1364
54th St. N.

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 4 x 4 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.

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THE FREDERICK POST CO.

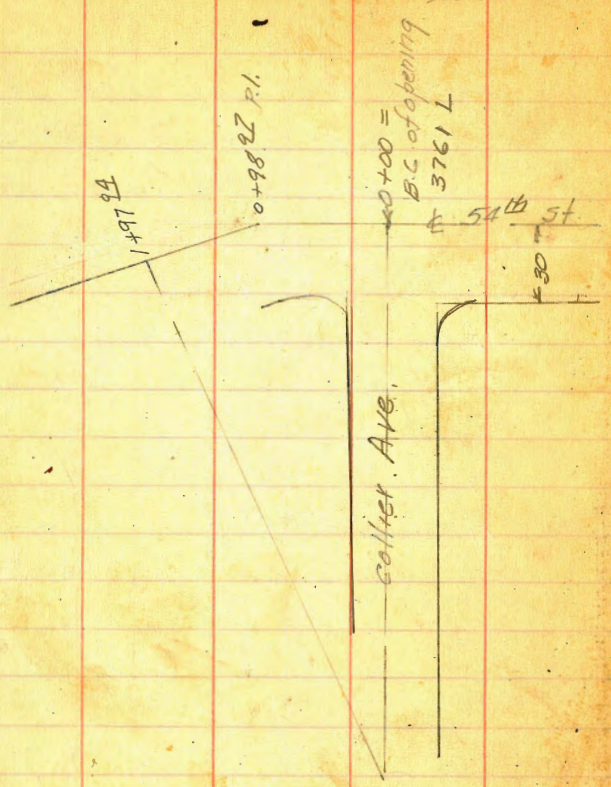
ENGINEERING and DRAFTING SUPPLIES

IRVING PARK STATION

CHICAGO, ILL.

Index

9/5/29
Loudon.



Control for topog for Extension of 54th St from NL Redland Gardens Ext. toward College Site

1

Sta	Dist.	Def'l.
0+00 = ℄ B.C. opening in Redland Gardens		
0+50		
0+98.27 L		22°23'30" Lt
1+50		
1+97.99 = EC		
2+50 L		12°00' Lt
3+00		
3+50		
4+00		
4+50		
5+00		
5+50 L		15°00' Rt.
6+00		
6+50		
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10+50		
11+00		
11+50 L		45°00' Rt.
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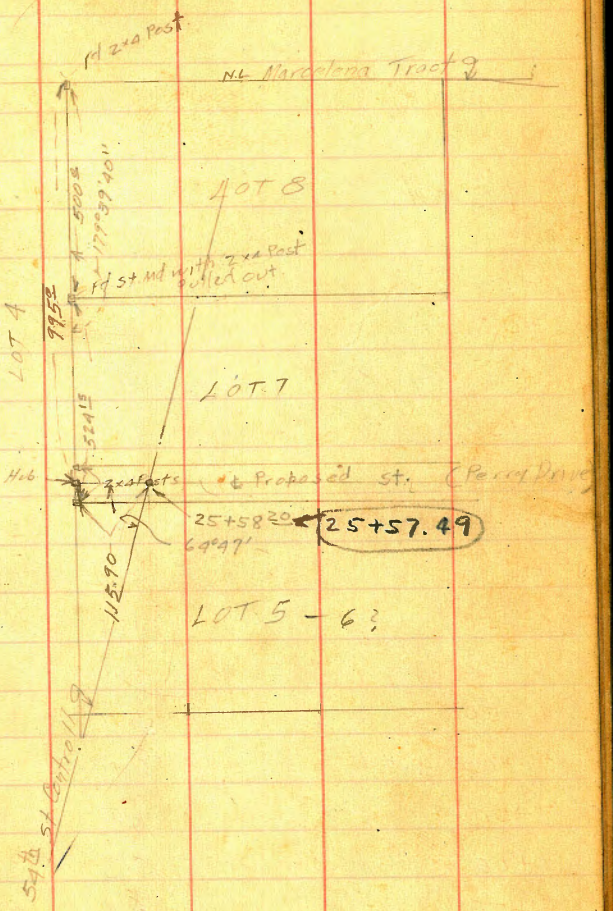


				Elev
B.M.	4.44	421.42		417.98
0+00			10.2	411.2
0+50	3.92	413.02	11.42	410.60
0+98.97			6.8	406.2
1+50			6.2	406.8
1+97.94			5.2	407.8
2+50			7.2	405.8
T.P.	0.29	400.22	13.09	399.93
3+00			7.5	392.7
T.P.	0.99	388.17	13.04	387.18
3+50			11.0	377.2
4+00			14.3	373.9
4+50			21.3	366.9
5+00			5.2	383.0
5+50			1.5	386.7
6+00			3.6	384.6
6+50			6.7	381.5
7+00	2.19	383.42	6.94	381.23
7+50			1.9	381.5
8+00			5.3	378.11
8+50			7.7	375.5
9+00			8.8	374.6
T.P.	0.46	371.53	12.35	371.07
9+50			2.5	369.0
T.P.	0.19	358.78	12.94	358.59
10+00			1.0	357.8 ✓

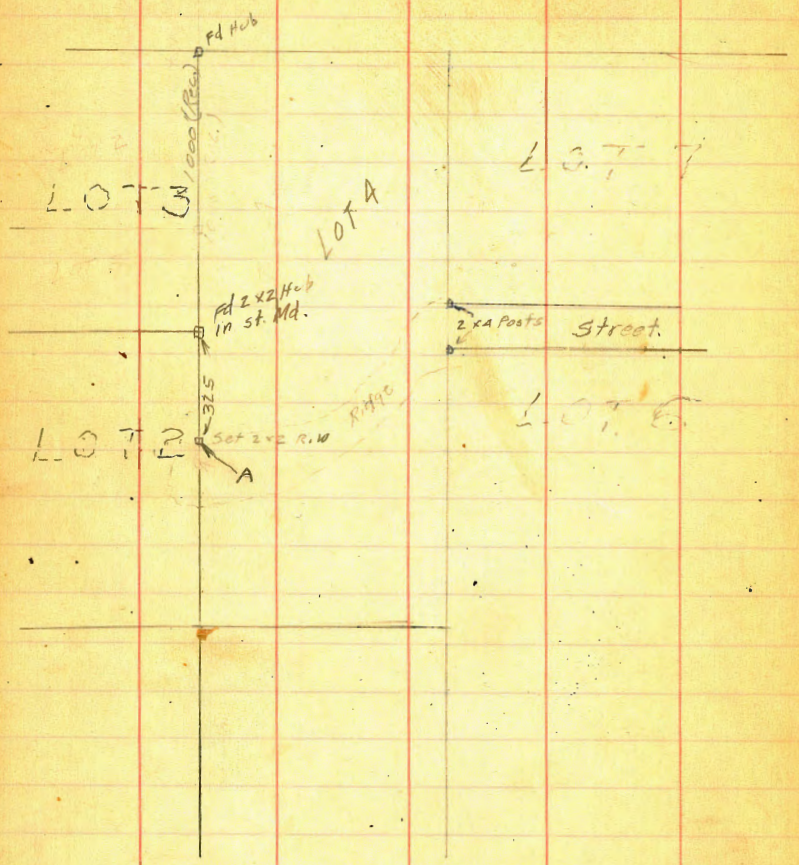
Elev
Spring leaf in Pole Sw. Adams & Jimson Pl.

		358.78		
T.P.	0.26	346.89	12.15	346.63
10+50			4.2	342.7
T.P.	0.08	334.09	12.88	334.01
11+00			4.3	329.8
T.P.	0.16	321.17	13.08	321.01
11+50			11.2	310.0
T.P.	0.01	308.29	12.89	308.28
T.P.	0.13	295.64	12.78	295.51
12+00			1.7	293.9
T.P.	0.69	283.27	13.06	282.58
12+50			5.7	277.6
13+00			14.3	269.0
13+50			14.2	269.1
14+00			2.8	280.5
T.P.	12.82	296.09	0.00	283.27
T.P.	12.91	308.91	0.09	296.00
14+50			2.0	306.9
T.P.	12.90	321.81	0.00	308.91
15+00			2.3	319.5
T.P.	12.07	333.83	0.05	321.76
15+50			6.1	327.7
16+00			2.0	331.8
T.P.	13.07	346.43	0.47	333.36
16+50			11.3	335.1
17+00			7.7	338.7

		346.43			
17+50			2.0	344.4	
T.P	12.94	359.22	0.15	346.28	
18+00			8.3	350.9	V
18+50			5.2	354.0	V
19+00			3.5	355.7	X
19+50			2.5	356.7	X
20+00	12.48	370.92	0.78	358.44	X
20+50			10.2	360.7	X
21+00			6.0	364.9	X
21+50			2.9	368.0	X
22+00			0.9	370.0	X
T.P	12.90	383.70	0.12	370.80	
22+50			12.1	371.6	X
23+00			9.6	374.1	X
23+50			3.2	380.5	X
T.P	13.03	396.40	0.33	383.37	
24+00			7.3	389.1	V
24+50			1.0	395.4	V
T.P	13.03	408.81	0.62	395.78	
25+00			5.1	403.7	V
T.P	9.90	413.56	5.15	403.66	
T.P	12.85	426.30	0.11	413.45	
25+50			12.5	413.8	V
26+00			2.5	423.8	V
T.P	12.65	438.94	0.01	426.29	

		438.94			
26+50			9.7	429.2	V
27+00			4.4	434.5	V
27+50			0.06	438.88	

Tank site on Lot A Marcelina Tract.
9/19/29 Loudon.



Levels to point A - Proposed Site for water Tank (Cobb Page).

5

BM	0.09	438.97		438.88	27+50 5432 St Control
T.P.	0.21	426.29	12 89	426.08	
T.P.	3.82	419.59	10 52	415.77	
T.P.	3.30	410.10	12.79	406.80	
A BM.			7 64	402.46	R.W. Hub.

X sec. Perry Drive (Proposed)
From the E.L. of Lotta Marcelenia Tract
60' wide

Sta 26+00 Sally Control	0.75	424.55		433.80	
0+00 = EL Lot 4					
S.L.			8.4	416.2	
℄			9.4	415.2	
N.L.			12.4	412.2	
0+40					
N.L.			8.0	416.6	
℄			9.0	415.6	
+15			9.4	415.2	
S.L.			12.4	412.2	
0+80					
S.L.			14.4	410.2	
+25			11.2	413.4	
℄			9.1	415.5	
N.L.			6.8	417.8	
1+16					
N.L.			4.3	420.3	
+22			5.1	419.5	
+27			8.2	416.4	
℄			9.0	415.6	
S.L.			16.4	408.2	

424.55

+6 700' East (Sec. 32) ℄ & Side lines only

6

1+66				
S.L.			8.1	416.5
℄			0.5	424.1
T.P.	12.48	436.99	0.04	424.51
N.L.			11.3	425.7
2+00				
N.L.			6.7	430.3
℄			7.9	429.1
S.L.			9.9	427.1
2+50				
S.L.			3.3	433.7
℄			1.9	435.1
N.L.			0.8	436.2
T.P.	12.74	449.33	0.40	436.59
3+00				
N.L.			10.1	439.2
℄			10.3	439.0
S.L.			9.0	440.3
3+50				
S.L.			6.5	442.8
℄			6.7	442.6
N.L.			6.3	443.0
4+00				
N.L.			3.8	445.5
℄			3.8	445.5
S.L.			4.2	445.1

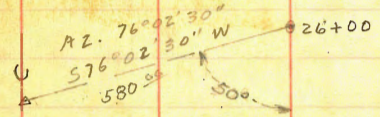
4+50	449.33		
S.L.		2.2	447.1
℄		1.7	447.6
N.L.		1.3	448.0
T.P.	7.84	456.93	0.44	449.09
5+00			
N.L.		7.3	449.6
℄		7.4	449.5
S.L.		7.7	449.2
5+50			
S.L.		6.3	450.6
℄		5.5	451.4
N.L.		5.8	451.1
6+00			
N.L.		4.3	452.6
℄		3.9	453.0
S.L.		3.5	453.4
7+00			
N.L.		2.6	454.3
℄		2.0	454.9
S.L.		2.3	454.6

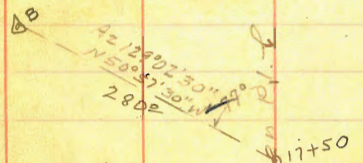
Stadia Points From Control on 54th St Ext.

269.0 El. 13+00
+4.35
273.35
-9.5
263.8 El. A.

344.4 El. 17+50
+11.7
356.1
-14.7
341.4 El. B.

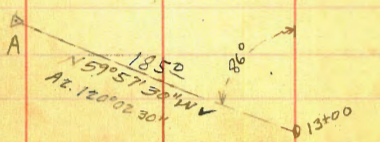
El. 26+00 423.8
+5.1
428.9
-13.1
415.8
+3.5
419.3
5.1
414.2 El. C





Control shown on P.L.

N26°02'30" E



Stadia Topog for 54th St Ext.

10/3/29 Laudon.

Az 0°00' = South 90° = West etc. orientation from controll bearings.

Sta	Az	stadia	Vert L	Rod	H.I
Ht = 4.9 Inst at "A"					268.7
1	353°-40'	194.5 2.15	+18°-33'		
2	0°-03'	159.4 1.82	+21°-10'		
3	9°-09'	152.2 1.76	+22°-05'		
4	18°-25'	157.8 1.80	+21°-07'		
5	23°-56'	160.7 1.79	+20°-08'		
6	28°-54'	146.2 1.68	+21°-44'		
7	39°-50'	139.2 1.60	+21°-44'		
8	52°-29'	149.6 1.66	+18°-56'		
9	67°-47'	129.0 1.31	+8°-54'		
10	50°-36'	96.6 0.99	+11°-07'		
11	20°-38'	83.0 0.89	+16°-19'	Up 5'	
12	16°-38'	82.9 0.89	+16°-38'	Up 5'	
13	9°-43'	84.8 0.91	+16°-30'	Up 5'	
14	353°-56'	93.9 0.96	+10°-35'		
15	342°-40'	111.0 1.12	+8°-00'		
16	333°-23'	72.2 0.71		2.2	
17	349°-55'	26.2 0.25		4.5	
18	87°-09'	26.2 0.25		6.5	
19	74°-58'	55.2 0.54		4.8	
20	73°-24'	78.2 0.77		3.5	
21	70°-51'	91.2 0.90	+2°-26'		
22	85°-11'	107.2 1.06		5.5	
23	117°-00'	137.2 1.36		9.5	
24	122°-34'	126.2 1.25		9.9	

Transit Points Measured off of Original Controll

shown on P1, 95 shown on P 8

9

I = 100
F+C = 1.25

Diff.	El.	
	263.8	South channel
65.1	328.9	✓
61.8	325.6	✓
61.7	325.5	✓
61.0	324.8	✓
58.1	321.9	✓
58.2	322.0	✓
55.5	319.3	✓
51.4	315.2	✓
20.2	284.0	✓
18.9	282.7	✓
19.5	283.3	✓
19.8	283.6	✓
20.2	284.0	✓
17.5	281.3	✓
15.7	279.5	✓
	266.5	✓
	264.2	✓
	262.2	✓
	263.9	✓
	265.2	✓
3.8	267.6	✓
	263.2	✓
	259.2	South channel
	258.8	" " ✓

Sta.	A.Z.	Stadia	Vert. ∠	Rod	H.I.	Diff	El.	
HH. 4.9 Inst. at "A"					268.7		263.8	
25	130°-23'	104.2 1.03		8.5			260.2 ✓	South channel
26	129°-10'	84.2 0.83		7.3			261.4 ✓	" "
27	304°-58'	60.2 0.59		4.0			264.7 ✓	South channel
28	265°-05'	76.2 0.75		4.2			264.5 ✓	North channel
29	212°-51'	55.2 0.54		5.3			263.4 ✓	" "
30	171°-32'	69.2 0.66		6.8			261.9 ✓	" "
31	154°-16'	91.2 0.90		5.9			262.8 ✓	" "
32	146°-57'	124.2 1.23		6.4			262.3 ✓	" "
33	132°-24'	180.2 1.79		10.9			257.8 ✓	" "
34	130°-50'	189.2 1.88		4.6			264.1 ✓	
35	142°-48'	158.2 1.57		1.5			267.2 ✓	
36	155°-08'	125.6 1.25	+ 3°-54'			8.5	272.3 ✓	
37	162°-22'	117.2 1.16	+ 3°-24'			6.3	270.1 ✓	
38	162°-58'	103.2 1.02	+ 1°-45'			3.2	267.0 ✓	Bottom of Ravine
39	171°-31'	97.2 0.97	+ 5°-04'			9.6	273.4 ✓	Nose
40	190°-55'	92.8 0.93	+ 6°-30'			10.5	274.3 ✓	Bank of North channel
41	223°-35'	0.85	+ 5°-46'			8.4	272.2 ✓	" " " "
42	217°-54'	172.0 1.78	+11°-45'			35.8	299.6 ✓	
43	208°-58'	179.2 1.85	+11°-12'			35.2	299.0 ✓	
44	201°-52'	196.9 2.01	+ 9°-30'			33.0	296.8 ✓	
45	198°-15'	204.2 2.10	+ 7°-55'	Vp. 3'		25.9	289.7 ✓	
46	194°-35'	209.6 2.12	+ 6°-54'	Vp. 6'		19.3	283.1 ✓	Bottom of Ravine
47	191°-45'	208.2 2.10	+ 6°-43'	Vp. 6'		18.5	282.3 ✓	" " "
48	185°-00'	132.6 1.33	+ 6°-30'	Vp. 5'		10.0	273.8 ✓	" " "

Sta.	Az.	Stadia	Vert. ∠	Rod	H.I.	Diff.	Elev.			
Ht. 4.9 Inst. at "A"					268.7		263.8			
49	176°-40'	1.49	+ 4°-43'	Up .5'		7.3	271.1	✓	Bottom	of Ravine
50	168°-11'	132.0 1.31	+ 2°-10'			4.5	268.3	✓	"	" "
51	167°-08'	1.46	+ 5°-04'			12.9	276.7	✓		
52	187°-15'	1.60	+ 6°-52'			19.1	282.9	✓		
53	189°-46'	212.2 2.15	+ 7°-54'			29.5	293.3	✓		
54	192°-30'	238.2 2.41	+ 7°-32'			31.6	295.4	✓		
55	183°-13'	243.3 2.50	+10°-15'			44.0	307.8	✓		
56	176°-32'	214.2 2.21	+10°-52'			41.0	304.8	✓		
57	163°-37'	249.6 2.56	+10°-10'			44.7	308.5	✓		
58	149°-07'	280.0 2.85	+ 8°-14'			40.6	304.4	✓		
59	161°-57'	395.2 4.08	+10°-36'			74.3	338.1	✓		
60	180°-20'	390.2 4.03	+10°-50	Up. 4'		70.9	334.7	✓		
H = 5.0 Instat "B"					346.4		341.4			
1	18°-57'	144.2 1.50	-12°-34'	Up. 3'		35.4	306.0	✓	Bottom	of Ravine
2	22°-49'	99.7 1.03	-15°-06'	Up. 3'		29.1	312.3	✓	"	" "
3	31°-05'	69.8 0.73	-14°-10'	Up. 7'		24.6	316.8	✓	"	" "
4	53°-32'	42.7 0.51	-25°-13'			20.1	321.3	✓	"	" "
5	87°-38'	34.3 0.41	-25°-49'			16.6	324.8	✓	"	" "
6	141°-44'	28.5 0.32	-22°-20'			11.7	329.7	✓	"	" "
7	160°-13'	44.2 0.43		11.8		11	334.6	✓	"	" "
8	188°-37'	1.12	+ 5°-58'	Up. 3'		8.7	350.1	✓	"	" "
9	206°-12'	185.7 1.90	+ 9°-32'	Up 5'		26.2	367.6	✓	Head	of Ravine
10	196°-56'	184.3 1.87	+ 8°-02'			25.8	367.2			

Sta.	Az.	Stadia	Vert. ∠	Rod	H.I.	Diff	Elev.	Hor. Dist.
Ht. 5.0 Inst. at "B"					346.4		341.4	
11	183°-23'	130.4 1.31	+ 6°-53'			15.7	357.1	✓
12	158°-03'	0.76	+ 6°-22'			8.4	349.8	✓
13	77°-21'	59.2 0.58		10.0			336.4	✓
14	36°-48'	1.25	- 6°-20'			13.8	327.6	✓
15	25°-22'	197.2 2.01	- 8°-39'			30.2	311.2	✓
16	22°-30'	273.2 2.78	- 8°-18'			39.9	301.5	✓
17	19°-16'	275.2 2.82	- 9°-27'			45.9	295.5	✓
18	38°-55'	290.4 2.92	- 5°-18'			26.9	314.5	✓
19	57°-30'	246.2 2.45	- 1°-21'	Up. 4'		17.0	330.4	✓
20	70°-01'	231.2 2.30	+ 1°-49'	Up. 3'		4.4	345.8	✓
21	84°-37'	2.15	+ 5°-57'	Up. 2'		20.2	361.6	✓
22	95°-02'	218.7 2.22	+ 7°-57'			30.5	371.9	✓
23	101°-45'	226.2 2.32	+ 9°-40'			38.6	380.0	✓
24	111°-00'	234.0 2.42	+ 11°-30'			47.2	388.6	✓
25	119°-21'	259.2 2.72	+ 13°-02'			60.1	401.5	✓
26	132°-00'	291.2 3.04	+ 12°-18'			63.6	405.0	✓
27	151°-46'	338.2 3.50	+ 11°-07'			66.3	407.7	✓
28	169°-40'	361.8 3.75	+ 11°-09'			71.7	413.1	✓
29	180°-03'	270.7 2.78	+ 10°-00'			47.8	389.2	✓
30	156°-44'	204.2 2.10	+ 10°-50'			39.1	380.5	✓
31	119°-28'	137.9 1.42	+ 11°-06'			27.0	368.4	✓
32	83°-24'	1.50	+ 5°-23'			13.9	355.3	✓
33	53°-06'	157.2 1.56		12.0			334.4	✓
34	8°-42'	162.4 1.63	- 6°-09	Up. 5'		22.5	318.9	✓

Sta.	Az.	Stadia	Vert. ∠	Rod.	H.I.	Diff'h.	Elev.	Hor. Dist.		
Ht. 5.0 Inst. at "B"					346.4		341.4			
35	9°-52'	199.2 1.20	- 7°-10'	Up. 3'		17.8	323.6	✓		
36	32°-54'	21.2 0.28		12.0			334.4	✓		
37	182°-30'	50.2 0.49		1.5			344.9	✓		
38	198°-37'	1.24	+ 6°-55'			14.8	356.2	✓		
39	208°-00'	171.2 1.73	+ 7°-46'	Up. 1'		22.4	363.8	✓		
40	211°-34'	192.2 1.96	+ 9°-20'	Up. 1'		30.4	371.8	✓		
41	228°-22'	165.2 1.71	+ 11°-26'			33.4	374.8	✓		
42	244°-53'	126.4 1.30	+ 11°-05'			24.7	366.1	✓		
43	273°-50'	110.3 1.12	+ 9°-11'			17.8	359.2	✓		
44	292°-38'	1.03	+ 7°-20'			13.3	354.7	✓		
Ht. 5.1 Inst at "C"					419.3		414.2			
1	298°-52'	136.2 1.35		5.4			413.9	✓		
2	341°-00'	52.2 0.51		6.1			413.2	✓		
3	42°-20'	133.2 1.32		7.8			416.4	✓		
4	65°-29'	126.2 1.25		11.4			407.9	✓		
5	61°-24'	195.0 1.94	- 2°-30'			8.5	405.7	✓		
6	55°-20'	271.0 2.70	- 2°-11'			10.3	403.9	✓		
7	48°-40'	328.0 3.27	- 2°-05'			11.7	402.5	✓	B.M. El. 402.46	
8	42°-27'	384.0 3.83	- 1°-40'			11.0	403.2	✓		
9	39°-57'	411.0 4.10	- 2°-00'			14.3	399.9	✓		
10	40°-35'	381.0 3.80	- 1°-40'			11.0	403.2	✓		
11	49°-50'	278.2 2.77		13.4			405.9	✓		
12	50°-21'	179.2 1.78		10.2			409.1	✓		

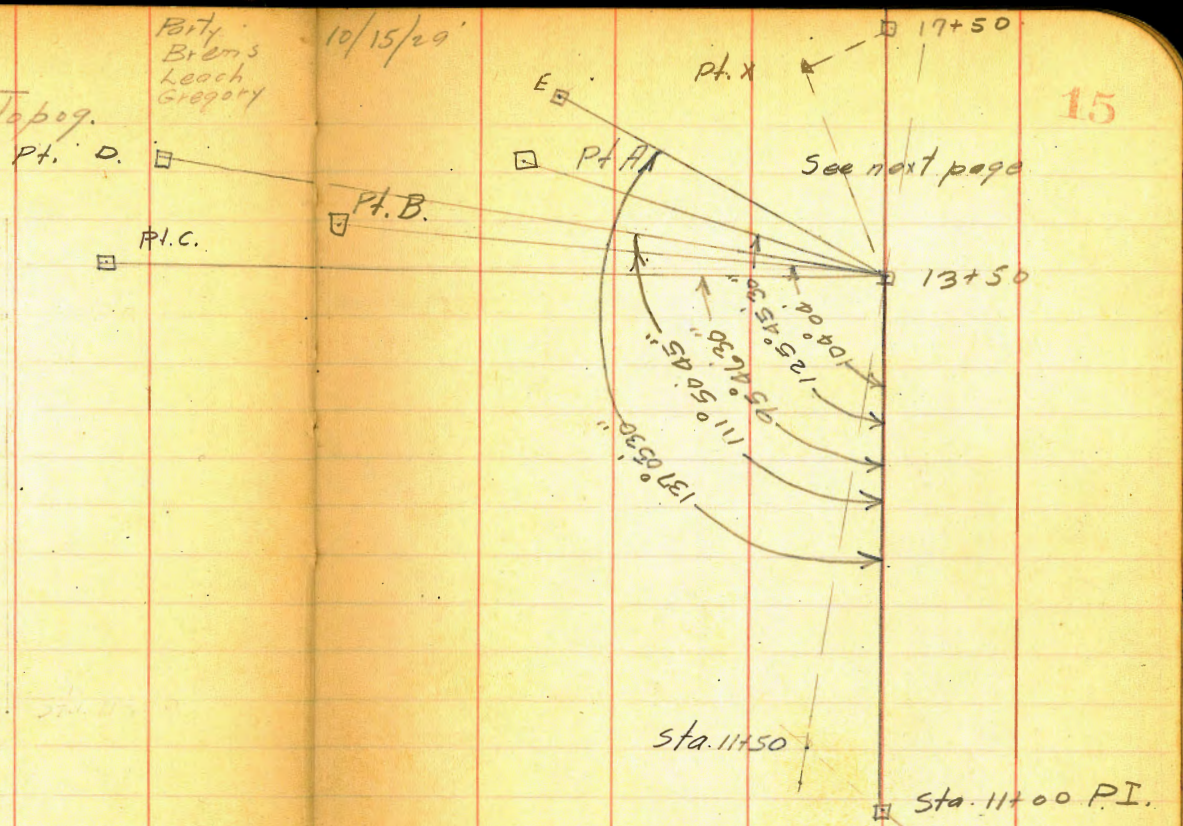
Sta. Ht. 5.1 Inst. at "C"	Az.	Stadia.	Vert. ∠	Rod	H.I. 419.3	Diff.	Elev. 414.2	Hor. Dist.
13	150°-18'	61.0 0.60		7.3			412.0	✓
14	206°-52'	69.0 0.68		10.3			409.0	✓
15	244°-55'	114.0 1.13		9.3			410.0	✓
16	259°-12'	209.0 2.08		9.7			409.6	✓
17	263°-10'	306.0 3.05		7.1			412.2	✓
18	258°-20'	378.0 3.77		6.9			413.0	✓
19	253°-54'	446.0 4.45		7.2			412.1	✓
20	251°-38'	484.0 4.83		6.1			413.2	✓
21	245°-15'	471.0 4.70	- 1°-21'			10.9	403.3	✓
22	246°-08'	421.0 4.20	- 2°-15'			16.5	397.7	✓
23	245°-00'	3.85	- 2°-52'			19.2	395.0	✓
24	241°-22'	2.98	- 4°-30'			23.3	390.9	✓
25	216°-11'	1.77	- 5°-55'	Vp. 6'		24.2	390.0	✓
26	174°-52'	1.23	- 6°-10'	Vp. 6'		19.2	395.0	✓
27	159°-00'	1.10	- 6°-24'	Vp 4'		16.3	397.9	✓
28	136°-42'	97.0 0.96	- 1°-28'			2.5	411.7	✓
29	285°-00'	64.0 0.63		5.7			413.6	✓
30	285°-00'	180.0 1.69		4.5			414.8	✓
31	285°-00'	262.0 2.61		2.3			417.0	✓
32	285°-00'	288.0 2.88		3.4			415.9	

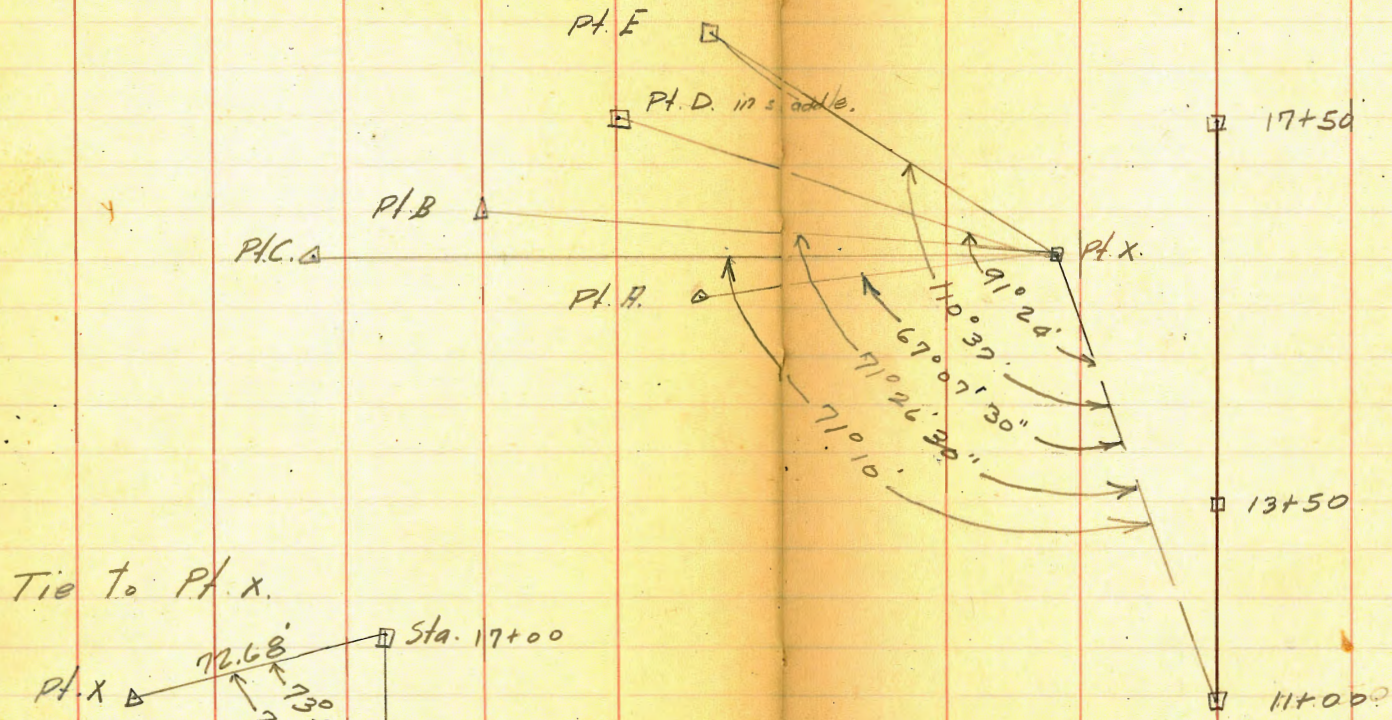
Party
Brems
Leach
Gregory

10/15/29

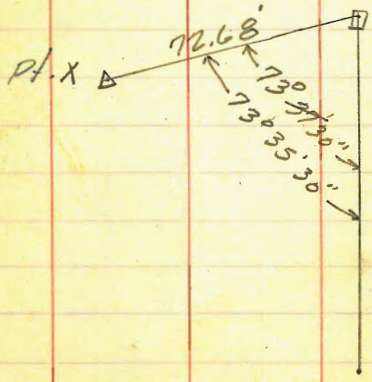
15

Triangulation for Topog.




Pt. E
Pt. D. in saddle.
Pt. B
Pt. C.
Pt. A.
Pt. X.
17+50
13+50
11+00
91° 24'
110° 37'
67° 07' 30"
71° 26' 30"
71° 10'

Tie To Pt. X.


Sta. 17+00
72.68'
Pt. X
73°
73° 35' 30"
Sta. 11+00

Sta.	+	⊼	−	El.	
				338.7	El. Sta 17+00.
	4.47	343.17			
			11.86	331.31	
	0.33	331.64			
			11.80	319.84	B.M.#1.
−	0.05	319.79			
			9.31	310.48	△ A.
				319.84	B.M.#1. on Hogs back. North of large ravine.
	6.12	325.96			
			0.00	325.96	B.M.#2
			11.95	314.01	
	0.94	314.95			
			11.28	303.67	△ B
T.P.			11.28	303.67	
	2.00	305.67			
			8.80	296.87	△ C.
				325.96	B.M.#2
	11.70	337.66			
			0.00	337.66	B.M.#3
	11.73	349.39			
			0.16	349.23	
	11.79	361.02			
			10.79	350.23	△ D
T.P.			0.41	360.61	

	+	π	−	El.	
				360.61	
	11.37	371.98			
			0.00	371.98	
	11.41	383.39			
			2.36	381.03	△ E
	11.87	392.90			
			0.17	392.73	
	11.67	404.40			
			1.94	402.46	El. B.M. 402.46. ✓
stadia				347.88	△ F

← check →

10-15-29 Vert Angles Read 0°0 6' too much on -Sights
A.E.B
J.G.
A.L.

Instr at El. = 381.03	F Sight	B Sight	Azim	Vert Ang	Top Hair
E		D	55°46'	−13°42' → −13°36'	5.76
			78° 16'	−15°10' → −15°04'	6.25
			84° 46	−14°57' → −14°57'	6.10
			117° 03	−13°55' → −13°49'	6.40
			143° 05'	−12°02' → −11°56'	7.45
			153° 28	−10°56' → −10°56'	5.8
			131° 24'	−14°25' → −14°14'	6.25
			169° 40'	−9°57' → −9°45'	6.59
			203° 50'	−6°53' → −6°47'	5.1
			230° 52'		8.97
			282° 34'	+14°06' → +14°00'	4.86
			262° 20'	+10°49' → +10°43'	4.37
			115° 17'	−14°30' → −14°24'	4.81
			132° 35'	−14°15' → −14°09'	6.15
El. = 350.23				5°56'	
D	E		38° 20'	−6°02' → −5°56'	6.1
			65° 14'	−10°18' → −10°12'	5.64
			86° 55'	−10°40' → −10°34'	5.46
			117° 29'	−5°25' → −5°19'	4.94
			141° 30'	+5°00' → +5°06'	4.51
			163° 44'	+10°01' → +10°16'	6.19
			191° 03'	+15°30' → +15°36'	4.78
			235° 31'	+8°20' → +8°26'	4.6
			262° 03		3.55
			266° 42'		10.94
			285° 24'	−9°25' → −9°19'	6.51

Add 1.2 for F+C

19

Bot Hair	Mid Hair	Rod Int	Vert. Dist.	Elev.	Hor. Dist.
5.0		76	−17.5	363.5	✓ 71.7
5.0		125	−31.6	349.4	✓ 116.5
4.0		210	−52.7	338.3	✓ 194.0
4.0		240.	−55.9	325.1	✓ 226.1
5.0		245	−49.8	331.2	✓ 236.8
4.0		180	−33.7	347.3	✓ 173.4
5.0		125	−30.0	351.0	✓ 117.3
5.0		159	−26.7	354.3	✓ 154.3
4.9		110	−13.0	368.0	✓ 108.4
8.0	8.2	97		377 .8	97.0
4.0		286	+67.8	448.8	272.1
4.0		37	+6.9	387.9	35.7
4.0		81	−19.8	361.1	75.9
5.0		115	−27.5	353.5	108.0
4.0	Inst Hgt. 5.0	210	−21.7	328.5	✓ 207.7
4.0		164.	−28.8	321.4	✓ 158.8
4.0		145	−26.3	323.9	✓ 140.0
4.0		94	−8.8	341.4	✓ 93.2
4.0		51	+4.6	354.8	✓ 50.6
5.0		119	+21.0	371.2	✓ 115.3
4.0		78	+20.5	370.7	✓ 72.4
4.0		60	+8.9	359.1	✓ 58.7
3.0	4.1	55.		356.1	✓ 55.0
10.0	10.3	94		349.9	✓ 94
5.8		151	−19.2	331.0	✓ 148.5

Add 1° for Frc.

Instr at	F sight	B sight	Azi	Vert ∠	T.H	Bot H	Mid Hair	Rd Int	Instr Hgt	Vert. Dist	Hor. Dist	Elev.
El. 350.23 D	E		312°37	-8°06'	4.86	4.0		86	350.23 +5.05 = 355.28	-12.0	84.3 ✓	338.2
			23°22'	-11°20'	4.62	4.0		62		-12.0	59.6 ✓	338.2
			36°44	-8°42'	5.29	4.0		129		-19.2	126.0 ✓	331.0
			210°17'	-4°07'	5.86	4.0		186		-13.1	185.1 ✓	337.1
			3°08'	-2°54'	5.65	4.0		165		-8.4	165.0 ✓	441.8
			2°47'	-7°26'	5.01	4.0		101		-13.1	99.3 ✓	337.1
			325°11'	-6°26'	5.22	4.0		122		-13.7	120.5 ✓	336.5
			329°49'	-3°00'	5.85	4.0		185		-9.9	185.0 ✓	340.3
		?	311°24'	-3°40'	6.10	4.0		210		-13.5	210.0 ✓	336.7
			302°13'	-5°55'	5.71	4.0		171		-17.6	169.2 ✓	332.6
			295°31'	-5°09'	6.26	4.0		226		-20.3	224.2 ✓	329.9
			312°24'	-1°54'	6.72	4.0		272		-9.0	272.0 ✓	341.2
			329°51'	+2°06'	7.20	4.0		320		+11.7	320 ✓	3619
El.			337°07'	+4°46'	7.86	4.0		386		+32.0	383.3 ✓	382.2
			341°39'	+3°33'	6.81	4.0		281		+17.4	281.0 ✓	367.6
			344°06'	+0°09'	6.28	4.0		228		+0.6	228.0 ✓	350.8
		=F	314°43'		9.15	5.0	-7.40	415	347.88		415.0	347.9
El=347.9 F		D	249°09	-9°20'	4.66	4.0		66	352.98	-10.8	64.2 ✓	337.1
			321°38'	-6°54'	5.35	4.0		135		-13.9	133.6 ✓	334.0
			331°30'	-3°44'	6.17	4.0		217		-14.2	216.1 ✓	333.7
			342°13'	+0°52'	7.22	4.0		322		+4.9	322 ✓	352.8
			358°17'	+1°54'	7.30	4.0		330		+11.0	330 ✓	348.9
			2°23'	+3°51'	9.05	4.0		305		+20.5	304 ✓	368.4
			353°58'	+1°46'	6.62	4.0		262		+8.1	262 ✓	356.0
			252°36'		33.6	2.0	2.0	136			136 ✓	351.0

H.I = 353.0

Instr at	F Sight	B Sight	AZIM	Vert A	T.H	B.H	Mid Hair	Rod int	Instr Hgt	Vert Dist	Hor dist	Elev
F		D	9°49'	+5°08'	5.38	4.0		138	5.1/352.98	+12.4	134.0 ✓	360.3
			25°52'	+10°00' 5°41'	4.74	4.0		74		+12.8	71.8 ✓	360.7
			341°18		4.82	4.0	-7.8	82			82 ✓	345.2
			318°20	-7°47'	4.81	4.0		81		-11.0	79.5 ✓	336.9
			292°32	-12°00'	4.38	4.0		38		- 7.9	36.4 ✓	340.0
			71°56'	+15°59'	4.62	4.0		62		+16.6	57.3 ✓	364.5
			127°10'	+9°06'	4.87	4.0		87		+13.7	84.8 ✓	361.6
			161°08	+1°08'	4.69	4.0		69		+1.4	69.0 ✓	349.3
			212°18		11.72	11.0	-12.0	72			72 - ✓	341.0
			238°52	-10°09'	4.47	4.0		47		-8.3	45.5 ✓	339.6
		G =	0°00'	+20°46'	9.20	5.0		4.20		20.3 20.05	420	368.2
G	F		94°32'	7°54'	10.4	10.0	9.85	40	5.1/379.3 HI =		40 ✓	363.5
			101°01	-8°00	4.96	4.0		96		-13.2	94.2 ✓	355.0
			149°12		4.15	4.0	-6.0	15			15. - ✓	367.3
			149°12	-7°33'	4.55	4.0		55		- 7.3	54.1 ✓	360.9
			231°09		5.51	5.0	-4.0	51			51 ✓	369.3
			204°23	-4°05'	5.17	4.0		117		-8.4	116.4 ✓	359.8
			242°15'	+4°50'	5.24	4.0		124		+10.5	123.1 ✓	378.7
			242°14'	+4°14'	7.21	5.0		221		+16.3	219.8 ✓	384.5
			231°27'	+1°34'	6.18	4.0		218		+ 6.0	218.0 ✓	374.2
			225°38'	+0°25'	7.72	5.0		272		+ 2.0	272 ✓	370.2
			238°20'	+3°02'	9.80	7.0		280		+14.8	280 ✓	383.0
			270°03'	+10°10' +10°04	5.1	4.0		110		+19.3	106.6 ✓	387.5
			301°26'	+10°21'	5.12	4.0		112		+20.0	108.4 ✓	388.2
			303°59'	+7°51'	4.65	4.0		65		+8.9	63.8 ✓	377.1

10-16-29

Add 1.8 for F+C

Instr at	F sight	B sight	Azi	Vert A	T.H	L.H	Mid Hair	Rod int	Instr Hgt	Vert dist	Hor Dist.	
El. 368.2									5.1			
G	F		338°47'	+2°46'	5.05	4.0		105		+ 5.1	105	373.3
			306°46'	+10°31'	6.27	4.0		227		+40.9	219.5	409.1
			288°08'	+13°25'	6.90	4.0		190		+43.1	179.8	411.3
		H =	266°43'	+9°22'	6.22	4.0		222		+35.8	216.1 (F+C=1.8)	404.0
H	G		80°12'	-11°22'	5.58	4.0	HI = 409.0	158	5.0	-30.7	151.9	373.3
			98°07'	-8°34'	6.16	4.0		216		-32.0	211.2	372.0
			109°02'	-7°25'	5.79	4.0		179		-23.0	176.0	381.0
			79°07'	-12°07'	5.2	4.0		120		-24.8	114.7	379.2
			46°44'	-12°24'	4.68	4.0		68		-14.3	64.9	389.7
			111°27'	-7°29'	5.0	4.0		100		-13.0	98.3	391.0
			132°17'	-2°39'	5.77	4.0		197		-9.1	197	394.9
			120°36'	-4°22'	6.16	4.0		216		-16.5	214.7	387.5
			109°21'	-6°47'	6.46	4.0		246		-29.0	242.6	375.0
			115°29'	-4°14'	7.16	4.0		316		-23.3	314.3	380.7
			125°48'	-2°32'	6.87	4.0		287		-12.7	287	391.3
			138°52'	-0°12'	6.86	4.0		286		-1.0	286	403.0
			151°03'	+1°34'	6.86	4.0		286		+7.8	286	411.8
			160°27'	+2°28'	7.09	5.0		209		+9.0	209	413.0
			179°08	+3°42'	6.17	4.0		214		+13.8	213.1	417.8
			197°18'	+4°34'	6.28	5.0		128		+10.2	127.2	414.2
			169°39	+3°40'	5.02	4.0		102		+6.6	101.6	410.6
			151°04'	+0°10'00"	5.64	4.0		164		+2.9	164	406.9
			143°39'	-1°41'	4.84	4.0		84		-2.5	84	401.5
			146°41		5.34	5.0	5.1	34			34	403.9
			217°35	+8°34'	5.49	5.0		49		+7.4	47.9	411.4

Instr at	F Sight	B sight	Azim	Vert ∠	TH	B TH	Mid Hair	Rod int.	Instr Hgt	vert. dist	Hor. Dist.	Elev.
El 404.0 H	G		283°34	+8° 25' 31' 16'	4.35	4.0		35	5.9	+ 5.3	34.2 ✓	409.3
			303° 32	+ 5° 01'	4.86	4.0		86		+ 8.0	85.3 ✓	412.0
		I =	129°39'30"	+30°02' 08'	7.91	2.0		5.91		+32.30	589.2	436.0
I	H		104° 20'		2.54	2.0	−2.75	54	4.9/443.9 H.I.		54 ✓	Sta 27+50 BM 438.88 438.2
Adjusted vernier			164° 23	+2° 51'	7.10	5.0		210		+10.5	210 ✓	446.5
			194° 57	+2° 49	7.00	4.0		300		+14.8	300 ✓	450.8
			159° 31	+2° 34'	8.70	6.0		270		+12.1	270 ✓	448.1
			134° 58'	+2° 18'	8.27	6.0		227		+9.1	227 ✓	445.1
			87° 28'	+0° 35'	6.4	4.0		240		+2.5	240 ✓	438.5
			86° 58'		5.45	4.0	−4.7	145			145 ✓	439 .2
			79° 12'		4.95	4.9	−5.4	95			95 ✓	438 .5
			40° 29'	−7° 32'	5.2	4.0		120		−15.7	117.9 ✓	420.3
			13° 34'	−8° 42	5.23	4.0		123		−18.5	120.2 ✓	417.5
			344° 36	−6° 56'	5.32	4.0		132		−15.9	130.1 ✓	420.1
			333° 01	−7° 32'	4.92	4.0		92		−12.1	90.4 ✓	423.9
			116° 42	+2° 38'	5.0	4.0	Sta. 28+00	102		+ 4.7	102 ✓	440.7
			160° 24'	+4° 15'	4.89	4.0		89		+ 6.7	88.5 ✓	442.7
			205° 42'	+2° 46'	5.06	4.0		106		+5.2	106 ✓	441.2
			241° 09'		4.48	3.0	−3.0	148			148 ✓	440 .9
		J =	205° 37'	+2° 37'	5.79	3.0		279		+12.8	279	448.8
J	I		92° 25'		5.15	4.0	−4.6	115	4.2/453.7		115 ✓	449 .1
			89° 38'		7.55	5.0	−4.7	255			255 ✓	449 .0
			124° 48	+ 0° 37'	6.9	4.0		290		+3.1	290 ✓	451 .9
			154° 29'	+1° 12'	6.48	4.0		248		+5.2	248 ✓	454 0
			183° 08'	+1° 18'	6 49	4.0		249		+5.7	249 ✓	454.5

H.I = 453.7 at J

Instr at	F sight	B sight	AZI	Vert A	T.H.	BH	Mid Hair	Rod int	Instr Hgt	Vert dist	Hor dist	Elev
J	I		193° 48'	+1° 19'	5.5	4.0		150		+3.5	150 ✓	452.3
			150° 43'	+1° 13'	5.32	4.0		132		+2.9	132 ✓	451.7
			112° 13'		5.28	4.0	-3.1	128			128 ✓	450.6
B	D		334° 56		4.67	4.0	-2.2	67	5.1 303.6 #1.308.77		67 ✓	306.6
	Head Wash		330° 52		6.02	5.0	-5.5	102			102 ✓	303.3
			319° 04'	+10° 31'	5.79	4.0		179		+4.8	179 ✓	308.5
			329° 56	+4° 00'	6.32	4.0		232		+16.2	230.9 ✓	319.9
			309° 08		8.86	7.0	-8.4	195			195 ✓	300.4
			307° 20		11.08	10.0	-11.5	108			108 ✓	297.3
			307° 20		10.93	10.0	-31.5	93			93 ✓	277.3
			342° 08	+4° 54'	5.78	4.0		178		+15.2	176.7 ✓	318.9
			352° 38'	+5° 50'	5.27	4.0		127		+12.9	125.7 ✓	316.6
			45° 30	+12° 13'	4.76	4.0		76		+15.9	72.6 ✓	319.6
			91° 26'	+8° 50	5.12	4.0		112		+17.1	109.4 ✓	320.8
			107° 11'	+5° 33'	6.77	5.0		177		+17.1	175.4 ✓	320.8
			116° 36'	+3° 24'	12.0	9.5		250		+14.9	249.1 ✓	318.6
			124° 40'	+2° 05'	7.12	5.0		212		+11.4	212 ✓	315.1
			123° 57	+2° 16'	5.38	4.0		138		+5.5	138 ✓	309.2
			119° 09		3.61	3.0	-1.7	61			61 ✓	307.1
			283° 21'	-9° 20'	4.57	4.0		57		-9.3	55.5 ✓	294.4
			171° 18'		11.28	11.0	-10.7	28			28 ✓	298.1
			146° 31'	-6° 21'	5.05	4.0		105		-11.6	103.7 ✓	292.1
			147° 03'	-5° 36'	5.96	4.0	-	196		-19.1	194.1 ✓	284.6
			147° 42'	-4° 57'	6.6	4.0		260		-22.4	258.1 ✓	281.3
			154° 35	-6° 18'	6.66	4.0		266		-29.1	262.8 ✓	274.6

H.I. 308.8

Instr at	F Sight	B Sight	Az	Vert A	T.H	B.H	Mid Hair	Rod int	Instr Hgt	Vert Dist	Hor dist	Elev
B	D		159°22'	+9°18'	6.74	4.0		274		-43.8	266.8 ✓	259.9
			163°36	+10°43'	6.04	4.0	11.0 / 6.0 South	204		-37.5	197.0 ✓	266.2
			171°12'	+12°53'	5.65	4.0		165		-36.1	156.8 ✓	267.6
			179°34'	+14°26'	5.96	4.0		190		-46.1	178.2 ✓	257.6
			198°54'	+13°40'	6.14	4.0	in channel 2' Bank	214		-49.4	202.1 ✓	254.3
			194°04'	+20°51'	7.35	6.0		135		-45.2	117.9	258.5
			236°17'	+20°49'	8.34	7.0	7.7	134		-44.8 / 2.0 = -47.8	117.1 ✓	356.3
			261°31'	+16°52'	8.18	7.0		175		-48.9	160.3 ✓	254.8
			253°01	+18°13'	6.71	5.0	Top of slope 20'W = same elev	171		-51.1	154.3 ✓	252.6
			270°49'	+14°51'	9.44	8.0	8.7	144		-39.5 / -3.5 / 7.6	134.5 ✓	269.2
			274°03'	+14°16'	7.32	5.0		232		-55.6	217.9 ✓	248.1
			279°04	-11°40'	6.94	4.0	+18' 20' North	294		-58.4	282.0 ✓	245.3
			249°03'	-12°01	6.66	4.0		266		-54.4	254.5 ✓	249.3
			231°32'	+3°19'	6.35	4.0	slope breaks into Bank	235		-52.9	222.5 ✓	250.8
			226°57	+12°11'	6.46	4.0	+12° 5' South	246		-51.0	235.0 ✓	252.7
			207°43'	-12°04'	6.42	4.0	+5' 2' South	242		-49.7	231.4 ✓	254.0
			190°04'	-8°59'	6.80	4.0		280		-43.3	273.2 ✓	260.4
			173°24'	-6°45'	7.51	4.0		351		-41.1	346.2 ✓	262.6
			180°40'	-4°46'	7.63	4.0		363		-30.1	360.5 ✓	273.6
			171°36'	-5°17'	7.82	4.0		386		-35.5	382.8 ✓	268.2
			169°27'	-6°05'	7.90	4.0		390		-41.1	385.6 ✓	262.6
			170°23'	-4°27'	8.80	4.0		480		-37.2	477.1 ✓	266.5
			186°55'	-1°29'	9.31	5.0	Bott of wash running up hill	431		-11.2	431 ✓	292.5
			189°57'		10.5	7.0	-11.3	350			350 ✓	297.5
			202°40'		11.25	8.0	-9.2	325			325	298.6

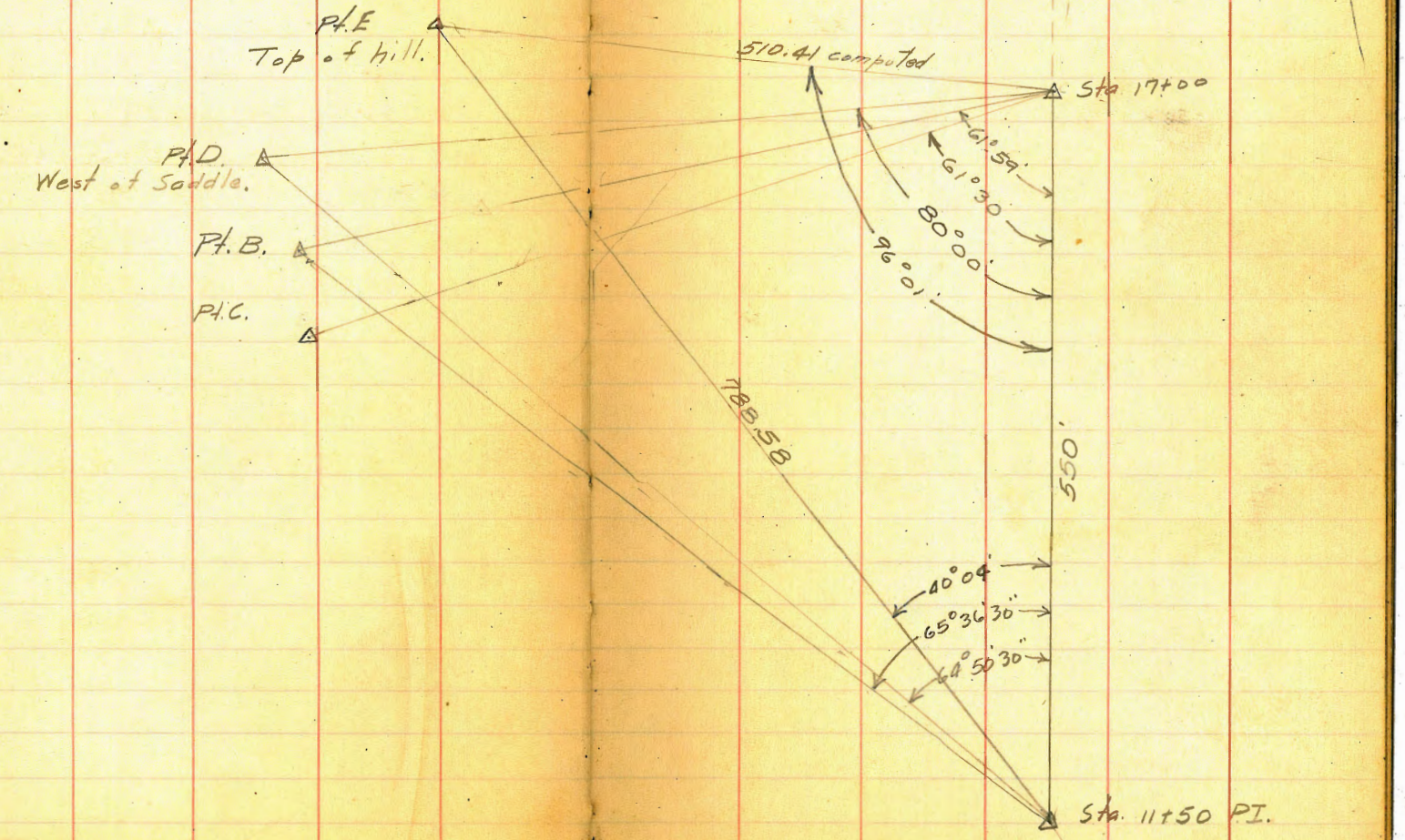
H.I = 3.88

Instr a	F Sight	B Sight	AZimm	Vert A	T.H	B H	Mid H	Rod Int	Instr Hgts	Vert Dist	Hor Dist	Elev
B	D		214° 41'		3.27	0.0	-0.8	327			327 ✓	308.0
			225° 56'		5.45	2.0	-2.8	345			345 ✓	306.0
			235° 47'		7.90	4.0	-5.8	390			390 ✓	303.0
			225° 40	+3° 24'	7.05	4.0		305		-18.1	305 ✓	285.6
			225° 58'	-6° 14'	6.80	4.0		280		-30.3	276.7 ✓	273.4
			215° 11'	-5° 53'	6.75	4.0		275		-28.1	272.1 ✓	275.6
			209° 46'	+4° 46	7.95	4.0		395		+32.7	392.3 ✓	336.4
			205° 16	+6° 47'	8.36	4.0		436		+51.3	429.9 ✓	355.0
			199° 48'	+6° 34'	8.55	4.0		455		+51.8	449.0 ✓	355.5
			195° 29'	+6° 45'	8.78	4.0		473		+55.3	466.5	359.0
			193° 10	+5° 30'	8.3	4.0		430		+41.1	426.0	344.8

Party -
Brems.
Leach.
Gregory

10/16/29.

Triangulation for topog. on preceeding Pages.)



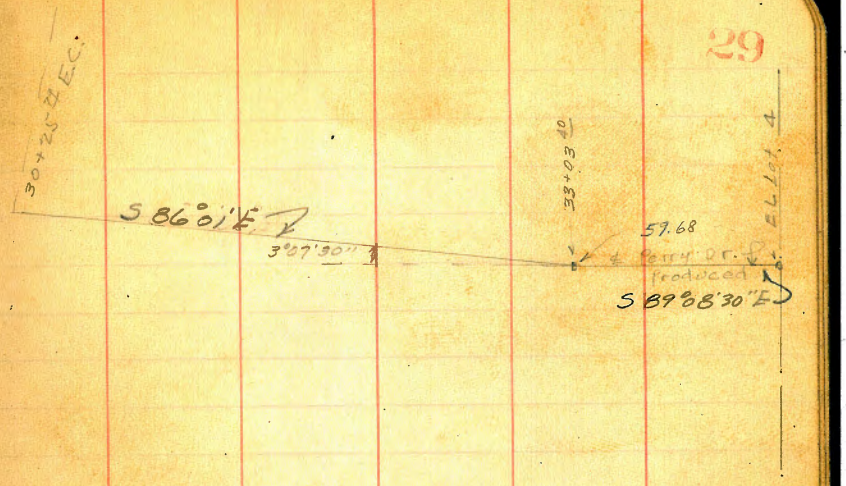
Alignment 54th St Ext.

Sta	Defl	chord
0+00 B.C.		
	Δ = 20°54' Lt.	d = 10°27'
	R = 500	
	T = 92.22	
	L = 182.39	
	2-51-53	49.98
	5-43-47	"
	8-35-40	"
	10-27-00	32.38
0+50		
1+00		
1+50		
1+82.39 E.C.		
2+00		
3+00		
4+00		
5+00		
6+00		
7+00		
8+00		
8+88.20 B.C.		
	Δ = 29°15' Lt.	d = 14-37-30
	R = 500	
	T = 130.47	
	L = 255.25	
	0-38-51	11.30
	3-30-44	49.98
	6-22-37	"
	9-14-31	"
	12-06-25	"
	14-37-30	43.93
9+00		
9+50		
10+00		
10+50		
11+00		
11+43.95 E.C.		
12+00		
13+00		
14+00		
15+00		
15+03.82 E.C.		
15+50		
16+00		
16+50		
17+00		
17+46.28 E.C.		
18+00		
18+31.52 B.C.		
18+50		
19+00		
19+50		
20+00		
20+50		

See book 1402 page 65

Defl	chord
Δ = 27°47' Rt.	
R = 500	
T = 123.66	
L = 242.46	
2-38-45	46.16
5-30-38	49.98
8-22-31	"
11-14-25	"
13-53-30	46.25
Δ = 63°07' Rt.	
R = 500	
T = 307.10	
L = 550.80	
1-03-32	18.48
3-55-25	49.98
6-47-19	"
9-39-12	"
12-31-06	"
15-22-57	"

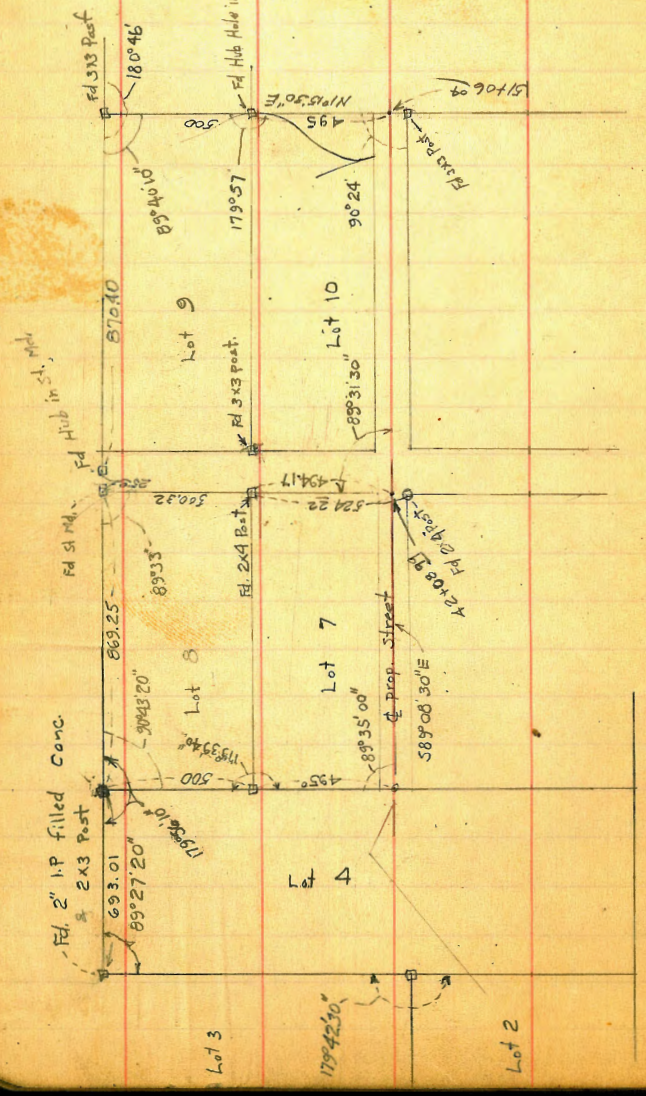
21+00	18-14-53	"
21+50	21-06-46	"
22+00	23-58-40	"
22+50	26-50-33	"
23+00	29-42-27	"
23+50	31-33-30	32.31
23+82.32 E.C.		
24+00		
25+00		
25+65.02 B.C.	Δ = 52°48' Rt	
	R = 500	
	T = 248.20	
	L = 460.77	
	2-00-15	34.97
26+00	4-52-08	49.98
26+50	7-44-01	"
27+00	10-35-54	"
27+50	13-27-47	"
28+00	16-19-40	"
28+50	19-11-33	"
29+00	22-03-27	"
29+50	24-55-21	"
30+00	26-24-00	25.79
30+25.77 E.C.		
31+00		



32+00		
33+00		
33+03.40 ∠		Δ = 3°07'30" Lt.
33+63.08		E.L. Lot 4
34+78.98		Int. with Center
36+00 P.O.T.		
40+00 P.O.T.		
51+06.04 ∠ E.L. Marcellena Tract.		Δ = 0°44'00" Lt.
57+00 P.O.T.		
62+60.50 ℄ College Way		
67+00 P.O.T.		
72+90.58 E.L. Lot 21 (Approx.)		

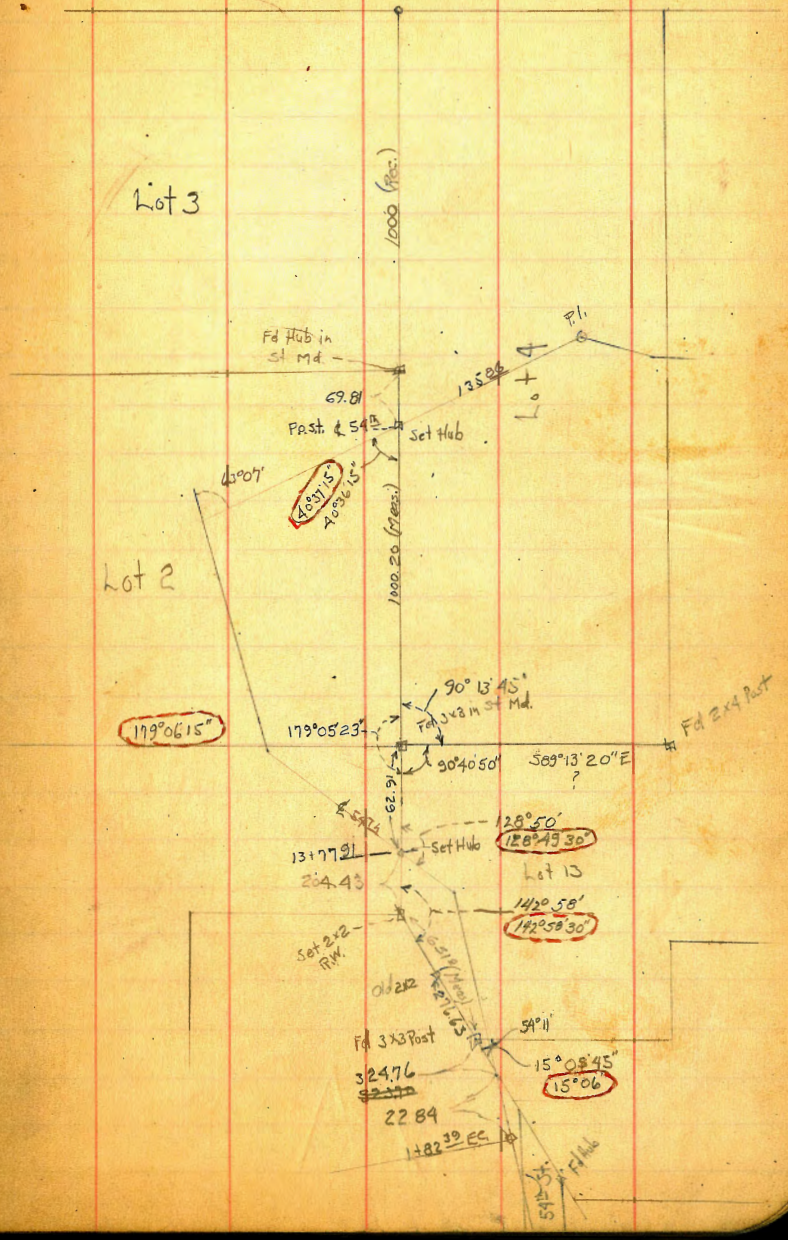
11/21/29
Loudin
Copied By TGH.
J-26-30

Ties of 54th St. ext. to Lot Lines of Morcelleng Tract.



11/21/29 Loudon

30



X Sec. proposed Extension of 54th St

N. of Collier. 80' St 10' obs 40' Rway.

B.M	1.39	418.82		417.43
0+00 B.C.				
W.L			5.1	413.7
c b			5.3	413.5
¼			7.1	411.7
℄			6.9	411.9
¼			6.9	411.9
c b			6.9	411.9
E L			6.9	411.9
0+28				
E L.			7.9	410.9
c b			7.7	411.1
¼			7.5	411.3
℄			7.4	411.4
¼			7.5	411.3
c b			7.4	411.4
W L			7.1	411.7
0+50				
W.L			7.2	411.6
c b			7.4	411.4
¼			8.2	410.6
℄			8.2	410.6
¼			8.3	410.5
c b			8.6	410.2
E L			8.9	409.9
5 E			9.9	408.9

East bdl Redford Ave

50'ric se cor Colle & Collier

10/1/29 Loulon. Allign. R 28.

418.82

East = Rt. West = Lt.

33

1+00		
20 E	20.7	398.1
10 E	17.2	401.6
E L	14.5	404.3
+5	12.6	406.2
c b	11.6	407.2
+5	10.2	408.6
¼	9.2	409.6
℄	9.2	409.6
¼	8.5	410.3
c b	8.5	410.3
W L	7.8	411.0
1+50		
W.L	8.6	410.2
c b	9.4	409.4
¼	10.0	408.8
℄	10.5	408.3
+7	11.0	407.8
¼	11.6	407.2
c b	13.8	405.0
E L	16.7	402.1
20 E	22.0	396.8

1+82.39 EC			41882	
20 E			20.7	39 81
10 E			17.6	401.2
E L			15.5	403.3
+5			14.1	404.7
cb			13.0	405.8
¼			11.3	407.5
℄			10.6	408.2
¼			10.0	408.8
cb			9.7	409.1
+5			9.2	409.6
w L.			8.7	410.1
10 W			8.4	410.4
2+00				
20 W			8.4	410.4
W.L.			8.9	409.9
cb			9.3	409.3
+2			9.9	408.9
¼			10.3	408.5
℄			10.7	408.1
¼			11.2	407.6
cb			12.3	406.5
E L			13.3	405.5
10 E			15.6	403.2
20 E			18.6	400.2

2+50			41882	
20 E			16.3	402.5
15 E			14.2	404.6
5 E			12.2	406.6
E L			11.9	406.9
cb			11.4	407.4
¼			11.1	407.7
℄			10.9	407.9
¼			10.9	407.9
cb			11.2	407.6
+7			10.9	407.9
W L			10.2	408.6
10 W			9.8	409.0
2+85				
10 W			11.2	407.6
5 W			11.5	407.3
4 W			12.5	406.3
W.L.			12.7	406.1
+8			12.8	406.0
+4			12.2	406.6
cb			12.1	406.7
¼			13.1	405.7
℄			13.6	405.2
T.P.	0.61	406.53	12.90	405.92
¼			2.0	404.5
cb			2.3	404.2
E.L.			3.4	403.1

2+85	406.53 ✓			
20 E		7.1	399.4	
3+20				
20 E		12.8	393.7	
E.L.		12.1	394.4	
cb		12.1	394.4	
1/4		12.2	394.3	
℄		11.8	394.7	
1/4		10.6	395.9	
cb		9.1	397.4	
+5		7.9	398.6	
w.L.		7.4	399.1	
6 W		6.1	400.4	
7 W		5.3	401.2	
10 W		4.5	402.0	
3+43				
15 W		9.3	397.2	
10 W		11.3	395.2	
5 W		12.2	394.3	
w.L.		12.4	394.1	
+5		14.8	391.7 ✓	
T.P	0.24	393.72 ✓	13.05	393.48
cb			3.1	390.6
1/4			4.5	389.2
℄			5.7	388.0
1/4			6.6	387.1
cb			7.0	386.7

3+43	393.72 ✓			
E.L.		7.3	386.4	
20 E		9.9	383.8	
3+71				
30 E		19.7	374.0	
E.L.		20.2	373.5	
cb		20.6	373.1	
+8		20.1	373.6	
1/4		19.3	374.4	
℄		17.3	376.4	?
1/4		15.4	378.3	
cb		12.5	381.2	
w.L.		9.2	384.5	
3 W		8.7	385.0	
10 W		4.5	389.2	
18 W		4.0	389.7	
20 W		2.6	391.1	
3+83				
20 W		5.0	388.7	
14 W		4.8	388.9	
5 W		10.0	383.7	
W.L.		12.2	381.5	
+5		14.0	379.7	
cb		16.7	377.0	
+5		18.4	375.3	
1/4		19.1	374.6	
℄		22.7	371.0	

3+83	393.72			
¼			25.1	368.6
cb.			26.0	367.7
E.L.			25.6	368.1
20E			26.2	367.5
30E			26.0	367.7
4+00				
40E			38.1	355.6
20E			37.4	356.3
E.L.			35.5	358.2
cb			34.4	359.3
+6			34.4	359.3
¼			32.9	360.8
℄			29.7	364.0
¼			25.1	368.6
cb			20.2	373.5
W.L			15.2	378.5
12W			10.5	383.2
17W			7.1	386.6
20W			7.0	386.7
T.P.	0.00	381.13	12.59	381.13

4+43	381.13			
20W			+0.8	381.9
W.L			7.0	374.1
cb			11.2	369.9
¼			16.6	364.5
℄			21.5	359.6
¼			26.6	354.5
cb			30.2	350.9
E.L.			32.9	348.2
20E			40.6	340.5
29E			45.9	335.2
39E			45.1	336.0
50E			47.4	333.7
X 4+70				
50E			52.0	329.1
20E			45.0	336.1
E.L.			39.0	342.1
cb			35.2	345.9
¼			32.1	349.0
℄			29.1	352.0
¼			25.6	355.5
cb			21.3	359.8
W.L			17.6	363.5
20W			7.9	373.2

5+00	381.13		
20W		3.2	377.9
W.L		9.9	371.7
cb		13.3	367.8
1/4		17.5	363.6
℄		21.4	359.7
1/4		24.8	356.3
cb		28.3	352.8
E.L.		31.6	349.5
20E		38.0	343.1
50E		48.6	332.5
5+40			
50E		44.0	337.1
20E		32.7	348.4
E.L.		25.0	356.1
cb.		21.0	360.1
1/4		16.5	364.6
℄		12.4	368.7
1/4		8.2	372.9
cb		4.0	377.1
W.L		0.8	380.3
20W		+4.0	385.1

5+60	381.13		
20W		+3.9	385.0
W.L		0.0	381.1
cb		2.9	378.2
1/4		6.2	374.9
℄		11.0	370.1
1/4		16.2	364.9
cb		19.9	361.2
EL		25.0	356.1
30E		37.1	344.0
6+10			
30E		40.2	340.9
EL		28.6	352.5
cb		24.6	356.5
1/4		19.3	361.8
℄		15.5	365.6
1/4		11.5	369.6
Cb		7.1	374.0
W.L		2.8	378.3
20W		+1.8	379.3

6+55	381.13		
20W		1.4	379.7
W.L.		8.7	372.4
cb		13.1	368.0
¼		17.2	363.9
℄		21.4	359.7
¼		25.6	355.5
cb		29.8	351.3
E.L.		33.2	347.9
30E		45.0	336.1
X 7+00			
30E		45.4	335.7
E.L.		34.9	346.2
cb		30.5	350.6
¼		26.3	354.8
℄		22.3	358.8
¼		17.9	363.2
cb		13.2	367.9
W.L.		8.1	373.0
20W		1.8	379.3

7+50	381.13		
20W		1.1	380.0
W.L.		5.4	375.7
cb		8.2	372.9
¼		12.3	368.8
℄		18.0	363.1
¼		21.9	359.2
cb		26.1	355.0
E.L.		30.2	350.9
30E		41.5	339.6
8+00			
30E		42.0	339.1
E.L.		32.0	349.1
cb		28.3	352.8
¼		24.6	356.5
℄		21.0	360.1
¼		16.7	364.4
cb		13.8	367.3
W.L.		9.9	371.2
20W		2.5	378.6
T.P.	1.80	377.13	5.80 375.33

8+50	377.13		
20W		2.5	374.6
W.L.		9.3	367.8
cb		12.9	364.2
1/4		15.9	361.2
℄		19.0	358.1
1/4		22.3	354.8
cb		25.2	351.9
E.L.		28.8	348.3
30E		38.4	338.7
8+88.20 B.C.			
30E		39.5	337.6
E.L.		30.5	346.6
cb		27.4	349.7
1/4		23.0	354.1
℄		21.0	356.1
1/4		17.0	360.1
cb		14.3	362.8
W.L.		10.3	366.8
20W		3.0	374.6

9+50	377.13		
20W		3.0	374.1
W.L.		10.6	366.5
cb		14.5	362.6
1/4		18.3	358.8
℄		21.8	355.3
1/4		25.6	351.5
cb		28.5	348.6
E.L.		31.7	345.4
30E		39.4	337.7
10+00			
30E		43.2	333.9
E.L.		34.6	342.5
cb		31.1	346.0
1/4		28.0	349.1
℄		24.7	352.4
1/4		20.6	356.5
cb		17.1	360.0
W.L.		14.0	363.1
20W		7.0	370.1
TP	0.23	364.12	12.44 364.67

10+50		364.92		
20 W			3.3	361.6
W.L.			10.4	354.5
Cb			13.3	351.6
1/4			16.8	348.1
℄			20.3	344.6
1/4			23.7	341.2
cb			27.0	337.9
E.L.			30.7	334.2
30 E			40.5	324.4
11+00				
30 E			50.2	314.7
E.L.			39.0	325.9
cb			36.0	328.9
1/4			32.9	332.0
℄			28.7	336.2
1/4			24.0	340.9
cb			19.8	345.1
W.L.			16.2	348.7
20 W			7.3	357.6
T.P.	1.02	358.06	12.88	352.04

11+43.95 E.C.		353.06		
30 W			+3.4	356.5
W.L.			8.8	344.3
cb			12.5	340.6
1/4			17.0	336.1
℄			21.0	332.1
1/4			24.8	328.3
cb			29.7	323.4
E.L.			32.5	320.6
40 E			52.4	300.7
11+69				
40 E			53.8	299.3
20 E			47.8 0	305.1
E.L.			37.5	315.6
cb			32.8	320.3
1/4			29.0	324.1
℄			23.5	329.6
1/4			18.7	334.4
cb			14.4	338.7
W.L.			9.8	343.3
30 W			+5.0	348.1

12+00		353.06		
30 W			0 0	353.1
W.L.			13.6	339.5
T.P	0 31	340.97	12.40	340.66
cb			5.7	335.3
¼			10.2	330.8
℄			14.4	326.6
¼			20.0	321.0
cb			22.9	318.1
E.L.			28.0	313.
40 E			32.9	308.1
12+44				
40 E			31.0	310
E.L.			17.5	323.5
cb			11.7	329.3
¼			6.8	334.2
℄			1.6	339.4
¼			+2.8	343.8
cb			+7.4	348.4
W.L.			+10.5	351.5
20 W			+18.1	359.1
30 W			+22.5	363.5
T.P	3.50	343.34	1.13	339.84

12+80		348.34		
30 W			+23.2	366
13 W			+16.8	360.1
10 W			+15.0	358.3
W.L.			+12.0	355.3
cb			+9.0	352.3
¼			+3.6	346.9
℄			1.3	342.0
¼			6.9	336.4
cb			12.6	330.7
E.L.			17.9	325.4
20 E			31.7	311.6
40 E			45.5	297.8
13+00				
40 E			44.7	298.6
E.L.			22.0	321.3
cb			16.1	327.2
¼			11.4	331.9
℄			6.2	337.1
¼			0.2	343.1
cb			+4.2	347.5
W.L.			+7.5	350.8
30 W			+20.8	364.1

41

45
1.3
32
1.3
1.7
1.6
06

13+38		343.34 ✓		
30W			+9.3	352.6
W.L.			7.4	335.9
cb			12.4	330.9
¼			17.4	325.9
&			22.6	320.7
¼			27.3	316.0
cb			35.9	307.4
E.L.			42.0	301.3
10E			46.0	297.3
40E			57.2	286.1
13+70				
40E			60.7	282.6
30E			57.2	286.1
E.L.			38.1	305.2
cb			29.8	313.5
¼			23.5	319.8
&			18.2	325.1
¼			14.2	329.1 ✓
T.P.	0.18	330.80 ✓	12.72	330.62
cb			+4.7	335.5
W.L.			+10.0	340.8
9W			+15.0	345.8
30W			+20.7	351.5

14+00		330.80 ✓		
30W			+16.5	547.3
13W			+13.6	344.4
W.L.			+7.4	338.2
cb			+2.2	333.0
¼			3.7	327.1
&			9.9	320.9
¼			14.3	316.5
cb			20.9	309.9
E.L.			29.2	301.6
40E			56.8	274.0
55E			62.3	268.5
14+30				
55E			62.4	268.4
E.L.			39.0	291.8
cb			32.2	298.6
¼			26.0	304.8
&			20.0	310.8 ✓
T.P.	0.15	317.93 ✓	13.02	317.78
¼			1.5	316.4
cb			+1.7	319.6
W.L.			+5.6	323.5
30W			+13.0	330.9

14+65		317.93		
30 W			0.4	317.5
W.L.			8.9	309.0
cb			11.6	306.3
¼			16.9	301.0
℄			22.2	295.7
T.P.	0.05	305.04	12.94	304.99
¼			15.1	289.9
cb			20.5	284.5
E.L.			24.3	280.7
40 E			42.0	263.0
15+03 82 BC				
40 E			45.3	259.7
E.L.			34.4	270.6
cb			30.4	274.6
¼			26.5	278.5
℄			23.0	282.0
¼			19.7	285.3
cb			13.9	291.1
W.L.			9.9	295.1
30 W			+5.2	310.2
T.P.	0.02	292.34	12.72	292.32
B.M.			10.03	282.31 Hub ℄ 15+03 82 BC
T.P.	0.38	280.37	12.35	279.99
T.P.	0.56	267.99	12.94	267.43

15+50		267.99		
30 W			+21.7	289.7
W.L.			+9.3	277.3
cb			+6.5	274.5
¼			+2.2	270.2
℄			−1.6	266.4
¼			6.2	261.8
cb			7.7	260.3
E.L.			8.5	259.5
5 E			10.3	257.7
15 E			9.4	258.6
20 E			11.0	257.0
50 E			10.3	257.7
60 E			10.1	
65 E			11.7	
75 E			11.5	
100 E	15+80		9.3	
80 E			9.3	
90 E			12.7	
55 E			12.3	255.7
27 E			12.0	256.0
20 E			11.2	256.8
E.L.			11.6	256.2
cb			12.4	255.6
¼			12.3	255.7
+5			11.0	257.0
℄			9.4	258.6
¼			7.6	260.4
cb			3.3	264.7
W.L.			+1.1	269.1
30 W.			+8.4	274.4

16+15	267.99			
50 W			+0.4	268.4
27 W			4.1	263.9
19 W			14.1	253.9
W.L.			14.0	254.0
℄			13.8	254.2
¼			13.8	254.2
℄		59	13.9	254.1
¼			12.6	255.4
℄			12.0	256.0
E.L.			11.8	256.2
60 E			10.2	257.8
70 E			9.0	
80 E			5.5	
16+37				
60 E			8.1	259.9
50 E			10.1	257.9
E.L.			12.0	256.0
℄			12.2	255.8
¼			12.5	255.5
℄			13.0	255.0
¼			13.3	254.7
℄			14.0	254.0
W.L.			14.0	254.0
7 W			13.3	254.7
50 W			16.2	251.8
57 W			4.2	263.8

16+88		267.99			
90 W			18.4		
70 W			18.2		
60 W			17.6	250.4	
55 W			15.5	252.5	
W.L.			14.2	253.8	
℄			13.9	254.1	
¼			13.3	254.7	
℄			12.8	255.2	
¼			12.5	255.5	
℄			12.5	255.5	
E.L.			12.1	255.9	
38 E			9.8	258.2	
50 E			7.7	260.3	
B.M.	10.19	278.05	0.13	267.86	Hub ℄ E.C. 17+46 2.8
17+25					
40 E			8.1	269.9	
20 E			11.6	266.4	
E.L.			17.5	260.6	
℄			19.1	258.9	
¼			20.5	257.5	
℄			21.3	256.8	
℄			21.9	256.1	
℄			22.7	255.3	
W.L.			23.6	254.5	
50 W			25.3	252.7	
70 W			26.5		
90 W			27.8		

17+46.28 E.L.	278.05 ✓			
90 W		26.4		
50 W		23.7	254.3	
15 W		23.3	254.7	
W.L.		17.7	260.4	
Cb		14.0	264.0	
¼		11.9	266.1	
℄		10.2	267.9	
¼		7.8	270.2	
Cb		6.3	271.7	
E.L.		4.1	274.0	
20 E		0.7	277.3	
17+67				
20 E		+8.0	286.0	
E.L.		+5.3	283.4	
Cb		+3.7	281.7	
¼		+2.9	280.9	
℄		+0.6	278.7	
¼	278!	0.5	277.5	
Cb		3.9	274.2	
W.L.		7.6	270.5	
30 W		17.5	260.6	
50 W		18.6	259.5	

17+87		278.05 ✓		
50 W			11.2	266.8
40 W			12.1	265.9
32 W			10.9	267.2 ✓
T.P.	12.21	290.10 ✓	0.16	277.87
15 W			14.8	275.3
W.L.			11.1	279.0
Cb			8.3	281.8
¼			6.3	283.8
℄			5.2	284.9
¼			3.5	286.6
Cb			2.5	287.6
E.L.			1.8	288.3
20 E			+1.0	291.1 ✓
T.P.	12.76	302.80 ✓	0.06	290.04
18+31.52 B.C.				
20 E			+2.8	305.6
E.L.			0.8	302.0
Cb			2.5	300.3
¼			4.3	298.5
℄			6.6	296.2
¼			10.6	292.2
Cb			16.1	286.7
W.L.			23.3	279.5
5 W			25.5	277.3
15 W			20.4	282.4
25 W			18.5	284.3
45 W			18.6	284.2

18+70		302.80 ✓		
30 W			1.8	301.0
15 W			2.5	300.3
W.L.			7.6	295.2
+7			10.7	292.1
cb			8.8	294.0
¼			1.9	300.9
T.P.	13.07	315.66 ✓	0.21	302.59 ✓
Δ sta.			12.01	303.65 (303.67)
℄			11.5	304.2
¼			9.5	306.2
cb			8.2	307.5
E.L			7.0	308.7
20 E			4.2	311.5
19+00				
20 E			+1.3	317.0
E.L			1.4	314.3
cb			2.5	313.2
¼			3.9	314.8
℄			5.8	309.9
¼			7.1	308.6
cb			7.1	308.6
W.L.			6.4	309.3
20 W			7.4	308.3
T.P.	11.98	326.38 ✓	1.26	314.40

19+50		326.38 ✓		
20 W			7.7	318.7
W.L			7.5	318.9
cb			7.5	318.9
¼			7.7	318.7
℄			7.3	319.1
¼			6.9	319.5
cb			6.1	320.3
E.L			5.5	320.9
20 E			4.1	322.3 ✓
T.P.	12.63	338.82 ✓	0.19	326.19
20+00				
20 E			10.3	328.5
E.L			11.4	327.4
cb			12.1	326.7
¼			12.5	326.3
℄			12.7	326.1
¼			12.9	325.9
cb			12.7	326.1
W.L			12.5	326.3
20 W			11.8	327.0

20+50	338.82			
20W			4.4	334.4
W.L.			6.0	332.8
cb			6.2	332.6
1/4			6.2	332.6
℄			6.3	332.5
1/4			6.4	332.4
cb			6.0	332.8
E.L.			5.3	333.5
20E			3.9	334.9
TP:	12.19	350.41	0.60	338.22
21+00				
20E			10.5	339.9
E.L.			11.9	338.5
cb			12.5	337.9
1/4			13.2	337.2
℄			13.7	336.7
1/4			13.9	336.5
cb			12.8	337.6
W.L.			12.4	338.0
20W			11.1	339.3

21+50	350.41			
20W			11.7	338.7
W.L.			12.2	338.2
cb			13.0	337.4
1/4			12.7	337.7
℄			12.0	338.4
1/4			11.4	339.0
cb			10.7	339.7
E.L.			10.0	340.4
20E			7.8	342.6
22+00				
20E			5.3	345.1
E.L.			8.6	341.8
cb			10.0	340.4
1/4			11.1	339.3
℄			12.0	338.4
1/4			12.8	337.6
cb			13.9	336.5
W.L.			14.5	335.9
20W			15.6	334.8

22+50	350.41			
20W			16.0	334.4
W.L.			14.3	336.1
cb			12.3	338.1
1/4			10.4	340.0
℄			9.7	340.7
1/4			8.7	341.7
cb			7.3	343.1
E.L.			5.9	344.5
20E			2.5	347.9
23+00				
20E			+1.3	351.7
8E			0.2	350.2
E.L.			2.5	347.9
cb			4.2	346.2
1/4			5.8	344.6
℄			7.4	343.0
1/4			8.8	341.6
cb			10.0	340.4
W.L.			11.0	339.4
24W			12.9	337.5
35W			15.7	334.7

23+50	350.41			
30W			7.7	342.7
W.L.			8.8	341.6
cb			7.4	343.0
1/4			6.0	344.9
℄			4.6	345.8
1/4			2.8	347.6
cb			1.1	349.3
E.L.			+0.9	351.3
20E			+5.0	355.4
T.P.	11.80	361.76	0.45	349.96
23+82.32 ~~E.C.~~ E.C.			South = Rt	North = Lt.
20S			4.0	357.8
S.L.			8.2	353.6
cb			10.8	351.0
1/4			12.8	249.0
℄			14.1	347.7
1/4			15.0	346.8
cb			12.8	344.0
N.L.			19.0	342.8
10N			19.4	342.4
30N			13.5	338.3

24+33	361.76		
30N		23.0	338.8
N.L.		19.0	342.8
cb		17.2	344.6
1/4		15.9	345.9
℄		11.7	350.1
1/4		9.5	352.3
cb		7.7	354.1
S.L.		5.4	356.4
10 S		3.0	358.8
20 S		0.9	360.9
24+83			
20 S		+4.6	366.4
S.L.		2.0	359.8
cb		5.0	356.8
1/4		7.6	354.2
℄		9.7	352.1
1/4		12.3	349.5
cb		15.1	346.7
N.L.		17.0	344.8
30N		23.4	338.4

25+25	361.76		
30N		23.0	338.8
N.L.		15.0	346.8
cb		12.9	348.9
1/4		10.0	351.8
℄		7.5	354.3
1/4		4.2	357.6
cb		1.0	360.8
S.L.		+2.7	364.5
20 S		+10.5	372.3
T.P.	12.75	373.05	1.46	360.30
25+65 0^{2} B.C.			
20 S			+0.8	373.8
S.L.			7.0	366.1
cb			10.6	362.5
1/4			14.2	358.9
℄			17.2	355.9
1/4			20.2	352.9
cb			22.8	350.3
N.L.			25.0	348.1
30N			32.0	341.1

26+00	373.05		
30N		29.5	343.6
10N		23.0	350.1
N.L.		21.3	351.8
cb		18.5	354.6
¼		16.7	356.4
℄		14.8	358.3
¼		12.0	361.1
cb		8.9	364.2
S.L.		5.6	367.5
20S		+2.8	375.9
26+50			
20S		+4.1	377.2
S.L.		2.3	370.8
cb		5.3	367.8
¼		8.2	364.9
℄		10.8	362.3
¼		13.9	359.2
cb		15.6	357.5
N.L.		18.1	355.0
30N		24.8	348.3

27+00	373.05		
30N		18.9	354.2
N.L		11.0	362.1
cb		8.9	364.2
¼		6.4	366.7
℄		4.4	368.7
¼		1.4	371.7
cb		+1.0	374.1
S.L		+3.3	376.4
20S		+9.0	382.1
27+50			
20S		+16.6	389.6
S.L		+11.2	384.3
cb		+8.0	381.1
¼		+5.0	378.1
℄		+2.3	375.4
¼		0.2	372.9
cb		3.1	370.0
N.L		5.1	368.0
30N		11.5	361.6

28+00		373.05 ✓		
30N			4.4	368.7
T.P.	11.91	384.11 ✓	0 8.5	372.20 ✓
N.L.			8.6	375.5
cb			5.9	378.2
1/4			3.0	381.1
℄			0.6	383.5 ✓
T.P.	12.33	396.38 ✓	0 0.6	384.05
1/4			10.5	385.9
cb			7.5	388.9
S.L.			5.4	391.0
20S			+0.1	396.5
28+50				
20S			+9.0	405.4
S.L.			+3.1	399.5
cb			0.5	395.9
1/4			4.2	392.2
℄			7.1	389.3
1/4			9.1	387.3
Cb			11.0	385.4
N.L.			14.1	382.3
30N			21.0	375.4

29+00		396.38 ✓		
30N			18.0	378.4
N.L.			10.2	386.2
cb			7.5	388.9
1/4			4.2	392.2
℄			1.6	394.8
1/4			+1.4	397.8
cb			+4.1	400.5
S.L.			+7.1	403.5
20S			+12.4	408.8
29+50				
20S			+10.6	407.0
S.L.			+6.0	402.4
cb			+3.4	399.8
1/4			+1.0	397.4
℄			1.5	394.9
1/4			4.1	392.3
cb			6.3	390.1
N.L.			8.8	387.6
30N			16.2	380.2

30+00	396.38		
30N		17.7	378.7
N.L.		10.0	386.4
cb		7.2	389.2
¼		4.9	391.5
℄		2.4	394.0
¼		+0.1	396.5
cb		+1.9	398.3
S.L.		+3.9	400.3
20S		+8.2	404.6
30+25 29	E.C.		
20S		+8.4	404.8
S.L.		+4.6	401.0
cb		+1.6	398.0
¼		0.9	395.5
℄		2.8	393.6
¼		4.7	391.7
cb		7.4	389.0
N.L.		10.2	386.2
30N		17.7	378.7

30+60	396.38		
30N		17.4	379.0
N.L.		9.8	386.6
cb		7.4	389.0
¼		5.3	391.1
℄		3.0	393.4
¼		0.0	396.4
cb		+2.0	398.4
S.L.		+3.3	399.7
20S		+6.4	402.8
T.P. 12.74	404.44	4.68	391.20
31+00			
20S		1.3	403.1
SL		5.1	399.3
cb		6.9	397.5
¼		8.6	395.8
℄		11.0	393.4
¼		13.1	391.3
cb		14.7	389.7
N.L		17.1	387.3
30N		23.1	381.3

31+50	404.44 ✓			
30N			21.2	383.2
N.L.			15.8	388.6
cb			14.1	390.3
¼			11.2	393.2
℄			9.9	394.5
¼			7.7	396.7
cb			6.0	398.4
S.L.			3.6	400.8
20S			+0.6	405.0
32+00				
20S			+1.5	405.4
S.L.			2.2	402.2
cb			4.0	400.4
¼			5.6	398.8
℄			7.6	396.8
¼			10.0	394.4
cb			11.9	392.5
N.L.			13.7	390.7
16N			15.9	388.5
30N			19.8	384.6

32+50		404.44 ✓		
30N			14.9	389.5
N.L.			9.6	394.8
cb			7.8	396.6
¼			5.6	398.8
℄			3.1	401.3 ✓
T.P.	12.91	415.08 ✓	2.27	402.17
¼			12.3	402.8
cb			14.3	403.8
S.L.			9.2	405.9
20S			5.5	409.6
33	403.40	L		
20S			0.5	414.6
S.L.			2.7	412.4
cb			5.0	410.1
¼			7.2	407.9
℄			9.3	405.8
¼			10.8	404.3
cb			12.4	402.7
N.L.			13.8	401.3
20N			16.0	399.1
30N			18.3	396.8

EL. Lot 4

33+63.08		415.08 ✓			
30N			8.5	406.6	
N.L.			5.0	410.1	
cb			3.0	412.1	
1/4			1.1	414.0	
℄	12.72	427.72 ✓	0.08	415.00	BM. Hub ℄
1/4			12.0	415.7	
cb			12.0	415.7	
S.L.			11.5	416.2	
20S			13.5	414.2	
34+03					
20S			17.3	410.4	
S.L.			14.8	412.9	
cb			13.9	413.8	
+6			12.6	415.1	
1/4			12.2	415.5	
℄			12.1	415.6	
1/4			11.3	416.4	
cb			11.1	416.6	
+1			10.5	417.2	
N.L.			11.0	416.7	
20N			12.5	415.2	

34+43		427.72 ✓			
20N			7.7	420.0	
3N			9.0	418.7	
N.L.			9.6	418.1	
+2			10.2	417.5	
cb			10.6	417.1	
1/4			11.1	416.6	
℄			12.2	415.5	
+7			14.6	413.1	
1/4			15.1	412.6	
cb			16.3	411.4	
S.L.			17.1	410.6	
20S			21.8	405.9	
34+80					
20S			25.0	402.7	
S.L.			20.0	407.7	
cb			16.8	410.9	
1/4			13.9	413.8	
℄			12.2	415.5	
+3			11.5	416.2	
1/4			8.1	419.6	
cb			7.9	419.8	
N.L.			7.0	420.7	
3N			6.7	421.0	
8N			5.0	422.7	
20N			3.7	424.0	

35+11		427.72		
10 N			2.3	425.4
6 N			2.4	425.3
4 N			3.8	423.9
N.L.			4.1	423.6
eb			4.7	423.0
¼			5.7	422.0
+3			5.4	422.3
+6			7.5	420.2
℄			8.5	419.2
¼			10.9	416.8
Cb			13.6	414.1
S.L.			16.7	411.0
20 S			22.9	404.8
T.P	11.66	435.49	3.89	423.83
35+50				
10 S			13.8	421.7
S.L.			12.1	423.5
cb			11.1	424.4
¼			9.2	426.3
+5			8.3	427.2
℄			7.8	427.7
¼			7.2	428.3
eb			7.6	427.9
+8			7.4	428.1
N.L.			6.4	429.1
10 N			5.7	429.8

36+00		435.49		
10 N			0.1	435.4
N.L.			0.2	435.3
cb			0.6	434.9
+2			1.4	434.1
¼			1.5	434.0
℄			1.8	433.7
¼			1.9	433.6
eb			2.3	433.2
S.L.			2.9	432.6
10 S			4.0	431.5
T.P	12.86	448.18	0.17	435.32
36+50				
10 S			10.5	437.7
S.L.			10.3	437.9
cb			9.7	438.5
+5			9.5	438.7
+6			10.1	438.1
¼			9.9	438.3
℄			10.4	437.8
¼			10.4	437.8
cb			10.1	438.1
N.L.			9.9	438.3
10 N			9.2	438.0

37+00	448.18		
10 N		5.0	443.2
N.L.		4.7	443.5
eb		5.4	442.8
1/4		6.3	441.9
℄		6.7	441.5
1/4		6.4	441.8
eb		6.4	441.8
S.L.		6.5	441.7
10 S		6.8	441.4
37+50			
10 S		3.9	444.3
S.L.		3.6	444.6
eb		3.0	445.2
1/4		2.8	445.4
℄		3.4	444.8
1/4		3.3	444.9
eb		3.1	445.1
N.L.		3.1	445.1
10 N		2.9	445.3

38+00		448.18		
10 N			1.0	447.2
T.P.	11.19	458.95	0.42	447.76
N.L.			10.9	448.1
eb			10.3	448.7
1/4			11.0	448.0
+3			12.1	446.9
℄			12.0	447.0
1/4			11.8	447.2
eb			11.7	447.3
S.L.			11.9	447.1
10 S			12.2	446.8
38+50				
10 S			10.4	448.6
S.L.			10.2	448.8
eb			9.5	449.5
1/4			9.6	449.4
℄			9.8	449.2
1/4			9.9	449.1
eb			10.0	449.0
N.L.			9.8	449.2
10 N			9.9	449.1

39+00	458.95		
10 N.		7.8	451.2
N.L.		7.9	451.1
eb		8.2	450.8
1/4		8.3	450.7
℄		7.9	451.1
1/4		7.9	451.1
eb		8.3	450.7
S.L.		8.0	451.0
10 S		8.5	450.5
39+50			
10 S		7.6	451.4
S.L.		7.3	451.7
eb		7.2	451.8
1/4		6.7	452.3
℄		6.4	452.6
+5		6.4	452.6
+6		5.8	453.2
1/4		5.5	453.5
eb		5.3	453.7
N.L.		6.4	452.6
10 N		6.8	452.2

40+00	458.95		
10 N		4.8	454.2
N.L.		5.1	453.9
eb		5.6	453.4
1/4		5.8	453.2
℄		5.2	453.8
1/4		5.0	454.0
eb		5.4	453.6
S.L.		5.6	453.4
10 S		5.5	453.5
40+50			
10 S		3.4	455.6
S.L.		3.2	455.8
+8		3.8	455.2
eb		4.5	454.5
1/4		4.4	454.6
℄		4.4	454.6
+4		4.3	454.7
+5		3.0	456.0
1/4		3.0	456.0
eb		3.8	455.2
N.L.		4.8	454.2
10 N		5.1	453.9

41+00		458.95		
10 N			3.1	455.9
N.L.			3.8	455.2
eb			3.6	455.4
1/4			2.7	456.3
+4			2.5	456.5
+5			3.4	455.6
℄			3.2	455.8
1/4			3.5	455.5
eb			4.3	454.7
+5			4.3	454.7
S.L.			3.7	455.3
T.P.	5.82	461.95	2.82	456.13
10 S			5.2	456.8
41+50				
10 S			5.8	456.2
S.L.			4.9	457.1
eb			4.9	457.1
+1			5.8	456.2
1/4			6.0	456.0
℄			6.2	455.8
1/4			6.5	455.5
eb			5.6	456.4
N.L.			5.8	456.2
10 N			5.7	456.3

42+00		461.95		
10 N			6.3	455.7
NL			6.3	455.7
eb			6.2	455.8
1/4			5.9	456.1
℄			5.7	456.3
1/4			5.8	456.2
eb			6.5	455.5
S.L.			6.6	455.4
10 S			6.7	455.3
42+50				
10 S			6.3	455.7
S.L.			6.3	455.7
eb			6.2	455.8
1/4			5.8	456.2
℄			5.8	456.2
1/4			6.4	455.6
eb			6.3	455.7
NL			6.4	455.6
10 N			6.3	455.7

43+00	46195		
10N		6.3	455.7
N.L.		4.5	457.5
eb		4.4	457.6
1/4		4.3	457.7
+2		5.5	456.5
℄		5.4	456.6
1/4		5.8	456.2
eb		5.7	456.3
S.L.		5.8	456.2
10S		5.9	456.1
43+50			
10S		5.3	456.7
S.L.		5.4	456.6
eb		5.3	456.7
℄		5.4	456.6
+6		5.7	456.3
1/4		5.0	457.0
eb		4.3	457.7
N.L.		4.0	458.0
10N		5.1	456.9

44+00	46185		
10N		4.8	457.2
N.L.		4.2	457.8
eb		4.6	457.4
1/4		4.6	457.4
℄		4.6	457.4
1/4		4.5	457.5
eb		4.8	457.2
Sl. N.L.		4.8	457.2
10N		4.8	457.2
44+50			
10N		3.1	458.9
Sl. N.L.		3.8	458.2
eb		4.6	457.4
1/4		4.5	457.5
℄		4.3	457.7
1/4		4.6	457.4
eb		4.0	458.0
N.L.		3.5	358.5
10N		4.0	458.0

45+00	461.95			
10N			4.8	457.2
N.L			4.3	457.7
cb			3.7	458.3
1/4			4.3	457.7
+2			4.8	455.2
℄			4.4	457.6
1/4			4.4	457.6
+8			4.6	457.4
cb			4.0	458.0
S.L.			3.0	459.0
10S			3.0	459.0
45+50				
10S			2.7	459.3
S.L.			4.0	458.0
cb			3.7	458.3
+2			4.4	457.6
1/4			4.1	457.9
℄			4.2	457.8
1/4			4.5	457.5
cb			5.2	456.8
NL			5.0	457.0
10N			4.2	457.8

46+00	461.95			
10N			5.4	456.6
N.L.			3.5	458.5
cb			2.5	459.5
1/4			2.9	459.1
+2			4.5	457.5
℄			4.6	457.4
1/4			5.0	457.0
cb			5.9	456.1
S.L.			5.7	456.3
10S			4.6	457.4
T.P	4.2.C	461.25	4.96	456.99
46+50				
10S			4.4	456.9
S.L.			4.0	457.3
cb			5.0	456.3
1/4			5.0	456.3
℄			4.8	456.5
1/4			4.6	456.7
+1			3.4	457.9
cb			3.4	457.9
N.L.			4.9	456.4
10N			5.6	455.7

47+00	461.25'		
10N		5.9	455.4
N.L.		5.7	455.6
c b		5.7	455.6
1/4		5.6	455.7
℄		5.2	456.1
1/4		5.5	455.8
c b		5.6	455.7
S.L.		5.6	455.7
10 S		5.5	455.8
47+50			
10 S		5.3	456.0
S.L.		5.3	456.0
c b		5.3	456.0
1/4		5.4	455.9
℄		5.2	456.1
1/4		5.3	456.0
c b		5.5	455.8
N.L.		5.7	455.6
10 N		5.5	455.8

48+00			
10N		4.0	457.3
NL		4.5	456.8
c b		5.0	456.3
1/4		4.9	456.4
+1		5.2	456.1
℄		4.9	456.4
1/4		5.0	456.3
c b		5.0	456.3
S L		5.0	456.3
10 S		5.0	456.3
48+50			
10 S		4.7	456.6
S.L.		4.3	457.0
c b		4.3	457.0
1/4		4.8	456.5
℄		4.4	456.9
1/4		4.8	456.5
c b		5.1	456.2
N.L.		5.4	455.9
10 N		5.4	455.9

49+00	461.25		
10N		4.9	456.4
N.C.		4.5	456.8
eb		4.7	456.6
1/4		4.7	456.6
℄		4.3	457.0
1/4		4.6	456.7
eb		4.3	457.0
S.L.		4.5	456.8
10S		4.6	456.7
49+50			
10S		4.3	457.0
S.L.		4.3	457.0
eb		4.2	457.1
1/4		4.2	457.1
℄		4.2	457.1
48		4.4	456.9
1/4		3.5	457.8
eb		4.6	456.7
N.C		4.9	456.4
10N		4.7	456.6

50+00	461.25		
10N		4.3	457.0
NC		4.3	457.0
eb		4.3	457.0
1/4		4.3	457.0
℄		4.0	457.3
+5		3.7	457.6
1/4		4.0	457.3
eb		4.3	457.0
S.L		4.3	457.0
10S		4.3	457.0
50+50			
10S		4.3	457.0
S.L.		4.2	457.1
eb		4.2	457.1
1/4		4.1	457.2
℄		4.0	457.3
1/4		4.2	457.1
eb		4.2	457.1
N.C.		4.3	457.0
10N		4.4	456.9
T.P			

51+00	461.25			
10N		4.2	457.1	
NL		4.2	457.1	
eb		4.3	457.0	
1/4		4.1	457.2	
+3		4.4	456.9	
℄		4.0	457.3	
1/4		4.1	457.2	
eb		4.1	457.2	
SL		4.3	457.0	
10S		4.3	457.0	
51+50				
10S		4.4	456.9	
SL		4.4	456.9	
eb		4.3	457.0	
1/4		4.3	457.0	
℄		4.4	456.9	
+6		4.6	456.7	
1/4		4.3	457.0	
eb		3.0	458.3	
NL		2.4	458.9	
10N		3.1	458.2	

52+00	461.25 ✓				
10N			4.6	456.7	
NL			4.4	456.9	
eb			4.5	456.8	
1/4			4.7	456.6	
℄			4.6	456.7	
+5			4.2	457.1	
1/4			4.4	456.9	
eb			4.6	456.7	
SL			4.5	456.8	
10S			4.5		
BM	4.99	462.21 ✓	4.03	457.22	Hub 51+06 04
52+50					
10S			5.9	456.3	
SL			5.5	456.7	
eb			4.6	457.6	
+2			5.3	456.9	
1/4			5.4	456.8	
℄			5.6	456.6	
1/4			5.9	456.3	
eb			5.5	456.7	
NL			5.0	457.2	
10N			5.2	457.0	

53+00	462 21		
10 N		6.2	456.0
N.L		6.2	456.0
eb		5.8	456.4
¼		6.1	456.1
℄		6.2	456.0
¼		5.6	456.6
eb		6.0	456.2
S.L.		6.2	456.0
10 S		5.8	456.4
53+25			
10 S		6.6	455.6
S.L		5.5	456.7
+9		5.6	456.6
eb		5.8	456.4
¼		5.8	456.4
℄		6.3	455.9
¼		6.5	455.7
eb		6.5	455.7
N.L.		5.7	456.5
10 N		4.3	457.9

53+50	462 21		
10 N		6.7	455.5
N.L		6.3	455.9
eb		5.0	457.2
¼		4.8	457.4
+6		5.7	456.5
℄		6.4	455.8
¼		5.9	456.3
eb		6.3	455.9
S.L.		6.8	455.4
10 S		6.6	455.6
54+00			
10 S		7.2	455.0
S.L.		7.3	454.9
+6		7.2	455.0
eb		6.6	455.6
¼		6.5	455.7
℄		7.1	455.1
¼		6.7	455.5
eb		5.9	456.3
N.L.		5.6	456.6
10 N		6.7	455.5

54+50	462.21		
10 N		7.6	454.6
N.L		7.7	454.5
eb		7.2	455.0
¼		6.3	455.9
+8		6.2	456.0
℄		7.5	454.7
¼		7.0	455.2
eb		7.5	454.7
+3		7.3	454.9
+5		6.4	455.8
S.L		5.8	456.4
10 S		5.9	456.3
55+00			
10 S		8.0	454.2
S.L.		8.2	454.0
+5		8.5	453.7
eb		8.1	454.1
¼		7.7	454.5
℄		8.0	454.2
¼		8.3	453.9
eb		8.3	453.9
N.L.		8.3	453.9
10 N		8.3	453.9

55+50	462.21		
10 N		9.1	453.1
N.L		8.3	453.9
eb		8.0	454.2
¼		8.3	453.9
℄		7.8	454.4
¼		7.8	454.4
eb		8.0	454.2
S.L.		8.5	453.7
10 S		9.0	453.2
56+00			
10 S		9.1	453.1
S.L.		8.9	453.3
eb		9.0	453.2
¼		9.3	452.9
℄		9.0	453.2
¼		9.5	452.7
eb		10.0	452.2
N.L.		9.9	452.3
10 N		10.4	451.8

56+50		462.21 ✓		
10N			13.0	449.2
N.L.			11.4	450.8
cb			10.0	452.2
¼			9.6	452.6
℄			10.5	451.7
¼			10.6	451.6
cb			10.9	451.3
S.L.			11.4	450.8
10S			11.1	451.1
57+00				
10S			12.4	449.8
S.L.			12.4	449.8
cb			12.8	449.4
¼			13.4	448.8
℄			13.7	448.5
¼			13.5	448.7
cb			13.9	448.3
N.L.			14.9	447.3
10N		✓	14.9	447.3 ✓
TP	1.87	451.07	13.01	449.20

57+30		451.07 ✓		
20N			11.1	440.0
N.L.			9.6	441.5
cb			8.5	442.6
¼			7.1	443.4
℄			7.1	444.0
¼			6.0	445.1
cb			4.2	446.9
S.L.			3.4	447.7
20S			4.2	446.9
57+60				
20S			7.9	443.2
7S			7.5	443.6
S.L.			8.5	442.6
cb			9.8	441.3
¼			10.7	440.4
℄			12.3	438.8
¼			14.0	437.1
cb			15.4	435.7
N.L.			16.9	434.2
10N			19.2	431.9
30N			21.0	430.1
T.P.	0.12	438.23 ✓	12.96	438.11 ✓

57+80	438.23 ✓		
35N		12.2	426.0
28N		16.1	422.1
8N		11.2	427.0
NL		9.9	428.3
cb		7.9	430.3
1/4		6.8	431.4
℄		4.2	434.0
1/4		2.4	435.8
cb		2.1	436.1
S.L.		1.1	437.1
12S		+0.1	438.3
20S		+0.6	438.8
58+00			
20S		6.2	432.0
10S		5.3	432.9
S.L.		5.4	432.8
cb		5.5	432.7
1/4		8.1	430.1
℄		10.3	427.9
1/4		14.2	424.0
cb		17.0	421.2
NL.		18.8	419.4
20N		12.3	425.9

58+44	438.28 ✓		
20N		5.4	432.8
N.L.		12.6	425.6
cb.		17.0	421.2
1/4		21.8	416.9
℄		26.1	412.1
1/4		25.2	413.0
cb.		24.7	413.5
S.L.		25.0	413.2
10S		25.0	413.2
40S		21.0	417.2
58+55			
40S		26.0	412.2
33S		26.4	411.8
25S		30.3	407.9
15S		31.8	406.4
S.L.		29.2	409.0
+5		28.8	409.4
cb		25.8	412.4
1/4		24.2	414.0
℄		21.3	416.9
1/4		18.4	419.8
cb		15.0	423.2
N.L		11.6	426.6
20N		4.3	433.9

58+72 438.23 ✓

20N	3 5	434.7
N.L	8.3	429.9
cb	11.4	426.8
1/4	14.0	424.2
℄	16.2	422.0
1/4	19.1	419.1
cb	21.6	416.6
S.L	23.4	414.8
35S	31.1	407.1
50S	31.3	406.9

58+90

50S	32 3	405.9
S.L.	22.0	416.2
cb	19.8	418.4
1/4	17.6	420.6
℄	15.4	422.8
1/4	13.8	424.4
cb	11.6	426.6
N.L.	9.9	428.3
20N	5.3	43 2.9

59+28 438.23 ✓

20N		
N.L	15 6	422.4
cb	20.0	418.2
1/4	21.7	416.5
℄	23 5	414.7
1/4	24.2	414.0
cb	25.1	413.1
S.L.	26.0	412.2
15S	27.0	411.2
50S	30.0	408.2
59+45	29.0	4092
30S		
S.L.	24.0	417.2
cb	22 0	416.2
1/4	22.7	415.5
℄	23.8	414.4
1/4	24.6	413.6
cb	23.7	414.5
N.L	23 2	415.0
20N	24.1	414.1
30N	20.2	418.0
	18.0	420.2

59+90		438.23 ✓		
20N			9.2	429.0
N.L.			17.0	421.2
cb			12.9	425.3
1/4			12.0	426.2
℄			9.3	428.9
1/4			8.1	430.1
cb			6.5	431.7
SL			7.0	431.2
20S			6.2	432.0 ✓
T.P	11.68	449.58 ✓	0.28	437.95
60+30				
20S			6.8	442.8
SL			9.2	440.4
cb			9.1	440.5
1/4			9.4	440.2
℄			10.7	438.9
1/4			13.9	435.7
cb			16.0	433.6
NL.			20.3	429.3
4N			22.7	426.9
20N			15.0	434.6

60+60		449.58 ✓		
20N			10.7	438.9
4N			14.0	435.6
NL.			13.3	436.3
cb			11.2	438.4
1/4			9.2	440.4
℄			7.9	441.7
1/4			7.4	442.2
cb			6.4	443.2
SL			5.0	444.6
20S			3.0	446.6
61+00				
10S			0.7	448.9
SL			1.6	448.0
cb			2.8	446.8
1/4			3.7	445.9
℄			4.7	444.9
1/4			5.4	444.2
cb			6.0	443.6
NL			5.9	443.7
10N			5.4	444.2

61+50		449.58			
10 N			0.6	449.0	
T.P	9.80	458.47	0 91	448.67	
P.I. College Way					
B.M			5.25	453.22	Book 1362 p 39 (452.97)
N.L.			9.4	449.1	
cb			9.1	449 4	
¼			9.2	449.3	
℄			9.7	448.8	
¼			9.6	448.9	
cb			9.7	448.8	
SL.			10.0	448.5	
10 S			9.4	449.1	
62+00					
20 S			7.3	451.2	
S.L			6.7	451.8	
cb			7.6	450.9	
¼			8.4	450.1	
℄			8.4	450.1	
¼			7.3	451.2	
+4			7.6	450.9	
cb			7.1	451.4	
N.L			7.0	451.5	
20 N			7.4	451.1	

62+50	458.47			
20 N		5.7	452.8	
10 N		6.4	452.1	
N.L.		6.1	452.4	
cb		6.5	452.0	
¼		6.9	451.6	
℄		7.2	451.3	
¼		7.5	451.0	
cb		7.5	451.0	
SL.		7.2	451.3	
10 S		7.0	451.5	
16 S		6.2	452.3	
30 S		6.8	451.7	
63+00				
20 B		6.6	451.9	
5 S		6.5	452.0	
S.L		6.2	452.3	
cb		6.8	451.7	
¼		7.0	451.5	
℄		6.8	451.7	
¼		6.4	452.1	
cb		6.2	452.3	
N.L.		6.2	452.3	

63+75	458.47		
30 N		4.2	454.3
10 N		5.8	452.7
N.L.		5.4	453.1
cb		4.5	454.0
1/4		4.3	454.2
℄		5.0	453.5
1/4		6.5	452.0
cb		6.5	452.0
S.L.		5.8	452.7
63+50			
S.L.		5.7	452.8
cb		6.3	452.2
1/4		6.4	452.1
℄		6.3	452.2
1/4		6.2	452.3
cb		6.2	452.3
N.L.		6.4	452.1
10 N		6.1	452.4

64+00			
10 N		6.3	452.2
N.L.		6.0	452.5
cb		5.5	453.0
1/4		6.2	452.3
cb ℄?		6.2	452.3
1/4		6.0	452.5
cb		6.0	452.5
S.L.		5.0	453.5
11 S		5.5	453.0
12 S		3.5	455.0
30 S		4.3	454.2
64+50			
10 S		5.0	453.5
S.L.		4.5	454.0
cb		5.5	453.0
1/4		6.0	452.5
℄		6.0	452.5
1/4		5.2	453.3
cb		5.3	453.2
N.L.		6.1	452.4
10 N		6.1	452.4

65+40.0			
10 S N.L.? S.L.	3.9	454.6	
eb	3.5	455.0	
¼	3.6	454.9	
℄	4.4	454.1	
¼	5.6	452.9	
eb	5.1	453.4	
S.L.	4.4	454.1	
10 S	3.7	454.8	
65+50	4.3	454.2	
10 S	3.7	454.8	
S.L.	3.1	455.4	
eb	3.9	454.6	
¼	4.0	454.5	
℄	3.6	454.9	
¼	3.5	455.0	
eb	4.3	454.2	
N.L.	4.4	454.1	
10 N	4.5	454.0	

458.47

65+80			
10 N		1.0	457.5
N.L.		1.3	457.2
eb		3.0	455.5
+6		4.0	454.5
¼		4.1	454.4
℄		2.9	455.6
¼		2.7	455.8
eb		2.6	455.9
S.L.		2.4	456.1
10 S		3.1	455.4
66+00			
10 S		2.3	456.2
S.L.		2.0	456.5
eb		2.0	456.5
+1		0.9	457.6
¼		2.5	456.0
℄		3.7	454.8
¼		3.8	454.7
eb		3.3	455.2
N.L.		3.1	455.4
10 N		3.1	455.4
T.P.	3.48	458.95	3.00 455.47

66+45	458.95 ✓			
10N		3.3	455.7	
N.L.		3.5	455.5	
cb		3.3	455.7	
¼		3.3	455.7	
℄		3.6	455.4	
¼		3.8	455.2	
cb		3.4	455.6	
S.L.		2.9	456.1	
10S		3.1	455.9	
66+57				
10S		3.3	455.7	
S.L.		3.0	456.0	
cb		3.6	455.4	
¼		3.3	455.7	
℄		3.0	456.0	
¼		2.9	456.1	
cb		1.3	457.7	
N.L.		0.5	458.5	
10N		0.8	458.2	

66+85	458.95 ✓			
10N		3.8	455.2	
N.L.		3.7	455.3	
cb		3.8	455.2	
¼		3.7	455.3	
℄		3.6	455.4	
¼		3.7	455.3	
cb		3.8	455.2	
S.L.		3.5	455.5	
10S		3.6	455.4	
67+00				
10S		3.7	455.3	
S.L.		3.7	455.3	
+9		4.1	454.9	
cb		2.9	456.1	
¼		1.7	457.3	
℄		1.7	457.3	
¼		2.8	456.2	
cb		4.0	455.0	
N.L.		4.0	455.0	
10N		3.1	455.9 ✓	
B.M.		1.64	457.31	Hub ℄ 67+00

67+50	45895		
10N		3.6	455.4
N.L		4.1	454.9
cb		3.9	455.1
¼		4.2	454.8
℄		4.9	454.1
¼		5.3	453.7
+7		5.6	453.4
cb		5.0	454.0
S.L.		4.2	454.8
10 S		4.8	454.2
67+75			
10S		5.1	453.9
S.L		4.9	454.1
+7		5.5	453.5
+9		4.5	454.5
cb		4.8	454.2
¼		4.8	454.2
℄		4.6	454.4
¼		4.8	454.2
cb		4.8	454.2
N.L.		4.8	454.2
10N		3.9	455.1

68+00			
10N		5.1	453.9
N.L.		4.5	454.5
cb		4.9	454.1
¼		5.5	453.5
℄		6.1	452.9
¼		6.0	453.0
cb		5.1	453.9
+2		5.1	453.9
+3		6.0	453.0
S.L		5.7	453.3
10S		5.8	453.2
68+50			
10S		7.6	451.4
S.L.		7.5	451.5
+6		7.8	451.2
+7		7.0	452.0
cb		7.3	451.7
¼		8.0	451.0
℄		7.4	451.6
¼		6.7	452.3
cb		6.4	452.6
N.L		6.4	452.6
10N		6.1	452.9

69+00	458.95			
10N			10.1	448.9
N.L.			9.8	449.2
eb			10.2	448.8
1/4			10.3	448.7
℄			10.0	449.0
1/4			10.2	448.8
eb			10.0	449.0
+5			9.2	449.8
S.L.			8.9	450.1
10 S			8.5	450.5
69+50				
10 S			9.2	449.8
S.L.			10.0	449.0
eb			11.9	447.1
1/4			13.0	446.0
T.P.	7.38	454.11	12.22	446.73
℄			9.3	444.8
1/4			10.1	444.0
eb			10.2	443.9
N.L.			10.8	443.3
20N			12.7	441.4

69+75	454.11		
30N		16.4	437.7
N.L.		14.2	439.9
eb		12.6	441.5
1/4		10.8	443.3
℄		8.5	445.6
1/4		7.4	446.7
eb		7.2	446.9
+3		7.0	447.1
+6		5.6	448.5
S.L.		5.4	448.7
10 S		4.6	449 5
70+00			
10 S		4.2	449.9
S.L.		4.6	449.5
+7		6.6	447.5
eb		6.8	447.3
1/4		8.0	446.1
℄		9.6	444.5
1/4		10.7	443.9
eb		11.7	4424
N.L.		13.4	440.7
30N		19.3	434.8

70+25	454.11			
30N		16.7	437.4	
15N		13.8	440.3	
N.L.		13.4	440.7	
eb		11.5	442.6	
¼		11.0	443.1	
℄		9.6	444.5	
¼		7.3	446.8	
eb		6.0	448.1	
S.L.		3.7	450.4	
10S		3.6	450.5	
70+50				
10S		2.4	451.7	
S.L.		2.8	451.3	
eb		5.0	449.1	
¼		7.1	447.0	
℄		8.5	445.6	
¼		10.2	443.9	
eb		11.6	442.5	
NL.		13.4	440.7	
10N		14.4	439.7	
30N		17.8	436.3	

70+85	454.11 ✓			
30N			17.9	436.2
10N			15.1	439.0
N.L.			13.8	440.3
eb			11.8	442.3
¼			9.9	444.2
℄			7.7	446.2
¼			6.1	448.0
eb			4.3	449.8
S.L.			1.5	452.6
10S			0.6	453.5 ✓
T.P.	9.97	463.32 ✓	0.76	453.35
71+50				
10S			6.5	456.8
S.L.			7.1	456.2
eb			8.0	455.3
¼			9.4	453.9
℄			11.4	451.9
¼			12.7	450.6
eb			13.9	449.4
N.L.			14.7	448.6
20N			13.7	449.6

72+00	463.32			
20N		9.6	453.7	
NL		8.0	455.3	
cb		6.8	456.5	
¼		6.2	457.1	
℄		5.6	457.7	
¼		4.5	458.8	
cb		4.3	459.0	
S.L.		4.4	458.9	
10S		3.9	459.4	
72+50				
10S		2.7	460.6	
SL		3.4	459.9	
+1		3.2	460.1	
+4		1.6	461.7	
cb		2.9	460.4	
¼		4.4	458.9	
℄		5.0	458.3	
¼		5.4	457.9	
cb		5.8	457.5	
N.L.		6.0	457.3	
15N		5.5	457.8	

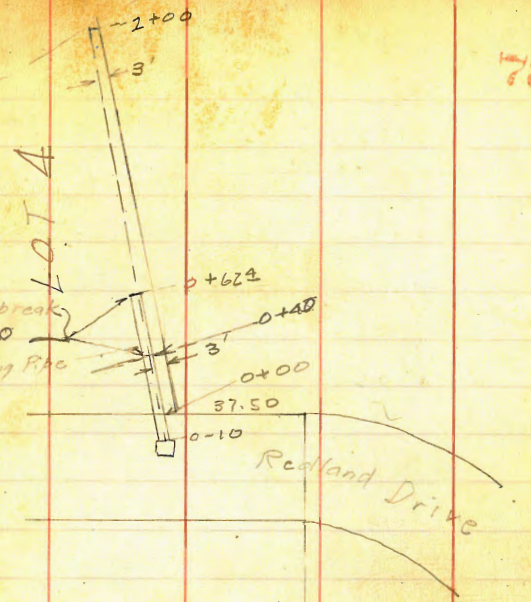
463.32

72+90 = E.L. Lot 21					77
15N			5.7	457.6	
NL			5.0	458.3	
cb			4.0	459.3	
¼			2.9	460.4	
℄			2.3	461.0	
¼			2.6	460.7	
cb			2.0	461.3	
+7			2.2	461.1	
+9			3.2	460.1	
SL			3.3	460.0	
10S			3.0	460.3	
T.P	10.40	460.63	13.09	450.23	
B.M.			7.41	453.22	P.I. College Way

Profile for Extension of Culvert No 3
Redland Gardens

11/2/29
London.

B M	11.74	446.85		435.11
FL Box 0-10			8.86	437.99
T.P	0.17	433.13	13.09	433.76
FL Pipe 0+62½			8.78	425.15
ground 0+62½			9.7	
T.P	0.06	420.98	13.01	420.92
0+72			2.0	
0+92			9.5	
T.P	0.19	408.50	12.67	408.31
1+12			4.0	
1+36			11.3	
1+57			18.0	
1+82			25.1	
2+00	channel		29.9	

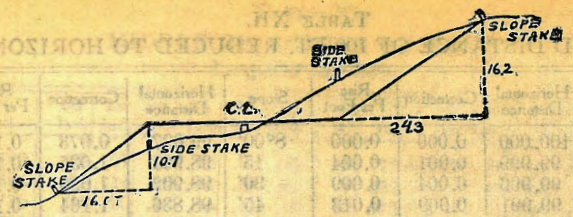


B.P. N.W. El Cajon & Collegeway

Check Levels Between B.M. on Collegeway and B.M. on El Cerrito El Cajon Ave.

B.M	5.90	471.17		465.27	(Record)
T.P.	4.50	471.58	4.09	467.08	
T.P.	6.07	471.93	5.72	465.86	
B.M	B.P. NW. El Cajon & 59th		5.67	466.26	
T.P.	7.69	479.13	0.49	471.44	
T.P.	0.42	470.18	9.37	469.76	
B.P. NW. El Cajon & El Cerrito B.M.			12.84	457.34	Rec. (457.43)
B.M	0.92	454.14		453.22	
T.P.	10.46	462.30	2.30	451.84	
T.P.			13.13	449.17	
B.M	4.35	461.51	5.14	457.16	
T.P.	2.76	462.01	2.26	459.25	
T.P.	0.37	456.02	6.36	455.65	
T.P.	0.16	443.45	12.73	443.29	
T.P.	3.35	434.14	12.66	430.79	
T.P.			10.35	423.79	
T.P.	9.79	441.78	2.15	431.99	
			2.86	438.92	

IMPROVED TABLES AND INFORMATION



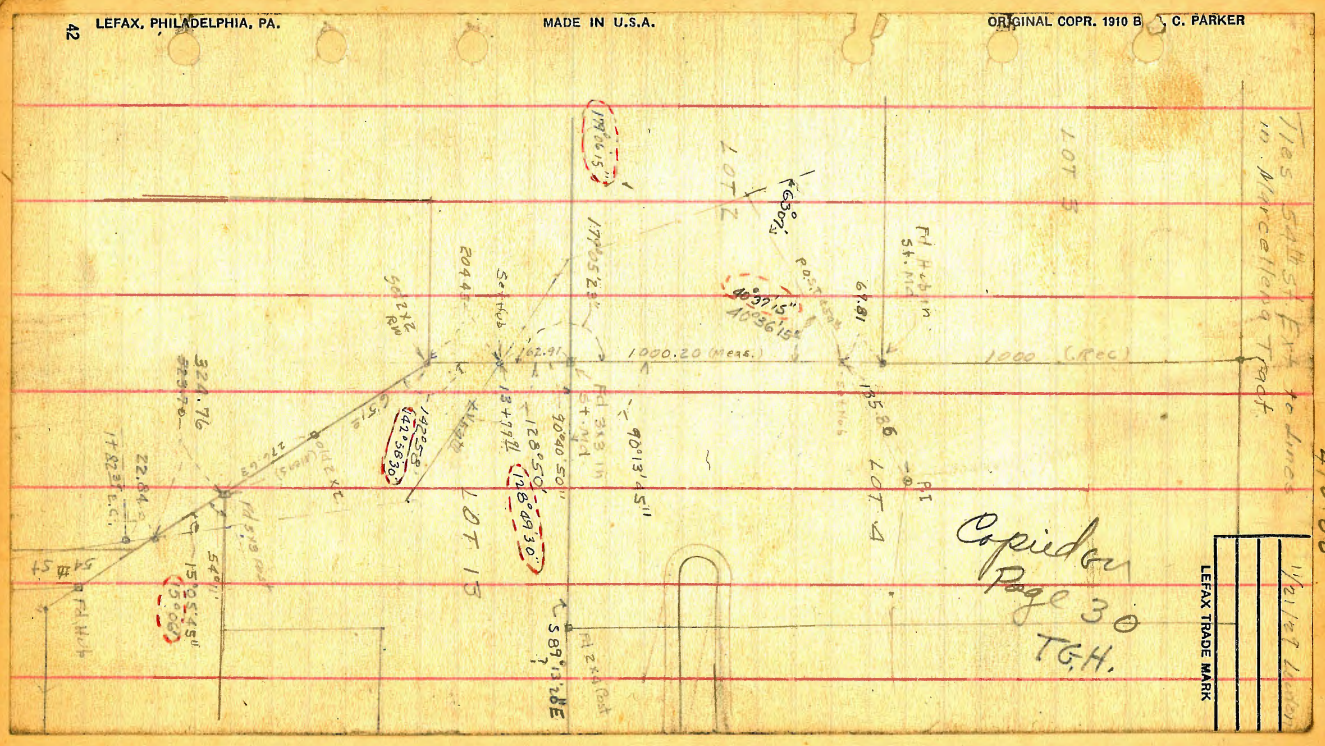
DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

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.

8+88.70 B.C. 54° St. Ext.
1 30.47
10+19.17 = old P.I. Loudons



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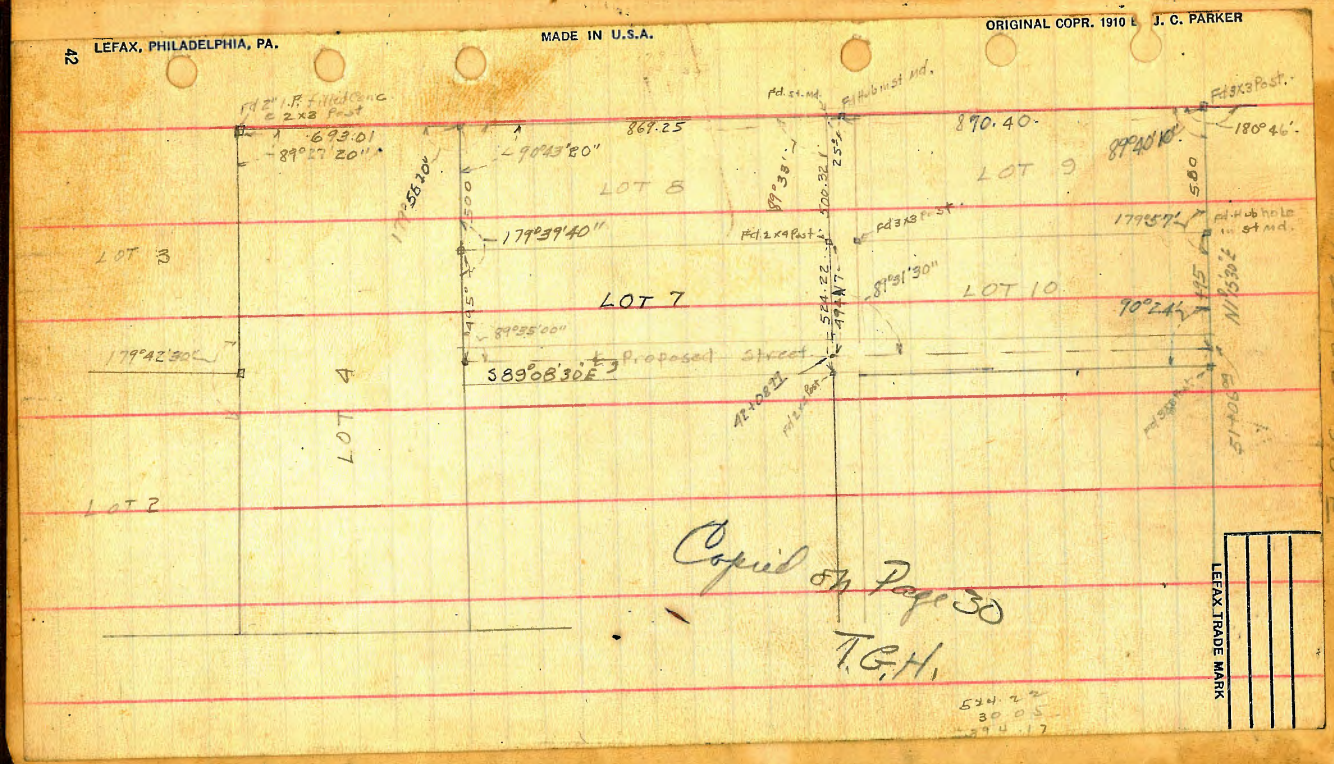

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