#14

786

VEL BOOK.

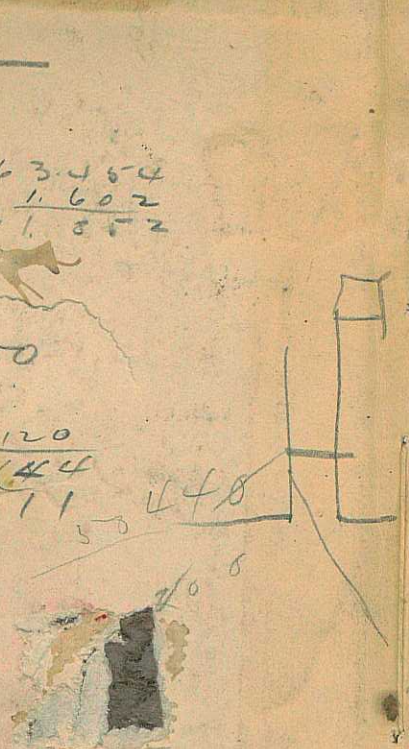
No. 114

Eugene Schaub

Logan Utah.

May. 21 /06

Dept Co. Surv.





| Sta | BS | FS | Int | Ele | HI |
|---|---|---|---|---|---|
| Bm 2+65 | | | | 100.00 | |
| Bm 17 | | | | 96.532 | |
| 10 | | | | 100.378 | |
| 28 | | | | 95.995 | |
| 36 | | | | 81.80 | |
| 42+95 | | | | 78.534 | |
| 54 | | | | 79.363 | |
| 66 | | | | 79.488 | |
| 87 | | | | 65.494 | |
| 109+68 | | | | 67.589 | |
| 127 | | | | 70.712 | |
| 144 | | | | 63.894 | |
| Bm 160 | | | | 66.742 | |
| 170 | | | | 61.85 | |

Grade from 170+60 to 160 = 0.125 of
Grade from 160 to 43 ~~+~~ 0.1389 of
from 43 to 36 = .40 of
from 36 to 26 50 .35 of

| | | | | | |
|---|---|---|---|---|---|
| 98 | | | | 70.904 | |



Remarks

Whitney Canal mg 21/06
on Hub near spill
Hub
Hub
on drop, grade of canal.
on Hub S of canal by 6"x12" post.
on Hub N of canal
" " " "
{ on Hub cor. post about 80's of canal mar
on Hub by fence about 10's of canal
on " N of canal about 10'
on " " " " " 6'

near fence on Hub N of canal

on stake 98

| Sta | BS. | FS | HI | Ele. |
|---|---|---|---|---|
| Bm 98 | 4.961 | | | 70.904 |
| | | | 75.865 | |
| 99+75 | | | 64.618 | 11.247 |

Bill Lumber for Shop

| No of P. | Size | Leng | no of ft |
|---|---|---|---|
| 2 | 2×6 | 16 | 32.0 |
| 2 | 6×6 | 10 | 60.0 |
| 1 | 4×6 | 14 | 28. |
| 2 | 6×6 | 14 | 42 |
| 1 | 2×6 | 10 | 10 |
| 1 | 2×6 | 10 | 10 |
| 1 | 2×6 | 12 | 12 |
| 1 | 2×6 | 8 | 8 |
| 2 | 4×4 | 10 | 13 |
| 1 | 4×4 | 16 | 22 |
| 1 | 2×6 | 10 | 10 |
| X | 1" lumber | | 24.5 |
| | | | 49.2 |
| | | | 42 |
| | | | 534 |

4

on Bm Hub at fill.
a spill

What for

top ties
side post. Slant
stiffners
mud sill

$ say ~~534~~ 500 ft @ 20 = ~~10.68~~ 10.00
nails 2.00
bolts 8-8½ x ½ .80
labor 15.00
+10% = $2.00 27.80

5 final Grade on Whitney Canal. may. from sta 87 to

| Sta | BS. | FS | im | Ele | HI |
|---|---|---|---|---|---|
| | | | | on gr. | |
| 87 | | | | 66.390 | |
| Bm | | | | | |
| Bm | 11.897 | | | 65.494 | 77.391 |

near cor. post 80's of Canal

| | | | |
|---|---|---|---|
| 87 | 11.0010 | | |
| | 1389 | | |
| 88 | 11.1399 | | |
| | 1389 | | |
| 89 | 11.2788 | | |
| | 1389 | | |
| 90 | 11.4177 | | |
| | 1389 | | |
| 91 | 11.5566 | | |
| | 1389 | | |
| TP 92 | 11.6955 | 65.696 | |
| 92 | | | 76.111 |
| | 10.4150 | | |
| | 1389 | | |
| 93 | 10.5539 | | |
| | 1389 | | |
| 94 | 10.6928 | | |
| | 1389 | | |
| 95 | 10.8317 | | |
| | 1389 | | |
| 96 | 10.9706 | × | |
| | 1389 | | |
| 97 | 11.1095 | ✓ | |
| | 1389 | | |
| 98 | 11.2484 | | |
| | 1389 | | |
| 99 | 11.3873 | | |
| | 1389 | | |
| 100 | 11.5262 | | |
| | 1389 | | |
| 101 | 11.6651 | | |

77.391
11.695
65.696
10.415
76.111

65.494
11.897
77.391
66.39
11.001
76.11
70.90
5.21

160
87
73
7611
1111
5500

76.111
64.618
11.493
.1389
73
4167
9723
10.1397
5621
6638

6

7 Canal Con.

| Sta | BS. | FS | HI Elev | Elev |
|---|---|---|---|---|
| 101 | | | | |
| | | 11.6651 | 76.111 | |
| | | 1389 | | |
| 102 | | 11.8046 | | |
| | | 1389 | | |
| TP 103 | | 11.9429 | 64.168 | |
| 103 | 11.977 | 11.977 | 64.134 | |
| 103 | 10.400 | (gr 10.3660) | | 74.534 |
| | | 1389 | | |
| 104 | | 10.5049 | | |
| | | 1389 | | |
| 105 | | 10.6438 | | |
| | | 1389 | | |
| 106 | | 10.7827 | | |
| | | 1389 | | |
| TP 107 | | 10.9216 | 63.612 | |
| 107 | | 8.9570 | | 72.569 |
| | | 1389 | | |
| 108 | | 9.0959 | | Cor. 72.509 |
| | | 1389 | | |
| 109 | | 9.2348 | | |
| | | 1389 | | |
| 110 | | 9.3737 | 63.195 | |
| cor. 110 | | 9.3140 | | |
| | | 1389 | | |
| 111 | | 9.4529 | | |
| | | 1389 | | |
| 112 | | 9.5918 | | |
| | | 1389 | | |
| 113 | | 9.7307 | | |
| | | 1389 | | |
| TP 114 | | 9.8696 | 62.640 | |
| 114 | | 10.547 | | 73.187 |
| | | 1389 | | |
| 115 | | 10.6859 | | |

v. 20
3.09
1.11

74.534
10.922
63.612
8.957
72.569
67.589
4.980

76.111
11.943
64.168

76.111
11.977
64.134
10.400
74.534
64.168
10.366

67.589
4.92
72.509
63.195
9.314

72.569
9.373
63.196

72.509
9.869
62.640
10.547
73.187

160
103
57

.1389
57
9723
6945
7.9173
5625
64.167

160
110
50
.1389
50
6.945-0
5625
63.195

8

| Sta | BS | FS | inst. Ele | HI |
|---|---|---|---|---|
| 115 | | 10.6859 | | 73.187 |
| | | .1389 | | |
| 116 | | 10.8248 | | |
| | | 1389 | | |
| 117 | | 10.9637 | | |
| | | 1389 | | |
| 118 | | 11.1026 | | |
| | | 1389 | | |
| 119 | | 11.2415 | | |
| | | 1389 | | |
| TP 120 | | 11.3804 | | |
| 120 | | 11.416 | 61.771 on Stake 71.605 | |
| 120 | .9834 | | 61.806 angr | |
| 120 | | 9.7990 | | 71.605 |
| | | 1389 | | |
| 121 | | 9.9379 | | |
| | | 1389 | | |
| 122 | | 10.0768 | | |
| | | 1389 | | |
| 123 | | 10.2157 | | |
| | | 1389 | | |
| 124 | | 10.3546 | | |
| | | 1389 | | |
| 125 | | 10.4935 | | |
| | | 1389 | | |
| * 126 | | 10.6324 | | |
| | | 1389 | | |
| TP 127 | | 10.7713 | 60.834 ✓ | |

spill at afternoon. Grade for P. Merrill 10

0.96

28+25

12.34

~~12.79~~ 84.51 96.95

95.995 96.95

99.

95.99

96

96.95

73.187

11.446

61.771

9.834

71.605

61.806

9.799

3600

2825

675

375

225

2.36

81.80

84.16

35

84.51

96.95

84.51

12.34

96.95

84.16

12.79

36.00

28.25

7.75

71.605

10.771

60.834

160

127

33

1389

33

4167

4167

45837

-2.25

60.83



13.89 40

5556 0

-6.25

61.806

97.09

12.49

84.60

on floor of spill

11

| Sta | BS. | FS | HI | Elev |
|---|---|---|---|---|
| 127 Bm | | | | |
| 127 | (new start from Bm 127) | .660 | 70.712 | |
| | | | qr | |
| 127 | | 10.673 | 60.834 | 71.507 |
| Bm 127 | 0.663 | target reading | | |
| | | | 70.712 | 71.375 |
| | | | qr | |
| 127 | | 10.5410 | 60834 | |
| | | 1389 | | |
| 128 | | 10.6799 | | |
| | | 1389 | | |
| 129 | | 10.8188 | | |
| | | 1389 | | |
| 130 | | 10.9577 | | |
| | | 1389 | | |
| 131 | | 11.0966 | | |
| | | 1389 | | |
| 132 | | 11.2355 | | |
| | | 1389 | | |
| 133 | | 11.3744 | | |
| | | 1389 | | |
| TP 134 | | 11.5133 | 5.9862 ✓ | |
| 134 | | 10.0740 | | 69.936 |
| | | 1389 | | |
| 135 | | 10.2129 | | |
| | | 1389 | | |
| 136 | | 10.3518 | | |
| | | 1389 | | |
| 137 | | 10.4907 | | |
| | | 1389 | | |
| 138 | | 10.6296 | | |
| | | 1389 | | |
| 139 | | 10.7685 | | |
| | | 1389 | | |
| 140 | | 10.9074 | | |
| | | 1389 | | |
| TP 141 | | 11.0463 | 62.439 | |

11.046
7.497
3.549

70.712 60.834
663 10.673
71.375 71.507

10.76 71.375
9.24 60.834
1.52 10.541
.389 73.187
10.679 11.416
61.771
9.834
71.605
10.771
60.834
10.673
71.507

10.90
6.62
4.18

RR on cut stake

9.24 1.52
6.62 4.20
7.497 3.549

1

71.712
66
72.372
71.507
.865

72.372
60.834
11.538

70.712
66
71.372

71.507
71.37
.13

71.37
60.83
10.54

Top of Stake

13

| Sta | BS | FS | HI | Elev | RR on stake | Cut |
|---|---|---|---|---|---|---|
| TP 141 | | | | | | |
| 141 | | 11.046 | | | 7.497 | 3.549 |
| 141 | | 5.750 RR | | 68.189 | 5.750 | |
| 141+ | | 3.549 | | | | |
| 141+ | | 9.299 | | | | |
| | | 1.389 | | | | |
| | | 9.4379 | | | | |
| 143 | | 1.389 | | | | |
| | | 9.5768 | | | | |
| 144 | | 1.389 | | | | |
| | | 9.7157 | | | 4.24 | on Bm 63.894 |
| 145 | | 1.389 | | | | |
| | | 9.8546 | | | | |
| TP 146 | | 1.389 | | | | |
| | | 9.9935 | | 58.196 | | |
| 147+ Bm | 4.609 | | | 63.894 | | 68.503 |
| 146 | | | | | | |
| | | 10.3070 | | | | |
| 147 | | 1.389 | | | | |
| | | 10.4459 | | | | |
| 148 | | 1.389 | | | | |
| | | 10.5848 | | | | |
| 149 | | 1.389 | | | | |
| | | 10.7237 | | | | |
| 150 | | 1.389 | | | | |
| | | 10.8626 | | | | |
| 151 | | 1.389 | | | | |
| | | 11.0015 | | | | |
| TP 152 | | 1.389 | | | | |
| | | 11.1404 | | 59.258 | | |
| 152 | | | | | 9.245 FS | 1.895 |
| 152 | | 10.529 RR on gr | | 67.892 | 8.634 BS | 1.895 |
| | | 1.389 | | | | |
| 153 | | 10.6679 | | | 7.79 | 2.87 |
| | | 1.389 | | | | |
| 154 | | 10.8068 | | | | |

11.046
7.497
3.549
5.750
9.299

3.43
4.20
-3.43
.77

63.894
4.609
68.503
58.196
10.307

11.140
9.245
1.895

8.634
1.895
10.529

10.66
7.79
2.87

68.503
9.245
59.258
8.634
67.892

15

| Sta | BS | FS | HI | Elev | |
|---|---|---|---|---|---|
| 154 | | | | 67.892 | |
| 155 | | 10.8068 | | | |
| | | 1389 | | | |
| | | 10.9457 | | | ✓ |
| 156 | | 1389 | | | |
| | | 11.0846 | | | X |
| 157 | | 1389 | | | |
| | | 11.2235 | | | |
| X | | | | | |
| X | 7.180 | 8.6310 | | 59.261 | |
| | | | | 66.441 | |
| 158 | | 9.914 | | 56.527 | |
| | | 1389 | | | |
| 159 | | 10.0529 | | | |
| | | 1389 | | | |
| 160 | | 10.1918 | | .625 | |
| BM | | 1250 | | | |
| of BM | | | | | |
| 161 | | 10.3168 | | | |
| | | 125 | | | |
| 162 | | 10.4418 | | | |
| | | 125 | | | |
| 163 | | 10.567 | | | |
| | | 125 | | | |
| 164 | | 10.692 | | | |
| | | 125 | | | |
| TP 165 | | 10.817 | | 55.624 | |
| 165 | | | | | |
| | | 10.064 | | 65.688 | |
| | | 125 | | | |
| 166 | | 10.189 | | | |
| | | 125 | | | |
| 167 | | 10.314 | | | |
| | | 125 | | | |
| 168 | | 10.439 | | | |
| | | 125 | | | |
| 169 | | 10.564 | | | |

RR on stake cut ✓

8.70 1.50

66.441
10.19
56.250

1389
2
2778
56.250
56.527

66.441
10.817
55624
10.064
65.688

67.892
8.631
59.261
7.180
66.441
56.527
9.914

10.19
8.70
1.49

16

17

| Sta | BS. | HI | Elev | HT |
|---|---|---|---|---|
| 169 | | 10.564 | 65.688 | |
| | | 125 | | |
| 170 | | 10,689 | | |
| | | .100 | | |
| 170+60 | | 10.789 | 54.899 | |
| Bm | | | | |
| ch | 3.800 | | 61.852 | ✓ |

Montpelier Townsite is in Sec 3 Tp 13 S. R 44 E of B m.

Paris Idaho. S 2 + N 2
11 Tp. 14. S R 43 E

65.688
10.789
54,899

65.688
61.852
3.836

Sur at Paris
June 1/06

| Sta | BS | FS | HI | Elev | HT |
|---|---|---|---|---|---|
| BM | 11.95 | | | | |
| | | 1.03 | | | |
| | 12.70 | | | | |
| | | 0.98 | | | |
| | 12.40 | 1.17 | | | |
| | 37.05 | 3.18 | | | |
| | 3.18 | | | | |
| 0 | 33.87 | | | | |

high-chain highest pt on high school and R + from 0 to 3+18.5 — 143° 41' — 17' — 5 12.9 %

| Sta | Course | | |
|---|---|---|---|
| 3+18.5 | S 36° 49' W | 9° 23' | ~~5 12.9~~ |
| 3+92 | S 46° 12' W | | |
| | S 46° 05' W | | |
| 5+56 | S 46° 12' W | | |
| | S 46° 05' W | 35° 52' | |
| 7+61.4 | S 10° 30' W | | |
| | S 10° 30' W | 23° 28' | |
| 8+37.5 | S 33° 58' W | | |
| | S 34° 05' W | 23° 26' | |
| 9+98 | S 57° 14' W | | |
| 10+00 | S 57° 28' W | 16° 27' | |
| 11+99.2 | S 73° 11' W | | |
| | S 73° 50' W | 15° 53' | |
| 14+14.8 | S 87° 34' W | | |
| | S 89° 45' W | 12° 02' | |
| 16+37.7 | N 78° 02' W | | |
| | N 78° 10' W | 14° 50' | |
| 22+28 | N 63° 34' W | | |
| | N 63° 25' W | | |
| 24+39.8 | N 63° 34' W | | |
| | N 63° 25' W | 13° 24' | |

5 25 00

3705
3.18
3387

Remarks

{This pt about 30' W of fence in field and about 1/2 mile west of high school.

To fence Rin N 4 S. Ex. 1 Rec

To fence running N & S
not allow 50' bet 16+37.7 & 24+39

21

Con. Paris Lev

| Sta | Course | Angles L | Angles R | + | HI |
|---|---|---|---|---|---|
| | N 63°34'W | | | | |
| 24+39.8 | N65°25'W | | 13°24 | 20' | 525.00 |
| 30+00 | N 76°58'W | | | | |
| | N76°40W | | | | |
| 34+30.5 | N 76°58'W | | | | |
| | N76°40W | | 3°22 | 18' | 530.75 |
| 40+20 | S 89°40'W | | | | |
| | S89°45W | | 18°58 | | 533.83 |
| 47+20.5 | S 70°42'W | | | | |
| | S71°00W | | 12°50 | 18' | 537.29 |
| 50+00 | S 57°52'W | | | | |
| 52+31.2 | S58°10W | | 12°54 | | 539.96 |
| 54+33.6 | S 44°58'W | | | | |
| | S45°10W | | 6°48' | | |
| 55+61 | S 51°46'W | | | | |
| | S52°05W | | 4°02 | | |
| 57+37 | S 55°48'W | | | | |
| | S56°10W | | 1°53 | | |
| 60+00 | S 57°41'W | | | | |
| 64+76.8 | S58°05W | | 7°31 | | |
| 65+82.7 | S 65°12'W | | | | |
| | S65°45W | | 35°49 | | |
| 66+88.6 | N 78°59'W | | | | |
| | N78°50W | | 40°25' | 15°33 | 542.17 |
| slope ↓ 69+ | S 60°36'W | | | | |
| | S60°05W | | | | 485.00 |
| 70+00 | | | | | |
| 71+33.7 | S 60°36'W | | | | |
| | S60°06'10 | | 27°38 | | 549.20 |
| hor 72+86.7 | S 32°58'W | | | | |
| | S32°30W | | 9°39' | | 549.95 |
| 74+35 | S 42°37'W | | | | |
| | S42°15W | | 4°09' | 6°30 | 550.78 |
| 78+ | S 35°28'W | | | | |
| | S35°W | | | | 507.69 |
| 80+00 | | | | | |
| 84+28.4 | S 35°28'W | | | | |
| | S38°56W | | 3°28' | | 555.98 |
| 84+60 | S 38°56'W | | | | |
| | S38°30W | | 25°58 | | 556.01 |
| | S 64°54'W | | | | |
| | S64°30W | | | | |

Ele

7640
1322543 3.6
8962 50
236

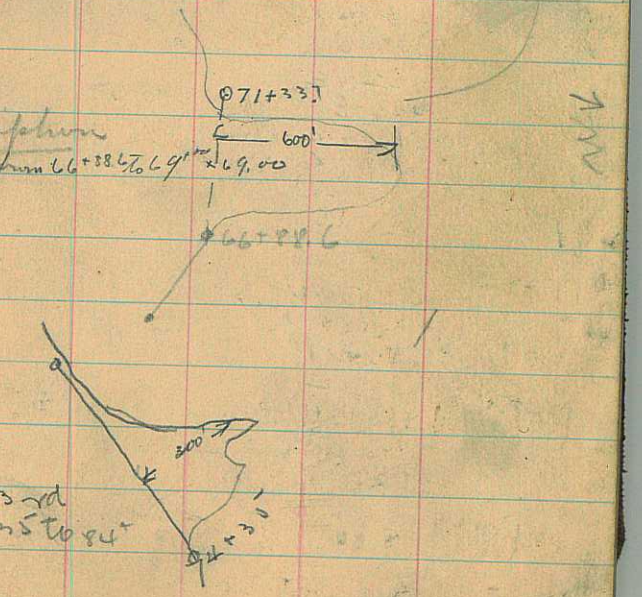
Remarks 30'11'

+ angle increased because of small hollow

Note from 53+83 to 54.33 trestle abut Rock ledge

Note bet 55+61 + 57+37 1/4 flat

pt of syphon = -15°33 from 66+88.6 to 69.00



85+43.6

Con

angles

| Sta | Course | R | + | — | and Ele |
|---|---|---|---|---|---|
| 84+60 | S38°30W | 25°58 | 17 | | 556.01 |
| 85+43.6 | S64°54'W<br>S64°30W | 21°22 | 1 | | |
| 87+94 | S86°16'W<br>S86°W | 26°41 | 1 | | |
| 89+93.6 | N67°30W | 127°27 | 1 | | |
| 91+06.4 | S14°30E<br>S14°55E | 46°28 | 1 | | |
| 91+66.2 | S31°58'W<br>S31°30W | 18°31 | 1 | | |
| 93+19.3 | S50°29'W<br>S50°54'W | 18°08 | | | 560.16 |
| 94+43 | S32°W<br>S32°05W | 72°50 | | | |
| 95+74.8 | N74°W<br>N75°W | 68°17 | | | 561.42 |
| 100+00 | | | | | |
| 106+76 | S36°54'W<br>S37°W | 59°03 | | | 566.93 |
| 110+00 | | | | | |
| 114+00 | S22°09'E<br>S22°E | 20°37 | | | |
| 117+31 | S1°22'E<br>S1°45E | 26°34 | | | |
| 118+15 | S25°30'W<br>S25°W | 12°36 | | | |
| 119+23.4 | S39°38'W<br>S37°30W | 14°25 | | | |
| 120+44 | S52°03'W<br>S52°10W | 7°91 | | | |
| 121+42.4 | S59°12'W<br>S59°10W | | | | 574.18 |

| | BS | FS |
|---|---|---|
| 121+42.4<br>91 | 9.80 | |
| 123+33 | | 7.30 |



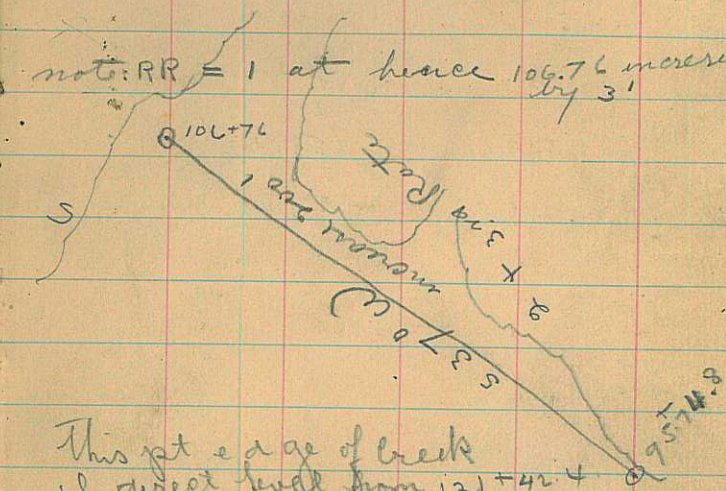
67.30
1 27 27
1 94 57

from 84+60 to 85+43.6 S64°30W Rock work. very rough

rough. 3 rate

from 89+93 to 87+94 1st Rock

note: RR = 1 at hence 106.76 nearest try 3'




This pt edge of creek
I direct level from 121+42.4

on high line

25

8" wood pipe Length 9,000 feet
head 20 ft
Q = 2.73 sec ft.

6" wood pipe Length 9,000 feet
head 45
Q = .555 sec. ft,

8 wood pipe Length 9000 ft,
head 45 Q = 1.11

$Q = \sqrt{\frac{8.02 f L .7854^2 d^4}{1.5 + f \frac{L}{d}}}$

| | |
|---|---|
| E on taper | 500 |
| E on tap | 530 |

BS, FS WR
Work steam heat High School
3.45

3.72
2.25
1.42
5.05
4.15
3.45

3.72
3.45
.27

6.68
3.92
2.76

on door sill SW cor. of Larg build.
on gr NE cor. Heating plat,
NW cor " " "
" " of coal house west of plat
SE cor heat plant purpose
SW cor " " "
SW cor coal house.

27 Paris Sur con

| Sta | Course | Ele. ∠ R | Ele. ∠ L | Dist | Bearing | Remarks |
|---|---|---|---|---|---|---|
| yx | | | | | | |
| 93+19.3 | N33°24'W | | 7°28 | | | |
| 0 | | | ✓560.16 | | | |
| | | | 2°18' | ✓506.22 | | |
| 1+55.1 | N51°30'E | 6°04 | 2°18' | ✓500.40 | | |
| 6+71 | N57°30'E | 17°29' | 10°00' | ✓491.03 | | |
| 21+45 | N39°30'E | 34°24 | 50' | ✓469.67 | | |
| 38+89 | N73°50'E | 1°01 | 49' | ✓445.33 | | |
| 48+03.9 | N73°E | 10°51 | 1°08' | ✓426.64 | | |
| 54+29 | N83°49'E | 29°54 | 2°00' | ✓405.04 | | |
| 58-60.6 | N83°50'E | 5°22 | 1°05' | ✓396.80 | | |
| 60+00 | S66°30'E | | | | | |
| 76+25.4 | S61°E | | 1°13' | ✓359.35 | | |
| 80+00 | N80°20'E | 6°03 | 12' | ✓357.42 | | |
| 81+77.6 | N74°30'E | 36°43 | 1°18' | ✓350.39 | | |
| 84+87.5 | N37°40'E | 35°35' | 44' | 344.86 | | |
| 89+27.6 | N73°10'E | | 1°34' | | | |
| 90+00 | | | | | | |
| 92+00 | | | | | | |
| 93+00 | | | | | | |
| 93+55 | | | | | | |
| 99+92.3 | N73°0 | 11°43 | | 315.43 | | |
| 100+00 | | | 2°01 | | | |
| 102+62 | | | | | | |

at 76+25 boulder were placed 3.5' down 38°12'

200' of Swamp

over

N

9+30 60 28

HI

upper Station

lower Station

D = 5.70

4.902

2.806

RR on tail H=0

10.60

4.90

5.70

-1°01'

WS 5.72

512.8

Hub center 2.1

5066 S 12° E

N 6.71

note 1.55.1 is 4.70 higher than H20

4.63

454

471

11.91

13.28 at this sta hub 73' S.

93+19.3

49763

1.55.1 476.27

45193

yx by 433.24

411.64 E

N 73° W

403.40

365.95

364.02

356.99

351.16

322.03

W

note from 37+50 to 54+25 a Count 15 road

Zelenka Ringle

N 26°30'W

N 39°30'W

S 45° E

to ditch

to Creek

to Mill race

to Saw Mill Race

see over

29

| Sta | Course | angles R | angles − | angles + | |
|---|---|---|---|---|---|
| 103+21.5 | N 8° 59' E | | | | 303.85 |
| | | 18° 59 | 2° 01 | | 302.71 |
| 106+19.2 | 76° 02 | | | | 300.13 |
| | S 76° E | 14° 08 | 43' | | 299.07 |
| 110+00 | 89° 50 | | | | |
| 118+(50)+10 | N 89° 45 E | 6.0 | 00 35' | | 287.59 |
| | | | | | 286.54 |
| 120+00 | | | | | |
| | N 89° 45 E | | 21' | | |
| 127+92 | | | | | |
| 128+92 | " " | | | | |
| 130+00 | | | | | |
| 135 71 | " " | | | | |
| PI 136+10 | N 89° 45 E | 98.05 | | | |
| | | | 31' | | 276.72 |
| | | | | | 276.67 |
| 140+10 | N 15 W | | | | |
| 143+23 | N | | | | |
| 144+21 | | | | | |
| 147+55.5 | N | | | | |
| 150+00 | | | | | |
| 151+47 | N | to pipe line | | | 283.38 |
| | | | 9' | | 282.36 |
| | | | | | 281.24 |
| 157+16 | | | | | |

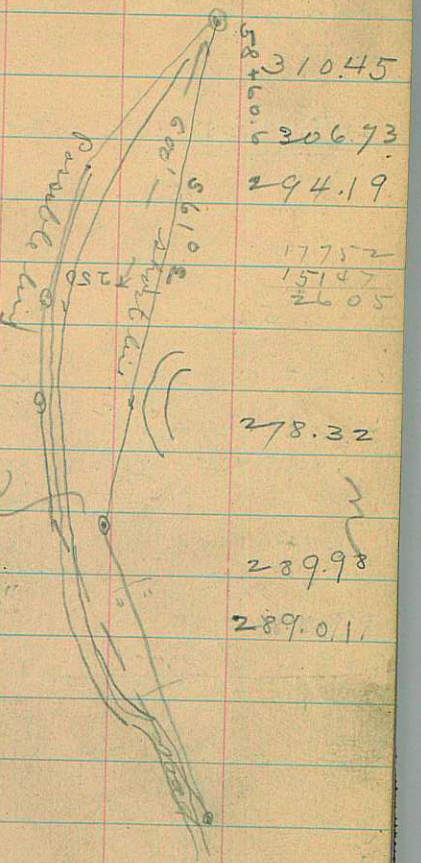
106.19 ℄
4
110

130.
103.71
26.79

to W side St.
to E " "
to W " " of main St

to line of pipe

S. to S side St E+W
to N " "
not from 136+10.
to 147+55.5+35' "
from " to −9
to S side St




12333
400
17733
5029
17752

310.45
306.73
294.19

17752
15147
2605

278.32

289.98

289.01

21

| Sta | Course | angles L | angles R | angles — | angles + | dist | elev |
|---|---|---|---|---|---|---|---|
| Base | 0 | | 48°32 | | | | 5012.93 |
| 4+87.3 | N85°21E | | | | | | |
| 5+06 | N85°30E | 0 | 0 | 4°01 | | 478.80 | |
| 10+36 | " " | | | | | 475.80 | |
| 17+00 | | | | 1°15 | | 466.86 | |
| 23+91 | | | | 3°28 | | | |
| | | | | 1°10 | | 439.26 | |
| 28+85.2 | | | | 1°36 | | 425.47 | |
| 30+00 | | | | | | | |
| 33+70.7 | | 8°50 | | 3°50 | | 393.01 | |
| 37+40.3 | N76°31E | | | | | | |
| 40+00 | N76°30E | | 12°57 | 6°19 | | 352.24 | |
| 42+12 | N89°28E | | | | | | |
| | N87°45E | | | 6°27 | | | |
| 43+10.4 | " " | 0 | 0 | 6°27 | | 298.21 | |
| 49+0.3 | | | | | | | |
| 50+29.2 | | | | 44' | | 289.01 | |

Paid Harry Wilkes 2 days 1.00 75 / 5
Walter Bolton 2
Joseph Haag 2 1.00
Leslie Shepard 2 1.25

7 7 5
2 3 4
3,01

50 0 9 7.2
49 9 0 3

HI

on sta 0 of upperes - to BS 7, 318.5 flumin canal
R 48° 32
4.74 not 4+87.3 is 3.01 higher than
to canal
in low hollow
That is from 10+36 to 17 - 3°28
" " " " to - 1°10 on ridge

This sta is about 20' from SE cor of High School

to w side st n + s. end st w
from 37+40 to 43+10.4 - 6°27
to w side main st.
This is same as sta 151+47 canyon st

33

Sur for O. Halverson
Hyuna

1000
1000

from x 61.1 to brow of hill to
fonny −28° 23.2' to bot of hill to z
from z to fence 114'

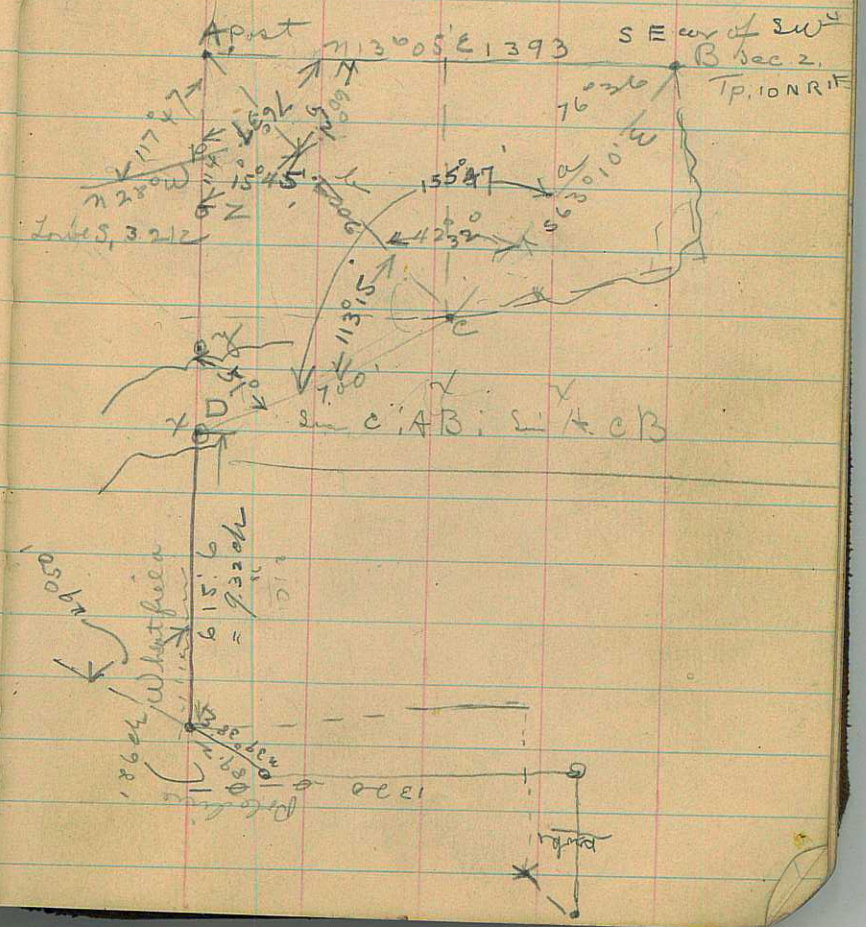
HI

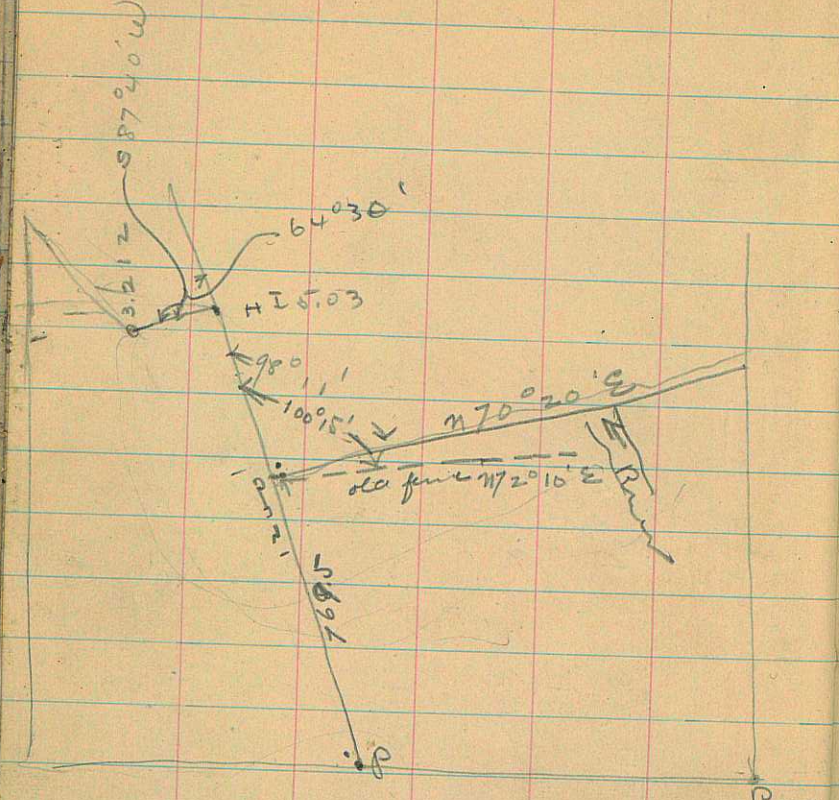
set up a Z BS y

| | dist | course | ∠ | R | | ½ to sec line |
|---|---|---|---|---|---|---|
| 768 | | N28°W | 117°47 | R98°1'N | to fence abcdefg | |
| 1200 | 1' | " " " | 64°30' | | +21°34 | 5.03 |
| x | | S87°40W | | 58°5-4' | +21°34 | |
| x | | N33°30W | to west fence cor z. | | | |

34

to se
A rock was found by a stake
in the ground supposed SW cor
of SE¼ of sec 3 T 9 10 N R 1 E
to check a post hole was found
N 39°38 E 89.2








6052
4232
10324

17960
10324
7636
4232
6052
15000

7585
6052
1533
11315
51
000

16054
1533
7627

155°47
11315
4232

1545
11315
51
179.50
76

7595
6052
1543

X

$\sin D : AC :: \sin A : DC$

$\log \sin 51° = T.89050$

$700 = 2.84510$

$\overline{2}.73560$

$\log \sin A = T.43367$

$3.30193$

$= AC$ 2004'

$\sin B : AC :: \sin C : AB$

$\log = 3.30193$

$\log \sin C = T.82996$

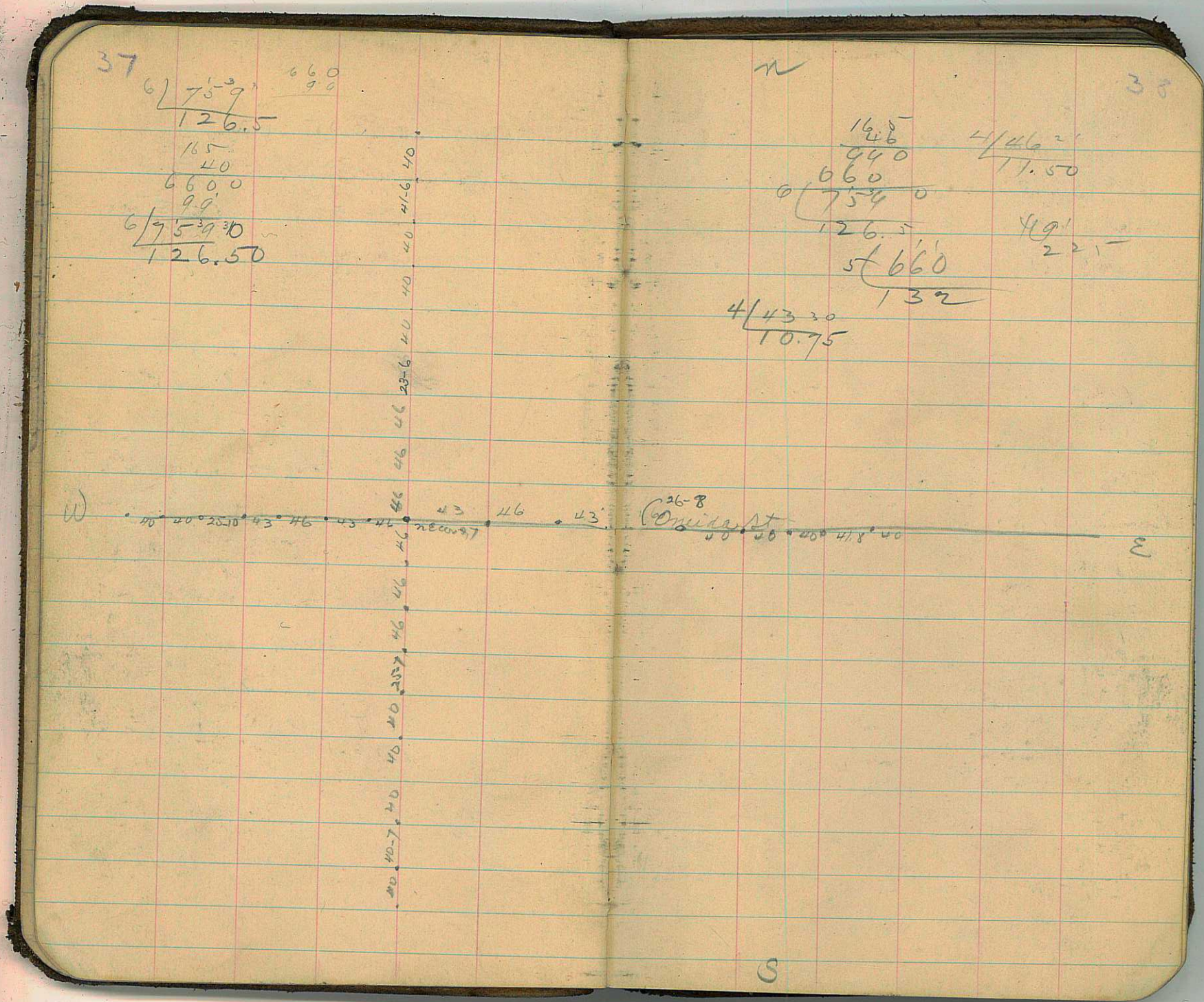
$3.13189$

$\log \sin B = T.98808$

$3.14381 = 1393$

1320

73

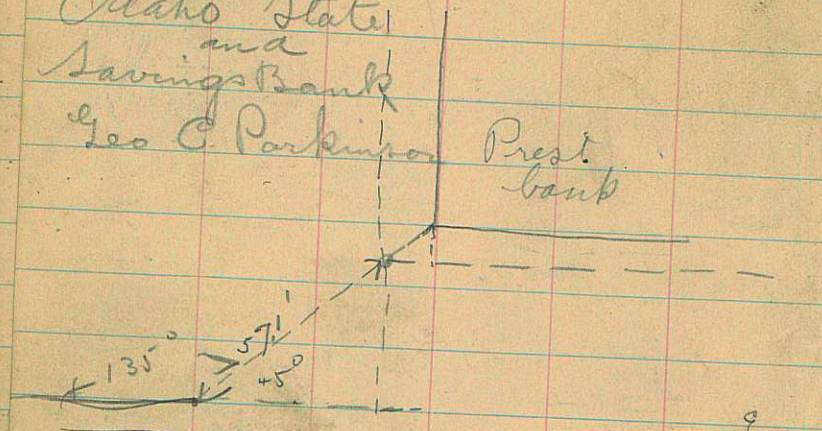

37
660
90
6 | 75-9
126.5
165
40
6600
99
6 | 75-9 30
126.50
N
38
16.5
40
660
0 | 75-9 0
126.5
5 | 660
132
4 | 43 30
10.75
4 | 46 2
11.50
49
22
W
E
S
26-8
Oswego St
43
46
43
46
43
46
46
46

39

96 00
92 61
3.39
65.65

N

Idaho State
and
Savings Bank
Geo C. Parkinson Prest.
bank




Sto BS. FS HI Elev

Bm 11.017 65.494 76.511V

160 56.25

92 10.821 10.68 65.69 65.83

92+39

96+38

TP 92+31 3.273 10.860 65.65 68.923

TP 92+31

92+50 3.303 65.620
.0347
3.3377

92+75

76.511
65.65
10.86

65.69
.04
65.73

96 38
92 61

160.00
92.50
67.50

40

.1389
67.5
6945
9723
8334
9.37575
.1389
68
1112
8334
9.4452
56.25
6569

56.25
9.37
65.62

90
65

61

160
92
68

65.65
3.273
68.923

.1389
5
.6940

65.65 65494
65.62 11.017
3 76511
65.83
10.68

76.511
65.69
10.821

68.692
65.62
7 .001389
.31
1389
4167
.043059

76.511
65.56

9638
92.39
3.99

.1389
.0347
.1388

.1389
.1
125.01
1389
.02439

June 14/06 Remark Whitney canal

~~92 gr. upper end of flume~~

~~end~~ upper end of flume proper

Lower end of flume proper
upper end of flow

| Sta | BS | FS | HI | Elev | HI |
|---|---|---|---|---|---|
| 92+50 | | 3.3030 | | 65.162 | 68.923 |
| | | .0347 | | | |
| 92+75 | | 3.3377 | | | |
| | | .0347 | | | |
| 93+00 | | 3.3724 | | | |
| | | .0347 | | | |
| 93+25 | | 3.4071 | | | |
| | | .0347 | | | |
| 93+50 | | 3.4418 | | | |
| | | .0347 | | | |
| 93+75 | | 3.4765 | | | |
| | | .0347 | | | |
| 94+00 | | 3.5112 | | | |
| | | .0347 | | | |
| 94+25 | | 3.5459 | | | |
| | | .0347 | | | |
| 94+50 | | 3.5806 | | | |
| | | .0347 | | | |
| 94+75 | | 3.6153 | | | |
| | | .0347 | | | |
| TP 95+00 | | 3.6500 | | 65.273 | |
| 95+00 | | 3.8970 | | | 69.170 |
| | | .0347 | | | |
| 95+25 | | 3.9317 | | | |
| | | .0347 | | | |
| 95+50 | | 3.9664 | | | |
| | | .0347 | | | |
| 95+75 | | 4.0011 | | | |
| | | .0347 | | | |
| 96+00 | | 4.0358 | | 65.135 | |
| | | .0347 | | | |
| 96+25 | | 4.0705 | | | |
| 96+38 | | 4.09 | | | |

OK



$\frac{0.347}{4} = .0868$

65.65
3.273
68.923
65.162
3.303

160
92
68
11359
68
11112
8334
9.4452
5625
15.69

68.923
3.650
65.273
3.897
69.170
4.035
65.135

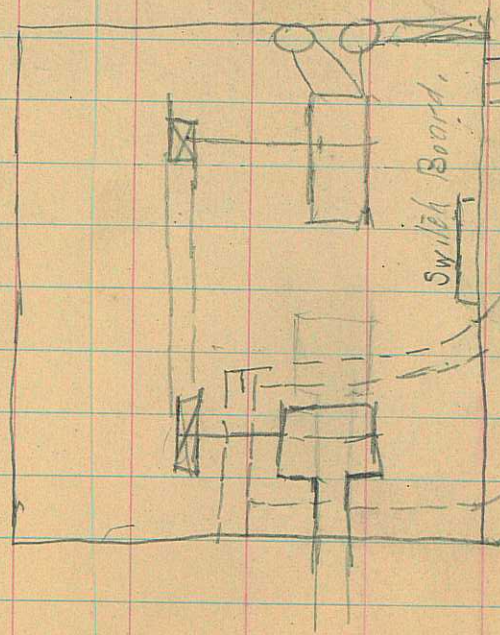
| Sta | BS | FS | HI | Elev | HT |
|---|---|---|---|---|---|
| 96 | 11.346 | | | 65.138 | 76.484 |
| 97 | | | 11.48 | 65.000 | |
| | | | 104 | | |
| 97+75 | | | 11.584 | | |
| | | | 034 | | |
| 98 | | | 11.618 | | |
| | | | 138 | | |
| 99 | | | 11.756 | | |
| | | | 08 | | |
| 98+40 | | | 11.676 | | |

65.138
11.346
76.484
65.000

.1138
.034
.104

.1389
.160
.083340





Second Surf pipe line up muddy June 15/06

| Sta | Course | ∠ angle L | ∠ angle R | HI | angles − | angles + |
|---|---|---|---|---|---|---|
| 0 | | 13°23 | 203.80 | 5.09 | | |
| | | Horiz | Ele | | | |
| 1+82 | S22°E | 181.50 | 190.00 | 4.89 | 4°21' | |
| 2 | | | 186.86 | | 10°04' | |
| 2+297 | | 227.77 | 178.43 | 4.49 | 14°02' | |
| 4+32 | | 411.6 | 94.29 | 4.57 | 24°34' | |
| 5+08 | | 486.9 | 84.59 | 4.55 | 7°20' | |
| 5+93 | | 565.2 | 51.61 | 4.84 | 22°50' | |
| 6+26 | | 598.2 | 46.81 | | 8°22' | |
| 6+39 | | 611.2 | 48.45 | | 4°13' | |
| 6+68 | | 640.2 | 50.69 | 4.65 | 42' | |
| 7+16 | | 683.1 | 29.15 | 4.65 | 26°40' | |
| 8+21 | | 788.1 | 23.63 | | 3°01' | |
| 8+73 | → | 840.1 | 22.10 | | | |

| Bs | FS | im | Ele | HI |
|---|---|---|---|---|
| 11.700 | | | | |
| | | 10.53 | | |
| 8+73 | | 10.40 | | |
| 8 | | | | |

| # | 0.935 |
|---|---|
| 11.758 | 6.330 |
| 9.707 | 0.582 |
| 0.500 | 12.030 |
| 0.560 | 11.984 |
| 3.740 | 9.877 |
| 4.05 | 4.818 |
| 4.818 | 6.010 |

46.839 52.566 46.839 5.727

6.74
.25
6.49



{ Which is on bank of Canal FS to sta 2 of first surf

{ That is from 1+82 to 2+297 − 14°02'
" " " to 2 − 10°04'
" " 2+297 to 4+32 − 24°34'
" " " 4+32 to 5+08 − 7°20'
" " " 5+08 to 5+93 − 22°50'

in wash from hollow
in wagon road
from 5+93 to 6+68 − 42'

" 6+68 to 7+16 − 26°40'
from 7+16 to 8+21 − 3°01'
to South side of Power House
to River on H2O

on High River water

on High River water middle site

47

## Notes of comparison on pipe at Cub River

$f = .019$

$v = 8.02\sqrt{\frac{h}{1.5 + f\frac{2}{d}}}$ all in ft.

48

| Size of Pipe | Area | Length | Vec. | Qu ft' | Loss of h. by f | Effectiveh | Eng Free | Eng at Work | Hydro head. | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 4' | 12.56 | 220 | 27.07 | 340.0 | — | — | X | — | 21' | Free to dis in atom. |
| 3' | 7.068 | 1157 | 3475 | 245.6 | — | — | X | — | 165.6 | " " |
| 3½' | 8.83+ | 220 | 25.140 | 222.15 | — | — | X | — | 21' | " " |

Hence by these figures a 4' foot would be necessary

See Profile

Case 1 Line No 1

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4' | 12.56 | 220 | 3,582 | 45' | 0.208 | 20.79 | — | X | 21 | |
| 3 | 7.068 | 1157 | 6.36 | 45 | 4.60 | 161.00 | — | X | 165.6 | |
| | | | | | | 181.79 Total | | | 1866 H H | |
| Loss of head by a 20° curve | | | | | 0.33 | .33 | | | 181.79 | |
| Turbine E = 0.80 % | | | | | | 181.46 | | | 4.81 Total loss | |

H.P = 1742 = 550 K.W.

Case No. 2.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 12.56 | 220 | 3.582 | 45 | 0.208 | 27.79 | — | X | 28 | Free to dis. in atom. |
| 3' | 7.068601 | | 6.36 | 45' | 2.400 | | | | 152.9 | — |
| loss by possible 20° vertical Curve | | | | | .33 | | | | 180.69 | |
| | | | | | 2.9380 | 150.17 | | | H.P for upper case No 2 | |
| Say 3.00 ft | | | | | | 177.96 Effective head | | | = 728 = 546 K.W means | |
| | | | | | | say = 178.00 | | | see over | |

16 H.P. gained at lower setting. 16 H.P. = 11,936 Watts less 5.0% 10,839 @ 20¢ per K.W. (1000 watts = 2.16 per mon) =

103.91
91.25
12.66

106.456
6.064
100.392
3.517
103.909

96.532
8.924
105.456
100.37
5.083

4.73

36
9
27
35
135
81
9.45
81.80
91.25

Sat. June 1906
cross sectioning of muda in upper pieces

106.456

400
60
6.0
300
180
120
2800
100
108

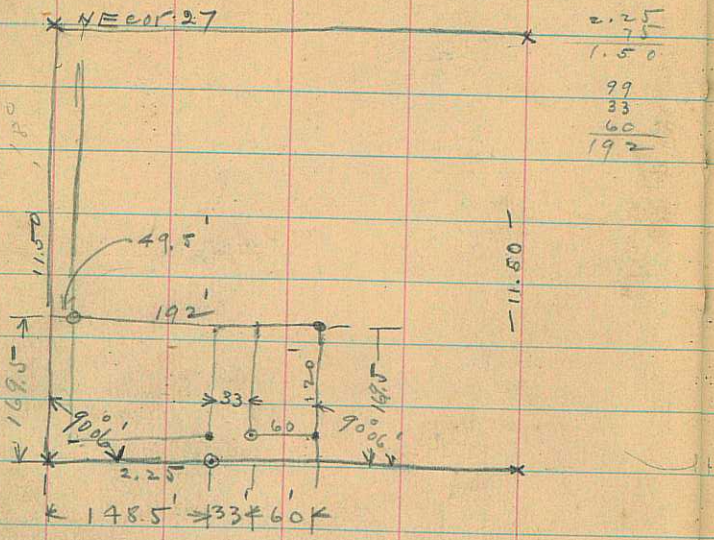
27
104

| Sta | BS. | FS | HI | Elev |
|---|---|---|---|---|
| Bm 17 | 9.924 | | 106.456 | 96.532 |
| Bm 16 | | 6.064 | | 100.392 |
| Bm 10 | 3.517 | | 103.909 | |
| 9 | | 12.66 | | 91.25 |
| 8 | | 12.31 | | |
| 7 | | 11.96 | | |
| | | 11.61 | | |

51.

120
495
1695

5.50
13




B.S. F.S

4.497 on platform

5.416 on stake at operations

4.624 B.S. on stake

92+

3.704 at Granary

Preston O. Howe Co.

Chas C Gusland.

52

192
150
42

192
93
99

5.62
4.49
7.13

132
165
148.5

12
.3
3.6

5.416
4.497
.919
12
1838
919
11.028



5-3

126
70
56

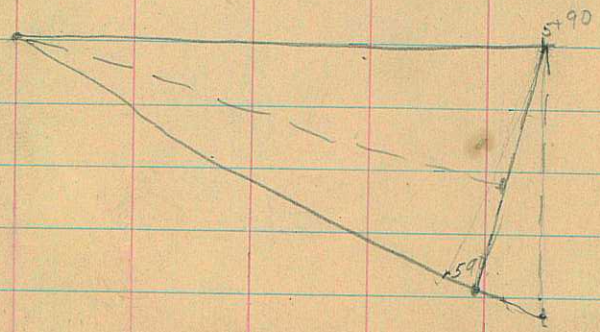
5 | 604

660
56
604

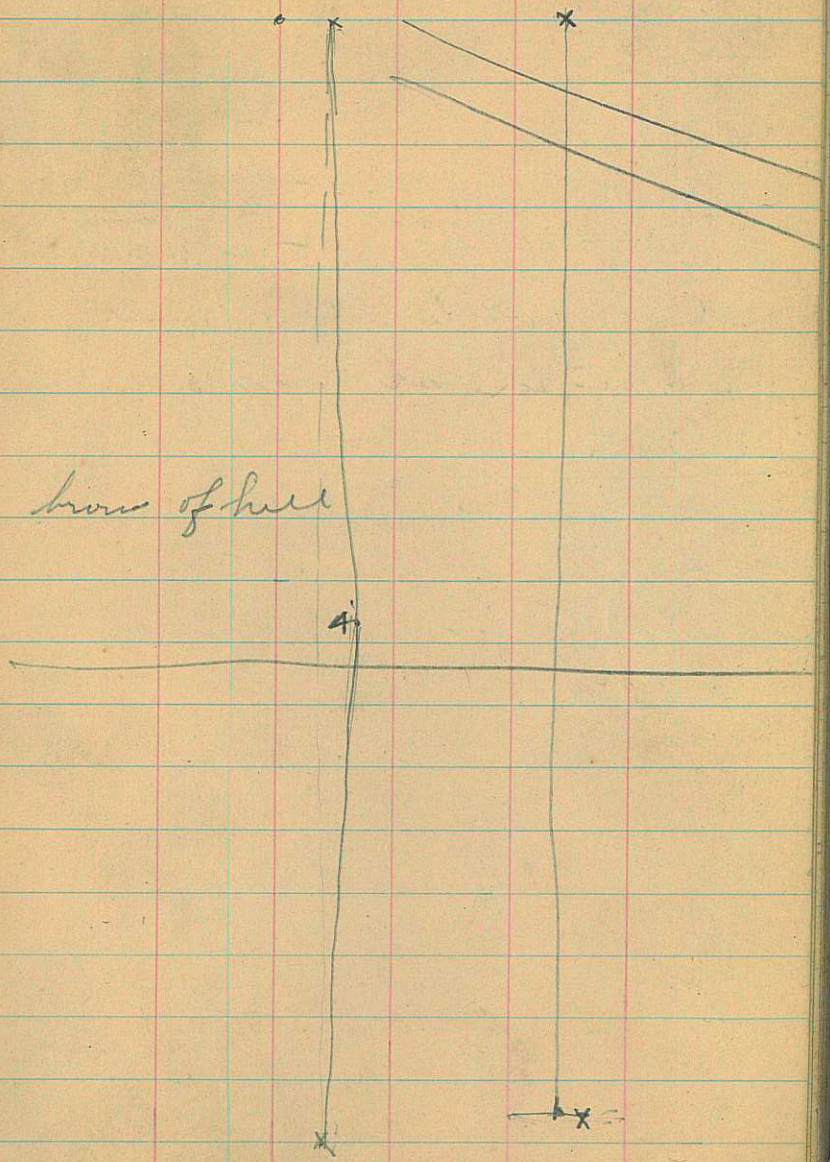
120.8
5
604
56
0

Pole line out of Preston at the City Limits 1 1/8 mile E of main st. stake

| No | ht of Pole |
|---|---|
| 0 | |
| 1 | 30 |
| 2 | 35 |
| 3 | 35 |




5-4




Crown of hill

## Approx no of Lights on proposed line.

ID $8_0 8_1$

ID 5,

ID 12

ID 4

ID 8, 1800 1 sec D

ID (15, 2) (5 6)

ID 5

---

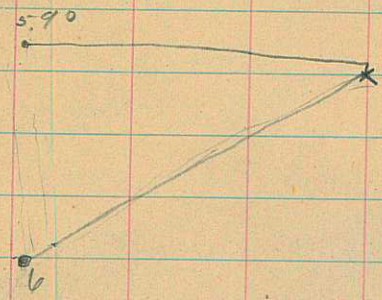
Pipe line Surv for Power Plant.

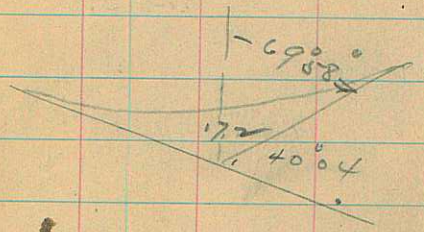
apt. sec. for 20° c. I = 4004 = 17.2'



6 4 9
2 5
6 7 4
1 8
6 9 2

17960
4004
2 | 13956
69 58 | 16
58



57 Direct lines for

| Sta | BS | FS | HI | Elev | |
|---|---|---|---|---|---|
| on BM | 1.010 | | | 261.852 | 262.862 |
| 170 | | | | 787 254.98 | |
| 0 | | | | 3.25 259.61 | |
| 0+25 | | | | 7.45 255.41 | |
| 6+75 | | | | 10.40 252.46 | |
| TP | | | | | |
| 1+00 | | 11.73 | | 251.132 | |
| 1+00 | 2.21 | | | | 253.342 |
| 1+50 | | | | 4.83 248.51 | |
| 1+52 | | | | 7.95 245.39 | |
| 2 | | | | 10.80 242.54 | |
| TP | | 11.862 | | 241.48 | |
| TP | 1.300 | | | | 242 780 |
| 2+29 | | | | 9.15 233.63 | |
| TP | | 11.875 | | 230.905 | |
| TP | 1.430 | | | | 232.335 |
| 2+50 | | | | 7.60 224.73 | |
| TP | | 11.597 | | 220.738 | |
| TP | 0.88 | | | | 221.618 |
| 2+75 | | | | 8.88 212.74 | |
| | | 11.922 | | 209.696 | |
| | 1.465 | | | | 211.161 |
| 3 | | | | 10.10 201.06 | |
| | | 11.610 | | 199.551 | |
| | 2.32 | | | | 201.871 |
| | | 11.888 | | 189.983 | |
| | .830 | | | | 190.813 |
| 3+25 | | | | 3.52 187.29 | 190 |

Cub River plant
down over hill for pipe

End of our Canal
On grade in Canal
on bank at beg of line No 2

on ground

June 20/06

| Sta | BS | FS | HI | Ele | HI |
|---|---|---|---|---|---|
| 3+25 | | | 3.52 | | 190.813 |
| | | 11.872 | | 178.941 | |
| | 1.530 | | | | 180.471 |
| 3+50 | | | 5.80 | 174.67 | |
| | | 11.876 | | 168.595 | |
| | 1.390 | | | | 169.985 |
| 3.75 | | | 6.10 | 163.88 | |
| | | 11.873 | | 158.112 | |
| 4+00 | .870 | | | | 158.982 |
| 4+25 | | | 4.68 | 154.30 | |
| | | | 11.30 | 147.68 | |
| | | 11.986 | | 146.996 | |
| | 0.88 | | | | 147.876 |
| 4+50 | | | 4.10 | 143.77 | |
| 4+75 | | | 5.60 | 142.27 | |
| 5+00 | | | 10.45 | 137.42 | |
| | | 11.963 | | 135.913 | |
| | 1.45 | | | | 137.363 |
| 5+25 | | | 9.80 | 127.56 | |
| | | 11.943 | | 125.42 | |
| | 0.270 | | | | 125.690 |
| 5+50 | → | 11.869 | | 113.821 | |
| 5+50 | 0.85 | | | | 114.671 |
| 5+63 | | | 7.65 | 107.02 | |
| 5+90 | | | 7.60 | 107.07 | |
| 6+05 | | | 12.20 | 102.47 | |
| 6+16 | | | 10.80 | 103.87 | |
| 6+49 | | | 9.10 | 105.57 | |
| | | 11.812 | | 102.859 | |
| | 1.00 | | | | 103.859 |
| 6+74 | | | 10.90 | 92.96 | |
| | | 11.527 | | 92.332 | |

north bank of wash
in wash
north side of Road

61 June 20 / 06

| Sta | BS | FS | HI | Ele | HI |
|---|---|---|---|---|---|
| 6+74 | | | | 10.90 | |
| | | 11.527 | | 92.332 | |
| | .510 | | | | 92.842 |
| 6+92 Bm | | | | 8.70 10.234 | 84.14 82.608 |
| | | 11.534 | | | 81.308 |
| | 2.270 | | | | 83.578 |
| 7+42 | | | | 4.22 | 79.358 |
| 7+97 | | | | 5.00 5.02 | 78.58 78.56 |
| | | | | 6.72 | 76.86 |
| | | | | | 77.316 |

Hinee Hydro = 180.64

5.0 5.29 12 7.28 3/4 6.2
4.2184
5.46
9.3469
10.274
8.5235

on Hub 36' E of sta 6+92

same sta 8+21 on page 45
on bank of River
on 1+20 of
spot mark of Water in my River.
Note this date 1+20 was 6" lower than maximum

| Sta | BS | FS | HI | Ele | HI |
|---|---|---|---|---|---|
| 0+00 | | | | RR on grd 249.5 | gr |
| 0+25 | | | | 250.8 | |
| 0+75 | | | | 6.14 | 248.2 |
| 1+00 | | | | 7.52 | 246.8 |
| 1+50 | | | | 12.85 | 241.6 |
| 1+82 | | | | 18.00 | 236.4 |
| 2 | | | | 21.20 | 233.00 |
| 2+29 | | | | 10.65 | 225.8 |
| 2+25 | | | | | 227.00 |
| 2+50 | | | | 16.88 | 219.50 |
| 2+75 | | | | 12.44 | 210.5 |

| LR. | LC. | Center cut | RC. | RR | Center RR |
|---|---|---|---|---|---|
| | | 4.60 | | 2.20 | |
| 1.60 | 4.54 | 4.26 | 3.94 | 3.94 | 1.88 |
| 3.05 | 4.48 | 4.33 | 4.25 | 3.28 | 3.20 |
| 5.8 | 7.05 | 6.9 | 6.85 | 6.0 | 5.85 |
| 8.50 | 9.50 | | 8.40 | 9.60 | |
| 9.60 | 8.40 | 9.00 | 8.40 | | 9.00 |
| 11.20 | 100 | 9.5 | 9.20 | 11.90 | 11.70 |
| 2.32 | 4.3 | 7.83 | 7.35 | 2.82 | 2.82 |
| 11.15 | 5.73 | 5.23 | 5.08 | 11.80 | 11.65 |
| 9.40 | 3 | 2.24 | 1.7 | 10.7 | 10.20 |

63

| Sta | BS. | FS | in RR on gr | Ele | HI |
|---|---|---|---|---|---|
| 4+50 | | | | 142.00 | |
| 4+75 | | | | 137.5 | |
| 500 | | | | 132.5 | |
| 563 | | | | 113.00 | |
| 616 | | | | 98.50 | |
| 649 | | | | 96.20 | |
| 742 | | | | 84.10 | |
| 7+97 | | | | 81.80 | |
| 7+90 | | | | (103.5 C.3.5) | |
| 5+25 | | | | 125.4 | |
| | | | | | |
| 7+97 | 5.13 | | A Ron grade | orig. 79.20 | |
| 7+42 | | 4.50 | | 80.00 | |
| 5+63 | | 6.55 | 55 | 107.2 | |
| 5+25 | | | 10.80 | | |
| 5+00 | | | 17.2 | | |
| 4+75 | | | 11.7 | | |
| 4.+50 | | | 7.27 | | |

254.98
3
257.08
2.37
2.00.8

2.37

6+4

| L Cut | L RR | Center Cut | Center RR | R RR | R cut |
|---|---|---|---|---|---|
| | | 4.70 | | | |
| | | 5.42 | | | |
| | | F 6.00 | | | |
| | | 5.37 | | | |
| | | 9.37 | | | |
| | | E 4.28 | | | |
| at Power House | | F 2.6 | | | |
| | | C.2 | | | |
| | | | | | |
| | | | | | |
| | 5.50 | F 6' | 6.55 | 7.50 | F 6.9 gone N |
| 2.80 | 8 | | 8.80 | 9. | 1.8 |
| | 11.20 | | 11.8 | 12 | 5.2 |
| 5.9 | 5.8 | 4.70 | 7.00 | 7.75 | |
| 2.92 | 4.35 | 1.77 | 5.50 | 6.25 | |

65

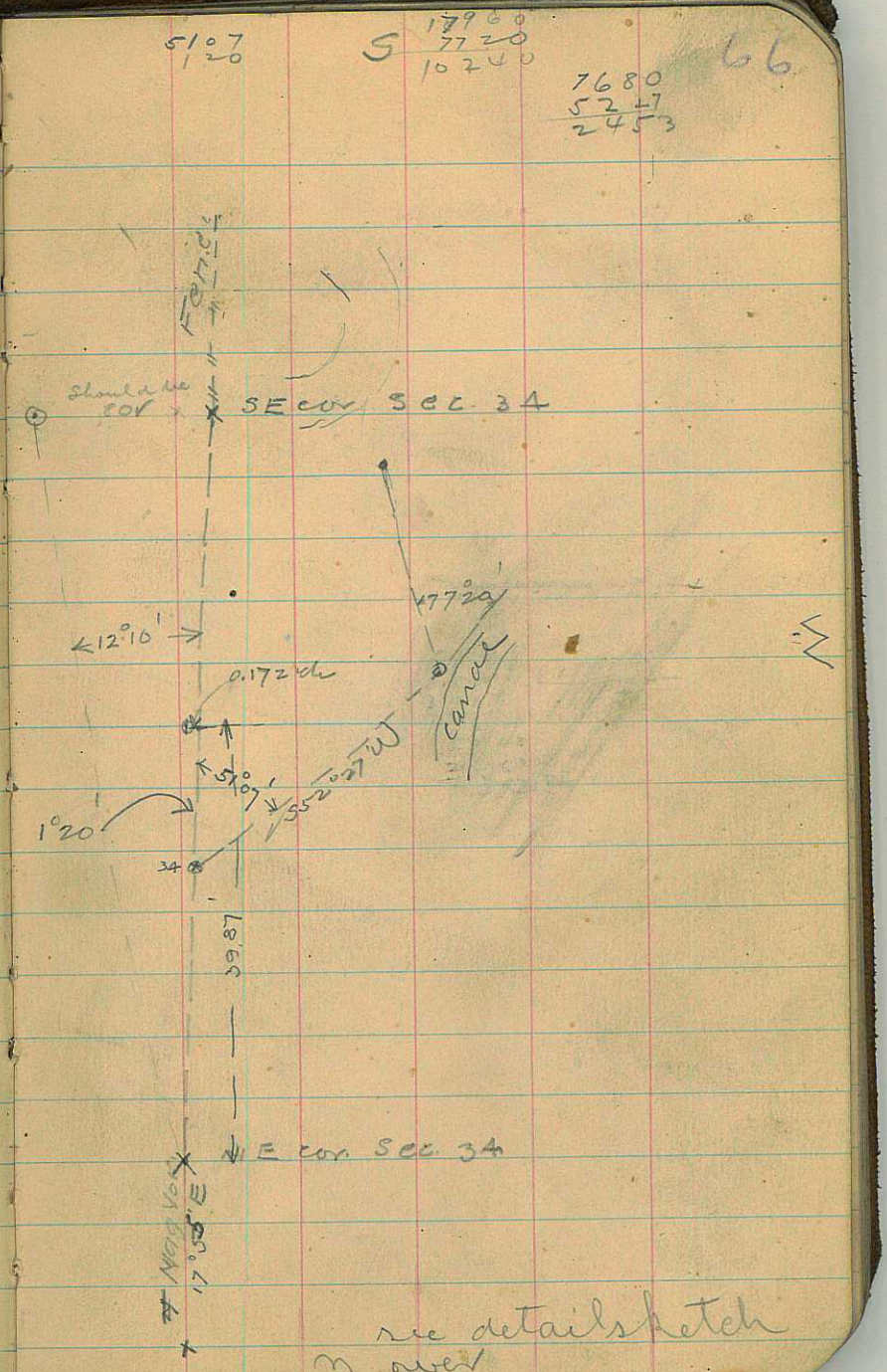
June 27/06

found the NE cor. of sec. 34 Tp. 15 S. R. 40 East of the Boise Meridian.

Beg. at NE of 34
S 1°20' W 23.25 to Canal
" 34 placed a stake

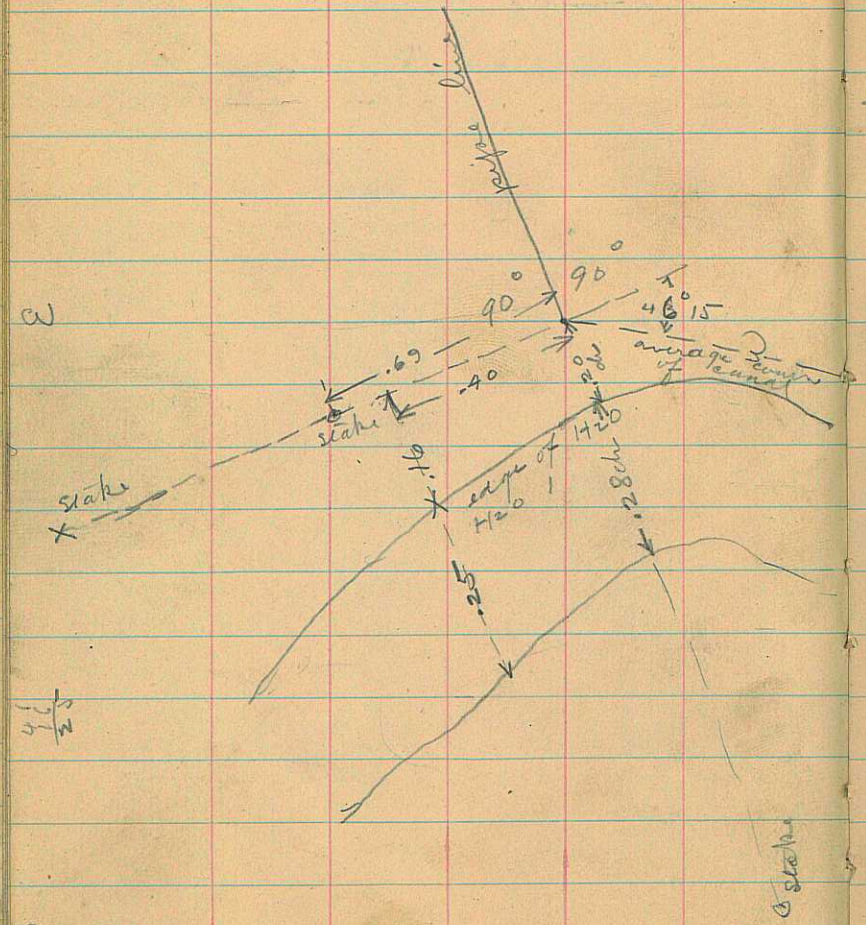
Beg. at a pt 34 chains R of Sta 1 Tunnel.

| List Course | | angles | R |
|---|---|---|---|
| 12.51 ch | S 52°27' W | 77°20 | 51 07 |
| 797' | S 24°53' E | 114°46 | |
| 0.983 ch | N 45°30' E | 51°03 | |
| 1.77 ch | N 13°01' W N 16°40' W | 40°30' | |
| 1.487 | N 32°30' E | | |



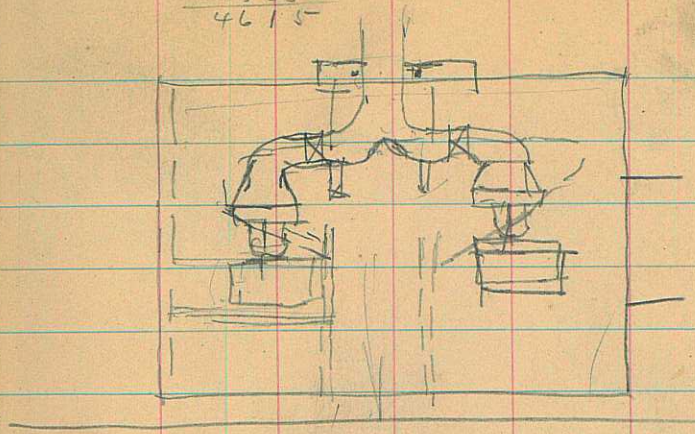
67

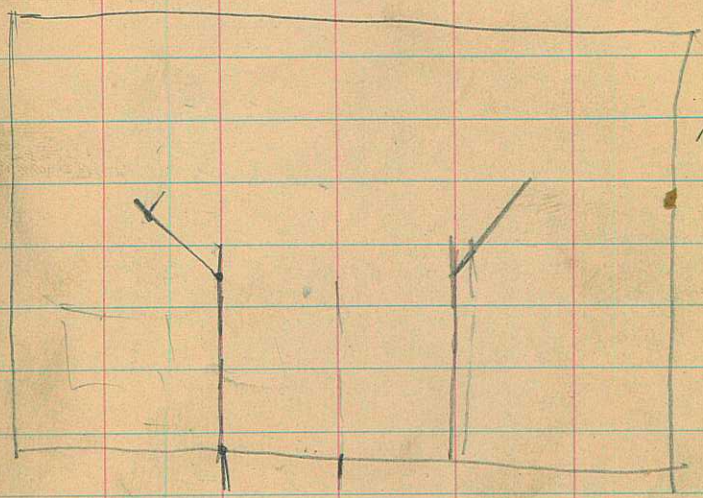
S




8960
4345
4615

68





Note

Length of draft tube from bot to surface of floor =

extreme outside dim. E & W of both turbines

{ extreme length from end of turbine shaft to end of generator shafts. =

dis c.c of both gen shafts =

{ dis from cen. of " "

{ to outside casing. =

{ dis from cen of turbine shaft

{ to outside casing.

where are the governors?

---

Length of Tur shaft. =

dis. from end of turb shaft to end flange on 3 foot entrance pipe.

=



34' x 34'

2' ☒ >

main

main

main

{ 56 yds of gravel necessary

{ 34 yds of sand

280 sacks cement

43 loads gravel

26 " sand

960 / 787 / 787

8.57 / 2.87 / .70

9.60 on H.W

4

10.00

2

10.20

10.00

9.64

.36

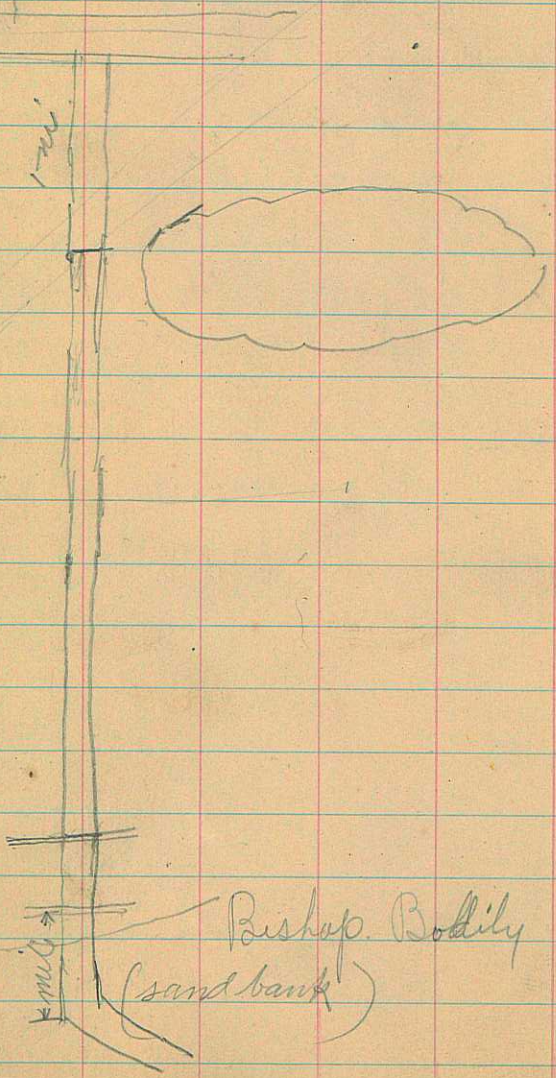
10.16

2

10.36 — 10.60

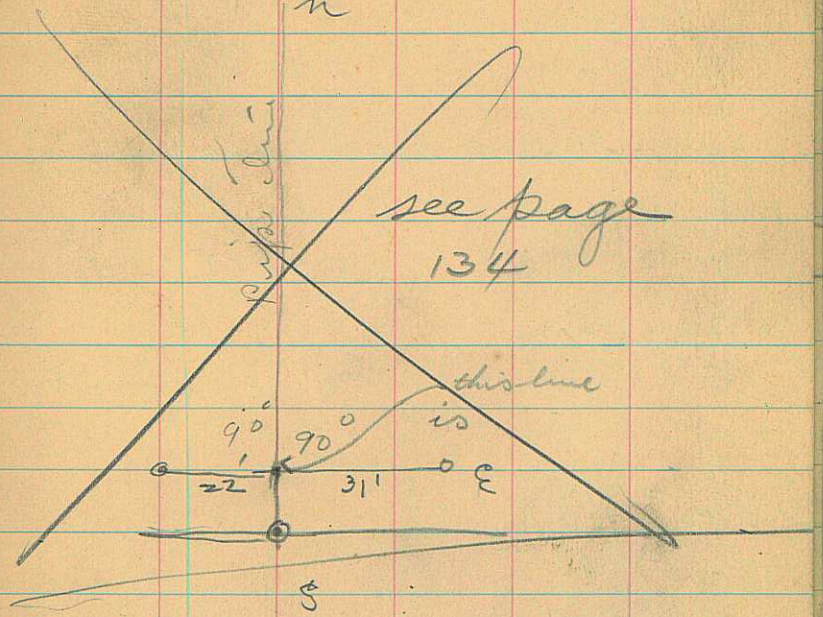
9.31 — 9.77

1.05 — .83






pipe line
in



Notes on pole line from Power House to center of sec. 8. Tp 16 S. R. 40 E.

from the center of P. House I run S 52° 53' W which 77°43' Right from S 24° 53' E of pipe line.

| stake | dist | stake | dist | | |
|---|---|---|---|---|---|
| 0 | 75' | 1 | 35 | 92 k. slope 95' | 2 50 |
| 2 30 | 110' | 3 | 30 | | |
| 24 35 | | | | | |
| 49 48 | span 160' across hollow | | | | |
| 100 | | | | | |

Where line runs out into street 18 west. to E line of sec. 8



2453
5253
7743

12.19
66
7314
7314
80454
797
7.5

821 805 797 8.5

320
6.00

Mr. J. H. Mosley see him.

center of Power House

must good strong poles near Mr. Gamble's corral

# Profile Levels Con of Richmond City July 3/06



| Sta / Bm | BS. | FS | HI | Ele | | |
|---|---|---|---|---|---|---|
| | 7.464 | | | 100.00 | 107.464 | on cement cap. peoples store |
| | | | 7.617 | 99.847 | | on end of cement crossing W side of M. |
| | | | 6.625 | 100.834 | | in cen. of " " " |
| | | | 5.477 | 101.987 | | East end of cement crossing |
| | | | 4.68 | 102.78 | | cent. of wood cross, E. Side of M. on Cen |
| | | | 5.26 | 102.26 | | N end of wood cross E side of Main on Cen |
| | | | 5.34 | 102.12 | | 9 " " " " " " " " " |
| | | | 7.32 | 100.04 | | on ground intersection of main & Center St. |
| 0 | | | 5.45 | 102.01 | | on " NW cor. Metcalf house block |
| 1 | | | 1.28 | 106.18 | | note going E. on said st but Main + 1st E |
| TP 1 | | .820 | | 106.644 | | in center st |
| 1 | 10.978 | | | | 117.622 | in center of ist. |
| 2 | | | 7.620 | 110.00 | | in center of walk on ground |
| 3 | - | | 5.10 | 112.52 | | |
| 3 | | | 4.50 | 113.12 | | in cent. of st. |
| 4 | | | 2.30 | 115.32 | | in " " walk |
| TP | | 0.05 | | 117.572 | | |
| | 11.591 | | | | 129.163 | |
| 5 | | | 10.35 | 118.81 | | walk |
| 5 | | | 9.83 | 119.33 | | St. |
| 6 | | | 6.10 | 123.06 | | walk |
| Bm 6+61.7 | | | 2.837 | 126.326 | | on nail in tree near NE cor. of 1st Block |
| 6+61.7 | | | 4.44 | 124.72 | | on walk |
| | | | 3.90 | 125.26 | | S. end of Wood cross W side of 1st E & Cent |
| | | | 3.32 | 125.84 | | cent " " " " " |
| | | | 3.52 | 125.64 | | N end " " " " |
| | | | 2.20 | 126.94 | | NW cor of Block. 1st E. & Center St |

| Sta | BS. | FS | HI | Ele | HI |
|---|---|---|---|---|---|
| 0 | 2.463 | | | 100 | 102.463 |
| | | | 3.66 | 98.80 | |
| | | | 3.33 | 99.13 | |
| 1 | | | 3.75 | 98.71 | |
| 1+94 | | | 4.32 | 98.14 | |
| 2 | | | 3.80 | 98.66 | |
| 2 | | | 4.05 | 98.41 | |
| 2+10 | | | 3.62 | 98.84 | |
| 3 | | | 5.17 | 97.29 | |
| 4 | | | 6.26 | 96.20 | |
| 5 | | | 8.18 | 94.28 | |
| 5 | | | 6.62 | 95.84 | |
| 6 | | | 8.80 | 93.66 | |
| 6+66.9 | | | 10.10 | 92.36 | |
| 6+66.9 | | | 7.83 | 94.63 | |

gaining South from Peoples store on West side of State St.

at Peoples store
on ground SE cor. inter main + Center
on N end of Wood cross Walk Center of Master 1
on walk
" "
st.
on Beach's wood plat form
on " Stp Stond.
on walk
" "
" "
st,
walk
walk
st,

99.13
28
99.41

Direct Levels at NE cor of Tab. Block

| BM | | | | | |
|---|---|---|---|---|---|
| 0 | 1.713 | | | | 101.713 |
| | | 8.289 | | 93.424 | |
| | 1.550 | | | | 94.974 |
| | | 9.310 | | 85.664 | |
| | 0.240 | | | | 85.904 |
| 0 | | | 1.80 | 84.10 | |
| 0 | | | 0.70 | 85.20 | |
| 0 | | | 1.55 | 84.35 | |
| 1 | | | 3.25 | 82.65 | |
| 2 | | | 4.25 | 81.55 | |
| 2 | | | 3.15 | 82.75 | |
| 3 | | | 6.10 | 79.80 | |
| 4 | | | 7.32 | 78.58 | |
| 4 | | | 5.55 | 80.35 | |
| TP 5 | | 9.043 | | 76.861 | |
| 5 | 1.55 | | | | 78.411 |
| 6 | | | 3.84 | 74.57 | |
| 6+64.4 | | | 5.15 | 73.26 | |

Working toward S side of st bet 1st W + 2nd W.

at Peoples
(gaining West)

NE cor on ground at Tab. Blk
at opp. NE cor of Blk at Hendricks Hotel cor
on walk
" "
st.

st
on walk
" "

NW cor of Block
see over

77 Levels for Tob. Blk Cor

| Sta | Bs. | FS | HI | Ele | HI |
|---|---|---|---|---|---|
| | | | 5.48 | 73.378.411 | |
| | | | 8.356 | 70.06 | |
| | | | 9.22 | 69.19 | |
| | | | 5.80 | 72.61 | |
| | | | 5.55 | 72.86 | |
| | | | 4.95 | 73.46 | |
| Bm | | 3.935 | | 74.476 | |

cen. of st on N side of C. on 2e W
on ground NE cor. of 2d intersection
" " SE " " "
cen. of 2e W on N side of C -
SW cor of 2d intersection
cen. of st on E side of 2e W on C
on nail in Telephone post West of
the NW cor. of 2d intersection

Log sin 17° 51. 1.48647
Log 42.3 = 1.62634
1.11281
12.9

42.3



# Notes on center lines of center and main St.

Intersect Cen & Main

2/164.3 / 8.2.16 — 100.00 / 82.16 / 17.84 — 2(100.35 / 50.17)

164.3 diag from NW cor to SE cor.

## Intersection at 3rd E with C

| | D to cor | N to cor | width of St | Side of St. N+S. |
|---|---|---|---|---|
| 3rd E Cen. | | | | |
| Franklin | 50.17 | 50.17 | 100.35 | E. |
| " " | 50.25 | | 100.50 | W 3 E. |

## Intersection 2nd E + Center St

| | | | |
|---|---|---|---|
| from line | 48.8 | 98.00 | E |
| | 48.75 | 96.80 | W 2 E. |

## Intersection 1st E + Center St

| | | | |
|---|---|---|---|
| From line | 49.5 | 98 | E |
| | 49.15 | 97.30 | W 1 E |

## Int. Main & Center St.

| | | | |
|---|---|---|---|
| From line | 48.54 | 96.70 | E |
| | 48.50 | 96.80 | W |

see over

Coin.

intersection 1st W + Center

| From big | S. to or N. or W. to of St | side of sts N + South | |
|---|---|---|---|
| | 45.5 | 94.40 E | ✓ |
| | 45.45 | 94 30 | W |

Intersection 2do W + Center

| | | | |
|---|---|---|---|
| | 43.2 | 90.70 E | |
| Wr. pin | 42.4 | 91 00 | W |

Intersection 3ro W + Center

| | | | |
|---|---|---|---|
| | 40.8 | 94 00 E | |
| | 39.6 | 93 60 | W |

Intersection 4th W. + C.

| | | | |
|---|---|---|---|
| | 36.5 | 91 30 E | |
| Wr pin | 37.20 | 91 70 | W |

Note FS. to 3 E + C. st angle
R 90° 04 up main St.

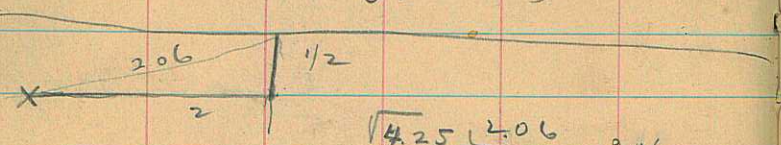
Running on Main St. 84

July 3/06

| From | E to or W to or of St. | Width of sts E + W sides N + S. | |
|---|---|---|---|
| | Intersection 3rr S. | | |
| Wr. pin | 66 | 66 132' | X |
| | 65.15 | 66.2 | X |
| | Intersect 4 S + main | | |
| | 65 | 67 | X |
| | Intersection 2d S. + Main | | |
| | 65.1 | 65.2 ✓ | X |
| | 64.5 | 65.3 | X |
| | Intersection 1rr S + Main. | | |
| | 64 | 64.6 | X |
| | 64.7 | 65.2 ✓ | X |
| | Inter. main + Center | | |
| | 66.4 | 66.38 | X |
| | 67 | 66.2 ✓ | X |
| | Intersection 1rr N + main | | |
| | 66.1 | 65.2 ✓ | X |
| | 66.4 | 63.6 | X |

85

from the E to cor. W to cor Width sides of St. E + W
63 N S
(48 a jog south) X




$\sqrt{4.25} = 2.06$

400 2100

206
206
1236
412
0.2436

2.06
5
2.56
720
5120
1792
1843.20
1640
203.2

720
2

200
1440
1640

102 feet from stake on N to Srid of R/of Way of O.S.L.-R. at Marsh-

(3×130 + 120 + 87.5 ✓
+ 1503 ✓ Co Road

130
3
390
120
875

5975
1503
21005
1664
1436.5

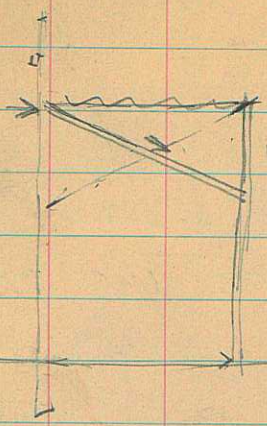
P.I. of Way.

(11×130 + 114 + 120)

130
11
1430
234
1664 total

Difference 436

86



400.00 5280
3696 0875
30400

.075
320
1500
525
54.000

1300
101
102
1503

87 Montpelier Water works Survey.

July 10/06

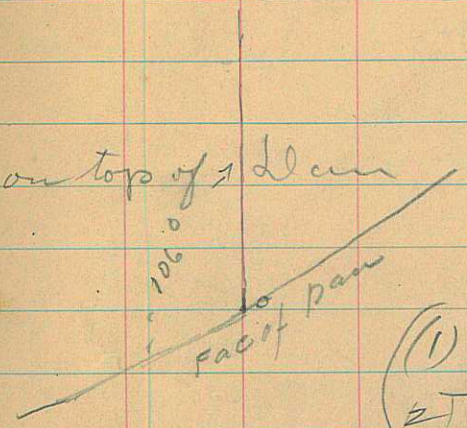
size of filter beds outside = 34' x 22'

| Sta | BS. | FS | HI | Ele | HI |
|---|---|---|---|---|---|
| | | | 473 | 366.49 | 371.22 |
| | | | | 371.00 | |
| | | 5.40 | | 366.49 | 371.89 |

104.30
90
14.30
.106.

370.99
5
371.49
5
366.49
473
371.22

366.49
5.40
371.89

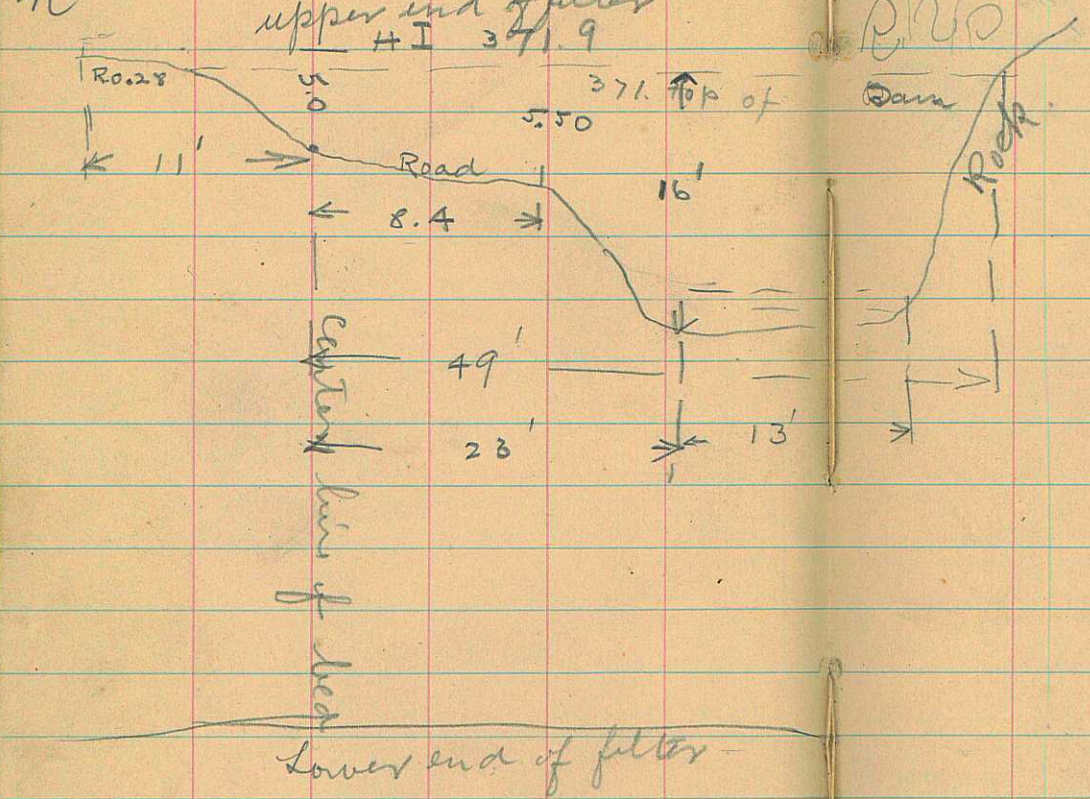



(1) 4.9'
2 4 Sta Cents

88

# Dam contour









| Sta | BS | FS | HI | Elev |
|---|---|---|---|---|
| | 5.93 | | | 366.49 |
| | | 6.72 | | |
| | | 5.25 | | |
| | | 2.21 | | |

on Hub of old dam:
SW cor. of bridge
cen. of W end
NW cor.

91

Sur of final line
for at Montpelier

| Sta | Course | angle | Curve R | D L |
|---|---|---|---|---|
| PC. 0+83 | S 9°12'W | ~~20~~ | | 20° L |
| PI 2+46 | | 35°26 | | |
| PT 2+465 | see page 97 | | 4° R | 100 / 21°50 |
| PC 2+998 | | | | |
| PT. 6+498 | | | | |
| (PI 7+61.6) | | | | |
| PC 6+58.9 (from 6+58) | | | 8° R | |
| PT 8+62.9 | S 36°58'W | | | |

9+29.9
56.1
9860
65.0
16+36+

PC 25+70 — 16° L
on curve
25+82
150
PT 27+32
167
PC 27+48.7 — 12° L
157.7
PT 29+06.4
30

note ~~d~~ diamond was followed in mill once

150
16
166.7

Tan D. R. PI

91.9 (2.45930)

182.2 1143

102.6 2.85539 16°18 West 6+49.8

the entrance of old Race
a 45° blow at point being ^

92

6449.8
1118
7616

17960
14302
3658

46
34
12

1550
34
1584
986
2570

13

| Sta | Course | ∠ | angle R | Curve | Tan D. |
|---|---|---|---|---|---|
| 30 | | | | | |
| PI 33+01 | S 48° 48' W | to | 21°47 | | |
| PC 31+63 | | | 8 R | | 137.8 |
| 32+13 | | | | | |
| 32+63 | | | | | |
| 33+13 | | | | | |
| 33+63 | | | | | |
| 34+13 | | | | | |
| PT 34+35 | S 48° 48' W | | | | |
| 35+00 | | | | | |
| PT 47+20 | | | 27°19 | | 232 |
| P.C. 45+08 | | | 6° R | | |
| 46+08 | | | | | |
| 47+08 | | | | | |
| 48+08 | | | | | |
| 48+64 | | | | | |
| PT 49+64 | | | | | |
| 50+00 | | | | | |

55.8

3301
137.8

Angle E 31+632

14

(27° 19' 6°) 4740
232
45.08

15' Dec (Dec 4° 00' 0")

2°
4°
6°
8°
10°

note sketch for Gov. tig

33+01

Original sec over E

(49° 09')

44

322

3°00
6 00
9 00

95

| Sta | course | angles | R | curve |
|---|---|---|---|---|
| 63 | S 76°40'W | | | |
| PI 77 | " " | 22°05' | | |
| | N 81°15'W | | | |
| PC 73+27.6 | | | 3°R | |
| 74+27.6 | | | | |
| 75+27.6 | | | | |
| 76+27.6 | | | | |
| 77+27.6 | | | | |
| 36. | | | | |
| 3.00 | | | | |
| PT 80+36 | | | | |
| 36.4 | | | | |
| 81+00.6 | | | | |
| 85+46 | N 81°15'W | | | |
| 98+82 | " | | | |
| PI 107+84. | | 27°10' | | |
| PC 104+38 | N 54°W | | 4°R | |
| 50 | | | | |
| 104+88 | | | | |
| 50. | | | | |
| 105+38 | | | | |
| 50 | | | | |
| 105+88 | | | | |
| 106+38 | | | | |
| 50 | | | | |
| 106+88 | | | | |

4400
55
4345

Tindles, Dingle & to fence run N.E.S.

37.24
1 30' 35"
1 30
3 00.
4 30
30
6 00

The NE cor of ¼ SE ¼ of Sec 1. Tp. 13 S. R. 44 E Magnetic 18° 35' E (79° 41')

3301

N 49° 21' E
N 49° 21' E correct.
43+945

Jolly. Thurston

81 00
80 36.4

to fence N 0 36.4

" " " " "

346

4 30'
32
5 02

7700
3724
4327.6

100 ; 90 ; 36
90
32.40

107.84
3.46
104.38

1°
2°
3°
4°
5°

1796 0
984 5
811 5

7645
2 20
9845

97

On PI of old line
ne 212.31 ch.

| E | I | | Curve | Tan L.O. |
|---|---|---|---|---|
| | 32 | 16 | 20° | 83.3 |
| | 18° | 58 | 12° curve | 79.7 |
| 11+ | 14° | 31 | 4° | 162.2 |

Con for over page

| Sta | Course | Angle R | Curve | Tan L | Dir. | Dan. | E |
|---|---|---|---|---|---|---|---|
| 107+38 | | | | | | | |
| 50 | | | | | | | |
| 107+88 | | | | | | | |
| 108+38 | | | | | | | |
| 108+88 | | | | | | | |
| 109+38 | | | | | | | |
| 109+88 | | | | | | | |
| PT 111+27 | | | | | | | |
| 55 | | | | | | | |
| 112+00 | | | | | | | |
| 113+50 | | | | | | | |
| 114+50 | | | | | | | |
| PI 114+74 | | 11°59' | | | | 6° | RV |
| PT 115+73.4 | | | | 26.6 | | | |
| 11,600.0 | | | | | | | |
| PI 133+98.4 | | | | | | | |

See Page 101

11,350.0
73.4
150
11,573.4

T 135
78 4

98

on 212.13
on 209.59
on PI W of creek upper cross

Tan L | Dir. | Dan. | E

6°
7°
8°
9°
10°
11°

100 | 120 | 27 V
120
540
27
32.40

at creek bank

100 V

1°30'
130
300
on PI near house

Levels for Road at filter Beds.

| Fill | BS | FS | HI | Ele | Ht |
|---|---|---|---|---|---|
| | 4.57 | | 366.49 | | 371.06 |
| 8' | | 6.00 | | 373.00 | |
| 9.14 | | 7.19 | | | |
| | 5.01 | | 366.05 | | |
| | 4.61 | | | 370.66 | |
| 7.94 | | 5.60 | | | |
| 7.96 | | 5.62 | | | |
| | 4.62 | | 366.04 | | |
| ~~6.71~~ | 7.16 | | | 373.20 | |
| 6.71 | | 6.91 | | | |
| 5.5 | | 5.70 | | | |
| 5.75 | | 5.76 | | | |

Check levels. Back 373.20

| | | | | |
|---|---|---|---|---|
| | 7.644 | | 365.56 | |
| 4.26 | | | | 369.82 |
| | 3.23 | | 366.59 | |
| 4.40 | | | | 370.99 |
| | 4.41 | | 366.57 | |

Pt 13.

Dt. HI and Ele

366.49
4.57
371.06

373.00 371.00
371.06
1.94
6.

16,000
11600
11573.4
26.6

on road

2.34

370.66
4.62
366.04
7.16
373.20

5.95
2

180 ; 180 ; 56 ;
180
148
56
10,080 | 100
100.8
1

100

7.94
9.14

371.06
5.01
366.05
4.61
370.66
373.00
370.66
2.34
5.60
7.94
5.62
2.34
7.96
6.91
2

373.20
7.64
365.56
4.26
369.82
3.23
366.59
4.40
370.99
4.41
366.57

Montpelier water Works.
Pipe line

| Sta | course | Angle | curve |
|---|---|---|---|
| POI 133+98.4 | | | |
| | | 19° 18' R | |
| P.C. 131+54.8 33.4 | | | |
| 135+88.2 4.50 | | | 4° L |
| PT 136+38.7 6.18 | | | |
| 137+00.0 | | | |
| 139+52.4 | | | |
| 140 | | | |
| 141 | | | |
| 145+51.2 48.8 | | | |
| 146+00.0 | | | |
| PT. 149+50 | | 15° 03' | |
| PC. 145+72 50 | | | 2° L |
| 146+22 | | | |
| 146+72 | | | |
| 147+22 | | | |
| 147+72 | | | |
| 148+22 | | | |
| 148+72 | | | |
| 149+22 | | | |
| 149+72 | | | |
| 150+22 | | | |
| 150+72 | | | |
| 151+22 | | | |
| 151+72 | S 79° 30' W | | |
| 152+22 | | | |
| 152+72 | | | |
| 153+22 | | | |



Am Dis Dnde E

| | |
|---|---|
| | 133+98.4 |
| 20 | 243.6 |
| 20.5 | 131.548 |

243.6

2 ( 15° 03' 60 / 7 31

38.12 ch old line
to stake near pond same as
to Mill rock
to Pond water
on line (old sta 29+47)

149+50
145.512
398.8

378'

30'
1° 30'
2° 30'
3° 30'
4°
4° 30'
5° 30'
6° 30'
7°
7° 30'

103

| Sta | course | angle | R | Curve |
|---|---|---|---|---|
| PIT | | | | |
| 153+23 | | | | |
| 153+82 | | | | |
| 154.00 | S 79°30 W | | | |
| PI 161+75 | | 8°18' | | 2°L |
| PC 159+67.2 | | | | |
| 160+172 | | | | |
| 160+672 | | | | |
| 161+172 | | | | |
| 161+672 | | | | |
| 162+172 | | | | |
| 162+672 | | | | |
| 162+972 | | | | |
| 162+96 | | | | |
| 163+17.2 | | | | |
| 163+67.2 | | | | |
| PIT | | | | |
| 163+832 | | | | |
| 164+000 | | | | |
| 167+06 | | | | |
| PI 167+963 | | | | |

Tan D. Dank Co

153.23
153.82
104

to fence N & S.

207.8

3 71
13
2 58
.43
3 74
103 2
110.94

16400
16383.2
16.8

16175
2078
159+672

30'
1°
1 30
2
2 30
3
3 30
3 30
4

{ to E side St. at fence
" W " " " "

end of Mill property N side St.
90° elbow in line with E side St

105

168+66 Comm
175+42
176+13
183+26
184+90
184+48
185+3.1
192+13
192+43
193+12
200+18
200+93
208+75
208+92
209+20
213+06
213+32
212+80
219+19
219+69
219+56

1 99 74 25 ang R

48 42 90

19

02'

20,0.18 74 2009 2

99 25 74

106

to W side of St
to E " " " B.5 (10)
to cross which is 30' E of W line of School house lot
E side St. W side of Block 10
to W line of St
to cross
to S. side St E+W
to N side of St. E+W
to cross
to S. Side of St E+W
to N " " " " " " Main St.
to cross 25' N of Stone.

to cross.
To West side of St.
to cross. 25' N of stone
to " " " "
E side of Division of Stone
to E side of St.
West of St.
to cross

200 93
185 3
1462

| | Course | Angles L | Angles R |
|---|---|---|---|
| 224+67 | | | |
| 224+81 | | | |
| 225+18 | | | |
| 225+28 | | | |
| 225+00 | | | 23' |
| 226+00 | | | |
| ~~23~~ | | | |
| 230+52 | | | |
| 230+91 | | | |
| 231+06 | | 21' | |
| 234+48 | | | |
| 234+83 | | | |
| 234+98 | | | |
| 238+60 | | | |
| 241+37 | | | |
| 242.24 | | | |
| 241.14.7 | | | |

66
18
48

256
48
27 4

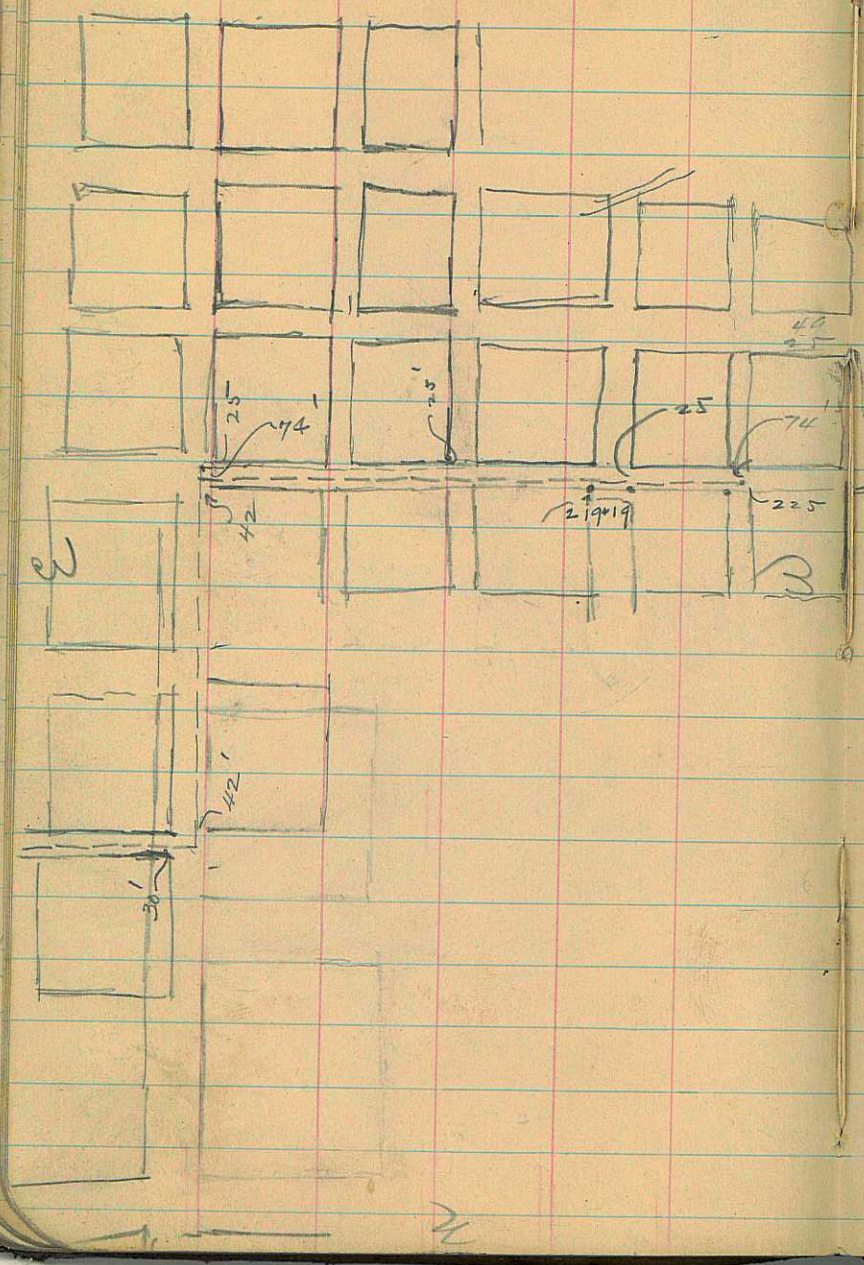


to east side of St. on N side of
" " " " " on N side of
to West side of St. on S side of
to W side of St on N side of
to cross Note from this
225+00 Sta I decided to go on
the N side of main.
This will decrease Sta 49'
Note I call Burgoyne St N & S. 3rd E.
25
49
74

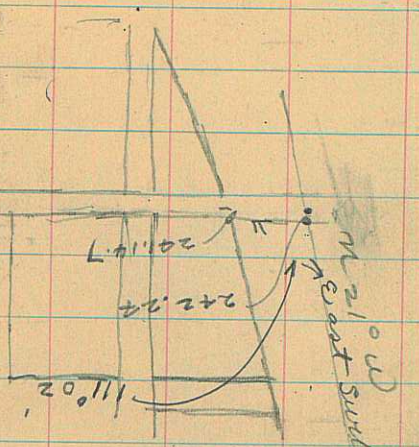
then on 4 E cross 15' E of Wire
" on 5 E cross 20' E of "
" on 6 E cross 42' E " "

To E side of St.
to cross
to W side
to E side running N no stone S
to cross
to W side of
to E. side of St. St Runs NE
to lower cross at Depot
to brick
to west side of Block

109




110




90
110.2
111

Starting on Distribution system.

| Sta | BS. | FS | rim Ele | HI |
|---|---|---|---|---|
| | 4.585 | | | |
| | | 4.25 | | |
| Nail | 8.238 | setting at (3) | | 5.25 HI @ 3 |
| 4 | | 2.94 | | |
| 4 | 5.50 | | | |
| 5 | | 2.74 | | |

Bom



Remarks.

- I call first St E of Depot 1st East

On 1st E

on bm tel pole NW. int. C + 1 25 E

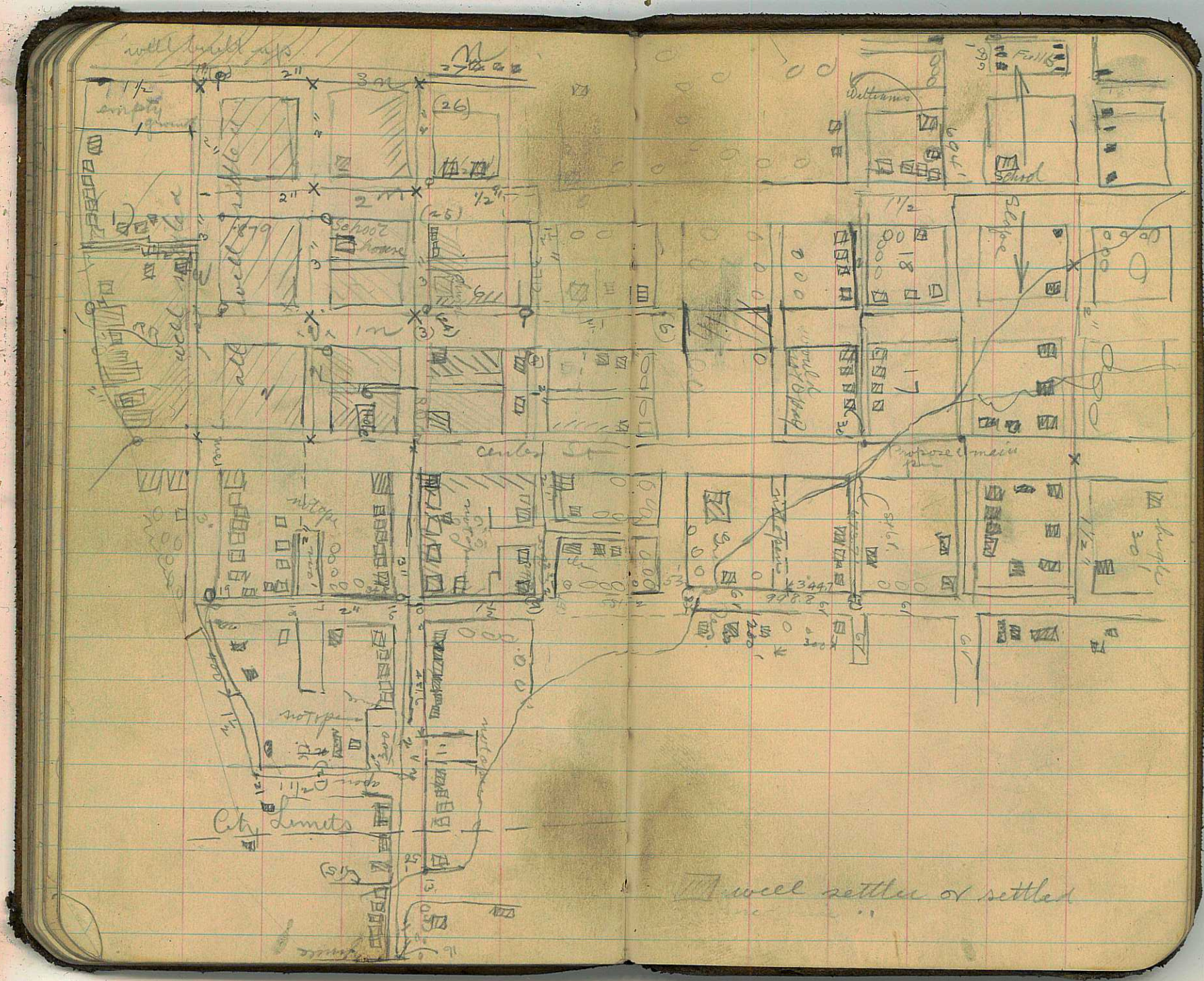
Beg. at SW int. C + 1 25 E N 390.3 to NW cor
449.2 to SW

611. to S. side lane, run W of St.
628. to " " " " "
879 to S " " of St. " East
924.3 to N " " " " "
1044 to N side No 1
1229 to No 2

on Peter curb Cement.

Beg. at int. 4 a 4' E. meas. started at N E cor.
N 61 to S E cor
" 370 to S. side St.
" 439 to N " " E & W

Beg at int at SW cor Blk 17
on top of post SW cor. B. 17


well house
empty
1879
School house
Deltrans
School
Cemetery St
City Limits
well settled or settled

Beg at the inter. at SW cor B.I.R. School house blk.
Beg. at S E. cor of intersection

Direct levels. ran from stake at Grist Mill.

| Sta | BS | FS | HI | Ele |
|---|---|---|---|---|
| | 8.04 | | | 172.15 |
| | | 0.66 | | |
| | 11.03 | | | |
| | | 0.12 | | |
| | 11.75 | | | |
| | | 1.45 | | |
| | 12.10 | | | |
| | | 0.13 | | |
| | 11.49 | | | |
| | | | 7.90 | |
| | | 5.34 | | |
| | 0.83 | | | |
| | | 0.30 | | |
| | 12.00 | | | |
| | | 0.86 | | |
| | 11.78 | | | |
| | | 0.69 | | |
| | 10.96 | | | |
| | | 0.00 | | |
| | 6.62 | | | |
| | | 11.99 | | |
| | 6.04 | 0.32 | | |
| | 94.38 | 5.09 | | |
| | 111.89 | 26.93 | | |

see over



The SE cor of the Wander. is Which the NE cor of NW¼ of Sec. 6. Tp 13 S. R 45 E

at Montpelier

On stake at Grist Mill

on P.I. No. 133+98

| Sta | BS | FS | HI | Elev | HI |
|---|---|---|---|---|---|
| Carried | 11 | 1.89 | 26.93 | | |
| | | 12.08 | 0.10 | | |
| | | 4.38 | 0.27 | | |
| | | 12.03 | 0.14 | | |
| | | 8.88 | 0.15 | | |
| | | 12.04 | 1.65 | | |
| | | 4.32 | 1.15 | | |
| | | 10.28 | 4.07 | | |
| | | 10.70 | 1.15 | | |
| | | 11.96 | 0.66 | | |
| | | 11.90 | 0.62 | | |
| | | 10.12 | 0.16 | | |
| | | 3 9.91 6 5 | ~~4 6 3~~ | | |
| | | | 4.63 | | on X |
| | | 198.49 | 41.68 | | |
| | | 41.68 | | | |
| | | 186.81 | D of E | | |
| | | 172.15 | | | |
| | | 358.96 | ✓ very close check | | |
| | | 358.61 | O.K. | | |



Measurments Con 7/16/06

Beg at the NE cor of Blk
Cat the intersection at SW B.17

| | | |
|---|---|---|
| S | 673.7 | to SE cor of that Blk |
| W | 344.7 | to fence, see sketch |
| W | 998.8 | to SW " " " " |

Beg at SW. at (8)

| | | |
|---|---|---|
| W | 53 | to West of St. |
| W | 551.2 | to E side of St. SW cor of B. |
| W | 602.1 | to W " " " SE cor at 9 |

Beg at 9. at SE cor

| | | |
|---|---|---|
| N | 299.3 | to S side St. NE cor |
| N | 359.3 | to N. " " SE cor |

Beg at 9. SE cor

| | | |
|---|---|---|
| W | 532.7 | to SW cor. No 10 |

Beg. at 10 SW

| | | |
|---|---|---|
| S | 50.6 | to NW cor S side St. |
| S | 451.6 | to S side to part of St |
| S | 551.2 | to N side of St No 11 |
| S | 619 | to in line with No. 12 |

see over Con

119

S. cor
~~S 15~~ 815 to crick at 13 slvo fence.
851 to across crick. no 14
825 to fence line no 15
1183 to fence end of pipe.

Beg at no 16, the SE cor.
W 348 to cor no 17
W 396.6 to cor west side No 18
W. 752.5 to cor E side No 19

Beg at SW cor No 19
S 48 to no cor no 20
S 616 to 21, SW cor
cor of pipe a cross.

Beg at no 21
E 400 to fence no 22
E 521.8 to W line of St.

See vol

120

Beg at SW cor No 24 Block
N of Peters store.
N 1475 to S. side of lane E & W
N 170 to N " " " "
N 423 to NW cor 25
note the N side of this Block
is about 4 rd N of St. on
the N side of Blk 17
N 473 to N side of St. SW cor
N 638 to board fence E & W No 26
N 855.8 to fence No 27

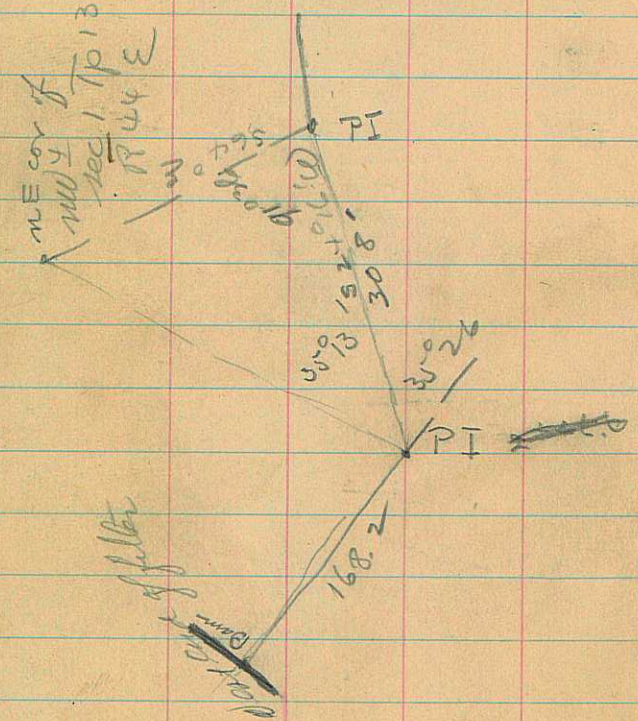
755 1229
789 4492
67 7898

789
755
34

Address
A. B. Temple
Atty at Law
Montpelier Idaho

121

| Sta | BS | FS | HI | Ele | HT |
|---|---|---|---|---|---|
| BM | 2.02 | | | | |
| | | 5.15 | | | |
| | | 8.20 | | | |
| | 11.00 | | | | |
| | | 38 | | | |
| | | 23 | | | |




122

on cement at Riters corner
at intersection No. 16
at ry
at intersection 19

17960 2465
15544 308
2416 5546

| Sta | BS. | FS | HI | Cut |
|---|---|---|---|---|
| 25+76 | 7.04 | | | 3100 |
| | | | | 2576 |
| | | | | 524 |

10.91
677
13.81 10.53
244
13.81
7.63 524
524 1.45 +70
2390
2091
2940
2620

sewer

123 Grading between

Sta 31 & 25+76

1.45 ft

| Sta. | RR gr. | RR orgl. Cut | BS | FS | Actual C |
|---|---|---|---|---|---|
| 31 | 10.53 | 15.53 | | | |
| 29+06 | 5.20 | 14.17 | 8' | | |
| 28+56 | 4.00 | 13.45 | 9' | | |
| 28+06 | 4.30 | 12.73 | 8' | | |
| 27+56 | | 12.01 | 5.7 | | 6.24 |
| 27+56 | | 15.37 | | 9.60 | |
| 27+33 | 6.20 | 15.14 | 8.9 | | |
| 26+83 | 7.00 | 14.42 | 7.42 | | |
| 26+33 | 4.80 | 13.70 | 8.90 | | |
| 25+83 | 6.30 | 12.98 | 5' | | |
| 25.76 | | | 5' | | |

| Sta. | BS. | FS | Sta. RR gr. Cut |
|---|---|---|---|
| 31 | 7.31 | | |
| 34+13 | | 9.26 | 6' |
| 34+73 | | 15.26 | |
| 33+63 | 8.86 | 14.79 | 4.93 |
| 33+13 | 5 | 14.32 | 4.13 |

| | | | |
|---|---|---|---|
| 31+63 | 8.75 | 5.12 | |

2(1.45) = 2.90

1.45 × 72 = 104.4

580

1305

13.630

12.01 + 624 = 5.77

14.17 − 520 = 8.97

100 − 76.4 = 23.6

−01.45 × 23 = 435, 290, −2335

15.14 − 620 = 8.94

147.8 × 886 = 4.93

9.45

8.43

5.77

15.26 − 12.31 = 2.95

9.26 − 7.31 = 1.950 (3.13) .52

1878

720

10.26 − 7.31 = 2.950 313

2807 94

1330

1252

47

10.32 − 4.71 = 5.61

1395

8850

5.12

125

ch
62 29 Cyt 6.

124 5'

The SE of 31 Tp 12 S. R 45

The NW of Sec 6. Tp 13 S R 45

Pres situated on Winter

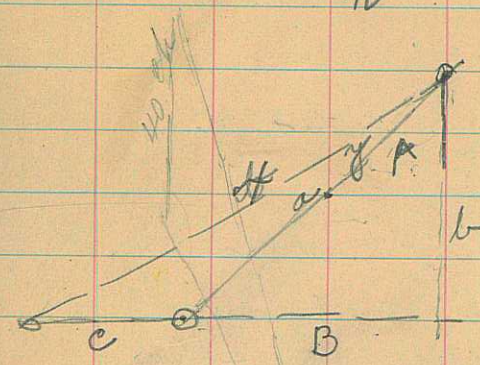
placer Claim

| Upper drop | | | | Roll |
|---|---|---|---|---|
| Kind of lumber | nos & pcs | Length | size | |
| | | 10' | | 250 |
| | 6 | 12' | 2×6 | 72 |
| | 4 | 20' | 2×6 | 80 |
| | | Lower drop | | |
| 1 inch | — | 16 | | 128 |
| 1 | | 10 | | 120 |
| 1 | | 18' | | 216 |
| | 3 | 16 | 2×6 | 48 |
| | 3 | 12 | 2×6 | 36 |
| | 5 | 12 | 2×6 | 60 |
| | 2 | 18 | 2×6 | 36 |
| | 2 | 20 | 2×6 | 40 |
| | | | | 976 |

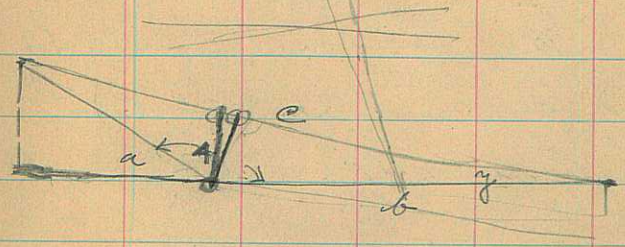
13 16
+
12 76
1 36
11,40

N

128
18
6
108
2



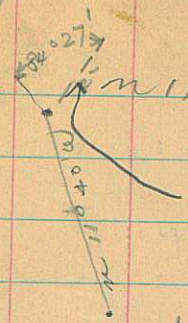

E




$A = 90°$

$\left(\frac{\sin A \text{ at } C.}{\cos A.\ a}\right) - A = y$

5




Obs. Station

this azimuth determination shows that the pipe line bears

S 26° 25' E

$\frac{33.33}{16.66}$

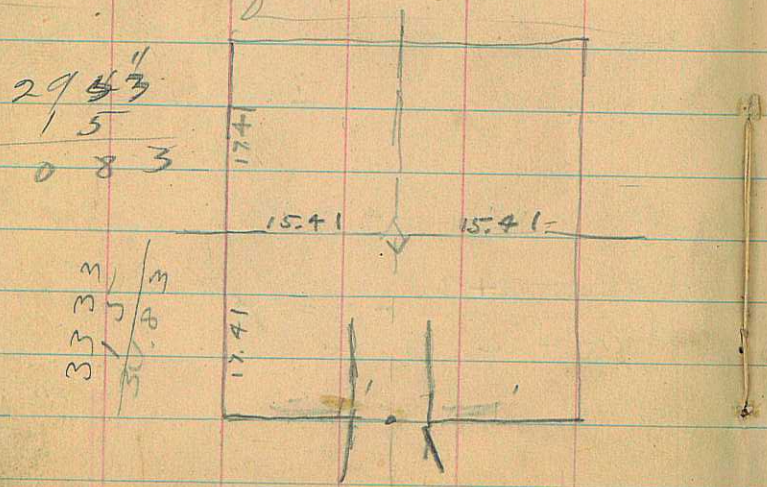
July 23/06

Layout of Power House

cor. stakes were placed 9" to outside of line all around.

$\frac{29.33}{5}$

0 8 3






8387
1146
7241

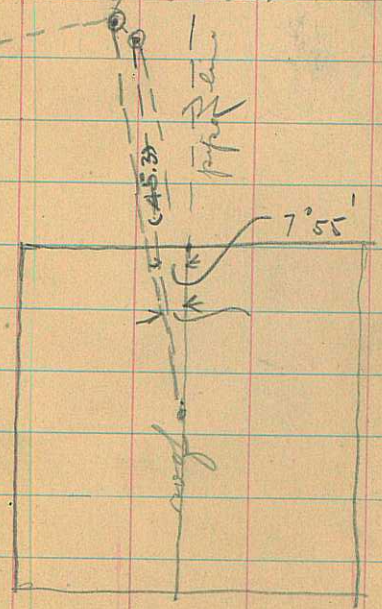
99.2

9872
7247
2625

33.33
1.5
2 ( 34.83
17.41

29.33
1.5
( 30 83
15.41

sketch of pole line leaving Power House



131

feet

| | | |
|---|---|---|
| 9 | 12 | 12 |
| 12 | 20 | 12 |
| 13 | 12 | 12 |
| 12 | 10 | 12 |
| 13 | 12 | 20 |
| 15 | 20 | 20 |
| 15 | 6 | |
| 14 | 10 | |
| 15 | 10 | |
| 16 | 11 | |
| 16 | 13 | |
| 18 | 15 | |
| 15 | 15 | |
| 15 | 13 | |
| 15 | 13 | |
| 15 | 10 | |
| 15 | 6 | |
| 18 | 12 | |
| 18 | 12 | |
| 13 | 12 | |
| 12 | 12 | |
| 10 | 9 | |
| 10 | 8 | |
| 18 | 12 | |
| 18 | 8 | |
| 18 | 12 | |
| 18 | 10 | |
| 18 | 12 | |
| 18 | 12 | |
| 18 | 16 | |
| 18 | 15 | |
| 18 | 13 | |
| 18 | 13 | |
| 18 | 13 | |
| 18 | 8 | |
| 12 | 20 | |

Make Rule

| | | |
|---|---|---|
| 12 | 11 | |
| 10 | 11 10 | 10 30 |
| 14 | 11 11 11 11 11 11 | 112 |
| 16 | 11 11 | 64 |
| | | 226 |

132

1 × 10 × 14 = 12

1 × 5 × 16 = 11

1 × 10 × 12 = 10

1 × 10 × 16 = 14

1 × 10 × 18 = 15

1 × 8 × 12 = 8

23 × 2 = 46

23 = 27

13 × 3 = 39

13 × 13 = 169

16 × 7 = 112

1 × 10 × 14 = 3(35 / 11)

1 × 5 × 16 = 8(11 / 3)

1 × 10 × 18 = 3(45 / 15)

1 × 10 × 16 = 169

12 → 276

9 → 18

15 → 150

20 → 120

10 → 90

59

16 → 112

18 → 90

984

133

Levels for C Oleson's headgate 7/26/06

9.94

8.20

8.53

9.33

10.16

13.5
6.5
6
2.5
32.5
2
65.0
9
2)585
292
877
53
80
10 10 27
81 38
200 4
216 1 2

5.5
1.6
330
55
88.0
.6
52.8

22
6
132
.6
79.2

1

10.18
9.33
.85

10.18
8.53
1.65

8.53
8
9.33

9.94
8.20
1.74

134

bottom of Canal

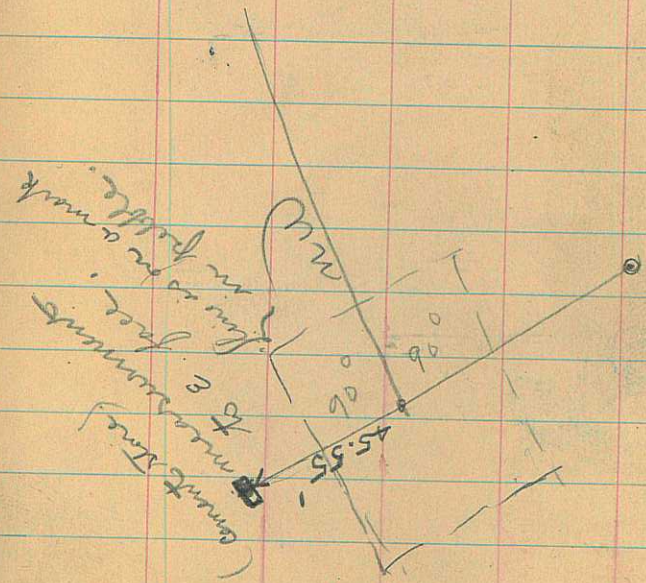
bottom of present bot on water below C. Oleson's Dam

on bottom of change about 200' W of Gate

true center line of Power house

N

7/27/06



135

# Levels at Power

84.08
x .85
71.47

| Sta | BS | FS | HI | Elev |
|---|---|---|---|---|
| BM | 3.740 | | | 82.608 |
| | | | 86.348 | |
| TP | | 6.584 | | 79.764 |
| | 3.690 | | | |
| | | | 83.454 | |
| | | ~~12.80~~ 7.80 | | ~~71.65~~ |
| | | 7.76 | | 75.69 |
| | | 11.50 | | 71.954 |
| | | ~~72.00~~ | | |
| | | ~~72.60~~ | | |
| BM | | 4.760 | | 78.694 |
| | | 8.85 | | 74.60 |
| | | | | 80.40 |
| | | ~~4.28 79.80~~ | | |
| | 4.327 | | | 78.694 |
| | | | 83.021 | |
| stake a | | 4.154 | | 78.867 |
| ~~stake~~ | | ~~3.980~~ | | ~~79.667~~ |
| c | | 4.52 | | 78.501 |
| d | | 4.12 | | 78.901 |

13.05
7.76
5.29

8.323
3.740
8.697.5
6.584
8.039
3.69
8.408

84.081
71.03
13.05

136

on Hub about 36' E of Stake 92

84.08
81.80
2.28

~~Bottom of Ex on plant~~

cut

bottom of River

~~first bottom of Ex~~ ~~41.0~~

~~on tail floor~~

on cement stone 45.55 W of Power House

on floor

2' ~~below floor line~~

mach foot ~~1'-6 3/32"~~ 1'-6" or 1'-6½" below tepflom ~~1'-5 3/4"~~ above SW cor

~~bottom of tailrace Ex. 7-8" below~~ 1'-10¾"

~~2'-8"~~ to top of floor NW cor

~~2'-3"~~ 1'-6" NE cor

top of floor over line

137

| Sta | Bs | Fs | HI | Elev |
|---|---|---|---|---|
| Stake | | | | |
| 2 | | 4.22 | 83.021 | 78.801 |

No

## Bill of Lumber for

| No. of Pieces | Size | Length |
|---|---|---|
| 1188 | 3×6 | 66 |
| 326 | 3×6 | 18 |
| 110 | 2×4 | 2 @ 16 |
| | 2×4 | 3 @ 16 |
| 1050 | 3×6 | ~~78~~ 70 |
| 112 | 2×6 | 8 14 |
| 384 | 1×10 | 16 |
| 336 | 1×10 | 14 |
| ~~424~~ | 1×12 | 18 |
| 384 | 1×12 | 16 |
| 224 | 1×10 | 16 |
| ~~484~~ | 1×10 | 14 |
| 326 | 1×10 | 12 |
| 640 | 1×10 | 10 |

83.647
.322
79.427

138

81.80
79.43
2.37

{ 1'-7 7/16" 1/4 to floor line
{ 2'-4 3/8
{ 3'-5" to mach foot
{ 7'-5" to botton of Race

79.43
7600
343
12
8
43
5.16

Irons @ Power House
note 7' apart in frame
cut to 6' that for
up rights for foundations
cut to 6'
" " " Machine footings

79.43
72
7.43

up right tail race inside
" " " " outside

6.84
A

| Length | Size | No. of 50 lbs |
|---|---|---|
| 14 | 1×10 | 60 |
| 16 | 1×12 | 80 |
| 14 | 1×10 | 280 |
| 18 | 1×10 | 180 |
| 12 | 1×10 | 60 |
| 12 | 1×10 | 120 |
| 18 | 1×10 | 400 |
| | | 61 88 |

Direct Sun Obsr.

July 29/06

Dcl = 18° 51

$Az = \frac{\pm d}{\text{as L} \times \text{h cos}} - \text{tap} \times \text{h tang}$

Reading h = 56° 50 =

56° 49' 60"

56° 47' 23" = h

Az = 54° 14' W

cor for Dip = 2'

refraction = 37"

67° 15'

14

8' 80

72 00

9 8 0

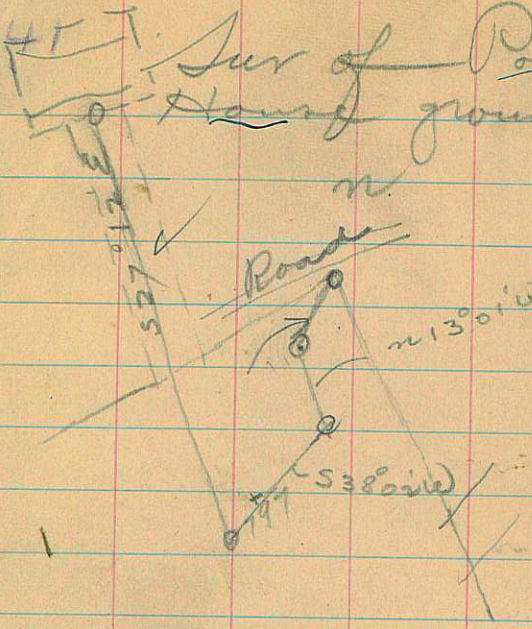
67 1

53 74

67 15

54 14

1301




40 20
13 01
27 29

26 22
24 53
2 19

142

5003
1301
3802
11446
15248

17960
15248
2712

| Sta | Course | ∠ | R |
|---|---|---|---|
| 797' | S27°½E | 114°46 | |
| 0.983ch | S38°02'E | 57°03' | |
| 1.772ch | N13°01'W | 40°30 | |
| 1.487ch | N27°29'E | 139'18 | |
| 348' | S13°E | | to Sria of River |
| 1.487 | N13°01'W | 163°52 | along N brought |
| 57' | S43°45'W | | to road leading to Hunt |
| 162.4' | S43°45'W | 4°54' | |
| 157.7' | S39°W | 66°4½' | |
| 184.5 | S27°55'E | 90° | along West line |
| 0.94 | N | | to Pt on S side of River |
| 0.98' | S89°E | | |

## Formula for Meridian

$$\cos \tfrac{1}{2} A = \sqrt{\frac{\sin S \times \sin (S-P)}{\sin C \times \sin Z}}$$

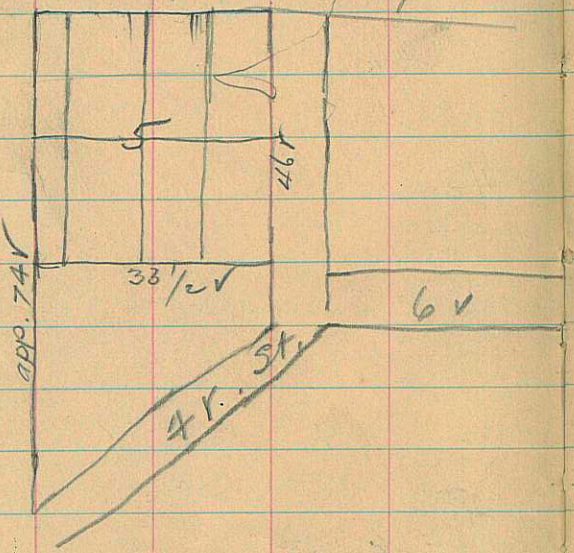
$$S = \frac{C+P+Z}{2}$$

C = Co-Latitude

P = Co-dec. = Dis between N pole and the ecliptic

Z' = Co Zenith = 90 + Ref − Ob. alt of Sun

Block 5. Franklin City Sur.






Length 120 (¾" H.

fall 9'

dis 8 gal. per min.

F. Cornish

~~Geo~~ Franklin.

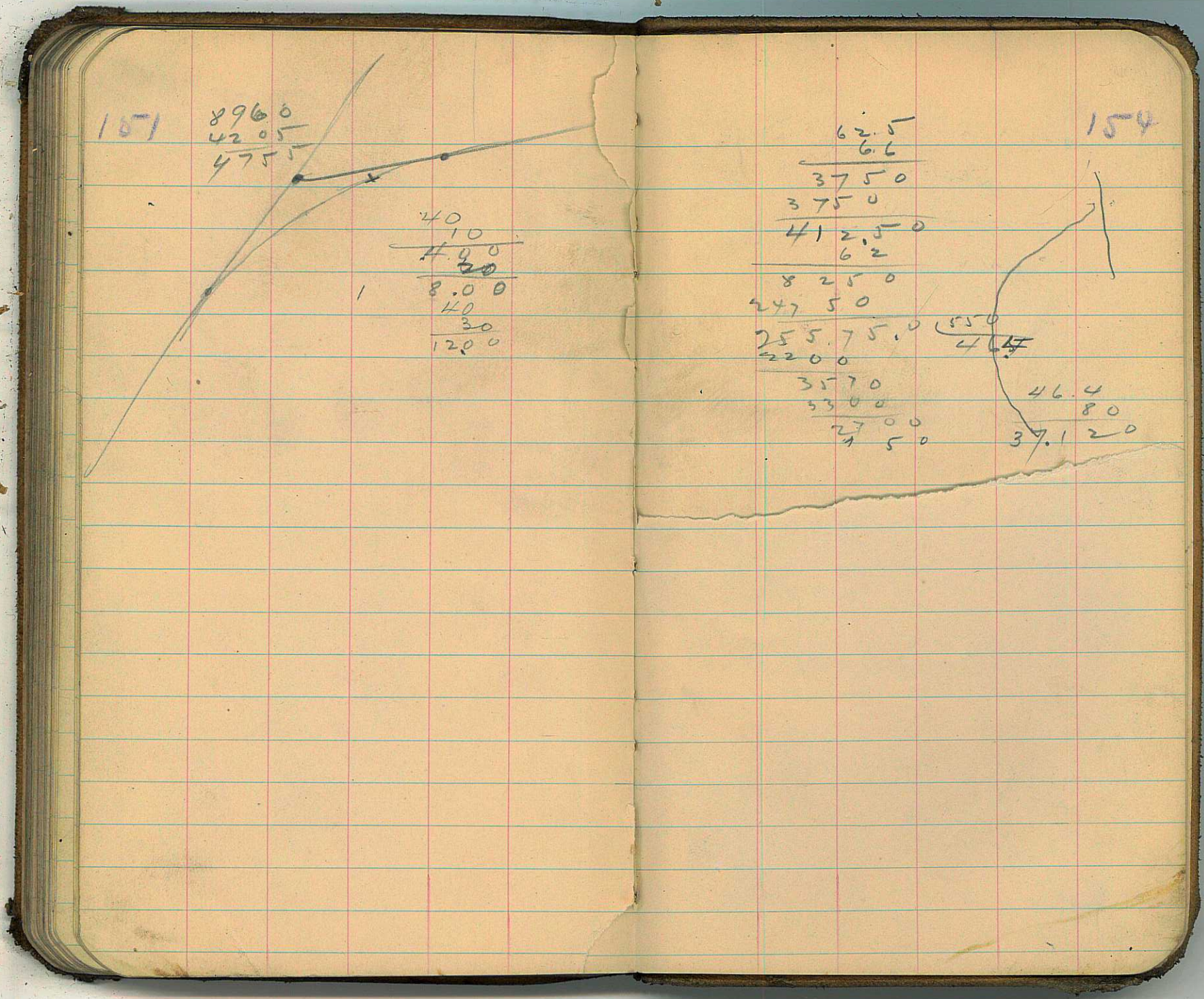
gal. wr. iron.

Note

46 loads of gravel from Hyde according to present Plans. 8/8/06

145

146


153
8960
4205
4755
40
10
400
30
8.00
40
30
1200
154
62.5
6.6
3750
3750
412.50
6.2
8250
2475
255.75.0
2200
3570
3300
2700
1150
550
46.4
80
37.120

8960
4205
4755

40
10
400
30
8.00
40
30
120

3300
4500
4400 5440

42
20
62 x . 62.5
4
250.0
62
500
1500
1550.0 1550
1100
4500
4400.0 22.40

396160
360 6.6
360



62.5
6.6
3750
3750
412.50
62
8250
2475
2557.50 550
2200 4.4
3570
3300
2700
2450

46.4
80
37.120

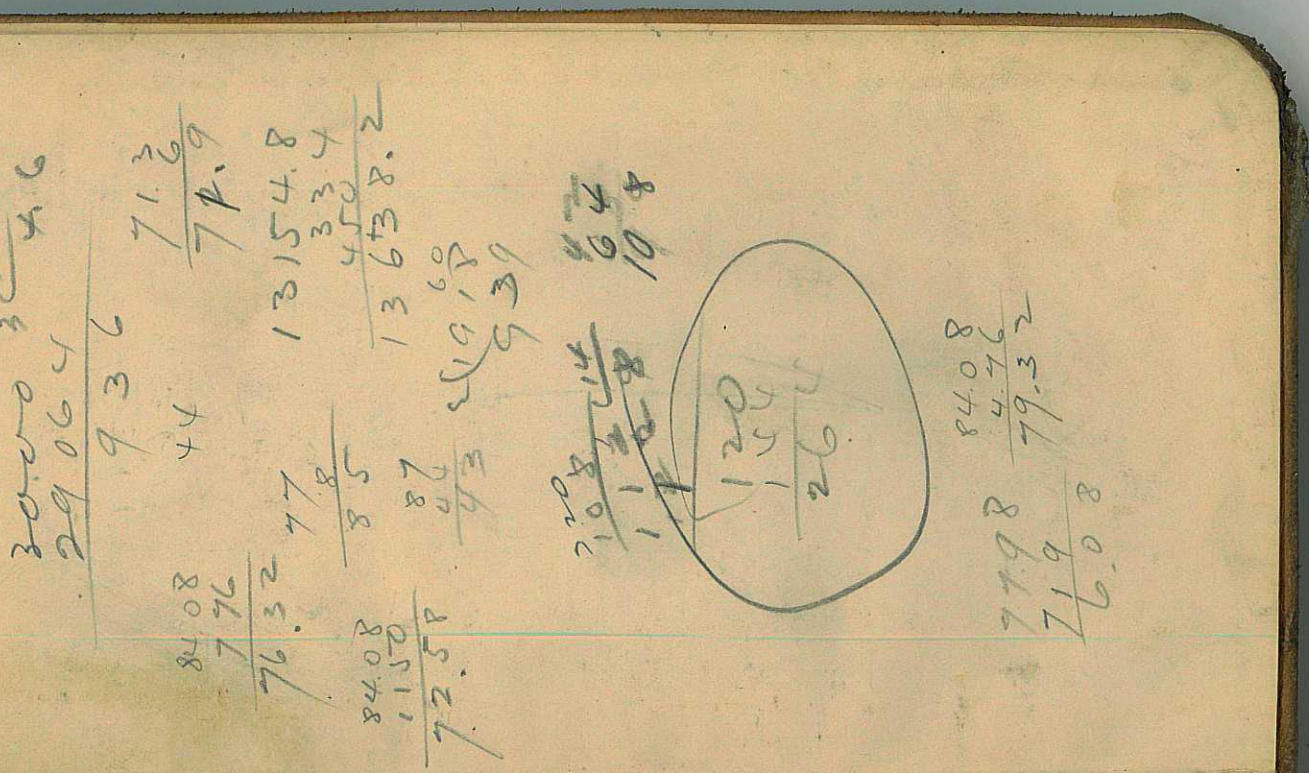
Receipt 37.12

Rec'd of H.C.E.L. & P. Co an order for cash to the amount of 15 cents per pole over my cultivated land and — ~~5~~ cents per pole over my uncultivated ~~land~~ or rough land.

Signed

Witness

Agreement. I hereby agree to convey to the H.C.E.L. & P. Co. a strip 10 wide over my land.

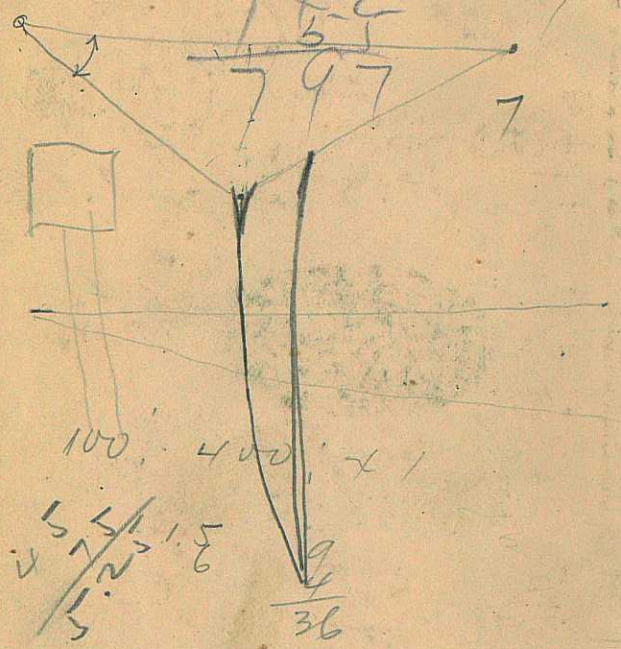


mapleton July 2. 1906

I. Eugene Schaub Engr. of the High Creek Electric Light & Power a representative of said Co. in consonant with Mr. J. I Shepard its manager, hereby agrees to made definite arrangements with Mrs Wm M. Chadwick for a right of way to construct across this lands a electric pole line in case said location is decided upon.

Eugene Schaub

signed in Presence of Wm Chadwick



EUGENE DIETZGEN CO.
MANUFACTURERS & IMPORTERS OF
DRAWING MATERIALS AND
SURVEYING INSTRUMENTS
NEW YORK, CHICAGO,
NEW ORLEANS & SAN FRANCISCO.