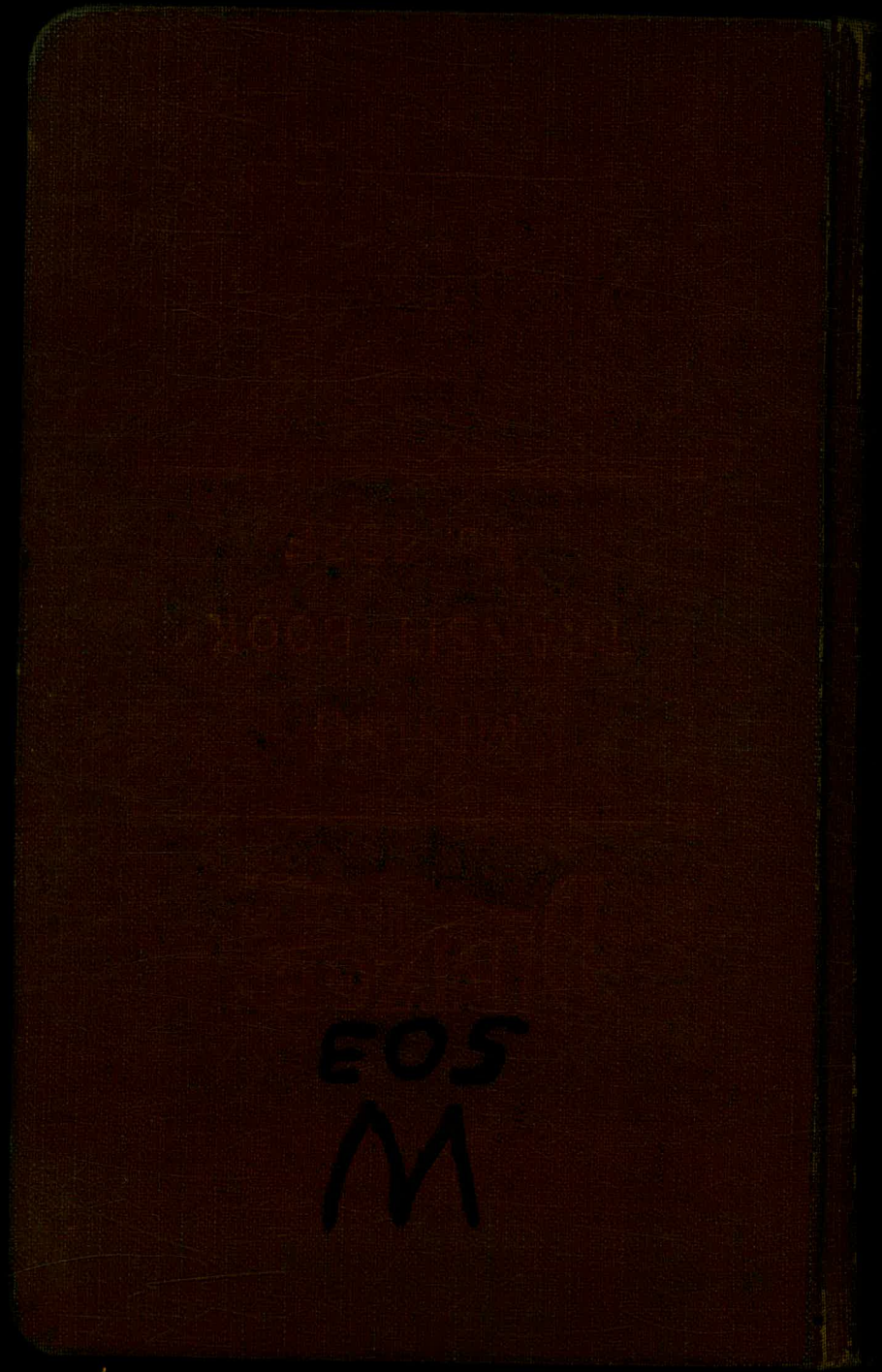

EOS

# 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)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.





503

# INDEX





# INDEX

# Class 2 Excavation

| Sta. | Length | End Area | Average End Area | Cu. Ft. |
|---|---|---|---|---|
| 224 | | 00 | | |
| | 10 | | 10.15 | 101.5 |
| | | 20.30 | 32.435 | 324.4 |
| +10 | | 64.87 | | |
| | 15 | | 49.36 | 740.4 |
| | | 78.42 | 71.655 | 1074.8 |
| +25 | | 64.94 | | |
| | 15 | | 117.18 | 1757.7 |
| | | 155.94 | 117.19 | |
| +40 | | | | |
| | 10 | | 185.245 | 1852.4 |
| +50 | | 214.55 | | |
| | 25 | | 293.245 | 7331.1 |
| | | 371.94 | 293.145 | 7328.6 |
| +75 | | 94 | | |
| | 25 | | 412.54 | 10313.5 |
| 225 | | 453.14 | 412.44 | 10311.0 |
| | 25 | | 439.51 | 10987.8 |
| +25 | | 425.88 | | |
| | 10 | | 447.19 | 4471.9 |
| +35 | | 468.50 | | |
| | 15 | | 395.22 | 5928.3 |
| +50 | | 321.94 | | |
| | 25 | | 241.945 | 6048.6 |
| +75 | | 161.95 | 241.99 | |
| | | 161.04 | | 6049.8 |

Forwd — A 9533.2

Converse Super Remmers Isbell — March 10 1936

Sta. | ℄ | Rt | ℄

Cor- checked 4/7/36 [illegible]

0.0 = present road grade
13' beach from ℄ of ditch
1/4:1 slope

| Sta. | | | | | | |
|---|---|---|---|---|---|---|
| 224+00 | | 0.0 / 13.0 | 0.0 | | | |
| +10 | 13.3 / 23.0 | C 10.0 / 15.5 | 9.2 / 14.0 | 0.0 / 10.0 | 0.0 | |
| +25 | 15.2 / 23.0 | C 13.2 / 16.3 | +10.1 / 9.0 | 0.0 / 6.0 | 0.0 | |
| +40 | 16.5 / 23.0 | C 14.8 / 16.7 | 10.7 / 4.0 | 0.0 | | |
| +50 | 19.1 / 25.0 | C 16.7 / 17.2 | 10.0 | 0.0 / 4.0 | 0.0 / 10.0 | |
| +75 | 21.7 / 25.0 | C 18.7 / 17.7 | 13.4 | 8.3 / 11.0 | 0.0 / 14.0 | 0.0 / 20.0 |
| 225+00 | 20.6 / 25.0 | C 18.6 / 17.9 | 14.6 | 7.7 / 17.0 | 0.0 / 20.5 | |
| +25 | 19.8 / 25.0 | C 17.2 / 17.3 | 17.2 / 13.0 | 12.8 | 7.8 / 17.5 | 0.0 / 21.0 |
| +35 | 6 22.0 / 18.5 | 18.3 / 10.0 | 12.9 | 10.8 / 10.0 | 7.9 / 17.0 | 0.0 / 21.5 |
| +50 | 15.1 / 25.0 | C 12.6 / 16.2 | 10.8 | 9.5 / 15 | 6.1 / 15.5 | 0.0 / 20.1 |

Final x-sect - page 65

Brought Forw 49533.

| Length | Area | | |
|---|---|---|---|
| 225+75 | 161.95 ~~162.04~~ | | |
| 13 | | 121.025 ~~121.07~~ | 1573.9 ~~1574.1~~ |
| +88 | 80.10 | | |
| 5 | | 65.93 | 329.6 |
| +93 | 51.76 | | |
| 7 | | 40.71 ~~40.81~~ | 285.0 ~~285.7~~ |
| 226+00 | 29.66 ~~29.86~~ | | |
| 15 | | 14.83 ~~14.93~~ | 222.5 ~~224.0~~ |
| +15 | 00 | | |

~~52 500 = 1944.4 yd³~~

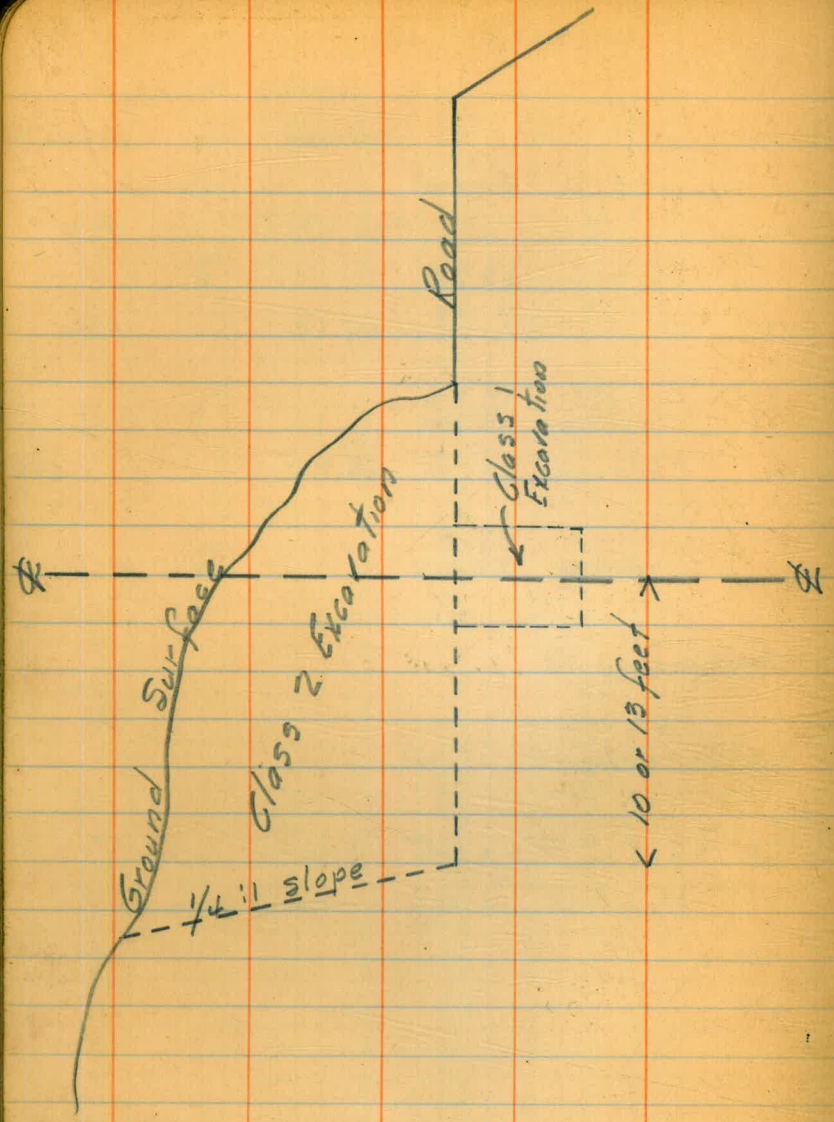
27

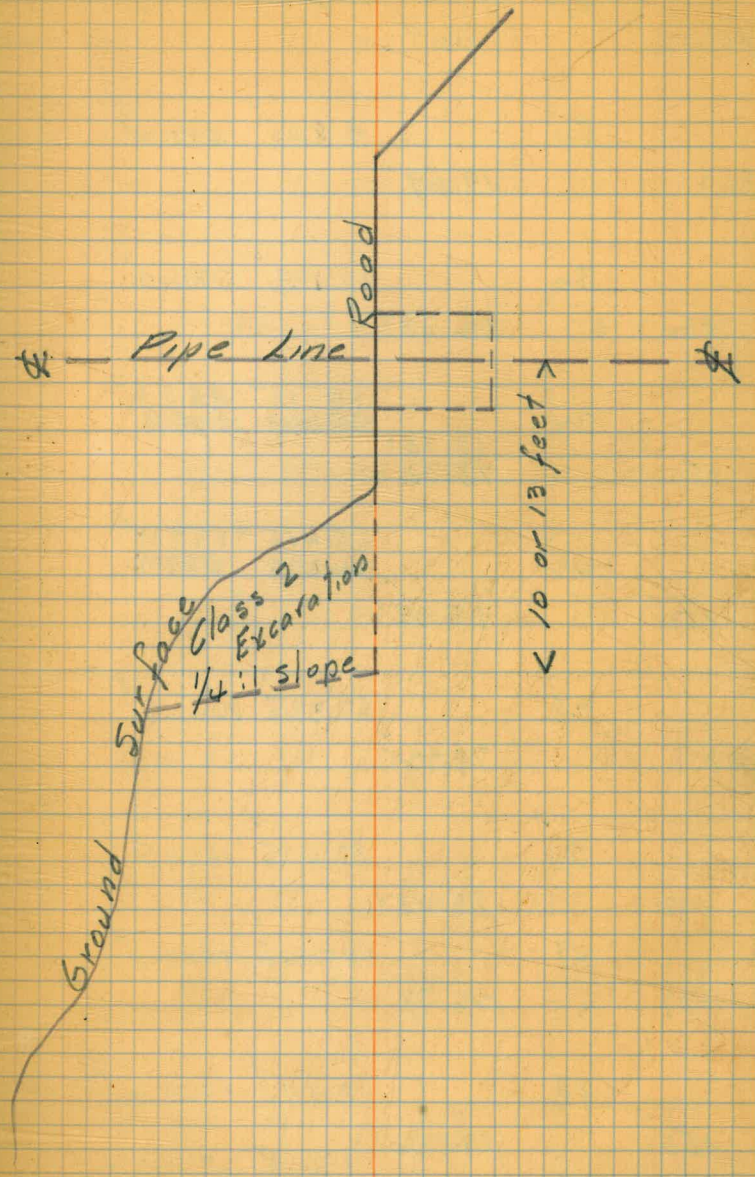
Total 51943.6 = 1923.8

See Cal Sheet 6 +- 95.6 cu yds

Sections on Roll # 1.

| | Lt | ℄ | Rt |
|---|---|---|---|
| 225+75 | 10.8 / 25.0 — C 8.0 / 15.0 — 8.3 / 8.5 | 7.0 | 5.7 / 4.7 — 0.0 / 10.0 |
| +88 | 8.7 / 25.0 — C 7.0 / 14.8 | 4.0 | 0.0 / 2.5 |
| +93 | 7.5 / 25.0 — C 5.6 / 14.4 — 3.3 / 9.0 | 0.0 | |
| 226+00 | 5.5 / 20.0 — C 4.5 / 14.1 — 3.2 / 7.0 — 0.0 / 4.0 | 0.0 | |
| +15 | 0.0 / 13.0 | 0.0 | |


Road
Class 1 Excavation
Class 2 Excavation
Ground Surface
1/4 : 1 slope
10 or 13 feet


Pipe Line
Road
Class 2 Excavation
Ground Surface
1/4 : 1 slope
10 or 13 feet

# Class 2 Excavation

| Length | Area | Average End Area | Cu. ft. |
|---|---|---|---|
| 366+50 | 00 | | |
| 50 | | 9.845 | 492.2 |
| 367 | 19.69 | | |
| 30 | | 26.135 | 784.0 |
| +30 | 32.58 | | |
| 20 | | 24.18 ~~25.04~~ | 483.6 ~~508.8~~ |
| +50 | 15.78 ~~18.30~~ | | |
| 22 | | 25.415 ~~26.675~~ | 559.1 ~~586.8~~ |
| +72 | 35.05 | | |
| 28 | | 57.385 | 1606.8 |
| 368 | 79.72 | | |
| 20 | | 82.475 | 1649.5 |
| +20 | 85.23 | | |
| 17 | | 106.005 | 1802.1 |
| +37 | 126.78 | | |
| 13 | | 134.54 | 1749.0 |
| +50 | 142.30 | | |
| 25 | | 117.19 ~~116.69~~ | 2929.7 ~~2917.7~~ |
| +75 | 92.08 ~~91.08~~ | | |
| | | Forwd | 12056.0 |

Lt ℄ Rt 6

Final x-sect. - page 45 50

0.0 = present road grade
13' bench 1/4 : 1 slope

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 366+50 | 0.0 | 0.0 / 13.0 | | | | | | |
| 367 | 0.0 | 0.0 / 0.8 | 1.4 / 1.0 | | 6.8 / 13.5 | | 3.0 / 16.0 | |
| +30 | | 0.0 / 5.0 | 0.0 / 0.5 | 2.0 | 2.9 / 8.0 | C | 1.8 / 13.8 | |
| +50 | | 0.0 / 5.0 | 0.0 / 3.0 | 0.8 | 1.4 / 13.0 | C | 1.6 / 13.4 | 3.3 / 20.0 |
| +72 | | 0.0 / 6.0 | | 0.6 | 3.0 / 10.0 | 5.0 / 13.0 | C 5.3 / 14.3 | 6.7 / 23.0 |
| 368+00 | | 0.0 / 5.0 | 0.0 / 2.8 | 3.8 | 5.8 / 5.0 | 5.6 / 10.0 | C 6.2 / 14.5 | 7.4 / 20.0 |
| +20 | | 0.0 / 5.0 | 0.0 / 2.0 | 3.2 | 4.9 / 1.5 | C | 7.5 / 14.9 | 8.9 / 20.0 |
| +37 | | 0.0 / 5.0 | 0.0 / 2.5 | 6.1 | 9.2 / 11.0 | C | 12.0 / 16.0 | 12.9 / 22.0 |
| +50 | | 0.0 / 5.0 | 0.0 / 2.5 | 3.7 | 11.3 / 9.0 | C | 13.9 / 16.5 | 14.9 / 22.0 |

| | Length | Area | Brought Forward | cuft | cuyds |
|---|---|---|---|---|---|
| 368+75 | | 92.08 ~~91.08~~ | 12056.0 | | |
| | 25 | | 75.45 ~~74.95~~ | 1886.2 ~~1873.8~~ | |
| 369 | | 58.82 | | | |
| | 25 | | 43.78 | 1082.0 | |
| +25 | | 27.74 | | | |
| | 25 | | 18.785 | 469.6 | |
| +50 | | 9.83 | | | |
| | 50 | | 4.965 | 248.2 | |
| 370 | | 0.0 | | | |

~~15,770~~ / ~~27~~ = ~~584.1 y³~~

15742.0 / 27 = 583.0 y³

See Page 46 for final Excavated Cu yds.

| | Lt | ℄ | Rt |
|---|---|---|---|
| 368+75 | 0.0 / 1.0 | 1.8 | 6.6 / 4.5 C 8.7 / 15.2 — 9.9 / 20.0 |
| 369+00 | 0.0 / 3.0 | 0.0 | 1.9 / 1.5 — 5.3 / 8.0 — C 6.6 / 14.6 — 7.2 / 20.0 |
| +25 | | 0.0 | 0.0 / 4.5 — 4.6 / 11.0 — C 5.2 / 14.3 — 5.9 / 20.0 |
| +50 | | 0.0 | 0.0 / 7.5 — 2.3 / 11.0 — C 2.7 / 13.7 — 3.0 / 20.0 |
| 370+00 | | 0.0 | 0.0 / 13.0 |

0.0 = present road grade
13' beach 1/4 : 1 slope

7

# Class 2 Excavation

| | Length | Area | | |
|---|---|---|---|---|
| 274+75 | | 00 | | |
| | 25 | | 5.175 | 129.4 |
| 275 | | 10.35 | | |
| | 10 | | 16.135 | 161.4 |
| +10 | | 21.92 | | |
| | 40 | | 37.825 | 1513.0 |
| +50 | | 53.73 | | |
| | 40 | | 48.355 | 1934.2 |
| +90 | | 42.98 | | |
| | 10 | | 31.095 | 311.0 |
| 276 | | 19.71 | | |
| | 18 | | 24.535 | 441.6 |
| +18 | | 29.86 | | |
| | 12 | | 21.07 | 252.2 |
| +30 | | 17.18 | | |
| | 13 | | 6.09 | 79.2 |
| +43 | | 00 | | |

$\frac{4822.0}{27} = 178.6$ yd³



| | Lt | ℄ | Rt |
|---|---|---|---|
| 274+75 | | | 0.0 / 13.0 0.0 |
| 275+00 | | 7.6 / 20.0 C6.9 / 14.7 | 0.0 / 10.0 0.0 |
| +10 | | 8.7 / 20.0 C7.3 / 14.8 | 6.3 / 12.0 0.0 / 9.0 0.0 |
| +50 | | 11.6 / 21.0 C9.0 / 15.2 | 6.3 / 7.5 0.0 / 4.0 0.0 |
| +90 | | 11.3 / 20.0 C9.9 / 15.5 | 7.5 / 10.0 0.0 / 2.0 0.0 |
| 276+00 | | 9.8 / 20.0 C6.5 / 14.6 | 5.7 / 12.0 0.0 / 9.0 0.0 |
| +18 | | 11.8 / 20.0 C10.2 / 15.6 | 9.2 / 13.0 5.8 / 11.0 0.0 / 10.0 0.0 |
| +30 | | 12.9 / 20.0 C10.2 / 15.6 | 9.6 / 14.0 0.0 / 12.0 0.0 |
| +43 | | | 0.0 / 13.0 0.0 |

0.0 = present road grade
13' bench ¼:1 Slope

| | Length | Area | | |
|---|---|---|---|---|
| 277+67 | | 00 | | |
| | 33 | | 2.575 | 85.0 |
| 278 | | 5.15 | | |
| | 25 | | 11.955 | 298.9 |
| +25 | | 18.76 | | |
| | 25 | | 33.99 | 849.8 |
| +50 | | 49.22 | | |
| | 25 | | 47.69 | 1192.2 |
| +75 | | 46.16 | | |
| | 25 | | 37.57 | 939.2 |
| 279 | | 28.98 | | |
| | 20 | | 21.07 | 221.4 |
| +20 | | 13.16 | | |
| | 20 | | 6.58 | 131.6 |
| +40 | | 00 | | |

3718.1 / 27 = 137.7 $y^3$



℄

0.0 = present road grade
13' bench ¼:1 slope

277+67 — 0.0 / 13.0 — 0.0

278 — 12.7 / 20.0 — C 10.3 / 15.6 — 0.0 / 12.0 — 0.0

+25 — 13.3 / 20.0 — C 8.3 / 15.1 — 4.1 / 14.0 — 0.0 / 10.0 — 0.0

+50 — 13.0 / 19.0 — C 11.3 / 15.8 — 9.0 / 10.5 — 0.0 / 8.0 — 0.0

+75 — 12.9 / 20.0 — C 10.6 / 15.7 — 9.3 / 13.0 — 5.0 / 9.0 — 0.0 / 7.0 — 0.0

279+00 — 13.1 / 22.0 — C 7.9 / 15.0 — 7.7 / 12.0 — 0.0 / 8.5 — 0.0

+20 — 10.1 / 20.0 — C 6.9 / 14.7 — 5.6 / 13.0 — 0.0 / 10.0 — 0.0

+40 — 0.0 / 13.0 — 0.0

# Class 2 Excavation

| | Length | Area | | Grade elev |
|---|---|---|---|---|
| 157+28 | | 00 | | 506.8 |
| | 22 | | 24.05 5291.1 | |
| +50 | | 48.10 | | 506.8 |
| | 16 | | 62.86 1005.8 | |
| +66 | | 77.62 | | 506.9 |
| | 14 | | 87.94 1231.2 | |
| +80 | | 98.26 | | 506.9 |
| | 20 | | 103.51 2070.2 | |
| 158 | | 108.76 | | 507.0 |
| | 25 | | 99.105 2477.6 | |
| +25 | | 89.45 | | 507.0 |
| | 25 | | 61.85 1546.2 | |
| +50 | | 34.25 | | 507.0 |
| | 8 | | 22.625 181.0 | |
| +58 | | 11.00 | | 507.0 |
| | 13 | | 5.50 71.5 | |
| +71 | | 00 | | 507.0 |

9112.6 / 27 = 337.5 y³

Converse
Soper
Remmen
Isbell
March 11 1936

Lt ℄ Rt 12

0.0 = proposed road grade
10' bench from ℄ ditch
1/4 to 1 Slope

| | | | | | | |
|---|---|---|---|---|---|---|
| 157+28 | | 0.0 / 10.0 | 0.0 | | | |
| +50 | 9.7 / 20.0 | C 9.1 / 12.3 | 8.3 / 7.0 | 0.0 / 4.0 | 0.0 | |
| +66 | 9.8 / 20.0 | C 9.0 / 12.3 | 7.5 / 3.0 | 0.0 | | |
| +80 | 9.3 / 20.0 | C 8.5 / 12.1 | 6.8 | 6.8 / 7.0 | 0.0 / 3.3 | |
| 158+00 | 8.5 / 20.0 | C 7.5 / 11.9 | 6.3 | 5.3 / 5.0 | 0.0 / 6.8 | |
| +25 | 7.7 / 20.0 | C 6.3 / 11.6 | 4.5 | 3.5 / 7.0 | 0.0 / 9.2 | |
| +50 | 5.7 / 20.0 | C 4.0 / 11.0 | 1.5 | | 0.0 / 8.0 | |
| +58 | 4.5 / 20.0 | C 2.2 / 10.6 | 0.0 | | | |
| +71 | | 0.0 / 10.0 | 0.0 | | | |

| | Length | Area | Cu ft. | |
|---|---|---|---|---|
| 159+20 | | 00 | | 507.0 |
| | 30 | | 11.415 342.4 | |
| +50 | | 22.83 | | 506.8 |
| 159+54.35 = 159+62.76 | 14.59 | | 22.34 325.9 | 506.7 |
| +73 | | 21.85 | | 506.5 |
| | 27 | | 15.73 424.7 | |
| 160 | | 9.61 | | 506.4 |
| | 14 | | 18.705 261.9 | |
| +14 | | 27.80 | | 506.3 |
| | 21 | | 72.375 1519.9 | |
| +35 | | 116.95 | | 506.1 |
| | 15 | | 142.35 2135.2 | |
| +50 | | 167.75 | | 505.9 |
| | 25 | | 203.795 5082.4 | |
| +75 | | 238.84 | | 505.8 |
| | 25 | | 297.77 7305.5 | |
| 161 | | 345.60 | 338.60 8465.0 | 505.7 |
| | 25 | | ~~338.75~~ ~~8468.8~~ | |
| ~~+75~~ | | 331.~~70~~ .60 | | 505.6 |
| | | Forwd | 25862.9 | |

| | Lt | ℄ | Rt |
|---|---|---|---|
| 159+20 | | 0.0 / 10.0 | |
| 159+54.35 = 159+62.76 | | | |
| +50 | 5.3 / 15.0 | C 4.2 / 11.1 | 2.6 / 6.0 0.0 |
| +73 | 5.8 / 15.0 | C 4.3 / 11.1 | 2.0 / 5.0 0.0 |
| 160+00 | 4.7 / 15.0 | C 3.1 / 10.8 | 0.0 / 3.8 |
| +14 | 6.7 / 15.0 | C 5.2 / 11.3 | 4.0 / 8.0 0.0 |
| +35 | 12.5 / 20.0 | C 10.7 / 12.7 | 10.5 / 11.5 5.3 0.0 / 10.5 |
| +50 | 14.4 / 20.0 | C 12.0 / 13.0 | 10.6 / 7.0 7.7 0.0 / 14.0 |
| +75 | 18.0 / 20.0 | C 16.2 / 14.1 | 9.9 2.5 / 14.0 0.0 / 15.0 |
| 161+00 | 19.3 / 20.0 | C 17.9 / 14.5 | 13.9 8.2 / 13.5 0.0 / 15.0 |

0.0 = prop. road grade
10' bench ¼ to 1

Brought Forward 25862.9

| | Length | Area | | | | |
|---|---|---|---|---|---|---|
| 161+25 | | 331.60 | | 505.6 | 161+25 | Lt: 20.9/20.0 — ℄: C 18.9/14.7, 14.2 — Rt: 10.6/10.0, 2.9/10.8, 0.0/13.1 |
| | 25 | 333.60 | 8340.0 | | | |
| +50 | | 335.60 | | 505.5 | +50 | Lt: 21.2/20.0 — ℄: C 20.1/15.0, 14.8 — Rt: 11.5/9.0, 0.0/10.0 |
| | 25 | 337.185 | 8429.6 | | | |
| +75 | | 338.77 | | 505.4 | +75 | Lt: 22.7/20.0 — ℄: C 21.4/15.4, 15.9 — Rt: 13.4/6.0, 0.0/9.2 |
| | 25 | 304.94 | 7623.5 | | | |
| 162 | | 271.11 | | 505.3 | 162+00 | Lt: 22.2/20.0 — ℄: C 20.7/15.2, 15.1 — Rt: 0.0/7.0 |
| | 12 | 260.445 | 3125.3 | | | |
| +12 | | 249.78 | | 505.2 | +12 | Lt: 22.5/20.0 — ℄: C 20.7/15.2, 15.9 — Rt: 2.7/2.3, 0.0/5.3 |
| | 28 | 193.61 | 5421.1 | | | |
| +40 | | 137.44 | | 505.1 | +40 | Lt: 21.5/20.0 — ℄: C 19.3/14.8, 17.3/7.0, 4.8/4.2, 0.0 |
| | 15 | 93.96 | 1409.4 | | | |
| +55 | | 50.48 | | 505.1 | +55 | Lt: 18.8/20.0 — ℄: C 14.1/13.5, 13.3/10.0, 2.9/7.0, 0.0/5.0 |
| | 16 | 25.24 | 403.8 | | | |
| +71 | | 00 | | 505.0 | +71 | Rt: 0.0/10.0, 0.0 |
| | | | ~~60,623.7~~ : 27 | ~~2245.3~~ | | |
| | | | 60615.6 | 2245.0 | | |

0.0 = Prop. road grade
10' bench 1/4:1

0.0 = prop. road grade
10' Bench ¼:1

| | Length | Area | | | |
|---|---|---|---|---|---|
| 165+40 | | 00 | | | 504.1 |
| | 10 | | 0.71 | 7.1 | |
| +50 | | 1.42 | | | 504.0 |
| | 25 | | 5.955 | 148.9 | |
| +75 | | 10.49 | | | 504.0 |
| | 25 | | 7.835 | 195.9 | |
| 166 | | 5.18 | | | 503.9 |
| | 22 | | 35.49 | 780.8 | |
| +22 | | 65.80 | | | 503.8 |
| | 28 | | 87.095 | 2438.7 | |
| | | 108.39 | ~~86.69~~ | ~~2421.7~~ | |
| +50 | | ~~107.18~~ | | | 503.7 |
| | 25 | | 113.765 | 2844.1 | |
| | | 119.14 | ~~109.69~~ | ~~2733.7~~ | |
| +75 | | ~~111.80~~ | | | 503.6 |
| | 25 | | 112.915 | 2822.9 | |
| | | | ~~109.745~~ | ~~2731.1~~ | |
| 167 | | 106.69 | | | 503.5 |
| | 25 | | 85.275 | 2131.9 | |
| +25 | | 63.86 | | | 503.4 |
| | | Forwd | 11,370.3 | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 165+40 | | | | | | | | 8.0 / 10.0 | |
| +50 | | | | | | | | | |
| | 3.9 / 15.0 | 3.6 / 12.0 | C 1.9 / 10.5 | 0.0 / 8.5 | | | | | |
| +75 | | | | | | | | | |
| | 5.8 / 15.0 | C 3.8 / 11.0 | 3.6 / 9.5 | 0.0 / 5.7 | | | | | |
| 166+00 | | | | | | | | | |
| | 4.0 / 15.0 | C 2.3 / 10.6 | 0.0 / 5.5 | | | | | | |
| +22 | | | | | | | | | |
| | 17.4 / 18.0 | C 15.7 / 13.9 | 14.9 / 12.0 | 8.5 / 11.5 | 3.0 / 1.5 | 1.4 | 0.0 / 1.0 | | |
| +50 | | | | | | | | | |
| | 17.2 / 20.0 | C 15.1 / 13.8 | 12.8 / 8.5 | 7.5 / 6.5 | 6.4 / 2.0 | 2.2 | 0.0 / 2.7 | | |
| +75 | | | | | | | | | |
| | 17.1 / 20.0 | C 14.7 / 13.7 | 12.7 / 9.0 | 7.3 / 5.0 | 5.9 | 3.0 / 1.0 | 0.0 / 4.0 | | |
| 167+00 | | | | | | | | | |
| | 15.7 / 20.0 | C 14.0 / 13.5 | 10.8 / 6.5 | 5.6 / 4.5 | 3.8 | 0.0 / 3.6 | | | |

| | Length | Area | Brought Forwd | cu ft 11370.3 | cu yds. |
|---|---|---|---|---|---|
| 167+25 | | 63.86 | | | 503.6 |
| | 25 | | 66.495 | 1662.4 | |
| +50 | | 69.13 | | | 503.3 |
| | 15 | | 54.49 | 817.4 | |
| +65 | | 39.85 | | | 503.3 |
| | 28 | | 19.925 | 557.9 | |
| +93 | | 00 | | | 503.7 |
| | | | ~~40.970 = 525.6 yd³~~ | | |
| | | | | 14408.0 | 533.6 AV |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 167+25 | 14.9/18.0 | C 13.2/13.3 | 12.5/11.0 | 3.8/6.6 | 1.6 | | 0.0/3.0 |
| +50 | 14.8/20.0 | C 12.2/13.1 | 10.6/10.0 | 6.4/8.0 | 3.6/2.0 | 1.4 | 0.0/1.0 |
| +65 | | 9.6/12.0 | C 5.8/11.5 | 3.4/3.0 | 0.0 | | |
| +93 | | | 0.0/10.0 | | | | |

# Class 2 Excavation

Length Area

Final X See Page 50

| | | | |
|---|---|---|---|
| 335+50 | 00 ✓ | | |
| 50 ✓ | | 2.17 ✓ | 108.5 ✓ |
| 336 | 4.34 ✓ | | |
| 50 ✓ | | 4.555 ✓ | 227.8 ✓ |
| +50 | 4.77 ✓ | | |
| 50 ✓ | | 5.795 ✓ | 289.8 ✓ |
| 337 | 6.81 ✓ | | |
| 50 ✓ | | 13.475 ✓ | 673.8 ✓ |
| +50 | 20.14 ✓ | | |
| 50 ✓ | | 23.99 ✓ | 1199.5 ✓ |
| 338 | 27.84 ✓ | | |
| 50 ✓ | | 32.48 ✓ | 1614.0 ✓ |
| +50 | 36.72 ✓ | | |
| 50 ✓ | | 43.16 ✓ | 2158.0 ✓ |
| 339 | 49.60 ✓ | | |
| 50 ✓ | | 50.00 ✓ | 2500.0 ✓ |
| +50 | 50.40 ✓ | | |
| | Forward | | 8771.1 ✓ |

336.3



X-section & slope stakes sta. 335+50 to 347+00

| | | ℄ | RT 0.0=present road 10' bench ¼:1 | | | |
|---|---|---|---|---|---|---|
| 335+50 | | 0.0 | 0.0 / 10.0 | | | |
| 336 | no dirt moved | 0.0 | 0.0 / 8.6 | C 6.2 ✓ / 11.5 | 8.1 / 12.5 | 10.4 / 20.0 |
| +50 | no dirt moved | 0.0 | 0.0 / 8.2 | C 5.3 ✓ / 11.3 | 7.9 / 20.0 | |
| 337 | 3/26/36 Completed bench width 9.1 ✓ | | 0.0 / 8.2 | 5.4 / 10.7 | C 6.0 ✓ / 11.5 | 8.4 / 20.0 |
| +50 | 8.3 | | 0.0 / 6.1 | 6.3 / 9.4 | C 7.3 ✓ / 11.8 | 9.2 / 20.0 |
| 338 | 8.2 | | 0.0 / 4.9 | 6.4 / 8.0 | C 6.4 ✓ / 11.6 | 9.2 / 20.0 |
| +50 | 9.0 | | 0.0 / 4.2 | 6.5 / 7.0 | C 7.8 ✓ / 11.9 | 10.4 / 20.0 |
| 339 | 9.2 | | 0.0 / 3.0 | 7.0 / 6.0 | C 8.7 ✓ / 12.2 | 11.2 / 20.0 |

| | Length | Area | | |
|---|---|---|---|---|
| | | Brought Forward | 8771.1 | |
| 339+50 | | 50.40 | | |
| | 50 | | 58.345 | 2917.2 |
| 340 | | 66.29 | | |
| | 50 | | 65.535 | 3276.8 |
| +50 | | 64.78 | | |
| | 50 | | 62.745 | 3137.2 |
| 341 | | 60.71 | | |
| | 50 | | 57.855 | 2892.8 |
| +50 | | 55.00 | | |
| | 50 | | 45.615 | 2280.8 |
| 342 | | 36.23 | | |
| | 50 | | 31.76 | 1588.0 |
| +50 | | 27.29 | | |
| | 50 | | 16.995 | 849.8 |
| 343 | | 6.70 | | 3.7 |
| | | | | 25718.0 |
| | | | | 27 |
| | 50 | | 6.42 | 321.0 |
| +50 | Not for Est. | 6.14 | | |
| | | Forwd | | 26034.7 |



| | Lt. completed benchwidth | ℄ | Rt | |
|---|---|---|---|---|
| 339+50 | 8.8 | 0.0 | 0.0/2.4 6.2/5.1 | C 8.3/12.1 10.9/20.0 |
| 340 | 9.1 | 0.0 | 0.0/0.4 6.9/3.9 | C 8.5/12.1 9.2/15.0 |
| +50 | 8.8 | 0.0 | 6.3/3.0 | C 7.8/11.9 8.4/15.0 |
| 341 | 8.7 | 0.0/0.7 | 1.6 5.5/1.9 | C 6.6/11.6 7.3/15.0 |
| +50 | 9.2 | 0.0/1.6 | 3.1 4.5/0.9 | C 5.6/11.4 6.0/15.0 |
| 342 | 8.9 | 0.0/0.6 | 1.3 2.8/0.8 | C 4.3/11.1 4.7/15.0 |
| +50 | 8.2 | 0.0 | 2.2/1.0 | C 3.4/10.9 3.9/15.0 |
| 343 | End excavation - 3/24/36 | 0.0 | 1.4/1.0 | 1.6/2.10 2.7/15.0 (no slopstake after this sta.) |

952.4 $Y^3$

Brought Forwd 26034.7

| | Length | Area | | |
|---|---|---|---|---|
| 343+50 | | 6.12 | | |
| | 50 | | 6.29 | 314.5 |
| 344 | | 6.44 | | |
| | 50 | | 6.92 | 346.0 |
| +50 | | 7.40 | | |
| | 50 | | 8.48 | 424.0 |
| 345 | | 9.56 | | |
| | 50 | | 9.905 | 495.2 |
| +50 | | 10.25 | | |
| | 50 | Cut | 9.60 | 480.0 |
| 346 | | not 8.95 | | |
| | 50 | | 8.575 | 428.8 |
| +50 | | 8.20 | | |
| | 50 | | 4.10 | 205.0 |
| 347 | | 00 | | |

$\frac{28728.5}{27} = 1064.0\,y^3$

| | Lt | ℄ | Rt |
|---|---|---|---|
| 343+50 | | 0.0 | 1.4/0.6 (1.7/5.0) 0.8/15.0 |
| 344 | | 0.0 | 1.4/0.8 (1.6/5.0) 1.4/15.0 |
| +50 | | 0.0 | 1.7/0.8 (1.5/5.0) 1.1/15.0 |
| 345 | | 0.0 | 2.9/2.8 (3.1/5.0) 1.7/1.0 2.1/15.0 |
| +50 | Cut Slope not ℄ | 0.0 | 1.7/1.0 2.8/4.0 (2.3/5.0) 1.6/8.0 2.3/15.0 |
| 346 | | 0.0 | 1.3/1.0 2.6/4.0 (2.3/5.0) 1.6/7.0 1.6/12.0 |
| +50 | | 0.0 | 1.5/1.0 2.1/4.0 (2.0/5.0) 1.5/12.0 |
| 347 | | 0.0 | 0.0/10.0 |

# Class 2 Excavation

| | Length | Area | | |
|---|---|---|---|---|
| 230+67 | | 00 | | |
| | 8 | | 7.65 | 61.20 |
| +75 | | 15.30 | | |
| | 25 | | 72.44 | 1811.0 |
| 231 | | 179.58 | | |
| | 25 | | 161.825 | 4045.6 |
| +75 | | 194.07 | | |
| | 25 | | 187.715 | 4692.9 |
| +50 | | 181.36 | | |
| | 25 | | 165.03 | 4125.8 |
| +75 | | 148.70 | | |
| | 25 | | 141.99 | 3549.8 |
| 232 | | 135.28 | | |
| | 25 | | 127.60 | 3190.0 |
| +75 | | 119.92 | | |
| | 25 | | 99.715 | 2492.9 |
| +50 | | 79.51 | | |

22

| | Lt | ℄ | Rt |
|---|---|---|---|
| | 13' bench ½:1 slope | | |
| 230+67 | | 0.0 / 13.0 | 0.0 |
| +75 | 12.8 / 22.0 | C 10.2 / 15.6 | 00 / 10.0 0.0 |
| 231 | 15.0 / 21.0 | C 14.0 / 16.5 | 11.3 / 7.0 0.0 / 1.0 0.0 |
| +25 | 16.3 / 19.0 | C 15.6 / 16.9 | 11.1 / 1.5 4.7 0.0 / 3.0 |
| +50 | 17.7 / 21.0 | C 17.1 / 17.3 | 12.9 / 8.0 12.4 / 3.5 0.0 |
| +75 | 18.6 / 20.5 | C 17.5 / 17.4 | 11.0 / 5.0 0.0 / 2.0 0.0 |
| 232+00 | 20.5 / 25.0 | C 17.2 / 17.3 | 10.5 / 6.0 0.0 / 3.0 0.0 |
| +25 | 19.2 / 25.0 | C 15.2 / 16.8 | 12.8 / 8.0 0.0 / 4.0 0.0 |

| | Length | Area | | |
|---|---|---|---|---|
| 232+50 | | 79.51 | | |
| | 25 | | 62.915 | 1572.9 |
| +75 | | 46.32 | | |
| | 25 | | 41.01 | 1025.2 |
| 233 | | 35.70 | | |
| | 25 | | 35.585 | 889.6 |
| +25 | | 35.47 | | |
| | 25 | | 51.975 | 1299.4 |
| +50 | | 68.48 | | |
| | 28 | | 93.75 | 2611.0 |
| +78 | | 118.02 | | |
| | 22 | | 147.08 | 3235.8 |
| 234 | | 176.14 | | |
| | 27 | | 170.99 | 4616.7 |
| +27 | | 165.84 | | |
| | 11 | | 143.56 | 1579.2 |
| +38 | | 121.28 | | |

| | Lt | ℄ | Rt |
|---|---|---|---|
| 232+50 | 17.9 / 24.0 | C13.5 / 14.4 | 8.8 / 8.0 — 0.0 / 6.0 — 0.0 |
| +75 | 13.3 / 21.0 | C10.2 / 15.5 | 7.3 / 10.0 — 0.0 / 7.0 — 0.0 |
| 233+00 | 11.6 / 21.0 | C9.2 / 15.3 | 6.0 / 10.0 — 0.0 / 8.0 — 0.0 |
| +25 | 11.0 / 20.0 | C8.5 / 15.1 | 6.4 / 10.0 — 0.0 / 8.0 — 0.0 |
| +50 | 11.9 / 20.0 | C10.7 / 15.7 | 7.8 / 8.0 — 0.0 / 5.0 — 0.0 |
| +78 | 14.5 / 21.0 | C12.4 / 16.1 | 8.5 / 4.0 — 0.0 |
| 234 | 15.2 / 23.0 | C13.2 / 16.3 | 8.9 — 0.0 / 4.0 |
| +27 | 15.0 / 25.0 | C12.5 / 16.1 | 7.7 — 7.5 / 1.0 — 0.0 / 5.0 |

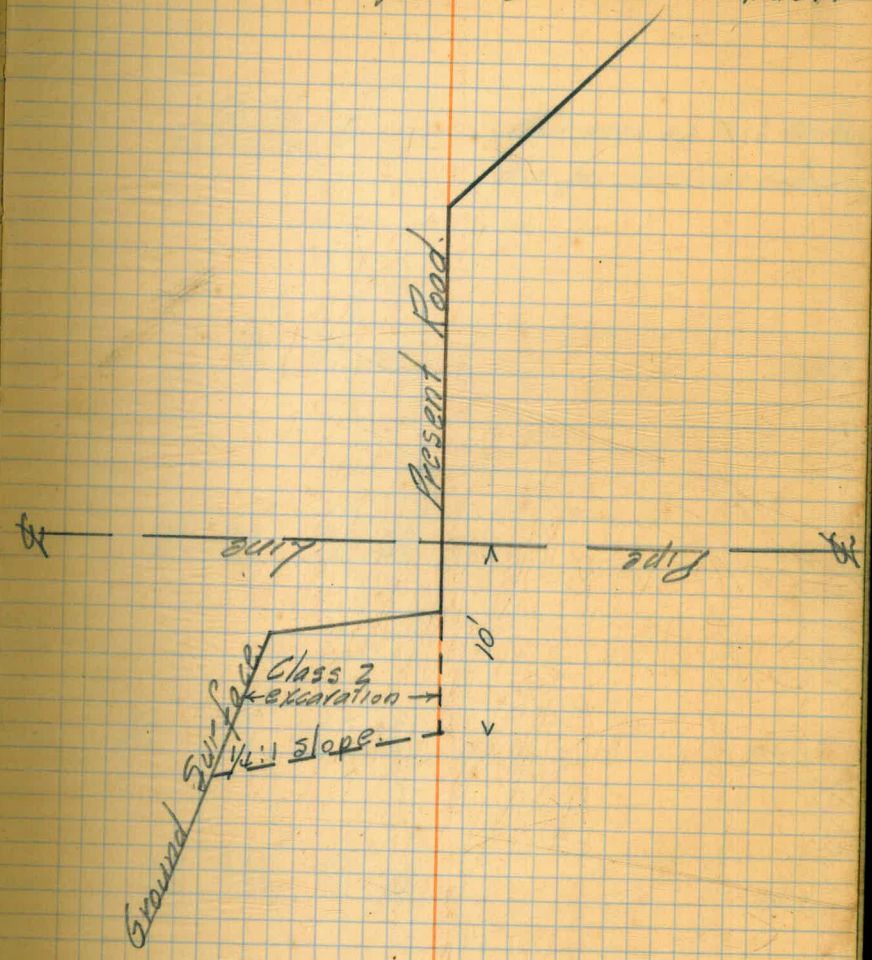
| | Length | Area | | |
|---|---|---|---|---|
| 234+38 | | 121.28 | | |
| | 12 ✓ | | 90.44 | 1085.3 |
| +50 | | 59.60 | | |
| | 7 ✓ | | 38.00 | 266.0 |
| +57 | | 16.40 | | |
| | 6 ✓ | | 8.20 | 49.2 ✓ |
| +63 | | 0.0 | | |

$\frac{42199.5}{27} = 1,562.9$ yd$^3$

Lt & Rt

| | | | | |
|---|---|---|---|---|
| 234+38 | 13.1 / 23.0 | C 11.3 ✓ / 15.8 | 8.2 / 3.0 | 0.0 |
| +50 | 11.3 / 25.0 | C 9.2 ✓ / 15.3 | 8.0 / 9.0 | 0.0 / 5.0 0.0 |
| +57 | 10.3 / 25.0 | C 8.2 ✓ / 15.0 | 0.0 / 9.0 | 0.0 |
| +63 | | | 0.0 / 13.0 | 0.0 |

Typical section for Class 2 excavation on La Mesa Irrigation Districts contract.



Class 2 excavation on La Mesa

Irr. Districts contract. 10' bench - ½:1 slope

March 16, 1936

Soper
Remmen
Isbell

| | Lt | ℄ | Rt | ZC |
|---|---|---|---|---|

0.0 = present pipe bench
10' bench, ½ to 1 slope

10+85


Call area of this section 0.0 for yardage calculations

11+00

7.6 / 15.0 — C4.2 / 11.1 — 0.0 / 7.0 — 0.0

+25

13.8 / 30.0 — 30.0 / 20.0 — C23.2 / 15.8 — 0.0 / 7.0 — 0.0

+40

25.2 / 25.0 — C21.4 / 15.4 — 18.5 / 10.0 — 0.9 / 5.0 — 0.0

+50

20.9 / 22.0 — C18.4 / 14.6 — 16.7 / 9.0 — 0.0 / 7.0 — 0.0

+75

15.3 / 18.0 — C13.7 / 13.4 — 10.9 / 6.0 — 0.0 / 5.0 — 0.0

Copied & ch
in to FD 534
1 m.

12+00

+25

+47

+71

Lt  ℄  Rt

| | | | | | | |
|---|---|---|---|---|---|---|
| 12+00 | 14.2 / 20.0 | C11.2 / 12.8 | 8.1 / 8.0 | 0.0 / 6.0 | 0.0 | ✓ |
| +25 | 10.5 / 20.0 | C8.1 / 12.0 | 0.0 / 9.0 | 0.0 | | ✓ |
| +47 | 8.6 / 20.0 | 7.2 / 15.0 | C2.1 / 10.5 | 0.0 / 6.0 | 0.0 | ✓ |
| +71 | 0.0 / 10.0 | 0.0 | | | | |

4/30/86 @ h
ed x
C.O.P.
534
N NW

L $ RT

0.0 = present road grade
10' bench ¼ tal Slope

| | | | | | | |
|---|---|---|---|---|---|---|
| 13+31 | 13+31 | | 0.0 / 10.0 | | | 0.0 |
| +39 | +39 | 13.0 / 17.5 | C 10.9 ✓ / 12.7 | 7.0 / 5.0 | | 0.0 |
| +55 | +55 | 15.6 / 20.0 | C 12.1 ✓ / 13.0 | 10.6 / 10.0 | | 0.0 |
| +75 | +75 | 14.8 / 18.0 | C 11.1 ✓ / 12.8 | 7.0 / 3.0 | 0.0 / 2.0 | 0.0 |
| 14+00 | 14+00 | 8.9 / 17.0 | C 7.9 ✓ / 12.0 | 4.8 / 4.0 | 0.0 / 3.0 | 0.0 |
| +25 | +25 | 5.5 / 15.0 | C 1.5 ✓ / 10.4 | | | 0.0 |
| +50 | +50 | 5.4 / 15.0 | C 4.3 ✓ / 11.1 | | | 0.0 |
| +75 | +75 | 3.1 / 15.0 | C 2.2 ✓ / 10.6 | | | 0.0 |

Sta. 13+31 – 14+75
12 y³ surface boulders
not included in x-section

30
9
20
30
12
6
10
25
15
108
48

27)313(12 ✓

Copied 3 sh. 5-3-4 #12.5 HW.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 15+00 | | | | | | | |
| | 15+00 | 3.0 / 15.0 | C2.6 / 10.7 ✓ | 1.6 / 3.5 | 0.0 / 2.5 | 0.0 | LT |
| +25 | | | | | | | |
| | +25 | 3.4 / 15.0 | C2.8 / 10.7 ✓ | 2.1 / 3.0 | 0.0 / 2.5 | 0.0 | |
| +50 | | | | | | | |
| | +50 | 4.8 / 15.0 | C3.7 / 10.9 ✓ | 2.2 / 3.0 | 0.0 / 2.5 | 0.0 / 0.0 | |
| +77.4 | | | | | | | |
| | +77.4 | 5.9 / 15.0 | C5.1 / ~~11.0~~ 11.3 ✓ | 3.2 / 3.0 | 0.0 / 2.5 | 0.0 | |
| +85 | | | | | | | |
| | +85 | 4.3 / 15.0 | C2.8 / 10.7 ✓ | 0.9 / 3.0 | | 0.0 | |
| 16+00 | | | | | | | |
| | 16+00 | 5.6 / 15.0 | C4.2 / 11.1 ✓ | 2.3 / 3.0 | 0.0 / 2.0 | 0.0 | |
| +25 | | | | | | | |
| | +25 | 7.8 / 15.0 | C6.7 / 11.7 ✓ | 3.9 / 3.0 | 0.0 / 2.0 | 0.0 | |
| +50 | | | | | | | |
| | +50 | 9.7 / 17.0 | C6.9 / 11.7 ✓ | 2.1 / 3.0 | 0.0 / 2.5 | 0.0 | |

RT

copied 5.30.4
+ chk M.

| | Lt | ℄ | Rt |
|---|---|---|---|
| 16+76.1 | 8.3 / 18.0 | C 6.0 / 11.5 ✓ | 2.2 / 3.0 — 0.0 / 2.5 — 0.0 |
| 17+00 | 8.4 / 20.0 | C 4.2 / 11.1 ✓ | 1.8 / 5.0 — 0.0 / 4.0 — 1.0 |
| +25 | 8.7 / 18.0 | C 4.7 / 11.2 ✓ | 2.2 / 5.0 — 0.0 / 4.0 — 0.0 |
| +50 | 8.3 / 20.0 | C 5.7 / 11.4 ✓ | 3.2 / 3.5 — 0.0 / 3.0 — 0.0 |
| +75 | 7.3 / 20.0 | C 6.0 / 11.5 ✓ | 2.7 / 3.5 — 0.0 / 3.0 — 0.0 |
| 18+00 | 5.8 / 20.0 | C 4.1 / 11.0 ✓ | 2.7 / 3.5 — 0.0 / 3.0 — 0.0 |
| +25 | 4.2 / 20.0 | C 2.5 / 10.6 ✓ | 1.7 / 4.0 — 0.0 |
| +50 | 9.5 / 16.0 | C 6.8 / 11.7 ✓ | 3.3 / 5.0 — 0.0 / 4.5 — 0.0 |
| +58 | 11.7 / 20.0 | C 9.5 / 12.4 ✓ | 9.0 / 10.0 — 0.0 |

5 3/4 / 5 — 1 d.

cont'd

| | Lt | ℄ | Rt |
|---|---|---|---|
| 18+75 | 15.3 / 25.0 | 12.5 / 16.0 | C 5.0 ✓ / 11.3 |
| 19+00 | | | |
| +25 | 12.5 / 20.0 | C 10.0 ✓ / 12.5 | |
| +50 | 14.4 / 20.0 | C 10.4 ✓ / 12.6 | |
| +75 | 15.1 / 20.0 | C 12.4 ✓ / 13.1 | |
| 20+00 | 16.5 / 20.0 | C 13.8 ✓ / 13.5 | |
| +25 | 16.7 / 20.0 | C 15.3 ✓ / 13.8 | |
| +42 | 23.1 / 30.0 | C 17.8 ✓ / 14.5 | |
| +50 | 24.5 / 30.0 | 22.1 / 20.0 | C 25.3 ✓ / 16.3 |

| | | | | | |
|---|---|---|---|---|---|
| 18+75 | 0.0 / 9.0 | 0.0 | | | |
| 19+00 | 0.0 / 10.0 | 0.0 | | | |
| +25 | 0.0 / 4.0 | 0.0 | | | |
| +50 | 6.9 / 3.0 | 0.0 / 2.0 | 0.0 | | |
| +75 | 8.9 / 4.2 | 0.0 / 3.5 | 0.0 | | |
| 20+00 | 5.8 / 5.0 | 0.0 / 4.0 | 0.0 | | |
| +25 | 11.1 / 7.0 | 0.0 / 3.0 | 0.0 | | |
| +42 | 10.9 / 4.0 | 0.0 / 2.0 | 0.0 | | |
| +50 | 26.0 / 8.0 | 12.0 / 6.0 | 11.1 / 2.5 | 1.4 | 0.0 / 13.0 |

Sta. 20+25 - 20+50
15 yd³ surface boulders
not shown in x-section

37
124
84
40
12
24
24
6
16
10
27) 417 (15 ✓

ok

copied + into 5 54 m.

1

20+56

1

+62

+72

+75

+88

2

21+08

+20

H ℄ RH

20+56 — 23.0/20.0 — 23.5/12.0 — 16.1/8.0 — 12.1/2.0 — 7.8 — 1.1/9.0 — 0.0/20.0

+62 — 23.7/24.0 — C20.2/15.1 — 18.2/12.0 — 19.0/7.0 — 11.1/1.0 — 11.1 — 11.1/2.0 — 17.9/2.5 — 17.9/12.0 — 0.0/22.0

+72 — 22.2/24.0 — C20.1/15.0 — 18.2/8.0 — 13.4/5.0 — 12.3 — 12.3/3.0 — 17.7/3.0 — 18.0/13.0 — 0.0/21.0

+75 — 22.4/25.0 — C20.0/15.0 — 17.5/8.0 — 12.6/5.0 — 12.6 — 12.6/4.0 — 10.0/13.0 — 0.0/21.0

+88 — 21.2/25.0 — C18.4/14.6 — 14.3/7.0 — 13.4 — 9.7/9.0 — 0.0/14.0

21+08 — 17.2/25.0 — C12.5/13.1 — 8.6/3.0 — 0.0

+20 — 12.7/25.0 — C10.2/12.6 — 5.8 — 0.0/2.0

sta. 21+00 – 21+50
14 ft³ surface boulders
not shown in x-section

45
72
20
18
157
6
26
30
27)374(14 ✓

Copied to ck.
534 +
7 N

21+50

+72.6

22+00

+25

+50

+80

LT ℄ RT

21+50 — 7.3 / 20.0 — ✓ C 5.9 / 11.5 — 4.2 / 4.5 — 0.0 / 3.5 — 0.0

+72.6 — 6.0 / 20.0 — ✓ C 4.6 / 11.2 — 3.2 / 3.0 — 0.5 / 3.0 — 0.5 — 0.0 / 5.0

22+00 — 6.8 / 20.0 — ✓ C 5.2 / 11.3 — 4.1 / 1.5 — 2.0 — 00 / 12.0

+25 — 7.0 / 20.0 — ✓ C 5.2 / 11.3 — 5.2 — 2.9 / 8.0 — 0.0 / 10.0

+50 — 4.5 / 20.0 — ✓ C 4.1 / 11.0 — 3.7 / 3.0 — 2.7 — 0.0 / 13.0

+80 — 0.0 / 10.0 — 0.0

copied + ok

534
8. m.

23+36

+50

+70

24+00

+25

+50

+80

March 17-36
Soper
Isbell
Remmers

Lt ℄ Rt



| | | | | | | |
|---|---|---|---|---|---|---|
| 23+36 | | | | 0.0 / 10.0 | 0.0 | |
| +50 | | 7.3 / 20.0 | C 4.3 ↓ 11.1 | 0.0 / 8.0 | 0.0 | |
| +70 | | 10.6 / 20.0 | C 7.4 ↓ ~~4.6~~ 11.8 | 3.0 / 4.0 | 0.0 / 4.0 | 0.0 |
| 24+00 | | 11.7 / 20.0 | C 8.7 ↓ 12.2 | 5.4 / 6.0 | 0.0 / 3.0 | 0.0 |
| +25 | | 10.5 / 20.0 | C 7.4 ↓ 11.9 | 6.4 / 10.0 | 0.0 / 5.0 | 0.0 |
| +50 | 9.9 / 20.0 | 6.5 / 13.0 | C 3.5 ↓ 10.9 | 3.2 / 8.0 | 0.0 / 6.0 | 0.0 |
| +80 | | | | 0.0 / 10.0 | 0.0 | |

copied into
ck
334 x 9 =

| | Lt | ℄ | Rt |
|---|---|---|---|
| 25+60 | | 0.0 / 10.0 | 0.0 |
| 26+00 | 7.2 / 20.0 | C 4.9 / 11.2 | 4.0 / 3.0 — 0.0 / 2.0 — 0.0 |
| +15 | 7.0 / 15.0 | C 6.9 / 11.7 | 4.9 / 2.0 — 1.0 — 0.0 / 6.0 |
| +25 | 6.9 / 15.0 | C 6.4 / 11.6 | 4.7 / 2.0 — 1.1 — 0.0 / 7.0 |
| +35 | 7.2 / 17.0 | C 6.1 / 11.5 | 3.9 — 0.0 / 10.0 |
| +50 | 7.9 / 17.0 | C 5.8 / 11.5 | 4.5 / 3.0 — 0.0 |
| +60 | 6.4 / 17.0 | C 5.4 / 11.4 | 4.4 — 3.6 / 4.0 — 0.0 / 8.0 |
| +75 | 6.7 / 17.0 | C 5.5 / 11.4 | 1.9 — 0.0 / 3.0 |

Counts

Copied

534 / 10

| | Lt | ℄ | Rt |
|---|---|---|---|
| 27+00 | 4.1 / 17.0 | C 3.7 / 10.9 | 1.9 / 2.0 0.0 |
| +15 | 5.9 / 16.0 | C 3.8 / 10.9 | 1.4 / 3.0 0.0 |
| +50 | 8.1 / 17.0 | C 6.2 / 11.6 | 4.3 / 6.0 0.0 / 3.0 0.0 |
| +75 | 9.7 / 18.0 | C 7.8 / 12.0 | 4.8 / 4.0 0.0 / 3.0 0.0 |
| 28+00 | 8.7 / 18.0 | C 6.2 / 11.6 | 3.9 / 5.0 0.0 / 2.0 0.0 |
| +25 | 6.1 / 18.0 | C 4.3 / 11.1 | 0.0 / 5.0 0.0 |
| +50 | | | 0.0 / 10.0 0.0 |
| +75 | | | 0.0 / 10.0 0.0 |

to
copied
534 + ok
11

29+00

+25

+50

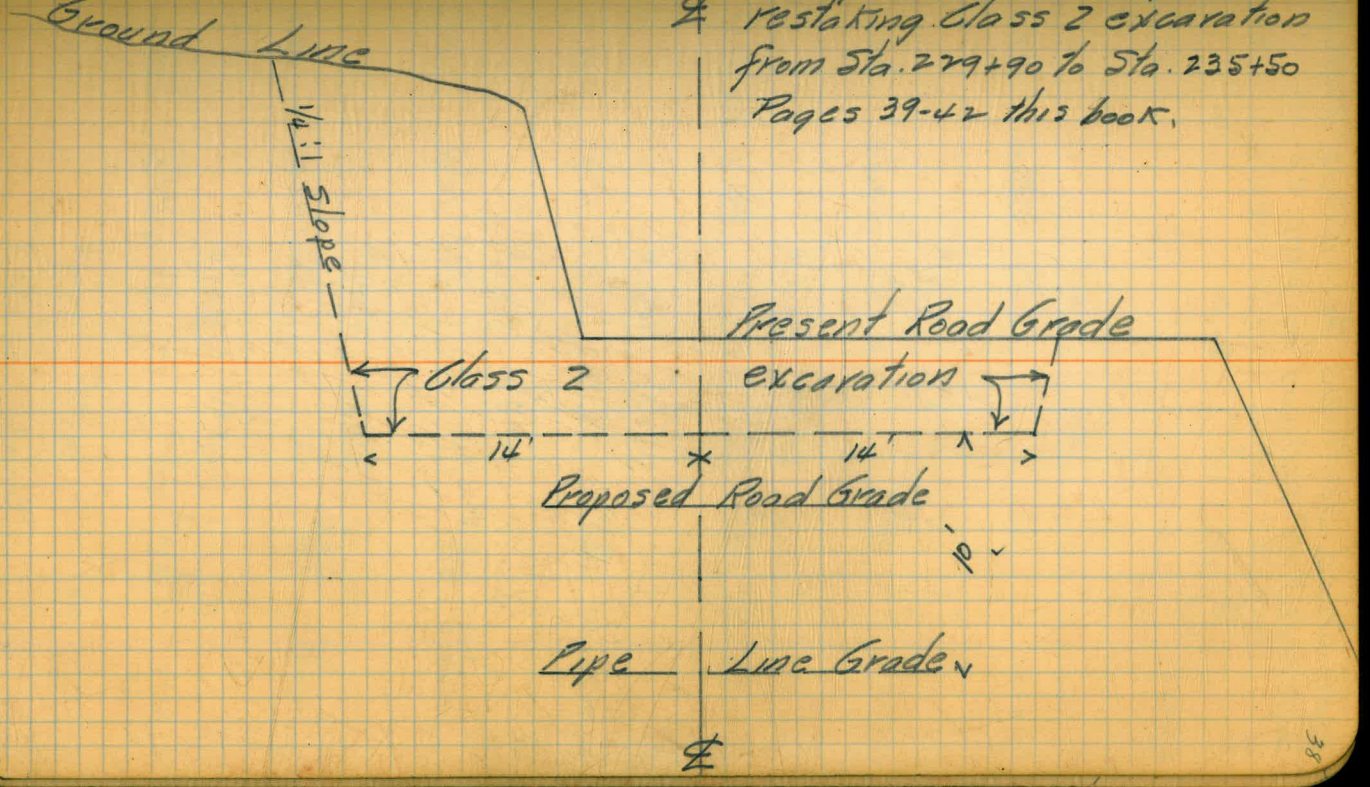
+75

30+00

| | Lt | | ℄ | | Rt | |
|---|---|---|---|---|---|---|
| 29+00 | 10.4 / 20.0 | C 8.4 / 12.1 | 7.9 / 5.0 | 3.6 / 4.0 | 0.0 | |
| +25 | 12.9 / 20.0 | C 9.0 / 12.3 | 6.9 / 5.0 | 0.0 / 3.0 | 0.0 | |
| +50 | 14.3 / 20.0 | C 9.2 / 12.3 | 6.9 / 6.0 | 0.0 / 3.0 | 0.0 | |
| +75 | 16.9 / 20.0 | C 12.9 / 13.2 | 9.6 / 4.0 | 0.0 / 3.0 | 0.0 | End 10' width bench here on account of embankment of road to top of dam. |
| 30+00 | | | | 00 / 3.0 | 0.0 | Call area of this section 0.0 for yardage calculations. |

copied into
computer
5345 sq yds
/ 27

Typical section for restaking Class 2 excavation from Sta. 229+90 to Sta. 235+50 Pages 39-42 this book.



Re-cross sections for Class 2 excavation superceeding sections on page 22-24.

| | Length Sec | Area Sq Ft | Sr. Area | Cu Yd. | ℄ Elev. | Grade |
|---|---|---|---|---|---|---|
| 229+90 | | 0. | | | | 85.5 |
| | 10. | | 4.0 | 40.0 | | |
| 230+00 | | 8.0 | | | 486.4 | 87.4 |
| | 15 | | 40.59 | 608.9 | | |
| +15 | | 73.18 | | | 90.0 | 88.0 |
| | 10. | | 102.69 | 1026.9 | | |
| +25 | | 132.20 | | | 91.7 | 88.3 |
| | 7. | | 150.55 | 1053.9 | | |
| +32 | | 168.90 | | | 96.0 | 88.5 |
| | 18. | | 197.36 | 3552.5 | | |
| +50 | | 225.82 | | | 97.0 | 89.1 |
| | 10. | | 230.83 | 2308.3 | | |
| +60 | | 235.84 | | | 97.5 | 89.5 |
| | 15. | | 259.96 | 3899.4 | | |
| +75 | | 284.08 | | | 97.8 | 90.0 |
| | 25. | | 343.995 | 8599.9 | | |
| | | Forwd: | | 21089.8 | | |

0.0 = 10' above invertgrade (39)
14' bench ¼:1 slope

X-section and slope-stakes sta. 229+90 – 235+50

| | Lt. | | | | ℄ | | | | Rt. | |
|---|---|---|---|---|---|---|---|---|---|---|
| 229+90 | | | | | 0.0 / 14.0 | | | | | |
| 230+00 | | | | | C 2.0 / 14.5 | 0.0 / 6.0 | | | | |
| +15 | 6.0 / 20.0 | C 6.0 / 15.5 | 6.3 / 12.5 | 3.0 / 6.0 | 2.0 | | | C 0.0 / 14.0 | -1.8 / 20.0 | |
| +25 | 6.6 / 20.0 | C 6.6 / 15.7 | 7.0 / 6.0 | 3.4 | 3.0 / 7.0 | C 2.0 / 14.5 | 0.7 / 20.0 | | | |
| +32 | | 6.7 / 20.0 | C 7.0 / 15.8 | 7.5 | 4.7 / 3.0 | C 2.7 / 14.7 | 1.7 / 20.0 | | | |
| +50 | | 6.3 / 20.0 | C 6.8 / 15.7 | 7.9 | 8.4 / 10.0 | C 5.8 / 15.5 | 4.8 / 20.0 | | | |
| +60 | | | C 6.6 / 15.7 | 8.0 | 8.8 / 14.0 | C 8.3 / 16.1 | 6.2 / 20.0 | | | |
| +75 | 20.2 / 25.0 | C 18.4 / 18.6 | 17.3 / 15.6 | 7.3 / 9.6 | 7.8 | C 9.0 / 16.3 | 9.4 / 21.0 | | | |

| Dist | Area Cut | Area Fill | Cu Ft | ℄ Elev | Grade |
|---|---|---|---|---|---|
| | Backward + Forward | | 21089. | | |
| 231+00 | 403.91 | | | 498.3 | 90.9 |
| | 25 | 446.8 | 11170.5 | | |
| +25 | 489.73 | | | 504.3 | 91.3 |
| | 25 | 480.1 | 12003.0 | | |
| +50 | 470.50 | | | 499.7 | 91.8 |
| | 25 | 452.6 | 11306.5 | | |
| +75 | 434.02 | | | 500.0 | 92.2 |
| | 25 | 418.88 | 10472.0 | | |
| 232+00 | 403.73 | | | 500.1 | 92.7 |
| | 25 | 387.15 | 9678.8 | | |
| +25 | 370.58 | | | 500.4 | 93.1 |
| | 25 | 341.14 | 8528.5 | | |
| +50 | 311.71 | | | 500.2 | 93.6 |
| | 25 | 282.00 | 7050.0 | | |
| +75 | 252.28 | | | 499.9 | 93.6 |
| | 25 | 238.24 | 5956.0 | | |
| | Forward | | 97255.1 | | |

| | Lt | | | | ℄ | | Rt | |
|---|---|---|---|---|---|---|---|---|
| 231+00 | 24.2/25.0 | C22.2/19.6 | 18.9/7.0 | 7.4/1.0 | 7.4 | C8.7/16.2 | 9.1/23.0 | |
| +25 | 27.0/25.0 | C24.8/20.2 | 19.7/3.0 | | 13.0 | 8.3/2.6 | C8.9/16.2 | 9.3/24.0 |
| +50 | 28.2/25.0 | C25.6/20.4 | 25.0/17.0 | 20.5/5.0 | 7.9 | C8.4/16.1 | 8.9/24.0 | |
| +75 | 28.9/25.0 | C26.3/20.6 | 18.9/6.0 | 7.8/1.7 | 7.9 | C8.2/16.1 | 8.5/23.0 | |
| 232+00 | 28.1/25.0 | C25.8/20.5 | 21.0/12.0 | 18.6/7.0 | 7.4/2.7 | 7.4 | C7.8/16.0 | 8.0/22.0 |
| +25 | 26.4/25.0 | C24.4/20.1 | 18.3/8.5 | 7.3/4.0 | 7.3 | C7.5/15.9 | 7.8/20.0 | |
| +50 | 24.5/25.0 | C21.9/19.5 | 15.4/8.0 | 6.6/6.8 | 6.6 | C6.5/15.6 | 6.5/19.0 | |
| +75 | 21.3/25.0 | C18.2/18.2 | 12.8/10.0 | 6.3/7.0 | 6.3 | C6.0/15.5 | 6.0/18.0 | |

Brought Forward 97255.1

| Sta | Dist | Area | Sr Area | Cu Ft | ℄ Elev. | Grade |
|---|---|---|---|---|---|---|
| 233+00 | | 224.20 | | | 499.5 | 93.7 |
| | 25. | | 218.705 | 5467.6 | | |
| +25 | | 213.21 | | | 99.1 | 93.7 |
| | 25. | | 209.395 | 5234.9 | | |
| +50 | | 205.58 | | | 97.8 | 93.8 |
| | 28. | | 245.215 | 6866.0 | | |
| +78 | | 284.85 | | | 98.4 | 93.9 |
| | 22. | | 315.24 | 6935.3 | | |
| 234+00 | | 345.63 | | | 507.6 | 93.9 |
| | 27. | | 336.585 | 9087.8 | | |
| +27 | | 327.54 | | | 05.8 | 93.2 |
| | 11. | | 313.69 | 3450.6 | | |
| +38 | | 299.84 | | | 498.0 | 92.9 |
| | 12. | | 272.935 | 3275.2 | | |
| +50 | | 246.03 | | | 98.0 | 92.6 |
| | 14. | | 215.255 | 3013.6 | | |

Forwd 140586.1

| | Lt | ℄ | Rt |
|---|---|---|---|
| 233+00 | 19.6 / 25.0 C16.2 / 18.1 12.2 / 10.5 5.5 / 8.0 5.8 | C 5.4 / 15.3 | 5.9 / 19.0 |
| +25 | 18.4 / 25.0 C15.3 / 17.8 12.0 / 10.0 4.9 / 8.0 5.4 | C 5.2 / 15.3 | 5.5 / 21.0 |
| +50 | 18.4 / 25.0 C15.1 / 17.8 11.7 / 8.0 3.6 / 5.0 4.0 | C 4.4 / 15.1 | 4.5 / 24.0 |
| +78 | 20.2 / 25.0 C17.6 / 18.4 13.0 / 4.5 4.5 | C 5.3 / 15.3 | 5.8 / 27.0 |
| 234+00 | 20.5 / 25.0 C18.3 / 18.6 13.7 | 4.8 / 4.0 C 5.2 / 15.3 | 6.1 / 28.0 |
| +27 | 19.7 / 25.0 C17.8 / 18.5 12.6 | 4.6 / 4.0 C 5.2 / 15.3 | 6.3 / 27.0 |
| +38 | 19.3 / 25.0 C17.1 / 18.3 13.4 / 4.0 5.1 | C 6.0 / 15.5 | 6.9 / 25.0 |
| +50 | 16.5 / 25.0 C15.2 / 17.8 13.4 / 9.5 5.4 / 5.0 5.4 | C 6.4 / 15.6 | 7.1 / 25.0 |

| | | Cu ft | ℄ Elev. | Grade |
|---|---|---|---|---|
| | Brought Forward | 140586.1 | | |
| 234+64 | 184.48 | | 498.1 | 92.2 |
| | 181.24 | 362.5 | | |
| +66 | 178.00 | | 98.2 | 92.2 |
| | 181.81 | 1636.3 | | |
| +75 | 185.62 | | 98.2 | 92.0 |
| | 171.305 | 4282.6 | | |
| 235+00 | 156.99 | | 98.3 | 91.3 |
| | 136.605 | 1366.1 | | |
| +10 | 116.22 | | 95.2 | 91.0 |
| | 95.73 | 957.3 | | |
| +20 | 75.24 | | 92.2 | 90.8 |
| | 60.44 | 302. | | |
| +25 | 45.64 | | 91.6 | 90.7 |
| | 22.82 | 570.5 | | |
| +50 | 0. | | 87.6 | 90.0 |
| Total | | 150063.6 = 5557.9 Cu yds. | | |
| Not removed | | 144.9 | | |
| | | 5413.0 | | |

| | Lt. | ℄ | Rt |
|---|---|---|---|
| 234+64 | 15.1 / 25.0 C 13.7 / 17.4 | 5.1 / 13.0 | 5.9 C 6.9 / 15.8 7.2 / 22.0 |
| +66 | C 5.2 / 15.3 | 6.0 | C 6.9 / 15.8 7.2 / 20.0 |
| +75 | 4.8 / 21.0 C 5.3 / 15.3 | 6.2 | C 7.4 / 15.9 5.0 / 20.0 |
| 235+00 | 5.9 / 21.0 C 6.1 / 15.5 | 7.0 | 2.7 / 11.0 C 1.4 / 14.4 0.0 / 17.0 |
| +10 | 6.2 / 20.0 C 6.4 / 15.6 6.9 / 5.0 | 4.2 | 2.1 / 4.0 0.0 / 14.0 -0.5 / 20.0 |
| +20 | 6.1 / 20.0 C 6.4 / 15.6 6.8 / 11.0 | 1.4 | 0.0 / 7.0 |
| +25 | 6.2 / 20.0 C 6.5 / 15.6 1.2 / 4.0 | 0.9 | C 0.0 / 4.4 |
| +50 | C 0.0 / 14.0 | | |

See Cal Sheet 1
" & See Roll 1
" 503
60

Final cross sections of completed Class 2 excavation. Original sections on pages 6-7 this book.

| Station | Length | Area | Cl. area. |
|---|---|---|---|
| 366+50 | | 00 | |
| | 50 | | 3.86 / 193.0 |
| 367 | | 7.72 | |
| | 30 | | 7.36 / 220.8 |
| +30 | | 7.00 | |
| | 20 | | 4.30 / 86.0 |
| +50 | | 1.60 | |
| | 22 | | 3.45 / 75.9 |
| +72 | | 5.30 ~~9.95~~ | ~~4.378~~ / ~~105.7~~ |
| | 18 | | 9.375 / 262.5 |
| 368 | | 13.45 ~~17.05~~ | ~~17.150~~ / ~~350.0~~ |
| | 20 | | 11.965 / 239.3 |
| +20 | | 10.48 ~~10.10~~ | ~~13.58~~ / ~~247.6~~ |
| | 17 | | 12.84 / 218.3 |
| +37 | | 15.20 ~~14.70~~ | ~~12.15~~ / ~~206.6~~ |
| | 13 | | 18.025 / 234.3 |
| +50 | | 20.85 | ~~17.57~~ / ~~227.8~~ |
| | | Forwd | 1530.1 |

ck 4/w 7/36

March 27 1936
Soper
Isbell
Remmen

45

Final x-section for class 2 Excavation - Sta. 366+50 - 369+50
12' bench 1/4:1 Slope

| | | | | |
|---|---|---|---|---|
| 366+50 | 0.0 | 0.0 / 13.0 | | |
| 367 | 0.0 | 0.0 / 8.0 | 1.5 / 9.0 | C 1.8 / 13.5 |
| +30 | 0.0 | 0.0 / 8.0 | 1.4 / 9.5 | C 1.8 / 13.5 |
| +50 | 0.0 | 0.0 / 11.0 | | C 1.6 / 13.4 |
| +72 | 0.0 | 0.0 / 11.0 | | C 5.3 / 14.3 |
| 368+00 | 0.0 | 1.0 / 11.0 | | C 6.2 / 14.5 |
| +20 | 0.0 | 0.4 / 11.0 | | C 7.5 / 14.9 |
| +37 | 0.0 | 0.4 / 11.0 | | C 12.0 / 16.0 |

| | | | Cu ft |
|---|---|---|---|
| | Brought Forwd | | 1530.1 |
| 368+50 | 20.85 | | |
| 25 | | 18.09 | 452.2 |
| +75 | 15.33 | | |
| 25 | | 11.79 | 294.8 |
| | 8.25 ~~9.90~~ | ~~12.62~~ | ~~315.5~~ |
| 369 | | | |
| 25 | | 8.025 ~~8.85~~ | 200.6 ~~221.2~~ |
| +75 | 7.80 | | |
| 25 | | 8.82 | 220.5 |
| +50 | 9.83 | | |
| 50 | | 4.96 | 248.0 |
| 370 | 00 | | |
| | | ~~3118.6~~ / ~~27~~ | ~~= 115.5 yd³~~ |
| | Total | 2946.2 = | 109.1 yd³ |

Original quantity - page 7 : ~~584.1~~ 583.0

Balance, not excavated : ~~115.5~~ 109.1

Pay quantity Class 2 : ~~468.6~~ 473.9

| | | | | |
|---|---|---|---|---|
| 368+50 | 0.0 | 0.0 / 10.0 | C 13.9 / 16.5 | |
| +75 | 0.0 | 0.3 / 10.0 | C 8.7 / 15.2 | |
| 369+00 | 0.0 | 0.0 / 10.5 | C 6.6 / 14.6 | |
| +25 | 0.0 | 0.0 / 10.0 | C 5.2 / 14.3 | |
| +50 | No dirt moved 00 | 0.0 / 7.5 | 2.3 / 11.0 | C 2.7 / 13.7 |
| | 00 | 00 / 13.0 | | |

Original sections on page 9.

| | | | | |
|---|---|---|---|---|
| 274+75 | | 00 | | |
| | 25 | | 1.725 ~~1.78~~ | 43.1 ~~44.5~~ |
| 275 | | 3.45 | | |
| | 10 | | 4.10 | 41.0 |
| +10 | | 4.76 | | |
| | 40 | | 3.94 | 157.6 |
| +50 | | 3.15 | | |
| | 40 | | 2.82 | 112.8 |
| +90 | | 2.48 | | |
| | 10 | | 1.24 | 12.4 |
| 276 | | 00 | | |
| | 18 | | 1.28 | 23.0 |
| +18 | | 2.55 | | |
| | 12 | | 1.28 | 15.4 |
| +30 | | 00 | | |
| | | | ~~405.7~~ 405.3 | |
| | 13 | | | |
| +43 | | 00 | | |

$= 15.0 \text{ yd}^3$

March 28 1936
Soper
Isbell
Remmen

13' bench 1/4:1 slope. 48

Final x-section for Class 2 excavation - sta 274+75 - 276+43

| | Lt | ℄ | Rt |
|---|---|---|---|
| 274+75 | | 0.0 / 13.0 | 0.0 |
| 275+00 | C6.9 / 14.7 | 0.0 / 12.0 | 0.0 |
| +10 | C7.3 / 14.8 | 0.0 / 11.7 | 0.0 |
| +50 | C9.0 / 15.2 | 0.0 / 12.3 | 0.0 |
| +90 | C9.9 / 15.5 | 0.0 / 12.5 | 0.0 |
| 276+40 | C6.5 / 14.6 | 0.0 / 13.0 | 0.0 |
| +18 | C10.2 / 15.6 | 0.0 / 12.5 | 0.0 |
| +30 | C10.2 / 15.6 | 0.0 / 13.5 | 0.0 |
| +43 | | 0.0 / 13.0 | 0.0 |

Original quantity - page 9 = $178.6 \text{ yd}^3$
Balance not excavated = $15.0 \text{ yd}^3$
Pay quantity Class 2 $= 163.6 \text{ yd}^3$

Original sections on page 10.

277+67

278+00

+25

+50

+75

279+00

+20

+40

March 28-1936
Soper
Isbell
Remmen

Bench = 13'



Final x-section for Class 2 Excavation sta 277+67 – 279+40

| | LH | ℄ | RH |
|---|---|---|---|
| 277+67 | 0.0 / 13.0 | 0.0 | |
| 278+00 | C 10.3 / 15.6 | 0.0 / 13.5 | 0.0 |
| +25 | C 8.3 / 15.1 | 0.0 / 13.0 | 0.0 |
| +50 | C 11.3 / 15.8 | 0.0 / 14.0 | 0.0 |
| +75 | C 10.6 / 15.7 | 0.0 / 14.0 | 0.0 |
| 279+00 | C 7.9 / 15.0 | 0.0 / 14.5 | 0.0 |
| +20 | C 6.9 / 14.7 | 0.0 / 13.5 | 0.0 |
| +40 | | 0.0 / 13.0 | 0.0 |

Plotted on sheets 30 (Triangle) Map Plot

Original sections on page 18-19. ✓ 4/27/36 JHW

| | Dist | | | |
|---|---|---|---|---|
| 335+50 | | 0 ✓ | 2.17 ✓ | 108.5 ✓ |
| 336+00 | 50' | 4.34 ✓ | 4.555 | 227.8 ✓ |
| | 50 | 4.77 ✓ | | ~~336.3~~ |
| 336+50 | | ~~4.34~~ | 3.735 ✓ | 186.7 ✓ |
| | 50 | | ~~3.52~~ ✓ | ~~176.0~~ |
| 337 | | 2.70 ✓ | | |
| | 50 ✓ | | 4.45 ✓ | 222.5 ✓ |
| +50 | | 6.20 ✓ | | |
| | 50 ✓ | | 5.98 ✓ | 299.0 ✓ |
| 338 | | 5.76 ✓ | | |
| | 50 ✓ | | 4.83 ✓ | 241.5 ✓ |
| +50 | | 3.90 ✓ | | |
| | 50 ✓ | | 3.69 ✓ | 184.5 ✓ |
| 339 | | 3.48 ✓ | | |
| | 50 ✓ | | 4.23 ✓ | 211.5 ✓ |
| +50 | | 4.98 ✓ | | |
| | 50 ✓ | | 4.60 ✓ | 220.0 ✓ |
| 340 | | 3.82 ✓ | | |
| | 50 ✓ | | 4.25 ✓ | 212.5 ✓ |
| +50 | | 4.68 ✓ | | |
| | 50 ✓ | | 4.48 ✓ | 224.0 ✓ |
| 341 | | 4.29 ✓ | | |
| | 50 ✓ | | 3.26 ✓ | 163.0 ✓ |
| +50 | | 2.24 ✓ | | |
| | 50 ✓ | | 2.30 ✓ | 115.0 ✓ |
| 342 ✓ | | 2.36 | Forwd | 2616.5 ✓ |

Mch. 27. 1936. Bench = 10' - Slope 1/4 : 1. 50

Soper
Isbell, Remmen.

Final cross sections for Class 2 excavation
Sta. 336+50 to Sta. 343+00

| | Lt. | ℄ | Rt. |
|---|---|---|---|
| 336+50 | No dirt moved. | 00 / 8.2 | 6.5.3 / 11.3 |
| 337 | | 00 / 9.1 | 6.6.0 / 11.5 |
| +50 | | 00 / 8.3 | 6.7.3 / 11.8 |
| 338 | | 00 / 8.2 | 6.6.4 / 11.6 |
| +50 | | 00 / 9.0 | 6.7.8 / 11.9 |
| 339 | | 00 / 9.2 | 6.8.7 / 12.2 |
| +50 | | 00 / 8.8 | 6.8.3 / 12.1 |
| 340 | | 00 / 9.1 | 6.8.5 / 12.1 |
| +50 | | 00 / 8.8 | 6.7.8 / 11.9 |
| 341 | | 00 / 8.7 | 6.6.6 / 11.6 |
| +50 | | 00 / 9.2 | 6.5.6 / 11.6 |

Brought Forwd 2616.5

| | | | | |
|---|---|---|---|---|
| 342 | | 2.36 | | |
| | 50 | | 2.71 | 135.5 |
| +50 | | 3.06 | | |
| | 50 | | 4.88 | 244.0 |
| 343 | | 6.70 | | |
| | | | 2996.0 | 111.0 |
| | | | ~~2985.3~~ | = ~~110.6~~ |
| | | | 27 | |

4/27/36
No. Dirt Moved 343-347 Superv.

Original quantity - page 19: ~~952.4~~ 111.0 ~~110.6~~ = ~~841.8~~ 841.4 $y^3$

Balance not excavated

Pay quantity Class 2.

| | | | | | |
|---|---|---|---|---|---|
| | | | ℄ | | Rt. |
| 342 | | | 00 / 8.9 | C. 4.3 / 11.1 | |
| +50 | | | 00 / 8.2 | C. 3.4 / 10.9 | |
| 343 | No dirt moved. | | 00 / 1.0 | C. 1.6 / 50 | |

# Class 2 Ex.

| | Dist. | End Area Cal. | Average | | ℄ Elev. | Grade |
|---|---|---|---|---|---|---|
| 258+48 | | 0 | | | | 458.7 |
| | 11 | | 21.985 | 241.8 | | |
| +59 | | 43.97 | | | 458.8 | 58.8 |
| | 11 | | 58.095 | 639.0 | | |
| +70 | | 72.22 | | | 64.2 | 58.8 |
| | 30 | | 73.905 | 2217. | | |
| 259+00 | | 75.59 | | | 62.6 | 58.9 |
| | 50 | | 65.29 | 3264.5 | | |
| +50 | | 54.99 | | | 61.0 | 58.9 |
| | 50 | | 53.22 | 2661.0 | | |
| 260+00 | | 51.45 | | | 60.7 | 58.7 |
| | 50 | | 51.25 | 2562.5 | | |
| +50 | | 51.05 | | | 60.4 | 58.4 |
| | 50 | | 54.385 | 2719.2 | | |
| 261+00 | | 57.72 | | | 60.5 | 58.2 |
| | 50 | | 58.61 | 2930.5 | | |
| | | Forwd. | | 17235.7 | | |

April 3, 1936
Soper
Isbell
Rennon

0.0=proposed road grade
13' bench, ¼:1 slope

63

# Class 2 Ex

Slope stakes and x section sta 258+48 - 263+50

| | Lt. | ℄ | Rt. |
|---|---|---|---|
| 258+48 | 0.0 / 13.0 | | |
| 258+59 | 3.4 / 20.0 | C4.7 / 14.2 | 5.2 / 10.0 — 0.0 |
| +70 | 3.2 / 20.0 | C3.8 / 14.0 | 5.4 — 0.0 / 3.0 |
| 259+00 | 2.3 / 20.0 | C2.4 / 13.6 | 3.7 — 4.7 / 6.0 — 0.0 / 11.3 |
| +50 | 1.0 / 19.0 | C1.7 / 13.4 | 2.1 — 2.6 / 11.0 — C0.9 / 13.4 — 0.0 / 14.7 |
| 260+00 | 0.8 / 17.0 | C1.4 / 13.4 | 2.0 — C2.5 / 13.2 — 2.3 / 17.0 — 0.0 / 19.1 |
| +50 | 1.1 / 17.0 | C1.5 / 13.4 | 2.0 — C2.2 / 13.6 — 0.0 / 16.0 |
| 261+00 | 2.1 / 19.0 | C2.3 / 13.6 | 2.3 — 2.5 / 10.0 — 0.0 / 12.5 |

4/10/36 Lee
Reeves
Reff.
+50 OK
Disregard 4th, 3
+ allow 5ec
removed, as not Staked
Rec. 99. M

260+00 Rees Sr. 5
+50 Rees Sr. 1.00
261+00 Rees Sr. 1.0

Brought Forward 17235.7 cu ft

| | Dist | | | ℄ Elev. | Grade |
|---|---|---|---|---|---|
| 261+50 | | 59.50 | | 60.9 | 57.9 |
| | 50 | | 48.66 | 2433.0 | |
| 262+00 | | 37.8 | | 59.7 | 57.7 |
| | 50 | | 32.385 | 1619. | |
| +50 | | 26.95 | | 59.3 | 57.5 |
| | 50 | | 23.50.5 | 1175. | |
| 263+00 | | 20.06 | | 58.6 | 57.2 |
| | 05.5 | | 20.155 | 110.9 | |
| +05.5 | | 20.25 | | 57.2 | 57.2 |
| | 44.5 | | 18.785 | 834.6 | |
| +50 | | 17.46 | | | 56.9 |

23408.6 867.0 cu yds Cal.

Less amount not excavated per final Sections on Pages 70-72. + plotted on Roll #1. + Cal. Sheet 2 77.4

Total Amount 789.6 cu yds.

| | Lt | ℄ | Rt |
|---|---|---|---|
| Brought Forward | | | |
| 261+50 | 3.3 / 20.0 C 3.2 / 13.8 | 3.0 | 3.0 / 4.0 — 0.0 / 8.0 |
| 262 | 3.7 / 25.0 C 2.8 / 13.7 | 2.0 | 1.5 / 3.0 — 0.0 / 3.9 |
| +50 | 1.8 / 23.0 C 2.0 / 13.5 | 1.8 | 0.0 / 2.0 |
| 263 | 1.5 / 23.0 C 1.6 / 13.4 | 1.4 | 0.0 / 0.4 |
| +05.5 | 1.4 / 24.0 C 1.7 / 13.4 | 1.5 / 1.0 | 0.0 |
| +50 | 1.3 / 24.0 C 1.5 / 13.4 | 1.3 / 1.0 | 0.0 / 0.7 |

Cal.

868 + cu yds

4/6/26 Plan cal by W

4/6/26 plotted W.

Cal

11/9/36 W.

# Class 2 Excavation

| Sta | Length | End Area | Av End Area | C.y. ft | & Elev. | Grade |
|---|---|---|---|---|---|---|
| Final Sec 5+26 / 28 | | | | | | |
| 176+02 | | 0 | | | | 501.2 |
| | 5 | | 1.50 | 7.5 | | |
| +07 | | 3.00 | | | | 01.2 |
| | 18.5 | | 23.50 | 434.8 | | |
| +25.5 | | 44.00 | | | 501.1 | 01.1 |
| | 14.5 | | 56.64 | 821.3 | | |
| +40 | | 69.28 | | | 505.6 | 01.1 |
| | 10 | | 78.68 | 786.8 | | |
| +50 | | 88.07 | | | 05.7 | 01.1 |
| | 25 | | 106.03 | 2650.8 | | |
| +75 | | 123.99 | | | 05.9 | 01.1 |
| | 25 | | 120.53 | 3013.2 | | |
| 177+00 | | 117.07 | | | 05.5 | 01.1 |
| | 25 | | 116.045 | 2901.1 | | |
| +25 | | 115.02 | | | 05.4 | 01.1 |
| | 25 | | 105.10 | 2627.5 | | |
| Total Forwd | | | | 13243.0 | | |

April 6 1936
Soper.
Isbell
Remmen

0.0: proposed road grade
13' bench 1/4:1 slope

Slopestakes and x-section sta 176+02 - 179+50 / 180+00

| | Lt | ℄ | Rt |
|---|---|---|---|
| 176+02 | 0.0 / 13.0 | | |
| +07 | 2.7 / 20.0 | C 2.4 / 13.6 | 0.0 / 10.5 |
| +25.5 | 3.5 / 20.0 | C 4.0 / 14.0 | 4.0 / 5.0 0.0 |
| +40 | 3.3 / 20.0 | C 3.7 / 13.9 | 4.5 0.0 / 6.2 |
| +50 | 3.3 / 20.0 | C 3.6 / 13.9 | 4.6 4.7 / 4.0 0.0 / 10.0 |
| Revised 4/18/36 as directed by J.W.N. | | | sta 176+58 0.0 / 13.0 |
| +75 | C 3.8 / 14.0 | 4.8 / 0 | 5.4 / 10.5 C 2.8 / 13.7 |
| 177+00 | | C 3.6 / 13.9 4.4 / 0 | C 4.9 / 14.2 |
| +25 | 3.8 / 13.6 | 4.3 / 0 | C 4.7 / 14.2 4.6 / 15.5 |

℄ stake at toe of existing bank. bank not to be moved.

April 18-1936 - Grade change, per J.W.N.
10' above pipe grade
sta. 176+25 - 179+00

# Class 2 Excavation

| Sta | Length | End Area | Area | Cu ft. | ℄ Elev. | Grade |
|---|---|---|---|---|---|---|
| | | Brought Forwd. | | 13243.0 | | |
| 177+50 | | 95.18 | | | 504.7 | 501.1 |
| | 25 | | 97.65 | 2316. | | |
| +75 | | 90.12 | | | 04.2 | 501.1 |
| | 25 | | 86.78 | 2169.5 | | |
| 178+00 | | 83.44 | | | 03.8 | 501.0 |
| | 50 | | 88.47 | 4423.5 | | |
| +50 | | 93.50 | | | 03.6 | 500.5 |
| | 50 | | 110.39 | 5519.5 | | |
| 179 | | 127.28 | | | 02.3 | 99.7 |
| | 50 | | 63.64 | 3182.0 | | |
| | | | | | 497.8 | 97.8 |
| +50 | | 0 | | | | |
| cut reverse cut here | 4 | | 56.96 | 227.8 | | |

4/20/36 mw

Total Cu ft 31081.5 = 1151.1 cu yds

| | Lt ℄ | ℄ | | Notes |
|---|---|---|---|---|
| 177+50 | C 3.1 / 13.6 at toe of bank | 3.6 / 0 | C 3.9 / 14.0 | Revised 4/20/36 to Changed Cut |
| +75 | cut stake at toe of bank neither cut Cal. → C 2.6 / 16.5 | 3.1 / 0 | 3.4 / 13.0 | C 2.0 / 13.5 |
| 178+00 | cut stake at toe of bank → C 2.6 / 18.0 | 2.8 / 0 | 3.0 / 10.4 | C 0.5 / 13.1 |
| +50 | cut stake at toe of bank → 3.0 / 23.0 | 3.3 / 0 | 3.4 / 4.0 | 0.0 / 8.5 |
| 179+00 | cut stake at toe of bank → C 4.1 / 31.0 | 3.9 · 2.6 / 1.0 · 0 | | 0.0 / 3.1 |

Ramp up from sta 179+00 to 0.0 cut of 179+50

Cut stakes moved to toe of bank per J.W.W. April 20. 1936

5/1/36. Blocked on #1 Fall J.W.W.

See Cal Sheet # 5 = + 32.1 yds.
" F.B. 526/28

| | ℄ Elev. | Grade |
|---|---|---|
| 229+90 | | 485.5 |
| 230+00 | 485.4 | 87.4 |
| +15 | 87.7 | 88.0 |
| +25 | 88.1 | 88.3 |
| +32 | 88.5 | 88.5 |
| +50 | 89.1 | 89.1 |
| +60 | 89.4 | 89.5 |

April 13 1936 (+ and - refer to pipe grade) 60
Soper Isbell
Reminen

Final x-sections for Class 2 Excavation.
Sta. 229+90 - 235+50

| | Lt. | ℄ | Rt |
|---|---|---|---|
| 229+90 | | | |
| 230+00 | +2.0 / 14.5 | +0.6 / 11.0 | -1.0 / 10.0 -2.0 |
| +15 | +6.0 / 15.5 | +6.0 / 10.0 | +0.3 / 9.0 -0.3 -0.5 / 12.0 +0.7 / 13.0 0.0 / 14.0 |
| +25 | +6.6 / 15.7 | +6.6 / 12.5 | 0.0 / 11.0 -0.2 -0.7 / 12.5 +1.6 / 14.0 +2.0 / 14.5 |
| +32 | +7.0 / 15.8 | 7.2 / 12.5 | +0.3 / 11.5 0.0 -0.4 / 13.0 +2.7 / 14.7 |
| +50 | +6.8 / 15.7 | 6.8 / 14.5 | 0.0 / 13.0 0.0 0.0 / 13.5 +5.8 / 15.5 |
| +60 | +6.6 / 15.7 | 6.6 / 14.5 | +0.1 / 13.0 -0.1 0.0 / 15.5 +8.3 / 14.1 |

Note: erasures made at time of extending x-sections to take in all of cut.

| | ℄ Elev. | Grade |
|---|---|---|
| 230+75 | 90.4 | 90.0 |
| 231+00 | 90.9 | 90.9 |
| +25 | 91.6 | 91.3 |
| +50 | 91.8 | 91.8 |
| +75 | 92.4 | 92.2 |
| 232+00 | 92.6 | 92.7 |
| +25 | 92.9 | 93.1 |
| +50 | 93.3 | 93.6 |

| | Lt | | ℄ | | Rt |
|---|---|---|---|---|---|
| 230+75 | +18.4 / 18.6 | +0.3 / 13.5 | +0.4 | +0.4 / 17.0 | +9.0 / 20.0 |
| 231 | +22.2 / 19.6 | 0.0 / 17.0 | 0.0 | +0.5 / 6.0 | 0.0 / 16.5 | +8.7 / 18.5 |
| +25 | +24.8 / 20.2 | 0.0 / 13.5 | +0.3 | +0.5 / 16.8 | +8.6 / 18.0 |
| +50 | +25.6 / 20.4 | 0.0 / 14.4 | 0.0 | +0.6 / 16.0 | +8.4 / 18.5 |
| +75 | +26.3 / 20.6 | 0.0 / 16.4 | +0.2 | +0.6 / 14.4 | +8.0 / 16.7 |
| 232 | +25.8 / 20.5 | +0.2 / 15.8 | -0.1 | 0.0 / 15.0 | +7.8 / 17.3 |
| +25 | +24.4 / 20.1 | +0.2 / 16.0 | -0.3 | -0.3 / 15.0 | +7.8 / 17.8 |
| +50 | +21.9 / 19.5 | +0.6 / 14.8 | -0.3 | -0.6 / 14.5 | +6.5 / 16.8 |

| | ℄ Elev. | Grade | | Lt | ℄ | Rt |
|---|---|---|---|---|---|---|
| 232+75 | 93.4 | 93.6 | 232+75 | +18.2 / 18.6 | +1.0 / 14.7 -0.2 | -0.7 / 14.0 +6.0 / 15.5 |
| 233+00 | 93.6 | 93.7 | 233 | +16.2 / 18.1 | +0.7 / 14.0 -0.1 | -0.6 / 13.0 +5.4 / 15.0 |
| +25 | 93.5 | 93.7 | +25 | +15.1 / 17.8 | +0.4 / 13.5 -0.2 | -0.4 / 14.0 +5.2 / 15.0 |
| +50 | 93.1 | 93.8 | +50 | +15.1 / 17.8 | -0.5 / 13.5 -0.7 | -0.6 / 13.5 +4.5 / 15.1 |
| +78 | 92.8 | 93.9 | +78 | +17.6 17.5 / 18.4 18.0 | -1.0 / 13.5 -1.1 | -1.0 / 14.0 +5.4 / 16.0 |
| 234+00 | 92.4 | 93.9 | 234 | +18.3 18.3 / 18.6 18.4 | -1.0 / 12.5 -1.5 | -1.5 / 14.0 +5.2 / 15.2 |
| +27 | 91.8 | 93.2 | +27 | +17.8 / 18.5 | -0.9 / 13.0 -1.4 | -1.5 / 13.0 +5.2 / 14.8 |
| +38 | 91.6 | 92.9 | +38 | +17.1 18.0 / 18.3 18.0 | -0.4 / 12.5 -1.3 | -1.6 / 14.0 +6.4 / 15.8 |

| | ℄ Elev. | Grade |
|---|---|---|
| 234+50 | 491.1 | 492.6 |
| +64 | 91.1 | 92.2 |
| +66 | 91.1 | 92.2 |
| +75 | 91.0 | 92.0 |
| 235+00 | 90.7 | 91.3 |
| +10 | 91.3 | 91.0 |
| +20 | 91.6 | 90.8 |
| +25 | 91.2 | 90.7 |
| +50 | 89.7 | 90.0 |

See Road & Cal Sheet.
- 144.9 Cu Yds.

| | Lt | | | ℄ | | Rt | | |
|---|---|---|---|---|---|---|---|---|
| 234+50 | +15.2 / 12.8 | -0.4 / 14.0 | | -1.5 | -1.7 / 13.6 | +2.1 / 15.0 | +7.0 / 21.5 | |
| +64 | +13.7 / 17.4 | -0.3 / 16.4 | | -1.1 | -1.1 / 11.0 | +3.3 / 18.0 | +7.0 / 19.4 | |
| +66 | +5.2 / 15.3 | -0.5 / 16.6 | | -1.1 | -1.1 / 11.0 | +3.3 / 18.2 | +7.0 / 19.5 | |
| +75 | +4.8 / 20.6 | -0.4 / 19.3 | | -1.0 | -1.0 / 12.2 | +5.3 / 17.0 | | |
| 235+00 | +4.7 / 33.0 | +1.2 / 31.0 | | -0.6 | -0.4 / 10.0 | +2.5 / 10.0 | C 1.4 / 14.4 | |
| +10 | +4.0 / 39.0 | +2.3 / 37.5 | 0.0 / 6.0 | +0.3 | +0.6 / 9.0 | +2.1 / 11.0 | 0.0 / 14.0 | |
| +20 | +4.5 / 45.0 | 3.1 / 43.5 | +0.6 / 6.0 | +0.8 | +0.7 / 8.0 | +2.8 / 11.0 | 0.0 / 15.0 | |
| +25 | +4.8 / 48.5 | +3.5 / 46.0 | +0.8 / 6.0 | +0.5 | +0.6 / 8.0 | +2.3 / 11.0 | 0.0 / 14.0 | |
| +50 | +5.0 / 40.0 | +3.7 / 11.0 | -0.3 / 5.0 | -0.3 | | | | |

4/19/96 Plotted & Pulled on Roll #1

See Cal Sheet 1 See Pg 40.
" See Roll 1

April 22 1936
Soper ?
Remmen - rod
Isbell - tape

Page 3.

# Final x-section for Class 2 Excavation Sta. 224+25 – 226+15

| | Lt | ℄ | Rt | |
|---|---|---|---|---|
| B.M #27 | 8.55 | 488 .78 | 480.23 | Grades from Road Sec 506 A |
| | 499.0 | 488.5 | 480.9 | 480.7 |
| 224+25 | +4.2 / 16.0 | 6.3 / 12.7 | 7.9 / 10.5 | 8.1 / 0 | 480.5 |
| | 497.5 | 484.5 | 481.3 | 480.6 | 480.3 |
| +50 | +8.7 / 18.0 | 4.3 / 14.5 | 7.5 / 11.0 | 8.2 / 0 | 8.5 / 10.0 | 480.6 |
| | 500.4 | 485.5 | 481.0 | 480.7 | 480.7 |
| +75 | +11.6 / 19.0 | 3.3 / 13.0 | 7.8 / 8.0 | 8.1 / 0 | 8.1 / 15.0 | 480.6 |
| | 501.5 | 486.3 | 480.3 | 480.6 | 480.~ |
| +90 | +12.7 / 24.0 | 3.5 / 14.0 | 8.5 / 8.0 | 8.2 / 0 | 8.6 / 22.0 |
| | 500.0 | 487.6 | 480.~ | 480.1 | 480.3 |
| 225+00 | +11.2 / 20.0 | 1.2 / 14.5 | 8.6 / 7.5 | 8.7 / 0 | 8.5 / 22.0 | 480.5 |
| | 499.7 | 488.8 | 479.4 | 479.4 | 479.3 | 480.0 |
| +25 | +10.9 / 20.0 | 0.0 / 16.0 | 9.4 / 6.5 | 9.4 / 0 | 9.5 / 10.0 | 8.8 / 22.0 | 480.0 |
| | 495.5 | 484.8 | 479.4 | 479.0 | 479.1 |
| +50 | +6.7 / 24.0 | 4.0 / 18.5 | 9.4 / 11.0 | 9.8 / 0 | 9.1 / 22.0 | 479.~ |

Lt ℄ Rt

Final x-section continued—

488.78

| | | | | | |
|---|---|---|---|---|---|
| | 488.4 | 479.1 | 478.6 | 478.8 | |
| | 0.6 | 9.7 | | 10.0 | |
| 225+75 | 16.0 | 11.0 | 10.2 | 10.0 | 478.4 |
| | | | 0 | | |
| | 488.3 | 477.8 | 477.8 | 478.3 | |
| | 6.5 | 11.0 | | 10.5 | |
| 226+00 | 15.0 | 12.0 | 11.0 | 10.0 | 477.8 |
| | | | 0 | | |
| | | 477.4 | 477.7 | | |
| | | 11.6 | | | |
| +15 | | 13.0 | 11.1 | (End of Excavation) | |
| | | | 0 | | |

8.55 480.23 von B.M. "27

See Cal Sheet 6

" Sections on X Section Roll 1 Plotted on Reel #1

April 22 1936
Soper ✱
Remmen-rod
Isbell - tape



# Final x-sections for bench fill - Sta. 226+50 - 230+15

| | Lt | ℄ | Rt |
|---|---|---|---|
| B.M.#27 | 3.18 | 483.41 | 480.23 |

**226+50**

Elev. 477.1 — 476.9 — 477.3 — 478 — 466.7 (toe of slope)

6.3 / 10.0 — 6.5 / 0 — 6.1 / 16.0 — 8.6 / 23.0 — 16.7 / 30.0

**227**

475.9 — 476.6 — 477.0 — 477.1 — 466.4

7.5 / 23.0 — 6.8 / 13.0 — 6.4 / 0 — 6.3 / 12.0 — 17.0 / 26.0 (toe of slope)

**+50**

474.4 (toe of slope) — 478.9 — 479.4 — 477.4 — 477.4 — 466.4

9.0 / 35.0 — 4.5 / 28.0 — 6.0 / 11.0 — 6.0 / 0 — 6.0 / 9.0 — 17.0 / 25.0 (toe of slope)

**228+00**

474.1 (toe of slope) — 474.4 — 480.5 — 477.8 — 478.0 — 465.8

9.3 / 44.0 — 9.0 / 39.0 — 2.9 / 28.0 — 477.7 — 5.7 / 16.0 — 5.6 / 0 — 5.4 / 8.0 — 17.6 / 25.0 (toe of slope)

**+50**

474.0

toe of slope — 482.4 — 478.0 — 477.8 — 477.6 — 465.5

9.4 / 39.0 — 1.0 / 25.0 — 5.4 / 15.0 — 5.6 — 5.8 / 12.0 — 17.9 / 28.0 (toe of slope)

**229**

476.0 — 483.4 — 478.4 — 478.2 — 478.0 — 465.2

7.4 / 39.0 (toe of slope) — 0.0 / 28.0 — 5.0 / 19.0 — 5.2 — 5.4 / 15.0 — 18.2 / 33.0 (toe of slope)

Final x-sections continued-

Lt ✓ ℄ Rt

483.41

| | Lt | | | ℄ | | | Rt |
|---|---|---|---|---|---|---|---|
| 229+30 | 478.✓ toe of slope 5.2 / 35.0 | 484.1 0.7 / 25.0 | 479.✓ 4.2 / 17.0 | 479.1 4.3 / 0 | 478.6 4.8 / 14.5 | 471.0 12.4 / 24.0 | 464.6 toe of slope 18.8 / 34.0 |
| +50 | 480.9 toe of slope 2.5 / 31.0 | 484.9 1.5 / 23.0 | 481.✓ 2.2 / 16.0 | 480.1 2.7 | 480.1 2.7 / 11.0 | 474.0 9.4 / 21.0 | toe of slope |
| +75 | | 483.4 toe of slope 0.0 / 18.0 | 483.4 0.0 / 0 | 483.✓ 0.2 / 10.0 | 477.7 5.7 / 18.0 | toe of slope | |
| 230 | | | 486.3 +2.9 | 486.3 +2.9 / 15.0 | 485.7 0.7 / 20.0 | toe of slope | |
| +15 | | | 487.6 +4.2 | 487.3 +3.9 / 10.0 | 488.0 +4.6 / 15.0 | | |

See Cal Sheet 3

+Sections on Roll #1-

Plotted on Roll #1

April 22 1936
Soper Isbell
Remmen

# Final x-section for bench fill and Class 2 Excavation

| | Lt | ℄ | Rt |
|---|---|---|---|
| B.M.# 30 | 10.32 | 464.43 | 454.11 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 452.9 | 454.7 | | 454.7 | 454.5 | 453.1 | |
| 254 +50 | | 11.5 / 15.0 | 9.7 / 12.0 | 9.7 | | 9.9 / 12.0 | 11.3 / 14.5 | 454.9 |
| | | 452.8 | 455.6 | 454.6 | 454.6 | 454.5 | 453.0 | |
| +55 | | 11.6 / 22.0 | 8.8 / 16.0 | 9.8 / 12.5 | 9.8 | 9.9 / 12.0 | 11.4 / 14.0 | 454.9 |
| | 452.7 | 455.4 | 455.4 | 454.0 | 454.1 | 453.9 | 452.7 | |
| 255 | 11.7 / 30.0 | 9.0 / 26.0 | 9.0 / 18.0 | 10.4 / 13.0 | 10.3 | 10.5 / 12.0 | 11.7 / 14.0 | Grade 52 / 23 454.6 |
| | 452.3 | 454.4 | 454.8 | 454.1 | 453.9 | 454.1 | 452.5 | |
| +50 | 12.1 / 29.0 | 10.0 / 24.0 | 9.6 / 14.0 | 10.3 / 12.0 | 10.5 | 10.3 / 11.0 | 11.9 / 13.0 | |
| | 452.1 | 454.4 | 454.8 | 453.7 | 453.8 | 453.5 | 452.2 | |
| 256 | 12.3 / 29.0 | 10.0 / 23.0 | 9.6 / 15.0 | 10.7 / 10.0 | 10.6 | 10.9 / 10.0 | 12.2 / 12.0 | |
| | 452.0 | 454.6 | 454.8 | 453.2 | 453.1 | 453.1 | 452.1 | |
| +50 | 12.4 / 28.0 | 9.8 / 22.0 | 9.6 / 12.5 | 11.2 / 9.0 | 11.3 | 11.3 / 12.0 | 12.3 / 13.5 | |

Final x-sections continued —

| | LT | | ℄ | | | RT |
|---|---|---|---|---|---|---|
| | | | 464.43 | | | |
| | 451.7 | 454.2 | 454.0 | 452.7 | 453.0 | 453.0 | 451.8 |
| 257+00 | 12.7 / 22.5 | 10.2 / 16.5 | 10.4 / 12.0 | 11.7 / 8.5 | 11.4 / 0 | 11.4 / 11.5 | 12.6 / 19.5 |
| | 451.5 | 455.4 | 452.9 | 452.4 | 452.3 | 451.4 |
| +50 | 12.9 / 21.5 | 9.2 / 15.5 | 11.5 / 11.0 | 12.0 / 0 | 12.1 / 8.5 | 13.0 / 11.5 |
| | 451.4 | 454.4 | 452.8 | 452.6 | 453.6 | 451.4 |
| 258+00 | 13.2 / 23.0 | 10.2 / 18.0 | 11.6 / 12.0 | 11.8 / 0 | 11.8 / 6.0 | 13.2 / 8.5 |
| | 451.1 | 452.4 | 452.0 | 452.0 | 450.6 |
| +41 | 13.3 / 19.0 | 12.0 / 12.5 | 12.4 / 0 | 12.4 / 10.0 | 13.8 / 12.0 |
| | 461.5 | 459.8 | 456 | 450.7 |
| +50 | 2.9 / 33.0 | 4.6 / 12.0 | 8.8 / 0 | 13.7 / 13.0 |
| | 460.8 | 459.6 | 459.6 | 450.6 |
| +58 | 3.6 / 35.0 | 4.8 / 13.0 | 4.8 | 15.8 / 16.5 |
| | 460.9 | 459.3 | 458.9 | 458.6 | 450.8 |
| 259+00 | 3.5 / 15.0 | 5.1 / 11.5 | 5.5 | 5.8 / 12.0 | 13.6 / 21.5 |

Final x-sections continued-

| | Lt | | ℄ | | Rt |
|---|---|---|---|---|---|
| | | | 464.43 | | |
| | 460.3 | 459.0 | 458.4 | | 458.8 |
| 259+50 | 4.1 / 13.5 | 5.4 / 12.0 | 6.0 / 0 | | 5.6 / 15.0 |
| | 460.[illegible] | 458.7 | 458.6 | 459.1 | 460.9 |
| 260+00 | 4.2 / 11.5 | 5.7 / 9.0 | 5.8 / 0 | 5.3 / 12.0 | 3.5 |
| | 460.0 | 459.3 | 458.9 | | 459.3 |
| +50 | 4.4 / 12.0 | 5.1 / 10.0 | 5.5 | | 5.1 / 15.0 |
| | 460.3 | 458.5 | 458.0 | | 458.[illegible] |
| 261+00 | 4.1 / 13.5 | 5.9 / 10.5 | 6.4 | | 6.2 / 13.0 |
| | 460.9 | 457.4 | 457.1 | | 457.4 |
| +50 | 3.5 / 15.5 | 7.0 / 14.0 | 7.3 | | 7.0 / 10.0 |
| | | | | | |
| P. | | | 7.10 | | 457.33 |
| | 5.82 | 463.15 | | | |

Final x-sections continued-

| | Lt | ℄ | Rt |
|---|---|---|---|
| | | 463.15 | |
| | 459.9 | 457.3 | 456.5 | 457.0 | 450.4 |
| | 3.2 | 5.8 | | 6.1 | 12.7 |
| 262+00 | 21.0 | 14.0 | 6.6 | 5.0 | 15.0 |
| | | | 0 | | |
| | 458.8 | 457.1 | 456.4 | 456.5 | 449.6 |
| | 4.3 | 6.0 | | 6.6 | 13.5 |
| +50 | 17.0 | 12.0 | 6.7 | 40 | 130 |
| | 458.3 | 456.8 | 456.6 | 449.3 | |
| | 4.8 | 6.3 | | 13.8 | |
| 263+00 | 16.0 | 13.0 | 6.5 | 9.0 | |
| | 458.7 | 457.5 | 456.8 | | |
| | 4.9 | 5.6 | 7.3 | | |
| +50 | 18.0 | 1.5 | 0 | (End of Excavation) | |

2.24 460.91 von BM #31
Rec Elev 460.90

See Cal Sheet 2
" X Sec Roll # 1.

April 23 1936
Soper T
Remmen-109
Isbell-Tape

Final x-sections sta. 157+28 – 167+93

B.M.#21 10.58 511.70 501.12 Grade=

| | Lt | | ℄ | | Rt | |
|---|---|---|---|---|---|---|
| | 506.8 | 505.0 | 505.5 | | 505.6 | |
| 157+28 | 4.9 | 6.7 | 6.2 | | 6.1 | 506.8 |
| | 10.0 | 9.5 | 0 | | 10.0 | |
| | 515.1 | 507.7 | 506.9 | 505.6 | 505.6 | |
| +35 | +3.4 | 4.0 | 4.8 | 6.1 | 6.1 | 506.8 |
| | 11.8 | 8.5 | 0 | 2.0 | 10.0 | |
| | 516.1 | 507.4 | 507.5 | 507.4 | 505.6 | 505.6 |
| +50 | +4.4 | 4.3 | 4.2 | 4.3 | 6.1 | 6.1 | 506.8 |
| | 12.3 | 11.0 | 0 | 5.0 | 7.0 | 10.0 | |
| | 510.0 | 506.9 | 506.7 | 507.4 | 504.8 | 504.7 | |
| 158 | +3.3 | 4.8 | 5.0 | 4.3 | 6.9 | 7.0 | 507.0 |
| | 13.0 | 12.0 | 0 | 11.0 | 15.5 | 20.0 | |
| | 511.0 | 505.7 | 505.3 | 505.9 | 502.5 | |
| +50 | 0.7 | 6.0 | 6.4 | 5.8 | 8.2 | 507.0 |
| | 11.3 | 9.6 | 0 | 10.0 | 14.5 | |
| | 506.4 | 506.5 | 504.7 | 501.9 | |
| +75 | 5.3 | 5.2 | 7.0 | 9.8 | 507.1 |
| | 10.0 | 0 | 10.0 | 14.0 | |
| | 502.6 | 503.9 | 503.5 | 501.2 | |
| 159 | 9.1 | 7.8 | 8.2 | 10.5 | 507.1 |
| | 12.5 | 0 | 11.5 | 17.0 | |

Station on Page 1

Final x-sections continued—

511.70

| | Lt | | ℄ | | Rt |
|---|---|---|---|---|---|
| | 508.2 | 503.3 | 503.1 | 503.1 | 501.1 |
| 159+25 | 3.5 / 10.0 | 8.4 / 6.7 | 8.6 / 0 | 8.6 / 8.6 | 10.6 / 13.0 |
| | 511.2 | 506.6 | 506.2 | 506.2 | 500.4 |
| +50 | 0.5 / 11.0 | 5.1 / 9.7 | 5.5 / 0 | 5.5 / 7.6 | 11.3 / 16.8 |
| | 509.7 | 506.2 | 505.9 | 506.9 | 501.0 |
| 160 | 2.0 / 10.8 | 5.5 / 10.0 | 5.8 / 0 | 4.8 / 13.6 | 10.7 / 20.0 |
| | 518.0 | 505.8 | 505.6 | 506.1 | 502.4 |
| +50 | +6.3 / 13.0 | 5.9 / 10.0 | 6.1 / 0 | 5.6 / 14.0 | 9.3 / 16.0 |
| | 523.6 | 505.7 | 505.0 | 505.0 | |
| 161+05 | +11.9 / 14.0 | 6.0 / 10.8 | 6.7 / 0 | 6.7 / 15.0 | |
| | 524.7 | 505.2 | 504.9 | 505.0 | |
| +32 | +13.0 / 20.0 | 6.5 / 12.0 | 6.8 / 0 | 6.7 / 13.0 | |
| | 527.2 | 504.5 | 504.7 | 504.6 | |
| +50 | +15.5 / 20.8 | 7.2 / 13.3 | 7.0 / 0 | 7.1 / 10.0 | |

Started on rock!

511.70

| | Lt | | ℄ | | Rt |
|---|---|---|---|---|---|
| | 528.9 | | 504.7 | | 504.6 |
| 161+79 | +17.2 | | 7.0 | 504.5 | 7.1 |
| | 20.0 | | 11.8 | 7.2 | 10.0 |
| | | | | 0 | |
| | 528.7 | | 504.5 | 504.8 | 505.0 505.7 |
| 162 | +17.0 | | 7.2 | | 6.7 6.0 |
| | 21.5 | | 11.8 | 6.9 | 7.0 11.0 |
| | | | | 0 | |
| | 528.0 | | 504.4 | 504.2 | 504.7 505.9 |
| +21 | +16.3 | | 7.3 | | 7.5 5.8 |
| | 17.0 | | 11.2 | 7.5 | 5.0 10.0 |

April 24 1936 - Soper-Remmen Isbell

B.M 8.24 509.36 501.12

| | Lt | | ℄ | | Rt |
|---|---|---|---|---|---|
| | 522.7 | 504.1 | 503.9 | 503.9 | 505.3 505.3 |
| 162+50 | +13.3 | 5.3 | | 5.5 | 4.1 4.1 |
| | 15.5 | 13.0 | 5.5 | 2.0 | 4.5 10.0 |
| | | | 0 | | |
| | 507.2 | 505.0 | 504.6 | 504.6 | |
| +80 | 2.2 | 4.4 | | 4.8 | |
| | 16.0 | 14.5 | 4.8 | 10.0 | (End of Excavation) |

T.P. 6.47 502.89

5.03 507.92

(Cont'd. on next page)

Plotted on Roll 1

April 24 1936
Soper
Remmen
Isbell

507.92

| | Lt | | C | Rt |
|---|---|---|---|---|
| | 504.0 | 502.8 | 503.0 | |
| | 3.9 | 5.1 | | |
| 165+40 | 10.0 | 9.6 | 4.9 | |
| | 508.5 | 506.7 | 502.9 | 502.8 |
| | +0.6 | 12. | 5.2 | 5.1 |
| +50 | 13.0 | 10.0 | 8.4 | 10.0 |
| | 507.7 | 503.9 | 503.2 | 502.6 |
| | 0.2 | 4.0 | 4.7 | 5.3 |
| +75 | 11.0 | 10.0 | 0 | 2.5 |
| | 508.6 | 503.7 | 503.5 | 502.4 |
| | +0.7 | 4.2 | 4.4 | 5.5 |
| 166 | 14.6 | 13.8 | 0 | 6.0 |
| | 515.5 | 503.5 | 503.2 | 503.3 | 502.0 |
| | +7.6 | 4.4 | 4.7 | 4.6 | 5.9 |
| +15 | 12.3 | 10.9 | 0 | 5.5 | 8.2 |
| | 519.5 | 503.4 | 503.2 | 502.9 | 502.0 |
| | +11.6 | 4.5 | 4.7 | 5.0 | 5.9 |
| +22 | 13.9 | 10.6 | 0 | 7.5 | 9.0 |
| | 519.2 | 503.0 | 502.9 | 502.7 | 501.6 |
| | +11.3 | 4.9 | 5.0 | 5.2 | 6.3 |
| +50 | 14.0 | 10.7 | 0 | 9.2 | 12.0 |
| | 517.2 | 503.3 | 503.2 | 503.1 | 501.2 |
| | +9.3 | 4.6 | 4.7 | 4.8 | 6.7 |
| 167+00 | 13.3 | 11.0 | 0 | 8.3 | 10.6 |

plates on
Rear

507.92

| | Lt | | Rt |
|---|---|---|---|
| | 516.5 | 503.6 | 501.4 |
| 167+39 | +8.6 | 4.3 | 6.5 |
| | 14.0 | 11.0 | 10.4 |
| | | 503.3 | |
| | | 4.6 | |
| | | 0 | |
| | 509.9 | 502.8 | 501.6 |
| +65 | +2.0 | 5.1 | 6.3 |
| | 11.0 | 9.3 | 9.5 |
| | | 502.6 | |
| | | 5.3 | |
| | | 0 | |
| | 501.5 | 501.0 | |
| +93 | 6.4 | 6.9 | |
| | 10.0 | 0 | |

check on B.M.# 22 — 5.36 — 502.56 — Rec. Elev. 502.60

Bottom of #1 fall N

April 24-1936
Soper T
Rimmer - rod
Isbell - tape

Final x-section for Class 2 excavation

Sta. 27+50 – 30+00

| | Lt | ℄ | Rt |
|---|---|---|---|
| 27+50 | +6.8 / 12.6 | 0.0 / 10.4 | 0.0 |
| +75 | +7.8 / 11.9 | 0.0 / 10.7 | 0.0 |
| 28+00 | +6.2 / 11.7 | 0.0 / 10.3 | 0.0 |
| +25 | +4.3 / 11.2 | 0.0 / 10.6 | 0.0 |
| +50 | +3.1 / 14.0 | 0.0 / 11.0 | 0.0 |
| +75 | 0.0 / 10.0 | | 0.0 |
| 29+00 | +8.4 / 12.4 | +5.0 / 11.0 | 0.0 |
| +25 | +9.6 / 13.0 | 0.0 / 11.7 | 0.0 |
| +50 | +9.2 / 12.3 | 0.0 / 10.9 | 0.0 |
| +75 | +12.9 / 13.2 | 0.0 / 10.5 | 0.0 |
| 30+00 | | 0.0 / 3.0 | 0.0 |

Accepted as checked & noted

5-3-4

W. W.

# IMPROVED TABLES
## AND
# INFORMATION

## DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

**Roadway 16 feet wide. Side Slopes 1 on 1½**

**For Single Track Embankment.**

| 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 | 25.2 | 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)÷2 or 2 ft. added to 41.9 =43.9. For slopes of 1 on 1 see inside of front cover.