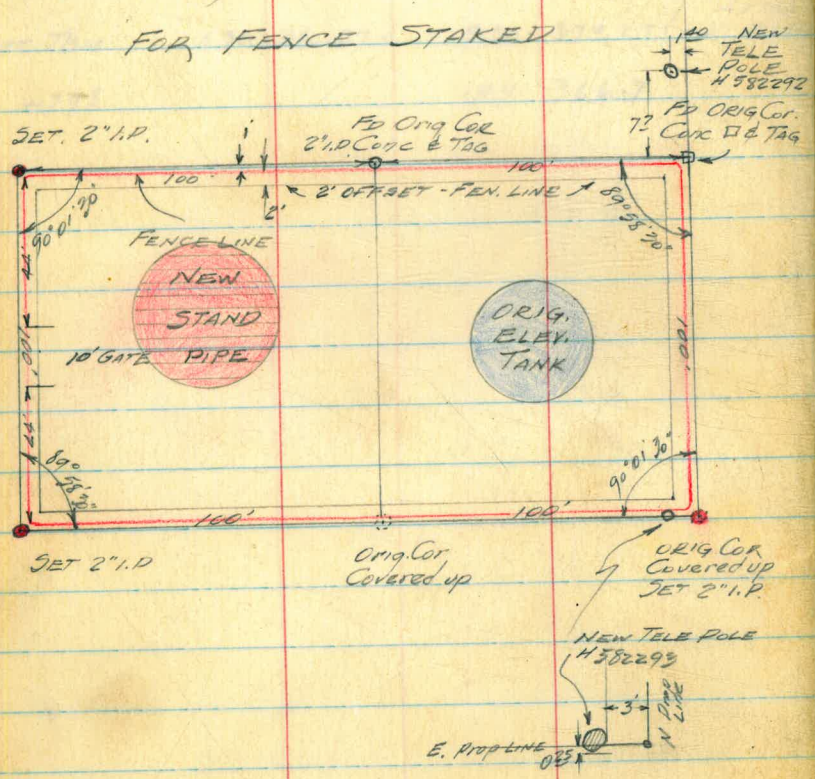
2nd PROFILE
CHESTERTON TANK NORTH

			400.87			
7	13+69.6	(at fence)		10.6	390.3	
	W (Rock)	0.26	388.57 ✓	12.56	388.31 ✓	
8	14+00			2.0	386.6	
	+50			12.2	376.4	
4	SET TBM	1.30	380.57 ✓	9.30	379.27 ✓	TOP CONC MON 44.5 AT 14+79.8
9	+79.8			13.9	366.7	
10						
11						
4						
12						
11						
13						

CHESTERTON TANK
LOCATION SURVEY

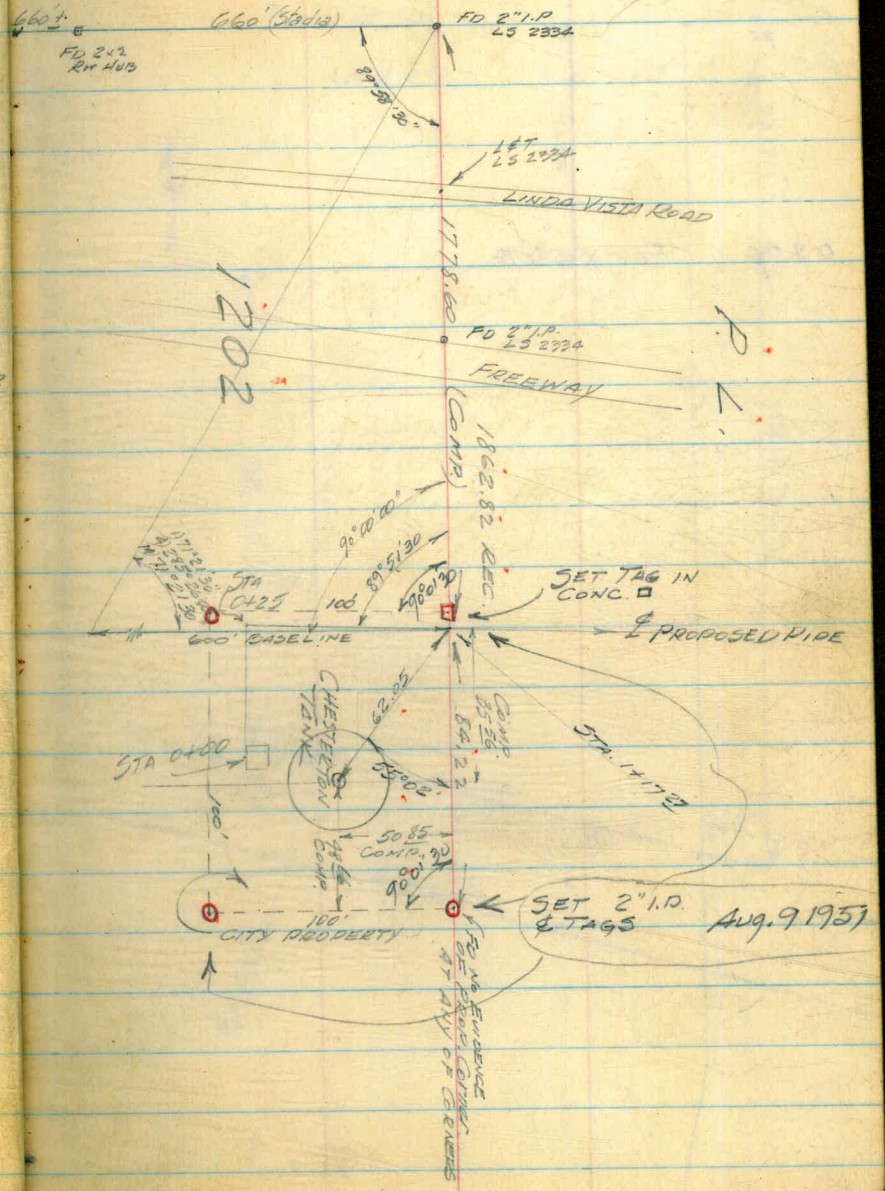
JUNE 29 1953
BEATTY
MARTELL
ALEXANDER

PROPERTY CORNERS & 2' OFFSET
FOR FENCE STAKED



May 25 1951
BEATTY
LEONARD

Aug. 9 1951. 78.

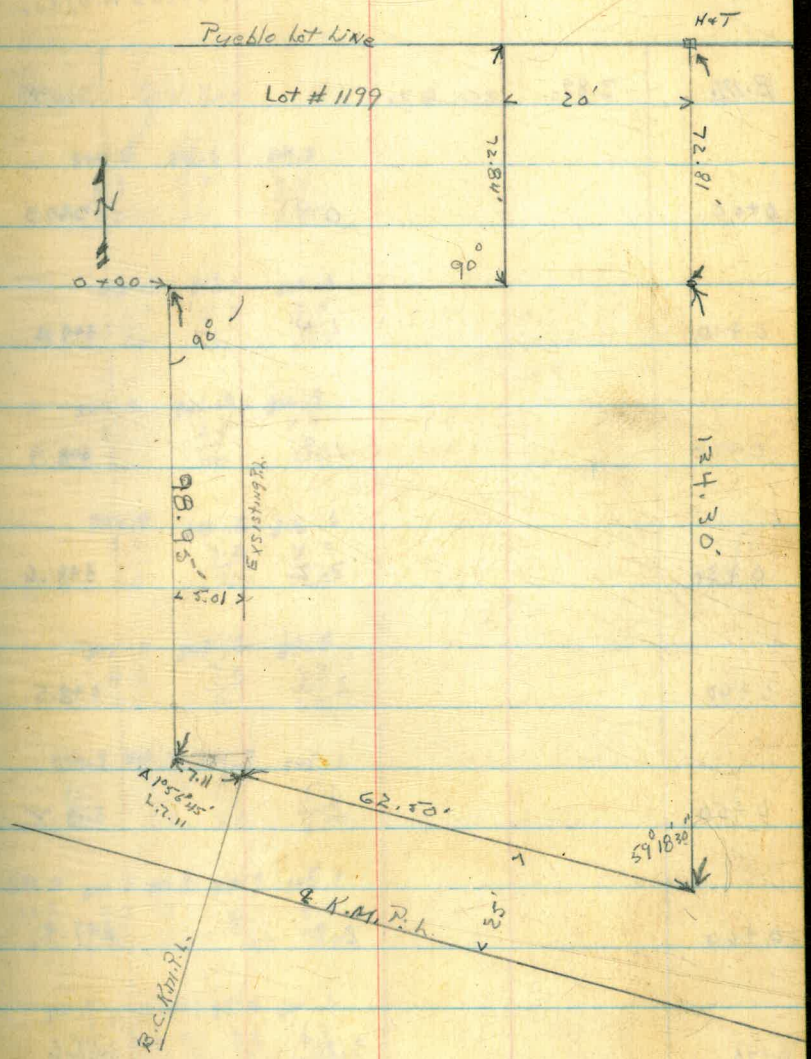


Chesterton P. Plant Site

0+00 For X-Sects.

King
West
Williams

79



Chesterton P. Plant
Site - V - Seats
Base Line West P.L. 0+00 = N.W. Cor.

	B.M.	3.89	350.83		346.94
	0+00			0.9	349.9
	0+10			1.4	349.4
	0+20			1.9	348.9
	0+30			2.2	348.6
	0+40			2.3	348.5
	0+50			2.6	348.2
	0+60			2.9	347.9
	0+70			3.2	347.6
	0+80			3.3	347.5

King
West
Williams

7-20-57

80

N.W. Cor. G.V. Box

344.5 345.6 347.8
6.3 5.2 3.0
60 50 25

343.6 345.1 347.3
7.2 5.7 5.5
60 50 25

347.7 341.3 346.9
8.1 6.5 3.9
60 50 25

347.4 343.6 346.6
8.4 7.2 4.2
60 50 25

347.0 343.2 346.5
8.8 7.2 4.3
60 50 25

340.7 341.2 347.7 345.6
10.1 9.4 8.1 5.2
60 53 52 25

340.2 341.1 341.8 347.7 345.1
10.6 9.7 9.0 8.1 5.7
60 58 44.5 43 25

340.2 341.2 341.1 347.7 344.6
10.6 9.4 9.7 8.1 6.2
60 55 40 39 25

340.6 341.6 347.2 344.2
10.2 9.2 8.6 6.6
60 54 38 25

Chesterton P. Plant Site
X-Sects

350.83		
0+90	3.6	347.2
1+00	3.7	347.1
1+10	3.8	347.0
1+20	4.0	346.8
CK B.M.	3.89	346.94

King
West
Williams

7-19-51

Hotter "L"

81

339.5 341.8 347.7 343.8
11.3 9.0 8.1 7.0
60 48 31 25

338.6 340.6 347.0 347.7 346.0
12.2 10.2 8.8 8.1 6.8
60 50 42 32 25

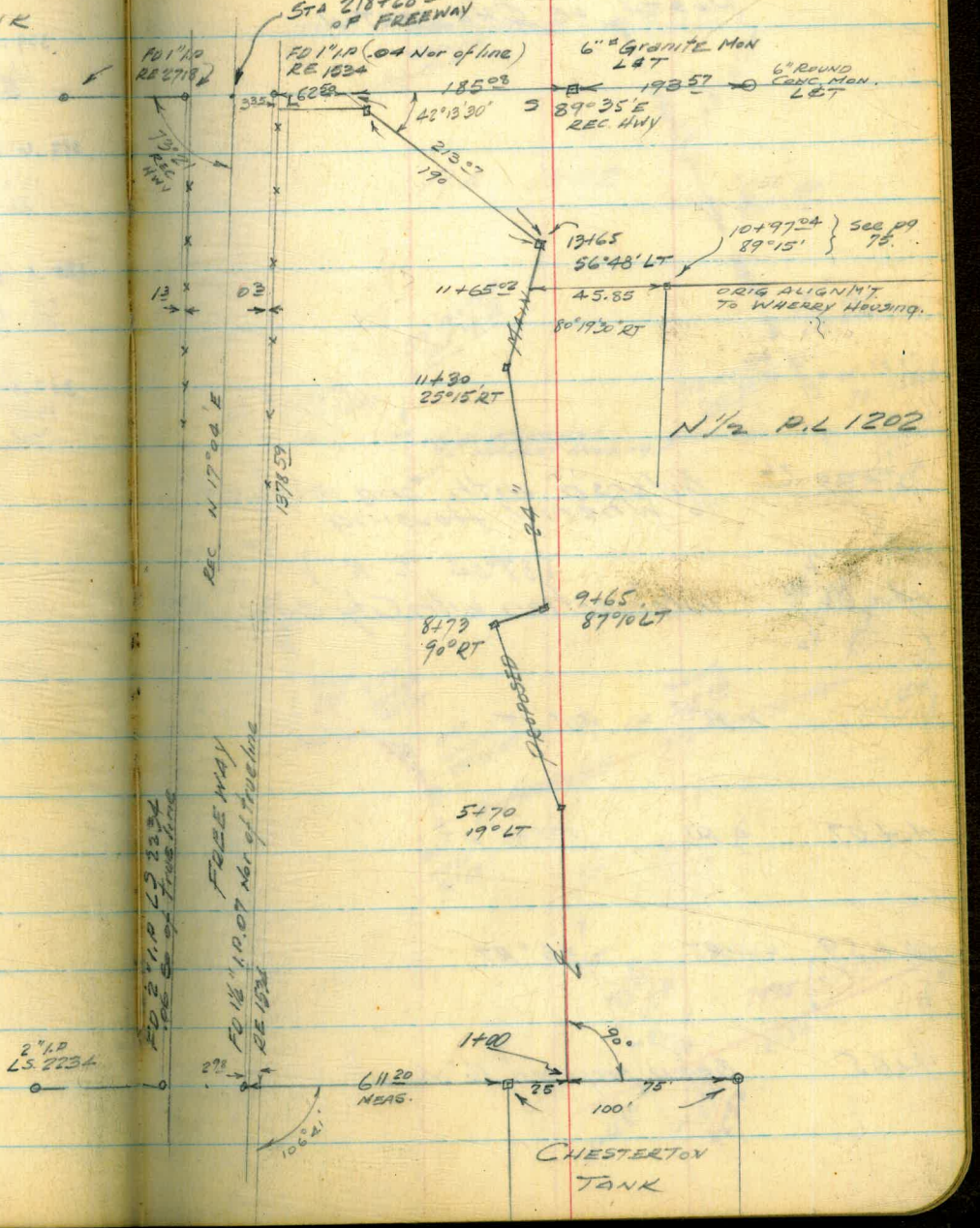
338.4 340.9 347.0 347.9 346.3
12.7 9.9 8.8 7.9 6.5
60 47 43 33 25

337.3 339.9 347.6 347.9 346.7
13.5 10.9 8.2 7.9 6.1
60 49 44 33 25

GRS 7/20/51

PROPOSED 8" 24" MAIN
IN RL. 1202
NORTH OF CHESTERTON TANK

JAN. 29 1952
BEATTY
LEONARD
POWELL



PROPOSED 16" MAIN IN R.L. 1202 NORTH OF CHESTERTON

15+99 ℄ Intersin with orig. alignmt to Wherry Housing.

(87°04 to RT)

14+68.22 Intersection with City Bdry

11+50 ℄ PT 90° LT

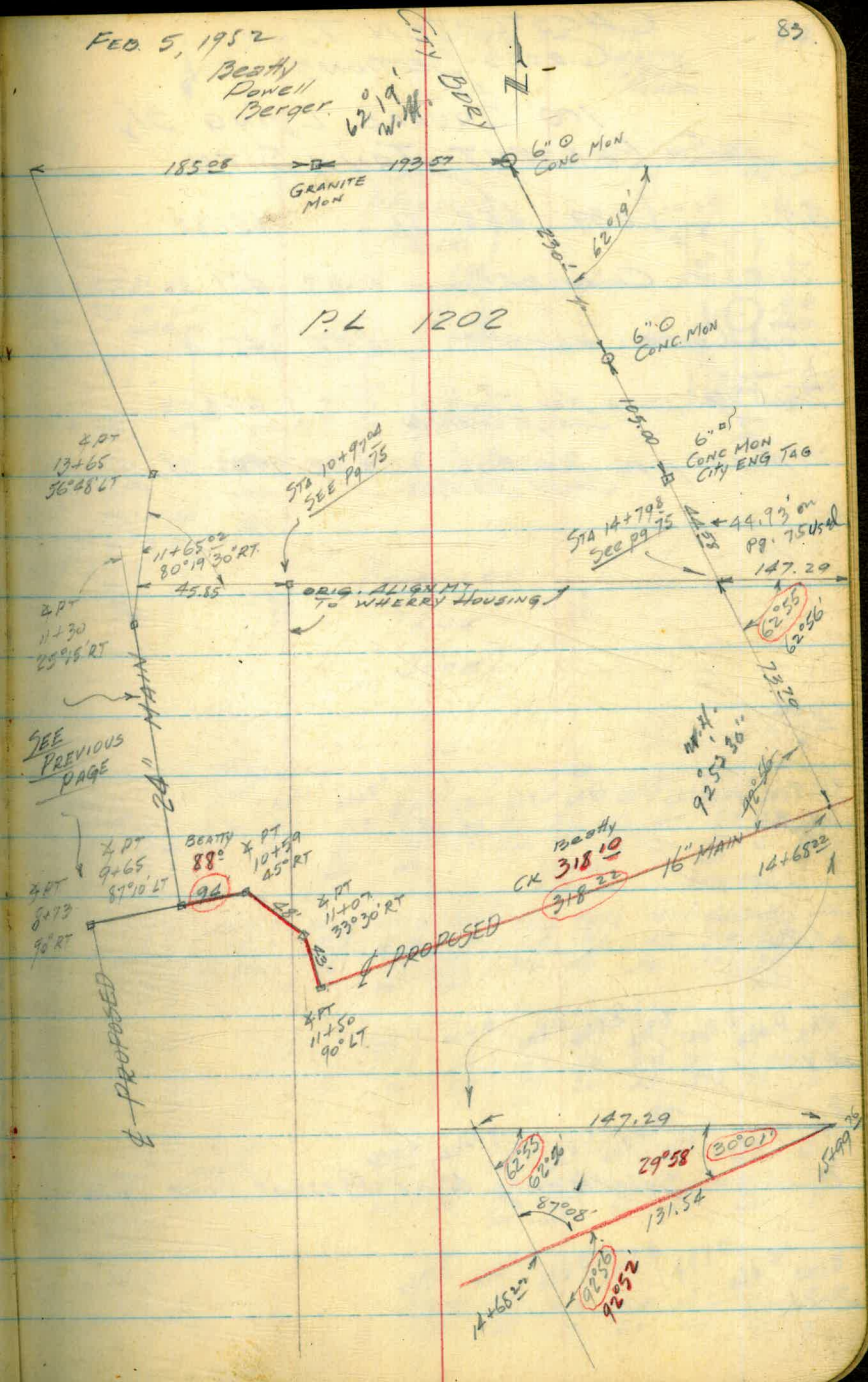
11+07 ℄ PT 33°30' RT.

10+59 ℄ PT 45° RT.

9+65 Begin proposed 16" Main

FEB. 5, 1952

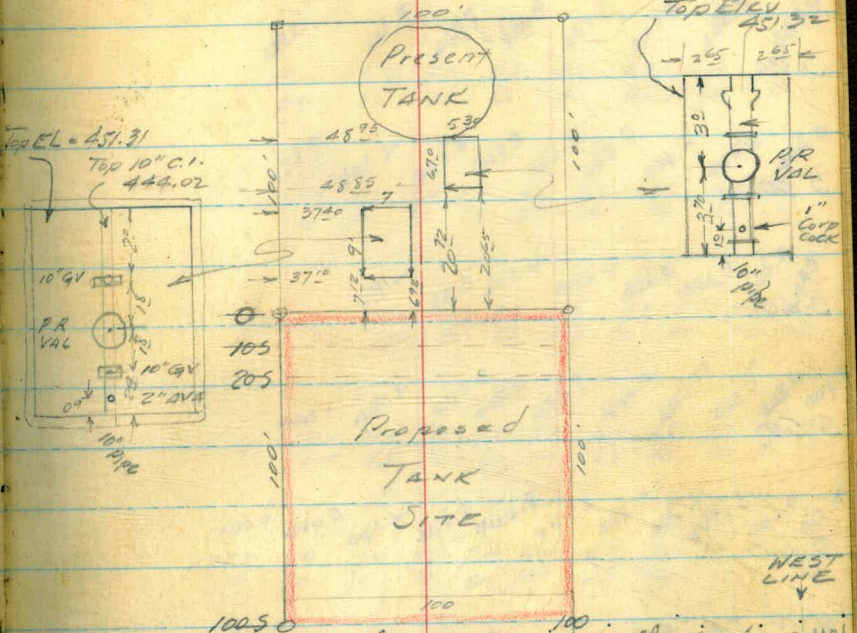
Beatty Powell Berger



April 24 1952 — Beatty West Powell

Chesterton Tank
Cross-Sections of 100' Square Lying S'ly of Present Tank Site

B.M.	0.39	452 .21	451.82
Top Conc Chamber	0.89	451 32	
Top Conc. Chamber	0.90	451. 31	
Top 10" pipe Nor End - Large Chamber	8.19	442.02	
Top 10" pipe Nor End - Small Chamber	4.82	447 39	



West Line

East Line	440.0	441.1	440.9	450.0	450.6	449.6	448.6	447.9	447.3	446.5	445.9	443.1
	12.2	9.1	5.3	2.2	1.6	2.6	3.6	4.3	4.9	5.7	6.9	9.1
	100	90	80	70	59	44	37	30	20	10	6	0
			HD	HD						HD		

Cor. Leg Elg. (Hard Pan)

439.8	442.3	447.8	449.8	450.3	449.2	447.9	446.3	445.3	444.0
12.2	9.9	4.4	2.4	1.9	3.0	4.3	5.9	6.9	8.2
100	90	77	75	60	40	30	10	3.5	0
		HD	HD					HD	

N 30

439.7	444.4	448.9	449.5	449.3	448.5	446.4	444.8	
12.5	7.8	3.3	2.7	2.9	3.7	5.2	7.2	
100	85	73	60	45	37.5	28	0	
		HD						

N 20

439.7	444.9	447.2	448.1	448.9	448.7	447.2	444.8	
12.5	7.3	5.0	4.1	3.3	3.5	5.0	7.2	
100	80	72	68	60	45	30	0	
		HD	HD					

N 10

439.5	442.9	445.6	447.6	447.7	446.2	444.8	
12.7	9.3	6.6	4.6	4.5	6.0	7.4	
100	85	70	60	40	20	0	

0 = Southerly Line Present Tank Site

S 10

Chesterton Tank
Cont'd

452.21

S 20

S 30

S 40

S 50

S 60

S 70

S 80

S 90

S 100 Southerly Line Proposed Tank Site

CK BM 0.39 451.82

W

439.2	441.9	443.7	446.4	447.2	447.0	445.9	444.4
13.0	10.3	8.5	5.8	5.0	5.2	6.3	7.8
100	85	75	60	50	40	20	0

438.9	441.2	442.8	443.8	446.1	446.7	446.6	445.6	444.0
13.3	11.0	9.4	8.4	6.1	5.5	5.6	6.6	8.2
100	90	75	63	58	52	40	20	0

439.2	441.5	442.4	445.6	446.4	446.1	445.0	443.3	
13.0	10.7	9.8	6.6	5.8	6.1	7.2	8.9	
100	80	65	58	52	40	20	0	
			40					

440.1	441.2	442.4	444.4	445.9	446.2	445.7	444.5	443.6	442.7
12.1	11.0	9.8	7.8	6.3	6.0	6.5	7.7	8.6	9.5
100	85	70	60	59	55	40	20	8	0

440.0	440.3	441.2	442.4	444.8	445.8	446.0	445.7	444.1	442.4	441.2
12.2	11.9	11.0	9.8	7.4	6.4	6.2	7.0	8.1	9.8	11.0
100	90	80	70	60	59	55	40	20	4	0

440.2	442.2	445.1	444.6	443.4	442.4	440.8	
12.2	10.2	6.5	7.6	8.8	9.8	11.4	
100	75	57	40	20	10	0	

440.4	440.4	445.6	444.0	442.4	441.1	438.9
11.8	11.8	6.6	8.2	9.8	11.1	13.3
100	85	59	60	20	10	0

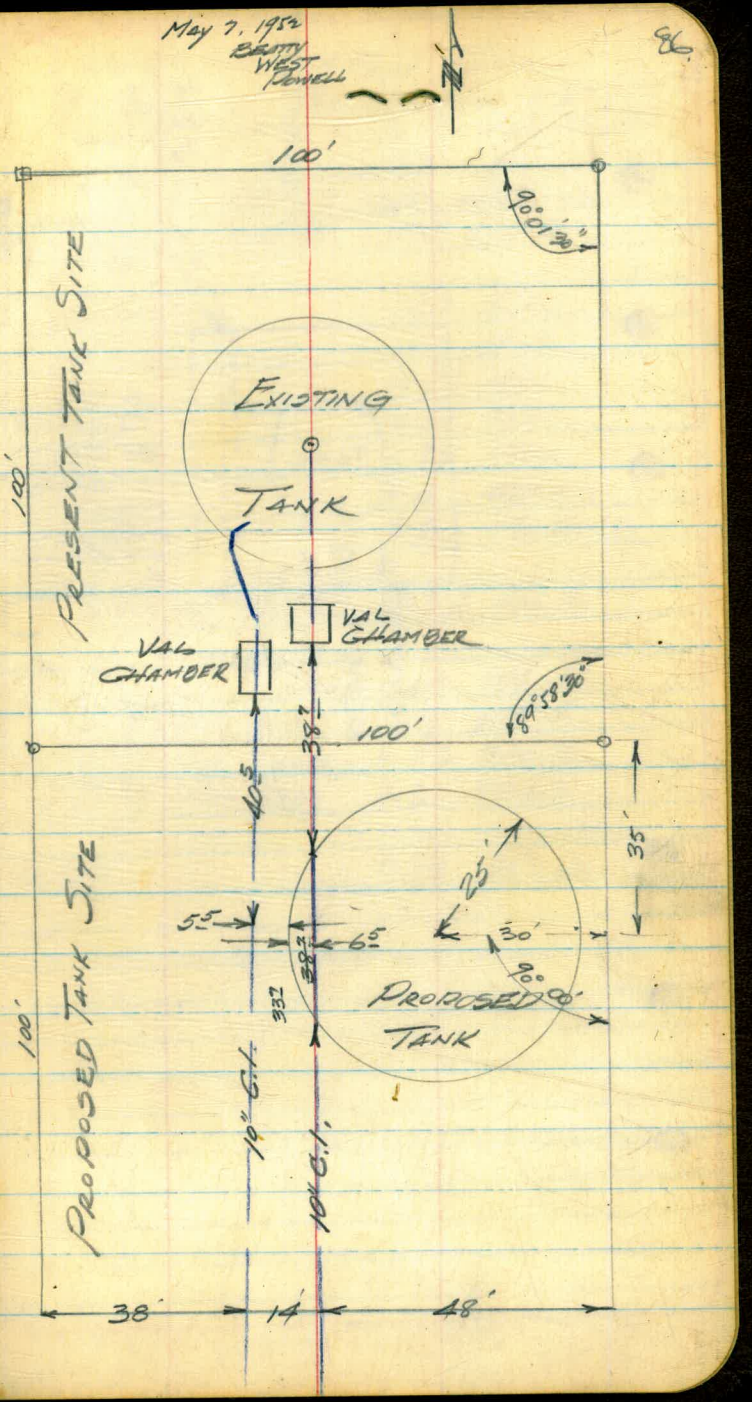
440.3	440.6	442.2	444.4	445.0	443.4	442.4	441.0	438.0
11.9	11.6	10.0	7.8	7.2	8.8	9.8	11.2	14.2
100	90	80	70	60	40	30	20	0

440.6	441.1	444.9	444.6	442.5	441.5	440.1	437.6
11.6	11.1	7.3	7.6	9.7	10.7	12.1	14.6
100	90	71	60	40	30	20	0

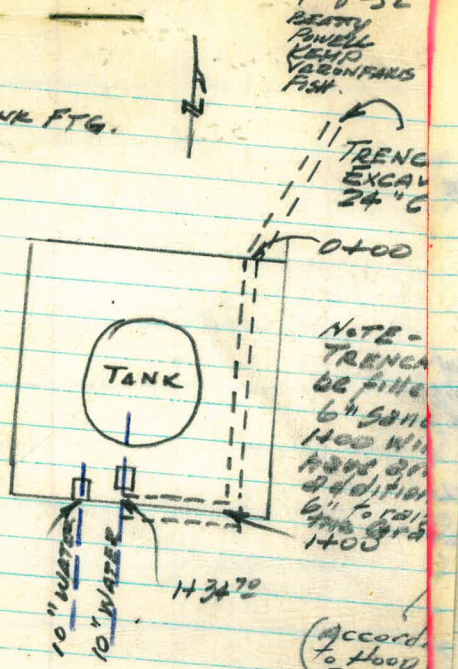
Pgs 84 & 85
Checked & Reduced
4/25/52 VRL

CHESTERTON
PROPOSED TANK LOCATION
SHOWING EXISTING 10" C.I.
PIPE LINES.

May 7, 1952



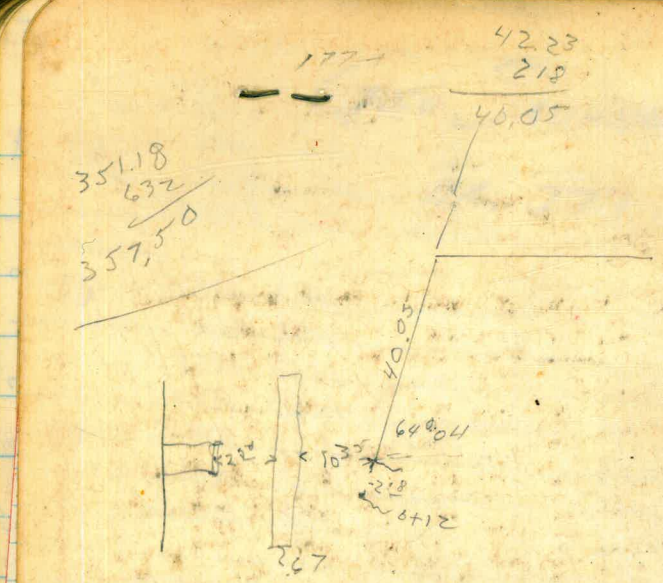
7-8-52
BEATTY
POWELL
KEHO
VARONFARIS
FISH.

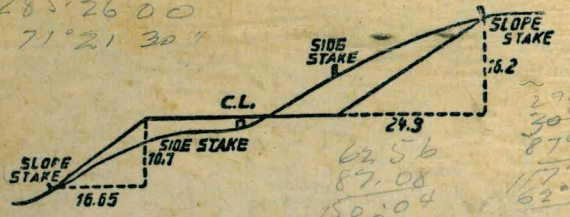


CHESTERTON TANK

PROFILE of TOP OF TRENCH ~~FOR~~ 24" C.I. 10" C.I. & of VAL. BOXES

	+BS	HI.	-BS	ELEV.
B.M	0.45	452.27		451.82
TP	9.84	448.86	13.25	439.02
0+00			14.3	434.6
+25			14.2	434.7
+50			12.75	436.1
+75			10.67	438.2
1+00			9.85	439.0
+10			9.4	439.5
+25			7.3	441.6
TP	6.48	452.61	2.73	446.13
1+34 70	(Top pipe)		6.64	445.97
+36	(NAT GRD.)		3.9	448.7
+45 50	(Top pipe)		8.56	444.05
+45 50	(NAT GRD)		4.3	448.3
CK BM			0.79	451.82





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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