

99E

Dist 68P
Levels on same

F.B. 591

INDEX

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B.P. SW. Cor. El Cajon
 BM + Pauly

Pauly

ELV.

357.73

+ H.I. -

8.72 366.45

5.90

360.55 + Orange.

6.91

359.54 + Pauly

SW Pauly

N.W. ANNA

EL. Cajon

B.P.
357.73
cut 8"

Rake

cut. 9" 8"

Orange

cut 8"

360.55"

cut. 8 1/2"

ANNA

cut 8"

Rake

cut 8"

cut 9"

ave.

Pauly Ave

st.

Levels Stockton El Cajon to Harvard.

Sta	+	-	Elev
			352.91
	7.09	360.00	
T.P.		2.34	357.66
	7.85	365.51	
T.P.		2.64	362.87
	5.24	368.11	
		3.15	365.00

50

Ellis
Walker
Theston
Levelmer
12-18-1923

Page

1

BM NW Cor. Stockton + Univ. Fire. From Book 61

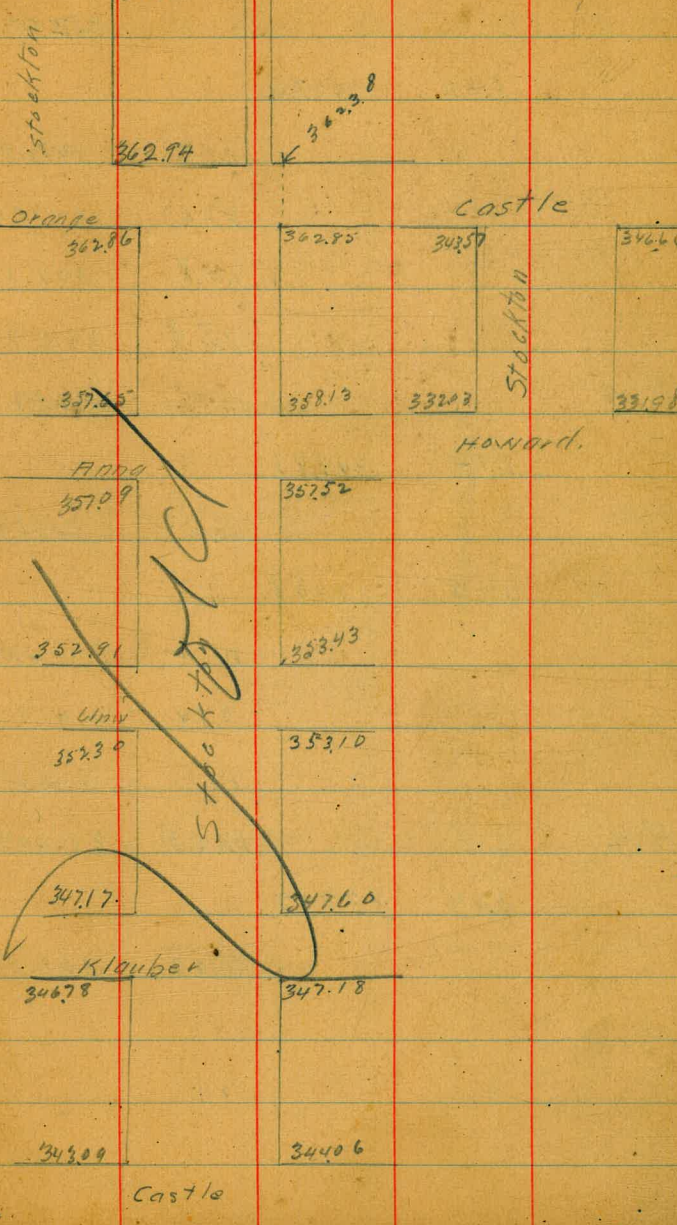
NW Cor. Anna + Stockton

SW Cor Orange + Stockton

BM NW Cor Stockton + El Cajon Brass Plug

50

ST. O.	+	-	Elev.	Remarks	El Cajon	Stockton	Castle	Howard
			365.00	BM NW Cor Stockton, El Cajon Bass Aug	365.00			
	3.00	368.00						
		4.75	360.72	NE Cor Stockton at 1900	362.65	362.94		
		5.06	362.94	NE Cor Stockton & Orange				
		5.35	362.65	NW Cor Stockton & Orange				
		5.69	362.31	Bass Aug S. of Orange NPL of Stockton Produced	363.1	362.86	362.95	362.57
				SW Cor Stockton & Orange				
T.P.	2.17	365.03	362.16		357.55		358.13	332.02
		2.18	362.85	SE Cor Stockton & Orange				
		1.65	362.38	NPL Orange EPL Stockton Produced				
		6.90	359.13	NE Cor Stockton & Anna	352.91		353.43	
		7.38	357.65	NW Cor Stockton & Anna				
		7.94	357.09	SW Cor Stockton & Anna	352.30		353.10	
		7.51	357.52	SE Cor Stockton & Anna				
T.P.	2.74	360.26	353.43	NE Cor Stockton & Univ.	347.17		347.60	
	7.88	7.37	352.91	NW Cor Stockton & Univ.				
		7.96	352.30	SW Cor Stockton & Univ.	346.78		347.18	
		7.16	353.10	SE Cor Stockton & Univ.				
		12.74			343.09		344.06	



Levels on Stockton El Cajon to Howard.

Ellis
Walker
Boston
Laudemer
Page
3
12-18-23

Sta	+	-	Elev	
			352.91	B.M. N.W. Cor. Stockton + Univ Books 61. Page 52
	14.5	354.36		
		(7.19)	347.17	N.W. Cor. Stockton + Klauber B.M. Brass Plug.
		6.76	347.60	N.E. Cor. Stockton + Klauber
		7.18	347.18	S.E. Cor. Stockton + Klauber
		7.58	346.78	S.W. Cor. Stockton + Klauber
B.M.			347.17	B.M. N.W. Cor. Stockton + Klauber
	2.74	349.91		
T.P.		(6.82)	343.09	N.W. Cor. Stockton + Castle
	0.49	344.58		
		0.52	344.06	N.E. Cor. Stockton + Castle
		0.94	343.64	S.E. Cor. + v
		1.01	343.59	S.W. Cor. + v
B.M.		(12.45)	332.03	N.W. Cor. Howard + Stockton Brass Plug.
	5.04	337.07		
		(5.09)	331.98	N.E. Cor. Howard + Stockton

Levels on Van Dyke El Cajon to Castle

Jan 2 - 1924
 Weather
 Col. C. F. Frost
 Ellis Walker
 Boston
 Loudmyer

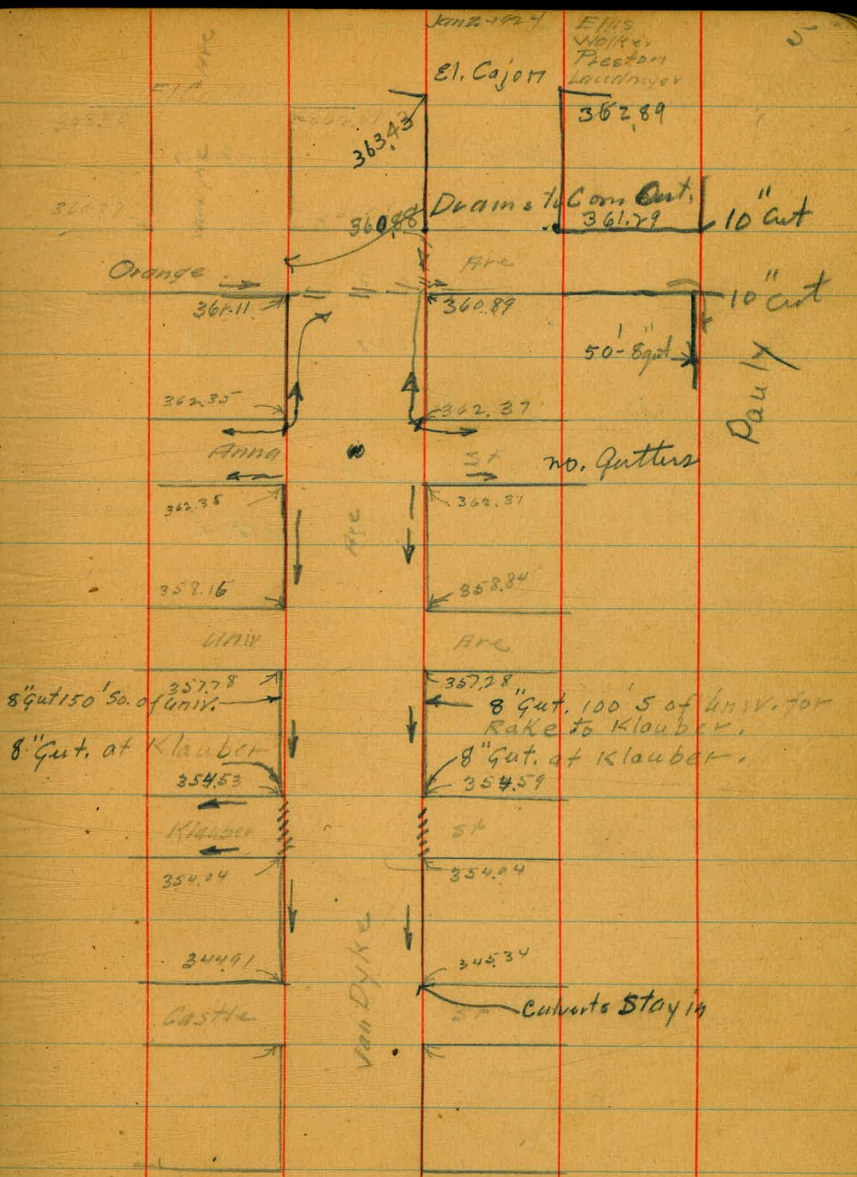
41

Sta	+	π	-	Elev	
				358.15	BM. N.W. Co. Van Dyke + Univ. Bore (Book 61 Page 52)
	7.41	365.56			
T.P.			32.6	362.30	S.E. Cor. Home Van Dyke
	4.19	366.49			
T.P.			5.64	360.85	N.W. Cor. Orange + Van Dyke
	6.09	366.94			
BM					
T.P.			3.51	363.43	N.W. Co. El Cajon + Van Dyke Brass Plug

Levels on Van Dyke El Cajon to Castle

Sta	+	-	Elev
NWC. El Cajon & Van Dyke B.M.			363.43
	333	366.76	
		3.87	362.89
		5.47	361.29
T.P.		5.88	360.88
	5.68	366.56	
		5.45	361.11
		5.67	360.89
		4.19	362.37
T.P.		4.21	362.35
	2.62	364.97	
		2.62	362.35
		2.66	362.31
T.P.		6.81	358.16
	4.64	362.80	
		3.96	358.84
		4.52	357.23
	76.27	5.02	357.79

SE Cor. El Cajon
& Van Dyke
NE Orange
Van Dyke
NW Orange
Van Dyke
SW Cor. Van Dyke
& Orange
SE Cor. Van Dyke
& Orange
NE Cor. Anna
& Van Dyke
NW Cor. Anna
& Van Dyke
SW Cor. Anna
& Van Dyke
SE Cor. Anna
& Van Dyke
NW Cor. Anna
& Van Dyke
NE Cor. Anna
& Van Dyke
SE Cor. Anna
& Van Dyke
SW Cor. Anna
& Van Dyke



Jan 2-1924
El. Cajon
Ellis
Walker
Preston
Landmeyer
362.89

Level on Van Dyke to Castle

Jan 21 - 1924

Ellis
Walker
Preston
Loudmeyer

6

Sta + - Elev

362.80 8.23 354.57

NE Cor. Klouben
+ Van Dyke

8.89 354.51

W. Cor. Klouben
+ Van Dyke

8.77 354.08

SW Cor. Klouben
+ Van Dyke

T.P. 8.77 354.08

SE Cor. Klouben
+ Van Dyke

0.82 354.88

9.53 345.34

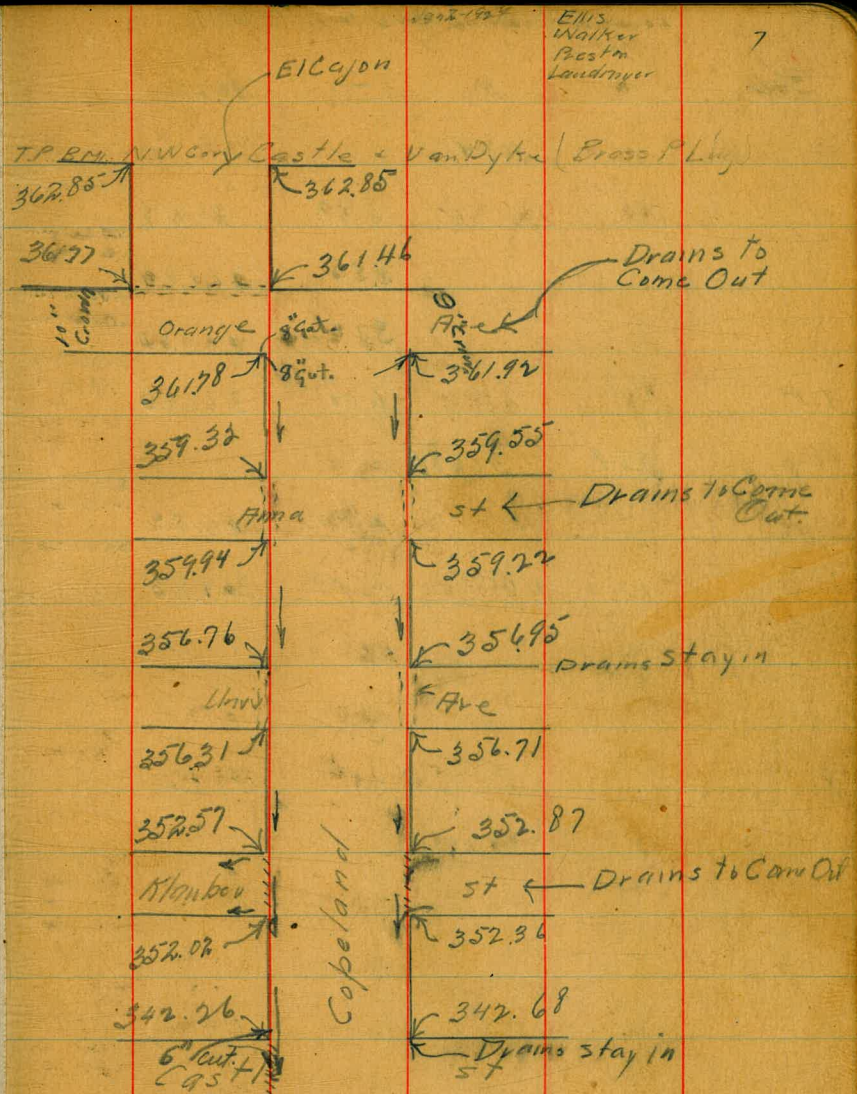
NE Cor. Castle
+ Van Dyke

T.P. 9.95 345.90

NW Cor. Castle
+ Van Dyke
Brass Plug

Levels on Copeland Castle to El Cajon

Sta	+	-	Elev	
			344.94	
	3.78	348.70		NE Cor. Copeland + Castle
		6.02	342.68	NW Cor. Copeland + Castle
		(6.04)	342.26	Brass Plug
	10.67	352.93		SE Cor. Klauter + Copeland
		0.55	352.38	SW Cor. Klauter + Copeland
T.P.		(91)	352.02	NW Cor. Klauter + Copeland
	6.67	358.59	352.57	Brass Plug NE Cor. Klauter + Copeland
		5.82	352.87	SE Cor. Univ + Copeland
		1.98	356.71	SW Cor. Univ + Copeland
T.P.		(2.28)	356.31	
	6.18	362.49		NW Cor. Univ + Copeland
		5.83	356.76	Brass Plug NE Cor. Univ + Copeland
		5.54	356.95	SE Cor. Univ + Copeland
		3.27	359.22	SW Cor. Univ + Copeland
		2.55	359.94	NW Cor. Univ + Copeland
T.P.		(3.19)	359.32	NE Cor. Univ + Copeland
		2.94	359.55	
	8.12	367.42		



Levels on Copeland Castle to El Cajon

637

Jan 2-1927

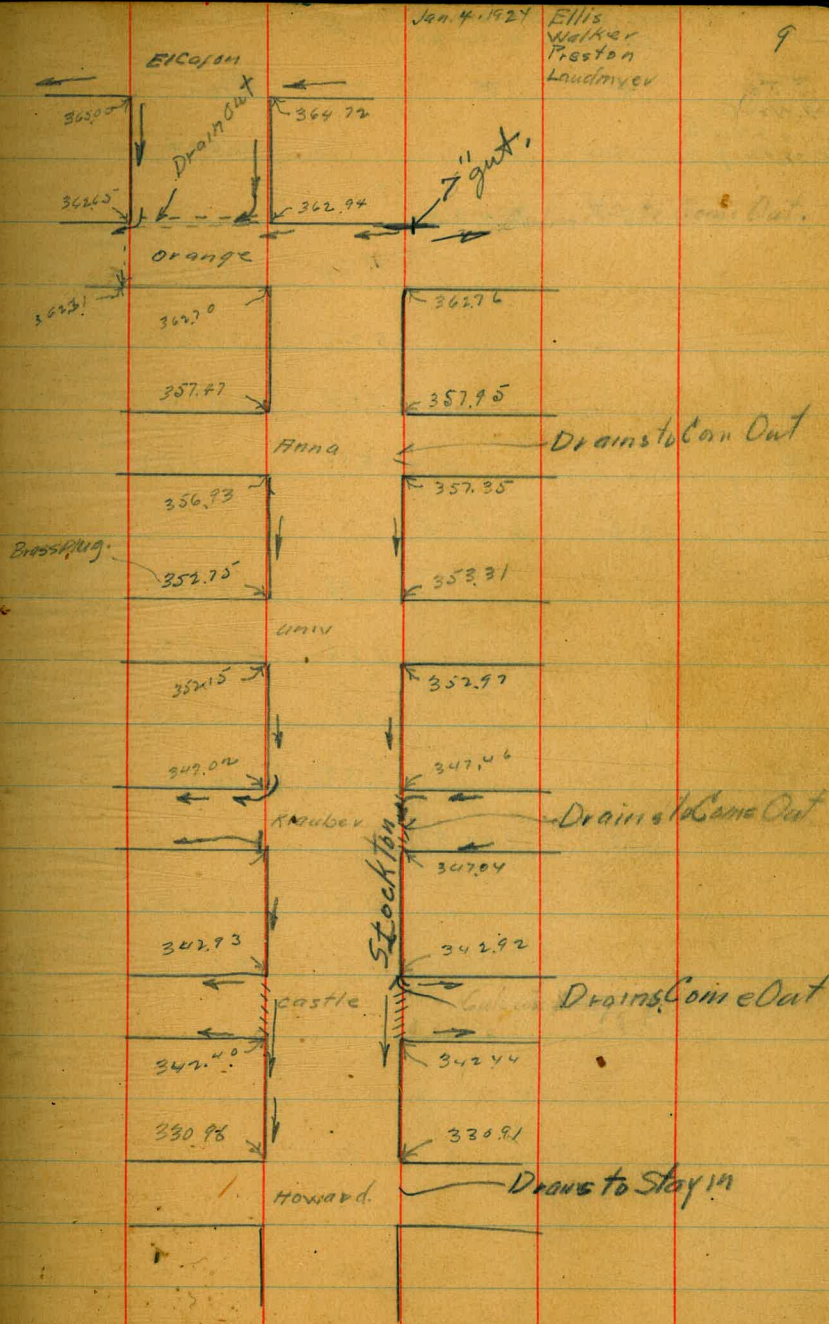
Ellis
Walker
Preston
Laudmyer

8

Sta	+	-	Elev	
			367.47	
		5.69	361.78	SW Cor Orange & Copeland
		5.55	361.97	SE Cor Orange & Copeland
		5.70	361.27	NW Cor Orange & Copeland
T.P		(6.01)	361.46	NE Cor Orange & Copeland
	5.39	366.85		
T.I		4.00	362.85	SE Cor El Cajon & Copeland
T.P		4.00	362.85	SW Cor El Cajon & Copeland Press Plug
T.I				
T.				

Levels on Stockton Elevation to Howard.
Elev. taken on Curbs & T.L.

Sta	+	-	Elev	
SW Cor Elevation Stockton B.M. Brass Plug			365.00	
	3.00	362.00		
		3.28	364.72	SE Cor Elevation & Stockton
		5.06	362.94	NE Cor Stockton & Orange
		5.35	362.65	NW Cor Stockton & Orange Brass Plug 5 ft Orange W.P. & Stockton
		5.69	362.31	Produce
T.P.		5.25	362.75	
	2.32	365.07		
		2.37	362.70	SW Cor Stockton & Orange
		2.31	362.76	SE Cor Stockton & Orange
		7.12	357.95	NE Cor Anna & Stockton
		7.60	357.47	NW Cor Anna & Stockton
		8.14	356.93	SW Cor Anna & Stockton
T.P.		7.72	357.35	SE Cor Anna & Stockton
	2.61	359.96		
		6.65	353.31	NE Cor Univ & Stockton
Brass Plug T.P. B.M.		7.21	352.75	NW Cor Univ & Stockton Brass Plug
		7.81	352.15	SW Cor Univ & Stockton
		6.99	352.97	SE Cor Univ & Stockton



Levels on Stockton El Co. to Howard
Elev. taken on Cords of R.L.

Jan 4-1924

Ellis
Walters
Preston
Landmyer

10

STG	+	-	Elev.	
B.M. NW Cor. Univ + Stockton Brass Plug	1.98	354.73	352.75	
		20.18		
		7.71	347.02	NW Cor Klauber + Stockton Brass Plug
		7.27	347.46	NE Cor Klauber + Stockton
		7.69	347.04	SE Cor Klauber + Stockton
T.P.		(8.11)	346.62	SW Cor Klauber + Stockton
	316	349.78		
		6.85	342.93	NW Cor Castle + Stockton
		6.86	342.92	NE Castle Stockton
		7.34	342.44	SE Cor Castle + Stockton
TP		(7.38)	342.40	SW Cor Castle Stockton
	0.47	342.87		
		11.91	330.96	NW Cor Howard + Stockton
		11.96	330.91	NE Cor Howard + Stockton

Elev. Carried from B.M. NW Cor. Univ. + Van Dyke

Levels of Conklin from El Cajon to Castle

Sta	+	x	-	Elev	
T.P.		363.85	7.45	356.40	
	31.8	359.58			NE Univ. Conklin
			5.82	353.76	NW Univ. Conklin
			5.58	352.00	Brass Plug
					SW Univ. Conklin
			5.90	353.68	SE Univ. Conklin
T.P.			6.16	353.42	
	0.05	353.47			
T.P.			13.00	340.47	
	0.82	341.29			NW Cor. Klau & Conklin
			5.89	335.40	Brass Plug
					NE Cor. Klau & Conklin
			5.52	335.77	
					SE Cor. Klau & Conklin
			5.62	335.67	
					SW Cor. Klau & Conklin
			5.90	335.31	
T.P.			4.12	337.17	NW Castle & Conklin
					Brass Plug
					NE Castle & Conklin
			3.91	337.58	
	83.6	345.43			
			3.02	342.41	SW Cor. Station & Castle

January

Ellis
Walker
Preston
Loubmyer

17

Levels on Central El Cajon to Klauber

Jan 17-20

15115
Walter
Preston
Laubman

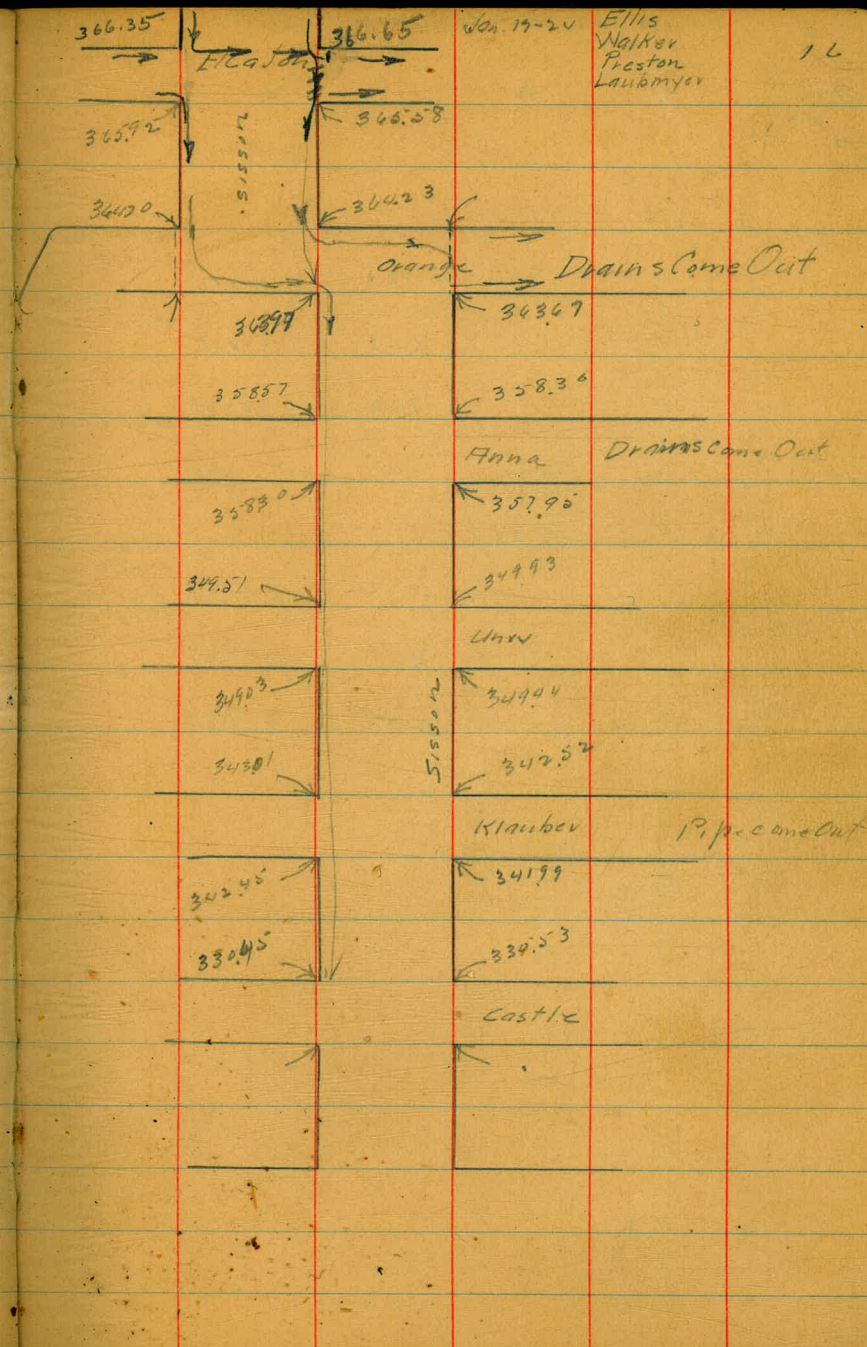
14

Sta.	+	x	-	Elev	
		359.18	7.80	351.38	SE Cor. Union Central.
T.P.			7.38	351.80	SE Cor. Union Central.
	1.24	353.04			
			10.12	342.92	NE Cor. Klauber Central.
T.P.			9.58	343.46	NW Cor. Klauber Central. Brass Plug.
	1.44	344.90			
			9.50	335.40	NW Cor. Klauber & Conklin
	4.18	9.58			

Levels on Sisson From El Cajon to Castle

Sta	+	x	-	Elev
BM SWC. El Cajon Central				364.55
	6.51	371.06		
			5.48	365.58
T.P.			5.14	365.92
	4.18	370.10		
			5.63	364.47
			5.87	364.23
			6.13	363.97
T.P.			6.43	363.67
	1.57	365.24		
			6.67	358.57
			6.94	358.30
			6.74	358.30
T.P.			7.29	357.95
	0.64	358.59		
			9.08	349.51
			8.66	349.93
			9.56	349.03
T.P.			9.15	349.44

SE Co Sisson
El Cajon
SW Co Sisson
El Cajon
Brass plug
NW Co Orange
& Sisson
NE Co Orange
& Sisson
SW Co Orange
& Sisson
SE Co Orange
& Sisson
NW Co Anna
& Sisson
NE Co Anna
& Sisson
SW Co Anna
& Sisson
SE Co Anna
& Sisson
NW Co Univ Sisson
Brass plug
NE Co Univ
& Sisson
SW Co Univ
& Sisson
SE Co Univ
& Sisson



Jan. 19-20
Ellis
Walker
Preston
Laubmyer
16

Levels on Sisson Farm El Cajon to Castle

Jan 17-24

Ellis
Walker
Preston
Laubmyer

17

Sta	+	-	Elev	
BT TP			349.44	
	1.63	351.07		NW corner Huber + Sisson
		8.06	343.01	NE corner Huber + Sisson
		8.55	342.52	SW corner Huber + Sisson
		8.62	342.45	SE corner Huber + Sisson
T.P.		9.08	341.99	
	0.60	342.59		NW corner Castle Sisson ✓
		12.14	330.45	Brass plate NE corner Castle + Sisson
		12.06	330.53	SW
		12.90	329.69	

Levels on Reamore + Daley El Cajon to Castle

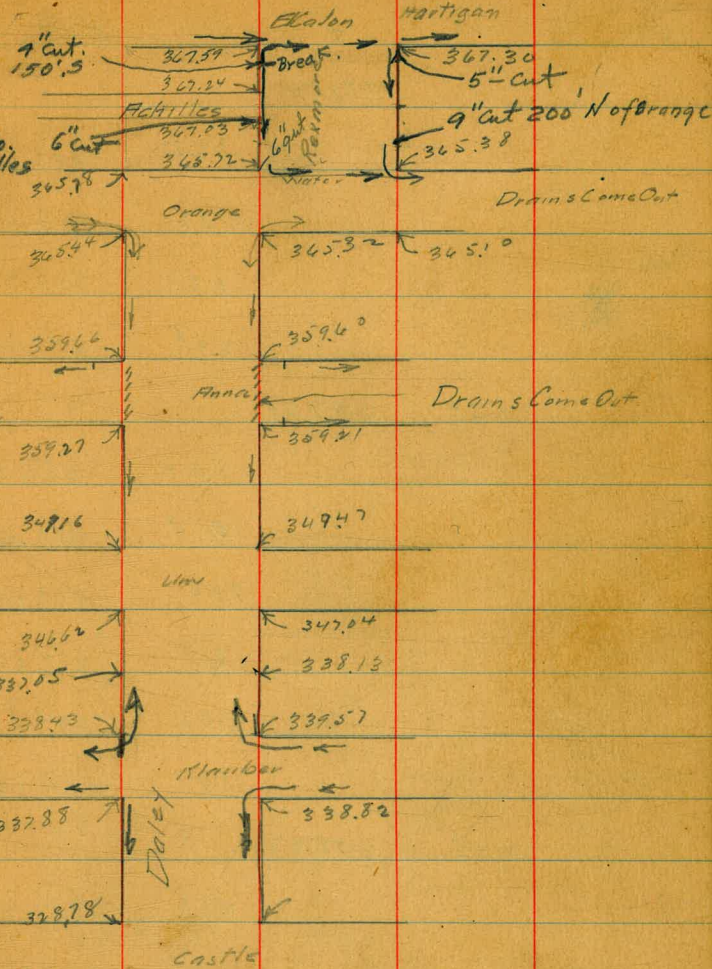
Jan 25 24

Ellis Walker
Foster
Hartigan

18

Sta	+	-	Elev	
NW Cor Sisson El Cajon			365.92	Brass Plug
	5.82	371.74		
T.P.				
	4.61	372.20		
		4.44	367.30	SE Reamore + El Cajon
		4.15	367.59	SW Reamore + El Cajon Brass Plug
		4.96	367.29	NW Reamore + Achilles Pm
		5.17	367.03	SW Reamore + Achilles Dms
		6.75	365.45	NW Cor Orange + Reamore
		6.82	365.38	NE Cor Orange + Reamore Dms
T.P.				
		6.88	365.32	SE Daley + Orange
	2.33	367.65		
		2.55	365.10	EPL Reamore Produced South
		2.21	365.44	SW Cor Orange + Daley
		1.87	365.98	WPL Daley Produced North
		8.05	359.60	NE Anna + Daley
		7.99	359.66	NW Cor Anna + Daley
		8.38	359.27	SW Cor Anna + Daley
T.P.				
		8.44	359.21	SE Cor Anna + Daley
	0.31	359.52		

Rake from So.
side of Achilles
to 150' So. of
El Cajon



Levels on Daley after more E. Rajon to Castl.

Jan 25-24

Ellis
Walker
Foster
Hartigan

19

579

+

K

-

Elev.

3595v

12.05

347.47

NE Cor
Univ +
Daley
NW Cor
Univ

12.36

347.14

Daley
SW Cor Daley
Univ

12.90

346.62

SE Cor Daley
Univ

12.48

347.04

T.P.

0.69

347.73

9.60

338.13

330' south of
Univ ECL

10.68

337.05

330' south of Univ
W.E.L.

9.30

338.43

NW Cor. K. K. K. + Daley

8.16

339.57

NE Cor. K. K. K. + Daley

9.85

337.88

SW Cor. K. K. K. + Daley

8.91

338.82

SE Cor. K. K. K. + Daley

T.P.

0.45

339.27

9.83

329.44

NE Cor. Castle
+ Daley

10.35

328.92

NW Cor. Castle
+ Daley

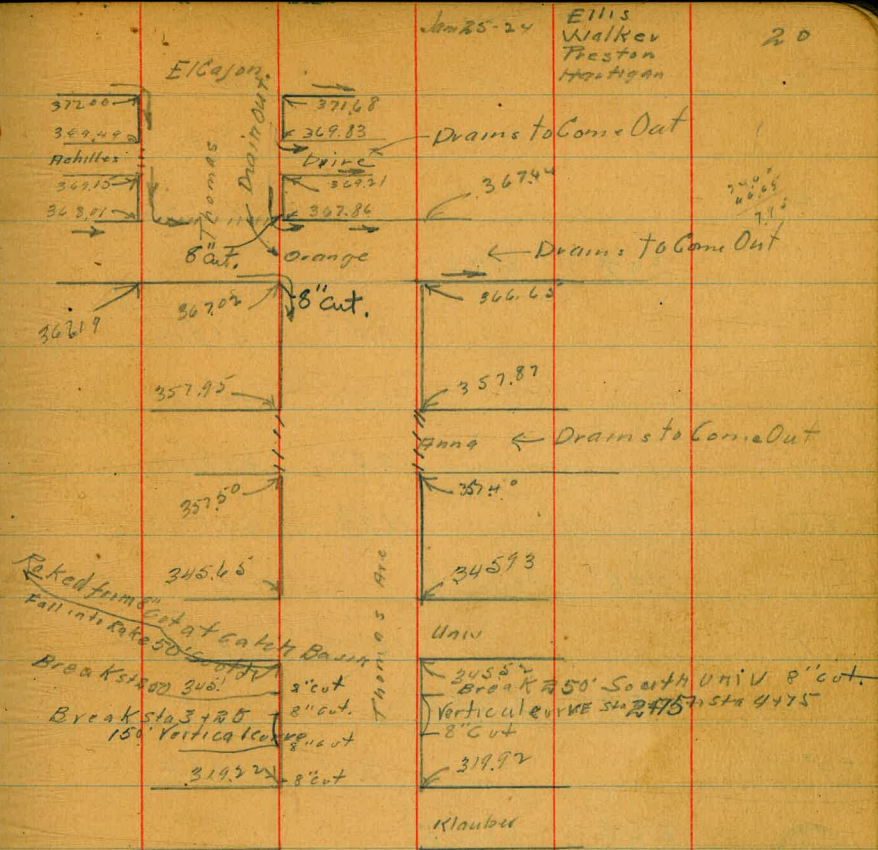
~~328.92~~
~~11.2~~
350.3
11.3
459.3

345.57

328.82
750
3-6-3
41.73

Levels on Thomas El Cajon to Klauber

Sta	+	π	-	Elev	
				367.89	
7.13		374.72			SE Cor El Cajon Thomas
			3.04	371.68	SW Cor El Cajon + Thomas
			2.72	372.00	Brass Plug
2.63		374.63			NW Cor Achilles Thomas + NE Cor Achilles
			5.16	369.47	SE Cor Achilles + Thomas
			4.80	369.83	SW Cor Achilles + Thomas
			5.48	369.21	NE Cor Achilles + Thomas
			5.48	369.15	Thomas
			6.62	369.21	NW Cor Thomas + Orange
			6.77	369.21	Brass Plug NE Cor Thomas + Orange
			6.77	367.86	SW Cor Thomas + Orange
			7.61	367.02	SE Cor Thomas + Orange
			7.98	366.65	EP L Thomas Reduced
			7.19	367.44	North
			7.44	367.19	WPL Thomas Reduced South
0.54		367.19			NE Cor Anna + Thomas
			9.30	357.89	NW Cor Anna + Thomas
			9.27	357.95	Thomas



Jan 25-24 Ellis Walker Preston Hartigan 20

level notes for top of curbs on Thomas between Univ. + Klauber on Page 38

Levels on Thomas El Cajon to Klauber

Sta.	+	π	-	Elev	
		367.19	9.69	357.50	SW Corner + Thomas
T.P.			9.79	357.40	SE Corner + Thomas
	0.07	357.47			NE Corner Thomas
			11.54	345.93	NW Corner Thomas
			11.92	345.65	Crossing SW Corner + Thomas
			12.37	345.10	SW Corner + Thomas
T.P.			11.95	345.52	SW Corner + Thomas
	0.46	345.98			
T.P.			13.00	332.98	
	0.58	333.56			
T.P.			13.00	320.56	
	5.59	326.15			
			6.93	319.24	NW Corner Thomas + Klauber + Thomas
			6.23	319.92	+ Klauber

Jan 25-24

Ellis
Walker
Preston
Hartigan

21

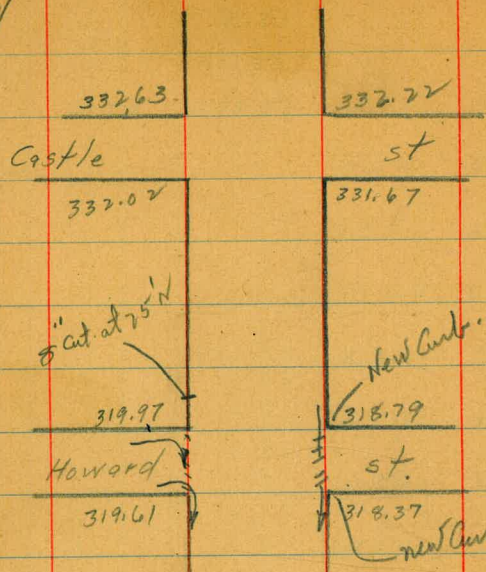
Orange Ave.

H.II

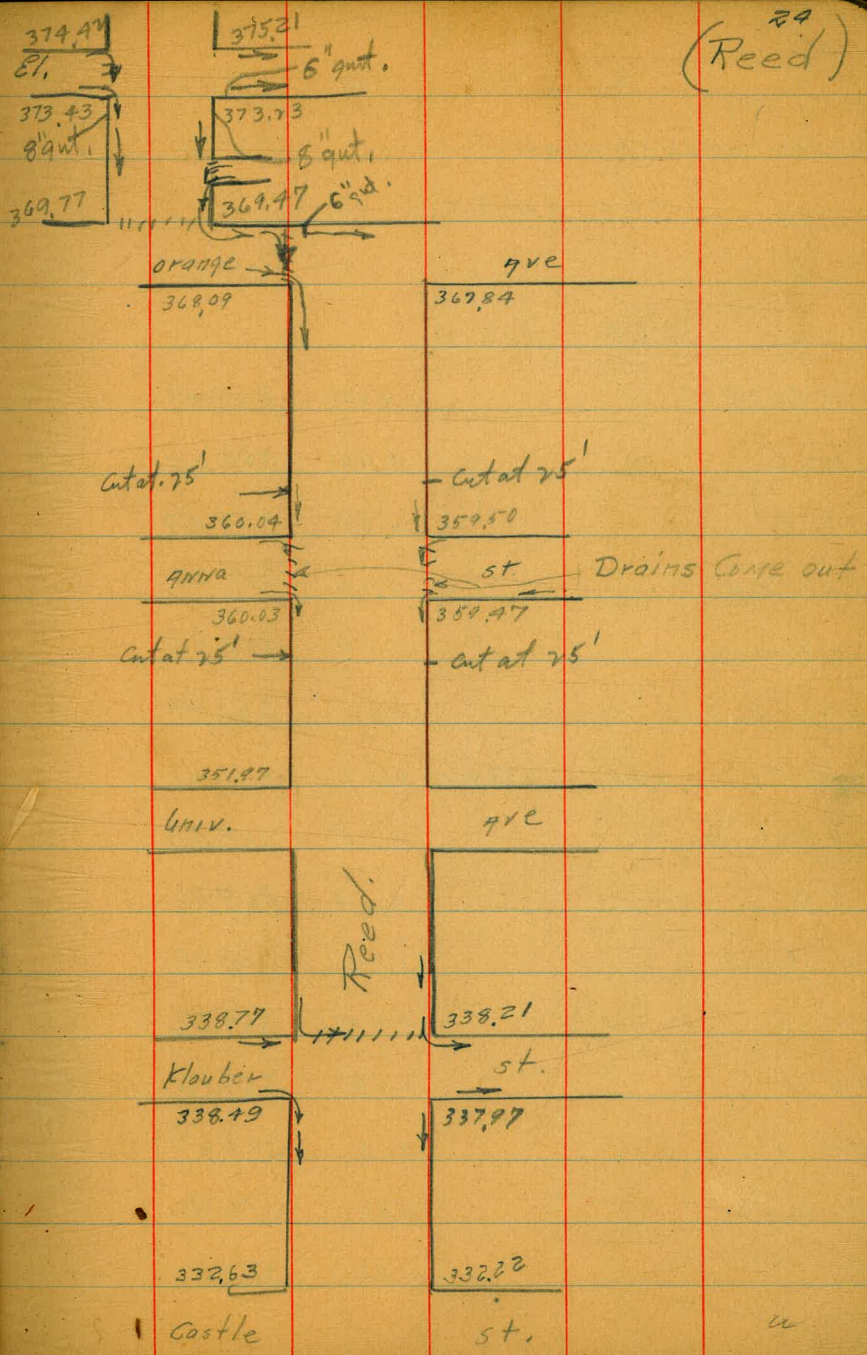
-

N.W. Pacific		381.69		
T. R.	0.76	378.77	3.68	378.01
SE. Swift			3.54	375.23
SW "			3.85	374.92
NE "			2.64	376.13
NW "			2.87	375.90
SE			5.58	373.19
SW			6.29	372.48
NE			4.20	374.57
N.W.			4.65	374.12
T. P.	1.99	374.85	5.91	372.86
NE Wabash			3.21	371.64
NW "			3.82	371.03
SE "			6.93	367.92
SW			7.58	367.27
NE 1 st			7.46	367.39
NW "			8.35	366.50
SE Mission			11.43	363.42
SW "			11.90	362.95

Reed



24
(Reed)



ANNEX. 5 T.

25

+ HI - EIV.

Brass Plug.

NW Cor. Thomas + Orange.

368.01

0.52 368.53

T. P.

10.57 357.76

6.53 364.49

SE Reed

5.02 359.47

SW "

4.46 360.03

NE "

4.99 359.50

N.W. Reed

4.45 360.04

N.E. Cherokee

0.54 363.95

SE "

1.00 363.49

T. P.

9.45 373.94 1.00 363.49

SW Cherokee

9.05 364.89

N.W. "

8.68 365.26

SE Storey

5.16 368.78

SW "

4.68 369.26

NE "

4.98 369.16

NW. "

4.27 369.67

SE Wilson

3.80 370.14

SW "

3.43 370.51

Anna St.

+ HI -

NE Wilson		373.94	333	370.61
NW "			2.94	371.00
T.P.	5.08	376.08	2.94	371.00
N.E. Pacific			4.19	371.89
NW "			4.62	371.46
SE "			4.70	371.38
SW "			5.14	370.94
T.P.	2.67	369.51	9.24	366.84
N.E. Pacific			7.18	362.33
B.M.	9.13	374.97	9	365.84
NE Swift			5.87	369.10
SW "			6.36	368.61
SE "			5.47	369.50
N.W. "			5.92	369.05
T.P.	0.53	369.14	6.36	368.61
SE Sco H			5.22	363.92
SW "			6.10	363.04
NE "			4.90	364.24
NW "			5.77	363.37

+	HI	-	EIV
---	----	---	-----

369.14			
--------	--	--	--

S.E. Wabash			
-------------	--	--	--

		13.00	
--	--	-------	--

SW "			
------	--	--	--

NE "			
------	--	--	--

NW "			
------	--	--	--

Levels on Klauber From Thomas
to swift

	+	H.I	-	E.I.V.
B.M. N.W. cor University + REED.	0.86	352.83		351.97
T.P.	3.76	344.11	12.48	340.35
SE. Reed			6.14	337.97
S.W. "			5.62	338.49
N.E. "			5.90	338.21
N.W. "			5.34	338.77
T.P.	9.09	351.72	1.48	342.63
SE Cherokee.			6.03	345.69
NE "			5.64	346.08
NW "			5.28	346.44
S.W. "			5.66	346.06
SE Storey			4.33	347.39
N.E. "			3.68	348.04
NW "			4.13	347.59
SW "			4.65	347.07
T.P.	6.73	354.93	3.52	348.20
NE Wilson			6.04	348.89
SE "			6.64	348.29
SW "			5.86	349.07
N.W. "			5.41	349.52

Klauber

29

+

HI

-

NE. Pacific		354.93	1.96	352.97
N.W. "			2.65	352.28
S.E. "			2.53	352.40
S.W. "			3.15	351.78
T. P.	9.31	362.28	1.96	352.97
			0.88	361.40

Levels on Castle from 4/22/24
Pacific to Reed

Hile
Walker
Freston
Hartigan

30

	+	H I	-	E I V
B. Mon				
N.E. cor. Pacific - Klauber	0.08	353.05		352.97
T.P.	0.54	340.58	13.01	340.04
T.P.	7.51	335.09	13.00	327.58
Cor NE Pacific			7.60	327.49
and NW Castle			8.90	326.19
SE.			8.60	326.49
SW.			9.93	325.16
Cor NE Wilson			1.99	333.10
and NW Castle			1.63	333.46
SE.			No Curb	
SW.			2.48	332.61
T.P.	7.32	341.27	1.14	333.95
Cor NE Storey			5.56	335.71
and NW Castle			6.15	335.12
SE.			5.69	335.58
S.W.			6.40	334.87
Cor NE Cherokee			2.64	338.63
and NW Castle			2.23	339.04

	+	HI	-	EIV
SE. Cherokee Cor and		341.27	3.00	338.27
S.W. Castle			2.82	338.45
T.P.	1.68	339.22	3.73	337.54
N.E. Reed Cor and			7.00	332.22
N.W. Castle			6.59	332.63
S.E.			7.55	331.67
S.W.			7.20	332.02
T.P.	0.16	329.54	9.84	329.38
T.P. on N.E. Cor Howard and Reed			10.44	319.10

Levels Howard St. from
Reed to Storey

32

BM. on NE Cor. Howard & Reed	+	H.I	-	Elv.
	10.42	329.52		319.10
Cor N.E. Howard Reed			10.73	318.79
N.W.			9.55	319.97
SE			11.15	318.37
S.W.			9.91	319.61
Cor N.E. Howard Cherokee			0.62	328.90
N.W.			0.62	328.90
S.E.			1.20	328.32
S.W.			1.12	328.40
Cor N.E. Howard and Storey			1.65	327.87
N.W.			2.11	327.41
SE.			1.83	327.69
S.W.			2.48	327.04

Levels on orange Wood from EL Cajon
to Boundary Line

+ HI. - ELV.

B.M.		HI.	-	ELV.
	2.17	358.29		35612
SW cor. Highland EL Cajon				
Cor. of orange wood to EL Cajon N. E.			4.86	35343
N. W.			5.80	35249
T. P.	3.02	358.45	2.86	355.43
SW. Olive + Orange wood			6.52	351.93
N. W.			6.09	352.36
N. P. of Olive Produced to east curb line of orange wood			5.47	352.98
S. P. of line Produced to east curb line			5.91	352.54
Cor. of Boundary line to orange wood			2.10	356.35
S. E.				
S. W.			3.45	355.00

Levels on Orchard Drive from ELCajon To Boundary Line

+ H.I. - E.L.V.

	+	H.I.	-	E.L.V.
B.M.	6.16	362.28		356.12
C. Cor. of ELCajon to Orchard Drive				356.01
N.W.			3.63	358.65
N.E.			3.94	358.34
T.P.	3.07	361.41	3.94	358.34
S. Cor. of Orchard Drive				358.34
S.W.			8.36	353.05
S.E.			8.74	352.67
T.P.	3.34	356.01	8.74	352.67
S.W.				
E.			4.25	
E.			6.32	
T.P.	3.80	360.62	1.18	359.82
N.W.			3.43	

C. Cor. of ELCajon to Orchard Drive

S. Cor. of Orchard Drive

N. Pr. E. S. P. C. Co. 1

NE. cor. of

Levels on Monte Vista Ave. from Norwood
to EL CAJON.

	+	HI.	-	ELV.
B.M	3.34	356.01		352.67
Cor. Monte Vista to EL CAJON S.W.			5.72	350.29
N.E.			4.25	351.76
Cor. Monte Vista to EL CAJON N.E.			1.52	354.49
T.P.	5.80	360.62	1.19	354.82
Monte Vista EL CAJON N.W.			5.48	355.14

S.E. Cor. of
orchard Dr.
Norwood

Menlo North of EL CAJON ³⁵

	HI	-	
6+00	356.21		6.90
7+00			7.30
8+00			7.60
9+00			6.45
10+00			6.65
T.P.	374	353.29	6.66 349.55

Granada North from EL CAJON.

Level on Menlo North of EL CAJON				NRL EL CAJON	
B.M. at N.E. Cor of orchard EL CAJON				0+00	6.10
			358.34	1+00	4.65
	+	HI	-	2+00	4.35
	1.53	359.87		3+00	4.80
T.P.	5.72	356.21	9.38	4+00	5.95
				5+00	8.68
N.R. line of EL CAJON			5.10	6+00	10.60
North- 1+00			4.30	7+00	
2+00			3.70		
3+00			4.00		
4+00			5.20		
5+00			6.10		

Castle.

+ HI -

+ HI - EIV.

N.W. Cor.
Copeland +
B.P. Cast
342.26

B.P.

345.58

5.57 347.83

T.P. 1.32 333.90 13.00 332.58

N.W. Van Dyke 3.01

NE Central 7.09

N.E. " 2.54

NW " 8.30

S.E. " 2.97

SE " 6.01

S.W. " 3.57

SW " 7.04

S.E. Copeland 5.53

NE Sisson 3.51

S.W. " 5.82

NW. " 3.50 330.40

NE " 5.15

SE " 4.02

N.W. 5.57

SW. " 4.13

T.P. 2.93 345.58 5.18 342.65

SE Daley 4.95

NE Stockton 2.60

SW " 5.75

SE " 3.10

NE " 4.48

SW " 3.18

NW. " 5.12 328.78

NW " 2.73

NE Conklin 7.95

NW " 8.46

SE " 8.37

SW " 8.89

Sta	+	H.Z.	-	Elev
Elev.	0.44			
SW curb, cor. Univ. Klauber		345.54		345.10

0+00				
0+25				
0+50				
0+75				
1+00				
1+25				
1+50				
1+75				
2+00				
2+25				
2+50				
2+75				
3+00				
3+25				
3+50				
3+75				
4+00				
4+25				

Continued page 39.

Top Curb		Top Curb	
West	Elev.	East	Elev.
Rods		Rods	
0.44	345.10	0.12	345.42
1.06	344.98	0.73	344.81
1.70	343.84	1.37	344.17
2.40	343.14	2.01	343.53
3.00	342.54	2.62	342.92
3.67	341.87	3.17	342.37
4.27	341.27	3.84	341.70
4.98	340.56	4.47	341.07
5.61	339.93	5.10	340.44
6.29	339.25	5.75	339.79
6.89	338.65	6.39	339.15
7.63	337.91	7.10	338.44
8.52	337.02	7.85	337.69
9.42	336.12	8.70	336.84
10.61	334.93	9.67	335.87
11.62	333.72	10.75	334.79
12.57	332.97	11.73	333.81
		12.85	332.69

Sta	+	M.Z.	-	Elev
		345.54		

T.P.	1.07	333.61	13.00	332.54
------	------	--------	-------	--------

4+25

4+50

4+75

5+00

5+25

5+50

5+75

Top West		Top East	
Curb	Elev.	Curb	Elev
Rods		Rods	

1.85 331.76

3.20 330.41 2.33 331.28

4.80 328.81 3.93 329.68

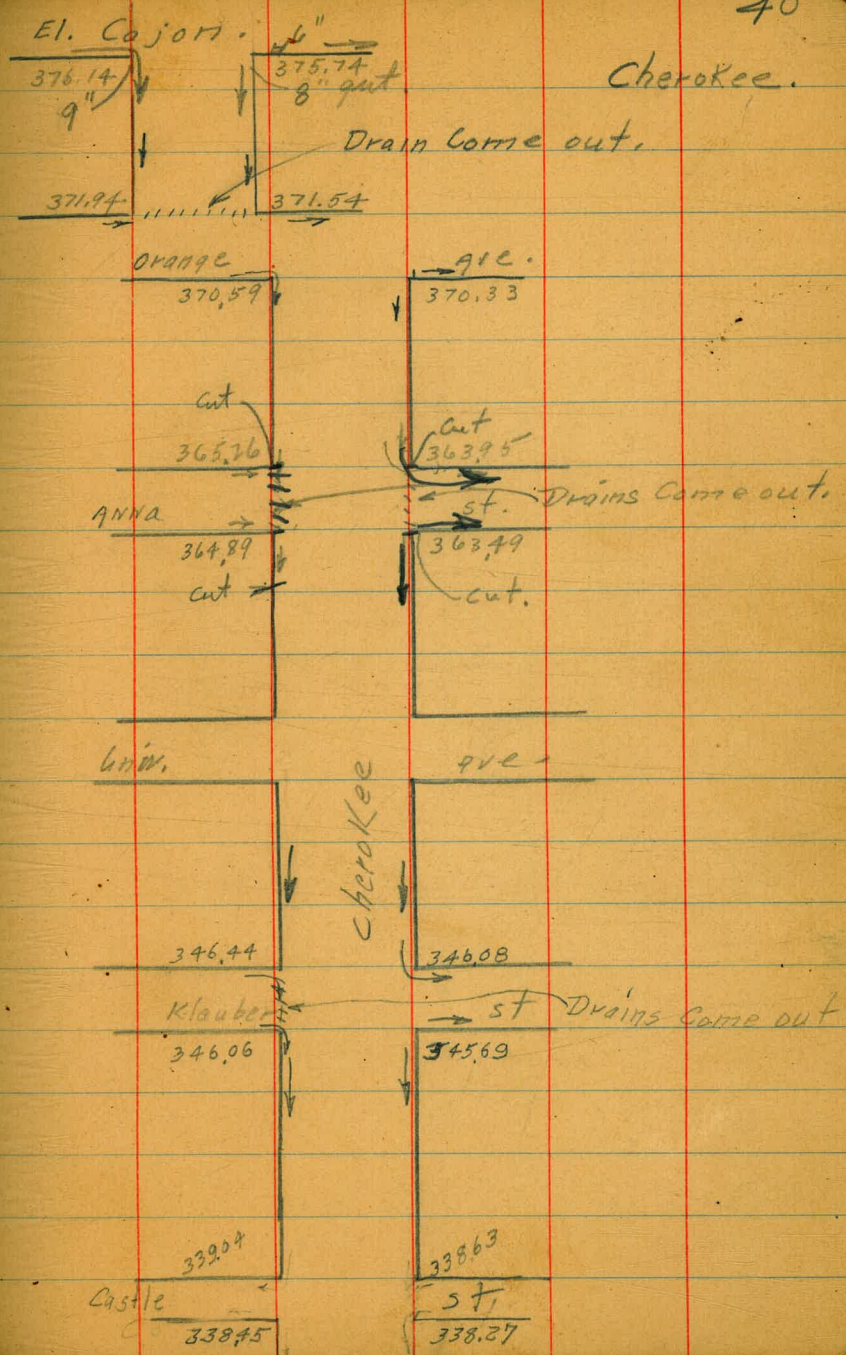
6.58 327.03 5.82 327.79

8.58 325.11 7.80 325.81

10.49 323.12 9.77 323.84

12.43 321.18 11.73 321.88

Sta 5+75 18 25' North Klauber



Storey 72

378.61

378.14

El Cajon.

6" cut

377.87

377.68

8" cut.

8" cut.

Drains Come out.

375.47

375.17

10' range

ave.

374.49

374.13

put open
Drain

369.67

369.16

8" cut.

cut 8"

7' NVA

Drains Come out.

369.26

368.78

8" cut.

University

ave.

347.59

348.04

Klober

st

347.07

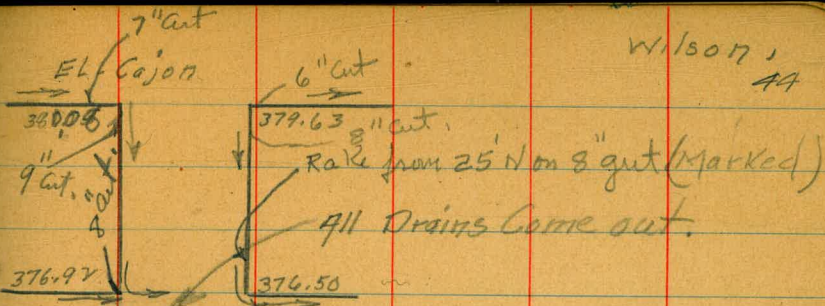
347.39

335.17

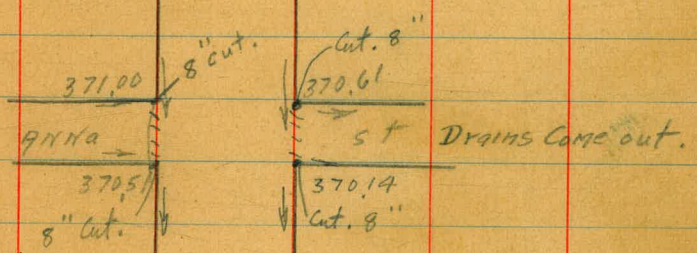
335.71

Castle.

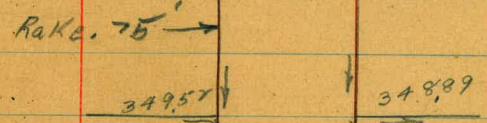
Wilson, AA



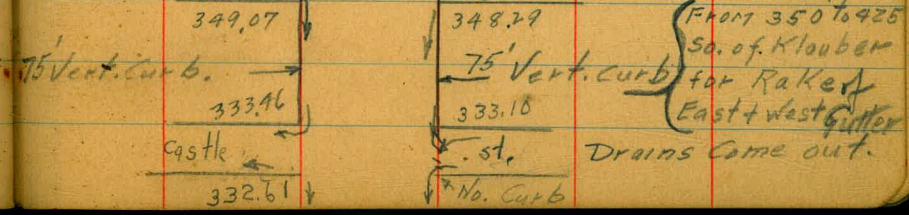
Orange Ave
 376.97 375.64



6th Ave



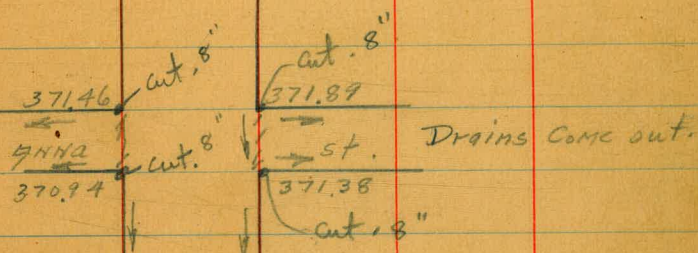
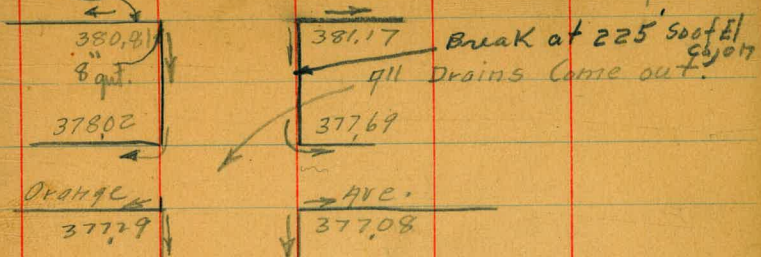
Klauber st. Drains Come out.



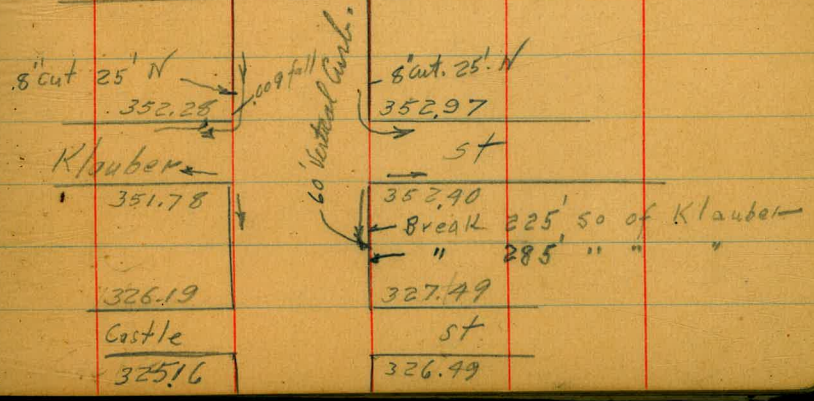
Castle No. Curb

6" cut El Cajon

46 Pacific



University Ave.



← quit ^{El. Capitt} 72
 379.21
 8" cut. 25.5
 8" cut. 6" cut.
 379.41 ← Swift.

All Drains Come out.

375.90 ←
 376.13 ←

Orange
 374.92

Ave
 375.23

369.10
 Anna.
 368.61

369.10
 ST
 369.50

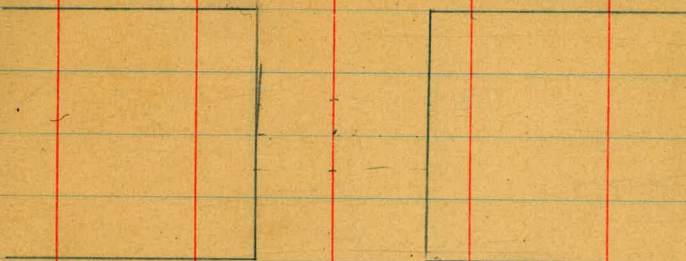
University

Ave.

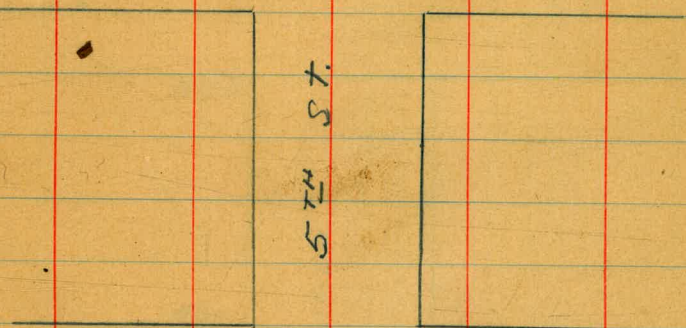
Monroe

ave

50

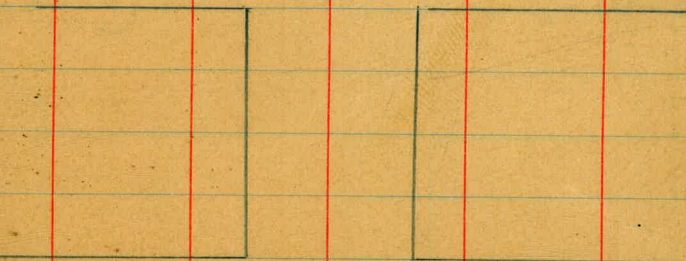


olive



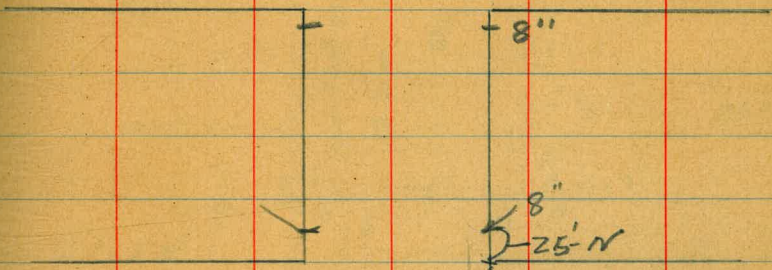
5TH ST

El Cajon



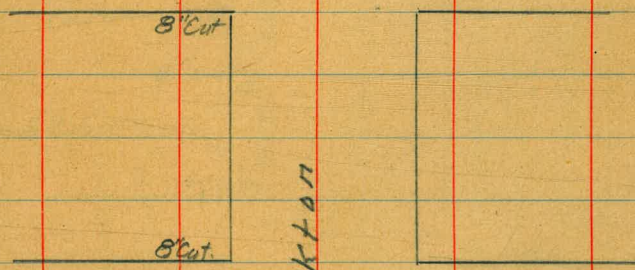
Monroe

are



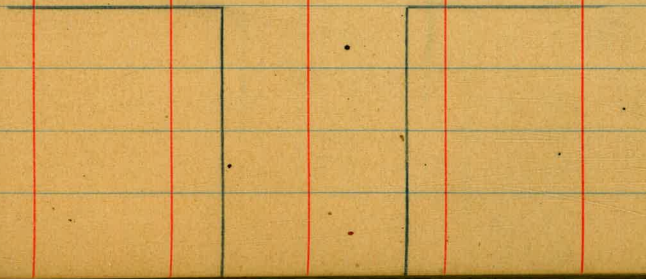
olive

st



El Cajon

are



Monroe ave

ave

Olive

ST

Central

El Cajon

ave

Marroa Ave

Olive

ST.

(Sisson)

4TH

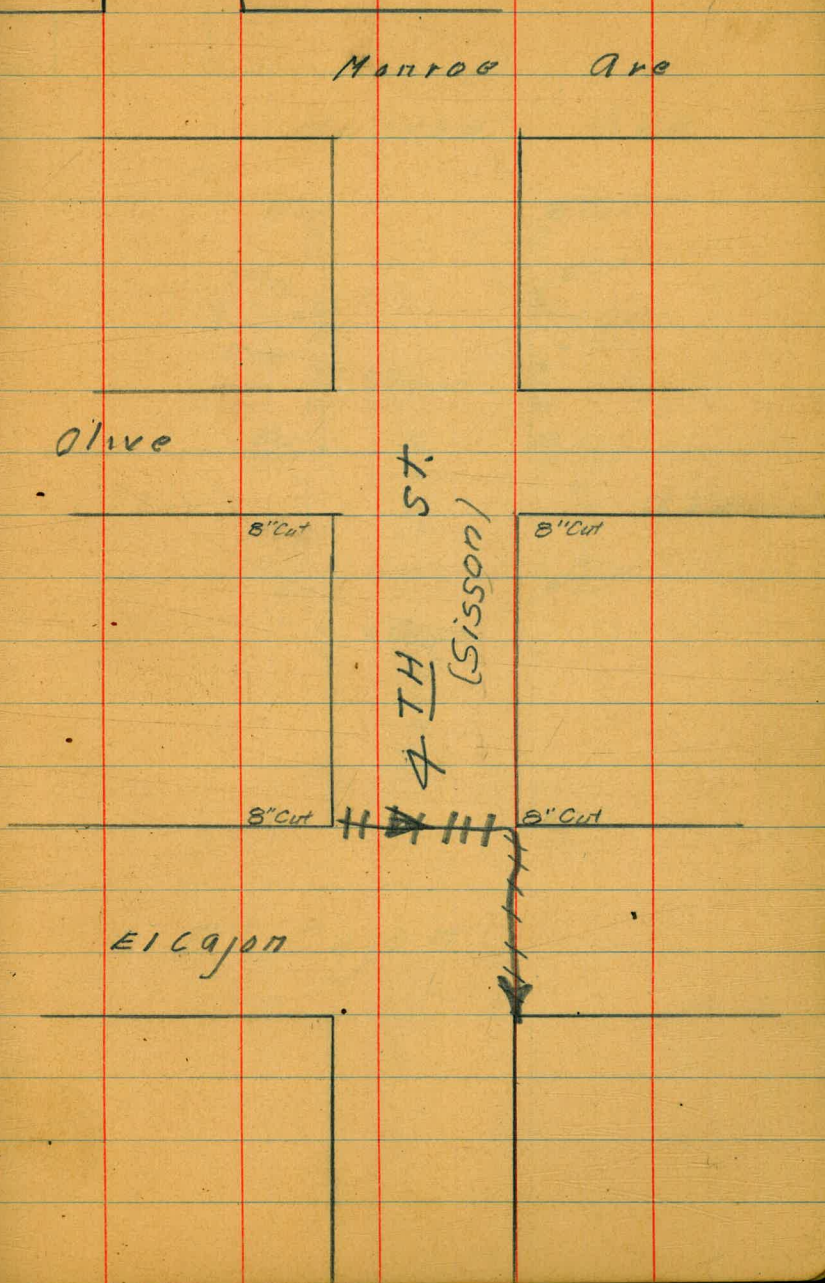
8" Cut

8" Cut

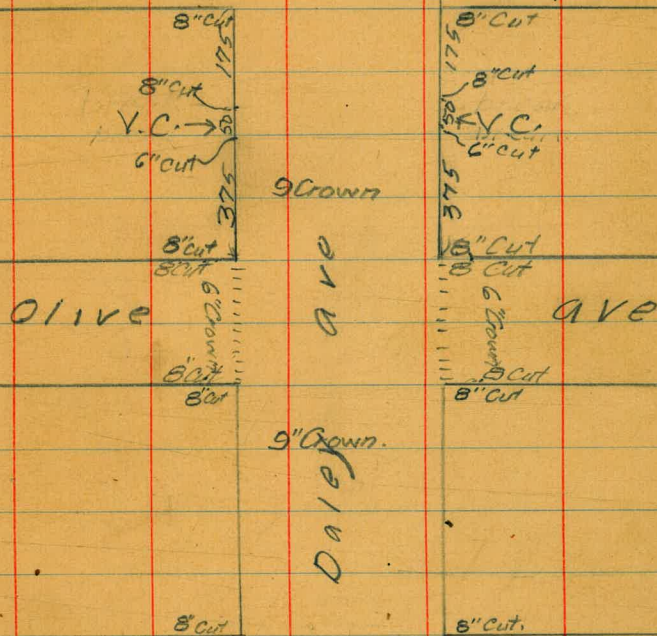
8" Cut

8" Cut

EICAJON



Monroe Ave



El Cajon



56

El Cajon

58

Sta
Euclid Ave
W. PL.
20700

+50

1+00

+50

2+00

+03^e
EPL
Granada.
W. PL.
20700

+50

1+00

+50

2+00

+50

3+00

+31⁰⁶
EPL
Menlo

	+	#	-	EV.	
BM Brass.					
S.W. El Cajon + Stocktop.				365.00	
Orange.	1.95	366.95			
N.W. Stock			4.41	367.54	
NE Stock			4.07	367.88	
N.W. 5 TH			4.03	362.92	
N.E. 5 TH Conk.			4.34	362.61	
W. Purd N.			4.58	362.37	
SE. Conk h/d			5.17	361.78	
SW "			4.95	362.00	
SW Stock			4.17	362.78	
SE. "			4.17	362.78	
N.E. Conk h/d			4.63	362.32	
NW. "			4.33	362.62	
T.P.	5.42	368.07	4.30	362.65	NW Conk
SE. Central			4.93	363.14	
SE Purd N.			4.67	363.4	
NE Cent			4.52	363.53	
NW "			4.73	363.84	
SW Cent			4.65	363.42	

	+	-		
SE Sisson	368.07	4.42	363.65	
SW "		4.11	363.96	
NW "		3.61	364.46	
N.E. "		3.95	364.12	
T.P.	6.27	369.93	4.41	363.66
NE Revere		4.53	365.40	
NW. "		4.48	365.45	
S.E. Daley		4.52	365.41	
SW "		4.22	365.71	
S.E. Thomas		3.21	365.72	
SW "		2.82	367.11	
N.E. Thomas.		2.15	367.78	
NW "		2.01	367.92	
T.P.	5.32	372.49	2.76	367.17
N.W. Reed		2.72	369.77	
NE "		3.02	369.47	
S.W.		4.40	368.09	
S.E. Reed		4.65	367.84	
T.P.				
SW Reed	7.31	375.40	4.40	368.09

$$\begin{array}{r} 362.70 \\ + 4.17 \\ \hline 366.87 \\ + 1.30 \\ \hline 368.17 \\ - 362.51 \\ \hline \end{array}$$
$$\begin{array}{r} 358.16 \\ + 464 \\ \hline 362.80 \\ - 87.5 \\ \hline 275.30 \\ + .82 \\ \hline 276.12 \\ - 354.87 \\ \hline - 99.5 \\ \hline 344.72 \\ + 379 \\ \hline 348.70 \\ - 64.5 \\ \hline 342.25 \\ + 10.67 \\ \hline 352.92 \\ - 352.01 \\ \hline 91 \\ + 6.57 \\ \hline 97.57 \\ - 22.7 \\ \hline 74.87 \\ + 5.31 \\ \hline 80.18 \end{array}$$
$$\begin{array}{r} 97 \\ + 6.57 \\ \hline 103.57 \\ - 22.7 \\ \hline 80.87 \\ + 5.31 \\ \hline 86.18 \end{array}$$
$$\begin{array}{r} 356.31 \\ + 6.18 \\ \hline 362.49 \\ - 29.4 \\ \hline 333.09 \\ + 8.12 \\ \hline 341.21 \\ - 367.67 \\ \hline - 26.46 \\ \hline 367.90 \\ + 5.40 \\ \hline 373.30 \\ - 367.10 \\ \hline 6.20 \end{array}$$
$$\begin{array}{r} 569 \\ 497 \\ \hline .12 \end{array}$$
$$\begin{array}{r} 6249 \\ 5992 \\ \hline 257 \\ 6249 \\ 5910 \\ \hline 329 \end{array}$$
$$\begin{array}{r} 6249 \\ 5953 \\ \hline 296 \end{array}$$
$$\begin{array}{r} 6249 \\ 5930 \\ \hline 319 \end{array}$$
$$\begin{array}{r} 34240 \\ 497 \\ \hline 34737 \\ 4492 \\ \hline 245 \end{array}$$

CALCULATION OF EARTHWORK.

Width	HEIGHT														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.02	.04	.06	.07	.09	.11	.13	.15	.17	.18	.20	.22	.24	.26	.28
2	.04	.07	.11	.15	.18	.22	.26	.30	.33	.37	.41	.44	.48	.52	.56
3	.06	.11	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83
4	.07	.15	.22	.30	.37	.44	.52	.59	.67	.74	.81	.89	.96	1.04	1.11
5	.09	.19	.28	.37	.46	.56	.65	.74	.83	.93	1.02	1.11	1.20	1.30	1.39
6	.11	.22	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67
7	.13	.26	.39	.52	.65	.78	.91	1.04	1.16	1.30	1.42	1.55	1.68	1.81	1.94
8	.15	.30	.44	.59	.74	.89	1.04	1.19	1.33	1.48	1.63	1.78	1.92	2.08	2.22
9	.17	.33	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
10	.18	.37	.56	.74	.93	1.11	1.30	1.48	1.67	1.85	2.04	2.22	2.41	2.59	2.78
11	.20	.41	.61	.82	1.02	1.22	1.43	1.63	1.83	2.04	2.24	2.44	2.65	2.85	3.06
12	.22	.44	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
13	.24	.48	.72	.96	1.20	1.44	1.68	1.92	2.16	2.41	2.65	2.89	3.13	3.37	3.61
14	.26	.52	.78	1.04	1.30	1.55	1.81	2.08	2.33	2.59	2.85	3.11	3.37	3.63	3.89
15	.28	.56	.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17
16	.30	.59	.89	1.18	1.48	1.78	2.07	2.37	2.67	2.96	3.26	3.56	3.85	4.15	4.44
17	.31	.63	.94	1.26	1.57	1.89	2.20	2.52	2.83	3.15	3.46	3.78	4.09	4.41	4.72
18	.33	.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00
19	.35	.70	1.06	1.41	1.76	2.11	2.46	2.82	3.17	3.52	3.87	4.22	4.57	4.92	5.23
20	.37	.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.18	5.56
21	.39	.78	1.17	1.55	1.94	2.33	2.72	3.11	3.50	3.89	4.28	4.67	5.06	5.44	5.83
22	.41	.81	1.22	1.63	2.04	2.44	2.85	3.26	3.67	4.07	4.48	4.89	5.29	5.70	6.11
23	.43	.85	1.28	1.70	2.13	2.56	2.98	3.41	3.83	4.26	4.68	5.11	5.54	5.96	6.39
24	.44	.89	1.33	1.78	2.22	2.67	3.11	3.56	4.00	4.44	4.88	5.33	5.78	6.22	6.67
25	.46	.92	1.39	1.85	2.31	2.78	3.24	3.70	4.17	4.63	5.09	5.56	6.02	6.48	6.94
26	.48	.96	1.44	1.92	2.41	2.89	3.37	3.85	4.33	4.82	5.30	5.78	6.26	6.74	7.24
27	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
28	.52	1.04	1.55	2.07	2.59	3.11	3.63	4.15	4.67	5.18	5.70	6.22	6.74	7.26	7.78
29	.54	1.07	1.61	2.15	2.68	3.22	3.76	4.30	4.83	5.37	5.91	6.44	6.98	7.52	8.06
30	.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.78	8.33
31	.57	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74	6.32	6.89	7.46	8.04	8.61
32	.59	1.18	1.78	2.37	2.96	3.56	4.15	4.74	5.33	5.92	6.52	7.11	7.70	8.30	8.89
33	.61	1.22	1.83	2.44	3.05	3.67	4.28	4.89	5.50	6.11	6.72	7.33	7.94	8.55	9.17
34	.63	1.26	1.89	2.52	3.15	3.78	4.40	5.04	5.67	6.29	6.93	7.56	8.18	8.81	9.44
35	.65	1.30	1.94	2.59	3.24	3.89	4.53	5.18	5.83	6.48	7.13	7.78	8.42	9.08	9.72
36	.67	1.33	2.00	2.67	3.33	4.00	4.66	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00
37	.68	1.37	2.06	2.74	3.42	4.11	4.79	5.48	6.17	6.85	7.54	8.22	8.91	9.59	10.28
38	.70	1.41	2.11	2.82	3.52	4.22	4.92	5.63	6.33	7.03	7.74	8.44	9.15	9.85	10.56
39	.72	1.44	2.17	2.89	3.61	4.33	5.05	5.78	6.50	7.22	7.95	8.67	9.39	10.11	10.83
40	.74	1.48	2.22	2.96	3.70	4.44	5.18	5.92	6.67	7.41	8.15	8.89	9.63	10.37	11.11

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

360.62
230
33
DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2
for Single Track Embankment.

II	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	II
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.