

JOB 200-FAPI42

BRAINERD

MOTLEY
CROSS-SECTION

ENGINEERS

FIELD BOOK

No. 400

127

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

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 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 $30.6 + (20 - 16) \div 2$ or 2 ft. added to 30.6 = 32.6. For slopes of 1 on $1\frac{1}{2}$ see inside of back cover.

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— Brainerd — Motley — Road.

Construction Note Book.

May 31 - 1920.

— R. E. Krueger. —

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E:
to be
of road
examp
20.6 =

For Index
see Back
of Book

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| | |
|--|-------|
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Chic

| | | | | |
|----------------------------------|-----------|---------------|----------------|---------------|
| June 2. | Surfacing | 6 teams | 6 men | 1 foreman |
| " " | Grading | 5 " | 2 " | 1 " |
| " 3 | Sur | - same as 2 - | | |
| " " | Grad. | " | " | " |
| " 4 | Sur | Rain no work! | | |
| " " | Grad. | 1 team | 2 men | 1 foreman |
| " 5 | Sur | 6 teams | 6 men | 1 foreman |
| " 5 | Grad. | 4 " | 3 " | 1 " |
| " 7 | Sur | 8 " | 4 " | 1 " |
| " 7 | Grad. | 5 " | 3 " | 1 " |
| " 16 | Sur | 10 " | 9 " | 2 " |
| " 21 | Sur | 7 " | 6 " | 1 " |
| " 21 | Grad | 4 " | 3 " | 1 " |
| July 2 | Surf | 7 " | 5 " | 1 " |
| Progress. Surf to Sta 64 grad 96 | | | | |
| " | " | " | 69+50 | " 98 |
| July 9 | Sur | 10 teams | 4 men | |
| " " | Grad | 7 " | 3 " | 1 fore |
| " 29 | " | 5 " | 2 " | |
| " 29 | Surf | 4 " | 3 " | |
| J 29 | Surf | Sta 83 | Grad, Sta 118, | |
| Sept 3 | Grading | 4 teams | 3 men | 1 foreman |
| " 3 | Surf | 5 " | 3 trucks | 5 men fore |
| " 22 | Rebui | Big Hill | 5 teams | 4 men started |

Bench Marks.

| | | |
|---------------------------|------------------------|-----------------------|
| 0+00 | Spike in oak. | 1111.00 ⁰⁰ |
| 16+00 | " " J.P. | 1111.96 |
| 40+20 | " " Tel Pole Pt. | 1109.99 |
| Bridge at 47+ | Spike in S.W. | |
| wing wall pile flush with | | |
| top of pile. | | 1109.50 |
| 63+10 | Spike in tel pole Pt. | 1113.78 |
| 104 | " " " " " | 1112.77 |
| 127+60 | " " " " " | 1114.16 |
| 153+20 | Notch in J.P. Tree Pt. | 1118.55 |
| 174+20 | " " " " Pt. | 1106.59 |
| 197+00 | Spike in J.P. Pt. | 1106.46 |
| 207+25 | " " " " Pt. | 1115.95 |
| 219+50 | " " " " | 1127.35 |

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Ex
to be
of road
examp
80.6 =

Reference Points.

T134
R32

10+396 5 1/4 Cor 5.33

38.6' O.F.P.

44.6

O.F.P.

10" J.P.

51.8

22+96.7 P.O.T.

48.1

3" Oak.

O.T.P.

30.8

316+750

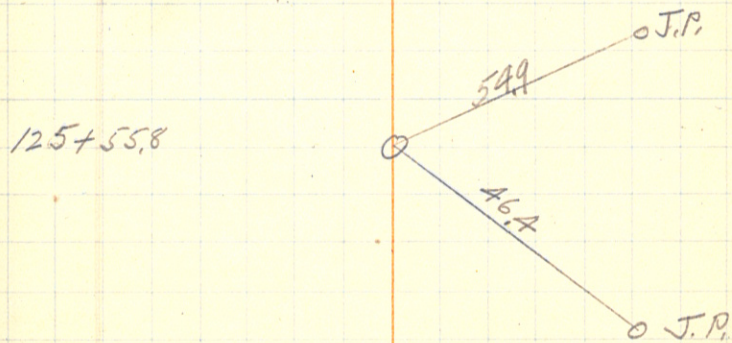
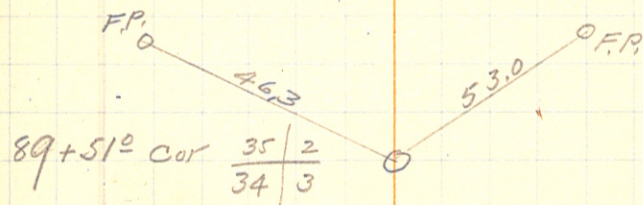
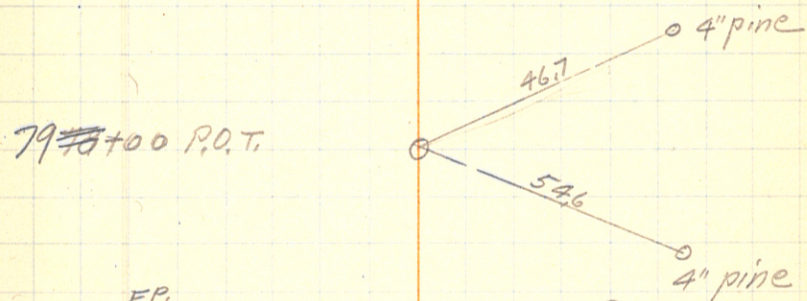
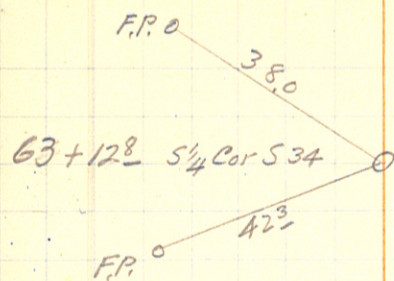
| | |
|---|----|
| 3 | 34 |
| 4 | 33 |

39.4

O.F.P.

T134
R32

3



$$115 + 87^{\frac{8}{10}} \quad \frac{1}{4} \text{ cor } S, 35$$

59.6

T.P. (4)

74.5

J.P.

F.P.

45.7

$$142 + 21^{\frac{3}{10}} \quad S.C. \begin{array}{r} 36 \\ 1 \\ \hline 35 \\ 2 \end{array}$$

29.7

T.P.

$$156 + 29^{\frac{6}{10}}$$

49.1

F.P.

45.6

T.P.

