

685

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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1500' R
def. 1 = 1.146
" 50 = 0.57, 300

This Field Book is manufactured of a High Grade 50% Rag Paper having a WATER RESISTING SURFACE, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

Indexed to p 35 - 2/8/46
" " p 56 - 2/14/46 mod
" " p 63 - 4/9/46 mod
" " p 76 - 7/15/46 mod
" " 78 - 9/23/46 mod

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TIES TO B.M.'S MISSION GORSE
USED IN FAIR CHILD AERIAL MAP 77-78 ✓

Re-x Sec of East Tunnel Portal

CHECK LEVELS - SANTEE - MISSION GORGE

| | | | | |
|-------------|------|--------|-------|--------|
| B.M. | 4.43 | 373.08 | | 368.65 |
| TP | 2.32 | 367.78 | 7.62 | 365.46 |
| TP | 0.71 | 355.59 | 12.90 | 354.88 |
| TP | 2.46 | 348.74 | 9.31 | 346.28 |
| TP | 3.12 | 344.98 | 6.88 | 341.86 |
| TP | 4.04 | 343.11 | 5.91 | 339.07 |
| TP | 4.12 | 341.71 | 5.52 | 337.59 |
| TP | 4.37 | 340.63 | 5.45 | 336.26 |
| TP | 2.84 | 336.93 | 6.54 | 334.09 |
| TP | 2.10 | 333.29 | 5.74 | 331.19 |
| TP | 5.21 | 332.73 | 5.77 | 327.52 |
| TP | 1.91 | 330.31 | 4.33 | 328.40 |
| TP | 5.42 | 330.96 | 4.77 | 325.54 |
| TP | 2.86 | 330.90 | 2.92 | 328.04 |
| ck. on B.M. | | | 4.10 | 326.80 |
| TP | 4.57 | 331.37 | | |
| TP | 2.68 | 329.21 | 4.84 | 326.53 |
| TP | 1.81 | 323.03 | 7.99 | 321.22 |
| TP | 2.75 | 322.00 | 3.78 | 319.25 |
| TP | 5.62 | 322.02 | 5.60 | 316.40 |
| TP | 1.80 | 318.07 | 5.75 | 316.27 |
| TP | 3.49 | 314.44 | 7.12 | 310.95 |

Hot-Humid-Heat waves bad. Aug 21 1945

300-400' sights

Soper - nites

King - x

Phillips - red

U.S.C. & G.S. B.M. R-61 1927 A standard disk set in top of concrete post at Santee. 60' west of E of Magnolia near site of old S.D. & A.Ry. station.

This B.M. has been tied into a U.S.C. & G.S. B.M. - T61 1927 at Lakeside. Also tied to County B.M. #21 at Lakeside which was used as basis for all work at El Capitan, San Vicente and vicinity. Sec. F.B. # 680/45-46.

Also tied indirectly to U.S.C. & G.S. B.M. at Murray Dam. F.B. 680-63

Q.E.D. So U.S.C. & G. and U.S.C. & S. use the same datum, at least in this vicinity. M.F.S. Aug. 23, '45

U.S.C. & G.S. B.M. W 321 1935 A standard disk set in top of concrete post, 2 miles E west of Santee Res. elev 326.599

If corrected here, W 321 and X 321 would have checked by 0.03

| | | | | |
|------------|------|--------|-------|--------|
| | | 314.44 | | |
| TP | 5.06 | 314.49 | 5.01 | 309.43 |
| TP | 7.08 | 319.99 | 1.58 | 312.91 |
| TP | 9.46 | 326.12 | 3.33 | 316.66 |
| TP | 9.94 | 335.56 | 0.50 | 325.62 |
| TP | 8.28 | 342.06 | 1.78 | 333.78 |
| TP | 8.53 | 349.54 | 1.05 | 341.01 |
| TP | 8.42 | 357.42 | 0.54 | 349.00 |
| TP | 1.38 | 347.87 | 10.93 | 346.49 |
| TP | 0.61 | 340.69 | 7.79 | 340.08 |
| TP | 5.63 | 338.94 | 7.38 | 333.31 |
| ck on B.M. | | | 1.21 | 337.73 |

U.S.C. & G.S.B.M. X 321 1935 A standard disk set in top of concrete post 4 miles west of Santee Rec. elev 337.497

| | | | | |
|------|-------|----------------------|-------|-----------------------|
| B.M. | 0.16 | 337.66 | | 337.50 |
| TP | 0.60 | 329.79 ⁶ | 11.47 | 326.19 |
| TP | 1.57 | 318.55 ¹⁶ | 11.81 | 317.98 ¹⁴ |
| TP | 0.96 | 341.61 ⁰⁸ | 8.90 | 310.65 ⁰⁷ |
| TP | 0.60 | 304.71 ⁰¹ | 7.50 | 304.11 ⁰¹ |
| TP | 3.87 | 298.10 ⁹⁵ | 10.48 | 297.23 ⁹¹ |
| TP | 12.01 | 307.82 ⁰¹ | 5.29 | 292.81 ⁸⁹ |
| TP | 3.73 | 309.48 | 1.07 | 303.75 ³⁰⁰ |
| TP | 12.98 | 317.19 | 0.27 | 309.21 |
| TP | 0.91 | 315.15 ¹⁷ | 0.95 | 316.24 |
| TP | 0.57 | 322.70 ⁰⁴ | 13.02 | 322.13 ⁰⁴ |
| TP | 0.80 | 295.12 ⁹⁷ | 8.38 | 294.32 ⁹⁶ |

Hot- Aug 22 1945
Soper
King
Phillips

| | | | | |
|------------|-------|-----------------------|-------|-----------------------|
| | | 297.12 | | |
| | | 295.12 | | |
| TP | 0.91 | ^{87.} 285.60 | 10.43 | ^{36.} 284.69 |
| TP | 0.10 | ^{77.} 275.72 | 9.98 | ^{77.} 275.62 |
| TP | 4.66 | 273.83 | 8.55 | 269.17 |
| TP | 0.82 | 272.57 | 2.08 | 271.75 |
| TP | 1.05 | 264.58 | 9.04 | 263.53 |
| TP | 3.66 | 263.82 | 4.42 | 260.16 |
| TP | 10.80 | 268.52 | 6.10 | 257.72 |
| TP | 4.91 | 262.46 | 10.97 | 257.55 |
| TP | 0.23 | 250.44 | 12.25 | 250.21 |
| TP | 5.06 | 243.48 | 12.02 | 238.42 |
| TP | 9.49 | 250.31 | 2.66 | 240.82 |
| TP | 10.00 | 259.98 | 0.33 | 249.98 |
| TP | 3.43 | 258.32 | 5.09 | 254.89 |
| TP | 2.23 | 257.46 | 3.09 | 255.23 |
| TP | 10.07 | 263.19 | 4.34 | 253.12 |
| TP | 10.05 | 271.56 | 1.68 | 261.51 |
| TP | 12.41 | 283.40 | 0.57 | 270.99 |
| TP | 8.85 | 292.17 | 0.08 | 283.32 |
| TP | 11.98 | 304.04 | 0.11 | 292.06 |
| TP | 10.55 | 314.44 | 0.15 | 303.89 |
| TP | 9.87 | 324.10 | 0.21 | 314.23 |
| TP | 11.33 | 334.92 | 0.51 | 323.59 |
| ck on B.M. | | | 2.97 | 331.95 |

U.S.G.S.B.M. H 39 1938 A standard disk set in top
of concrete post 6.3 miles West of Sanjee, Rec. elev. 331.888

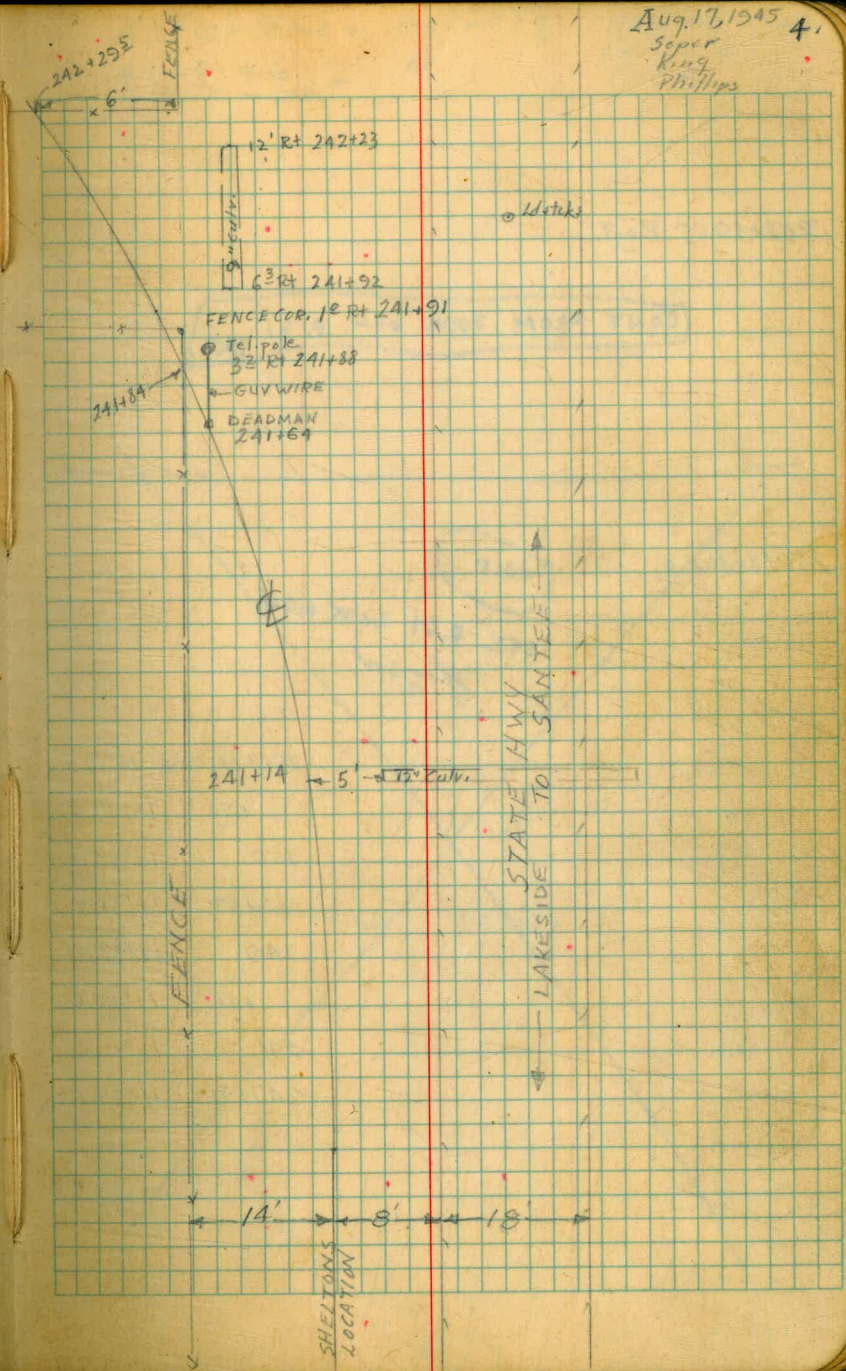
Aug. 17, 1945
 Soper
 King
 Phillips

EL MONTE PIPELINE SURVEY - FROM
 SHELTONS LOCATION, EAST OF SANTEE
 TO GROSSMONT TUNNEL

VOID
 SEE P. 61 BOOK 694 Cont'd. Page 6
 Key for

| | |
|-----|----------|
| 247 | 10° 46.7 |
| +50 | 10° 03.7 |
| 246 | 9° 30.8 |
| +50 | 8° 37.8 |
| 245 | 7° 54.8 |
| +50 | 7° 16.8 |
| 244 | 6° 28.9 |
| +50 | 5° 45.9 |
| 243 | 5° 02.9 |
| +50 | 4° 20.0 |
| 242 | 3° 37.0 |
| +50 | 2° 54.0 |
| 241 | 2° 11.0 |
| +50 | 1° 28.1 |
| 240 | 0° 45.1 |

239+47⁵⁰ B.C. (BEGIN LINE CHANGE)
 582.31
 24529.81
 SHELTONS LOCATION



252+59.65 P.O.T.

CONT FROM BOOK 694, P. 61

250+80.80 E.C.

VOID

SEE P. 61 BOOK 694
J. Keyser

250+80.80 E.C. 16°14.0

+50 15°47.5

250 15°04.5

+50 14°21.5

249 13°38.6

+50 12°55.6

248 12°12.6

247+50 11°29.7

Reference POINTS
4-29-46
CLEAR-HOT

Nelson T 5
Leonard
RICE

GRAIN FIELD AND PASTURE

2" WATER LINE 249+83

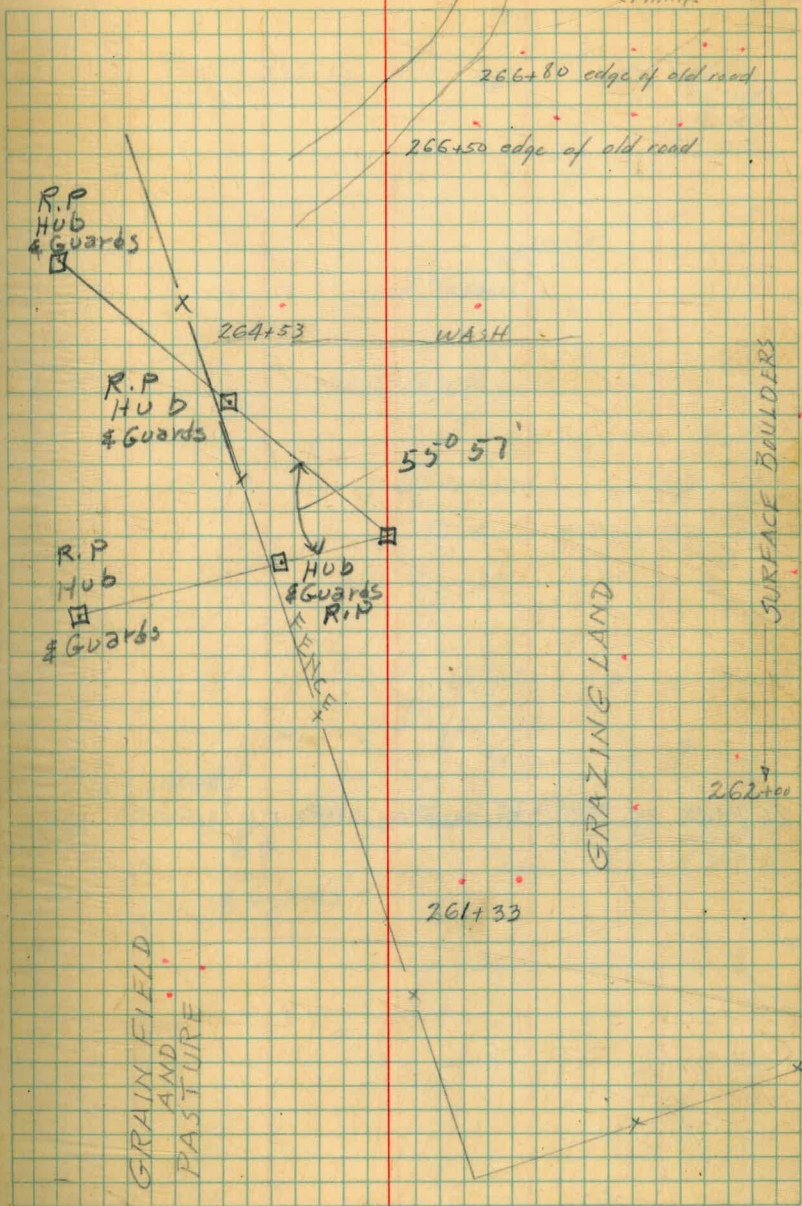
TO PUMP

Aug 23, 1945

Super
King
Phillips

A C

263+45.80 P.D.T.



E

UNUSED LAND

276+83 ←

42'



WELL
BEING
DUG
6' dia.

FENCE

* 274+00

272+00
A

271+15 - IN WASH

270+39 - in small wash

270+00 - in small wash

267+82 edge of old road

267+66 edge of old road

SURFACE BOUNDARY

R.P.
HUB & GUARDS

50.0

R.P.
HUB
& GUARDS

50.0

75.0' →

R.P.
HUB
& GUARDS

GRAZING LAND

267+46, 25 P.O.T. IN SADDLE. = Pt#2 F.B. 680-65

280+00 = P.O.T (Plowed out - Nelson 4-25-46)

279+25. P.O.T

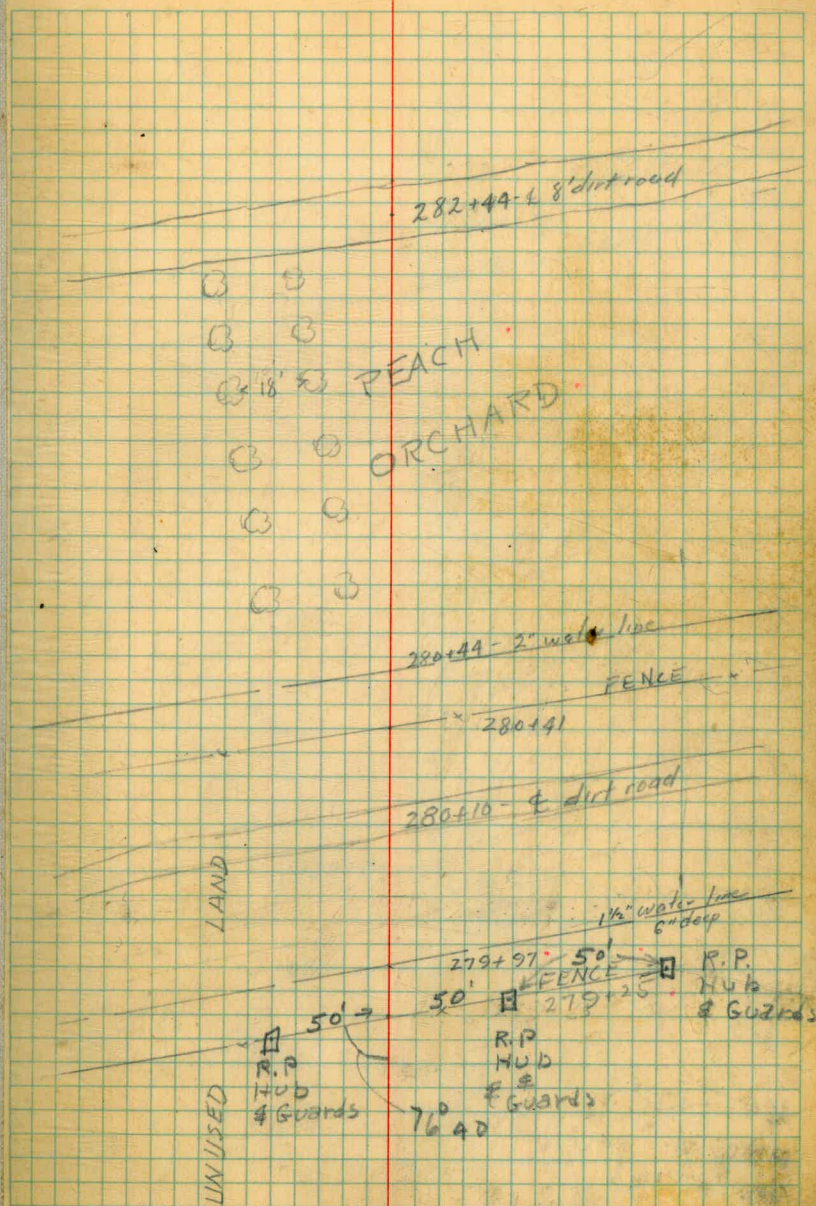
↑
on plants as 279+26²³

measures in field

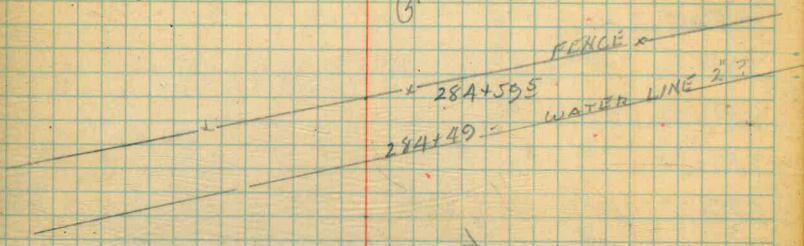
as 279+26²³

Stake MKd 279+25

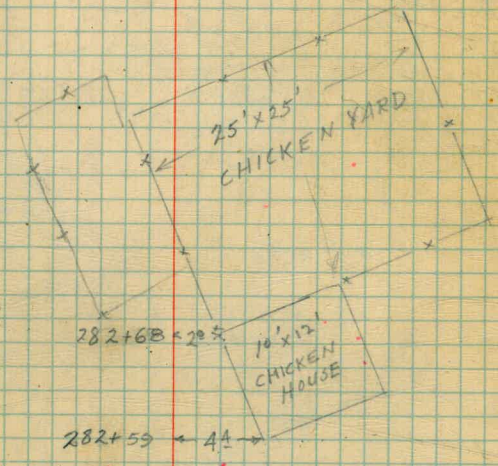
Nelson 10-11-46



GARDEN



GARDEN



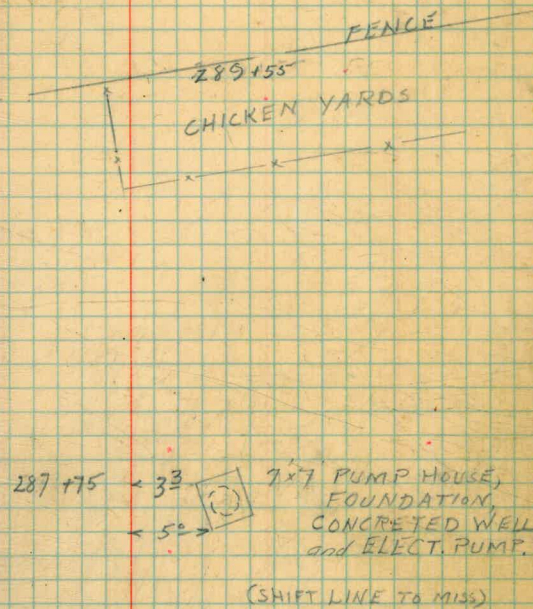
6-9-47.

LEONARD
NIGROW
FARM.

PIPE LINE CURVED AROUND WELL AT STATION 287+75
BY CONTRACTOR, BY MOVING 10' OFFSET HUBS EAST AS
LISTED BELOW.

| | | |
|--------|------------|----------------------------------|
| 290+00 | NO OFFSET. | END OF CURVE. |
| 289+50 | 10' | " TO EAST. |
| 289+00 | 20' | " " " |
| 288+50 | 30' | " " " |
| 288+00 | 40' | " " " |
| 287+75 | 45' | " " " (ACTUAL DISTANCE FROM (E)) |
| 287+50 | 40' | " " " |
| 287+00 | 30' | " " " |
| 286+50 | 20' | " " " |
| 286+00 | 10' | " " " |
| 285+50 | NO | " - BEGINNING OF CURVE. |

NO CROPS

NO CROPS - POSSIBLY USED
FOR CHICKEN RUNS

OIL SURFACED ROAD

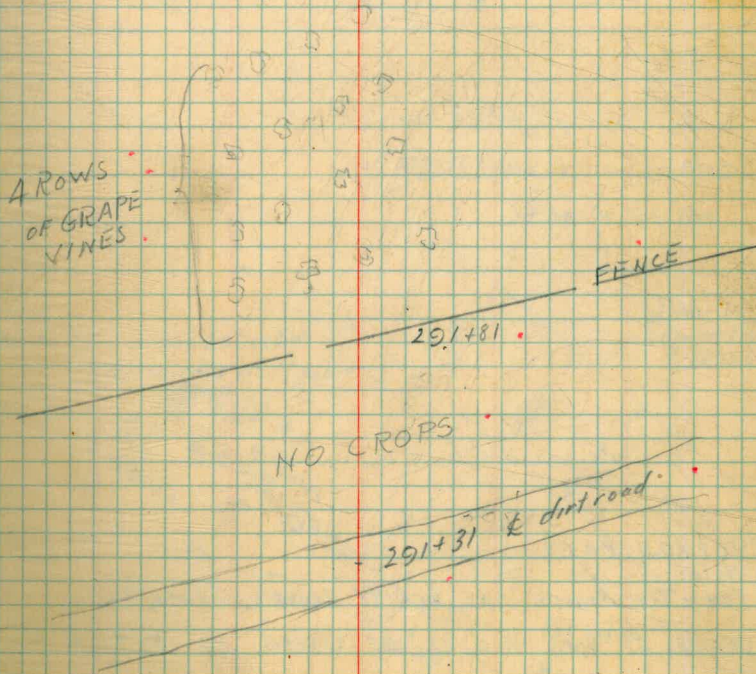
287+36 FENCE

287+27

287+15

286+90 WATER LINE

GARDEN

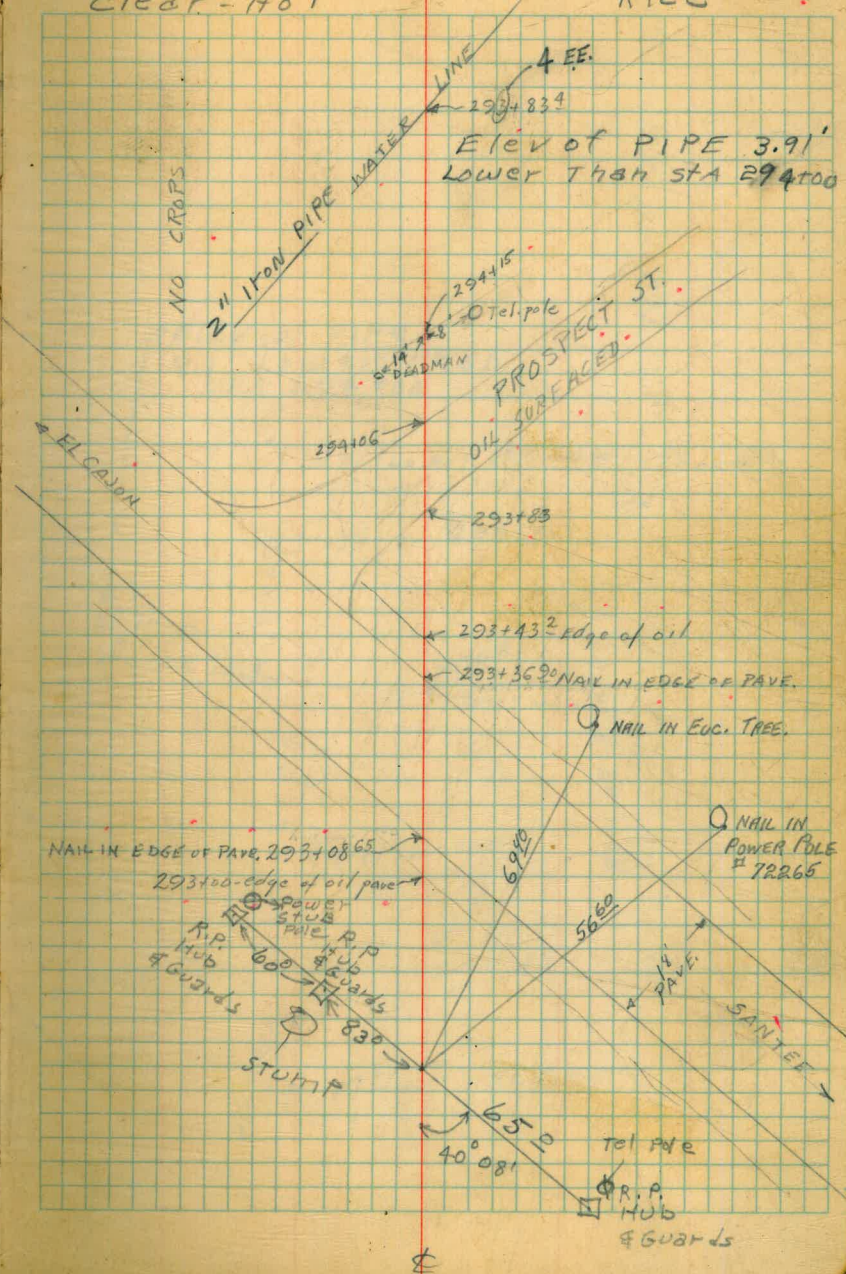


19
 37
 57.9
 188
 10.0
 1.4
 371
 8.1

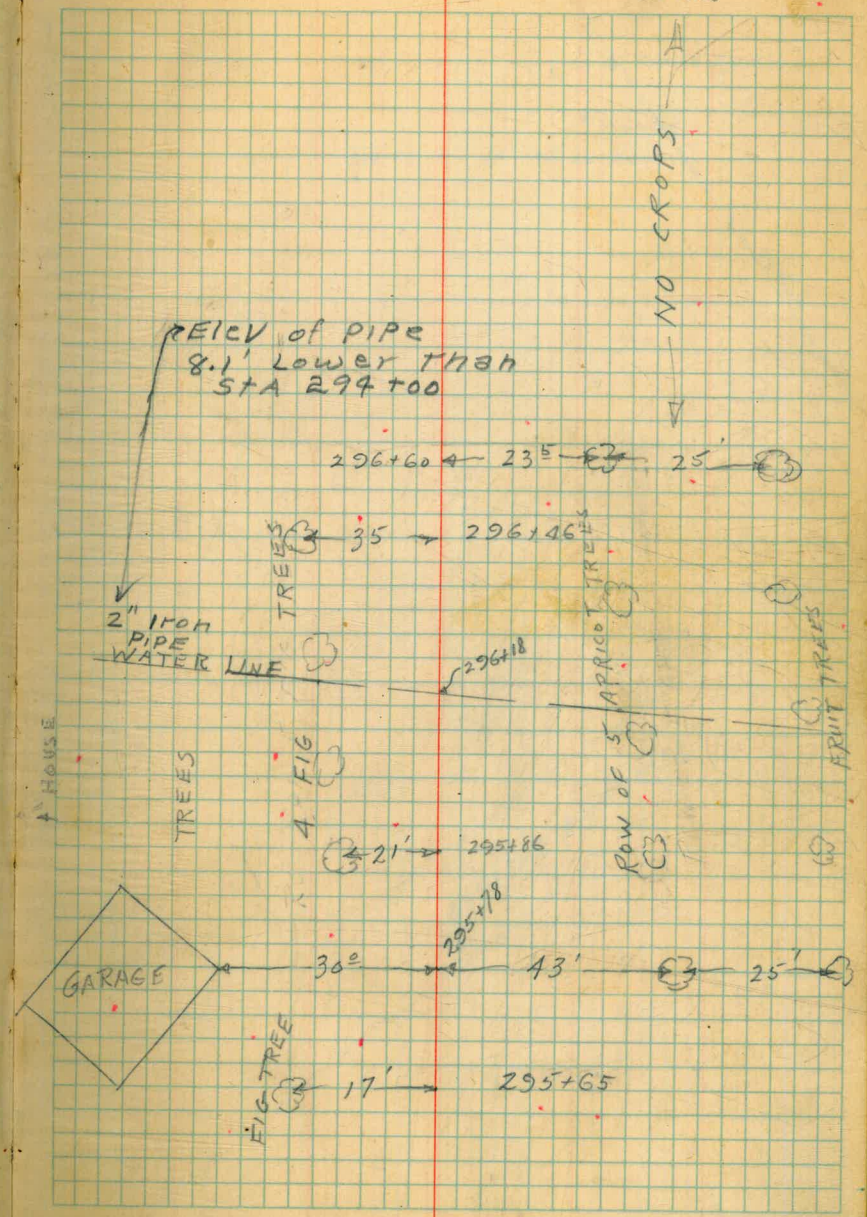
292+80.11 P.O.T.
 NOTE:
 CHAIN TIE POINTS SET 6-6-47. LEONARD, NIENOW, FARR.
 ORIGINAL R.P. HUBS WILL BE DESTROYED BY DETOUR ROAD.

Reference-Points
 4-25-46
 CLEAR-HOT

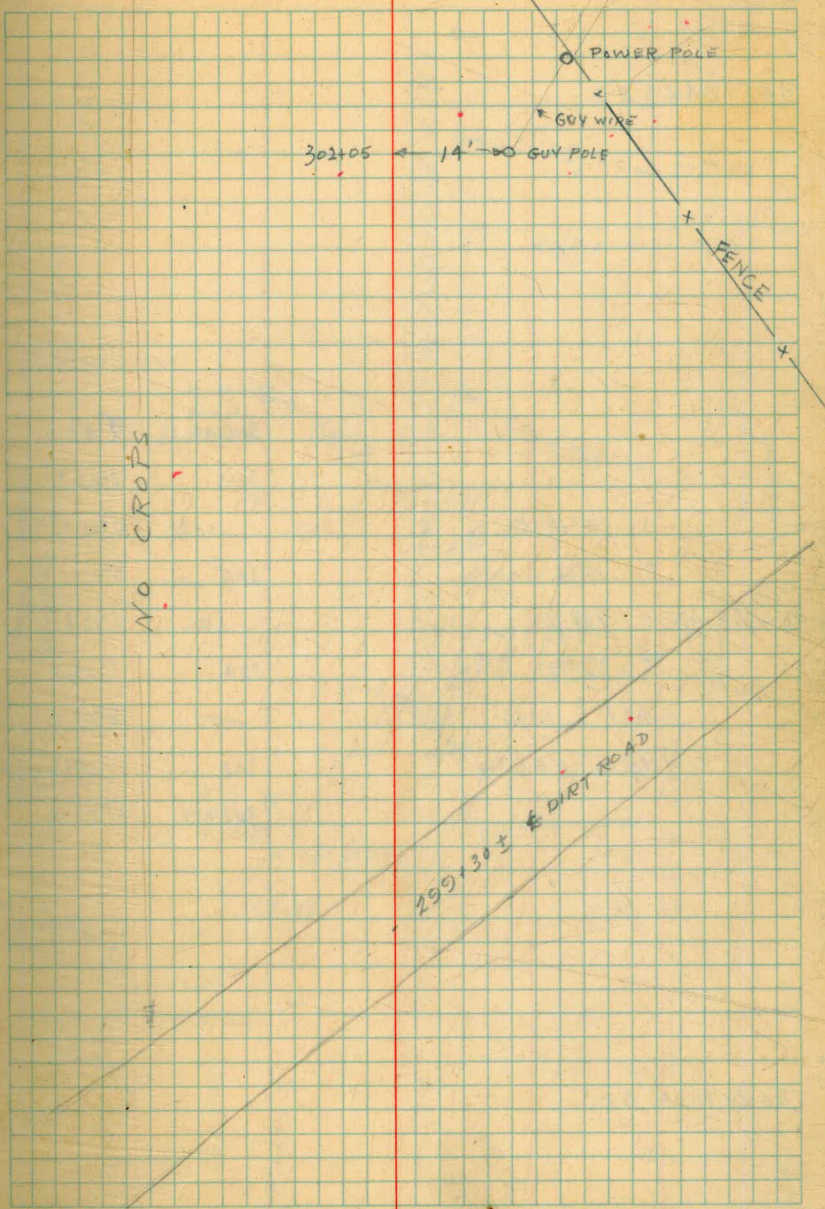
Nelson F 12
 Leonard
 Rice



AUG. 27, 1945 13
SOPER
KING
PHILLIPS



A



NO CROPS

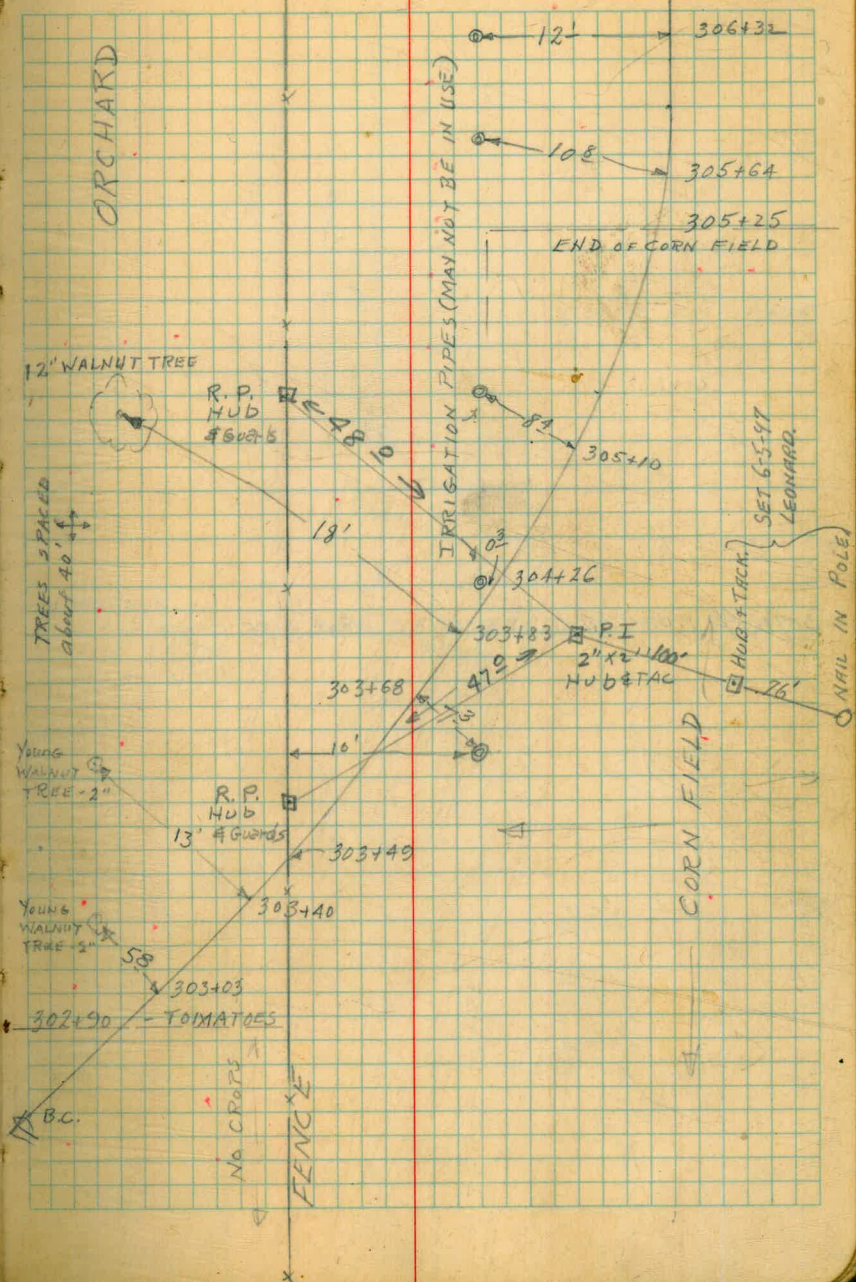
299+30± & DIRT ROAD

306+04.63 E.C.

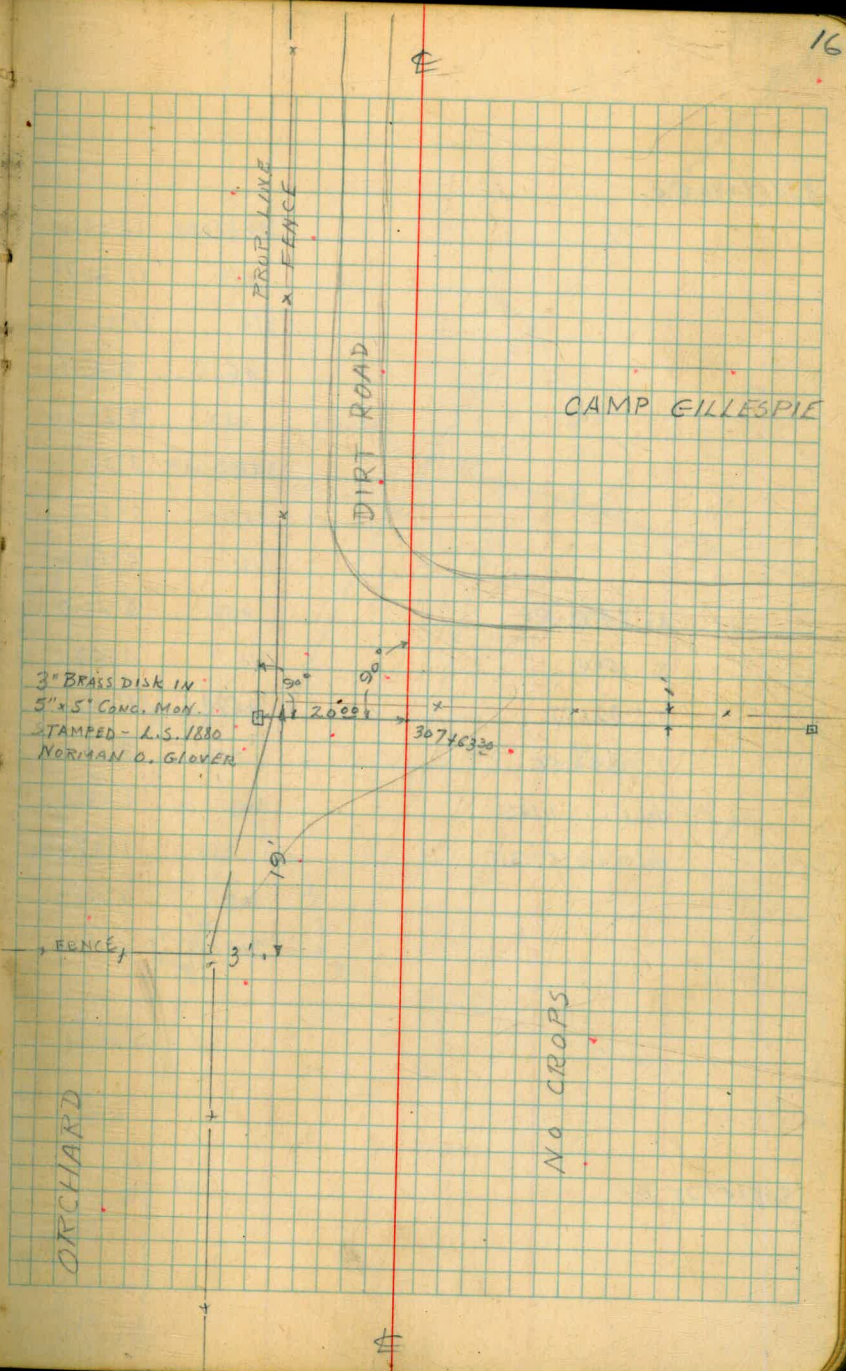
$\Delta = 14^{\circ}18'44''$
 $R = 1500$
 P.I 304+18.42 $T = 188.16$
 $L = 374.37$
 $def. 1' = 1.146$
 $def. 50' = 0^{\circ}57.300$

| | |
|-----------|--------|
| 306+04.63 | 7°09.0 |
| 306 | 7°03.7 |
| +50 | 6°06.4 |
| 305 | 5°09.1 |
| +50 | 4°11.8 |
| 304 | 3°14.5 |
| +50 | 2°17.2 |
| 303 | 1°19.9 |
| 302+50 | 0°22.6 |

302+30.26 B.C.



307463³⁰ P.O.T. - ON CAMP EILLESPIE PROP. LINE



3" BRASS DISK IN
5" x 5" CONG. MON.
STAMPED - L.S. 1880
NORMAN O. GLOVER

FENCE

ORCHARD

NO CROPS

CAMP EILLESPIE

DIRT ROAD

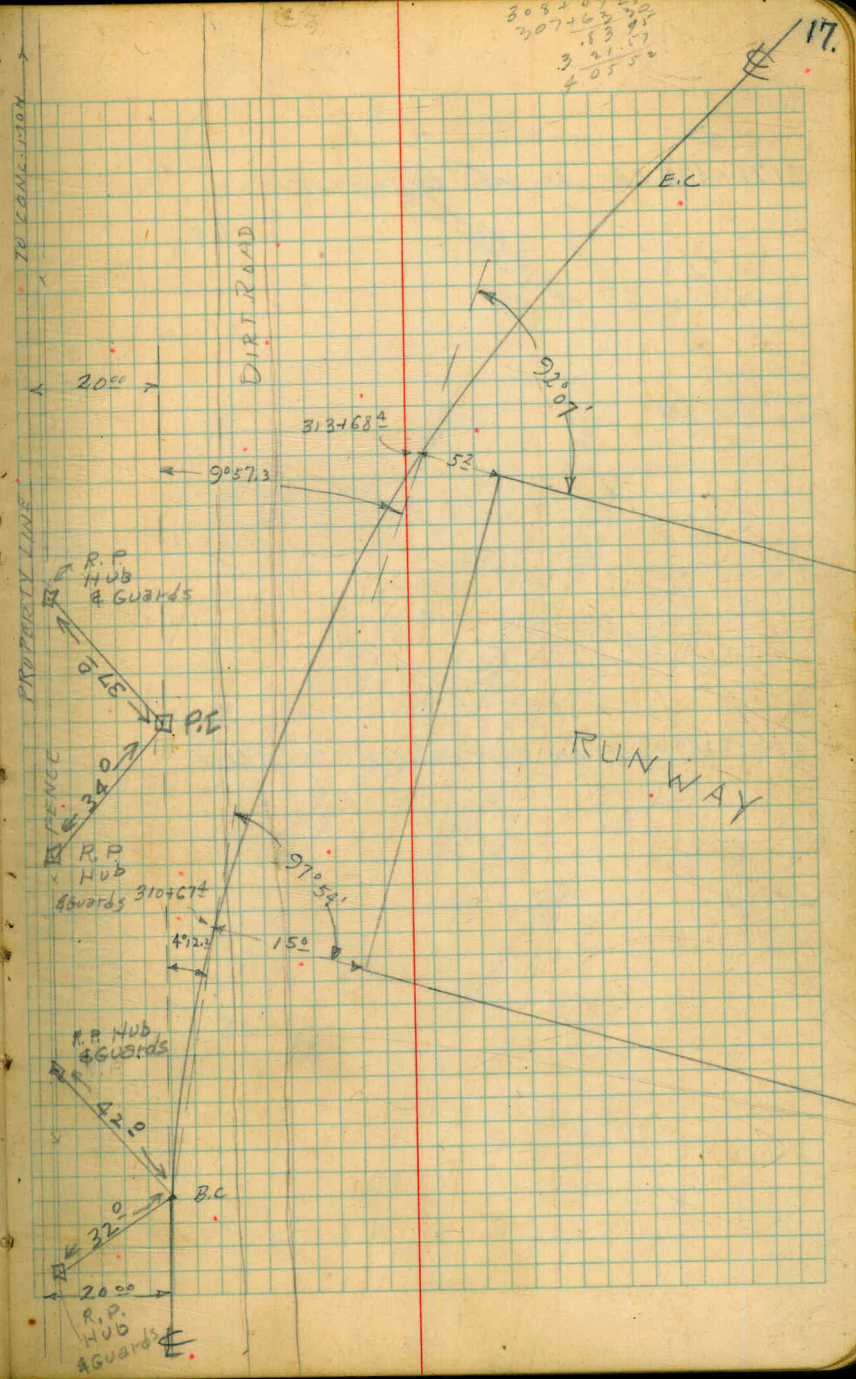
PROP. LINE
FENCE

314+80.80 E.C.

| | |
|------------------|---------|
| 314+80.80 | 12°06.0 |
| +50. | 11°30.7 |
| 314 | 10°33.4 |
| +68 ^A | 9°57.3 |
| +50 | 9°36.1 |
| 313 | 8°38.8 |
| +50 | 7°41.5 |
| 312 | 6°44.2 |
| +50 | 5°46.9 |
| 311 | 4°49.6 |
| +67 ^A | 4°12.2 |
| +50 | 3°52.3 |
| 310 | 2°55.0 |
| +50 | 1°57.7 |
| 309 | 1°00.4 |
| 308+50 | 0°03.1 |

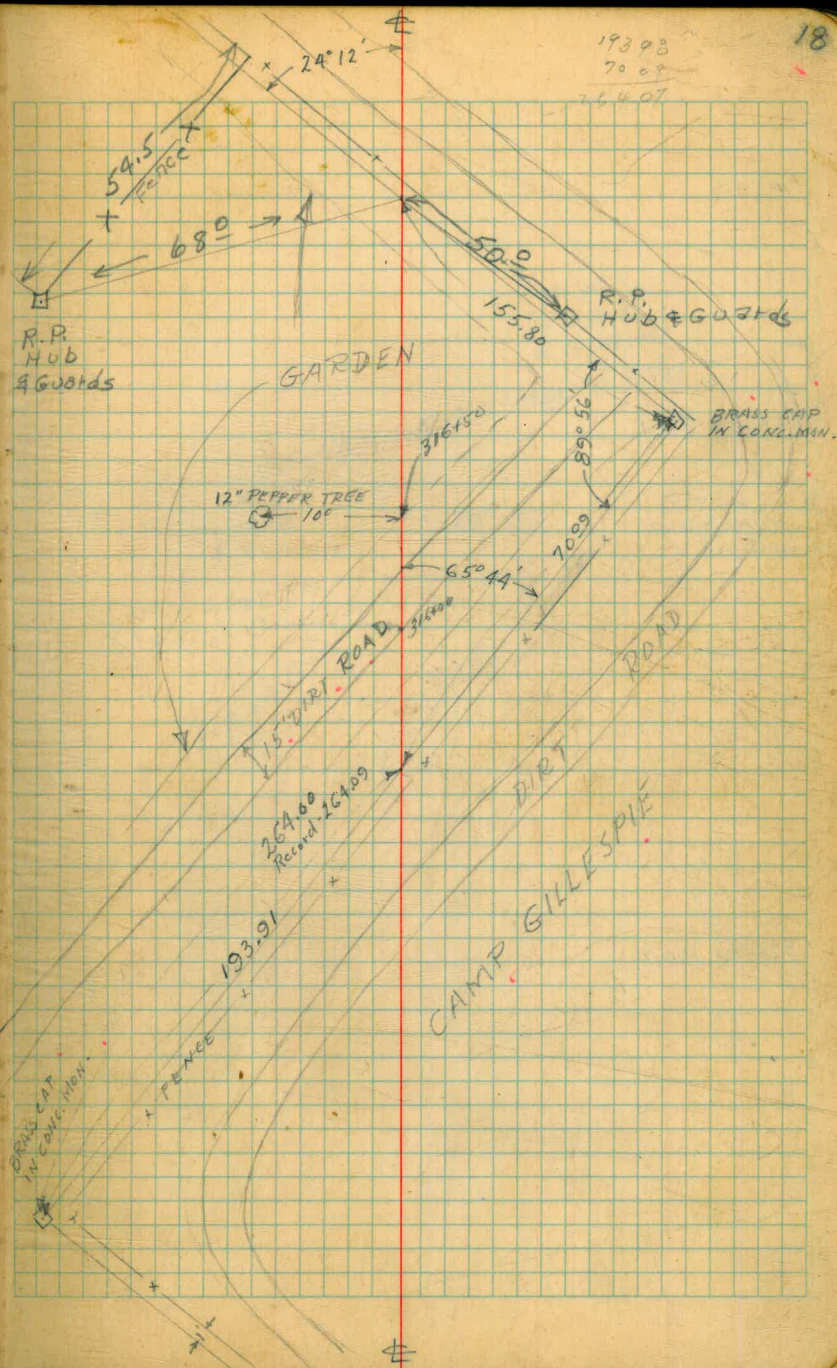
A = 24°12' RT
 R = 1500
 T = 321.57
 L = 633.55
 def. 1' = 1.146
 def. 50' = 0°57.300

308+47.25 B.C.



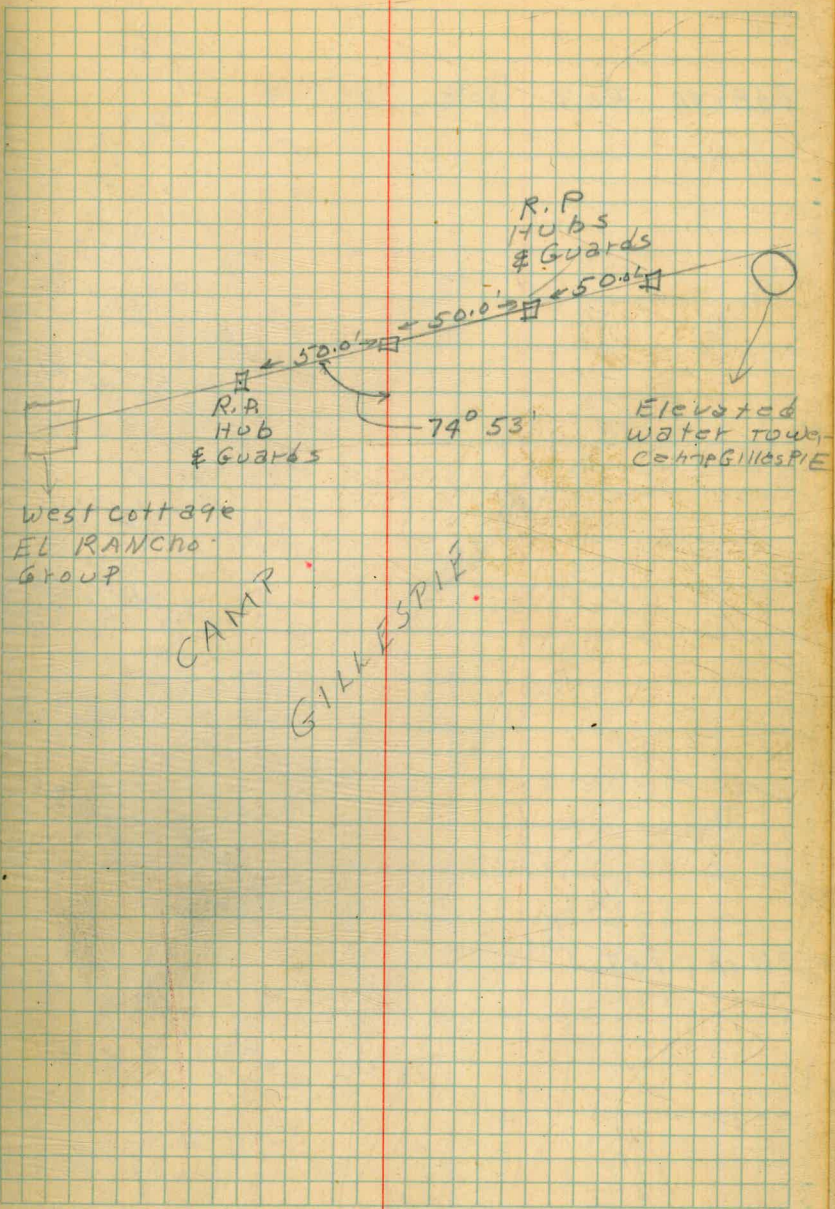
317+54.74 P.O.T. ON CAMP GILLESPIE PROP. LINE

315+83.80 P.O.T. ON CAMP GILLESPIE PROP. LINE



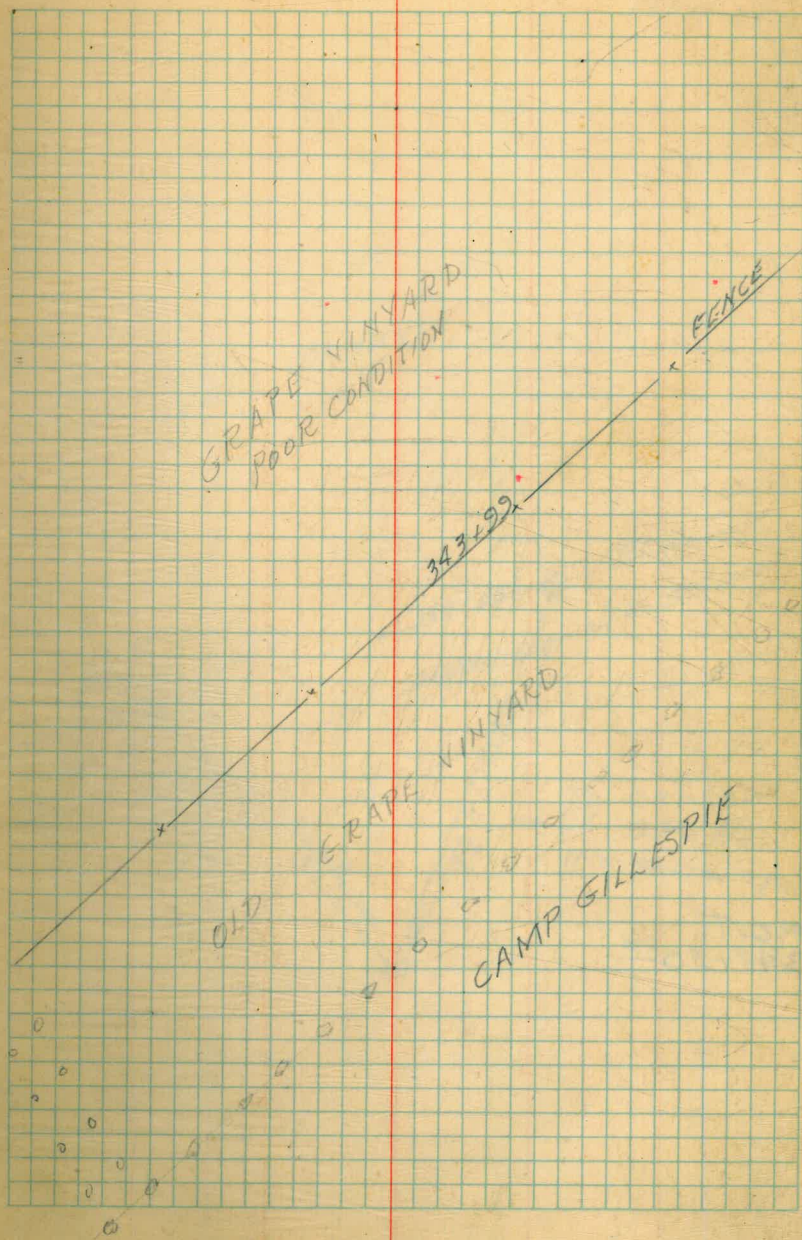
333+00 P.O.T.

325+00 P.O.T.



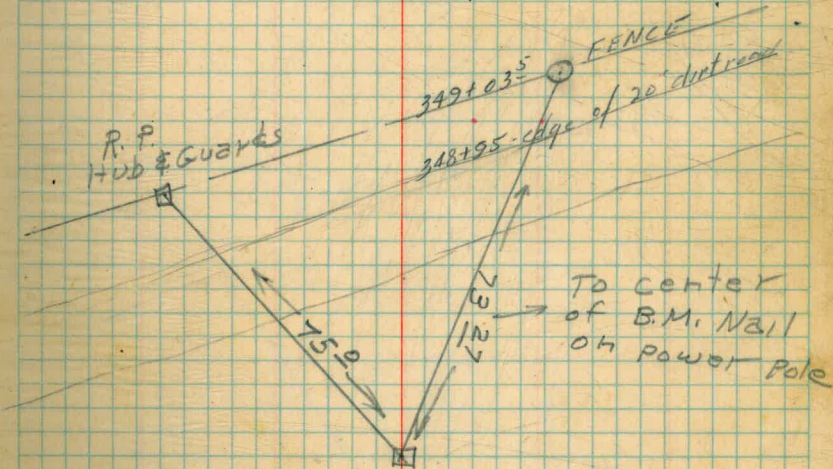
348+50 P.O.T (see Page 21)

342+00 P.O.T.



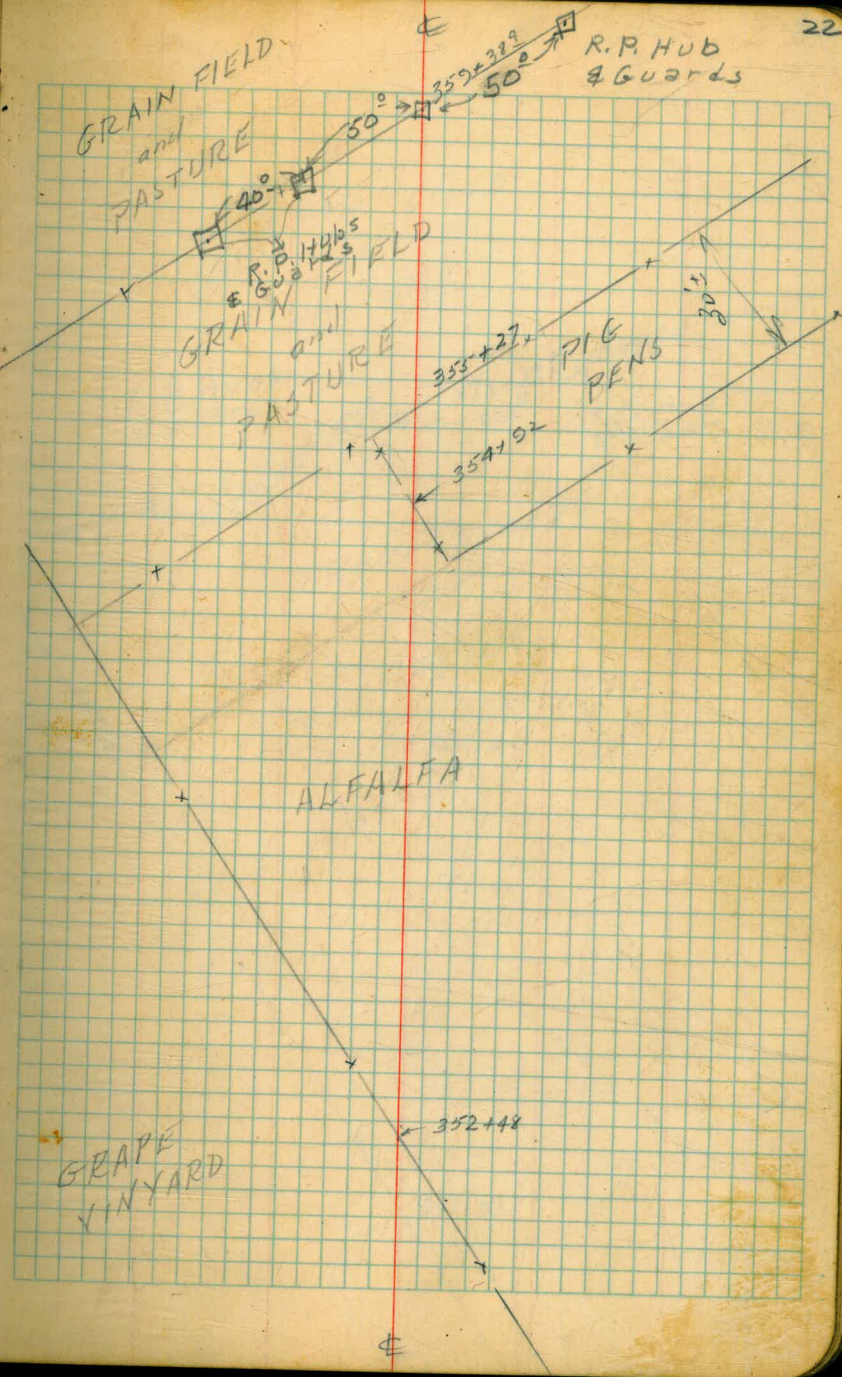
P.O.T
348+50⁰⁰

GRAPE VINYARD

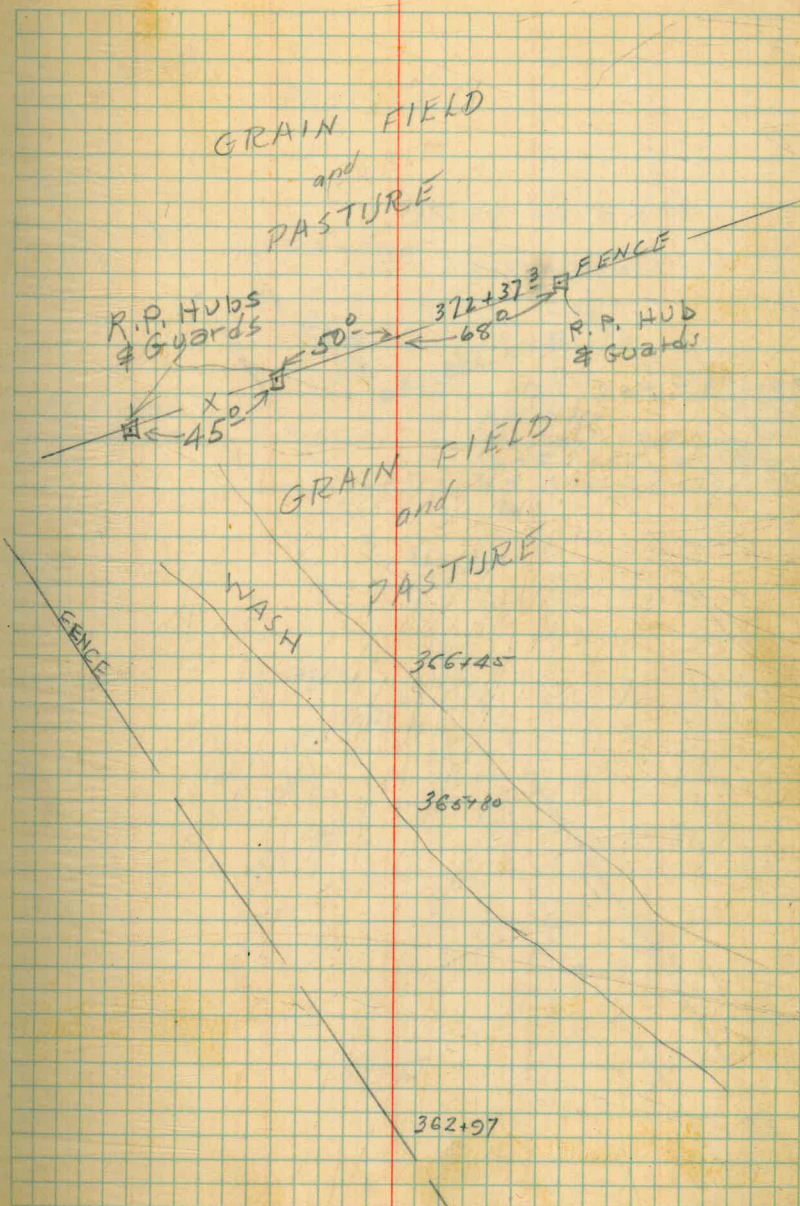


P.O.T
359+38.9 (9)

355+31.90 P.O.T.



372+373a P.O.T.



PASTURE

382+65 edge of ditch

WATER-FROM

382+50 edge ditch

EL CAJON SEWAGE PLANT

399

REF Nail
IN EUCALYPTUS
TREE

REF Nail
IN EUCALYPTUS TREE
(FAR TREE OF THREE
IN GROUP CLOSEST TO
☐)

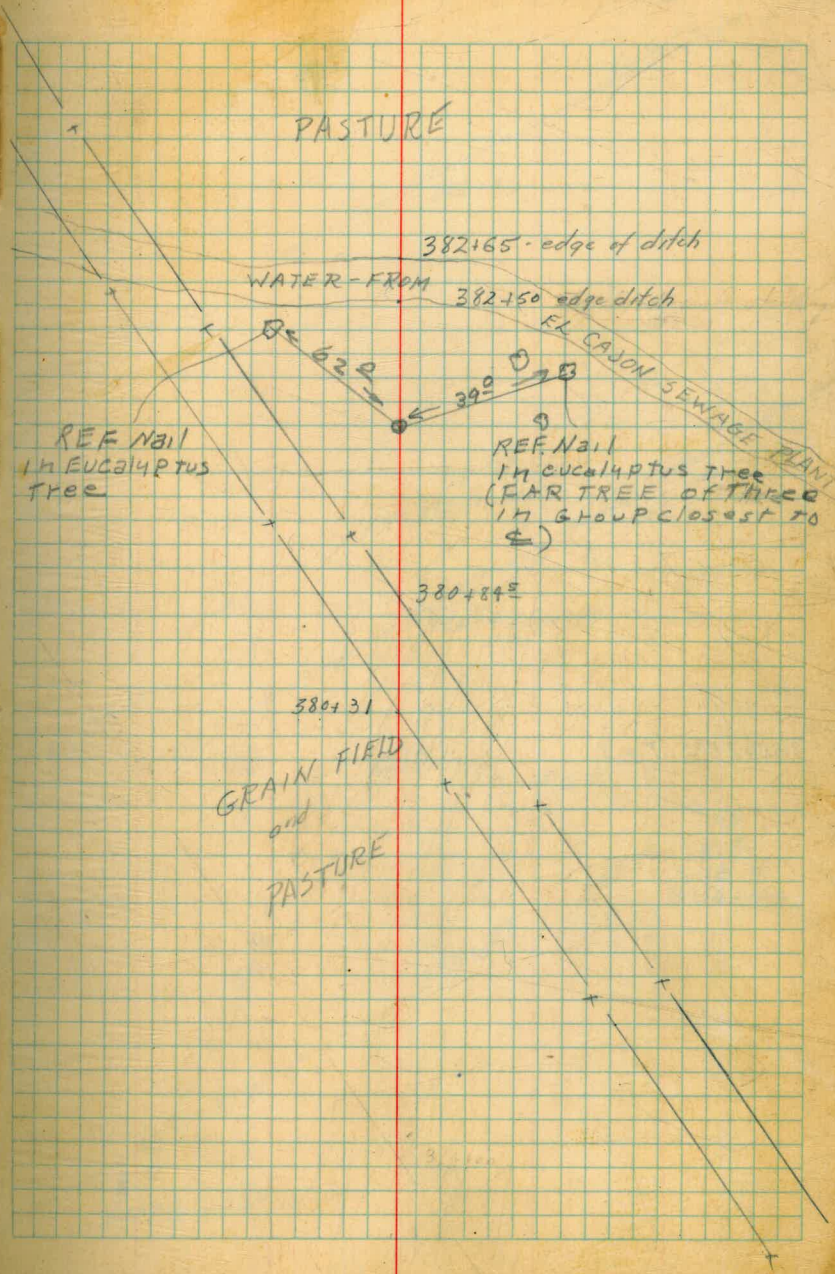
380+84E

380+31

GRAIN FIELD
OR
PASTURE

PASTURE

381+13⁰² P.O.T



4" water line

FENCE

386+53

385+71.30

385+49.30 edge conc. pave.

BROADWAY

50.0'

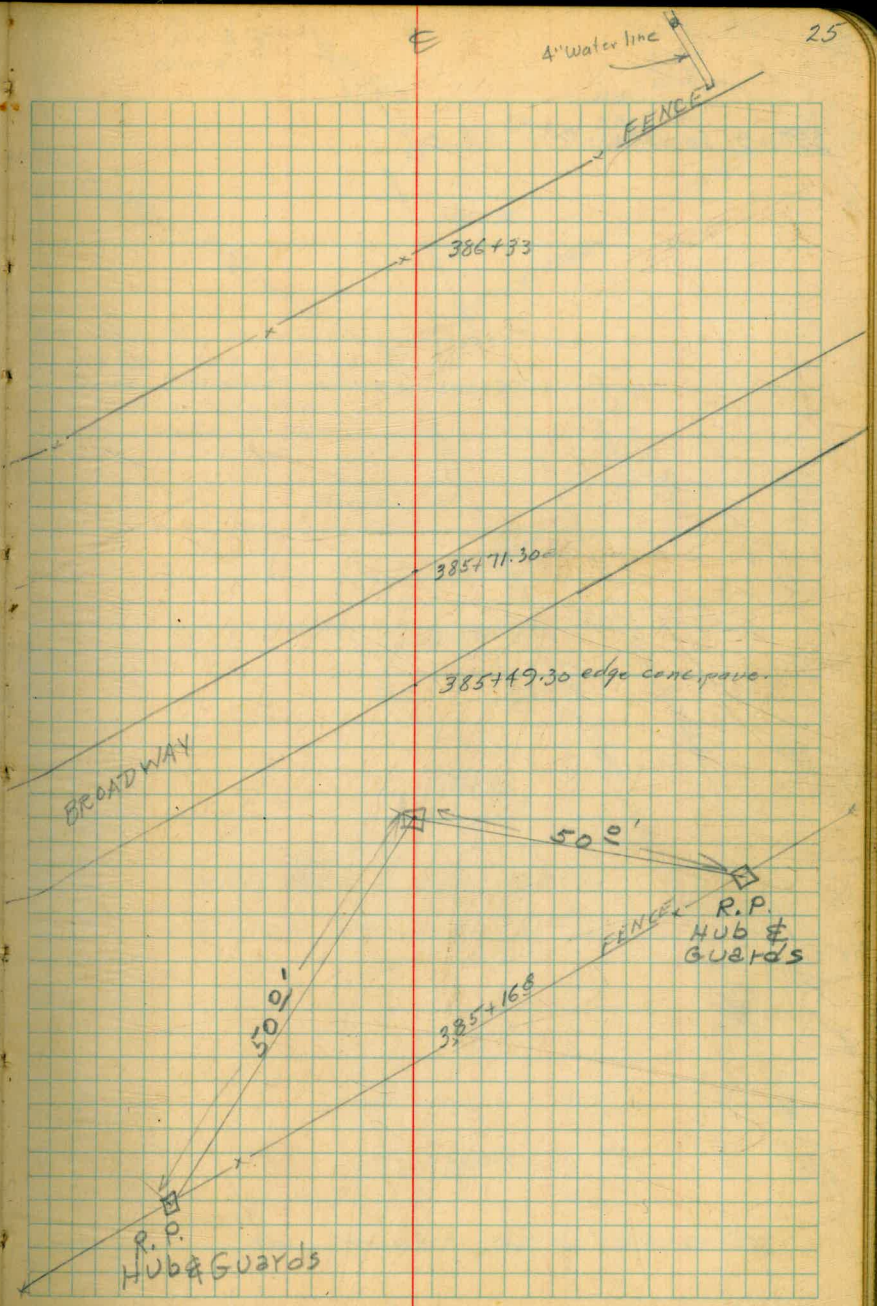
R.P. HUB & GUARDS

385+168

50.0'

R.P. HUB & GUARDS

385+25.00 P.O.T

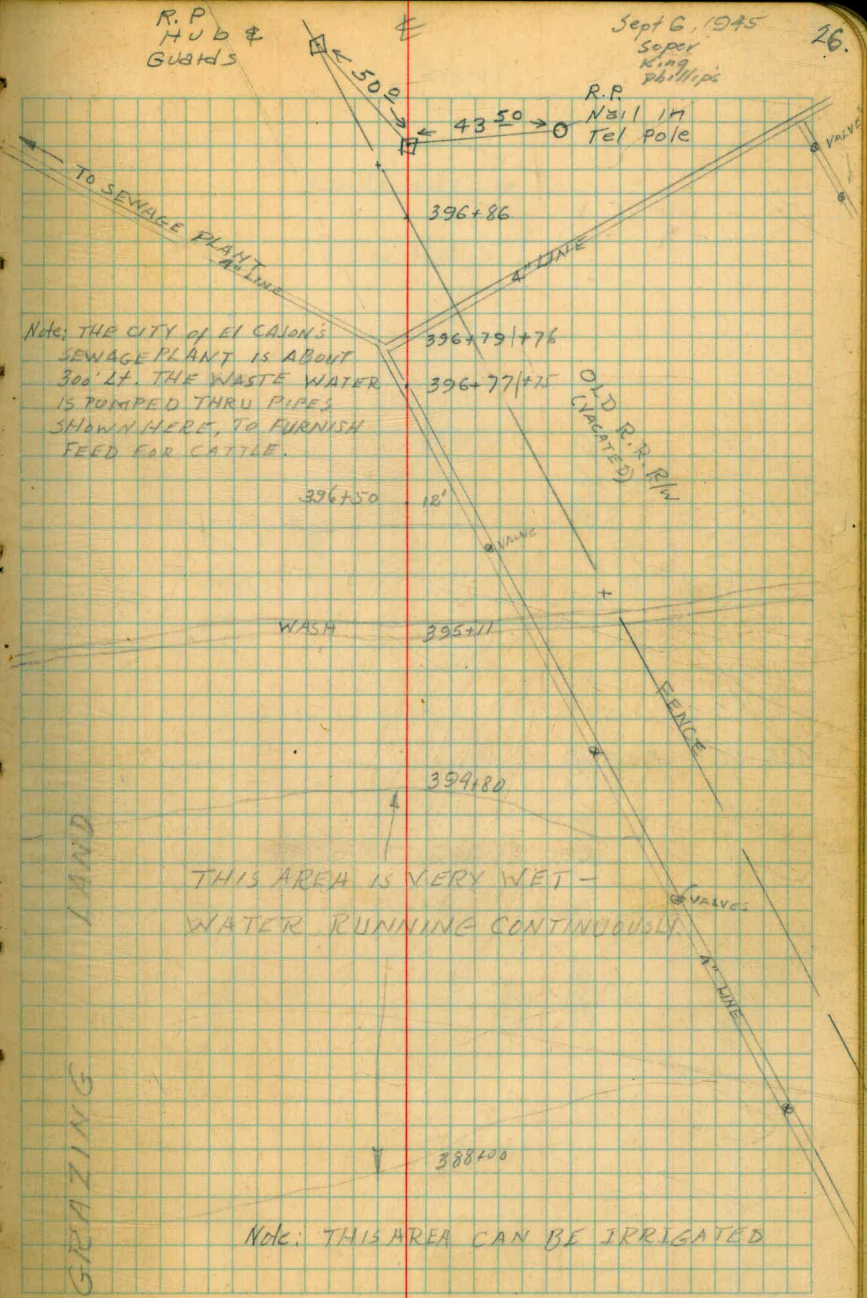


396+91.20 P.O.T

R.P
HUB &
GUTHS

Sept 6, 1945
Super
King
ph. 11/12

26.



Note: THE CITY OF EL CAJON'S
SEWAGE PLANT IS ABOUT
300' LT. THE WASTE WATER
IS PUMPED THRU PIPES
SHOWN HERE, TO FURNISH
FEED FOR CATTLE.

THIS AREA IS VERY WET -
WATER RUNNING CONTINUOUSLY.

Note: THIS AREA CAN BE IRRIGATED

GRAZING
LAND

⊕

E

416+03

415+65 ← 20' →

415+00 ← 10' →

414+50

WASH

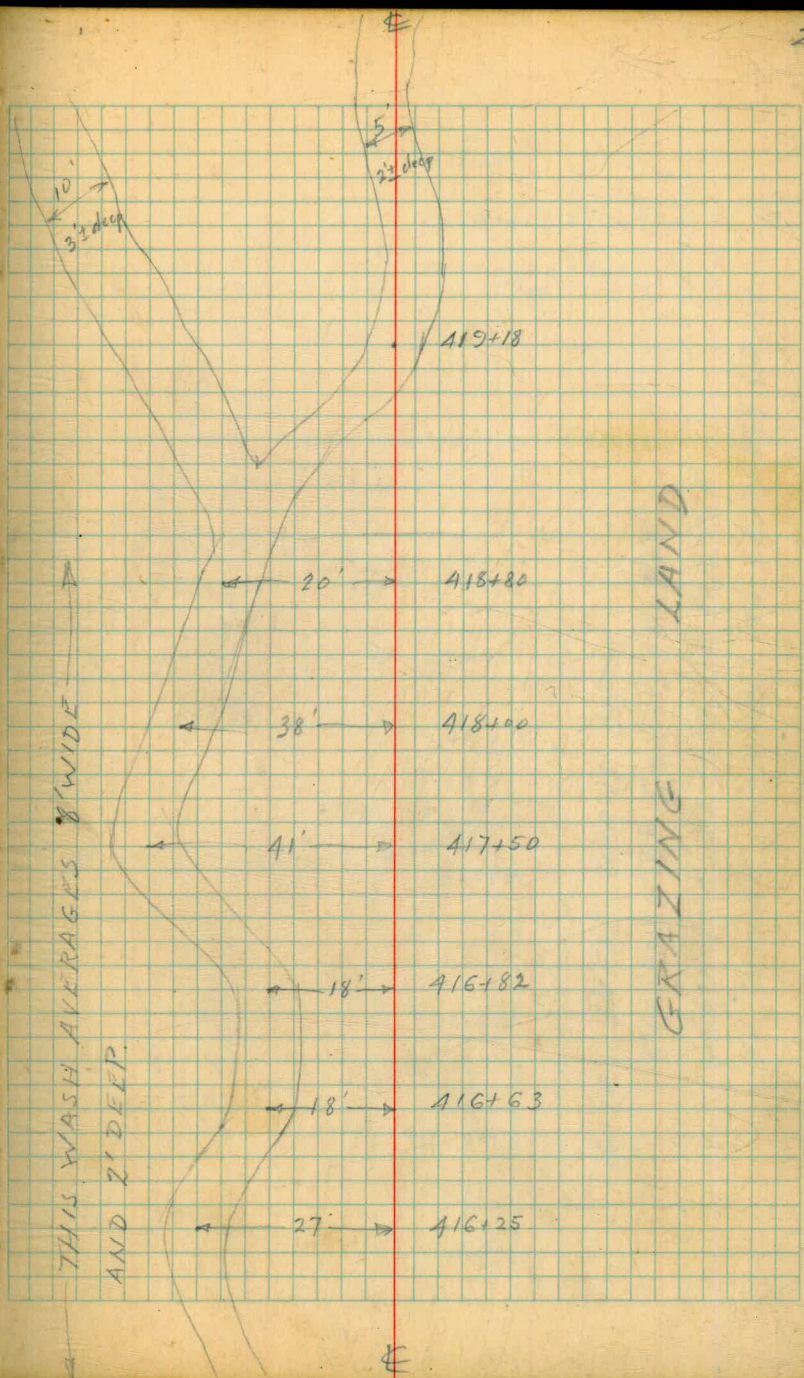
← 5' →

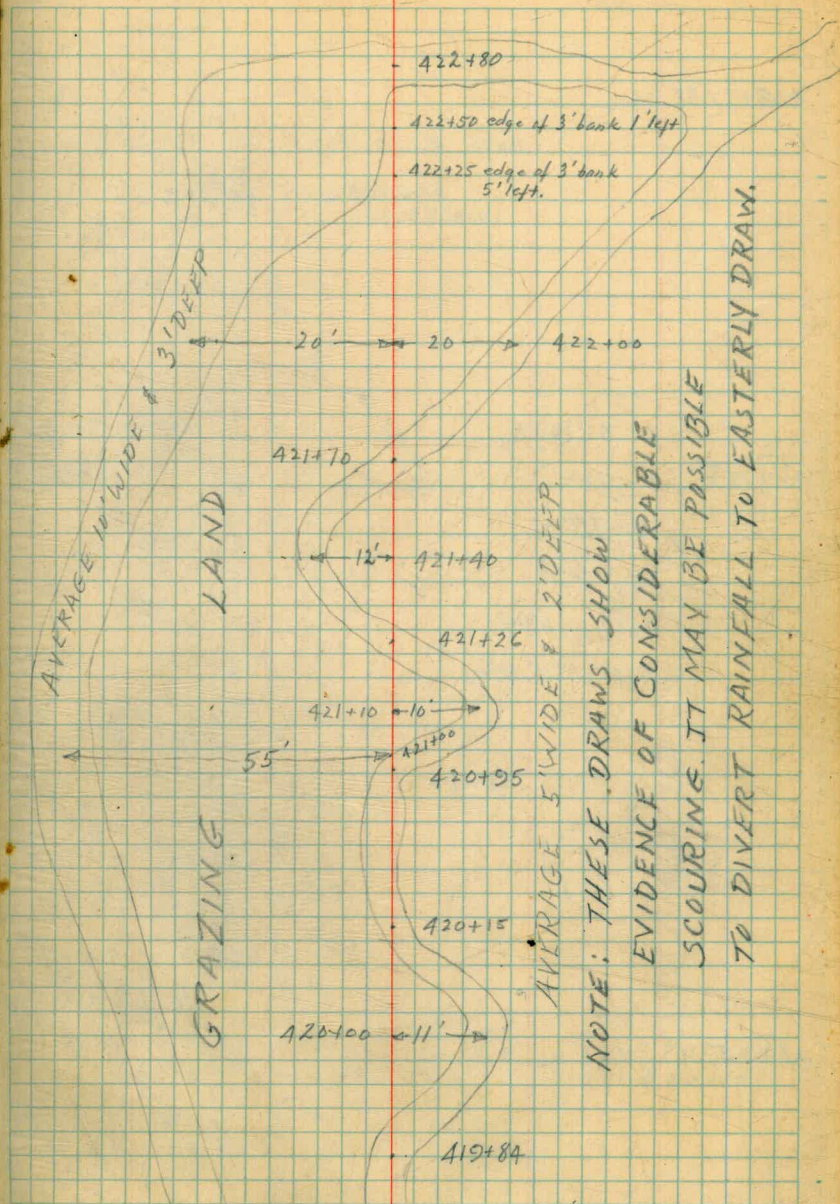
LAND

GRAZING

406+50 P.O.T (

E





Sept. 12, 1945 30.
Soper
Ward
Phillips

436+77.38 E.C.

NOTE: P.O.S.T. 432+33⁸⁰ = P.L. of
previous curve - Book 680/17

436+77.38 E.C. 20°37.5'

+50 19°50.5'

436 18°24.5'

150 16°58.6'

P.O.C. 435 15°32.7'

+50 14°06.7'

434 12°40.8'

+50 11°14.8'

433 9°48.9'

P.O.C. +50 8°22.9'

432 6°57.0'

+50 5°31.1'

431 4°05.1'

+50 2°39.2'

430 1°13.2'

P.T. $\Delta = 41°15'RT$

433+33⁸⁰ R = 1000'

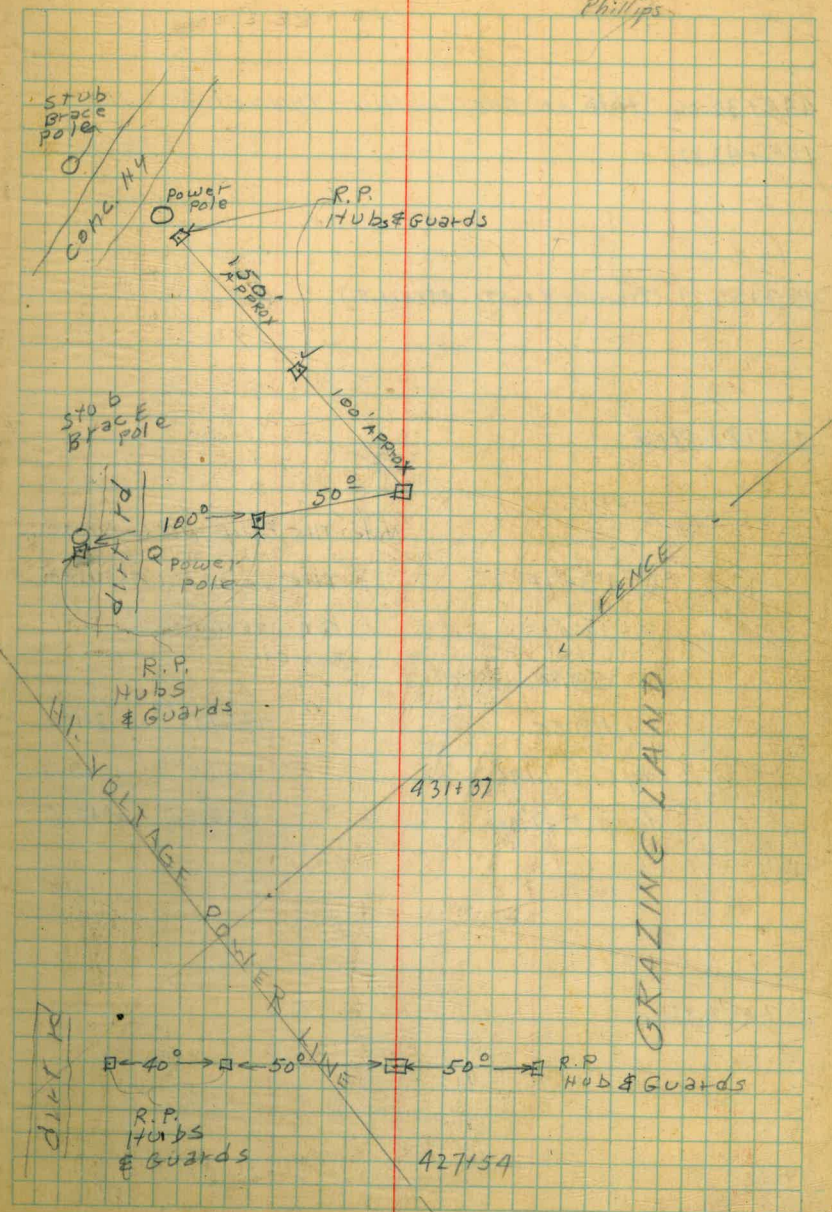
T = 376.37

L = 719.95

dy1 = 1.719

dy50 = 1°25.944

429+57.43 B.C.



448+32.06 Hub on 550 Contour - TUNNEL PORTAL
= 439+43.82

439+33.27 (Previous E.C. STA. 448+21.51)

438+82.38 E.C.

Note: THE P.I. OF THIS CURVE IS

$\Delta = 4^{\circ}34'14''$

THE SAME P.I. AS USED

$R = 1500'$

FOR PREVIOUS CURVE

$T = 59.80$

BOOK 680/13

$L = 119.55$

438+82³⁸ 10.207.0

$\text{defl} = 1.146$

+50 1039.9

$\text{defl} = 0^{\circ}57'30''$

438+00 0^{\circ}42.6

437+62.83 B.C.

438+25 - edge of 8' road

Profile over & R.R. R.O.W. from sta. 1072 to 1092 + 0
See sheet #6-V3 - S.W. & A.E. R.R. Map

| B.M. | -1.57 | 380.74 | | 379.17 | u.s.c.g.g.s. |
|--------|-------|------------------------------|------|---------------|--------------|
| T.P. | 2.79 | 377.35 | 6.18 | 374.56 | |
| 1072 | | | 7.9 | 369.5 | |
| +50 | | | 7.3 | 70.1 | |
| 1073 | | | 6.8 | 70.6 | |
| +50 | | | 6.3 | 71.1 | |
| 1074 | | | 5.6 | 71.8 | |
| +39 BC | | | 4.8 | 72.6 | |
| +50 | | | 4.6 | 72.8 | |
| 1075 | | | 4.5 | 72.9 | |
| +50 | | | 4.5 | 72.9 | |
| 1076 | | | 4.3 | 73.1 | |
| +41 | | Valve Box 31 ⁵ Rt | | Air Valve #27 | |

(Notes Reduced by MRR 1/17/46)

KING Low 1-15-46
Leonard Red
Ward Notes

32

Top bolt - Gate Valve box in River View R. Plant

| 318.6 | 367.5 | 369.4 | 371.1 | 371.5 | 373.5 |
|---------|-------|-------|-------|-------|-------|
| -4.2 | -2.0 | -0.1 | +1.6 | +2.0 | +4.0 |
| cr. Bed | 50.0 | 80 | 150 | 270 | 390 |
| 366.2 | 367.2 | 368.1 | 367.5 | 369.6 | 370.6 |
| -3.2 | -2.2 | -2.0 | -4.6 | -0.3 | 370.4 |
| 75.0 | 62.0 | 50.0 | 20.0 | 11.0 | 80 |
| 366.9 | 366.6 | 368.6 | 370.9 | 370.9 | 370.4 |
| -6.7 | -4.0 | -2.0 | +0.3 | -1.0 | 371.1 |
| 75.0 | 56.0 | 22.0 | 10.2 | 5.0 | 371.1 |
| cr. Bed | 366.6 | 368.6 | 370.9 | 370.9 | 370.4 |
| 367.1 | 367.7 | 368.6 | 370.7 | 371.6 | 371.6 |
| -4.9 | -3.3 | -2.6 | -0.7 | -0.2 | 371.6 |
| 60.0 | 55.0 | 17.0 | 10.0 | 6.0 | 371.6 |
| cr. Bed | 366.8 | 369.0 | 370.2 | 371.6 | 371.6 |
| -6.9 | -5.0 | -2.8 | -1.6 | -0.2 | 371.6 |
| 75.0 | 55.0 | 44.0 | 17.0 | 9.0 | 371.6 |
| cr. Bed | 366.8 | 369.0 | 370.2 | 371.6 | 371.6 |
| 365.3 | 366.7 | 369.6 | 370.6 | 371.6 | 371.6 |
| -7.3 | -5.8 | -3.0 | -0.0 | 0.0 | 371.6 |
| 75.0 | 52.0 | 41.0 | 21.0 | 7.0 | 371.6 |
| cr. Bed | 366.7 | 369.6 | 370.6 | 371.6 | 371.6 |
| 368.6 | 368.9 | 369.8 | 370.1 | 370.1 | 370.1 |
| -8.7 | -5.9 | -3.0 | -2.7 | -0.3 | 370.1 |
| 80.0 | 55.0 | 40.0 | 22.0 | 2.0 | 370.1 |
| cr. Bed | 368.9 | 369.8 | 370.1 | 370.1 | 370.1 |
| 367.7 | 367.7 | 367.7 | 367.7 | 367.7 | 367.7 |
| -8.0 | -1.2 | -0.0 | -0.2 | -0.2 | 367.7 |
| 80.0 | 39.0 | 6.0 | 11.0 | 40.0 | 47.0 |
| cr. Bed | 367.7 | 367.7 | 367.7 | 367.7 | 367.7 |
| 368.7 | 368.9 | 369.0 | 369.1 | 369.1 | 369.1 |
| -8.3 | -3.0 | -2.7 | 0.0 | +0.7 | 369.1 |
| 75.0 | 55.0 | 50.0 | 41.0 | 12.0 | 6.0 |
| cr. Bed | 368.9 | 369.0 | 369.1 | 369.1 | 369.1 |
| -7.8 | -4.7 | -4.1 | +0.1 | 0.0 | 0.0 |
| 70.0 | 62.0 | 48.0 | 15.0 | 2.0 | 5.0 |
| cr. Bed | 368.9 | 369.0 | 369.1 | 369.1 | 369.1 |
| 368.2 | 368.2 | 368.2 | 368.2 | 368.2 | 368.2 |
| -0.7 | +1.6 | +6.3 | +13.0 | +11.8 | +11.8 |
| 75.0 | 55.0 | 50.0 | 41.0 | 12.0 | 6.0 |
| cr. Bed | 368.2 | 368.2 | 368.2 | 368.2 | 368.2 |
| -7.8 | -4.7 | -4.1 | +0.1 | 0.0 | 0.0 |
| 70.0 | 62.0 | 48.0 | 15.0 | 2.0 | 5.0 |
| cr. Bed | 368.2 | 368.2 | 368.2 | 368.2 | 368.2 |
| 368.2 | 368.2 | 368.2 | 368.2 | 368.2 | 368.2 |
| -0.7 | +1.6 | +6.3 | +13.0 | +11.8 | +11.8 |
| 75.0 | 55.0 | 50.0 | 41.0 | 12.0 | 6.0 |
| cr. Bed | 368.2 | 368.2 | 368.2 | 368.2 | 368.2 |
| -7.8 | -4.7 | -4.1 | +0.1 | 0.0 | 0.0 |
| 70.0 | 62.0 | 48.0 | 15.0 | 2.0 | 5.0 |
| cr. Bed | 368.2 | 368.2 | 368.2 | 368.2 | 368.2 |

381.03

1086+79

5.3 75.7

Edge
Pave.

1087

5.3 75.7

+50

5.1 75.9

1088

4.9 76.1

+50

4.9 76.1

1089

4.8 76.2

+50

4.5 76.5

1090

4.2 76.8

B.M

1.86 379.17 (379.17)

1090+31

35

| | | | | | | | | |
|---------|-------|-------|---------|-------|-------|-------|-------|-------|
| 368.1 | 368.1 | 371.6 | 375.4 | 375.7 | 377.7 | 378.7 | 378.7 | 378.7 |
| -76 | -76 | -71 | -03 | 09 | +29 | +39 | +39 | +39 |
| 60° | 38° | 32° | 49 | 21° | 45° | 57° | 75° | 81° |
| Cr. Bed | | | 54. Rd. | | | | | |
| 368.1 | 368.1 | 371.9 | 376.7 | 376.9 | 378.9 | 378.3 | 378.3 | 378.0 |
| -75 | -75 | -49 | +80 | +19 | +39 | +29 | +29 | +21 |
| 60° | 29° | 24° | 15° | 33° | 37° | 55° | 73° | 77° |
| Cr. Bed | | | 50. Rd. | | | | | |

| | | | | | | | |
|---------|-------|-------|---------|-------|-------|-------|-------|
| 368.2 | 368.2 | 371.4 | 376.1 | 377.7 | 378.2 | 378.2 | 378.1 |
| -79 | -79 | -47 | 09 | +19 | +21 | +21 | +20 |
| 60° | 26° | 18° | 12° | 29° | 51° | 69° | 75° |
| Cr. Bed | | | 54. Rd. | | | | |

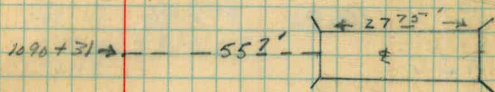
| | | | | | | | | |
|---------|-------|-------|---------|-------|-------|-------|-------|-------|
| 368.3 | 368.3 | 372.1 | 373.0 | 375.8 | 378.1 | 378.3 | 378.3 | 377.3 |
| -78 | -78 | -49 | -31 | -02 | +20 | +22 | +22 | +12 |
| 60° | 31° | 22° | 13° | 70 | 41° | 50° | 68° | 72° |
| Cr. Bed | | | 54. Rd. | | | | | |

| | | | | | | | | | |
|---------|-------|-------|---------|-------|-------|-------|-------|-------|-------|
| 368.9 | 368.9 | 372.0 | 372.9 | 375.4 | 376.6 | 377.9 | 378.1 | 378.1 | 378.4 |
| -73 | -73 | -42 | -33 | -02 | +03 | +12 | +12 | +13 | +22 |
| 60° | 33° | 27° | 15° | 9° | 32° | 38° | 50° | 68° | 75 |
| Cr. Bed | | | 54. Rd. | | | | | | |

| | | | | | | |
|---------|-------|-------|---------|-------|-------|-------|
| 370.1 | 370.1 | 372.9 | 373.5 | 375.5 | 377.9 | 377.9 |
| -69 | -69 | -35 | -30 | -19 | +19 | +19 |
| 60° | 38° | 33° | 16° | 11° | 52° | 70° |
| Cr. Bed | | | 54. Rd. | | | |

| | | | | | | | | | | |
|---------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|
| 369.6 | 370.7 | 373.6 | 378.8 | 376.2 | 376.8 | 378.4 | 374.8 | 377.7 | 377.8 | 377.8 |
| -72 | -61 | -33 | -39 | -06 | 02 | 16 | -25 | +02 | +10 | +19 |
| 60° | 38° | 34° | 15° | 70 | 10° | 23° | 42° | 48° | 57° | 65° |
| Cr. Bed | | | 54. Rd. | | | | | | | |

CK into B.M Top Bolt Gate Valve Box P. Plant



Profile EL MONTE PIPE Line Sta B.C
589+56⁰⁸ TO ALVARADO TR. PLANT Southern Route

| | H.I. ↓ | - | Elev |
|------------------------------|--------|------------------|------------------|
| | 478.17 | | 472.70 |
| | 477.96 | | 472.49 |
| B.C. 589+56 ⁰⁸ | 5.47 | | |
| | | 5.5 | 472.7 |
| 590+00 | | 5.8 | 472.4 |
| +50 | | 6.5 | 471.7 |
| 591+00 | | 7.0 | 471.2 |
| +50 | | 7.2 | 471.0 |
| 592+00 | | 7.6 | 470.6 |
| +50 | | 7.1 | 471.1 |
| E.C. 592+82 ²⁹ | | 6.6 | 471.6 |
| 593+00 | | 6.8 | 471.4 |
| +50 | | 7.5 | 470.7 |
| +70 | | 7.6 | 470.6 |
| +79 | | 10.0 | 468.2 |
| 594+00 | | 6.7 | 471.5 |
| +50 | | 5.6 | 472.6 |
| 595+00 | | 3.5 | 474.7 |
| +37 | | 0.7 | 477.5 |
| +50 | | 0.5 | 477.7 |
| E.C. 595+70 ³⁵ | | 0.3 | 477.9 |
| 596+00 | | 0.4 | 477.8 |
| T.P | 10.90 | 488.67 488.46 | 477.77 477.56 |
| +50 | | 8.0 | 480.7 |
| | | | |
| 597+00 | | 6.3 | 482.4 |

2-19-46
COOL-Cloudy

Nelson T Notes
Leonard φ 32
RICE TAPE

B.M. on SPIKE Sta 595+31⁷⁵ orig. Line BK 690 P 29
Continued from Book 690 P 27

2-21-46
Clear-WBHT

Cross sections
Nelson Notes
Leonard H. Level
Mica Rod

-0.2/25 -0.9/15 +1.1/15 +1.4/25

-2.4/25 -1.6/15 +1.1/15 +1.9/25

-2.0/25 +1.5/25

-2.1/25 +1.4/25

-0.9/25 +3.5/25

-2.2/25 +2.3/25

-3.2/25 -1.4/8 +2.7/25

| | + | H.I. | - | |
|-------------------------|-------|-------------------------------|------|------------------|
| +20 | | | 4.8 | 483.9 |
| +50 | | | 6.1 | 482.6 |
| 598+00 | | | 5.0 | 483.7 |
| +50 | | | 5.6 | 483.1 |
| EE 598+62 ²⁶ | | | 5.5 | 483.2 |
| 599+00 | | | 7.1 | 481.6 |
| +50 | | | 10.2 | 478.5 |
| +62 | | | 11.6 | 477.1 |
| +80 | | | 10.1 | 478.6 |
| 600+00 | | | 8.3 | 480.4 |
| +50 | | | 4.3 | 484.4 |
| 601+00 | | | 1.2 | 487.5 |
| T.P | 12.03 | 500.24 ^v 500.03 | 0.46 | 488.21 488.00 |
| +50 | | | 11.2 | 489.0 |

| | | | |
|-------------------|-------------------|--------------------|-------------------|
| $\frac{-4.4}{25}$ | $\frac{-3.6}{20}$ | $\frac{+2.2}{25}$ | |
| $\frac{-2.1}{25}$ | $\frac{-1.5}{12}$ | $\frac{+3.3}{25}$ | |
| $\frac{-2.6}{25}$ | $\frac{-1.6}{17}$ | $\frac{+3.0}{25}$ | |
| $\frac{-2.0}{25}$ | | $\frac{+3.4}{25}$ | |
| $\frac{-2.1}{25}$ | | $\frac{+0.9}{13}$ | $\frac{+2.6}{25}$ |
| $\frac{-1.0}{25}$ | $\frac{-1.0}{13}$ | $\frac{+1.6}{10}$ | $\frac{+3.9}{25}$ |
| $\frac{-1.2}{25}$ | | | $\frac{+2.0}{25}$ |
| $\frac{-1.0}{25}$ | | $\frac{+1.8}{25}$ | |
| $\frac{-1.1}{25}$ | | $\frac{+1.5}{25}$ | center road |
| $\frac{-1.4}{25}$ | | $\frac{+0.8}{5}$ | $\frac{+2.5}{20}$ |
| | | | $\frac{+2.5}{25}$ |
| $\frac{-0.5}{25}$ | $\frac{-1.0}{16}$ | $\frac{+1.5}{25}$ | |
| $\frac{-1.8}{25}$ | $\frac{-0.3}{16}$ | $\frac{+1.09}{12}$ | $\frac{+3.3}{25}$ |
| $\frac{-1.8}{25}$ | | $\frac{+0.7}{8}$ | $\frac{+3.0}{25}$ |

| | + | 141 | - | Elev |
|-----------------------|----------|-----|-------|----------|
| 602+00 | | | 10.5 | 489.7 |
| +50 | | | 9.4 | 490.8 |
| 603+00 | | | 9.9 | 490.3 |
| +50 | | | 9.9 | 490.3 |
| 604+00 | | | 7.6 | 492.6 |
| +50 | | | 8.0 | 492.2 |
| 605+00 | | | 7.3 | 492.9 |
| +50 | | | 7.7 | 492.5 |
| POT +75 ⁷⁵ | | | 7.8 | 492.4 |
| 606+00 | | | 9.5 | 490.7 ✓ |
| T.P. 0.88 | 488.46 ✓ | | 12.66 | 487.58 ✓ |
| | 489.25 | | | 487.37 |
| +50 | | | 2.3 | 486.2 ✓ |
| SET BM | | | 2.91 | 485.55 ✓ |
| | | | | 485.34 |
| 607+00 | | | 8.4 | 480.1 |
| +50 | | | 14.4 | 474.1 |

| | | | | |
|---------------------|------|------|------|-------------|
| -1.0 | -0.8 | +1.9 | +3.1 | |
| 25 | 10 | 10 | 25 | |
| -2.7 | | +2.2 | | |
| 25 | | 25 | | |
| -2.4 | | +3.2 | | |
| 25 | | 25 | | |
| -2.8 | | +3.5 | | Center Road |
| 25 | | 25 | | |
| -3.1 | | +1.7 | | |
| 25 | | 25 | | |
| -2.5 | | +2.5 | | |
| 25 | | 25 | | |
| -2.4 | | +2.4 | | |
| 25 | | 25 | | |
| -2.4 | | +2.3 | | |
| 25 | | 25 | | |
| -2.7 | | +1.9 | | |
| 25 | | 25 | | |
| -2.4 | | +2.0 | | |
| 25 | | 25 | | |
| -2.2 | | +2.5 | | |
| 25 | | 25 | | |
| 50' Left Sta 606+00 | | HUB | | |
| | | +1.9 | | |
| -2.0/25 | | 25 | | |
| -1.1 | | +2.0 | | |
| 25 | | 25 | | |

| + | | - | |
|--------|-------|--------------------|---------------------------------|
| +92 | | 16.9 | 472.1 |
| 608+00 | | 15.8 | 472.7 |
| +16 | | 14.3 | 474.2 |
| +50 | | 6.9 | 481.6 ✓ |
| T.P | 12.43 | 500.88 500.67 | 488.45 488.24 |
| 609+00 | | 8.3 | 492.6 |
| +50 | | 2.3 | 498.6 ✓ |
| T.P | 3.71 | 503.63 ✓ 503.42 | 499.92 499.71 |
| 610+00 | | 2.4 | 501.2 |
| +03 | | 1.2 | 502.4 |
| +50 | | 0.3 | 503.3 |
| 611+00 | | 0.7 | 502.9 |
| +50 | | 4.5 | 499.1 |
| 612+00 | | 12.4 | 491.2 ✓ 491.38 ✓ 499.38 ✓ |
| T.P | 0.22 | 991.60 491.39 | 491.17 |
| +22 | | 4.7 | 486.9 |
| +27 | | 11.3 | 480.3 |

| | |
|--------------|---------|
| -1.0/25 | +1.2 |
| CHECK BOTTOM | 2.5 |
| +0.9 | +0.6 |
| 25 | 2.5 |
| +1.3/25 | -0.8/25 |
| -0.1/25 | 0.0 |
| | 2.5 |
| -0.8/25 | +2.4 |
| | 2.5 |
| -2.0/25 | +1.0 |
| | 2.5 |
| -2.0/25 | +3.0 |
| | 2.5 |
| -2.1/25 | +3.2 |
| | 2.5 |
| -2.6/25 | +2.9 |
| | 2.5 |
| -2.6/25 | +3.5 |
| | 2.5 |
| -3.0/25 | +3.2 |
| | 2.5 |
| -3.5/25 | +3.8 |
| | 2.5 |
| -8.0/25 | +3.2 |
| | 2.5 |
| -0.7/25 | +3.2 |
| Edge P&V | 2.5 |

| | | | | |
|---------------------------|-------|--------|-------|----------|
| +50 | | | 10.3 | 481.3 |
| +70 | | | 9.6 | 482.0 ✓ |
| T.P. | 7.59 | 487.59 | 11.60 | 480.00 ✓ |
| +80 | | | 10.6 | 479.79 |
| 613+00 | | | 14.7 | 477.0 |
| +50 | | | 0.3 | 472.9 |
| T.P. | 11.95 | 499.05 | 0.49 | 487.3 ✓ |
| 614+00 | | | 0.04 | 487.10 ✓ |
| T.P. | 11.94 | 510.90 | 0.09 | 499.0 ✓ |
| Set B.M. | | | 10.86 | 498.96 ✓ |
| 614+50 | | | 1.70 | 500.04 ✓ |
| T.P. | 12.33 | 523.07 | 0.16 | 509.20 ✓ |
| 615+00 | | | 6.3 | 510.74 ✓ |
| +50 | | | 1.6 | 516.8 |
| T.P. | 12.43 | 535.20 | 0.30 | 521.5 |
| 616+00 | | | 10.3 | 522.77 ✓ |
| +50 | | | 6.5 | 524.9 |
| B.C. 616+54 ⁹⁷ | | | 6.2 | 528.7 |
| 617+00 | | | 1.9 | 529.0 |
| T.P. | 12.68 | 547.81 | 0.07 | 533.3 ✓ |
| +50 | | | 9.6 | 535.13 ✓ |
| 618+00 | | | 4.0 | 538.2 |
| T.P. | 6.56 | 553.87 | 0.50 | 543.8 |
| +50 | | | 5.7 | 547.31 ✓ |
| 619+00 | | | 3.7 | 548.2 |
| +50 | | | 3.7 | 550.2 |

2-20-46

clear-warm

Nelson &
Rice Notes 40
Leonard &

E Pavement Baltimore Blvd

Creek bottom

on rock 50' RT STB 614+00

+0.9/25

+0.9/25

-1.0/25

+1.2/25

-1.8

+1.5

-2.8

25

+2.5

+2.2

25

25

-3.7

+3.8

-3.7

25

25

+3.9

25

25

-4.0

+4.7

25

22

| | | | |
|---------------------------|------|--------|--------------|
| Set B.M. | | 11.44 | 542.43 |
| 620+00 | | 3.8 | 550.1 |
| +50 | | 5.3 | 548.6 |
| 621+00 | | 9.0 | 544.9 |
| T.P. | 0.18 | 541.05 | 13.00 540.87 |
| +50 | | 1.0 | 540.1 |
| 622+00 | | 6.0 | 535.1 |
| +50 | | 11.2 | 529.9 |
| T.P. | 0.49 | 529.01 | 12.53 528.52 |
| 623+00 | | 7.8 | 526.2 |
| +15 | | 7.5 | 526.5 |
| +37 | | 6.4 | 522.6 |
| +50 | | 6.5 | 522.5 |
| 624+00 | | 10.3 | 518.7 |
| +12 | | 10.3 | 518.7 |
| T.P. | 4.31 | 520.28 | 13.04 515.97 |
| E.G. 624+30 ⁹³ | | 5.0 | 515.3 |
| +50 | | 6.5 | 513.8 |

41

Hub 3' back from P.I. 620+51²²

| | | | |
|------------|------------|------------|------------|
| | -3.7/25 | +2.9/15 | |
| -3.0 25 | | | +4.9 25 |
| | -3.3 25 | +4.5 25 | |
| | -3.9 25 | +3.6 25 | |
| -3.3 25 | | | +3.9 25 |
| | -3.3 25 | +2.6 15 | +4.9 25 |
| | -2.8 25 | +2.6 25 | |
| | -3.6 25 | +2.0 25 | |
| | -0.9 25 | +3.4 25 | |
| | -2.1 25 | +0.7 12 | +3.0 25 |
| | -3.0 25 | +1.6 25 | |
| -2.8 25 | -2.8 13 | +1.3 25 | |
| +0.3 25 | -0.1 10 | +1.0 8 | +2.6 25 |
| | -1.3 25 | +1.8 25 | |

625+00 7.1 513.2

+20 17.5 502.8

+35 12.9 507.4

+50 9.9 510.4

626+00 7.8 512.5

+50 6.7 513.6

627+00 6.1 514.2

+15 5.4 514.9

+50 7.0 513.3

627+89¹² 8.5 511.8

T.P. 0.08 512.58 7.78 512.50 ✓

628+00 3.1 509.5

+50 9.5 503.1

T.P. 0.28 500.44 12.42 500.16 ✓

629+00 6.5 493.9

-3.1
2.5 +1.6
2.5bottom of draw -4.2
2.5 +5.0
2.5-4.0
2.5 +4.6
2.5
-3.9
2.5 +2.0
2.5-1.3
2.5 +1.5
2.5

| | | | | |
|--------|-------|--------|-------|--------|
| T.P. | 0.16 | 487.52 | 13.08 | 487.36 |
| 629+50 | | | 3.8 | 483.7 |
| +70 | | | 7.4 | 480.1 |
| T.P. | 0.13 | 475.03 | 12.62 | 474.90 |
| 630+00 | | | 4.2 | 470.8 |
| +38 | | | 6.9 | 468.1 |
| +48 | | | 13.4 | 461.6 |
| +50 | | | 13.1 | 461.9 |
| +55 | | | 11.7 | 463.3 |
| +75 | | | 12.1 | 462.9 |
| 631+00 | | | 5.9 | 469.1 |
| T.P. | 12.55 | 487.56 | 70.02 | 475.01 |
| +50 | | | 2.2 | 485.4 |
| T.P. | 12.44 | 499.60 | 0.40 | 487.16 |
| +74 | | | 8.6 | 491.0 |
| 632+00 | | | 4.4 | 495.2 |
| T.P. | 11.30 | 510.61 | 0.29 | 499.31 |
| +50 | | | 9.3 | 501.3 |

| | | | | |
|-------------------------|------|--------|-------|--------|
| 633+00 | | | 8.0 | 502.6 |
| +50 | | | 6.9 | 503.7 |
| 634+00 | | | 5.4 | 505.2 |
| +50 | | | 4.8 | 505.8 |
| 635+00 | | | 4.7 | 505.9 |
| +50 | | | 4.3 | 506.3 |
| 635+78 ²⁸ | | | 3.6 | 507.0 |
| 636+00 | | | 3.3 | 507.3 |
| +50 | | | 3.7 | 506.9 |
| Set B.M. | | | 3.22 | 507.39 |
| 637+00 | | | 3.6 | 507.0 |
| +50 | | ✓ | 5.6 | 505.0 |
| T.P. | 0.67 | 503.65 | 7.63 | 502.98 |
| 638+00 | | | 1.0 | 502.7 |
| P.O.T +12 ²⁰ | | | 1.6 | 502.1 |
| +50 | | | 4.8 | 498.9 |
| 639+00 | | | 9.8 | 493.9 |
| T.P. | 0.24 | 491.05 | 12.84 | 490.81 |
| +50 | | | 1.9 | 489.2 |
| 640+00 | | | 7.0 | 484.1 |
| T.P. | 5.35 | 483.51 | 12.89 | 478.16 |
| +50 | | | 7.4 | 476.1 |
| +57 | | | 8.1 | 475.4 |

ON ROCK 45' RT STA 636+95

| | | | | |
|--------|--|--|------|-------|
| 640+75 | | | 6.4 | 477.1 |
| +90 | | | 7.3 | 476.2 |
| +93 | | | 11.2 | 472.3 |

| | | | | |
|--------|--|--|------|-------|
| 641+00 | | | 10.2 | 473.3 |
| +05 | | | 9.0 | 474.5 |
| +25 | | | 8.4 | 475.1 |
| +50 | | | 5.7 | 477.8 |

| | | | | |
|--------|-------|--------|------|--------|
| 642+00 | | | 0.5 | 483.0 |
| T.P. | 12.76 | 496.22 | 0.05 | 483.46 |
| +50 | | | 5.4 | 490.8 |
| T.P. | 12.12 | 507.37 | 0.97 | 495.25 |

| | | | | |
|--------|--|--|------|-------|
| 643+00 | | | 11.3 | 496.1 |
| +19 | | | 8.5 | 498.9 |
| +31 | | | 8.7 | 498.7 |
| +45 | | | 9.1 | 498.3 |
| +47 | | | 7.2 | 500.2 |
| +50 | | | 7.3 | 500.1 |

| | | | | |
|--------|-------|--------|------|--------|
| 644+00 | | | 2.8 | 504.6 |
| T.P. | 13.09 | 518.16 | 2.30 | 505.07 |
| +50 | | | 9.4 | 508.8 |

creek bottom

curb of road
centre of road

top of stake sta 644+00

| | B.S | 518.16 | F.S | |
|--------|-------|----------|------|----------|
| | + | | - | |
| 645+00 | | | 4.2 | 514.0 |
| T.P. | 11.85 | 529.46 ✓ | 0.55 | 517.61 ✓ |
| +50 | | | 10.6 | 518.9 |
| 646+00 | | | 6.7 | 522.8 |
| +50 | | | 5.5 | 524.0 |
| 647+00 | | | 4.5 | 525.0 |
| +50 | | | 4.0 | 525.5 |
| +74 | | | 3.7 | 525.8 |
| +83 | | | 6.7 | 522.8 |
| 648+00 | | | 5.2 | 524.3 |
| +38 | | | 4.2 | 525.3 |
| +42 | | | 4.5 | 525.0 |
| +50 | | | 4.1 | 525.4 ✓ |
| B.M | | | 5.36 | 524.10 ✓ |
| 649+00 | | | 4.4 | 525.1 |
| - | | | | |
| +50 | | | 3.7 | 525.8 |
| 650+00 | | | 3.2 | 526.3 |

Edge of Pavement.
Edge of Pavement.

SPIKE in Telephone Pole 56' RT sta 647+85

BC 650+20³⁹

2.6 526.9

+50

2.4 527.1

651+00

1.6 527.9

T.P.

8.16

536.01

1.61 527.85

651+19

7.7 528.8

EC 651+42²²

6.5 529.5

+50

6.3 529.7

652+00

4.8 531.2

+50

4.7 531.3

653+00

4.6 531.4

+50

4.5 531.5

+80

4.7 531.6

654+00

5.0 531.0

+07

5.5 530.5

+50

3.2 532.8

655+00

1.1 534.9

T.P.

12.75

548.75

11.75

547.75

0.01 536.00

+50

11.7 537.0

BC 655+68⁵³

10.4 538.4

656+00

9.0 539.8

+50

5.8 543.0

657+00

2.8 546.0

EC 657+42⁸²

0.60 548.2

| | | | | |
|------------------------|------|---------------------|------|---------------------|
| on EC stake | | 556.72 [✓] | | 548.70 [✓] |
| T.P. | 8.04 | 555.72 | 0.05 | 547.70 |
| 657+50 | | | 8.4 | 548.3 |
| 658+00 | | | 7.0 | 549.7 |
| +50 | | | 6.3 | 550.4 |
| 658+54 ⁰² | | | 6.3 | 550.4 |
| +75 | | | 5.2 | 551.5 |
| +82 | | | 6.2 | 550.5 |
| 659+00 | | | 6.1 | 550.6 |
| +50 | | | 6.4 | 550.3 |
| +61 | | | 7.0 | 549.7 |
| 660+00 | | | 7.7 | 549.0 [✓] |
| T.P. | 2.82 | 550.18 [✓] | 9.36 | 547.36 [✓] |
| | | | 2.1 | |
| BC660+49 ³² | | | 7.4 | 547.8 |
| 661+00 | | | 2.6 | 547.6 |
| +50 | | | 3.4 | 546.8 |
| EC661+59 ⁶² | | | 3.6 | 546.6 |
| 662+00 | | | 3.2 | 547.0 |
| +50 | | | 3.2 | 547.0 |

centre of road

| | | | | | |
|----------------------|------|--------|-------|--------|----------|
| 662+67 | | ✓ | 3.0 | 547.2 | ✓ |
| T.P. | 7.31 | 552.91 | 4.58 | 548.60 | |
| | | 551.91 | | 544.60 | |
| 662+87 ⁵⁵ | | | 6.1 | 546.8 | |
| 663+00 | | | 6.8 | 546.1 | |
| +50 | | | 5.8 | 547.1 | |
| 664+00 | | | 6.1 | 546.8 | |
| +50 | | | 6.5 | 546.4 | |
| 664+68 ⁵² | | | 6.3 | 546.6 | ✓ |
| | | | 10.47 | 542.44 | |
| | | | | 541.44 | |
| | | | | | = 542.51 |

EL MONTE P.L. STA 589+56 TO 664+68
(SOUTHERN ROUTE)

CHECKED & REDUCED
(\pm ONLY)

J. Keyser 3.1.46

check to BM on Dam.

Profile Levels El MONTE Pk. ALTERNATE
Route FROM Riverview Pumping Plant,

| | + | H.I. | - | Elev |
|--------|------|--------|------|--------|
| | 3.14 | 382.31 | | 379.17 |
| 175+50 | | | 6.0 | 376.3 |
| 175+75 | | | 5.1 | 377.2 |
| 175+85 | | | 6.8 | 375.5 |
| 175+95 | | | 4.3 | 378.0 |
| 176+00 | | | 4.3 | 378.0 |
| 176+40 | | | 4.1 | 378.2 |
| 176+50 | | | 4.8 | 377.5 |
| 176+81 | | | 4.48 | 377.83 |
| 177+00 | | | 4.36 | 377.95 |
| 177+42 | | | 4.41 | 377.90 |
| 177+50 | | | 4.6 | 377.7 |
| 177+72 | | | 4.8 | 377.5 |

VOID
SEE P. 57 ET SEQ.
THIS BOOK.

2-26-46

Clear width

Nelson X
Rice Notes 50
Leonard Rod

CORNER concrete chamber steel Pk
Riverview Pumping Plant

Edge of pavement

centre of pavement.

Edge of pavement

top bank.

| | + | H.I. | - | Elev. |
|---------------------------|-------|--------|------|--------|
| 177+81 | | | 8.4 | 373.9 |
| | | | 7.77 | 374.54 |
| | | | 8.98 | 373.33 |
| 178+00 | | | 4.7 | 377.6 |
| P.I. 178+29 ⁸⁶ | | | 4.4 | 377.9 |
| +50 | | | 4.3 | 378.0 |
| 179+00 | | | 3.9 | 378.4 |
| +39 | | | 2.0 | 380.3 |
| T.P. | 12.76 | 392.65 | 2.42 | 379.89 |
| +45 | | | 6.5 | 386.2 |
| | | | ? | |
| +50 | | | 3.9 | 388.8 |
| +54 | | | 2.8 | 389.9 |
| T.P. | 5.28 | 377.89 | 0.04 | 392.61 |

VOID

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JK

bottom of ditch

18" flow line concrete pipe

box ^{10x} culvert flow line

Cross sections
2-27-46
clear - width

Nelson notes
Leonard H. level
Rice Rod.

| | | | | |
|-------|------|------|----|------|
| +12.7 | +8.3 | +6.0 | AD | -0.5 |
| 50 | 37 | 12 | 6 | 25 |

| | | | | |
|------|------|------|------|------|
| +8.7 | +5.2 | -0.2 | -3.2 | -7.0 |
| 50 | 31 | 3 | 6 | 22 |

| | | | | |
|------|------|------|------|------|
| +9.0 | +5.1 | -1.2 | -3.5 | -9.7 |
| 50 | 32 | 3 | 7 | 26 |

| | | | | | |
|-------|------|------|------|------|-------|
| +10.8 | +9.6 | -0.5 | -2.4 | -6.7 | -10.2 |
| 50 | 21 | 3 | 5 | 16 | 24 |

| | + | H.I | - | Elev. |
|-----------------|------|--------|-------|--------|
| 180+00 | | | 2.4 | |
| POT 180+0170 | | | 2.1 | |
| +50 | | | 2.5 | |
| 181+00 | | | 4.2 | |
| +07 | | | 4.5 | |
| +16 | | | 9.0 | |
| T.P | 2 07 | 388.00 | 11.96 | 385.93 |
| +43 | | | 5.1 | |
| +50 | | | 5.1 | |
| 182+00 | | | 6.5 | |
| +18 | | | 7.7 | |
| +50 | | | 4.7 | |
| 183+00 | | | 3.6 | |

VOID
SEE P. 57 ET SEQ.
THIS BOOK.

| | | | | | | | | |
|--|-------|-------|-------|-------|------|------|----|----|
| | +11.3 | | -1.1 | -2.4 | -4.5 | | | |
| | 50 | | 5 | 12 | 20 | | | |
| | +12.2 | +5.9 | -3.9 | -9.4 | | | | |
| | 50 | 27 | 17 | 43 | | | | |
| | +10.2 | +0.5 | -0.6 | -11.2 | | | | |
| | 50 | 5 | 4 | 18 | | | | |
| | +10.3 | +4.8 | -10.6 | | | | | |
| | 50 | 26 | 16 | | | | | |
| | +16.4 | +7.6 | +5.1 | -4.7 | -5.8 | | | |
| | 50 | 13 | 5 | 8 | 25 | | | |
| | +18.1 | +9.2 | +3.6 | -0.8 | +2.3 | | | |
| | 50 | 15 | 8 | 25 | 40 | | | |
| | +18.6 | +10.2 | +2.0 | -0.5 | +2.1 | -0.8 | | |
| | 50 | 19 | 10 | 20 | 26 | 33 | | |
| | +5.5 | +1.9 | | +0.3 | +1.8 | 0.0 | | |
| | 49 | 34 | | 5 | 12 | 35 | | |
| | +2.0 | +1.4 | | +0.8 | +2.4 | -0.2 | | |
| | 50 | 25 | | 6 | 11 | 23 | | |
| | +6.5 | +4.6 | +0.9 | -0.2 | -1.4 | | | |
| | 50 | 32 | 28 | 13 | 5 | 7 | 13 | 25 |
| | +10.0 | +6.9 | +4.6 | +1.7 | | | | |
| | 50 | 42 | 31 | 22 | -0.9 | | | |
| | | | | | 25 | | | |

QUANTITY
P.T.

| | + | H.I. | - | Elev. |
|------------------|-------------------------------------|--------|------|--------|
| 183+50 | (VOID) | | 3.0 | |
| | SEE P. 57 ET SEQ THIS BOOK JK | | | |
| +75 | | | 1.0 | |
| T.P. | 12.17 | 400.00 | 0.17 | 387.83 |
| +80 | | | 11.7 | |
| +90 | | | 8.9 | |
| 184+00 | | | 3.7 | |
| T.P. | 12.70 | 412.68 | 0.07 | 399.98 |
| +50 | | | 7.5 | |
| T.P. | 12.15 | 424.65 | 0.18 | 412.50 |
| POT 184+80.64 | | | 10.2 | |
| 185+00 | | | 8.6 | |
| +50 | | | 3.3 | |
| T.P. | 12.90 | 437.52 | 0.03 | 424.62 |
| 186+00 | | | 8.7 | |

| | | | | |
|-------|-------|------|------|----------------|
| +9.5 | +7.8 | +4.4 | -1.6 | |
| 50 | 41 | 33 | 25 | |
| +11.5 | +10.7 | +7.0 | -3.2 | |
| 50 | 47 | 38 | 35 | |
| +12.0 | +6.7 | +4.4 | -2.2 | -4.4 |
| 50 | 23 | 19 | 9 | 30 |
| +11.4 | +7.1 | +2.7 | -0.8 | -3.3 -4.7 -8.0 |
| 50 | 23 | 16 | 11 | 17 30 45 |
| +9.3 | +5.2 | | -3.5 | -7.0 -10.4 |
| 50 | 32 | | 22 | 27 50 |
| +9.5 | +4.9 | | -5.6 | -12.8 |
| 50 | 25 | | 25 | 50 |
| +11.1 | +6.4 | | -7.2 | -13.7 |
| 50 | 30 | | 25 | 50 |
| +12.0 | +6.0 | | -6.7 | -14.3 |
| 50 | 25 | | 25 | 50 |
| +13.0 | +7.0 | | -8.0 | -14.0 |
| 50 | 25 | | 25 | 50 |
| +15.8 | +9.2 | +3.4 | -5.7 | +16.8 |
| 50 | 28 | 12 | 17 | 50 |

| | + | H.I. | - | Elev. |
|--------|------|--------|-------|--------|
| 186+50 | | | 0.4 | |
| T.P. | 8.07 | 445.40 | 0.19 | 437.38 |
| 187+00 | | | 3.5 | |
| 187+04 | | | 3.0 | |
| 187+12 | | | 2.3 | |
| +50 | | | 4.7 | |
| 188+00 | | | 10.6 | |
| T.P. | 0.85 | 434.48 | 11.77 | 433.63 |
| +50 | | | 9.6 | |
| B.M. | 0.75 | 423.55 | 11.18 | 423.30 |
| 189+00 | | | 9.9 | |
| +45 | | | 16.2 | |
| +50 | | | 15.6 | |

VOID
SEEP. 57 ET SEQ.
THIS BOOK
JK

| | | | | |
|--------------------------------|-------|-------|-------|-------|
| +16.8 | +9.7 | -5.0 | -10.1 | -17.5 |
| 50 | 30 | 14 | 27 | 50 |
| +19.4 | +8.9 | -9.6 | -19.6 | |
| 50 | 25 | 24 | 50 | |
| +21.2 | +10.1 | -8.4 | -18.5 | |
| 50 | 25 | 25 | 50 | |
| +21.3 | +10.8 | -5.0 | -18.6 | |
| 50 | 26 | 16 | 50 | |
| +21.8 | +12.0 | +3.5 | -5 | -7.9 |
| 50 | 26 | 11 | 19 | 36 |
| | | | | 50 |
| Large rock, 28' left of 189+10 | | | | |
| +20.3 | +10.2 | -10.3 | -17.8 | -18.5 |
| 50 | 25 | 25 | 45 | 50 |
| Bottom of | +25.1 | +16.4 | +7.7 | -5.9 |
| gully | 25 | 50 | 25 | 25 |
| | | | | 50 |
| +24.8 | +16.0 | +7.4 | -5.5 | -14.1 |
| 75 | 50 | 25 | 25 | 50 |

| | + | H.I. | - | Elev. |
|------------|------|--------|-------|--------|
| 190+00 | | | 10.8 | |
| +50 | | | 8.2 | |
| RI. 190+68 | | | 9.4 | |
| 191+00 | | | 11.7 | |
| T.P. | 0.33 | 411.40 | 12.48 | 411.07 |
| +50 | | | 4.6 | |
| 192+00 | | | 12.2 | |
| T.P. | 0.41 | 398.85 | 12.96 | 398.44 |
| +50 | | | 3.9 | |
| 193+00 | | | 6.7 | |
| +17 | | | 8.5 | |
| T.P. | 2.72 | 389.32 | 12.25 | 386.60 |
| + 21 | | | 3.8 | |
| + 28 | | | 3.3 | |
| + 40 | | | 1.7 | |

VOID
SEE P. 57 ET SEQ
THIS BOOK
J

| | | | | |
|-------|-------|-------|-------|-------|
| 16.2 | +7.7 | +1.5 | -8.6 | |
| 50 | 29 | 4 | 33 | |
| +13.0 | +6.9 | -5.0 | -12.3 | |
| 50 | 27 | 19 | 45 | |
| +14.0 | +8.0 | -5.5 | -12.8 | |
| 50 | 29 | 25 | 50 | |
| +14.2 | +8.8 | -13.4 | | |
| 50 | 30 | 50 | | |
| +13.5 | +8.0 | -7.5 | -12.9 | |
| 50 | 31 | 26 | 50 | |
| +12.4 | +11.2 | +2.8 | -5.6 | -10.1 |
| 50 | 42 | 16 | 25 | 50 |
| +8.5 | +6.9 | -4.4 | -6.5 | |
| 50 | 39 | 25 | 43 | |
| +8.7 | +3.9 | -2.9 | -5.1 | -8.9 |
| 43 | 28 | 23 | 33 | 42 |
| +7.2 | +6.0 | -5.8 | -7.0 | |
| 50 | 36 | 7 | 30 | |

centre of road.

| | + | H.I | - | Elev. |
|----------------------|------|------------------------------------|-------|--------|
| 193+50 | | | 2.0 | |
| 194+00 | | VOID | 5.4 | |
| +50 | | SEED. 57 ET SEQ THIS BOOK JK | 7.6 | |
| +63 | | | 11.7 | |
| 195+00 | | | 13.1 | |
| T.P. | 3.00 | 379.43 | 12.89 | 376.43 |
| +50 | | | 5.7 | |
| 195+76 ⁸⁰ | | | | |
| 197+70 ⁵⁸ | | | 5.77 | |
| ORIG LINE | | | | |
| B.M. | | | 4.03 | 375.40 |

Check levels

| | | | | |
|--|--------|--------|------|-----------------|
| | + 2.76 | 378.16 | | |
| | 6.80 | 379.25 | 5.71 | 372.45 |
| | 5.79 | 380.42 | 4.62 | 374.63 |
| | 4.12 | 383.04 | 1.50 | 378.92 |
| | | | 3.87 | 379.17 = 379.17 |

| | | |
|------|------|------|
| +7.9 | +3.1 | -2.2 |
| 50 | 50 | 25 |

on stake 195+00

large buried rock between intersection of concrete highway & black top road.

B.M. at starting

Profile ALT LINE RIVER VIEW
 Pump PLANT Sta 173+27²² TO 195+74⁰³ (FINAL)
 Sta. + HI - ELEV.

| | | | | |
|------------------------|------|--------|------|--------|
| | 3.36 | 382.53 | | 379.17 |
| T.P | 4.43 | 383.21 | 3.75 | 378.78 |
| BC173+27 ²² | | | 5.2 | 378.0 |
| +50 | | | 5.4 | 377.8 |
| 174+00 | | | 4.9 | 378.3 |
| +50 | | | 5.1 | 378.1 |
| 175+00 | | | 5.7 | 377.5 |
| +50 | | | 5.1 | 378.1 |
| +78 | | | 4.8 | 378.4 |
| +86 | | | 7.5 | 375.7 |
| +94 | | | 4.8 | 378.4 |
| 176+00 | | | 5.1 | 378.1 |
| +50 | | | 5.5 | 377.7 |
| +65 | | | 5.34 | 377.9 |

4-3-46
 Clear-weather

Nelson T 57
 Rice Notes
 Leonard Rod

Steel PIN corner conc chamber
 River View Pump Plant

← CONT FROM P. 78 BOOK 688 JK

Top of bank

Ditch

Top of bank

EL CAPITAN P.L. CROSSES @ 176+16. Elev. of
 top of pipe 373.5 ± JK 5.15.46

Edge of pavement.

| sta | + | 383.21 H.I | - | Elev. |
|-----------------------------|------|---------------|------|--------|
| 177+00 | | | 5.22 | 378.0 |
| +37 | | | 5.32 | 377.9 |
| +50 | | | 5.6 | 377.6 |
| EC. 177+69 ⁴⁹ | | | 6.0 | 377.2 |
| 177+77 | | | 9.4 | 373.8 |
| 177+87 | | | 6.0 | 377.2 |
| T.P. | 9.72 | 390.03 | 7.40 | 380.81 |
| 178+00 | | | 12.5 | 377.5 |
| 178+26 ⁶⁴ | | | 12.7 | 377.8 |
| +50 | | | 12.1 | 377.9 |
| 179+00 | | | 11.5 | 378.5 |
| +35 | | | 9.9 | 380.1 |
| +44 | | | 3.2 | 386.8 |
| +50 | | | 3.0 | 387.0 |

top of bank.

30" CONNECTING PIPE - EL CAPITAN TO PUMPING
PLANT - STA 178+26 - TOP OF PIPE EL 373.4±.
ALSO 2" LINE SAME LOCATION 2' BELOW SURF. JK 5.15.46

bottom of bank

| | | | |
|-------|------|------|-------|
| 391.3 | +4.3 | -109 | |
| | 25 | 25 | 376.1 |

| Sta. | + | H.I. | - | Elev. |
|-----------------------------|-------|--------|-------|--------|
| T.P. | 10.10 | 400.10 | 0.03 | 390.00 |
| 180+00 | | | 4.3 | 395.8 |
| +50 | | | 4.4 | 395.7 |
| 181+00 | | | 6.5 | 393.6 |
| T.P. | 0.98 | 388.37 | 17.71 | 387.39 |
| 181+40 | | | 5.5 | 382.9 |
| +50 | | | 5.7 | 382.7 |
| BC 181+83 ^{7/8} | | | 6.4 | 382.0 |
| 182+00 | | | 7.1 | 381.3 |
| +50 | | | 4.9 | 383.5 |
| 183+00 | | | 4.7 | 384.2 |
| EC 183+09 ⁸⁹ | | | 3.9 | 384.5 |
| +50 | | | 3.8 | 384.6 |
| BC 183+60 ⁹² | | | 3.2 | 385.2 |

59

| | |
|-------|-------|
| 401.6 | 390.8 |
| +5.8 | -5.0 |
| 2.5 | 1.9 |

| | |
|-------|-------|
| 401.6 | 388.9 |
| +5.9 | -6.8 |
| 2.5 | 2.5 |

| | | | |
|-------|-------|-------|-------|
| 398.9 | 393.1 | 382.4 | 381.4 |
| +5.3 | -0.5 | -11.2 | -12.2 |
| 2.5 | 3 | 18 | 2.5 |

| | | |
|-------|-------|-------|
| 395.3 | 392.4 | 381.7 |
| +12.4 | +9.5 | -1.2 |
| 2.5 | 17 | 2.0 |

| Sta. | + | H.L. | - | Elev. |
|----------------------|-------|--------|------|--------|
| T.P. | 17.79 | 400.31 | 0.35 | 388.02 |
| +79 | | | 13.9 | 386.4 |
| +94 | | | 6.6 | 393.7 |
| 184+00 | | | 5.1 | 395.2 |
| T.P. | 17:00 | 411.96 | 0.35 | 399.96 |
| 184+50 | | | 3.8 | 408.2 |
| EC. | | | 0.8 | 411.2 |
| 184+88 ¹¹ | | | | |
| T.P. | 17.14 | 414.02 | 0.08 | 411.88 |
| 185+00 | | | 19.0 | 412.0 |
| +50 | | | 7.3 | 416.7 |
| B.C. | | | 3.8 | 420.2 |
| 185+70 ⁶¹ | | | | |
| T.P. | 11.76 | 435.45 | 0.33 | 423.69 |
| 186+00 | | | 10.9 | 424.6 |
| +50 | | | 7.2 | 433.3 |

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 399.1 | 392.4 | 387.2 | 390.0 | 384.1 | 383.3 |
| +3.9 | -2.8 | -8.0 | -5.2 | -11.1 | -11.9 |
| 25 | 11 | 25 | 30 | 44 | 55 |
| | | | | | 384.0 |
| | | | | | -11.2 |
| | | | | | 70 |
| | | | | | edge |
| | | | | | Pa |

| | | | | |
|-------|-------|-------|-------|---------|
| 411.5 | 400.6 | 392.8 | 385.1 | 385.3 |
| +3.3 | -7.6 | -15.4 | -23.1 | -22.9 |
| 25 | 25 | 53 | 60 | 73 |
| | | | | edge Pa |

| | | | | | |
|-------|-------|-------|-------|-------|---------|
| 419.5 | 404.0 | 396.5 | 387.5 | 386.6 | 386.8 |
| +7.5 | -8.0 | -15.5 | -24.5 | -25.4 | -25.2 |
| 25 | 25 | 57 | 69 | 67 | 75 |
| | | | | | edge Pa |

| | | | | | |
|-------|-------|-------|-------|-------|---------|
| 424.3 | 409.7 | 400.7 | 388.8 | 387.9 | 388.2 |
| +7.6 | -7.0 | -16.0 | -23.9 | -28.8 | -25.5 |
| 25 | 25 | 60 | 71 | 75 | 81 |
| | | | | | edge Pa |

| | | | | | |
|-------|-------|-------|-------|-------|---------|
| 432.2 | 416.9 | 411.6 | 407.3 | 400.6 | 389.1 |
| +7.6 | -7.7 | -13.0 | -17.3 | -24.0 | -35.5 |
| 25 | 25 | 40 | 54 | 70 | 81 |
| | | | | | 389.5 |
| | | | | | 25.1 |
| | | | | | edge Pa |

| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 442.3 | 422.9 | 419.3 | 410.3 | 408.6 | 391.6 | 390.5 |
| +9.0 | -10.4 | -14.0 | -23.0 | -24.7 | -41.7 | -42.8 |
| 25 | 25 | 38 | 60 | 66 | 80 | 83 |
| | | | | | | 390.9 |
| | | | | | | -42.4 |

93 edge Pa

| Sta. | + | H.I. | - | Elev. |
|-----------|------|--------|-------|-----------------|
| T.P. | 8.31 | 443.46 | 0.30 | 435.15 |
| 187+00 | | | 5.1 | 438.4 |
| +50 | | | 4.7 | 438.8 |
| 188+00 | | | 8.1 | 435.4 |
| T.P. | 1.07 | 434.72 | 9.81 | 433.65 |
| 188+50 | | | 10.5 | 424.2 |
| B.M. | 0.08 | 473.39 | 11.41 | 473.31 = 473.30 |
| E.C. | | | 5.1 | 418.3 |
| 188+76.9 | | | | |
| 189+00 | | | 10.4 | 413.0 |
| +47 | | | 16.0 | 407.4 |
| +50 | | | 14.8 | 408.6 |
| 189+51.99 | | | 14.7 | 408.7 |

190+00
+50
VOID
see page 69
Nelson

CONT. P. 64 JK

Extend cross sections
4-20-96 clear of Hot
Nelson
Rice Leonard

391.7 392.6 61.
-46.7 -45.8
95 107 edge Pav.

| | | | | | | |
|-------------|-------|-------|-------|-------|-------|----------|
| 448.0 | 428.1 | 422.1 | 413.5 | 412.8 | 395.4 | 392.4 |
| +9.6 | -10.3 | -16.3 | -19.9 | -25.6 | -32.0 | -46.0 |
| 2.5 | 2.5 | 40 | 50 | 67 | 86 | 90 |
| 391.8 392.5 | 450.0 | 429.7 | 423.2 | 415.9 | 412.8 | 395.9 |
| -47.0 -46.3 | +11.2 | -9.1 | -15.6 | -22.9 | -26.0 | -46.5 |
| 793 101 | 2.5 | 2.5 | 40 | 60 | 70 | 87 |
| edge Pav | | | | | | |
| 392.1 | 446.4 | 425.8 | 419.4 | 411.9 | 403.2 | 393.5 |
| -43.3 | +11.0 | -9.6 | -16.0 | -23.5 | -27.2 | -41.9 |
| 99 edge Pav | 2.5 | 2.5 | 40 | 60 | 69 | 81 |
| | | | | | | 88 |
| 436.9 | 416.7 | 409.4 | 403.2 | 390.9 | 391.4 | |
| +12.7 | -7.5 | -14.8 | -21.0 | -33.3 | -32.8 | |
| 2.5 | 2.5 | 40 | 65 | 83 | 90 | |
| | | | | | | edge Pav |
| See Page 54 | | | | | | |
| -32° 30' | | | | | | |
| 30' | | | | | | |
| 421.6 | 402.6 | 397.0 | 391.4 | 389.8 | 390.0 | |
| +8.6 | -10.4 | -16.0 | -21.6 | -23.2 | -23.0 | |
| 2.5 | 2.5 | 40 | 60 | 78 | 88 | |
| 415.9 | 397.6 | | | | | |
| +8.5 | -9.8 | | | | | |
| 2.5 | 2.5 | | | | | |
| 417.4 | 399.4 | 393.7 | 390.8 | 389.1 | 389.2 | |
| +8.8 | -9.2 | -14.9 | -17.8 | -19.5 | -19.4 | |
| 2.5 | 2.5 | 44 | 62 | 74 | 85 | |
| | | | | | | edge Pav |
| 421.2 | 406.5 | | | | | |
| +7.9 | -6.8 | | | | | |
| 2.5 | 2.5 | | | | | |
| 423.0 | 409.1 | | | | | |
| +6.8 | -7.1 | | | | | |
| 2.5 | 2.5 | | | | | |

| Sta | + | H.I. | - | Elev. |
|--------|------|--------|-------|--------|
| 191+00 | | 423.39 | 11.8 | 411.6 |
| T.P. | 0.94 | 411.96 | 17.37 | 411.02 |
| +50 | | | 6.9 | 405.1 |
| T.P. | 0.75 | 399.15 | 13.06 | 398.90 |
| 192+00 | | | 7.1 | 397.1 |
| +50 | | | 6.3 | 392.9 |
| 193+00 | | | 8.1 | 391.1 |
| +09 | | | 9.5 | 389.7 |
| T.P. | 1.73 | 389.08 | 11.30 | 387.85 |
| 193+13 | | | 4.5 | 384.6 |
| 193+75 | | | 3.6 | 385.5 |
| +31 | | | 7.1 | 387.0 |
| +50 | | | 7.7 | 386.4 |
| 194+00 | | | 5.7 | 383.4 |

Void
see page
69
Nelson

| | |
|-------|-------|
| 419.0 | 405.4 |
| +7.4 | -6.2 |
| 2.5 | 2.5 |
| 410.8 | 497.8 |
| +5.7 | -7.3 |
| 2.5 | 2.5 |
| 402.6 | 397.5 |
| +5.6 | -5.6 |
| 2.5 | 2.5 |
| 398.3 | 389.2 |
| +5.4 | -3.7 |
| 2.5 | 2.5 |

Top of bank.

Edge of road.

Edge of road.

CONT FROM P. 65 THIS BOOK JK

389.08

| Sta. | + | H.I. | - | Elev. |
|----------------------|------|--------|--------------|-----------------|
| EC. 194+16.42 | | | 6.90m 4.9 | 382.2 384.2 |
| +50 | | | 8.0 | 381.1 |
| +60 | | | 11.5 | 377.6 |
| 195+00 | | | 13.2 | 375.9 |
| +50 | | | 15.4 | 373.7 |
| 195+74 ⁰³ | | | 15.5 | 373.6 |
| T.P. | 6.75 | 387.92 | 17.41 | 376.67 |
| B.M. | | | 7.57 | 375.40 = 375.40 |

CONT P. 94, BOOK 688 JK

63

EQU. CHANGED IN OFFICE
TO 195+75.79.
SEE NOTE, P. 21, BOOK 694.
JK

NOTE:- EQUATION 197+70.58 AHEAD =

195+74.03 BACK
SEE P. 94, BOOK 688 JK

ON ROCK between Two Roads

PAGES { TURNS CHECKED JK 4.11.46

57-63 { REDUCED & CHECKED JK 4.11.46

Profile elev's Line change
 River view Pump Plant St 189+51.99 TO 194+18.22
 EL MONTE PL.


| Sta. | + H.L. | - | Elev. |
|-------------------|--------|--------|--------------|
| | 0.60 | 423.90 | 423.30 |
| 190+00 | | 10.8 | 413.1 |
| +50 | | 8.7 | 415.2 |
| B.C. 190+61.24 | | 9.4 | 414.5 |
| T.P. | 0.70 | 411.71 | 17.89 411.01 |
| 191+00 | | 1.6 | 410.1 |
| +50 | | 8.9 | 402.8 |
| T.P. | 0.15 | 400.76 | 11.70 400.51 |
| 192+00 | | 5.3 | 395.5 |
| +50 | | 9.0 | 391.8 |
| 193+00 | | 10.3 | 390.5 |
| E.C. 193+08.96 | | 13.7 | 387.1 |
| T.P. | 0.64 | 390.86 | 10.54 390.77 |
| 193+11 | | 6.7 | 384.2 |


4-19-46
 Clear-Hot

Nelson T
 Rice Notes 64
 Leonard Road

| BM | 421.7 | 406.4 | 404.3 | 390.9 | 388.0 | 388.4 |
|----|-------|-------|-------|-------|-------|-----------|
| | +8.6 | -6.7 | -8.8 | -22.2 | -25.1 | -24.7 |
| | 25 | 25 | 32 | 50 | 73 | 84 |
| | 422.1 | 408.6 | 403.0 | 404.7 | 390.7 | 388.2 |
| | +6.9 | -6.6 | -12.2 | -14.5 | -24.5 | -27.0 |
| | 25 | 25 | 45 | 50 | 59 | 63 |
| | | | | | | 81 |
| | | | | | | Edge Pav |
| | 416.9 | 404.5 | 395.6 | 385.1 | 386.0 | |
| | +6.8 | -5.6 | -14.5 | -25.0 | -24.1 | |
| | 25 | 23 | 50 | 63 | 76 | Edge Pavc |
| | 409.2 | 396.4 | 391.4 | 383.7 | 384.4 | |
| | +6.4 | -6.4 | -11.4 | -19.1 | -18.4 | |
| | 25 | 25 | 47 | 58 | 69 | Edge Pav |
| | 401.2 | 390.6 | 387.1 | 382.2 | 383.3 | |
| | +5.7 | -4.9 | -8.9 | -13.1 | -12.2 | |
| | 25 | 25 | 43 | 50 | 62 | Edge Pav |
| | 396.4 | 388.8 | 385.4 | 381.1 | 381.7 | |
| | +4.6 | -3.0 | -6.4 | -10.7 | -10.1 | |
| | 25 | 25 | 40 | 46 | 57 | Edge Pav |

| Sta | + | 390.86 H.I. | - | Elev. |
|----------------------|------|----------------|-------|-----------------|
| 193+79 | | | 5.8 | 385.1 |
| +30 | | | 4.0 | 386.9 |
| +50 | | | 4.6 | 386.3 |
| 194+00 | | | 7.4 | 383.5 |
| 194+18 ⁷³ | | | 8.7 | 382.2 |
| T.P. | 6.98 | 384.88 | 14.96 | 377.90 |
| B.M. | | | 9.47 | 375.41 = 375.40 |

CONT. P. 63 

4" STEEL PIPE - STA 194+17 - EL 380.6 ±
 5.15.46

REDUCED & CHECKED -  4.22.46

Profile FINAL Line 'F' EL MONTE
P.L. Sta 589+56.08 to 659+82

| | | | | |
|------------------------------|------|--------|-------|--------|
| | 7.59 | 480.29 | | 472.70 |
| 589+56 ⁰⁸ | | | 7.7 | 472.6 |
| 590 | | | 8.0 | 472.3 |
| +50 | | | 8.7 | 471.6 |
| 591 | | | 9.4 | 470.9 |
| +50 | | | 9.8 | 470.5 |
| 592 | | | 10.2 | 470.1 |
| +50 | | | 10.5 | 469.8 |
| 593 | | | 10.3 | 470.0 |
| +25 | | | 9.0 | 471.3 |
| +50 | | | 9.7 | 470.6 |
| B.C. 593+57 ⁷¹ | | | 9.84 | 470.45 |
| +74 | | | 10.40 | 469.89 |
| +75 | | | 11.1 | 469.2 |
| +86 | | | 10.8 | 469.5 |
| +95 | | | 11.1 | 469.2 |
| 594 | | | 11.7 | 468.6 |
| +17 | | | 13.1 | 467.2 |
| +30 | | | 11.7 | 468.6 |
| +50 | | | 10.0 | 470.3 |
| 595 | | | 8.8 | 471.5 |
| +25 | | | 7.3 | 473.0 |
| +50 | | | 7.9 | 472.4 |
| 596 | | | 5.2 | 475.1 |
| T.P. | 5.55 | 482.14 | 3.70 | 476.59 |

7-11-46
clear-HOT

Nelson A - Notes
Leonard 66
Eaton

B.M. on SPIKE Sta 595+31.75 original line

on Hub

Edge Road

& Road

Edge Road

482.14

| | | | | | |
|--------------------------------------|-------|--------|--------|--------|---|
| 596+04 ²³ | | 7.2 | 474.9 | | |
| +50 | | 7.3 | 474.8 | | |
| 597 | | 5.6 | 476.5 | | |
| +50 | | 6.0 | 476.1 | | |
| +70 | | 4.3 | 477.8 | | |
| 598 | | 5.5 | 476.6 | | |
| +50 | | 5.1 | 477.0 | | |
| +75 | | 4.0 | 478.1 | | |
| 599 | | 5.4 | 476.7 | | |
| +50 | | 6.0 | 476.1 | | |
| +71 | | 8.3 | 473.8 | | |
| +77 | | 6.8 | 475.3 | | |
| E.C. 600+00 ²⁹ | | 6.03 | 476.11 | | |
| 600+50 | | 2.6 | 479.5 | | |
| T.P | 12.41 | 493.67 | 0.88 | 481.26 | ✓ |
| 601 | | 10.8 | 482.9 | | |
| +50 | | 9.0 | 484.7 | | |
| 602 | | 7.2 | 486.5 | | |
| +50 | | 6.4 | 487.3 | | |
| 603 | | 5.1 | 488.6 | | |
| +50 | | 3.9 | 489.8 | | |
| ⁸ 603+81 ⁴⁹ | | 5.38 | 488.29 | | |
| 604 | | 4.9 | 488.8 | | |
| +25 | | 2.9 | 490.8 | | |
| +50 | | 2.9 | 490.8 | | |

dry wash

on hub

493.67

| | | | | | |
|----------------------|--------|--------|-------|--------|----------|
| CK B.M. | 11.86 | 497.40 | 8.13 | 485.54 | = 485.55 |
| 605 | | | 4.6 | | 492.8' |
| +50 | | | 3.0 | | 494.4' |
| 606 | | | 2.6 | | 494.8' |
| F.C. | | | | | |
| 606+39 ¹⁵ | | | 2.82 | | 494.58' |
| +50 | | | 3.3 | | 494.1' |
| 607 | | | 5.7 | | 491.7' |
| +50 | | | 10.1 | | 489.3' |
| T.P | 6.80 | 491.32 | 12.88 | 484.52 | ✓ |
| 608 | | | 10.2 | | 481.1' |
| +50 | bottom | Gully | 14.4 | | 476.9' |
| +75 | | | 13.7 | | 477.6' |
| 609 | | | 10.2 | | 481.1' |
| B.C. | | | | | |
| 609+04 ⁹⁴ | | | 9.4 | | 481.9' |
| +25 | | | 5.2 | | 486.1' |
| F.C. | | | | | |
| 609+35 ¹³ | | | 3.3 | | 488.0' |
| +50 | | | 0.5 | | 490.8' |
| T.P | 12.91 | 503.81 | 0.42 | 490.90 | |
| 610 | | | 3.8 | | 500.0' |
| T.P | 12.27 | 515.57 | 0.51 | 503.30 | |
| +50 | | | 11.5 | | 504.1' |
| 611 | | | 3.0 | | 512.6' |
| +07 | | | 0.9 | | 514.7' |
| +29 | | | 1.2 | | 514.4' |

90' Left sta 606+00, "V" LINE
Hub & Guard set on "S" LINE

| | | | |
|-----------|------|------|------|
| | -2.4 | +2.3 | |
| | 25 | 25 | |
| on SPIKE | | | |
| | -3.0 | +3.2 | |
| | 25 | 25 | |
| | -4.4 | | +3.5 |
| | 25 | | 25 |
| | -4.8 | +4.8 | |
| | 25 | 25 | |
| | -3.7 | +5.0 | |
| | 25 | 25 | |
| | -1.0 | | +1.4 |
| | 25 | | 25 |
| | +0.8 | +0.2 | |
| | 25 | 25 | |
| | +2.6 | | -1.5 |
| | 25 | | 25 |
| on SPIKE | | | |
| | +3.3 | -2.4 | |
| | 25 | 25 | |
| on SPIKE | | | |
| | +4.2 | | -4.0 |
| | 25 | | 25 |
| | +3.3 | -3.4 | |
| | 25 | 25 | |
| | +2.2 | | -1.7 |
| | 25 | | 25 |
| | +2.0 | +1.9 | +0.4 |
| | 25 | 12 | 6 |
| | | | 25 |
| EDGE ROAD | | | |

515.57

| | | | | |
|--|-----------|--------|-------|----------|
| + 31 | | | 2.0 | 513.6 ✓ |
| T.P | 10.13 | 524.47 | 1.23 | 514.34 |
| + 35 | | | 8.6 | 515.9 ✓ |
| + 50 | | | 7.8 | 516.7 ✓ |
| 612 | | | 5.9 | 518.6 ✓ |
| + 50 | | | 4.6 | 519.9 ✓ |
| ^{P.T} 612 + 77 ⁷⁹ | | | 4.77 | 519.70 ✓ |
| 613 | | | 5.4 | 519.1 ✓ |
| + 50 | | | 6.4 | 518.1 ✓ |
| 614 | | | 7.8 | 516.7 ✓ |
| + 50 | | | 10.0 | 514.5 ✓ |
| 615 | | | 10.6 | 513.9 ✓ |
| + 50 | | | 12.3 | 512.2 ✓ |
| Set B.M | 5.79 | 517.60 | 12.66 | 511.81 ✓ |
| 616 | | | 8.1 | 509.5 ✓ |
| + 06 | | | 12.1 | 505.5 ✓ |
| + 15 | | | 13.3 | 504.3 ✓ |
| + 39 | Edge part | | 12.25 | 505.35 ✓ |
| + 50 | | | 11.63 | 505.97 ✓ |
| + 73 | edge part | | 11.25 | 506.35 ✓ |
| + 88 | | | 11.3 | 506.3 ✓ |
| + 96 | | | 10.3 | 507.3 ✓ |
| 617 | | | 11.4 | 506.2 ✓ |
| T.P | 7.81 | 512.67 | 12.74 | 504.86 ✓ |
| + 50 | | | 13.0 | 499.7 ✓ |

OH SPICE

23' Left 5726/4+90 OH ROCK Painted yellow

| | | | | | |
|------|------|------|------|------|------|
| | -2.8 | -1.1 | 0.0 | +0.5 | |
| | 25 | 16 | 14 | 25 | |
| -5.8 | -0.6 | +0.7 | | | +0.5 |
| 25 | 8.0 | 6.0 | | | 25 |
| | | | -8.0 | -4.5 | |
| | | | 25 | 10 | |
| | | | | | +0.2 |
| | | | | | 25 |
| -6.9 | -4.0 | | | +1.1 | +0.3 |
| 25 | 10 | | | 5 | 9 |
| | | | | | 25 |
| | | | -0.9 | +2.2 | +4.8 |
| | | | 25 | 15 | 25 |
| | | | | | 33 |

| | | | | | |
|----------------------|-------|--------|-------|--------|----------|
| | | 512.67 | | | |
| BC | | | | | |
| 617+67 ⁰² | | | 12.41 | | 500.26 ✓ |
| 618 | | | 10.3 | | 502.4 ✓ |
| +50 | | | 4.2 | | 508.5 ✓ |
| 619 | | | 0.6 | | 512.1 ✓ |
| T.P. | 12.48 | 524.15 | 1.00 | 511.67 | ✓ |
| +50 | | | 9.6 | | 514.6 ✓ |
| 620 | | | 5.6 | | 518.6 ✓ |
| +50 | | | 1.1 | | 523.1 ✓ |
| E.C. & T.P. | | | | | |
| 620+67 ⁰⁵ | 11.76 | 535.68 | 0.23 | 523.92 | ✓ |
| 621 | | | 9.9 | | 525.8 ✓ |
| +50 | | | | | |
| +50 | | | 8.0 | | 527.7 ✓ |
| | | | | | |
| 622 | | | 7.3 | | 528.4 ✓ |
| +50 | | | 6.4 | | 529.3 ✓ |
| 622+77 ²⁹ | | | 5.59 | | 530.09 ✓ |
| 623 | | | 3.9 | | 531.8 ✓ |
| T.P. | 12.25 | 543.49 | 4.44 | 531.24 | ✓ |
| +50 | | | 8.1 | | 535.4 ✓ |
| | | | | | |
| 629 | | | 5.1 | | 538.4 ✓ |
| +50 | | | 2.9 | | 540.6 ✓ |

| | | | |
|----------|------------|------------|------------|
| OH SPIKE | | | |
| | +2.9 25 | -1.1 6 | -0.7 25 |
| | +1.4 25 | | |
| | | +1.3 25 | -2.7 25 |
| | | +1.8 25 | -1.5 25 |
| | +3.7 25 | | -1.9 25 |
| | | +4.5 25 | -3.5 25 |
| OH SPIKE | | | |
| | +5.0 25 | -4.2 25 | |
| | | +5.4 25 | -3.9 25 |
| | | +4.9 25 | -3.4 25 |
| | | +5.4 25 | -3.5 25 |
| OH SPIKE | | | |
| | +6.4 25 | -5.3 25 | |
| | +6.7 25 | +3.6 15 | -5.7 25 |
| | | +5.1 25 | -4.0 25 |
| | +4.4 25 | -5.1 25 | |

54349

| | | | | | |
|----------|------|--------|-------|--------|--------|
| T.P. | 6.04 | 541.89 | 1.64 | 541.85 | ✓ |
| 625 | | | 5.3 | 542.6 | |
| +50 | | | 3.5 | 544.4 | |
| 626 | | | 3.3 | 544.6 | |
| E.C. | | | 3.37 | 544.52 | |
| 626+2520 | | | 3.5 | 544.4 | |
| +50 | | | | | |
| 627 | | | 5.2 | 542.7 | |
| +43 | | | 7.1 | 540.8 | |
| SET BM | | | 9.55 | 538.34 | 538.34 |
| +50 | | | 8.2 | 539.7 | |
| +60 | | | 10.1 | 537.8 | |
| 628 | | | 13.0 | 534.9 | |
| T.P. | 0.71 | 536.67 | 11.93 | 535.96 | ✓ |
| +50 | | | 6.2 | 530.5 | |
| 629 | | | 9.9 | 526.8 | |
| +50 | | | 12.4 | 524.3 | |
| T.P. | 0.70 | 524.80 | 12.57 | 524.10 | ✓ |
| 630 | | | 2.1 | 522.7 | |
| +50 | | | 3.4 | 521.4 | |
| E.C. | | | 4.90 | 519.90 | |
| 630+7829 | | | 6.8 | 518.2 | |
| 631 | | | 11.8 | 513.0 | |
| +50 | | | | | |
| T.P. | 0.78 | 513.52 | 12.06 | 512.74 | ✓ |

71

| | | | |
|------|------|------|------|
| +5.0 | +2.1 | -1.0 | -4.2 |
| 25 | 15 | 7 | 25 |

| | | |
|------|------|------|
| +5.4 | +2.8 | -4.7 |
| 25 | 15 | 25 |

| | |
|------|------|
| +5.2 | -7.0 |
| 25 | 25 |

ON SPIKE

| | |
|------|------|
| +3.9 | -3.3 |
| 25 | 25 |

| | |
|------|------|
| +2.0 | -2.6 |
| 25 | 25 |

SPIKE IN Power stub Pole 105' RT STA 626+50

concrete in front of garage

513.52

| | | | | | |
|------------------------------|-------|--------|-------|--------|---|
| 631+71 | | | 2.7 | 510.8 | |
| B.C 631+88 ⁰³ | | | 6.50 | 507.02 | |
| 632 | | | 10.0 | 503.5 | |
| T.P. | 5.75 | 506.67 | 12.60 | 500.92 | |
| +24 | | | 11.7 | 495.0 | |
| F.C. 632+40 ²⁶ | | | 12.05 | 494.62 | |
| +50 | | | 12.5 | 494.2 | |
| +80 | | | 11.7 | 495.0 | |
| 633 | | | 4.0 | 502.7 | |
| +15 | | | 2.3 | 504.4 | |
| T.P. | 12.37 | 518.24 | 0.80 | 505.87 | ✓ |
| +50 | | | 7.3 | 510.9 | |
| T.P. | 11.66 | 528.05 | 1.85 | 516.39 | |
| 634 | | | 9.2 | 518.8 | |
| +50 | | | | | |
| P.I. 634+14 ⁵³ | | | 8.10 | 519.95 | |
| +50 | | | 6.9 | 521.1 | |
| 635 | | | 5.0 | 523.0 | |
| +50 | | | 3.4 | 524.6 | |
| 636 | | | 1.8 | 526.2 | |
| T.P. | 9.47 | 536.57 | 0.95 | 527.10 | ✓ |
| +50 | | | 8.8 | 527.8 | |
| 637 | | | 7.2 | 529.4 | |
| +50 | | | 6.1 | 530.5 | |
| +93 | | | 5.9 | 530.7 | |

OH SPIKE

OH SPIKE

| | | | | |
|---------------------------|--------|--------|--------|---------|
| | 536.57 | | | |
| +97 | | 5.61 | | 530.96' |
| 638 | | 5.56 | | 531.01' |
| +17 | | 5.80 | | 530.77' |
| +22 | | 6.5 | | 530.1' |
| +25 | | 4.8 | | 531.8' |
| CK B.M | | 2.80 | 533.77 | ✓ |
| +50 | | 5.0 | | 531.6' |
| ^{BC} 638+7701 | | 5.18 | | 531.39' |
| 639 | | 5.6 | | 531.0' |
| +50 | | 5.6 | | 531.0' |
| 640 | | 6.4 | | 530.2' |
| ^{E.C} 640+072 | | 6.65 | | 529.92' |
| +50 | | 7.9 | | 528.7' |
| 641 | | 10.2 | | 526.4' |
| T. P. | 0.66 | 528.00 | 9.23 | 527.34 |
| +50 | | 3.6 | | 524.4' |
| 642 | | 5.3 | | 522.7' |
| +50 | | 6.4 | | 521.6' |
| 643 | | 8.2 | | 519.8' |
| +50 | | 12.4 | | 515.6' |
| T. P | 3.68 | 519.16 | 12.52 | 515.48 |
| 644 | | 9.4 | | 509.8' |
| +19 | | 11.1 | | 508.1' |
| +50 | | 6.4 | | 512.8' |
| +85 | | 2.8 | | 516.4' |

edge pavement

edge pavement

Nail N₂ Base Pepper Tree 33' RT Sta 637+90
26' Left R.R. Sta 53+00

Bottom Gully

Nelson T Notes
 Leonard
 Eaton 74

7-12-46
 clear-Hot

| | | | | |
|---|--------|--------|-------|------------------|
| | 519.16 | | | |
| T.P | 11.78 | 530.79 | 0.15 | 519.01 ✓ |
| +91 | | | 13.1 | 517.7' |
| 645 | | | 13.0 | 517.8' |
| +50 | | | 8.9 | 521.9' |
| B.C 645+91 ⁹⁵ | | | 4.99 | 525.80' |
| 646 | | | 4.6 | 526.2' |
| +50 | | | 1.8 | 529.0' |
| T.P | 12.23 | 542.08 | 0.94 | 529.85 ✓ |
| 647 | | | 9.9 | 532.2' |
| set B.M E.C. 647+25 ⁹⁷ | | | 10.07 | 532.01 ✓ |
| +50 | | | 8.29 | 533.79' |
| 648 | | | 6.0 | 536.1' |
| +50 | | | 2.9 | 539.7' |
| T.P | 12.46 | 544.44 | 0.10 | 541.98 ✓ |
| +50 | | | 10.1 | 544.3' |
| 649 | | | 4.8 | 549.6' |
| T.P. | 12.83 | 566.80 | 0.47 | 553.97 ✓ |
| +50 | | | 11.2 | 555.6' |
| 650 | | | 2.1 | 564.7' |
| T.P. | 12.79 | 577.97 | 1.62 | 565.18 ✓ |
| +50 | | | 2.9 | 575.1 x 574.1 |
| +66 | | | 1.7 | 576.3 |
| T.P | 0.59 | 576.20 | 2.36 | 575.61 ✓ |
| B.C 650+83 ⁴⁰ | | | 0.96 | 575.24 |

R/W HUB 16' Left ST 2 647

-3.4 -2.7 -1.1 +2.8
 25 18 12 25

-2.4 -1.0 +3.1
 14.6 9. 25

Edge
Road 4.4 -3.0
 27 25

Edge
Road 14.6
 12.9

+3.4
 25

TOP STAKE ST 2 650 to 8

-7.5 -1.1 +2.4
 Edge Road 15 12 25

-8.3 -0.8 +3.1
 14 10.5 25
 Edge Road

576.20

651 3.5 572.7 ✓

+50 11.7 564.5 ✓

T.P. 0.92 564.14 12.98 563.22 ✓

652 ✓ 8.3 555.8 ✓

T.P. 3.41 554.51 13.04 551.10

+50 4.3 550.2 ✓

653 7.4 547.1 ✓

B.C.
+27⁷³

8.37 546.14 ✓

+50 9.0 545.5 ✓

654 9.5 545.0 ✓

EC
+11³³

9.46 545.05 ✓

+50 8.6 545.9 ✓

655 7.0 547.5 ✓

+50 6.0 548.5 ✓

656 4.8 549.7 ✓

+50 3.8 550.7 ✓

+65 3.4 551.1 ✓

657 4.4 550.1 ✓

+50 5.2 549.3 ✓

658 6.4 548.1 ✓

T.P. 0.61 549.55 5.57 548.94

+50 2.1 547.5 ✓

+68⁷⁴ 2.10 547.45 ✓

+75 2.2 547.4 ✓

75

-5.5 -1.2 +3.3
14 11 25-3.4 -1.4 +2.6
20 14 25-1.8 +2.3
25 25

OH SPIKE

OH SPIKE

549.55

| | | | | | |
|----------------|------|--------|------|--------|----------|
| 659 | | | 2.3 | | 547.3 |
| +25 | | | 2.6 | | 547.0 |
| +50 | | | 2.8 | | 546.8 |
| +75 | | | 2.2 | | 547.4 |
| E.C. +78.67 | | | 2.33 | | 547.22 |
| 659+82 | END | | 2.2 | | 547.4 |
| T.P | 0.12 | 547.97 | 1.70 | 547.85 | ✓ |
| CK BM | | | 5.56 | 542.91 | = 542.51 |

C.K. U.M. July 19, 1946

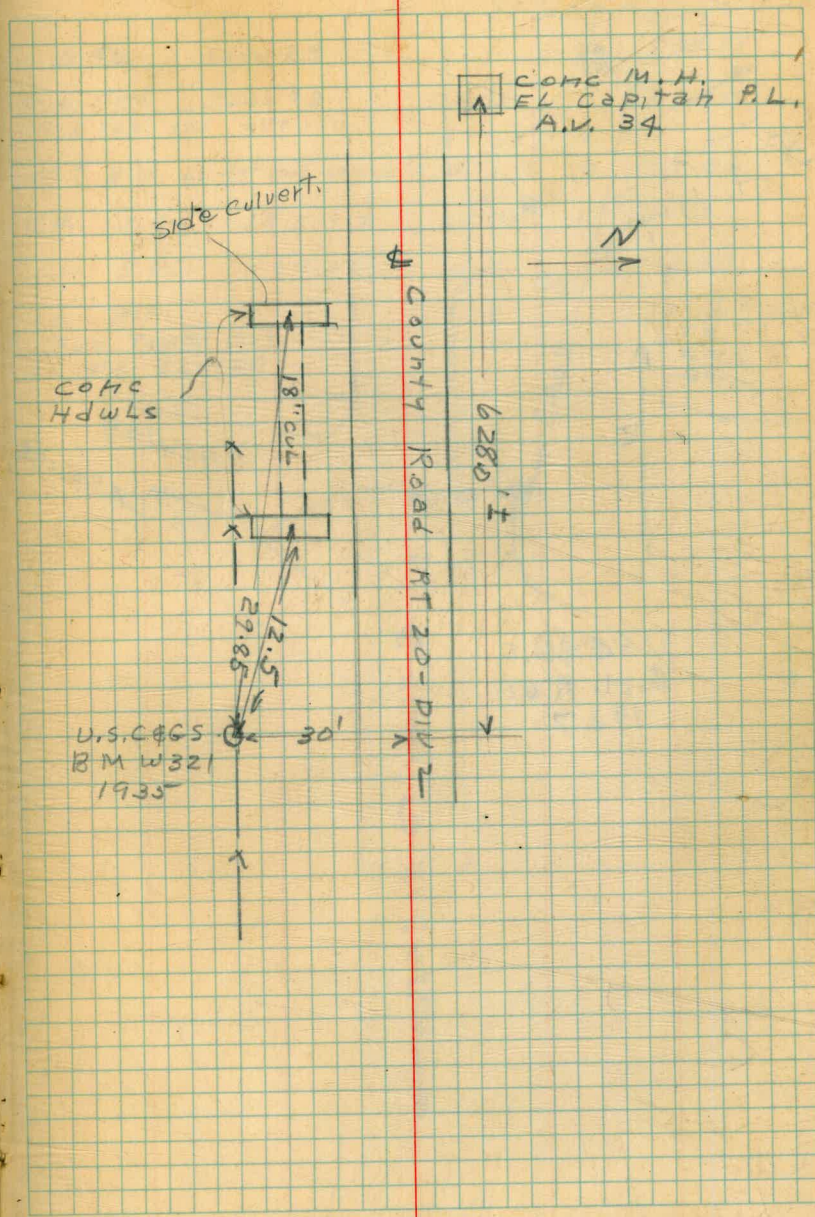
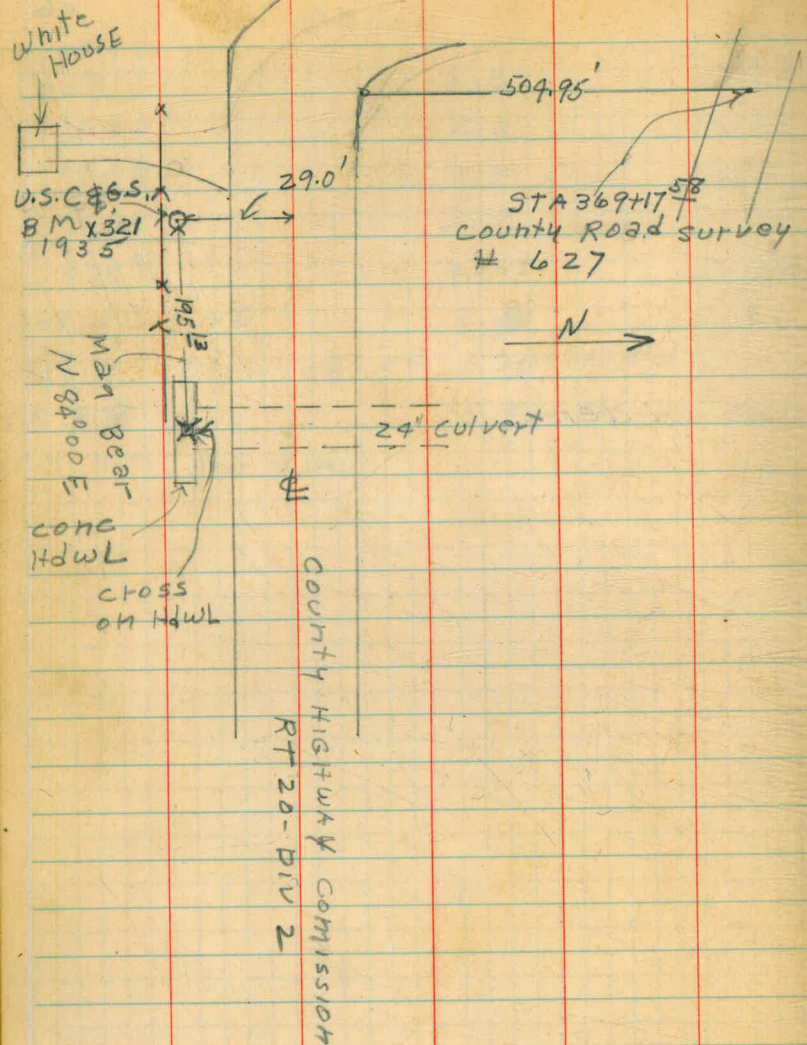
76

B.M. on dam

TIES TO B.M.'S MISSION GORGE

4-23-46
Clear-140 T

Nelson
Leonard 77
KMG



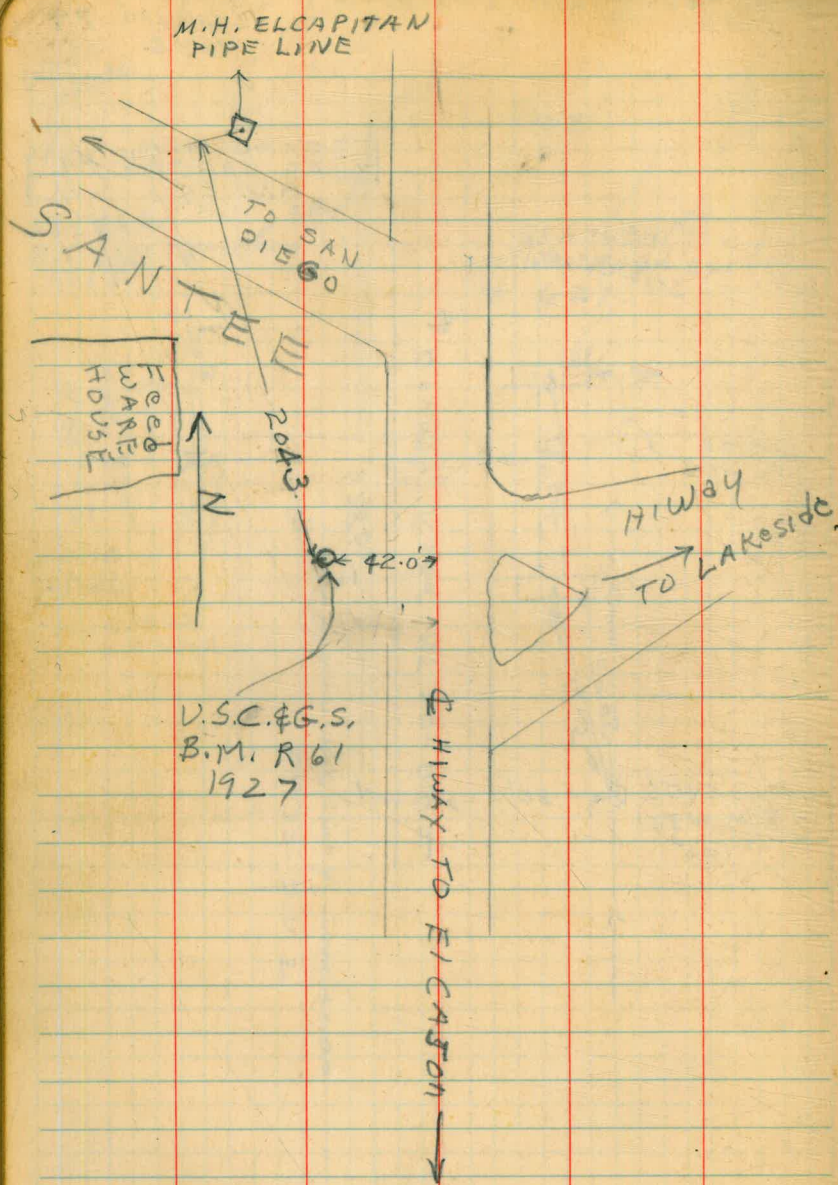
CONC M.H.
FL CAPITAL P.L.
A.V. 34

N

County Road RT 20-DIV 2
6280' ±

CONC HdWLs

U.S. C&GS
B.M. W321
1935



2-25-47
clear-cool

Nelson
Phillips
Barragan

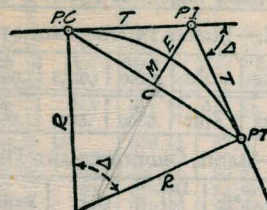
79

BASE Pepper
T. Hub see page 73
B.M.

| | | | |
|-----------------------|----------------------|-------|----------------|
| 0.46 | 534.23 | | 533.77 |
| T.P. 1.83 | 523.73 | 12.33 | 521.90 |
| Red TOP STA | 634+50 | | |
| SC T B.M. 60' Ref Hub | 630+63 ⁹² | 0.173 | 523.00 |
| T.P. 12.99 | 535.93 | 0.179 | 522.94 |
| T.P. 8.65 | 544.12 | 0.46 | 535.47 |
| CK 13.M | | 5.78 | 538.34 = 53834 |
| STUB Power pole | | | |
| LT STA | 626+50 | | |

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



CURVE FORMULAS

Radius= $R = \frac{50}{\sin \frac{D}{2}}$ (1) Degree of Curve= D and $\sin \frac{D}{2} = \frac{50}{R}$ (2)

Tangent= $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve= $L = 100 \frac{\Delta}{D}$ (4)

Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$ (5) $= R \text{vers} \frac{\Delta}{2}$ (6)

External= $E = T \tan \frac{\Delta}{4}$ (7) $= R + \cos \frac{\Delta}{2} - R$ (8) $= R \text{exsec} \frac{\Delta}{2}$ (9)

Long Chord= $C = 2 R \sin \frac{\Delta}{2}$ (10) $\Delta =$ Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{3} = 414.49$ ft. From Table V correction $= .36$ or $T = 414.85$ ft. P. C.—Sta. P. I.— $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T.—Sta. P. C. + $L = 164 + 91.50$.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft. $= 7.27$ ft. Distance $= 158 - \text{Sta. P. C.} = 54.50$, hence offset $= 7.27 (54.50 \div 100)^2 = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26) = 2.16$ ft.

Deflections.—Deflection angle $= \frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft. $= (\text{in minutes}) .3 \times C \times D^\circ$ or $\text{defl. for 1 ft. from Table III} \times C$. For Sta. 158 of above curve $= .3 \times 54.5 \times 8\frac{1}{3} = 136.2'$ or $2^\circ 16.2'$, or $= 2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle $= 2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{3} = 115.27$ and from Table V correction $= .10$ or $E = 115.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

San Diego, California
June 10, 1947.

Soundings taken at creek crossing between Stations 382 and 383, on El Monte Pipe Line, Section Two. Soundings were taken with an eight foot long steel rod, octogan shaped, about 1 $\frac{1}{8}$ " in diameter. Depth of soundings were determined by use of the Transit as a Level, and with an H.I. of 398.62', taken from a B.M. set on N.W. corner of Headwall on Broadway, with a recorded Elevation of 406.46 -- Sheet 38, Sect. II, El Monte P.L.

| <u>Station:</u> | <u>Rod:</u> | <u>Calc. Elev.:</u> | <u>Description of dirt in hole:</u> |
|-----------------|-------------|---------------------|--|
| | | H.I. 398.6 | |
| 382 | 00 -9.0 | 389.6 | Hard, black loam, dry at bottom. |
| " | 10 -9.6 | 389.0 | Hard crust for 18", then soft and moist. |
| " | 20 -10.1 | 388.5 | Hard crust for 22", then sandy and damp. |
| " | 25 -9.7 | 388.9 | Hard crust for 18", then sand and rocks. Moist below hard crust. |
| " | 30 -9.5 | 389.1 | Crust for 18", then sand and rocks, damp. |
| " | 35 -9.3 | 389.3 | Sandy black loam, rocks, dry. |
| " | 40 -8.2 | 390.4 | Soft sandy loam on top, hard below, dry. |
| " | 45 -9.0 | 389.6 | Sandy on top, rocks below, moist at bottom. |
| " | 50 -10.2 | 388.4 | Edge of creek. Black mud and rocks, very wet. Bottom seems to be all rocks. |
| Water: | -8.3 | 390.3 | Surface of creek. |
| 382 | 65 -11.1 | 387.5 | Black mud, rocks, very sticky at bottom. Edge of creek. |
| " | 70 -10.6 | 388.0 | Black mud, few rocks, wet and sticky. |
| " | 75 -9.0 | 389.6 | Black loam, damp and sticky at bottom. |
| " | 80 -8.9 | 389.7 | Black sandy soil, damp in bottom. |
| " | 85 -8.0 | 390.6 | Hard crust 12", then damp and sticky. |
| " | 90 -8.2 | 390.4 | Hard crust 30", then soft and moist. |
| " | 95 -8.6 | 390.0 | Dug hole about 2' in dia. Ground was all black sandy dirt with small stones mixed in it. Moist below 392.5 Elev. |
| " | 95 -9.8 | 388.8 | Drove rod down in bottom of hole until we hit hard rocks that we could not penetrate. |

383. No sounding taken.

Synopsis: There seems to be a hard layer of large rocks beneath the dark sandy top soil all along this line. At Sta. 382 plus 20, it appears as if the channel of the river had been here at one time, and then has shifted over to its present location, because the top soil is soft underneath, and damp, with a hard bottom.

Don E. Leonard.

MS Cx 6.5 BM
 MIN RAD 1300
 1500 PREFERRED

Began El Montebello.
 112+35.31

378.50
 348+47.25
 60275
 1146
 351650
 291500
 60275
 60275
 69879.150

507.39
 3.22
 310.61

378.79
 37
 379.88

26.8
 1.3
 28.3

12.08 H.6
 944 pole = 532.01

532.01
 12.08
 544.09
 944
 534.55

27.69
 58 52 30
 206 + 2920

DISTANCES FROM CENTER OF ROADWAY FOR
 CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2
 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 | 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) ÷ 2 or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.