1749

(1)

MICROFILMED
DEC 29 1964

1744

OFFICE OF
CITY ENGINEER
SAN DIEGO.

MADE IN U.S.A.

1749

Our Leather Bound Engineers Note Books are carried in the following rulings:

| | |
|---|---|
| No. 380 LEVEL BOOK. | Left and Right Hand Page the same as Left Hand Page of this Book. |
| No. 382 FIELD BOOK. | Left Hand Page as in this Book, Right Hand Page 4x4 to the inch, Center Line Red. |
| No. 384 MINING TRANSIT BOOK. | Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red. |
| No. 385 FIELD BOOK. | Left Hand Page as in this Book, Right Hand Page 8 vertical and 4 horizontal lines to the inch, Center Line Red. |

We also carry the Note Books listed above, bound in extra strong Fabri-Hide (otherwise the same quality of book,) which can be furnished at a somewhat lower price.

In ordering Fabri-Hide covered books, add the letter "F" to catalog number.

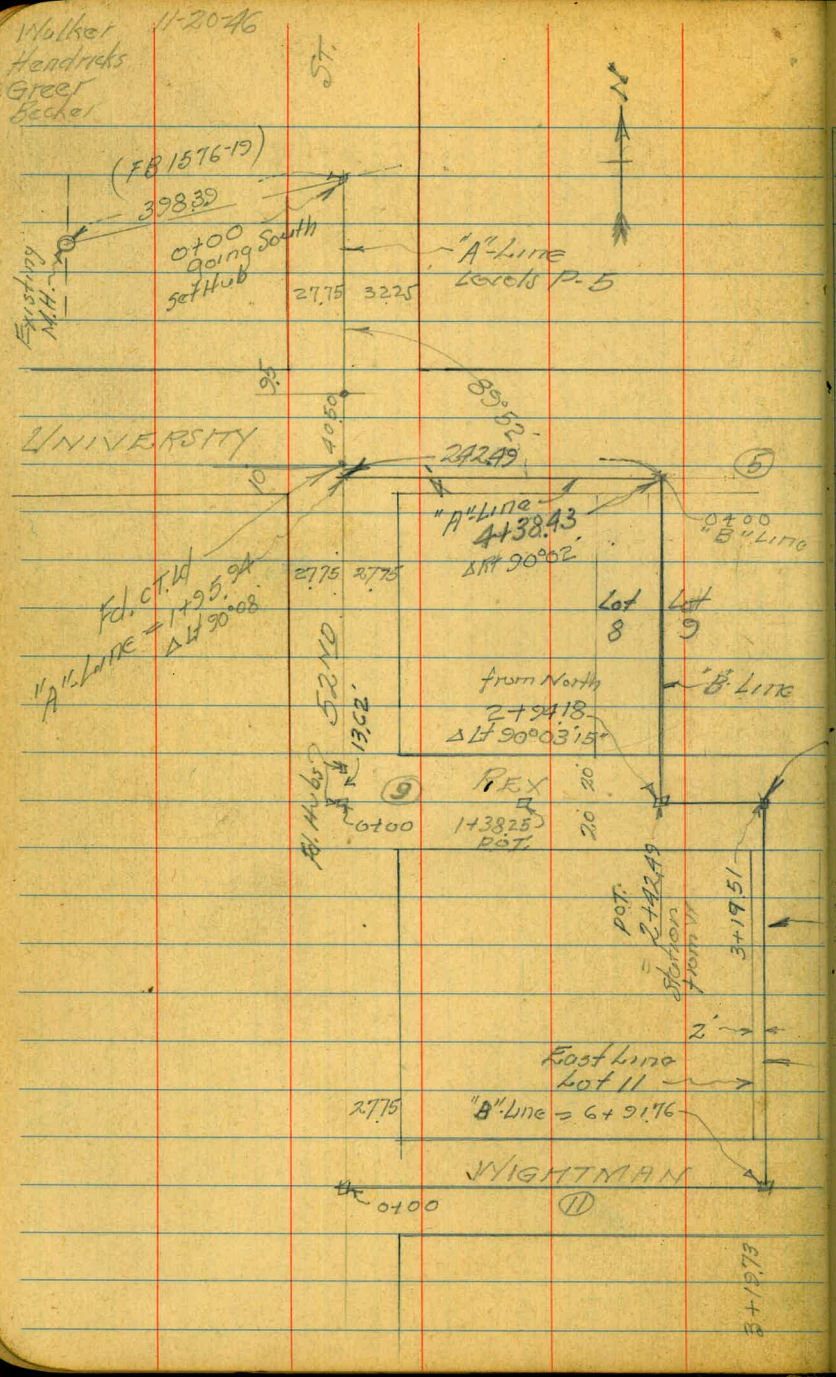
**THE FREDERICK POST CO.**
*ENGINEERING and DRAFTING SUPPLIES*
P. O. Box 803. CHICAGO

INDEXED
to page # 72
except pages #1, 2,

1749

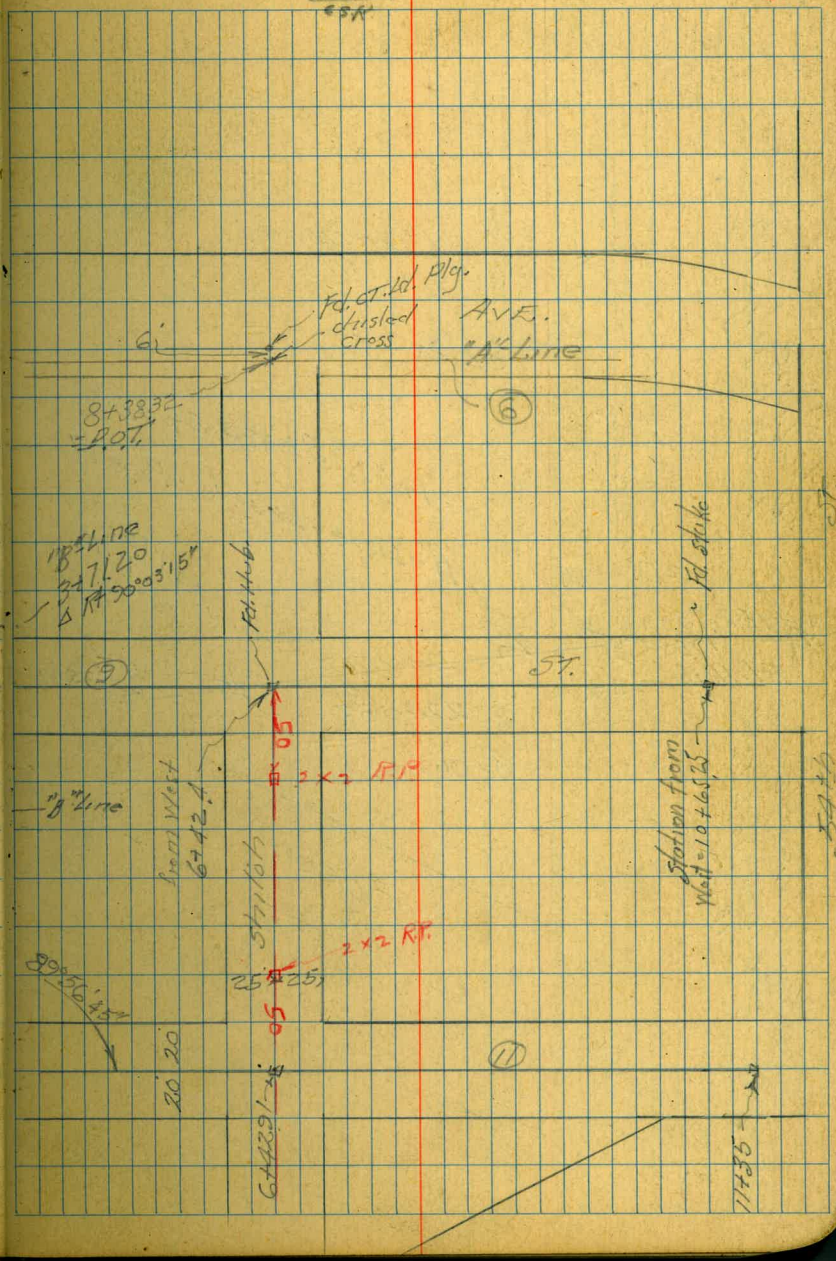
| | |
|---|---|
| 1-22 | Berkeley Hts. Sewers |
| 23-27 | Cross Sec. Russell St. Locust to Evergreen |
| 28-32 | " " Del Rey St. Baxter Hills to Rosewood St. |
| 33-40 | " " Plymouth Dr. Panorama Hts. |
| 41-43 | " " Standish Dr. " " |
| 44 | " Nozzle, Moore to La Jolla Ave |
| 48 | " alley → 11th P.B. 48 |
| 73-75 | Pavement cut. P.B. storm drain |
| 57-72 | Laveta - Sequoia St. Pac. Beach |

Walker Hendricks Greer Becker 11-20-46



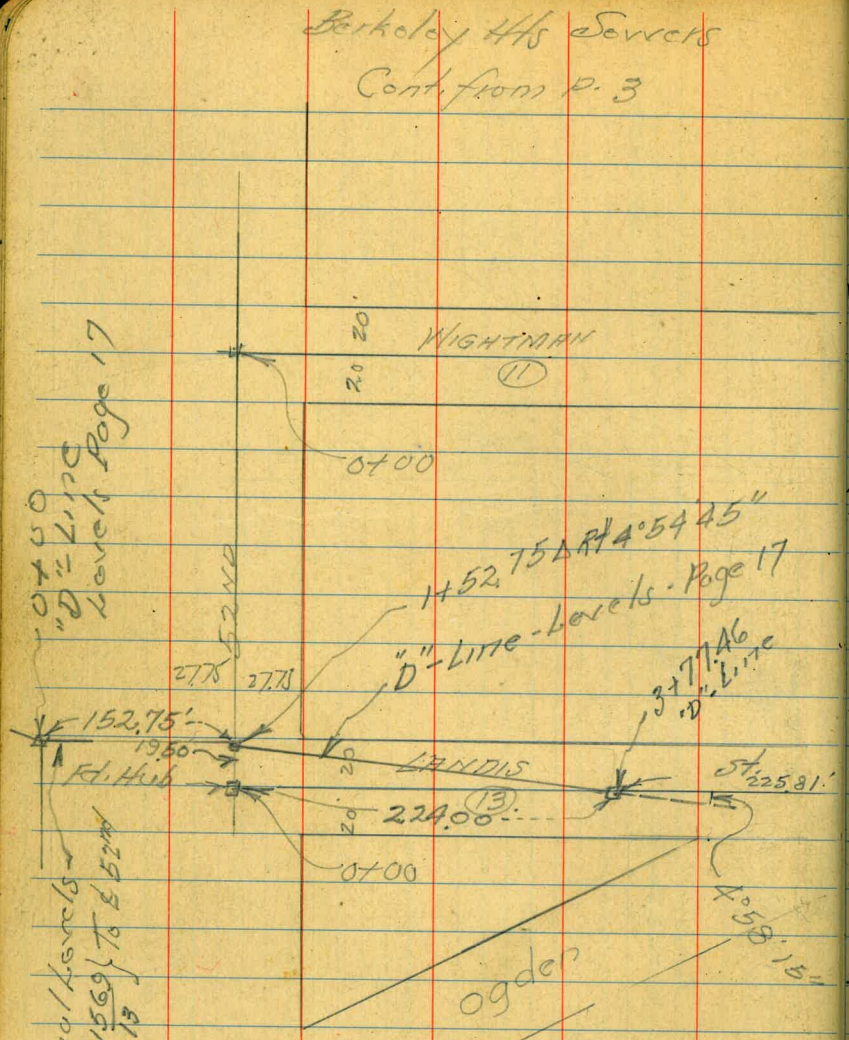

Proposed Sewer - Berkeley Hts.

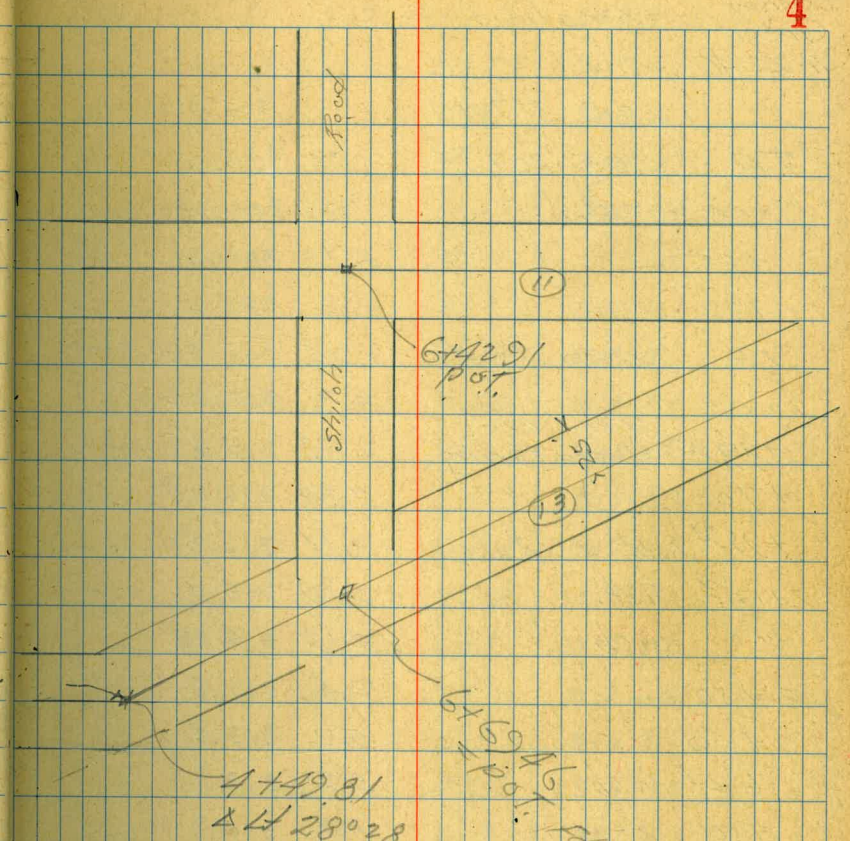
3



Berkeley Hills Sewers

Cont. from p. 3



Walker
Hendricks
Becker
Greer
11-22-46

Berkeley Hts. - Levels - Proposed Sewer "A" Line
Location P-3

| | | | | |
|---|---|---|---|---|
| | | | ? where | |
| | 1.60 | 317.17 | | 315.57 |
| T.P. | 1.95 | 307.75 | 11.37 | 305.80 |
| 0+00 | on Hub | | 7.44 | 300.31 |
| +25 | | | 6.1 | 301.7 |
| +50 | | | 4.2 | 303.6 |
| T.P. | 12.60 | 318.40 | 1.95 | 305.80 |
| 1+00 | | | 8.3 | 310.1 |
| +39.24 | 4 min. Arc = N. edge Paving | | 2.83 | 315.57 |
| +70 = ℄ | " | | 2.34 | 316.06 |
| +95.24 | Δ Lt 90°08' | | 2.11 | 316.29 |
| 2+12.3 | Gut. | | 2.69 | 315.71 |
| " | on cb | | 2.17 | 316.23 |
| 2+50 | | | 2.6 | 315.8 |
| 3+00 | | | 5.2 | 313.2 |
| 6' Lt. | on cb | | 5.29 | 313.11 |
| +50 | | | 8.3 | 310.1 |
| 4+00 | | | 10.4 | 308.0 |
| 6' Lt | on cb | | 10.55 | 307.95 |
| 4+38.43 | = P.O.T. Hub | | 10.97 | 307.43 |
| 4+15.7 | 6' Lt on cb | | 10.96 | 307.44 |
| " | " " " ℄ Grating | | 11.76 | 306.64 |
| " | " " on Flow 42" Culvert | | 7/8 19.06 | 299.34 |
| 4+28.7 | 18 Rt " 42" " | | 18.50 | 299.90 |

31840 "A" Line

5

| | | | |
|---|---|---|---|
| 5+00 | | 10.5 | 307.9 |
| 6' Lt on cb | | 10.79 | 307.61 |
| 5+50 | | 9.4 | 309.0 |
| 6+00 | | 7.7 | 310.7 |
| 6' Lt on cb | | 7.77 | 310.63 |
| T.P. | 13.01 32.3.65 | 7.76 | 310.64 |
| 6+50 | | 11.3 | 312.4 |
| 7+00 | | 9.8 | 313.9 |
| 6' Lt on cb. | | 9.84 | 313.81 |
| 7+50 | | 8.2 | 315.5 |
| 8+00 | | 6.5 | 317.2 |
| 6' Lt on cb | | 6.54 | 317.11 |
| 8+22.7 " | " | 5.94 | 317.71 |
| " | " Gut Conc. Pav | 6.58 | 317.07 |
| 8+38.32 = ℄ Shiloh | | 5.60 | 318.05 on Pav |
| +56.0 = Gut | | 5.4 | 318.3 |
| " | on cb | 4.85 | 318.80 |
| 9+00 | | 2.3 | 321.4 |
| 6' Lt on cb | | 2.16 | 321.49 |
| T.P. | 10.91 333.15 | 1.41 | 322.24 |
| 9+50 | | 8.3 | 324.9 |
| 10+00 | | 5.1 | 328.1 |
| 6' Lt on cb | | 5.61 | 327.54 |
| 10+50 | | 3.5 | 329.6 |
| 11+00 | | 3.3 | 329.9 |
| 6' Lt on cb | | 3.76 | 329.39 |

33315

| | | |
|---|---|---|
| 11+50 | 4.2 | 329.0 |
| 6'Lt on cb | 4.64 | 328.51 |
| 12+00 | 6.7 | 326.5 |
| 6'Lt " " | 6.79 | 326.36 |
| 12+10.5± = BC Lt. | 7.4 | 325.8 |
| +50 | 10.0 | 323.2 |
| 13+00 | 12.9 | 320.3 |
| 6'Lt on cb | 13.15 | 320.00 |
| (Chk Hub on NL-BC. 10+19.27 FB. | 6.89 | 326.26 |

| Location | South edge Poles South side Univ. |
|---|---|
| on "A" Line | |
| 8+65 | 3.7'Lt. = South edge Pole |
| 7+08 | 3.5 " = " " " |
| 5+08 | 3.1 " = " " " |
| 3+59 | 2.9 " = " " " |
| 2+40 | 3.3 " = " " " |

Walker
Hendricks
Greer
Becker
11-22-46

# Berkeley Hts. - Lewis Proposed Sewer - "B" Line

12.12

| | | | | |
|---|---|---|---|---|
| 2+38.43 "A" Line | 319.55 | | 307.43 | BM. Hub A 13843 P-5 |
| = 0+00 This Line - "B" Line | | | | |
| 0+18 = opp end 42" Culvert | | 11.7 | 307.9 | |
| 3' Rt = Top Fill | | 11.7 | 307.9 | |
| 13' Rt = ℄ 42" Culvert = Southend. El P-5 | | | | |
| 0+45 | | 14.9 | 304.7 | |
| 5' Rt | | 16.6 | 303.0 | |
| 0+55 | | 13.7 | 305.9 | |
| 10' Rt | | 13.7 | 305.9 | |
| 10' Lt | | 13.7 | 305.9 | |
| 1+00 | | 12.2 | 307.4 | |
| +50 | | 11.8 | 307.8 | |
| +63 | | 10.5 | 309.1 | |
| +73 | | 8.3 | 311.3 | |
| 2+00 | | 4.9 | 314.7 | |
| 17' Lt. = ℄ Ditch | | 9.1 | 310.5 | |
| 2+35 | | 4.1 | 315.5 | |
| 12' Lt " " | | 6.7 | 312.9 | |
| 2+60 = " " | | 5.7 | 313.9 | |
| +75 | | 3.7 | 315.9 | |
| +87 TP | 12.65 331.75 | 0.5 | 319.1 | |
| 2+94.18 = Δ Lt 90°03'15" | | 0.45 | 319.10 | on Hub |
| 3+07 | | 13.1 | 318.7 | |
| 10' Lt. on Flow Line 24" Iron Pipe Culvert | | 16.6 | 315.2 | |

33175

7

| | | | |
|---|---|---|---|
| 3+16 | | 13.1 | 318.7 |
| 7 Rt = End 24" Pipe | | 13.7 | 316.1 |
| 3+35 | | 12.6 | 319.2 |
| 3+71.20 △ Rt 90°03'15" | 9.35 | | 322.40 on Hub |
| +76 | | 9.3 | 322.5 |
| +78 | | 8.4 | 323.4 |
| 4+00 | | 9.7 | 322.1 |
| 4+07 | | 9.8 | 322.0 |
| 42' Rt = N.E. Cor House Ground Floor | | 10.2 | 321.6 |
| 18.5 Rt = N.W. " | | | |
| 4+50 | | 9.0 | 322.8 |
| 4.7' | | 9.3 | 322.5 |
| 6' Rt = 4" S.L. "B" Line | | 9.7 | 322.1 on Ground |
| 5+00 | | 5.3 | 326.5 |
| +10 | | 3.5 | 328.3 |
| TP 11.08 | 341.84 | 0.99 | 330.76 |
| +38 = Elec Pole 12' Rt = East edge | | | |
| 5+50 | | 11.5 | 330.3 |
| +89 | | 9.7 | 332.1 |
| 6+00 | | 8.0 | 333.8 |
| +34 | | 2.8 | 339.0 |
| TP 11.07 | 352.37 | 0.54 | 341.30 |
| 6+60 | | 7.6 | 344.8 |
| +72 | | 5.9 | 346.5 |
| 6+91.72 = ℄ Wightman Court Rt. 8 | | 4.80 | 347.57 End "B" Line |

"B" Line Cont. from P-7

352.37

| | | | | |
|---|---|---|---|---|
| T.P. | 8.91 | 356.57 | 4.71 | 347.66 |
| Chk. Hub 6+42.99 | | | 4.01 | 352.56 |
| F.B. 1576 37 | | | | 352.55 |
| | | | | 0.01 |

Walker
Hendricks
Becker
Greer
11-22-46

Levels - Proposed Sewer
in Rex Ct.
from 52nd East.

Location D-3

| | | | | |
|---|---|---|---|---|
| BM on Hub 3+71.20 | 11.26 | 333.66 | 322.40 | Page 7. |
| 0+00 on Hub | | 0.92 | 332.74 | |
| +50 | | 1.1 | 332.6 | |
| 1+00 | | 1.3 | 332.4 | |
| (1+25) 63' Lt. = NW Cor House | | 0.5 | 333.2 | |
| 1+38.25 = P.O.T. Hub | | 1.41 | 332.25 | |
| +65 | | 3.3 | 330.4 | |
| +90 | | 7.1 | 326.6 | |
| 76' Lt. = ℄ East edge House | | 13.7 | 320.0 | |
| Soil Line Approx 2' Below Above Flat. | | | | |
| 2+42.49 = Int. "B" Line | | 14.57 | 319.09 | |
| +80 | | 14.8 | 318.9 | |
| 3+00 | | 13.2 | 320.5 | |
| 3+19.51 Hub | | 11.26 | 322.40 | |
| +50 | | 7.6 | 326.1 | |
| 70' Rt | | 6.6 | 327.1 | |
| 3+82 | | 4.1 | 329.6 | |
| 70' Rt = SW Cor House | | 4.1 | 329.6 | |
| 4+00 | | 2.9 | 330.8 | |
| 3+20 | | | | |
| 83' Lt. 20' E = Laundry Basement | | 10.1 | 323.6 | |
| 3+20 { 124' Lt & 20' E on 4" Soil | | 11.4 | 322.3 | |
| { Above SE. Cor Rear House on Alley | | | | |

33366

9

| | | | | |
|---|---|---|---|---|
| TP 1210 344.75 | | 1.01 | 332.65 | |
| 4+30 | | 12.3 | 332.5 | |
| 67' Lt = NW Cor House | | | | |
| 94' Lt = Front Garage | | 13.1 | 331.7 | Ground |
| " " " " | | 12.95 | 331.80 | Floor |
| 4+50 | | 11.2 | 333.7 | |
| 5+00 | | 8.6 | 336.2 | |
| +50 | | 7.3 | 337.5 | |
| +74 | | 7.8 | 337.5 | |
| 61' Lt. = NW Cor House | | 11.8 | 333.5 | Ground |
| 6+00 | | 6.8 | 338.0 | |
| +424 = ℄ Shubb Rd | | 4.38 | 340.37 | |
| 6+75 | | 1.7 | 343.1 | |
| 62' Lt. = NW Cor House | | 6.8 | 338.0 | Ground |
| " Floor | | 5.6 | 340.2 | |
| 100' Lt. | | 10.5 | 334.3 | |
| TP 13.08 336.23 | | 1.60 | 344.15 | |
| 7+00 | | 11.5 | 344.3 | |
| +50 | | 8.6 | 347.6 | |
| (7+40) 55' Lt | | 16.8 | 339.4 | |
| 7+69 | | 7.9 | 348.3 | |
| 55' Lt Conc. Basement | | 5.6 | 350.6 | NW Cor |
| | | 13.5 | 342.7 | House |
| 8+00 | | 6.5 | 349.7 | |
| +21 | | 5.6 | 350.6 | |
| 67' Lt. = NW Cor House | | 11.7 | 345.0 | Ground |

Cont. P-10

35623 Rex St.

| | | |
|---|---|---|
| 8+50 | 4.8 | 351.4 |
| +75 | 4.4 | 351.8 |
| 75 Lt | 7.1 | 349.1 |
| 9+00 | 4.1 | 352.1 |
| +50 | 3.2 | 353.0 |
| 75 Lt | 5.1 | 351.1 |
| 10+00 | 3.5 | 352.7 |
| +35 | 4.5 | 351.7 |
| 75 Lt | 6.8 | 349.4 |
| 10+65 on Stake | 6.35 | 349.88 |
| FB 1576 P. 33 | | 349.85 |
| | | .03 |
| (10+65) 70 Lt. | 9.3 | 346.9 |
| 11+08 | 9.1 | 347.1 |
| 70 Lt. | 14.7 | 341.5 |
| 11+40 | 16.1 | 340.1 |
| 70 Lt. | 21.0 | 335.2 |

Walker
Hendricks
Backer
Greer
11-22-16

Nightman - St. - Levels
Proposed Sewer
from 52nd St East.
Location P-3

| | | | | |
|---|---|---|---|---|
| BM on Hub 6+91.76 "Line P-7 & 52nd St. = 0+00 on Hub | 1.73 | 349.30 | 347.57' | |
| | 15.15 | | 334.15 | 333.43 Hub |
| +25 | 14.2 | | 335.1 | |
| +50 | 11.9 | | 337.4 | |
| +80 | 9.1 | | 338.2 | on Ground |
| 78' Lt = South Side House on Ground | 14.3 | | 335.0 | |
| 1+00 | 7.4 | | 341.9 | |
| +25 | 5.6 | | 343.7 | |
| 80' Lt | 12.6 | | 336.7 | |
| 1+71 | 2.8 | | 346.5 | |
| 62 Lt - 2½" Soil Line | 8.9 | | 340.4 | on Ground |
| 82' Lt NW. Cor House | 11.7 | | 337.6 | " " |
| 2+00 | 1.7 | | 347.6 | |
| +25 | 1.5 | | 347.8 | |
| 80 Lt. | 10.0 | | 339.3 | |
| 2+70 | 1.8 | | 347.5 | |
| 35' Lt. | 5.6 | | 343.7 | |
| 81' Lt | 10.6 | | 338.7 | |
| 3+00 | 1.6 | | 347.7 | |
| +19.73 on Hub | 1.73 | | 347.57 | |
| +40 | 1.8 | | 347.5 | |
| +50 | 2.3 | | 347.0 | |
| 40' Lt | 9.5 | | 339.8 | |
| 80' Lt | 12.8 | | 336.5 | |

349.30

11

| | | | |
|---|---|---|---|
| 3+80 | 5.0 | 344.3 | |
| 4+00 | 5.6 | 343.7 | outs Above ℄ |
| +50 | 3.4 | 345.9 | |
| T.P. 13.04 352.70 | 1.64 | 347.66 | |
| 5+00 | 10.0 | 349.7 | outs Above ℄ |
| +47 | 8.8 | 350.9 | |
| 69' Lt NE. Cor House | 8.4 | 351.3 | |
| 6+00 | 7.9 | 351.8 | |
| +42.91 = ℄ Station | 7.13 | 352.57 | 3 1576 37 |
| 7+00 | 6.9 | 352.8 | |
| 75' Lt. | 7.4 | 352.3 | |
| 7+50 | 5.7 | 354.0 | |
| 8+00 | 4.9 | 354.8 | |
| +17 | 4.3 | 355.4 | |
| 130' Lt = NW Cor House | 5.4 | 354.3 | on Ground |
| 8+50 | 4.8 | 354.9 | |
| 9+00 | 4.1 | 355.6 | 817 |
| +30 | 3.4 | 356.3 | 643 |
| +75 | 4.5 | 355.2 | 174 |
| 10+00 | 4.5 | 355.2 | |
| +40 | 3.5 | 356.2 | |
| +55 | 4.5 | 355.2 | |
| 10+81 | 4.7 | 355.0 | |
| 78' Lt = NW Cor House | 4.7 | 355.0 | |
| 11+00 | 5.0 | 354.3 | |

35970

| | | | | |
|---|---|---|---|---|
| 11+35 | | 7.1 | 352.6 | on Rt Above ℄ |
| | cuts on ℄ Level | | | |
| 11+75 | | 13.0 | 346.7 | |
| +89 | Sharp Brk to 54th from here | 15.6 | 344.1 | |

Walker
Hendricks
Becker
Frost
11-22-46

Levels - Proposed Sewer on Landis from 52nd to Ogden st. and on Ogden st from Landis to Wightman

Location P-4 ✓

| | | | | |
|---|---|---|---|---|
| B.M. on Hub E 52nd | 4.38 | 33853 | 339.15 | 0+00 Page 11 |
| = 0+00 on Hub | | 13.52 | 325.01 | |
| +50 | | 11.2 | 327.3 | |
| 20' Lt in Hole | | 15.4 | 323.1 | |
| 65' Lt | | 11.5 | 327.0 | |
| 1+00 | | 8.8 | 329.7 | outs Above ℄ |
| +50 | | 5.7 | 332.8 | |
| 2+00 | | 0.8 | 337.7 | |
| 50' Lt | | 3.0 | 335.5 | |
| 90' Lt | | 0.6 | 337.9 | |
| T.P. | 12.42 | 350.94 | 0.01 | 338.52 |
| 2+50 | | | 9.6 | 341.3 |
| +60 | | | 8.9 | 342.0 |
| 75' Lt = NW Cor House | | | 8.7 | 342.2 |
| 3+00 | | | 5.8 | 345.1 |
| 80' Rt | | | 10.5 | 340.4 |
| 3+19.5 on Stub | | | 4.69 | 346.25 |
| 3+32 | | | 4.5 | 346.4 |
| +50 | | | 5.1 | 345.8 |
| 57' Rt | | | 10.2 | 340.7 |
| 90' Rt | | | 15.1 | 335.8 |

35624

13

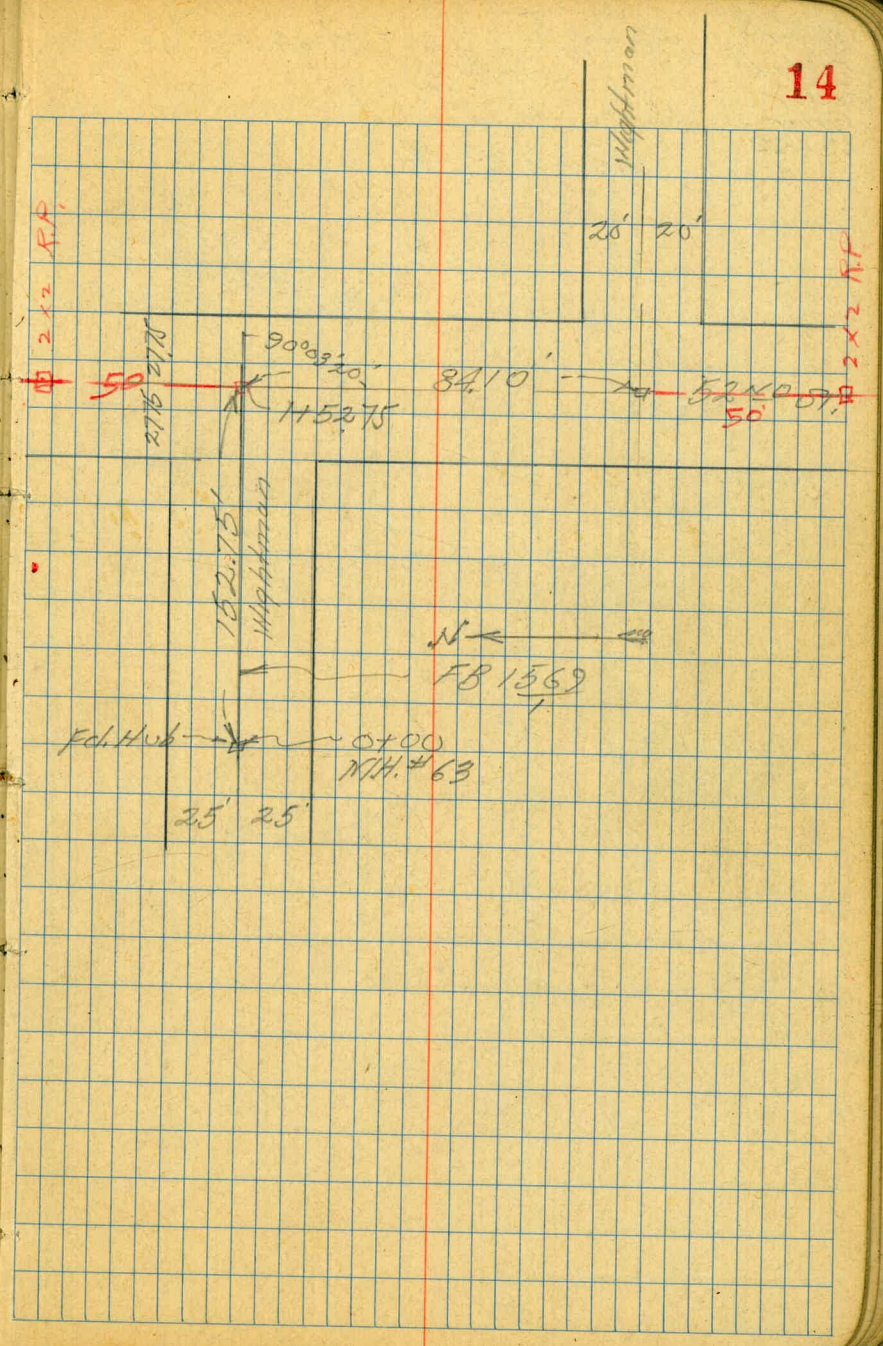
| | | | |
|---|---|---|---|
| 4+00 | | 6.6 | 344.3 |
| 10' Rt | | 7.6 | 343.3 |
| 40' Rt | | 13.5 | 337.4 |
| 4+49.8 ℄ Ogden 28°28' | | 5.7 | 345.2 on ground Fill |
| Nat. Ground | | 8.7 | 342.2 |
| 25' Rt = Toe Fill | | 14.3 | 336.6 |
| T.P. | 10.58 | 360.41 | 1.11 349.83 |
| 4+81 Nat. Ground | | 13.1 | 347.3 |
| 30' " " | | 15.5 | 344.9 |
| 5+25 | | 8.4 | 352.0 |
| 50 Rt | | 10.3 | 350.1 |
| 5+70 | | 7.3 | 353.1 |
| 6+00 | | 6.7 | 353.7 |
| 80' Rt | | 8.0 | 352.4 |
| 6+69.96 = ℄ Shiloh | | 6.46 | 353.95 FB 1576 41 |
| 7+00 | | 5.9 | 354.5 |
| +20 | | 5.2 | 355.2 |
| +50 | | 5.5 | 354.9 |
| 8+00 | | 5.3 | 355.1 |
| +50 | | 5.0 | 355.4 |
| 9+00 | | 5.0 | 355.4 |
| +50 | | 4.0 | 356.4 |
| 10+00 | | 4.7 | 355.7 |
| +50 | | 5.5 | 354.9 |
| 11+22 = Int ℄ Wightman | | 4.3 | 355.1 |
| = 10+40 on Wightman | | | |

Walker
Hendricks
Becker
Greer
11-22-16

Wightman St - Levels for Proposed Sewer as per Sketch

| | | | | |
|---|---|---|---|---|
| | | | | BM Hub P-13 |
| | 2.27 | 336.42 | | 334.15 |
| 0+00 | | | 12.98 | 323.44 |
| +50 | | | 9.7 | 326.7 |
| 1+00 | | | 6.9 | 329.5 |
| +33 | | | 4.7 | 331.7 |
| +52.75 △ RT 90°03'20" | | | 4.4 | 332.0 |
| 2+00 | | | 3.5 | 332.9 |
| | | | 2.27 | 334.15 |

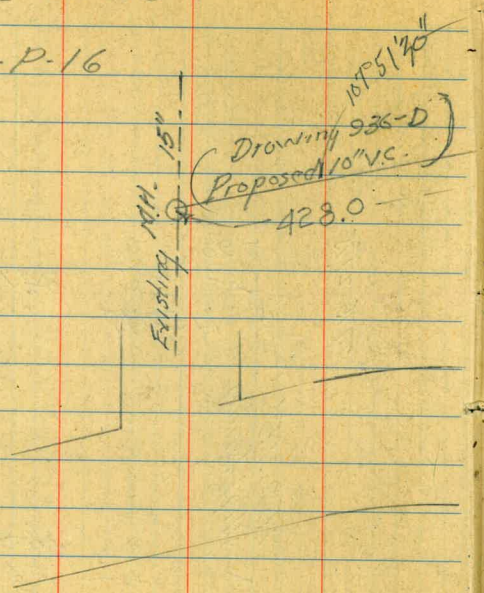
+36.85 = Ø Wightman to East

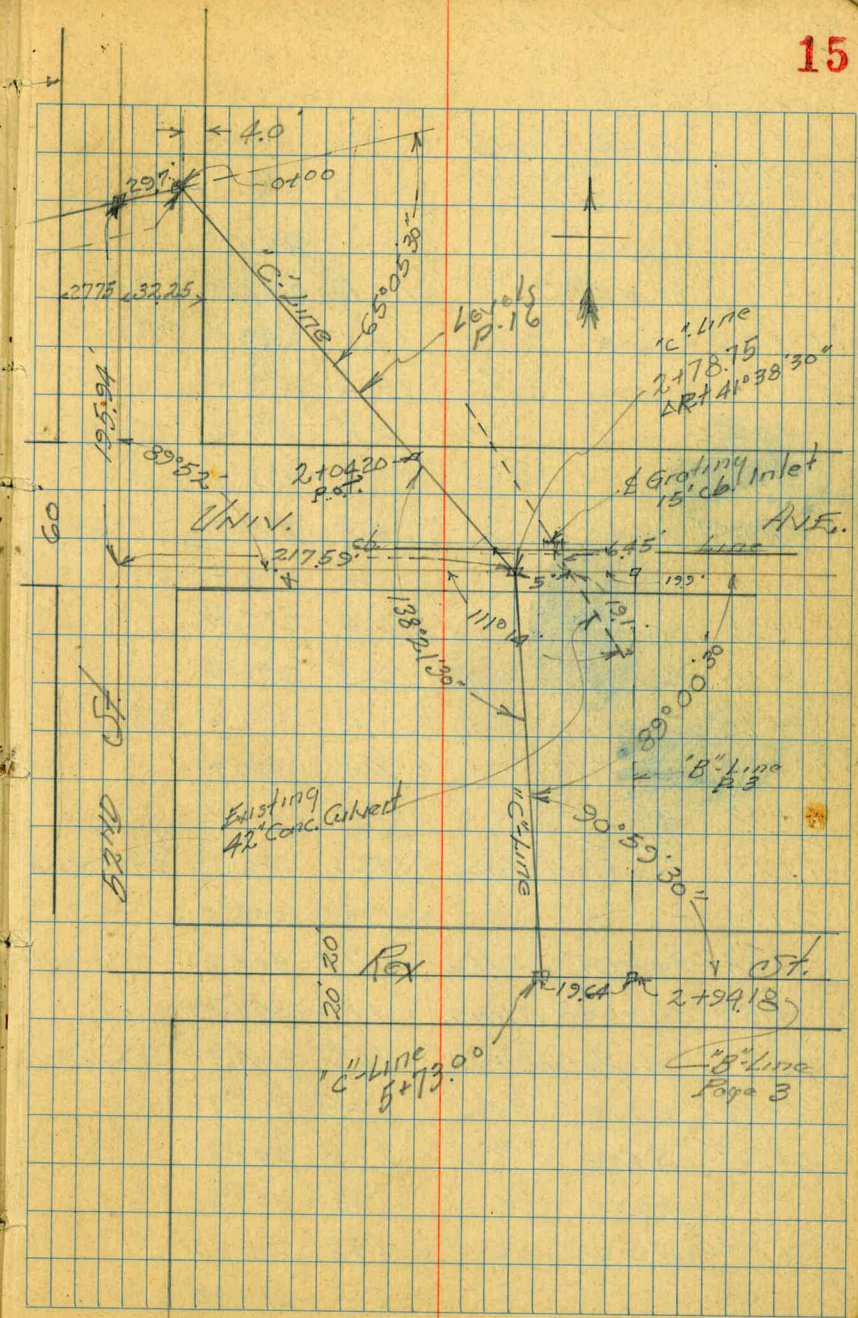


Walker
Hendricks
Becker
Greer
12-6-46

# Berkeley Hts. - Proposed Sewer "C" Line

Levels - P-16



# Levels "C" Line
## Location P-15

| | | | |
|---|---|---|---|
| | 8.68 | 308.99 | 300.31 |
| 0-29.7 on Line Proposed Sewer to West | 8.68 | | 300.31 |
| 0-19 " " " | 8.1 | | 300.9 |
| 0-7 " " " | 16.1 | | 292.9 |
| 0+00 | 16.1 | | 292.9 |
| +11 | 15.6 | | 293.4 |
| +28 | 12.8 | | 296.2 |
| +50 | 13.7 | | 295.3 |
| +70 | 14.3 | | 294.7 |
| 1+00 | 12.6 | | 296.4 |
| +25 | 11.6 | | 297.4 |
| +40 = Beginning Wash | 12.5 | | 296.5 |
| +70 = End Wash | 11.4 | | 297.6 = Toe Fill |
| +83 on Fill | 8.6 | | 300.4 |
| 1+93 " " | 4.0 | | 305.0 |
| 16.6' Lt. | | | |
| (1+93) on Flow Line | 13.26 | | 295.73 North end 42" Culvert |
| 2+01 | 1.0 | | 308.0 |
| +04.20 = P.O.T. on Hub | 0.78 | | 308.21 |
| +15.9 = on N cb. Univ. | 1.10 | | 307.89 |
| " " Gut. Conc. Pav. | 1.59 | | 307.40 |
| 2+43.7 ℄ " " | 1.23 | | 307.76 |
| 2+70.45 = S. Gut. " " | 2.18 | | 306.81 |
| " on cb | 1.38 | | 307.61 |
| (2+70.45) 7.5' Lt. on Grating | 2.36 | | 306.63 |
| " " " " cb | 1.56 | | 307.43 |
| " " " " | 9.62 | | 299.37 |

308.99

| | | | |
|---|---|---|---|
| 2+78.75 = Δ 41°38'30" Rt. | | 1.17 | 307.82 |
| TP 8.88 | 316.70 | 1.17 | 307.82 |
| 2+88 | | 9.1 | 307.6 |
| 3+00 | | 9.7 | 307.0 |
| 8' Lt. Drainage Basin | | 14.8 | 301.9 |
| 3+25 | | 10.2 | 306.5 |
| 10' Lt. Ditch | | 11.8 | 304.9 |
| 3+50 | | 9.2 | 307.5 |
| 10' Lt " | | 10.9 | 305.8 |
| 4+00 | | 8.1 | 308.6 |
| 10' Lt " | | 9.9 | 306.8 |
| 4+15 | | 6.3 | 310.4 |
| +18 | | 7.1 | 309.6 |
| +50 | | 6.4 | 310.3 |
| 7' Lt. Ditch | | 8.0 | 308.7 |
| 4+58 = West edge Ditch | | 7.7 | 309.0 |
| +75 - " " " | | 6.0 | 310.7 |
| TP 10.73 | 326.45 | 0.98 | 315.72 |
| 5+00 | | 12.7 | 313.8 |
| 6' Lt. Ditch | | 14.5 | 312.0 |
| 5+28 | | 10.2 | 316.3 |
| +37 | | 8.5 | 318.0 |
| +56 | | 6.3 | 320.2 |
| +60 | | 5.6 | 320.9 |
| 5+73.0 on Hub | | 5.42 | 321.03 |
| Ctr. Hub 2+94.18 | | 7.35 | 319.10 |

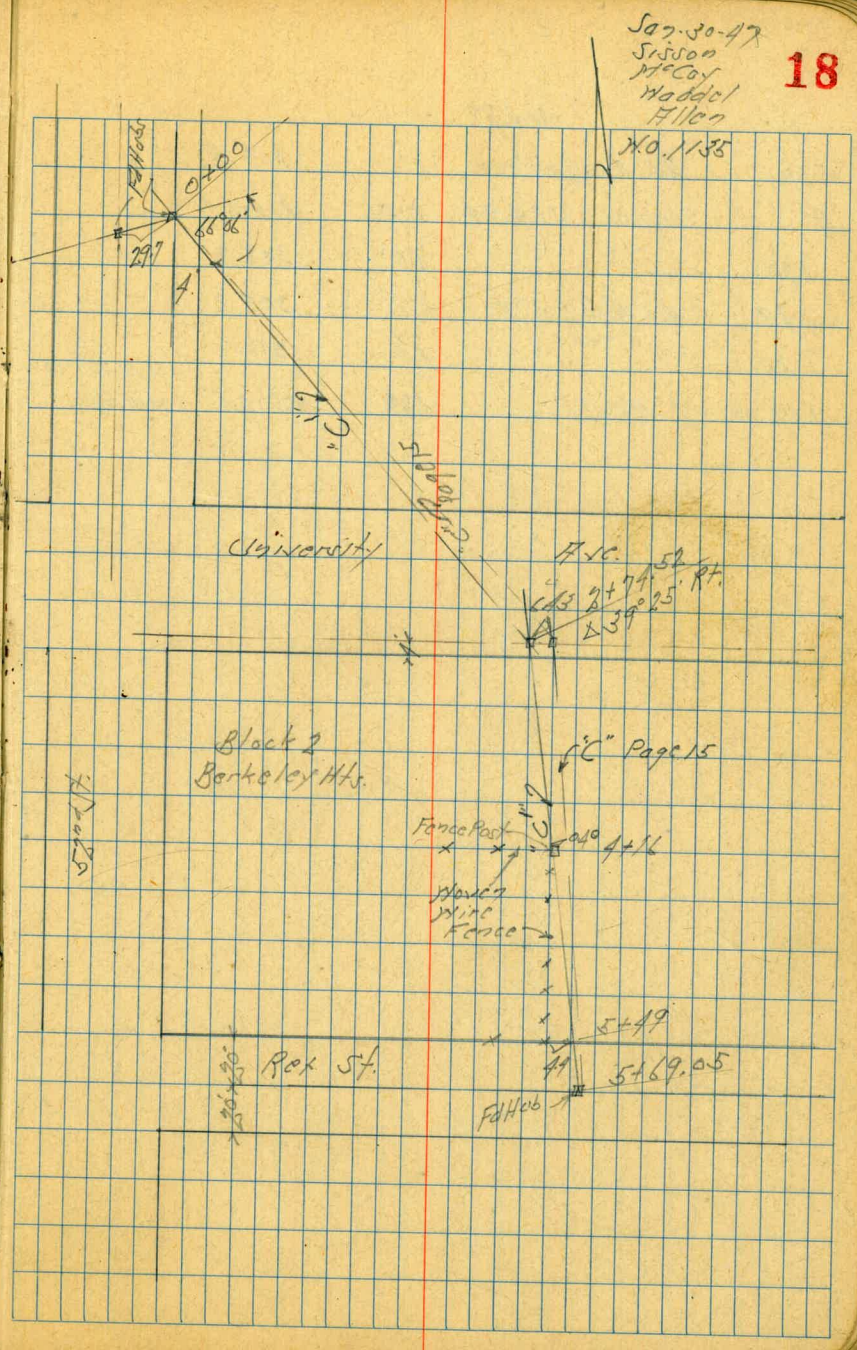
Walker Berkeley Hts. - Proposed Sewer
Hendricks Levels - "D" Line
Becker Location, Page 4
Greer
12-6-46

| | | | | |
|---|---|---|---|---|
| | 4.93 | 329.94 | 325.01 | B.M. on Hub 0+00 P.13 |
| 0+00 | | 17.0 | 312.9 | |
| +30 | | 15.0 | 314.9 | |
| +50 | | 13.8 | 316.1 | |
| +78 | | 13.4 | 316.5 | |
| 18' Rt = Ditch | | 17.0 | 312.9 | |
| 1+11 = Toe Slope | | 10.5 | 319.4 | |
| 13' Rt = Ditch | | 13.0 | 316.9 | |
| 1+25 | | 5.1 | 324.8 | |
| +52.75 = Δ Rt 4°54'46" | | 4.6 | 325.3 | |
| +64 | | 4.4 | 325.5 | |
| +70 | | 7.9 | 322.0 | |
| 2+00 Drainage hole | | 6.8 | 323.1 | |
| +18 " " | | 6.1 | 323.8 | |
| T.P. | 12.73 | 341.97 | 0.70 329.24 | |
| 5' Rt = Top Bank | | 13.6 | 328.4 | |
| 2+42 Ditch | | 16.0 | 326.0 | |
| +65 = edge Road | | 12.0 | 330.0 | |
| 3+00 | | 9.4 | 332.6 | |
| +50 | | 4.7 | 338.3 | |
| +77.46 | | 2.28 | 339.69 | |
| chk 2+00 P.13 | Ground. | 4.3 | 337.67 | ✓ |

385 50%

# Proposed Sewer C' Line
# Berkeley Heights

| | | | | | |
|---|---|---|---|---|---|
| BM | 6.55 | 306.86 | | 300.31 | on Hub "C-297.C" Page 14 |
| 0+0 | = F4 Line 52nd St. | | 14.0 | 292.9 | |
| +30 | | | 11.4 | 295.5 | |
| +50 | | | 11.8 | 295.1 | |
| 1+0 | | | 10.8 | 296.1 | |
| +15 | | | 9.8 | 297.1 | |
| +35 | | | 10.8 | 296.1 | |
| +50 | | | 10.0 | 296.9 | |
| +70 | = Top Fill | | 9.4 | 297.5 | |
| TP | 9.70 | 314.89 | 1.67 | 305.19 | |
| +97 | | | 6.6 | 308.3 | |
| 2+12 | = N Cb Univ. Ave. | | 6.80 | 308.09 | |
| " | Gutter on Paving | | 7.24 | 307.65 | |
| +39.5 | | " " | 6.88 | 308.01 | |
| +66.7 | Gutter | " " | 7.79 | 307.10 | |
| " | S Cb Univ. Ave. | | 7.08 | 307.81 | |
| +74.52 | = Δ 39° 25' Rt | | 6.97 | 307.92 | on Stub |
| 3+0 | | | 6.8 | 308.1 | |
| +20 | | | 7.7 | 307.2 | |
| +50 | | | 7.0 | 307.9 | |
| 4+0 | | | 5.6 | 309.3 | |
| +16 | 0.4' W of F Fence | = N F4 | 3.2 | 311.7 | |
| +33 | | | 1.5 | 312.4 | |
| " | 10' Rt of F | | 6.3 | 308.6 | |
| +50 | = Fence Line | | 4.6 | 310.3 | |



| | | | | | |
|---|---|---|---|---|---|
| | | 314.89 | | | |
| 570 | 23' Rt of ℄ = Fence | | 1.1 | 313.8 | |
| TP | 10.60 | 324.94 | 0.55 | 314.84 | |
| +30 | | | 6.7 | 308.2 | |
| +49 | 4.4' Rt of ℄ = SE ly Fence | | 5.1 | 309.8 | |
| +56 | | | 4.0 | 310.9 | |
| +69.05 | ℄ Rd x St | | 3.89 | 321.05 | 321.05 P-16 on Hub |

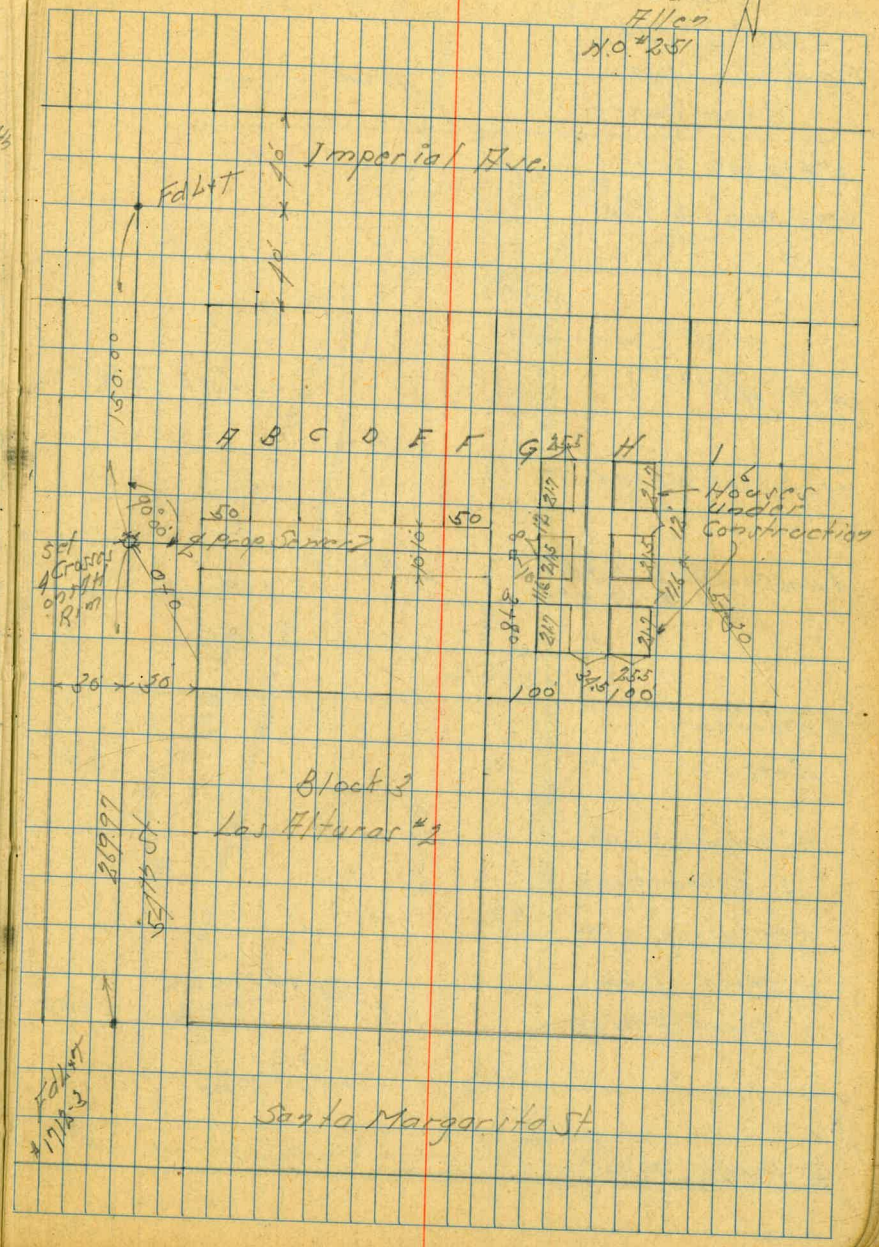
Proposed Sewer Blocks 3 Los Alturas #2
East of 54th St. Between Imperial Ave & Santa Margarita St.

| | | | | | |
|---|---|---|---|---|---|
| BM | 5.81 | 160.80 | | 154.99 | S&T Imperial & 54th St. 1912-24 |
| TP | 6.49 | 165.69 | 1.60 | 159.20 | S&T Imperial+54th |
| 0+0 | = Ex. Sewer MH | | 5.82 | 159.87 | on Rim |
| " | Flow Line MH | | 11.98 | 153.71 | |
| +15 | = E/y Conc Paving | | 5.85 | 159.84 | |
| +50 | | | 5.3 | 160.4 | |
| 1+0 | | | 4.9 | 160.8 | |
| +50 | | | 5.0 | 160.7 | |
| 2+0 | | | 5.0 | 160.7 | |
| +50 | | | 4.0 | 161.7 | |
| 3+0 | | | 4.1 | 161.6 | |
| +50 | | | 4.3 | 161.4 | |
| +80 | P.O.T | | 4.39 | 161.30 | on Stub |
| +90 | = W/y House | | 3.19 | 162.50 | on Conc Floor |
| " | 20' Lt of ℄ = SW Cor House | | 4.01 | 161.68 | " " " |
| " | 25' Rt of ℄ = NW Cor House | | 2.26 | 163.43 | " " " |
| TP | 4.19 | 167.06 | 2.82 | 162.87 | |
| 4+30 | | | 5.6 | 161.5 | |
| +49.7 | = W/y House | | 4.49 | 162.57 | on Conc Floor |
| " | 20' Lt of ℄ SW Cor Ho. | | 5.29 | 161.77 | " " " |
| " | 25' Rt of ℄ NW Cor Ho. | | 3.57 | 163.49 | " " " |
| +80 | | | 5.3 | 161.8 | |
| 5+30 | | | 4.7 | 162.4 | |
| " | 50' Rt of ℄ | | 5.0 | 162.1 | |
| " | 50' Rt of ℄ | | 3.5 | 163.6 | |

Indexed
C.S.K.

Jan. 30-47
Sisson
McCoy
Waddell
Allen
H.O. #2.51

20



Locate Proposed Sewer Easement Blk 2 Berkeley Hgts. 20-Feb 1947

21

Work order 1135 Sommermeyer W Moore Green

℄ Alley Blk. 2 Berkeley Hgts.

Rear Fence

0.4 To fence

Not to scale

1" Loquat tree

End Rock rip rap

Rose bed

Lot 40

Lot 39

Edge of pickle

start rock rip rap

Palm Cactus 4' High

" " 18" High

" " " "

1°-42'

2" Oleander

2" Apricot tree

4" pepper tree

2" pepper tree

Century plants

5" Eucal - tree

Fence

Front Fence

3.8 To fence

0+00

4° To lot line

℄ Rex Ave

University Ave

2+70 A.C.

29'

42" Conc Culvert.

27.75

℄ 52.74 S.T.

7

8

4+35.2

A. Line P3

40

39

Fence

0+00

21'

242.49

Rex Ave.

Location trees etc. Proposed Easement Blk 2 Berkeley Hgts.

0+00 3½ Lt = Start Fence (Wood Post + Rail - Woven Wire)
+08 5½ Lt. = ctr 8" Eucalyptus
+10 5½ Lt = Young century plant
+15 5' Lt " " "
+20 6¾ Lt = 2" Diam Pepper tree
+27 7° Lt = 4" " " "
+33 6½ Lt = 2" " Apricot tree
+43 7° Lt = 1" " Oleander
+56 4½ Lt = 18" High "Pad" Cactus
+59 4° Lt = 18" " " "
+60 10' Lt = Edge pickle weed
+61 4½ Lt = 4' High "Pad" Cactus
+72 2' Lt = Edge pickle weed
+83 6' Lt = Base - Start Rock rip rap
" 8' Lt = top same.
Fill from here to station 1+36 is dirt + rock to prevent erosion. This is what owner is worried about having replaced.
0+83 10' Lt = Edge pickle weed
+84 11' Lt = Start row of roses

1+06 4' Lt End rock rip rap - bottom
" 5' Lt " " " " " Top
1+10 5' Lt End row of roses (End pickle weed on Lt.)
+13 - 6' Lt = 1' High loquat tree
1+33½ - 0.4 Lt = End of line fence
1+36 End rock + dirt fill.
Pickle weed over portion of Easement as shown by lightred line - Page 22.
2+54 - 16' Rt. = ℄ - End 42" culvert
2+70.4 = S. Line University Ave

X-Sect. Russell St. - from W.L. Evergreen to W.L. Locust.

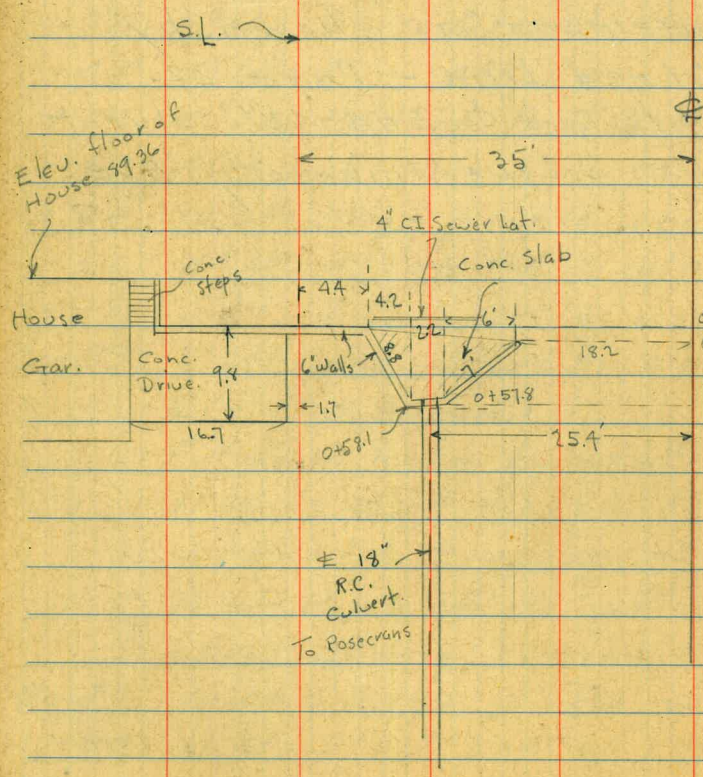
# 894

W.O. 230

3-26-47

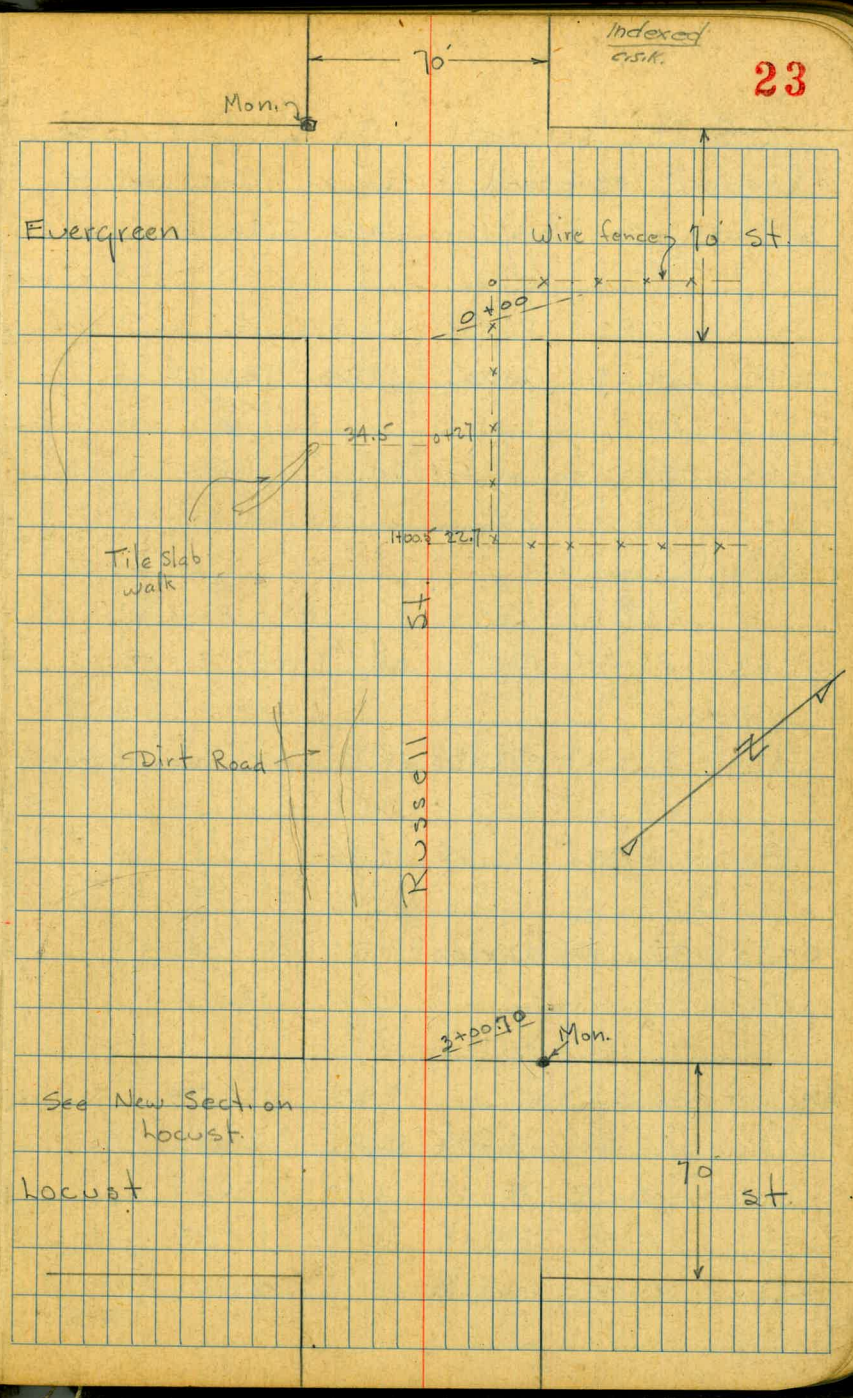
Osborne
Hardin
Smith
Worrell

Detail of Inlet & Conc. Wing Walls.



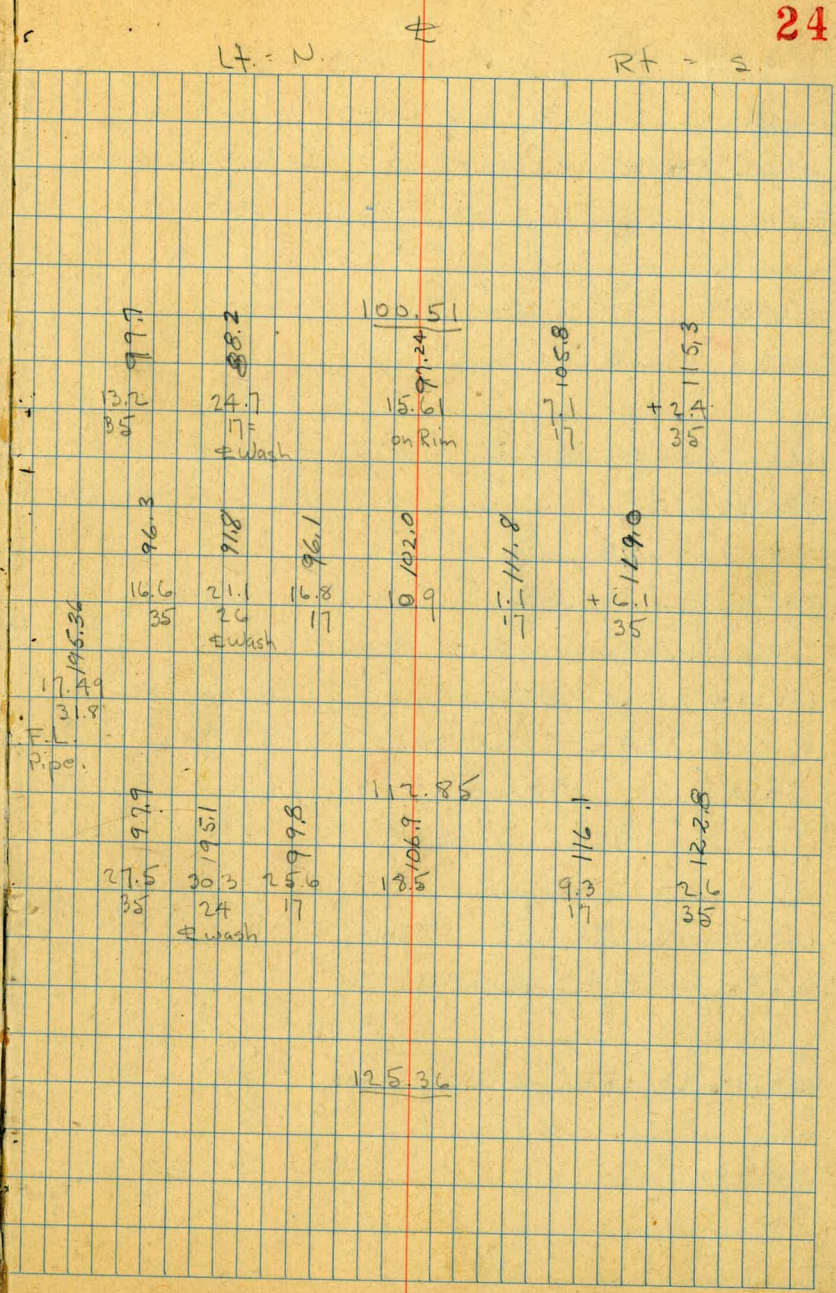

Indexed
C.S.K.





X-Sect Russell - 70' St. 18' cbs. = Regular, Proposed - Level Section - 6' cbs. +20' Rdwy. on each side

| | | | | |
|---|---|---|---|---|
| I.P. | 0.29 | 100.51 | 12.63 | 100.22 |
| 0-35 = ℄ = on Sewer M.H | | | | |
| 0-52 = W. cb. | | | | |
| 0-64.7 = 31.8 Lt = Outlet of 12" Corr. Iron culvert | | | | |
| I.P. | 0.34 | 112.85 | 12.85 | 112.51 |
| 0-70 = W.L. Evergreen | | | | |
| B.M. Set - on S.W. Mon. | | | 2.63 | 122.73 |
| | 0.53 | 125.36 | 12.35 | 124.83 |
| | 0.93 | 137.18 | 12.93 | 136.25 |
| | 0.40 | 149.18 | 12.96 | 148.78 |
| B.M. | 0.41 | 161.74 | | 41.39 NW. Mon. Russell + Locust |



0+51 - 35.5 Lt. = ℄ 6" Euc.

0+49 - 24 Rt. = 4" Sewer Lat. C.I. Exposed over wash

| | | | | |
|---|---|---|---|---|
| T.P. | 0.06 | 85.09 | 12.85 | 85.03 |

0+45

0+30 - 36.2 Lt. = ℄ 8" Euc.

0+21 - 36 Lt. = ℄ 6" Euc.

0+35

0+14 - 36.7 Lt. = ℄ 4" Euc.

0+27 - 34.5 Rt. = end 1.5' Tile slab walk

0+08 - 37.5 Lt. = ℄ 2" Euc.

0+01 - 37' Lt. = ℄ 10" Euc.

0+01 - 33.4 Lt. = ℄ 8" Euc.

0+10

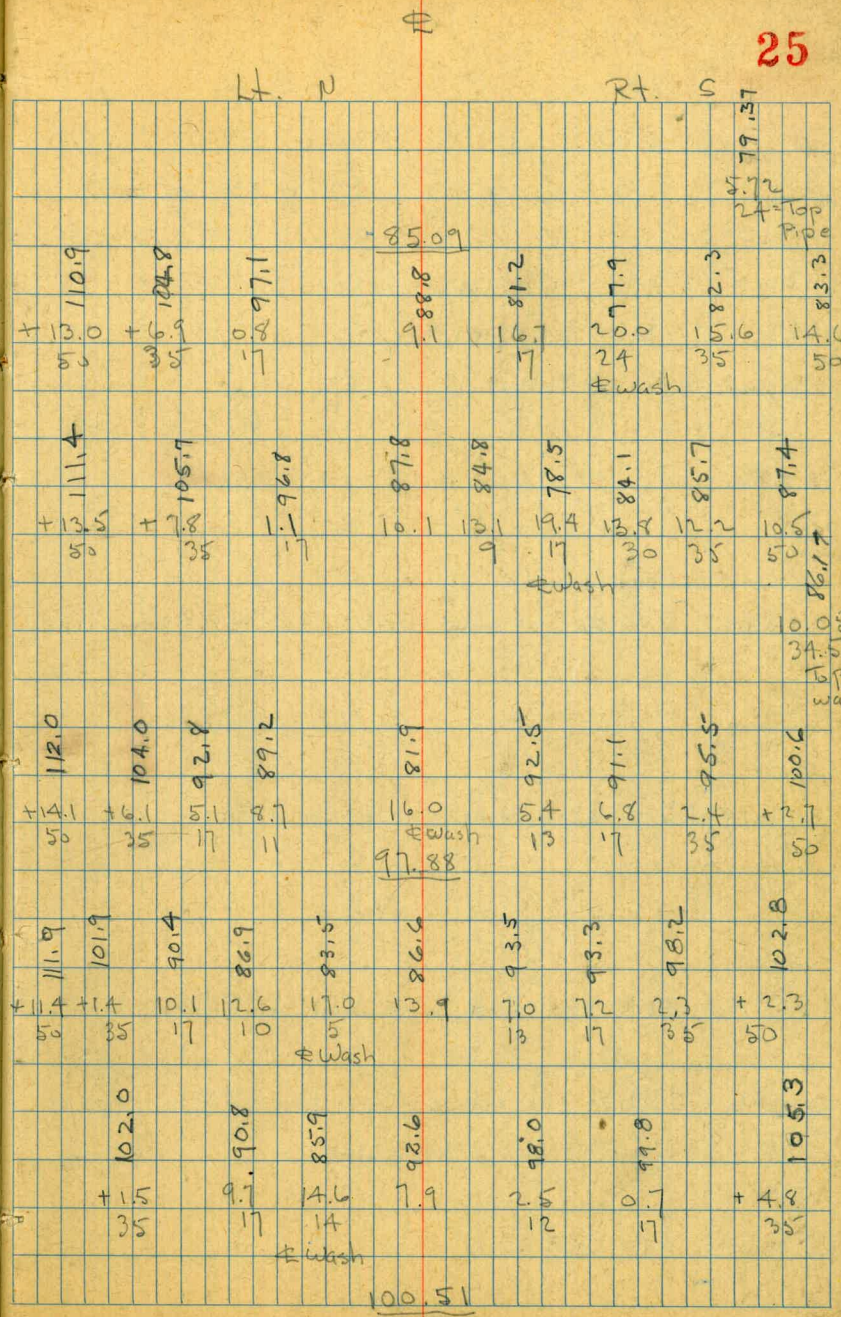
| | | | | |
|---|---|---|---|---|
| T.P. = Nail in Pole | 4.23 | 97.88 | 6.86 | 93.65 |

0+00 - 18.7 Rt. = ℄ P. pole

0+00 = E.L. Evergreen

0-17 - 23' Lt. = Cor. wire fence

0-18



T.P. 0.50 72.58 13.01 72.08

1+10

1+00.5 22.7 Lt. = Cor. Wire fence

0+97 - 37.3 Lt. = ± 6" Euc. tree

0+95.6 = ± Sewer M.H. 0.62 on Rim

0+85

0+59.8 = E. side of Conc. Drive to Grar. (Conc. floor)

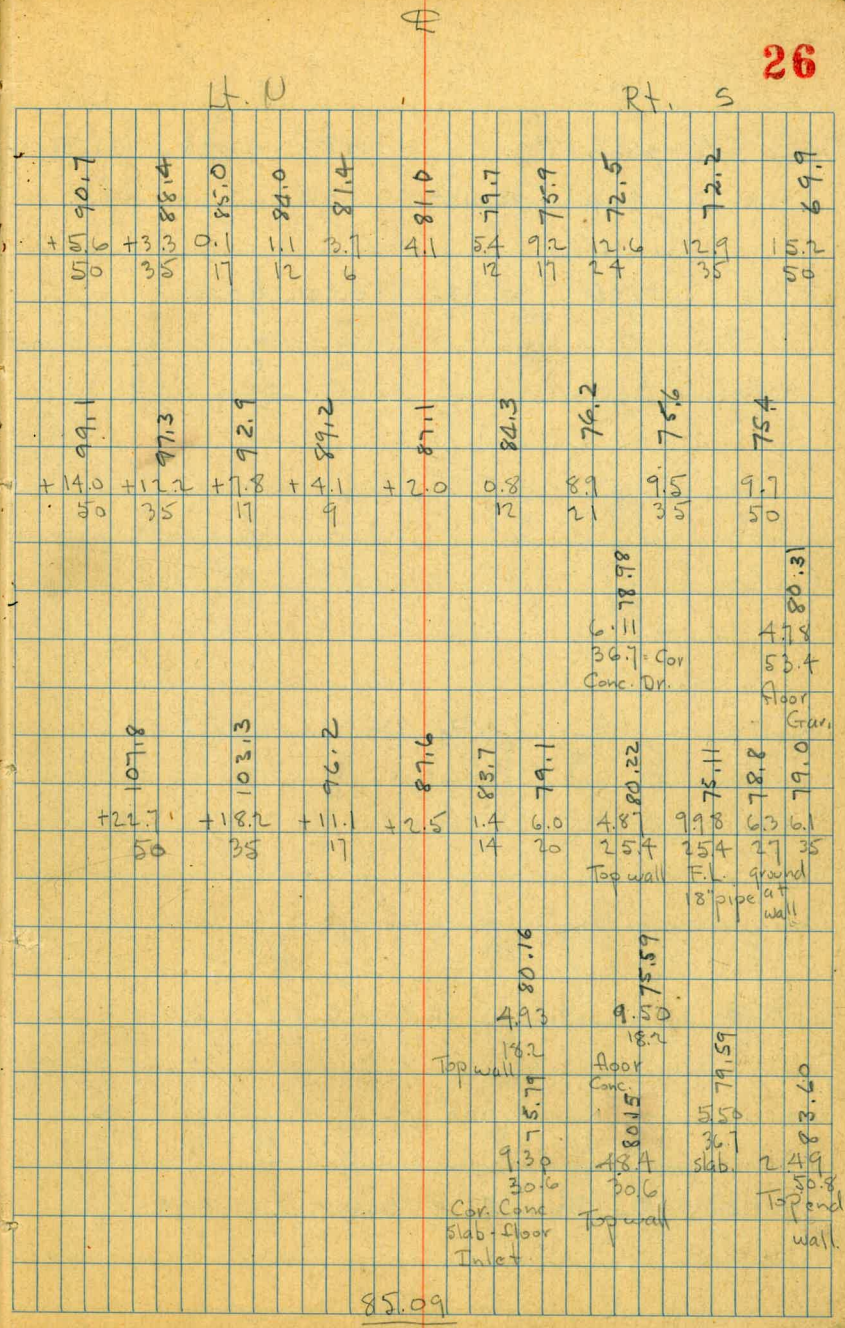
0+57 = 25.4 Rt. = Inlet at 18" Culvert

0+53.8 = 18.2 Rt. = End. Wing wall to Inlet.

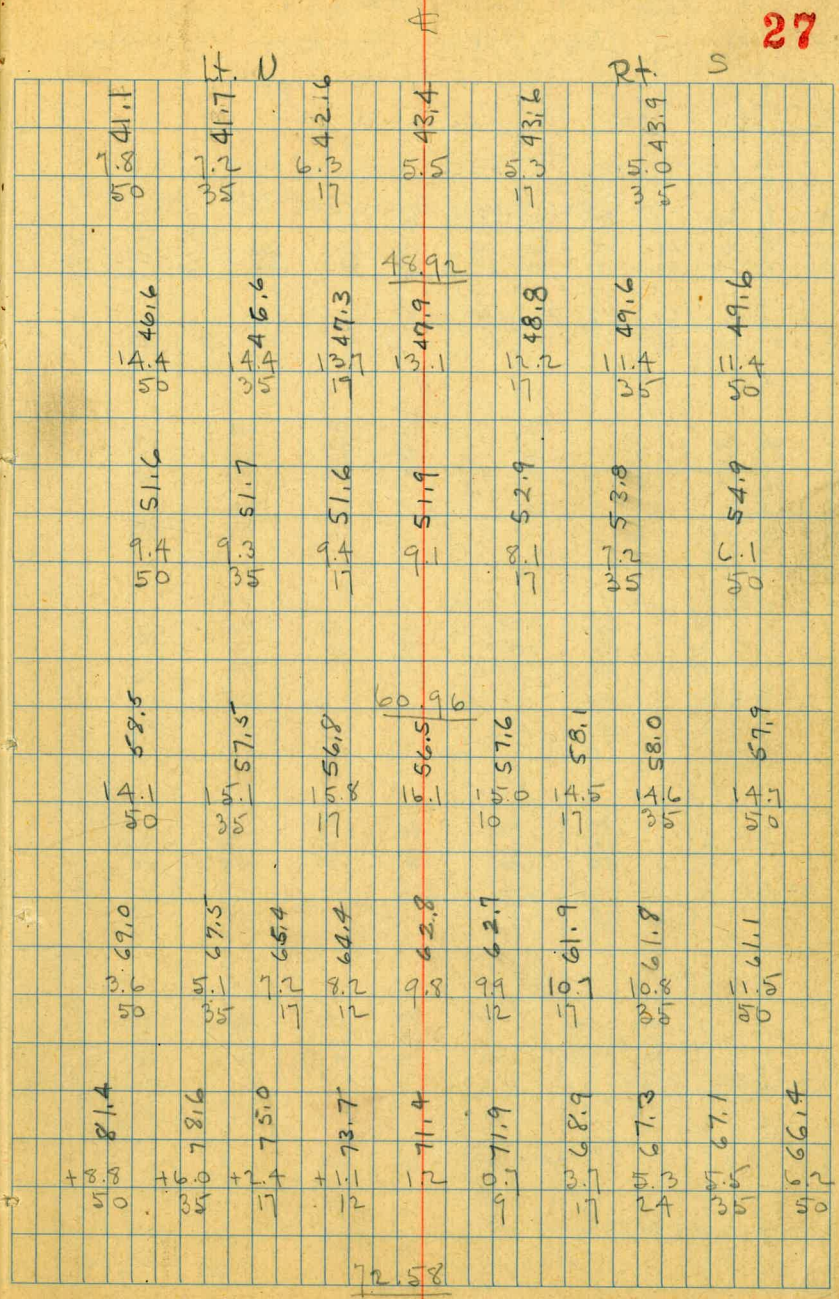
0+50.5 - 36.7 Rt. = W. side of Conc. Dr. to Grar. - base of wall.

0+50 - 30.6 Rt. = Cor. 6" Conc. wall

0+54 - 35.4 Lt. = ± 6" Euc.



| | | | | |
|---|---|---|---|---|
| Check B.M. - N.W. Mon. | | 7.48 | 41.44 | 41.39 |
| 3+00.70 = W.L. locust | | | | |
| T.P. | 0.86 | 48.92 | 12.90 | 48.06 |
| 2+60 | | | | |
| 2+30 | | | | |
| T.P. | 1.19 | 60.96 | 12.81 | 59.77 |
| 2+00 | | | | |
| 1+70 | | | | |
| 1+40 - 18.5 Rt. = ℄ P pole | | | | |



Walker
Hendricks
Becker
Johnson
5-22-47

# Cross Sections
## Del Rey Street 70' wide
from Bunker Hill st
to Rosewood st

Sketch and X Sections of other sts
in Stephen's Add. - see FB 1735-P-35

Indexed

C.S.K.



Each right-page entry below is written as elevation (rod reading / distance from ℄).

| Sta. | Lt | | | | | ℄ | Rt | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1+76 | 30.8 (5.4/50) | 30.5 (5.7/35) | 30.0 (6.2/30) | 28.8 (7.4/26) | 28.2 (8.0/17) | 27.2 (9.0) | 27.4 (8.8/6) | 28.3 (7.9/9) | 27.6 (8.6/17) | 27.0 (9.2/35) | 26.2 (10.0/46) | 23.7 (12.5/61) | 25.4 (10.8/68) |
| 1+64 | 31.1 (5.1/50) | 30.4 (5.8/35) | 29.8 (6.4/17) | | | 29.2 (7.0) | 25.8 (10.4/17) | 25.0 (11.2/35) | 24.8 (11.4/47) | 26.4 (9.8/50) | 26.1 (10.1/60) | | |
| 1+58 | 31.3 (4.9/50) | 30.7 (5.5/35) | 30.0 (6.2/17) | | | 29.2 (7.0) | 28.0 (8.2/17) | 27.2 (9.0/35) | 26.5 (9.7/50) | | | | |
| 1+00 | 33.7 (2.5/50) | 33.1 (3.1/35) | 32.2 (4.0/17) | | | 31.4 (4.8) | 30.2 (6.0/17) | 29.3 (6.9/35) | 28.7 (7.5/50) | | | | |
| 0+50 | 35.3 (0.9/50) | 34.4 (1.8/35) | 33.5 (2.7/17) | | | 32.8 (3.4) | 32.0 (4.2/17) | 31.6 (4.6/35) | 31.2 (5.0/50) | | | | |
| 0+00 = ELY Line | 36.1 (0.1/35) | 35.3 (0.9/17) | | | | 34.4 (1.8) | 33.7 (2.5/17) | 33.4 (2.8/35) | | | | | |

2.76 36.20 33.44 B.M. Conc. Mon. Del Rey & Bunker Hill FB 1735-50

36.20

DEL REY STREET

X SECTIONS

INDEXED



| | Lt | | | | ℄ | | | | Rt. |
|---|---|---|---|---|---|---|---|---|---|
| 4+00 | 30.9 | 30.3 | 29.5 | 28.8 | 28.1 | 27.5 | 26.9 | 26.1 | 24.1 |
| 3+50 | 30.2 | 29.7 | 29.4 | 28.1 | 27.9 | 27.4 | 26.7 | 26.1 | 24.9 |
| 3+00 | 29.4 | 29.0 | 27.7 | 27.0 | 27.0 | 26.0 | 25.6 | 25.0 | 24.6 |
| 2+50 | 29.1 | 28.3 | 27.3 | 27.0 | 26.1 | 25.4 | 25.4 | 24.9 | 24.6 |
| 2+15 | 28.3 | 27.6 | 26.7 | 26.0 | 25.2 | 24.6 | 24.6 | 24.1 | 24.1 |
| 1+80 | 36.20 | | | | | | | | |

# Del Rey St.

## X Sections

7+00

6+70.5 to 7+69 Wire Fence on Lt on Line

6+50

6+00

5+69.95 = ELY Line Glendora St.

X Section this Intersection FB 1735-42

SWLY Cor Glendora & Del Rey

| | | | | |
|---|---|---|---|---|
| T.P. | 3.22 | 27.14 | 12.28 | 23.94 = FB. 1735-43<br>23.92 on Conc Mon |

4+99.95 = NWLY Line Glendora

4+50

36.20

| | Lt. | | | | | | | | | | Rt. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 23.7 | 23.3 | 22.9 | 22.5 | 21.3 | 21.1 | 20.7 | | | | |
| | 3.4 50 | 3.8 35 | 4.2 17 | 4.6 | 5.8 17 | 6.0 35 | 6.4 50 | | | | |
| | 24.8 | 24.1 | 23.4 | 23.2 | 22.1 | 21.7 | 21.3 | | | | |
| | 3.3 50 | 3.0 35 | 3.7 17 | 3.0 | 5.0 17 | 5.4 35 | 5.8 50 | | | | |
| | 25.7 | 25.3 | 24.1 | 23.7 | 22.7 | 22.2 | 21.7 | | | | |
| | 1.4 50 | 1.8 35 | 3.0 17 | 3.4 | 4.4 17 | 4.9 35 | 5.4 50 | | | | |
| | 25.9 | 25.3 | 24.4 | 24.1 | 23.1 | 22.6 | 22.2 | | | | |
| | 1.2 50 | 1.8 35 | 2.7 17 | 3.0 | 4.9 17 | 4.5 35 | 4.9 50 | | | | |
| | | | | 27.14 | | | | | | | |
| | | 26.1 | 25.5 | 25.1 | 24.4 | 23.92 | | | | | |
| | | 10.1 35 | 10.7 17 | 11.1 | 11.8 17 | 12.28 35 | on Conc. Mon | | | | |
| | 27.9 | 27.1 | 26.1 | 25.7 | 24.6 | 24.0 | 23.5 | | | | |
| | 8.3 50 | 9.1 35 | 10.1 17 | 10.5 | 11.6 17 | 12.2 35 | 12.7 50 | | | | |

36.20

# DEL REY ST.

## X SECTIONS

8+45 to Sta 10+00 = Pickett Fence on Lt 1.0' in st

| Sta. | Lt. | | | | ℄ | | | Rt. |
|---|---|---|---|---|---|---|---|---|
| 10+00 | | 5.5/35 21.6 | 5.74/27 21.40 | 6.3/17 20.8 | 6.8 20.3 | 7.0/17 20.1 | 7.6/35 19.5 | 8.4/50 18.7 |
| 9+50 | 4.6/50 22.5 | 4.8/35 22.3 | 5.0/34 22.1 | 5.6/17 21.5 | 6.3 20.8 | 6.8/17 20.3 | 7.4/35 19.7 | 8.0/50 19.1 |
| 9+00 | 4.6/50 22.5 | 4.8/35 22.3 | 5.3/34 21.8 | 6.1/17 21.0 | 6.1 21.0 | 6.6/17 20.5 | 7.3/35 19.8 | 7.7/50 19.4 |
| 8+50 | 5.0/50 22.1 | 5.1/35 22.0 | 5.4/34 21.7 | 5.7/17 21.4 | 6.5 20.6 | 6.8/17 20.3 | 7.5/35 19.6 | 8.1/50 19.0 |
| 8+00 | 4.3/50 22.8 | 4.8/35 22.3 | | 5.6/17 21.5 | 6.3 20.8 | 6.8/17 20.3 | 7.2/35 19.9 | 7.8/50 19.3 |
| 7+50 | 3.6/50 23.5 | 4.2/35 22.9 | | 4.8/17 22.8 | 5.2 21.9 | 6.1/17 21.0 | 6.1/35 21.0 | 6.9/50 20.2 |

Asphalt Drive

27.4

# DEL REY STREET

## X SECTIONS

NELY Cor Pacific & Rosecrans st

| | | | | |
|---|---|---|---|---|
| | | | | 0.02 |
| Chk BM on Mon. | | | 9.51 | 10.09 = FB 1735-31 |
| | | | | 10.07 |
| T.P. | 2.15 | 19.58 | 9.71 | 17.43 |

10+70

10+35

10+22 = End thin Asphalt Pav. on Lt

10+13 = ℄ Dble Garage 49' Lt. Thin Asphalt Pav. Approx 1½" thick

27.14

Completed 5-22-47

| Sta. | Lt | | | ℄ | | | | Rt |
|---|---|---|---|---|---|---|---|---|
| 10+70 | 21.1 / 6.0 / 40 | 21.1 / 6.0 / 35 | 20.4 / 6.7 / 17 | 19.8 / 7.3 | 19.4 / 7.7 / 17 | 18.9 / 8.2 / 35 | 17.89 / 9.25 / 35 on Conc. Mon | 18.44 / 8.7 / 50 |
| 10+35 | 21.9 / 5.2 / 50 | 21.5 / 5.6 / 35 | 20.7 / 6.4 / 17 | 20.0 / 7.1 | 19.8 / 7.3 / 17 | 19.2 / 7.9 / 35 | 18.3 / 8.8 / 50 | |
| 10+22 | 22.20 / 4.94 / 49 Pav | 21.63 / 5.51 / 34 Pav | 21.29 / 5.85 / 29 Pav | | | | | |
| 10+13 | 22.14 / 5.00 / 49 Pav | 21.65 / 5.49 / 34 Pav | 21.23 / 5.91 / 29 Pav | | | | | |

27.14

Alignment Plymouth Dr. And Standish Dr. Panorama Hts.

Aug. 25 47
S. Jones
McCoy
Hilton
W.O. 25801

| | | |
|---|---|---|
| 7+66.85 | EC | |
| 7+52.56 | RC Rt. | |
| 6+86.56 | EC | 25°05' |
| +61.23 | | 16°43.33' |
| +35.90 | | 8°21.67' |
| 6+10.57 | RC Lt. | |
| | | |
| +44.63 | EC | 13°45' |
| 5+13.44 | | 12°04' |
| +82.25 | | 10°23' |
| +50 | | 8°38.56' |
| +20.64 | | 7°03.5' |
| 4+0 | | 5°56.66' |
| +75 | | 4°35.71' |
| +50 | | 3°14.76' |
| +25 | | 1°53.81' |
| 3+0 | | 0°32.86' |
| 2+89.85 | PRC | 54°15.50' |
| 2+65.24 | | 40°41.62' |
| 2+40.62 | | 27°07.75' |
| 2+16 | | 13°33.87' |
| 1+91.38 | RC Lt. | |
| | | |
| 0+0 | = W.L. Panorama Hts. | |

385 50%

Indexed

Imperial Ave.

C.S.I.K. Plotted T.P.S 3437

33

Conc Paving

Fd R.R. Spike

7+86.59

7+66.85 EC

Δ 40°67'
R 20
L 14.29
T 7.99
E 1.56

7+55

Fd Pipe

3+46.88 EC

Δ 50°10'
R 86.70
D 19.80

6+46.59 RC

5+44.63 EC

4+82.25

0+98.42 EC

Δ 104°15'

Δ 108°31'
R 5199
L 9847

W.L. Panorama Hts.

Plymouth Dr.

0+0

1+91.38 RC

2+89.85 PRC

Δ 27°30'
R 530.83
D 5.248

Page 3

Indicator Hubs Found as Noted

Nails

Cross Section Plymouth Drive
South West End to Imperial Ave

Indexed
C.S.K.

Sketch Page 33

0+75

0+50

0+25

0+0 = Mh. Panorama Mts.

Plotted
Oct. 1947
D.L.C.

0-45

0-90 = Bottom Draw

| | | | | | |
|---|---|---|---|---|---|
| TP | 13.02 | 78.86 | 0.21 | 65.64 | |
| TP | 12.93 | 65.85 | 0.06 | 52.92 | |
| TP | 12.33 | 52.98 | 1.99 | 40.65 | |
| BM | 0.21 | 42.64 | | 42.43 | N.E.B.P. Ocean View Valley Horizon Control for San Miguel |

Lt: N

Rt: S

34

80.0 76.1 76.2 75.6 74.4 71.8
72.6 74.9 75.4 74.3 73.5 71.5
76.5 73.5 75.2 73.3 72.6 71.2
74.2 71.69 73.0 71.2 70.2
70.7 69.3 68.0
67.3 65.5 64.3

7866

Plymouth Drive

Lt. | ℄ | Rt.

| | | | | |
|---|---|---|---|---|
| 2+16 | | | | |
| | Note:- All Sections on Curves Taken Radial | | | |
| +91.38 | B.C. Lt. | | | |
| +75 | | | | |
| +50 | | | | |
| +25 | | | | |
| TP | 11.81 | 90.39 | 0.18 | 78.48 |
| 1+0 | | | | |
| | | 78.66 | | |

| Lt. | | | ℄ | | | Rt. |
|---|---|---|---|---|---|---|
| 87.4 | 85.2 | 84.3 | 83.7 | 83.7 | 82.6 | |
| 2.9 / 20 | 5.1 / 20 | 6.0 / 20 | 6.6 / 20 | 6.6 / 20 | +3.9 / 20 | |
| 87.3 | 84.4 | 83.4 | 82.6 | 81.2 | 77.4 | |
| 3.0 / 15 | 5.9 / 16 | 7.9 / 14 | 7.7 / 13 | 9.1 / 6 | 1.3 / 4 | |
| 85.5 | 83.8 | 82.7 | 81.1 | 79.1 | 77.2 | |
| 4.8 / 10 | 6.5 / 0.0 | 7.6 | 9.2 / 8 | 11.2 / 4 | 1.5 | 90.39 |
| 85.5 | 83.00 | 82.7 | 81.0 | 79.2 | 77.2 | |
| 4.8 | 7.21 on H46 | 7.6 | 9.3 | 11.1 | 1.5 | 78.66 |
| 85.3 | 82.7 | 81.9 | 80.4 | 78.9 | 77.2 | |
| 5.0 / 17 | 7.6 / 15 | 8.1 / 15 | 9.9 / 16 | 11.4 / 17 | 1.5 / 17 | |
| 84.6 | 80.4 | 80.5 | 78.9 | 77.6 | 76.0 | |
| 5.7 / 20 | 9.9 / 20 | 9.8 / 20 | 11.4 / 20 | 12.7 / 20 | 1.7 / 20 | |
| 84.1 | 78.6 | 78.2 | 76.7 | 75.3 | 73.4 | |
| 6.2 / 30 | 14.7 / 30 | 13.1 / 30 | 13.6 / 30 | 15.0 / 30 | 5.3 / 30 | |

| | | | | |
|---|---|---|---|---|
| 1+50 | | | | |
| 1+25 | | | | |
| 1+0 | | | | |
| 2+89.85 PRC. | | | | |
| TP | 11.62 | 101.80 | 0.11 | 90.18 |
| 1+65.24 | | | | |
| 2+40.62 | | | | |
| | | 90.29 | | |

| Lt | | | |

Plymouth Drive

| Station | | | | |
|---|---|---|---|---|
| +50 | | | | |
| +42 | | | | |
| +27 | | | | |
| +20.64 | = S.L. Standish Dr. on Lt. | | | |
| TP | 12.59 | 112.97 | 1.42 | 100.38 |
| 4+0 | | | | |
| 3+75 | | | | |
| | | 101.80 | | |



| Station | | Lt=N | | | ℄ | | Rt=E | |
|---|---|---|---|---|---|---|---|---|
| +50 | | 105.7 (7.3/20) | 103.0 (10.0/12) | | 102.5 (10.5) | 101.4 (11.6/16) | 100.9 (12.1/20) | 96.7 (16.3/30) |
| +42 | | 103.2 (9.8/20) | 102.8 (10.2/10) | | 102.2 (10.8) | 101.0 (12.0/17) | 100.0 (13.0/20) | 95.7 (17.3/30) |
| +27 | | 103.1 (9.9/20) | 102.3 (10.7/10) | | 101.5 (11.5) | 100.2 (12.8/17) | 100.3 (12.7/20) | 94.6 (18.4/30) |
| +20.64 | 104.19 (8.78/20 on Hub) | 105.5 (7.5/17) | 103.8 (9.2/7) | 101.2 (11.8/3) | 101.1 (11.9) | 99.7 (13.3/17) | 99.8 (13.2/20) | 94.6 (18.4/30) |
| TP | | | | | 112.97 | | | |
| 4+0 | | 105.5 (+3.7/20) | 104.1 (+2.3/8) | 100.0 (1.8/4) | 99.6 (2.2) | 98.6 (3.2/18) | 99.1 (2.7/20) | 94.8 (7.0/30) |
| 3+75 | | 105.3 (+3.5/20) | 104.0 (+2.2/8) | 98.2 (3.6/4) | 97.9 (3.9) | 96.8 (5.0/20) | 97.3 (4.5/22) | 94.4 (7.4/30) |
| | | | | | 101.80 | | | |

6+35.90

6+10.57 BC Lt

5+77

| TP | 7.54 | 119.33 | 1.18 | 111.79 |
|---|---|---|---|---|

5+44.65 EC

5+13.44

4+82.25 = PRC on Lt

112.97



Lt = W | ℄ | Rt = E

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6+35.90 | 115.0 (4.3/20) | 111.9 (7.4/9) | 106.0 (13.3) | 106.2 (13.1/16) | 104.6 (14.7/20) | 97.3 (22.0/35) | |
| 6+10.57 | 114.2 (5.1/20) | 111.5 (7.8/12) | 105.8 (13.5) | 105.9 (13.4/16) | 104.2 (15.1/20) | (22.0/35) | |
| 5+77 | 115.8 (3.5/20) | 112.5 (6.8/8) | 106.5 (12.8) | 105.7 (13.6/6) | 105.5 (13.8/20) | 101.2 (18.1/30) | |
| TP 119.33 | 115.1 (4.21/20) | 111.2 (8/7) | 105.9 (7.1/0.0) | 105.35 (7.62 on H-[illegible]) | 104.8 (8.3/6.3) | 105.0 (8.0/20) | 101.4 (11.6/30) |
| 5+13.44 | 114.0 (+1.0/20) | 109.7 (3.3/3.3) | 107.1 (5.9) | 104.0 (9.0/4) | 104.0 (9.0/20) | 101.5 (11.5/30) | |
| 4+82.25 | 109.1 (3.9/20) | 106.1 (6.9/7) | 103.4 (9.6/2) | 103.3 (9.7) | 103.1 (9.9/18) | 102.7 (10.3/20) | 97.5 (15.5/30) |

112.97

Plymouth Drive

| | | | | |
|---|---|---|---|---|
| TP | 5.33 | 114.57 | 10.09 | 109.24 |
| 7+66.85 | EC | | | |
| 7+52.56 | BC Rt | | | |
| 7+20 | | | | |
| 6+91 | | | | |
| 6+86.56 | EC | | | |
| 6+61.23 | | | | |
| | | 119.33 | | |

| Lt. | | ℄ | | Rt. |
|---|---|---|---|---|
| 112.9 | 110.2 | 109.4 | 110.6 | 117.0 |
| 6.4 | 9.1 | 9.9 | 8.7 | 2.3 |
| 30 | 20 | 20 | 20 | 20 |
| 111.4 | 109.2 | 109.2 | 113.3 | 113.8 |
| 7.9 | 10.1 | 10.1 | 6.0 | 5.5 |
| 20 | 10 | 10 | 10 | 10 |
| 108.6 | 108.2 | 107.2 | 107.2 | 106.4 |
| 10.7 | 11.1 | 12.1 | 12.1 | 12.9 |
| | | | 12.35 | |
| 107.7 | 107.1 | 107.1 | 107.0 | 106.7 |
| 11.6 | 12.2 | 12.2 | 12.3 | 12.6 |
| 20 | 20 | 20 | 20 | 17 |
| 106.9 | 106.9 | 107.2 | 107.1 | 105.6 |
| 12.4 | 13.4 | 13.1 | 13.2 | 13.7 |
| 30 | 30 | 27 | 25 | 20 |
| 107.7 | 107.0 | 103.1 | | 99.4 |
| 11.6 | 13.2 | 16.2 | | 19.9 |
| 20 | 30 | 35 | | 35 |
| 108.6 | 109.3 | 110.9 | 112.1 | |
| 10.7 | 10.0 | 8.4 | 7.2 | |
| 13 | | 20 | 30 | |

119.33

| | | | | |
|---|---|---|---|---|
| BM | | 555 | 114.98 | Top of Imperial Pav. at Pagoroma Hts |
| TP | 6.78 | 120 53 0.82 | 113.75 | |
| 7+95.6 = ℄ Conc. Strip Paving | | | | |
| 7+86.6 = South Edge Conc Paving on Imperial Ave | | | | |
| 7+76 | | | | |

114.59

| Lt. | ℄ | Rt. |
|---|---|---|
| 2.26/100 112.31 | 5.64 108.93 | 7.71/20 106.86 |
| 3.41/100 112.16 | 6.59 108.00 | 7.13/20 107.14 |
| 3.91/60 110.63 | 6.45 108.12 | 8.95/60 105.62 |
| 4.09/60 110.48 | 6.57 108.00 | 9.04/60 105.53 |
| 5.55/30 109.1 | 6.6 108.0 | 7.4/20 107.2 |
| 5.81/30 108.76 | 6.57 108.00 | 7.13/20 107.14 |
| 4.0/30 108.6 | 6.6 108.0 | 7.8/20 106.8 |
| 10.65/100 103.72 | | |
| 10.81/100 103.76 | | |

114.59

Cross Section Standish Drive
From Plymouth Drive to West Line of
Panorama Hts  Sketch Page 33

| | | | | |
|---|---|---|---|---|
| TP | 10.62 | 121.94 | 4.52 | 111.32 |
| 1+25 | | | | |
| 0+98.42 | E.C. | | | |
| 0+65.62 | | | | |
| 0+32.81 | | | | |
| 0+0 | = SW Standish & Plymouth | | | |
| BM | 14.65 | 115.87 | 104.19 | on Hub 20 ft. At 20.6 Rt. Plymouth Page 37 |

Indexed C.S.K.

41

Aug 26-47 Simon McCoy Rifco

| Sta | Lt. | | | | ℄ | | | | Rt. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 107.5 | | | | 112.1 | 115.4 |
| | | | | | 8.3 | | | | 3.7 | 0.4 |
| | | | | | | | | | 7 | 20 |
| | | 101.5 | | 106.1 | 107.6 | | | | | |
| | | 14.3 | | 9.7 | 8.2 | | | | | |
| | | 30 | | 20 | 16 | | | | | |
| | 100.8 | | 104.4 | | 105.9 | | 106.7 | 106.34 | 106.7 | 109.8 |
| | 15.0 | | 11.4 | | 9.9 | | 9.1 | 9.50 on Hub | 9.1 | 6.0 |
| | 30 | | 20 | | 15 | | 6.0 | | 6 | 20 |
| | | | 104.0 | | 105.8 | | 105.5 | | 105.4 | 108.0 | 109.0 |
| | | | 11.8 | | 10.0 | | 10.3 | | 10.4 | 9.8 | 6.8 |
| | | | 30 | | 20 | | | | 3 | 7 | 20 |
| | | | 103.7 | | 103.9 | | 104.3 | | 104.4 | 107.7 | 108.8 |
| | | | 12.1 | | 11.9 | | 11.5 | | 11.4 | 8.1 | 7.0 |
| | | | 30 | | 20 | | | | 3 | 9 | 20 |
| | 105.2 | 106.0 | 104.7 | 103.1 | | 103.2 | | 107.3 | 108.1 | 108.8 | |
| | 10.6 | 9.8 | 11.1 | 12.7 | | 12.6 | | 8.5 | 7.7 | 7.0 | |
| | 30 | 27 | 20 | 17 | | | | 8 | 20 | 20 | |
| | | | | | 115.84 | | | | | | |

Standish Drive

| Station | Angle |
|---|---|
| 2+88.32 | 28°29.25' |
| 2+60.27 | 18°59.5' |
| 2+32.22 | 9°29.75' |
| | C=27.92 |
| 2+04.17 = BC Lt. | |
| 1+75 | |
| 1+50 | |
| | 121.94 |



| Lt. | | | | ℄ | | | Rt. |
|---|---|---|---|---|---|---|---|
| 109.4 | 112.4 | 112.3 | | 114.4 | 118.0 | 118.4 | |
| 12.5 / 35 | 9.5 / 25 | 9.6 / 20 | | 7.5 | 3.9 / 16 | 3.5 / 20 | |
| 107.1 | 112.4 | 112.4 | | 113.3 | 119.9 | 116.4 | |
| 14.8 / 40 | 9.5 / 25 | 9.5 / 20 | | 8.6 | 2.0 / 11 | 5.6 / 20 | |
| 105.7 | 111.9 | 111.9 | 112.2 | 113.6 | 117.0 | 116.4 | |
| 16.2 / 38 | 10.0 / 25 | 10.0 / 20 | 9.7 / 5 | 8.3 | 4.9 / 8 | 5.5 / 20 | |
| 105.3 | 111.1 | 111.1 | 111.3 | 115.4 | 117.2 | 117.7 | |
| 16.6 / 35 | 10.8 / 23 | 10.8 / 20 | 10.6 / 7 | 6.5 | 4.7 / 6 | 4.2 / 20 | |
| 103.3 | 108.8 | 110.0 | 109.9 | 111.3 | 120.5 | 123.4 | 126.9 |
| 18.6 / 35 | 13.1 / 20 | 11.9 / 17 | 12.0 / 3 | 10.6 | 1.4 / 13 | +1.5 / 20 | +5.0 / 30 |
| 102.8 | 107.4 | 108.7 | 108.9 | 110.2 | 117.5 | 120.9 | |
| 19.1 / 30 | 14.5 / 20 | 13.2 / 15 | 13.0 / 3 | 11.8 | 4.4 / 10 | 1.0 / 20 | |

121.94

| | | | | | |
|---|---|---|---|---|---|
| BM | | | 8.89 | 118.48 | SE BP Imperial Irr. ×39 Lat. 118.38 |
| TP | 10.52 | 127.37 | 0.63 | 116.85 | |
| TP | 10.96 | 117.48 | 5.58 | 106.52 | |
| TP | 4.99 | 112.04 | 3.02 | 107.55 | |
| TP | 0.27 | 110.57 | 13.27 | 110.30 | |
| BM | | | 8.58 | 114.99 | 07 Lat. B Imperial Irr. ×W.L. Panorama 114.98 Pa 9840 |
| TP | 5.34 | 123.57 | 8.71 | 118.23 | |
| 37°59' 37°16'38" = EC = W.L. Panorama Hts | | | | | |
| | | 121.94 | | | |

Lt. | Rt.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 110.6 | 113.6 | 115.0 | 116.2 | 115.97 | 116.4 | 120.1 | 120.9 | | |
| 1.3 / 35 | 8.3 / 20 | 6.9 / 15 | 5.9 / 10 | 5.9 / 2 | 5.5 / 3 | 1.8 / 12 | 1.0 / 20 | | |
| | | | | 39 Rt | | | | | |
| | | | | 121.94 | | | | | |

Indexed
c.s.k.

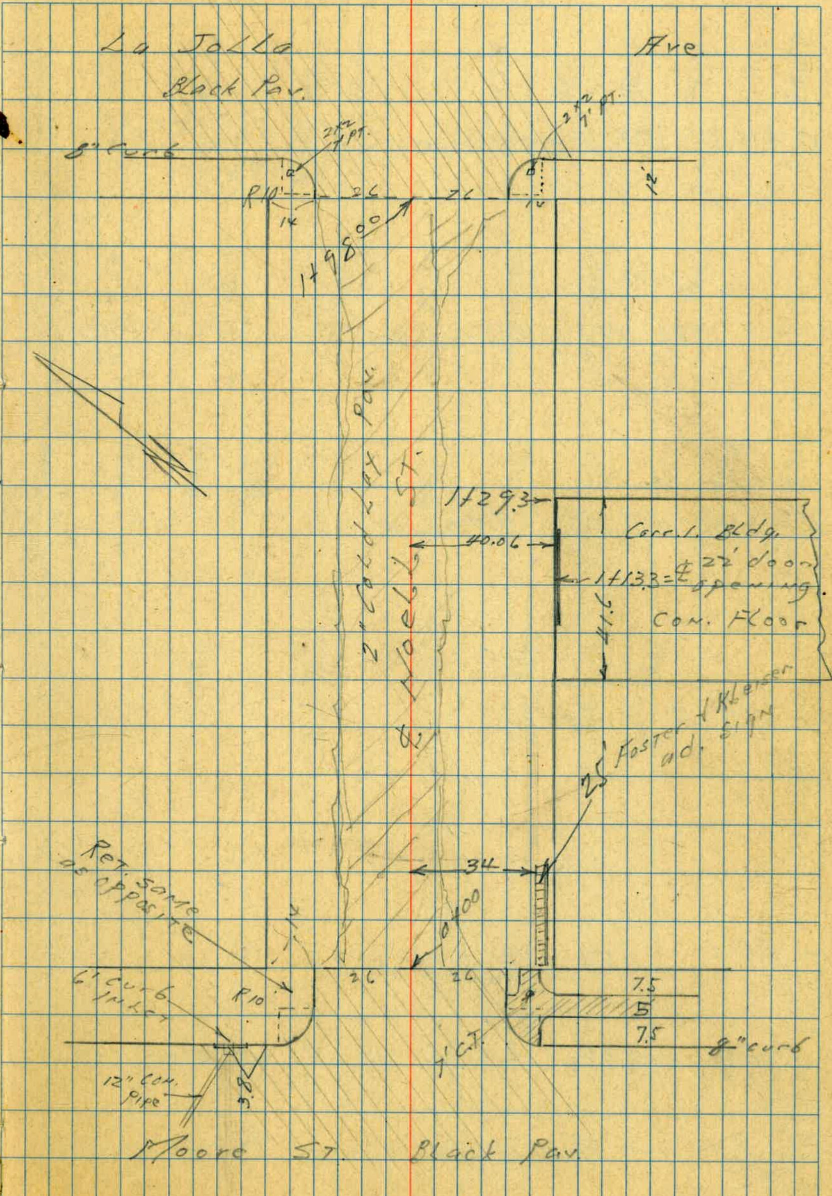
Isec Noell St.
Moore St to La Jolla Ave

Moore
Begg
Green
Roberts

W.O. 25001

10-31-47





| B.S. + | H.I | F.S. − | El. | |
|---|---|---|---|---|
| Xsec | Noell | | | |
| | Here, E.P. = edge Cold Lay Pav. | | | |
| 0+00 | Ely Moore | | | Here Cold Lay is Higher than Orig. Pav. |
| 0−7 | Beg. Cold Lay Pav. over orig. Pav. | | | |
| 0−20 | Ely ch. Moore | | | |
| 0−37.5 | ℄ Moore | | | |
| T.P. | 0.53 | 52.63 | 10.76 | 52.10 |
| T.P. | 0.86 | 62.86 | 12.53 | 62.00 |
| N.E.BP. BM. | 0.38 | 74.53 | | 74.15 |

Lt ℄ Rt

42.63 42.21 43.43 43.49 43.51 43.19 42.31 42.69 44.73 44.53

9.1 8.3 10.00 10.42 9.2 9.14 9.12 9.44 10.32 9.94 7.9 8.1

40 27 26 26 20 13 13 26 26 26 27 40

06 97 E.P. 97 06 dirt dirt

42.58 42.15 42.47 42.59 42.40 42.26 42.62

10.05 10.48 10.46 10.04 10.23 10.37 10.01

26 26 13 13 26 26

06 97 97 97 06

43.04 42.61 42.46 42.69 41.82 41.95 42.14 42.27 42.62 42.72 43.12

9.59 10.02 10.15 10.34 10.81 10.58 10.49 10.36 9.95 9.91 9.51

90 90 40 40 26 26 40 77 77

06 97 06 97 97 06

43.11 42.78 42.28

9.53 9.90 9.85 9.35

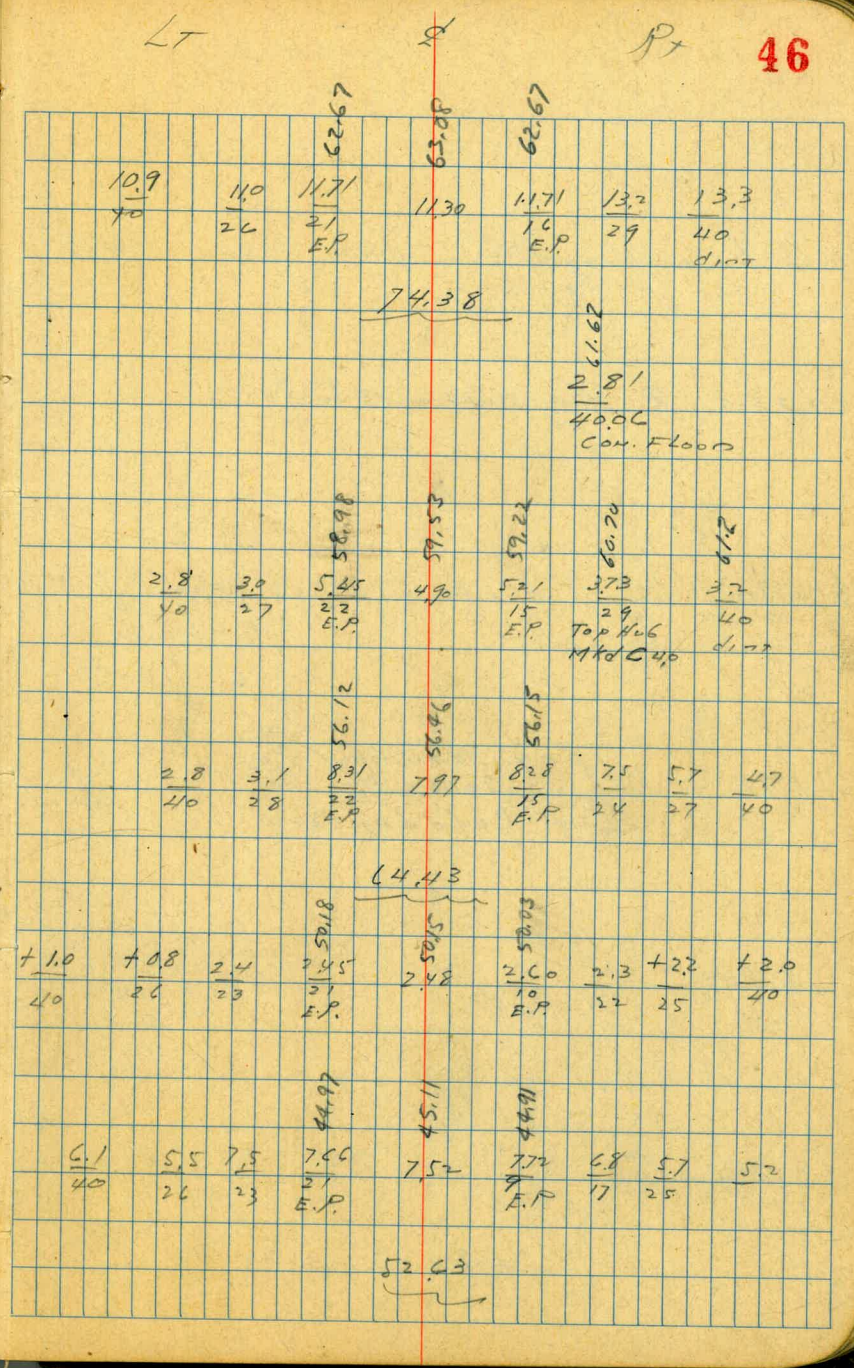
90 40 40 90

42.61 10.02

52.63

Noell to La Jolla Fwy

| | | | | |
|---|---|---|---|---|
| 1+25 | | | | |
| T.P. | 10.00 | 74.38 | 0.05 | 64.38 |
| 1+13.3 | E 22' door | Con. Floor | | |
| 1+00 | | | | |
| 0+80 | | | | |
| T.P. | 12.33 | 64.43 | 0.53 | 52.10 |
| 0+40 | | | | |
| 0+10 | | | | |
| | | 52.63 | | |



Nobel St.

| | | | |
|---|---|---|---|
| Check to Starting BM | 0.23 | 74.15 | 74.15 |
| 2+35.5 ℄ La Jolla Ave | | | |
| 2+10 Wly curb La Jolla Ave. | | | |
| 1+98 = Wly La Jolla Ave. End Cold Lay Pav. | Beg. Standard Pav. | | |
| 1+86 | | | |
| 1+44 | | | |
| | 74.38 | | |

Lt ℄ Rt

73.46 — 0.92 / 40

73.00 — 1.38

72.42 — 1.96 / 40

72.15 — 1.78 / 90

72.65 — 2.17 / 90 9T

2.73 / 40 CB

2.65 / 40 9T

2.72 / 2C

71.28 — 3.10

3.44 / 2C

3.64 / 40 9T

71.12 — 3.26 / 40 CB

4.35 / 90 9T

3.98 / 90 CB

72.16 — 2.1 / 40 Dirt

2.72 / 2C CB

71.52 — 2.86 / 2C 9T

2.70 / 13

71.46 — 2.82

3.17 / 13

3.71 / 2C 9T

71.03 — 3.35 / 2C CB

3.7 / 40

2.9 / 40

2.7 / 2C

2966 — 3.72 / 20 S.P.

70.79 — 3.59

70.02 — 4.36 / 20 EP

3.8 / 27

4.2 / 40

64.90 — 9.7 / 40

9.48 / 23 S.P.

65.69

65.59 — 8.79

65.19 — 9.19 / 1C EP

9.5 / 2C

10.7 / 40

74.38

Indexed

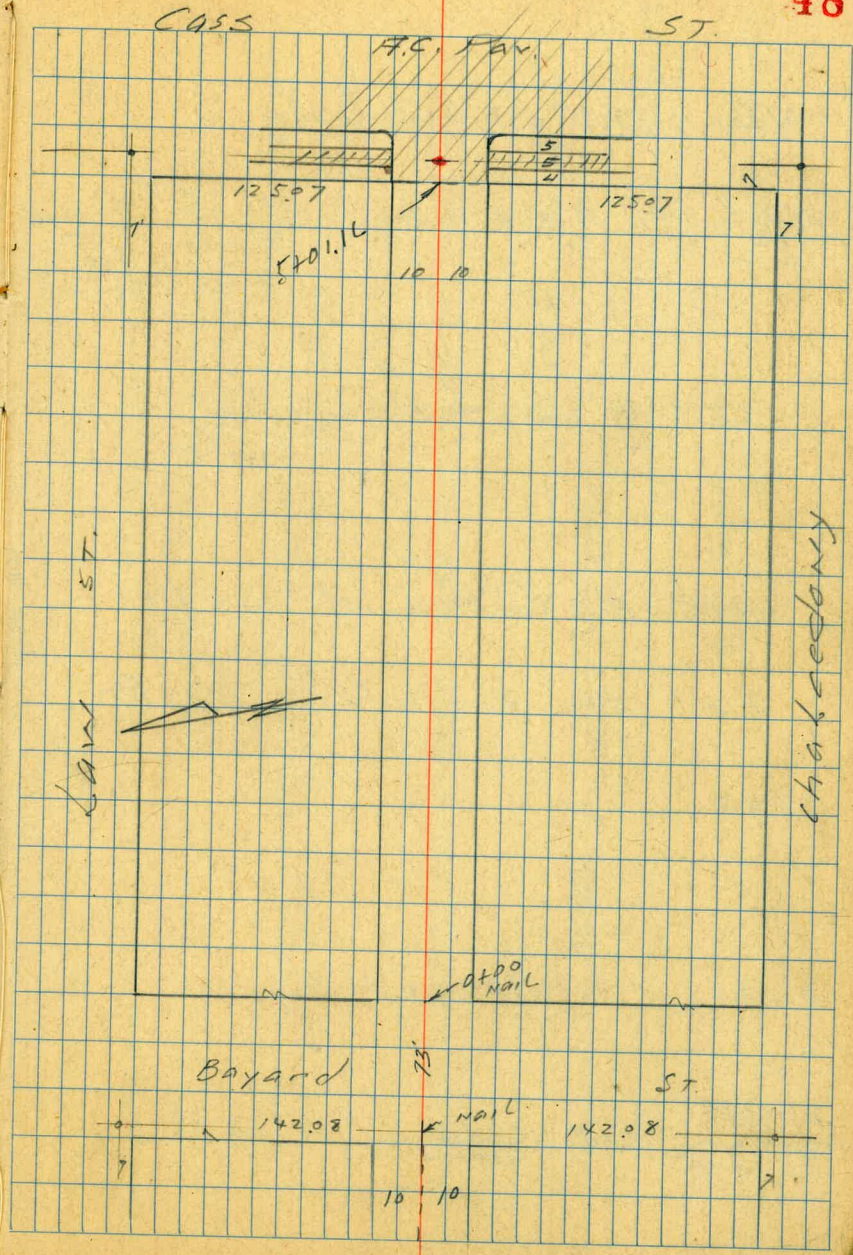
Xsec of 20' alley

Blk 114 Pacific Beach

W.O. 2500,

Moore
Begg
Green
Roberts
4-9-48

- Fd. Ld.C.T. 7' pts
- Set City Cap. disks



1+01.5 10.3 R ℄ 3' walk conc.
E.

1+00 P.I. A 9.18 9' Rt, end Top Wall also Beg. Bd. Fence

+68 ℄ gate + 4' con walk

+49.5 Beg. Con. Ret. wall 10.2 Lt.

+31 Beg. Picket fence 9.8 Rt

0+25

0+00 E. L. Bayard

N.W.B.P. Law and Bayard 3.18 62.03 58.85

385 50%

Lt ℄ Rt

58.98 3.0 S 10.7 | 58.03 4.0 10 | 57.93 4.1 10 | 57.63 4.4 10 | 57.13 4.3 10 | 57.53 4.5 10 | 4.43 10.3 walk 57.60

58.84 1.9 10.7 Top wall | 58.35 3.7 10 | 57.53 4.5 | 57.43 4.6 | 57.13 4.9 10 | end Picket fence 10.1 | 57.03 5.0 2 S

58.57 3.4 L 10.2 Top wall | 57.73 11.3 10 | 57.13 4.9 | 57.03 5.0 10 | 5.1 2 S

57.03 5.0 10 | 56.83 5.2 | 56.63 5.4 10 | 56.93

56.73 5.3 10 | 56.43 5.6 | 56.23 5.8 10

62.03 62.03

1+55 Beg. Con. apron + 4 Car. garage on Rt.

1+52 ℄ 4' Con walk on Lt

1+49.5 End Bd. + Beg Picket fence on Lt.

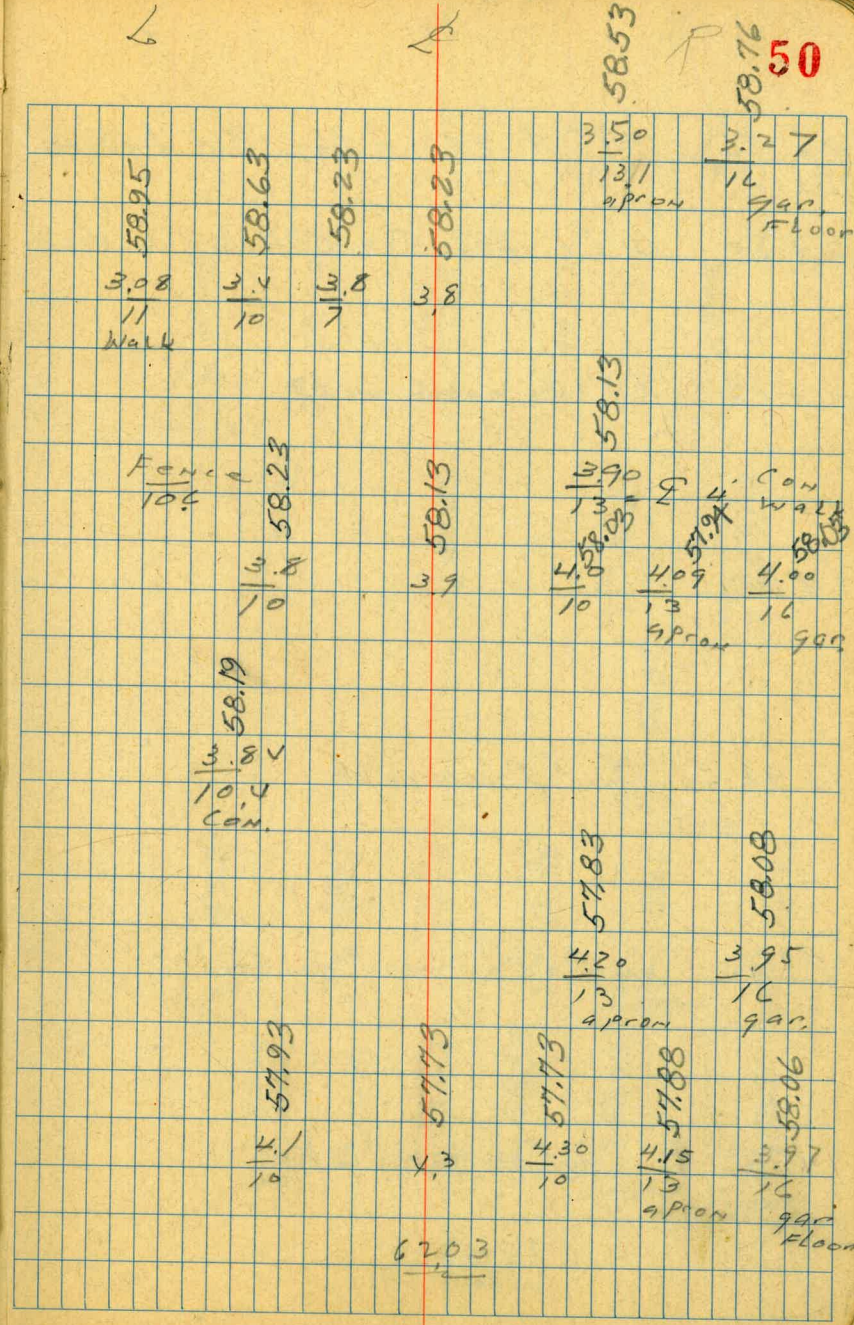
1+45 end apron + 4 Car. gar.

1+28 ℄ 2' Con. walk

1+26.5 ℄ 4 Car gar. Con Fl.

1+08 W. edge Con. apron + 4 Car. garage on Rt

L.V. 0.3



2+52 P.P. A 950 + Beg. Bd Fence

2+50 10' Lt Beg. Con. Blk Wall 5' High

2+48 ℄ 3' Con Walk on Lt

2+10

1+98.5 ℄ 3' Con walk

1+92 end 4 Car gar. on Rt

1+74 ℄ 4 Car gar. on Rt

62.03

L ℄ P

On Rt

P.P. 8.9

℄ 9.3

6' High

60.23 1.8 10.5 Walk

59.93 2.1 / 10

59.93 2.1

59.53 2.5 / 10

59.43 2.6 / 10

59.43 2.6 / 10

59.23 2.8

58.83 3.2 / 10

58.63 3.4 / 25

58.57 3.46 / 10.2 Walk

59.33 2.7 / 10

59.13 2.9 / 8

58.93 3.1

58.73 3.3 / 10

58.66 3.37 / 13.1 apron

58.80 3.23 / 16 gar. floor

58.93 3.1 / 10

58.13 3.4 / 7

58.63 3.4

58.53 3.4 / 10

58.63 3.40 / 13.1 apron

58.81 3.22 / 16 gar. floor

62.03

3 + 74.5 ℄ 4 Car gar. Con

3 + 55 Beg. 4 Car gar + Con. apron on Lt.

3 + 50.5 ℄ 2.5 Conc. walk

3 + 27 end Bd. Fence on Rt

3 + 01 end Con. Blk. Wall on Lt.

2 + 76 ℄ gate + 1.5 Con walk

T.P. 6.19 66.20 2 on 60.01

66.03

L ℄ Rt

52

62.11 61.62 61.60 61.50 61.10 61.00

4.09 4.58 4.6 4.7 5.1 5.2

13.6 9.8 9 10 10 10

gar. apron

62.10 61.36 61.40 61.20 61.00 60.80

4.10 4.84 4.8 5.0 5.2 5.5

13.6 9.8 9 10 10 10

gar. floor apron

61.56 61.40 61.10 60.90 60.70

4.6 4.8 5.1 5.3 5.5

11.8 10 10 10 25

walk

Fence

9.4

60.70 60.50 60.50

Ind. Walk 5.5 5.7 5.7

9.9 9 9.6

Gate + Fence

60.74 60.40 60.30 60.20 60.20

5.46 5.80 5.9 6.0 6.0

9.9 9.9 9.9 9.2

walk outlet dist of 1" drain against Fence

66.20

| | | | | | |
|---|---|---|---|---|---|
| check to orig. BM NW BP Law & Bayard | | | 5.85 | 58.85 | 58.85 0.00 |
| T.P. Fd. SW B.P. Law and Cass St. | 3.14 | 64.70 | 7.26 | 61.56 | |
| | 2.46 | 68.82 | 3.28 | 66.36 | 66.40 -- 0.04 |

℄ Cass = 80' wide & 14' cbs

W c6 Cass

5 to 11 6 W2 Cass St

11 + 90

T.P. 6.12 69.64 2.68 63.52

11 + 50

11 + 01 PP 9.6 Rt A 976

3 + 95.5 end 4 Car gar

66.20
6.70

385 50%

Lt ℄ Rt

G.Bk. 143 - 37

64.82 4.82 5.0 c6
64.40 5.24 5.0 Pav
64.10 5.50 13 c6
63.74 5.90 13 pav
64.11 5.3 10.0 c6
64.03 5.01 10 pav
63.64 6.0 10
62.80 6.4 10
62.18 4.0 13.8 gac.
61.87 4.33 9.9 gac.
61.90 4.3 9

63.92 5.7 M.H. Rim 11 + pav
63.39 6.25 pav
63.54 6.10 pav.
63.44 6.2
62.70
61.80 4.4
66.20
6.70

63.12 6.5 13 pav
63.66 5.98 9 pav.
63.57 4.1 10
62.60 4.1 10
61.60 4.6 10

62.95 6.09 5.0
62.57 4.13 13 c6
62.39 7.25 pav
63.68 5.94 9.95 c6
62.40 0.8
61.50 4.7 20

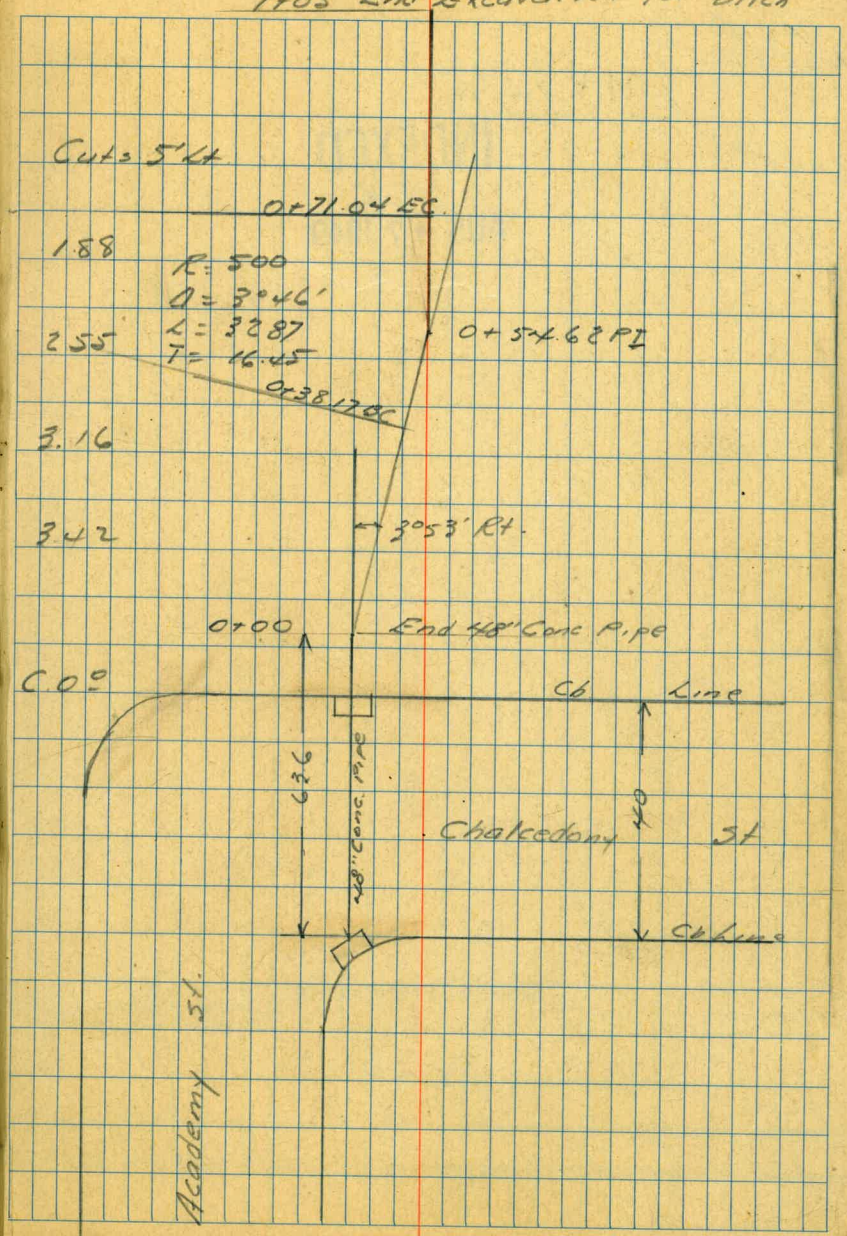
62.15 6.89 c6

6-9-48 Location & Grades for
Hendricks Outlet Ditch So. of Chalcedony
Roberts at Academy St.
Greer
Rohr.

INDEXED
W. K.
AUG 17 1949

| Sta. | + | H.I. | − | Elev Rakes | Elev Grade |
|---|---|---|---|---|---|
| 1+05 | End Excavation | 10.25 | 100.60 | 98.72 | |
| 0+71.04 | EC | | 9.40 | 101.45 | 98.90 |
| 0+54.60 | | | 8.71 | 102.14 | 98.98 |
| 0+38.17 | BC | | 8.37 | 102.48 | 99.06 |
| 0+00 | End Pipe Beg. Excavation | | 11.60 | 99.25 | 99.25 |
| | | 10.85 | 110.85 | | |
| 0-63.6 | Inlet 48" Pipe | | | | 100.00 (Assumed) |



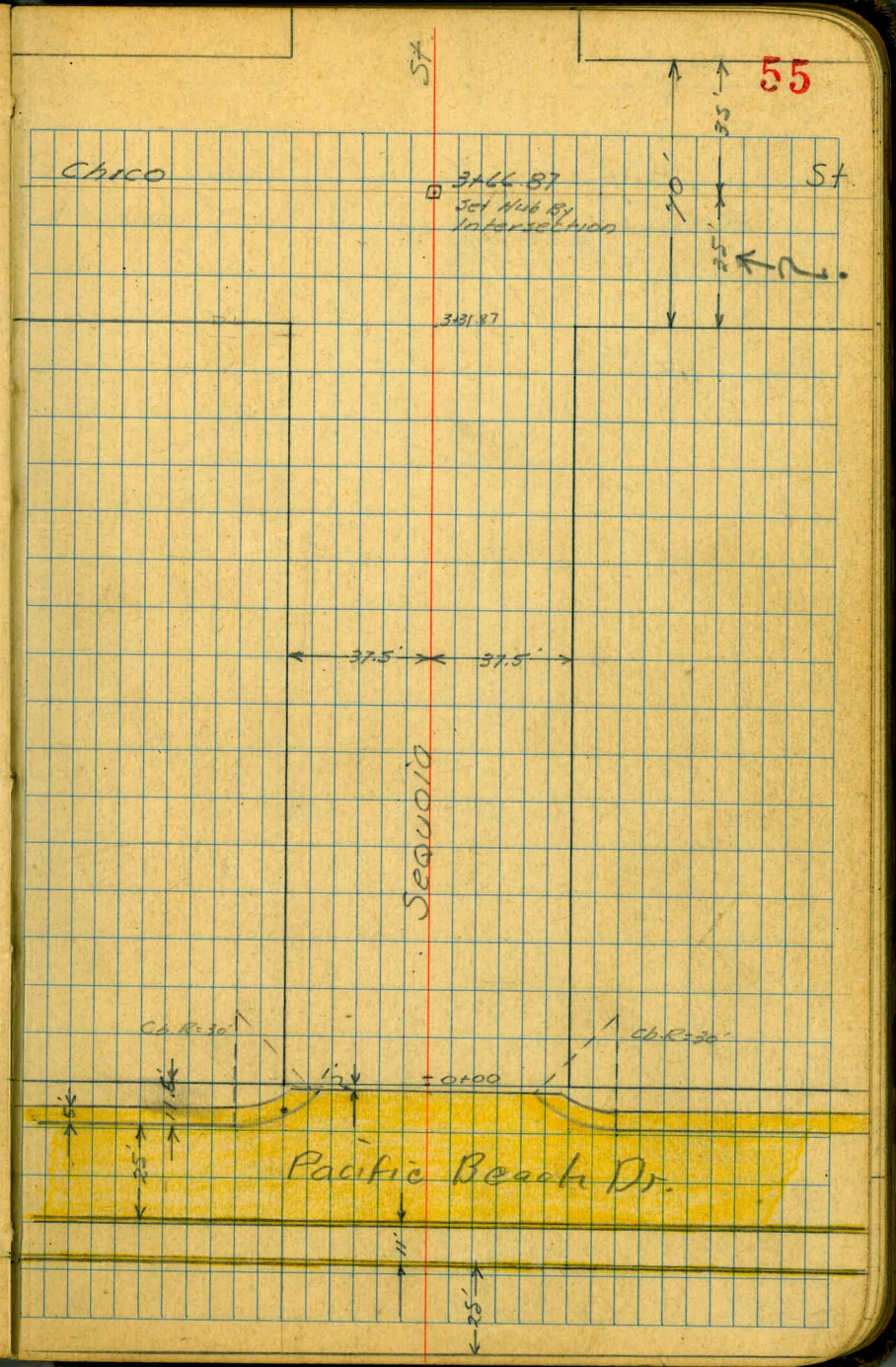


8-16-49
Hendricks
Bunch
Gregory
Shepard
WO # 31582

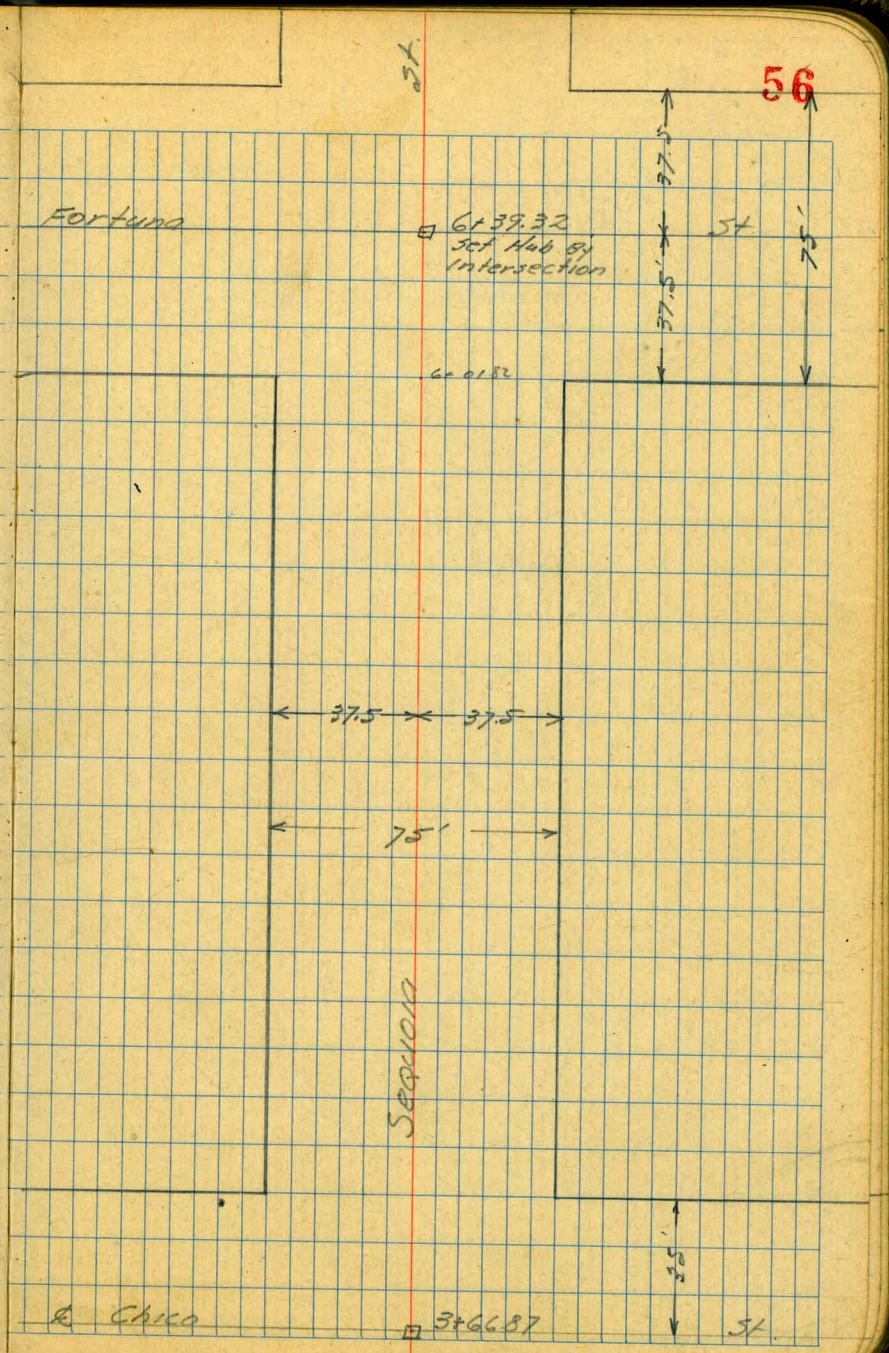
X Section Sequoia St
Pacific Beach Dr to Crown Pt Dr

INDEXED
W.I.K.
AUG 17 1949

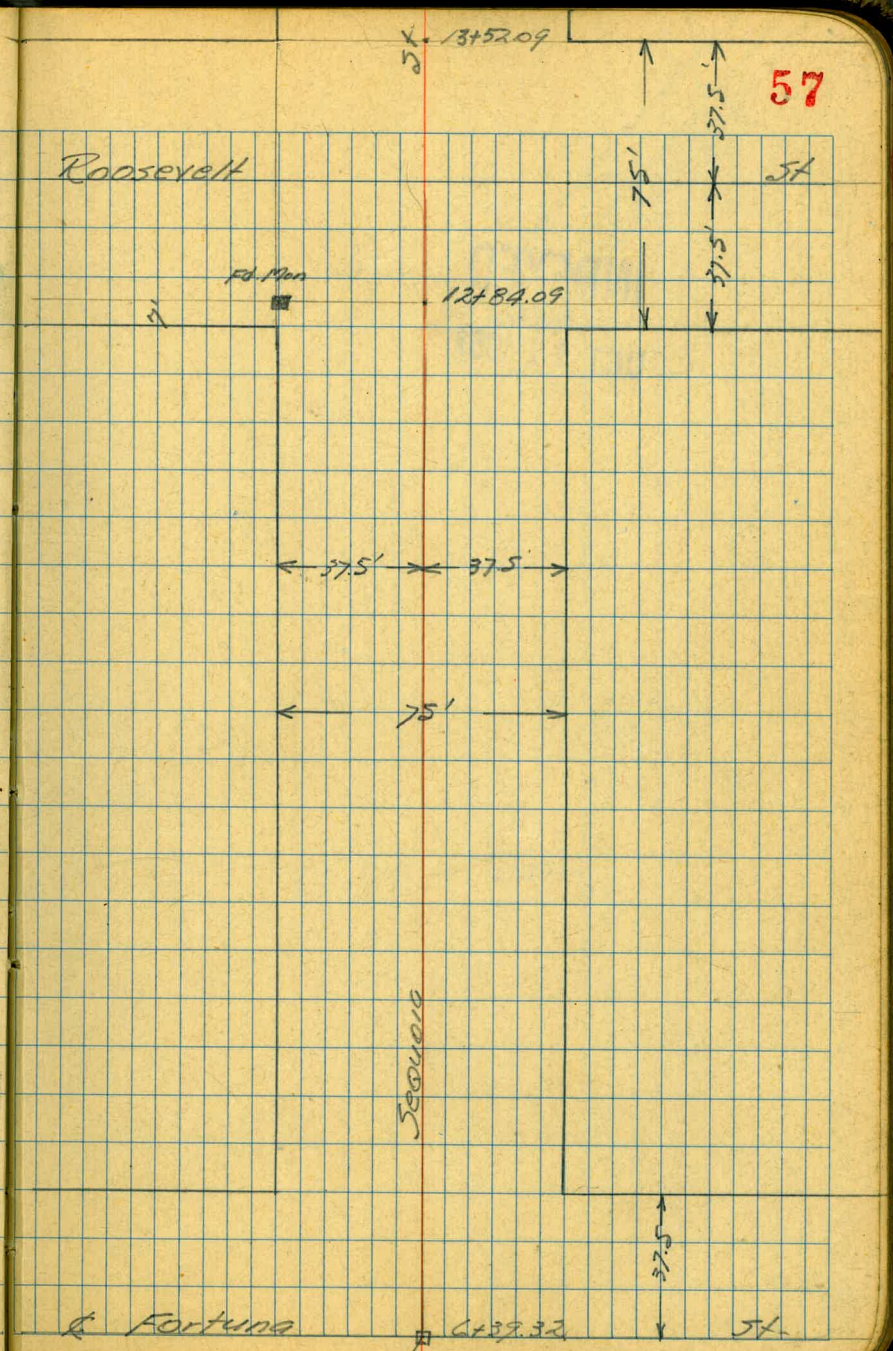




639.32
3 66.87
272 45

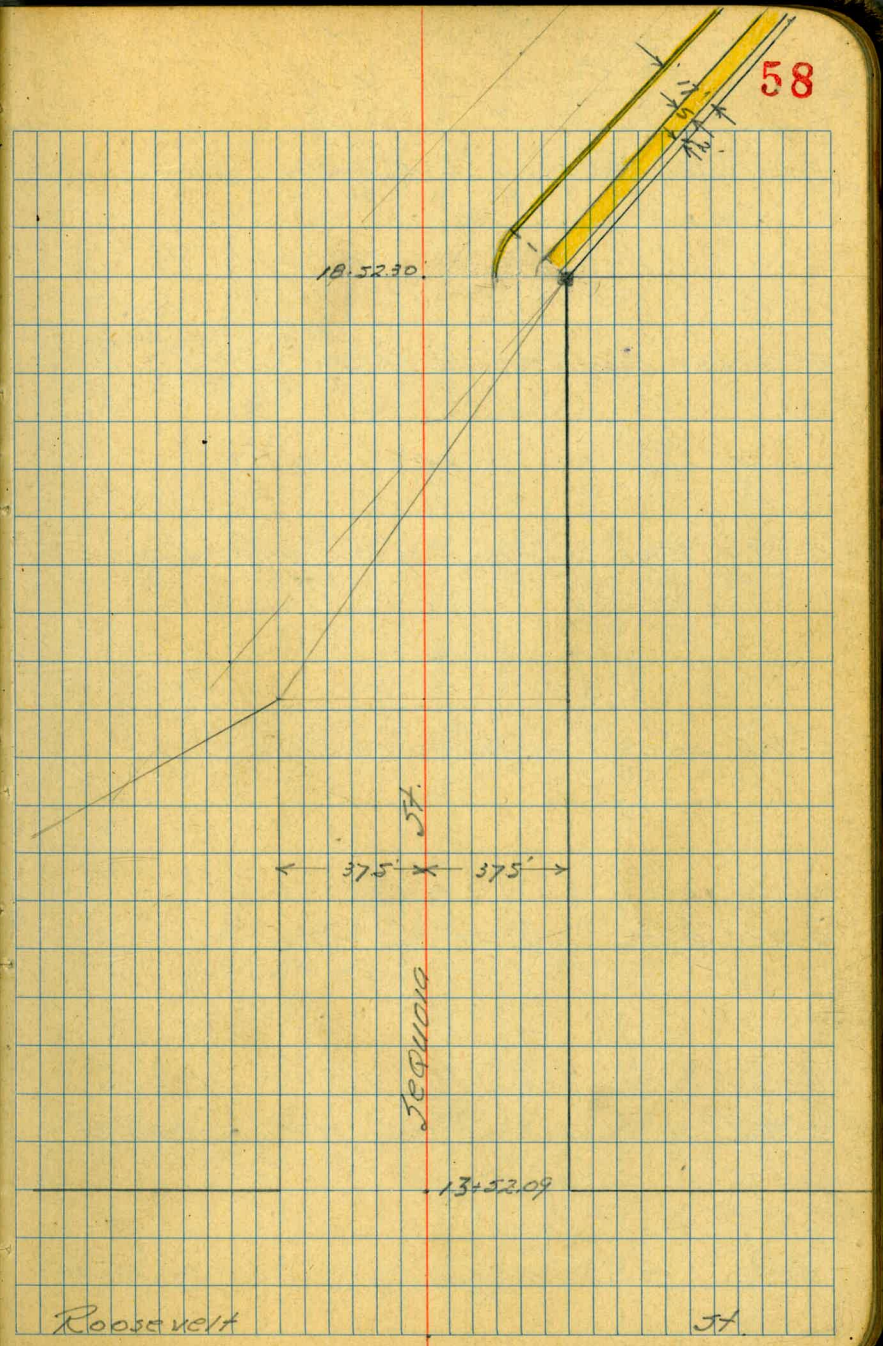


12 84.09
6 39.32
6 44.77



INDEXED
Rec
OCT 17 1951





Ind. 10-17-51

Levels Sequoia St Pacific Beach to Crown Pt. 0-

BC on Pacific Beach

3W Cb Ref. Pac. Beach Dr. & Sequoia (3 parts)

BC on Pac Beach

3ECb Ref. Pacific Beach Dr. & Sequoia (3 parts)

0-01 Edge Conc Paving & End Cbs & 3W.

0-11.5 So Cb Line Pacific Beach Dr.

0-24 & So. Strip of Conc Paving

0-36.5 So. Cb. Line of Island Pacific Beach Dr.

BM 8.53 4363 35.10

59

HE 7-28T Pacific & Lamont

Surveyed 8-26-49

Sequoia St Contd.

1+10 ℄ 9' Conc. Dr. 37.5' Lt.

1+03 ℄ 3' Conc S.W. 37.5' Lt.

1+00

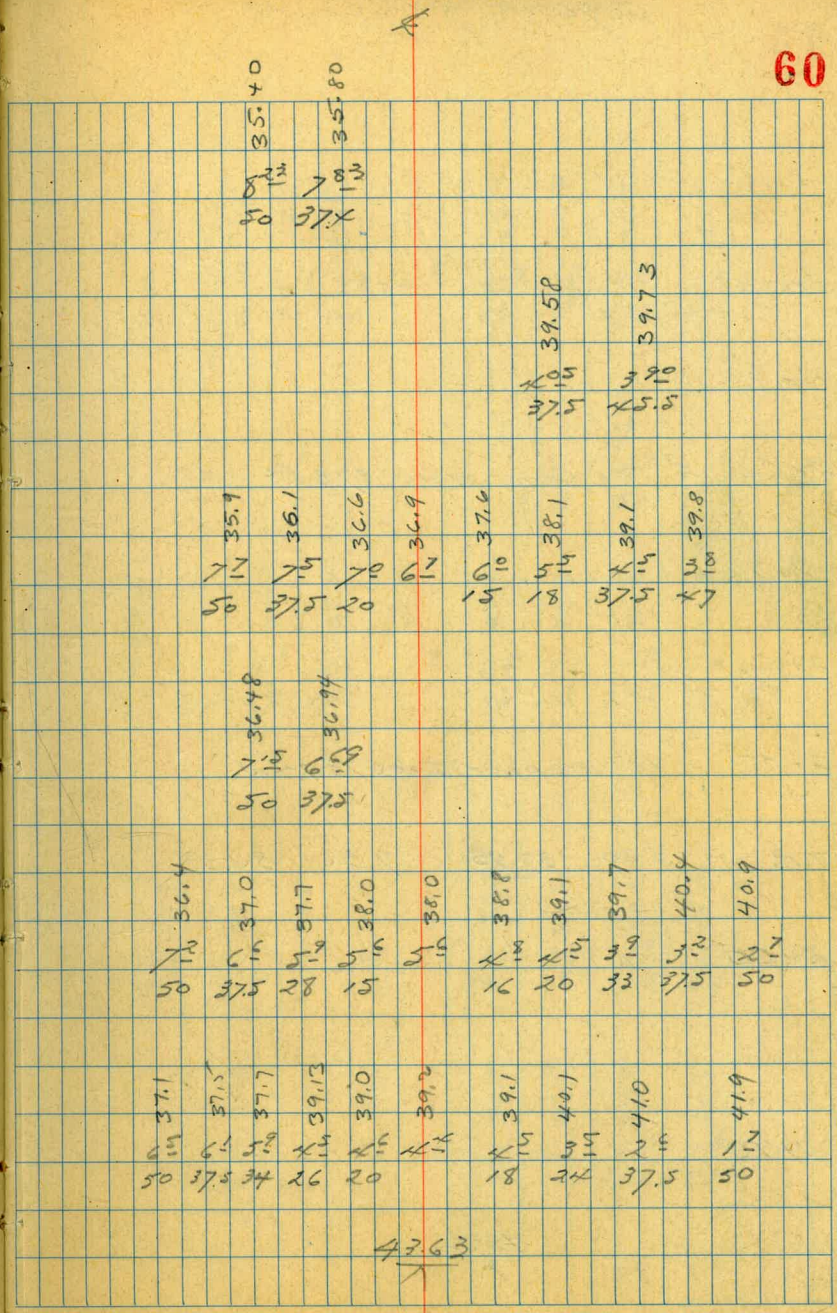
0+63 ℄ 7.5 Conc Drive 37.5' Lt.

0+50

0+15

43.63





Sequoia St. Cont'd

3+00

2+64 ℄ 4' Conc. Walk 37.3 Rt

2+50

2+25 10" Pepper Tree 3.7 Lt. 0.1

T.P. 3.20 37.53 9.30 34.33

2+00

1+50

4363

37.53

43.63

Sequoia St. Cont'd

3+00

2+64 ℄ 4' Conc. walk 37.3 Rt

2+50

2+25 10" Pepper Tree 3.7 Lt. O.K.

| | | | | |
|---|---|---|---|---|
| T.P. | 3.20 | 37.53 | 9.30 | 34.33 |

2+00

1+50

43.63



℄

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 31.3 | 31.7 | 32.7 | 32.5 | 32.7 | 33.2 | 33.8 | 34.7 | 35.1 | | |
| 6.3 | 5.18 | 4.8 | 5.0 | 4.8 | 4.32 | 3.7 | 2.18 | 2.14 | | |
| 50 | 37.5 | 20 | 14 | | 13 | 19 | 37.5 | 50 | | |
| | | | | | 35.92 | | 36.44 | | | |
| | | | | | 1.61 | | 1.09 | | | |
| | | | | | 37.3 | | 50 | | | |
| 32.4 | 33.0 | 34.0 | 33.4 | 33.8 | 34.0 | 34.8 | 35.6 | 36.3 | 36.4 | |
| 5.1 | 4.5 | 3.5 | 4.1 | 3.7 | 3.15 | 2.7 | 1.9 | 1.12 | 1.1 | |
| 48 | 37.5 | 19 | 15 | | 15 | 18 | 37.5 | 39 | 50 | |

37.53

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 33.9 | 33.9 | 34.7 | 34.5 | 34.8 | 35.3 | 36.2 | 37.1 | 37.5 |
| 9.7 | 9.7 | 8.9 | 9.1 | 8.8 | 8.32 | 7.4 | 6.45 | 6.1 |
| 50 | 37.5 | 19 | 12 | | 14 | 18 | 37.5 | 50 |
| | 35.3 | 35.4 | 35.8 | 35.9 | 36.5 | 37.5 | 37.8 | 38.3 |
| | 8.3 | 8.2 | 7.8 | 7.7 | 7.1 | 6.1 | 5.8 | 5.3 |
| | 50 | 37.5 | 17 | | 14 | 22 | 37.5 | 50 |

43.63

Sequoia St. Cont'd

4+50

4+41 24" Palm 25.7 Rt — Remove

4+14 12" Palm Tree 24.6' Rt

4+11 F. Hydt. 20.8' Lt

4+01.87 So. Line Chico

3+78

3+46

3+31.87 No. Line Chico

37.53

Sequoia St Contd

5+50 So. Edge 8' Conc Dr. 42.3

5+22 ℄ 4' Conc. Walk 42.5 Lt.

5+00

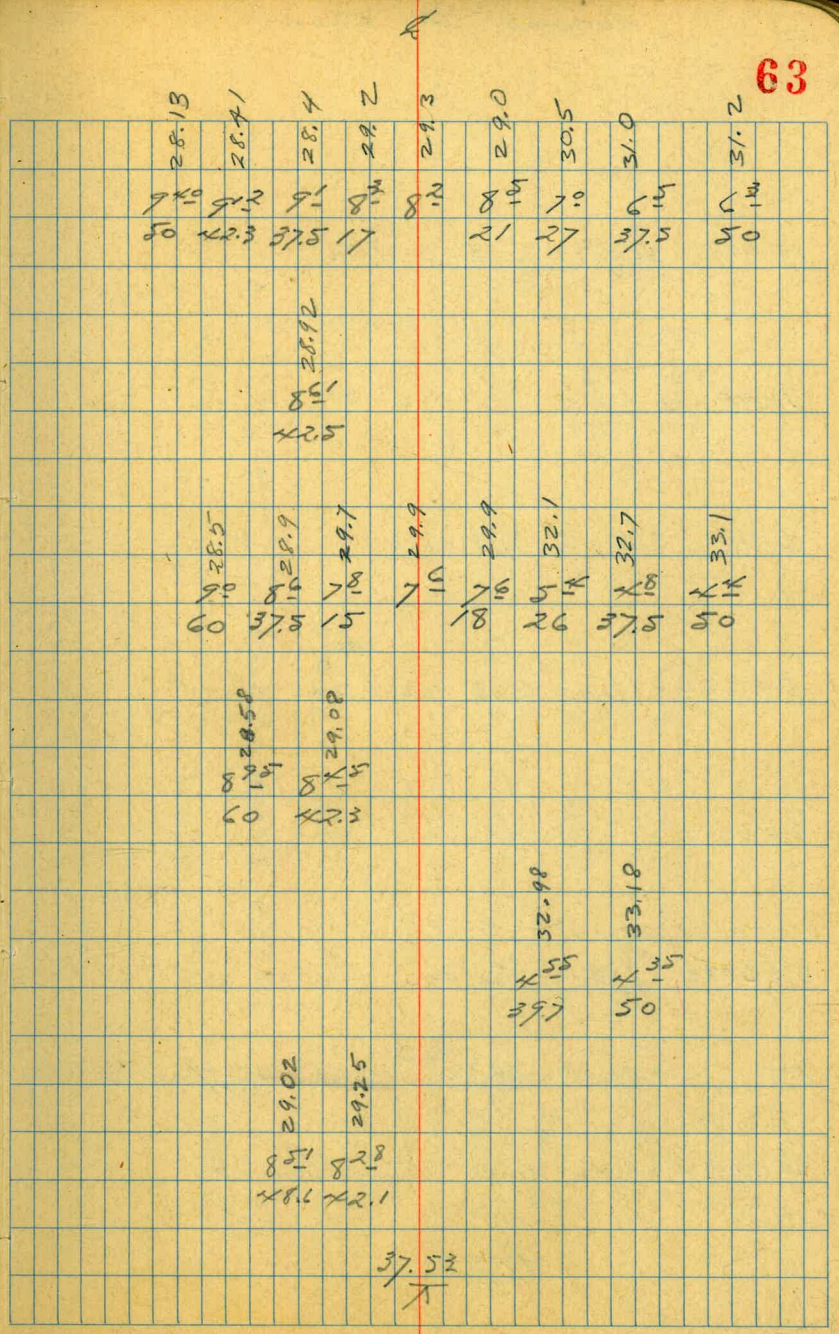
4+98 ℄ 8' Conc Dr. 42.3 Lt.

4+95 ℄ 8' Conc Dr. 39.7 Rt

4+75 ℄ 4' Conc. Walk 42.1 Lt.

37.5 ℄





Sequoia St. Contd.

7+47 37' Rt ℄ 3' Walk

7+00

6+94 37.8' Lt ℄ 3' Walk

6+76.82 So. Line Fortuna

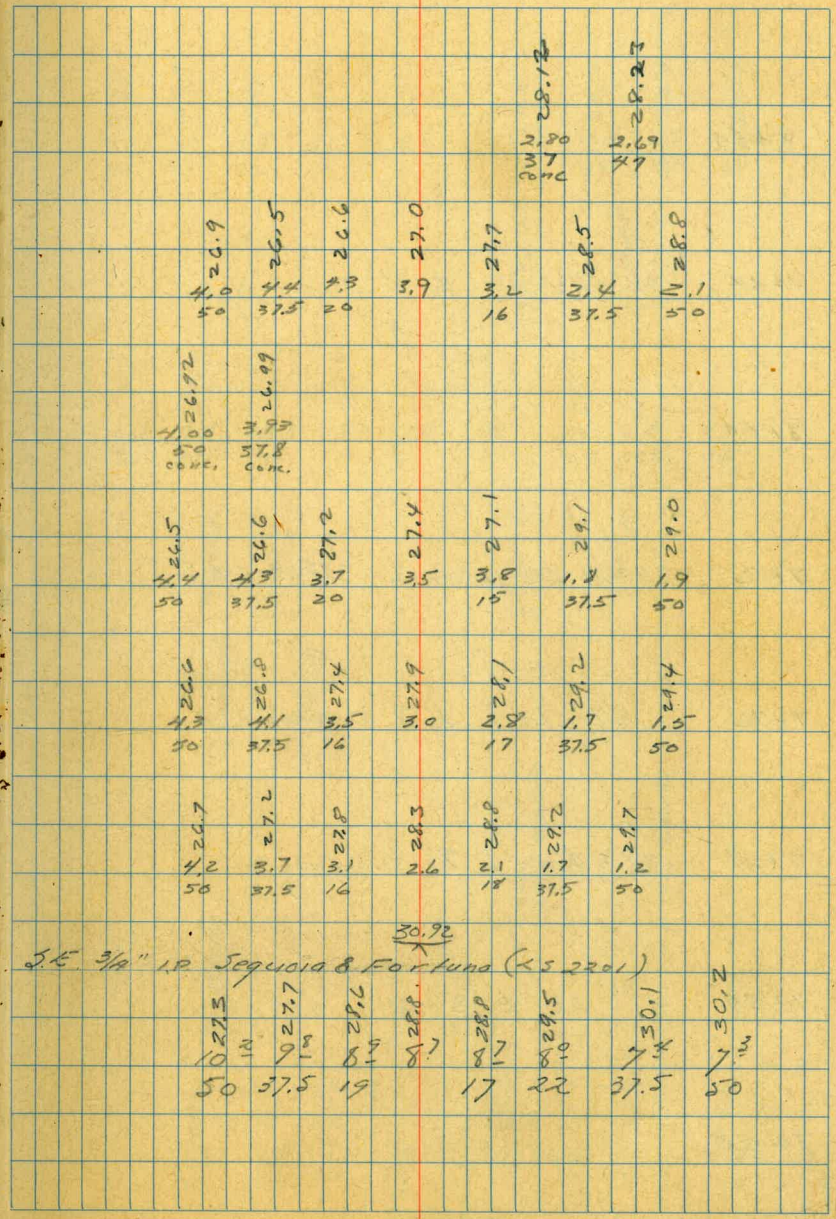
6+60

6+38.32 ℄ Fortuna

T.P. 4.20 30.92 10.81 26.72

6+01.82 No Line Fortuna St.

37.53



Sequoia St Cont'd

8+50

8+34 38' Rt ℄ 8' Driveway

8+00

7+82 37.6' Lt ℄ 8' Driveway 37.5 Rt ℄ 8' Drive

7+72 37.1' Lt ℄ 8' Driveway

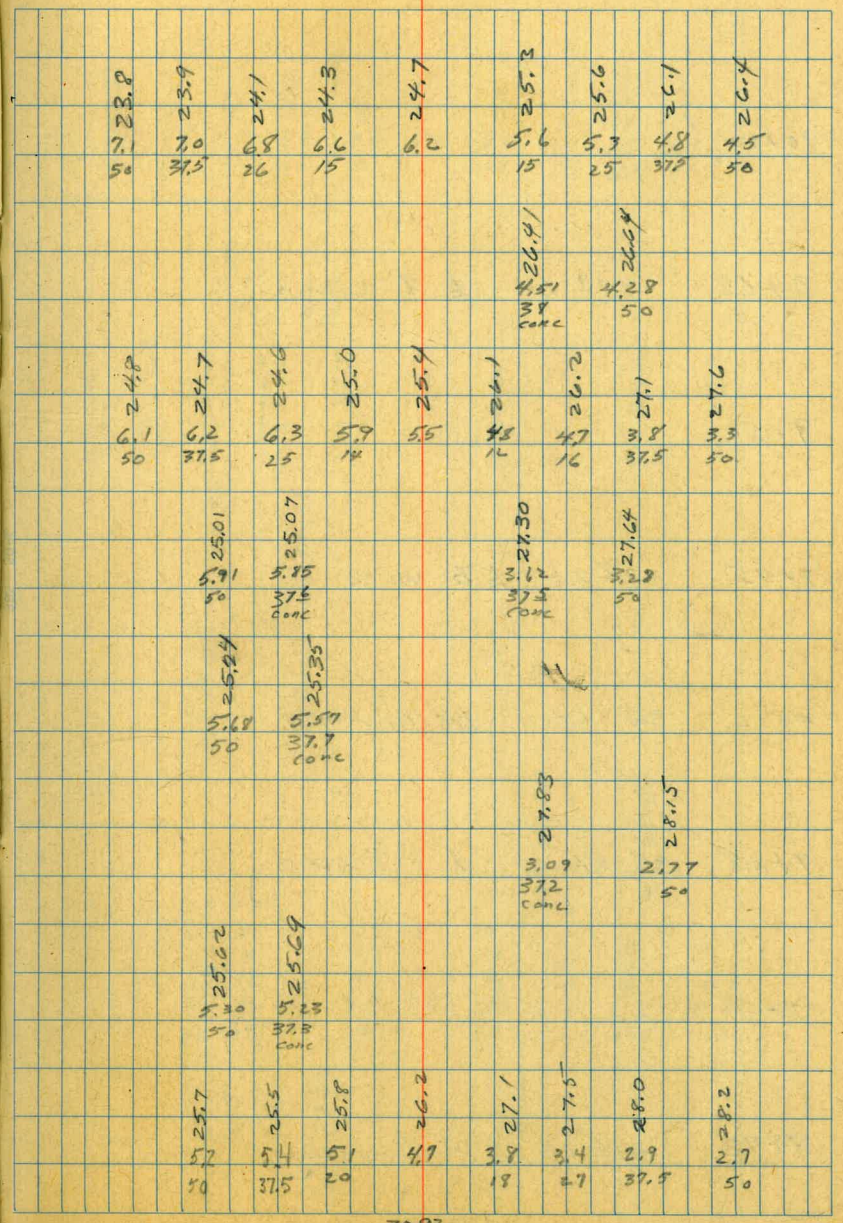
7+67 37.2 Rt ℄ 7' Driveway

7+54 37.3 Lt ℄ 3' Walk

7+50

30.92

Lt ℄ Rt




30.92

385 50%

Sequoia St. Cont'd

10+00

9+68 372' Lt & 8' Driveway

9+50

9+45 37½ Lt & 3' Walk

9+22 36' Lt & 8' Driveway

9+08 36' Rt & 8' Driveway

9+00

8+72 37½ Lt & 8' Driveway

30.92

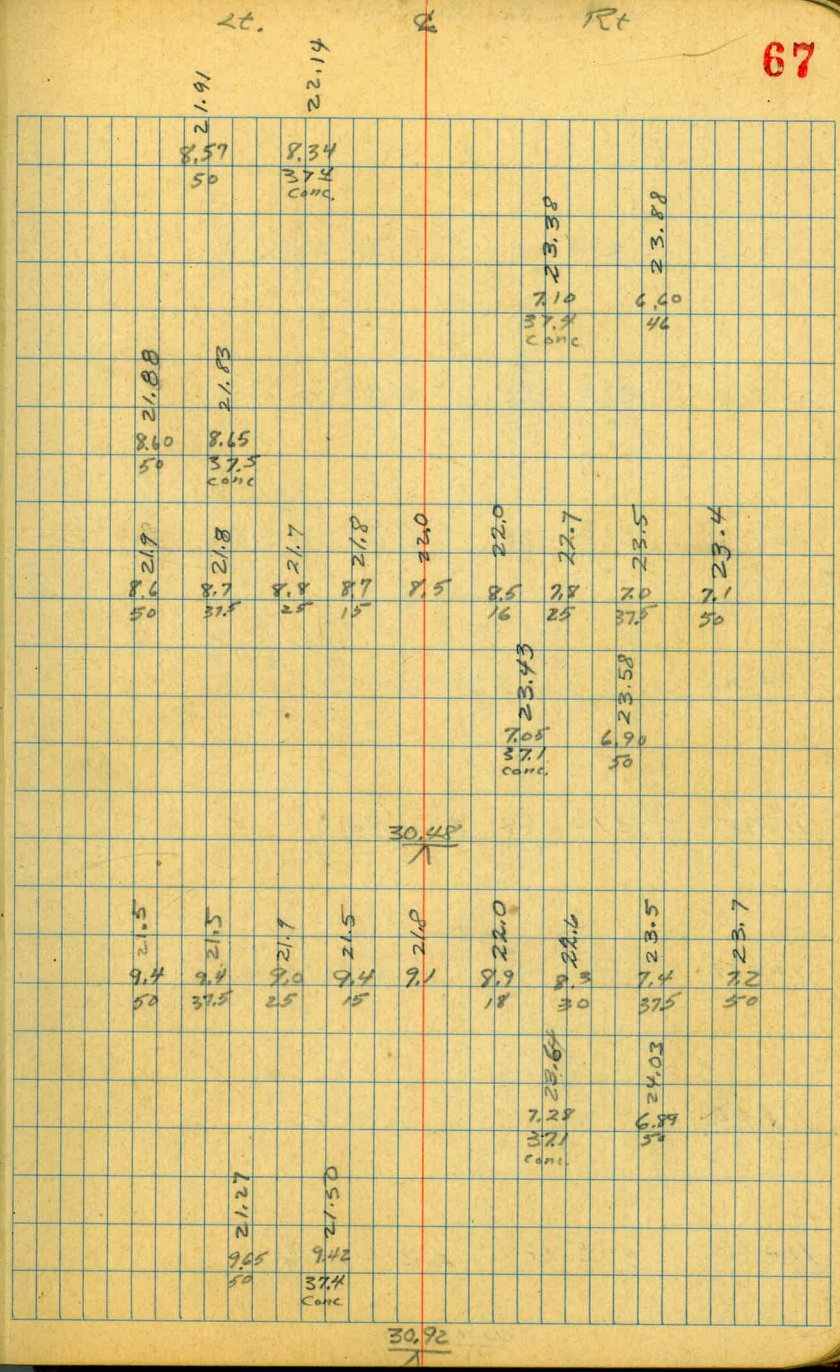
Lt. | ℄ | Rt

| Lt. | | | | | ℄ | | | | | Rt |
|---|---|---|---|---|---|---|---|---|---|---|
| 21.3 | 21.6 | 22.2 | 22.1 | 21.9 | 22.1 | 22.4 | 23.1 | 23.6 | 24.0 | |
| 9.6 | 9.3 | 8.7 | 9.5 | 9.0 | 8.8 | 8.5 | 7.8 | 7.3 | 6.9 | |
| 50 | 37.5 | 35 | 28 | 16 | | 18 | 25 | 37.5 | 50 | |
| | | 21.75 | 22.07 | | | | | | | |
| | | 9.17 | 8.85 | | | | | | | |
| | | 50 | 37.9 Conc | | | | | | | |
| 22.2 | 22.3 | 23.2 | 22.9 | 22.9 | 23.0 | 23.1 | 23.6 | 24.2 | 25.0 | |
| 8.7 | 8.6 | 7.7 | 8.0 | 8.0 | 7.9 | 7.8 | 7.3 | 6.7 | 5.9 | |
| 50 | 37.5 | 36 | 25 | 16 | | 16 | 28 | 37.5 | 50 | |
| | | 22.26 | 22.31 | | | | | | | |
| | | 8.66 | 8.61 | | | | | | | |
| | | 50 | 37.5 Conc | | | | | | | |
| | | 22.98 | 23.13 | | | | | | | |
| | | 7.93 | 7.79 | | | | | | | |
| | | 50 | 36 Conc | | | | | | | |
| | | | | | | | 24.90 | 25.42 | | |
| | | | | | | | 6.02 | 5.58 | | |
| | | | | | | | 36 Conc | 50 | | |
| 23.1 | 23.3 | 23.6 | 23.5 | 23.6 | 23.4 | 24.5 | 26.9 | 26.2 | | |
| 7.8 | 7.6 | 7.3 | 7.4 | 7.3 | 7.0 | 6.4 | 6.0 | 5.7 | | |
| 50 | 37.5 | 29 | 16 | | 17 | 26 | 37.5 | 50 | | |
| | 23.3 | | 23.72 | | | | | | | |
| | 7.61 | | 7.20 | | | | | | | |
| | 50 | | 37.6 Conc. | | | | | | | |

30.92

Sequoia St. Cont'd

| | | | | |
|---|---|---|---|---|
| 11+21 | 37½' | Lt | ℄ | 8' Driveway |
| 11+07 | 37½' | Rt | ℄ | 25' Walk |
| 11+01 | 37½' | Lt | ℄ | 25' Walk |
| 11+00 | | | | |
| 10+85 | 37½' | Rt | ℄ | 8' Driveway |
| T.P. | 6.84 | 30.48 | 7.28 | 23.64 |
| 10+50 | | | | |
| 10+33 | 37½' | Lt | ℄ | 8' Driveway |
| 10+21 | 37½' | Lt | ℄ | 10' Driveway |
| | | 30.92 | | |



Sequoia St. Cont'd

12+40 37.5' Lt ℄ 3.5' Walk

12+22 37.5' Rt ℄ 10.5' Driveway

12+10 36.3' Lt ℄ 16' Driveway

12+00

11+95 37.6' Rt ℄ 3' Walk

11+72 37.5' Lt. ℄ 8' Driveway

11+50

11+48 37.5' Lt ℄ 2.5' Walk

30.48

Lt. ℄ Rt

68

24.63 5.85 48 — 24.63 5.85 37.5 Conc

24.33 6.15 37.5 Conc — 24.33 6.15 50

24.61 5.89 50 — 24.33 6.15 38 — 24.20 6.28 36 Conc

24.5 6.0 50 — 24.2 6.3 37.5 — 23.9 6.6 29 — 23.4 7.1 16 — 23.6 6.9 — 23.6 6.9 18 — 24.1 6.4 37.5 — 24.3 6.2 50

24.07 6.41 37.5 Conc — 24.31 6.17 50

23.18 7.30 50 — 23.19 7.29 37.5 Conc

22.5 8.0 50 — 22.5 8.0 37.5 — 22.6 7.9 25 — 22.3 8.2 16 — 22.6 7.9 — 22.7 7.8 18 — 23.1 7.4 28 — 23.5 7.0 37.5 — 23.6 6.9 50

22.52 7.92 50 — 22.47 8.01 37.5 Conc

30.48

Sequoia St. Cont'd

13+52.09 So. Line Roosevelt

13+35

13+30

13+14.59 ℄ Roosevelt

13+03

12+97

12+77.09 No. Line Roosevelt

12+50

30.48

Lt ℄ Rt

69

385 50%

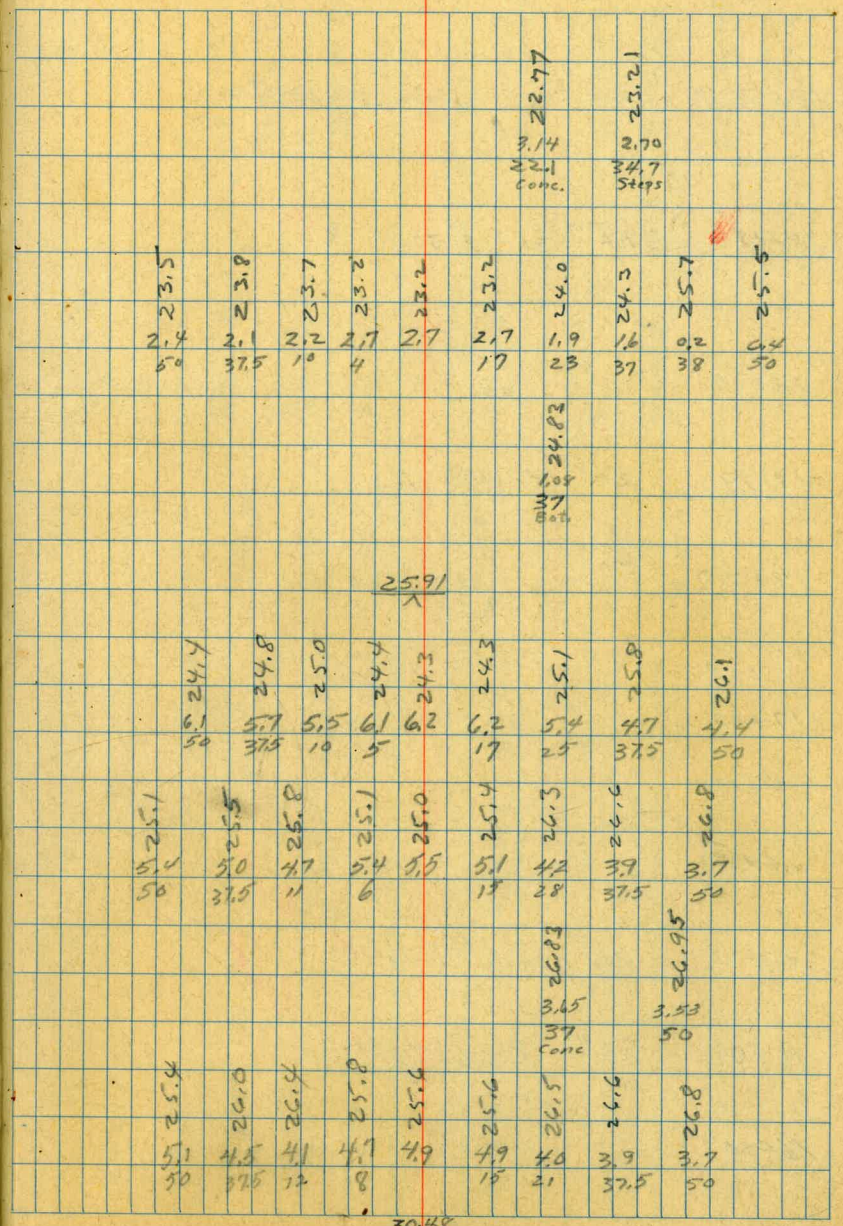
30.48

Segovia St. Cont'd

| | | | | |
|---|---|---|---|---|
| 15+96 | 25.5' | Rt | 6" Tree | Remove |
| 15+90 | 22.1' | Rt | ℄ 2.5' Walk | |
| 15+83 | 25.5' | Rt | 6" Tree | Remove |
| 15+50 | | | | |
| 15+36 | 37' | Rt | ℄ 5.5' Brick Steps | |
| T.P. | 1.23 | 25.91 | 5.80 | 24.68 |
| 15+00 | | | | |
| 14+50 | | | | |
| 14+12 | 37' | Rt | ℄ 8' Driveway | |
| 14+00 | | | | |

30.48

Lt ℄ Rt



Sequoia St. Cont'd

18+52.30 No. Line Crown Point Dr

18+18 37.5 Rt ℄ 3' walk

18+00

17+79 20.8' Lt Fire plug

17+50

17+00

16+50

16+21 26' Rt 6" Tree — Out

16+09 25.5' Rt 6" Tree — Out

16+00

25.91

Lt. ℄ Rt

71

| | Lt. | | | | | ℄ | | | | | Rt |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20.08 | 20.17 | 20.0 | 20.27 | 20.52 | 20.45 | 20.35 | 20.0 | 20.3 | 20.07 | 21.2 |
| | 5.33 50 Pav. | 6.09 41' Edge Pav. | 6.0 35 | 5.8 33 | 5.5 12 | 6.1 | 6.5 21 | 4.8 37.5 | 4.1 50 | | |
| | | | 19.9 | 20.1 | 20.4 | 19.8 | 19.4 | 21.1 | 21.8 | 21.69 | 21.2 |
| | | | | | | | | 21.48 | | 3.92 50 | 4.3 50 |
| | | | | | | | | 4.43 37.5 Conc. | | | |
| | | | 5.7 | 5.4 | 5.39 18 Pav. | 5.46 Pav. | 5.54 Edge Pav. | 5.9 18 | 5.6 20 Curb | 5.04 20 Curb | 4.7 37.5 |
| | | | 5.9 37.5 | 5.64 21 Edge Pav. | | | | | | | |
| | | | 20.0 | 20.4 | 20.6 | 20.1 | 19.6 | 18.8 | 19.9 | 22.2 | 22.7 |
| | | | 5.9 50 | 5.5 37.5 | 5.3 11 | 5.8 4 | 6.0 | 6.1 18 | 6.9 25 | 3.7 37.5 | 3.2 50 |
| | | | 20.8 | 20.7 | 21.0 | 20.6 | 20.4 | 20.4 | 22.6 | 23.4 | |
| | | | 5.1 50 | 5.3 37.5 | 4.9 12 | 5.3 4 | 5.5 | 5.5 19 | 3.3 37.5 | 2.5 50 | |
| | 22.0 | 22.1 | 21.7 | 21.8 | 21.4 | 21.4 | 21.3 | 22.4 | 23.2 | 23.9 | |
| | 3.9 50 | 3.8 37.5 | 4.2 25 | 4.1 8 | 4.5 3 | 4.5 | 4.6 18 | 3.5 25 | 2.7 37.5 | 2.0 50 | |
| | 22.7 | 23.0 | 22.5 | 22.5 | 22.2 | 22.1 | 22.2 | 23.3 | 25.0 | 25.1 | |
| | 3.3 50 | 2.9 37.5 | 3.4 25 | 3.4 8 | 3.7 3 | 3.9 | 3.7 16 | 2.6 31 | 0.9 37.5 | 0.8 50 | |

25.91

Sequoia St Cont'd

Lt & Rt



Check 5.13 20.78 = 20.77

18 + 82

25.91

See G.B. 218 Pg. 70

Conc. Mon. N.W. Cor. Crown Point Dr. & Sequoia

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19.8 | 1.02 | 18.02 | 26.02 | 32.02 | 4.02 | 5.02 | 42.12 | | | | | 34.12 |
| 6.1 | 5.8 | 5.10 | 4.93 | 5.18 | 5.5 | 5.4 | 4.67 | 4.45 | | | | |
| 29 | 16 | Edge Pav. | 15 Pav. | 17 Edge Pav. | 28 | 39 Gate | 58 CB | 52 Walk | | | | |
| Edge Pav. | | | | | | | | | | | | |

25.91

# Bacon St. Paving check

5-July 1951

Check amt. of pavement cut out
for O.B. Storm drain

Figures = # feet off ℄ to edge of Pave.

| | |
|---|---|
| 14+00 | |
| 13+00 | 100 |
| 12+05.7A | 44 = C.O. #2 |
| 12+00 | 6 |
| 11+00 | 100 |
| 10+00 | 100 |
| = 9+68.95<br>9+72.12 | 31<br>Δ 0°-41' Lt. |
| 9+00 | 72 |
| +48 | 52 |
| +43 | 5 |
| 8+28 | 15 |
| 8+25 | 3 |
| 7+85 | 40 - 15 |
| 7+70 | 70 |
| 7+00 | 52 43 = C.O. #1 |
| 6+56.91 | |
| 6+41 | 16 |
| 6+30 | 9 " |
| 6+18 | 12 |

cuts marked with question mark (?) are estimated because of coverage with dirt.

Not worth the time it would take to excavate.

℄

73

| | | | |
|---|---|---|---|
| 1650 (1750) | 8. | ? | 16.5 17.0 |
| 1600 ✓ | 8.5 | 9.5 ? | 17.0 18.0 |
| 96 ✓ | 8. | 8.? | 16.0 16.0 |
| 1630 ✓ | 8. | 8.? | 16.0 16.0 |
| 1620 ✓ | 8.5 | 8.? | 16.3 16.5 |
| 527 ✓ | 8. | 8.? | 16.2 16.0 |
| 1281 ✓ | 9. | | 17.0 18.0 |
| 869 ✓ | 8. | 9.5 | 17.8 17.5 |
| 72 ✓ | 7. | 9. | 16.7 16.0 |
| 220 ✓ | 5. | 8. | 14.5 13.0 |
| 53 (43) | 8.5 | 7.8 | 14.65 16.3 |
| 520 ✓ | 4.7 | 7.8 | 14.4 12.5 |
| 177 ✓ | 7.4 start ties | 6. | 13.0 13.4 |
| 104 ✓ | 4. | 6.3 | 11.8 10.3 |
| 109 (532) | 4.8 | 5 | 10.05 9.8 |
| 232 ✓ | 7. | 8. | 12.4 15.0 |
| 166 (203) | 6. | 8. | 14.5 14.0 |
| 224 ✓ | 15. ? | 8. | 18.5 23.0 |
| | 6.6 | 8. | 18.7 14.4 |

~~7010~~ 12300

Bacon St.

| | |
|---|---|
| 28+00 | |
| 27+85 | 15 |
| 27+62.39 = Δ 0°54'-30" Lt. | 23 |
| +80 | 82 |
| +50 | 30 |
| 26+00 | 50 |
| 25+80 | 20 |
| 25+00 | 80 |
| 24+45 | 55 |
| 24+40 | 5 |
| 24+25 | 15 |
| 24+00 | 25 |
| 23+00 | 100 |
| 22+00 | 100 |
| 21+00 | 100 |
| 20+70 | 30 |
| 20+00 | 70 |
| 19+00 | 100 |
| 18+50 | 50 |
| 17+91.4 = C.O. #1 = Δ 0°-39' Rt. | 59 |
| 17+00 | 91 |
| 16+00 | 100 |
| 15+26.59 = C.O. #3 | 84 74 |
| 15+00 | 26 |

| | | | | | |
|---|---|---|---|---|---|
| 105 ✓ | 3 | | 4 | 7.0 | 7 |
| 260 ✓ | 3 | | 4 | | 7 |
| 1168 ✓ | 10. | End of Tie | 5.5 | 11.3 | 15.5 |
| 420 ✓ | 10. | | 3 | 14.2 | 13 |
| 244 (815) | 9.5 | | 5.5 | 14.0 | 15.0 |
| 284 ✓ | 9 | | 8.5 | 16.3 | 17.5 |
| 840 ✓ | 7 | | 4 | 14.2 | 11 |
| 622 ✓ | 5.5 | | 4.5 | 10.5 | 10.0 |
| 76 ✓ | 6 | | 6.5 | 11.3 | 12.5 |
| 240 ✓ | 8.5 | | 9.5 | 15.2 | 18 |
| 300 ✓ | 6 | | 9 | 16 | 14 |
| 1000 ✓ | 6 | | 4 | 12 | 10 |
| 980 ✓ | 6 | | 4 | 10.0 | 10.0 |
| 1000 ✓ | 5.5 | | 4 | 9.8 | 9.5 |
| 336 ✓ | 6 | | 4.5 | 10.0 | 10.5 |
| 742 ✓ | 7.5 | | 5.5 | 11.2 | 12.0 |
| 950 ✓ | 6. | | 8.5 | 10.6 | 9.5 |
| 475 ✓ | 5.5 | | 4 | 9.5 | 9.5 |
| 602 ✓ | 6. | | 3.5 | 9.5 | 9.5 |
| 1046 ✓ | 6. | | 5. | 10.2 | 11 |
| 1200 ✓ | 6.5 | | 5.5 | 11.5 | 12.0 |
| 1092 (962) | 7. | | 4.5 | 12 | 12.0 |
| 390 ✓ | 8. | | 6. | 13 | 14 |
| | 8.5 | | 7.5 | 15 | 16.0 |

~~4372~~ 14813

Bacon St.

5'1 wide cut from here to end.

| | |
|---|---|
| 35+00 | 130 |
| 34+00 | 100 |
| 33+00 | 100 |
| 32+00 | 100 |
| 31+00 | 100 |
| 30+00 | 100 |
| 29+00 | 100 |

3720
650
14813
12300
31483

$\frac{31483 \times 12^{\#} \times 7.50}{2000} = \$2010$

| | | | |
|---|---|---|---|
| 650 ✓ | 2 | 2.5 | 5 4.5 |
| 520 ✓ | 3 | 3 | 5.2 6 |
| 650 ✓ | 3.5 | 3.5 | 6.5 7 |
| 650 ✓ | 3 | 3 | 6.5 6 |
| 670 ✓ | 3.5 | 4 ? | 6.7 7.5 |
| 650 ✓ | 3 | 2.5 | 6.5 5.5 |
| 680 ✓ | 3 | 3 | 5.8 6.0 |
| 3720 | | | |

650
7050
14372
3720
25140
25142

$$\frac{25140 \times 17}{2000} \times 9.00 = \$1918$$

$$\frac{25790 \times 17 \times 9.00}{2000} = \$1975$$

385 50%

# IMPROVED TABLES AND INFORMATION

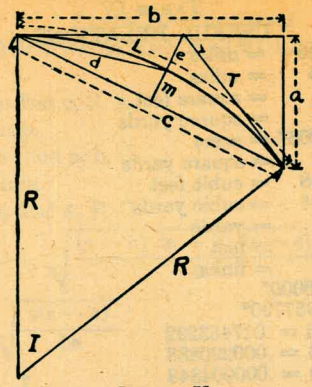
138
1
157

## HORIZONTAL STADIA CORRECTIONS

| | | |
|---|---|---|
| 2°—00′ — 0.1 | 21°—00′ — 12.8 | 33°—00′ — 29.7 |
| 3°—00′ — 0.3 | 21°—30′ — 13.4 | 33°—15′ — 30.1 |
| 4°—00′ — 0.5 | 22°—00′ — 14.0 | 33°—30′ — 30.5 |
| 5°—00′ — 0.8 | 22°—30′ — 14.7 | 33°—45′ — 30.9 |
| 6°—00′ — 1.1 | 23°—00′ — 15.3 | 34°—00′ — 31.3 |
| 7°—00′ — 1.5 | 23°—30′ — 15.9 | 34°—15′ — 31.7 |
| 8°—00′ — 1.9 | 24°—00′ — 16.5 | 34°—30′ — 32.1 |
| 9°—00′ — 2.5 | 24°—30′ — 17.2 | 34°—45′ — 32.5 |
| 10°—00′ — 3.0 | 25°—00′ — 17.9 | 35°—00′ — 32.9 |
| 10°—30′ — 3.3 | 25°—30′ — 18.6 | 35°—15′ — 33.3 |
| 11°—00′ — 3.6 | 26°—00′ — 19.2 | 35°—30′ — 33.7 |
| 11°—30′ — 4.0 | 26°—30′ — 19.9 | 35°—45′ — 34.1 |
| 12°—00′ — 4.3 | 27°—00′ — 20.6 | 36°—00′ — 34.6 |
| 12°—30′ — 4.7 | 27°—30′ — 21.3 | 36°—15′ — 35.0 |
| 13°—00′ — 5.1 | 28°—00′ — 22.0 | 36°—30′ — 35.4 |
| 13°—30′ — 5.5 | 28°—30′ — 22.8 | 36°—45′ — 35.8 |
| 14°—00′ — 5.9 | 29°—00′ — 23.5 | 37°—00′ — 36.2 |
| 14°—30′ — 6.3 | 29°—30′ — 24.3 | 37°—15′ — 36.6 |
| 15°—00′ — 6.7 | 30°—00′ — 25.0 | 37°—30′ — 37.1 |
| 15°—30′ — 7.2 | 30°—15′ — 25.4 | 37°—45′ — 37.5 |
| 16°—00′ — 7.6 | 30°—30′ — 25.8 | 38°—00′ — 37.9 |
| 16°—30′ — 8.1 | 30°—45′ — 26.2 | 38°—15′ — 38.3 |
| 17°—00′ — 8.5 | 31°—00′ — 26.5 | 38°—30′ — 38.7 |
| 17°—30′ — 9.0 | 31°—15′ — 26.9 | 38°—45′ — 39.1 |
| 18°—00′ — 9.5 | 31°—30′ — 27.3 | 39°—00′ — 39.6 |
| 18°—30′ — 10.1 | 31°—45′ — 27.7 | 39°—15′ — 40.0 |
| 19°—00′ — 10.6 | 32°—00′ — 28.1 | 39°—30′ — 40.5 |
| 19°—30′ — 11.2 | 32°—15′ — 28.5 | |
| 20°—00′ — 11.7 | 32°—30′ — 28.9 | |
| 20°—30′ — 12.3 | 32°—45′ — 29.3 | |

| Chains to Feet | |
|---|---|
| 1 | 66 |
| 2 | 132 |
| 3 | 198 |
| 4 | 264 |
| 5 | 330 |
| 6 | 396 |
| 7 | 462 |
| 8 | 528 |
| 9 | 594 |
| 10 | 660 |

| Feet to Chains | |
|---|---|
| 100 | 1.515 |
| 200 | 3.030 |
| 300 | 4.545 |
| 400 | 6.060 |
| 500 | 7.575 |
| 600 | 9.090 |
| 700 | 10.606 |
| 800 | 12.121 |
| 900 | 13.636 |
| 1,000 | 15.151 |




15275
8410
23685

## Table V

### CURVE FORMULAE FOR SIMPLE CURVES

Compiled by J. Calvin Locke, C.E.

(1) $c = \sqrt{2Ra}$ (2) $c = \sqrt{a^2+b^2}$

(3) $c = \sqrt{2R\,(R-\sqrt{(R+b)\,(R-b)}} = \sqrt{2R(R-\sqrt{R^2-b^2})}$

(4) $c = 2\sqrt{m\,(2R-m)}$

(5) $c = 2R \sin \frac{1}{2} I$ (6) $c = 2T \cos \frac{1}{2} I$

(7) $e = R \operatorname{exsec} \frac{1}{2} I$

(8) $e = R \tan \frac{1}{2} I \tan \frac{1}{4} I$ (9) $e = T \tan \frac{1}{4} I$

(10) $b = \sqrt{a\,(2R-a)}$

(11) $b = \sqrt{\left(c+\frac{c^2}{2R}\right)\left(c-\frac{c^2}{2R}\right)} = \sqrt{c^2-\frac{c^4}{4R^2}}$

(12) $b = R \sin I$ (13) $b = a \cot \frac{1}{2} I$

(14) $R = \frac{a^2+b^2}{2a} = \frac{c^2}{2a}$ (15) $R = \frac{d^2}{2m} = \frac{c^2+4m^2}{8m}$

(16) $d = \sqrt{R\,(2R-\sqrt{(2R+c)\,(2R-c)}} = \sqrt{R(2R-\sqrt{4R^2-c^2})}$

(17) $d = \sqrt{2Rm}$ (18) $d = 2R \sin \frac{1}{4} I$ (19) $m = \frac{d^2}{2R}$

(20) $m = R \mp \sqrt{\left(R+\frac{c}{2}\right)\left(R-\frac{c}{2}\right)} = R \mp \sqrt{R^2-\frac{c^2}{4}}$

(21) $m = R \operatorname{vers} \frac{1}{2} I$ (22) $m = R \sin \frac{1}{2} I \tan \frac{1}{4} I$ (23) $m = \frac{1}{2} c \tan \frac{1}{4} I$

(24) $a = \frac{c^2}{2R}$ (25) $a = R - \sqrt{(R+b)\,(R-b)} = R - \sqrt{R^2-b^2}$

(26) $a = 2R\,(\sin^2 \frac{1}{2} I)^2$ (27) $a = R \operatorname{vers} I$ (28) $a = R \sin I \tan \frac{1}{2}$

(29) $a = b \tan \frac{1}{2} I$ (30) $a = T \sin I$ (31) $T = R \tan \frac{1}{2} I$

(32) $I = \frac{L}{R} \times 57.295780$ (33) $R = \frac{L}{I} \times 57.295780$

(34) $L = IR \times 0.01745329$ (35) $L = \frac{8d-c}{3}$

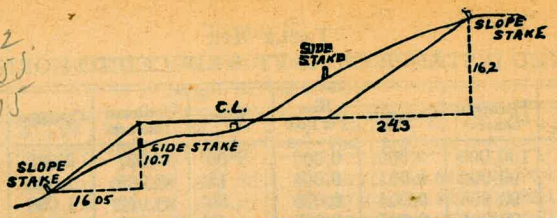
(36) Area Seg. $= \frac{I.R - R^2 \operatorname{Sin} I}{2} = \frac{LR - Rb}{2}$

## Table VI

### SINES, COSINES, TANGENTS, COTANGENTS

| deg. | sin 0′ | tan 0′ | sin 10′ | tan 10′ | sin 20′ | tan 20′ | sin 30′ | tan 30′ | sin 40′ | tan 40′ | sin 50′ | tan 50′ | deg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0000 | 0000 | 0029 | 0029 | 0058 | 0058 | 0087 | 0087 | 0116 | 0116 | 0145 | 0145 | 89 |
| 1 | 175 | 0175 | 0204 | 0204 | 0233 | 0233 | 0262 | 262 | 291 | 291 | 320 | 320 | 88 |
| 2 | 349 | 349 | 378 | 378 | 407 | 407 | 436 | 437 | 465 | 466 | 494 | 495 | 87 |
| 3 | 523 | 524 | 552 | 553 | 581 | 582 | 610 | 612 | 640 | 641 | 669 | 670 | 86 |
| 4 | 698 | 699 | 727 | 729 | 756 | 758 | 785 | 787 | 814 | 816 | 843 | 864 | 85 |
| 5 | 872 | 875 | 901 | 904 | 929 | 934 | 958 | 963 | 987 | 992 | 1016 | 1022 | 84 |
| 6 | 1045 | 1051 | 1074 | 1080 | 1103 | 1110 | 1132 | 1139 | 1161 | 1169 | 190 | 198 | 83 |
| 7 | 219 | 228 | 248 | 257 | 279 | 287 | 305 | 317 | 334 | 346 | 363 | 376 | 82 |
| 8 | 392 | 405 | 421 | 435 | 449 | 465 | 478 | 495 | 507 | 524 | 536 | 554 | 81 |
| 9 | 564 | 584 | 593 | 614 | 622 | 644 | 650 | 673 | 679 | 703 | 708 | 733 | 80 |
| 10 | 736 | 763 | 765 | 793 | 794 | 823 | 822 | 853 | 851 | 883 | 880 | 914 | 79 |
| 11 | 908 | 944 | 937 | 974 | 965 | 2004 | 994 | 2035 | 2022 | 2065 | 2051 | 2095 | 78 |
| 12 | 2079 | 2126 | 2108 | 2156 | 2136 | 186 | 2164 | 217 | 193 | 247 | 221 | 278 | 77 |
| 13 | 250 | 309 | 278 | 339 | 306 | 370 | 334 | 401 | 363 | 432 | 391 | 462 | 76 |
| 14 | 419 | 493 | 447 | 524 | 476 | 555 | 504 | 586 | 532 | 617 | 560 | 648 | 75 |
| 15 | 588 | 679 | 616 | 711 | 644 | 742 | 672 | 773 | 700 | 805 | 728 | 836 | 74 |
| 16 | 756 | 867 | 784 | 899 | 812 | 931 | 840 | 962 | 868 | 994 | 896 | 3026 | 73 |
| 17 | 924 | 3057 | 952 | 3089 | 939 | 3121 | 3007 | 3153 | 3035 | 3185 | 3062 | 217 | 72 |
| 18 | 3090 | 249 | 3118 | 281 | 3145 | 314 | 173 | 346 | 201 | 378 | 228 | 411 | 71 |
| 19 | 256 | 443 | 283 | 476 | 311 | 508 | 338 | 541 | 365 | 574 | 393 | 607 | 70 |
| 20 | 420 | 640 | 448 | 673 | 475 | 706 | 502 | 739 | 529 | 772 | 557 | 805 | 69 |
| 21 | 584 | 839 | 611 | 872 | 638 | 906 | 665 | 939 | 692 | 973 | 719 | 4006 | 68 |
| 22 | 746 | 4040 | 773 | 4074 | 800 | 4108 | 827 | 4142 | 854 | 4176 | 881 | 210 | 67 |
| 23 | 907 | 245 | 934 | 279 | 961 | 314 | 987 | 348 | 4014 | 383 | 4041 | 417 | 66 |
| 24 | 4067 | 452 | 4094 | 487 | 4120 | 522 | 4147 | 557 | 173 | 592 | 200 | 628 | 65 |
| 25 | 226 | 663 | 253 | 699 | 279 | 734 | 305 | 770 | 331 | 806 | 358 | 841 | 64 |
| 26 | 384 | 877 | 410 | 913 | 436 | 950 | 4462 | 986 | 488 | 5022 | 514 | 5059 | 63 |
| 27 | 540 | 5095 | 566 | 5132 | 592 | 5169 | 617 | 5206 | 643 | 243 | 669 | 280 | 62 |
| 28 | 695 | 317 | 720 | 354 | 746 | 392 | 772 | 430 | 797 | 467 | 823 | 505 | 61 |
| 29 | 848 | 543 | 874 | 581 | 899 | 619 | 924 | 658 | 950 | 696 | 975 | 735 | 60 |
| 30 | 5000 | 774 | 5025 | 5812 | 5050 | 851 | 5075 | 890 | 5100 | 930 | 5125 | 969 | 59 |
| 31 | 150 | 6009 | 175 | 6048 | 200 | 6088 | 225 | 6128 | 250 | 6168 | 275 | 6208 | 58 |
| 32 | 299 | 249 | 324 | 289 | 348 | 330 | 5373 | 371 | 398 | 412 | 422 | 453 | 57 |
| 33 | 446 | 494 | 471 | 536 | 495 | 577 | 519 | 619 | 544 | 661 | 568 | 703 | 56 |
| 34 | 592 | 745 | 616 | 787 | 640 | 830 | 664 | 873 | 688 | 916 | 712 | 959 | 55 |
| 35 | 736 | 7002 | 760 | 7046 | 783 | 7089 | 807 | 7133 | 831 | 7177 | 854 | 7221 | 54 |
| 36 | 878 | 265 | 901 | 310 | 925 | 355 | 948 | 400 | 972 | 445 | 995 | 490 | 53 |
| 37 | 6018 | 536 | 6041 | 581 | 6065 | 627 | 6088 | 673 | 6111 | 720 | 6134 | 766 | 52 |
| 38 | 157 | 813 | 180 | 860 | 202 | 907 | 225 | 954 | 248 | 8002 | 271 | 8050 | 51 |
| 39 | 293 | 8098 | 316 | 8146 | 338 | 8195 | 361 | 8243 | 383 | 292 | 406 | 342 | 50 |
| 40 | 428 | 391 | 450 | 441 | 472 | 491 | 494 | 541 | 517 | 591 | 539 | 642 | 49 |
| 41 | 561 | 693 | 583 | 744 | 604 | 796 | 626 | 847 | 648 | 899 | 670 | 952 | 48 |
| 42 | 691 | 9004 | 713 | 9057 | 734 | 9110 | 756 | 9163 | 777 | 9217 | 799 | 9271 | 47 |
| 43 | 820 | 325 | 841 | 380 | 862 | 435 | 884 | 490 | 905 | 545 | 926 | 601 | 46 |
| 44 | 947 | 657 | 967 | 713 | 988 | 770 | 7009 | 827 | 7030 | 884 | 7050 | 942 | 45 |
| 45 | 7071 | 1.0000 | 7092 | 1.0058 | 7112 | 1.0117 | 133 | 1.0176 | 153 | 1.0235 | 173 | 1.0295 | 44 |
| deg. | 60′ cos | 60′ cot | 50′ cos | 50′ cot | 40′ cos | 40′ cot | 30′ cos | 30′ cot | 20′ cos | 20 cot | 10′ cos | 10′ cot | deg. |

+95
20 x 2
74.55
2478.75




## DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

| | 0 | .1 | .2 | .3 | .4 | .5 | .6 | .7 | .8 | .9 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 00 | 0 15 | 0.30 | 0.45 | 0.60 | 0.75 | 0.90 | 1.05 | 1.20 | 1.35 | 0 |
| 1 | 1.50 | 1 65 | 1 80 | 1.95 | 2.10 | 2.25 | 2.40 | 2.55 | 2.70 | 2.85 | 1 |
| 2 | 3.00 | 3.15 | 3.30 | 3 45 | 3.60 | 3 75 | 3.90 | 4.05 | 4.20 | 4 35 | 2 |
| 3 | 4.50 | 4 65 | 4.80 | 4.95 | 5.10 | 5 25 | 5 40 | 5.55 | 5.70 | 5.85 | 3 |
| 4 | 6.00 | 6 15 | 6.30 | 6.45 | 6.60 | 6.75 | 6.90 | 7.05 | 7.20 | 7.35 | 4 |
| 5 | 7 50 | 7.65 | 7.80 | 7.95 | 8.10 | 8.25 | 8.40 | 8.55 | 8.70 | 8.85 | 5 |
| 6 | 9 00 | 9 15 | 9.30 | 9.45 | 9.60 | 9.75 | 9.90 | 10.05 | 10.20 | 10.35 | 6 |
| 7 | 10.50 | 10 65 | 10.80 | 10.95 | 11.10 | 11.25 | 11.40 | 11.55 | 11 70 | 11.85 | 7 |
| 8 | 12.00 | 12 15 | 12.30 | 12.45 | 12.60 | 12.75 | 12.90 | 13.05 | 13.20 | 13.35 | 8 |
| 9 | 13 50 | 13.65 | 13 80 | 13 95 | 14.10 | 14.25 | 14.40 | 14 55 | 14.70 | 14.85 | 9 |
| 10 | 15.00 | 15 15 | 15 30 | 15 45 | 15.60 | 15.75 | 15.90 | 16.05 | 16.20 | 16 35 | 10 |
| 11 | 16 50 | 16 65 | 16 80 | 16.95 | 17 10 | 17.25 | 17.40 | 17.55 | 17.70 | 17.85 | 11 |
| 12 | 18 00 | 18.15 | 18.30 | 18 45 | 18.60 | 18 75 | 18.90 | 19.05 | 19.20 | 19.35 | 12 |
| 13 | 19 50 | 19 65 | 19.80 | 19.95 | 20.10 | 20.25 | 20 40 | 20.55 | 20.70 | 20.85 | 13 |
| 14 | 21.00 | 21 15 | 21.30 | 21.45 | 21 60 | 21.75 | 21.90 | 22 05 | 22 20 | 22 35 | 14 |
| 15 | 22 50 | 22 65 | 22 80 | 22 95 | 23.10 | 23.25 | 23.40 | 23.55 | 23.70 | 23.85 | 15 |
| 16 | 24.00 | 24 15 | 24 30 | 24 45 | 24.60 | 24.75 | 24 90 | 25 05 | 25.20 | 25.35 | 16 |
| 17 | 25.50 | 25 65 | 25.80 | 25 95 | 26.10 | 26 25 | 26 40 | 26.55 | 26.70 | 26.85 | 17 |
| 18 | 27.00 | 27 15 | 27.30 | 27 45 | 27.60 | 27.75 | 27.90 | 28.05 | 28 20 | 28.35 | 18 |
| 19 | 28 50 | 28 65 | 28 80 | 28.95 | 29.10 | 29.25 | 29.40 | 29.55 | 29.70 | 29.85 | 19 |
| 20 | 30 00 | 30.15 | 30.30 | 30.45 | 30.60 | 30.75 | 30.90 | 31.05 | 31.20 | 31.35 | 20 |
| 21 | 31 50 | 31 65 | 31.80 | 31.95 | 32 10 | 32 25 | 32.40 | 32.55 | 32 70 | 32 85 | 21 |
| 22 | 33 00 | 33 15 | 33 30 | 33 45 | 33.60 | 33 75 | 33.90 | 34.05 | 34.20 | 34.35 | 22 |
| 23 | 34 50 | 34 65 | 34.80 | 34.95 | 35.10 | 35 25 | 35 40 | 35.55 | 35.70 | 35 85 | 23 |
| 24 | 36.00 | 36 15 | 36.30 | 36 45 | 36.60 | 36.75 | 36.90 | 37.05 | 37.20 | 37.35 | 24 |
| 25 | 37.50 | 37.65 | 37 80 | 37.95 | 38.10 | 38.25 | 38.40 | 38.55 | 38.70 | 38.85 | 25 |
| 26 | 39 00 | 39 15 | 39.30 | 39 45 | 39 60 | 39.75 | 39.90 | 40.05 | 40.20 | 40.35 | 26 |
| 27 | 40 50 | 40 65 | 40 80 | 40.95 | 41.10 | 41.25 | 41 40 | 41.55 | 41.70 | 41.85 | 27 |
| 28 | 42 00 | 42 15 | 42.30 | 42.45 | 42.60 | 42 75 | 42.90 | 43.05 | 43.20 | 43.35 | 28 |
| 29 | 43 50 | 43 65 | 43.80 | 43 95 | 44.10 | 44 25 | 44 40 | 44.55 | 44.70 | 44 85 | 29 |
| 30 | 45 00 | 45 15 | 45.30 | 45 45 | 45.60 | 45.75 | 45.90 | 46.05 | 46 20 | 46.35 | 30 |
| 31 | 46.50 | 46.65 | 46.80 | 46 95 | 47.10 | 47.25 | 47.40 | 47.55 | 47.70 | 47.85 | 31 |
| 32 | 48 00 | 48.15 | 48.30 | 48 45 | 48.60 | 48 75 | 48.90 | 49.05 | 49 20 | 49.35 | 32 |
| 33 | 49.50 | 49 65 | 49.80 | 49.95 | 50.10 | 50.25 | 50.40 | 50.55 | 50.70 | 50.85 | 33 |
| 34 | 51 00 | 51.15 | 51.30 | 51.45 | 51.60 | 51.75 | 51.90 | 52.05 | 52.20 | 52.35 | 34 |
| 35 | 52 50 | 52.65 | 52.80 | 52.95 | 53.10 | 53.25 | 53.40 | 53.55 | 53.70 | 53.85 | 35 |
| 36 | 54 00 | 54.15 | 54.30 | 54 45 | 54.60 | 54.75 | 54.90 | 55.05 | 55.20 | 55.35 | 36 |
| 37 | 55 50 | 55 65 | 55.80 | 55.95 | 56.10 | 56.25 | 56.40 | 56.55 | 56.70 | 56.85 | 37 |
| 38 | 57.00 | 57.15 | 57.30 | 57 45 | 57.60 | 57.75 | 57.90 | 58.05 | 58.20 | 58 35 | 38 |
| 39 | 58 50 | 58.65 | 58 80 | 58.95 | 59.10 | 59 25 | 59.40 | 59 55 | 59.70 | 59.85 | 39 |
| 40 | 60 00 | 60.15 | 60 30 | 60 45 | 60 60 | 60.75 | 60 90 | 61.05 | 61 20 | 61.35 | 40 |
| 41 | 61.50 | 61 65 | 61 80 | 61 95 | 62 10 | 62 25 | 62.40 | 62 55 | 62 70 | 62.85 | 41 |
| 42 | 63 00 | 63.15 | 63 30 | 63 45 | 63 60 | 63 75 | 63 90 | 64 05 | 64 20 | 64.35 | 42 |
| 43 | 64.50 | 64 65 | 64 80 | 64.95 | 65.10 | 65 25 | 65 40 | 65.55 | 65.70 | 65.85 | 43 |
| 44 | 66 00 | 66 15 | 66 30 | 66.45 | 66.60 | 66 75 | 66.90 | 67.05 | 67.20 | 67.35 | 44 |
| 45 | 67 50 | 67 65 | 67 80 | 67.95 | 68.10 | 68.25 | 68 40 | 68.55 | 68.70 | 68.85 | 45 |
| 46 | 69 00 | 69 15 | 69 30 | 69.45 | 69.60 | 69.75 | 69.90 | 70.05 | 70.20 | 70.35 | 46 |
| 47 | 70.50 | 70 65 | 70 80 | 70 95 | 71.10 | 71.25 | 71.40 | 71.55 | 71.70 | 71.85 | 47 |
| 48 | 72.00 | 72 15 | 72.30 | 72.45 | 72.60 | 72.75 | 72.90 | 73 05 | 73.20 | 73 35 | 48 |
| 49 | 73 50 | 73 65 | 73.80 | 73.95 | 74.10 | 74.25 | 74.40 | 74.55 | 74.70 | 74.85 | 49 |
| 50 | 75.00 | 75.15 | 75.30 | 75.45 | 75.60 | 75.75 | 75.90 | 76.05 | 76.20 | 76.35 | 50 |

Computed by L. Leland Locke.

419
330
232

975
35
1326

6.57
.32
6.25

5.73
5 41
32

17.7
10

11.7
2.83
14.87