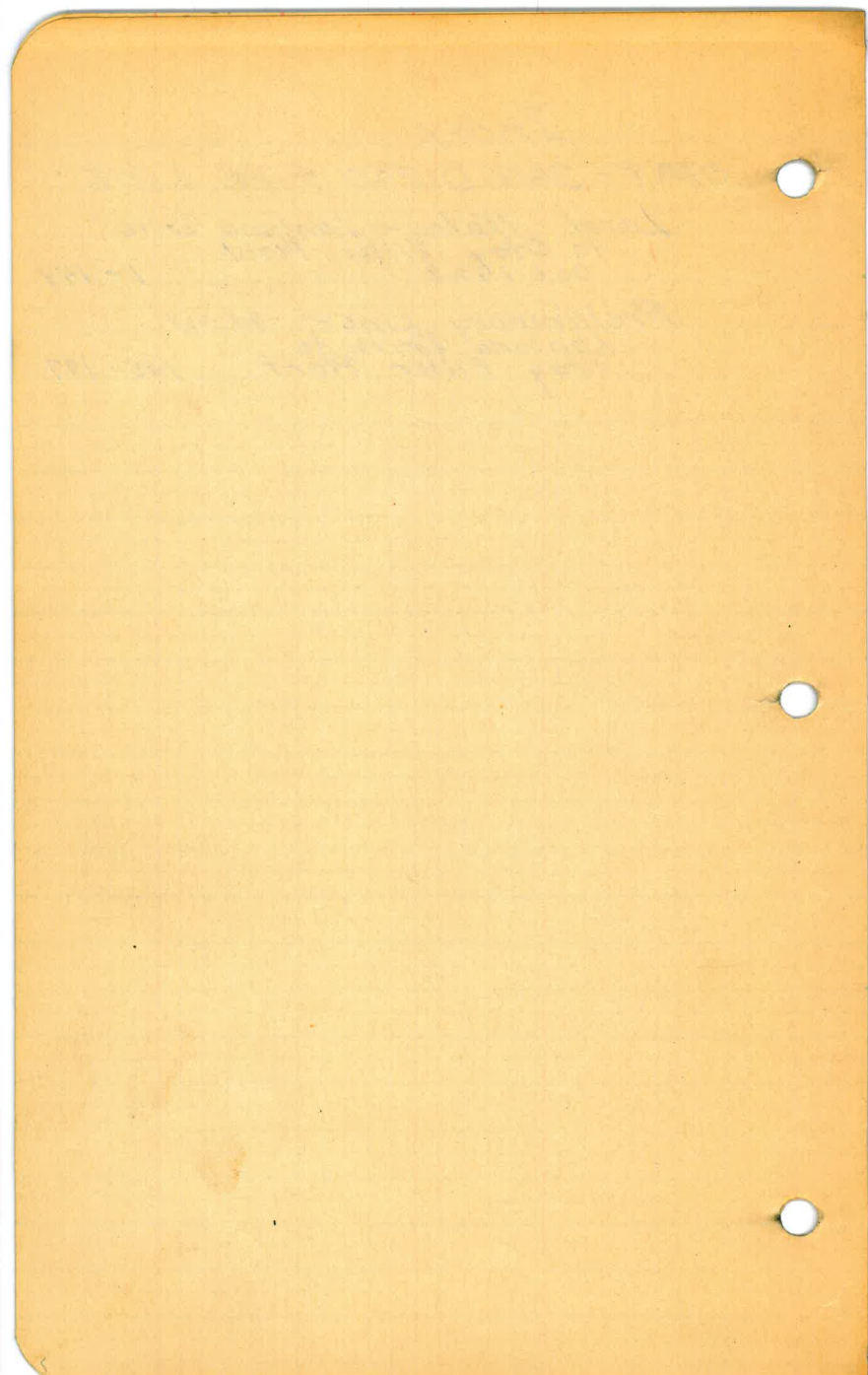


Book # 263



Level Notes
Otay Res. - San Diego
Pipe Line

10
1126

PROFILE LEVELS
STAY PIPE LINE

F.R. Chilton
R.C. Palmer
Oct. 8 - 1928

BM							
	4.93	345.39		340.46			
	3.70	344.95	4.14	341.25	Lt	E	Rt
	4.94	344.28	5.01	339.94			
0+00					338.2	339.1	338.6
					6.1 10	5.2 10	5.7 10
0+15					335.9	337.2	338.9
					8.4 10	7.1 10	5.4 10
+43					333.2	334.8	336.7
			11.60	332.68	11.1 10	9.5 10	7.4 10
0.90	333.58						
+50					332.4	332.5	335.5
					1.2 10	1.1 10	4.9 10
1+00					323.4	325.6	327.0
BM 7.7			6.77	326.81	9.8 10	8.0 10	6.6 10
T.P.			12.86	320.72			
0.29	321.01						
1+65					311.2	311.4	313.5
			12.16	308.85	9.8 10	9.6 10	7.5 10
0.22	309.07						
1+78					305.6	305.6	309.1
					3.5 10	3.5 10	0.0 10
1+87					301.1	301.2	298.6
			12.82	296.25	8.0 10	7.9 25	10.5 25
0.51	296.76						7.7 25
2+00					293.5	294.7	295.0
			11.33	285.43	3.3 10	2.1 25	5.2 25
0.82	286.25						1.8 25
2+50					274.9	275.0	273.0
			12.57	273.68	11.8 10	11.2 25	13.2 25
0.39	274.07						9.2 25

Recd.
10/10/28.
H. D. W.

1

Brass Plug in Curb NE Cor Lantanna & Euclid

Shot 0+00 is on sidewalk sub-grade
East side Lantanna

B.M. #1 Spike in Tel Pole #1009 30th St. 1+16

— Note —

From Sta. 1+87 to 3+30 shots
taken in bottom of trench
5' wide, and on natural ground
at edge.



		274.07 ✓		1303 261.04 ✓			
3+00	0.71	261.75 ✓			254.6 ✓	253.1 ✓	254.6 ✓
					7.3 10	8.7 8	7.2 10
							4.1 10
3+20			Top new pipe →	13.8 8	248.0 ✓	246.4 ✓	246.2 ✓
						15.4 10	15.6 10
3+30					249.1 ✓	248.3 ✓	249.6 ✓
					12.7 10	13.5 10	12.2 10
3+50						250.0 ✓	11.8 Level
4+00						248.4 ✓	13.4 "
4+36.92 Δ						248.6 ✓	13.2 "
5+00						249.8 ✓	12.0 "
5+50 B.M. #2						254.4 ✓	7.4 "
			9.98	251.77 ✓			
	12.62	264.39 ✓					
6+00	12.27	272.34 ✓	4.32	260.07 ✓		266.9 ✓	264.9 ✓
						5.4 10	7.2 10
	11.90	284.19 ✓	0.05	272.29 ✓			
6+50						282.5 ✓	280.8 ✓
						4.7 10	3.4 10
	10.73	293.73 ✓	11.9	283.00 ✓		285.7 ✓	283.7 ✓
7+00						8.0 10	10.0 10
7+40						288.2 ✓	287.4 ✓
						5.5 10	6.3 10

E Crook

Top of old Pipe

Spike in power pole 140' Lt. 4400
,

778063		292.73		286.6 ✓ 7.1	281.4 ✓ 12.3 10
8120				286.8 ✓ 6.9	286.3 ✓ 7.4 10
	1224	305.88	0.09	293.64 ✓	
8450				294.4 ✓ 11.5	296.2 ✓ 9.7
				297.4 ✓ 8.5	297.4 ✓ 10
			Tap new pipe → 8	Tap old pipe → 8	
895				303.6 ✓ 2.3	305.3 ✓ 0.6 10
				old pipe	
9100				305.3 ✓ 0.6	305.9 ✓ 0.0 10
	1127	316.37	0.78	305.10 ✓	
9450				309.7 ✓ 6.7	309.2 ✓ 7.2 10
10100			Tap New Pipe	310.0 ✓ 6.4	313.4 ✓ 3.0
				310.7 ✓ 5.7 10	
10150			Tap New Pipe	311.3 ✓ 5.1	312.1 ✓ 4.3
				311.6 ✓ 4.8 10	
11100			Tap New Pipe	312.3 ✓ 4.1	311.0 ✓ 5.4
				312.9 ✓ 3.5 10	
11450				313.1 ✓ 3.3	313.1 ✓ 3.3 10
12100				313.1 ✓ 3.3	313.4 ✓ 3.0 10
	745	320.84	2.98	313.39 ✓	
12450				310.4 ✓ 10.4	312.2 ✓ 8.6 10

16. 111

17. 112

18. 113

19. 114

20. 115

21. 116

22. 117

23. 118

24. 119

25. 120

26. 121

27. 122

28. 123

29. 124

30. 125

	320.84				
13+00			Top old pipe → 11.2	309.6 ✓ 12.1 10	309.7 ✓
13+50				311.9 ✓ 8.9 10	311.4 ✓
14+00			Top of old Pipe 8.4	312.4 ✓ 8.0 10	312.8 ✓
14+45			Top old Pipe → 7.0	313.8 ✓ 5.9 10	314.9 ✓
14+50				315.2 ✓ 5.6 10	315.4 ✓
15+00			Top new pipe → 4.0 8	316.8 ✓ 4.5 10	318.0 ✓
15+24.29				317.6 ✓ 3.2 10	317.9 ✓
			Transit line offsets 10° RL		
15+24.29				317.6 ✓ 3.2 10	317.9 ✓
15+50				315.6 ✓ 5.2	
16+00				313.6 ✓ 7.2	
	2.71	316.94 ✓	6.61	314.23 ✓	
16+50				307.0 ✓ 9.9	
	1.31	305.52 ✓	12.73	304.21 ✓	
17+00			Top old pipe	298.3 ✓ 7.2 10	298.6 ✓

314.23
7.04
321.27
4.47
316.80

B.M. #3 Spike in Tel Pole #1038 - 20~~13~~15+20

			305.52		4
17+50					295.4 ✓ 10.1
	120	294.38	12.34	293.18 ✓	
18+00					290.8 ✓ 2.6
18+46.47					285.4 ✓ 9.0
	110	282.48	13.00	281.58 ✓	
	133	271.44	12.37	270.11 ✓	
19+00				260.1 ✓	265.2 ✓ 6.2
				Top new pipe 11.3	
				18	
	019	259.55	12.08	259.36 ✓	
19+50					247.6 ✓ 12.0
	255	249.48	12.62	246.93 ✓	
	013	236.93	12.68	236.80 ✓	
20+00					234.5 ✓ 2.4
20+50					229.3 ✓ 7.6
21+00					225.9 ✓ 11.0
	284	226.70	12.87	224.06 ✓	
21+30				221.9 ✓	222.6 ✓
				Top new pipe 5.0	223.9 ✓
				Top old pipe 8	3.0
				10	
22+07					218.3 ✓ 8.6
22+40					216.3 ✓ 10.6
22+50					217.9 ✓ 9.0

1. 1. 1.

1. 1. 1.

1. 1. 1.

Wash →

		226.90			
23+07					217.7 ✓
B.M. #4					9.2
	6.28	225.56 ✓	7.62	219.28 ✓	217.9 ✓
23+50					7.7
					218.1 ✓
24+00					7.5
					218.0 ✓
24+15					7.6
					215.7 ✓
+20					9.9
					216.9 ✓
+45					8.7
					217.1 ✓
+75					8.5
					216.7 ✓
25+00					8.9
					216.5 ✓
+55					10.1
					218.8 ✓
+80					6.8
					222.1 ✓
26+18					3.5
					0.77
	12.16	236.95 ✓	0.77	224.79 ✓	
					0.12
	12.23	249.06 ✓	0.12	236.83 ✓	
26+60					240.2 ✓
					8.9

Spike in Tel pole 20' et 23452

to wash

		249.06			246.6 ✓
27400					25
	12.76	259.80	2.02	247.04 ✓	254.4 ✓
150					5.9
	12.83	272.19	0.44	259.36 ✓	263.5 ✓
28100					8.7
					271.2 ✓
150					1.0
	12.02	284.01	-0.20	271.99 ✓	278.7 ✓
29400					5.3
					276.6 ✓
29127.67		Top New Pipe	7.4		280.8 ✓
			1.6		3.2
29460					279.9 ✓
					4.1
30100					276.1 ✓
					1.9
30407					273.7 ✓
		Top old Pipe	10.3		274.5 ✓
			1.0		9.5
30450					273.8 ✓
B.M. #5	5.97	282.58	7.40	276.01 ✓	8.8
30488.20					273.4 ✓
					9.2
31100					

7

Spike in Tel Pale 11 Et. 30+70

282.58
 31+34.15
 32+00
 33+00
 +50
 12.62 294.09 ✓ 1.16 281.42 ✓
 34+00
 +50
 12.97 306.44 ✓ 0.57 293.47 ✓
 35+00
 36+50
 12.58 318.63 ✓ 0.39 306.05 ✓
 36+00
 +50
 37+00
 12.46 330.55 ✓ 0.54 318.09 ✓
 37+50

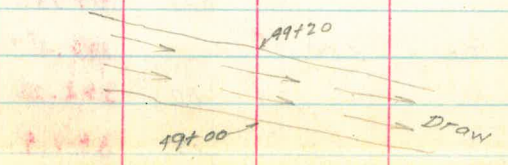
273.6 ✓
 90
 276.2 ✓
 64
 278.6 ✓
 40
 280.3 ✓
 23
 284.0 ✓
 100
 287.9 ✓
 61
 294.7 ✓
 117
 301.6 ✓
 48
 308.1 ✓
 105
 313.3 ✓
 53
 318.6 ✓
 0.0
 322.8 ✓
 78

Station	Description	Reading	Height	Instrument
		330.55		±
38+00	Top old Pipe	323.6 ✓	3.0 20	327.4 ✓ 3.2
38+09				328.1 ✓ 2.5
38+22				319.6 ✓ 11.0
38+29	Edge Pavement			319.6 ✓ 11.0
38+63.15	Edge Pavement			319.3 ✓ 11.3
38+73				318.6 ✓ 12.0
38+87				328.9 ✓ 1.7
39+00				328.5 ✓ 2.1
BM #6		206 328.9 ✓		
39+50		023 328.72 ✓		326.1 ✓ 2.6
40+00				322.2 ✓ 6.5
40+50				316.4 ✓ 12.3
40+85	Top of new pipe	054 316.86 ✓ 12.40 316.32 ✓	7.8 28	309.1 ✓ 4.2
				312.7 ✓

Spike in Tel. Pole 25' R/L 39+50 (Appr.)

		316.86			
41+00			7.4	309.5 ✓	
41+50			12.0	304.9 ✓	
			11.95	304.91 ✓	
	1.48	306.39 ✓			
42+00			4.8	301.6 ✓	
+50			5.7	300.7 ✓	
43+00			5.0	301.4 ✓	
+50			4.7	301.7 ✓	300.2 ✓ 6" Left Tap new 28 Pipe
44-			4.5	301.9 ✓	
+50			3.9	302.5 ✓	
+90			3.4	302.0 ✓	301.8 ✓ 4.6" Left Tap new Pipe 28
B.M. #7			2.04	304.35 ✓	
	3.38	307.73 ✓			
45+50			5.1	302.6 ✓	
46-			4.8	302.9 ✓	
+50			5.1	302.6 ✓	
47-			4.0	303.7 ✓	
+50			7.0	300.7 ✓	
48-			12.6	295.1 ✓	
			12.14	295.59 ✓	
	4.16	299.75 ✓			
+30			5.9	294.5 ✓	297.9 ✓ 1.9" Left Tap New Pipe 28
+87			8.5	291.3 ✓	
49-			13.5	286.3 ✓	295.0 ✓ 4.8" Left Tap new Pipe 28
+20			13.5	286.3 ✓	
49+50			9.2	290.6 ✓	294.6 ✓ 5.2" Tap new Pipe 28

Spike in Tol. Page 25' Rt. 44+80

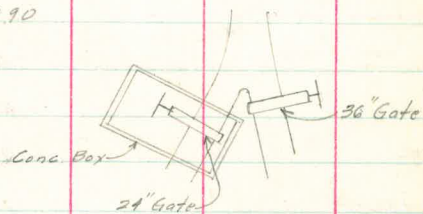


		299.75			
50+00			6.7	293.1	295.4
			0.03	299.72	4.4 H Top new 28 Pipe
	13.08	312.80			
50+50			9.3	303.5	302.0
50+75			2.5	310.3	10.8 H Top new pipe 15
			3.43	309.37	6.9 H Top new pipe 11
			4.70	308.1	
			6.60	306.2	
51+10			1.4	311.4	
			0.25	312.55	
	12.63	325.18			
+50			12.8	312.4	
52-			12.3	312.9	
+36			11.3	313.9	
+44			8.1	317.1	
53-			5.1	320.1	
+25.91 A			2.8	322.4	
			0.06	325.12	
	12.22	337.34			
B.M. #8			11.62	325.72	
53+50			10.9	326.4	
54-			5.7	331.6	
			0.01	337.33	
	12.83	350.16			
+50			8.0	342.2	
55-			0.3	349.9	

19 Conc. Box 20 Lt 50+90

Top 36" Gate Valve

Top 24" Gate Valve



Spike in Tel Pole 10 Lt 53+40

City Datum. ?

350.16

			0.34	349.82 ✓	
	13.02	362.84 ✓			
55+50			6.3	358.5 ✓	
			0.78	362.06 ✓	
	6.03	368.09 ✓			
56+00			2.6	365.5 ✓	
8M #9			0.53	367.56 ✓	
+50			5.0	363.1 ✓	
57-			9.2	358.9 ✓	
+50			13.0	355.1 ✓	
			12.71	355.38 ✓	
	0.87	356.25 ✓			
58+10			5.3	350.9 ✓	349.2
+50			9.0	347.2 ✓	70 Lt. Top pipe 13
			12.48	343.77 ✓	
	0.60	344.37 ✓			
59-			1.8	342.6 ✓	
+50			10.3	334.1 ✓	
			13.09	331.28 ✓	
	0.28	331.56 ✓			
60-			2.7	328.9 ✓	
+50			8.0	323.6 ✓	
61-			12.2	319.4 ✓	
			12.21	319.35 ✓	
	1.07	320.42 ✓			
+50			4.3	316.1 ✓	

on Air valve 15' Lt 56100. Note - Elevations
from this B.M. to Otay = 1.0 Lon.
as determined by Check Levels from
Univ. & Euclid to Chollas Heights.

Mar. 7, 1929. H.W. Converse

(B.M. #9 to run on some ^{looseleaf} yellow sheet
pages of 5 sheet dated 3/7/29 by Converse
= 3 68.60 ~~550~~)

		320.42		
62+00			6.2	314.2 ✓
+50			10.3	310.1 ✓
+95			17.8	302.6 ✓
63+00			15.7	304.7 ✓
+20			76	312.8 ✓
			0.02	320.90 ✓
	11.56	331.96 ✓		
150			11.6	320.4 ✓
64+00			0.0	332.0 ✓
			0.15	331.81 ✓
	12.46	344.27 ✓		
+50			2.3	342.0 ✓
			0.19	344.08 ✓
	12.48	356.56 ✓		
65-			7.5	349.1 ✓
			0.13	356.43 ✓
	12.40	368.88 ✓		
+50			10.4	358.4 ✓
66-			1.4	367.4 ✓
			0.63	368.20 ✓
	12.41	380.61 ✓		
+50			6.7	373.9 ✓
67-			4.3	376.3 ✓
BM#10			11.87	368.74 ✓
67+50.70	BC		5.0	375.6 ✓

→ Wash →

on Air Valve 15' Lt 67+00

		380.61		
68+09.12			7.8	372.8 ✓
68+57.54			8.6	372.0 ✓
69+00			7.5	373.1 ✓
			6.99	373.62 ✓
	2.07	375.69 ✓		
+50			3.2	372.5 ✓
70-			5.5	370.2 ✓
B.M.#11			6.43	369.26 ✓
+50			7.7	368.0 ✓
71-			7.9	367.8 ✓
			12.25	363.44 ✓
	0.37	363.81 ✓		
+50			0.7	363.1 ✓
72-			7.2	356.6 ✓
			12.53	351.28 ✓
	0.63	351.91 ✓		
+50			4.9	347.0 ✓
73-			11.9	340.0 ✓
+50			13.6	338.3 ✓
74-			14.2	337.7 ✓
+60			11.3	340.6 ✓
75-			6.6	345.3 ✓
			0.47	351.44 ✓
	12.31	363.75 ✓		
+40			10.6	353.2 ✓
+82		Top of pipe		357.6 6.2 ft. 15

On Air Valve 15' Lt 701.08

		363.75		
76+00			4.9	359.4 ✓
			0.97	362.78 ✓
	7.88	370.66 ✓		
+50			5.5	365.2 ✓
77-			6.7	364.0 ✓
+37				365.1 ✓
+50			7.9	362.9 ✓
78-			6.2	364.5 ✓
			12.3	369.43 ✓
	11.75	381.18 ✓		
+50			9.1	372.1 ✓
79-			6.4	374.8 ✓
+50			3.2	378.0 ✓
80-			3.0	379.2 ✓
+50			5.1	376.1 ✓
81-			6.8	374.4 ✓
			12.16	369.02 ✓
	2.90	371.92 ✓		
+50			3.0	368.9 ✓
+85			10.5	361.4 ✓
82+10			13.0	358.9 ✓
+29			16.3	355.6 ✓
+60			12.4	359.5 ✓
83-			9.5	362.4 ✓
+50			5.9	366.0 ✓
84-			4.5	367.4 ✓

5.6 1/2 Top of Pipe
15

360.8 ✓
11.1 1/2 Top pipe
15

359.5 ✓
12.4 1/2 " "
15
360.5 ✓
11.4 " "
15
362.4 ✓
9.5 " "
15
364.6 ✓
7.3 " "
15

		371.92		
B.M. #12			4.24	367.68 ✓
84+50			5.6	366.3 ✓
85-			6.5	365.4 ✓
+50			7.2	364.7 ✓
			11.41	360.51 ✓
	4.69	365.20 ✓		
86-			1.7	363.5 ✓
+50			7.7	357.5 ✓
			12.69	352.51 ✓
	1.04	353.55 ✓		
87			4.3	349.2 ✓
			12.02	341.53 ✓
	0.32	341.85 ✓		
+50			6.4	335.4 ✓
88+10			26.5	315.3 ✓
+35			27.0	314.9 ✓
+50			26.0	315.8 ✓
+95			3.3	338.5 ✓
			0.08	341.77 ✓
	11.86	353.63 ✓		
89+50			4.5	349.1 ✓
			0.18	353.45 ✓
	12.89	366.34 ✓		
90-			5.0	361.3 ✓
			0.44	365.90 ✓
	11.77	377.67 ✓		

6.4 Top Pipe
 15
 330.9 ✓
 10.9 "
 15
 330.9 ✓
 10.9 "
 15
 331.6 ✓
 10.2 "
 15
 338.6 ✓
 3.2 "
 15

on Air Valve 15 Lt. 84/20

← Wash

		377.67		
90+60			6.3	371.4 ✓
91-			5.3	372.4 ✓
+50			5.4	372.3 ✓
92-			5.3	372.4 ✓
B.M.#13			8.17	369.50 ✓ 369.50
+50			5.9	371.8 ✓
93-			7.9	369.8 ✓
+50			10.4	367.3 ✓
			14.36	367.31 ✓
	1.84	369.15 ✓		
94-			7.6	361.6 ✓
			12.39	356.76 ✓
	0.92	357.68 ✓		
+50			7.2	350.5 ✓
			12.87	344.81 ✓
	1.38	346.19 ✓		
95-			4.8	341.4 ✓
+50			13.0	333.2 ✓
			12.36	333.83 ✓
	0.96	334.79 ✓		
96-			11.5	323.3 ✓
			12.73	322.06 ✓
	0.59	322.65 ✓		
+50			10.2	312.4 ✓
			12.43	310.22 ✓
	1.53	311.75 ✓		

on Air Valve 15' Lt. 92122

		311.75		
97-			75	304.3 ✓
			12.24	299.51 ✓
	0.84	299.85 ✓		
+50			23	297.5 ✓
98-			9.1	290.7 ✓
			11.99	287.86 ✓
	1.04	288.90 ✓		
+50			4.9	284.0 ✓
99-			10.2	278.7 ✓
			12.93	275.97 ✓
	1.11	277.08 ✓		
+50			6.0	271.1 ✓
100-			11.1	266.0 ✓
			12.78	264.30 ✓
	1.14	265.44 ✓		
100+05				263.8
				1.6 Lt. Tap pipe 15
+50			5.2	260.2 ✓
101-			11.2	254.2 ✓
+20			12.3	253.1 ✓
			12.37	253.07 ✓
	1.01	254.08 ✓		
			12.87	244.21 ✓
	1.73	242.94 ✓		
101+67			4.9	238.01 ✓
101+72			4.4	238.5 ✓
102+08 ³			4.4	238.5 ✓

1.862

2.112

2.772

4.112

2.152

2.622

2.422

Edge pavement - Broadway Ext.

		242.94		
102+14			9.8	238.1 ✓
BM #14			1.60	241.34 ✓
102+26			11.6	231.3 ✓
+50			11.5	231.5 ✓
+60			8.3	234.6 ✓
103-			8.6	234.3 ✓
+50			10.8	232.1 ✓
			11.77	231.17 ✓
	10.66	241.83 ✓		
+60			12.3	229.5 ✓
104-			12.0	229.9 ✓
+12			12.4	229.4 ✓
+15			10.2	231.6 ✓
+30			11.0	230.8 ✓
+45			9.0	232.8 ✓
+60			13.0	228.8 ✓
+75			13.0	228.8 ✓
105-			5.0	236.8 ✓
			0.42	241.41 ✓
	11.56	252.97 ✓		
			0.13	252.84 ✓
	12.67	265.51 ✓		
			0.14	265.37 ✓
	13.10	278.47 ✓		
106-			11.3	267.2 ✓
			0.21	278.26 ✓

228.6 ✓

13.7 Tap Pipe
15

12.6 Tap pipe
15

229.2 ✓

12.6 Tap pipe
15

set nail in next to last guard post west
Broadway Bridge

Edge of Wash

11 358 "

12 362

13 358

14 358

15 358

16 358

				278.26	
	12.66	290.92			
106+40			9.5	281.4	
			0.67	290.25	
	12.96	303.21			
+67			7.2	296.0	
+74			7.0	296.2	
			0.11	303.10	
	12.97	315.57			
107-			6.3	309.3	
			0.14	315.43	
	12.85	328.28			
107+50			1.8	326.5	
			0.04	328.24	
	8.33	336.57			
+76			6.6	330.0	
108-			6.5	330.1	
BM#15			6.08	330.49	
+50			7.8	329.8	328.1
+75			10.2	326.4	8.5 Top pipe 15
+80			13.2	323.4	
109-			9.2	327.4	328.6
+50			6.5	330.1	8.0 " "
110-			3.4	333.2	
+50			0.2	336.4	
			0.10	336.47	
	12.40	348.87			

Edge road

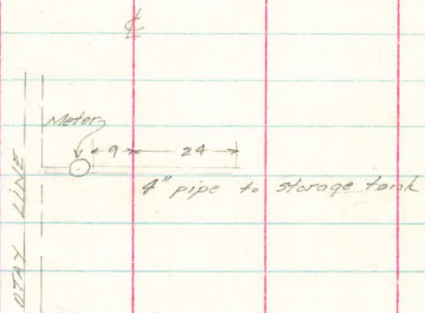
on Air Valve 15' Lt. 10.8 x 10.8

03		34887		Oct 10-28
111-			9.7	339.2
+50			27	346.2
			0.75	348.12
	12.95	361.07		
112-			10.0	351.1
+80			1.0	360.1
			0.43	360.64
	12.72	373.36		
113-			10.7	362.7
+27	Top of 4" Pipe			365.0
+50			4.4	369.0
			0.24	373.12
	9.45	382.57		
114-			5.6	377.0
+50			1.7	380.9
115-			3.5	379.1
BM #16			90.9	373.98
+50			7.9	374.7
			11.87	370.70
	0.81	371.51		
116-			5.5	366.0
			12.94	358.57
	0.44	359.01		
+50			3.5	355.5
117-			10.0	349.0
			12.79	346.22

365.0
8.4
9

363.4
10.0
2.4

368.8
7.7 H. Top pipe
15



10 Air Valve 15 ft. 115 + 18.65

				346.22
	0.64	346.86		
117+50			5.3	341.6 ✓
118-			12.5	336.4 ✓
			12.85	334.01 ✓
	6.50	340.51		
+50			8.2	332.3 ✓
119-			13.7	326.8 ✓
+20			11.3	329.2 ✓
+50			11.0	329.5 ✓
120-			11.4	329.1 ✓
+50			9.0	331.5 ✓
121-			2.8	337.7 ✓
			0.55	339.95 ✓
	12.76	352.72		
+50			5.4	347.3 ✓
			0.19	352.53 ✓
	11.78	364.31		
122-			9.3	355.0 ✓
+50			5.7	358.6 ✓
+85			6.4	357.9 ✓
123-			5.4	358.9 ✓
+50			5.5	358.8 ✓
124			6.5	357.8 ✓
B.M. #17			0.85	363.46 ✓
			3.07	361.24 ✓
	6.99	368.23		

361.1 Top Pipe
32
15

07 Air Valve 15 H 127+85

		368.23			
124+30			9.4	358.9	361.0 ✓ 72 LI pipe 15
125-			8.3	359.9	
+50			6.4	361.8	
126-			7.7	360.5	
+50			7.4	360.8	
127-			7.4	360.8	
+35			6.9	361.3	363.8 ✓ 74 LI pipe 15
128-			4.9	363.3	
			3.27	364.96	
	12.09	377.05 ✓			
+50			10.8	366.2	367.4 ✓
129-			10.4	366.6	91 pipe 15
+50			10.5	366.5	
130-			10.5	366.5	
+50			8.8	368.2	
131-			8.1	369.9	
+50			6.4	370.6	
			4.69	372.36	
	2.07	374.43 ✓			
131+95					368.9 55 pipe 10
132-			2.5	371.9	
RM #18			4.11	370.32	
132+0.9			2.5	371.9	
+50			3.5	370.9	
133-			6.6	367.8	
+50			12.2	362.2	

on Air Valve 15' H 152+09 (723+00 old line
on Hydr. grade line -

		374.43		
			12.73	361.70 ✓
	0.23	361.93 ✓		
134-			7.5	354.4 ✓
			12.50	349.43 ✓
	0.17	349.60 ✓		
+50			1.4	348.2 ✓
135-			7.0	342.6 ✓
+50			13.2	336.4 ✓
			12.63	336.97 ✓
	0.04	337.01 ✓		
136-			7.5	329.5 ✓
+50			13.2	323.8 ✓
			12.30	324.71 ✓
	0.51	325.22 ✓		
			12.90	312.32 ✓
	1.03	313.35 ✓		
137-			2.0	311.4 ✓
+50			13.0	300.4 ✓
			12.61	300.74 ✓
	0.52	301.26 ✓		
+72			7.2	294.1 ✓
+74			12.0	291.3 ✓
+87			10.1	291.2 ✓
138-			12.9	288.4 ✓
			12.85	288.41 ✓
	0.53	288.94 ✓		

Edge Road

		288.94			
138+50			9.3	279.6 ✓	
			12.86	276.08 ✓	
	0.17	276.25 ✓			
+85			1.6	274.6 ✓	
+87			3.6	272.6 ✓	
139+04			3.9	272.3 ✓	
+10			5.8	270.4 ✓	
+40			12.0	264.2 ✓	10.2 Pipe
140-			32.9	244.3 ✓	10.2 Pipe 11.1 ✓
+50			16.2	260.0 ✓	10.2 Pipe 10.3 ✓
+69			11.1	265.1 ✓	10.2 Pipe 8.6 ✓ 10 ✓
			0.27	275.98 ✓	
	12.54	288.52 ✓			
141-			15.6	272.9 ✓	
BM #19			0.14	288.38 ✓	
	12.56	300.99 ✓			
+50			13.0	287.9 ✓	
			0.39	300.55 ✓	
	12.79	313.34 ✓			
142-			6.7	306.6 ✓	
			0.21	313.13 ✓	
	12.31	325.44 ✓			
			15.5	324.89 ✓	
	12.30	337.19 ✓			
+70			6.4	330.9 ✓	331.5 5.7 Pipe 10 ✓
			0.09	337.10 ✓	

Edge Road

4 50

1 135

Trestle #40

17 ft enters ground

1 150

Nail in 15" Euc. Tree (near ground) 15' Lt 141+90

1 155

1 160

1 165

				337.10	
	12.55	349.65 ✓			
143-			10.0	339.6 ✓	343.7 ✓
+06					5.9 pipe 10
			0.28	349.37 ✓	
	12.47	361.84 ✓			
			0.32	361.52 ✓	
	13.11	374.63 ✓			
+70			13.1	361.5 ✓	
144-			5.2	369.4 ✓	368.1 ✓
+45					6.5 pipe 10
+50			0.2	374.4 ✓	
			0.23	374.40 ✓	
	333	377.73 ✓			
145-			6.0	371.7 ✓	
+50			7.1	370.6 ✓	
146-			7.2	370.5 ✓	
+28.3			5.3	372.4 ✓	
B.M. #20			5.47	372.26 ✓	
+50			5.7	372.0 ✓	371.4 ✓ 6.80
147-			7.7	370.0 ✓	
+50			12.7	365.0 ✓	
			12.46	365.27 ✓	
	0.21	365.48 ✓			
148-			5.8	359.7 ✓	360.5
+10					5.0 pipe 7.0

On Air Value 1041 146+28

M.H. Rim.

		365.48			354.6 ✓
148+56			10.8	354.7 ✓	10.9 13.00 10
149-			13.0	352.5 ✓	
			13.04	352.44 ✓	
	0.45	352.89 ✓			
+50			3.7	349.2 ✓	
150-			8.3	344.6 ✓	
			12.58	340.31 ✓	
	1.70	342.01 ✓			
151-			7.2	334.8 ✓	
+08			7.8	334.2 ✓	
+09			9.2	332.8 ✓	
+21			9.4	332.6 ✓	
+36.3			9.7	332.3 ✓	
+36.8			10.5	331.5 ✓	
+75			10.5	331.5 ✓	
152+12 ⁵⁰			10.4	331.6 ✓	
B.M. #21			8.61	333.40 ✓	
	2.00	335.40 ✓			
			4.50	330.90 ✓	
+75			2.1	333.3 ✓	
153-			2.6	332.8 ✓	
+50			5.1	330.3 ✓	
154-			6.3	329.1 ✓	
+50			6.8	328.6 ✓	
155-			7.3	328.1 ✓	
			6.50	328.90 ✓	

151407 & changes from 10° to 7° from pipe line

Inside edge Sidewalk - Bach Str.

Curb

Gutter

& str.

Edge pavement

on Top Fire Plug at Bach & 63rd St

Spike in Power pole SW. Cor. Bach & 63rd
 Marked 331.91 (Probably Roy Keyes Engr. Org. B.M.)
 This pole probably moved.

f

				328.90	
	3.73	332.63			
155+	50		4.5	328.1	
156-			4.4	328.2	
B.M. #22			3.28	329.35	
+50			4.6	328.0	
157-			6.7	325.9	
+50			10.9	321.7	
			12.66	319.97	
	0.13	320.10			
158-			2.8	317.3	
+50			6.6	313.5	
159-			13.4	306.7	
			12.82	307.28	
	0.26	307.54			
+13					303.2
+50			9.0	298.5	43 1/2 pipe 7
			13.06	294.48	
	0.42	294.90			
160-			2.3	292.6	
+50			6.8	288.1	
161-			11.6	283.3	
			12.73	282.17	
	0.17	282.34			
+75			4.8	277.5	275.5 6.8 Pipe 7
162-			7.3	275.0	270.6
+28			9.5	272.8	11.7 Pipe

On Air Valve 7' Lt. 156 + 05

		282.34			
			12.70	269.64	
	0.09	269.73			266.81
162+ 66			1.0	268.7	2.9 Pipe
163+			5.2	264.5	7
+50			11.8	257.9	258.1
+60			13.6	256.11	11.6 Tip pipe
164-					256.0
+35			29.5	240.2	13.7
+65			37.2	232.5	256.0
165-					13.7
+45			15.2	254.5	257.8
+52			13.1	256.6	11.9
166-			9.8	264.9	258.6
			2.63	267.10	11.1
	5.26	272.36			7
+50			4.0	268.4	
167-			4.1	268.3	
+44.25			4.6	267.7	
B.M. #23			3.84	268.52	
168-			7.9	265.1	
+50			10.8	261.6	
			12.51	259.85	
	0.36	260.21			256.6
169-			2.9	257.3	4.6 Pipe
+50			6.0	254.2	7
+80					251.2
					9.0 Pipe



Profile



Bottom of draw

on air valve 7' 14" 162449.25

		260.21		
170-			9.8	250.4 ✓
			13.00	247.21 ✓
	0.05	247.26 ✓		
171-			5.0	242.3 ✓
172-			12.8	234.5 ✓
			12.57	234.69 ✓
	0.47	235.16 ✓		
172+22			2.0	233.2 ✓
+54			4.9	230.9 ✓
173-			7.1	228.1 ✓
+50			11.4	223.8 ✓
			12.60	222.56 ✓
	1.87	224.45 ✓		
+83			4.7	219.7 ✓
174-			7.5	216.9 ✓
+20			11.4	213.0 ✓
			11.56	212.89 ✓
	8.68	221.57 ✓		
+70			11.2	210.4 ✓
175-			9.3	212.3 ✓
+25			10.4	211.2 ✓
+50			12.9	208.7 ✓
+94			15.3	206.3 ✓
+94			10.0	211.6 ✓
176+50			6.8	215.8 ✓
176+82		Top of Rail	3.7	217.9 ✓

209.8 ✓
11.8 Pipe
7

208.6 ✓
13.0 Pipe
7

Edge Pavement

④ R.R.

221.57

116 220.41

121 220.36

220.11 T.P.

sw

Curb Ret 116 220.41

ENCANTO

65th

IMPERIAL AVE.

Curb Ret 121 220.36

346 218.11 T.P.

sw

31

Curb Ref. 1.16 Elev. 220.41

City
220.6

65th

Imperial

Curb Ref. 1.21 Elev. 220.36

City
220.8

Rec'd in Office

10/12/28-

H. D. W.

C. P. Chilton
R. C. Palmer
Oct. 11, 1928

T.P.				218.11 ✓	
	3.06	221.17 ✓			
B.N. #24			8.56	212.61 ✓	212.80
T.P.				218.11	
	11.87	229.98 ✓			
177+00			131	216.9 ✓	
+20			142	215.8 ✓	
+35			107	219.3 ✓	
+77			107	219.3 ✓	
+95			101	219.9 ✓	
178-			93	220.7 ✓	
+50			52	224.8 ✓	
			0.0	229.98 ✓	
	12.15	242.13 ✓			
179-			111	231.0 ✓	231.1 ✓
+15					1.0 Pipe
+50			40	238.1 ✓	236.8 ✓
+60			0.4	241.7 ✓	5.3 "
			0.42	241.71 ✓	7 "
	12.99	254.70 ✓			
+72			12.4	242.3 ✓	246.1 ✓
180-			50	249.7 ✓	8.6 Pipe
			0.38	254.32 ✓	7 "
	12.39	266.71 ✓			
+32			9.9	256.8 ✓	256.0
					10.7 Pipe

Bolt in R.R. Trestle - S.E. Cor.

City B.M. Spike in pole N.E. Cor Akins + 65th

Edge Pavement Imperial Ave

234

25

231.5

3.14

228.34

Inside edge S.W.

Edge Road:

gr - 234.

		266.71		
			0.16	266.55 ✓
	1291	279.46 ✓		
			0.12	279.34 ✓
	1233	291.67 ✓		
181-			8.7	283.0 ✓
			0.15	291.52 ✓
	1299	304.45 ✓		
+40			5.4	299.0 ✓
			0.19	304.26 ✓
	1286	317.12 ✓		
182-			2.9	314.2 ✓
+12.3	RC		0.0	317.1 ✓
			0.04	317.08 ✓
	1219	329.27 ✓		
149.8	EC		6.4	322.9 ✓
183-			3.0	326.3 ✓
BN [#] 25			0.04	329.23 ✓
	1270	341.93 ✓		
184-			10.0	331.9 ✓
+50			6.0	335.9 ✓
185-			2.1	339.8 ✓
			0.35	341.58 ✓
	1291	354.49 ✓		
186-			4.5	350.0 ✓
+19			3.0	352.5 ✓
			0.24	354.25 ✓

#70909

Spike 10 Power Pole 12' Lt. 183+40.

				354.25	
	12.12	366.37 ✓			
187-			8.7	357.7 ✓	
188-			0.1	366.3 ✓	
			0.14	366.25 ✓	
	10.75	376.98 ✓			366.6 ✓
+13					10.4 Pipe 7
+75			3.7	373.3 ✓	
189-			3.1	373.9 ✓	
+50			2.1	374.9 ✓	
190-			1.3	375.7 ✓	
B.M. #20			4.50	372.98 ✓	
	2.00	374.98 ✓			
+50			0.9	373.7 ✓	
191-			3.7	370.8 ✓	369.3 ✓
+50			5.0	369.5 ✓	5.2 Pipe 7
+59					366.8 ✓
192-			7.7	366.8 ✓	7.2 7
			12.59	361.89 ✓	
	0.19	362.08 ✓			
+50			1.9	360.9 ✓	
			12.49	349.59 ✓	
	0.78	350.37 ✓			
193-			4.2	346.2 ✓	
+75			9.3	341.1 ✓	
+50			11.2	339.2 ✓	
194-			12.0	338.4 ✓	

on Air Valve 7 Lt. 190+48

		350.37		
			12.07	337.30 ✓
	1.39	338.69 ✓		
194-50			0.0	338.7 ✓
195-			9.6	334.1 ✓
+75			10.0	328.7 ✓
196-			8.6	330.1 ✓
+20			7.7	331.0 ✓
+75			2.3	336.4 ✓
			0.03	338.66 ✓
	12.04	350.70 ✓		
197-			8.8	341.9 ✓
+50			1.7	349.0 ✓
			0.56	350.14 ✓
	12.34	362.48 ✓		
198-			11.7	350.8 ✓
+55			11.9	351.1 ✓
199			8.9	354.1 ✓
+50			5.1	357.4 ✓
200-			0.0	362.5 ✓
			9.24	353.24 ✓
			0.19	362.29 ✓
	12.36	374.65 ✓		
+50			6.4	368.2 ✓
201-			2.9	372.2 ✓
BM #27			22.5	372.40 ✓
	12.86	385.26 ✓		

Round?

352.3 ✓
10.2 fix
7

Edge of Road 7

Ed. nail in T. pole Marked B.M. #4 Elev. 354.12
7/24 1950

on Air Valve 7/24 2011 06

		385.26		
201+50			10.7	374.6 ✓
202-			9.0	376.3 ✓
+50			6.5	378.8 ✓
203-			5.3	380.2 ✓
+12			4.0	381.3 ✓
			0.27	384.99 ✓
	6.04	391.03 ✓		
+26			3.1	387.9 ✓
+37			2.2	388.8 ✓
203+62			2.2	388.8 ✓
+66			1.5	389.6 ✓
			1.95	389.08 ✓
+90			10.6	380.4 ✓
204-			11.0	380.0 ✓
			12.49	378.54 ✓
	0.12	378.66 ✓		
205-			2.5	376.2 ✓
+50			5.2	373.5 ✓
206-			7.4	371.3 ✓
+16			8.1	370.6 ✓
207-			5.9	372.8 ✓
+50			3.7	375.0 ✓
208-			3.0	375.7 ✓
+50			5.1	373.6 ✓
			7.70	370.96 ✓
	3.83	374.79 ✓		

370.1 ✓
8.6 pipe
7

7.90

6.100

5.000

4.000

P. 2.000

N. Edge ~~to~~ National Ave. Ext.

S. " 2.716

1.500

Fd. R.P. hub with B.M. #5 Elev. 390.03 - 20' Et 204100
 (Evidently same series as B.M. #4 at 198150) Not National
 Acc B.M.

5.900

3.500

2.800

1.800

2.000

1.000

P. 2.000

		374.79			
209-			3.0	371.8 ✓	
+19					369.9 ✓ 4.9 Pipe 7
210-			3.8	371.0 ✓	
+50			4.2	370.6 ✓	369.9 ✓ 4.9 pipe 7
211-			1.0	373.8 ✓	
BM #28			2.60	372.19 ✓	
	2.02	374.21 ✓			
+42			+1.7	375.9 ✓	370.0 ✓ 4.2 Pipe 7
212-			+3.2	377.4 ✓	
+78			5.6	368.6 ✓	
213-			6.5	367.7 ✓	
+92			13.1	361.1 ✓	358.2 ✓ 16.0 Pipe 7
			12.06	361.15 ✓	
	1.06	361.21 ✓			
215-			8.6	352.6 ✓	
			12.79	348.42 ✓	
	0.13	348.75 ✓			
216-			4.1	344.7 ✓	
217-			8.2	340.6 ✓	
+50			9.7	339.1 ✓	
218-			10.8	338.0 ✓	
			12.39	338.26 ✓	
	9.36	347.72 ✓			
219-			12.8	336.9 ✓	
+50			11.8	335.9 ✓	
220-			8.9	338.8 ✓	

40 Air Valve 7/14 211+25

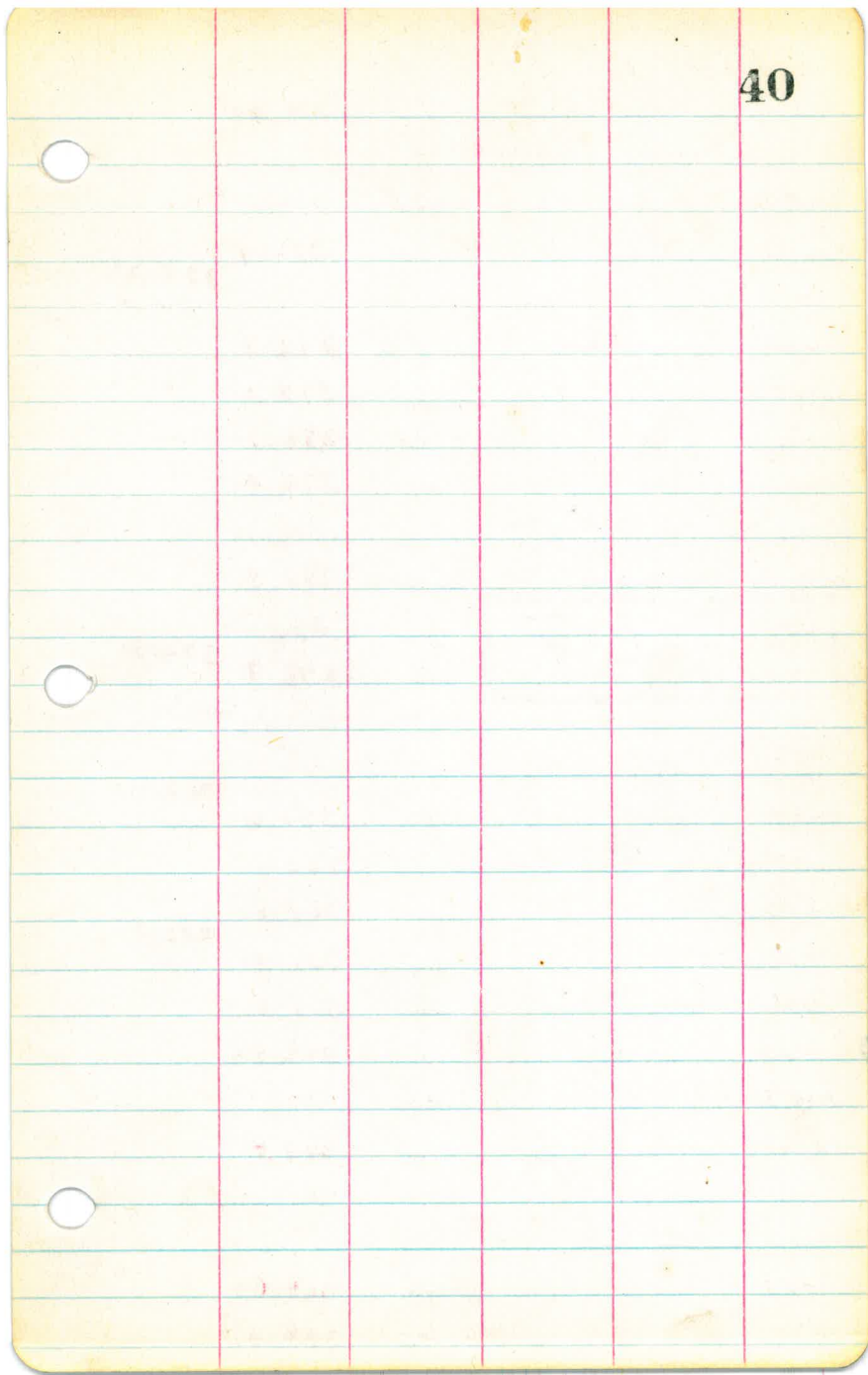
		347.72			
220+50			55	342.2 ✓	
221-			13	346.4 ✓	
BM #29			0.72	347.00 ✓	
	116	348.16 ✓			
+50			1.4	346.8 ✓	
222-			2.5	345.7 ✓	
223-			5.8	342.4 ✓	
224-			9.3	338.9 ✓	
+86					334.8 13.4 Pipe 7
225-			12.6	335.6 ✓	
			11.98	336.18 ✓	
	0.09	336.27 ✓			
+50			1.5	334.8 ✓	
226-			4.2	331.1 ✓	
+30					328.6 ✓ 7.7 Pipe 7
227-			11.5	324.8 ✓	
			12.57	323.70 ✓	
	0.30	324.00 ✓			
228-			6.6	317.4 ✓	
			12.43	311.57 ✓	
	0.36	311.93 ✓			
229-			6.3	305.6 ✓	
			12.74	299.19 ✓	
	0.13	299.32 ✓			
+45			0.4	298.9 ✓	297.3 2.0 Pipe 7
230-			8.3	291.0 ✓	

no Air Valve 7' H 221452

		299.34			
			12.21	287.11	
	022	287.33			
231-			12.7	274.6	✓
			12.41	274.92	✓
	009	275.01			
			12.50	262.51	✓
	005	262.56			
232-			5.2	257.4	✓
			12.76	249.80	✓
	058	250.88			
233-			5.7	244.7	✓
+45			9.2	241.2	✓
+96			11.0	239.4	✓
234+35			9.4	241.0	✓
+70			14.6	235.8	✓
+83			20.3	230.1	✓
235+03			12.7	237.7	✓
+27			11.9	238.5	✓
236-			6.5	243.9	✓
+18			4.0	246.4	✓
			0.81	249.57	✓
	12.89	262.46			
+56			7.1	256.4	✓
+79			0.2	262.3	✓
			0.81	262.15	✓
	12.58	274.73			

£ Wash

		274.73		
237-			73	267.4 ✓
			0.02	274.71 ✓
	12.31	287.02 ✓		
+50			77	279.3 ✓
			0.15	286.87 ✓
	13.01	299.88 ✓		
238-			4.9	295.0 ✓
			0.16	299.72 ✓
	12.30	312.02 ✓		
			0.13	311.89 ✓
	12.79	324.68 ✓		
			0.47	324.21 ✓
	12.88	337.09 ✓		
239-			73	329.8 ✓
			0.29	336.80 ✓
	12.90	349.70 ✓		
			0.03	349.67 ✓
	12.79	362.46 ✓		
			0.30	362.16 ✓
	12.01	374.17 ✓		
+78			140	360.2 ✓
240-			77	366.5 ✓
				67.1
				373.1
	143		31	371.1 ✓
				71 Pipe
241-			47	369.5 ✓
+524			59	368.3 ✓
			382	370.35 ✓



				370.35 ✓	
	11.77	382.12 ✓			
B.N. #30			9.83	372.29 ✓	
242-			10.0	372.1 ✓	
+09				371.2 ✓	10.9 Pipe 7
+20			9.3	372.8 ✓	
+50			3.1	379.0 ✓	
+77			1.4	380.7 ✓	
+84			4.7	377.4 ✓	
+93			0.0	382.1 ✓	
243-			+1.4	383.5 ✓	
+35			0.0	382.1 ✓	
+50			5.3	376.8 ✓	372.3 ✓ 9.8 Pipe 7
			9.58	372.54 ✓	
	6.82	379.36 ✓			
244-			8.4	371.0 ✓	372.1 ✓ 7.3 7
+15			16.3	363.1 ✓	
+45			16.4	363.0 ✓	
+70			7.1	372.3 ✓	372.3 ✓ 7.1 7
245-			1.6	377.8 ✓	
+27.9			0.0	379.4 ✓	
B.N. #31			4.66	374.70 ✓	
246-			6.0	373.4 ✓	
			12.74	366.62 ✓	
	0.54	367.16 ✓			
+65			2.6	364.6 ✓	
247-			13.2	354.0 ✓	

10/13/28
H DW

41

on Air Valve 7' Lt. 241524

Flange Top

on Air Valve 7' Lt. 2451279

		367.16		
			12.26	354.90 ✓
	0.09	354.99 ✓		
247+80			10.1	344.9 ✓
			12.59	342.40 ✓
	0.99	343.39 ✓		
+70			8.3	335.1 ✓
				334.9 ✓
248+17			22.7	320.7 ✓
				8.5 Pipe
+46			15.3	329.7 ✓
				13.7
				329.4 ✓
			8.51	14.0 "
	8.49	343.37 ✓		
249-			15.1	328.3 ✓
				329.6 ✓
+05			19.0	324.4 ✓
				13.8 "
+30			16.1	332.3 ✓
+50			9.7	333.7 ✓
250+10			12.8	330.6 ✓
				330.1
+44			20.5	322.9 ✓
				13.9 ✓
+51			17.0	326.4 ✓
251-			10.2	333.2 ✓
			4.02	343.35 ✓
	12.80	356.15 ✓		
+76			2.2	354.0 ✓
			0.24	355.91 ✓
	12.05	367.96 ✓		
252-			9.4	358.6 ✓
			0.03	367.93 ✓
	7.94	375.87 ✓		

↓
Oct 11
Oct 12
↓

Draw

		375.87		
252+67			6.2	369.7 ✓
253-			4.2	371.7 ✓
B.M. #32			1.51	374.36 ✓
+19			4.8	371.1 ✓
+31			2.5	373.4 ✓
254-			2.0	373.9 ✓ 365.5 ✓
+27				→ 10.4 App
+50			8.2	367.7 ✓
255-			11.6	364.3 ✓
			12.98	362.89 ✓
	052	363.41 ✓		
256-			7.1	356.3 ✓
+18			8.3	365.1 ✓
+50			11.5	351.9 ✓
			12.99	350.42 ✓
	059	351.01 ✓		
257			4.6	346.4 ✓
+10			5.0	346.0 ✓
+50			8.5	342.5 ✓
			12.65	338.36 ✓
	017	338.53 ✓		
+84			0.9	338.2 ✓
258			3.7	334.8 ✓
			12.96	325.57 ✓
	045	326.02 ✓		
259-			10.2	315.8 ✓
			12.63	313.39 ✓

On Air Valve H 253+19

				313.39	
	0.06	313.45 ✓			
			12.61	300.84 ✓	
	0.22	301.06 ✓			
260-			2.3	298.8 ✓	
			12.55	288.51 ✓	
	0.21	288.72 ✓			
+80			2.7	286.0 ✓	
261-			3.4	285.3 ✓	
+25			4.3	284.4 ✓	283.2 ✓
+74			7.4	281.3 ✓	280.0 ✓
+81					87 Pipe
262-			11.0	277.7 ✓	
			12.87	275.85 ✓	
	1.36	277.21 ✓			
+25			3.0	274.2 ✓	
+50			3.5	273.7 ✓	
263-			10.3	266.9 ✓	
			12.55	264.66 ✓	
	0.47	265.13 ✓			
+07			6.7	258.4 ✓	
+34			5.0	260.1 ✓	258.4 ✓
+47			8.2	256.9 ✓	67 Pipe
+77			15.3	249.8 ✓	257.5 ✓
					7.6 "
# B.M. 33			8.53	256.60 ✓	
264-			12.0	253.1 ✓	
+36			7.3	257.8 ✓	259.5 ✓
					5.6 "
			0.02	265.11 ✓	

Edge Paradise Valley Road

& Wash

On uppermost belt head (not valve stem) of blow-off
Valve Sta 263+77 Flume #36

				265.11
	12.96	278.07 ✓		
265-			7.5	270.6 ✓
			0.23	277.84 ✓
	12.44	290.28 ✓		
			0.04	290.24 ✓
	12.51	302.75 ✓		
			0.03	302.72 ✓
	12.56	315.28 ✓		
266 -			11.9	303.4 ✓
			0.02	315.26 ✓
	12.54	327.80 ✓		
			0.17	327.63 ✓
	12.72	340.35 ✓		
+80			10.7	329.7 ✓
267-			1.8	338.6 ✓
			0.09	340.32 ✓
	12.52	352.84 ✓		
			0.43	352.41 ✓
	12.89	365.30 ✓		
+50			8.8	356.5 ✓
BM #34			2.61	362.69 ✓
268-			12.2	367.5 ✓
+60			0.6	364.7 ✓
269-			2.0	363.3 ✓
+50			5.8	359.5 ✓
+30				360.5 ✓
270-			9.2	356.1 ✓

73 Pipe

on Air Valve is 268+09.3

		365.30		
			9.9	356.11 ✓
	2.46	364.57 ✓		
270+50			8.7	355.9 ✓ 10.9 Pipe
271-			8.9	355.7 ✓
+50			12.1	354.5 ✓
272-			11.0	353.6 ✓
+12			11.5	353.1 ✓ 13.3 "
+50			10.9	353.7 ✓
273-			8.3	356.3 ✓
+0.5				356.0 ✓ 8.6 "
+50			5.5	359.1 ✓
274-			2.8	361.8 ✓
			1.79	362.78 ✓
	9.73	372.51 ✓		
275-			9.1	363.4 ✓
276-			7.7	364.8 ✓
+33			4.0	368.5 ✓
+88			0.8	371.7 ✓
277-			1.2	371.3 ✓
+70			9.6	362.9 ✓
277.35			2.03	370.48 ✓
			12.85	359.66 ✓
	0.22	359.88 ✓		
278-			10.6	349.3 ✓
			12.79	347.09 ✓
	0.49	347.58 ✓		
+26			5.6	342.0 ✓

On Air Valve Lt 276+88

		347.58			340.8 ^v
278+35					6.8 Pipe
+42			8.9	338.7 ^v	
+74			18.9	328.7 ^v	338.8 ^v
279-			17.3	330.3 ^v	8.8 338.9 ^v
+12			18.2	329.4 ^v	8.7 338.8 ^v
+39			11.5	336.1 ^v	8.8 339.6 ^v
+60			8.9	338.7 ^v	8.0
+80			3.0	344.6 ^v	
+89			2.6	345.0 ^v	
			0.61	346.97 ^v	
	12.78	359.75 ^v			
280-			10.9	348.9 ^v	
+50			0.2	359.6 ^v	
			0.10	359.65 ^v	
	10.18	369.93 ^v			
+80			2.6	367.2 ^v	
B.M. #36			3.66	366.17 ^v	
281-			1.4	368.4 ^v	
+26			0.5	369.3 ^v	
+60			9.8	360.0 ^v	355.4 ^v
+80			9.6	360.2 ^v	14.4 pipe
			12.10	357.73 ^v	
	0.05	357.78 ^v			
282-			3.3	354.5 ^v	350.8 ^v
			12.42	345.36 ^v	7.0
	0.06	345.42 ^v			

on Air Valve 4 280+97

		345.42			
282+28			0.1	345.3 ✓	344.3 ✓
+48			6.0	339.4 ✓	11 Pipe
+82			11.2	334.2 ✓	339.4 ✓
283-			86	336.8 ✓	6.0 "
+27			90	336.4 ✓	
+50			12.2	333.2 ✓	
			13.06	332.36 ✓	
	0.41	332.77 ✓			
284-			6.6	326.2 ✓	322.7 ✓
+33			10.8	322.0 ✓	10.1 Pipe
+42			12.7	320.1 ✓	322.0 ✓
+88			23.5	309.3 ✓	10.8 "
285+25			86	324.2 ✓	325.8 ✓
+32					7.0 "
+50			4.5	328.3 ✓	
			0.56	332.71 ✓	
	12.46	344.67 ✓			
286-			7.0	337.7 ✓	
			0.19	344.48 ✓	
	3.56	348.04 ✓			
EM # 57			0.44	347.60 ✓	
+70			1.1	346.9 ✓	
287-			2.9	345.1 ✓	
+62			10.7	337.3 ✓	336.7 ✓
288-			13.5	334.5 ✓	11.3 Pipe
+40			13.0	335.0 ✓	

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2.922 & Draw

On Air Valve Lt 286+64

		348.04		
+62			17.5	330.5 ✓
+68			15.3	332.7 ✓
289-			11.2	336.8 ✓
			0.49	347.55 ✓
	12.08	359.63 ✓		346.6 ✓
+50			12.1	347.5 ✓ 13.0 Pipe
290-			0.6	359.0 ✓
+166			+1.0	360.6 ✓
B.M. #38			2.64	356.99 ✓
+43			0.4	359.2 ✓
+80			8.3	351.3 ✓
+95			12.1	347.5 ✓
			12.85	346.78 ✓
	0.27	347.05 ✓		
			12.62	334.43 ✓
	0.05	334.48 ✓		
291+50			5.1	329.4 ✓
			12.98	321.50 ✓
	0.35	321.85 ✓		
292-			7.0	314.8 ✓
			12.68	309.17 ✓
	0.58	309.75 ✓		
+25				304.8
				5.0 Pipe
+50			9.1	300.7 ✓
			12.85	296.90 ✓
	0.23	297.13 ✓		

5.182

8.332

5.182

8.332

on Air valve Lt. 290+16.6

8.332

1.122

1.822

1.822

2.822

		297.13		
293-			7.8	289.3✓
+50			12.3	284.8✓
			12.85	284.30✓
	020	284.50✓		
+50			1.9	282.6✓
294-			7.6	276.9✓
+50			12.7	271.8✓
			12.73	271.77✓
	1.81	273.58✓		
295-			6.3	267.3✓
+25			9.5	264.1✓
+31			14.5	259.1✓
+60			11.3	262.3✓
B.M. #39			9.81	263.77✓
296-			9.2	264.4✓
+35			9.4	264.2✓
+50			4.5	269.1✓
			0.45	273.13✓
	12.53	285.66✓		
297-			3.0	282.7✓
			0.16	285.50✓
	12.69	298.19✓		
			0.24	297.95✓
	12.87	310.32✓		
+50			11.0	299.8✓
			0.03	310.79✓

282.5✓

14.6 Pipe

259.8✓

13.8 Pipe

Rec'd
10/15/28
H D W

50

Nail in S. side of Valve Box N. 295+50

				310.79	
298-	12.53	323.32 ✓	51	318.2 ✓	
			0.25	323.07 ✓	
	12.88	335.95 ✓			
+50			0.5	335.5 ✓	
			0.17	335.78 ✓	
	12.30	348.08 ✓			
			0.22	347.85 ✓	
	12.05	359.90 ✓			
299-			5.7	354.2 ✓	
			0.13	359.77 ✓	
	12.35	372.12 ✓			
+50			7.1	365.0 ✓	
300-			0.5	371.6 ✓	
			0.28	371.84 ✓	
	2.80	374.64 ✓			
B.M. #40			0.18	374.46 ✓	
+31.6			2.5	372.1 ✓	
301-			7.5	367.1 ✓	
+50			11.3	363.3 ✓	363.3
			12.53	362.11 ✓	11.3 Pipe 10
	0.09	362.20 ✓			
302-			3.6	358.6 ✓	
+50			10.2	352.0 ✓	
			12.30	349.90 ✓	
	0.64	350.54 ✓			

↓
Oct. 12
Oct 13
↓

On Air Value 10 Lt. 300 + 31.6

		350.54		
303-			51	345.4 ✓
+39			126	337.9 ✓
			1256	337.98 ✓
	012	338.10 ✓		
+50			28	335.3 ✓
			1264	325.46 ✓
	031	325.77 ✓		
+88				323.7 ✓
				2.1 Pipe 10
304-			25	322.3 ✓
			1283	312.94 ✓
	030	313.24 ✓		
+50			21	311.1 ✓
+75			74	305.8 ✓
			1247	300.77 ✓
	043	301.20 ✓		
305-			09	300.3 ✓
+50			86	292.6 ✓
+75			136	287.6 ✓
			1305	288.15 ✓
	577	293.92 ✓		
306-				287.4 ✓
				6.5 "
+50			290	264.9 ✓
				287.2 ✓
				6.1 "
307-			107	283.2 ✓
				287.4 ✓
				6.5 "
+15			79	286.0 ✓
+50			72	286.7 ✓
+80			96	284.3 ✓
				5.9 Pipe 10

Table No. 2

		293.92		
B.N.A. #41			292	290.60 ✓
	297	293.57 ✓		
308-			82	285.4 ✓
+50			17	291.9 ✓
309-			39	289.7 ✓
+50			66	287.0 ✓
310-			83	285.3 ✓
+65			79	295.7 ✓
311-			85	285.1 ✓
			824	285.33 ✓
	074	286.07 ✓		
+87			60	280.1 ✓ 278.7 ✓
312+15			50	281.1 ✓ 7A Ppc 10
313-			98	276.3 ✓ 273.3 ✓
+79				12.8 10
314-			121	274.0 ✓
			1202	274.05 ✓
	020	274.25 ✓		
315-			53	268.9 ✓
+27			59	269.3 ✓
+70			83	265.9 ✓
316-			86	265.6 ✓
+50			81	266.1 ✓
317-			62	268.0 ✓
			214	272.11 ✓
	12.45	284.56 ✓		

On Air Value 10.17 308 + 55.4

		284.56		
317+50			11.2	273.4 ✓
318-			6.7	277.9 ✓
+50			1.8	282.8 ✓
			0.64	283.92 ✓
	12.95	296.87 ✓		
319-			8.2	288.7 ✓
			0.01	296.86 ✓
	12.57	309.43 ✓		
+50			12.6	296.8 ✓
+80			6.6	302.8 ✓
320-			0.4	309.0 ✓
			0.05	309.58 ✓
	6.84	316.22 ✓		
+37.8			1.7	314.5 ✓
+50			1.5	314.7 ✓
BM #42			2.79	313.43 ✓
321-			5.8	311.4 ✓
			12.94	303.28 ✓
	10.4	304.92 ✓		
+50			3.6	300.7 ✓
+63				295.9 ✓
				84 Pipe 20
			12.84	291.48 ✓
	0.63	292.11 ✓		
322-			0.0	292.1 ✓
+50			8.9	283.2 ✓
			12.27	279.89 ✓
				1.9 20



10

8.385

14

8.385

19

18

8.385

20



In Air Valve 20' Lt. 3201878



				279.84	
	0.43	280.27			
322-170			0.0	280.3	
323-			8.0	272.3	271.3
			13.03	267.24	9.0 Pipe 20
	1.09	268.33			
+50			4.6	263.7	261.9
			12.73	255.60	6.4 20
	0.23	255.83			
324-			0.0	255.8	254.3
+50			7.3	248.5	247.1
			12.78	243.05	1.5 20 8.7 20
	0.27	243.32			
325-			1.9	241.4	240.5
+50			9.5	233.8	233.1
			12.21	231.11	2.8 2.9 10.2 20
	0.07	221.18			
326-			5.4	225.8	225.2
			12.92	218.26	6.0 20
	0.86	219.12			
+50			1.8	217.3	
327-			10.8	208.3	208.8
			13.02	206.10	10.3 20
	4.85	206.15			
+50			8.8	197.4	199.6
			12.34	193.81	7.6 20
	0.18	193.99			

		19299			
327H 80			45	189.5 190.5	
328-			87	185.3 ✓	187.0 ✓ 7.0 Pipe 20
			12.68	181.31	
	0.82	182.13 ✓			
+50			10.0	172.1 ✓	173.2 ✓ 8.9 " 20
			12.64	169.49	
	0.07	169.56 ✓			
329-			9.4	160.2 ✓	161.2 ✓ 8.4 " 20
			12.51	157.05 ✓	
	0.81	157.86 ✓			
+08			0.0	157.9 ✓	
+23			0.9	157.0 ✓	150.3 ✓
+50			7.6	150.3 ✓	7.6 " 20
			12.65	145.21 ✓	
	9.15	154.36 ✓			
B.M. #43			11.85	142.51	
330-			9.4	145.0 ✓	144.4 ✓ 10.0 L. 20
+16			10.6	143.8 ✓	
+25			8.4	146.0 ✓	
+31			11.6	142.8 ✓	
+39			9.5	144.9 ✓	
331-			8.5	145.9 ✓	144.8 ✓ 9.6 " 20
+60			8.3	146.1 ✓	145.8 ✓ 8.6 " 20
332-			3.9	150.5 ✓	149.2 ✓ 5.2 " 20
			0.02	154.34 ✓	
	12.77	167.11 ✓			

Edge Bead

in Inner Flange of Blow-off Valve 390729

		167.11 ✓			
332+50			7.4	159.7 ✓	
			0.07	167.04 ✓	
	12.45	179.49 ✓			177.7 ✓
333-			0.0	179.5 ✓	1.8 Pipe 20
			0.02	179.97 ✓	
	13.00	192.47 ✓			
			0.16	192.31 ✓	
	12.60	209.91 ✓			
			0.01	209.90 ✓	
	12.80	217.70 ✓			
			0.02	217.68 ✓	
	12.90	230.58 ✓			
+84			6.3	224.3 ✓	218.4 ✓ 12.2 Pipe 20
334-			1.7	228.9 ✓	222.6 ✓ 8.0 Pipe 20
B.N. #44			1.06	229.52 ✓	
	1.11	233.63 ✓			
+40.6			1.6	232.0 ✓	
335-			8.0	225.6 ✓	223.7 ✓ 7.9 " 20
			12.46	221.17 ✓	
	0.29	221.46 ✓			
+50			1.8	219.7 ✓	
336-			6.4	215.1 ✓	213.8 ✓ 7.7 " 20
+50			10.4	211.1 ✓	
			12.71	208.75 ✓	
	0.42	209.17 ✓			
337-			1.6	207.6 ✓	204.4 ✓ 4.8 " 20

Do Air Valve 20.14 334+406

		209.17 ✓			
337H-50			9.6	199.6 ✓	
			12.56	196.61 ✓	
	0.29	196.90 ✓			190.1 ✓
338-			5.5	191.4 ✓	6.8 Tip 20
+50			13.2	183.7 ✓	
			12.80	184.10 ✓	
	0.63	184.73 ✓			
+92			6.8	177.9 ✓	174.9 ✓
339-					9.8 20
+40			21.4	163.3 ✓	173.1 ✓
+60			18.0	166.7 ✓	173.1 ✓
340-			18.0	166.7 ✓	174.1 ✓
+50			5.1	179.6 ✓	10.6 20
+75			1.0	183.7 ✓	
			0.06	184.67 ✓	
	11.85	196.52 ✓			185.1 ✓
341-			12.0	184.5 ✓	11.4 20
+50			6.8	189.7 ✓	
342-			1.9	194.6 ✓	
			0.00	196.52 ✓	
	12.61	209.13 ✓			198.8 ✓
+50			8.1	201.0 ✓	10.3 20
			0.20	208.93 ✓	
	12.13	221.06 ✓			207.2 ✓
343-			10.9	210.2 ✓	13.9 20
+50			5.4	215.7 ✓	213.7 ✓

Rec'd-
10/15/28
HDW

58

		221.06			
			0.03	221.03	
	623	227.26			220.4
344-			5.4	221.9	6.8 Pipe 20
+22			3.0	224.3	
+91			3.8	223.5	
BM #45			0.98	226.28	
345-			2.9	224.4	
+50			7.1	220.3	
+75			10.9	216.9	
346-			12.3	215.0	217.3 10.0 " 20
TP			12.65	214.61	
	431	214.92			
+50			3.3	211.6	211.1
347-			5.2	209.7	3.8 " 20
+50			7.6	207.8	207.6
348-			8.4	206.5	7.3 " 20
+50			8.9	206.0	202.1
349-			11.4	203.5	12.8 " 20
			12.02	202.90	
	5.95	208.85			
+50			7.8	201.0	196.4
350-			9.0	199.8	12.4 " 20
+50			10.4	198.4	198.8
351-			7.1	201.7	10.0 " 20
			0.26	208.59	
	11.94	220.53			

On Air Valve 20' Lt 344+91

↓
Oct. 13
Oct. 14
↓

CF					
		220.53 ✓			
351+50			11.0	209.5	
				219.5	
352-			3.4	217.1 ✓	213.5 ✓
					7.0 Fpo
			1.73	218.80 ✓	
	9.11	227.91 ✓			
+30			6.3	221.6 ✓	219.7 ✓
+50			6.0	221.9 ✓	8.2 "
353-			4.5	223.4 ✓	222.1 ✓
					5.8 "
B.M. #46			3.44	224.47 ✓	
+50			6.0	221.9 ✓	
354-			6.1	221.8 ✓	
+50			8.5	219.4 ✓	
355-			9.8	218.1 ✓	
			9.80	218.61 ✓	
	0.69	219.30 ✓			
+50			4.8	214.5 ✓	212.1 ✓
356-			5.7	213.6 ✓	7.2 "
+50			4.9	214.4 ✓	
357-			3.0	216.3 ✓	
			2.67	216.63 ✓	
	1.10	217.73 ✓			
+50			0.4	217.3 ✓	
358-			2.3	215.4 ✓	
B.M. #47			2.25	215.48 ✓	
+16			3.1	214.6 ✓	
+50			7.8	209.9 ✓	
			12.83	209.90 ✓	

on Air Valve Lt 353104.8

on Air Valve Lt 358116

				204.90	
	028	205.18 ✓			199.8 ✓
359-			37	201.5 ✓	5.4 Pipe
+15			74	197.8 ✓	
+50			110	194.2 ✓	
			12.74	192.44 ✓	
	028	192.72 ✓			185.7 ✓
360-			55	187.2 ✓	7.0 "
+50			13.0	179.7 ✓	
			12.81	177.91 ✓	
	0.04	179.95 ✓			
+75.7			54	174.6 ✓	
EM #48			2.03	172.92 ✓	169.7 ✓
361-			82	171.8 ✓	10.3
+21					156.5 ✓
			12.68	167.27 ✓	13.5
	072	167.99 ✓			
+35			28	165.2 ✓	
+50			4.2	163.8 ✓	
362-			11.3	156.7 ✓	
			13.00	154.99 ✓	
	010	155.09 ✓			
+50			46	150.5 ✓	
+65			5.6	149.5 ✓	
			11.79	143.30 ✓	
	056	143.86 ✓			
+94					141.5 ✓
					2.4 Pipe

On Air Valve Lt 360+75.7 (20° South of Similar Valve)

Tap of Pipe

Lt
159.1
4.8
23

Rt
135.0
8.9 Sweetwater Line
13

		142.86 ✓			
363-			2.1	141.8 ✓	
+07			0.8	143.1 ✓	
+17			6.8	137.1 ✓	134.9 ✓
			12.57	131.29 ✓	9.0 Pipe 10
	0.57	131.86 ✓			
+50			2.7	129.2 ✓	
+57			3.9	128.0 ✓	
+61			6.0	125.9 ✓	
+70			5.7	126.2 ✓	125.9 ✓
364-			8.7	123.2 ✓	6.0 Pipe
+30			14.4	117.5 ✓	125.6 ✓
+50			19.4	112.5 ✓	6.3 10
+57			20.0	111.9 ✓	
+86			10.2	121.7 ✓	125.0 ✓
365-			9.4	122.5 ✓	6.9 10
+13			7.2	124.7 ✓	
+35			8.8	123.1 ✓	
+37			5.8	126.1 ✓	
+50			5.3	126.6 ✓	
366-			7.9	124.0 ✓	
			8.84	123.02 ✓	
	0.42	123.44 ✓			
+50			4.1	119.3 ✓	117.7 ✓
+58					5.7 " 10
367-			8.9	114.5 ✓	
			12.68	110.76 ✓	

2 345

5

2 31

Old Road 1 22



Trails #30

Road 1 11

"

2 31

				110.76	
	0.54	111.30 ✓			
367+50			4.9	106.4 ✓	
+85					99.2 ✓ 12.1 Pipe 10
			12.83	98.47	
	0.19	98.60 ✓			
368-			2.0	96.6 ✓	
+05					95.2 ✓ 3.4 " 10 "
+50			10.5	88.1 ✓	
			12.69	85.91 ✓	
	0.72	86.63 ✓			
369-			2.2	84.4 ✓	
+50			6.3	80.3 ✓	
370-			12.0	74.6 ✓	74.0 ✓ 12.6 " 10
			12.99	73.64 ✓	
	0.19	73.83 ✓			
+15	4		1.2	72.6 ✓	73.2 ✓ 0.6 " 64.4 ✓ 9.4 "
+50			8.3	65.5 ✓	
+60			10.0	63.8 ✓	
			12.84	60.99 ✓	
	0.11	61.10 ✓			
+63			1.9	59.2 ✓	
+67			5.2	53.9 ✓	
+74					55.2 ✓ 5.9 " 10 "
371-			6.0	55.1 ✓	
+04			6.0	55.1 ✓	
+25			7.5	53.6 ✓	49.1 ✓ 12.0 " 10 "

- Note -

Edge Sweetwater Road

Suggest pipe be
lowered at North
side of this road acct.
proposed paving.

Plans on file at
Watson Valle & Gough
1962

		61.10 ✓			
371+46			9.6	51.5 ✓	49.0 ✓
+80			12.0	49.1 ✓	12.1 Pipe
372-			22.6	38.5 ✓	49.1 ✓
BM#49			6.53	54.57 ✓	12.0 10
+10	Floor of Bridge				55.6 5.5
			10.77	50.33 ✓	
	472	55.05 ✓			
+50			7.8	47.2 ✓	
+60			6.4	48.6 ✓	
373-			5.7	49.3 ✓	49.4 ✓
+23					5.6 Pipe 10
+50			5.6	49.4 ✓	49.1 ✓
374-			5.0	50.0 ✓	5.9 " 10
+50			5.1	49.9 ✓	49.2 ✓
375-			3.6	51.4 ✓	5.8 " 10
+50			4.2	50.8 ✓	
376-			6.0	49.0 ✓	
			5.64	49.41 ✓	
	10.92	60.33 ✓			
377-			10.9	49.4 ✓	49.3 ✓
+50			10.5	49.8 ✓	11.0 " 10
378-			10.2	50.1 ✓	49.3 ✓
+30			10.0	50.3 ✓	11.0 " 10
+43			4.6	55.7 ✓	
379-			6.4	53.9 ✓	
+40			7.3	53.0 ✓	

Nail in 1st pile, N.E. Wing wall Bonita Bridge
20' E of 371+75

		50.93 ✓			
379+45			9.5	50.8 ✓	50.0 ✓
+70					10.3 Pipe
380-			10.7	49.6 ✓	50.0 ✓
+40			11.4	48.9 ✓	10.3 "
+55			10.0	50.3 ✓	
			9.27	51.06 ✓	
	524	56.30 ✓			
381-			7.0	49.3 ✓	49.9 ✓
+73			6.2	50.1 ✓	6.4 "
+85			6.1	50.2 ✓	50.2 ✓
382-			6.1	50.2 ✓	6.1 "
+36			5.7	50.6 ✓	49.6 ✓
383-			5.2	51.1 ✓	6.7 "
+50			5.4	50.9 ✓	6 "
+60					50.3 ✓
384-			5.5	50.8 ✓	6.0 "
R.M. #50			6.75	49.55 ✓	6 "
+98.5					50.2 ✓
385-			5.1	51.2 ✓	6.1 "
+08			2.9	53.4 ✓	6 "
+21.4			2.9	53.4 ✓	
+42.9			2.0	54.3 ✓	
+50			1.2	55.1 ✓	55.9 ✓
			0.55	55.75 ✓	0.4 "
					6 "

On West Flange Gate Valve 10' Lt 3841496

53.2 ✓

3.1 Sweetwater Co. Pipe

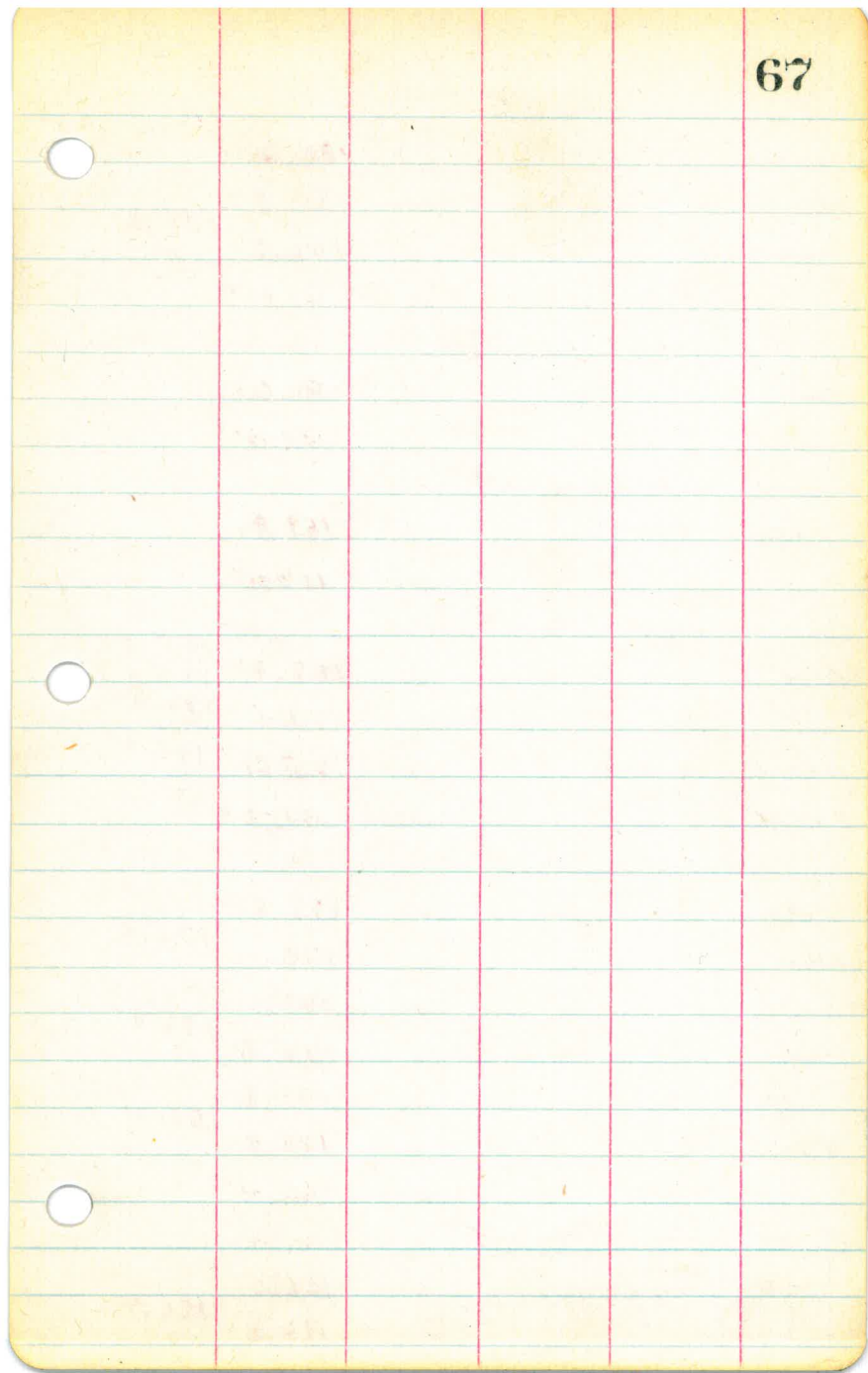
Edge Pavement

				55.15
B.M.				56.08
	3.96	60.04		
			5.84	54.20
	2.82	57.02		
B.M. #50			6.75	50.27 = 49.55
			0.55	55.75 ✓
	13.03	68.78 ✓		
			0.03	68.75 ✓
	12.43	81.18 ✓		
			0.86	80.32 ✓
	12.84	93.16 ✓		
386-			9.7	83.5 ✓
			0.01	93.15 ✓
	12.25	105.40 ✓		
				95.4
+20				10.0 Pipe
+35			6.3	99.1 ✓
+50			5.9	99.5 ✓
387-			9.5	101.9 ✓
+30			2.0	103.4 ✓

County Highway Comm. B.M. RR spike in westerly
pile of westerly wing wall - south end Bonita Bridge

Elev. 62.20 U.S.C. & G.S. Datum
612
56.08 City

		105.40			102.7
387-50			3.9	101.5 ✓	2.7 Pipe
			0.64	104.75 ✓	
	7.81	112.57 ✓			
+61			12.4	100.2 ✓	
388-			14.1	98.5 ✓	104.4 ✓
+16			8.6	104.0 ✓	8.2 6
+34			6.2	106.4 ✓	105.5 ✓
389-			4.7	107.9 ✓	7.1 6
+60			5.6	107.0 ✓	
390-			4.2	108.4 ✓	
			0.16	112.41 ✓	
	11.63	124.04 ✓			
+50			10.1	113.9 ✓	
391-			5.8	118.2 ✓	
+50			3.6	120.4 ✓	
392-			4.7	119.3 ✓	
+30			7.5	116.5 ✓	
+50			8.0	116.0 ✓	
			7.42	116.62 ✓	
	12.35	128.97 ✓			116.11
+78					12.9
393-			11.3	117.7 ✓	
+50			5.8	123.2 ✓	
394-			1.2	127.8 ✓	
			0.09	128.94 ✓	
	12.78	141.72 ✓			



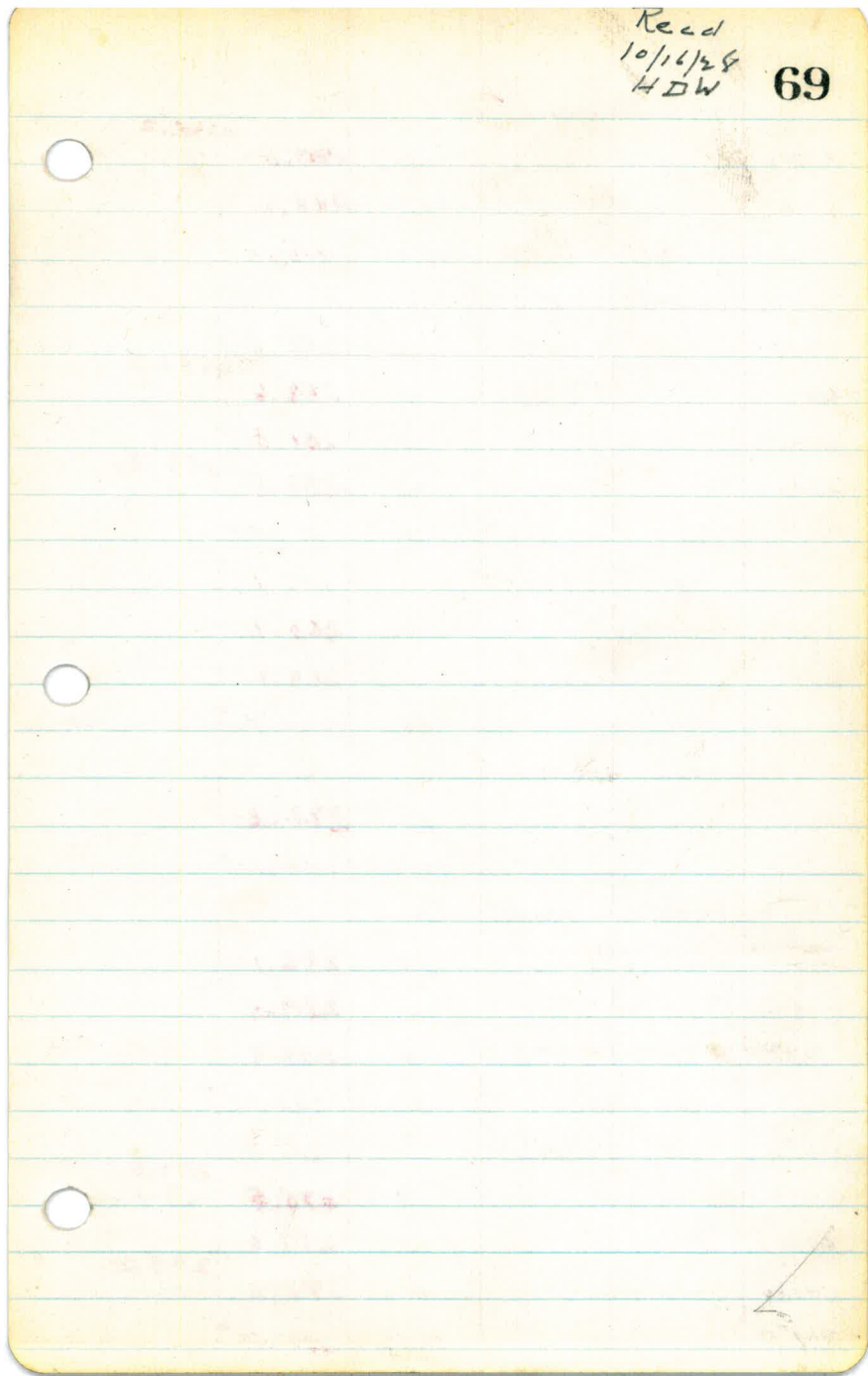
		141.72 ✓			
394-150			9.5	132.2 ✓	
395-			4.9	136.8 ✓	
+33			1.5	140.2 ✓	139.4 ✓
			0.21	141.51 ✓	2.3 Pipe 6
	12.74	154.25 ✓			
396-			3.6	150.6 ✓	
			0.30	153.95 ✓	
	12.40	166.35 ✓			
+50			6.5	159.9 ✓	
			0.12	166.23 ✓	
	12.42	178.65 ✓			
397-			11.2	167.4 ✓	165.6 ✓
+50			5.1	173.5 ✓	13.0 Pipe 170.5 ✓ 8.1 " "
398-			3.0	175.6 ✓	20 " " 174.0 ✓ 4.6 " " 20 " "
BM #51			0.07	178.58 ✓	
	3.67	182.25 ✓			
+62			4.4	177.8 ✓	
399-			3.1	179.1 ✓	175.6 ✓ 6.6 " " 20 " "
+50			3.1	179.1 ✓	
400-			4.7	177.5 ✓	173.9 ✓ 8.3 " " 20 " "
+50			7.4	174.8 ✓	
401-			11.4	170.5 ✓	167.0 ✓ 15.2 " " 20 " "
			12.88	169.37 ✓	
	1.79	171.16 ✓			
+50			4.7	166.5 ✓	
402-			7.0	164.2 ✓	166.4 ✓ 4.8 " "

On Air Valve 20' L 398162

		171.16 ✓			156.3 ✓
402+50			12.1	159.1 ✓	4.9 Pipe 20
+75			10.7	160.5 ✓	169.1 ✓
403-			3.1	168.1 ✓	2.1 20
			0.04	171.12 ✓	
	1303	184.15 ✓			
+17			10.7	173.5 ✓	
+50			6.4	177.9 ✓	
			0.17	183.98 ✓	
	12.88	196.86 ✓			189.7 ✓
404-			8.4	188.5 ✓	7.2 20
+13			6.7	190.2 ✓	
			0.04	196.82 ✓	
	12.62	209.44 ✓			
+50			11.7	197.7 ✓	
+65			7.8	201.6 ✓	
405			2.9	206.5 ✓	
			0.06	209.38 ✓	
	12.72	222.10 ✓			218.0 ✓
+50			5.5	216.6 ✓	4.1 20
			0.18	221.92 ✓	
	12.58	234.50 ✓			
406-			9.8	224.7 ✓	
+50			0.3	234.2 ✓	
			0.04	234.46 ✓	
	12.32	246.78 ✓			
+66			9.3	237.5 ✓	

Reed
10/16/28
HDW

69



		246.78 ✓			
407-			6.3	240.5 ✓	243.2 ✓ 3.6 Pipe 20
+30			0.7	246.11	
			0.13	246.65 ✓	
	11.04	257.69 ✓			
+50			11.2	246.5 ✓	251.7 ✓
408-			9.1	248.6 ✓	6.0 20
+50			6.7	251.0 ✓	
409-			3.2	254.5 ✓	256.3 ✓ 1.4 20
			0.31	257.38 ✓	
	12.57	269.95 ✓			
+50			9.1	260.9 ✓	
410-			16	268.4 ✓	
			0.6	269.79 ✓	
	12.62	282.41 ✓			
+50			5.2	277.2 ✓	
			1.28	282.13 ✓	
	12.30	294.43 ✓			
411-			8.3	286.1 ✓	
+20			4.9	289.5 ✓	
+50			16	292.8 ✓	
			0.17	294.26 ✓	
	12.57	306.83 ✓			
+78			11.3	295.5 ✓	294.6 ✓ 12.2 Pipe 20
412-			9.8	297.0 ✓	
+286			8.6	298.2 ✓	298.2 ✓ 8.6 H 5
B.M. #52			8.22	298.67 ✓	

↓
Oct 14
Oct 15
↓

On Air Valve 20' Lt 412 + 28.6

		306.83 ✓			14 298.7 ✓
412+50			9.0	297.8 ✓	8.1 298.7 ✓
+87			8.6	298.2 ✓	8.1 5 297.1 ✓
413-			9.9	296.9 ✓	9.7 5 295.8 ✓
+10					11.5 Pipe 20 295.4 ✓
+50			12.0	294.8 ✓	11.4 5 296.0 ✓
+83					10.8 Pipe 20 294.1 ✓
414-			13.4	293.4 ✓	12.7 5 296.0 ✓
+50			11.1	295.7 ✓	12.8 5 300.2 ✓
415-			7.5	299.3 ✓	6.6 5 303.5 ✓
+50			4.1	302.7 ✓	3.3 5
			0.16	306.67 ✓	
	12.64	319.31 ✓			306.9 ✓
416-			12.6	306.7 ✓	12.4 5 308.3 ✓
+50			10.5	308.9 ✓	11.0 5 311.5 ✓
417-			7.8	311.5 ✓	7.8 5 316.0 ✓
+50			3.5	315.8 ✓	3.3 5
			0.38	318.93 ✓	
	12.91	331.84 ✓			320.9 ✓
418-			10.4	321.4 ✓	10.9 5 324.3 ✓
+50			7.1	324.7 ✓	7.5 5 325.8 ✓
419-			5.2	326.6 ✓	6.0 5 327.4 ✓
+50			3.5	328.3 ✓	4.4 5 327.5 ✓
+65			3.1	328.7 ✓	4.3 5 325.5 ✓
420			5.3	326.5 ✓	6.3 5 325.5 ✓
+50			5.3	326.5 ✓	6.3 5 322.8 ✓
421-			7.0	324.8 ✓	9.0 5

290.3 290.1

16.5
5
4

16.7
8

Top of 10" C.I. Pipe (6'2" under our pipeline)

		331.84			14
			324	328.60 ✓	
	1253	341.12 ✓			
421+50			12.9	328.2 ✓	327.9 ✓ 13.2
422-			8.1	333.0 ✓	332.9 ✓ 8.2
+50			3.5	337.6 ✓	337.4 ✓ 5
			0.06	341.07 ✓	3.7 5
	1231	353.38 ✓			
423-			10.7	342.7 ✓	342.8 ✓ 10.6
+50			5.6	347.8 ✓	347.5 ✓ 5.9
			0.57	352.81 ✓	5
	1085	363.66 ✓			
424-			10.5	353.2 ✓	353.9 ✓ 9.8
+274			6.3	357.4 ✓	357.7 ✓ 6.0
+50			6.0	357.7 ✓	359.2 ✓ 4.5
+77.2			3.5	360.2 ✓	360.7 ✓ 3.0
B.N.A. #33			0.17	363.49 ✓	5
	627	369.76 ✓			
+87					
+94					
425-			8.1	361.7 ✓	361.7 ✓ 8.1
+20	Top of Gate Valve		Wood Stave Line		363.1 ✓ 5
+63.6			6.2	363.6 ✓	6.7 120
			2.91	366.85 ✓	
426-			6.8	363.0 ✓	
+50			8.0	361.8 ✓	
427-			8.7	361.1 ✓	

On Air Valve 20 Lt 424+77.2

357.6'

12.7 Estimated Elev. of bottom of 28" Steel pipe

E 359.2'

106 H. Top of Flange at ^{Entrance} Choker " " "

362.4'

7.4 Lt Top of Gate Valve 28" Steel line

15

On Air Valve 20 Lt 425+63.6

		369.76 ✓		
427+50			8.1	361.7 ✓
428-			7.3	362.5 ✓
+ 50			4.3	365.5 ✓
			5.27	364.99 ✓
	6.77	371.26 ✓		
429-			4.0	367.3 ✓
+50			3.6	367.7 ✓
+75			4.3	367.0 ✓
430-			4.9	366.4 ✓
+40			5.3	366.0 ✓
470			4.6	366.7 ✓
431-			6.6	364.7 ✓
+50			5.6	365.7 ✓
432-			4.0	367.3 ✓
+50			4.0	367.3 ✓
			3.62	367.69 ✓
	3.04	370.68 ✓		
+80			1.6	369.1 ✓
433-			3.4	367.3 ✓
+36			2.6	368.1 ✓
434			5.0	365.7 ✓
+50			5.1	365.6 ✓
435-			6.3	364.4 ✓
+50			5.1	365.6 ✓
436-			4.3	366.4 ✓
+50			3.8	366.9 ✓

364.2 ✓

7.1 Pipe
20

364.8 ✓

5.9 Pipe
20

364.7 ✓

6.0
20



1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

1935

		376.68		
			2.55	367.13 ✓
	280	369.93 ✓		
437-			2.9	367.0 ✓
+36			2.6	367.3 ✓
438-			5.2	364.7 ✓
+30			6.6	363.3 ✓
+50			8.2	361.7 ✓
439-			9.5	360.4 ✓
+50			10.2	359.7 ✓
440-			8.5	361.4 ✓
			5.07	364.86 ✓
	7.33	372.19 ✓		
+50			7.6	364.6 ✓
441-			5.2	367.0 ✓
+14.7			4.7	367.5 ✓
B.M. #54			2.43	369.76 ✓
+80			4.5	367.7 ✓
442-			5.0	367.2 ✓
+50			10.3	361.9 ✓
			12.68	359.51 ✓
	0.17	359.68 ✓		
+82				355.8 ✓
443-			6.1	353.6 ✓
			12.82	346.86 ✓
	0.53	347.39 ✓		
+50			0.5	346.9 ✓

364.7 ✓
5.2 Pipe
20

364.7 ✓
5.2 "
20

355.8 ✓
3.9 "
20

Do Air Valve 20' H 441+14.7

		347.39 ✓			
444-			8.7	338.7 ✓	336.6 ✓
+10					10.8 Pipe 20
			12.66	334.73 ✓	
	0.55	335.28 ✓			
+50			2.4	332.9 ✓	
445-			7.3	328.0 ✓	
+50			11.4	323.9 ✓	
			12.90	322.38 ✓	
	0.64	323.02 ✓			
446-			3.6	319.4 ✓	317.4 ✓
+30			5.6	317.4 ✓	5.6 Pipe 20
+50			6.4	316.6 ✓	
447-			10.6	312.4 ✓	310.2 ✓
+19					12.8 " 20
			12.83	310.19 ✓	
	0.30	310.49 ✓			
+50			2.8	307.7 ✓	298.4 ✓
+93					12.1 " 20
448			11.8	298.7 ✓	
			12.76	297.73 ✓	
	0.09	297.82 ✓			
+50			8.7	289.1 ✓	
			12.71	285.11 ✓	
	0.30	285.41 ✓			
+96					277.1 ✓
					8.3 " 20
449-			8.0	277.4 ✓	

		285.41 ✓		
			12.99	272.42 ✓
	0.10	272.52 ✓		
449+50			5.9	266.6 ✓
+75			11.0	261.5 ✓
+78			13.3	259.2 ✓
			12.97	259.55 ✓
	0.54	260.09 ✓		
+89			1.6	258.5 ✓
450-			4.8	255.3 ✓
			12.58	247.51 ✓
	0.56	248.07 ✓		
+50			2.9	245.2 ✓
			12.75	235.32 ✓
	0.59	235.91 ✓		
451-			1.9	234.0 ✓
			12.88	223.03 ✓
	0.13	223.16 ✓		
+50			1.9	221.3 ✓
+86			9.6	213.6 ✓
+90			12.0	211.2 ✓
452-			12.3	210.9 ✓
			12.77	210.39 ✓
	0.52	210.91 ✓		
+50			11.3	199.6 ✓
			12.79	198.12 ✓
	0.09	198.21 ✓		

Edge Beach

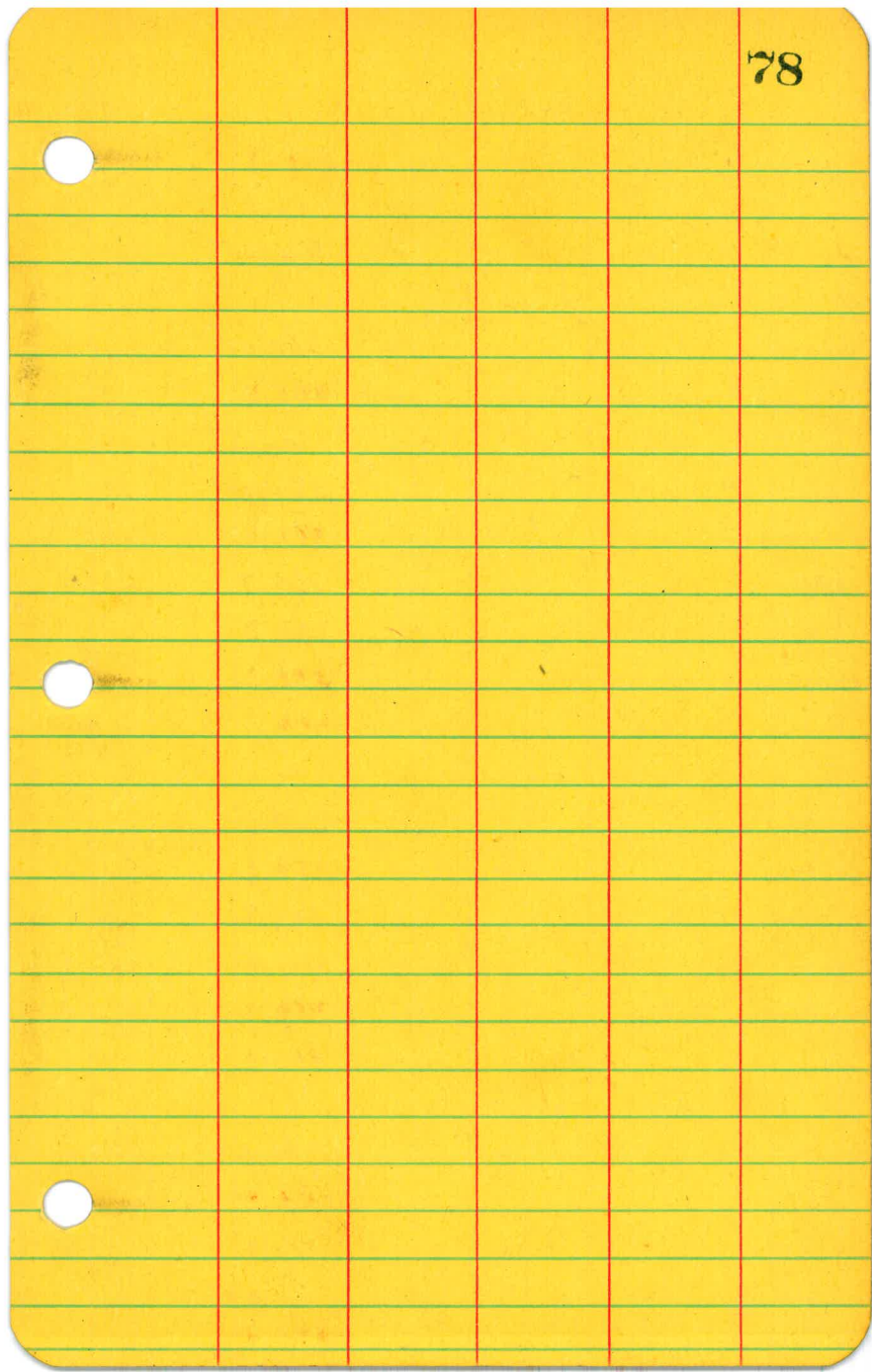
Road

		198.21 ✓		
			12.85	185.36 ✓
	4.34	189.70 ✓		
453-			11.2	178.5 ✓
+ 15				178.4 ✓
				11.3 Pipe 20
454-			11.2	178.5 ✓
+ 9.39			11.9	177.8 ✓
D.M. #55			10.81	178.89 ✓
+ 7.5			10.9	178.8 ✓
455-			6.7	183.0 ✓
			0.37	189.33 ✓
	12.79	202.12 ✓		
450			6.6	195.5 ✓
			0.02	202.10 ✓
	12.36	214.46 ✓		
456-			2.5	212.0 ✓
			0.19	214.27 ✓
	12.69	226.96 ✓		
+ 15			9.7	217.3 ✓
450			3.0	224.0 ✓
+ 5.8				219.7 ✓
				7.3 Pipe 20
			0.03	226.93 ✓
	12.66	239.59 ✓		
457-			8.6	231.0 ✓
			0.06	239.53 ✓
	12.98	252.51 ✓		
+ 5.0			11.9	240.6 ✓

On Beck in N.E. Cor Cons. Valve Box 15' Lt 454+434

		252.51		
			0.16	252.35 ✓
	13.07	265.42 ✓		
458-			11.6	253.8 ✓
			0.16	265.26 ✓
	13.01	278.27 ✓		
+50			10.4	267.9 ✓
			0.03	278.24 ✓
	12.89	291.13 ✓		
459-			8.9	282.2 ✓
			0.16	290.97 ✓
	12.99	303.96 ✓		
+50			5.1	298.9 ✓
+66			1.3	302.7 ✓
			0.13	303.53 ✓
	12.84	316.37 ✓		
+85			4.5	311.9 ✓
			0.03	316.34 ✓
	13.08	329.42 ✓		
460-			12.5	316.9 ✓
+10			10.6	318.8 ✓
			0.02	329.40 ✓
	12.77	342.17 ✓		
+98			13.0	329.2 ✓
			0.24	341.93 ✓
	12.89	354.82 ✓		
+83			13.5	341.3 ✓

302.51
1.5 Pipe
20



		354.82 ✓		
461-			96	345.2 ✓
+50			2.0	352.9 ✓
			0.89	354.43 ✓
	12.00	366.43 ✓		
462			79	358.5 ✓
+36.4			5.9	360.5 ✓
819 * 56			276	363.67 ✓
463-			50	361.4 ✓
+50			6.0	360.4 ✓
464-			87	357.7 ✓
+50			111	355.3 ✓
465-			104	356.0 ✓
			669	359.74 ✓
	11.83	371.57 ✓		
+50			145	357.1 ✓
466-			11.8	359.8 ✓
+50			9.9	361.7 ✓
467-			72	364.4 ✓
+50			33	368.3 ✓
			0.57	371.00 ✓
	11.61	382.61 ✓		
468-			10.8	371.8 ✓
+37			8.4	374.2 ✓
+50			7.3	375.3 ✓
469-			46	378.0 ✓
+50			31	379.5 ✓

372.9 ✓
97 Pipe
20

No Air Value 20 H 462+364

		382.61 ✓		
470-			1.1	381.5 ✓
+163			0.5	382.1 ✓
			0.15	382.46 ✓
	249	384.95 ✓		
BM #57			1.1	383.84 ✓
+50			2.7	382.3 ✓
471-			5.3	379.7 ✓
+21			5.5	379.5 ✓
+50			9.3	375.7 ✓
			12.98	371.97 ✓
	346	375.93 ✓		
472-			5.1	370.3 ✓
+15			6.9	368.5 ✓
+50			6.6	368.8 ✓
473-			5.2	370.2 ✓
+50			4.1	371.3 ✓
474-			4.5	370.9 ✓
+06			4.4	371.0 ✓
+50			8.4	367.0 ✓
475-			12.5	364.9 ✓
			11.6	369.27 ✓
	2.61	366.88 ✓		
+36			4.1	362.8 ✓
+75			4.8	362.1 ✓
476-			6.0	360.9 ✓
+15			8.0	358.9 ✓

366.8 ✓
86 Pps
20

No Air Valve 20' of 470 + 14.3

↓
Oct 15
Oct 16
↓

		366.88 ✓		
+76+50			9.6	357.3 ✓
+77-			8.9	358.0 ✓
+80			8.8	358.1 ✓
+75			4.1	362.8 ✓
+78-			9.3	363.6 ✓
			2.94	363.94 ✓
	12.99	376.92 ✓		
+80			11.8	365.1 ✓
+80			10.6	366.3 ✓
+79-			10.5	366.4 ✓
+50			8.0	368.9 ✓
+80-			5.8	371.1 ✓
+50			2.7	374.2 ✓
481-			1.2	375.7 ✓
B.M.#58			0.81	376.12 ✓
	0.49	376.61 ✓		
+50			1.1	375.5 ✓
482-			2.5	374.1 ✓
+50			6.7	369.9 ✓
483-			9.5	367.1 ✓
			10.95	365.66 ✓
	5.44	371.10 ✓		
+50			4.1	366.4 ✓ 367.4 ✓
484-			5.8	365.3 ✓
+21			6.3	364.8 ✓
+50			7.6	363.5 ✓

365.2 ✓
11.7 Pipe
20

362.9 ✓
8.2 Pipe
20

On Air Valve 20 Lt 481+03

		371.10 ✓		
485-			74	363.7 ✓
+45			90	362.1 ✓
486-			88	362.3 ✓
+50			84	362.7 ✓
487-			72	363.9 ✓
+70.7			27	368.4 ✓
BM# 59			2.27	368.83 ✓
	0.64	369.47 ✓		
488-			0.7	368.8 ✓
+50			4.0	365.5 ✓
489-			8.0	361.5 ✓
+25				355.5 ✓ 140 Pipe 20
			13.08	356.39 ✓
	1.34	357.73 ✓		
+50			2.3	355.4 ✓
490-			6.9	350.8 ✓
+36			10.2	347.5 ✓
+50			8.4	349.3 ✓
+80			6.5	341.2 ✓
491-			5.5	352.2 ✓
+50			2.5	354.2 ✓
492-			3.4	354.3 ✓
+50			6.4	351.3 ✓
			12.07	345.66 ✓
	0.00	345.66 ✓		
+69				346.7 ✓ 0.0 Pipe

Do Air Valve 20' 487+707

		345.66 ✓		
493-			1.9	343.8 ✓
+30			6.8	338.9 ✓
+50			13.9	331.8 ✓
494+06			23.6	322.1 ✓
+50			1.96	326.1 ✓
495-			5.4	340.2 ✓
+36			0.5	345.2 ✓
			0.11	345.55 ✓
	12.95	358.00 ✓		342.1 ✓
+70				3.6 Tips 20
496-			2.9	348.8 ✓
			0.21	9.2 20
	12.51	370.30 ✓		355.1 ✓
+50			10.6	357.79 ✓
+95				359.7 ✓
497-			4.9	362.9 ✓
+50			0.4	7.4 20
			0.31	365.4 ✓
	10.12	380.11 ✓		369.9 ✓
498-			7.2	372.9 ✓
+50			5.4	374.7 ✓
499-			3.5	376.6 ✓
+46.7			2.7	377.4 ✓
EM #60			0.84	379.27 ✓
500-			2.5	377.6 ✓
+50			5.3	374.8 ✓

No Air Valve 20' Lt 499+457

		380.11		
			9.79	370.32 ✓
	0.15	370.47 ✓		
501-			31	367.4 ✓
			12.41	358.06 ✓
	0.31	358.27 ✓		
+50			10	357.4 ✓
			12.67	345.70 ✓
	0.68	346.88 ✓		
502-			13	345.1 ✓
+03				337.9 ✓
B.M.#61			5.81	340.57 ✓
			13.23	333.30 ✓
	0.15	333.45 ✓		
+50			2.8	330.6 ✓
+90			10.7	322.7 ✓
503-			11.7	321.7 ✓
			12.84	320.61 ✓
	0.12	320.73 ✓		
B.M.#62			6.94	313.79 ✓
+50			4.1	316.6 ✓
504-			6.5	314.2 ✓
+50			6.3	314.4 ✓
+60			5.7	315.0 ✓
			0.59	320.14 ✓
	13.02	333.16 ✓		
505-			4.0	329.2 ✓

8.5 Pipe
20

8.3 Pipe
20

4.4 Pipe
20

Fd. Conc. B.M. 13' Lt 502+05 (Brass plug in Conc. in 4" Pipe)

Fd. B.M. spike in 1x2 - 784 504+02	320.20
Marked B.M. #15 Elev. 320.20	6.12
	314.08
	313.79
	Low 0.29

		332.16			
			0.02	333.14	
	12.78	345.92			331.8
505+12			1.84	327.5	141 Pipe 20
+26			7.6	338.3	
+38			2.4	343.5	339.3 6.6 20
			0.06	345.86	TP stake
	12.84	358.70			
+50			11.4	347.3	
+55			11.4	347.3	345.9 12.8 Pipe 20
			0.29	358.41	
	12.80	371.21			358.4
506-			9.2	362.0	12.8 " 20
+18			6.2	365.0	
+50			0.2	371.0	
			0.12	371.09	
	12.70	383.79			
+75			9.0	374.8	
507-			8.1	375.7	
+50			3.3	380.5	
508-			2.0	381.8	
+122			1.7	382.1	
B.M. #63			1.09	382.70	
	1.36	384.06			
+50			3.1	381.0	
509-			4.5	379.6	
+04					379.9 4.2 Pipe

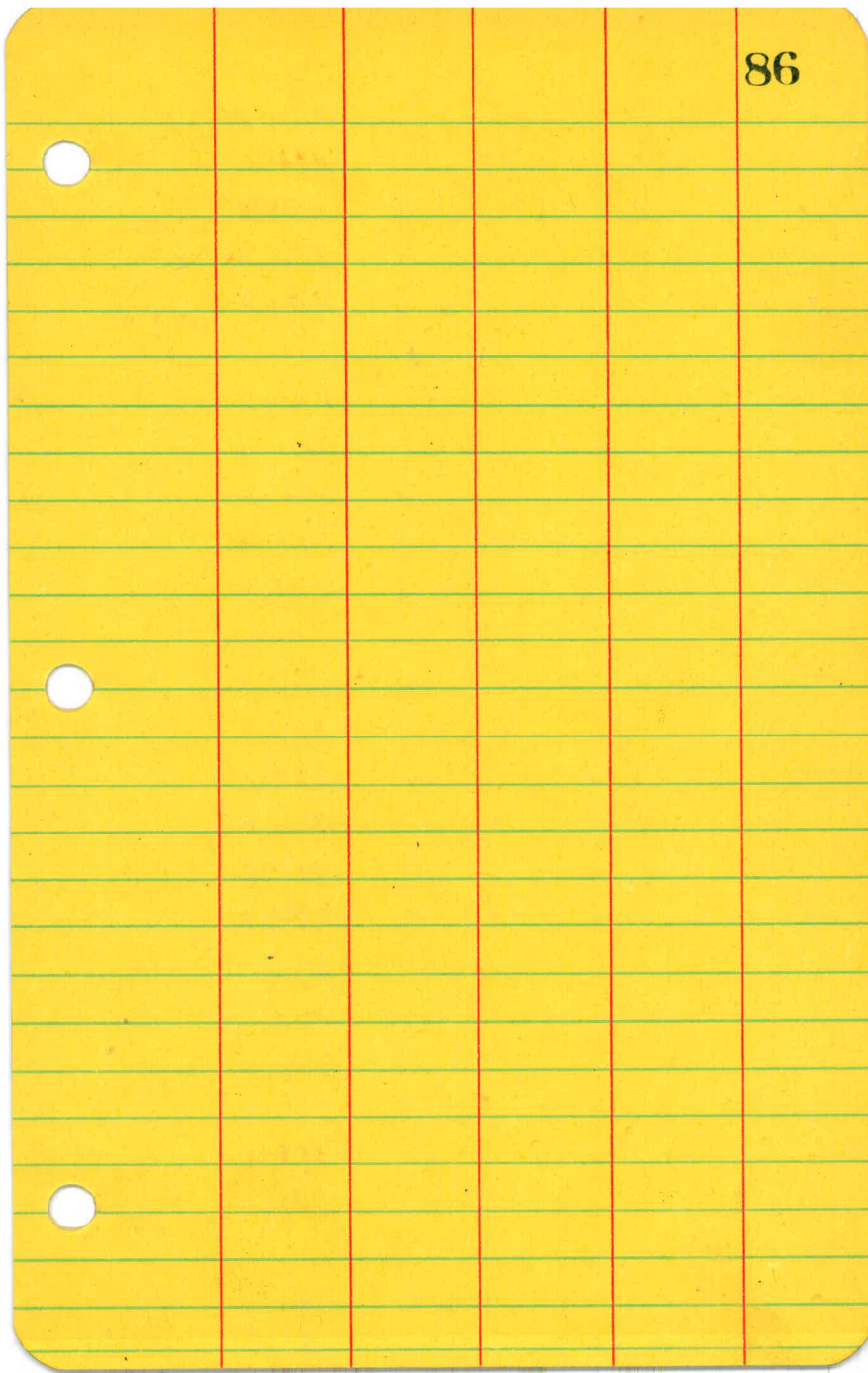
Washed out of this print

Do Air Valve 20 Lt 5087 12.2

		384.06 ✓		
509+50			10.1	374.0 ✓
			12.75	371.31 ✓
	0.31	371.62 ✓		
+75			4.0	367.6 ✓
510-			7.4	364.2 ✓
			12.89	358.73 ✓
	0.38	359.11 ✓		
+50			6.9	352.2 ✓
+78			12.7	346.4 ✓
			72.95	316.66 ✓
	0.54	347.20 ✓		
511-			11.3	335.9 ✓
+50			19.2	328.0 ✓
+80			22.0	325.2 ✓
512-			22.0	325.2 ✓
+45			23.0	324.2 ✓
513-			23.0	324.2 ✓
+30			20.3	326.9 ✓
+50			14.6	332.6 ✓
			0.12	347.08 ✓
	12.72	359.30 ✓		
514-			10.9	348.9 ✓
			0.03	359.77 ✓
	12.89	372.66 ✓		
+50			8.4	364.3 ✓
			0.01	372.65 ✓

367.1 ✓
4.5 Pipe
20

323.4 ✓
23.8 Pipe
20



				372.65	
	12.61	385.26 ✓			
515-			10.5	374.8 ✓	
+15			72	378.1 ✓	16.3 Pipe 20
+50			67	378.5 ✓	
+80					11.5 " 20
516-			53	380.0 ✓	
+50			30	382.3 ✓	
			019	385.07 ✓	
	415	389.22 ✓			
517-			23	386.9 ✓	
+232			16	387.6 ✓	
BM #64			567	388.55 ✓	
+50			72	387.0 ✓	
518-			47	384.5 ✓	
+50			72	382.0 ✓	
+85			86	380.6 ✓	
519-			113	377.9 ✓	
			12.72	376.50 ✓	
	12.79	389.29 ✓			
+30			143	375.0 ✓	
+50			181	371.2 ✓	
520-			210	368.3 ✓	
+50			15.8	373.5 ✓	
+65			"		12.7 Pipe 20
+92			84	380.9 ✓	
521-			77	381.6 ✓	

On Air Valve 20 Lt 517+232

		389.29 ✓			
521+35			32	386.1 ✓	84 Pipe 20
+50			24	386.9 ✓	
+75			1.0	388.3 ✓	
			0.80	388.49 ✓	
	0.78	389.27 ✓			
522 -			0.0	389.3 ✓	
B.M. # 65			5.58	383.69 ✓	
+60			4.7	384.6 ✓	
+90			8.8	380.5 ✓	
523 -			12.1	377.2 ✓	
			12.86	376.41 ✓	
	0.79	377.20 ✓			
+10					375.1 ✓ 2.1 " 20 "
+16			2.7	374.5 ✓	
+50			10.5	366.7 ✓	
			13.02	364.18 ✓	
	0.31	364.49 ✓			
+85					356.8 ✓ 7.7 " 20 "
524 -			10.1	354.4 ✓	
			13.09	351.46 ✓	
	0.08	351.54 ✓			
			12.69	338.85 ✓	
	0.45	329.30 ✓			
+50			0.0	339.3 ✓	
			12.75	326.55 ✓	
	0.13	326.68 ✓			

No Air Valve 20 Lb 522 + 15

		326.68 ✓			
525-			0.8	325.9 ✓	
+15					320.3 ✓
+50			11.2	315.7 ✓	6.4 Pps 20
			12.88	313.80 ✓	
	11.92	325.72 ✓			
+75			13.5	312.2 ✓	
526-			16.7	309.0 ✓	18.6 20
+21			15.0	310.7 ✓	
+50			14.9	311.3 ✓	17.7 20
+89			6.9	318.8 ✓	
527-			2.2	323.5 ✓	
+09			1.4	324.3 ✓	
			0.05	325.67 ✓	
	12.98	338.65 ✓			
+16			10.5	328.1 ✓	
+30			7.5	331.1 ✓	
+50			0.6	338.0 ✓	
			0.40	338.25 ✓	
	13.02	351.27 ✓			
			0.07	351.20 ✓	
	12.53	363.78 ✓			
+90			11.7	352.0 ✓	
528-			10.6	353.1 ✓	
			0.03	363.70 ✓	
	12.95	376.65 ✓			
+50			11.8	364.8 ✓	

Edge Road

		376.65 ✓		
529-			29	372.7 ✓
+11			30	373.6 ✓
+50			1.5	375.1 ✓
			401	376.64 ✓
	10.94	387.58 ✓		
+75			102	377.4 ✓
+95				380.6 ✓
530-			97	377.9 ✓
+30			69	380.7 ✓
531			4.5	383.1 ✓
B.N.#66			4.16	383.42 ✓
+80			4.2	383.4 ✓
532-			62	381.4 ✓
+50			70	380.6 ✓
533-			77	379.8 ✓
			267	379.91 ✓
	5.04	384.95 ✓		
+50			4.8	380.2 ✓
+74.2			4.8	380.2 ✓
534-			53	379.7 ✓
+50			109	374.1 ✓
			1281	372.14 ✓
	0.85	372.99 ✓		
535+07.3			72	365.3 ✓
+30			114	361.1 ✓
			1292	359.57 ✓

374.2 ✓

24 Pipe
20

380.6 ✓

7.0 "
20

375.7 ✓

9.3 Pipe
15

365.5 ✓

7.0 "
7.0 "

on Air Valve 20 ft 531412

See Pg. 92

✓

				359.57	
	0.25	359.82 ✓			
535+50			3.4	356.4 ✓	
536-			12.6	347.2 ✓	
			13.02	346.80 ✓	
	0.08	346.88 ✓			
+50			8.3	338.6 ✓	
+75			11.5	335.4 ✓	334.4 ✓
			13.01	333.87 ✓	12.5 Pipe 10
	0.23	334.10 ✓			
537-			2.6	331.5 ✓	
+24			6.3	327.8 ✓	
+50			8.2	325.9 ✓	
			12.56	321.54 ✓	
	0.23	321.77 ✓			
538-			5.0	316.8 ✓	
+50			11.4	310.4 ✓	
			12.86	308.91 ✓	
	0.42	309.33 ✓			
+65					309.1 ✓
539-			4.2	305.1 ✓	2.2 Pipe 10
+50			9.2	300.1 ✓	
+75			10.0	299.3 ✓	297.6 ✓
540			12.3	297.0 ✓	11.7 10
			12.49	296.84 ✓	
	7.15	303.99 ✓			
+15			8.2	295.8 ✓	

90 a

303.99 ✓

+30		10.3	293.7 ✓
540+50		11.1	292.9 ✓
+56		12.0	292.0 ✓
+83		7.2	296.8 ✓
541-		7.9	296.1 ✓
+15		4.5	299.5 ✓
+33		4.9	299.1 ✓
+50		0.9	303.7 ✓
		0.30	303.69 ✓

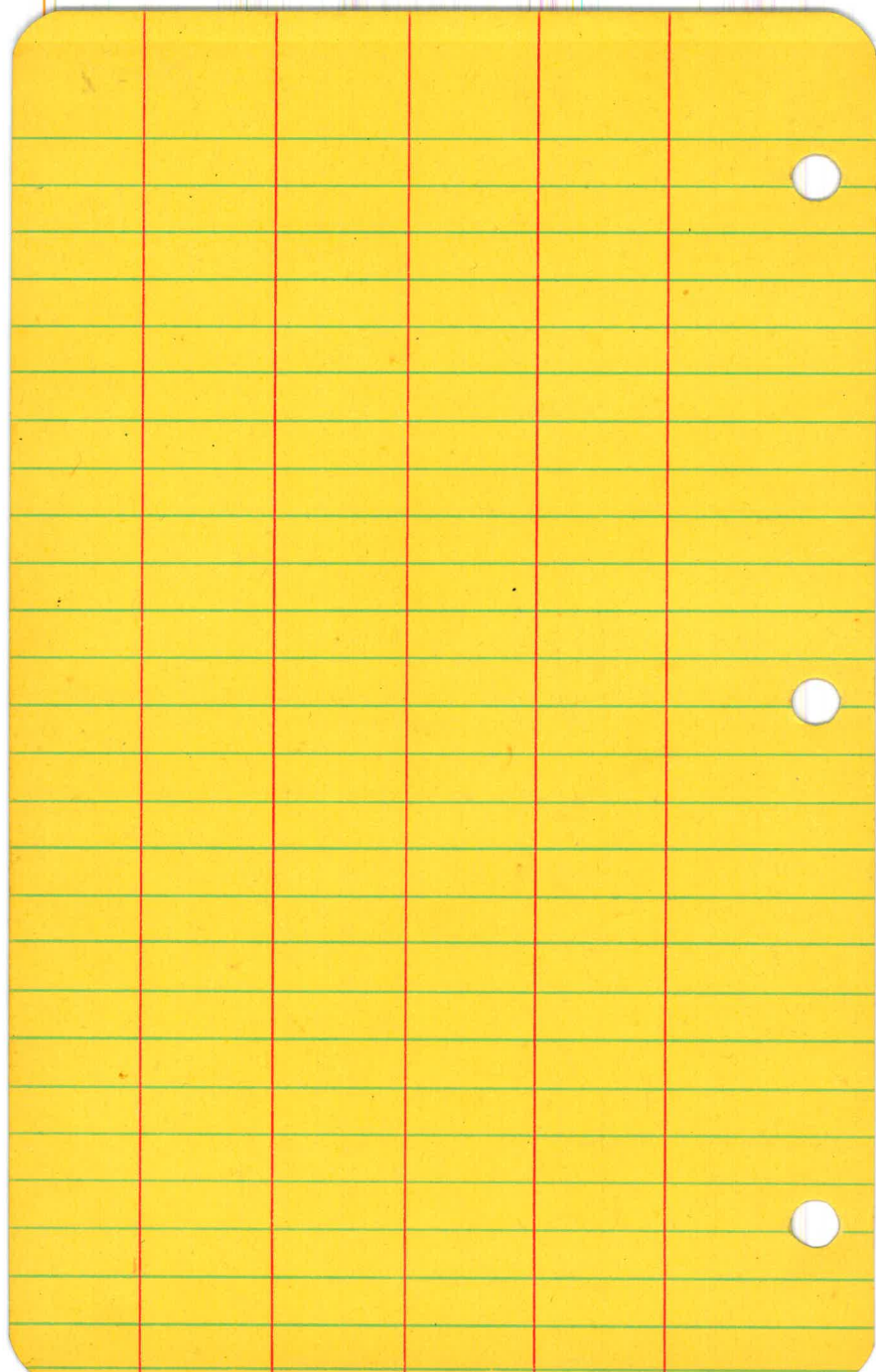
12.56 316.25 ✓

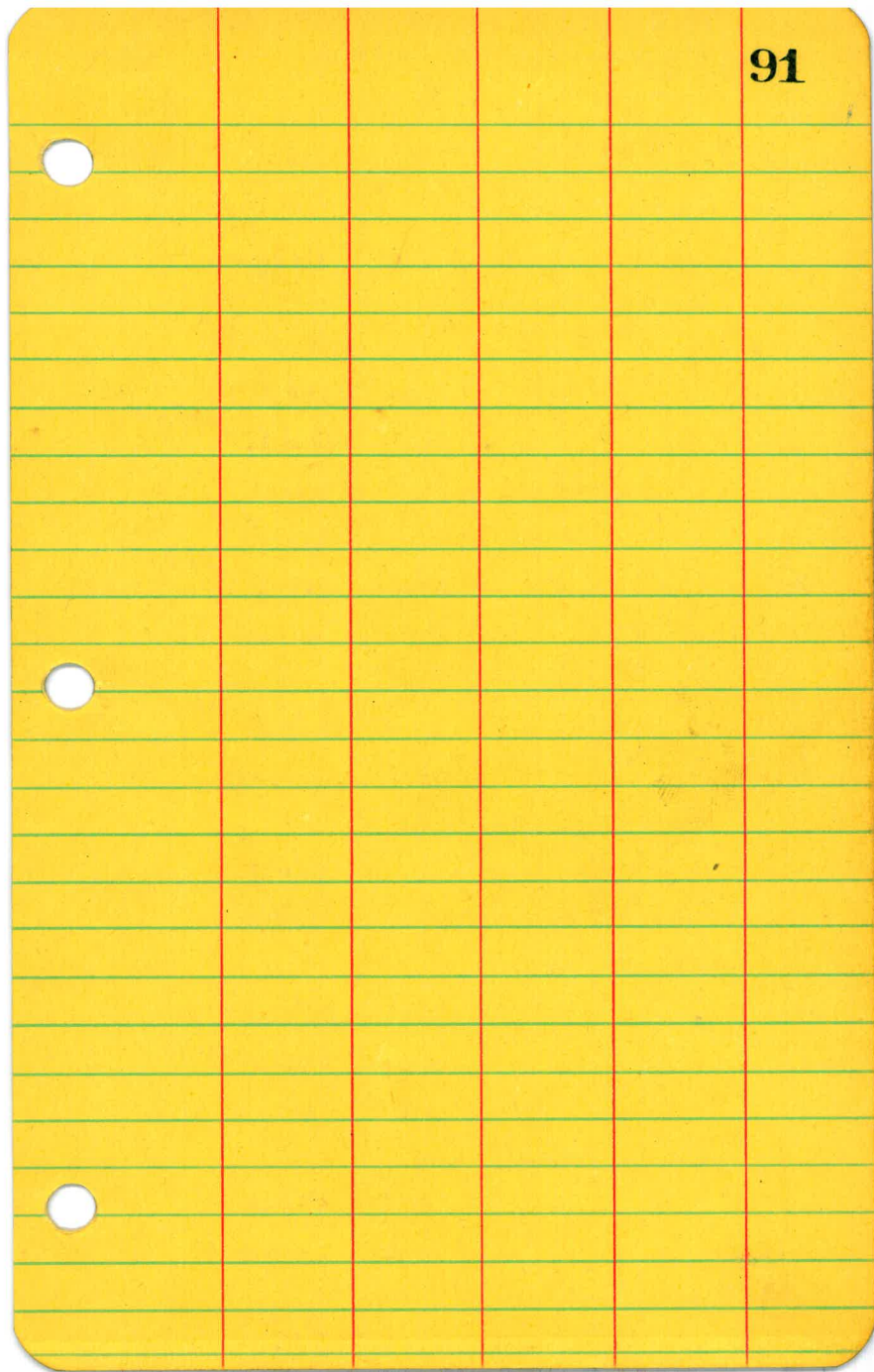
542-		5.8	310.5 ✓
BM ⁴ 67		0.90	315.35 ✓

90-6

Edge Telegraph Canyon Road

Nail in West side 12" Eucalyptus 10 ft 592+20
(4th tree south of road)





Continued from Pg. 90

EAST				
B.M. #66				383.42
	309	386.51 ✓		
			12.50	374.01 ✓
	756	381.57 ✓		
533+74.2			12	380.4 ✓
534-			18	379.8 ✓
+66.1			7.0	374.6 ✓
+90.5			8.5	373.1 ✓
535-			91	372.5 ✓
+147			121	369.5 ✓
			12.97	368.60 ✓
	112	369.72 ✓		
+50			62	363.5 ✓
			12.94	356.78 ✓
	202	356.80 ✓		
536-			41	354.7 ✓
			12.99	343.81 ✓
	215	343.96 ✓		
+50			10	313.0 ✓
537-			10.2	333.8 ✓
			12.78	331.18 ✓
	016	331.34 ✓		
+50			52	326.0 ✓
			12.74	318.60 ✓
	035	318.95 ✓		
538-			1.0	318.0
				319.0

374.0
76 Pipe
E

365.6
160 24 Pipe
16

E.R. Chilton
B.C. Palmer
Oct 17-38

92

On Air Valve 20' Lt 531+10

-NOTE-

Profile Elevs from 533+74.2
to 542+00 are on revised
line.

⊕ crosses pipe line

EAST		318.95		
538+50			6.0	313.0 ✓
+80			92	309.8 ✓
539-			11.9	307.1 ✓
			12.76	306.19 ✓
	0.41	306.60 ✓		
+50			4.1	302.5 ✓
+87			7.2	299.4 ✓
540-			8.5	298.1 ✓
+30			11.0	295.6 ✓
+37			12.6	294.0 ✓
+50			12.4	294.2 ✓
+65			12.9	293.7 ✓
+79			14.4	292.2 ✓
541-			10.6	296.0 ✓
+35			5.6	301.0 ✓
+50			6.3	300.3 ✓
+55			6.7	299.9 ✓
+59			3.6	303.0 ✓
+72			1.3	305.3 ✓
			0.03	306.57 ✓
	12.23	318.80 ✓		
542-			10.7	308.1 ✓
+50			1.23	316.5 ✓
BM #67			3.45	315.35 ✓
			0.17	318.63 ✓
	12.32	330.95 ✓		

307.2 ✓

11.8 x 15
15

297.6 ✓

9.0
15

Telegraph Canyon Road

Nail in West side 12" Eucalyptus tree 35th 592+00
(4th tree South of road)

EAST		330.95			
543-			7.7	343.3 ✓	
+56.9			5.0	326.0 ✓	
B.M. #68			1.73	329.22	
544-			6.9	324.1 ✓	
+50			10.8	320.4 ✓	
			12.41	318.54 ✓	
	7.53	326.07 ✓			
545-			10.8	315.3 ✓	
+50			15.0	311.1 ✓	
546-			9.4	316.7 ✓	
+50			0.3	325.8 ✓	
			0.11	325.96 ✓	
	12.93	338.89 ✓			
+65					329.8 11.1 Rt. Pipe 15
			0.26	338.63 ✓	
	13.02	351.65 ✓			
547			10.0	341.7 ✓	339.3 12.4 15
			0.12	351.53 ✓	
	13.02	364.55 ✓			
+50			8.6	356.0 ✓	353.5 11.1
548-			1.6	363.0 ✓	361.3 3.3
			0.13	364.42 ✓	
	12.65	377.07 ✓			
+50			6.9	370.2 ✓	
549-			0.2	376.9 ✓	376.3 0.8
			0.03	377.04 ✓	

No Air Valve 15.84 5431.56.9

				77.0	
EAST					22
	12.05	389.09 ✓			
549+50			68	384.3	381.0 ✓ 81 15
BM# 69			4.78	384.31	
550-			4.0	385.1	384.0 ✓ 71
+10			1.6	387.5	
+50			5.0	384.1	
551-			5.4	383.7	382.3 ✓ 68
+50			5.8	383.3	
552-			8.5	380.6	381.1 ✓ 7.0
			9.34	379.75 ✓	
	8.32	388.07 ✓			
+50			6.7	381.4	381.5 ✓
553-			8.4	379.7	6.6
+22.5	A		8.2	379.9	381.6 ✓ 6.5 15
+38			9.1	379.0	
+46			14.7	373.4	
+60			9.0	379.1	
554-			12.4	375.7	✓
			12.53	375.54 ✓	
	5.78	381.32 ✓			
+50			8.8	372.5	✓
555-			11.1	370.4	✓
+07			11.3	370.1	✓
+19			6.5	376.8	✓
+50			7.0	374.3	✓
+64			7.6	373.7	✓

38-1.0 20 Air Valve 15' Ht 549 + 50
21 20' Gate Valve

EAST		381.32			
555+90			12.9	367.4	✓
556-			11.9	369.4	✓
+17			5.4	375.9	✓
+50			1.9	379.4	✓
			235	380.97	✓
	12.82	393.79			
557-			5.6	388.2	✓
BM # 70			6.52	387.27	388.1 ✓
					11.7
			0.81	393.48	✓
	12.69	406.17			
+428			9.0	397.2	✓
+54			6.9	399.3	✓
+67			3.9	402.3	✓
			0.01	406.16	✓
	12.62	418.78			
			0.19	418.59	✓
	12.67	431.26			
			0.01	431.25	✓
	12.93	444.18			
			0.12	444.06	✓
	12.59	456.65			
			0.33	456.27	✓
	12.70	468.97			
			0.28	468.69	✓
	12.84	481.53			

In S.E. Cor of Cap of North Tunnel Portal
on pipe at North Tunnel Portal.

North Portal Tunnel #4

		J(1.53)			
EAST					
			081	481.27	✓
	668	487.90			
			12.91	479.99	✓
	098	475.97			
			12.01	462.46	✓
	061	463.07			
			12.82	450.25	✓
	055	450.70			
			12.78	437.92	✓
	019	433.11			
567-			10.3	427.8	✓
			12.92	425.19	✓
	022	425.41			
567+433			25	422.9	✓
568-			10.9	414.5	✓
			12.94	412.47	✓
	014	412.61			
+50			4.3	405.3	✓
			12.93	399.68	✓
	022	399.90			
+89			3.7	396.2	✓
569-			8.5	391.4	✓
+17			13.6	386.3	✓
BM #71			11.86	388.04	✓
	753	395.57			
+50			9.3	386.3	✓

South Portal Tunnel #4

387.7

172 on top of pipe at South Portal
on S.E. Cor. of Cap of South Tunnel Portal

EAST		395.57			
569475			88	386.8	
570-			64	389.2	384.9
+50			67	388.9	12.7 10
571-			61	389.5	
572			106	385.0	384.5 13.1
B.M. #72			1124	384.23	
	1121	399.54			
+50			144	380.1	
+70			143	380.2	
573-			101	384.4	
+55			90	385.5	
+65					384.0 12.5
574-			78	386.7	383.6 11.9 382.6
+50			66	387.9	
575			65	388.0	388.0 11.5
+50			68	388.7	
			402	390.52	
	330	393.82			
576-			46	389.4	388.0 10.8
+50			46	389.2	
1927			74	386.4	
B.M. #73			904	384.78	
			1257	381.25	
	026	386.51			
577+50			01	381.5	
+68			29	378.6	376.0 5.5

On Air Valve 10th Ed. 572+00

↓
oct 17
oct 18
↓

On Air Valve 10th Ed. 576+97.7

EAST		381.51		
578-			10.9	370.6 ✓
			1300	368.51 ✓
	011	368.62 ✓		365.4 ✓
+28				52 Feet 10
+34			60	362.6 ✓
+50			12.9	360.2 ✓
+90			27.0	8.1 357.9 ✓
579-			28.3	10.7 340.3 ✓
+90			29.3	357.9 10.7 339.3 ✓
+50			28.0	340.6 ✓
580-			7.9	360.9 7.7 360.7 ✓
+0.9			4.3	364.3 ✓
			42.1	368.41 ✓
	1248	380.89 ✓		
+50			7.7	370.2 10.7 373.4 ✓
581-			1.1	379.8 ✓
			0.4	380.85 ✓
	10.27	371.12 ✓		
+50			5.9	385. ✓
582+0.47			2.8	388.3 ✓
B.M.# 74			5.27	385.85
+50			2.3	388.6 ✓
583-			5.3	383.0 8.1 385.8 ✓
+10			7.5	10 383.6 ✓
+4.3			11.0	380.1 ✓
			8.12	383.00 ✓

Do Air Valve 10 Rt 582+047

EAST					
	887	391.87 ✓			
583+63			162	375.7 ✓	
584-			30.5	361.4 ✓	
+35			363	355.6 ✓	
+50			304	361.5 ✓	
+99			10.9	381.6 ✓	
585-			23	383.6 ✓	384.9 ✓
+25			31	388.5 ✓	9.0 10
+50			17	390.2 ✓	
586-			16	390.3 ✓	
+269			32	388.7 ✓	
EMA #75			598	385.89 ✓	
+50			54	386.5 ✓	385.4 ✓
+85			83	383.6 ✓	8.5 10
587-			88	383.1 ✓	
+50			75	384.4 ✓	
+56					381.8 ✓
			1160	380.27 ✓	10.1 10
	103	380.30 ✓			
588-			25	377.8 ✓	371.8 ✓
+32					8.5
+50			10.7	369.6 ✓	
			12.99	367.31 ✓	
	0.42	367.73 ✓			
589-			81	359.6 ✓	
+08			9.8	357.9 ✓	357.3 10.4

00 Air Valve 10 Rt 586+26.9

FAST		367.73			
589+50			260	341.7	353.4 ✓
+75			287	339.0	143 2700 10
590-			260	341.7	
+18			208	346.9	360.7 ✓
+50			63	361.4	70
+70			24	367.3	365.4 ✓ 23.1
			007	367.66	
	1253	380.19			
591-			66	373.6	373.7 ✓
+30					6.5 "
+55			19	378.3	
			026	379.95 ✓	
	879	388.72 ✓			
592-			70	381.7	✓
+50			24	386.3	✓
592-			17	387.0	✓
+61			07	388.0	✓
B.M. #26			325	385.37	✓
594-			18	386.9	✓
+21			42	384.5	380.2 ✓ 8.5 "
+37			93	379.4	✓
+50			141	374.6	✓
+63			91	379.6	✓
+70			18	380.9	378.2 ✓ 10.5 "
595-			40	384.7	✓
+20			18	386.9	381.3 ✓ 7.4 "

101

No Air Valve 10' R/L 593+611

EAST	388.72			
595+50		12	386.9	
		4.26	384.64	
	416	388.62		
+90			383.7	4.9 Pipe
596-		20	386.6	
+50		28	385.8	
+93		31	385.5	
B.M. 77		367	384.95	
597+50		22	386.4	
598-		21	386.5	
+50		67	381.9	
		10.55	378.07	
	0.71	378.78		
+87		59	372.9	371.1
599-		91	369.7	77 "
				10 "
+36		20.4	358.4	
+50		21.5	357.3	367.5
				11.3 "
+70		20.9	357.9	
600-		11.3	367.5	
+15		8.0	370.8	370.5
				8.3 "
+50		1.9	376.9	
		0.66	378.12	
	11.21	389.33		
601-		8.9	381.0	
+50		41	385.2	
+96.1		1.4	387.9	384.4
				4.9 "

102

No Air Valve 10' Rd. 596 + 93

FAST		38933		
BM # 78			215	386.18 ✓
602+50			21	387.2 ✓
+71			47	384.6 ✓
603-			109	378.4 ✓
+26			23.0	366.3 ✓
+40			21.0	368.3 367.3 ✓
+50			15.0	374.3 ✓
+75			4.5	384.8 ✓
604-			2.9	386.4 ✓
+50			4.0	385.3 ✓
			716	382.17 ✓
	2.50	389.67 ✓		
605-			2.2	382.5 ✓
+20			5.3	379.4 ✓
+50			9.7	375.0 ✓
+64			11.4	373.3 ✓
			12.57	372.10 ✓
	0.76	372.86 ✓		
606-			8.6	364.3 ✓
			12.58	360.28 ✓
	0.46	360.74 ✓		
+32			3.0	357.7 ✓
+50			5.2	355.5 ✓
607-			4.9	355.8 ✓
+50			2.9	358.3 ✓
608-			4.1	356.6 ✓

384.3
70 Pipe
10

381.8
7.5 "

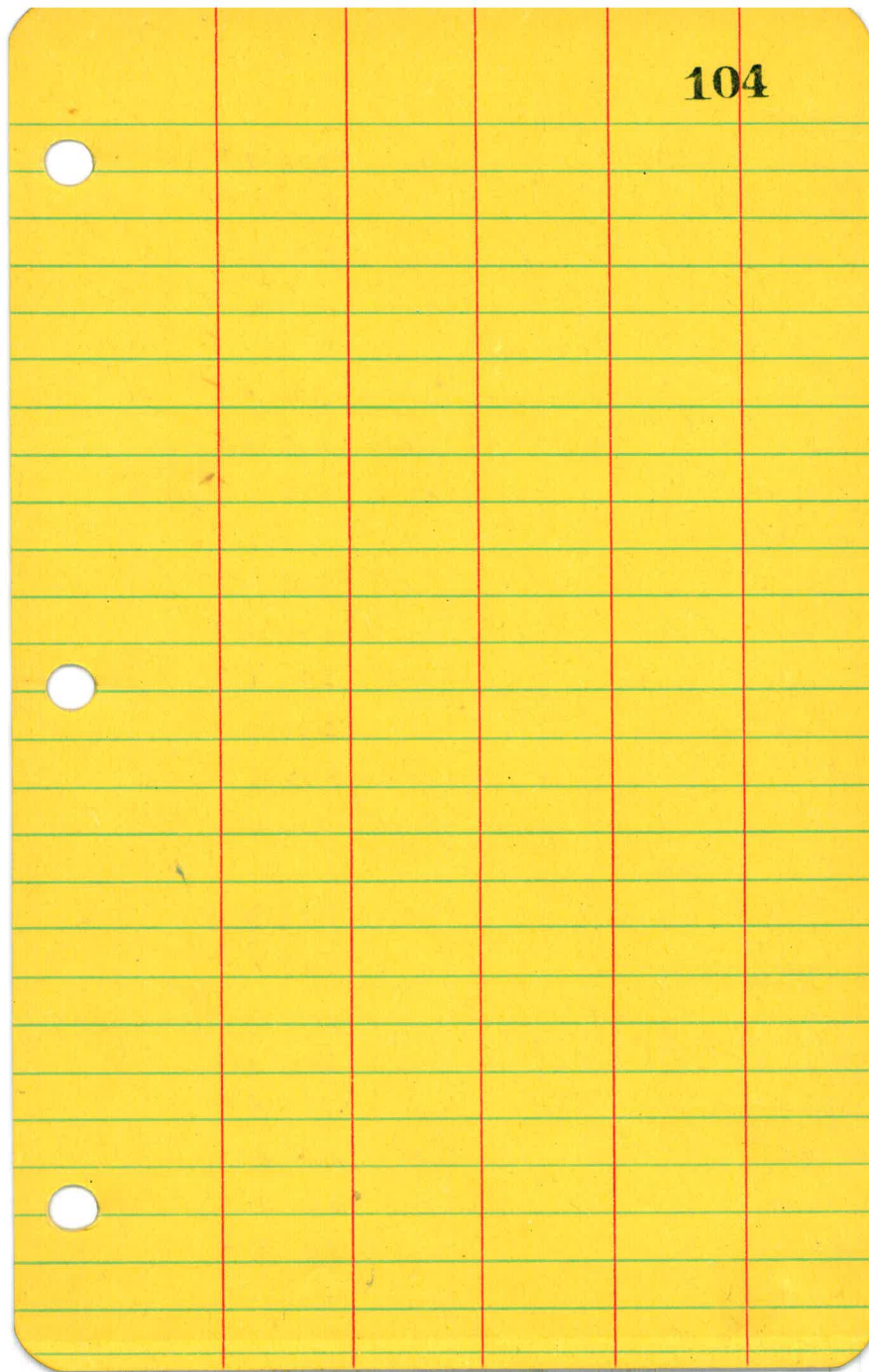
368.8
15.9 "
10

103

20 Air Valve 1024 8011961

FAST		360.7 ✓			
			9.78	350.96 ✓	1.7
	166	352.62 ✓			347.0 ✓
608+43					5.6 Pipe 10
+50			1.5	351.1	
609-			4.2	348.4 ✓	
+50			4.1	348.5 ✓	
610-			4.9	347.7 ✓	
+50			4.9	347.7 ✓	
611-			4.6	348.0 ✓	
+50			4.5	348.1 ✓	505.4 ✓ 7.2 "
+60			5.7	346.9 ✓	10
+65			7.4	345.2 ✓	
+75			6.6	346.0 ✓	
+80			4.8	347.8 ✓	
612-			3.7	348.9 ✓	
			0.13	352.49 ✓	
	12.27	364.76 ✓			
+50			10.4	354.4 ✓	
613-			2.3	362.5 ✓	
			0.07	364.69 ✓	
	12.05	376.74 ✓			
+30			8.8	367.9 ✓	
+50			6.7	370.0 ✓	
614-			3.0	373.7 ✓	
+22			3.9	372.9 ✓	
+40					371.7 ✓ 5.0 Pipe

104



FAST	376.74		
614-150		30	373.7 ✓
615-		39	372.8 ✓
+50		03	376.4 ✓
		001	376.73 ✓
	7.56	489.29 ✓	
+85		49	379.4 ✓
616-		44	379.9 ✓
+574		47	379.6 ✓
BN, #79		1.70	382.59 ✓
617-		44	379.9 ✓
+35		48	379.5 ✓
+50		67	377.6 ✓
+77		76	376.7 ✓
618-		11.5	372.8 ✓
		12.90	371.39 ✓
	0.43	371.82 ✓	
+10		19	369.9 ✓
+50		37	368.1 ✓
+90			364.8 ✓
619-		4.8	367.0 ✓
620-		50	366.8 ✓
+15		75	364.3 ✓
+25		52	366.6 ✓
621-		50	366.8 ✓
		5.05	366.77 ✓
	12.08	378.85 ✓	

On Air Valve 10' 24' 616+574

EAST	372.85		
621-50		11.8	367.1
622-		8.0	370.9
		0.45	372.40
	11.43	389.83	
623-		9.6	380.4
+27		7.7	384.1
+50		6.8	383.0
624-		4.7	385.1
+20			381.8
625-		4.1	385.7
+50		3.7	386.1
626-		3.8	386.0
+50		2.2	387.6
		5.27	384.56
	8.20	392.76	
+70		4.9	387.9
627-		4.7	388.1
+70		4.9	387.9
628-		5.5	387.3
125.7		5.6	387.4
B.M. # 80		5.22	387.54
	9.27	396.81	
+50		9.0	387.8
629-		10.8	386.0
+13		10.1	386.7
+24		12.2	384.6

On Air Valve 10th 628+257

EAST		396.81		
629+46			11.8	385.0 -
+50			25	387.3 -
+884	FC		70	389.8 -
630-			6.5	390.3 -
			8.8	385.0 -
			11.4	385.4 -
			21.9	396.62 ✓
	11.85	408.47 ✓		
+50			13.1	395.4 -
+75			26	399.9 -
631-			56	402.9 -
+25			03	408.4 -
			202	408.45 ✓
	11.93	420.38 ✓		
			023	420.15 ✓
	12.64	432.79 ✓		
			037	432.42 ✓
	13.03	445.45 ✓		
			013	445.22 ✓
	12.48	457.80 ✓		
			017	457.63 ✓
	12.31	469.94 ✓		
			016	469.78 ✓
	12.18	481.96 ✓		
			044	481.52 ✓
	12.12	493.64 ✓		

107

40 Cap at North Portal Tunnel #3

Pipe



FAST	493.64		
		12.02	505.39 ✓
B.M. #81		036	500.36 ✓
		114	489.37 ✓
		019	477.00 ✓
		011	464.72 ✓
		026	451.73 ✓
		032	439.05 ✓
		335	429.93 ✓
649+11.1		26	426.8 -
+36		96	419.8 -
+50		119	417.5 -
		049	417.25 ✓
+84		86	408.9 -
+91		73	410.2 -
650-		76	409.9 -
+10		93	408.4 ✓
		12.91	404.54 ✓

Nail in Tel pole near summit over Tunnel #3

South Portal

Oct 18
Oct 19

F.P. Chiffon
R.C. Palmer

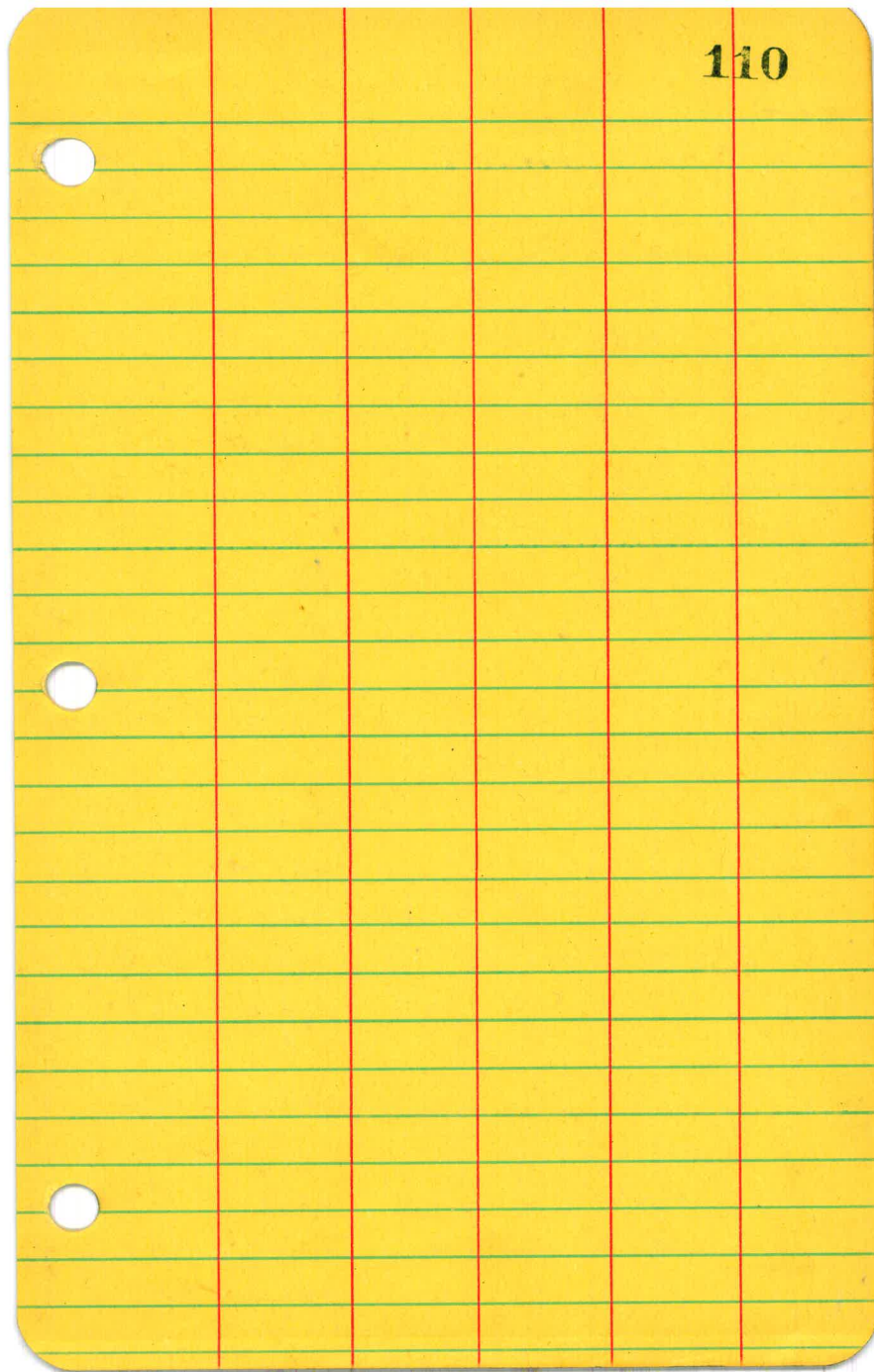
EAST				50.54	RT
	025	404.79 ✓			
650+30			34	401.4 ✓	
+37			42	400.6 ✓	
+50			92	395.6 ✓	
			1279	392.00 ✓	
	079	392.73 ✓			
+76			16	391.1 ✓	
+85			27	390.5 ✓	
651-			66	386.1 ✓	
			44	388.3 ✓	
			77	385.0 ✓	
5M# 82			731	385.92 ✓	
+06			81	384.6 ✓	
+56			86	384.1 ✓	380.3 - 12.4 Pipe
+755			87	384.0 ✓	12 379.8 - 12.9 10
			1235	380.88 ✓	
	276	388.14 ✓			
652-			78	380.3 ✓	
+298			86	379.5 ✓	379.1 - 9.0 "
+73			85	379.6 ✓	10
653-			66	381.5 ✓	
654-			44	383.7 ✓	
+50			40	384.1 ✓	
655-			55	384.6 ✓	
			526	382.88 ✓	
	204	385.92 ✓			

on Cap of South Portal Tunnel

" Pipe at " " " "

20 Air Valve 50' at 650-660 (approx)

EAST		385.92			378.4 -
655+16					7.5 Fps 10
+50			2.5	383.4 -	
656-			1.2	384.7 -	
+19					376.6 -
+50			5.5	380.4 -	9.3 10
+98					17.9 "
657-			13.1	374.8 -	
			13.05	372.87	
	027	378.14			
+50			7.6	365.5 -	
			13.04	360.10	
	4.21	360.11			
658-			7.0	353.1 -	
+19			10.6	349.5 -	346.4 13.7 10
			12.81	347.20	
	7.36	354.66			
+50			11.0	343.7 -	
659-			11.1	343.6 -	
+50			12.6	342.1 -	
+60			12.3	342.4 -	
+62			11.5	343.2 -	
660-			10.7	344.0 -	
+14			11.2	343.5 -	
+23			8.4	346.3 -	
+20			7.7	347.0 -	
+50			0.9	353.8 -	
			0.10	354.56	



				554.56
FAST				
	1258	367.14 [✓]		
			027	366.87 [✓]
	1214	379.01 [✓]		
661-			83	370.7 ⁻
			012	378.89 [✓]
	1287	391.76 [✓]		
+50			76	384.4 ⁻
B.M. #83			342	388.89 [✓]
	1281	401.15 [✓]		
			12.2	389.0 ⁻
			15.8	385.4 ⁻
662-			60	395.2 ⁻
			083	406.12 [✓]
	1238	413.50 [✓]		
+50			90	404.5 ⁻
+880	EC		53	408.4 ⁻
			007	413.43 [✓]
	1192	425.35 [✓]		
			034	425.01 [✓]
	1277	437.78 [✓]		
			006	437.72 [✓]
	1227	449.99 [✓]		
			086	449.93 [✓]
	1253	462.46 [✓]		
			026	462.20 [✓]
	1285	475.05 [✓]		

An Air Valve near North End Tunnel²

An Cap of North Portal Tunnel²

" Pipe at "

EAST	475.05		
		0.14	474.91 ✓
13.02	487.93 ✓		
		0.73	487.20 ✓
1.82	489.07 ✓		
		10.50	478.52 ✓
0.08	478.60 ✓		
		11.31	467.29 ✓
0.11	467.40 ✓		
		10.82	456.58 ✓
4.35	460.93 ✓		
		12.92	449.01 ✓
0.34	448.35 ✓		
		12.97	435.88 ✓
0.16	436.09 ✓		
		12.33	423.71 ✓
1.03	424.74 ✓		
		12.55	412.19 ✓
0.35	412.57 ✓		
68401		7.6	405.0 ✓
+25		8.2	404.4 ✓
+50		10.8	401.8 ✓
+68		12.1	400.5 ✓
		12.58	399.99 ✓
0.01	399.99 ✓		
		12.6	387.4 ✓
		10.2	389.8 ✓

20 Pipe at South Portal of Tunnel #2

10 Cap of " " " " "

EAST		399.99		
BND #84			1023	389.76 ✓
685-			82	391.8 ✓
+02			82	391.8 ✓
+05			12.9	387.1 ✓
+08			13.3	386.7 ✓
+12			9.1	390.9 ✓
+26			67	393.3 ✓
+32			6.6	393.4 ✓
+50			4.0	396.0 ✓
			0.8	399.81 ✓
	11.70	411.51 ✓		
686+00.6			9.3	408.2 ✓
+36			67	404.8 ✓
+88.6			48	406.7 ✓
687-			41	407.4 ✓
688-			2.6	408.9 ✓
+80.6			1.3	410.4 ✓
			2.6	389.9 ✓
			24.5	387.0 ✓
			193	409.58 ✓
	8.13	417.71 ✓		
			5.00	412.71 ✓
	839	421.10 ✓		
			0.09	421.01 ✓
	1226	433.27 ✓		
			0.43	432.84 ✓

Nail in Cap of South Portal Tunnel #2

in Cap of North Portal Tunnel #1

in Pipe at " " " "

FAST		328 ✓	
	1184	444.68 ✓	
			029 444.29 ✓
	1295	457.24 ✓	
			023 457.01 ✓
	372	460.72 ✓	
			12.99 448.24 ✓
	028	448.52 ✓	
			12.80 435.72 ✓
	038	436.10 ✓	
			12.64 423.46 ✓
	049	423.95 ✓	
			12.68 411.27 ✓
	207	411.39 ✓	
709+50			50 406.4 ✓
+78			79 403.5 ✓
710-			12.4 399.0 ✓
			12.52 398.87 ✓
	035	399.22 ✓	
			8.9 390.3 ✓
			12.4 386.8 ✓
+50			93 389.9 ✓
+72			96 389.6 ✓
711-			10.8 388.4 ✓
712-			10.9 388.3 ✓
+14			386.4 ✓
			130

388.5
10.7 Pipe
6

Portal

10 Cap of South Portal Tunnel #1

" Pipe at "

		992 ^v			24
EAST					
BN #85			986	389.36	
	290	392.26 ^v			
715-			15	387.9	
+36			70	385.3	
+64			56	386.7	
714-			79	384.4	
+73			91	383.4	381.1
715-			99	382.4	112.7 ^{ppc}
+0645	BC		109	381.9	2
			1228	379.98	
	258	383.56 ^v			379.9
+60			16	382.0	378.9
716-			24	381.2	37
+50			28	380.8	6
+62			25	381.1	379.6
717-			27	380.9	40
+06					379.2
+50			38	379.8	44
+95					6
718-			57	377.9	376.1
+20			69	376.7	25
			983	373.72	
	482	378.55 ^v			
+76			58	374.8	
+85			84	370.4	370.4
719-			116	367.0	82
					369.8
					88

115

no Air Valve 6' Rt 7/2+00

EAST		378.55		
719+34			18.0	360.6 ✓
+47			21.4	357.4 ✓
+88.4			12.1	366.5 ✓
720-			10.6	368.0 ✓
			1.6	377.0 ✓
			2.1	376.5 ✓
			0.52	378.03 ✓
+27.4			2.4	376.4 ✓
127.4	on ground		1.7	373.7 ✓
			1.5	377.1 ✓
B.M. #86			0.51	378.09 ✓
	11.87	389.91		
+50			10.5	379.4 ✓
721-			1.4	388.5 ✓
				384.6 ✓

& crosses pipe line

36" Gate Valve

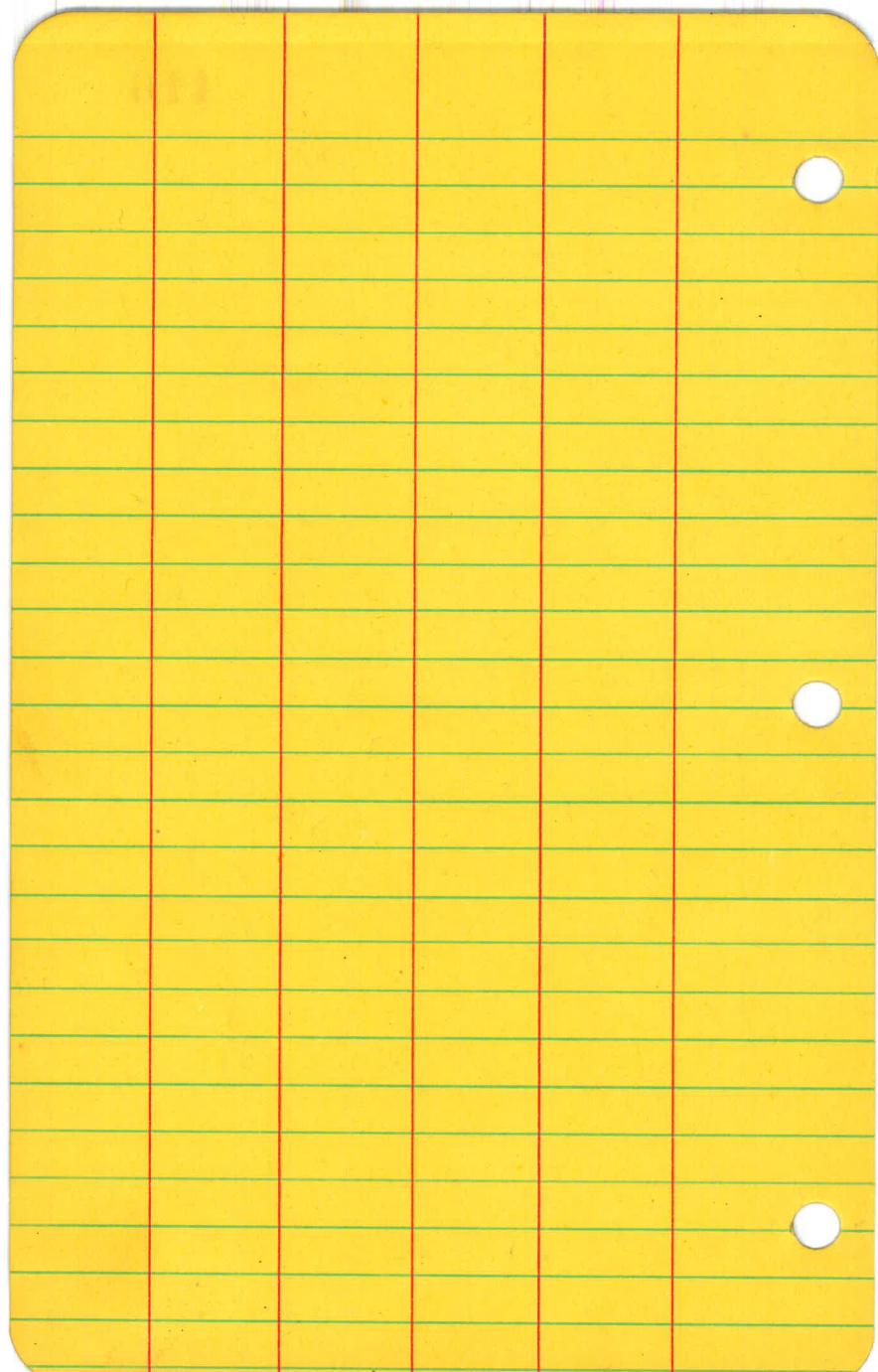
16"

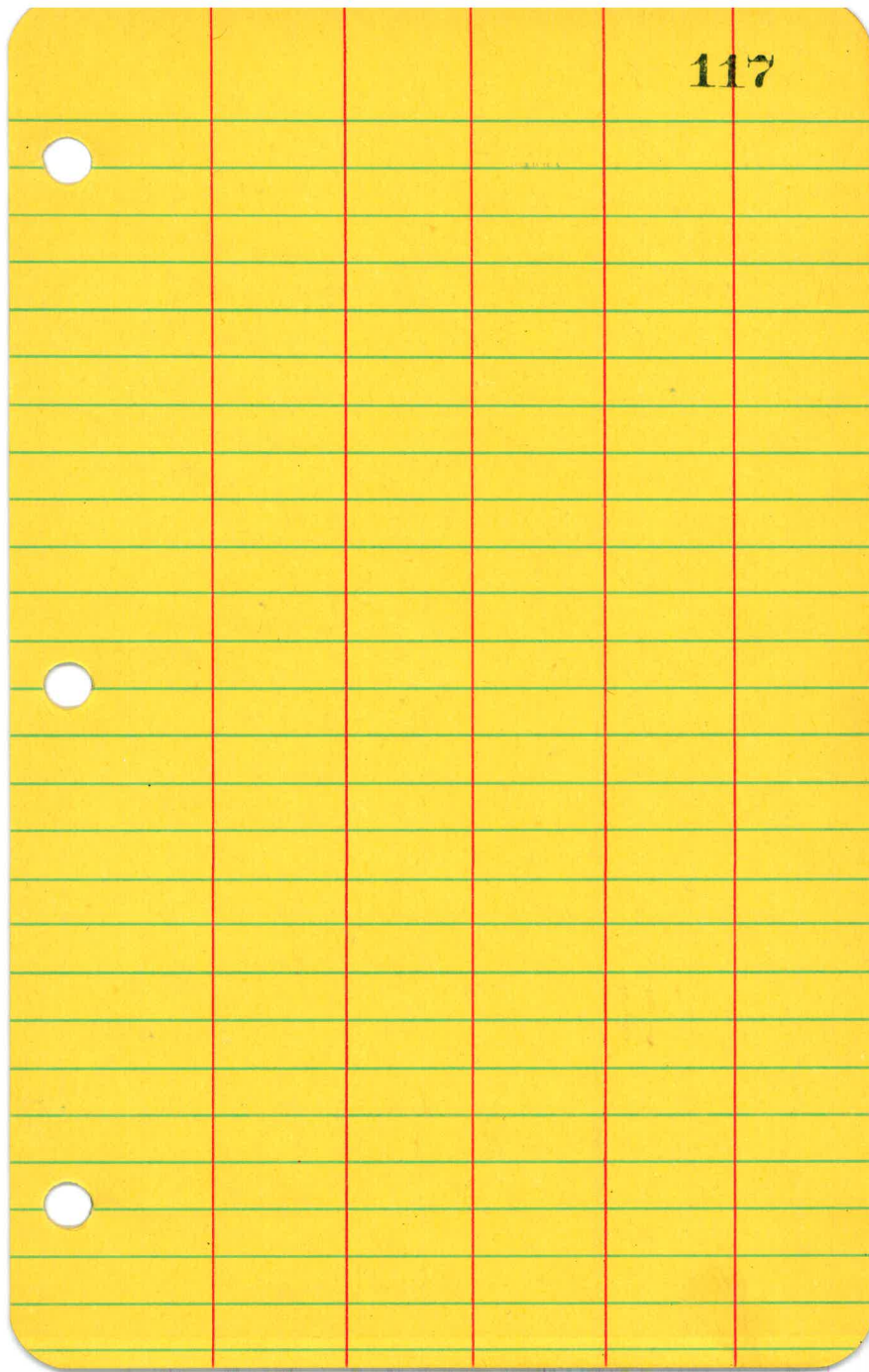
Air Valve 16" line

Top 16" line Corridor

& Cast Iron Tee leading to Corridor line

An Air Valve 24" at Corridor wye





WEST					44
B.M. #86				378.04	
	11.87	389.91 ✓			
721+00			14	388.5	
+09			+0.8	390.7	
+50			+6.4	396.3	386.9
722-			+10.8	400.7	30 Pipe 387.2
+50			+12.5	403.4	2.7 387.4
723-			+12.6	403.5	2.5 387.5
			2.49	387.42	2.4
	5.11	392.53 ✓			
+25			+11.0	403.5	
+50			-2.2	390.3	387.7 4.8
+80			+3.7	396.7	
724-			+8.0	400.5	
+50			+10.8	403.3	387.6 4.9
725-			+8.0	400.5	387.2 5.3
+13			-1.5	391.0	
+33			+8.0	400.5	
+50			+7.0	399.5	387.5 5.0
726 -			+1.1	393.6	387.4 5.1
			4.91	387.62	
	7.96	395.58 ✓			
+43			7.9	387.7	
+50			7.9	387.7	387.4 8.2
+68			6.4	389.2	
+80			8.3	387.3	

no side of cut

" " " "

" " " "

" " " "

in side draw

no side of cut

" " " "

" " " "

in side draw

		395.58		
726+87			12.5	383.1 ✓
727+02.8			9.6	386.0 ✓
B.M. # 87			5.85	389.75 ✓
+50			2.6	388.0 ✓
728-			5.2	390.4 ✓
+25			2.5	393.1 ✓
+50			1.8	393.8 ✓
+70			3.0	392.6 ✓
+77			4.0	391.6 ✓
+90			1.8	393.8 ✓
729-			0.7	394.9 ✓
			8.24	387.34 ✓
	4.45	391.79 ✓		
+50			2.5	389.3 ✓
+55			3.2	388.6 ✓
+65			1.7	390.1 ✓
730-			2.4	389.4 ✓
+20			5.0	386.8 ✓
+32			8.7	383.1 ✓
+50			7.0	384.8 ✓
+70			8.6	383. ✓
+86			11.3	380.5 ✓
731-			11.2	380.6 ✓
+50			13.6	378.2 ✓
+70			12.5	377.3 ✓
+90			12.2	379.6 ✓

387.3

8.3 Pipe

15

387.4

2.2

15

387.2

8.4

383.8

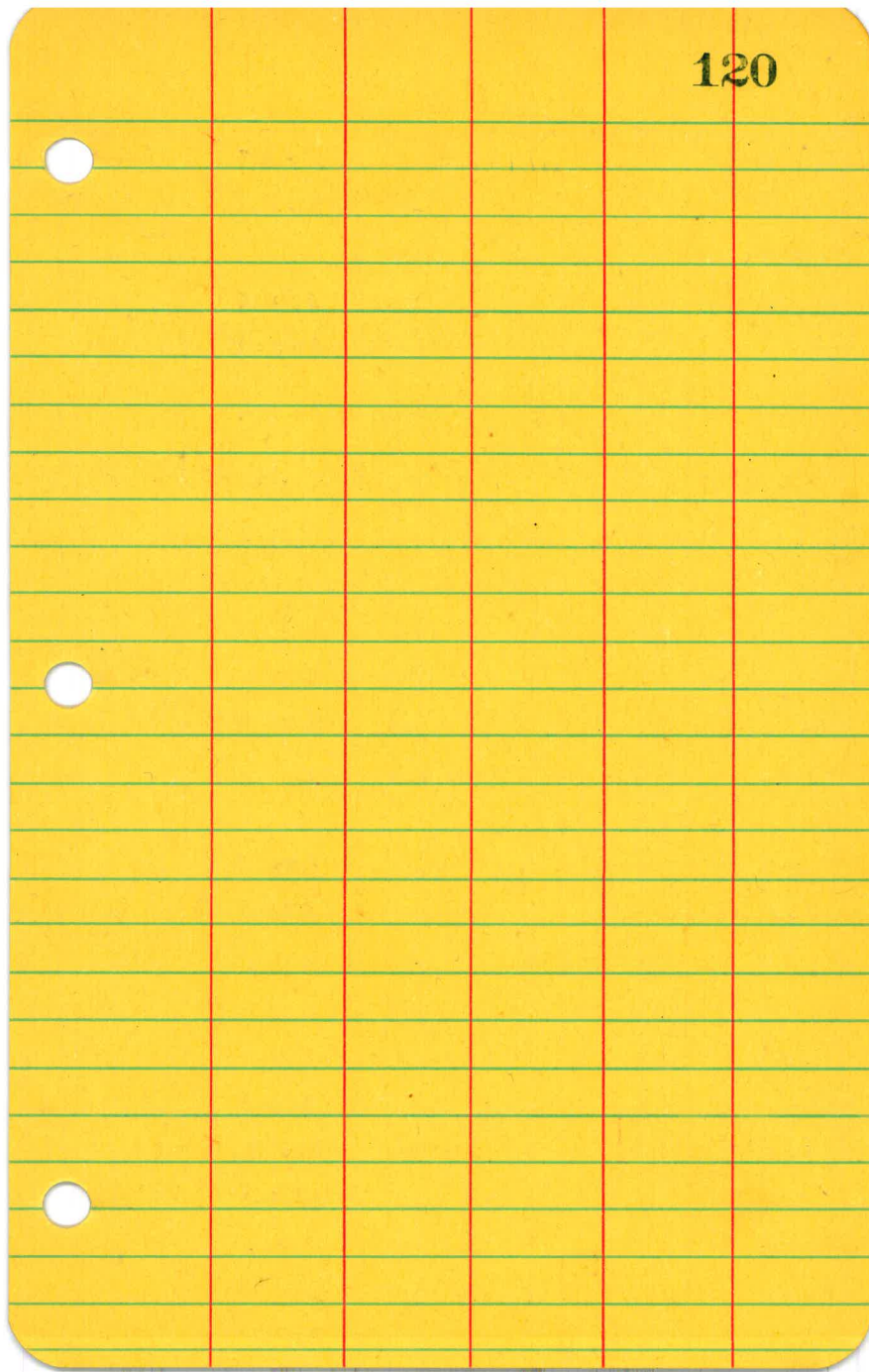
8.0

379.4

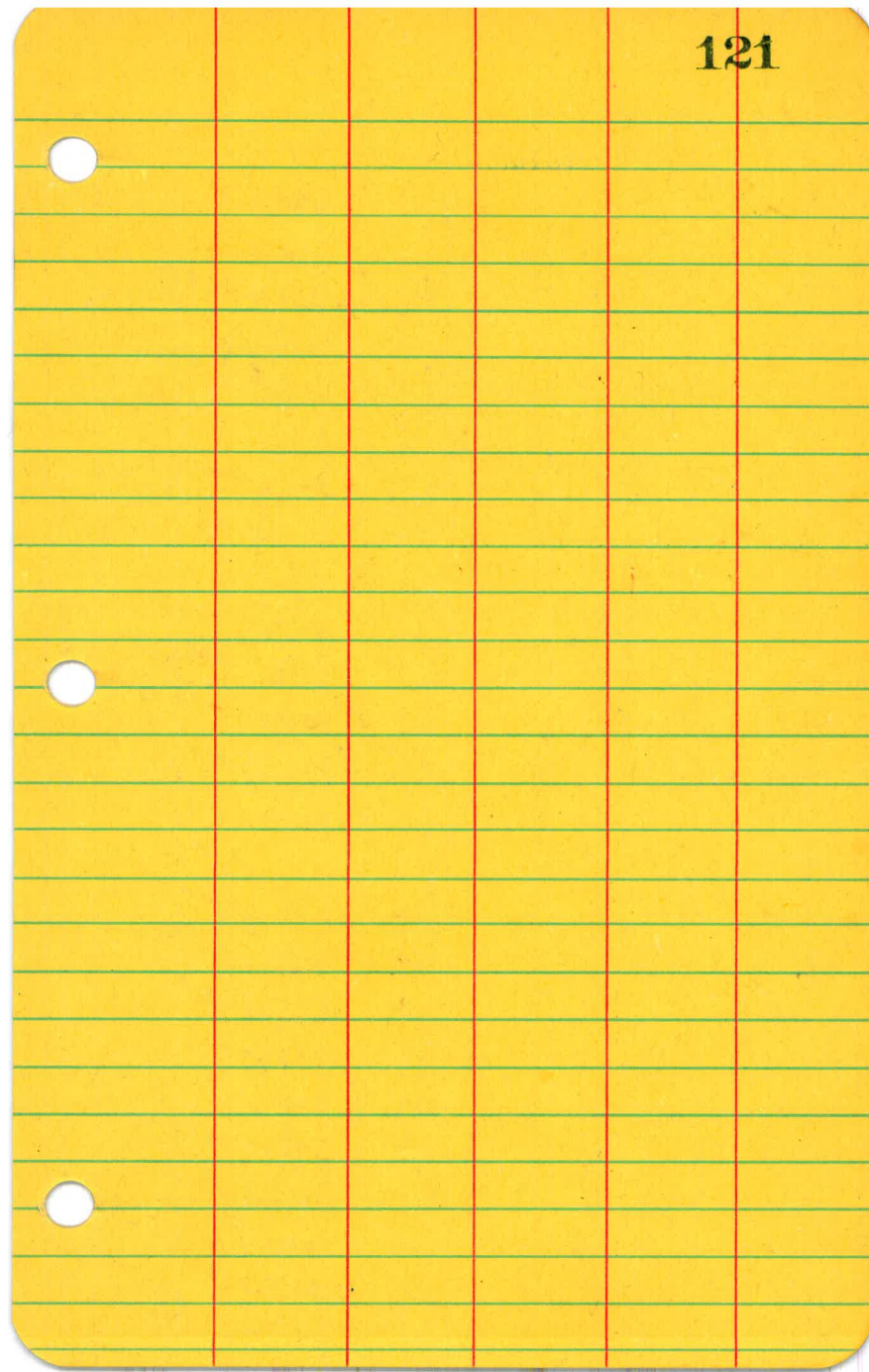
12.4

no Air Valve 15' Lt 7271028

		391.79			376.4 ✓
732-			11.9	379.9 ✓	15.6 Pipe 75
			11.87	379.42 ✓	
	1.09	381.01 ✓			
+20			2.0	377.0 ✓	
+35			2.3	378.7 ✓	
+50			1.6	379.4 ✓	
+72			4.1	376.3 ✓	
733-			2.1	378.9 ✓	374.1 ✓ 6.9 Pipe
+50			7.3	373.7 ✓	
			12.82	368.19 ✓	
	0.16	368.35 ✓			
734-			1.2	367. ✓	364.3 ✓ 6.1
+50			10.5	357.9 ✓	
			12.85	355.50 ✓	
	0.19	355.69 ✓			
735-			6.8	348.9 ✓	344.4 ✓ 11.3
+12			11.0	344.7 ✓	
+25			10.6	345.1 ✓	
			12.91	342.78 ✓	
	0.33	343.11 ✓			
+50			2.7	340.4 ✓	
+70			9.2	333.9 ✓	
+80			10.8	332.3 ✓	
736+02			15.2	327.9 ✓	331.7 ✓ 11.4
+26			25.0	318.1 ✓	
+12			25.0	318.1 ✓	



		542.11			
736+13			19.4	323.7	
+25			14.6	328.5	
+37				338.5	10.6 Tip
+50			10.2	331.9	15
737-			0.9	342.4	341.9
			0.40	342.71	1.2
	12.92	355.63			
+50			2.7	354.9	
			0.09	355.54	
	12.37	367.91			
+76			9.6	358.3	
+85			10.2	357.7	
758-			5.0	362.9	360.3
			0.63	367.28	7.6 "
	12.52	379.80			15
+50			7.1	372.7	
+64			6.0	373.8	
			0.33	379.47	
	12.39	391.86			
+90			12.2	379.7	
739-			11.1	380.8	377.5
+25			9.5	382.3	14.4 "
+50			4.7	387.4	15
+79			1.8	390.1	
+98			3.6	388.3	386.0
			0.11	391.75	5.9 "
					15



				9175	
	3.81	395.56 ^v			
740+15			2.6	393.0	
+50			1.6	394.0	
+69.7			5.7	389.9	387.6
B.M. #88			5.76	389.80	8.0 15
+75			5.9	389.7	
+85			2.5	393.1	
741-			2.0	393.6	
+35			6.9	388.7	
+50			4.9	390.7	
+70			5.7	389.9	
742-			9.6	386.0	383.2
+40			9.0	386.6	12.2 15
+50			10.0	385.6	
			12.01	383.55 ^v	
	7.64	391.19 ^v			
+75			9.2	382.0	
743-			7.4	383.5	381.0
+42			9.9	381.3	12.2
+70			5.0	386.2	
+90			4.1	387.1	
744-			5.0	386.2	381.2
+10			6.6	384.6	10.0
+24			3.3	387.9	
+50			2.1	389.1	
745-			8.6	382.6	380.7
					10.5

no air valve 15' 11" 740 + 69.7

		391.19		
745 +25			118	379.4 ✓
+50			143	376.9 ✓
+63			150	376.2 ✓
			10.53	380.66 ✓
	10.50	391.16 ✓		
+65			200	371.2 ✓
+68			200	371.2 ✓
+75			197	377.5 ✓
746-			116	379.6 ✓
+30			75	383.7 ✓
+50			87	382.5 ✓
+85			42	387.0 ✓
747-			43	386.9 ✓
+15			65	384.7 ✓
+25			42	387.0 ✓
+52.5			50	386.2 ✓
B.M. #89			822	382.94 ✓
+65			74	383.3 ✓
+85			86	382.6 ✓
748-			11.1	380.1 ✓
			12.86	378.50 ✓
	0.96	379.26 ✓		
+50			106	368.7 ✓
			12.94	366.32 ✓
	0.11	366.43 ✓		
749-			119	354.5 ✓
				352.8 ✓
				11.6 "

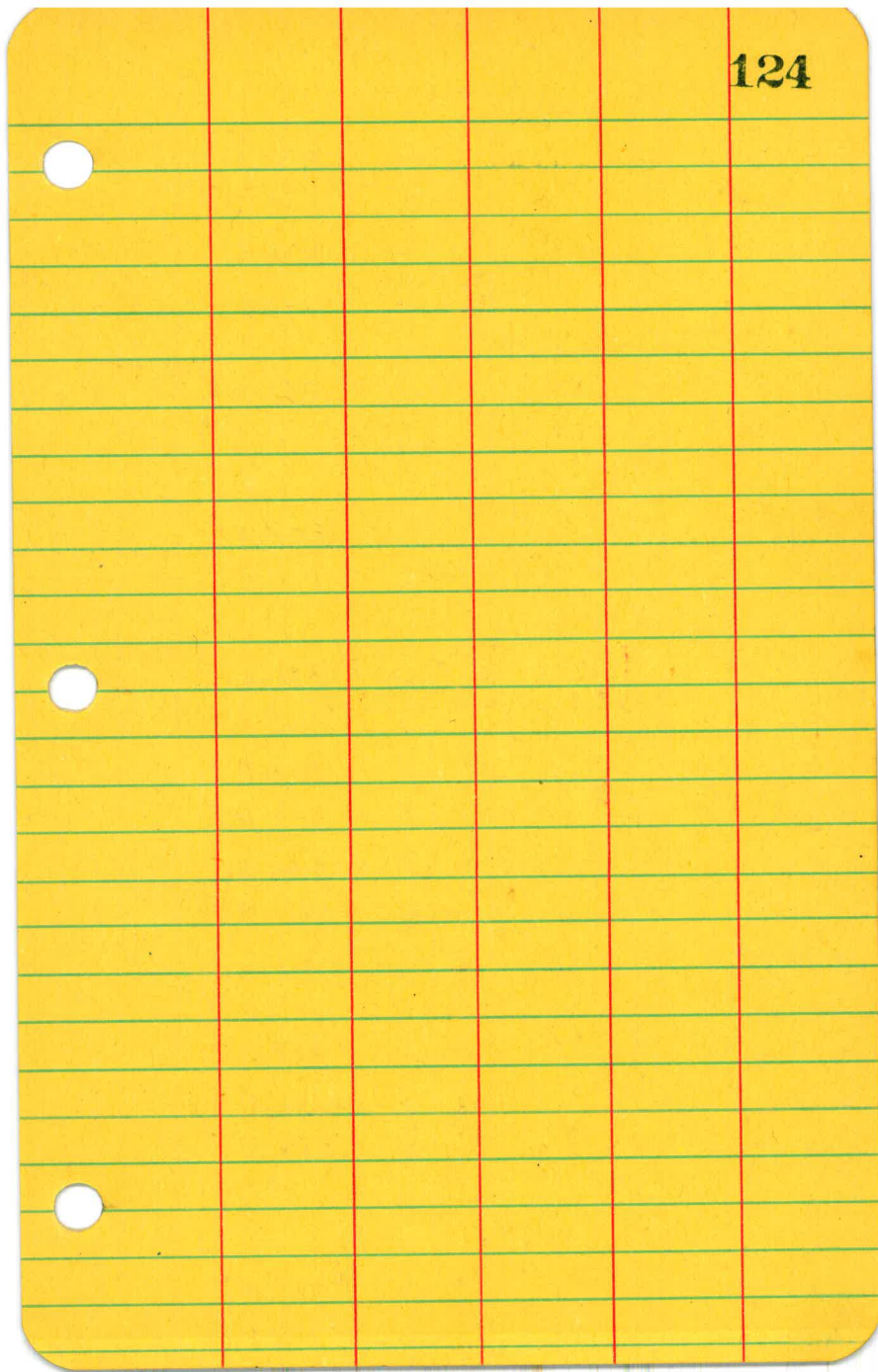
Gulch (Fill wood out)

"

Do Air Valve 15 1/4 7974 525

6603

			1270	35273 ✓	
	0.01	352.74 ✓			
749+50			1279	340.8 ✓	
			1289	340.85 ✓	
	0.53	341.30 ✓			
750-			115	329.9 ✓	329.4 ✓
			1286	328.52 ✓	12.0 P.p.c 15
	1.04	329.56 ✓			
+24			5.0	324.6 ✓	
+50			134	316.2 ✓	323.9 ✓ 57
+84			231	306.5 ✓	
+92			308	298.8 ✓	
+97			256	304.0 ✓	323.3 ✓ 6.9 "
751+04			245	305.1 ✓	
+11			210	308.6 ✓	
+40			145	315.1 ✓	326.5 ✓
+50			108	318.8 ✓	326.6 ✓ 21 P.p.c 15
			018	329.38 ✓	
	12.92	341.80 ✓			
+90			38	338.0 ✓	
+96			59	337.9 ✓	
752+03			13	340.5 ✓	
			022	341.58 ✓	
	12.81	354.39 ✓			
+20			119	342.5 ✓	
+27			92	345.2 ✓	



		354.29			
752 +50			3.8	350.6	
+62			1.0	353.4	
+70			0.2	354.2	
			0.13	354.26	
	12.51	366.77			
753-			3.1	363.7	359.7
			0.53	366.24	7.1 Pipe 15
	12.60	378.84			
+50			6.1	372.7	
			0.13	372.71	
	13.07	391.78			
754-			12.0	381.8	379.9
+15			6.4	385.4	11.9 "
+50			3.0	388.8	15
+76			3.4	388.4	
+85			1.5	390.3	
+95.8			1.5	390.3	387.6
B.M. #90			19.2	389.86	4.2 "
	2.07	391.93			15
755 +30			3.8	388.1	
+50			1.7	390.2	
756-			9.9	387.0	380.5
			12.84	379.09	11.4 "
	0.76	379.85			15
+50			6.0	373.9	
+62			3.8	370.1	368.6
					11.3

DN Air Valve 15' H 7541 958

		379.85			
757-			28.0	351.9	367.4
+13			33.5	379.9	12.5 P.P. 15
+23			34.9	346.4	
+35			34.2	345.0	
+50			23.7	345.7	
+60			18.0	356.4	
+70			19.6	361.9	
758-			2.2	365.3	
			02.8	377.7	376.7 3.2 P.P. 15
	12.17	391.74		379.57	
+50			6.9	384.8	
+70			4.2	387.5	
759-			5.3	386.4	384.9 6.9 15
+70			4.0	387.7	
+38.4			5.1	386.6	384.8 6.9
B.M. #91			4.4	387.90	
+5.8			7.5	384.2	
+7.1			6.2	385.5	
760-			7.5	384.7	383.1 8.6 15
			12.72	379.02	
	0.16	379.18			
+8.8			0.2	379.0	
761-					376.7 3.0 15
+2.0			6.2	373.0	
			12.90	366.28	
	0.16	366.44			

no Air Valve 15' 11" 7591384

		366.44			
761+50			21	364.3	
			12.99	353.45	
	0.18	353.63			
+90			2.0	351.6	
+96			8.0	345.6	
762-			5.3	341.3	348.9
			9.8	343.8	47 For 15 345.1
+15			24.7	328.9	85 "
+50			36.0	317.6	15 "
+81			32.6	321.0	343.2
763-			30.5	323.1	104 "
+07			84	345.2	15 "
+50			437	353.26	346.7
					6.9 15
	12.56	365.82			
764-			1.0	362.8	361.9
			0.08	365.74	3.9 15
	12.80	378.54			
+27			6.2	372.3	
+50			0.7	377.8	
			0.07	378.47	
	12.97	391.46			
+83			7.2	384.3	
765-			6.0	385.5	384.0
			2.6	388.9	7.5 "
+20			2.4	389.1	15 "
+50			1.90	389.56	
B.M. #02					

127

Un Air Valve 15' L 7657878

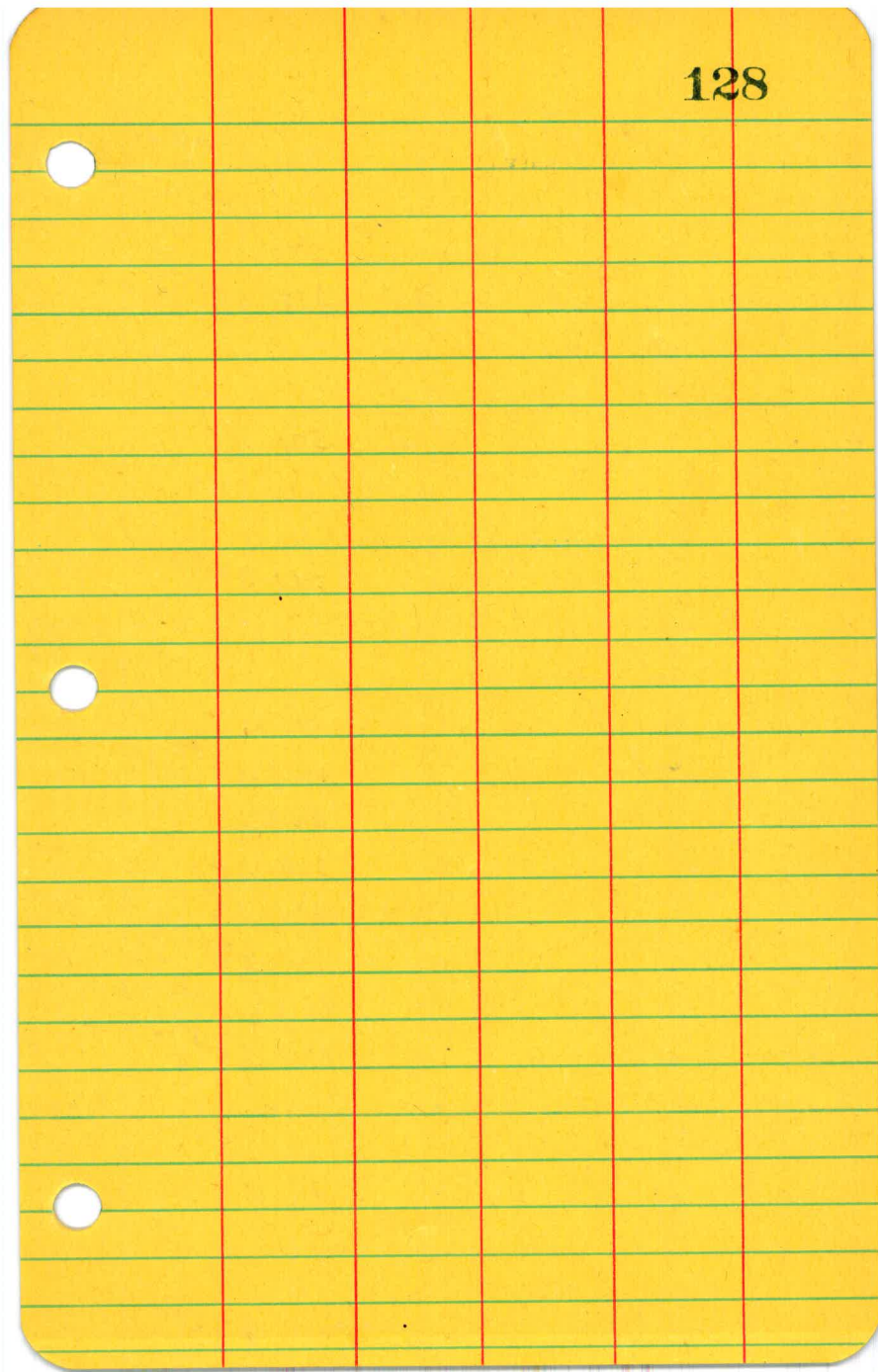
8958

552 395.08 ✓

765+80		36	391.5	387.3 ✓
+87.8		47	390.4	7.8 Pipe
766+50		52	389.9	15
+65		70	388.1	
+87		13	390.8	
767-		47	390.4	387.3 ✓
+25		70	388.1	7.8
+50		49	390.2	
+90		76	387.5	
768-				386.7 ✓
+10		53	389.5	8.4
+35		80	387.1	
+55		59	389.4	
+85		73	387.8	
769-		81	387.0	386.0 -
+50		80	387.1	9.1 "
		797	387.61	

322 390.87 ✓

770-		20	388.8	385.5 ✓
+22		30	387.8	53
+26		53	385.5	
+55		27	388.1	
+85		61	384.7	
771-		43	386.5	384.2 ✓
+12		42	386.6	56



		390.83			
771	+37		7.5	383.3	383.6 7.2 1.5
	BM #93		5.54	385.29	✓
	+50		7.7	383.1	✓
772-			12.5	378.3	379.0 11.8
			12.78	378.05	✓
	0.65	378.70			✓
	+50		6.9	371.8	✓
			12.85	365.25	✓
	0.28	366.12			✓
773-			4.2	361.9	364.9 3.2
			12.61	353.52	✓
	0.25	354.27			✓
	+50		3.2	351.1	✓
774-			16.1	338.2	347.3 7.0
	+33		30.7	323.6	✓
	+37		34.5	319.8	✓
	+40		31.0	323.3	✓
	+50		26.7	327.6	347.2 7.1
775-			6.2	348.1	350.2 4.1
	7.15		1.5	354.8	✓
			0.22	354.05	✓
	12.68	366.73			✓
	+50		4.2	364.5	✓
			0.93	366.30	✓
	12.78	379.08			✓
776-			6.3	374.5	374.5 4.6

No Air Valve 15' H 771427

		7901		
			123	378.85 ✓
	1299	391.84 ✓		
776+50			12.8	379.0 ✓
777-			12.1	379.7 ✓ 387.9 ✓
+50			150	376.8 ✓ 89 Pipe
+90			16.5	375.3 ✓ 15
778-			13.8	378.0 ✓ 386.5 ✓
+25			41	377.7 ✓ 53
			301	388.83 ✓
	4.58	393.41 ✓		
BNM ⁹⁴			142	391.99 ✓
+50			0.2	393.2 ✓
779-			+87	402.1 ✓ 389.1 ✓
+50			+87	402.1 ✓ 4.3
+75			+68	400.5 ✓ 388.9 ✓
+87			+50	398.4 ✓ 10
780-			+50	398.4 ✓ 389.1 ✓
+50			+47	398.1 ✓ 4.3 389.1 ✓
781-			+40	397.4 ✓ 10 388.6 ✓
+10			-1.8	391.6 ✓ 4.8 384.9 ✓
+17			+0.9	394.3 ✓ 8.5
+25			-1.2	392.2 ✓ 10
+36			6.5	386.9 ✓
1442			6.7	386.7 ✓ 384.9 ✓
			12.68	380.73 ✓ 8.5
	0.44	381.17 ✓		

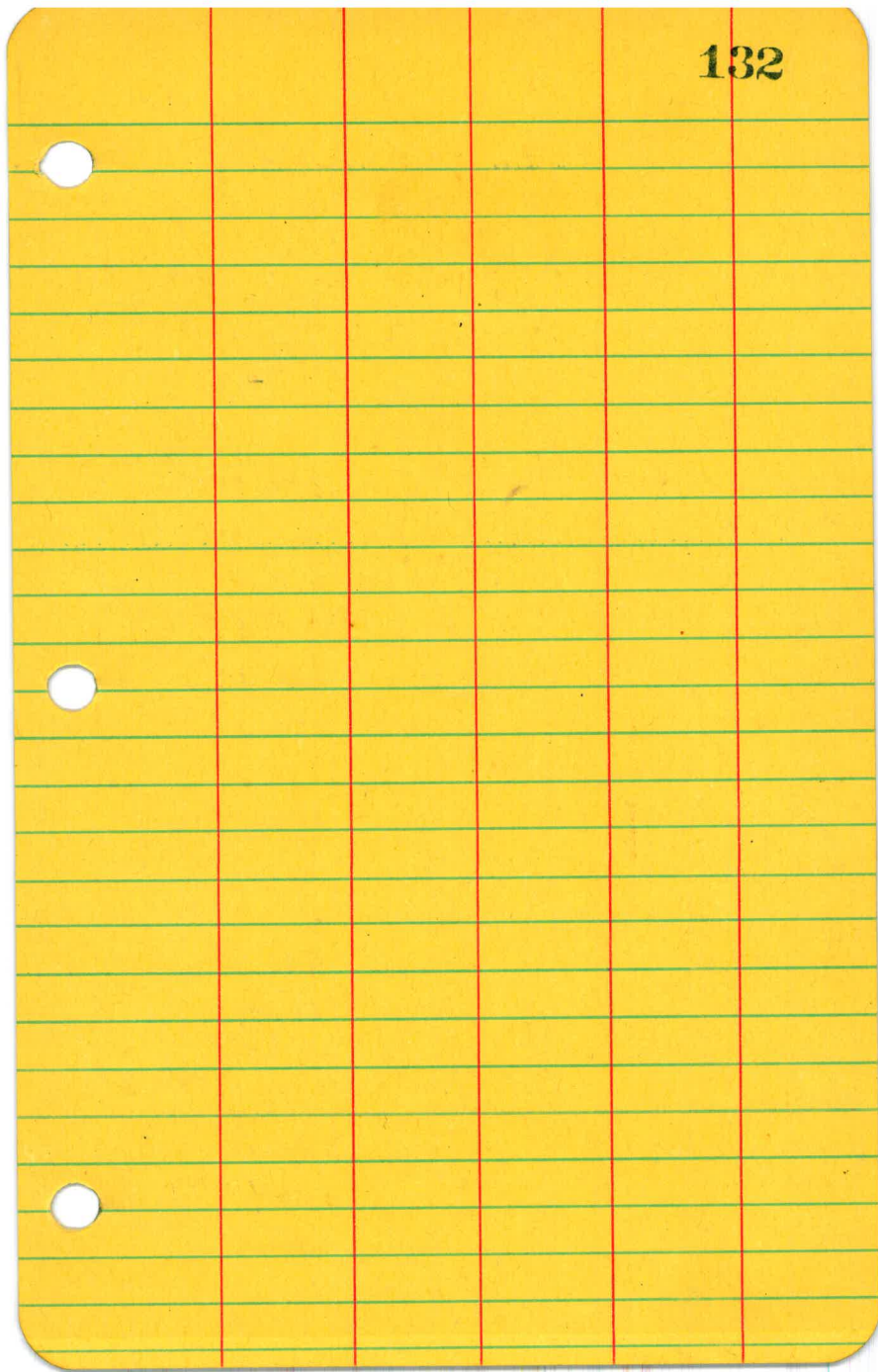
no Air Valve left 778160.6

		381.17			371.9
782-			74	373.8	9.8 Epe 15
+30			13.0	368.4	
			12.80	368.37	
	0.43	368.80			
+50			8.6	360.4	
			12.73	356.07	
	0.49	356.56			
783-			54	351.4	354.7 3.9 "
+36			11.0	345.6	
+50			16.3	340.3	
+72			27.4	329.4	350.9 51 "
784-			25.0	331.6	
+50			1.7	354.9	
			0.14	356.42	
	13.05	369.47			
			0.31	369.16	
	12.63	381.79			
785-			2.6	379.4	374.1 7.7 15
			0.73	381.06	
	7.43	388.49			
+56.8			0.7	387.8	
B.M. #95			5.71	382.78	
+80			1.2	387.3	
786-			5.0	383.5	377.9 10.6 "
			12.47	376.02	
	0.21	376.23			

131

No Air Volume 15' H 785 + 56.9

		376.23		
786+			4.2	372.0 ✓
			12.98	363.25 ✓
	0.19	363.44 ✓		
787-			5.9	357.5 ✓
			12.94	350.50 ✓
	0.39	350.89 ✓		
+50			7.6	343.3 ✓
+65			11.4	339.5 ✓
			12.81	338.08 ✓
	0.28	338.36 ✓		
+78			5.1	333.3 ✓
788-			16.0	322.4 ✓
			24.0	314.4 ✓
+15			33.0	305.4 ✓
+50			37.0	301.4 ✓
+54			38.0	305.4 ✓
+58			15.7	322.7 ✓
789-			1.8	336.6 ✓
+50			0.28	338.13 ✓
	12.58	350.71 ✓		
			0.41	350.30 ✓
	12.90	363.20 ✓		
790-			9.1	354.1 ✓
			0.32	362.88 ✓
	13.07	375.95 ✓		
+50			6.4	369.6 ✓



		375.95			
790+63			0.7	375.3	
			0.23	375.72	
	11.88	387.60			
791-			6.4	381.4	382.5 51 Pipe
+50			0.5	387.1	
			0.24	387.26	
	5.70	393.06			
792+0.99			2.7	390.4	389.1 4.0
B.M. 96			1.70	391.36	
+50			2.8	390.3	
793-			4.6	388.5	386.6 6.5
+50			9.5	383.6	
			13.02	380.04	
	0.09	380.13			
794-			7.5	372.6	371.0 9.1
			12.75	367.38	
	0.17	367.55			
+50			6.8	360.8	
+69			9.2	358.4	
+92			15.9	351.7	
795-					352.6 15.0
+39			35.8	331.8	
+45			35.0	332.6	
796-			9.6	358.0	359.5 8.1
			0.45	367.10	
	13.03	380.13			

1333

10 Air Valve 15 ft. 1924-029

		380.13		
796+50			5.8	374.3 ✓
+50			2.0	377.1 ✓
			0.8	379.9 ✓
	10.72	390.67 ✓		
+80			10.0	380.7 ✓
797-			8.5	384.4 ✓
+50			6.2	384.5 ✓
798-			4.8	385.9 ✓
+50			4.7	386.0 ✓
799+15.9			4.5	386.2 ✓
B.M. # 97			0.98	389.69 ✓
	2.39	392.08 ✓		
800-			5.7	386.4 ✓
801-			6.8	385.3 ✓
+50			6.6	385.5 ✓
802-			9.8	382.3 ✓
			12.72	379.36 ✓
	0.37	379.73 ✓		
+50			4.9	374.8 ✓
			12.98	366.80 ✓
	0.21	367.01 ✓		
803-			4.3	362.7 ✓
			12.88	354.13 ✓
	0.00	354.13 ✓		
+50			4.7	349.4 ✓
			12.76	341.37 ✓

134¹³⁴

Do Air Value 15' 14" 799+ 15.9

↓
21
↓
22
↓

	001	241.38 ✓			
803+80			20	338.4 ✓	
804-			73	334.1 ✓	333.7
			12.77	328.61 ✓	7.7 15
	002	328.63 ✓			
+50			68	321.9 ✓	
			12.67	315.96 ✓	
	047	316.93 ✓			
805-			60	310.4 ✓	307.8
			12.91	303.52 ✓	86 15
	054	304.06 ✓			
+50			4.9	299.2 ✓	301.4 2.7
+63			70	297.1 ✓	
806-			151	289.0 ✓	
+20			173	286.8 ✓	
+22			186	285.5 ✓	
+42			188	285.3 ✓	
+50			166	287.5 ✓	
+75			116	292.5 ✓	
807-			70	297.1 ✓	301.8
+26			49	299.4 ✓	2.3 15 2.5 11 301.8
+50			33	300.8 ✓	2.3 10 301.5
808-			02	304.1 ✓	2.2 10 301.9
			227	301.79 ✓	
	833	310.12 ✓			
+50			18	308.3 ✓	

135/135

		310.12			
808+65			0.8	309.3	
809-			3.5	306.6	300.6 ✓
+50			13.8	296.3	9.5 Pipe 10
			12.99	297.73 ✓	
	0.40	298.13 ✓			
810-			11.6	286.5	286.4 ✓
			12.97	285.16 ✓	11.7 Pipe
	0.36	285.52 ✓			
+50			2.8	282.7	
811-			9.4	276.1	274.6 ✓
			12.52	273.00 ✓	10.9 "
	0.43	273.43 ✓			
+50			3.7	269.7	
812-			7.8	265.6	
+50			9.3	264.1	
813-			8.9	262.5	
			9.09	264.34 ✓	
	6.44	270.78 ✓			
+30			5.1	265.7	262.1 ✓
					3.7 "
+74			5.3	265.5	
+82			10.3	260.5	
814-			5.1	265.7	262.9 ✓
					7.9 "
+32			6.9	263.9	268.4 ✓
+33			9.3	261.5	2.4 "
+50			11.0	259.8	10
+74			9.1	261.7	

136 136

		270.78			
814+81			0.0	270.8 ✓	
B.M. #98			2.51	265.27	
			0.18	270.60 ✓	
	12.58	283.18 ✓			
815-			2.1	281.1 ✓	
			0.23	282.25 ✓	
	7.66	290.61 ✓			
+06			4.5	286.1 ✓	
			0.19	290.42 ✓	
	12.92	303.34 ✓			
+50			7.0	296.3 ✓	
			0.11	303.23 ✓	
	12.69	315.86 ✓			
816-			6.6	309.3 ✓	308.5 ✓
			0.62	315.24 ✓	7.1 Flap 10
	12.51	327.75 ✓			
+50			4.0	323.8 ✓	
			0.07	327.68 ✓	
	12.41	340.09 ✓			
817-			3.4	336.7 ✓	335.5 ✓ 1.6
			0.05	340.04 ✓	
	12.54	352.58 ✓			
+50			6.9	345.7 ✓	
+70			3.2	349.4 ✓	
			0.19	352.89 ✓	
	12.85	365.24 ✓			

137
137

Nail in Fence Post 20 ft. 814+25

		365.24			358.9 ✓
818-			6.5	358.7 ✓	8.3 Ppp 10
			0.02	365.22 ✓	
	13.05	378.27 ✓			
+50			0.4	377.9 ✓	
			0.25	378.02 ✓	
	12.73	390.75 ✓			
+77			1.5	389.3 ✓	
			0.34	390.41 ✓	
	12.80	403.21 ✓			
819-			12.8	390.4 ✓	38.75 ✓ 15.7 "
+06			7.4	395.8 ✓	
+50			2.8	400.4 ✓	
820-			4.4	398.8 ✓	5.90 ✓ 12.7 "
			3.77	399.44 ✓	
	4.58	404.02 ✓			
+10			10.4	393.6 ✓	
+18			5.0	399.0 ✓	
+50			3.8	400.2 ✓	
821-			6.2	397.8 ✓	3.90.3 ✓ 13.7 "
+01.6			8.6	395.4 ✓	
B.M. #99			10.70	393.32 ✓	
+10			10.6	393.4 ✓	
+20			8.2	395.8 ✓	
+50			11.2	392.8 ✓	
			12.56	391.46 ✓	
	0.36	391.82 ✓			

138
138

Up Air Valve 10' Lt 8211016

		391.82			
821+90			60	385.8	380.6
822-			96	382.2	112 PPR 10
			13.53	379.29	
	0.42	379.71			
+50			12.1	367.6	369.7 10.0
+57			13.7	366.0	
+72			20.7	359.0	
+93			27.1	352.6	
823-			25.0	354.7	369.2 105.
+35			12.2	367.5	
+50			9.7	370.0	
			0.68	379.08	
	13.04	392.12			
824-			10.1	382.0	383.9 8.2
+409			36	388.5	388.7 34
B.N. #100			174	390.32	
+78			2.6	389.5	
825-			73	384.8	385.1 70.
			12.90	379.22	
	0.46	379.68			
+50			8.7	371.0	
			12.94	366.74	
	0.12	366.86			
826-			11.1	355.8	356.8 10.1
			12.71	354.15	
	0.06	354.21			

139
139

On Air Valve 10' H. 8241409

		354.21			
826+40			93	344.9	341.3
827-			21.4	337.8	139 f.p.c.
+25			14.5	339.7	
828-			29	351.8	353.4
					0.8
			024	353.97	
	13.08	367.05			
+50			16	365.5	
			001	367.04	
	12.55	379.59			
829-			1.5	378.1	378.3
					13 "
			008	379.51	
	12.59	392.10			
+50			69	385.2	
830-			25	389.6	389.7
					24 "
			215	389.95	
	4.64	379.59			
BM # 101			077	393.82	
+87.3			4.6	390.0	390.5
					41
831+50			54	389.2	
832-			68	387.8	386.3
					83
			1285	381.74	
	0.41	382.15			
+50			51	377.1	
			1263	369.52	
	0.38	369.90			
833-			71	367.8	358.7
					11.2 "

140

140

On Air Valve 10 Lb 830+875

		369.90			
			1309	356.81 ✓	
	0.55	357.36 ✓			
833-150			10.6	346.8 ✓	
			12.93	344.43 ✓	
	0.12	344.55 ✓			
			12.66	331.89 ✓	
	0.22	332.11 ✓			
834-			33	328.8 ✓	
			13.04	319.07 ✓	
	0.17	319.24 ✓			
+50			11.6	307.6 ✓	302.3 -
			12.94	306.90 ✓	16.9 Pipe 15
	0.24	307.04 ✓			
835-			18.0	289.0 ✓	297.1 -
+23			21.5	285.5 ✓	9.9
+28			24.6	282.4 ✓	297.1 -
+50			14.1	287.9 ✓	9.9
B.M. #102			12.62	299.42	297.2 -
836-			9.8	297.2 ✓	9.8
			21.0	306.94 ✓	301.0 -
	12.74	319.68 ✓			6.0
+45			9.6	310.1 ✓	
			0.00	319.68 ✓	
	12.50	332.18 ✓			
			2.08	332.10 ✓	
	12.64	344.74 ✓			

141

141

to Inner Flange of blowoff Valve

		344.74			332.0
837-			105	334.2	12.7 P.P. 15
			110	344.64	
	12.95	356.99			
			090	356.59	
	12.95	369.54			
+84			63	363.2	
838-			46	364.9	365.9 3.6
			052	369.02	
	12.96	381.98			
+33			80	374.0	
+50			61	375.9	
839-			06	381.4	382.2 +0.2
			097	381.51	
	13.01	394.52			
+50			97	384.8	
840-			64	388.1	387.7 68
841-			22	392.3	391.1 34
			231	391.21	
	4.67	395.88			
B.M. #103			087	395.01	
+60			14	394.5	
842-			72	388.7	383.1 12.8
			1204	382.89	
	0.26	383.10			
+50			105	372.6	
			12.80	370.30	

142
142

On Air Value 15' Lt 841+17

	080	370.60 ✓		
			1281	357.79 ✓
	092	358.71 ✓		
843-			24	356.3 - 356.7 - 20 Pps
+50			81	350.6 - 15
844-			88	349.9 - 74 "
+50			93	349.4 -
845-			150	343.7 - 345.7 - 15.0 "
+35			193	339.4 -
+50			272	331.5 -
+58			234	335.3 -
+68			205	338.7 - 344.1 - 14.6 "
170			220	336.7 -
+90			182	340.5 -
846-			117	347.0 - 348.4 - 10.9 "
			101	358.70 ✓
	12.88	371.58 ✓		
+50			58	365.8 -
			027	371.31 ✓
	12.99	384.30 ✓		
847-			32	381.1 - 379.4 - 4.9 "
+20			110	385.3 -
+50			08	383.5 -
848-			26	381.7 - 382.9 - 1.4 "
+50			14	384.9 -
			108	383.22 ✓

143

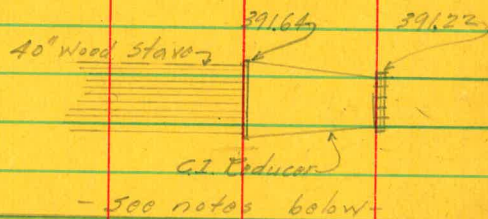
143

83.22

	10.17	393.29 ^v		
849-			86	384.8
+50			72	386.2
850-			67	386.7
+63.6			4.0	389.4
B.M. #104			0.99	392.40 ^v
851-			32	390.2
+50			31	390.3
852-			27	390.7
			175	391.64 ^v
	5.90	397.54 ^v		
+50			85	389.0
853-			58	391.7
+50			37	393.8
854-			59	391.1
+51			10.8	387.2
+52			12.2	385.3
+67			156	381.9
855-			145	383.0
+01				
+22.9			9.8	387.7
			632	391.22 ^v
			5.90	391.64 ^v
Set B.M. #105			4.10	393.44 ^v

144
144

10 Air Valve 15 ft 850 + 636



14.3- 8" Et. Edge of Conc. Settling Basin

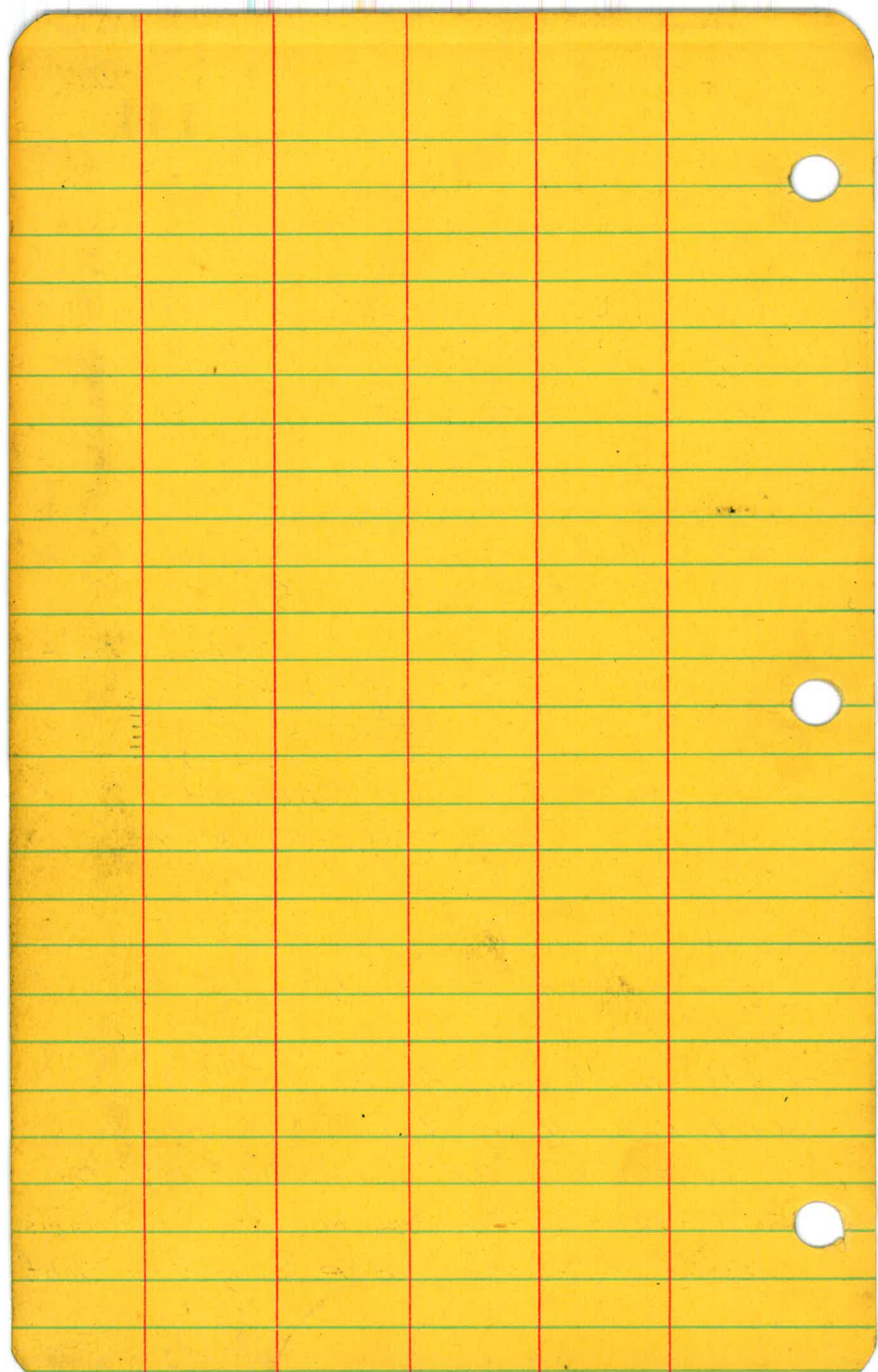
10 Manhole Cover at 4

on Flange at Union of Reducer & C.I. Pipe

Top of Reducer Casting where Wood Stave pipe begins

Spike in Transformer Pole at Filter Plant

E. P. Chilton
Oct. 22-1958



Conc. Pier our Elev. 389.44
Conc. Pier (Hayler) 396.02
389.90

Check on levels by E.P. Chilton 10/25/28

Stay - S.D. Pipe Line

90
124
146



Otay Pipe Line.
Prelim. Line.

Reed-

10/10/28

HDW

Converse-
C. L. Morgan-
Frank Whelan-
Ralph Reeves,
Claude Bell,

Sta. Hor. Δ Bear. Mag.

7+80⁶³ Δ 10°36'R

7+00⁰ P.O.T.

4+36⁰² Δ 1°42'R

5.69° E.

0+00

Sta. Horiz. Δ Bearing Mag.

29+27⁶⁷ P.O.T.

18+46⁴⁷ P.O.T.

5.58° 20' E

15+24²⁹

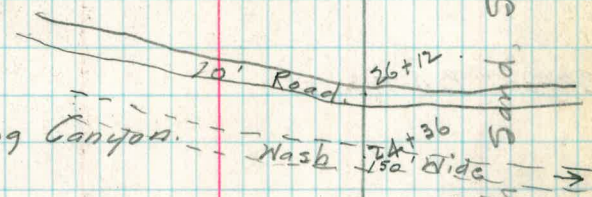
9+98⁸² P.O.T.

7+80.63 Δ

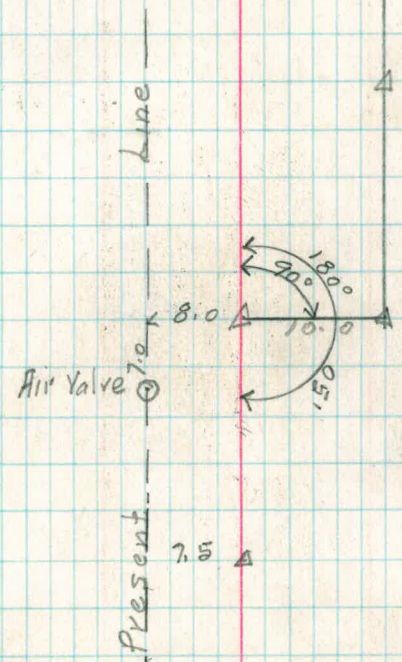
From Sta. 15+24.29 to
Sta. 30+00 & as run
is 10 ft. So. of abandoned
pipe line

A.B.D.

Long Canyon



A.V.
Sand, Soil
Cobble Stones cemented with
and adobe.



A.V.

Present

Sta. Hor. Δ. Bear. Mag.
50+73⁷⁶ P.O.T.

39+00 P.O.T.

38+00 P.O.T.

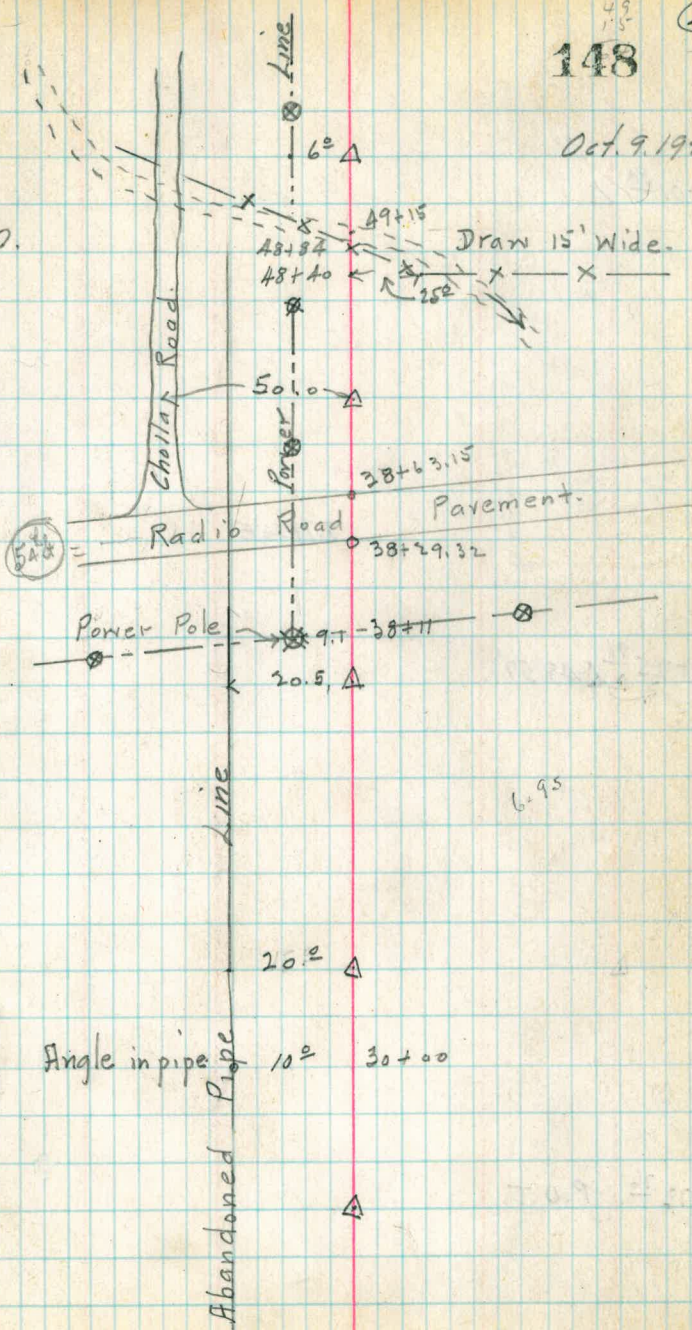
S. 64° 30' E

31+34⁴⁵ Δ 6° 03' L

29+27⁶⁷ P.O.T.

Oct. 9, 1928.

4" B.O.

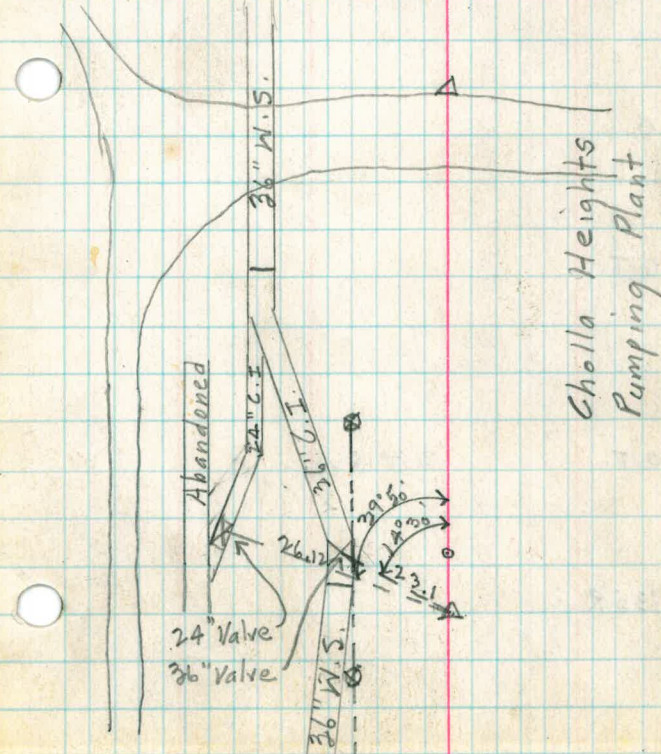
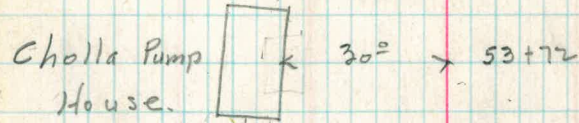
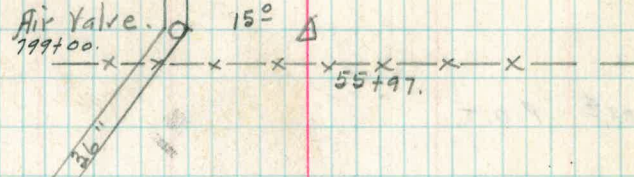


56+01⁸⁰ Δ

S. 19° 40' E

53+25⁷¹ Δ 43° 57' R

50+73⁷⁶ P.O.T.



71+55² P.O.T.

70+08, ⁴ P.O.T.

68+57.54 B.C.

68+04.12 Δ 19°58' L

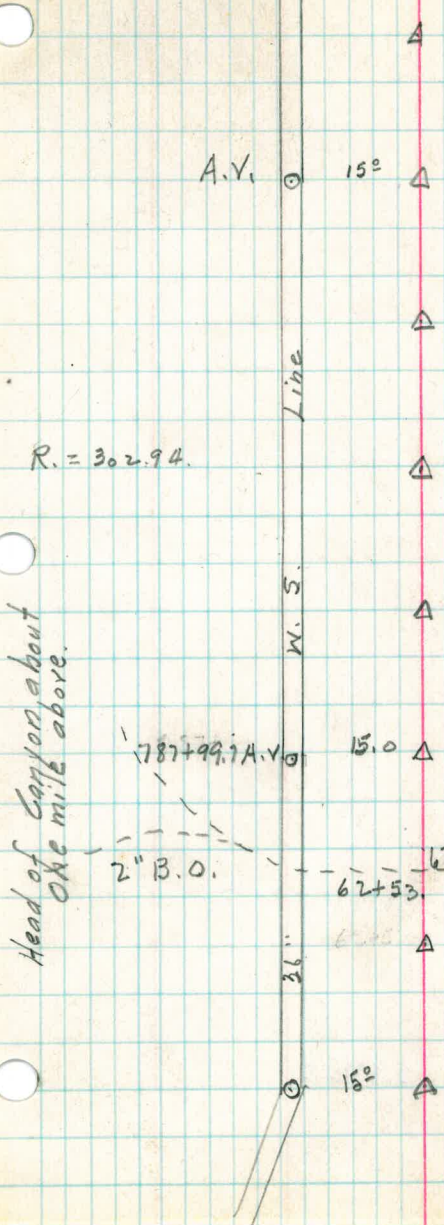
67+50.7 F.C.

67+00 P.O.T.

59+00 P.O.T.

S 17° 15' W

56+01 ⁸⁰ Δ 37° 35' R.



R. = 302.94.

Line

W. S.

Head of Canyon, about
one mile above.

787+99.7 A.V.

15.0

787+99.7

2" B.O.

62+53

62+93

M.P. #15.

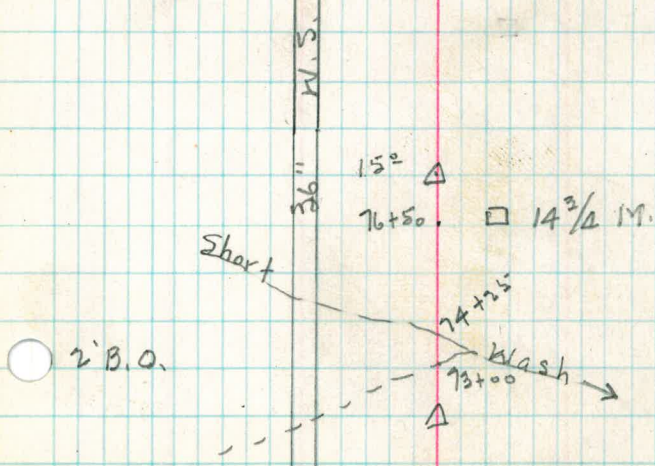
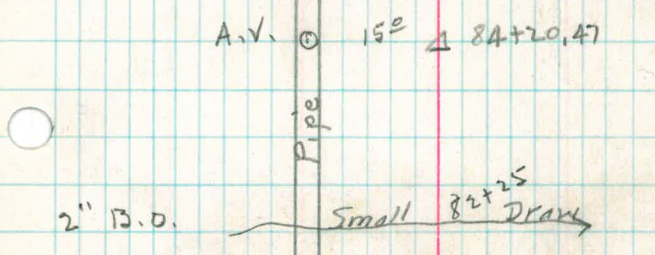
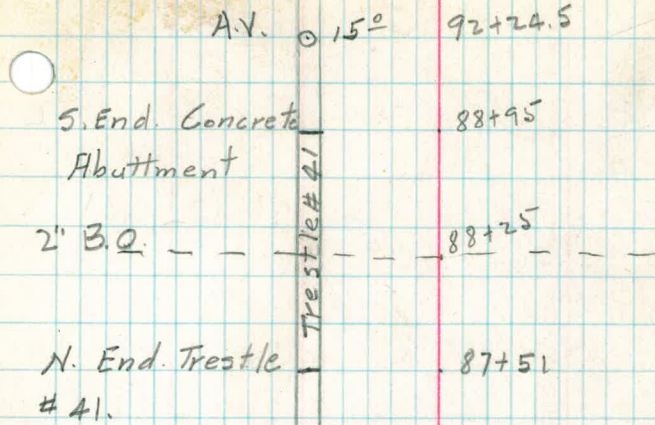
26"

Scattering Brush.
Adobe Soil.
Sta. 56 to Sta. 77.

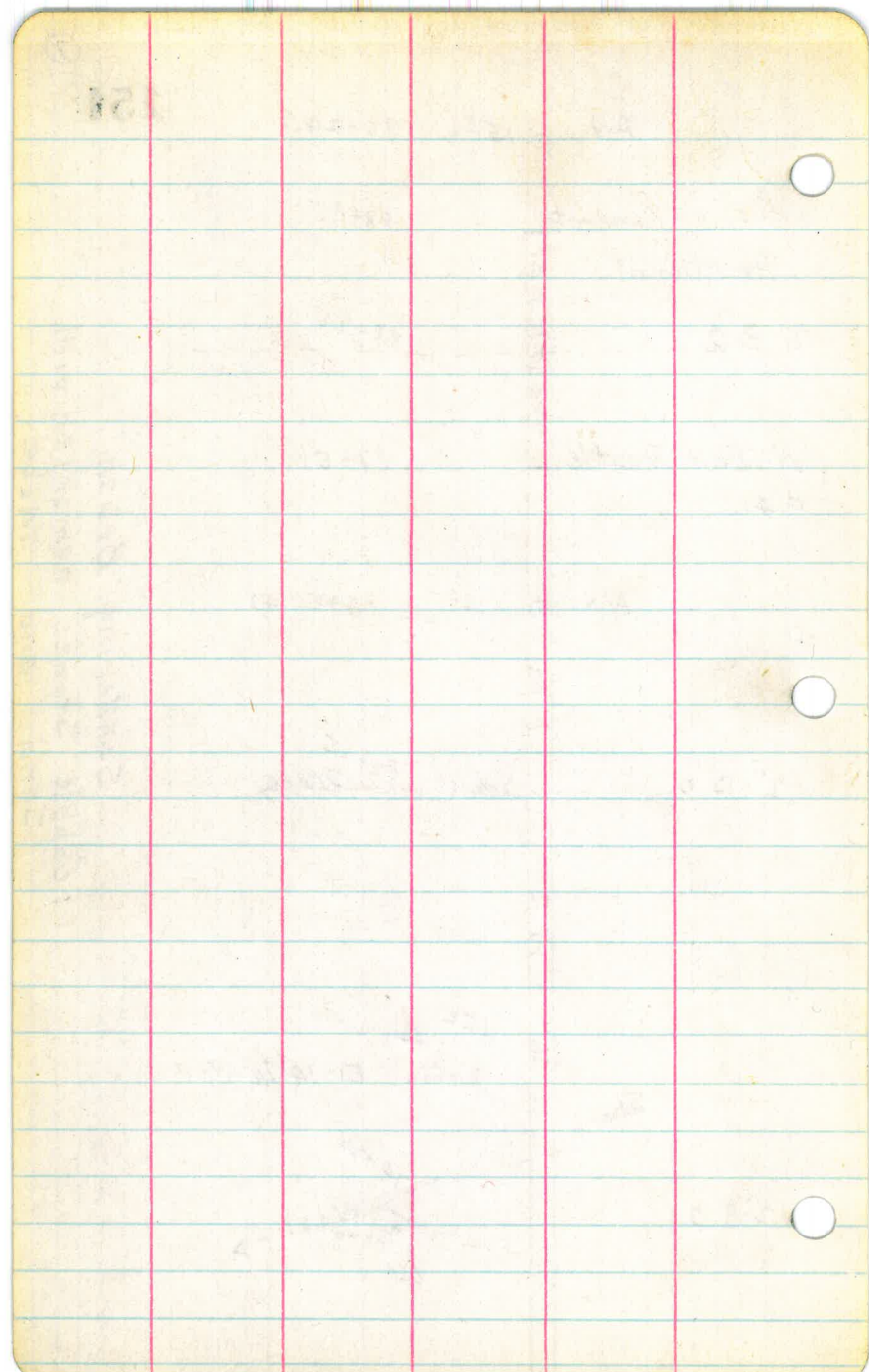
77+00² B.C.

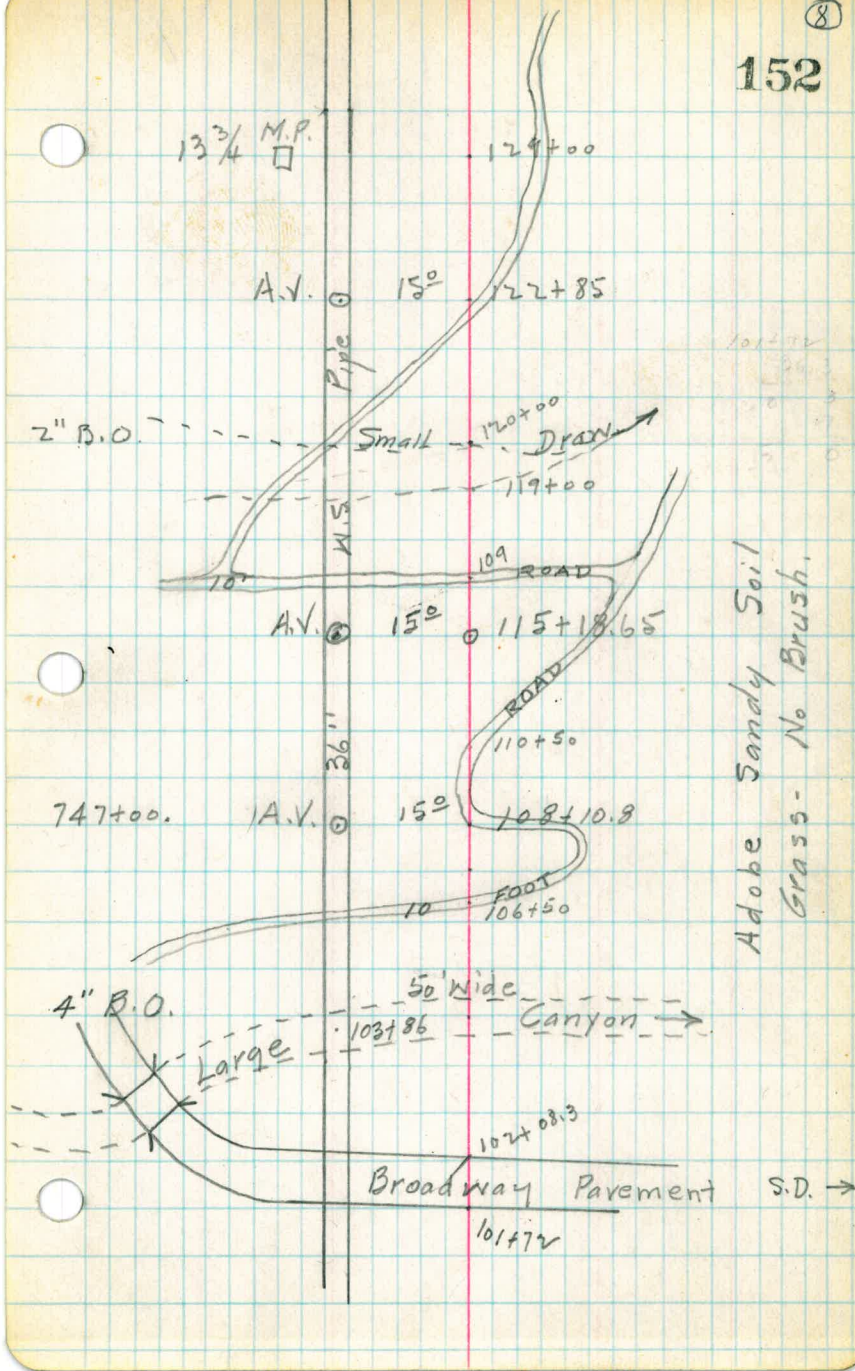
71+55² P.O.T.

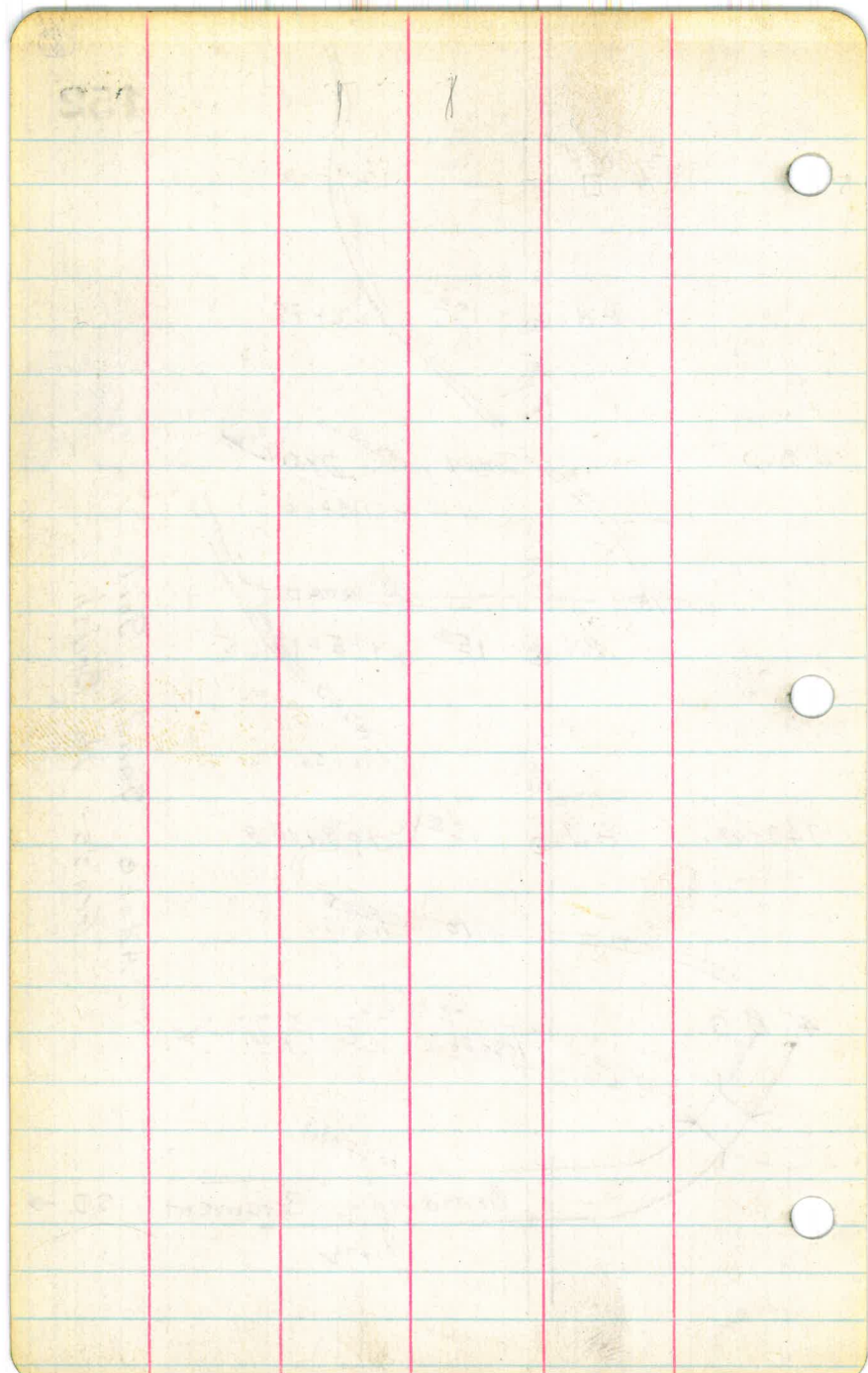
5.3° 15'E

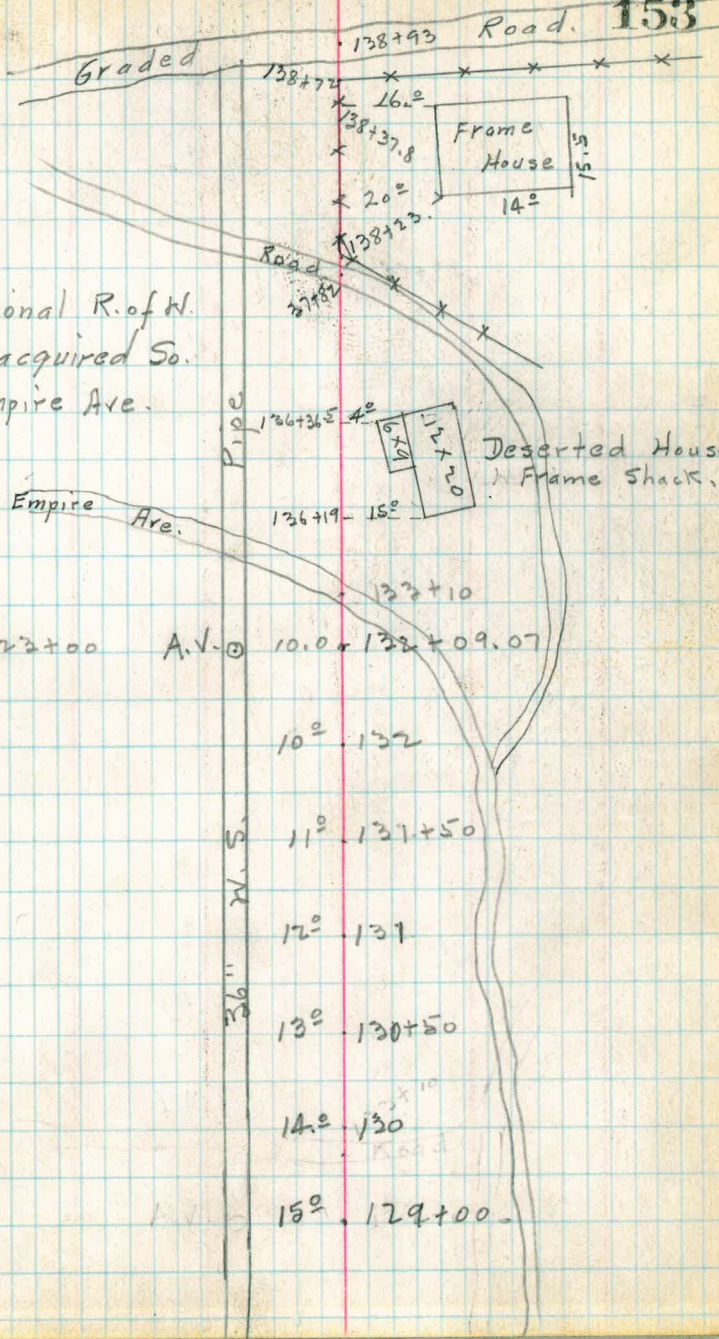


Scattering Brush.
Cobble Stones cemented with
Sand and adobe.

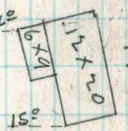
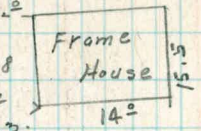




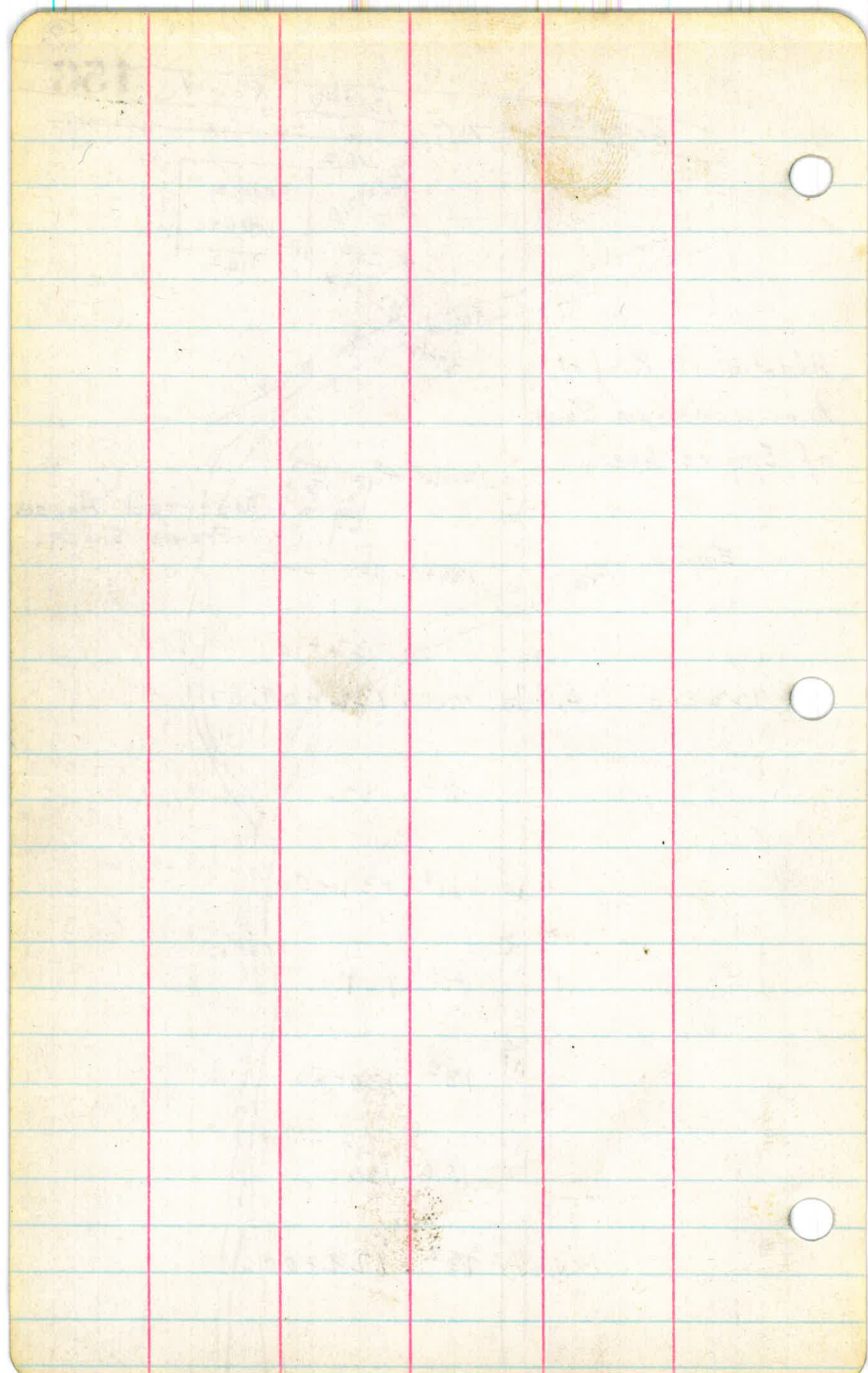


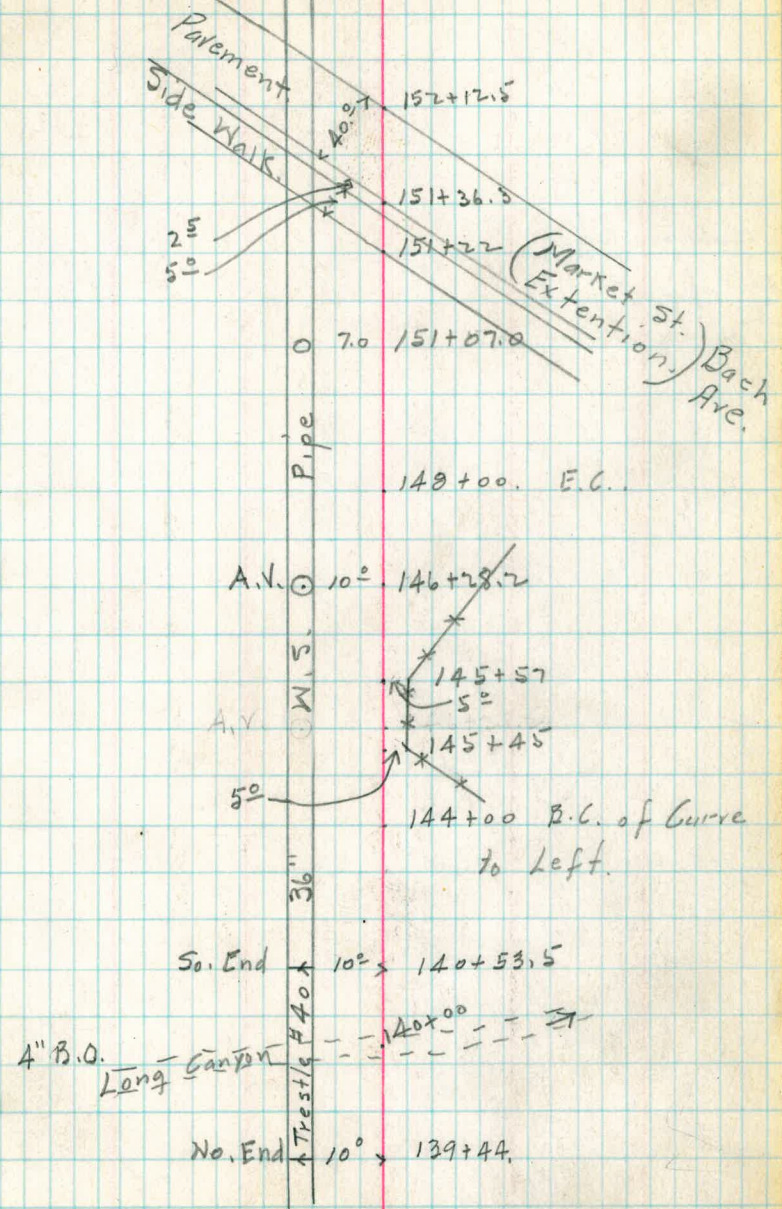


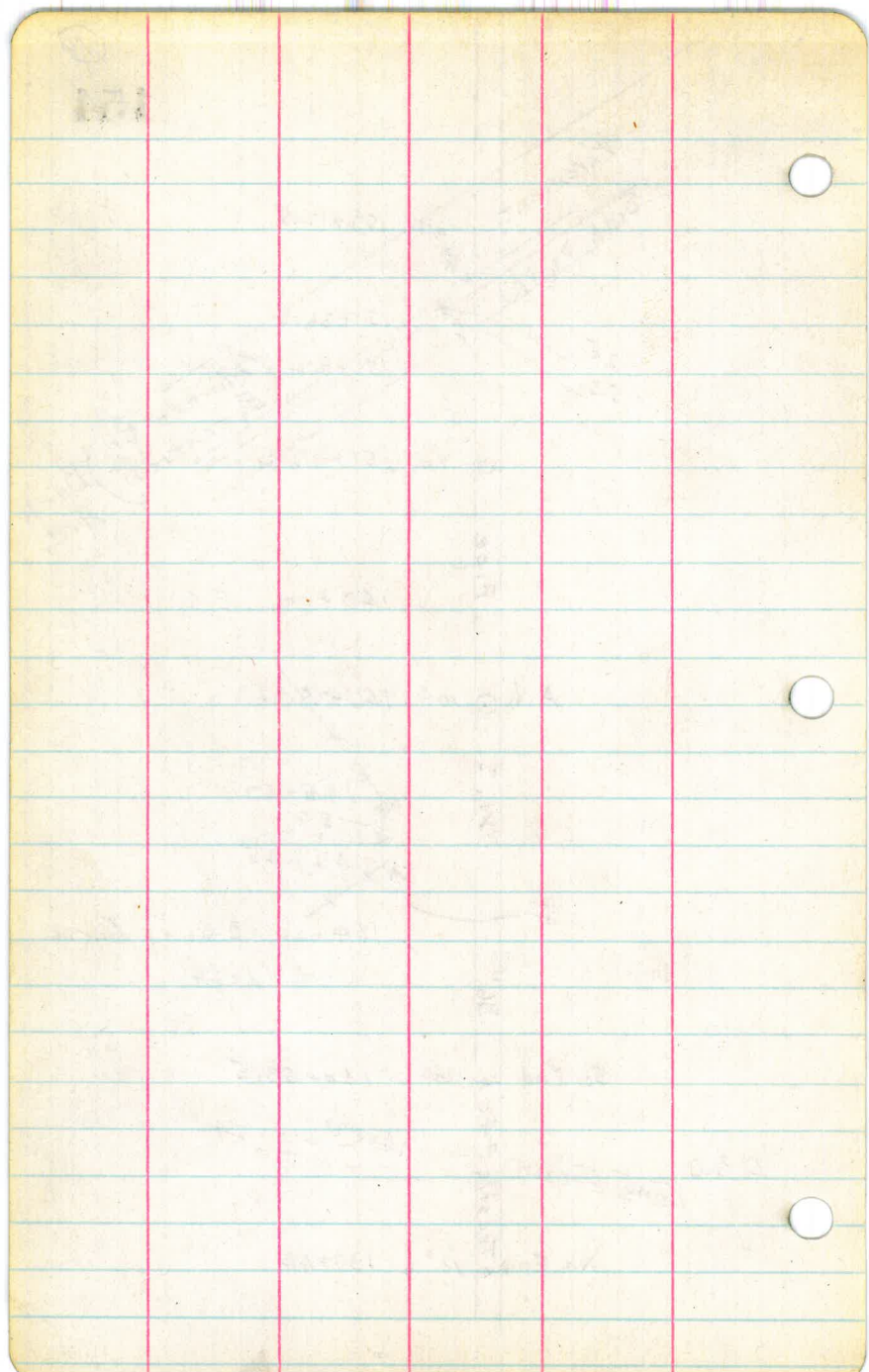
Additional R.of W.
to be acquired So.
of Empire Ave.

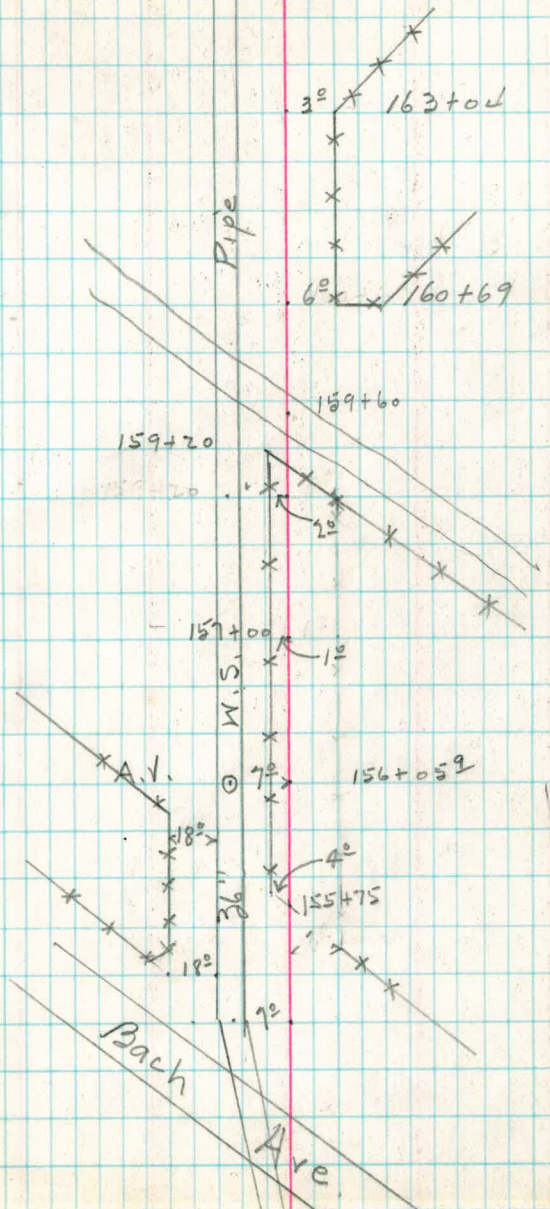


123+00 A.V. @ 10.0° 132+09.07
 10° 132
 11° 131+50
 12° 131
 13° 130+50
 14.2° 130
 15° 129+00









$$\begin{array}{r} 177 + 98.5 \\ \underline{\quad 5} \\ 178 + 52.5 \end{array}$$

Side walk

(12)

Imperial

Ave.

156

S.D. + A.P.R. 176+85

177+59

Large Canyons
A" B.O.

175+85

Pipe

172+42

162

172+10

5'

7'

171+50

A.V.

X
X
X
X
X

W.S.

7'

167+49.25

Street

X X X

7'

167+33

X X X

34'

7'

166+59

X
X
X
X

36"

165+45

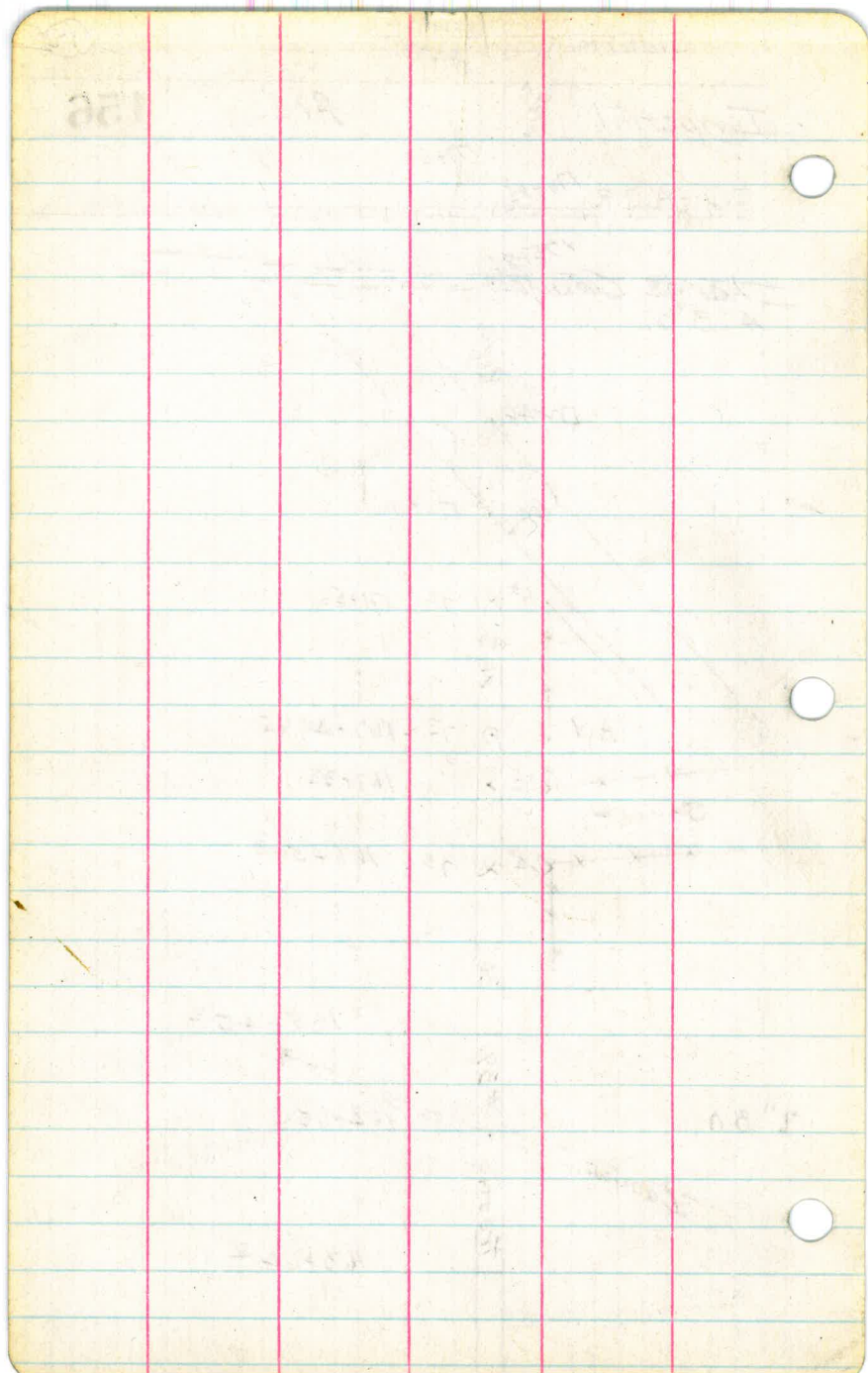
2" B.O.

Canyons

Trestle #39

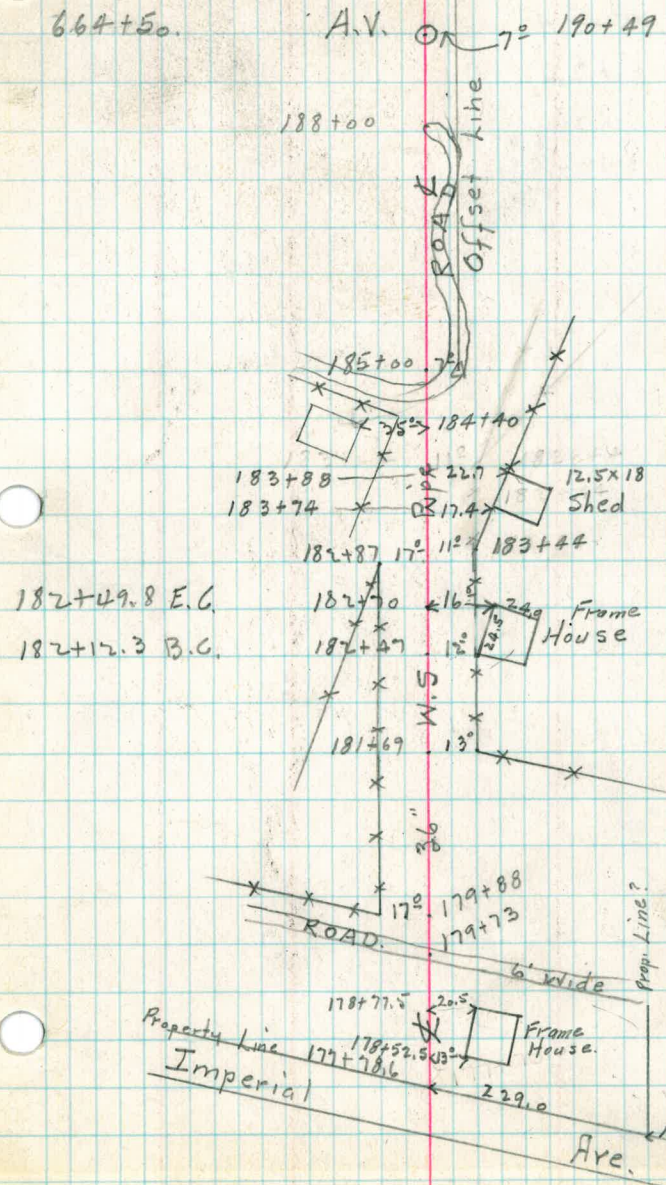
164+65

163+64



Reid -
10/12/28
H.D.W.

157
Oct. 10.



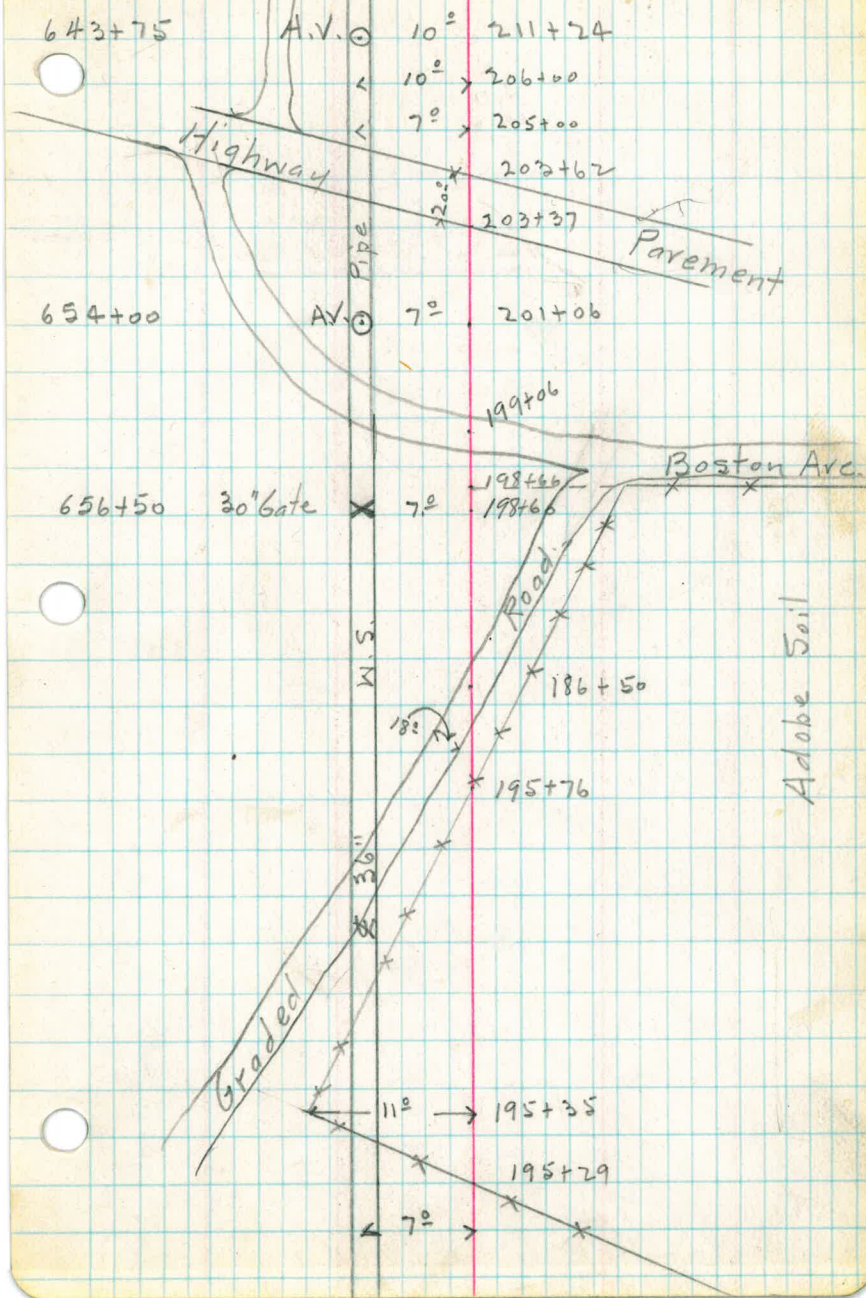
Adobe Soil

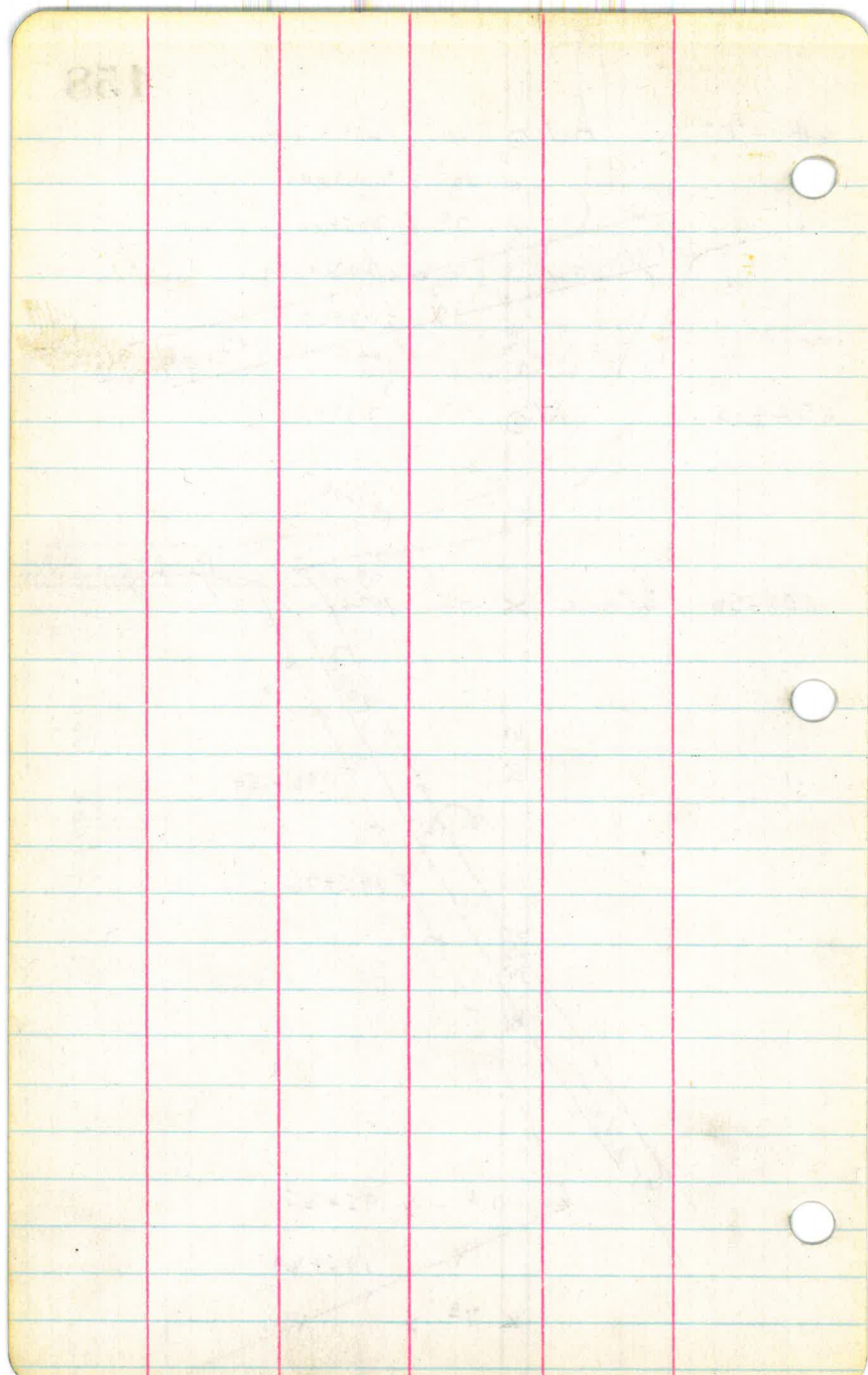
$$195 + 29$$

$$+ 25 \quad 11$$

$$+ 26$$

$$198 + \begin{array}{r} 63 \\ 55 \\ \hline 8 \end{array}$$



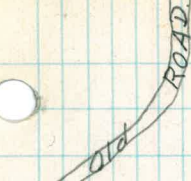


609+75

A.V. @ 10° 245+28

244+47.5

159



Small

Wash →
244+30

244+03

613+50

A.V. @ 10° 241+52

Outcroppings
Soft Sand Stone

4" B.O.

Large Canyon

234+85

233+60

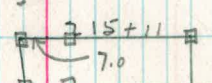
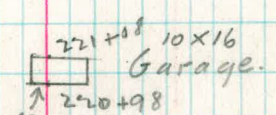
6 Ft. Road

633+50

A.V. @ 10° 221+52.5

224+78

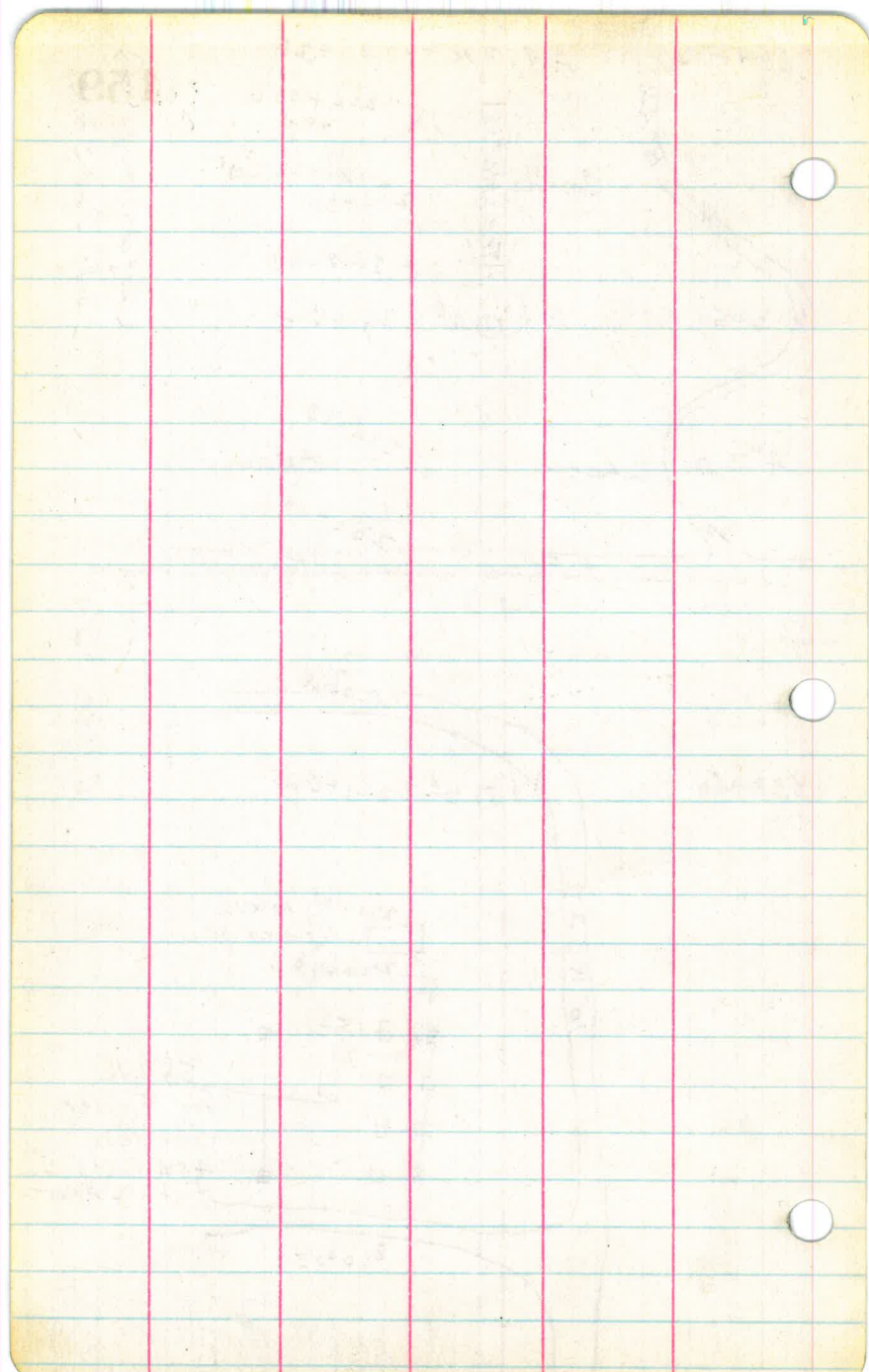
10' ROAD



Shade for Flower Garden.
4x4 Posts 5' High - 12' Apart.

213+05

Adobe Soil



A.V. 10² 280+96.7

279+45

2" B.O.

Small

Trestle #35

Draw →
278+92

278+41

578+25

A.V. 10² 276+88.2

586+98

A.V. 10² 268+09.3

264+15

4" B.O.

Large

Trestle #36

263+78 Canyon →

263+55



263+85

601+85

A.V. 10² 253+19

Small Draw

250+4A

Draw →

248+30

2" B.O.

Short

Trestle #37

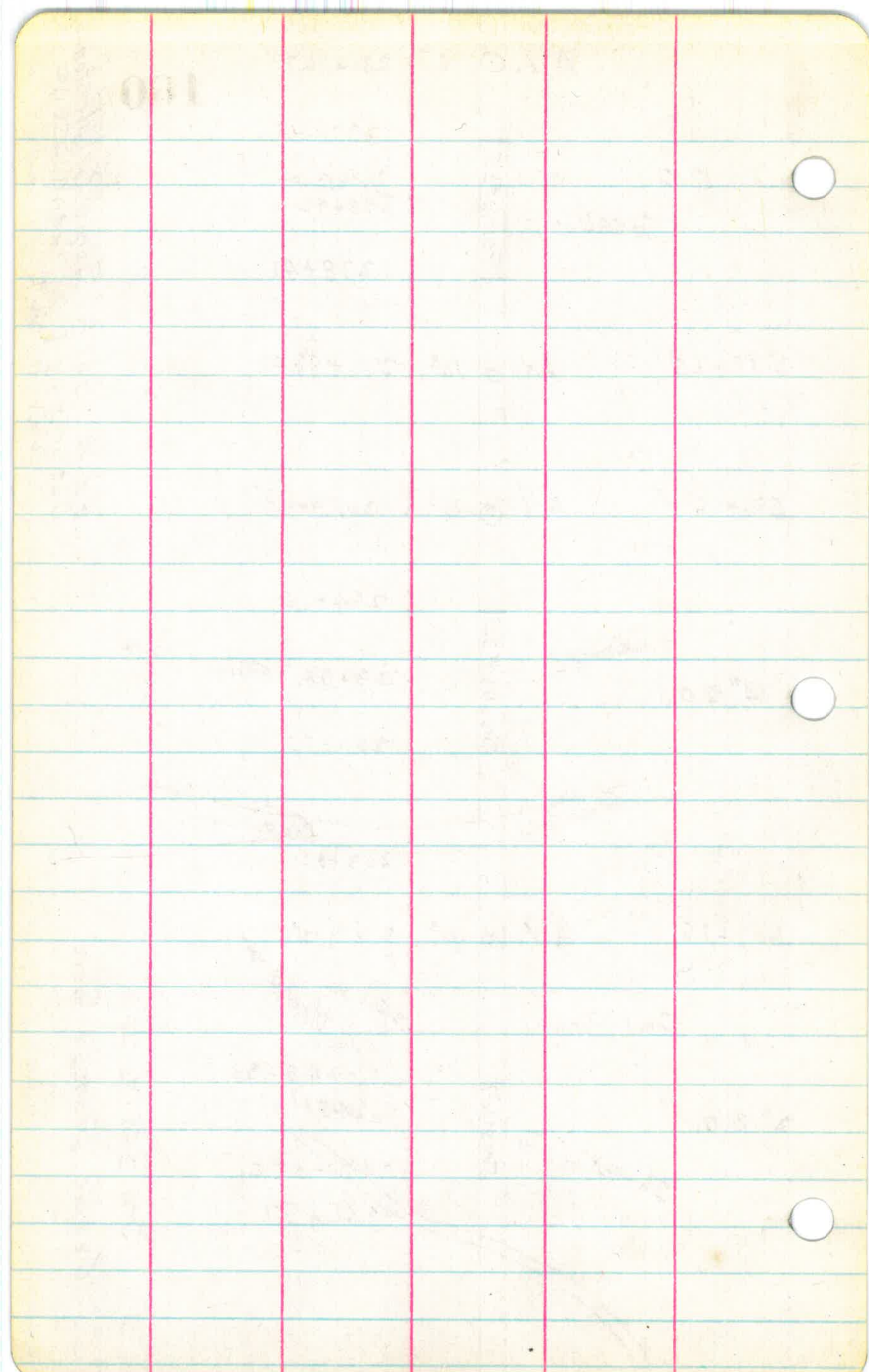
248+17

247+89.5

246+57

Sta. 245 to 263
Cobble Stones + Adobe

Adobe Soil. Some Cobblestones
Outcropping of Sand Stone
267 to 264



3" B.O.

Small -

Trestle #33

- DRAW -
284+86

285+24

284+49

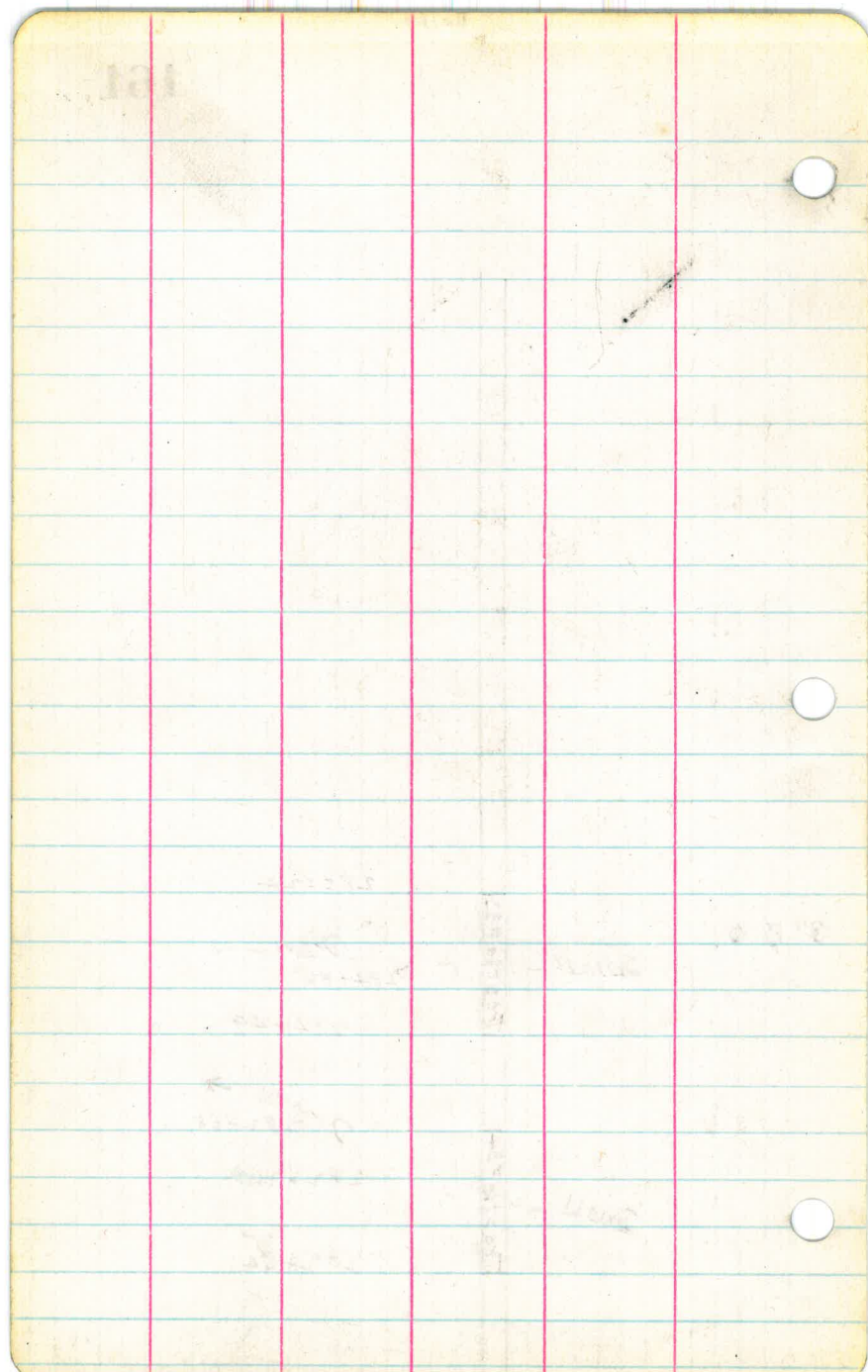
Small -

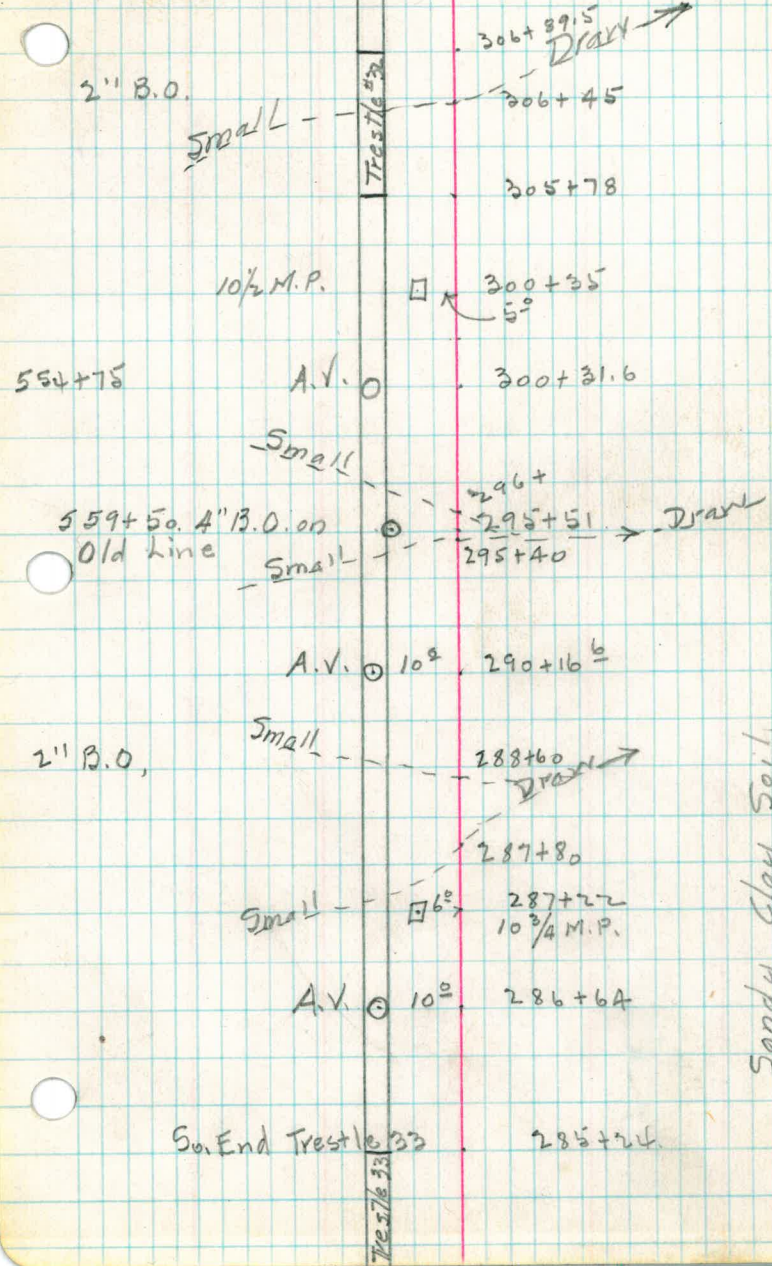
Trestle #34

- DRAW -
282+86

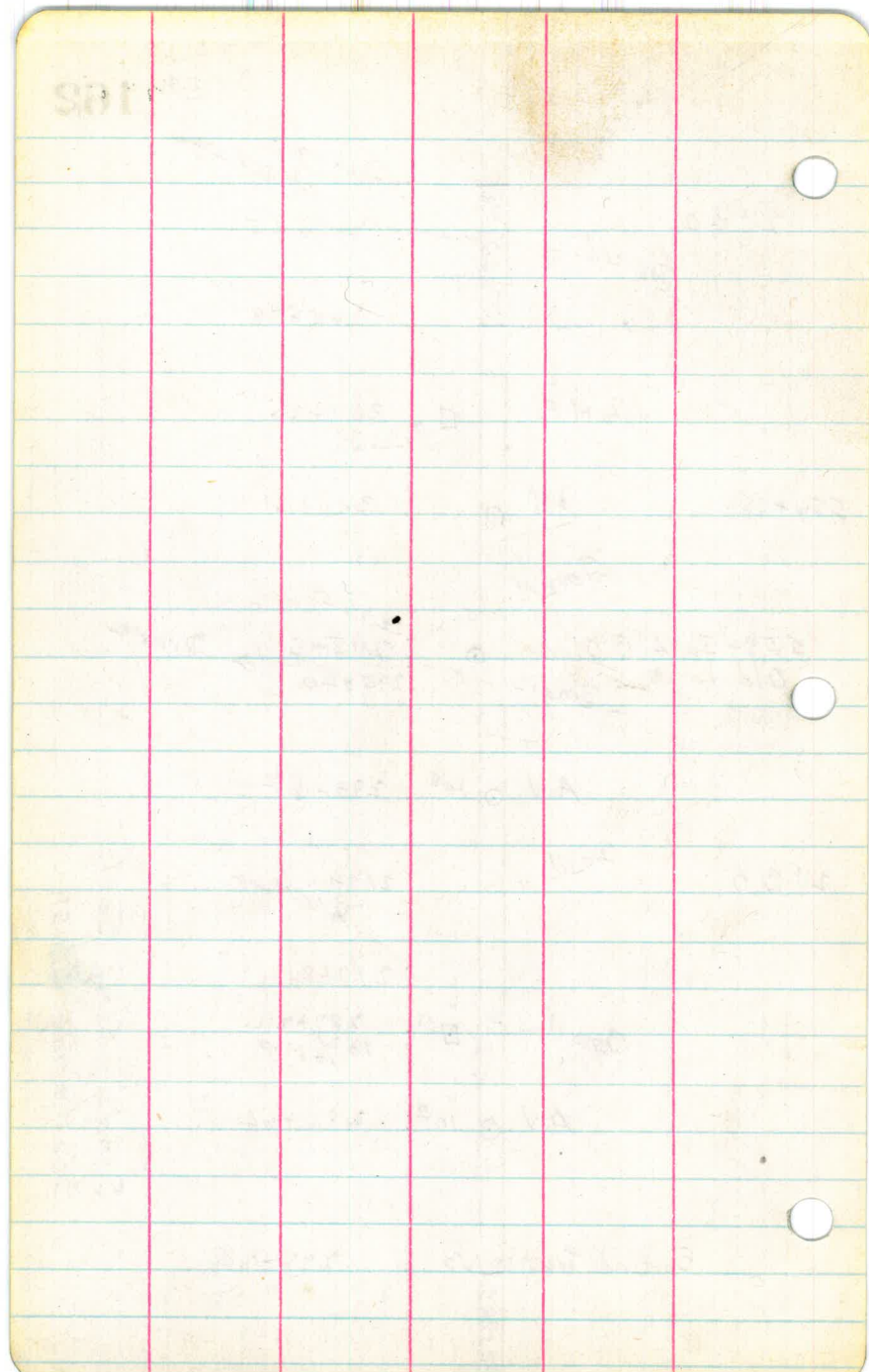
282+71

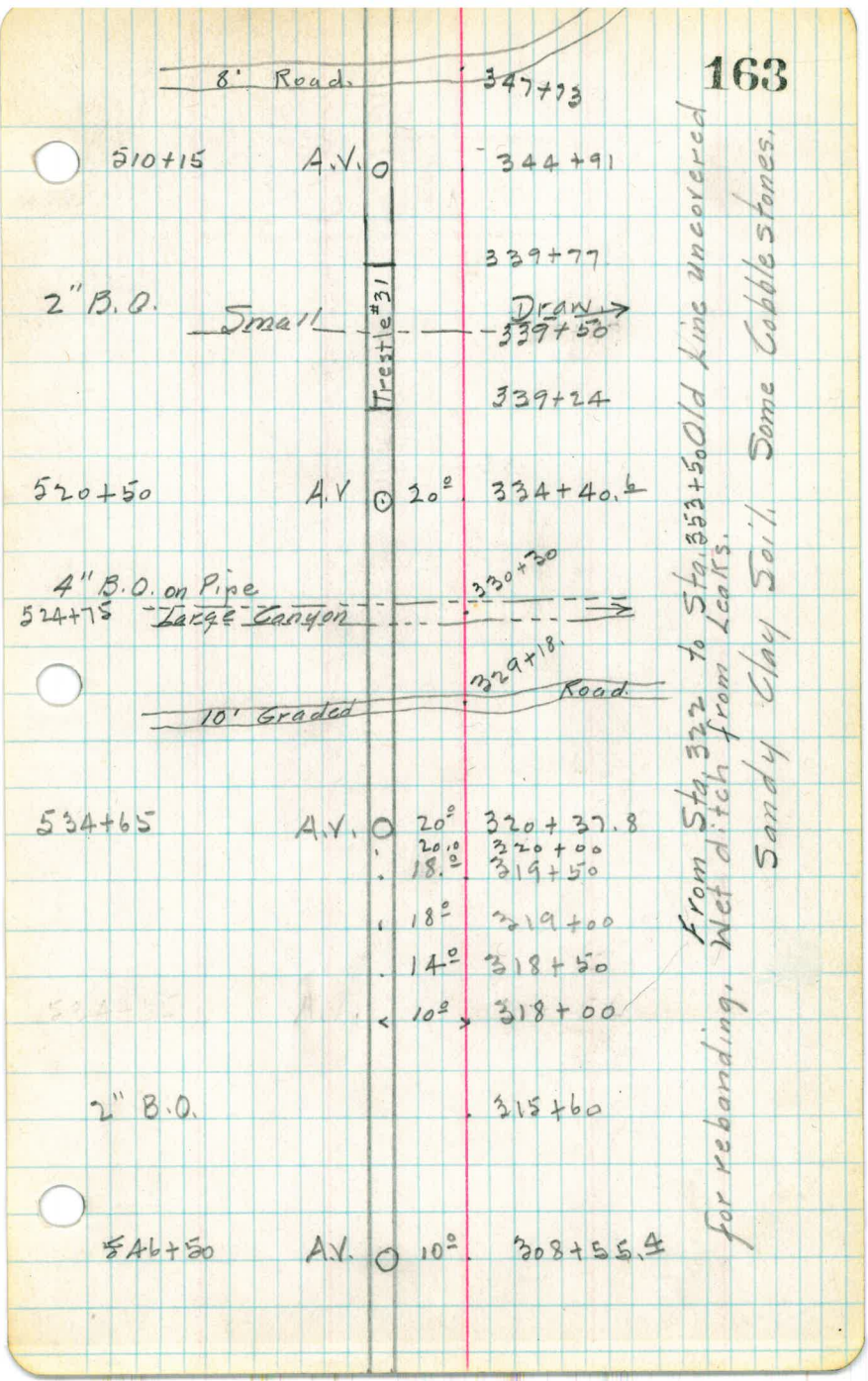
282+54





Sandy Clay Soil
Scattering Brush.





From Sta 322 to Sta 353+50 Old line uncovered
 for rebanding. Wet ditch from Leaks.
 Sandy Clay Soil. Some Cobblestones.

8' Road 347+73

510+15 A.V. 0 344+91

339+77

2" B.O. Small Trestle #31 Draw → 339+50

339+24

520+50 A.V. 20° 334+40.6

4" B.O. on Pine 524+75 Large Canyon 330+30

10' Graded Road 329+18

534+65 A.V. 20° 320+37.8
 20.0 320+00
 18.0 319+50

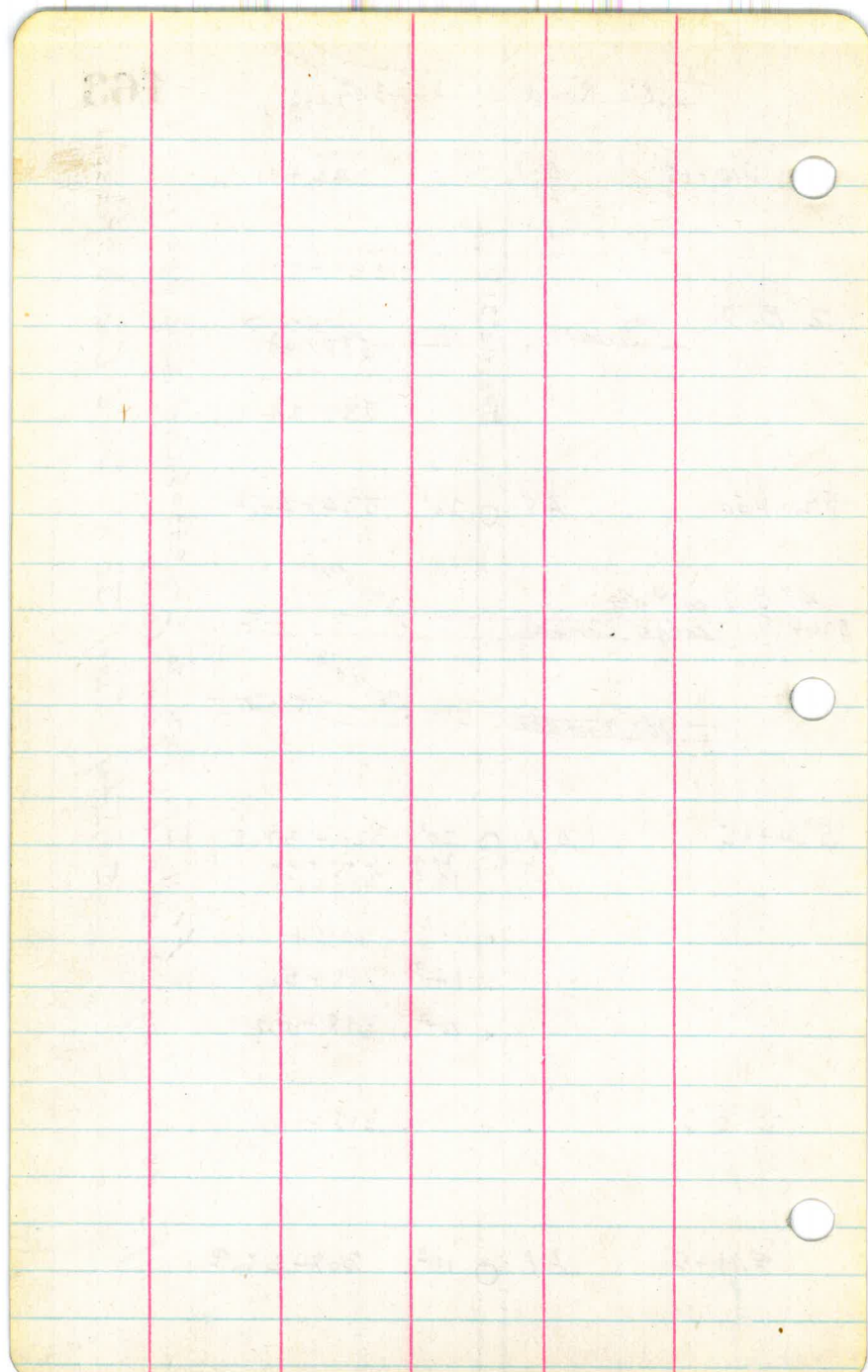
18° 319+00

14° 318+50

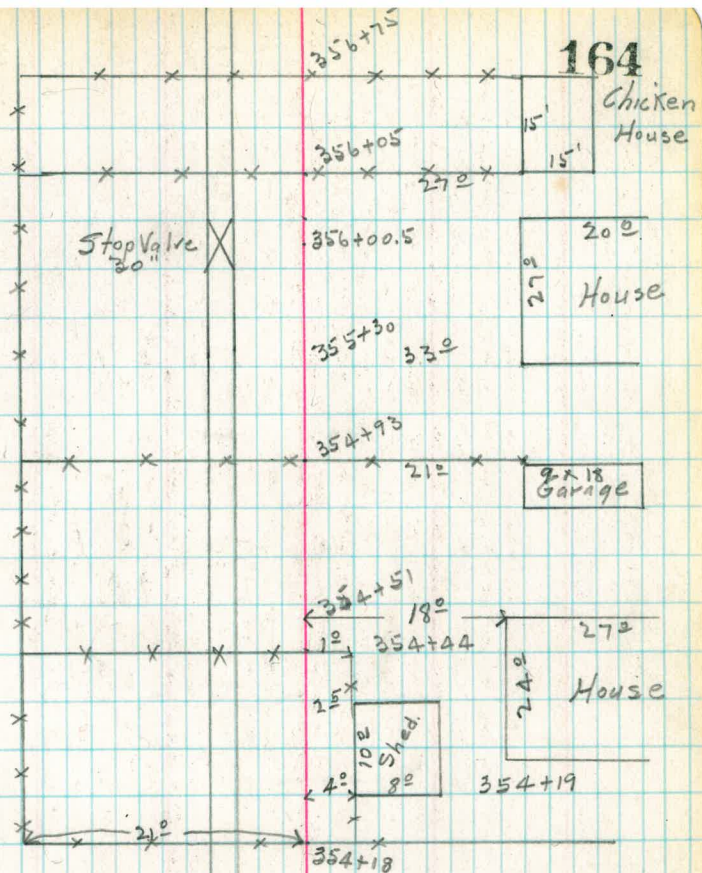
10° 318+00

2" B.O. 315+60

546+50 A.V. 10° 308+55.4



164



502+00

A.V. 6.0 352+04.8

6.0 352+00

7.9 352+50

13.2 352+00

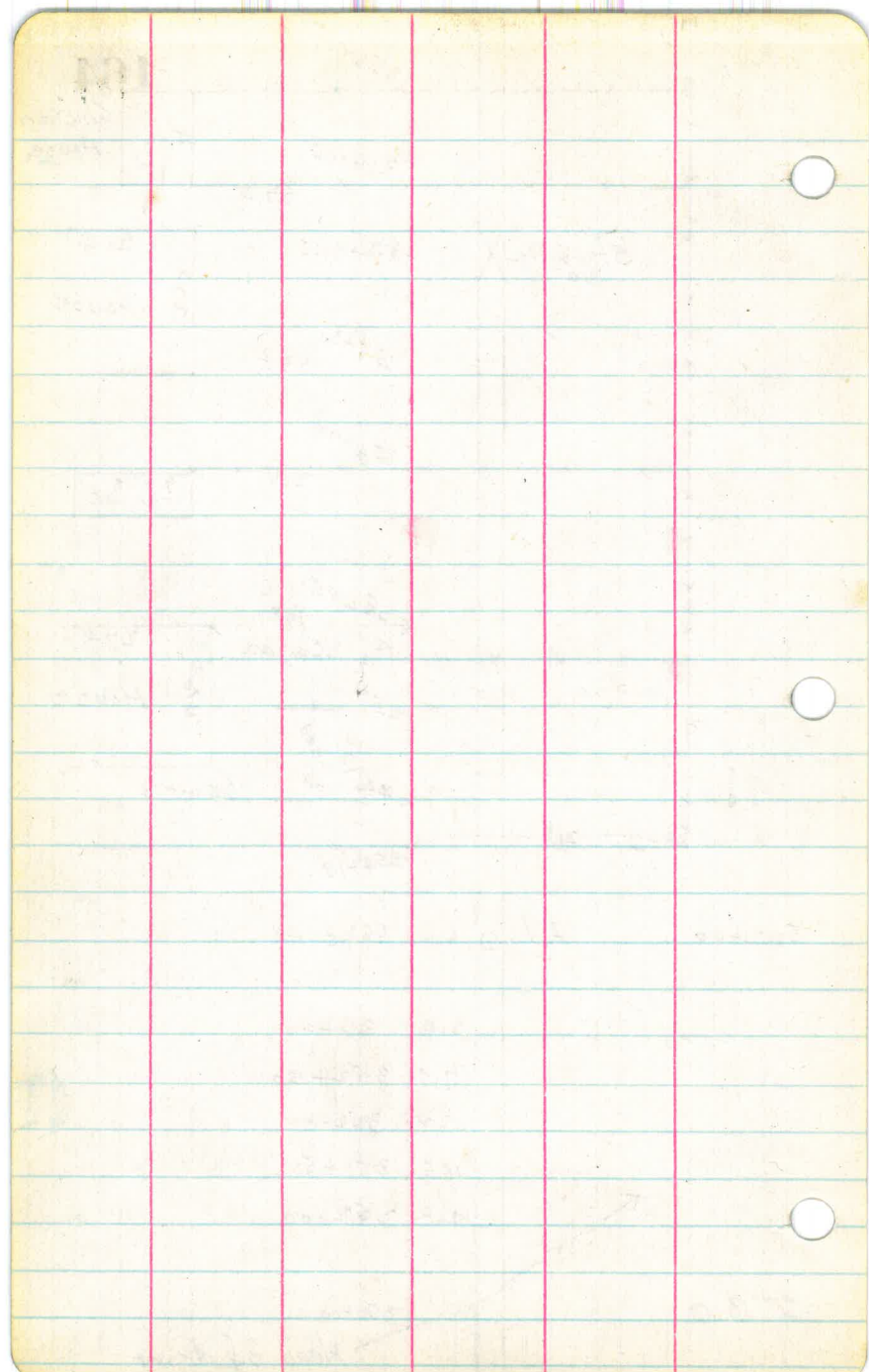
18.5 351+50

20.0 351+00

2" B.O.

350+00

Head of draw



Start of Riveted
Steel Pipe

36" R.S. Pipe

10° 361+21

A.V. 10° 360+75.7

A.V. 10° 360+56.7

10.0 359+81

7.5 359

6° 358+50

496+95

A.V. 6° 358+16°

357+95 9°

36" W.I.P.

357+60 9°

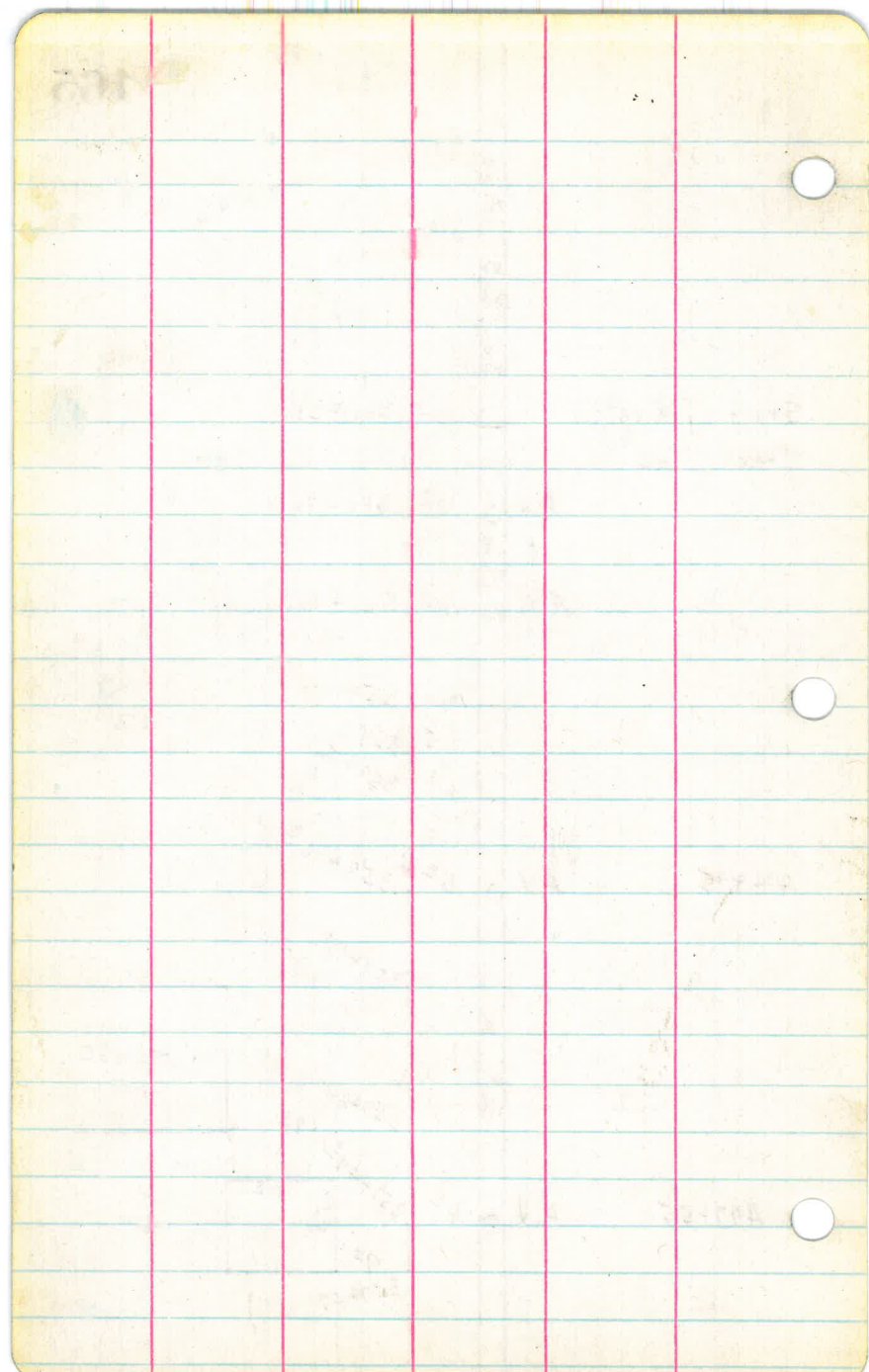
House.

497+55

A.V. 6° 357+49.3

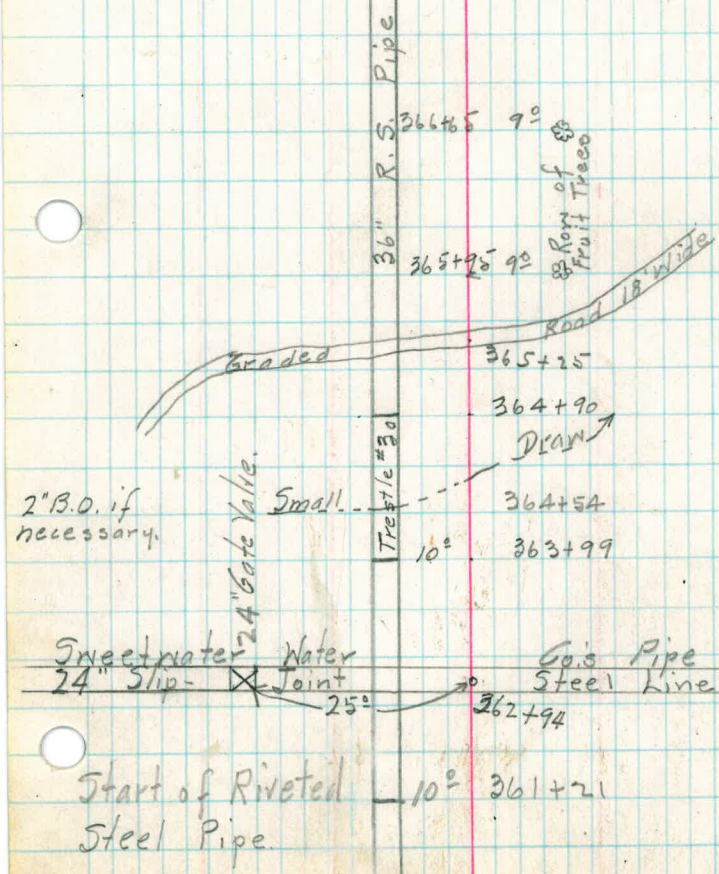
10°

9° 357+47

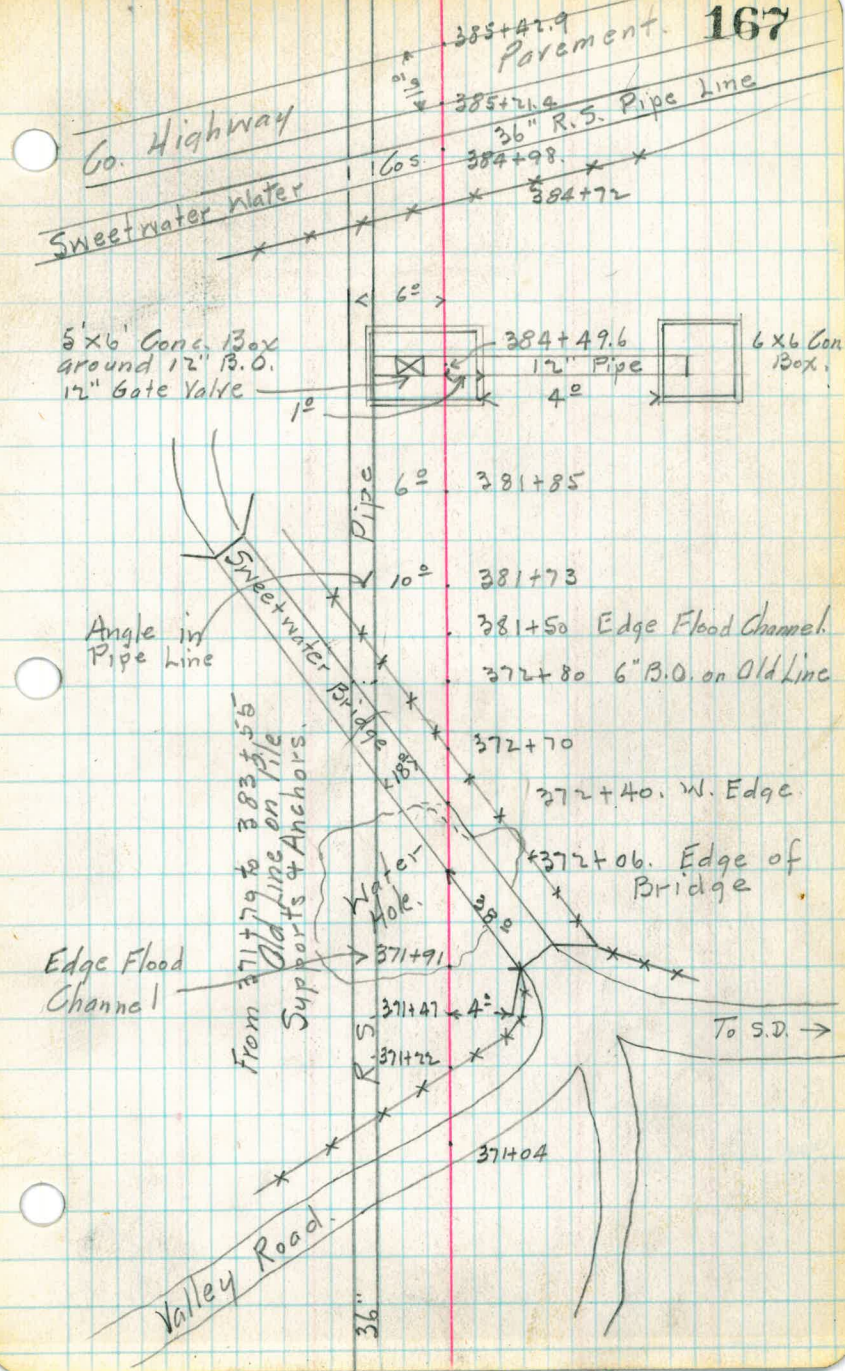


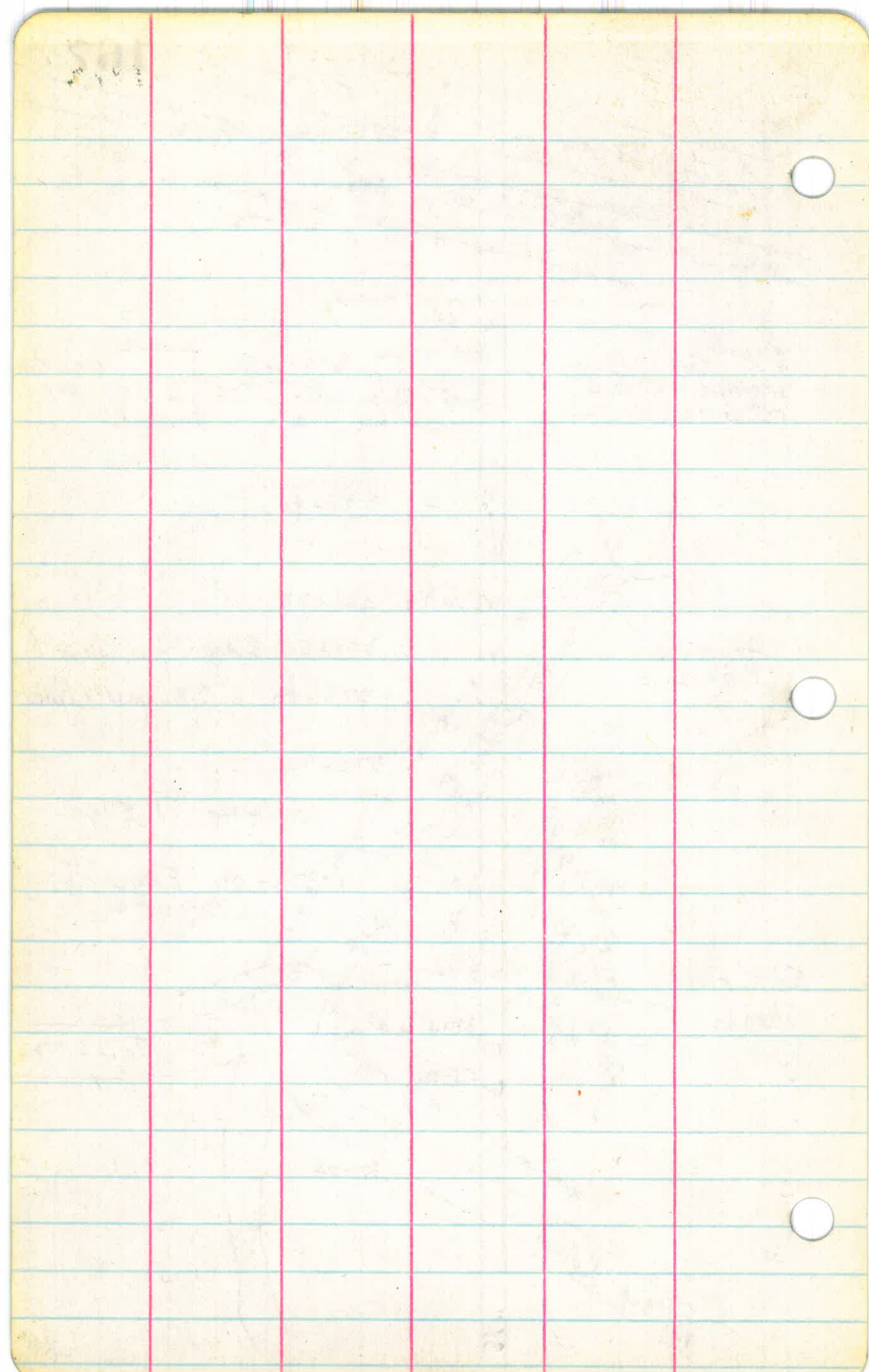
Recd 10/15
HOW

166



384449.6,





397+81
Large Pepper Tree

458+05.5
End of Riveted
Steel Pipe.

20° → 396+97

6° → 395+33

395+15

Flower
Gardens.

Angle in Pipe 389+60

388+50

Adobe Soil

388+19.

4° 387+70 Large
Tree
387+62

3° 387+60 Large Tree.
387+20

386+35

5° 386+10

Large Trees

4° 385+90

36" W.S. Pipe

Pipe

Trestle # 28

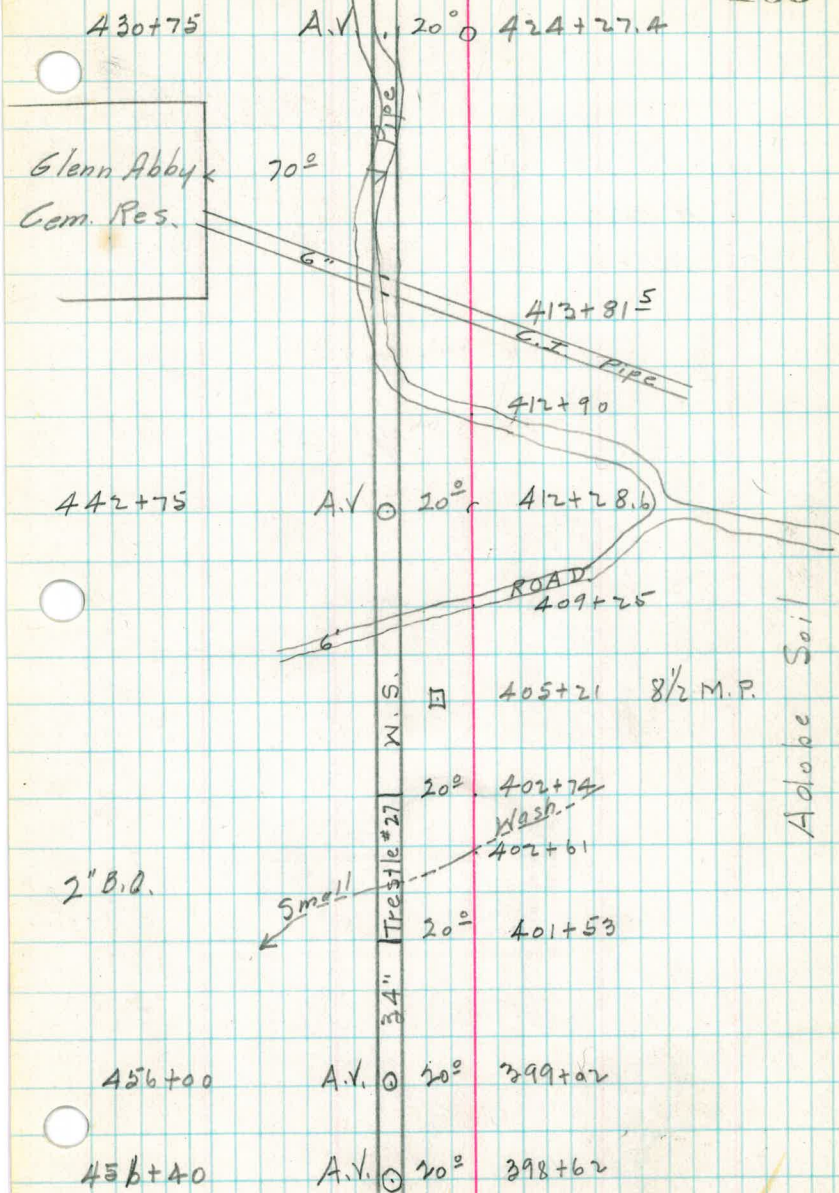
36" W.S. Pipe

36"

Lemon
Orchard

A.V. to be installed here.
2 Trees to be
removed.

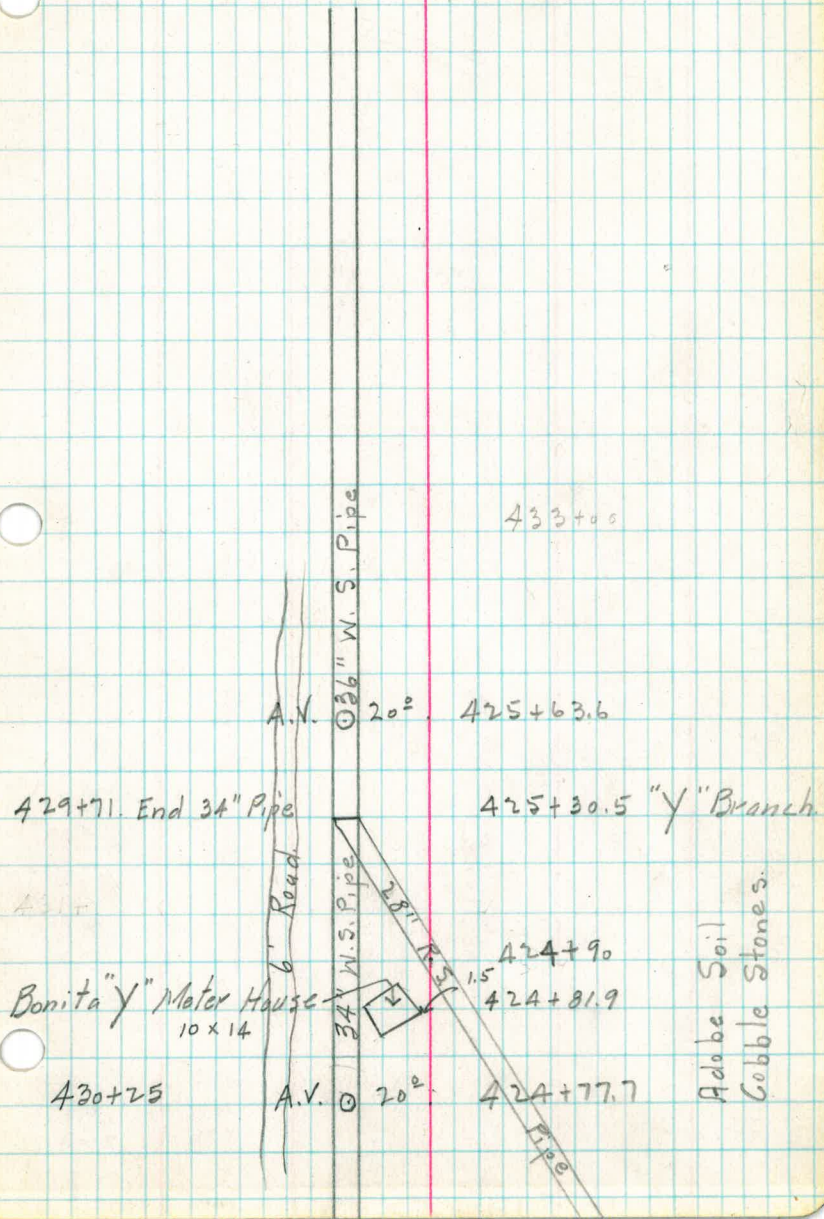
Levels 5 or 10 ft. Left
from 412+28.6 to Bonita "Y".



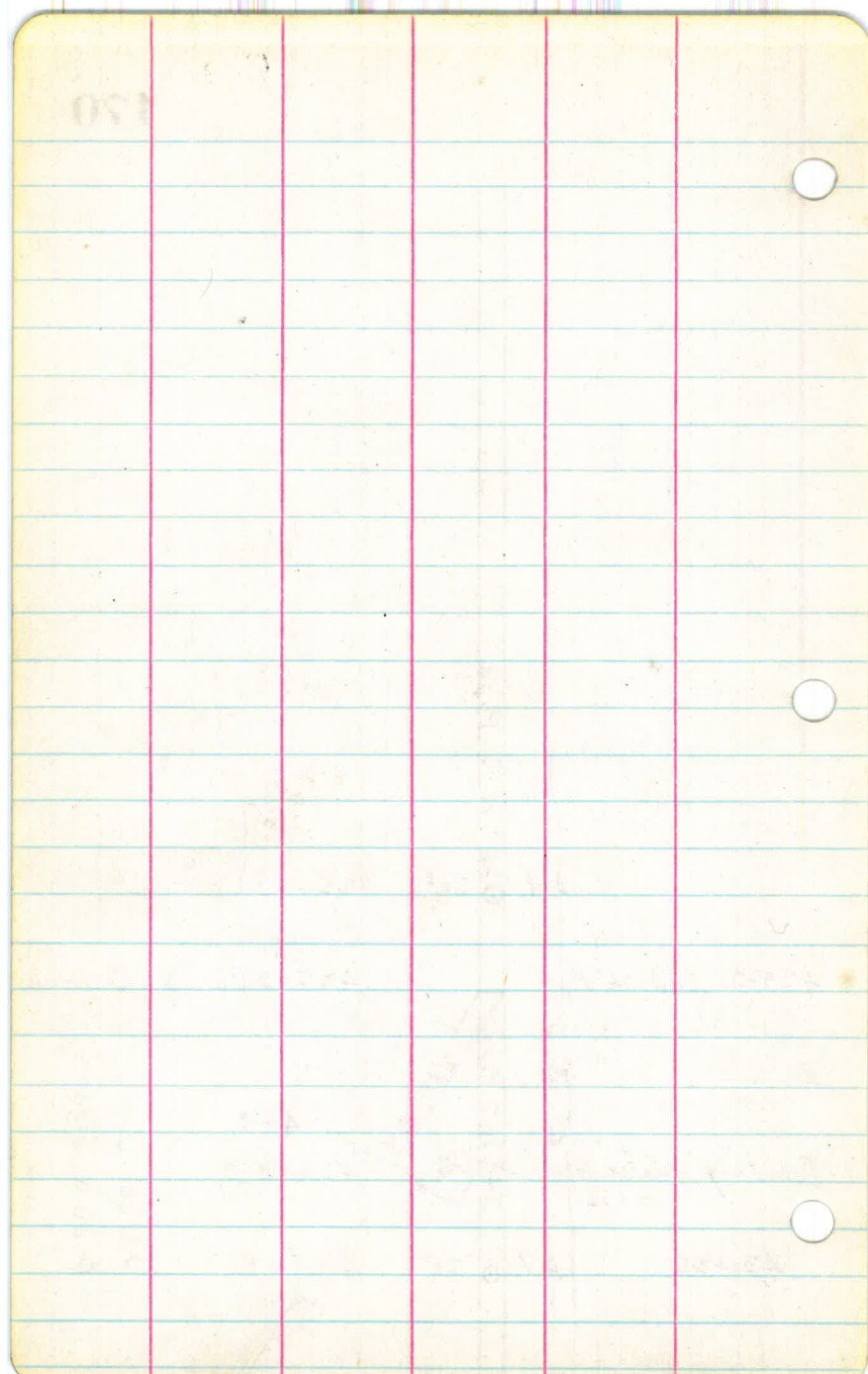
021

429+78.2

427+71



Adobe Soil
Cobble Stones.



Recd.
10/15/28
HDW

171

2" B.O.

Small Draw

477+30

476+75

475+50

A.V. 20° 470+14³

A.V. 20° 462+36.4

Edge Cult. Pipe 454+70 Land.

402+63. 4" B.O. Conc. 4x4 Box

454+43²

Edge Cultivated 453 Land.

451+93

449+84

445+30

Δ Left

441+80

A.V. 20° 441+14²

A.V. 20° 425+63.6

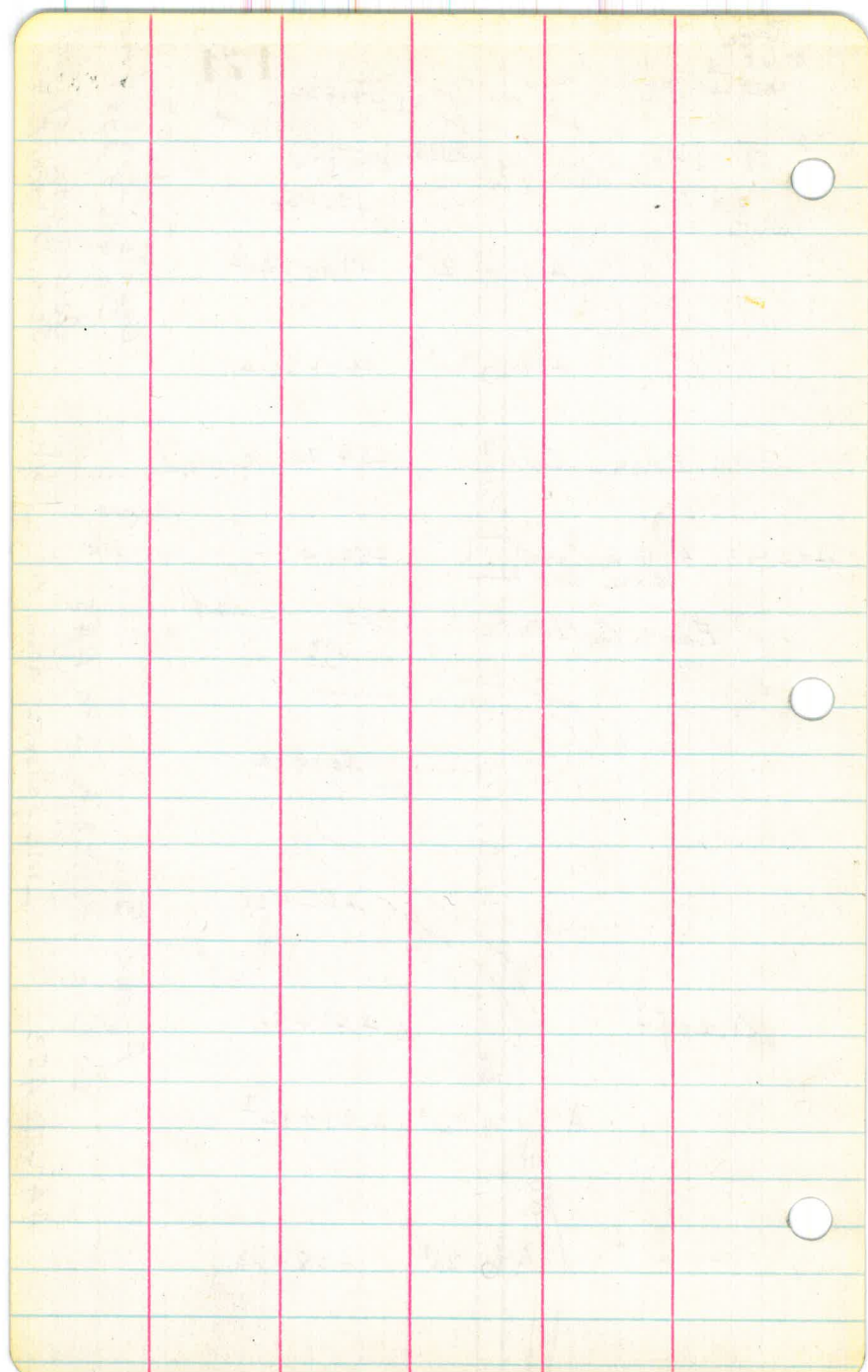
Adobe Soil.
Cobble Stones from
Sta. 456 to 478
Outcroppings of Sand
Stone, Sta. 461 to 466

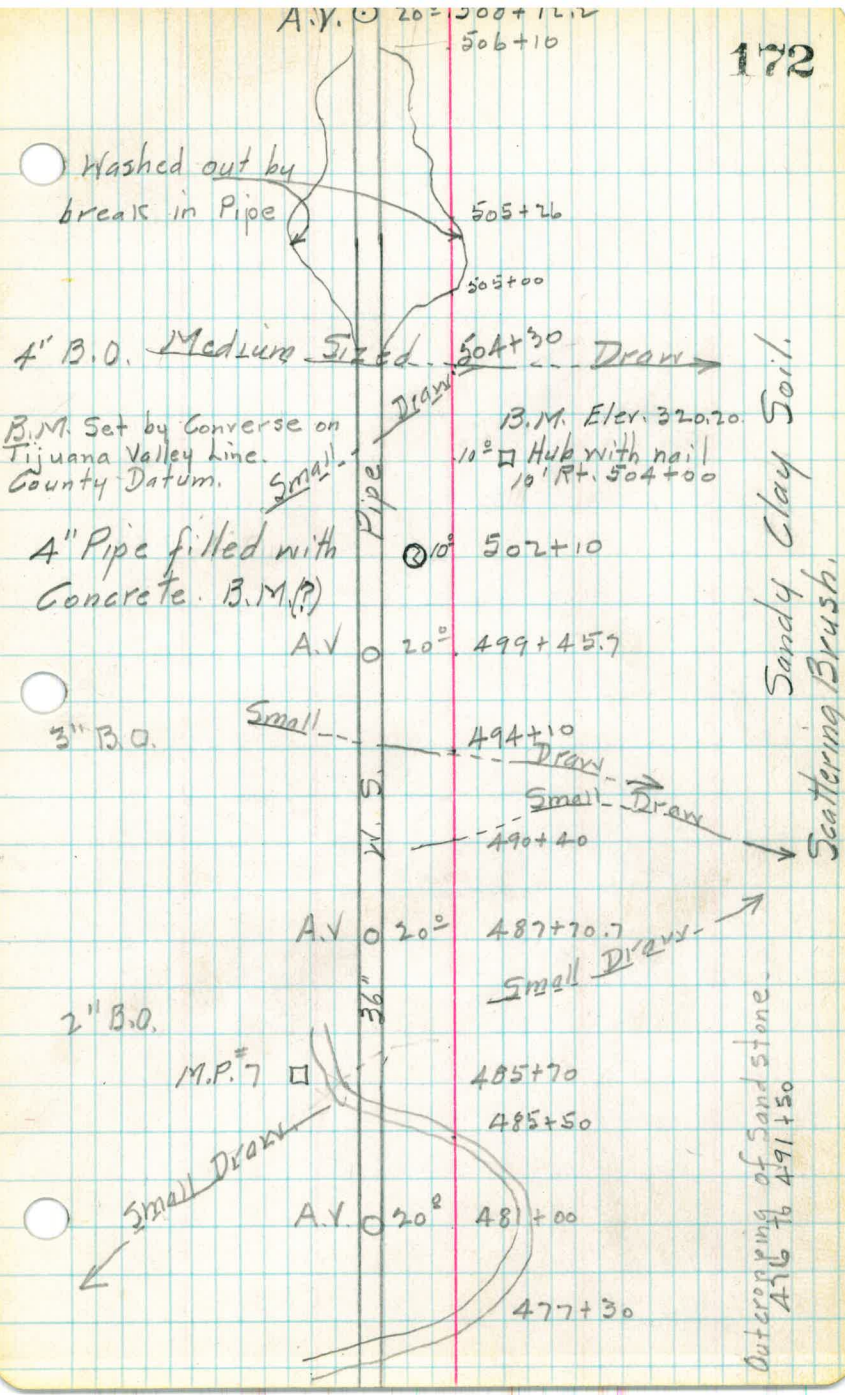
Large
Canyon.

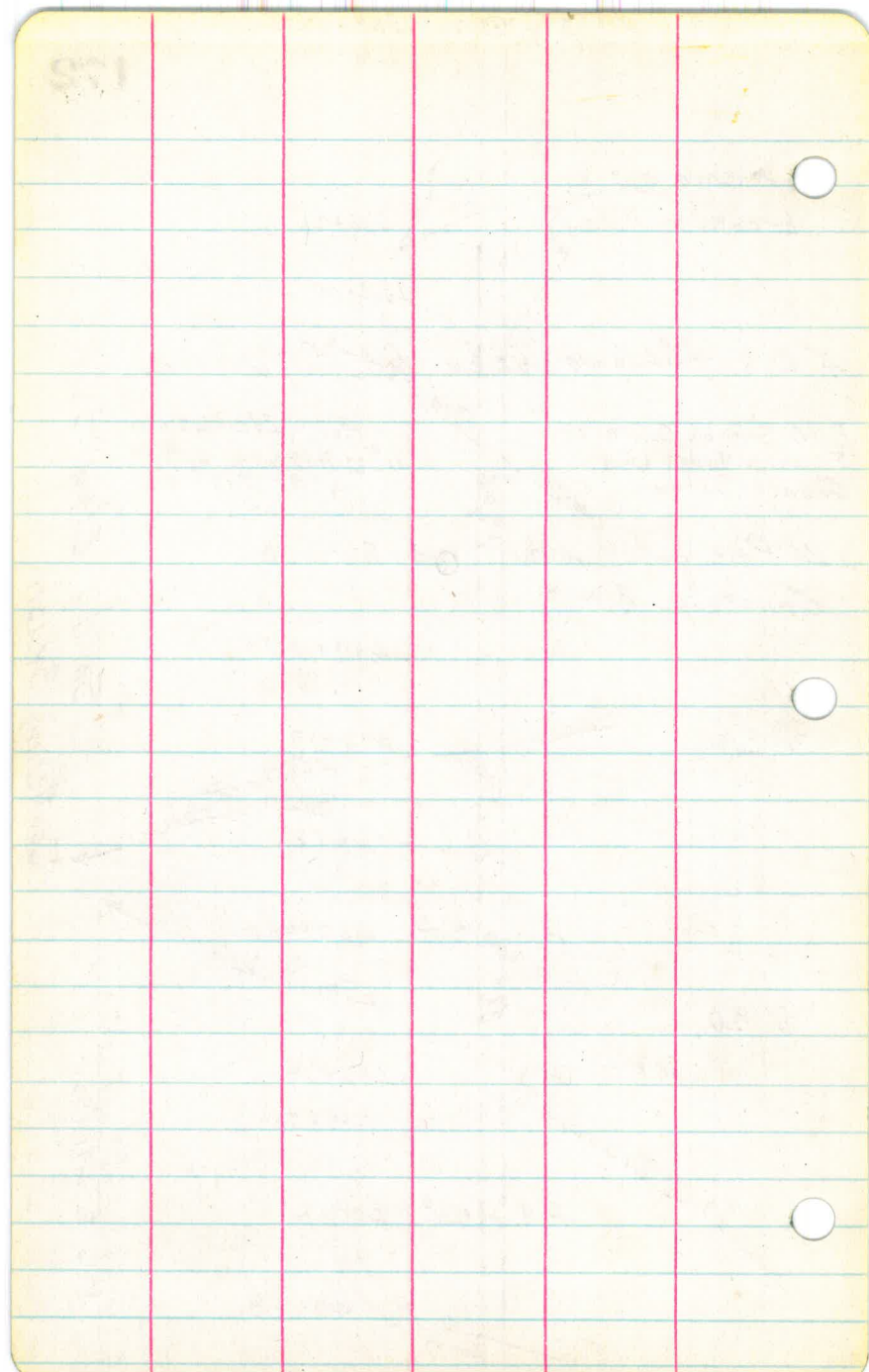
Adobe Soil
Cobble stones to Sta. 445.
442 to 453
Line follows down ridge of hill.

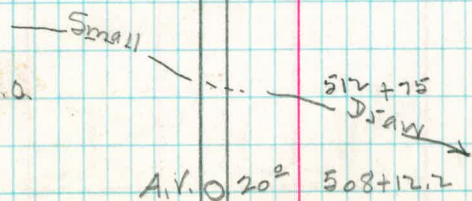
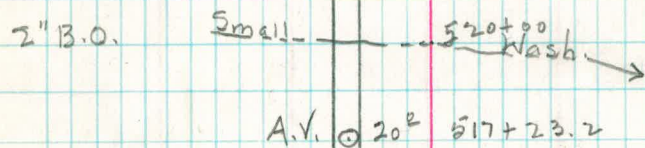
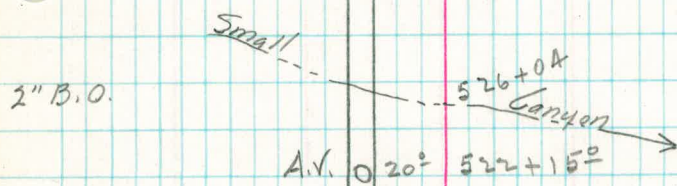
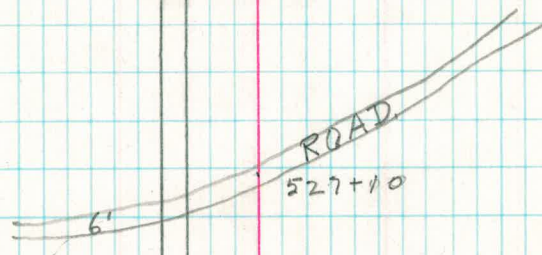
ROAD
36"

W.S.

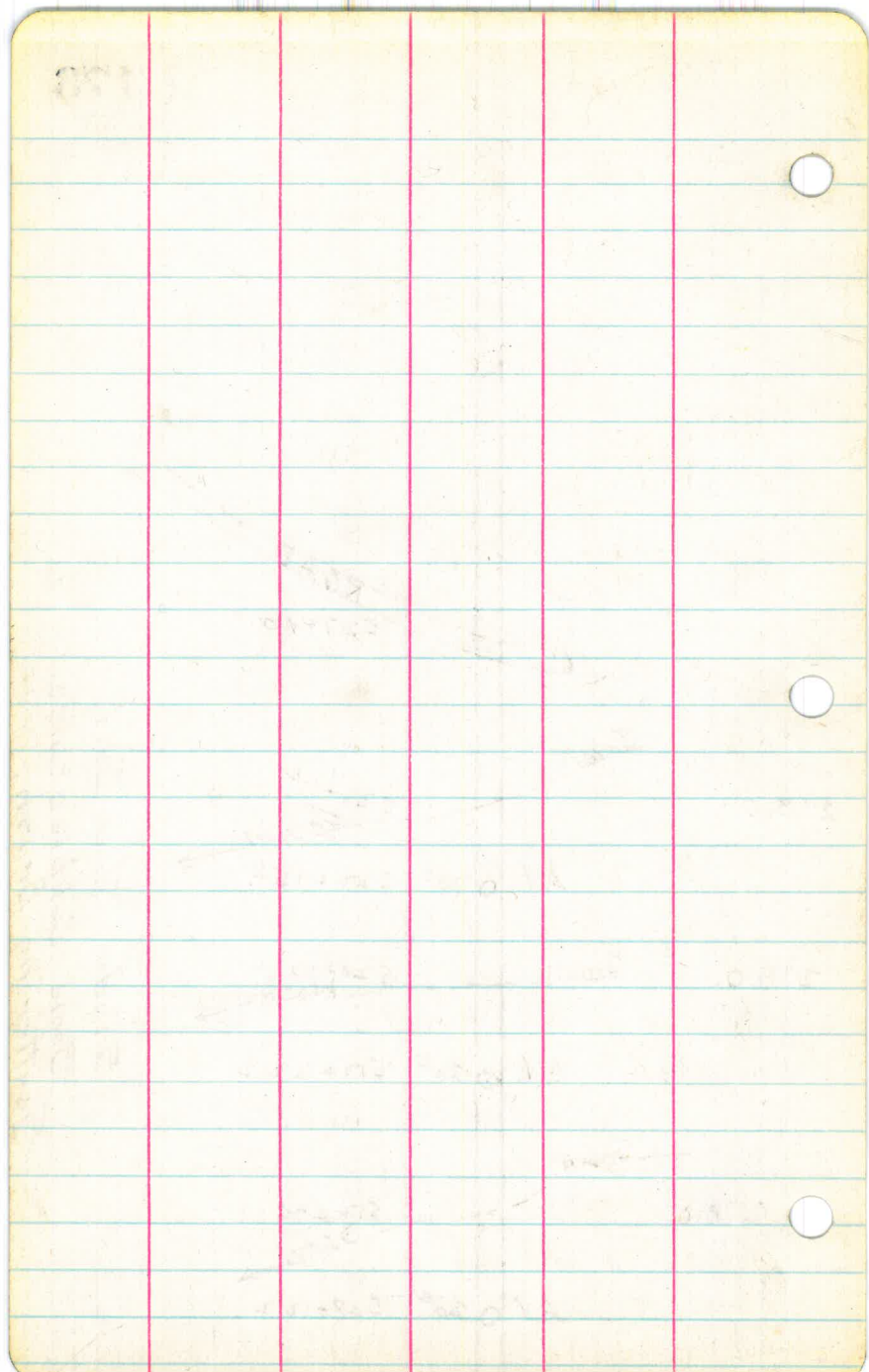






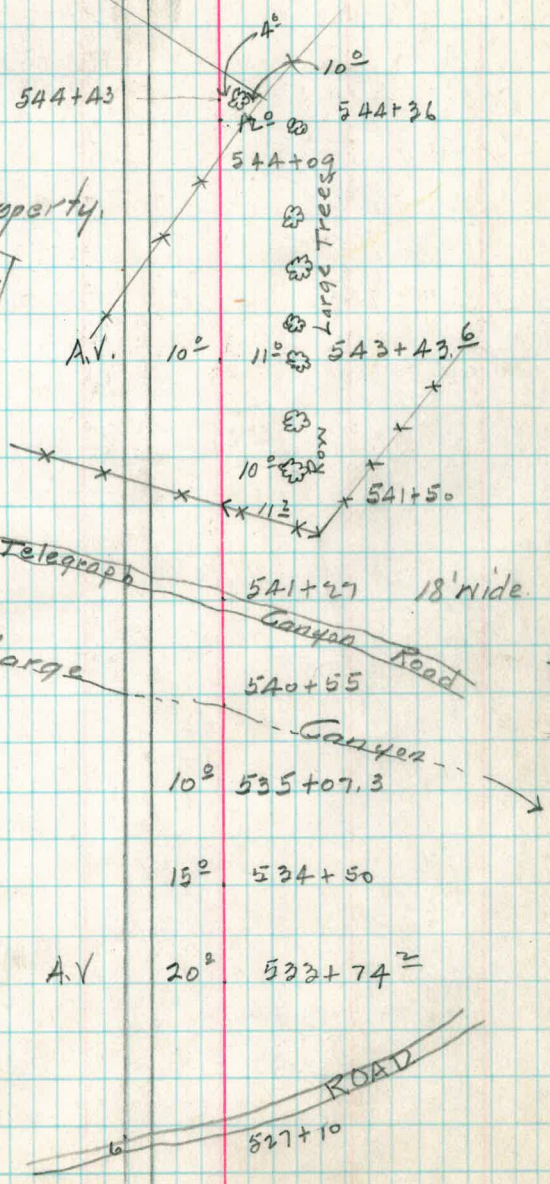


Sandy Clay Soil.
Some Cobblestones.
Scattering Brush.



Recd.
10/14/38
H.D.W. 174

City Property



Soil
Clay
Scattering Brush to 541.

4" B.O.

Telegraph

541+27 18' wide

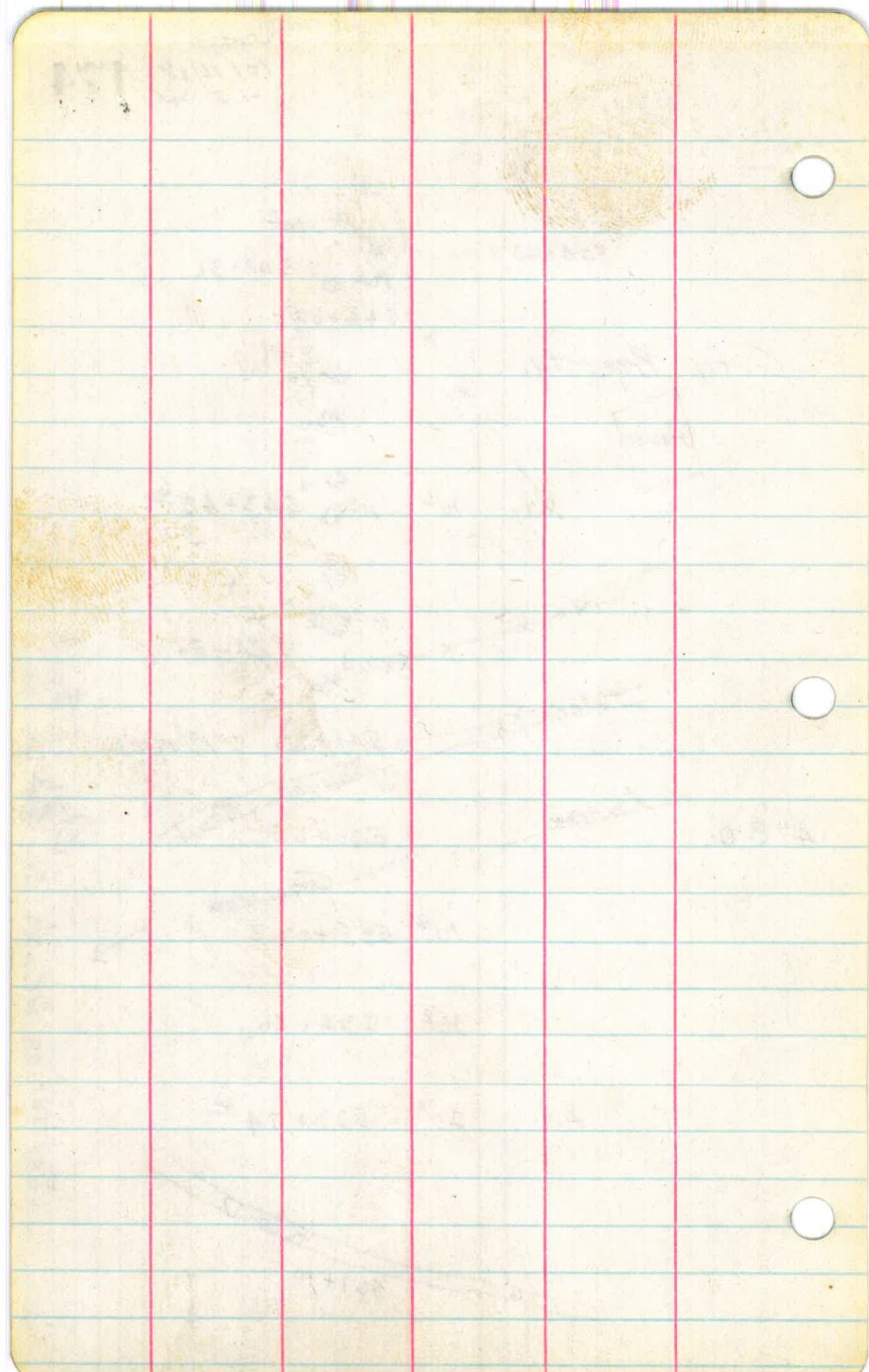
540+55

10° 535+07.3

15° 534+50

A.V. 20° 532+74

6' 527+10



4" B.O. on Old 0 556+44

Pipe

15° 556+00

10° 555+50

551+81
□ 5 3/4 M.P.

551+45

Hor. Stop Valve



549+87

A.V.

10° 549+34.2

Small Pond

545+65
15°

2" B.O.

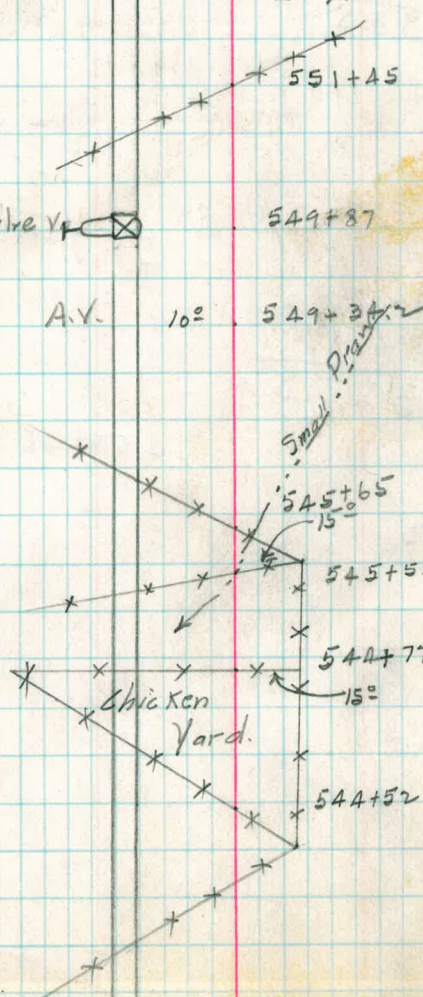
545+55

544+77

Chicken Yard.

544+52

Clay Soil



$$\begin{array}{r} 287 + 53 \\ 284 + 18 \\ \hline 338 \end{array}$$

$$\begin{array}{r} 571 + 88.8 \\ 567 + 53.7 \\ \hline 455.1 \end{array} \checkmark$$

$$\begin{array}{r} 557 + 46 \\ 1007.7 \\ \hline 567 + 53.7 \end{array}$$

$$\begin{array}{r} 2 \\ 287 + 45.3 \\ 84 + 18 \\ \hline 327.3 \end{array}$$

$$557 + 46$$

$$\begin{array}{r} 297 + 53 \\ 287 + \end{array}$$

$$568 \quad 36$$

2" B.O. Small $\xrightarrow{572+50 \text{ Draw}}$

284+18. A.V. 15° 571+99.0

$\xrightarrow{\text{Draw}}$
569+67

Small

287+45°

20° 567+64° So. Portal.

Tunnel #4.

Conc. Lined.

1007.7 Long.

3.° from Top

Pipe to Crown of
Tunnel.

Old stationing at
Portals do not
check with new
chaining. Portals
probable changed.

297+53°

20° 557+46 No. Portal.

3" B.O.

20° 566+69. E.C. of Curve

4" B.O. on Old Pipe

566+44

Scattering Brush

Soil

Clay

Tunnel #4

$$262 + 39$$

$$259 + 13$$

$$252 + 97$$

262+39 A.V. 15° 593+79.6
 590+50
 2" B.O. Short ... Trestle #22 ... 590+00 Draw →

589+46.5
 Δ 588+50 F.C.
 Δ 587+82 B.C.

269+72 A.V. 15° 586+58.1

585+11.5
 Short ... Trestle #23 ... 584+55 Draw →

583+77

273+96 A.V. 15° 582+32.2

580+15

2" B.O. Short ... Trestle #24 ... 579+50 Canyon →

578+79.5

279+10 A.V. 15° 577+18°

2" B.O. Small ... 572+50 Draw →

Clay Soil
 Scattering Brush

603+25

4" B.O. Large

611+00 Canyon

178

Short

606+82

Draw

604+56.5
M.P. # 4 3/4

603+95

Short

Trestle # 19

603+57

Draw

603+19.5

252+97

A.V. 15°

602+27.4

600+12.5

2" B.O.

Short

Trestle # 20

599+78

Draw

599+38

259+03

A.V. 15°

597+20

594+73.5

2" B.O.

Short

Trestle # 21

594+67

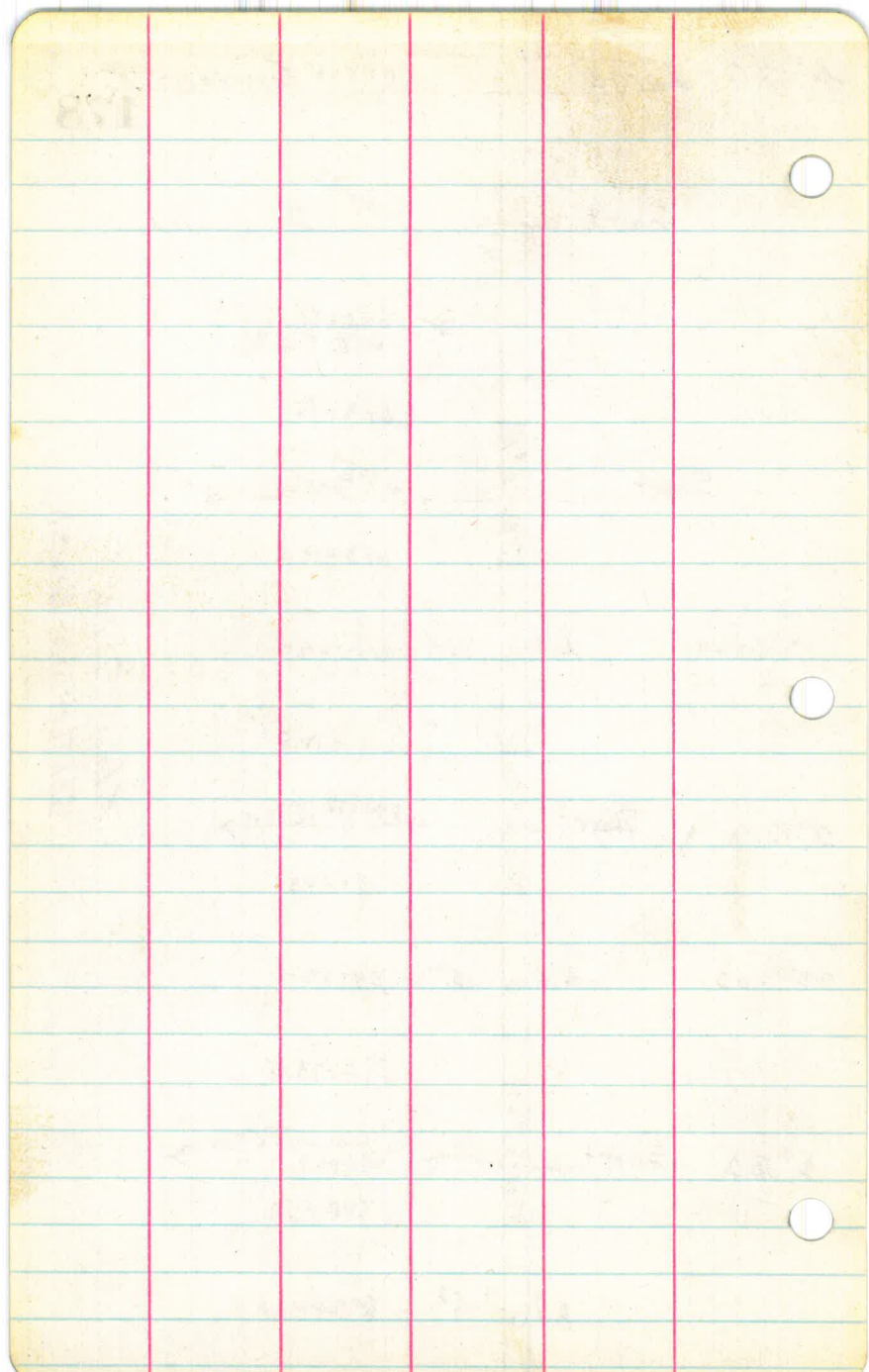
Draw

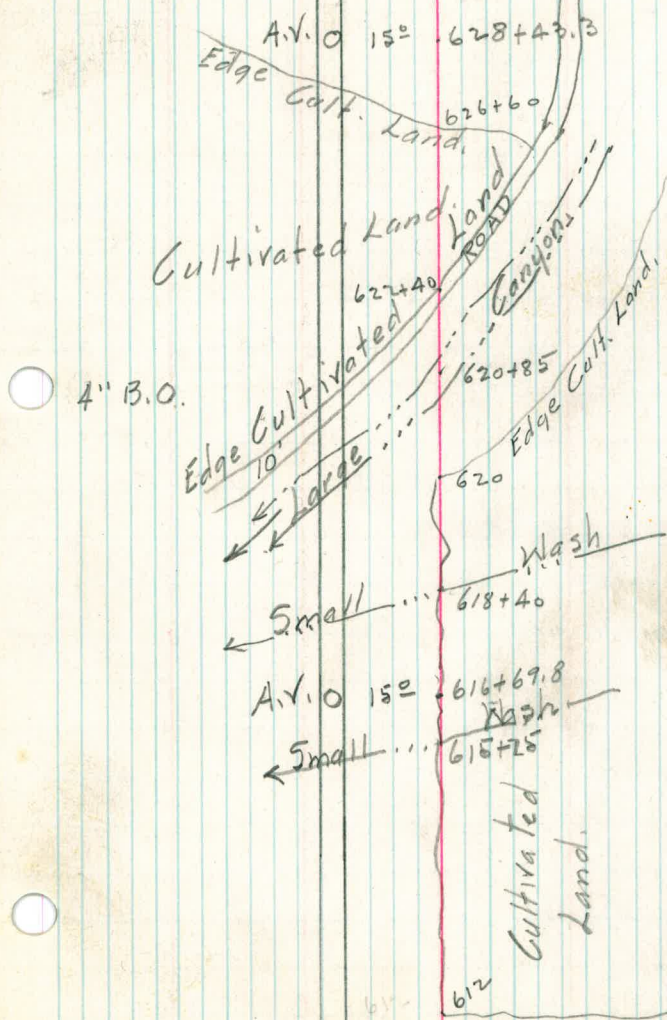
594+59

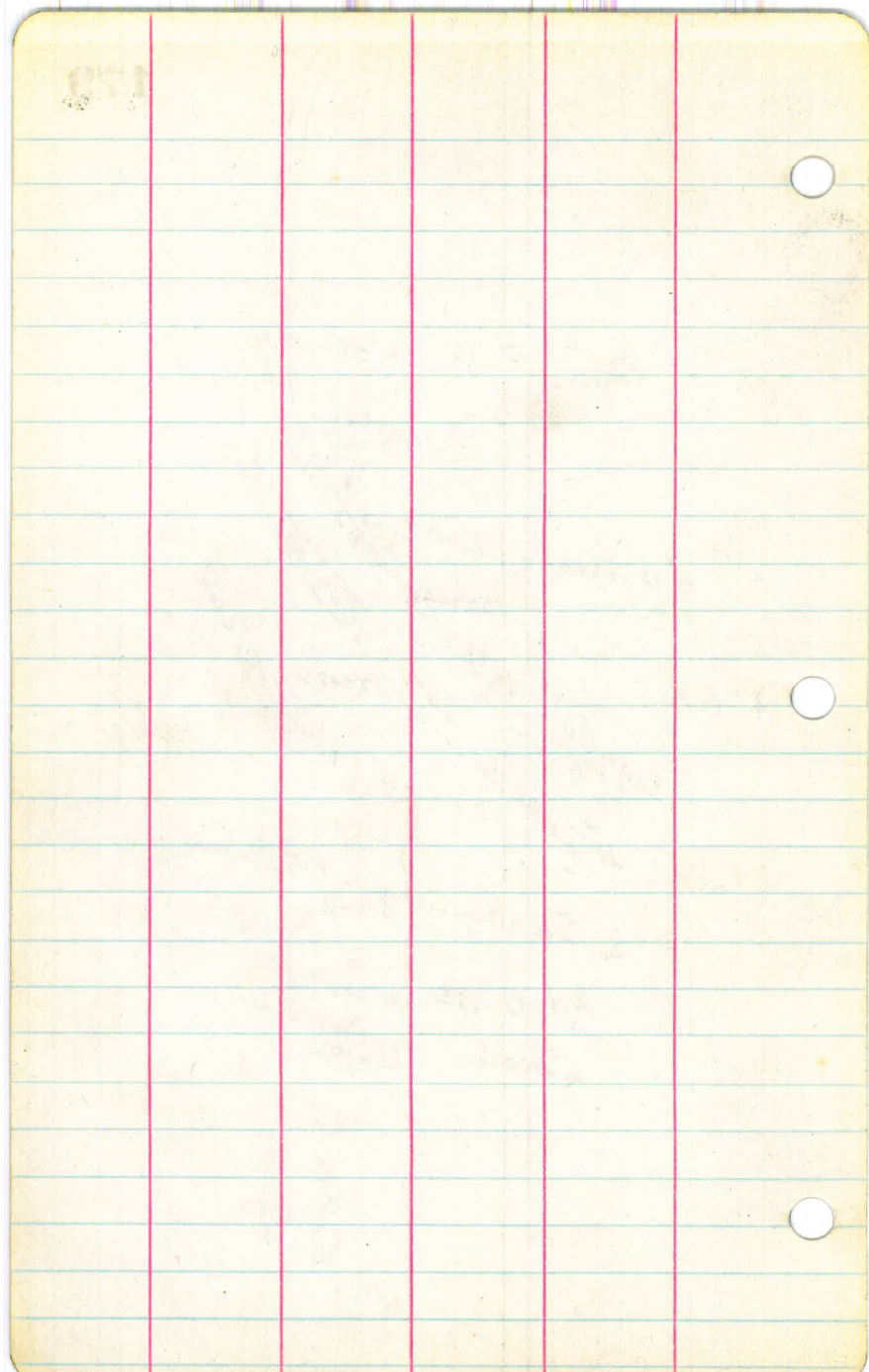
A.V. 15°

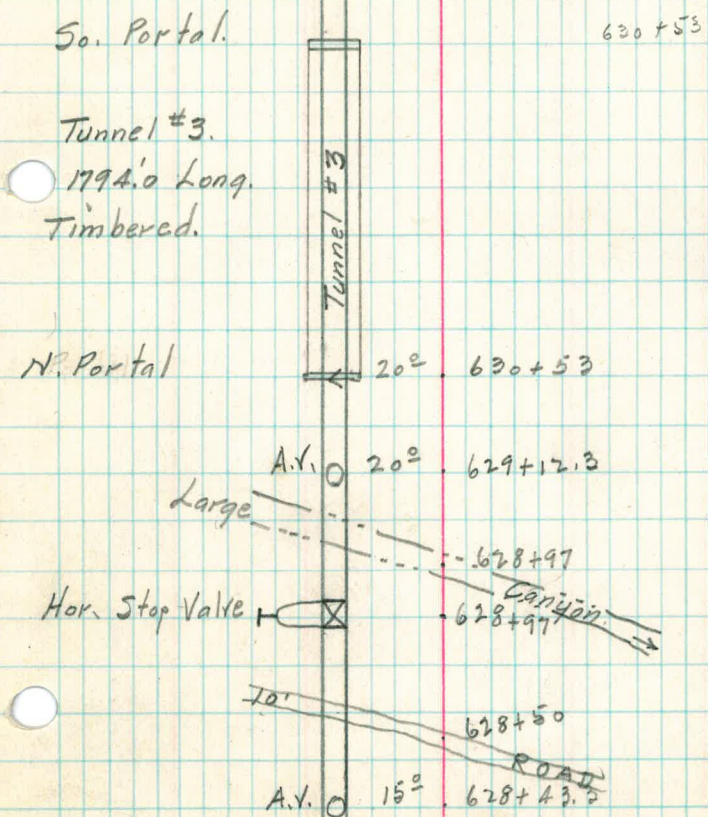
593+19.6

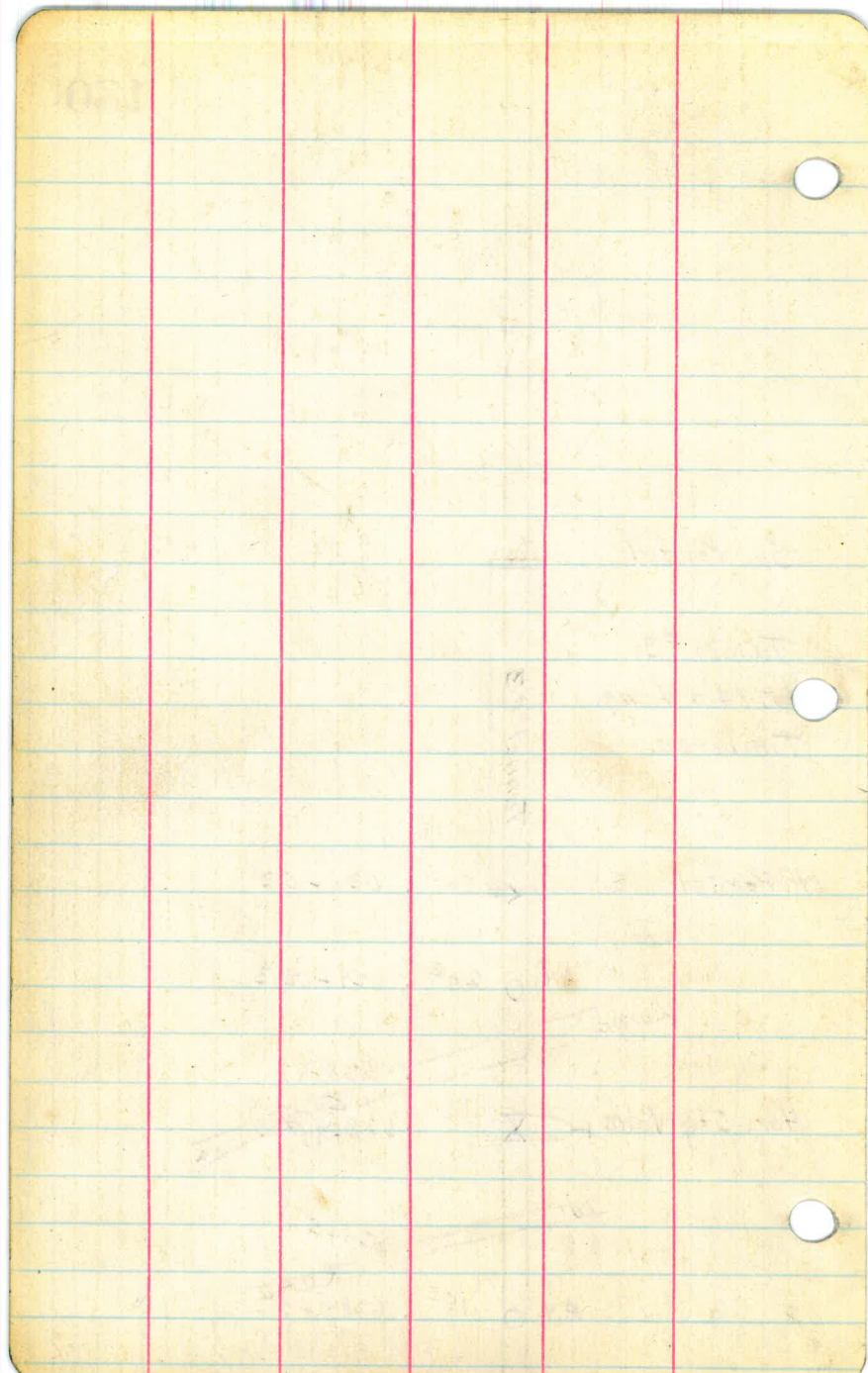
Clay Soil
Scattering Brush





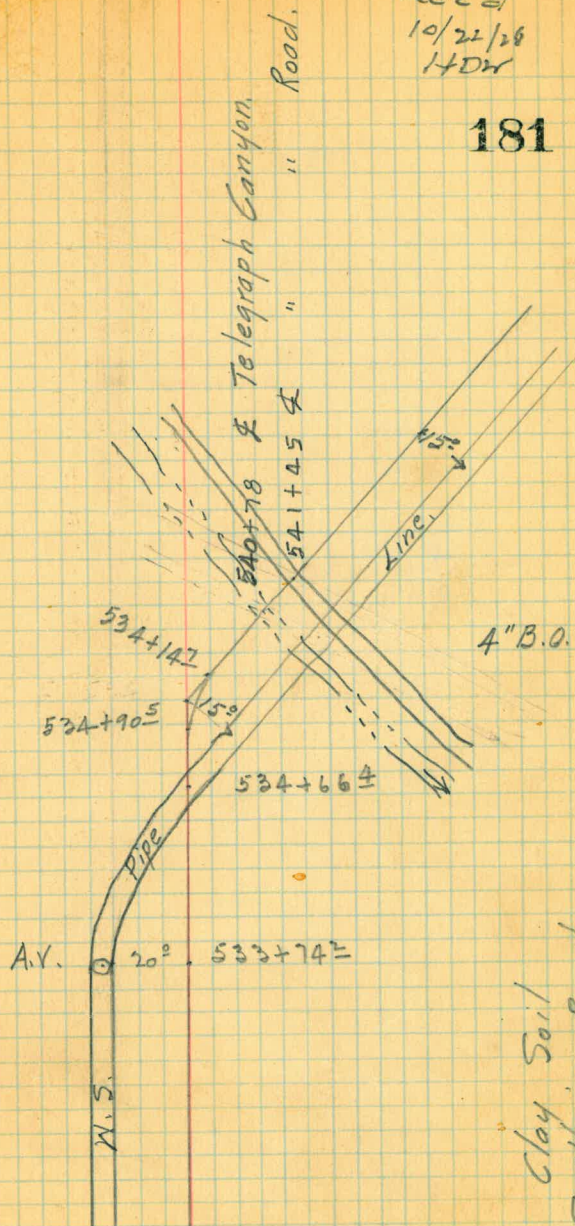






Reed
10/22/28
H.D.W.

181

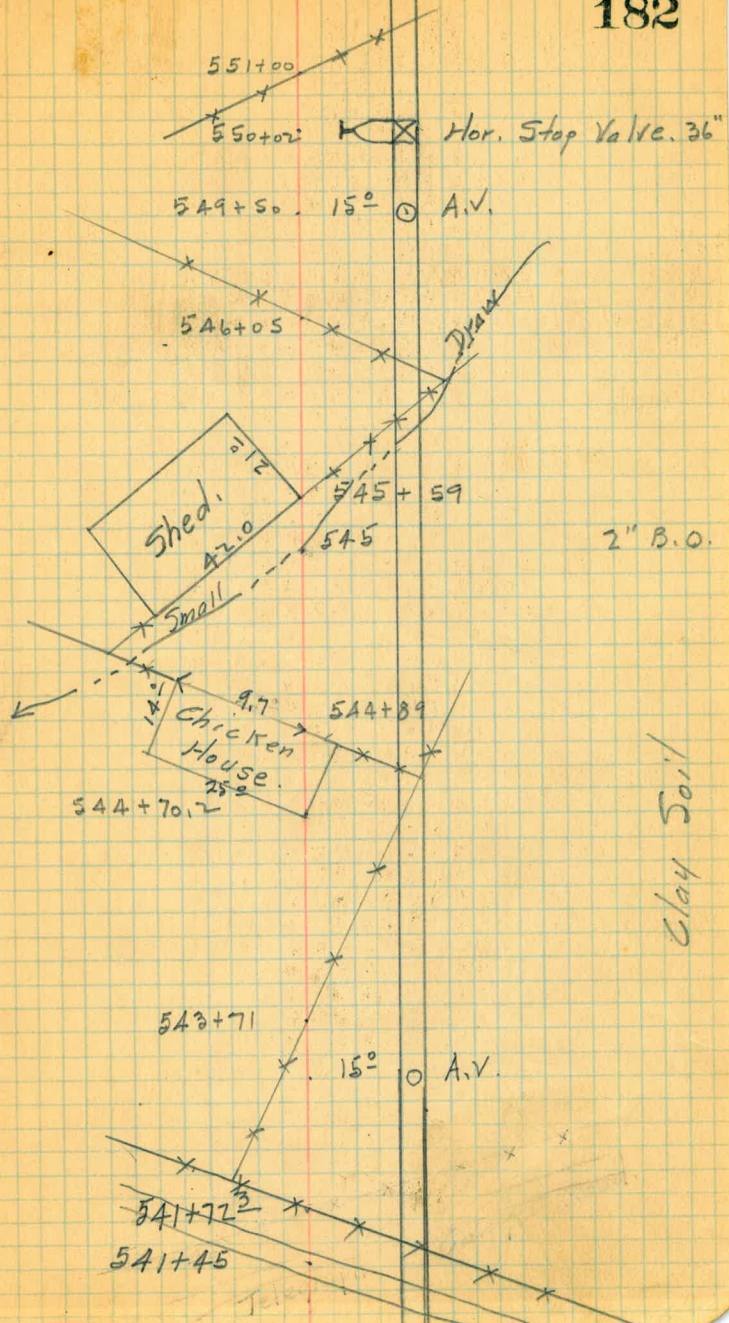


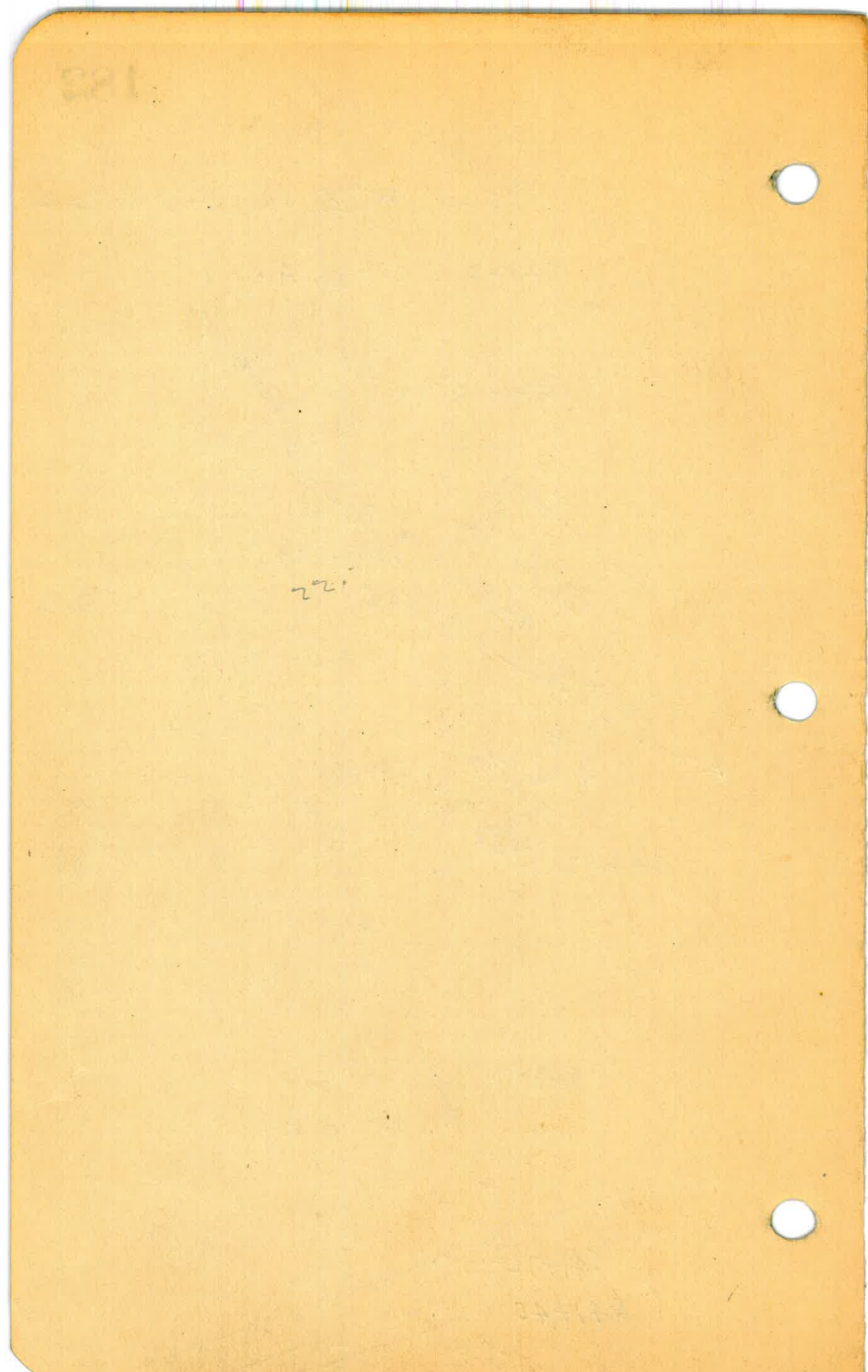
IRI

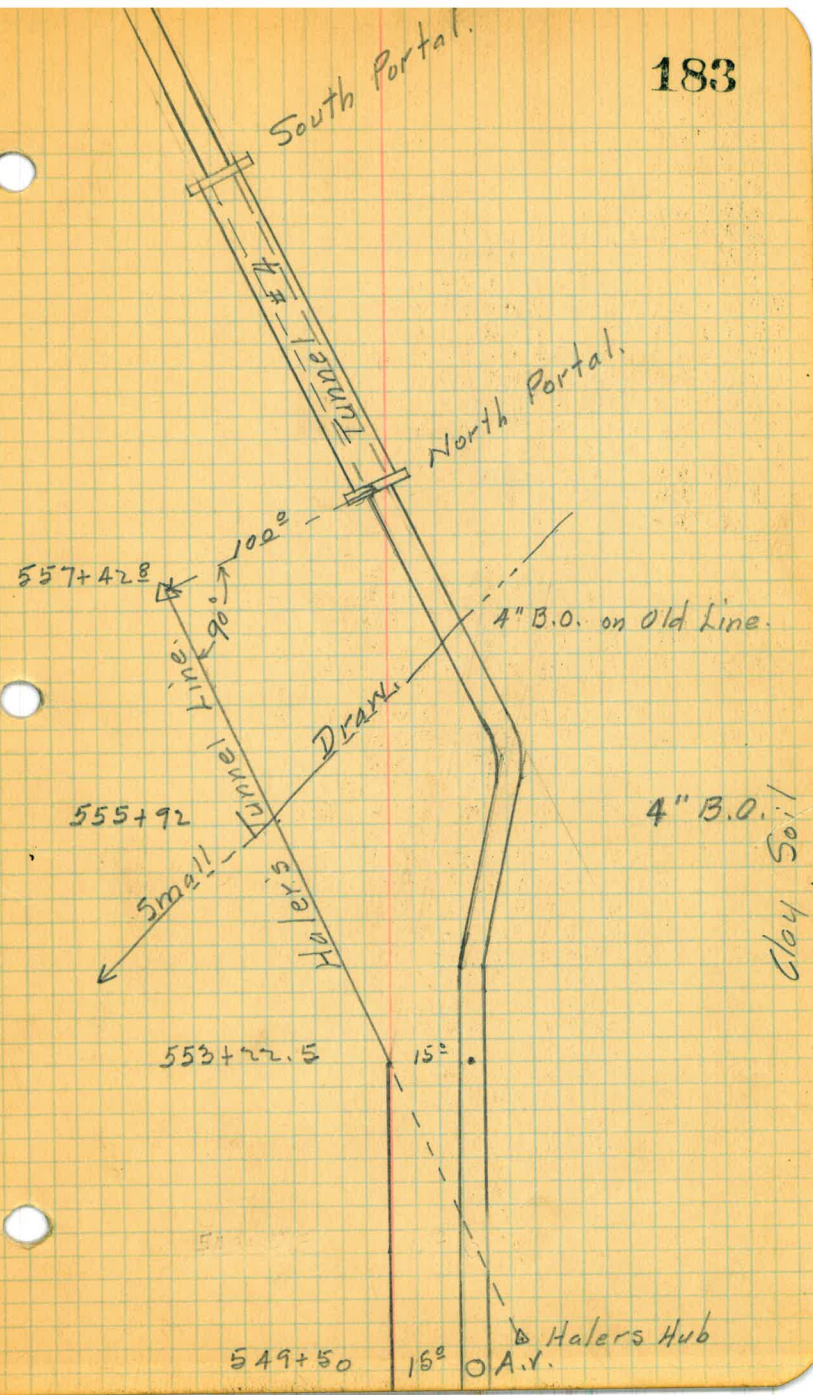
+72.3

+71

$$\begin{array}{r} 519.6 \\ 435 \\ \hline 84.6 \end{array}$$







881

571+99

568+82

567+50

582+04.7 10°

579+90

Small
579+15

578+56

576+97.7 10° A.V.

Tresle #24

Draw →

571+99° 10°

15°

571+99°
Sta. on First Line

569+75° 10°

569+15

Small

Original Williams Line
On West of Pipe Line

Wash →

Clay Soil

South Portal:
567+43.3

This stationing
backed in from Air
Valve, 571+99°

90°

20°

Tunnel #4

181

601+96t. 10² ○ A.V.

599+80 .

2" B.O.

Short $\frac{599+56}{599+06}$ --- Trestle #20 --- Draw →

596+93.L. 10² ○ A.V.

594+54 .

2" B.O.

Small $\frac{594+48}{594+40}$ --- Trestle #21 --- Draw →

593+61.1. 10² ○ A.V.

590+31 .

2" B.O.

Short $\frac{589+75}{589+26}$ --- Trestle #22 --- Draw →

586+26.9. 10² ○ A.V.

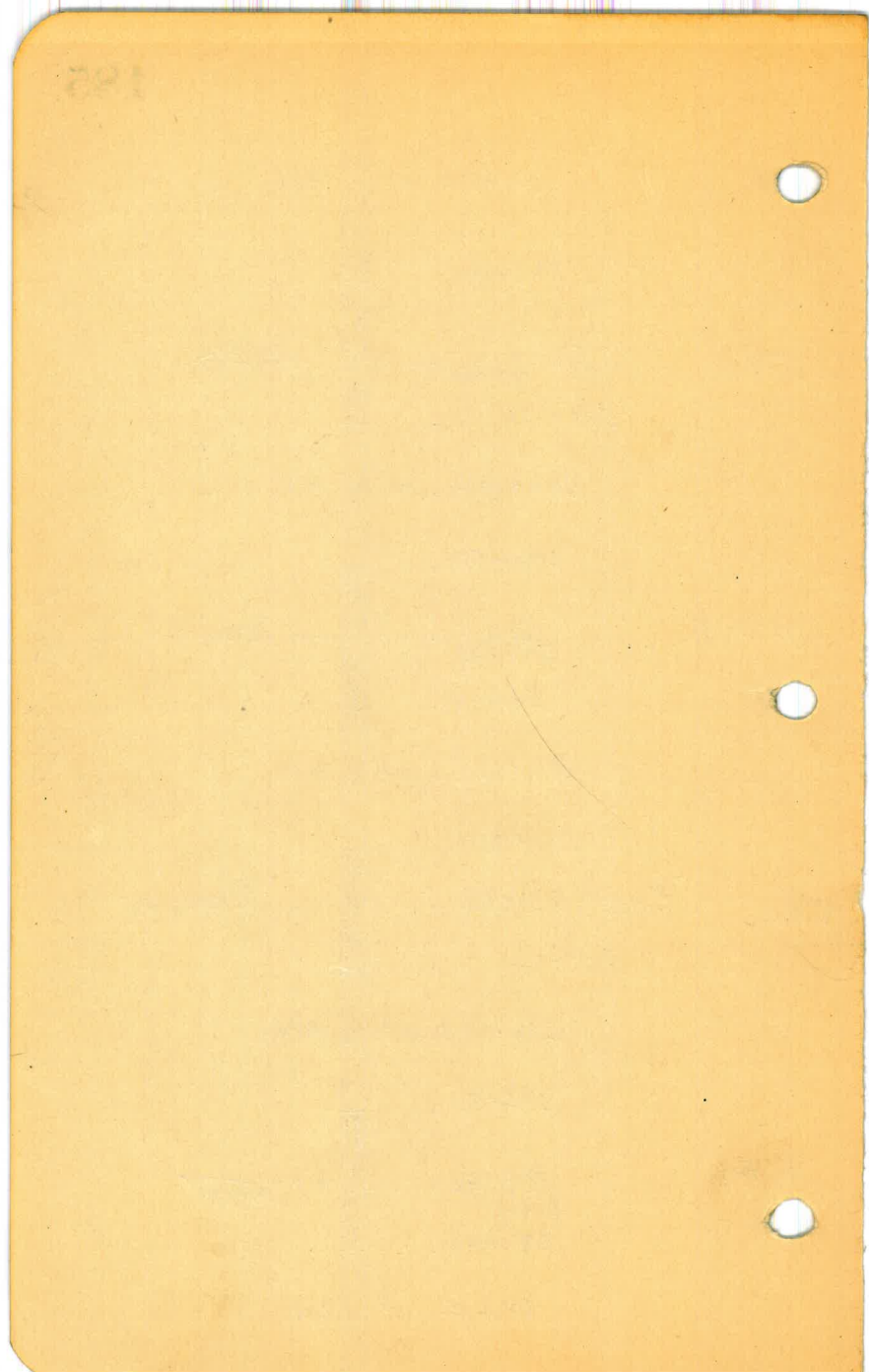
584+80 .

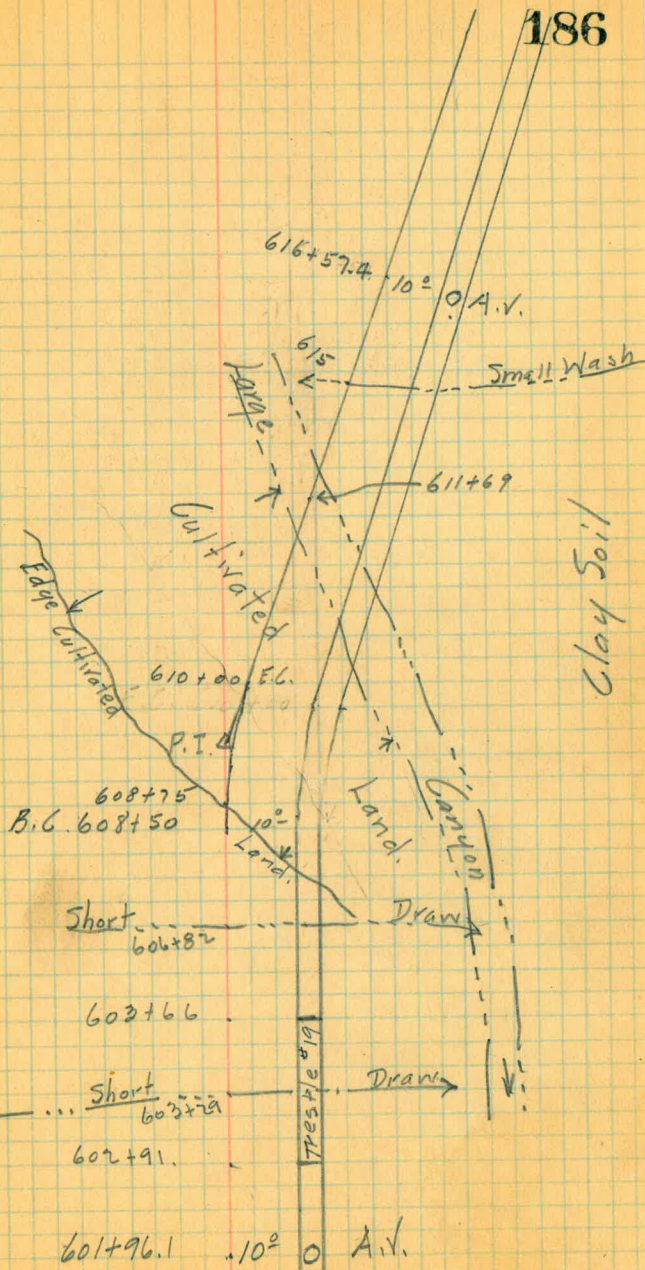
No B.O.

Small $\frac{584+30}{583+46}$ --- Trestle #23 --- Draw →

582+04.1. 10² ○ A.V.

Clay Soil





$$\begin{array}{r}
 226 + 80.8 \text{ E.C.} \\
 224 + 45.5 \text{ B.C.} \\
 \hline
 235.3
 \end{array}$$

$$\begin{array}{r}
 26 + 80.8 \\
 24 + 28.4 \\
 \hline
 252.4
 \end{array}$$

$$\begin{array}{r}
 224 + 45.5 \\
 \quad \quad 28.4 \text{ Portal.} \\
 \hline
 17.1
 \end{array}$$

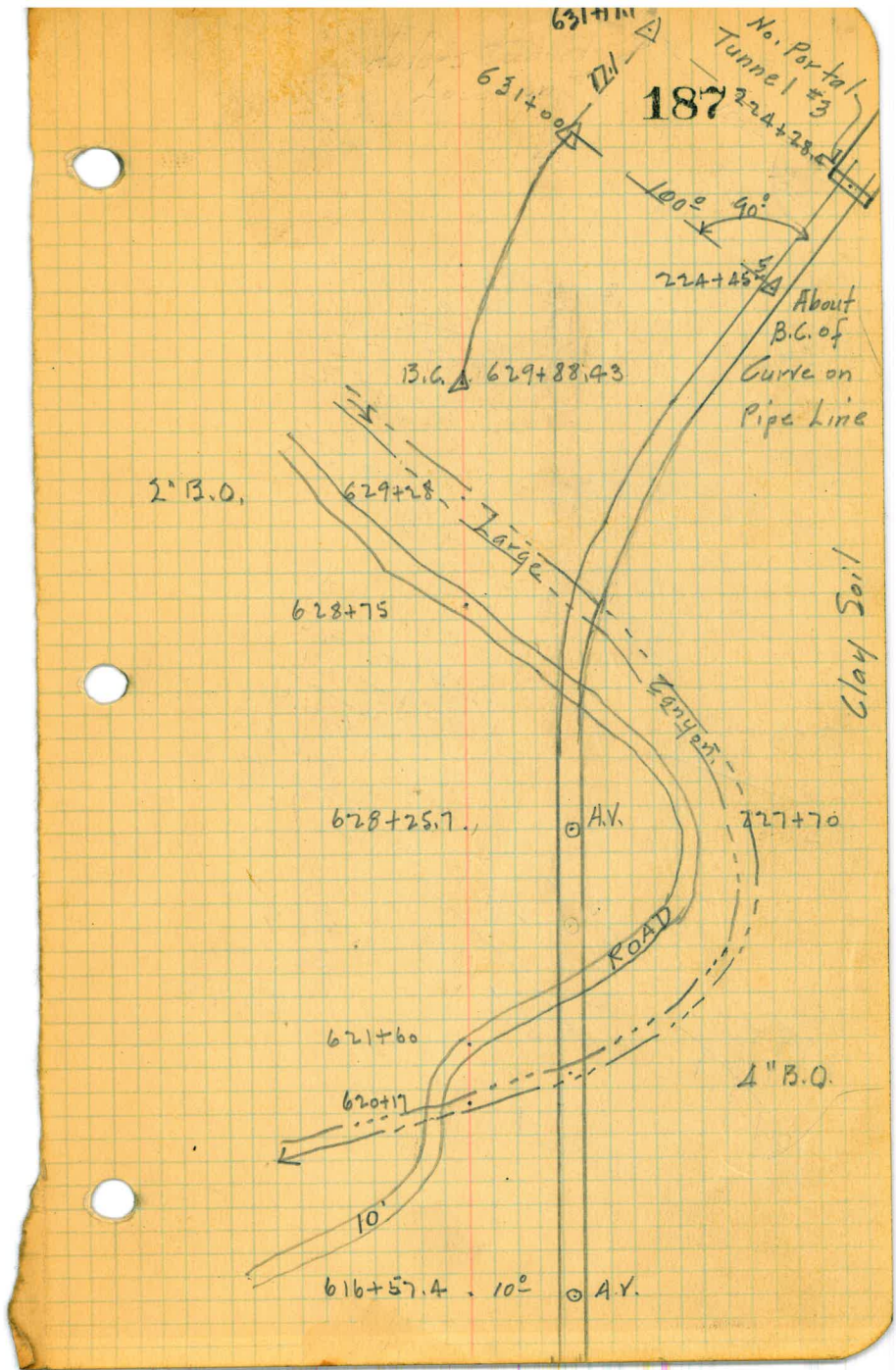
$$\begin{array}{r}
 45.5 \\
 28.4 \\
 \hline
 17.1
 \end{array}$$

$$\begin{array}{r}
 224 + 45.5 \\
 \quad \quad 135.8 \\
 \hline
 225 + 81.3 \text{ A.V.}
 \end{array}$$

$$\begin{array}{l}
 628 + 0.72 = 226 + 80.8 \\
 629 + 88.43 \text{ B.C.}
 \end{array}$$

$$\begin{array}{r}
 224 + 45.5 \\
 \quad \quad 150 \\
 \hline
 225 + 95.5 \text{ Stop Valve.}
 \end{array}$$

$$\begin{array}{r}
 224 + 45.5 \\
 \quad \quad 213.4 \\
 \hline
 226 + 58.9 \text{ A.V.}
 \end{array}$$



A.V. 205+86 206+34.4 Tunnel Portal.

206+34
147.1

204+87

(134)

204+86
2 99.6

186.4

206+34.4
47.2
12.8

331.52
344.32

331.52
12.8

318.72

206+47.2
52.8

651+75.5
649+11.1

264.4
52.8

317.2

1794
17.1
1811.1

631+00
18+11.1
649+11.1

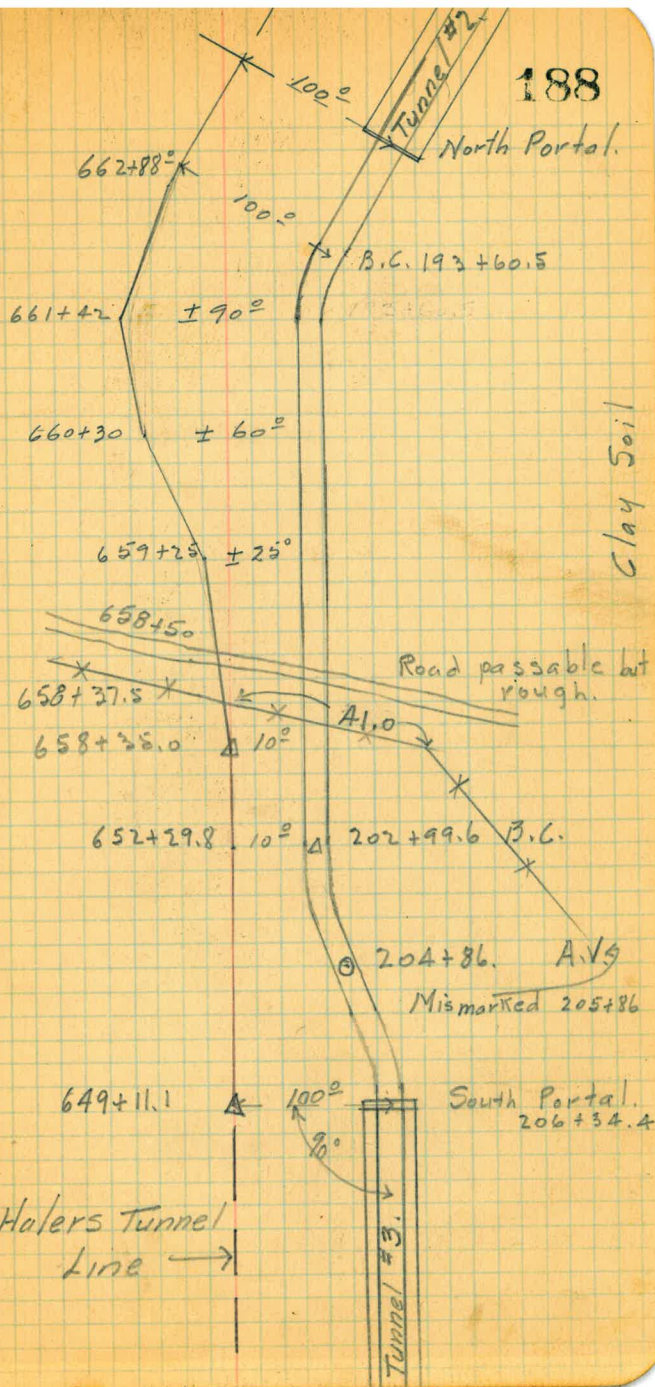
264.4

207
202 99.6
400.4

658+47

37.5

North Portal.



Halers Tunnel Line →

Tunnel #3.

Clay Soil

A1.0

A.V.S

South Portal.
206+34.4

Mismarked 205+86

202+99.6 B.C.

A1.0

Road passable but rough.

652+29.8 10°

658+28.0 Δ 10°

658+37.5 X

658+45

659+25 ± 25°

660+30 ± 60°

661+42 ± 90°

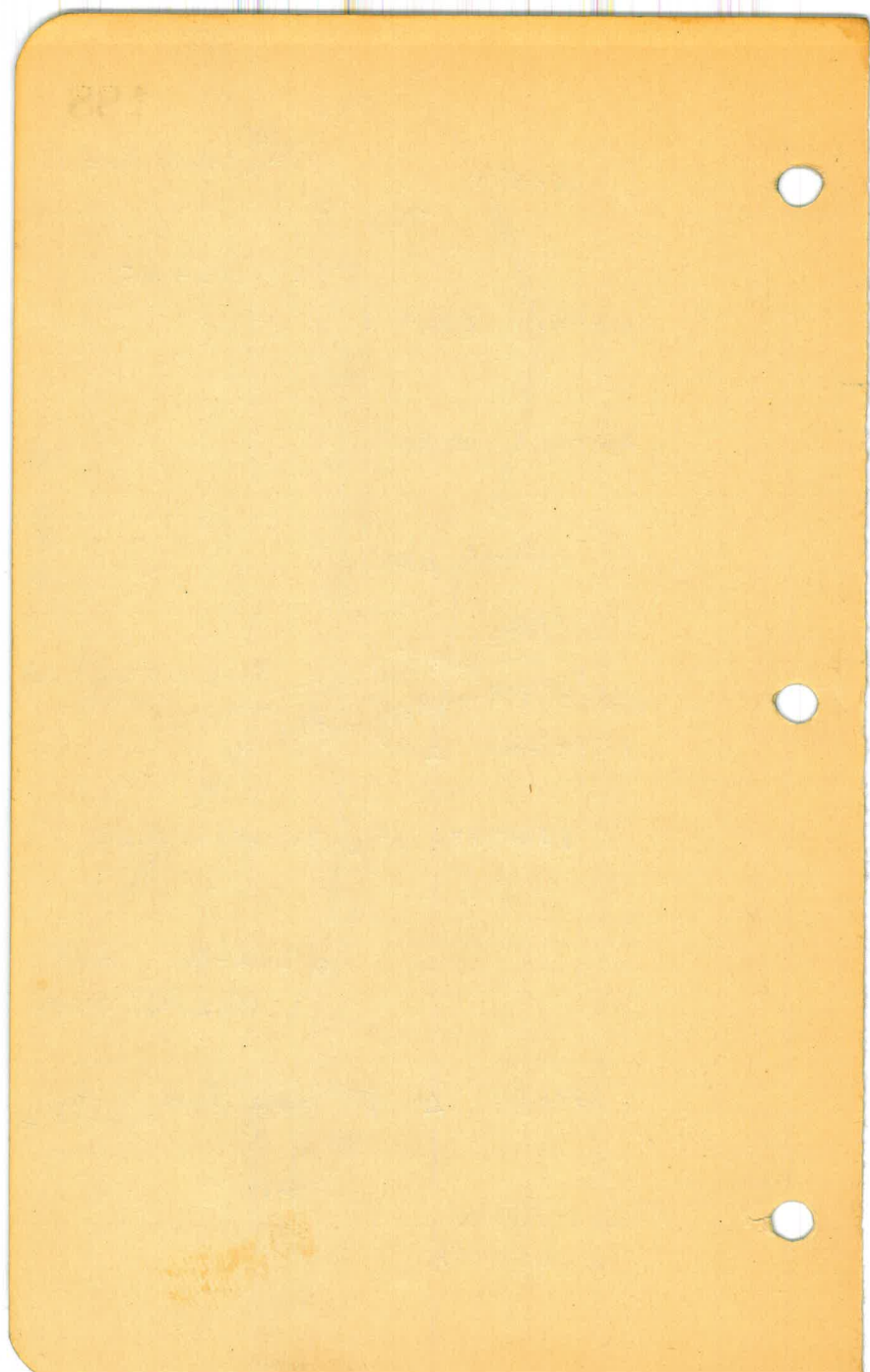
662+88 X

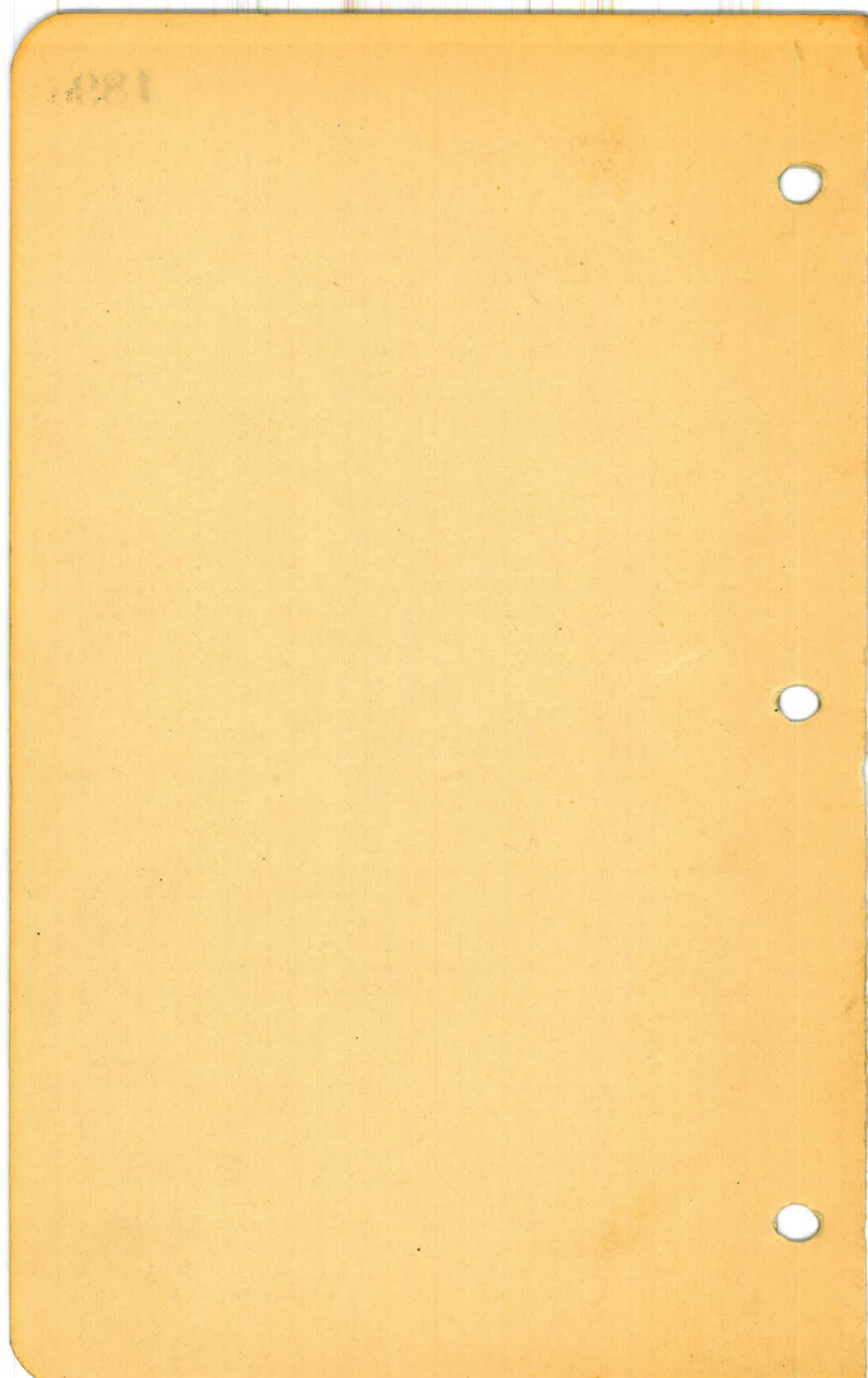
100°

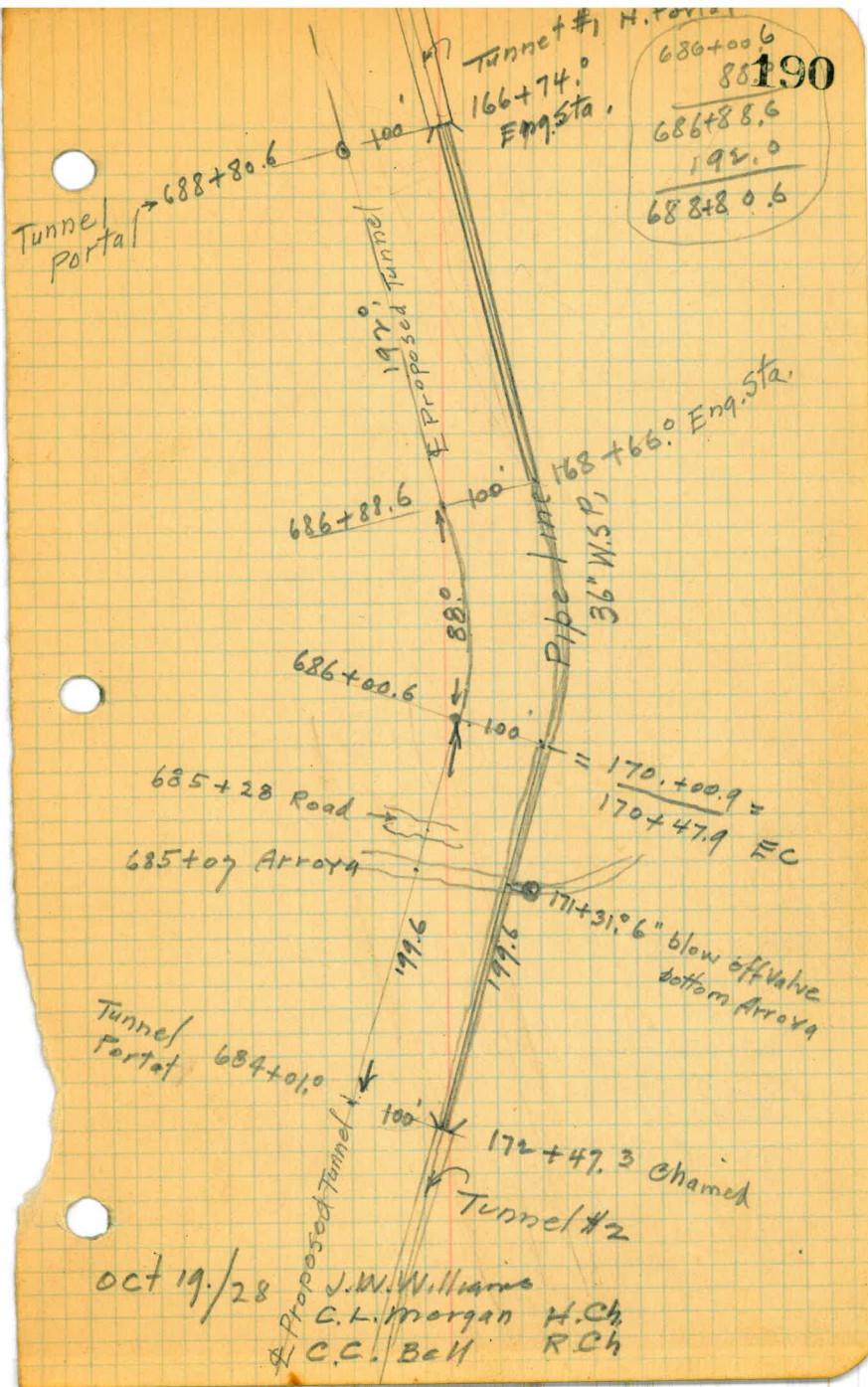
100°

B.C. 193+60.5

Tunnel #2







001

709+50, EC
 $\Delta = 440.34'$
 $R = 201.56$
 $T = 82.6$

Oct 19/28

719+88.4

720+00 End of Trussel No 18
Cross 36" W.S.P.

719+47.0 Bottom draw

N. End Trussel 719+10.5
No 18

6"

715+06.45 PC 140+78.20 Eng. Sta.

New Line 26" 36" W.S. Pipe

712+00 Air valve x 143+84.65

36" W.S.P.

710+72.0

6" 145+12.0 Eng. BC Sta.

709+50.0 = E.C. →

Trussel
146+32.5
E.C. 146+68.4
147+00

$\Delta = 44^{\circ}34'$
 $R = 201.56$
 $T = 82.6$
 $L = 156.78$

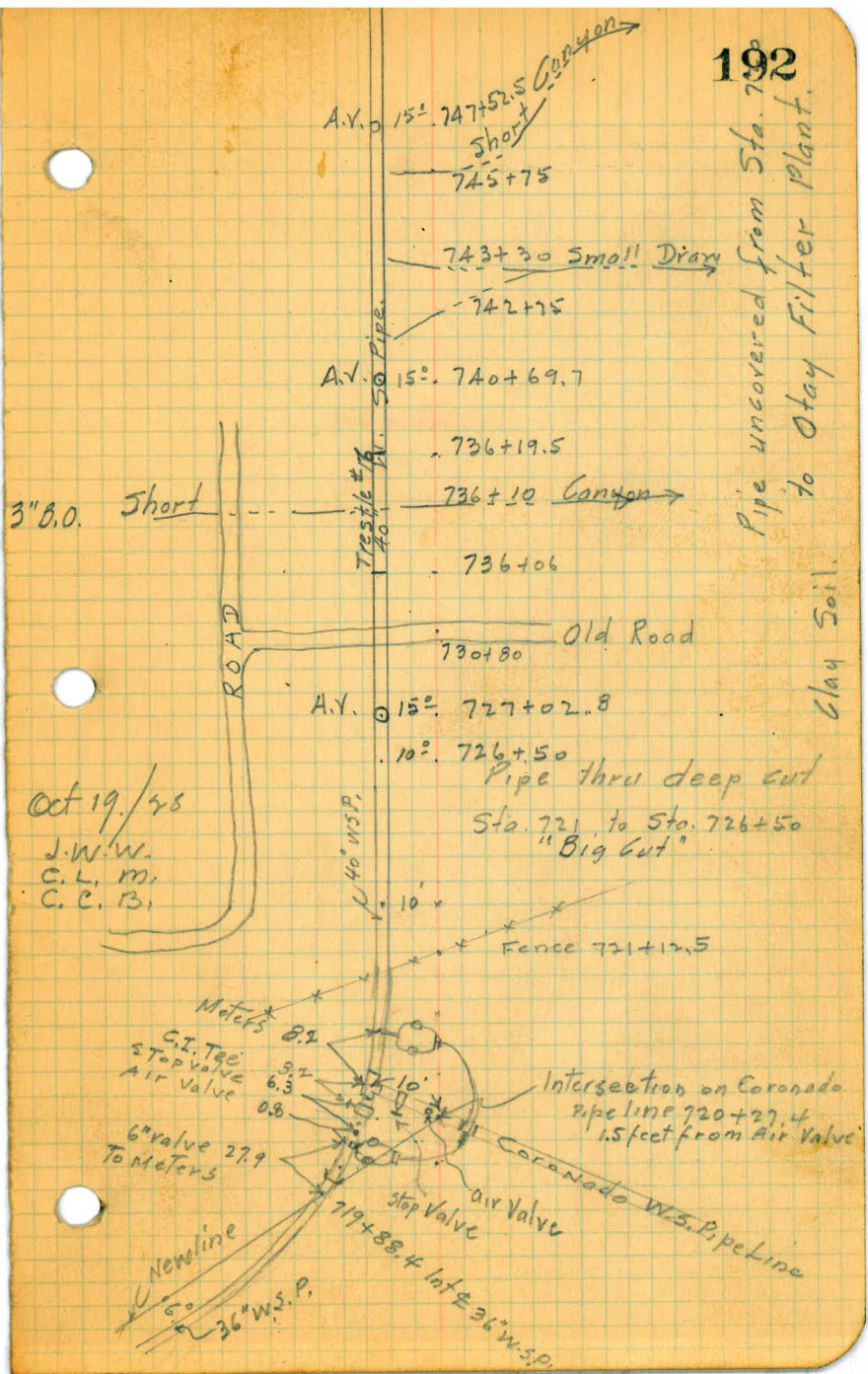
707+93.27 BC

25"

Trussel No 18

101

720+27.4 Int. Coronado line 10' over to the



3" B.O. Short

Oct 19/25
 J.W.W.
 C.L.M.
 C.C.B.

A.V. 15° 747+52.5 Canyon
 Short
 745+75

743+30 Small Drain
 742+75

A.V. 15° 740+69.7
 736+19.5

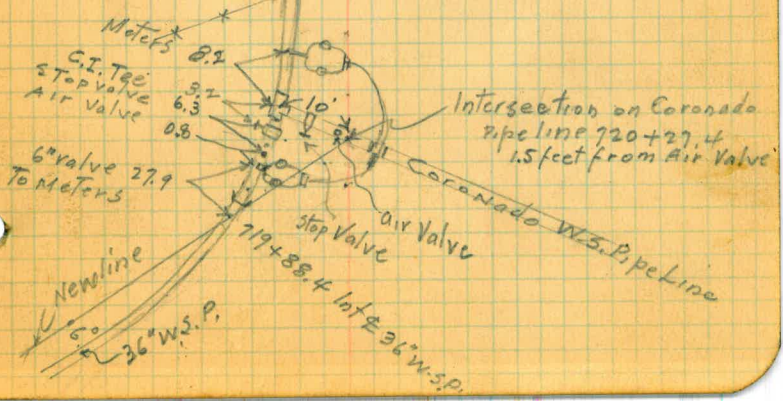
736+10 Canyon
 736+06

730+80 Old Road

A.V. 15° 727+02.8
 10° 726+50

Pipe thru deep cut
 Sta. 721 to Sta. 726+50
 "Big Cut"

Fence 721+12.5



Meters 8.2
 C.I. Tee
 Stop Valve 5.2
 Air Valve 6.3
 0.8
 6" valve 27.9
 To Meters

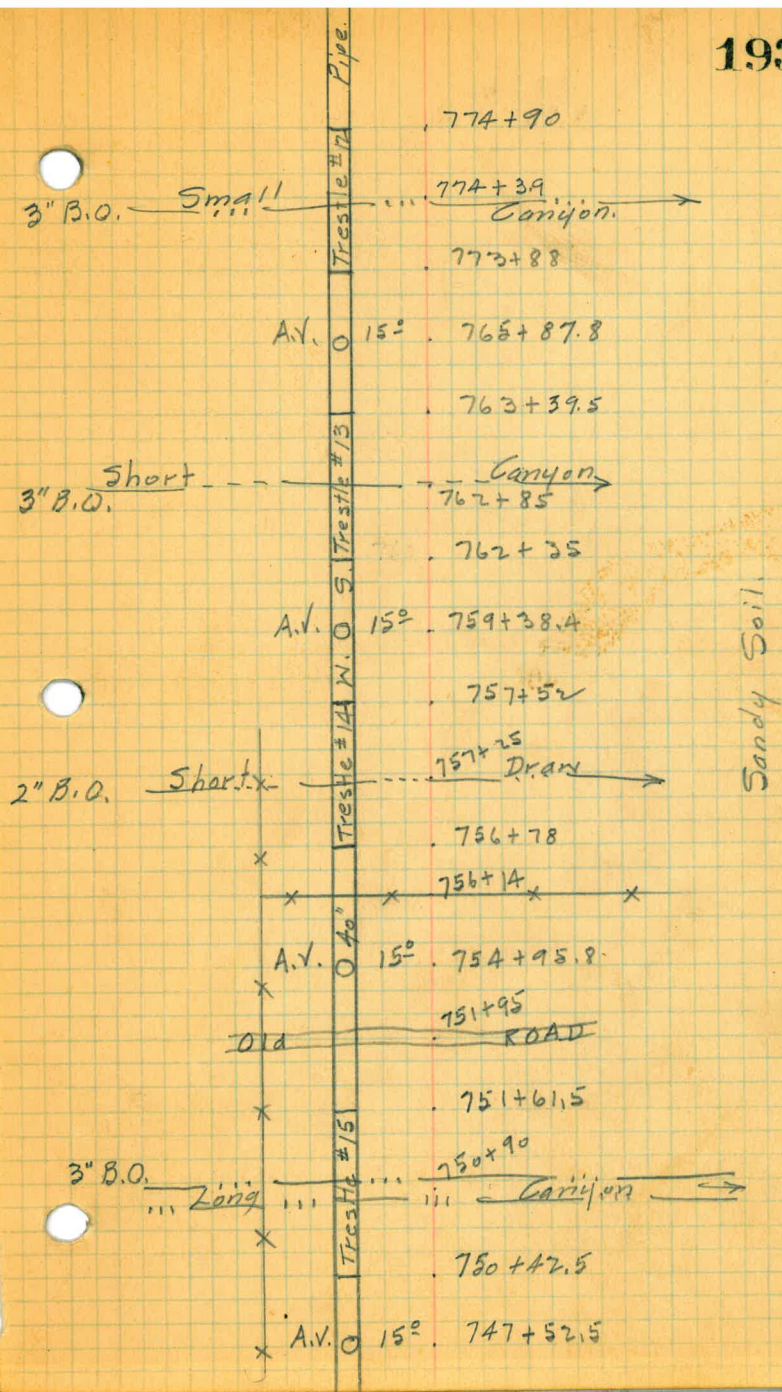
Intersection on Coronado
 pipeline 720+27.4
 1.5 feet from Air Valve

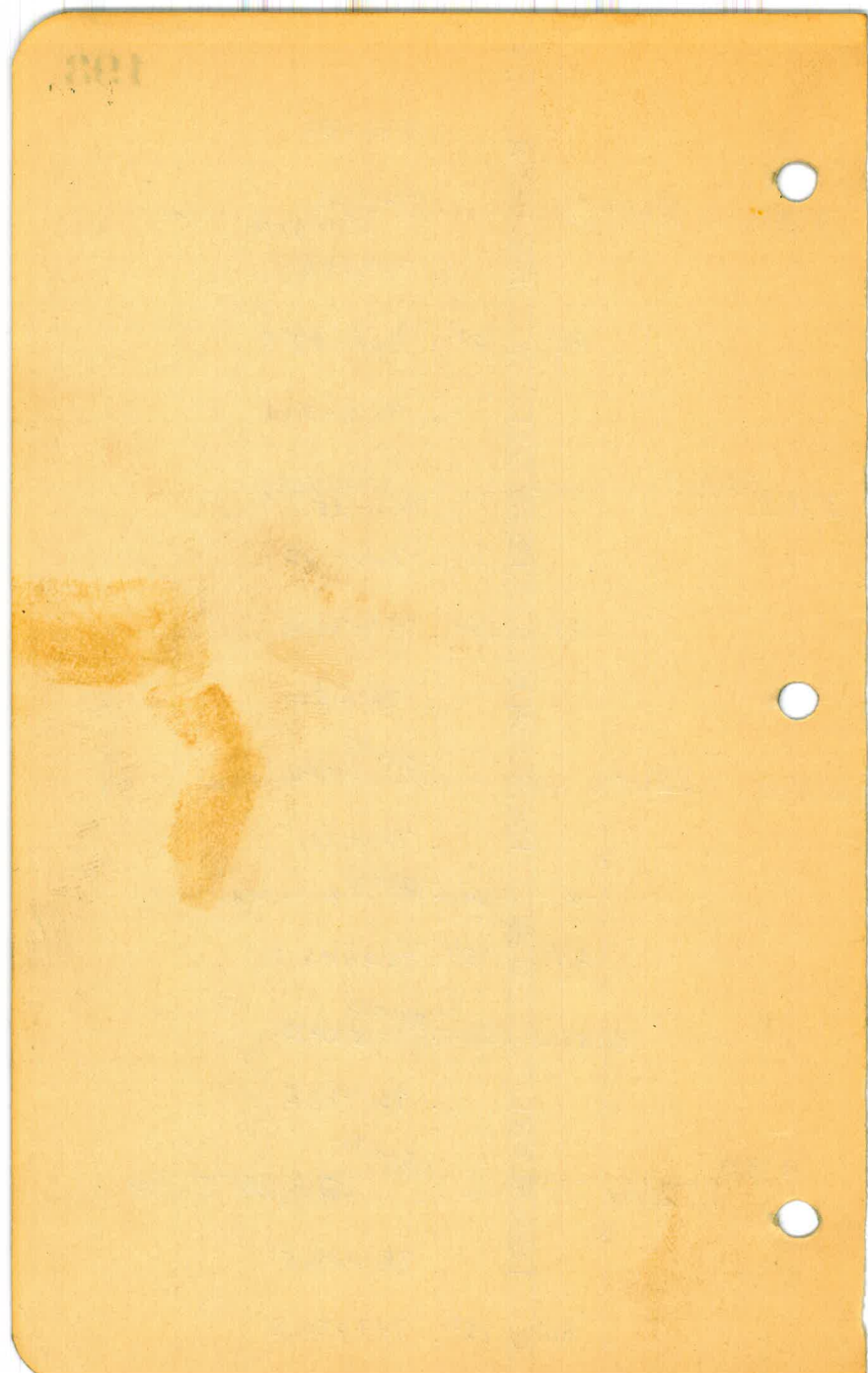
Coronado W.S. Pipeline
 Air Valve
 Stop Valve
 719+88.4 Int E 36" W.S.P.

Newline
 6"
 36" W.S.P.

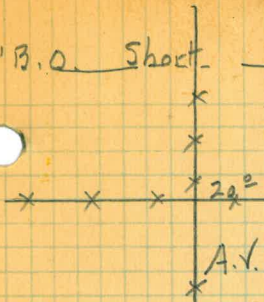
Pipe uncovered from Sta. 720
 to Otay Filter plant.
 Clay Soil.

$$\begin{array}{r} 756+70 \\ 82 \\ \hline 52 \end{array}$$





2" B.O. Short



795+75.5

795+40 Canyon 194

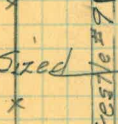
794+87

794+39

A.V. 15° 792+04.9

788+94

3" B.O. Medium Sized



788+52 Canyon

788+05.5

A.V. 15° 785+56.8

784+44

2" B.O. Small



783+85 Canyon

783+39

15° 782+39.9

10° 781+44.2

A.V. 10° 778+60.6

778+27

Small



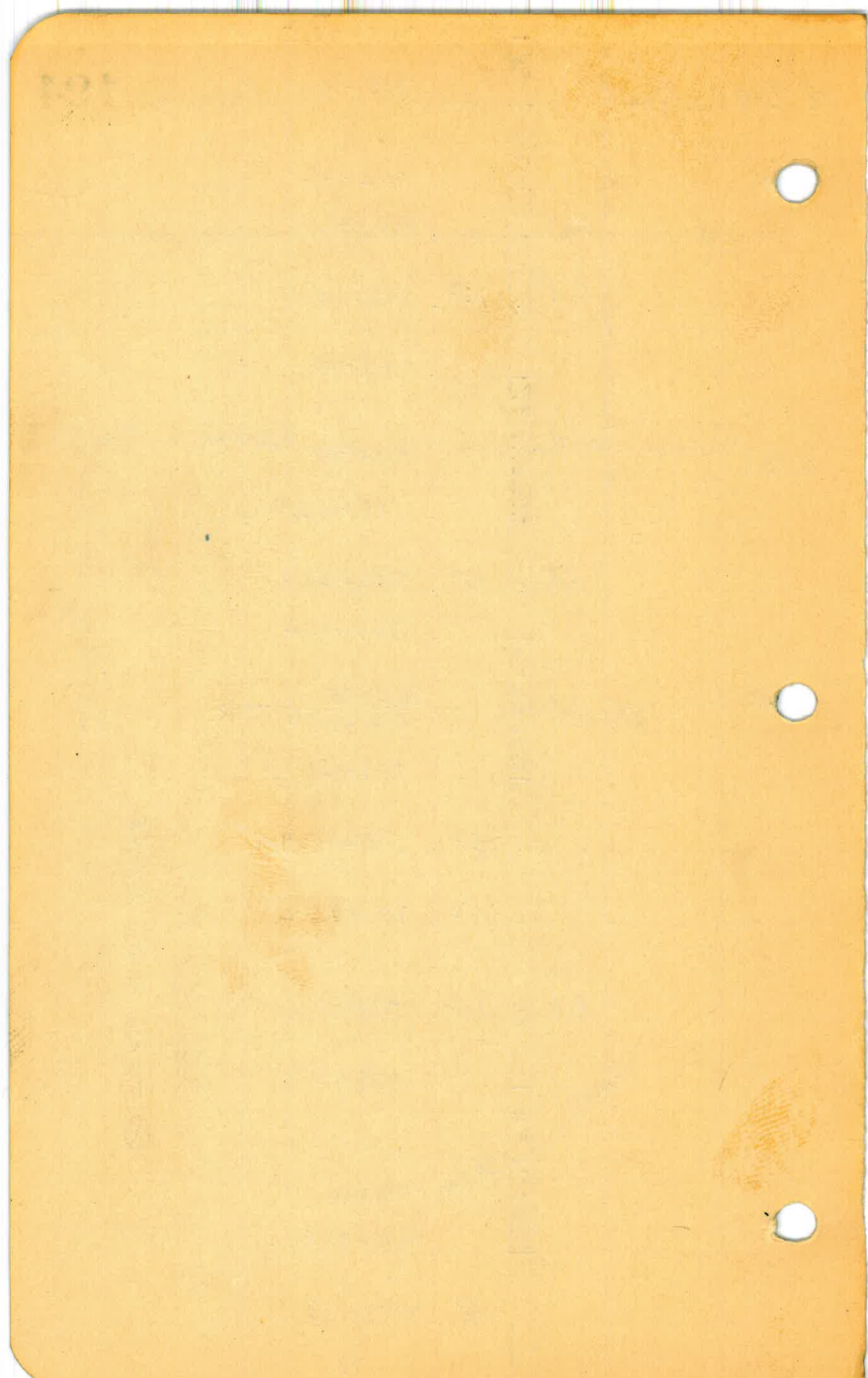
Draw 777+90

777+82.8

15° 777+65

Sandy Soil

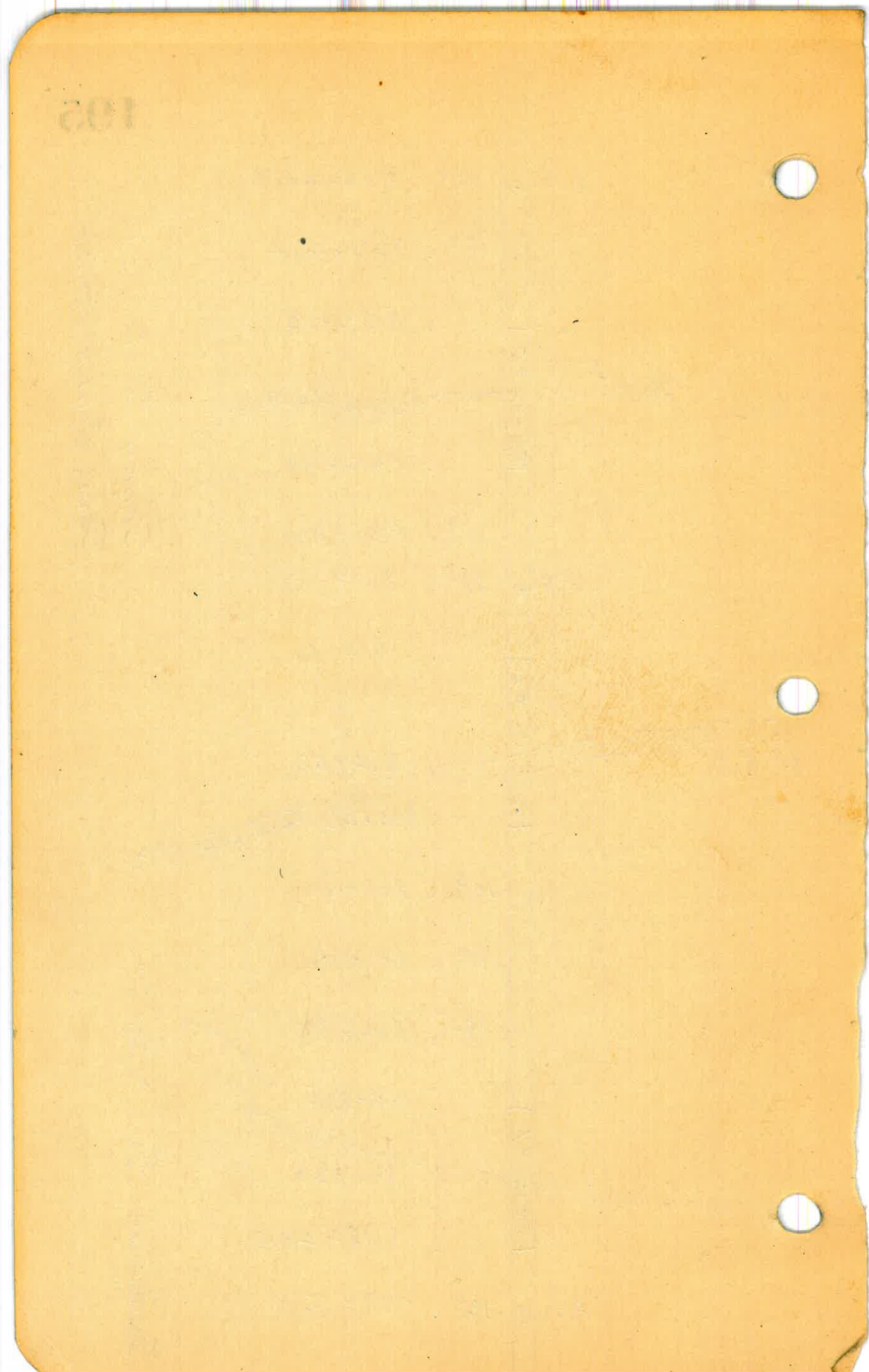
Deep Cut from Sta. 778+60 to Sta. 781+25

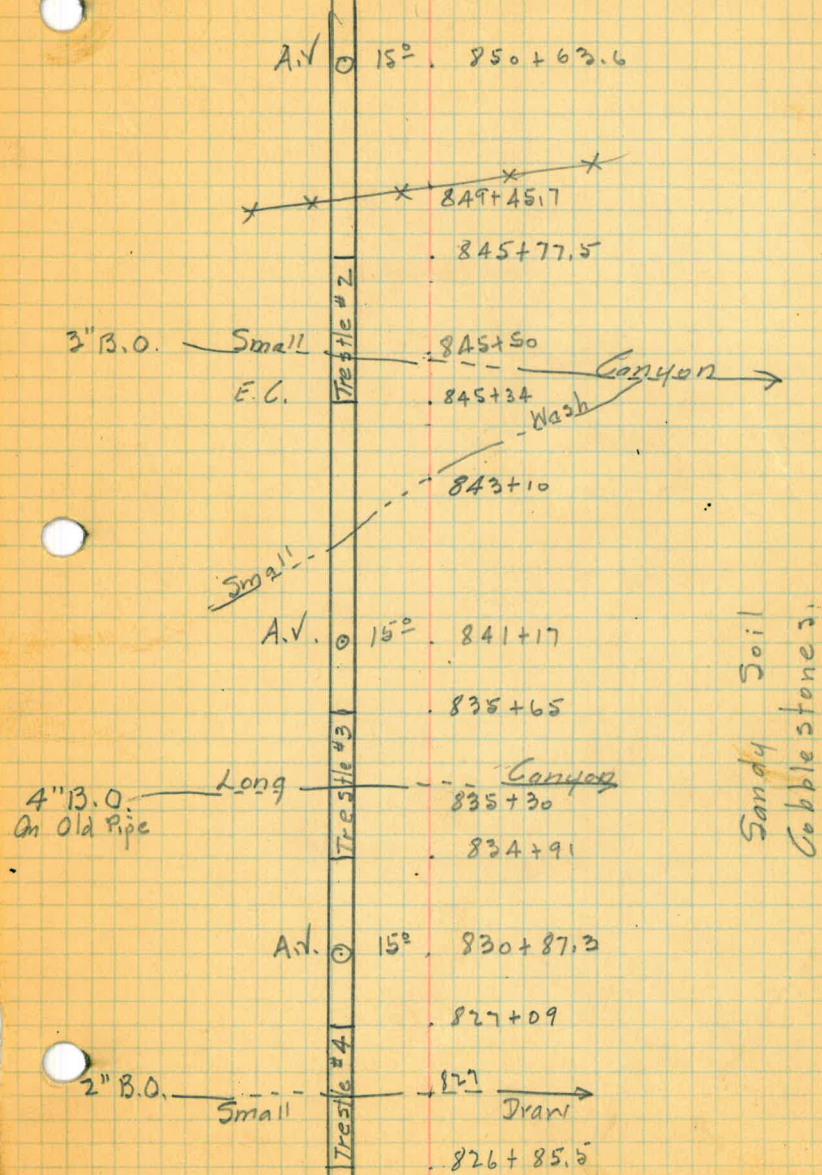


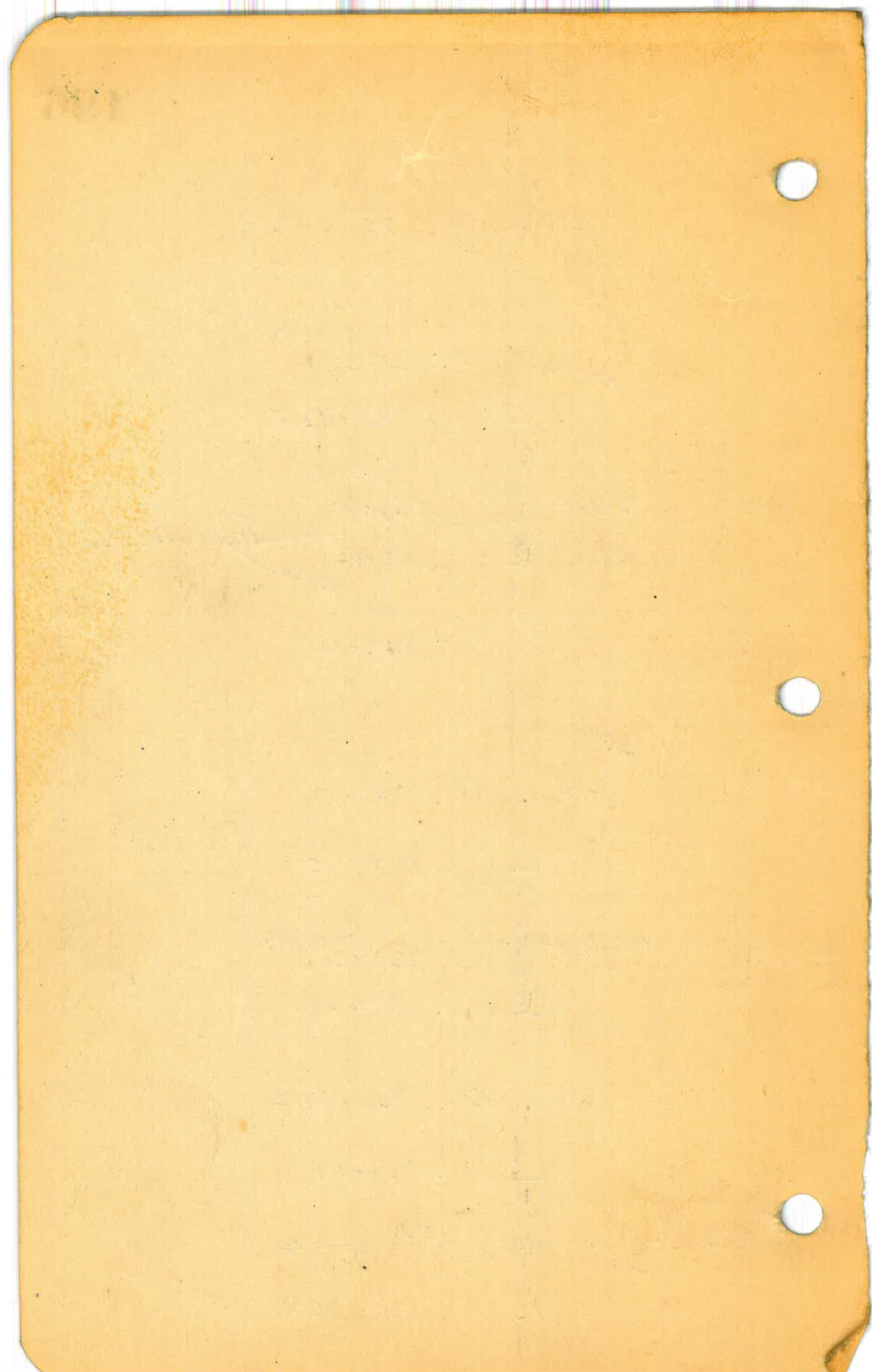
A.V. 15° 824+40.9
 15° 823+46.4
 822+13
 2" B.O. Short --- Trestle #5 --- 822+90 Draw →
 822+68
 10° 821+90
 A.V. 10° 821+01.6
 814+86
 4" B.O. Large --- Trestle #6 --- 814+60
 814+45 Canyon →
 10° 808+00
 11° 807+26
 15° 806+87
 806+83.5 Canyon
 Short --- Trestle #7 --- 806+28
 805+48.5
 A.V. 15° 799+15.9

Sandy Soil,
Some Cobblestones.

Sandy Clay Soil to Sta 814.







Stay Filter Plant.
 Connection of
 Hood Stave and
 Cast Iron Pipes

