

No 9 Blackhawk

BOOK 3

DIETZGEN
TRADE MARK

ENGINEERS'

1088

Construction

Sec. 3-5.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide.

Side Slopes 1 on 1.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other width of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be $30.6 + (20 - 16) \div 2$ or 2 ft. added to $30.6 = 32.6$. For slopes of 1 on 1½ see inside of back cover.

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64.90
9.52
74.42
75.80

SR

24 + 75 = 99
9 + 80

RECEIVED
FEB 22 23
C. L. L. H. L.

2295 - 26
1000 - 24

4295

5000

978

1058

laid to 5000

6600

20

50

978

102

18 - 38

16 - 44

14" 90 to 10" + 40

542" to 90

Index
Hubs

Line	Station	Page
3-Lt.		9-29
H-Lt.		33-35
D-Lt.		37-37
E-Lt.		37-37
G-Lt.		39-43
F-Lt.		45-45
4-Lt.		53-53
5-Lt.		55-55
J-Lt.		57-59
K-Lt.		59-59
G-Lt. - Check		61-63
5-Rt.		85-91
		97-107
		133-133
J-Rt.		93-95
		109-117

Index

4.80
380

Line		Page	Miller	Contention
K-Rt.		121-123	over Outlet.	8/8/22
L-Rt.		125-125		Briggs
M-Rt.		129-129		Mathew
M-Rt.	Check	131-132	lowest 4.40	54.40 50.00
G-Rt.		141-143		3.50 50.90
I-Rt.		145-145	100' East	4.10 50.30
O-Lt.		69	200' East	3.50 50.70
M-Lt.		67+71	200' "	3.90 50.50
M-Lt.		73-	360 Perx	4.00 50.10
H. Rt.		75-	400'	4.40 50.00
H. Left		2-		
I. Left.		149.		100' East 4.10
L. Left.		65.		200' 4.10
				300' 4.50
				400' 4.90

BR. H Lert 8/30/22

B.M. 3.70 72.54 68.84

E.R. 11/17 7.70 64.84

C.L. 11/400 6.10 66.44

C.L. 10+50 7.10 65.44

10/1 10 7.65 64.89 60.30

9 8.40 64.14 59.50 4.64

8 4.06 67.09 9.51 62.03 58.70 4.33

7+50 4.32 62.77 58.35 4.42

7 4.00 63.01 58.00 5.01

6+50 4.82 62.26 57.65 4.61 8/10

6 4.20 62.89 57.30 5.59

5 5.04 62.05 56.60 5.45

4 6.27 60.82 55.90 4.92

Invert 4+30 11.40 55.69 55.10

C. West Wall Conc. C

50.30
20
C. 1.0

3 75.00 7- 85.00 55.70
10.4 54.2 10.3 4.0
50.0 5.0 .49 8.17

Cuts 8/30/1922 10193

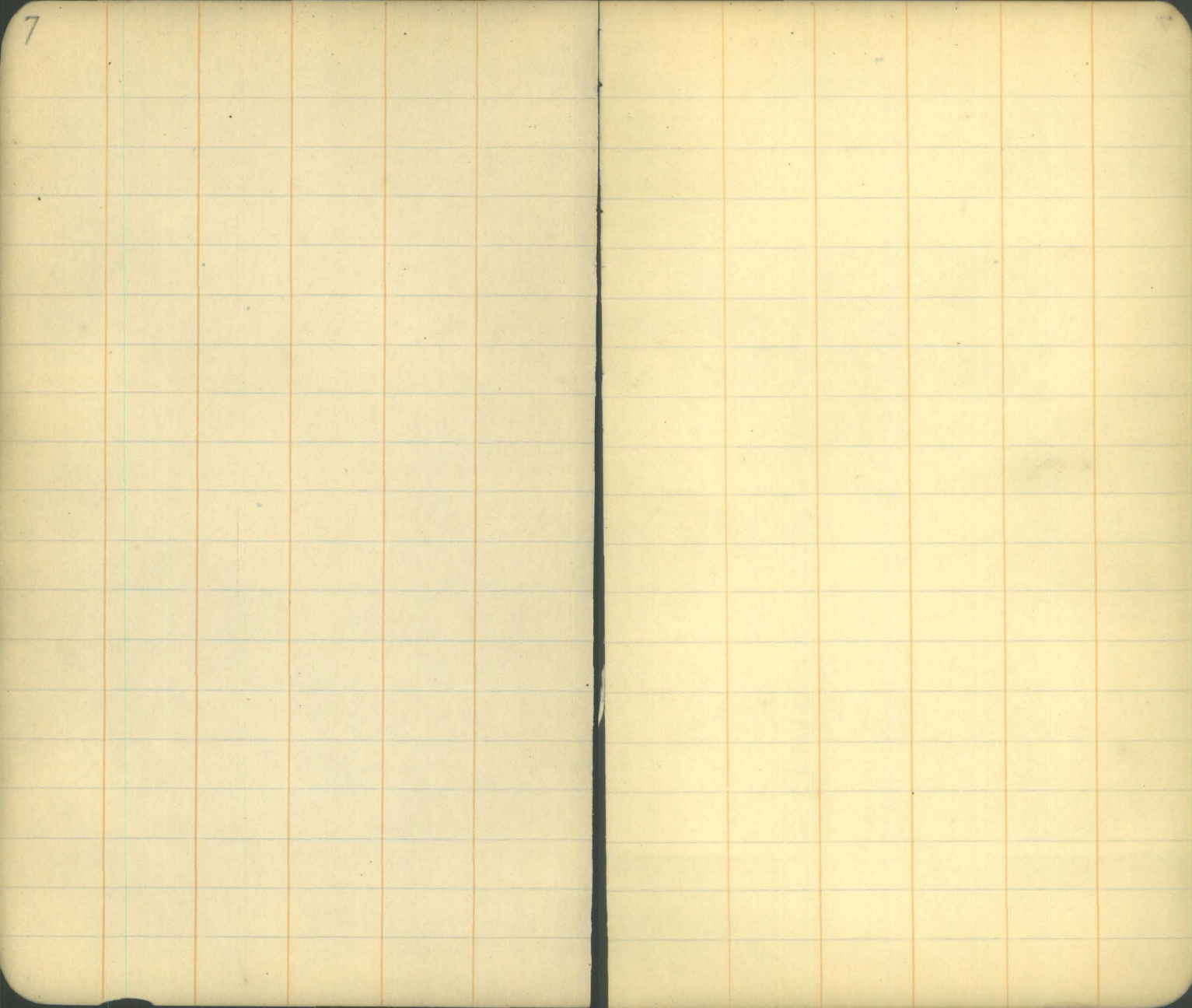
H. L. C. 9/5/22

B.M.	4.03	72.87	68.84	
11		6.53	66.34	61.10
12		6.22	66.65	61.90
12+50		5.88	66.99	62.30

B.M.	4.53	73.37	68.84	
Invert - 8" 1/2 c/2+50		10.90	62.47-0.08=62.39	
12+50		6.31	67.06	62.40
13		5.78	67.59	62.80
14		5.35	68.02	63.60
15		1.04	69.33	64.40
16		3.32	70.05	65.20
17		2.72	70.65	66.00
18	7.75	79.44	1.68	71.69
19			6.66	72.78
20			6.55	72.89
21			5.43	74.0
22			5.08	74.36
23			3.84	75.60
23+52 = End - 12			2.18	77.26

64 = 0.800

5.24
4.75
4.69
4.66
4.79
4.42
4.93
4.86
4.65
4.89
5.18
4.19
4.81
4.36
4.80
6.05



9 SEC - 8
BR 3-Left

Sta	B.S.	H.I.	-S	Feet	Gr
B/M	3.95	61.55	2	57.60	
T.P	4.02	62.36	2.21	58.34	
8		4.80	57.56	50.64	
9		4.18	58.18	50.97	
+50		4.02	58.34	51.14	
10		3.92	58.44	51.30	
+50		3.76	59.60	51.47	
11		5.03	59.33	51.75	
+50		4.67	57.69	52.02	
12+50	5.24	64.53	3.07	59.29	52.57
13		4.91	59.62	52.85	
14		5.19	59.34	53.40	
15		4.07	60.46	53.95	
+562		3.17	61.36	54.23	
+599		3.57	60.96	54.50	
R.P.		3.43	61.10		

197/21 HARP HILL
Spikes SEad Ecap Bridge on Hwy By Bulthorpe

6.92		
7.21		
7.20	10 3	2.4
7.14		
7.13		
5.58		
5.67		
6.72		
6.77	10 15	2.2
5.94		
6.57		
7.13		
6.46		
Left Hub 5 Hwy E by Tel Post 1st E Sta 16		

5-2.95
delu 13

5.25
27.50
57.47
54.22

New Levels Br 3 L

10/7/21 Horn
Hill

B.M. 4.26 61.86 57.60

T.P. 5.43 63.76 353 58.33

Tile top

9 10.00 53.76 2.40

Hub

9 5.72 58.04 51.35

+50 5.41 58.35 51.58

10 5.29 58.47 51.80

+50 5.12 58.64 52.03

New

11 6.35 59.41 52.25

+50 6.02 57.74 52.48

12 6.66 57.10 52.70

13 4.12 59.64 53.15

14 4.38 59.38 53.60

15 3.27 60.49 54.05

15+62 2.37 61.39 54.33

15799 2.78 60.98 54.50

R.P. 2.65 61.11

51.36

6.69

6.77

6.67

6.61

5.16

5.26

4.40

6.49

5.78

6.44

7.06

6.48

Top Last tile level

24"

↓

End 24" Tile

22"

↓

End 22" Tile

Hub 55 side Hwy by 1st Tel pole E
5416

New Levels 3L

R.P.	3.80	64.91	61.11	
15+99		3.82	61.09	54.50
15+62		3.42	61.48	54.32
15		4.34	60.51	54.05
14		5.55	59.36	53.60
12		5.22	59.69	53.15
12		7.67	57.24	52.70
11+50		7.10	57.81	52.48
11		7.28	57.53	52.25
10+50		6.32	58.58	52.03
10		6.22	58.58	51.80
9		6.60	58.31	51.35
				6.59
				7.15
				6.52
				5.76
				6.54
				4.54
				5.32
				5.28
				6.55
				6.78
				6.96

$\frac{54}{28} \frac{16}{-40} \frac{23}{2.8} = 5.9\%$
 $\frac{18}{-31} \frac{18}{20} \frac{11}{20} \frac{12}{12}$

1/3/22

HOFF
H. Kohl

R.P.	5.64	66.75	61.11	
15+99			5.67	61.08 57.50
16+50			5.55	61.20 57.75
17			5.05	61.70 55.00
+75			5.53	61.22 55.38
18			5.27	61.18 55.50
+50			5.35	61.40 55.75
19			5.23	61.52 56.00
20			4.79	61.96 56.50
21	6,90	69.37	4.28	62.47 57.00
22			5.51	63.86 57.50
23			5.03	64.34 58.00
24			5.61	63.76 58.50
25			4.62	64.74 59.00
=R.P. 26			3.61	65.76 59.50

Hub side Hwy E Sta 15+99

6.58

6.45

6.70

5.84

5.68

5.65

5.52

5.46

5.47

6.36

6.34

5.26

5.74

6.26

0.5% 61
20" 17c

3-Left.

1/12/22

Bud K.C.
12.993

26	R.P.	4.99	70.69	65.76	59.50	
25		5.90	70.64	64.74		
			70.66			
T. 10			11.05		59.61	
27			6.34	64.32	59.80	4.52
28			6.05	64.61	60.10	4.51
29			5.11	65.55	60.40	5.15
29+50			5.72	64.94	60.55	4.39
30			4.76	65.90	60.70	5.20
31	6.34	72.19	4.81	65.85	61.00	4.85
32			6.04	66.15	61.30	4.85
33			5.12	67.07	61.60	5.47
34			4.91	67.28	61.90	5.38
35			4.06	68.13	62.20	5.93
36			3.71	68.48	62.50	5.98

PL. = 29+60

BR 3-L

1/28/22

Bajo.

35	5.25	73.38 ✓	68.13
36	4.83	73.31	68.48
34	6.09	73.37 ✓	67.28
		73.36	

Sta. 45

.3%
4%

P.L. 44 + 30

38 + 50 = 0 of G.L.

37			4.15	69.21	62.80	6.41
37+25			4.30	69.06	62.87	6.19
37+50			4.16	69.20	62.95	6.25
37+75			4.20	69.16	63.02	6.14
38			3.87	69.49	63.10	6.39
38+25			4.73	68.63	63.17	5.46
38+50			4.18	69.18	63.25	5.93
39	5.77	74.93	4.20	69.16	63.40	5.76
40			5.71	69.22	63.70	5.52
41			4.98	69.95	64.00	5.95
42			4.28	70.65	64.30	6.35
43			4.22	70.71	64.60	6.11

18"

Grade

.3%

0 of BR. G. Left

1/28/22

RPS

74.93

R.P.

3.93

71.00

Hob 1" x 2" 50' SW. 43+50

2/6/22

R.P.

4.33

75.33

71.00

39

6.17

69.16

63.40

5.76

F.L

11.56

63.77

40

6.11

69.22

63.70

5.52

41

5.40

69.93

64.00

5.93

42

4.70

70.63

64.30

6.33

43

4.66

70.67

64.30

6.07

43+50

4.60

70.73

64.75

5.98

43+75

4.56

70.77

64.82

5.95

44

4.24

71.09

64.90

6.19

44+25

4.36

70.97

64.98

5.99

44+50

4.12

71.21

65.05

6.16

45

5.62

77.04

3.91

71.42

65.20

6.22

46

5.26

71.78

65.60

6.18

47

4.85

72.19

66.00

6.19

$45 - 45 = 0$
 $50 - 50 = 0$
 $56 - 56 = 0$
 $60 - 60 = 0$

519 39+70

23

77.04

48 4.62 72.42 66.40

49 5.52 71.52 66.80

50 3.77 73.27 67.20

2/11/22

48 5.53 77.75 72.42

50 4.70 77.77 73.27

77.96

51 4.35 73.61 67.50

52 3.70 74.26 67.80

53 4.12 73.84 68.10

53+50 6.29 80.26 2.99 73.97 68.25

54 5.85 74.41 68.40

55 5.76 74.50 68.70

56 5.43 74.83 69.00

57 4.26 76.00 69.30

57+54 3.73 76.53 69.46

58 3.80 76.46 69.60

58+50 3.50 76.76 69.75

$$\begin{array}{r} 11.60 \\ 6.560 \\ \hline 6.560 \end{array}$$

$$\begin{array}{r} 10.6 \\ 12.28 \\ \hline 12.28 \end{array}$$

$$\begin{array}{r} 2.20 \\ 2.00 \\ \hline 2.00 \end{array}$$

70.20

68.96

6.11

6.46

5.74

5.72

6.01

5.80

5.83

6.70

7.07

6.86

7.01

$$\begin{array}{l} .20\% \text{ to } 50 \\ .40\% \text{ to } 70 \end{array}$$

$$\neq \text{Hwy} = 57+85$$

New Sta.

N. P.L

25

3-L

80.26

BM

2.71

(77.55)

Hubs 3L

BM

3.72

81.27

77.55

55

5.99 75.28 68.70

6.58

56

5.94 75.33 69.00

6.33

57

5.37 75.90 69.30

6.60

57+54

5.01 76.26 69.46

6.80

N. Property Line F.

58

4.81 76.46 69.60

6.86

58+50

4.01 77.26 69.80

7.46

59

4.42 76.85 70.00

6.85

60

4.20 77.07 70.40

6.67

61

5.36 82.18 4.45 76.82 70.80

6.02

62

4.14 78.04 71.20

6.84

63

4.29 77.89 71.60

6.29

64

4.67 77.51 72.00

5.51

65

3.72 78.95 72.40

6.05

66

4.40 77.78 72.80

4.98

$$\begin{array}{r} 68.70 \\ 2.40 \\ \hline 71.10 \end{array}$$

$$\begin{array}{r} 68.70 \\ 2.40 \\ \hline 71.10 \end{array}$$

$$\begin{array}{r} 2.5 \\ 7.5 \\ \hline 10.0 \end{array}$$

Center North Wall Conc. Col.

6/8/22

Briggs
Matthews

-3.9%

-4.0%

3-4

65	5.51	83.96	78.45
66	6.18	83.96	77.78 72.80
67		4.90	79.06 72.20
68		4.72	79.24 72.60
69		4.09	79.87 74.00
70		3.99	79.97 74.40
71		3.92	80.04 74.80
72		3.94	80.02 75.20
73		—	— 75.60

6/27/12

$$\begin{array}{r} 72 \\ 60 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 72.80 \\ 28 \\ \hline 75.60 \end{array}$$

6/28/22
B
17

4.82 Cuts issued 6/22/22 R.P.B.

65% 73% 80%
4%

1-57

29		2-L			
75	85.81	4.46	81.35	76.90	4.45
75+90		2.21	82.50	77.48	5.02
76-					
77		2.06	82.75	78.19	4.56
78		2.56	83.25	78.84	4.41
79		1.68	84.13	79.49	4.64

$$\begin{array}{r} 75.20 \\ 3.70 \\ \hline 71.50 \end{array}$$

$$\begin{array}{r} 76.25 \\ 6.80 \\ \hline 72.90 \end{array}$$

$$\begin{array}{r} 110 \\ 25 \\ \hline 55 \\ 660 \\ \hline 7152 \end{array}$$

$$\begin{array}{r} 65 \\ 5 \\ \hline 585 \end{array}$$

$$\begin{array}{r} 220 \\ 64.16 \\ \hline 875.16 \end{array}$$

End 12"

			8/3/22	
78	10.06	92.21	83.25	
79	9.10	92.22	84.13	
4 M-L	7.65	92.28	85.63 M-L	
30	7.98	92.28	85.30	
80		8.15	85.13	80.14
81		6.78	86.30	80.94
81+50		6.50	86.78	81.24
82		6.25	87.03	81.74
83		5.38	87.90	82.54
84		4.70	88.58	83.24
85		4.58	88.70	84.14

65.90

8.0

31

3-L

72

$$\begin{array}{r} 585 \\ 30.4 \\ \hline 899 \end{array}$$

$$\begin{array}{r} 600 \\ 20.4 \\ \hline 804 \end{array}$$

$$\begin{array}{r} 720 \\ 80.4 \\ \hline 834 \end{array}$$

86 92.28 3.54 89.74 84.94 4.80

87 2.82 90.46 85.74 4.72

88 2.54 90.74 86.64 4.10

89 1.72 91.55 87.34 4.21

8/3/22

R.P.B

89+35 End.

1/14/22
Briggs.

11+50	7.39	65.20		57.81		
11	7.75	65.28		57.53		
T.P. 24" 10+50		65.25	11.25	54.00	51.60	.5 up from Bottom 24" sta. 10+50
0			7.14	58.11	52.10	6.01 = sta. 10+50 3L.
1			6.26	58.99	52.80	6.19
2			5.70	59.55	53.50	6.05
3			4.61	60.64	54.20	6.44
4			4.48	60.77	54.90	5.87
5			3.40	61.85	55.60	6.25
6	7.29	69.96	2.58	62.67	56.30	6.37
6+50			7.30	62.66	56.75	5.91
7			6.63	63.33	57.00	6.33
7+25			6.59	63.37	57.17	6.20
7+50			6.78	63.18	57.35	5.83
7+75			7.03	62.93	57.52	5.41
8			6.89	63.07	57.70	5.37
8+75			5.84	64.12	58.30	5.82
9			5.58	64.38	58.50	5.88

H. L.

35
54.2054.90
2
55.0

10	69.96	4.68	65.28	59.30	5.98
10+60		3.70	66.26	59.78	6.48
B.M.		1.12	(68.84)		

Center, top West wall Conc.
Colv. H. & S. Highway 10+80

6/20/22

68.84

BM 0.49 69.33

Hobs

3	7.88	61.48	54.20	7.25
4	8.50	60.83	54.90	5.92
5	7.26	62.07	55.60	6.47
6	6.41	62.92	56.30	6.62
6+50	7.05	62.28	56.65	5.63
7	6.32	63.01	57.00	6.01
7+50	6.40	62.93	57.35	5.58
8	6.28	62.05	57.70	5.25
9	5.14	64.19	58.50	5.69
10	4.42	64.91	59.30	5.61

Used 6/30/22

.80

1.0 6/1/22 3.0 D = 55.60 1.40
3.3 15 58.06
.7 100 59.40 1.490
63.05

BR D = left

R.P.	4.93	66.04	61.11
18 (31)	8.61	57.43	55.42
0	5.69	60.35	56.03
1	4.09	61.95	57.53
1+70	2.83	62.21	58.53

Top 20" F. 64.50 1.57
70.00
56.03 63.21
170 57.73
57.73 548

BR. E left

6/3/22

Top 20"	8.01	69.41	61.40	59.40
0	4.55	64.86	60.00	4.86
1	4.05	64.76	60.80	3.96
2	3.55	65.86	61.60	4.26
3	2.92	66.49	62.40	4.09
3+50	1.94	67.47	62.80	4.67

1.70 56.03
15 2.55
1.80 58.58
170 63.21
2550 58.58
468
6.0
59.40
61.40
350
2800
350
1400
67.47
67.50
49.00
67.47
64.9
2.7

F. left on pg. 45

BR G Left

Top 18" T/C
on Shore Length
5.146.30
5.14
1.16
13.24

76.41

63.17

0

7.28 69.13 63.67

5.46 = Sta 38+25 BR 3 Left

1

6.95 69.46 64.57

4.89

2

5.69 70.72 65.47

5.25

3

5.41 71.00 66.37

4.63

4

4.60 71.81 67.27

4.54

5

4.23 72.19 68.17

4.01

6

3.20 73.21 69.07

4.14

Shovel 5.14

1.8
9
1

63.67

3.3

67.17

1.1

3

Out from Sta 4

70.00

67.13

513.0

60

5/10/22

Hoff
MathewsTop 18" T/C
Sta 38+2511.10
1.80
12.90

76.07

63.17

4

4.40 71.67 67.13

4.54

3

5.79 72.88 68.07

4.51

2

5.72 70.35 65.47

4.88

T.C. Grade
2.90

10.60 66.07

T.C. top
Sta 38+2511.10
1.80
12.90

76.07

63.17

4

4.40 71.67 67.13

4.54

50

4.15 71.92 67.43

4.49

Note Hub at Sta 2 threw tie.3
low. Carried to grade at
Sta 4

G-Left

76.07

7

5			3.78	72.29	67.73	4.56
+50			3.60	72.47	68.03	4.44
6	7.17	80.07	3.17	72.90	68.33	4.57
7			6.35	73.72	68.93	4.79
8			6.07	74.00	69.53	4.47
9			5.45	74.62	70.15	4.47
10			4.33	75.74	70.75	4.95
W Hwy 10 + 73			3.92	76.15	71.19	4.96
E Hwy 11 + 43			3.49	76.58	71.61	4.97
12			3.18	76.89	71.95	4.94

0.60%

.73	4.3
4.34	2.5
71.35	
26	
61	

BM	2.01	89.80	87.79	Spoke in cor post SW sec 24		
T.P.	2.60	84.31	7.89	81.91		
12			7.41	76.90	71.95	4.95
13			6.97	77.34	72.55	4.79
14			6.09	78.22	73.15	5.07

Hubs G. Left

84.31

.6

91

r

81.7

15

90

1350

46.90

28

37

90

3330

15 5.46 78.85 74.05 4.80

16 4.51 79.50 74.95 4.85

150 3.94 80.37 75.40 4.97

17 3.45 80.86 75.85 5.01

+15 3.28 81.03 75.99 5.04

+25 3.22 81.09 76.08 5.01

+50 3.05 81.26 76.30 4.96

+15 2.87 81.44 76.33 4.91

18 2.72 81.59 76.75 4.84

19 7.53 89.74 210 82.21 77.65 4.56

20 6.98 82.76 78.55 4.21

21 6.18 83.56 79.45 4.11

22 5.38 84.36 80.35 4.01

N. H. H. H.

+37 4.32 85.42 80.68 4.74

S. H. H. H.

+91 2.94 86.80 81.17 5.63

End

Cuts given 9/17/22

45

BR. F. left.

6/3/22

$$\begin{array}{r} 66 \\ 81 \\ \hline 147 \\ 1134 \end{array}$$

$$\begin{array}{r} 281 \\ 1905 \\ \hline 5715 \end{array}$$

$$\begin{array}{r} 66.00 \\ 1.00 \\ \hline 67.00 \\ 45.20 \\ 5.70 \\ \hline 71.90 \end{array}$$

Bugg
Earl

Top 16'	8.75	75.15	66.40	64.80	
0		4.98	70.17	65.30	4.87
0+50		4.79	70.36	65.80	4.56
1		5.07	70.68	66.30	3.78
2		3.60	71.55	67.30	4.25
3		2.10	73.05	68.30	4.75
2+81		0.38	74.77	69.10	5.67

2 to 43+44 = 0 of F-left.

1.00%
8" tile

$$\begin{array}{r} 6530 \\ 381 \\ \hline 6911 \end{array}$$

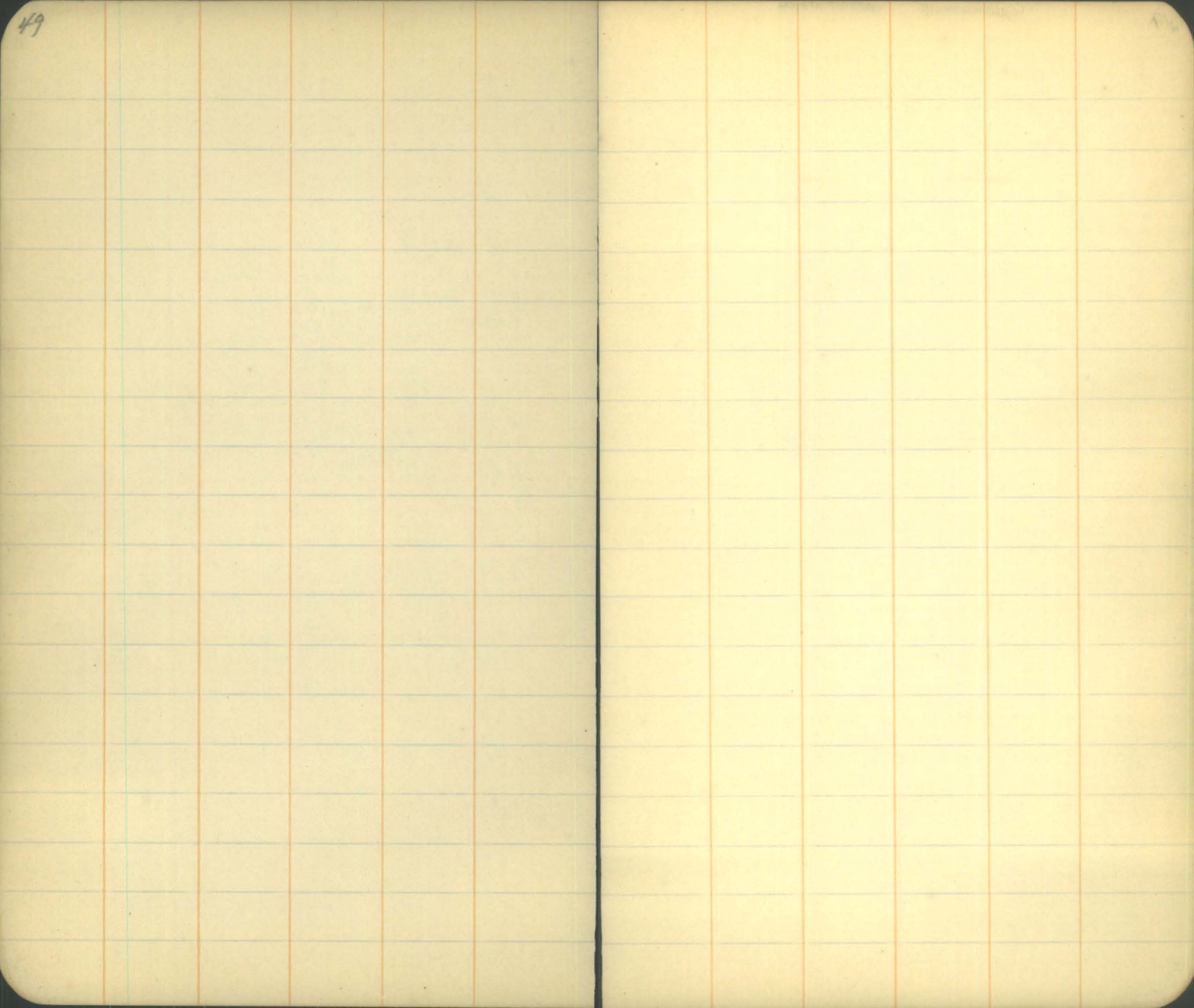
$$\begin{array}{r} 6/2788 \\ 24 \\ \hline 98 \\ 36 \\ \hline 28 \end{array}$$
 4.6

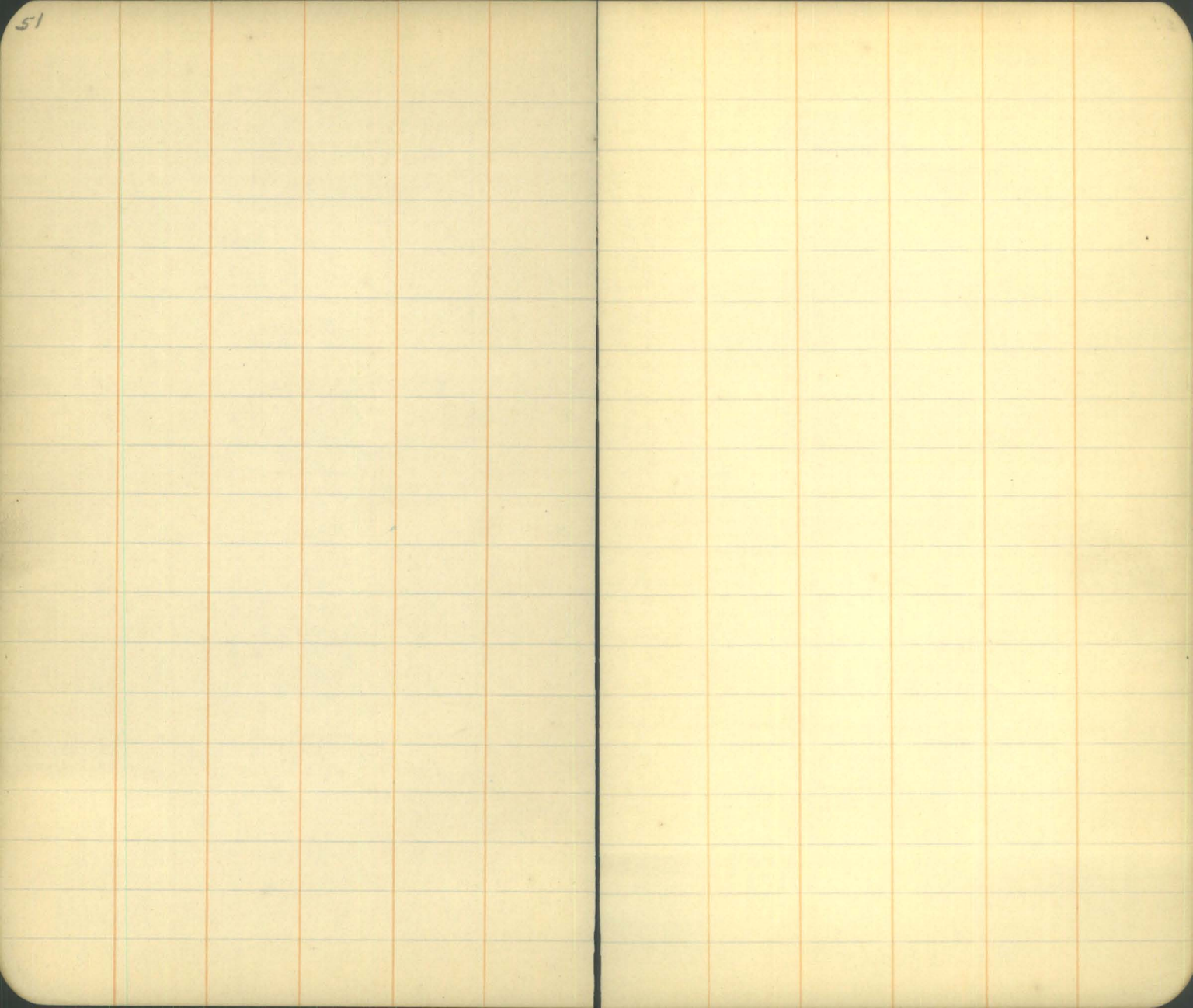
47.
Tile Check

9 left

BM

27.67





BR. 4-L. 7/12/22

Top 36" 10.90 60.90 50.00

Hub 0 8.22 52.67 48.30 4.37

0+30 10.60 (50.30) 48.60 (1.70)

1 8.72 52.17 49.30 2.87

2 6.60 54.30 50.30 4.00

3 4.04 56.86 52.30 4.56

4 5.29 64.60 1.59 59.31 54.30 5.01

H.R. d.t. 4.6. (60.00) (56.30)

J.R. d.t. 4.10. (60.50)

4+87 2.40 67.20 67.78 4.42

$\begin{array}{r} 57.83 \\ 348.20 \\ \hline 846.03 \end{array}$
 $\begin{array}{r} 8.72 \\ 1.70 \\ \hline 10.42 \end{array}$
 $\begin{array}{r} 62.20 \\ 1.70 \\ \hline 63.90 \end{array}$
 $\begin{array}{r} 50.00 \\ 1.70 \\ \hline 51.70 \end{array}$
 $\begin{array}{r} 48.30 \\ 1.70 \\ \hline 50.00 \end{array}$
 $\begin{array}{r} 59.70 \\ 1.70 \\ \hline 61.40 \end{array}$
 $\begin{array}{r} 3.4 \\ 1.7 \\ \hline 5.1 \end{array}$

6.8
 5.9
 4.2

53
BR. 5 left. 7/12/22

T.P. 36"	12.65	62.65	50.00	
H ₀ 0	10.16	52.49	47.30	5.19
0+70 (ditch)	12.00	(49.65)	(48.00)	
W.L	12.00	(50.65)		
1	11.20	51.45	48.30	3.15
2	7.14	55.51	50.30	5.21
3	5.13	57.52	52.30	5.22
4	3.74	58.91	54.20	4.61
R. ditch	2.00	(59.65)		
5	2.55	60.10	56.30	3.80

50.00 3.4 50.00 48.51
2.70 1.7 1.70 4.49
47.30 48.30 5.60 3.15
4.00
7.21

Note:—

Start Connection 1.0 below center 36"

1.0%

ditch

1.0

1.2

1.0%

2.0%

BR. J-left. 7/14/22

69 (3-L)

79.87

70

6.26 86.33

79.97

71

6.28 86.32

80.04

Top. 14"

10.70 75.62

0

6.20 80.12 74.50 5.62

= 69+75 (3-L)

1

6.22 79.99 75.13 4.84

2

5.94 80.38 75.80 4.58

3

5.29 81.03 76.45 4.58

4

4.65 81.67 77.10 4.57

5

4.11 82.21 77.75 4.46

5+25

4.01 82.31 77.91 4.40

5+50

3.80 82.52 78.07 4.45

6

3.34 82.98 78.40 4.58

7

6.62 90.19 2.75 83.57 79.02 4.52

7+20

6.46 83.73 79.24 4.49

= 0 of 6" BR.

7+50

6.20 82.99 79.32 4.61

8

6.13 84.06 79.7 4.86

5.62
7.15.62
7.1
12.72

37

74.50
0.00
4.00
13.006.50
8"

57

7/14/22

4.5
1.384.5
1.34

9 90.17 5.46 84.73 80.35 4.38

10 4.76 85.23 81.00 4.23

11 4.44 85.75 81.40 4.35

12 3.92 86.26 81.80 4.46

13 3.60 86.59 82.20 4.39

14 3.01 87.18 82.60 4.58

15 2.80 87.39 83.00 4.39

15+46 END. 2.06 88.13 83.18 4.95

6" line K-left.

7+30=0 90.19 6.46 83.73 79.24 4.49

1 5.71 84.48 79.94 4.50

2 5.04 85.15 80.64 4.51

3 4.25 85.84 81.34 4.50

3+20 END 3.88 86.31 81.48 4.83

Cuts moved 7/14/22
R.P.B.

61 G. Loet.

Tila Chock

NO	0	7.40	76.53	69.13
	1	7.04	76.90	69.46
	3	5.47	76.47	71.00
	4+50	4.45	76.37	71.92
	5	4.09	76.38	72.29
	5+50	2.91	76.38	72.47
			76.38	
			4.20	
Tila	0		71.58	7.77 62.81
	0+50		7.48	
	1		6.90	64.68
	+		6.75	
	2		6.45	
	+		6.10	
	3		5.35	
	+		4.95	
	4		4.82	66.76
	4+50		4.30	

$$\begin{array}{r} 71.81 \\ 445 \\ \hline 76.26 \end{array}$$

$$\begin{array}{r} 9.15 \\ 4.13 \\ \hline 3.60 \\ 3.20 \\ \hline 2.63 \\ 2.15 \\ \hline 1.65 \\ 1.10 \end{array} \quad \text{FR}$$

8" Tila .8

4" Tila Rod 4.0

4.8

	5	76.38	4.80	71.58	3.90	67.68
	+				3.65	68.23
	6				3.40	68.18
	+				3.10	
	7	7.24	76.18	2.74	68.84	68.93
	8				6.65	
	9				6.10	
	10				5.40	70.78 70.75
	10+73				5.00	
	11+50				4.84	
	12				4.28	
	13				3.85	
	14				3.10	73.08 73.15
	15	8.78	82.68	2.28	72.90	
	16				7.80	

E.L.

Tide CLK

17 82.62 7.05 75.63 75.85

18 6.05

19 5.30

20 4.15

21 3.30 79.38 79.45

22 2.40

22 + 1.65 3.5/40 R.

BR. OK. To pier

7/18/22

Note

RRB

fix End of line, Roon not tight
enough, too big crack on end -

65

P9-29

BR. L. Left.

78(6L) 5.16

88.41

83.25

79(6L) 4.28

88.41

84.13

0

4.94 83.47 79.20

4.27

= 78 + 22 (3L)

1

4.48 83.93 79.50

4.43

2

4.74 82.67 79.80

3.87

3

4.20 84.21 80.10

4.11

4

3.45 84.96 80.90

4.06

5

2.57 85.84 81.70

4.14

6

1.56 86.85 82.50

4.25

6+90 END

BR. 11. Left

92.78

0

2.80 90.98

= 11+55 (BRM)

79.00

$$\begin{array}{r} 65 \\ 330 \\ 100 \\ 30 \\ 150 \end{array}$$

$$\begin{array}{r} 78.14 \\ 12 \\ 78.98 \end{array}$$

%

%

8"

%

%

BR. TM. Left.

0		88.41	5.60	82.81	78.80	4.01
1			4.92	82.49	79.45	4.04
2			4.77	83.64	80.10	3.54
3	8.48	93.78	3.11	85.30	80.75	4.55
4			8.15	85.63	81.40	4.23
5			7.34	86.44	82.05	4.39
6			6.22	87.45	82.70	4.75
6+50			5.50	88.28	83.02	5.26
6+75			5.21	88.57	83.18	5.39
7			5.92	87.85	82.25	4.50
8			5.40	88.38	84.00	4.38
9			4.56	89.22	84.65	4.57
10			3.78	90.00	85.30	4.70
11			3.24	90.54	85.95	4.59
12			2.46	91.32	86.60	4.77

$\begin{array}{r} 65 \\ 27 \\ \hline 37 \\ 65 \\ \hline 27 \end{array}$
 $\begin{array}{r} 12 \\ 720 \\ 7880 \\ \hline 8600 \end{array}$
 $\begin{array}{r} 78.69 \\ 78.59 \\ 68 \\ 26 \\ \hline 326 \\ 130 \\ \hline 456 \end{array}$
 $\begin{array}{r} 78.62 \\ 78.80 \\ 520 \\ \hline \end{array}$
 $\begin{array}{r} 12 \\ 120 \\ 1205 \\ \hline 1237 \end{array}$

77+60 (3L)

$\frac{10}{5} = 2$
 $\frac{5}{5} = 1$

Auto 1/2 c/22
 1000

B.R. O - Left.

8/12/22

88 6.86 97.60 90.74

89 6.05 97.60 91.55

O 6.50 91.10 87.10 4.00

= 88 + 50 (3-L)

Bottom
Fet file
10" 10.60 87.00

O+67 6.60 91.00 87.37 3.63

1 6.75 90.85 87.50 3.35

O+70 97.60 2.95 94.65

2 5.78 91.82 87.90 3.92

3 4.86 92.24 88.20 4.94

4 3.75 92.85 88.70 5.15

5 4.20 93.40 89.10 4.30

5+50 3.63 93.97 89.30 4.67

O of 6" study-

6 8.50 102.46 2.64 94.96 89.50 5.46

7 7.80 95.66 90.50 5.16

8 6.27 97.19 91.50 5.69

9 5.54 97.92 91.50 5.42

10 5.43 98.03 93.50 4.53

71

O - Left.

$$\begin{array}{r} 75 \\ 65 \\ \hline 375 \\ 450 \\ \hline 825 \end{array}$$

$$\begin{array}{r} 68 \\ 90 \\ \hline 320 \\ 585 \\ \hline 905 \end{array}$$

$$\begin{array}{r} 1200 \\ 180 \\ \hline 1120 \\ 1180 \\ \hline 1180 - 8'' \end{array}$$

$$\begin{array}{r} 87.5 \\ 7 \\ \hline 94.50 \end{array}$$

$$\begin{array}{r} 866 \\ 125 \\ \hline 8785 \\ 92 \\ \hline 460 \\ 552 \\ \hline 5980 \end{array}$$

$$\begin{array}{r} 192 \\ 58 \\ \hline 960 \\ 1152 \\ \hline 12480 \end{array}$$

11	102.46	4.47	98.99	94.50
12		2.02	100.44	95.50
12+50		2.37	101.09	96.00
12 END				96.50

1.0%

4.94
5.09

Bx. M. Left 8/12/22

11	5.84	96.38		90.54	
12	5.04	96.36		91.32	86.60 4.72
12+75		96.27	4.67	91.70	87.09 4.61
12+75			4.55	91.82	87.22 4.60
12			4.53	91.84	87.25 4.59
12+92 END			3.46	92.71	87.85 5.06

17/- Left. 8/12/22

85.95 1.92
~~3~~ 1.95
 86.25 3.87

12 (m.l.) 4.95 96.27 91.32

Bottom 8" 10.00 86.27 86.40 ~~87~~

11.55 m.l.

0 5.25 91.02 86.40 4.62

1 4.20 92.07 87.40 4.67

1.09
 6"

1+95 (m.l.) 2.85 92.42 88.38 5.07

BR. H - RT 8/14/22

4 (GR)	5.20	89.81	84.61	
5	4.71	89.80	85.09	
B.H. 6"		89.80	11.22	78.58
0 Hvy		6.15	83.65	78.60 5.85
0 + 50		6.06	83.74	78.90 4.84
1		6.31	82.49	79.20 4.29
2		5.77	84.03	79.80 4.23
3		5.21	84.49	80.40 4.09
4		4.53	85.27	81.00 4.79
5		3.51	86.29	81.60 4.69
6		2.62	87.18	82.20 4.98
7		2.06	87.74	82.80 4.94
7 + 65 End		1.65	88.15	83.19 4.96

Cuts 8/14/22 RPR.

78.60 78.60 10.62 78.60 78.60
 49 56 11.22 85 85
 7350 24 20 65 45 76 82 10 42
 390 78.60 82.10 520
 80.12 27.80

-6.8% all

SEC. 5
BR 5-124

Sta	B.S.	H.I.	-S	Elev	Gr
R.P.	2.91	63.34		60.43	
11				4.48 58.86	50.86
12				4.85 58.49	51.12
+50				4.34 59.00	51.25
13				4.02 59.32	51.38
14	4.53	64.27	3.60	59.74	51.64
15				4.31 59.96	51.90
16				4.33 59.94	52.16
+50				4.69 59.58	52.29
17				4.66 59.61	52.42
+25				4.62 59.65	52.48
+50				4.70 59.57	52.55
+75				4.58 59.69	52.61
18				4.82 59.45	52.68
+50				4.42 59.85	52.81
19				4.43 59.84	52.94
20				4.30 59.99	53.20

Cut.

2x4 Hub on 11' knoll between Sta 12

Main + Sta 12 135

26
5
208
51.12

26
26
26

87. Hubs BR SR

Sta	BS	H.I.	-S	Elev	Cor	Cut
19	5.19	65.03		59.84	52.94	6.90
20	5.05	65.02		59.97	53.20	6.77
21			4.75	60.28	53.46	6.82
22			4.60	60.43	53.72	6.71
23			4.72	60.31	53.98	6.33
23+28			4.28	60.75	54.05	6.70
24			5.26	59.77	54.24	5.53
BIM			1.89	63.14		

$$\begin{array}{r} 1.25 \\ .26 \\ \hline 168 \\ .0728 \end{array}$$

10/9/21 Hoff Hill

old
63.13

Sta 24 Br Stret.
Extreme NE. Cor E Bridge floor plank

Same BIM 2.40 62.53 63.13

24	5.82	59.71	54.24	5.47
+25	5.17	60.36	54.31	6.05
+50	5.21	60.32	54.37	5.95
25	5.18	60.35	54.50	5.83
+50	5.11	60.42	54.63	5.79
26	5.01	60.52	54.76	5.76
27	4.88	60.85	55.00	5.85
28	4.58	60.95	55.26	5.69

$$\begin{array}{r} 26'0 \\ 26'' \end{array}$$

10/26/21

HOFF
HILL

BM	2.49	65.62	63.13
26		5.03	60.59 57.76
27		4.69	60.93 55.00
28		4.60	61.02 55.26
29	5.17	66.64	4.15 61.47 55.52
30		5.07	61.57 55.78
31		4.75	61.89 56.04
32		4.46	62.18 56.30
33		4.31	62.27 56.56

TILE CR BR 5 RT.

BM	2.35	65.48	63.13	61.60
		5.60		
20		57.88	6.73	53.15 53.20
+50			6.58	53.30
21			6.46	53.42 53.46
+50			6.33	53.55
22			6.17	53.71 53.72
+50			6.06	53.82
23			5.88	54.00 53.98

Gr El Cont.

5.83	5.76	5.48	5.76
5.93		5.50	5.85
5.76		5.53	5.69
5.95		5.55	5.89
5.79		5.58	5.74
5.85		5.60	5.81
5.88		5.63	5.85
5.71		5.65	5.69

Note Flatten to 2.2
Sta 26-33

Tile Rod Length 2.00
 Tile Dia 2.60
 5.60

B.M.	2.37	65.50		63.13			
T.P.	5.58	67.21	3.87	61.63			
33			4.93	62.28	56.58	5.70	
34			4.84	62.37	56.84	5.53	
35			5.06	62.15	57.10	5.05	
36	5.52	68.31	4.46	62.75	57.36	5.39	
36+50			5.26	63.05	57.49	5.56	
37			4.94	63.37	57.62	5.75	
+50			4.88	63.43	57.75	5.68	
38			5.00	63.31	57.88	5.43	
39			5.12	63.18	58.14	5.04	
40			4.32	63.99	58.40	5.59	
41			3.99	64.92	58.66	6.26	
42			3.79	64.52	58.92	5.60	
42+50			3.93	64.38	59.05	5.33	
43			3.71	64.60	59.18	5.42	
R.P.			2.89	65.42			

End 26" T.I.C

24"

End 24' T.I.C

2) 1x2" Hubs on bog 25' E of Sta 43 OR SR+

Hubs Br J Rt.

11/14/21

HOFF
BUDKE

2-1'x2' Hubs on bog 25' E Sta 43 Br Sta.

R.P	4.57	69.99	65.42		
Tile top			8.52	61.47-240=59.07	Sta 43 Br Sta = 0 Br J Rt
H-b			5.14	64.85 59.60	5.25
0					
+50			4.95	65.04 59.72	5.32
1			5.18	64.81 59.85	4.96
2			4.82	65.17 60.10	5.07
3			4.86	65.13 60.35	4.78
+50			4.76	65.23 60.48	4.75
4			4.10	65.89 60.60	5.29
+50			4.60	65.39 60.75	4.64
5			4.36	65.63 60.90	4.73
6			4.01	65.98 61.20	4.78
7	6.38	72.57	3.80	66.19 61.50	4.69
8			6.03	66.44 61.80	4.64
9			5.73	66.84 62.10	4.74
+50			5.58	66.99 62.25	4.74
10			5.26	67.31 62.40	4.91

0-13
0-13
0-13

0-4-25.90
4-13-30.90
0-13-16.1

96
72.57

10+50	4.94	67.63	62.55	5.08
11	4.80	67.77	62.70	5.07
150	4.62	67.95	62.83	5.10
12	4.50	68.07	63.00	5.07
13	4.18	68.39	63.30	5.09
14	3.62	68.95	63.80	
14+40	3.15	69.42		

END

Cont pg- 109

BR. 5R.

Hubs

R.P. 4.91 70.33 65.42

Top 24" 8.86 61.47 59.08

43+50 5.39 64.94 59.21 5.62

44 5.14 65.19 59.4 5.75

44+50 4.99 65.40 59.5 5.83

45 5.81 64.52 59.70 4.82

46 4.51 65.82 59.96 5.86

47 4.08 66.25 60.22 6.03

48 5.15 71.62 3.86 66.47 60.48 5.99

49 4.84 66.78 60.74 6.04

49+75 5.26 66.36 60.93 5.43

50+50 5.09 66.53 61.17 5.36

51 5.51 66.11 61.35 4.76

52 4.51 67.11 61.70 5.41

53

26%

25%

Sent Berg

12/7/21

R.P.B.

Hubs 5-R

12/19/21

R.P. 5.42 70.84 65.42

Engg's

Bucke

50+50 T.P. 6.61 73.13 4.32 66.52

BIM 5.35 (67.78)

in large Willow new sta
53 old sta. 39

Hubs

53 6.01 67.12 62.05 5.07

54 4.91 68.22 62.40 5.82

55 4.73 68.40 62.75 5.65

56 4.00 69.13 62.10 6.02

57 3.49 69.64 62.45 6.19

58 3.08 70.05 62.80 6.25

59 T.P. 4.65 75.30 2.48 70.65 64.15 6.50

60 4.20 71.10 64.50 6.60

60+50 4.20 71.10 64.67 6.42

61 4.12 71.18 64.85 BR NE 6.23

61+25 4.13 71.17 64.94 6.23

62+50 4.40 70.90 65.03 5.87

62 4.68 70.62 65.20 5.42

62+50	75.30	4.48	70.82	65.37	5.15	
63		4.15	71.15	65.55	5.60	
64		4.21	71.09	65.90	5.19	
65		3.42	71.88	66.25	5.62	
^{6.35} 65 65+57	78.86	2.79	72.51	66.45	6.06	N+S Property line fence
65+75		6.49	72.37	66.51	5.86	
BM		5.18		(73.68)		New BM Two Shingle Nails 2nd Cor. Inv.
66+50		4.21	74.65	66.77	7.88	
67		6.10	72.76	66.95	5.81	
67+50		6.11	72.75	67.12	5.62	Issued 12/19/21. R.P.B.

5R Hubs

2/9/22

BM.	4.55	78.23	73.68			two. 5 nalis SKV Cor low.
Top 18" 67		9.22 <u>170</u> 10.93	67.30			
H/L 67		5.17	73.06	67.20	72.76	5.76
67+50		5.16	73.07	67.46	72.75	5.61
68		4.88	72.35	67.63		5.72
69		4.71	72.52	67.96		5.56
70		4.60	72.63	68.29		5.34
71	6.74	80.74	4.22	74.00	68.62	5.38
72		6.17	74.57	68.95		5.62
73		5.27	75.47	69.28		6.19
74		4.72	76.02	69.61		6.41
75		4.38	76.36	69.94		6.42
BM	5.26	78.94	73.68			Bridge Same as above
65		6.90	72.04			
65+57		6.40	72.54			
67		5.89	73.05			
67+50		5.90	73.04			

Grade from 67 to 85. 33%

Hubs S-R

74 4.34 80.36 76.02

75 3.96 80.32 76.36

80.34

76 5.13 75.21 70.27 4.94

77 3.75 76.59 70.60 5.99

78 4.10 76.24 70.93 5.31

79 4.03 76.31 71.26 5.05

80 3.60 76.74 71.59 5.15

B.M. 2.26 (78.08)

Spice 1st F. Post East Sta. 80

6/26/22

B.M. 6.58 80.26 73.68

Shingle rails S.M. Corp. 100

76 5.99 74.33 70.27 4.06

77 4.71 81.36 3.61 76.65 70.60 6.05

78 5.29 76.07 70.93 5.14

79 5.35 76.01 71.26 4.75

80 5.02 76.34 71.59 4.75

B.M. 3.47 77.89

-34%

33%

107

S-R

6/26/22

36
2002.69
74.9971.59
34
71.93

68

34
130

460
30
1800
1380
15240
7099
7658

81		81.36	4.60	76.76	71.93	4.82
82			4.15	77.21	72.27	4.96
83			4.32	77.03	72.61	4.42
84	6.23	83.49	4.10	77.26	72.95	4.81
85			5.75	77.74	73.29	4.45
86			5.08	78.41	73.63	4.78
87			4.85	78.64	73.97	4.67
88			4.45	79.04	74.31	4.73
89			4.26	79.23	74.65	4.58
90			2.74	79.75	74.99	4.76

6/29/22

89	6.85	86.08		79.23		
90	6.35	86.10		79.75	74.99	4.76
91		86.09	5.72	80.37	75.33	5.04
92			5.66	80.43	75.67	4.76
93			5.27	80.82	76.01	4.81
94			5.21	80.88	76.35	4.53
94+20			4.50	81.59	76.42	5.17
94+40			4.65	81.44	76.49	4.95
94+60			4.36	81.73	76.55	5.18

Cont pg 133

Cont pg 133

80-100
%
13

Huge J.R.

2/12/22

Bucke

12, 1995

R.P.	5.28	70.70	65.42	
T.P.	5.87	73.23	3.34	67.36
4.7 13		72.96	4.57	(68.66) 68.39
12		72.97	4.90	(68.33) 68.07
Tilo 13			9.49	63.74
14		73.02	4.07	(69.16) 68.95
		72.97		
12		4.90	68.07	63.00
13		4.57	68.40	63.20
14		4.07	68.90	63.80
14+60		3.66	69.31	64.10
15	5.74	75.31	2.40	69.57 64.30
16		5.23	70.08	64.80
16+50.5		4.66	70.65	65.05
17		4.83	70.48	65.30
17+50		4.80	70.51	65.55
18		4.55	70.76	65.80

5.07

5.10

5.10

5.21

5.27

5.28

5.60

5.18

4.96

4.96

19	75.31	4.14	71.17	66.30	4.87
20		3.62	71.69	66.80	4.89 ⁸⁰
21		3.41	71.90	67.30	4.60 ⁶⁰
21 + 50		2.10	72.21	67.55	4.66
22		2.80	72.51	67.80	4.71
21 + 50	6.87	79.08	72.21		
22	6.60	79.11	72.51	67.80	
		79.10			
22 + 50		6.33	72.77	68.05	4.72
23		6.07	73.03	68.30	4.73
23 + 50		5.82	73.28	68.55	4.73
24		5.40	73.70	68.80	4.90 ⁸⁰
25		5.13	73.97	69.30	4.67 ⁵⁰
26		4.44	74.66	69.80	4.86
27		3.70	75.40	70.30	5.10
28		3.27	75.83	70.80	5.03
29		2.80	76.30	71.30	5.00

Given Berg

1/12/22

R.R.D.

68.05

2/24/22
Issued

R.R.D.

J. R.

3 1/2
198

71.80

25
72.05

30+50

499
25

28

75.83

29

4.88 81.18

76.30 71.90 = 5.00

27

5.77 81.17

75.40

29+50

5.13 76.04 71.55 4.49

30

4.35 76.82 71.80 = 5.02

BR J R

Hoff
4122 Matthe

BM

1.51 82.97

81.46

Top 14 1/2

10.50 { +1.46
9.10

72.47

N.E. Cor W. Headwall Conc Culv Sta 35 S R

30+50

6.28 76.69 72.50 4.19

31

5.82 77.15 72.67 4.48

32

5.10 77.87 73.00 4.87

33

4.69 78.18 73.33 4.95

34

4.03 78.94 73.66 5.28

+75

2.41 80.56 73.91 6.65

35+50

3.32 79.65 74.16 5.49

36

3.00 79.97 74.37 5.60

Sta 30+35

= 0.8

61 = 0.33 % from 30+50 to 36+00

74.30
72.50
1.80
55 1.80
1.50

Sta 34 90 = E-W Hwy

Hubs J.R.

6/12/22

$$\begin{array}{r} 54 \\ 142236 \\ 16 \\ \hline 7507 \end{array}$$

$$\begin{array}{r} 42 \\ 7599 \\ 2019 \end{array}$$

M.R.

BM.	3.12	84.58	81.46	12mg/yr Egn	.6% = 8		
33		6.22	78.36	73.33	5.03	.85 = end	
34		5.60	78.98	73.66	5.32	L.R.	
Tile 32+60		10.75	73.83	73.53	—	.4 = 4	
34+75		4.02	80.56	73.91	6.65	1.4 = End	
35+50		4.94	79.64	74.16	5.48		
36		4.66	79.92	74.31	5.55	J.R.	
37		4.27	80.31	74.77	5.54	.4 = 40	
38		4.05	80.53	75.11	5.36	.7 = 50	
39		3.54	81.04	75.51	5.47	.9 = End	
39+54	6.10	87.13	3.55	81.03	75.79	5.24	
40		6.20	80.93	75.97	4.96	—	12" 90 to 40+35
41		5.08	82.05	76.67	5.38		
42		4.54	82.59	77.37	5.22		
43		4.03	83.10	78.07	5.03		
44		2.80	84.33	78.77	5.56		
45		2.48	84.65	79.47	5.18	Costs revised	6/12/22
46		2.10	85.03	80.17	4.86		RRB.

-33%

-4%

-7%

JR Hubo
$$\begin{array}{r} 42.57 \\ 86.94 \\ \hline 55.8 \\ 80.17 \\ 8 \\ \hline 12.17 \end{array}$$

$$\begin{array}{r} 4.47 \\ 4 \\ \hline 4023 \\ 8.97 \\ 402 \\ \hline 8699 \end{array}$$

 6/20/22
 Baggo
 Hailuo

$$\begin{array}{r} 478 \\ 376 \\ \hline \end{array}$$

45	7.72	92.37	84.65		
46	7.26	92.29	85.03		
44	8.00	92.33	84.33		
46		92.34	7.26	85.08	80.17 4.91
47			6.40	85.77	80.97 4.97
48			5.78	86.56	81.77 4.77
49			5.36	86.98	82.57 4.41
50			4.41	87.93	83.37 4.56
51			3.54	88.80	84.10 4.68
52			2.65	89.69	84.97 4.72
53	2.76	94.62	1.48	90.86	85.77 5.09
54			3.05	91.57	86.57 5.00
54+47	END		2.05	92.57	86.95 5.62

90

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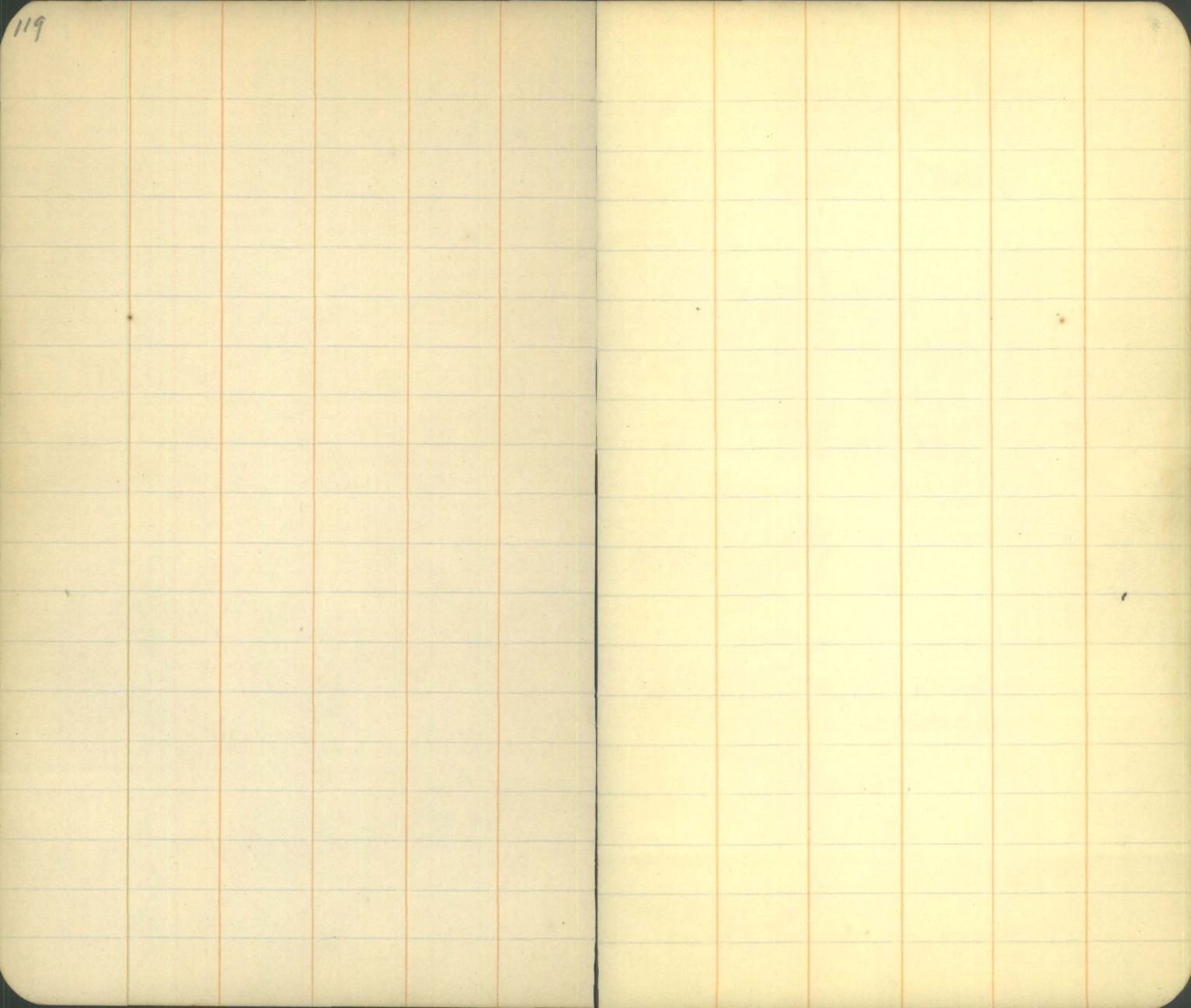
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Cute record 6/20/22

R.P.13.



May 21 1922

Hoff
Jensen

BM. 0.83 8244

81.61

N.E. Cor N. Headwall Conc Culv Sta 7+50

0	7.70	7274	68.25	4.49	= Sta 22+50 of Br JRT	
1	9.53	7291	68.90	4.01		
2	8.51	73.93	69.55	4.38		
3	8.06	74.38	70.20	4.16		
4	6.86	75.58	70.85	4.73		
5	6.09	76.25	71.50	4.85		
6	5.30	77.14	72.15	4.99		
7	4.55	77.89	72.80	5.09		
7+50	EE+W Hwy					
8	3.98	78.46	73.45	5.01	XX	

Same BM. 3.42 85.03

81.61

May 10 21

8	6.58	78.45	73.45	5.00		
9	5.85	79.18	74.08	5.10		
10	5.45	79.58	74.71	4.87		

Run 10' tile to Sta
8+50Hoff
Matthews

85.03

11		4.71	80.22	75.34 ₆₃	4.88	
12		4.12	80.91	75.97 ₆₃	4.94	
13		2.91	82.12	76.60	5.52	
14		2.90	82.13	77.23	4.90	
15	7.12	89.67	2.48	82.55 ₆₃	77.89	4.66
16		6.51	83.16	78.52 ₆₃	4.64	
17		5.72	83.95	79.15 ₆₃	4.80	
18		5.00	84.67	79.78 ₆₃	4.89	
+25		4.92	84.75	79.99 ₆₃	4.76	
+50		4.88	84.79	80.19 ₆₃	4.60	
19		4.62	85.05	80.41	4.64	
20		4.04	85.63	81.04	4.59	
21		3.44	86.23	81.67 ₆₃	4.56	
+81		2.53	87.14	82.18	4.96	

= DBR 2 R - End 84.10

End at P.L

BR L. R.

18	6.04	90.71	84.67		
18+50	5.92	90.71	84.79		0 BR. L. R.
19	5.65	90.71	85.05		
0			84.79	80.16	4.63
1		5.25	85.36	80.56	4.80
Corr.		10.55	80.16	80.19	
2		5.22	85.49	80.96	4.53
3		4.80	85.91	81.36	4.55
4		2.89	86.82	81.76	5.06
5		2.80	87.91	83.46	4.45
6		1.72	88.99	84.86	4.13

7=End

Cons Hubs M-R.

3/ J-R. 7.23 84.38 77.15

37. J-R 6.47 84.34 77.87

30+50 7.69 84.38 76.69

Cammec 11.73 72.65

0 7.53 76.85 72.60

1 6.57 77.81 73.20

2 5.78 78.60 73.80

3 5.01 79.37 74.40

4 4.48 79.90 75.00

5 4.04 80.34 75.60

6 3.30 81.08 76.20

6+25 3.17 81.21 76.35

6+50 2.98 81.40 76.50

6+75 2.96 81.42 76.65

$$\begin{array}{r} 72.65 \\ 4.05 \\ \hline 76.65 \end{array} \quad \begin{array}{r} 25.6 \\ 15.0 \\ \hline 40.6 \end{array}$$

$$\begin{array}{r} 67.5 \\ 40.6 \\ \hline 108.1 \end{array}$$

5/25/22

Briggs
Earl.

invert Camm.

4.25 = 30+40 J-R

4.61

4.80

4.97

4.90

4.74

4.88

4.86

4.90

4.77

.6 = Sta 8

.85 = End

129

M-R

Corr.t.

6+25 8.12 89.33 81.21

6+50 7.93 89.33 81.40

6+75 7.90 89.32 81.42

7 89.32 8.00 81.23 76.80 4.53

8 7.05 82.28 77.40 4.88

9 6.02 83.31 78.25 5.06

10 5.24 84.09 79.10 4.99

11 4.54 84.79 79.95 4.84

12 4.06 85.27 80.80 4.47

13 3.63 85.70 81.65 4.05

14 2.40 86.93 82.50 4.43

15 1.73 87.60 83.35 4.25

16 End

$$\begin{array}{r} 76.80 \\ 6.80 \\ \hline 83.60 \end{array}$$

$$\begin{array}{r} 76.80 \\ 7.93 \\ \hline 84.73 \end{array}$$

$$\begin{array}{r} 85 \\ 2 \\ \hline 87 \end{array}$$

$$\begin{array}{r} 76.80 \\ 8.5 \\ \hline 85.30 \end{array}$$

$$\begin{array}{r} 85 \\ 6.80 \\ \hline 91.80 \end{array}$$

$$\begin{array}{r} 98.2 \\ 8.5 \\ \hline 106.7 \end{array}$$

$$\begin{array}{r} 77.40 \\ 5.95 \\ \hline 83.35 \end{array}$$

6/3/22

Briggs
Earl.

T/c Chk M-R.

$$\begin{array}{r} 90.40 \\ 4.80 \\ \hline 85.60 \end{array}$$

6/26/22

0	7.76	84.81	76.85	8	8.25	77.35	77.40
1	7.12	84.93	77.81	9	7.30		
2	6.28	84.88	78.60	10	6.42		
		84.85		11	5.60		
		4.20					
0+10		80.05	7.28	77.82	72.70	12	4.80 80.80 80.80
0+50			7.00	73.05	72.90	13	4.00
1			6.87	73.18	73.20	14	3.10
+50			6.62			15	2.20 83.30 83.35
2			6.20	73.85	73.00	16	1.40
			6.08				
3			5.67				
4			5.09	74.96	75.00		
5			4.55				
6			3.85	76.20	76.20		
6+50			3.57				
7			3.30				
+50	8.47	90.40	2.92	81.93			

OK L. J. W.

6/26/22

No 1 A. Grade

RRB.

Cont. from Pg. 107

7/10/22

S-RF.

94+20	6.26	87.95	81.59	
94+40	6.52	87.96	81.44	
94+60	6.24	87.97	81.73	76.55
95		87.96	5.98	81.18 76.69
96			5.17	82.79 77.03
97			4.17	83.79 77.37
98			2.87	85.09 77.71
99			4.50	82.46 78.05

$$\begin{array}{r} 34 \\ 32 \\ \hline 68 \\ 72 \\ \hline 788 \end{array}$$

$$\begin{array}{r} 76.25 \\ 120 \\ \hline 76.69 \\ 7805 \end{array}$$

$$\begin{array}{r} 76.69 \\ 34 \\ \hline 170 \end{array}$$

$$\begin{array}{r} 181 \\ 362 \\ \hline \end{array}$$

78.34 Grade
45% GR.

77.71

$$\begin{array}{r} 5.18 \\ 5.29 \\ \hline 5.76 \end{array}$$

6.42

7.38

5.41

Cuts used 7/10/22

$$\begin{array}{r} 27.71 \\ 27.71 \\ \hline 27.71 \end{array}$$

135

5-Rt.

$$\begin{array}{r} 5.64 \\ 4.95 \\ \hline 10.59 \end{array}$$

$$\begin{array}{r} 100.38 \\ 79.56 \\ \hline 20.82 \end{array}$$

8/9/22

$$\begin{array}{r} 24 - 100 \\ 1.3 - 105 \\ .6 - \text{End} \end{array}$$

98 Hob 4.62 89.71 85.09

Top 16" 10.59 79.12

98+32 4.80 84.91 77.82 7.09 $\frac{80}{20}$ 99 6.19 83.52 78.05 5.47 $\frac{20}{30}$

99+56 5.70 84.01 78.24 5.77

100 in Road 78.39

101 5.60 84.11 79.39 4.72

102 5.08 84.63 80.39 4.24

103 10.11 96.12 3.70 86.01 81.39 4.62

104 8.70 97.22 82.39 4.83

104+40 8.17 97.95 82.80 5.15 $\frac{80}{10}$ 105 6.88 99.24 83.39 5.85 $\frac{10}{10}$

106 6.40 89.72 84.39 5.33

107 5.64 90.48 85.39 5.09

108 4.38 91.74 86.39 5.35

109 3.14 92.98 87.39 5.59

110 2.51 93.61 88.39 5.22

137

S-R

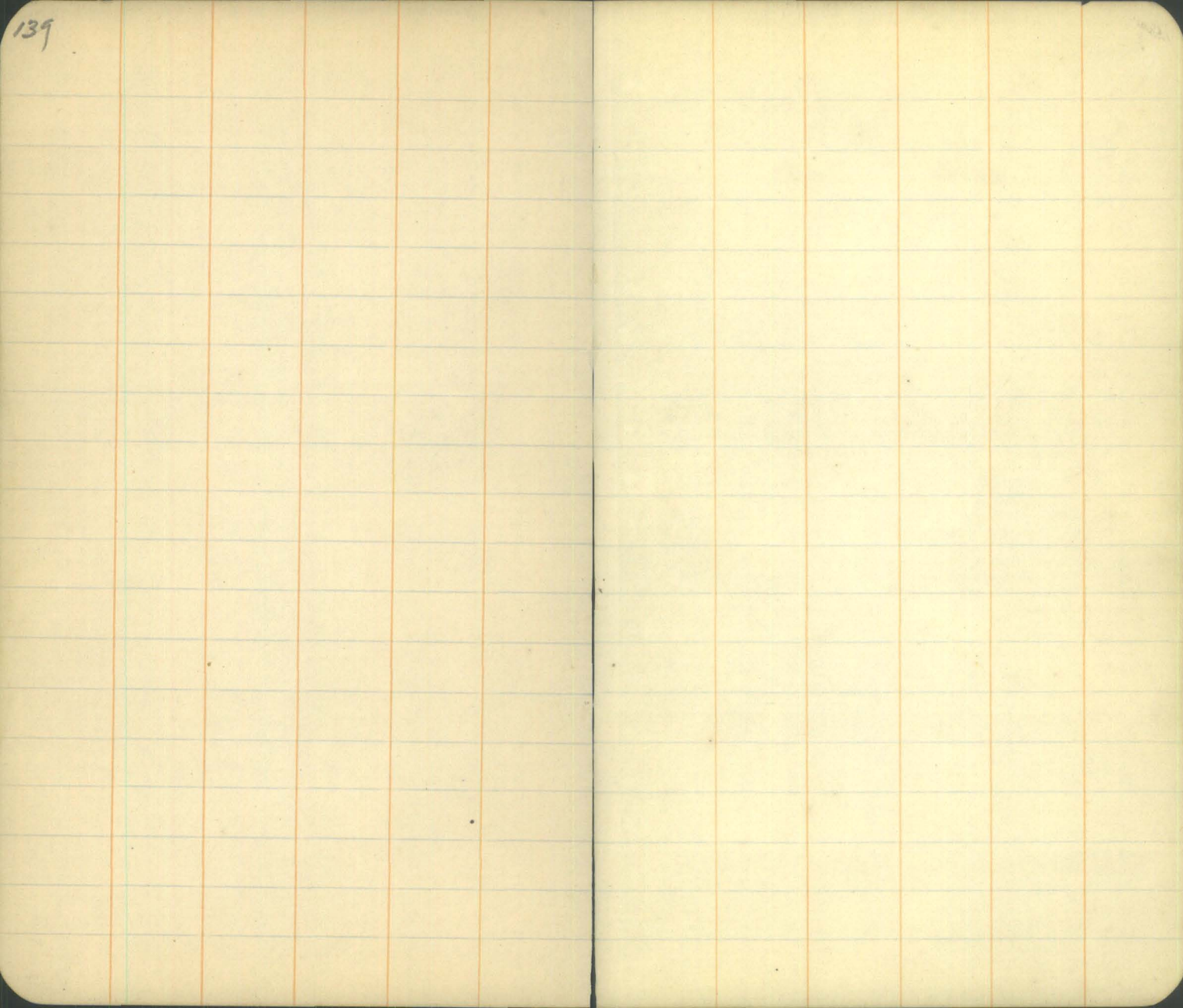
111 96.12 2.34 93.78 89.89 4.39 -

112 2.22 93.90 89.89 4.01 ~~80~~113 1.61 94.51 90.29 4.12 ~~50~~

114

115 to 6 End.

Cuts 8/9/22



BR. G. RT. 7/12/22

42
E
210
78 30
62.50
17.50
20.00

82.50
2.80

97	5.95	89.74	83.79
98	4.62	89.71	85.09
98+32 (SR)		89.70 4.96	84.74 77.80
0+70	6.23	89.69	82.46 78.15
0+90		89.70 6.08	83.62 78.25
1+06		6.10	83.60 78.33
1+17		6.09	83.61 78.39
1+42		6.03	82.67 78.51
2		5.66	84.00 78.80
3		5.25	84.35 79.20
4		5.09	84.61 79.80
5		4.61	85.09 80.20
6		4.09	85.61 80.80
7		3.34	86.36 81.30
8		2.76	86.74 81.80
9		2.68	87.02 82.30
10		2.22	87.48 82.80

6.94	O of G. RT.
5.31	
5.37	
5.27	
5.22	
5.16	
5.24	
5.05	
4.81	
4.79	
4.81	
5.06	
4.94	
4.72	
4.68	

5.40

143

95
451020
612
8380
8992

G. R.

7/19/22

9	8.53	95.58		87.02	
10	8.10	95.58		87.48	82.80
10+71		95.56	6.18	89.38	83.25
11			6.30	89.26	83.30
12			6.66	88.90	83.80
13			6.64	88.92	84.40
14			5.56	90.00	85.00
15			4.97	90.59	85.60
16			4.62	90.94	86.20
17			4.03	91.53	86.80
18	4.85	97.80	2.61	92.95	87.40
19			4.88	92.92	88.00
20			4.36	93.44	88.60
20+20			4.45	93.35	88.72
21			2.85	93.95	89.20
22			3.70	94.10	89.80
22+20 END			2.63	95.17	89.92

4.68

6.13

5.96

5.10

4.52

5.00

4.99

4.74

4.72

5.55

4.92

4.84

4.63

4.75

4.30

5.25

LT BR. I R

Certs 7/19/22 RAB

145

BR I - Rt. 7/19/22

H (C-R) 5.89 95.15 89.26

0	10+91	5.77	89.38	83.25	6.13
1		6.30	88.85	83.65	5.20
2		5.25	89.90	84.05	5.85
3		4.75	90.40	84.45	5.95 0
4		5.60	89.55	84.85	4.70 X
5		5.20	89.95	85.25	4.70 10
6		5.15	90.00	85.65	4.35 X
6+60		4.68	90.47	85.89	4.58
6+75		4.60	90.51	85.95	4.56
6+90		4.21	90.90	86.01	4.93
7+05		4.62	90.53	86.07	4.46
7+20		4.44	90.71	86.13	4.58

7/26/22

6+90	6.97	97.91	90.94
7+20	7.22	97.93	90.71

$$\begin{array}{r} 85.68 \\ 86.05 \\ \hline 75 \\ 300 \end{array}$$
.3%
36 86.40

1.10%

$$\begin{array}{r} 72.04 \\ 288 \\ \hline 83.25 \\ 86.10 \end{array}$$

Og I - Rt.

Cuts 7/19/22 RMB.

147

I R⁺.

86.05

85.65
86.0539.
270

148

8 97.92 6.51 91.41 86.45

4.96 $\frac{10}{10}$

9 6.20 91.72 86.85

4.87 $\frac{10}{10}$

10 5.62 92.30 87.25

5.05

11 5.15 92.77 88.25

4.52

12 4.06 93.84 89.25

4.61 $\frac{10}{10}$

13 3.19 94.73 90.25

4.48 $\frac{10}{10}$

14 2.10 95.82 91.25

4.57

15 1.22 96.70 92.25

4.45

7/24/22 RPB.

8/4/22

14 8.06 103.88 95.82

15 7.22 103.93 96.70 92.25

4.45

Note 2/21+00 End I. R⁺.

13 9.10 103.87 94.73

14 103.88 5.38 98.50 93.25

5.25

16+30 5.16 98.72 93.55

5.17

16+50 5.00 98.84 93.75

5.09

17 4.87 99.01 94.25

4.76

18 4.15 99.73 95.25

4.48

19 3.35 100.53 96.25

4.28

20 2.26 101.62 97.25

4.37.

BR I Left.

9/7/22

67.71
 4
 63.71
 59.34
 4.4

BM 4.15 72.99 68.84
 2.85 71.69

pg-3. this look

Inv 8" Conn- 12.25 59.34

O Hub 7.50 64.19 59.34

4.85

1 6.54 65.15 60.34

4.81

2 5.52 66.17 61.24

4.83

H. Road D 5.30 —

~~Blue~~

3 4.50 67.19 62.24

4.85

do
 1.0

W Road D. 4.60 —

ERD 4.70 —

4 End 2.98 67.71 63.34

4.37

Invert Private 6" 7.80 63.89 63.40

(49) Inver Thon Private 6"

$$\begin{array}{r} 56.00 \\ 15.0 \\ \hline 48.50 \end{array}$$

$$\begin{array}{r} 3.5 \\ 2.5 \\ \hline 1.1 \end{array}$$

$$\begin{array}{r} 12.6 \\ 11.1 \\ \hline 1.5 \end{array}$$

$$\begin{array}{r} 35 \\ 19 \\ \hline 16 \end{array}$$

0

1/2" Intake
Main

0

11.10 61.10 50.00 48.50

10/0

6.50 54.60 48.50

1

7.95 53.15 49.00

9.20 51.90

11.1

Intake 12" C-13.

Outlet 11.60 61.60 50.00

d. 7 9.20 52.40

New Outlet at Main line

Must go on foot and $\frac{1}{2}$ 1.5

below where it is now and run

back on .5%

50.00 48.50

6.10

4.15

Intake proper will be
3' below low place

137

28.70
15
45
15
03
68.92
68.70

BK. D left.
3 1/2 willows to destroy

BK E. left. OK.

BK. F. left 23'. 8" tile

J-R.

14" - 30+50

12" - 41+50

10" - 49+50

75
2250
9850

5-R.

18" - 75

16" - 98+50

12" - 150'

15 - 18"
9 - 14"

9.95
1.35
113

570
629
1199

from 19-25
3L.

18.70
68.85
68.75
69.36
68.70
69.12
68.70
.42

BK 2.87 80.42

77.55

55+15

11.06 69.36 68.75

11.20 69.12

54+50

10.15 68.92 68.85

54

11.55
11.99 68.43

4.98
135
625

5.25
4.85
4.65
4.15
3.75
2.55
3.15
2.85

68.70
15

55 68.40
15
68.55

68.92
68.55
.37

69.36
68.70
.61

159

8/9/22

865' - 6"

1544' - 8"

TABLE IX.—CALCULATION OF EARTHWORK.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide.

Side Slopes 1 on 1½

For Single Track Embankment.

Width	HEIGHT														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.02	.04	.06	.07	.09	.11	.13	.15	.17	.18	.20	.22	.24	.26	.28
2	.04	.07	.11	.15	.18	.22	.26	.30	.33	.37	.41	.44	.48	.52	.56
3	.06	.11	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83
4	.07	.15	.22	.30	.37	.44	.52	.59	.67	.74	.81	.89	.96	1.04	1.11
5	.09	.19	.28	.37	.46	.56	.65	.74	.83	.93	1.02	1.11	1.20	1.30	1.39
6	.11	.22	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67
7	.13	.26	.39	.52	.65	.78	.91	1.04	1.16	1.30	1.42	1.55	1.68	1.81	1.94
8	.15	.30	.44	.59	.74	.89	1.04	1.19	1.33	1.48	1.63	1.78	1.92	2.08	2.22
9	.17	.33	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
10	.18	.37	.56	.74	.93	1.11	1.30	1.48	1.67	1.85	2.04	2.22	2.41	2.59	2.78
11	.20	.41	.61	.82	1.02	1.22	1.43	1.63	1.83	2.04	2.24	2.44	2.65	2.85	3.06
12	.22	.44	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
13	.24	.48	.72	.96	1.20	1.44	1.68	1.92	2.16	2.41	2.65	2.89	3.13	3.37	3.61
14	.26	.52	.78	1.04	1.30	1.55	1.81	2.08	2.33	2.59	2.85	3.11	3.37	3.63	3.89
15	.28	.56	.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17
16	.30	.59	.89	1.18	1.48	1.78	2.07	2.37	2.67	2.96	3.26	3.56	3.85	4.15	4.44
17	.31	.63	.94	1.26	1.57	1.89	2.20	2.52	2.83	3.13	3.46	3.78	4.09	4.41	4.72
18	.33	.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00
19	.35	.70	1.06	1.41	1.76	2.11	2.46	2.82	3.17	3.52	3.87	4.22	4.57	4.92	5.28
20	.37	.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.18	5.56
21	.39	.78	1.17	1.55	1.94	2.33	2.72	3.11	3.50	3.89	4.28	4.67	5.06	5.44	5.83
22	.41	.81	1.22	1.63	2.04	2.44	2.85	3.26	3.67	4.07	4.48	4.89	5.30	5.70	6.11
23	.43	.85	1.28	1.70	2.13	2.56	2.98	3.41	3.83	4.26	4.68	5.11	5.54	5.96	6.39
24	.44	.89	1.33	1.78	2.22	2.67	3.13	3.56	4.00	4.44	4.89	5.33	5.78	6.22	6.67
25	.46	.92	1.39	1.85	2.31	2.78	3.24	3.70	4.17	4.63	5.09	5.56	6.02	6.48	6.94
26	.48	.96	1.44	1.92	2.41	2.89	3.37	3.85	4.33	4.82	5.30	5.78	6.26	6.74	7.24
27	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
28	.52	1.04	1.55	2.07	2.59	3.13	3.63	4.15	4.67	5.18	5.70	6.22	6.74	7.26	7.78
29	.54	1.07	1.61	2.15	2.68	3.22	3.73	4.30	4.83	5.35	5.91	6.44	6.98	7.52	8.06
30	.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.78	8.33
31	.57	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74	6.32	6.89	7.46	8.04	8.61
32	.59	1.18	1.78	2.37	2.96	3.56	4.15	4.74	5.33	5.92	6.52	7.11	7.70	8.30	8.89
33	.61	1.22	1.83	2.44	3.05	3.67	4.28	4.89	5.50	6.11	6.72	7.33	7.94	8.55	9.17
34	.63	1.26	1.89	2.52	3.15	3.78	4.40	5.04	5.67	6.29	6.93	7.56	8.18	8.81	9.44
35	.65	1.30	1.94	2.59	3.24	3.89	4.53	5.18	5.83	6.48	7.13	7.78	8.42	9.08	9.72
36	.67	1.33	2.00	2.67	3.33	4.00	4.66	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00
37	.68	1.37	2.06	2.74	3.42	4.11	4.79	5.48	6.17	6.85	7.54	8.22	8.91	9.59	10.28
38	.70	1.41	2.11	2.82	3.52	4.22	4.92	5.63	6.33	7.03	7.74	8.44	9.15	9.85	10.56
39	.72	1.44	2.17	2.89	3.61	4.33	5.05	5.78	6.50	7.22	7.95	8.67	9.39	10.11	10.83
40	.74	1.48	2.22	2.96	3.70	4.44	5.18	5.92	6.67	7.41	8.15	8.89	9.63	10.37	11.11

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

Table gives cu. yds. in 1 ft. of a triangle of given width and height. Corrections for tenths of width are one tenth the values found under each height considering the widths from 1 to 9 as tenths and similarly the corrections for tenths of height are one tenth the figures opposite width considering the heights from 1 to 9 as tenths. Thus if $w = 16.2$ ft. and $h = 5.3$ cu. yds. $= 1.48 + .028 + .089 = 1.597$ cu. yds. or practically 160 cu. yds. per 100 ft. If w exceeds 40 ft., use one half and multiply result by 2, if both w and h are large use one half if each and multiply result by 4. To the triangle of the sum of the outside cuts (or fills) $= h$, and $\frac{1}{2}$ the roadbed $= w$, add the triangles formed by taking the distance out to each break in turn ($= w$) by the difference between the cuts (or fills) on each side of it ($= h$) always subtracting the outer from the inner.