

BK. 118

DR. 16

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

STADIA Survey

LARPENTEUR AVE

From HAMLIN To ROSELAWN

Road Acc't. No. 14

Date Filed 1-31-45 File.....

Page 1 Transit Obs. Line Lamont 92. Plate
Date May 13, 1922 Rec. Anker + Park

Date. Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
π of Δ #1 Lorpentour Ave. 827.10' E of Hamline								
To Hamline + Lorpentour =	270° 00'							
				H.I. =	910.86		H.I. - Above Δ =	528 905.58
To Δ #2	328° 40'	7.22						
Gordon Ave + Hamline	328° 40'							
Q. Pav.	90° 00'	1.67				7.3		903.67
Shoulder Rd	82° 30'	1.68				7.9		03.07
Ditch	80° 30'	1.69				10.2		00.70
"	79° —	1.69				10.2		00.70
Top Back Slope	76° —	1.74				4.9		06.00
Ground	70° —	1.85				3.7		07.20
"	57° 30'	2.12		+ 2° 38'	+ 9.75	- 5.3	+ 4.4	15.30
"	42° 30'	1.70		+ 3° 15'	+ 9.60	- 5.3	+ 4.3	15.20
"	50° —	1.50				0.6		10.30
Top Back Slope	68° —	1.26				6.5		904.40
Ditch	74° —	1.20				12.5		898.40
"	75° —	1.20				12.5		98.40

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int, or Angle			
				H.I. = 910.86				
Shoulder	70°30'	1.20				7.9		903.0
E Pav.	90°—	1.18				7.2		03.7
FL N. End 21" Vit. Culv. (^{S. End} Buried)	61°—	0.64				14.8		096.1
Toe Slope	60°—	0.65				13.9		97.0
Ground	41°	0.82				13.9		897.0
"	35°30'	0.97				9.6		902.3
"	27°—	1.30				4.1		06.8
"	210°30'	1.58		+ 5°—	+13.7	5.3	+8.4	19.3
"	31°—	1.05				6.4		04.5
"	6°—	2.00		+ 5°11'	+18.1	5.3	+12.8	23.7
"	2°—	1.37				6.9		04.0
"	359°—	1.08				10.5		00.4
"	2°—	0.90				14.7		896.2
"	356°—	0.53		- 11°52'	-10.9	5.3	-16.2	94.7
Toe slope	356°—	0.56				13.2		97.7
Shoulder	357°—	0.19				6.7		904.7

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod Equiv.			
				Down-	or Angle				
± Pav.	90°—	0.10					5.5		05.4.
Ground.	327°—	0.68			9°15'—12.2		5.3	-17.5.	93.4.
"	326°—	0.77			— 10°00'—13.4		5.3	-18.7.	92.2.
"	343°—	0.94					15.9		95.0.
"	353°—	0.97					16.4		94.5.
"	354°—	1.13					14.4		96.5.
"	346°—	1.25			— 5°— -10.9		5.3	-16.2.	94.7.
"	336°—	1.80					14.6		96.3.
"	341°—	1.83					7.1		03.8.
"	341°—	2.33					7.6		03.3.
"	338°—	2.34					12.3		98.6.
"	334°—	2.30					14.1		96.8.
"	325°—	2.31					14.9		96.0.
"	323°—	2.25			— 3°05'—12.10		5.3	-17.4.	93.5.
"	314°—	2.33			— 3°16'—12.9		5.3	-18.2.	92.7.
"	308°—	2.37			— 3°— -12.4		5.3	-17.7.	93.2.
"	304°—	2.43			— 2°15'—9.5		5.3	-14.8.	96.1.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
					H.I. - 91.086			
Ground	301° -	2.17	✓	-	2°45' - 10.4	5.3	-15.7	95.2
"	303° -	2.15	✓	-	3°15' - 12.2	5.3	-17.5	93.4
"	312° -	2.08	✓	-	3°37' - 13.1	5.3	-18.4	92.5
"	322° -	1.93	✓	-	3°32' - 11.9	5.3	-17.2	93.7
"	322° -	1.92	✓	-	3°10' - 10.6	5.3	-15.9	95.0
"	319° -	1.32	✓	-	5°32' - 12.7	5.3	-18.0	92.9
"	330° -	1.32	✓	-	4°46' - 11.0	5.3	-16.3	94.6
"	331° -	1.34	✓	-	4°56' - 11.3	5.3	-16.6	94.3
"	337° -	1.17	✓	-	6°40' - 13.6	5.3	-18.9	92.0
"	339° -	1.15	✓	-	7°40' - 15.3	5.3	-20.6	90.3
"	338° -	1.00	✓	-	7°45' - 13.5	5.3	-18.8	92.1
"	338° -	1.20	o	-	5°36' - 11.7	5.3	-17.0	93.9
Top water in Hole						20.3	-20.3	90.6
Ground	312° -	0.85	✓	-	16°05' - 23.5	10.0	+33.5	77.4
"	310° -	0.80	✓	-	17°15' - 23.7	5.3	-29.0	81.9
Toe slope	302° -	0.73	o	-	16°54' - 21.7	5.3	-26.5	84.4

Page.....Transit.....Obs.....Line.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM	
				Up+ Down-	No. of Int. or Angle				Rod Equiv.
	H.I. = 910.86								
Toe Slope	2910-	1.25	✓	-	3010	-6.90	10.0	-16.9	94.0
Ground	2930-	1.28	0	-	4038'	-14.1	5.3	-19.4	91.5
"	2980-	1.75	✓	-	3032'	-10.8	5.3	-16.1	94.8
"	3010-	1.70	0	-	4030'	-13.3	5.3	-18.6	92.3
"	2920-	2.06	✓				14.0	-14.0	96.9
Toe Slope	2820-	2.25	✓				8.2	-8.2	02.7
Ground	2890-	2.38	✓				10.2	-10.2	00.7
"	2840-	2.70	✓				5.6	-5.6	05.3
"	2970-	2.73	✓				12.5	-12.5	98.4
"	2870-	3.21	✓	+	1035'	+8.90	5.3	+3.6	14.5
"	2780-	3.05	✓	+	2030'	+13.3	5.3	+8.0	18.9
& shallow rd. ditch	2750-	3.04	✓	+	2015'	+11.9	5.3	+6.6	17.5
Shoulder rd.	2740-	3.04	0	+	2030'	+13.3	5.3	+8.0	18.9
& Pav.	2700-	3.04	0	+	2033'	+13.5	5.3	+8.2	19.1
Shoulder	2750-	2.70	✓	+	2028'	+11.6	5.3	+6.3	17.2
"	2750-	2.38	✓	+	2018'	+9.6	5.3	+4.3	15.2

Page 7 Transit.....Obs.....Line.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	11.1. = 910.86								
Ground	281° -	2.97	✓	+	2°08'	19.2.	5.3	+3.9.	14.8.
"	282° -	2.60	0	+	20 -	19.1.	5.3	+3.8.	14.7.
Shoulder	280° -	1.20'	✓				1.7		09.2.
E. Pav.	270° -	1.18'	✓				0.8		10.1.
Ground	289° -	3.70	✓	+	3°04'	119.8	5.3	+14.5.	25.4.
"	291° -	3.40'	✓				3.3		07.6.
"	300° -	3.28	✓				10.9		900.0.
"	303° -	3.23	✓				14.0		96.9.
"	307° -	3.15	✓				16.5		94.4.
"	319°	3.00	✓				16.6		94.3.
"	326° -	2.92	✓				15.8		95.1.
"	329° -	2.95	✓				13.8		97.1.
"	336° -	3.03	✓				12.0		98.9.
"	337° -	3.04	✓				7.3		03.6.
"	352° -	3.25	✓	+	2°20'	+13.✓.	5.3	+7.9.	18.8.
"	350° -	3.95	✓	+	2°33'	+17.6.	5.3	+12.3.	23.2.

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Date. May 15, 44 Rec. _____

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
						</			

Date..... Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 910.86					
Ground	308° -	443	✓			4.2		06.7.
"	310° -	435	✓			8.4		02.5.
"	313° -	429	✓			13.9		97.0.
"	317° -	420	✓			16.6		94.3.
"	323° -	420	✓			16.2		94.7.
"	329° -	418	✓			15.7		95.2.
"	331° -	420	✓			14.5		96.4.
"	336° -	420	✓			10.4		00.5.
"	338° -	422	✓			3.6		07.3.
"	342° -	430	✓	+	1° 03'	+7.9.	5.3 +2.6.	13.5.
"	346° -	342	✓	+	2° -	+11.9.	5.3 +6.6.	17.5.
"	351°	462	✓	+	2° 55'	+23.5.	5.3 +18. ✓	29.1.
	351°	520	✓	+	2° 58'	+26.9.	5.3 +21.6.	32.5.
	347° -	582	✓	+	2° 08'	+18.7.	5.3 +13.4.	24.3.
	339° -	585	✓				0.0	10.9.
	337° -	467	✓				3.8	07.1.

Page 11 Transit Obs. Line

Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground	328° -	5.26	-				11.6		99.3.
"	330° -	5.22	✓				12.3		98.6.
"	335° -	5.22	✓				7.8		03.1.
"	337° -	5.25	✓				2.7		08.2.
"	341° -	5.30	✓	+	10° -	+9.2	5.3	+3.9.	14.8.
"	347° -	5.35	✓	+	2°10'	+20.2.	5.3	+14.9.	25.8.
"	346° 30'	5.60	✓	+	2°02'	+19.9.	5.3	+14.6.	25.5.
"	343° 30'	5.70	✓	+	1°25'	+14.1.	5.3	+8.8.	19.7.
"	337° 30'	5.60	✓				2.8		08.1.
"	335° 30'	5.58	✓				8.2		02.7.
"	332° -	5.56	✓				11.2		99.7.
"	329° -	5.53	✓				10.2		00.7.
"	325° -	5.54	✓				9.4		01.5.
"	321° -	5.60	✓				8.8		02.1.
"	317° 30'	5.63	✓				3.6		07.3.
"	317° 30'	5.65	0				2.8		08.6.
"	314° -	5.70	✓	+	0°51'	+8.5	5.3	+3.0.	13.9.

Page 13 Transit _____ Obs. _____ Line Logenteur Ave. Pothole
Date _____ Rec. _____

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	H.I. = 920.11							
Ground	110° -	1.04	✓	-	6° 11' - 11.2	5.3	-16.5	03.6
"	114° -	0.95	✓			13.7		06.4
"	142° -	0.72	✓			11.4		08.7
"	184° 30" -	0.83	✓			8.4		11.7
"	197° -	0.98	✓			8.5		11.6
"	199° -	0.99	✓			9.5		10.6
"	210° -	1.33	✓			6.5		13.6
"	212° -	1.49	✓			2.0		18.1
"	215° 30"	1.98	✓	+	4° 13" - 14.6	5.3	+9.3	29.4
"	191° 30"	1.98	✓			5.7		14.4
"	185° -	1.75	↓			10.9		09.2
"	177° -	1.57	↓			13.3		06.8
"	171° 30"	1.48	✓			15.3		04.8
"	162° - 30"	1.43	✓			15.5		04.6
"	196° - 30"	0.40	✓			5.2		14.9
"	219° -	0.71	↓			5.6		14.5

Page 14 Transit.....Obs.....Line.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	<i>H.I. = 920.11</i>								
Ground	225°-	0.92	✓				7.5		12.6
"	235°-30'	0.77	✓				7.0		13.1
"	147°-30'	1.00	✓				4.5		15.6
"	228°-	1.11	✓				7.0		13.1
"	227°-30'	1.17	✓				4.6		15.5
"	231°-	1.45	✓				+1.0		21.1
"	231°-30'	1.73	✓	+	4°18'	+13.0	5.3	+7.7	27.8
"	231°-30'	1.88	✓	+	6°12'	+20.3	5.3	+15.0	35.1
"	170°-	0.28	✓				5.3		14.8
"	110°-30'	0.43	✓				8.4		11.7
"	84°-	0.78	✓				10.9		09.2
"	84°-	0.82	✓				13.7		06.4
"	84°-	0.95	✓				13.7		06.4
"	84°-	1.03	✓				10.7		09.4
"	79°-30'	1.46	✓				5.0		15.1
"	73°-30'	2.14	✓	+	2°31'	+9.4	5.3	+4.1	24.2
"	72°-30'	2.60	✓	+	3°03'	+13.8	5.3	+8.5	28.6

Page 15 Transit.....Obs.....Line.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
<i>HI-920-11</i> Ground	60°-	2.68	✓	+	3°-15'	1152	5.3	+99.	30.0
"	59°-30'	2.10	✓				+1.0		21.1
"	59°-	1.84	✓				3.2		16.9
"	56°-30'	1.46	✓				6.6		13.5
"	52°-30'	1.10	✓				13.0		07.1
"	62°-30'	1.18	✓				13.0		07.1
"	64°-	1.30	✓				8.1		12.0
"	50°-30'	1.02	✓				12.7		07.4
"	50°-30'	0.90	✓				10.0		10.1
"	33°-30'	0.48	✓				9.0		11.1
"	334°-30'	0.25	✓				5.8		14.3
"	145°-	0.08	✓				4.9		15.2.
"	106°-30'	0.14	0				6.8		13.3
"	273°-	0.54	✓				4.2		15.9
"	260°-30'	1.16	✓				4.4		15.7
"	254°-30'	1.58	✓	+	3°-12'	18.8.	5.3	+3.5.	23.6
"	251°-30'	1.90	✓	+	5°-11'	17.1.	5.3	+118.	31.9

Page... 16 ... Transit ... Obs. ... Line ...

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OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground	265°-30'	2.28	↓	+	4° 08'	+164.	5.3	+11.1	31.2
"	270°-30'	1.90	↓	+	3°	+199.	5.3	+4.6	24.7
"	273°-30'	1.69	↓				0.5		19.6
"	282°-30'	1.32	↓				1.2		18.9
"	303°-32'	0.94	✓				3.4		16.7
"	307°-	0.94	✓				4.9		15.2
"	241°-	0.78	✓				7.0		13.1
"	8°-	0.94	✓				8.2		11.9
"	19°-	1.12	✓				9.6		10.5
"	24°-30'	1.28	✓				11.5		08.6
"	18°-	1.38	✓				11.7		08.4
"	30°-30'	1.50	✓				10.5		09.6
"	38°-	1.80	✓				7.9		12.2
"	39°-	1.90	✓				5.8		14.3
"	43°-	2.36	✓				0.0		20.1
"	45°-30'	2.63	✓	+	2°-50'	+13.0	5.3	+7.7	27.8
"	47°-30'	2.98	✓	+	3°-36'	+18.7	5.3	+13.4	33.5

Page 17 Transit Obs. Line Lapeau Ave. Polkale
 Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground	38°-30'	3.22	✓	+	3°20'	+18.7	5.3	+13.4	33.5
"	35°-30'	2.95	✓	+	2°54'	+14.9	5.3	+9.6	29.7
"	30°-	2.55	✓				+1.0		21.1
"	24°-	2.67	✓	+	1°-32'	+7.1	5.3	+1.8	21.9
"	19°-30'	2.50	✓				2.9		17.2
"	13°-	2.36	✓				5.4		14.7
"	13°-	2.44	✓				3.1		17.0
"	26°-	2.30	✓				4.4		15.7
"	21°-	2.06	✓				6.8		13.3
"	11°-	1.77	✓				6.9		13.2
"	9°-30'	1.77	✓				8.7		11.4
"	353°-	1.72	✓				5.9		14.2
"	343°-	1.38	✓				6.4		13.7
"	325°-	1.38	✓				3.8		16.3
"	306°30'	1.55	✓				1.6		18.5
"	295°-	0.85	✓				+0.5		20.6
"	288°-	1.88	✓				0.5		19.6

Page 19 Transit. Obs. Line.

Date. Rec.

OBJECT <i>H.I. = 92011</i>	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
<i>Ground</i>	<i>190—</i>	<i>3.68</i>	<i>✓</i>	<i>+</i>	<i>2°10' +13.9</i>		<i>4.9</i>	<i>+9.0</i>	<i>29.1</i>
<i>"</i>	<i>14°30'</i>	<i>3.40</i>	<i>✓</i>	<i>+</i>	<i>1°45' +10.4</i>		<i>4.9</i>	<i>+5.5</i>	<i>25.6</i>
<i>"</i>	<i>70—</i>	<i>3.04</i>	<i>✓</i>				<i>11.5</i>		<i>21.6</i>
<i>"</i>	<i>20—</i>	<i>2.85</i>	<i>✓</i>				<i>1.8</i>		<i>18.3</i>
<i>"</i>	<i>359°15'</i>	<i>2.76</i>	<i>✓</i>				<i>1.3</i>		<i>18.8</i>
<i>"</i>	<i>345°30'</i>	<i>2.53</i>	<i>✓</i>				<i>3.6</i>		<i>16.5</i>
<i>"</i>	<i>332°</i>	<i>2.45</i>	<i>✓</i>				<i>3.4</i>		<i>16.7</i>
<i>"</i>	<i>323°</i>	<i>2.42</i>	<i>✓</i>				<i>1.7</i>		<i>18.4</i>
<i>"</i>	<i>313°</i>	<i>2.55</i>	<i>✓</i>				<i>0.7</i>		<i>19.4</i>
<i>"</i>	<i>301°</i>	<i>2.80</i>	<i>✓</i>				<i>1.2</i>		<i>18.9</i>
<i>"</i>	<i>298°</i>	<i>2.90</i>	<i>✓</i>	<i>+</i>	<i>1°23' +7.0</i>		<i>4.9</i>	<i>+21.</i>	<i>22.2</i>
<i>"</i>	<i>295°30'</i>	<i>2.95</i>	<i>✓</i>	<i>+</i>	<i>2°51' +14.7</i>		<i>4.9</i>	<i>+9.8</i>	<i>29.9</i>
<i>"</i>	<i>291°30'</i>	<i>3.16</i>	<i>✓</i>		<i>3°37' +19.9</i>		<i>4.9</i>	<i>+15.0</i>	<i>35.1</i>
<i>To Δ #3</i>	<i>328°40'</i>	<i>5.50</i>							

Page 21 Transit Obs. Line Larpenhurst Ave. Pothole
 Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground	115°-30'	3.32	✓				12.3		19.9
"	117°-	3.17	✓				10.4		21.8
"	129°-30'	2.31	✓				14.4		17.8
"	149°-30'	1.74	✓				13.1		19.1
"	174°-30'	1.54	✓				12.7		19.5
"	194°-	1.68	✓				10.8		21.4
"	206°-	1.79	✓				4.5		27.7
"	213°-	1.88	✓	+	3°-07'	+10.2	5.0	+5.2	37.4
Shldr. Hamline Ave.	200°-	2.07	✓	+	3°-40'	+13.2	5.0	+8.2	40.4
♀ " "	223°-30'	2.19	✓	+	3°-46'	+14.4	5.0	+9.4	41.6
" " "	233°-	1.86	✓	+	4°-14'	+13.9	5.0	+8.9	41.1
Shldr. Hamline Ave.	229°-	1.74	✓	+	4°-22'	+13.2	5.0	+8.2	40.4
Toe slope	221°-	1.45	✓				5.0		27.2
Ground	223°-	1.22	✓				10.2		22.0
"	165°-	1.20	✓				11.9		20.3
"	136°-30'	1.63	✓				12.5		19.7
"	124°-	2.09	✓				13.2		19.2

Page 22 Transit. Obs. Line.Date May 15, 44 Rec. Askerd party

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
	<u>HI-932.23</u>							
Ground	116°-	2.70	✓			10.8		21.4
"	111°-30'	3.10	✓			9.2		23.0
"	110°-	3.28	✓			11.2		21.0
"	106°-	3.90	✓			5.7		26.5
"	104°-30'	4.58	✓			+1.3		33.5
"	97°-30'	4.25	✓			+3.0		35.2
"	98°-	3.88	✓			4.8		27.4
"	98°-	3.73	✓			6.0		26.2
"	101°-	3.18	✓			10.7		21.5
"	103°-	2.65	✓			8.4		23.8
"	108°-	1.97	✓			9.4		22.8
"	123°-30'	1.18	✓			12.3		19.9
"	136°-30'	0.99	✓			11.4		20.8
"	179°-	0.62	✓			10.8		21.4
"	200°-	0.81	✓			9.3		22.9
Toe Slope	238°-	1.14	✓			3.1		29.1
Shldr. Hamline Ave	245°-	1.46	✓	+	50' 21" +136.	5.0	+86.	40.8

Page 23 Transit Obs. Line
 Date May 16, 44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
<i>H.I. = 932.23</i>									
☿ Hamline Ave.	247°-30'	1.63	✓	+	5°	+142.	5.0	+9.2.	414
" " "	270°—	1.48	✓	+	5°41'	+147.	5.0	+9.7.	419
Shldr. Hamline Ave	270°—	1.29	✓	+	6°15'	+140.	5.0	+9.0.	412
Ground Toe Slope	270°—	0.80	✓				1.3		30.9
Ground	270°—	0.54	✓				4.5		27.7
"	270°—	0.15	✓				4.2		28.0
"	90°—	0.20	✓				7.1		25.1
"	90°—	0.54	✓				9.6		22.6
"	90°—	1.18	✓				9.6		22.6
"	90°—	1.58	✓				7.9		24.3
"	90°—	2.34	✓				9.1		23.1
"	90°—	3.05	✓				10.3		21.9
"	90°—	3.68	✓				5.5		26.7
"	90°—	4.17	✓				0.0		32.2
"	82° 30'	4.22	✓				0.5		31.7
"	81° 30'	3.94	✓				4.4		27.8
"	80° 30'	3.45	✓				8.3		23.9

Date..... Rec.....

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Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
	<i>H.I. = 947.71</i>								
Ground	121° —	2.36	✓				139		33.8
"	132° 30'	1.82	✓				9.1		38.6
"	143° —	1.53	✓				7.7		40.0
"	159° 30'	1.30	✓				12.4		35.3
Toe slope	163° 30'	1.27	✓				12.4		35.3
Shldr. Hamline Ave.	172° 30'	1.24	✓				5.7		42.0
2 " "	181° —	1.23	✓				5.2		42.5
" " "	183° 30'	0.37	✓				5.3		42.4
Shldr. " "	160° —	0.42	✓				5.5		42.2
E. End 18" X Drains	151° 30'	0.39	✓				8.0		39.7
Ground	143° —	0.46	✓				7.3		40.4
"	136° —	0.52	✓				6.2		41.5
"	113° 30'	0.90	✓				3.6		44.1
"	104° 30'	1.52	✓				5.1		42.6
"	98° 30'	2.23	✓				7.3		40.4
"	97° —	2.93	✓				11.7		36.0

Page 29 Transit Obs. Line Larpentour Ave Pothole

Date. May 16, 1944 Rec.

Page 30 Transit. Obs. Line.

Date. Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
			H.I. = 914.81						
Ground	299°—	2.60	✓				42		10.6
"	290°30	2.45	✓				9.2		056
"	285°30'	2.43	✓				10.4		044
"	2830—	2.38	✓				13.7		01.1
"	280°—	2.34	✓				14.5		003
"	279°—	2.30	✓				13.2		01.6
Toe Slope	277°—	2.30	✓				13.2		01.6
Shoulder	275°—	2.28	✓				11.2		03.2
E. Pav.	270°—	2.28	✓				10.6		042
" "	270°—	2.70	✓				11.0		03.8
Shoulder	274°—	2.68	✓				11.4		03.4
Ditch	275°30'	2.68	✓				13.8		01.0
Top Back Slope	278°30'	2.70	✓				10.7		041
Ground	289°—	2.90	✓				47		10.1
Shoulder	276°30'	1.86	✓				10.3		045
Toe Slope	278°30'	1.87	✓				12.4		02.4

Date..... Rec.....

Page 32 Transit..... Obs..... Line Larpenteur Ave Pot hole
 Date May 22, 1944 Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 950.24					
At Larp + Hamline Ave.						H.I. = 5.26		944.98
To Mark Fernwood + Larp Ave.	90° 00'							
To Garden + Hamline Ave.	0° 58'							
To Δ # 4	34° 07'	4.52				3.28		946.96
E Larp Ave.	90° —	0.63	✓			7.8		42.4
Edge Ent	61° 30'	0.47	✓			6.7		43.5
Shoulder	74° —	0.66	✓			7.8		42.4
Edge Ent	45° —	0.49	✓			5.5		44.7
FL. 24" G.M.	68° 30'	0.68	✓			10.3		39.9
Edge Ent	43° 30'	0.67	✓			4.2		46.0
Top stone slope	63° —	0.70	✓			5.0		45.2
Edge Ent	54° 30'	0.88	✓			4.2		47.0
Top Rock Slope	62° 30'	0.72	✓			4.0		46.2
" " "	71° 30'	1.08	✓			2.4		47.8
E Pav.	90° —	1.01	✓			9.8		40.4
Shoulder	79° 30'	1.05	✓			10.1		40.1

Page 33 Transit.....Obs.....Line.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Top Back slope	176° 30'	1.65	✓				1.5		48.7
Toe slope	74° 30'	1.05	✓				11.1		39.1
Top Back slope	79° —	2.22	✓				1.0		49.2
Δ Pav	90° —	1.50	✓				12.2		38.0
Shoulder	83° —	1.51	✓				12.6		37.6
Toe slope	80° 30'	1.52	✓				13.4		36.8
Top Back slope	80° —	2.75	✓				13		48.9
Δ Pav	90° —	1.95	✓				14.3		35.9
Shoulder	85° —	1.97	✓				14.5		35.7
Δ in slope wall	79° —	2.01	✓				5.0		45.2
S.W. Cap Stand	630 30'	0.85	X				3.2		47.0
N.W. " " "	48° —	1.03	X				3.0		47.2
S.E. " " "	67° —	0.99	X				2.7		47.5
Toe slope	83° —	1.98					15.8		34.4
Δ Pav.	90° —	2.42		—	2° 40'	-11.3	5.3	-16.6	33.6
Shoulder	85° —	2.44		—	2° 44'	-11.6	5.3	-16.9	33.3

Page 35 Transit Obs. Line

Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
				Down-	or Angle	Equiv.			
6 Pin	90° —	4.05	✓	—	2°50'	-20.0	5.3	-25.3	249
Shoulder	87°	4.07	✓	—	2°54'	-20.6	5.3	-25.9	243
Top Slope	86°30'	4.09	✓	—	2°20'	-16.7	10.0	-26.7	23.5
Top & End Stone slope	86° —	4.08	✓	—	2°36'	-18.5	5.3	-23.8	26.4
Edge Ent.	12° —	0.83	✓				5.2		45.0
" "	21° —	0.80	✓				4.6		45.6
24" Elm & Edge Ent.	32°30'	0.96	✓				3.8		46.4
S.W. Cor Pines	19°30'	0.87	✓				4.4		45.8
S.E. Cor Pines 12' Trees	26°30'	1.03	✓				3.7		46.5
Edge Driveway	32° —	1.22	✓				3.7		46.5
" "	30° —	1.44	✓				3.5		46.7
N.W. Cor Pines	12° —	1.56	✓				4.0		46.2
N.E. Cor Pines	21°30'	1.65	✓				3.4		46.8
Edge Driveway	25°30'	1.61	✓				3.4		46.8
" "	21° —	1.68	✓				3.4		46.8
18" Elm	19° —	1.80	✓				3.3		46.9
Edge Ent.	9°30'	1.64	✓				4.0		46.2

Page 36 Transit Obs. Line Larpent Ave. Red hole
 Date May 22, 1944 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle			
30° Elm	31° 30	2.10				24		47.8
Edge Driveway	5° —	1.52				22		46.0
15° Elm	46° 30	1.08				33		46.9
Ground	41° —	1.27	✓			35		46.7
"	43° 30	1.68				17		48.5
"	45° —	2.27	✓			17		48.5
12 ELM	11° 30°	1.98				30		47.2
6' CEDAR	8° 30	2.26				28		47.4
2 HAMLINE	0° 58	2.21	✓			27		47.5
SHDR.	5° 30	2.22				34		46.8
2 DITCH	6° 30	2.22				44		45.8
GROUND	8° —	2.22				30		47.2
10' BOX ELDER	10° —	2.45				20		48.2
10' PINE	7° —	3.05				25		47.7
12' POPLAR	5° —	4.30				04		49.8
GROUND	23° —	2.38	✓			25		47.7

Page 37 Transit. Obs. Line.

Date. Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
GROUND	29° 30	2.65	✓				2.7		47.5'
☿ HAMLINE	0.0	.93					4.7		45.5'
SHLDR	12° -	.95					5.1		45.1
E DITCH	13° 30'	.98	✓				6.4		43.8
GROUND	27°	2.20	✓				2.9		47.3
☿ HAMLINE	0° 58'	1.53	✓				3.5		46.7
SHLDR	7° 30	1.54					4.1		46.1
E DITCH	9° -	1.55	✓				5.2		45.0
GROUND	18° 30	3.03					2.1		48.1
☿ HAMLINE	0° 58	2.85	✓				2.0		48.2
GROUND	12° 30.	2.94					1.6		48.6
SHLDR	4° 30	2.85					2.3		47.9
☿ DITCH	5° 30	2.90	✓				3.5		46.7
GROUND	7° -	2.90	✓				1.2		49.0
☿ HAMLINE	0° 58	3.45	✓				1.7		48.5
SHLDR.	4° -	3.48					2.1		48.1
E DITCH	4° 30	3.48					3.3		46.9

Page 38 Transit.....Obs.....Line.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
GROUND	6° —	3.50	✓				0.5		49.7
E HAMLINE	0° 58	4.32	✓				2.3		49.9
GROUND	5° —	3.60	✓				1.3		48.9
SALDR	3° 30	4.30	0				2.8		47.4
8' POPLAR	21° —	3.68	✓				2.0		48.2
DITCH	4° —	4.33	✓				3.6		46.6
GROUND	27°	3.88	✓				2.2		48.0
GROUND	27°	4.47	✓				1.8		48.4
"	18° 30	4.25	✓				2.1		48.1
"	9° —	4.10	✓				0.9		49.3
E HAMLINE = Δ #5	0° 58	5.66	✓				5.37		944.87
GROUND	347° 30	1.81	✓				3.5		46.7
"	346° —	1.84	✓				4.6		45.6
"	349° —	2.31	✓				2.8		47.4
"	332° —	2.07	✓				5.0		45.2
"	328° —	2.69	✓				4.4		45.8
"	317° 30	2.52					5.3		44.9

Page 39 Transit.....Obs.....Line.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
GROUND	305°30	2.18	✓				5.3		44.9
"	315° -	1.73	✓				5.7		44.5
"	329° -	1.40	✓				5.2		45.0
"	340° -	1.24	✓				5.0		45.2
"	341° -	1.13	✓				4.2		46.0
SHLDR.	190° -	1.28	✓				5.5		44.7
DITCH	192.30	1.30	✓				7.0		43.2
GROUND	195°	1.28	✓				4.5		45.7
"	206°30	1.41	✓				5.7		44.5
"	224° -	1.73	✓				6.1		44.1
"	234°30	2.18	✓				5.7		44.5
"	243° -	2.78	✓				5.2		45.0
"	234° -	3.14	✓				5.5		44.7
"	227°30'	2.64	✓				5.5		44.7
"	215° -	2.21	✓				5.8		44.4
"	202°30'	1.97	✓				5.6		44.6
"	192° -	1.83	✓				4.7		45.5

Page 40 Transit. Obs. Line. Lapeau Ave. Path
 Date. May 22, 1944 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
E HAMLINE	182° -	3.40				6.2		44.0
"	182° -	2.67				5.2		45.0
"	182° -	1.94				4.7		45.5
	$\left. \begin{array}{l} 951.63 \\ 951.62 \end{array} \right\} H.I. = 951.62$							
At Δ #4						H.I. = 4.66		946.96
To Larp + Hamline Mont.	214° 07'	4.53				6.65		944.98
To Δ #5	308° 16'	3.12				6.67		944.95
GROUND	159° -	3.45	✓			5.5		46.1
"	151°	3.63	✓			9.0		42.6
"	146° 30'	3.85	✓			16.5		35.1
"	140° 30'	3.15	✓	-02°		10.0	-21.0	30.6
"	144° 30'	2.91	✓			13.0		38.6
"	151° 30'	2.82	✓			7.8		43.8
"	153° 30'	2.77	✓			6.5		45.1
"	165° 30'	2.57	✓			4.2		47.4
"	181° -	2.48	✓			3.0		48.6
N.E. COR. CHICKEN COOP	183° 30'	2.83	✓			2.7		48.9

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Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
N.W. COR. CHICKEN COOP	189° -	2.85	✓				2.7		48.9
GROUND	181° -	2.48	✓				3.0		48.6
"	201° -	1.98	✓				3.4		48.2
"	187° -	1.86	✓				4.7		46.9
"	167° -	1.93	✓				5.0		46.6
"	150° -	2.18	✓				6.5		45.1
"	146° -	2.23	✓				9.3		42.3
"	137° 30	2.50	✓				16.1		35.5
"	133° -	2.68	✓	-	30° -	-14.0	10.0	-24.0	27.6
"	125° -	2.33	✓	-	40° 22	-17.7	10.0	-27.7	23.9
"	130° -	2.06	✓				17.5		34.1
"	137° -	1.80	✓				11.3		40.3
"	146° -	1.64	✓				6.6		45.0
N.E. COR CHICKEN COOP	198° 30	2.36	✓				3.1		48.5
GROUND	166° -	1.38	✓				6.2		45.4
"	191° 30'	1.34	✓				5.8		45.8
N.E. COR. GARAGE	194° 30	2.58					2.6		49.0

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
								H.I. = 951.62
Ground	293°-30'	1.95		✓		3.7		479
"	303°-30'	1.36		✓		4.3		473
"	127°-	.88		✓		3.6		48.0
"	5°-	.71		✓		6.6		45.0
"	38°-30'	.88	✓			13.1		38.5
"	42°-30'	.96	✓	-	7°-55'-13.2	4.7	-17.9	33.7
"	55°-	1.25	✓	-	7°-10'-15.6	10.0	-25.6	26.0
N.E. Corner House	211°-	1.93	✓			3.4		482
" " Shed	205°-30'	2.00	✓			3.7		479
" " & Garage	219°-	1.27	✓			4.4		472
Ground	38°-	1.57	✓	-	7°-08'-19.5	10.0	-29.5	22.1
"	27°-30	1.38	✓	-	7°-16.8	4.7	-21.5	30.1
"	24°-	1.28	✓	-	5°-30'-12.3	4.7	-17.0	34.6
"	4°-30'	1.18	✓			9.8		41.8
"	3°-30'	1.95	✓	-	3°-16'-11.1	10.0	-21.1	30.5
"	6°-	1.83	✓			15.2		364

Page 43 Transit. Obs. Line.

Date. Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
GROUND	209° -	1.48	✓				4.0		476
"	223° 30'	1.08	✓				3.8		478
"	200° -	.85	✓				5.7		459
"	167° -	.84	✓				7.0		446
"	138° 30'	1.15	✓				8.3		433
"	129° -	1.37	✓				12.0		396
"	122° 30'	1.62	✓				17.7		339
"	105° -	1.37	✓	-06° 16'		-15.0	10.0	-25.0	266
"	112° -	.98	✓	-07° 22'		-12.5	4.7	-17.2	344
"	116° 30'	.62	✓				8.9		42.7
"	184° -	.24	✓				5.2		464
"	254° 30'	.74	✓				3.4		48.2
"	290° -	.73	✓				3.4		48.2
"	313° -	.35	✓				3.8		47.8
"	59° -	.45	✓				8.4		43.2
"	68° -	.75	✓	-07° 55'		-10.3	4.7	-15.0	366

Page 44 Transit _____ Obs. _____ Line Largent Ave Pothole
Date May 22, 1984 Rec. _____

Date..... Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 951.62					
Ground	340°	1.93	✓			8.1		43.5
"	332°-30'	1.38	✓			3.9		47.7
"	326°-30'	1.18	✓			6.2		45.4
"	315°	1.75	✓			4.2		47.4
"	315°	2.56	✓			8.0		43.6
"	305°	2.18	✓			4.9		46.7
"	310°	2.83	✓			7.0		44.6
Toe B. Slope	309°-30'	2.88	✓			8.0		43.6
Ground	300°-30'	2.47	✓			3.8		47.8
Toe B. Slope	299°-30'	2.54	✓			6.0		45.6
Shldr	298°	2.65	✓			5.7		45.9
			$\frac{950.02}{950.00}$					
			H.I. = 950.01					
At Δ # 5						H.I. = 509		944.91
To Corp. & Hamline Mant.	180° 58'	5.66				5.04		944.98
To Garden & Hamline	00° 58'	7.55				7.50		942.51

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 950.01					
\$ Hamline	0°-58'	.42	✓			5.8		44.2
Shldr.	23°-30'	.47				6.6		43.4
Ground	33°-	.53	✓			9.7		40.3
\$ Hamline	0°-58'	1.09	✓			6.7		43.3
Ground	54°-	.85	/			10.6		39.4
Shldr.	12°-30'	1.12				8.3		41.7
Toe slope	18°-	1.14	✓			11.6		38.4
Ground	63°-	1.11	✓			9.1		40.9
"	32°-30'	1.33	✓			13.1		36.9
"	42°-	1.46	✓			13.2		36.8
"	70°-	1.48	/			10.2		39.8
"	52°-30'	1.78	✓	- 3°-25'	-10.6	5.1	-15.7	34.3
"	59°-30'	2.01	✓	- 4°-06'	-14.4	5.1	-19.5	30.5
"	75°-	1.95	/	- 3°-04'	-10.4	5.1	-15.5	34.5
"	49°-30'	1.98	✓	- 4°-03'	-14.0	5.1	-19.1	30.9
"	46°-30'	2.04	✓			13.5		36.5

Date..... Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 950.01					
E Hamline	0°-58'	2.47	✓			7.6		42.4
Ground	7°-30'	2.48	✓			8.8		41.2
"	14°-	2.54	↓			13.5		36.5
"	21°-	2.65	✓	-	2°-46'	-12.3	5.1 - 17.4	32.6
"	27°-	2.76	✓	-	3°-36'	-17.3	5.1 - 22.4	29.6

Page 49 Transit Obs. Line
 Date Rec.

18.94
 9.00
 1/2 shed = 2.00
 29.94
 909.21
 939.15

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
At Δ # 6 (See page 48)								
To S.E. Cor. SW 1/4 SE 1/4 Sec. 15	90°—	2.52						909.21'
To Δ # 7	0°00'	3.09		+	5028	+29.4		
								H.I. = 939.52
At Δ # 7						H.I. 481		934.71
To Δ # 6	180°00'	3.09		—	4048'	-25.9		
To S.E. Cor. SW 1/4 SE 1/4 Sec. 15	140°34'	4.00				H.I. = 29.94		909.58
To Δ # 8	0°00'	2.91		+	1°-18'	+6.6		
Ground	183°—	1.90	✓	—	6°-48'	-22.5	4.8	-27.3 12.2
"	143°—	1.67	✓	—	6°-37'	-19.2	4.8	-24.0 15.5
"	197°-30'	1.99	✓	—	5°-08'	-17.8	4.8	-22.6 16.9
"	164°-30'	1.41	✓	—	6°-38'	-16.3	4.8	-21.1 18.4
"	205°-30'	1.08	✓	—	4°-58'	-9.4	4.8	-14.2 25.3
"	197°—	1.42	✓	—	4°-58'	-12.8	4.8	-17.6 24.9
"	216°—	2.30	✓	—	4°-25'	-17.7	10.0	-21.7 11.8

909.58
 29.74
 939.52
 4.81
 934.71

Radio
 Atena
 325°26'

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground	213°-30'	1.65	✓	-	4°	-11.5	4.8	-163.	23.2
"	208°	1.72	✓	-	4°-16'	-12.8	4.8	-176.	219
"	220°	1.82	✓	-	4°-22'	-13.9	4.8	-187.	20.8
"	228°	1.15	✓	-	3°-42'	-7.4	10.0	-174.	22.1
"	243°	2.07	✓	-	2°-50'	-10.2	10.0	-202.	19.3
"	256°	2.19	✓	-	2°-30'	-9.6	10.0	-196.	19.9
"	254°-30	1.70	✓	-	1°-28'	-4.4	10.0	-144.	25.1
"	237°	1.66	✓	-	3°-47'	-11.0	4.8	-158.	23.7
"	231°-30'	1.46	✓				13.7		25.8
"	249°-50'	1.21	✓				10.2		29.3
"	219°	1.16	✓				11.6		27.9
"	237°-30'	.82	✓				6.9		32.6
"	211°	.48	✓				6.5		33.0
"	201°	.96	✓				11.2		28.3
"	177°-30'	.88	✓				12.6		26.9
"	149°	.44	✓				8.2		31.3

Page 51 Transit Obs. Line

Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground	149°	1.03	✓	-	5°-30'	-9.9	4.8	-14.7	248
"	133°	1.30	✓	-	5°-50'	-13.2	4.8	-18.0	21.5
"	126°	1.51	✓	-	5°-50'	-15.3	4.8	-20.1	19.4
"	117°-30'	.79	✓				11.2		283
"	119°	1.87	✓	-	7°-02'	-22.9	4.8	-27.7	11.8
"	114°-30'	2.25	✓	-	5°-46'	-22.6	4.8	-27.4	121
"	112°	2.58	✓	-	5°	-22.5	4.8	-27.3	122
"	108°	1.23	✓	-	5°-20'	-11.4	4.8	-16.2	23.3
"	104°	1.70	✓	-	5°-55'	-16.5	4.8	-21.3	182
"	111°	2.70	✓	-	4°-17'	-20.2	4.8	-25.0	14.5
"	101°	2.15	✓	-	5°-10'	-19.4	4.8	-24.2	15.3
"	100°-30'	2.56	✓	-	2°-55'	-13.0	10.0	-23.0	165
"	90°	2.56	✓	-	3°-30'	-15.6	4.8	-20.4	19.1
"	77°	2.55	✓	-	3°-04'	-13.6	4.8	-18.4	21.1
"	89°-30'	2.13	✓	-	4°-30'	-16.7	4.8	-21.5	180
"	75°	2.20		-	3°-35'	-13.8	4.8	-18.6	209

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
Ground	275°-30'	1.58	✓				8.7		30.8
"	288°-30'	2.32	✓				8.5		31.0
"	274°-30'	2.04					12.2		27.3
"	285°-	2.80					14.4		25.1
"	273°-30'	2.41		-	10-30'	-6.3	10.0	-16.3	23.2
H.I. = 946.41.									
At Δ 8						H.I. =	4.98		941.43°
To Δ 7	180°-	2.90					11.70		934.71°
Ground	237°-	3.24	✓	-	1037'	-9.1	10.0	-19.1	27.3
"	247°-30'	3.40	✓	-	1036'	-9.5	11.0	-20.5	25.9
"	232°-	2.84	✓				11.5		34.9
"	244°-30'	2.82	✓				10.5		35.9
"	225°-	2.50	✓				7.3		39.1
"	240°-30'	2.33	✓				6.9		39.5
"	215°-30'	2.17	✓				6.4		40.0
"	228°-30'	1.67	✓				6.6		39.8
"	194°-	1.93	✓				5.5		40.9

Radio
Antenna
329°03'

Date. May 23, 1944 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			

Page 55 Transit Obs. Line

Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
GROUND	110° -	300	✓	-2° 10'	-12.2	5.0	-17.2	29.2
"	107° -	3.36	✓			13.5		32.9
"	100° -	3.30	✓			10.9		35.5
"	100° -	2.90	✓			13.1		33.3
"	87° -	3.28	✓			8.8		37.6
"	100° -	2.66	✓			12.8		33.6
FENCE COR. N & S, + E & W	88° 30'	2.62	✓			9.2		37.2
GROUND	101° -	2.52	✓			10.2		36.2
"	84° 30'	2.00	✓			9.0		37.4
"	103° - 30'	2.00	✓			9.8		36.6
"	83° - 30'	1.32	✓			8.4		38.0
"	109° 30'	1.35	✓			8.0		38.4
"	78° 30'	.70	✓			6.6		39.8
"	124° 30'	.72	✓			6.2		40.2
E & W FENCE LINE	30° 30'	.11	✓			4.8		41.6
"	186° -	.37	✓			4.8		41.6
"	279° 30'	.75	✓			4.8		41.6

Page. 56 Transit. Obs. Line. Lapointe Ave Pathole
 Date. May 27, 1944 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle			
GROUND	244° -	97	✓			5.4		41.0
"	275° 30'	1.27	✓			5.2		41.2
"	256° -	1.88	✓			6.6		39.8
"	274° -	1.78	✓			5.7		40.7
"	260° -	2.60	✓			7.5		38.9
"	261° - 30'	3.16	✓			13.0		33.4
"	272° -	2.52	✓			6.5		39.9
"	262° -	3.60	✓		-1° 20' - 8.4	11.0	-194.	27.0
"	271° -	3.15	✓			11.8		34.6
FENCE COR. E + S.	270° -	3.96	✓		-1° 12' - 8.3	15.0	-23.3	23.1
GROUND	282° -	3.86	✓		-1° 15' - 8.4	12.0	-204.	26.0
"	288° -	4.00	✓		-1° 16' - 8.8	12.0	-208.	25.6
"	284° -	3.40	✓			13.6		32.8
"	292° 30'	3.65	✓			12.3		34.1
"	285° 30'	2.76	✓			7.6		38.8
"	297° 30'	3.02	✓			6.5		39.9

Page 57. Transit. Obs. Line.

Date. Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
GROUND									
"	289° -	2.23	✓				5.9		40.5
"	306° 30	2.32	✓				6.4		40.0
"	295° -	1.64	✓				5.6		40.8
"	321° -	1.73	✓				6.7		39.7
"	304° 30'	1.20	✓				5.5		40.9
"	347° -	1.36	✓				7.3		39.1
"	333° -	.76	✓				6.6		39.8
"	37° 30'	.86	✓				6.9		39.5
"	22° 30'	1.45	✓				7.8		38.6
"	59° -	1.23	✓				9.3		37.1
"	45° -	1.90	✓				8.1		38.3
"	70° -	1.80	✓				10.5		35.9
"	54° 30'	2.35	✓				7.9		38.5
"	76° -	2.44	✓				10.2		36.2
"	61° -	2.78	✓				7.6		38.8
FENCE LINE N.E.S.	77° 30'	2.68	✓				8.3		38.1

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
GROUND	63° -	2.96	✓				6.1		40.3
"	78° 30'	2.88	✓				8.3		38.1
"	64° 30'	3.15	✓				6.5		39.9
"	56° -	3.50	✓				5.2		41.2
"	48° -	2.96	✓				5.8		40.6
"	39° 30'	2.62	✓				5.8		40.6
"	26° 30'	2.32	✓				6.0		40.4
"	00° -	2.18	✓				8.6		39.8
"	341° -	2.36	✓				9.4		37.0
"	331° 30'	2.60	✓				7.0		37.4
"	323° -	2.86	✓				6.1		40.3
"	315° -	3.32	✓				4.9		41.5
"	309° -	3.85	✓				5.0		41.4
"	306° -	4.30	✓				8.0		38.4
"	303° -	4.70	✓				12.5		33.9

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
				H.I. = 946.41					
TO Δ 9	334° 16'	4.63					1.15		946.26
				$\left. \begin{array}{l} 949.95 \\ 949.96 \end{array} \right\} \text{H.I.} = 949.96$					
At Δ 9							H.I. = 4.69		945.26
To Δ 8	154° 16'	4.61	✓				8.53		941.43
To Garden + Hamline Ave's	290° 19'	8.88	✓				4.56		945.40
Ground	239° - 30'	2.52	✓	-	2° - 54'	-12.7	4.7	-174.	326.
"	259° -	2.66	✓	-	3° - 06'	-14.4	4.7	-191.	30.9.
"	256° -	1.95	✓				12.6		374.
"	234° -	2.12	✓				12.4		376.
"	246° - 30'	1.16	✓				8.1		419.
"	223° -	1.74	✓				8.8		412.
"	219° - 30'	.62	✓				6.1		439.
"	205° -	1.42	✓				7.3		427.
"	179° - 30'	1.35	✓				7.5		425.
"	131° -	.81	✓				6.5		435.
"	158° - 30'	1.47	✓				8.4		416.

$$\begin{array}{r} 334.16 \\ 180 \\ \hline 154.16 \end{array}$$
945.48
 BM. ch. of.
 Hyd.

Page 60 Transit Obs. Line Larpeleur Ave. Pathside
 Date May 27, 1944 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
				Down-	or Angle	Equiv.			
	H.I. = 949.96								
Ground	108°-	1.67	✓				7.8		422.
"	141°-30'	1.80	✓				10.7		39.3.
"	103°-	2.65	✓				7.0		43.0.
"	125°-30'	2.53	✓				10.9		39.1.
"	100°-	3.60	✓				6.5		43.5.
"	121°-	2.94	✓				9.0		41.0.
"	100°-	3.60	✓				6.5		43.5.
"	114°-30'	3.80	✓				8.3		41.7.
"	98°-	4.60	✓				5.0		45.0.
"	111°-	4.70	✓				8.6		41.4.
End N. & S. Fence	97°-30'	4.73	✓				4.0		46.0.
Ground	110°-	4.95	✓				6.1		43.9.
"	97°-30'	5.06	✓				3.8		46.2.
"	109°-	5.25	✓				6.5		43.5.
"	91°-30'	5.02	✓				3.0		47.0.
"	85°-	5.05	✓				2.7		47.3.
"	92°-	4.48	✓				4.6		45.4.

Date.

.Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I = 949.96					
Ground	84°-	4.50	✓			3.8		46.2
"	92°-	3.62	✓			4.9		45.1
"	82°-30'	3.65	✓			3.0		47.0
"	92°-30'	2.65	✓			5.3		44.7
"	79°-	2.82	✓			3.0		47.0
"	94°-	1.70	✓			6.6		43.4
"	69°-30'	1.49	✓			5.1		44.9
"	97°-30'	.73	✓			6.1		43.9
"	51°-	.85	✓			5.7		44.3
"	253°-	.23	✓			4.7		45.3
"	339°-	.60	✓			5.1		44.9
"	298°-	1.32	✓			6.4		43.6
"	267°-	1.18	✓			7.3		42.7
"	288°-	1.91	✓			9.5		40.5
"	269°-	2.18	✓			13.0		37.0
"	284°-30'	2.40	✓			13.7		36.3

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		Rod Equiv.	READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle				
			H.I. = 949.96						
Ground	269°-	2.64	✓	-	2°-51'	-13.1	4.7	-178.	32.2
"	282°-	2.84	✓	-	2°-30'	-12.4	6.0	-184.	31.6
"	293°-	3.05	✓	-	2°-10'	-11.5	8.0	-19.5,	30.5'
"	302°-30'	3.28	✓	-	2°-10'	-12.4	8.0	-20.4,	29.6
"	298°-	2.48	✓				13.2		36.8
"	308°-	2.78	✓	-	1°-40'	-8.1	8.0	-16.1,	33.9
"	305°-30'	2.01	✓				9.5		40.5'
"	316°-30'	2.32	✓				13.5		36.5
"	328°-30'	1.38	✓				8.0		42.0
"	339°-30'	1.83	✓				12.3		37.7
"	12°-	1.17	✓				7.0		43.0
"	7°-	1.80	✓				11.3		38.7
"	48°-	1.62	✓				6.2		43.8
"	31°-30'	2.18	✓				11.4		38.6
"	63°-	2.43	✓				3.8		46.2
"	47°-30'	2.88	✓				5.7		44.3

Page 63 Transit.....Obs.....Line.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
			H.I. = 949.96						
Ground	70°-30'	3.34	✓				1.9		481.
"	56°-30'	3.52	✓				2.4		47.6.
"	75°-30'	4.25	✓				1.8		48.2.
"	62°-30'	4.28	✓				0.8		49.2.
"	78°-30'	5.08	✓				1.9		48.1.
"	67°-30'	5.10	✓	+	0°-30'	4.5.	4.7	-0.2	49.8.
"	69°-	5.44	✓	+	0°-15'	2.4.	4.7	-2.3	47.7.
Fence Corner of E-W Fence	60°-30'	5.48	✓	+	0°-20'	3.2.	10.0	-6.8	43.2.
Ground	64°-30'	5.30	✓	+	0°-20'	3.1.	7.0	-3.9	46.1.
"	60°-30'	4.44	✓				2.5		47.5.
"	55°-	4.70	✓				7.2		42.8.
"	55°-	3.70	✓				3.9		46.1.
"	48°-30'	4.15	✓				9.4		40.6.
"	48°-30'	3.30	✓				6.1		43.9.
"	39°-	3.50	✓				12.4		37.6.
"	37°-	2.77	✓				11.3		38.7.

Date... May 22, 1944.

Rec.

[illegible]

Page 65 Transit.....Obs.....Line Larpenhur Ave Polkale
Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	<u>H.I. =</u>								
Ground	318°-30'	3.42	✓	-	2°-22'	-14.1	7.0	-21.1	28.9
To Δ #10	334°-16'	3.40	✓						
E Garden Ave.	570—	5.58	✓				11.1		38.9
" " "	510—	4.86	✓				11.3		38.7
" " "	420—	4.12	✓				11.7		38.3
Crest Ground drains N + S.	9030'	6.85	✓				4.3		45.7
E Garden Ave	30°30'	3.56	✓				13.8		36.2
" " "	170—	3.20	✓				15.9		34.1
Crest Ground drains N. + S.	343030'	5.55	✓				10.4		39.6
No1 Edge of stripping	111°30	.97							
" " "	82°—	.93							
" " "	60°—	.68							
" " "	39°30'	1.15							
" " "	59°30'	1.55							
" " "	47°—	1.92							
" " "	59°—	2.30							

Page 44 Transit.....Obs.....Line.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
N01 EDGE OF STRIPPING AREA	73°—	1.62							
" " " "	64°—	2.10							
" " " "	99°—	1.52							
N02 EDGE OF STRIPPING AREA	111°30'	1.52							
" " " "	103°—	2.84							
" " " "	121°30'	2.19							
" " " "	133°30'	2.90							
" " " "	124°—	3.60							
" " " "	121°—	4.35							
" " " "	124°30'	4.90							
" " " "	120°30'	5.25							
" " " "	109°—	4.70							
" " " "	96°—	4.55							
" " " "	95°30'	4.70							
" " " "	110°—	4.95							
" " " "	132°—	6.20							
" " " "	134°—	5.48							

Page 47 Transit. Obs. Line.

Date. Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
NO. 2 EDGE OF STRIPPING AREA	147° 30'	4.55						
" " " "	159° -	4.34						
" " " "	171° 30'	3.94						
" " " "	174° -	3.02						
" " " "	175° -	1.85						
" " " "	148° -	1.63						
NO. 3 EDGE OF STRIPPING AREA	95° -	3.08						
	94° 30'	3.62						
	75° -	3.15						
	80° -	3.70						
At Δ 10								
To Δ 9	154° 16'	3.41						
To Garden + Ham line	270° 04'	6.84						
Edge stripping Area No. 4	75° 30'	3.42						
" " " "	104.30'	3.25						
	98° 3'	2.35						

Page 68 Transit Obs. Line Larson Ave. pathole
 Date May 29, 1949 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
EDGE OF STRIPPING AREA NO 4	110° 30'	2.90						
" " " " " "	102° —	1.65						
" " " " " "	115° 30'	2.40						
" " " " " "	118° 30	1.75						
" " " " " "	122° 30	.63						
" " " " " "	129° —	1.55						
" " " " " "	154° —	1.52						
" " " " " "	246° —	.85						
" " " " " "	231° —	1.00						
EDGE OF STRIPPING AREA NO 5	258° —	1.60						
" " " " " "	227° —	1.92						
" " " " " "	221° —	2.58						
" " " " " "	209° 30	3.30						
" " " " " "	205° —	4.00						
" " " " " "	262° —	2.40						
" " " " " "	264° —	3.20						
" " " " " "	257° —	3.65						

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Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
EDGE OF STRIPPING AREA NO. 5	251° 30'	4.15						
" " " " " "	256° —	5.15						
" " " " " "	252° —	5.80						
" " " " " "	248° —	6.50						
" " " " " "	239° —	7.30						
" " " " " "	246° —	7.00						
" " " " " "	243° —	7.30						
" " " " " "	231° 30'	7.60						
" " " " " "	228° —	7.80						
	270° 04'	6.84						
At Δ #1								
To Hamline + Carp. Ave's 270° —								
To Hamline + Garden Ave's 328° 40'								
Edge of stripping Area No. 6	85° 30'	4.68						
" " " " " "	74° 30'	4.60						
" " " " " "	84° 30'	3.90						

Page 70 Transit Obs. Line

Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
EDGE OF STRIPPING AREA NO. 6	69° —	3.82		Down-	or Angle	Equiv.			
" " " " " "	66° —	2.90							
" " " " " "	81° —	2.38							
" " " " " "	74° —	2.10							
" " " " " "	77° —	1.95							
EDGE OF STRIPPING AREA NO. 5	330° —	.64							
" " " " " "	358° 30	1.10							
" " " " " "	284° —	1.95							
" " " " " "	342° 30	1.95							
" " " " " "	290° —	2.80							
" " " " " "	338° —	2.95							
" " " " " "	298° —	3.60							
" " " " " "	338° —	3.90							
" " " " " "	305° 30'	4.25							
" " " " " "	313° —	5.00							
" " " " " "	336° 30'	5.20							
" " " " " "	315° —	5.80							

Date. May 29, 1944 Rec.

[illegible]

337°30 6.90

342° 30	7.25
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344°30 7.90

Page 71 Transit Obs. Line Drainage
 Date Rec. N.W. of Garden & Hamline

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
	<i>H.I.</i>	<i>947.83</i>		<i>H.I. =</i>	<i>2.35</i>	<i>above</i>	<i>Hsd</i>	<i>Hsd = 945.48</i>
<i>At Hamline & Garden Ave's</i>						<i>H.I. =</i>	<i>5.32</i>	
<i>To Rosebloom & Hamline Ave</i>	<i>0°58'</i>		<i>✓</i>					
<i>Ground</i>	<i>306° -</i>	<i>0.42</i>	<i>✓</i>			<i>50</i>		<i>42.8</i>
	<i>280°30'</i>	<i>1.47</i>	<i>✓</i>			<i>1.8</i>		<i>46.0</i>
	<i>276° -</i>	<i>2.68</i>	<i>✓</i>			<i>0.6</i>		<i>47.2</i>
	<i>274° -</i>	<i>4.05</i>	<i>✓</i>			<i>1.2</i>		<i>46.6</i>
	<i>274°30'</i>	<i>5.20</i>	<i>✓</i>			<i>1.0</i>		<i>46.8</i>
	<i>289° -</i>	<i>5.53</i>	<i>✓</i>			<i>0.6</i>		<i>47.2</i>
	<i>352° -</i>	<i>2.00</i>	<i>✓</i>			<i>4.8</i>		<i>43.0</i>
	<i>293° -</i>	<i>4.64</i>	<i>✓</i>			<i>2.1</i>		<i>45.7</i>
	<i>353° -</i>	<i>2.22</i>	<i>✓</i>			<i>50</i>		<i>42.8</i>
	<i>298°30'</i>	<i>3.70</i>	<i>✓</i>			<i>3.7</i>		<i>44.1</i>
	<i>354° -</i>	<i>2.53</i>	<i>✓</i>			<i>5.5</i>		<i>42.3</i>
	<i>308° -</i>	<i>2.90</i>	<i>✓</i>			<i>4.4</i>		<i>43.4</i>
	<i>340° -</i>	<i>2.91</i>	<i>✓</i>			<i>6.1</i>		<i>41.7</i>
	<i>322°30'</i>	<i>2.20</i>	<i>✓</i>			<i>5.1</i>		<i>42.7</i>

Page 72 Transit. Obs. Line.

Date. Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
GROUND	238° 30'	2.48	✓				4.2		43.6
"	348° 30'	1.75	✓				5.0		42.8
"	335° 30'	2.20	✓				5.1		42.7
"	355° —	3.34	✓				5.7		42.1
"	218° 30'	2.70	✓				5.1		42.7
"	339° 30'	3.55	✓				6.2		41.6
"	321° 30'	2.82	✓				4.8		43.0
"	326° 30'	4.05	✓				4.1		43.7
"	324° 30'	3.15	✓				5.5		42.3
"	316° 30'	4.55	✓				1.7		46.1
"	218° 30'	3.33	✓				5.3		42.5
"	309° 30'	5.35	✓				0.6		47.2
"	303° —	6° 20'	✓				0.6		47.2
"	311° 30'	7.00	✓				0.0		47.8
"	320° 30'	8.30	✓				0.0		47.8
"	318° 30'	6.50	✓				+1.0		48.8
"	326° —	7.65	✓				+1.0		48.8

Page 73 Transit. Obs. Line.

Date. Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
GROUND	325° -	6.00	✓			+1.2		49.0
"	332° -	7.30	✓			+1.5		49.3
"	332° -	4.55	✓			+0.7		48.5
"	338° -	6.90	✓			0.3		47.5
"	342° -	5.15	✓			4.0		43.8
"	345° 30'	6.63	✓			2.6		45.2
"	353° 30'	4.90	✓			5.3		42.5
"	354° 30'	6.40	✓			3.5		44.3
"	358° 30'	7.60	✓			1.3		46.5
"	359° -	9.20	✓	+ 0° 30'		5.3	(+8.0) + 27.	50.5
"	352° -	7.50	✓			1.5		46.3
"	352° -	9.00	✓			+1.5		49.3
"	345° 30'	7.80	✓			1.4		46.4
"	347° -	9.15	✓			+1.0		(48.8)
"	339° -	8.10	✓			0.4		47.4
"	342° -	9.40	✓	+ 0° 11'		5.3	(+3.0) + 2.3	45.5 50.1
"	333° 30'	8.40				+1.0		48.8

Page 14 Transit Obs. Line. :

Date..... Rec.....

Page 2 Transit Basclawn Ave Obs. Basclawn Ave Line Basclawn Ave
 Date 6-6-44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground	99°30'	6.75	✓				9.6		48.9
"	90°—	9.35	✓				13.3		45.2
"	99°30'	8.30	✓				11.2		47.3
"	89°30'	10.20	✓				10.7		47.8
"	102°30'	9.25	✓				11.6		46.9
"	89°30'	11.30	✓				11.2		47.3
"	101°—	10.50	✓				11.9		46.6
"	100°—	11.70	✓				10.6		47.9
" Waters Edge	89°—	13.00	✓				17.2		41.3
"	99°30'	13.30	✓				11.2		47.3
"	85°30'	12.00	✓				17.3		41.2
Waters Edge & Ground	81°—	11.40	✓				17.1		41.4
Ground	85°—	10.70	✓				12.4		46.1
Waters Edge	79°30'	10.40	✓				17.4		41.1
" "	76°—	9.50	✓				17.6		40.9
"	83°—	13.75					10.7		47.8

Page 3 Transit Obs. Clark Line Rosclawn Ave.
 Date 6-6-44 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
Ground	730 —	7.60	✓				14.4		44.1
"	78° 30'	5.12	✓				5.7		52.8
"	66° 30'	5.51	✓				5.9		52.6
"	75° 30'	4.20	✓				5.4		53.1
"	56° —	3.95	✓				3.8		54.7
"	71° —	3.26	✓				4.9		53.6
"	34° 30'	2.65	✓				3.6		54.9
"	62° —	2.34	✓				4.2		54.3
"	13° 30'	2.35	✓				3.4		55.1
"	16° 30'	1.15	✓				4.7		53.8
to Rosclawn Ave.	0° 00'	2.34					2.3		56.2
" " "	0° 00'	1.12					3.7		54.8

Page 4 Transit Obs. Line Roselawn Ave.

Date. 6-6-44 Rec. _____

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
				H.I. = 961.70				
						8.55 B.M. = 953.15		
At E Rosdawn Ave. 326 th								
West of Pascal Ave.								
To Mont. Snelling + Rosdawn	0° 00'							
E Rosdawn Ave	180° -	0.27	✓			5.3		56.4
" " "	0° 00'	0.93	✓			5.6		56.1
Ground	110° -	0.32	✓			6.3		55.4
"	51° 30'	1.54	✓			6.0		55.7
"	95° 30'	3.22	0			2.6		59.1
"	71° 30'	2.95	✓			4.7		57.0
"	94° -	4.87	✓			8.7		53.0
"	79° 30'	4.96	✓			9.0		52.7
"	92° 30'	6.40	✓			16.2		45.5
"	82° -	6.50	✓			12.9		48.8
Waters Edge	92° 30'	8.80	✓			16.5		45.2
Ground	80° -	8.40	✓			18.4		43.3

Page 5 Transit Clark Obs. Rose Lawn Ave
 Date 6-6-99 Rec. Anker West of Pascal Ave

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
			H.I. = 961.70						
Waters Edge		92° 30'	10.70	✓			20.8		40.9.
Ground		85° 30'	10.70	✓			15.5		46.2.
Waters Edge		90° -	12.40	✓			20.2		41.5.
Ground.		84° -	12.80	✓			17.8		42.9.
"		88° 30'	12.70	✓			18.6		43.1.
"		84° -	13.3	✓			15.0		46.7.
"		77° -	13.50	✓			14.5		47.2.
"		75° -	11.60	✓			13.4		48.3.
"		67° -	11.20	✓			12.7		49.0.
"		71° -	9.55	✓			13.9		47.8.
"		62° 30'	10.40	✓			14.1		47.6.
"		57° -	8.20	✓			12.2		49.5.
"		65° 30'	7.45	✓			12.7		49.0.
"		48° -	6.80	✓			9.4		52.3.
"		57° 30'	5.80	✓			9.4		52.3.
"		39° -	5.88	✓			7.2		54.5.

Page... 6... Transit... Obs. *Clark* Line... *Roselawn Ave.*
 Date... *6-6-99* Rec. *Anker*

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	<i>H.I. =</i>	<i>961.70</i>							
<i>Ground</i>	<i>490-</i>	<i>472</i>	<i>✓</i>				<i>6.4</i>		<i>553.</i>
<i>"</i>	<i>320-</i>	<i>365</i>	<i>✓</i>				<i>4.8</i>		<i>569.</i>
<i>"</i>	<i>10°30'</i>	<i>310</i>	<i>✓</i>				<i>6.4</i>		<i>553.</i>
<i>"</i>	<i>160-</i>	<i>495</i>	<i>✓</i>				<i>4.8</i>		<i>569.</i>
<i>E Roselawn Ave.</i>	<i>00°00'</i>	<i>304</i>	<i>✓</i>				<i>5.5</i>		<i>562.</i>
<i>" " "</i>	<i>00°00'</i>	<i>481</i>	<i>✓</i>				<i>5.5</i>		<i>562.</i>
<i>Ground</i>	<i>340°-</i>	<i>332</i>	<i>✓</i>				<i>6.8</i>		<i>549.</i>
<i>"</i>	<i>344°-</i>	<i>494</i>	<i>✓</i>				<i>7.7</i>		<i>540.</i>
<i>"</i>	<i>335°30'</i>	<i>520</i>	<i>✓</i>				<i>7.2</i>		<i>545.</i>
<i>"</i>	<i>328°30'</i>	<i>552</i>	<i>✓</i>				<i>7.1</i>		<i>546.</i>
<i>"</i>	<i>308°-</i>	<i>490</i>	<i>✓</i>				<i>9.1</i>		<i>526.</i>
<i>"</i>	<i>298°30'</i>	<i>600</i>	<i>✓</i>				<i>11.4</i>		<i>503.</i>
<i>"</i>	<i>298°-</i>	<i>710</i>	<i>✓</i>				<i>9.8</i>		<i>519.</i>
<i>"</i>	<i>285°30'</i>	<i>592</i>	<i>✓</i>				<i>13.4</i>		<i>483.</i>
<i>"</i>	<i>291°30'</i>	<i>432</i>	<i>~</i>				<i>10.7</i>		<i>510.</i>
<i>"</i>	<i>304°-</i>	<i>265</i>					<i>8.7</i>		<i>530.</i>

Date 6-6-94 Rec. _____

[illegible]

Page 8 Transit Obs. Line Rose lawn Ave.

Date. 6-6-44 Rec. _____

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	H.I. = 966.38							
Ground	239° —	5.60	✓			11.3		551 .
"	231° 30'	6.85	✓			13.2		53.2 .
"	225° —	7.52	✓			13.7		527 .
"	237° —	6.90	✓			12.6		53.8 .
"	253° 30'	6.55	✓			12.7		53.7 .
"	259° 30'	6.68	✓			10.4		56.0 .
E No. Lane	264° 15'	6.58	✓			7.4		59.0 .
" So "	271° —	6.52	✓			4.8		61.6 .
Ground	254° —	4.50	✓			9.3		57.1 .
E Service Drive	256° 30'	4.48	✓			10.2		56.2 .
E So. Bound Lane	271° —	5.40	✓			5.6		60.8 .
" No. " "	260° 45'	4.42	✓			7.2		59.2 .
N.H.	266° 30'	5.46	✓			9.2		57.2 .
E No. Bound Lane	245° —	1.75	✓		6.5' to F.L., Drains East,	7.0 = Top		59.4 .
E Service Drive	231° —	2.08	✓			8.4		58.0 .
Ground	225° —	2.28	✓			9.9		56.5 +

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 966.38					
Ground	189°30'	1.63	✓			8.9		575.
& So. Bound Lane	271°—	3.35	✓			5.7		607.
& Roseclawn Ave.	180°—	1.32	✓			7.1		593.
& No. Bound Lane	180°—	0.77	✓			6.7		597.
& So. " "	270°—	1.43	✓			5.9		610.
Ground	168°—	3.76	✓			10.8		556.
"	157°30'	1.78	✓			8.1		583.
& Service Drive	153°—	1.53	✓			7.7		587.
Ground	144°30'	4.64	✓			8.8		576.
& Ground	155°30'	4.08	✓	- 0°45'	5.3 - 70.	4.0	- 9.3 4.9	615.57.1
& No. Bound Lane	139°30'	1.05	✓			6.6		598.
Ground ✓	129°—	4.90	✓			11.8		546.
M.H. + S.D.	128°45'	0.69	✓	8.5	to F.L.	8.6		57.8.
Ground	121°—	7.36	✓			14.3	= Top	52.1.
& So. Bound Lane	73°—	0.70	✓			5.1		613.
Ground	114°—	9.45	✓			17.7		487.

Date..... Rec. *Fewer*.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			

Page. 12 Transit. Obs. Clark Line. Roselawn Ave.
 Date. 6-7-99 Rec. Fewer

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
			H.I. = 966.38						
Ground.		123° -	3.76	✓			9.6		56.8
M.H. + S.D.		104° - 30'	5.96	✓	2.5' Deep		11.4	= Top	55.3
Ground.		137° - 30'	2.87	✓			8.4		58.0
M.H. + S.D.		98° - 15'	5.82	✓	10' Deep		8.5	= Top	57.9
Ground.		142° -	2.40	✓			9.8		56.2
E. North. Lane		169° -	2.01	✓			8.2		58.2
E. South Lane		95° - 30'	5.83	✓			6.6		60.4
E. South Lane		94° -	3.68	✓			5.6		60.8
Ground		99° -	3.70	✓			8.0		58.4
E. S. Drive		112° - 30'	3.85	✓			8.8		57.6
E. N. Lane		105° -	3.62	✓			6.4		60.6
Ground.		111° -	3.62	✓			9.9		36.5'
E. N. Lane		111° - 45'	2.30	✓			6.5		59.9
Ground.		104° -	2.20	✓			8.3		58.1
Ditch Line		130° -	2.43	✓			9.3		57.1
E. L. South Lane		93° -	2.16	✓			5.4		61.0

Page 13 Transit.....Obs.....Line Rose lawn. Ave
 Date 6-7-94 Rec. FCW

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
				Down-	or Angle	Equiv.			
			H.I. 966.38						
Φ. S. Drive. north.	123°-30'	2.51	✓				8.5		57.9
Φ. S. " "	147°-	1.62	✓				7.8		58.6
Ground.	143°-	1.46	✓				9.0		57.4
Ground	3130-	0.48	✓				7.5		58.9
"	288°30'	1.10	✓				8.5		57.9
"	530°30'	0.48	✓				6.5		59.9
"	350°30'	1.43	✓				8.7		57.7
"	78°-	1.35	✓				4.3		62.1
"	322°30'	1.75	✓				8.4		58.0
"	281°-	2.06	✓				9.4		57.0
"	312°-	1.98	✓				6.2		60.2
"	83°-	2.50	✓				4.0		62.4
"	302°30'	2.62	✓				8.5		57.9
"	278°30'	2.58	✓				9.4		57.0
"	87°-	3.95	✓				3.9		62.5
"	293°-	3.72	✓				7.0		59.4

Page 14 Transit Obs. Line Rose lawn Ave

Date. 6-7-44 Rec. _____

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 966.38					
Ground	277° 30'	3.42	✓			9.2		57.2
"	292° 30'	3.75	✓			4.7		61.7
"	277° 30'	3.51	✓			6.6		59.8
"	277° 30'	3.70	✓			7.0		59.4
"	290° 30'	4.52	✓			4.0		62.4
"	279° —	4.08	✓			6.5		59.9
"	286° 30'	5.46	✓			3.4		63.0
"	278° 30'	4.15	✓			8.4		58.0
"	50° 30'	1.50	✓			7.6		58.8
"	286° 30'	5.38	✓			3.4		63.0
"	277° —	5.22	✓			8.3		58.1
"	277° —	5.32	✓			6.8		59.2
"	287° —	5.50	✓			1.9		64.5
"	277° —	5.85	✓			6.7		59.7
"	286° —	6.65	✓			1.3		65.1
"	276° 30'	5.90	✓			9.4		57.8

Date... 6-7-44

Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			

Page 15 Transit Obs. Clark Line Rosekayn Ave.Date 6-7-94 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
		$H.I = 966.47$							
Ground	236° 30'	2.08	✓				7.2		59.3
"	344° 30'	2.65	✓				4.1		62.4
"	273° —	2.98	✓				4.9		61.6
"	251° 30'	3.55	✓				5.0		61.5
"	272° 30'	4.17	✓				4.5		62.0
"	256° —	4.62	✓				4.3		62.2
"	272° —	5.50	✓				4.8		61.7
"	259° —	5.95	✓				5.1		61.4
"	271° 30'	6.38	✓				5.6		60.9
"	261° 30'	7.12	✓				4.6		61.9
"	271° —	7.48	✓				4.8		61.7
"	169° 30'	1.55	✓				3.9		62.6
"	271° —	8.55	✓				4.3		61.7
"	271° —	10.15	✓				1.6		64.9
"	271° 30'	11.55	✓	+	0° 55'	118.6	5.3	+13.2	79.7
"	143° 30'	1.85		+	3° 20'	110.8	14.0	-3.2	63.3

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
	H.I. = 966.47							
Ground	115° —	2.01	✓	+	3°10'	+11.1.	15.0 - 3.9.	62.6 ✓
"	275° 30'	10.20	✓				4.0	62.5
"	281° —	10.34	✓				4.7	61.8
"	276° 30'	8.80	✓				4.6	61.9
"	283° 30'	9.00	✓				4.8	61.7
"	96° —	1.84	✓				5.2	61.3
@ Mid Oaks Lane	90° —	1.82	✓				4.5	62.0
Ground	285° 30'	7.78	✓				5.0	61.5
"	277° 30'	7.32	✓				5.5	61.0
"	288° —	6.78	✓				5.1	61.4
"	82° —	1.76	✓				5.7	65.8
"	279° —	6.18	✓				5.2	61.3
"	292° —	5.52	✓				3.9	62.6
"	281° —	5.08	✓				4.5	62.0
"	297° 30'	4.50	✓				3.8	62.7
"	52° —	2.10		+	4°02'	+14.8.	15.0 - 2.2.	66.3

Page 17 Transit Obs. Line Rose lawn Ave.
 Date 6-7-94 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
				Down-	or Angle	Equiv.			
	<i>H.I. = 966.47</i>								
<i>Ground</i>	<i>2860 -</i>	<i>3.45</i>	<i>✓</i>				<i>3.7</i>		<i>62.8</i>
<i>"</i>	<i>3060 30'</i>	<i>3.50</i>	<i>✓</i>				<i>3.1</i>		<i>63.4</i>
<i>"</i>	<i>27° -</i>	<i>2.60</i>	<i>✓</i>				<i>7.0</i>		<i>59.5</i>
<i>"</i>	<i>2920 30'</i>	<i>2.38</i>	<i>✓</i>				<i>4.5</i>		<i>62.0</i>
<i>"</i>	<i>3210 -</i>	<i>2.62</i>	<i>✓</i>				<i>3.3</i>		<i>63.2</i>
<i>"</i>	<i>3100 30'</i>	<i>1.30</i>	<i>✓</i>				<i>3.2</i>		<i>63.3</i>
<i>"</i>	<i>50 -</i>	<i>2.58</i>	<i>✓</i>				<i>3.7</i>		<i>62.8</i>
<i>"</i>	<i>3440 -</i>	<i>2.82</i>	<i>✓</i>				<i>7.2</i>		<i>59.3</i>
<i>"</i>	<i>3430 30'</i>	<i>1.11</i>	<i>✓</i>				<i>2.6</i>		<i>63.9</i>
<i>E Rose lawn Ave.</i>	<i>0000'</i>	<i>2.57</i>	<i>✓</i>				<i>3.1</i>		<i>63.4</i>
<i>GROUND</i>	<i>130 -</i>	<i>1.42</i>	<i>✓</i>				<i>7.9</i>		<i>58.6</i>
<i>To Δ # 1</i>	<i>89° 27'</i>	<i>4.55</i>	<i>✓</i>				<i>1.57</i>		<i>964.90</i>
<i>To Δ "A" E Rose lawn Ave.</i>	<i>0000'</i>	<i>2.15</i>	<i>✓</i>				<i>3.69</i>		<i>962.78</i>
<i>West Mid Oaks Lane & Rose lawn</i>	<i>0000'</i>	<i>7.10</i>	<i>✓</i>				<i>0.64</i>		<i>965.83</i>

Page 18 Transit Obs. Clark Line Roselawin Ave.
 Date 6-8-94 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	970.10 970.06			H.I. = 970.08				
At Δ 1						H.I. 5.20		964.88 964.90 ✓
To Roselawn + West Mid Oaks Lane	269° 27'	4.56	✓			8.85		61.25 961.21 ✓
To Δ 2	2° 00'	6.98	✓			1.56		968.52 ✓
Ground	261° —	2.05	✓			3.6		66.5
"	276° —	1.82	✓			2.7		67.4
"	290° —	2.10	✓			8.9		61.2
E Road	268° —	1.85	✓			7.0		63.1
" "	261° 30'	0.49	✓			5.9		64.2
Ground	232° —	2.95	✓			7.0		63.1
"	283° 30'	0.48	✓			5.2		64.9
"	223° —	3.42	✓			8.2		61.9
"	221° 30'	1.67	✓			5.2		64.9
"	200° —	1.68	✓			3.1		67.0
"	223° —	3.60	✓	+	1006' + 6.9	12.0	- 5.1	65.0 ✓
"	179° 30'	1.77	✓			3.5		66.6
"	212° —	2.50	✓			5.1		65.0

Date. 6-8-44 Rec. _____

965.83

Page 21 Transit Obs. Line Roselawn Ave
Date 6-8-44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			

Page. 22 Transit. Obs. Clark Line. Roselawn Ave.
Date. 6-8-44 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 973.72					
Ground Pathole	6°—	2.68 ✓				12.2		61.5
"	8°—	1.57 ✓				10.1		63.5
"	276°30'	2.10 ✓				10.3		63.4
E Road	271°30'	2.16 ✓				10.2		63.5
Road	271°30'	2.33 ✓				10.6		63.1
Waters Edge	273°30'	3.35 ✓				11.6		62.1
Ground	268°30'	3.70 ✓				10.0		63.7
E Road	271°30'	3.62 ✓				10.3		63.4
Ground	2750 —	3.64 ✓				11.0		62.7
"	227°30'	1.15 ✓				10.3		63.6
"	209° —	1.32 ✓				9.5		64.2
"	233° —	2.18 ✓				5.0		68.7
"	204°30'	2.08 ✓		+ 2°12'	+ 8.0	14.0	+ 6.0	67.7
"	233° —	2.84 ✓				9.7		64.0
"	194°30'	2.50 ✓		+ 0°35'	+ 2.5	5.2	+ 2.7	71.0
"	213° —	3.00 ✓				8.0		65.7

Date. 6-8-44 Rec. Anter

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM	
				Up+ Down-	No. of Int. or Angle				Rod Equiv.
	H.I. = 971.21								
Ground	128° —	3.30	✓	+	1° 38'	+ 9.4.	14.0.	- 46.	66.6
" ctr Pathole	151° 30'	2.15	✓	+	0° 45'	+ 28.	13.0	- 10.2	61.0.
Ground	159° —	2.35	✓	+	2° 10'	+ 89.	9.0	- 01.	71.1.
"	29° —	1.82	✓				8.3		629.
Elev. of Water	45° —	0.70	✓				8.58		6263.
E Roselawn Ave	0° 00	1.83	✓				4.7		66.5.
" " "	180° —	1.82	✓				5.4		65.8.
Ground	185° 30	3.35	✓				7.5		637.
"	190° —	1.89	✓				3.2		680.
"	196° 30'	3.46	✓				7.5		637.
"	207° 30'	2.26	✓				5.0		66.2,
"	211° —	3.88	✓				6.8		644.
"	292° —	0.22	✓				8.0		63.2'
"	236° —	3.25	✓				6.5		647.
"	221° 30'	4.42	✓				6.9		643.
"	246° 30'	4.65					6.8		644.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		Rod Equiv.	READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle				
	H.I. = 971.21								
Ground	229° 30'	5.12	✓				7.4		638.
"	275° 30'	1.03	✓				5.1		66.1.
"	252° —	6.00	✓				7.0		642.
"	236° —	5.90	✓				8.0		63.2.
"	274° 30'	1.81	✓				6.7		645.
"	240° 30'	6.75	✓				8.9		623.
"	255° 30'	7.32	✓				8.4		628.
"	244° —	7.63	✓				9.2		620.
"	271° 30'	3.92	✓				5.0		662.
"	247° —	8.55	✓				9.2		620.
"	258° —	8.95	✓				6.1		651.
"	272° 30'	5.48	✓				5.9		653.
"	250° —	9.50	✓				9.0		622.
"	259° —	10.15	✓				0.2		710—
"	252° —	10.65	✓				7.0		642.
"	272° —	7.95	✓				4.6		666.

[illegible]

Date. 6-8-98 Rec. Anker

Page 28 Transit Clark Obs. Rosedown Ave Line
 Date 6-10-44 Rec. Anker

OBJECT	AZIMUTH	STADIA	Dis- TANCE	INTERVALS OR VER. ANGLE		Rod Equiv.	READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle				
				H.I. = 968.01					
Ground	34°—	0.74	✓				5.5		62.5
"	17°—	2.50	✓	+	2°55'	+12.7	10.0	+2.7	70.7
"	66°—	1.59	✓				4.3		63.7
"	80°—	1.84	✓				6.5		61.5
"	90°—	2.25	✓				4.6		63.4
"	76°—	3.13	✓				5.7		62.3
"	79°—	3.90	✓				7.2		60.8
"	79°—	4.40	✓				5.5		62.5
"	30°—	2.45	✓	+	2°30'	+10.7	10.0	+0.7	68.7
"	82°—	5.05	✓	+	0°40'	+59.	13.0	+7.1	60.9
"	44°—	2.52	✓	+	2°34'	+11.3	14.0	+2.7	65.3
"	84°30'	5.60	✓	+	0°58'	+7.5	17.0	+7.5	60.5
"	93°—	5.15	✓	+	0°30'	+4.5	9.0	-4.5	63.5
"	86°—	6.30	✓	+	0°50'	+7.2	16.0	-6.8	61.2
"	97°—	5.68	✓	+	0°56'	+8.3	10.0	-1.7	66.3
"	54°—	3.00	✓	+	2°35'	+13.5	18.0	-4.5	63.5

Page 29 Transit Obs. Line Rose lawn Ave.
 Date 6-10-99 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
				H.I. = 972.42		H.I. = 6.59 above Mid Oaks Lane W.		965.83
At E Roselawn Ave 257' } West of Mid Oaks Lane West }								
To New Brighton Rd Roselawn	0°00'							
Ground	57°30'	0.96	✓			5.5		66.9
Edge Water	123°30'	1.02	✓			9.9		62.5
" "	150°30'	0.60	✓			10.2		62.2
Ground	64°—	1.50	✓	+	0°45' + 2°	12.0	+100.	82.4
" "	81°30'	1.18	✓			8.0		64.4
" "	70°—	2.00	✓	-	2°30' - 8.7	2.0	-10.7	61.7
				H.I. = 975.97		H.I. = 9.64 above Mid Oaks Lane W.		965.83
At E Roselawn Ave 225' } West of Mid Oaks Lane W. }								
To Ctr. Sec. 16	0°00'	7.35	✓					
To Δ "B" = E Roselawn Ave.	0°00'	3.35	✓			2.94		972.53
Ground	164°30'	0.88	✓			7.3		68.2
" "	103°—	0.27	✓			7.6		67.9

[illegible]

Page 31 Transit Obs. Clark Line Roseclawn Ave.

Date 6-10-99 Rec. Apker

[illegible]

Date 6-10-44 Rec. _____

Page 33 Transit Obs. Line Roselawn Ave.
 Date 6-10-24 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	<u>H.I.</u>	<u>977.88</u>							
<u>Ground</u>	<u>98°—</u>	<u>10.00</u>	✓				<u>+1.9</u>		<u>80.0.</u>
"	<u>87°—</u>	<u>9.70</u>	✓				<u>8.9</u>		<u>69.2.</u>
"	<u>91°—</u>	<u>10.20</u>	✓				<u>7.4</u>		<u>70.7.</u>
"	<u>97°30'</u>	<u>10.52</u>	✓				<u>+0.7</u>		<u>78.8.</u>
"	<u>92°30'</u>	<u>11.05</u>	✓				<u>+2.0</u>		<u>80.1.</u>
"	<u>88°—</u>	<u>11.10</u>	✓				<u>7.3</u>		<u>70.8.</u>
"	<u>97°—</u>	<u>1/2 5.50</u>	✓				<u>0.0</u>		<u>78.1.</u>
"	<u>88°—</u>	<u>12.00</u>	✓				<u>6.6</u>		<u>71.5.</u>
"	<u>92°30'</u>	<u>1/2 6.05</u>	✓				<u>15.0</u>		<u>63.1.</u>
"	<u>96°30'</u>	<u>1/2 6.05</u>	✓				<u>7.5</u>		<u>70.6.</u>
"	<u>88°—</u>	<u>13.10</u>	✓				<u>+9.5</u>		<u>82.4.</u>
	<u>93°—</u>	<u>13.10</u>	✓				<u>7.5</u>		<u>70.6.</u>
	<u>96°—</u>	<u>13.10</u>	✓				<u>16.5</u>		<u>67.6.</u>
	<u>101° 30'</u>	<u>12.0</u>	✓				<u>1.5</u>		<u>76.6.</u>
	<u>106°—</u>	<u>11.50</u>	✓				<u>8.0</u>		<u>72.1.</u>
✓	<u>109°—</u>	<u>11.10</u>	✓				<u>5.6</u>		<u>72.5.</u>

Page 34 Transit Obs. Line Roselawn Ave.
 Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
			14.1	977.88					
Ground	103°	10.10	✓				9.7		68.4.
"	105° 30'	10.20	✓				11.5		66.6.
"	109° 30'	10.72	✓				10.6		67.5.
"	104°	9.20	✓				11.9		66.2.
"	110°	9.40	✓				8.0		70.1.
"	104°	8.40	✓				10.8		67.3.
"	107° 30'	8.62	✓				7.2		70.9.
"	110° 30'	8.40	✓				9.5		68.6.
"	105° 30'	9.30	✓				6.4		71.7.
"	112° 30'	7.80	✓				1.9		76.2.
"	108°	6.30	✓				4.8		73.3.
"	115° 30'	6.60	✓				8.8		69.3.
"	112° 30'	5.00	✓				7.0		71.1.
"	116° 30'	6.08	✓				5.6		72.5.
"	120°	3.72	✓				4.2		73.9.
"	122°	5.35	✓				6.7		71.4.

Date. 6-10-44 Rec. Anker

Page 36 Transit Obs. Clark Line Roselawn Ave.
Date 6-10-44 Rec. Anker

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 977.88					
Ground	69° -	7.06	✓			8.6		69.5.
"	79° -	8.35	✓			7.5		70.2.
"	69° - 30'	9.10	✓			1.0		77.1.
"	80° -	9.50	✓			8.9		69.2.
"	71° -	9.32	✓			6.6		71.5.
"	81°	11.0	✓			4.3		73.8.
"	73° - 30'	10.0	✓			8.0		70.1.
"	83° - 30'	11.9	✓			8.0		70.1.
"	73° - 30'	10.7	✓			5.3		72.8.
" Edge water ✓	75° -	11.3	✓			8.7		69.4.
Ground Edge Water	84° -	(5.40)	✓	+ 0° 40'	+ 63.	13.2	- 6.9.	71.0.
" " "	72° 30'	11.30	✓			8.8		69.1.
Ground	78° 30'	½ = 6.70	✓			+ 3.7		81.6.
" Edge water ✓	75° —	½ = 6.25	✓			8.8		69.1.
Ground	74° 30'	½ = 6.80	✓			3.7		74.2.
" Edge water ✓	78° —	½ = 5.06	✓			8.3		69.6.

Page 37 Transit Clark Obs. Roselawn Ave Line
 Date 6-12-24 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
								H.I. = 985.74
At. Ctr. Sec. 16								H.I. = 5.26
To Δ "B"	180°00'	7.36				13.00		972.53
To E 1/4 Cor. Sec. 16	180°00'							
To N 1/4 Cor. Sec. 16	90°18'							
To E Takim St & Roselawn	0°00'							
B.M. at Conc. Base at S.E. Cor. New Brighton Rd						6.50		979.24
Ground	182°—	9.68	✓			9.7		76.0
"	182°—	7.10	✓			13.7		72.0
"	182°—	8.60	✓			8.2		77.5
"	187°—	1/2 = 4.80	✓			7.1		78.6
"	187°30'	8.65	✓			4.7		81.0
"	188°—	7.04	✓			11.5		74.2
"	192°—	1/2 = 4.90	✓			14.0		71.7
"	190°—	9.04	✓			0.2		85.5
"	198°—	8.35	✓			0.2		85.5
"	199°30'	7.42	✓			8.9		76.8

Date 6-12-44 Rec. _____

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	H.I. = 985.74								
Ground	195° 30'	8.85	✓				+1.0		86.7
"	207° —	7.60	✓				8.0		77.7
"	204° 30'	9.60	✓				9.2		76.5
"	213° —	11.4	✓				7.7		78.0
"	210° —	8.80	✓				+0.3		86.0
"	213° 30'	½ 5.05	✓				0.7		85.0
"	217° —	12.00	✓				+2.5		88.2
"	216° 30'	8.80	✓				1.4		84.3
"	220° —	½ 5.55	✓ 11.10	+	0° 35'	+11.3	8.0	+3.3	89.0
"	225° —	10.20	✓	+	0° 42'	+12.5	11.0	+1.5	87.2
"	231° —	½ 4.60	✓ 9.20	+	0° 44'	+11.8	11.0	+0.8	86.5
"	221° 30'	½ 4.75	✓ 9.50	+	0° 34'	+9.4	H.I. = 5.3	+4.1	88.8
"	219° 30'	8.20	✓	+	0° 30'	+7.2	7.0	+0.2	85.9
"	237° —	½ 4.36	✓ 9.72	+	0° 28'	+7.9	5.3	+2.6	88.3
"	232° —	½ 3.70	✓ 7.40	+	0° 40'	+8.6	5.3	+3.3	89.0
"	223° —	7.30	✓	+	0° 45'	+9.6	5.3	+4.3	90.0

Page 28 Transit.....Obs.....Line Roselawn Ave.....

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	<i>H.I. = 985.74</i>								
<i>Ground</i>	<i>224° 30'</i>	<i>6.40</i>	<i>✓</i>	<i>+</i>	<i>0° 52'</i>	<i>+ 97.41 = 5.3</i>		<i>+ 44.</i>	<i>901.</i>
<i>"</i>	<i>244° —</i>	<i>7.86</i>	<i>✓</i>	<i>+</i>	<i>0° 27'</i>	<i>+ 6.2</i>	<i>5.3</i>	<i>+ 0.9</i>	<i>86.6</i>
<i>"</i>	<i>235° —</i>	<i>6.25</i>	<i>✓</i>	<i>+</i>	<i>0° 47'</i>	<i>+ 8.9</i>	<i>5.3</i>	<i>+ 3.6</i>	<i>89.3</i>
<i>"</i>	<i>231° 30'</i>	<i>5.68</i>	<i>✓</i>				<i>+ 2.0</i>		<i>87.7</i>
<i>"</i>	<i>216° 30'</i>	<i>5.65</i>	<i>✓</i>				<i>7.7</i>		<i>78.0</i>
<i>"</i>	<i>212° 30'</i>	<i>6.32</i>	<i>✓</i>				<i>6.3</i>		<i>79.4</i>
<i>"</i>	<i>222° 00'</i>	<i>4.92</i>	<i>✓</i>				<i>8.1</i>		<i>77.6</i>
<i>"</i>	<i>204° —</i>	<i>4.88</i>	<i>✓</i>				<i>14.2</i>		<i>71.5</i>
<i>"</i>	<i>201° —</i>	<i>5.72</i>	<i>✓</i>				<i>13.5</i>		<i>72.2</i>
<i>"</i>	<i>209° —</i>	<i>4.12</i>	<i>✓</i>				<i>11.7</i>		<i>74.0</i>
<i>"</i>	<i>194° —</i>	<i>4.52</i>	<i>✓</i>				<i>15.5</i>		<i>70.2</i>
<i>"</i>	<i>201° —</i>	<i>3.55</i>	<i>✓</i>				<i>14.6</i>		<i>71.1</i>
<i>"</i>	<i>190° —</i>	<i>5.45</i>	<i>✓</i>				<i>15.2</i>		<i>70.5</i>
<i>"</i>	<i>189° —</i>	<i>4.40</i>	<i>✓</i>				<i>15.7</i>		<i>70.0</i>
<i>"</i>	<i>187° —</i>	<i>3.62</i>	<i>✓</i>				<i>15.1</i>		<i>70.6</i>
<i>E Roselawn Ave</i>	<i>180°</i>	<i>5.40</i>	<i>✓</i>				<i>12.2</i>		<i>72.8</i>

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 985.74					
E Roselawn Ave	180°—	3.65	✓			10.7		95.0
Ground	176°30'	4.188	✓	374 -	1°18' - 8.5'	5.3 -	13.8	71.9
"	171°—	3.38	✓	-	1°04' - 6.3	2.0 +	8.3	77.4
"	175°30'	2.76	✓			8.8		76.9
"	157°30'	3.00	✓			10.7		75.0
"	221°30'	0.55	✓			5.5		80.2
E Roselawn Ave	180°—	1.92	✓			7.7		78.0
Ground	188°—	1.92	✓			9.5		76.2
"	252°—	1.37	✓			7.6		78.1
"	195°—	2.00	✓			8.3		77.4
"	307°30'	0.53	✓			5.3		80.4
"	208°—	2.50	✓			12.4		73.3
"	284°30'	1.55	✓			3.1		82.6
"	262°30'	3.10	✓			0.0		85.7
"	234°30'	3.48	✓			9.2		76.5
"	278°—	2.80	✓			1.3		84.4

Page 40 Transit Obs. Line Rosdawn Ave.
Date 6-12-94 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	H.I. = 985.74								
Ground	265° —	4.30	✓				+0.4		86.1
"	275° —	3.95	✓				0.7		85.0
"	244° —	4.40	✓				0.4		85.3
"	273° 30'	5.40	✓				1.3		84.4
"	266° —	5.65	✓				1.5		84.2
"	250° 30'	5.85	✓				0.3		85.4
"	273° —	7.00	✓				3.5		82.2
"	267° —	7.05	✓				3.6		82.1
"	254° 30'	7.40	✓				1.9		83.8
E New Brighton Rd	270° 15'	7.05	✓				3.0		82.7
" " " "	270° 15'	4.20	✓				0.3		85.4
" " " "	270° 15'	2.42	✓				2.7		83.0
" " " "	269° —	33.0	✓				5.1		80.5
Ground	300° —	3.52	✓	+1° 38'		+10.0	8.0	+2.0	87.7
"	173° —	1.45	✓				10.0		75.7
"	172° 30'	12.5	✓				9.0		76.7

Date 6-12-44 Rec. _____

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	H.I. =	985.74							
Ground	348°30'	1.55	✓				1.9		838
"	157°—	2.52	✓				13.7		720
"	137°30'	1.68	✓				12.2		735
"	355°—	3.10	✓				6.6		771
"	117°30'	2.62	✓				12.7		730
"	134°30'	3.26	✓				10.1		756
"	356°30'	4.93	✓				4.4		813
"	109°30'	3.68	✓				12.3		734
"	125°—	3.97	✓				7.8		779
"	350°30'	5.00	✓				5.2		805
"	106°30'	4.70	✓				10.8		749
"	125°30'	4.30	✓				18.5		67.2
"	347°—	4.15	✓				7.1		786
"	119°—	4.80	✓				8.8		769
"	107°30'	5.45	✓				12.0		73.7
"	318°30'	1.98	✓	+	2054' +100.		5.3	+4.71	90.4'

Page 42 Transit.....Obs.....Line Rose lawn Ave
 Date 6-12-24.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
				Down-	or Angle	Equiv.			
	H.I. = 985.74								
Ground	103°30'	6.75	✓				10.3		75.4
"	115°—	4.80	✓				8.8		76.5
	94°—	6.65	✓				9.8		75.9
& Rose lawn Ave	359°50'	1.49	✓				2.8		82.9
" " "	360°—	3.35	✓				5.2		80.5
Ground	111°30'	7.00	✓				9.0		76.7
"	95°—	5.48	✓				4.9		80.8
"	119°—	6.35	✓				5.0		80.7
"	96°—	4.50	✓				6.1		79.6
"	98°—	3.32	✓				11.5		74.2
& New Brighton Rd.	90°30'	6.40	✓				8.3		77.4
" " " "	90°30'	4.80	✓				7.3		76.4
" " " "	90°25'	3.00	✓				10.8		74.9
" " " "	90°50'	1.15	✓				7.6		78.1
Ground	101°30'	2.25	✓				12.3		73.4
E.L. 18" X Drain	96°43	2.18	✓				12.7		73.0

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 985.74					
F.L. 18" X Drain	84° 25'	2.18	✓			12.5		73.2
Ground	148° —	0.54	✓			6.1		79.6
"	43° 30'	0.47	✓			6.4		79.3
"	10° —	1.61	✓			3.4		82.3
"	5° 30'	3.28	r			7.3		78.4
"	22° 30'	3.45	✓			9.5		76.2
"	39° —	2.12	✓			8.6		77.1
"	78° 30'	1.62	✓			10.2		75.5
"	38° 30'	4.02	✓			9.7		76.0
"	56° —	3.00	✓			9.5		76.2
"	83° 30'	2.61	✓			11.6		74.1
"	50° —	4.95	✓			10.0		75.7
"	62° 30'	3.78	✓			5.3		80.4
"	85° 30'	3.80	✓			10.1		75.2
"	56° 30'	5.94	✓			5.8		79.9
"	68° 30'	4.94	✓			7.4		78.3

Date..... Rec.....

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	H.I. = 985.74								
Ground	870—	5.10	✓				9.0		76.7
	63°—	7.25	✓				4.7		81.0
	73°—	6.50	✓				8.5		77.2
	88°—	6.33	✓				9.5		76.2
	54°—	8.00	✓				0.3		85.4
	51°30'	7.50	✓				1.8		83.9
	49°30'	8.35	✓				0.0		85.7
	46°—	6.50	✓				7.6		78.1
	41°—	7.60	✓				4.3		81.4
	36°—	5.38	✓				9.6		76.1
	33°30'	6.85	✓				4.9		80.8
	20°30'	4.80	✓				9.2		76.5
	24°—	6.12	✓				5.5		80.2
	3°30'	4.60	✓				6.0		79.7
	13°30'	5.88	✓				4.5		81.2
	3°45'	5.70	✓				5.1		80.6

Page 45 Transit Obs. Line Roselawn Ave.
 Date 6-12-44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	H.I. = 985.74								
To Δ "C"	90° 18'	10.05					8.35		977.39.
		976.262							978.59
		976.915							
	H.I. = 976.34								
At Δ 3							5.08		971.18
To Δ "B"	300° 50'	7.32	✓				3.68		972.73
Ground	284° —	4.32	✓				8.8		67.5
"	292° 30'	4.62	✓				10.5		65.8
"	274° —	4.18	✓				9.7		66.6
" Edge water	262° 30'	3.90	✓				14.5		61.8
" " "	259° 30'	3.35	✓				14.4		61.9
"	269° 30'	2.62	✓				12.2		64.1
" Edge water	248° —	4.60	✓				14.2		62.1
"	268° —	1.21	✓				11.7		64.6
"	266° —	0.38	✓				10.9		65.4
"	247° 30'	3.05	✓				11.9		64.4
" Edge water	235° 30'	3.20	✓				14.3		62.0
"	231° 30'	1.95	✓				14.3		62.0
"	67° —	45.0	✓	+11° 28'		78.7	5.0	+3.9	80.2?

Page 46 Transit Obs. Clark Line Bosclawn Ave.
Date 6-12-44 Rec. Anker

[illegible]

Page 1 Transit Obs. Line Larpen Ave.
Date 6-10-94 Rec. 14 94+57 16 pages

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
				H.I. = 960.98		H.I. = 545 above 97+00		955.53
At 96+57							5.32	955.66
To S.E. Cor Sec 16	0°00'							
To Δ 7	270°33'	7.02	✓					
Ground	265°—	1.88	✓				5.5	55.5'
"	272°—	2.06	✓				6.3	54.7
"	265°30	2.97	✓				3.0	58.0
"	275°30'	3.15	✓				3.4	57.6
"	310°30	2.42	✓				4.3	56.7
"	256°—	3.05	✓				1.2	59.8
"	283°—	3.25	✓				4.4	56.6
"	325°—	3.32	✓				2.6	58.4
"	245°—	2.13	✓				4.0	57.0
"	299°30'	3.55	✓				2.2	58.8
"	332°—	4.10	✓				2.7	58.3
"	225°—	2.85	✓				2.5	58.5'
"	309°—	4.15	✓				0.2	60.8

Page 2 Transit Obs. Line Larcenteur Ave

Date..... Rec..... Lt 96457

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int, or Angle			
				H.I. = 960.98				
Ground	338°30'	5.50	✓			3.0		58.0.
"	320°—	4.95	✓			0.5		60.5.
"	343°30'	6.30	✓			2.4		58.6.
"	212°—	3.50	✓			0.3		607.
"	322°30'	6.80	✓			3.2		578.
"	316°30'	6.80	✓			+0.6		616.
"	269°30'	4.08	✓			1.7		593.
"	308°—	6.00	✓	+ 0°40'	+7.0'	5.3	+1.7.	627.
"	281°—	3.98	✓			2.8		58.2.
"	295°	4.30	✓			+0.2		61.2.
				H.I. = 972.98				
A+ Δ 7						5.25		967.73
To 96+57	90°33'	7.00	✓			17.32		955.66
To Δ 8	257°32'	1/2-275	✓	560		5.3		67.7.
E Fry St.	90°30'	1.07	✓			7.9		65.1.
Ground	45°—	3.00	✓			10.3		627.

Page 3 Transit _____ Obs. _____ Line Larpenteur Ave
Date _____ Rec. _____

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 972.98					
Ground	65° 30'	2.32	✓			12.0		61.0
"	94° 30'	2.35	✓			12.5		60.5
"	41° —	1.37	✓			7.8		65.2
"	114° 30'	2.60	✓			12.4		60.6
	25° 30'	2.00	✓			7.7		65.3
	272° —	0.48	✓			4.3		68.7
	142° —	2.87	✓			11.7		61.3
	147° 30'	2.60	✓			11.1		61.9
	16° 30'	2.94	✓			7.5		65.5
	341° —	1.48	✓			6.1		66.9
	13° —	3.82	✓			9.9		63.6
	178° —	3.04	✓			7.6		65.4
	350° 30'	2.80	✓			6.9		66.1
	10° 30'	4.78	✓			11.5		61.5
	354° —	4.22	✓			10.2		62.8
	202° —	3.08	✓			3.7		69.3

Page 4 Transit.....Obs.....Line Larpenburg Ave.

Date.....Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
								<u>H.I. = 972.98</u>
Ground	7° 30'	5.98	✓			11.5		61.5
"	354° 30'	6.00	✓			8.1		64.9
"	6° 30'	6.80	✓			11.7		61.3
"	359° 30'	7.02	✓			8.5		64.5
"	253° 30'	4.08	✓	+	1° 08'	5.3	+28.	75.8
"	270° -	3.95	✓	+	1° 12'	5.3	+3.0	76.0
"	268° -	2.84	✓			+ 1.4		74.4
"	341° 30'	6.80	✓			5.5		67.5
"	339° 30'	1/2 = 4.04	✓			1.1		71.9
E Fry St.	270° 45'	2.32	✓			0.9		72.1
Ground	340° 30'	5.98	✓			5.1		67.9
"	227° -	7.05	✓			0.8		72.2
"	336° 30'	5.00	✓			4.8		68.2
"	321° 30'	6.08	✓			2.3		70.7
"	329° 30'	4.00	✓			6.5		66.5
"	252° 30'	2.38	✓			0.2		72.8

Page 5 Transit 1.0 Obs. Laurent Ave
 Date 6-14 Rec. Lt. 94+5.7

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
H.I. = 972.98									
Ground	312°30'	5.20	✓				1.9		71.1
"	319°—	3.08	✓				4.4		68.6
"	304°30'	4.65	✓				4.3		68.7
"	237°—	1.27	✓				2.8		70.2
"	293°—	2.25	✓				2.4		70.6
"	294°—	4.20	✓				0.4		72.6
"	76°30'	1.46	✓				5.4		67.6
H.I. = 982.77									
At Δ 8							H.I. = 4.78		977.99
To Δ 7	77°32' 1/2 = 2.74	✓					15.04		967.73
To Δ 9 ^{Sec. Line} to New Brighton Rd.	184°42'	✓							
Ground	52°30'	1.00	✓				5.4		77.4
"	24°30'	1.67	✓				5.5		77.3
"	342°—	1.60	✓				5.7		77.1
"	121°30'	0.90	✓				4.9		77.9
"	16°—	2.50	✓				8.4		74.4
"	347°30'	2.82	✓				8.2		74.6

Radio Antenna 194°05'

Page 6 Transit Obs. Clark Line Larpenleur Ave

Date 6-15-44 Rec. Anker 44 96457

Rained out

Page 7 Transit Obs. Anker Line Larpenteur Ave
Date 6-15-99 Rec. FEVER H. 36457

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Page... 8 ... Transit ... Obs. H. H. Ker ... Line ...
 Date... 6-15-44 ... Rec. FEWER ...

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground.									
"	225°-15'	4.35	✓	+	1°35'	+12.0	10.0	+2.0	84.8
"	215°-45'	6.48	✓	+	1°-02'	+11.7	10.0	+1.7	84.5
"	199°-45'	5.50	✓	+	0°55'	+8.8	10.0	-1.2	81.6
"	209°-30'	7.65	✓	+	1°	+13.4	10.0	+3.4	86.2
"	195°-30'	7.00	✓				1.8		81.0
"	203°-45'	9.40	✓	+	0°-42'	+11.8	10.0	+1.8	84.6
"	191°-15'	8.68	✓				0.3		82.5
"	211°-0'	10.00	✓	+	0°-49'	+14.3	10.0	+4.3	87.1
"	186°-0'	8.50	✓				2.0		80.8
"	186°-30'	7.60	✓				5.7		77.1
"	218°-	10.75	✓	+	0°-49'	+15.3	10.0	+5.3	88.1
"	221°-30'	11.50	✓	+	0°-53'	+17.7	10.0	+7.7	90.5
"	187°-45'	6.70	✓				2.2		80.6
"	222°-30'	10.00	✓	+	1°	+17.5	10.0	+7.5	90.3
"	188°-00'	5.75	✓				1.9		80.9
"	215°-	8.90	✓	+	1°	+15.5	10.0	+5.5	89.3

Page 9 Transit ANIXER Obs. Line Lapport Ave
 Date 6-15-44 Rec. FEWER Lt 96157

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
				Down-	or Angle	Equiv.			
	H. 1	982	77						
Ground	190°-30'	4.80	✓				2.9		799.
"	193°-0	3.90	✓				2.5		80.3.
"	141°-30	6.0	✓				11.4		71.4.
"	175°-30'	8.73	✓				7.4		75.4.
"	146°-45'	6.80	✓				11.0		71.8.
"	175°-00	8.75	✓				8.2		74.6.
"	175°	8.73	✓				8.0		74.8.
"	151°	7.55	✓				11.4		71.4.
"	175°	7.55	✓				5.1		77.7.
E Water run	174°-	7.50	✓				7.1		75.7.
Ground	173°-15'	7.45	✓				5.7		77.1
"	154°-	7.95	✓				11.8		71.0.
E Water run from No 40 East	174°-	7.35	✓				7.0		75.8.
Ground	180°-	7.22	✓				3.8		79.0.
d Water Run	180°-	7.10	✓				4.8		78.0.
Ground	180°-	7.00	✓				3.6		79.2.

Page 10 Transit Obs. Miller. Line. Carpentier Ave.
 Date 6-15-44 Rec. FEWEL Lt 96157

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
	171	982.77						
Ground	156°-30'	9.32	✓			12.3		70.5
"	174°-	6.60	✓			4.5		78.3
& L. Water Run.	173°-15'	6.65	✓			5.2		77.6
Ground	172°-15'	6.63	✓			4.8		78.0
"	172-45	5.45	✓			4.3		78.5
& L. W. R.	171.40°	5.50	✓			5.0		77.8
Ground.	170°-45'	5.50	✓			4.7		78.1
"	171°-0	3.35	✓			5.4		77.4
& L. W. R. N. + S.	170°-45'	3.30	✓			6.2		76.6
Ground.	180°-30	4.40				4.6		78.8
& L. Water Run.	180°-30	4.37	✓			4.9		77.9
Ground	180°-30	4.30	✓			4.1		78.7
"	168°-	3.20	✓			4.9		77.9
"								

Page 11 Transit Obs. Anker Line New Brighton Rd
Date 6-15-44 Rec. Lapoux LT 94157

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Page 12 Transit.....Obs.....Line.....
 Date 6-15-44 Rec.....

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	11. I	980.00							
Ground.	324°	6.10	✓	+1°	+10.2.	5.3	+53	85.3	
"	321°-0	8.35	✓	+0°	49'+11.9.	5.3	+6.6	86.6	
"	312°-15'	7.28	✓	+0°	57'+12.1.	5.3	+6.8	86.8	
	315'-30°	9.00	✓	+0°	54'+14.1.	5.3	+8.8	88.8	
	307°-0	8.10	✓	+1°	+14.1.	5.3	+8.8	88.8	
	299°-15'	7.30	✓	+1°	2'+13.2.	5.3	+7.7	87.9	
	290°-30'	6.85	✓	+0°	56'+11.2.	5.3	+5.9	85.9	
	303°40'	6.40	✓	+1°	+11.2.	5.3	+5.9	85.9	
	292°-	6.00	✓	+0°	55'+9.6.	5.3	+4.3	84.3	
	310°-15'	5.50	✓	+0°	57'+7.1.	5.3	+3.8	83.8	
	299°-30'	4.80	✓	+0°	05'+0.7.	5.3	+2.4	82.4	✓
	317°-30	4.78	✓	+0°	55'+7.6.	5.3	+2.3	82.3	
	309. 30	3.68	✓			0.0		80.0	
	329°-	4.10	✓			0.5		79.5	
	329.-	2.71	✓			1.8		78.2	
	347°-	3.60	✓			1.9		78.1	

92-45°-32'

Page 13 Transit Obs. Line. New Brighton Rd
 Date. 6-15-44 Rec. LT 96157

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
		H. I	980.00					
Ground	347°-	238	✓			1.9		78.1
"	3°-45'	3.50	✓			3.0		77.0
"	17°-30'	2.40	✓			4.0		76.0
"	24°-30'	3.82	✓			5.4		74.6
"	42°-	3.05	✓			8.4		71.5
"	38°-	4.40	✓			8.3		71.7
"	56°-	4.05	✓			10.5		69.5
"	45°-45'	4.95	✓			9.7		70.3
"	60°-15'	4.75	✓			9.9		70.1
"	55°-30'	6.05	✓			11.3		68.7
"	65°-45'	5.50	✓			9.5		70.5
"	64°-30'	4.33	✓			10.1		69.9
"	70°-0	3.70	✓			10.7		69.3
"	85°-0	5.05	✓			8.3		71.7
"	84°-0	3.97	✓			8.6		71.4
"	81°-30'	2.92	✓			8.7		71.3

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
E New Brighton Rd.	90°-26'	5.00	✓			9.5		70.5
"	90°-26'	3.55	✓			8.5		71.5
"	90°-26'	2.08	✓			7.4		72.6
"	270°26'	1.70	✓			3.1		76.9
"	270°34'	3.20	✓			1.3		78.7
"	270°34'	5.00	✓			+1.6		81.6
"	270°34'	6.50	✓	+0°49'	+9.3	5.3	+40.	84.0
Ground	76°15'	1.87	✓			6.2		73.8
"	54°30'	0.81	✓			4.3		75.7
"	327°—	0.56	✓			3.6		76.4
"	289°—	1.50	✓			3.0		77.0
"	281°30'	3.50	✓			2.4		77.6
"	278°—	3.65	✓			1.4		78.6
"	276°15'	4.85	✓	+0°43'	+6.1	5.3	+08.	80.8
"	275°—	6.00	✓	+0°41'	+7.2	5.3	+19.	81.9
"	274°30'	6.70	✓	+0°44'	+8.6	5.3	+33.	83.3

Page 15 Transit Obs. Line New Brighton Rd
Date 6-15-44 Rec. Lt 96+57

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
				H.I. = 980.90				
E NEW BRIGHTON ROAD	274° 30'	✓	8.20	+0° 43	+10.3.	5.3	+5.0.	850
GROUND	267° -	✓	6.95	+0° 45	+9.1.	5.3	+3.8.	83.8
"	266° -	✓	5.57	+0° 45	+7.3.	5.3	+20.	82.0
"	264° 30	✓	4.30	+0° 41	+5.1.	5.3	- o.v.	79.8
"	263° -	✓	2.86			3.7		76.3
"	(vv8) 328° -	✓	4.00			9.0		71.0
"	257° 45	✓	1.70			3.9		76.1
"	224° 30	✓	2.90			8.4		71.6
"	207° -	✓	0.43			7.0		73.0
"	183° -	✓	2.10			7.0		73.0
"	109° 30'	✓	1.00			7.2		72.8
"	182° -	✓	3.10			9.3		70.7
"	149° -	✓	1.78			6.0		74.0
"	182° -	✓	3.90			11.0		69.0
"	162° -	✓	2.90			9.2		70.8
"	181° 30	✓	4.70			11.2		68.8

Page. 16 Transit. Obs. Anker Line New Brighton Rd
Date. 4-15-94 Rec. Lanoux Lt 96457

Page... 2 ... Transit ... Obs. ... *Clark* ... Line ...
 Date ... *6-14-44* ... Rec. ... *Anker* ...

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	<i>H.I. =</i>	<i>971.52</i>							
<i>E New Brighton Rd</i>	<i>90°30'</i>	<i>640</i>	<i>✓</i>				<i>2.8</i>		<i>687</i>
	<i>90°30'</i>	<i>485</i>	<i>✓</i>				<i>3.6</i>		<i>679</i>
	<i>90°30'</i>	<i>310</i>	<i>✓</i>				<i>4.2</i>		<i>673</i>
<i>Ground</i>	<i>148°—</i>	<i>10.85</i>	<i>✓</i>				<i>5.8</i>		<i>657</i>
<i>"</i>	<i>162°—</i>	<i>9.30</i>	<i>✓</i>				<i>8.8</i>		<i>627</i>
<i>"</i>	<i>87°30'</i>	<i>640</i>	<i>✓</i>				<i>4.4</i>		<i>671</i>
<i>"</i>	<i>153°15'</i>	<i>12.80</i>	<i>✓</i>				<i>7.1</i>		<i>644</i>
	<i>165°—</i>	<i>11.20</i>	<i>✓</i>				<i>9.8</i>		<i>617</i>
	<i>72°—</i>	<i>6.75</i>	<i>✓</i>				<i>3.2</i>		<i>683</i>
	<i>66°30'</i>	<i>5.30</i>	<i>✓</i>				<i>2.7</i>		<i>688</i>
	<i>86°45'</i>	<i>4.90</i>	<i>✓</i>				<i>4.2</i>		<i>673</i>
	<i>82°30'</i>	<i>310</i>	<i>✓</i>				<i>3.1</i>		<i>684</i>
	<i>160°30'</i>	<i>11.40</i>	<i>✓</i>				<i>9.0</i>		<i>625</i>
	<i>159°—</i>	<i>11.60</i>	<i>✓</i>				<i>11.1</i>		<i>604</i>
	<i>158°30'</i>	<i>10.70</i>	<i>✓</i>				<i>9.3</i>		<i>622</i>

Page 3 Transit Obs. Line Larpenleur Ave
 Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground	165° 30'	11.95	✓				10.4		61.1
"	166° 30'	11.90	✓				12.1		59.4
"	166° 30'	12.30	✓				10.7		60.8
"	155° 15'	10.40	✓				9.2		62.3
"	56° 30'	3.70	✓				1.9		69.6
"	156° 30'	9.00	✓				8.8		62.7
"	23° 30'	2.98	✓				1.2		70.3
"	137° 15'	8.45	✓				7.4		64.1
"	137° —	8.20	✓				8.3		63.2
"	135° 45'	8.08	✓				7.3		64.2
"	120° 45'	5.3	✓				+0.9		72.4
to New Brighton Rd	90° 19'	2.38	✓				4.6		66.9
Ground	34° 30'	6.00	✓	+	0° 42'	+ 7.3	5.4	+1.9	73.4

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		Rod Equiv.	READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle				
									H.I. = 979.24
At Tatum & Larpenleur							5.30		973.94 ✓
To Tatum & Roseclown	0°00'								
To Δ 10	0°00'	9.40	✓				4.74		974.50 ✓
To S ¼ Cor Sec. 16	89°08'		✓				13.08		966.13
Ground	42°30'	3.88	✓				5.8		73.4
& Tatum St.	0°30'	2.11	✓				5.2		74.0
Ground	353°30'	2.34	✓				5.3		73.9
"	319°30'	2.54	✓				3.3		75.9
"	307°30'	41.60	✓				2.6		76.6
									979.73 979.72 } H.I. = 979.73
At Δ 10							5.23		974.50 ✓
To Tatum & Larpenleur	180°00'	9.40	✓				5.78		973.94 ✓
To Δ 11	0°00'	9.25	✓				1.02		978.71
Ground	221°—	4.30	✓				2.3		77.4
"	161°—	5.78	✓				4.5		75.2
"	234°45'	5.95	✓				+0.5		80.2 ✓

Page... 2 ...Transit... Obs... Line... Tatum St.
Date... 6-16-44 ...Rec...

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
	H/I = 979.73							
Q Tatum	178°45'	4.05	✓			5.9		73.8
Ground	153°30'	4.10	✓			4.3		75.4
"	182°45'	3.95	✓			6.6		73.1
"	234°30'	1/2-4.02	90° ✓	+	0°33'	7.7	-0.3	79.4
"	142°—	3.05	✓			5.0		74.7
"	193°45'	5.90	✓			4.6		75.1
"	119°30'	2.13	✓			7.3		72.4
"	244°—	7.45	✓	+	0°32'	7.0	+1.0	80.7
"	206°15'	3.28	✓			3.3		76.4
"	256°45'	6.85	✓	+	0°39'	7.8	+2.0	82.3
"	184°15'	2.84	✓			5.4		74.3
Q Tatum St.	178°30'	2.78	✓			5.4		74.3
Ground	78°—	1.88	✓			8.5		71. ✓
"	272°—	6.65	✓	+	0°38'	7.4	+2.2	81.9
"	170°30'	2.65	✓			5.0		74.7
"								

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	H.I. =	979.73						
Ground	285° 30'	6.95	✓	+ 0° 43'	+ 8.7.	5.2	+ 3.5.	83.2
"	47° 30'	2.55	✓			7.2		72.5
"	275° 30'	4.90	✓	+ 0° 51'	+ 7.3.	5.2	+ 2.1.	81.8
F.L. 18" Cong. X Drain	29° 45'	0.63	✓			7.45		72.3
" " " "	348° 30'	0.57	✓			7.15		72.5
Ground	291° —	5.20	✓	+ 0° 58'	+ 8.8.	5.2	+ 3.6.	83.3
	29° 45'	0.63				7.45		
& Tatum St	12° 30'	0.56	✓			5.0		74.7
Ground	30° 30'	3.57	✓			6.6		73.1
"	22° —	4.88	✓			6.5		73.2
"	281° 15'	1.52	✓			3.9		75.8
"	256° 45'	5.10	✓	+ 0° 48'	+ 7.1.	5.2	+ 1.9.	81.6
"	6° 45'	4.42	✓			3.5		76.2
& Tatum St.	1° 40'	4.42	✓			2.7		77.0
Ground	296° 45'	3.50	✓			4.0		80.7
"	330° —	3.04	✓			1.1		78.6

Page... 4 ...Transit... Obs. *Clark* ...Line... *Tatum St*
 Date... *6-14-99* ...Rec... *Anker*

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
									<i>H.I. = 979.73</i>
Ground	358° -	4.45	✓				1.7		78.0
"	271° -	3.12	✓				.05		79.2 ✓
"	357° -	3.18	✓				2.3		77.4
& Tatum St.	2° 30'	3.12	✓				3.4		76.3
Ground	301° -	3.72	✓				0.0		79.7
"	8° 45'	3.15	✓				3.8		75.9
"	332° 30'	$\frac{1}{2} \cdot 2.10$	4.20 ✓	+ 2.00 + 47.			15.0	- 0.3	75.4
		$\frac{983.987}{984.015}$		<i>H.I. = 984.00</i>					
At Δ 11							5.27		978.73 ✓ 976.71
To Δ 10	180° -	9.30	✓				9.51		974.50 ⁴⁷ ✓
To & Tatum + Roschwin	0° 00'	7.57	✓				3.20		980.80 ✓
Ground	172° -	3.30	✓				6.8		77.2
& Tatum	177° 40'	3.27	✓				6.4		77.6
Ground	182° 30'	3.25	✓				5.1		78.9
"	159° 30'	3.50	✓				8.8		75.2
"	205° -	3.60	✓	+ 0° 45' + 47.			5.3	- 0.6	83.4

Page 5 Transit Obs. Clark Line Tatum st.
Date 6-16-99 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	H.I. = 98400							
Ground	215°30'	42.00	✓	+	2°24' + 16.8	16.00	+0.8	84.8
"	137°—	0.98	✓			4.9		79.1
"	149°30'	3.78	✓			11.2		72.8
"	232°45'	2.85	✓	+	3°45' + 18.6	16.0	+2.6	86.6
"	101°45'	1.18	✓			7.6		76.4
"	138°—	4.50	✓			14.5		69.5
"	101°45'	1.45	✓			13.0		71.0
"	236°15'	1.85	✓	+	1°57' + 6.0	5.3	+0.7	84.7
"	192°—	1.00	✓			2.7		81.3
& Tatum	176°15'	0.95	✓			5.5		78.5
Ground	126°30'	5.60	✓			15.1		68.9
"	98°—	3.05	✓	-	2°20' - 12.4	5.3	-17.7	66.3
"	121°30'	6.52	✓			11.7		72.3
& Tatum	0°52'	2.90	✓			2.9		81.1
Ground	99°—	4.80	✓	-	1°58' - 16.5	5.3	-21.8	62.2
	98°45'	5.30	✓			13.4		70.6

Page 6 Transit Obs. Clark Line Tatum
Date 6-16-99 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			

Page 7 Transit Clark Obs. Clark Line Latum St.
Date 6-16-11 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			

Page 8 Transit Obs. Clark Line Roselawn Ave
 Date 6-17-44 Rec. from Toluna St

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM	
				Up+ Down-	No. of Int. or Angle				Rod Equiv.
								H.I. = 986.22	
Ground	193°15'	1.92	✓	+	2°10'	+7.3	5.4	+1.9	88.1
"	261°30'	1.72	✓				4.2		82.0
"	93°—	3.06	✓				5.0		81.2
"	220°45'	2.59	✓	+	1°12'	+5.4	5.4	0.0	86.2
• Roselawn Ave	269°—	1.78	✓				4.3		81.9
Ground	161°45'	1.88	✓	+	3°—	+9.8	5.4	+4.4	90.6
"	139°—	2.48	✓	+	1°28'	+6.3	5.4	+0.9	87.1
"	122°—	3.75	✓				2.2		84.0
"	80°45'	1.54	✓				5.6		80.6
Edge Pot hole	280°—	1.73	✓				8.3		77.9
" "	306°15'	2.55	✓				8.5		77.7
" "	322°30'	3.45	✓				8.4		77.8
" "	339°—	2.82	✓				8.5		77.7
" "	52°15'	0.43	✓				8.1		78.1
" "	344°45'	2.28	✓				8.5		77.7
" "	37°30'	1.22	✓				8.4		77.8

Page 9 Transit Obs. Line Rose lawn Ave
Date 6-17-44 Rec. from Totum st

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE	READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ No. of Int. Down- or Angle			
				H.I. = 986.22			
Ground	45°30'	212	✓		7.5		48.7
"	28°—	3.22	✓		5.5		80.7
"	351°30'	3.10	✓		4.7		81.5
"	18°30'	1.04	✓		10.0		76.2
"	349°30'	0.96	✓		10.5		75.7
"	349°30'	4.52	✓		7.0		79.2
Edge Pothole	126°15'	2.18	✓		8.2		78.0
Ground	170°30'	4.75	✓		0.3		85.9
Edge Pothole	38°45'	2.02	✓		8.3		77.9
Ground	357°—	5.68	✓		2.6		83.6
"	110°30'	6.58	✓		1.7		84.5
Edge Pothole	12°30'	2.08	✓		8.4		77.8
Ground	358°—	6.6	✓		0.4		85.8
"	0°00'	8.2	✓		+3.6		89.8
"	10°30'	7.10	✓		1.0		85.2
"	347°30'	7.85	✓		+0.7		86.9

Page 10 Transit Obs. Line Rosclawin Ave.
 Date 6-17-44 Rec. from Tatum St.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
				Down-	or Angle	Equiv.			
		H1 = 986.22							
Ground	337°30'	4.15	✓				57		80.5
"	346°—	6.80	✓				0.5		857
"	334°45'	7.40	✓				1.4		848
"	343°—	5.38	✓				7.0		792
"	330°—	6.30	✓				4.5		817
"	322°30'	5.10	✓				3.0		83.2
"	323°—	8.32	✓				37		825
"	313°45'	4.28	✓				6.3		799
"	322°—	7.10	✓				0.4		858
"	303°30'	3.65	✓				6.5		797
& Rosclawin Ave	269°—	3.12	✓				3.2		810
Ground	313°30'	6.80	✓				12.1		883
"	290°45'	3.20	✓				4.4		818
"	265°30'	3.15	✓				4.6		81.6
"	301°30'	5.80	✓				0.6		85.6
"	274°—	2.98	✓				4.4		81.8

Page 11 Transit Obs. Line Roseclawn Ave
Date 6-17-44 Rec. from Tatum St.

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 986.22					
Ground	290° 30'	5.25	✓			+1.2		87.4
"	266° 45'	4.97	✓			3.3		82.9
"	273° —	4.85	✓			1.8		84.4
& Rosclown Ave.	269° —	4.92	✓			2.1		84.1
			990.81 990.75	H.I. = 990.78				
At Δ 12						5.37		985.41 985.44
To Totum + Rosclown	189° 09'	5.65	✓			9.93		980.8
To Δ 13	269° 09'	4.48	✓			1.80		988.98
Dry well 10 or 15' deep to gravel & Top Wood M.H. Cover	123° 18'	2.05	✓	- 2° 12'	- 7.9	3.0	- 10.9	79.9
Ground	111° 45'	½ 1.03	✓	- 2° 35'	- 9.3	1.0	- 10.3	80.5
"	145° 30'	1.85	✓			8.6		82.2 ✓
"	269° 15'	1.24	✓			4.6		86.2 ✓
"	257° 15'	1.20	✓			6.0		84.8 ✓
"	165° 15'	4.12	✓			1.3		89.5 ✓
"	217° 30'	1.88	✓			5.4		85.4 ✓
"	147° —	4.65	✓	+ 1° —	+ 8.1	9.0	- 0.9	89.9 ✓

Page 11 Transit Obs. Line Roselawn Ave
Date 6-17-99 Rec. from Tatum st

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			Ht = 990.78					
Ground	205°15'	2.65	✓			5.5		85.3
"	186°30'	4.25	✓			9.7		81.1
"	194°15'	4.60	✓	+ 1° —	+ 8.0.	5.4	+ 2.6.	98.4
"	168° —	5.85	✓			+ 2.3		93.1
"	188° —	7.02	✓	+ 0°28'	+ 57.	7.0	- 1.3.	89.5
"	171°30'	12.430	✓	+ 0°48'	+ 12.0.	14.0	- 2.0.	88.8
& Rose lawn	269°09'	2.58	✓			4.0		86.8
Ground	277° —	1.80	✓			5.9		84.9
"	263°30'	2.63	✓			5.4		85.4
"	298°30'	3.00	✓			4.5		86.3
"	298°30'	2.08	✓			5.6		85.2
"	274°30'	2.62	✓			5.3		85.5
"	291° —	4.28	✓			2.8		88.0
"	320°30'	2.80	✓			5.1		85.7
"	308°30'	4.12	✓			3.7		87.1
"	331° —	3.65	✓			3.3		87.5

Page 12 Transit Obs. Line Rosclown Ave.
Date 6-17-99 Rec. from Tatum St.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 990.78					
Ground	308°—	5.65	✓			1.2		89.6
"	338°30'	4.92	✓			1.3		89.5'
"	308°—	7.40	✓			0.9		89.9
"	345°—	6.85	✓			0.8		90.0
"	314°30'	8.20	✓			1.6		89.2
"	345°30'	7.50	✓			0.2		90.6
"	308°30'	9.25	✓			+0.1		90.9
"	330°45'	7.70	✓			0.2		90.6
"	315°30'	1/2=5.22	1044	+	0°30'±9.1.	9.0	+0.1.	90.9
"	320°—	9.10	✓			+2.6		93.4
"	320°30'	7.35	✓			1.2		89.6
"	332°15'	7.05	✓			+1.9		92.7
"	326°15'	5.75	✓			1.9		88.9

Page 12 Transit Obs. Line Boscawin Ave
 Date 6-17-94 Rec. Fran. Tatum St.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
	994.35 994.295				H.I. = 994.32			
At Δ 13						5.37		988.95 988.98
To Δ 12	89°09'	4.48	✓			8.88		985.41
To W 1/4 Cor. Sec. 16	269°09'	7.95	7.91 = Meas		Mont. =	11.70		982.62
Ground	176°—	0.30	✓			4.9		89.4
"	357°30'	0.21	✓			4.3		90.0
"	179°—	1.35	✓			4.9		89.4
"	132°—	2.25	✓		-1°31' +60.	2.0	-8.0	86.3
"	179°—	2.58	✓			6.9		87.4
"	324°15'	2.00	✓			2.7		71.6
"	144°45'	3.25	✓		-10— -5.7.	3.0	-8.7.	85.6
"	179°—	4.15	✓			0.7		93.6
"	280°15'	1.33	✓			0.0		94.3
"	161°—	4.10	✓			3.7		90.6
"	179°—	5.50	✓			5.3		89.0
E Boscawin Ave	269°—	1.30	✓			5.8		88.5
	166°—	5.90	✓			7.0		89.3

982.10

Page 13 Transit Obs. Clark Line Rosclawn Ave.
 Date 6-17-44 Rec. Anker from Tatum St

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
Ground	179°15'	1/2 3.40	✓				6.6		87.7
"	257°30'	1.29	✓				2.5		91.8
"	179°—	1/2 4.20	✓				8.0		86.3
"	324°30'	3.95	✓				4.6		89.7
"	178°—	1/2 4.70	✓				8.3		86.0
"	169°30'	1/2 4.20	✓	+ 0°35' + 8.6. 160				-7.4.	86.9

Page. 1 Transit. Clark Obs. Cleveland & Roselawn Line.
Date. 6-19-44 Rec. Anker 10 Pages

OBJECT	AZIMUTH	STADIA	Dis- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	H.I.: 987.86				H.I. = 4.09 above B.M. E.L.		983.77	
At W 1/4 Cor. Sec. 16						5.34		982.52
To Δ 13	89°49'	7.80	7.91 = Meas			+1.0		88.9
To N.W. Cor. Sec. 16	0°00'							
To S.W. Cor. Sec. 16	180°07'							
To Ctr. Sec. 17	270°01'							
Ground	92°30'	7.20	✓	+	0°40' + 84.	5.3	+31.	91.0
"	93°15'	5.6	✓			0.0		87.9
"	103°—	5.72	✓			2.3		85.6
"	102°45'	7.40	✓	+	0°42' + 9.0	5.3	+3.7	91.6
& Rose lawn	89°49'	5.25	✓			0.4		81.5
Ground	110°30'	7.65	✓	+	0°35' + 78.	6.0	+1.8	89.7
"	106°30'	6.22	✓			0.4		87.5
"	86°45'	5.22	✓			1.2		86.7
"	110°45'	6.75	✓	+	0°53' + 10.4	5.3	+5.1	93.0
"	125°30'	6.70	✓			0.4		89.5
& Rose lawn Ave	89°49'	3.32	✓			2.3		85.6

Page 2 Transit Obs. Clark Line Cleveland + Roselawn
 Date 6-19-44 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Ground	117° 30'	8.15	✓	+	0° 35'	+ 8.3	5.3	+ 3.0	90.9
"	86° —	3.3	✓				1.2		86.7
"	133° —	1/2-3.80	✓				8.0		79.9
"	126° —	8.80	✓				1.1		86.8
"	138° —	7.40	✓				1.3		86.6
"	81° —	1.55	✓	+	2022'	+ 6.4	5.3	+ 1.1	89.0
"	133° —	9.70	✓				1.2		86.7
"	142° —	1/2-4.30	✓				7.0		80.9
"	139° 30'	11.00	✓				0.0		87.9
"	144° —	9.50	✓				2.0		85.9
"	147° 15'	1/2-4.70	✓				5.7		82.2 ✓
"	144° 30'	1/2-6.20	✓				3.0		84.9
"	150° 30'	10.80	✓				0.8		87.1
& Roselawn	89° 49'	1.50	✓				4.0		83.9
Ground	149° 30'	1/2-7.10	✓				2.5		85.4
"	155° —	1/2-6.40	✓				0.8		87.1

Page 3 Transit Obs. Line Cleveland + Eastdown
 Date 6-19-94 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
x Ground	40°—	1.70	✓	+	2036	+7.4	5.3 +2.1	90.0
"	161°45'	2.50	✓	+	0°10'	+3.4	5.3 -1.9	86.0
"	44°—	2.40	✓	+	1025'	+5.9	5.3 +0.6	88.5
"	161°—	12.40	✓				1.2	86.7
"	170°—	12.50	✓				1.5	86.4
"	61°—	3.36	✓	+	1055'	+11.2	5.3 +5.9	93.8
"	169°15'	12.00	✓				2.2	85.7
"	159°—	10.90	✓				7.6	80.3
"	168°45'	11.20	✓				10.4	77.5
"	70°30'	1/2=230	✓	+	1018'	+10.4	12.0 -1.6	86.3
"	157°—	9.75	✓				6.5	81.4
"	167°30'	10.00	✓				13.0	74.9
"	157°—	9.70	✓				6.5	81.4
"	166°45'	9.08	✓				9.7	78.2
"	45°30'	3.80	✓	+	1035'	+10.5	9.0 +1.5	89.4
"	185°45'	8.40	✓				14.3	73.2

82.6

Page... 4 ... Transit. Obs. Line. *Cleveland + Roselawn* ...
 Date... *6-19-44* ... Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
				Down-	or Angle	Equiv.			
<i>Ground</i>	<i>154°—</i>	<i>8.65</i>	✓				<i>2.0</i>		<i>85.9</i>
"	<i>149°15'</i>	<i>7.10</i>	✓				<i>3.6</i>		<i>79.3</i>
"	<i>150°15'</i>	<i>7.30</i>	✓				<i>4.5</i>		<i>83.4</i>
"	<i>160°30'</i>	<i>6.05</i>	✓				<i>5.8</i>		<i>82.1</i>
"	<i>146°30'</i>	<i>6.58</i>	✓				<i>1.3</i>		<i>86.6</i>
"	<i>168°30'</i>	<i>5.12</i>	✓				<i>10.4</i>		<i>77.5</i>
"	<i>139°45'</i>	<i>5.45</i>	✓				<i>5.5</i>		<i>82.4</i>
"	<i>150°30'</i>	<i>4.75</i>	✓				<i>2.9</i>		<i>85.0</i>
"	<i>128°30'</i>	<i>4.50</i>	✓				<i>0.7</i>		<i>87.2</i>
"	<i>139°30'</i>	<i>2.80</i>	✓				<i>3.1</i>		<i>84.8</i>
<i>4 Roselawn Ave.</i>	<i>269°30'</i>	<i>2.15</i>	✓				<i>8.2</i>		<i>77.7</i>
<i>Ground</i>	<i>131°45'</i>	<i>2.60</i>	✓				<i>4.3</i>		<i>83.6</i>
"	<i>125°—</i>	<i>4.10</i>	✓				<i>4.3</i>		<i>83.6</i>
"	<i>119°30'</i>	<i>1.98</i>	✓				<i>10.7</i>		<i>81.6</i>
"	<i>114°—</i>	<i>4.70</i>	✓				<i>2.1</i>		<i>85.8</i>
"	<i>101°30'</i>	<i>1.55</i>	✓				<i>4.5</i>		<i>83.4</i>

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE	READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-			
				H.I. = 987.86			
Waters Edge	222°15'	0.53	✓		10.5		774
" "	254°—	1.32	✓		10.7		77.2
" "	254°—	1.90	✓		10.7		77.2
" "	250°	2.80	✓		10.4		77.5
" "	251° 30	2.40	✓		10.5		77.4
Floor W. End Garage Door	291° 54'	2.92	✓		10.6		77.3
Waters Edge	240° 45'	2.62	✓		10.6		77.3
" "	229° 15'	2.77	✓		10.5		77.4
" "	218°—	2.98	✓		10.5		77.4
Ground	110°—	3.80	✓		3.9		84.0
"	103°—	3.20	✓		3.8		84.1
"	196° 45'	2.75	✓		0.6		87.3
E" Roseclawren	270°—	3.80	✓		9.1		78.8
Ground	205° 30'	2.65	✓		9.3		78.6
"	230° 15'	3.64	✓		0.4		87.5

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
								H.I. = 987.86
Ground	265°15'	3.92	✓			8.7		79.2
"	204°30'	3.12	✓			3.3		84.6
"	260°—	4.00	✓			5.3		82.6
"	211°—	4.68	✓	+ 10'10'	+ 9.5.	5.3	+ 4.2.	92.1
"	204°—	5.38	✓			1.3		86.6
S.E. Cor. Bldg	236°15'	2.97	✓			9.1		78.8
N.E. " "	241°—	2.82	✓			10.3		77.6
N.W. " "	243°45'	3.14	✓			2.4		85.8
Ground	249°30'	4.25	✓			1.7		86.2
"	215°—	4.15	✓	+ 1°24'	+ 10.1.	5.3	+ 4.8.	92.7
"	244°—	4.70	✓			0.0		87.9
"	211°15'	5.55	✓	+ 00°50'	+ 8.1.	10.0	- 1.9.	86.0
Waters Edge	188°30'	2.34	✓			10.4		77.5
" "	200°—	2.44	✓			10.4		77.5
FL. 24" C.M. X Drain	253°—	1.13	✓			11.5		76.4
" " " "	279°45'	1.16	✓			12.5		75.4

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 987.86					
FL. 20" C.M. X Drain	320°—	0.64	✓			12.4		75.5
" " "	310°45'	0.58	✓			8.9		79.0
Edge Water	350°30'	2.10	✓			10.5		77.4
" "	340°15'	2.53	✓			10.7		77.2
" "	339°30'	3.38	✓			10.5		77.4
" "	330°30'	4.04	✓			10.4		77.5
" "	324°45'	4.95	✓			10.4		77.5
Ground	352°—	3.07	✓			0.8		87.1
"	346°—	3.62	✓			0.3		87.6
"	339°—	4.28	✓			6.7		81.2
"	332°15'	4.08	✓			5.5		82.4
"	229°30'	5.10	✓			0.5		87.4
"	320°45'	5.60	✓			3.9		84.0
"	338°15'	1/2-3.20	✓			11.8		76.1
"	330°30'	1/2-3.70	✓	+ 0°10'	+ 22	19.0	-16.8	71.1
"	324°30'	1/2-3.85	✓			11.5		76.4

Page... 8 ... Transit... Obs... Line... Cleveland + Roselawn
 Date... 6-19-44 ... Rec...

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
		H.I. = 987.86							
Edge Water	317°30'	5.60	✓				10.5		77.4
" "	311°15'	5.95	✓				10.3		77.4
" "	304°15'	6.10	✓				10.4		77.5
" "	296°30'	5.72	✓				10.4		77.5
" "	274°30'	4.90	✓				10.5		77.4
" "	273°30'	4.22	✓				10.4		77.5
" "	312°30'	0.58	✓				10.7		77.2
Ground	273°45'	5.32	✓				10.0		77.9
Edge of Pothole	321°30'	h=400	✓				16.5		71.4
Ground	310°30'	6.25	✓				3.6		84.3
"	310°30'	6.60	✓				1.3		86.6
"	318°	9.40	✓				7.5		80.4
"	301°30'	7.05	✓				1.0		86.9
"	294°30'	6.42	✓				9.8		78.1
"	284°15'	5.60	✓				2.8		85.1
"	273°30'	6.12	✓				3.3		84.6

Page 9 Transit Obs. Line Cleveland + Roselawn
Date 6-19-44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 987.86					
E Roselawn	270° —	5.40	✓			10.4		77.5
" "	270° —	6.45	✓			11.2		76.7
" "	270° —	8.10	✓			14.4		73.5
			Water Drains West					
Edge Water	284°45'	0.83	✓			10.4		77.5
Ground	305°30'	2.20	✓			15.2		72.7
"	293°30'	1.80	✓			14.2		73.7
"	280° —	2.70	✓			14.5		73.4
"	277°30'	4.00	✓			13.5		74.4
"	288°30'	4.50	✓			14.5		73.4
"	302° —	5.10	✓			14.5		73.4
"	316° —	4.50	✓			14.0		73.9
"	324° —	3.22	✓			14.5		73.4
	305°30'	2.50	✓			15.5		72.4
	299°30'	3.10	✓			15.5		72.4
	298°30'	4.40				15.0		72.9

Page 10 Transit Obs. Clark Line Cleveland + Rose lawn
Date 6-19-94 Rec. Anker

Page Transit Obs. Line

Date..... Rec.....

Page 1 Transit Obs. Anker Line Roselawn Ave
Date 6-30-44 Rec. Clark East from Humling Ave.

Page 2 Transit Obs. Line Roseclawn Ave.
 Date 6-30-44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
$\wedge$ 958.27								
Ground	198°30'	1/2=4.90.				6.5		51.8
"	215°30'	1/2=5.40.				6.2		52.1
"	224°—	1/2=6.50.				10.4		47.9
"	235°30'	1/2=5.40.				5.4		52.9
"	226°30'	1/2=4.60				4.8		53.5
"	239°30'	5.95	+0°58'			+10.0	5.2	+4.8 63.1
"	241°45'	1/2=3.80.	+0°51'			+11.3	15.0	-3.7 54.6
"	265°30'	4.90.	+1°—			+8.5	5.2	+3.3 61.6
"	268°—	6.40.	+0°55'			+10.2	10.0	+0.2 58.5
"	248°30'	1/2=3.40.	+0°56'			+11.1	12.0	-0.9 57.4
"	273°—	6.38.	+0°41'			+7.6	8.0	-0.4 57.9
"	275°30'	3.75.	+1°28'			+9.6	5.2	+4.4 62.7
"	275°30'	4.80.	+1°09'			+9.6	5.2	+4.4 62.7
"	275°15'	3.02.	+1°10'			+6.1	5.2	+0.9 59.2
"	298°—	3.25.	+1°05'			+6.1	5.2	+0.9 59.2
"	279°30'	2.05.	+2°00'			+7.4	5.2	+2.0 60.3

Page 3 Transit Obs. Line Roselaw Ave
 Date Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
H. I. 958.27								
Ground	304°15'	232.		+	1035'	+6.4	5.2	+1.2 ^{11.2} 59.5
"	309°30'	0.43.						5.8 52.5
"	324°15'	1.45.		+	1056'	+9.8	12.0	-2.2 ^{12.0} 56.1
"	84°30'	2.40.						7.3 51.0
"	354°—	3.92.						2.2 56.1
"	42°—	0.45.						7.4 50.9
"	7°30'	2.88.						5.1 53.2
"	12°45'	1.72.						3.0 55.3
"	40°30'	2.02.						7.0 51.3
"	20°30'	2.98.						10.8 47.5
H. I. 947.40								
At A Fewer							5.28	94.12
To E Fernwood + Roselawn	0°00'							
Ground	183°30'	5.55.		+	1°20'	+11.9 ^{11.9}	5.3	+7.6 55.0
"	198°—	0.93.					7.1	40.3
"	209°	6.18.		+	0°43'	+7.7.	5.3	+2.4 49.8

Page 4 Transit Obs. Line Roselaw Ave
 Date 6-30-49 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
<u>H.I. 947.40</u>								
<u>Ground</u>	<u>185°15'</u>	<u>3.45.</u>				<u>+1.3</u>		<u>48.7.</u>
"	<u>221°45'</u>	<u>4.38.</u>		<u>+</u>	<u>0°48'</u>	<u>+6.1.</u>	<u>5.3</u>	<u>+0.8.</u>
"	<u>249°30'</u>	<u>2.35.</u>					<u>0.00</u>	<u>47.4.</u>
"	<u>222°30'</u>	<u>7.25.</u>		<u>+</u>	<u>0°40'</u>	<u>+8.4.</u>	<u>5.3</u>	<u>+3.1.</u>
"	<u>227°45'</u>	<u>4.95.</u>		<u>+</u>	<u>0°40'</u>	<u>+5.7.</u>	<u>5.3</u>	<u>+0.4.</u>
"	<u>258°—</u>	<u>3.70.</u>		<u>+</u>	<u>1°00'</u>	<u>+6.5.</u>	<u>5.3</u>	<u>+1.2.</u>
"	<u>231°—</u>	<u>8.25.</u>		<u>+</u>	<u>0°35'</u>	<u>+9.4.</u>	<u>5.3</u>	<u>+3.1.</u>
"	<u>242°45'</u>	<u>7.22.</u>		<u>+</u>	<u>0°36'</u>	<u>+9.6.</u>	<u>5.3</u>	<u>+2.1.</u>
"	<u>262°15'</u>	<u>6.23.</u>		<u>+</u>	<u>1°28'</u>	<u>+15.9.</u>	<u>5.3</u>	<u>+10.6.</u>
"	<u>268°45'</u>	<u>7.55.</u>		<u>+</u>	<u>1°15'</u>	<u>+16.5.</u>	<u>5.3</u>	<u>+11.2.</u>
"	<u>276°—</u>	<u>7.60.</u>		<u>+</u>	<u>0°48'</u>	<u>+10.6.</u>	<u>5.3</u>	<u>+5.3.</u>
"	<u>289°30'</u>	<u>8.35.</u>		<u>+</u>	<u>1°30'</u>	<u>+21.8.</u>	<u>5.3</u>	<u>+16.5.</u>
"	<u>276°30'</u>	<u>6.30.</u>		<u>+</u>	<u>0°35'</u>	<u>+6.4.</u>	<u>5.3</u>	<u>+1.1.</u>
"	<u>281°—</u>	<u>4.95.</u>		<u>+</u>	<u>0°35'</u>	<u>+5.0.</u>	<u>7.0</u>	<u>-4.0.</u>
"	<u>281°—</u>	<u>3.50.</u>		<u>+</u>	<u>1°02'</u>	<u>+6.3.</u>	<u>10.0</u>	<u>-3.7.</u>
"	<u>288°—</u>	<u>1.45.</u>					<u>0.9</u>	<u>46.5.</u>

Page 5 Transit Obs. Anker Line Roselawn Ave.
 Date Rec. Clark East of Hamline Ave.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
H.I. 947.40								
Ground	281°—	3.10.				6.7		40.7.
"	337°—	0.50.				6.6		40.8.
"	332°—	0.66.				3.5		43.9.
"	173° 30'	2.13.				5.0		42.4.
"	129° 30'	2.94.				7.9		39.5'.
"	167°—	5.22.				41.2		48.6.
"	93°—	0.28.				8.2		39.2.
"	115° 30'	4.15.				9.6		37.8.
"	91° 30'	2.75.				8.0		39.4.
"	153° 15'	5.00.				0.9		46.5.
"	91°—	5.04.				11.3		36.1.
"	91°—	9.30.				1.0		46.4.
"	100°—	9.30.				6.9		40.5. 7.
"	113° 15'	6.80.				11.6		35.8.
"	127°—	2:38.0.			+ 0° 35' + 6.6.	22.7	-16.1.	31.3.
"	118° 30'	2:44.0.				15.6	13.5 T.M.	31.8.

Page 6 Transit L.C. Obs. Roselawn Ave Line East of Hamline
 Date 7-8-44 Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. or Angle			
				Down-				
A+ Fernwood + Roselawn	H.I. 952.77 ✓					5.30		947.47 ✓
To E. 1/4 Cor. Sec. 15	0°00'							
To A Fewer	180°00'	4.40				10.60		942.17 ✓ 942.12
↓ Roselawn	180°00'	1.62				5.3		475.
Ground	212°30'	3.18				11.1		41.7.
✓	263°45'	8.48		+	1°18'	+19.2	5.0	+14.2 ✓ 67.0.
✓	268°30'	8.60		+	0°46'	+11.4	5.0	+6.4 ✓ 59.2.
✓	267°45'	6.30				0.2		526.
✓	262°45'	5.12		+	0°50'	+7.4	5.0	+2.4 ✓ 55.2.
✓	264°30'	3.60				8.0		44.8.
✓	216°00'	0.46				6.5		46.3.
✓	82°45'	0.25				7.3		45.5.
✓	97°00'	4.28				6.2		46.6.
✓	61°00'	5.25				12.0		40.8.
✓	49°30'	5.67				9.5		43.3.

Page 7 Transit L.C. Obs. Roselawn Ave Line
 Date East of Hamline Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
H.I. 952.77									
To A #1 $\pm$ Roselawn Ave	0°00'	6.35					11.65		941.12
H.I. 946.46 ✓									
At A #1							5.34		941.12
To E. 1/4 Cor. Sec. 15	0°00'	6.78					2.53		943.93 (943.91)
To Fernwood + Roselawn	180°00'	6.33					+0.99		947.45 947.47
Ground	224°00'	5.95		+	0°58'	+10.8	5.0	+5.0	51.5'
✓	234°00'	7.35		+	0°43'	+9.2	6.0	+3.2	49.7
✓	240°45'	9.10		+	0°55'	+14.6	1.0	+13.6	60.1
✓	251°45'	8.25		+	0°38'	+9.1	5.0	+4.1	50.6
✓	259°00'	13.60		+	1°10'	+27.7	5.0	+22.7	69.2
✓	264°45'	12.80		+	0°40'	+14.9	8.0	+6.9	53.4
✓	271°15'	11.30		+	1°00'	+19.7	5.0	+14.7	61.2
✓	275°45'	11.20		+	0°42'	+13.7	5.0	+8.7	55.2
✓	280°30'	9.40		+	1°08'	+18.6	5.0	+13.6	60.1
✓	273°45'	7.75		+	0°40'	+9.7	5.0	+4.7	51.2

Page 8 Transit L.C. Obs. Line Roselawn Ave.
 Date 7-2-44 Rec. A.B. East of Hamline

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	<u>Ht. 946.46</u>							
Ground	<u>273°45'</u>	<u>6.10</u>		<u>+</u>	<u>0°44'</u>	<u>+7.8</u>	<u>5.0</u>	<u>+2.8</u>
✓	<u>273°45'</u>	<u>3.72</u>					<u>7.7</u>	<u>38.8</u>
✓	<u>292°30'</u>	<u>2.40</u>					<u>10.8</u>	<u>35.7</u>
✓	<u>340°45'</u>	<u>1.42</u>					<u>6.6</u>	<u>39.9</u>
✓	<u>210°15'</u>	<u>1.98</u>					<u>9.0</u>	<u>37.5</u>
<u>↓ Roselawn Ave</u>	<u>180°00'</u>	<u>1.82</u>					<u>4.5</u>	<u>42.0</u>
Ground	<u>167°00'</u>	<u>1.88</u>					<u>6.3</u>	<u>40.2</u>
✓	<u>133°45'</u>	<u>2.70</u>					<u>4.4</u>	<u>42.1</u>
✓	<u>107°30'</u>	<u>2.89</u>					<u>5.3</u>	<u>41.2</u>
✓	<u>64°15'</u>	<u>2.55</u>					<u>9.8</u>	<u>36.7</u>
✓	<u>46°30'</u>	<u>4.05</u>					<u>5.7</u>	<u>40.8</u>
✓	<u>31°15'</u>	<u>6.15</u>					<u>6.2</u>	<u>40.3</u>
✓	<u>14°30'</u>	<u>4.50</u>					<u>4.2</u>	<u>42.3</u>
✓	<u>18°00'</u>	<u>2.98</u>					<u>9.8</u>	<u>36.7</u>
<u>↓ Roselawn Ave</u>	<u>0°00'</u>	<u>2.38</u>					<u>5.7</u>	<u>40.8</u>
Ground	<u>0°56'</u>	<u>1.90</u>					<u>11.0</u>	<u>35.5</u>
<u>That's All</u>								

Page 1 Transit L.C. Obs. Dunlap St. Line No. 2 of Larp.
 Date 7-10-44 Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.		
								B.M. Mont. Fernwood
								+ Larp. Elev. 909.58
At Larp. + Dunlap						5.34		921.16 ✓
To A #1	0° 00'	1.29				7.33		919.17 ✓
								H.I. 924.52
A + A #1						5.38		919.17
To Larp. + Dunlap	180° 00'	1.29				3.36		21.16
E. End X Drain	163° 00'	.82				10.00		14.5
W. ✓ ✓ ✓	197° 52'	.85				10.20		14.3
Ground	124° 00'	1.47				7.0		17.5
✓	347° 15'	1.37				8.8		15.7
✓	253° 00'	2.67				7.9		16.6
4 Rd. Ditch	250° 00'	2.70				9.3		15.2
Ground	103° 30'	3.02		+	2° 30' + 13.2	5.0	+ 8.2	32.7
✓	352° 00'	2.54		+	1° 43' + 7.6	5.0	+ 2.6	27.1
✓	288° 00'	1.95				10.2		14.3

Page 7 Transit 6.0 Obs. Dunlap St. Line
Date 7-10-44 Rec. A.B. No. of L.S.P.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	H. 1.924.52							
Ground	356°30'	4.95		+	1°33'	+13.4	5.0	+8.4 32.9
✓	276°45'	3.07				7.3		17.2
✓	92°45'	4.52		+	0°49'	+6.4	5.0	+1.4 25.1
✓	340°45'	5.60		+	2°38'	+24.1	5.0	+19.1 43.6
✓	89°00'	6.30		+	1°30'	+16.5	5.0	+11.5 36.0
✓	318°15'	3.52				+0.5		25.0
✓	80°30'	4.70				3.8		20.7
✓	355°30'	6.75		+	2°17'	+26.9	5.0	+21.9 46.4
✓	318°15'	5.55		+	1°54'	+18.4	5.0	+13.4 37.9
E Dunlap St.	0°00'	6.78		+	1°54'	+22.5	5.0	+17.5 42.0
Ground	4°30'	6.80		+	1°58'	+23.0	5.0	+18.0 42.5
✓	75°45'	7.05		+	1°27'	+17.8	5.0	+12.8 37.3
✓	330°45'	7.52		+	2°14'	+29.3	10.0	+19.3 43.8
✓	4°15'	4.55		+	0°54'	+7.1	5.0	+2.1 26.6
✓	56°30'	7.00		+	1°20'	+16.3	5.0	+11.3 35.8
✓	28°15'	4.50				5.3		19.7

Page 3 Transit 1.6 Obs. Dunlap St. Line Dunlap St.
 Date 7-10-44 Rec. A.B. No. of Larp.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
H.I. 924.52									
Ground	25°30'	6.15		+	1°22'	+14.7	5.0	+97.	34.2
✓	36°00'	7.10		+	1°28'	+18.2	5.0	+13.2	37.7
✓	19°15'	5.80		+	1°08'	+11.5	5.0	+6.5	31.0
✓	74°00'	2.60					6.2		18.3
✓	15°00'	7.45		+	1°33'	+20.2	5.0	+15.2	39.7
T.P. & Dunlap	0°00'	7.44		+	1°55'	+24.89	5.0	+19.89	944.41
H.I. 949.80 (949.84)									
At T.P. & Dunlap							5.39		944.41
{ Check On B.M. Spk. In 15" B.E.									
45' Lt. Sta 9+09							0.89		948.91 ✓ (948.95)
To & Dunlap + Garden	0°00'	4.48					0.25		949.59 ✓ 949.55
H.I. 954.88									
At & Dunlap + Garden							5.29		949.59 ✓
To T.P. & Dunlap	180°00'	4.48					10.43		944.45 ✓

Page 4 Transit L.C. Obs. _____ Line Dunlap St.
Date 7-13-44 Rec. A.P. _____ No. of Larp.

Page 1 Transit L.C. Obs. Lex. Ave Line No. of Larp.
 Date 7-10-44 Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
H.I. 946.86 ✓								
At Larp. + Lex.			7.25			5.41		941.45 ✓
To Δ #1 & Lex.	0°00'					12.52		934.34 ✓
H.I. 939.75 ✓								
At Δ #1						5.41		934.34 ✓
To Larp. + Lex.			7.25			+1.73		941.48 ✓
W. End X Drain	191°15'	1.28				10.9		28.9
E. ✓ ✓	168°45'	1.30				10.8		29.0
Ground	185°45'	4.66		+ 0°46'	+6.2 (+14.4)	5.0	+1.2 (+9.4)	(49.2) 41.0
✓	140°30'	5.30				2.0		37.8
✓	221°45'	3.00				3.4		36.4
✓	113°30'	7.65				+0.6		40.4
✓	285°30'	2.35				9.0		30.8
✓	269°30'	3.68				2.2		37.6
✓	103°30'	$\frac{1}{2}$ 5.65				0.7		39.1

Page 2 Transit L.C. Obs. Lev. Ave Line No. of Larp.
 Date 7-10-44 Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM	
				Up+ Down-	No. of Int. or Angle				Rod Equiv.
H.I. 939.75 .									
Ground	308°00'	6.00 .		+	1°00'	+10.5	5.0	+5.5	45.3
✓	97°30'	9.20 .					+2.8		42.6
✓	164°00'	6.30 ,		+	0°46'	+8.4	5.0	+3.4	43.2
✓	327°15'	4.13 .					5.6		34.2
✓	86°36'	$\frac{1}{2}$ 5.50 .					2.5		37.3
✓	354°30'	3.58 .					7.6		32.2
✓	81°30'	8.02 .					+2.4		42.2
⊥ Lev. Ave	0°00'	3.62 .					1.7		38.1
Ground	50°30'	3.65 .					4.6		35.2
✓	96°00'	5.80 .					5.3		34.5
✓	97°15'	4.45 .					4.9		34.9
✓	79°00'	4.70 .					8.0		31.8
✓	32°00'	5.82 .		+	0°42'	+7.1	5.0	+2.1	41.9
✓	80°00'	2.90 .					9.2		30.6
✓	50°00'	$\frac{1}{2}$ 3.75 .					4.8		35.0
✓	65°45'	5.80 .					6.6		33.2

Page 3 Transit L.C. Obs. Lex. Ave Line Lex. Ave
 Date 7-10-44 Rec. A.B. No. of Larp.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
<u>41.939.75</u>								
Ground	69°00'	7.90.				10.6		40.4
✓	19°30'	0.88.				12.7		27.1.
✓	77°00'	1.93.				9.6		30.2
✓	167°30'	2.22.				11.3		28.5.
4 Lex. Ave	0°00'	8.05.		+	0°59'	113.8.	5.0	+88. 486.
Ground	163°00'	1.70.				12.4		27.2
✓	135°15'	2.87.				3.7		36.1.
✓	311°15'	0.99.				10.3		29.5.
That's All								

Date..... Rec.....

Page 1 Transit L.C. Obs. Rose lawn Ave Line Rose lawn Ave
 Date 7-12-44 Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle	Rod Equiv.			
H.I. 949.23 ✓									
At Roselawn + Lex.							5.32		943.91
To Chatsworth + Roselawn	0°00'								
☿ Lex. Ave	89°24'	6.35.					5.3		43.9.
Ground	86°30'	6.30.					7.7		41.5'
✓	92°30'	6.58.					9.4		39.8.
✓	80°15'	3.80.					6.5		42.7.
✓	69°30'	4.00.					6.3		42.9.
✓	167°00'	1.45.					10.0		39. ✓.
✓	193°45'	3.20.					9.6		39.6.
✓	235°30'	1.88.					6.4		42.8.
✓	281°15'	1.48.					8.0		41. ✓.
☿ Lex. Ave	268°32'	2.32.					4.6		44.6.
Ground	248°00'	2.67.					6.9		42.3.
☿ Lex.	268°32'	5.13.					2.9		46.3.
Ground	283°45'	5.38.					4.1		45' ✓.

Page 3 Transit L.C. Obs. Roselawn Ave Line
Date 7-12-44 Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
H.I. 949.23.									
To A #1 & Roselawn	0°00'	7.58.					1.55		947.68. ✓
Ground ✓	301°45'	7.68.					3.2		46.0.
✓	318°00'	6.15.					5.8		43.4.
✓	314°15'	8.80.					8.6		40.6.
& Roselawn + Fernwood	178°00'								
H.I. 953.08 ✓									
A + A #1						5.40			947.68
To Lex. + Roselawn	180°00'	7.60.				9.17			(943.91). ✓
Ground	175°15'	4.00.				10.1			43.0.
✓	160°15'	1.13.				8.5			44.6.
✓	267°15'	3.95.				8.1			45.0.
✓	268°30'	6.05.				11.6			41.5.
✓	140°15'	5.15.				9.5			43.6.
✓	102°00'	4.70.				6.8			46.3.
✓	269°15'	8.65.				3.7			49.4.

Page 3 Transit L.C. Obs. Baselmann Ave. Line Baselmann Ave.
 Date Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod Equiv.			
				Down-	or Angle				
<u>H.I. 953.08</u>									
<u>Ground</u>	<u>97°00'</u>	<u>7.70</u>					<u>0.5</u>		<u>526</u>
<u>✓</u>	<u>121°15'</u>	<u>7.60</u>					<u>7.4</u>		<u>45.7</u>
<u>✓</u>	<u>285°45'</u>	<u>9.30</u>					<u>8.4</u>		<u>44.7</u>
<u>✓</u>	<u>112°00'</u>	<u>7.10</u>					<u>3.4</u>		<u>49.7</u> x
<u>✓</u>	<u>72°45'</u>	<u>7.60</u>					<u>+2.7</u>		<u>55.8</u>
<u>✓</u>	<u>285°45'</u>	<u>8.20</u>					<u>12.0</u>		<u>41.1</u>
<u>✓</u>	<u>81°30'</u>	<u>5.55</u>					<u>5.9</u>		<u>47.2</u>
<u>✓</u>	<u>65°30'</u>	<u>5.35</u>					<u>4.2</u>		<u>48.9</u>
<u>✓</u>	<u>301°00'</u>	<u>7.50</u>					<u>+3.1</u>		<u>56.2</u>
<u>✓</u>	<u>51°30'</u>	<u>3.62</u>					<u>4.6</u>		<u>48.5</u>
<u>✓</u>	<u>44°30'</u>	<u>7.65</u>		<u>+</u>	<u>0°57'</u>	<u>+12.7</u>	<u>5.0</u>	<u>+7.7</u>	<u>60.8</u>
<u>✓</u>	<u>306°45'</u>	<u>5.75</u>					<u>5.8</u>		<u>47.3</u>
<u>✓</u>	<u>27°30'</u>	<u>3.00</u>					<u>+0.7</u>		<u>53.8</u>
<u>✓</u>	<u>28°45'</u>	<u>5.85</u>		<u>+</u>	<u>0°38'</u>	<u>+6.5</u>	<u>5.0</u>	<u>+1.5</u>	<u>54.6</u>
<u>✓</u>	<u>320°15'</u>	<u>4.40</u>					<u>3.3</u>		<u>49.8</u>
<u>✓</u>	<u>4°45'</u>	<u>4.00</u>					<u>+0.2</u>		<u>53.3</u>

Date. 7-12-48 Rec. AB.

Page 1 Transit L.C. Obs. Roselawn + Victoria Line 19
 Date 7-12-44 Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Rod 3.92	B.M.	N.W. Cor. Roselawn + Victoria							
H.I. 977.98 ✓		Top S.E. Cor. Lower Step of Stucco Ho.							(974.06)
A + Roselawn + Victoria							5.23		972.75 ✓
To Larp. + Victoria	180°00'								
⊥ Victoria	180°00'	4.27 ✓					1.79		776.19.
Ground	358°30'	4.10 ✓		-	3°00'	-21.5	5.00	26.5	51.5'.
✓	35°45'	1.20 ✓					7.9		70.1'.
✓	190°45'	4.38 ✓					2.7		75.3'.
✓	196°30'	3.78 ✓					7.0		71.0'.
✓	340°45'	1.78 ✓					12.5		65.5'.
✓	35°00'	2.00 ✓		-	1°42'	-5.9	17.0	-22.9	55.1'.
✓	241°30'	0.73 ✓					6.7		71.3'.
✓	32°00'	2.85 ✓		-	1°12'	-6.0	12.0	18.0 -46.0	62.0 60.0
⊥ Victoria	67°30'	2.16 ✓					6.8		71.2'.
✓	74°15'	4.33 ✓					5.6		72.4'.
Ground	32°00'	3.75 ✓		-	3°10'	-20.7	10.0	-30.7	47.2'.
✓	31°45'	5.06 ✓					13.8		64.2'.
That's All									

No 19

Date..... Rec.....

Date..... Rec.....

Page 1 Transit L.C. Obs. Chatsworth St. Line Chatsworth St.
 Date 7-13-44 Rec. A.B. 3 Pages

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
Rod 0.37									
A.I. 945.81									
At Largo + Chatsworth							5.41		940.40
To Roselawn + Chatsworth	0°00'		✓						
Ground	309°00'	1.87	✓				2.5		43.3
✓	18°00	0.82	✓				8.3		37.5
✓	319°45	1.57	✓				7.2		38.6
	4°15'	2.88	✓				7.3		38.5
	319°45'	0.41	✓				8.8		37.0
	2°45'	4.73	✓				7.4		38.4
	27°45'	5.08	✓				5.3		40.5
	39°30'	4.10	✓				7.2		38.6
	61°45'	2.97	✓				6.4		39.4
	326°15'	4.20	✓				4.8		41.0
	84°45'	2.60	✓				8.9		36.9
	352°00'	4.72	✓				7.8		38.0
	41°15'	0.39	✓				8.1		37.7

B.M. Top of Hyd. Rt. Sta. 169 + Largo Ave.
 Elev (945.44)

Page 2 Transit Obs. Line Chatsworth St.
 Date 7-13-44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int.	Rod			
				Down-	or Angle	Equiv.			
H.I. 945.81									
Chatsworth	0°00'	4.66					5.5		40.3
✓	0°00'	1.80					6.2		39.6
To A #1	0°00'	8.73					4.94		940.87 ✓
H.I. 946.37 (946.39)									
At A #1							5.50		940.87 ✓
To Larpt Chatsworth	180°00'	8.74	✓				6.02		940.35 ✓ (940.40)
Ground	192°15'	0.93	✓				7.9		38.5
✓	170°00'	0.98	✓				6.9		39.5
✓	242°30'	2.70	✓				9.1		37.3
✓	118°45'	1.92	✓				6.9		39.5
✓	106°00'	3.45	✓				12.5		33.9
✓	358°00'	6.50	✓				4.3		42.1
✓	312°45'	7.00	✓				8.9		37.5
✓	71°00'	4.48	✓				6.2		40.2 ✓
✓	326°45'	5.80	✓				6.2		40.2 ✓

Page 3 Transit L.C. Obs. Chatsworth St. Line Chatsworth St.
Date 7-13-44 Rec. A.B.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM	
				Up+ Down-	No. of Int. or Angle				Rod Equiv.
H.I. 946.39									
Ground	358°15'	8.60	✓	+	0°51'	+12.8	5.0	+7.8	54.2
✓	49°00'	5.12	✓				2.2		44.2
4 Chatsworth	0°00'	11.15	✓	+	0°58'	+18.8	5.0	+13.8	60.2
Ground	335°00'	9.20	✓				+2.9		49.3
✓	31°15'	7.40	✓				2.4		44.0
✓	4°00'	9.00	✓	+	0°56'	+14.7	5.0	+7.7	56.1
✓	344°00'	5.85	✓				5.8		40.6
✓	21°45'	13.50	✓	+	1°18'	+30.6	5.0	+25.6	72.0
✓	13°00'	2.65	✓				9.1		37.3
✓	20°45'	9.70	✓	+	0°30'	+8.5	5.0	+3.5	49.9
✓	17°45'	7.90	✓	+	0°36'	+8.3	5.0	+3.3	49.7
✓	25°00'	5.10	✓				6.8		39.6
✓	40°15'	3.30					9.0		37.4

Page 2 Transit Obs. Clark Line
 Date Rec. Anker In Roselawn Cemetery

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	H.I. = 945.53							
Ground	228° 30'	2.68	✓			17.0		285
"	202° 30'	6.75	✓			12.6		329
"	150° 15'	4.72	✓			6.4		39.1
"	198° —	3.30	✓	- 1° 45'	- 10.1	10.0	- 20.1	25.4
"	179° 30'	6.34	✓	- 1° 18'	- 14.4	10.0	- 24.4	21.1
"	156° 15'	6.90	✓	- 0° 44'	- 8.8	10.0	- 18.8	26.7
"	257° 15'	2.95	✓			10.7		34.8
"	131° —	2.30	✓			11.3		34.2
"	181° 45'	1.85	✓			9.7		35.8
"	161° 30'	1.95	✓			12.1		33.4
"	142° 45'	7.32	✓			12.5		33.0
"	94° 45'	3.48	✓			7.4		38.1
"	146° 00'	3.90	✓	- 0° 30'	- 3.4	10.0	- 13.4	32.1
"	92° 45'	5.28	✓			11.5		34.0
"	143° 45'	8.10	✓	- 0° 53'	- 12.5	13.0	- 25.5	20.0
"	93° 45'	6.80	✓			9.9		35.6

Page 3 Transit _____ Obs. CLARK Line _____
Date _____ Rec. FEWER In Roselawn Cemetery

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
H.I. = 945.53								
Ground	118° 15'	7.45 ✓	-	1° 35'	-20.6	5.0	-25.6	19.9
"	138° 30'	7.10 ✓	-	1° 08'	-14.0	10.0	-24.0	21.5
"	135° 15'	6.40 ✓	-	0° 52'	-9.7	10.0	-19.7	25.8
"	118° 45'	5.80 ✓	-	1° 41'	-17.2	5.0	-22.2	23.3
"	118° 00'	8.80 ✓	-	1° 20'	-20.5	5.0	-25.5	20.0
"	105° 00'	8.00 ✓				13.0		32.5
"	93° 00'	7.75 ✓				10.3		35.2
"	82° 30'	6.00 ✓				7.7		37.8
"	64° 45'	6.30 ✓				2.2		43.3
"	54° 15'	3.40 ✓				5.5		40.0
"	54° 15'	6.60 ✓	+ 0° 30'	+5.8	5.0	+0.8		46.3
"	38° 15'	4.30 ✓			0.8			44.7
"	50° 30'	5.30 ✓	+ 0° 40'	+6.2	10.0	-3.8		41.7
"	27° -	6.00 ✓	+ 0 -28'	+4.9	5.0	-0.1		45.4
	42° 45'	5.72 ✓	+ 1° 0	+10.0	10.0	0.0		45.5
	19° -0	8.12 ✓	+ 0° -38'	+ 9.0	5.0	+4.0		49.5

Page 4 Transit CHARIC Obs. Line
 Date 7-13-44 Rec. FEWER

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
H.I. 945.63								
Ground	330°45'	7.60	✓	+	1°08'	+15.0	10.0	+5.0 50.5
"	150°45'	11.40	✓	+	1°00'	+19.9	5.0	+14.9 60.4
"	42°-30'	8.50	✓	+	1°-1'	+15.1	10.0	+5.1 50.6
"	17°	14.00	✓	+	1°-4'	+22.1	5.0	+21.1 66.6
"	110°-15'	14.30	✓	+	1°-36'	+39.9	5.0	+34.9 80.4
"	9°-15'	12.80	✓	+	1°-23'	+30.9	5.0	+25.9 71.4
"	3°-15'	12.70	✓	+	1°-42'	+37.7	5.0	+32.7 78.2
"	3°-0'	10.90	✓	+	1°-28'	+27.9	5.0	+22.9 68.4
"	40°-30'	13.00	✓	+	1°-39'	+37.4	5.0	+32.4 77.9
"	30°-15'	9.50	✓	+	1°-0'	+16.6	5.0	+11.6 57.1
"	351°-30'	9.80	✓	+	1°-4'	+18.2	5.0	+13.2 58.7
"	30°-30'	7.90	✓	+	0°-46'	+10.6	5.0	+5.6 51.1
"	352°-0'	7.30	✓	+	0°-53'	+11.2	5.0	+6.2 51.7
"	5°-45'	5.60	✓	+	0°-37'	+6.0	5.0	+1.0 46.5
"	346°-30'	5.20	✓				0.2	45.3
"	339°-30'	2.95	✓				7.0	38.5

Page 5 Transit Clark Obs. Victoria St
 Date 7-13-44 Rec. FEWER In Rosebush Cemetery

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
H.I. 945.53								
Ground	22°-45'	2.22	✓			4.2		41.3
"	339°-30'	1.70	✓			5.1		40.4
"	18°-0	82	✓			7.8		37.7
"	302°-0'	2.20	✓			11.4		34.1
"	259°-36'	1.68	✓			13.2		32.3
"	300°-	3.30	✓			12.4		33.1
"	321°-15'	4.50	✓			7.9		37.6
"	336°-30'	6.20	✓		+ 0°-55'	+9.9	10.0 - 0.1	45.4
"	345°-	9.40	✓		+ 0°-10'	+2.7	10.0 - 7.3	38.2
"	347°-30'	12.60			+ 1°-30'	+39.0	10.0 + 23.0	68.5

945.53 = H.I.
- 4.31
941.22
+ 13.28
954.50
- 1.14
953.36
+ 12.54
965.90
- 0.72
965.18
+ 15.41
980.59
- 4.88
975.71

Elev. of A Clark

Podia Antena 270°48'

Page 7 Transit Obs. Clark Line
Date 7-18-94 Rec. Anker

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			$H.I. = 987.06$					
Ground	$176^{\circ}15'$	2.73	✓			15.5		71.6
"	$204^{\circ}15'$	2.60	✓			7.3		79.8
"	$147^{\circ}15'$	3.28	✓			13.7		73.4
"	$237^{\circ}30'$	1.80	✓			3.7		83.4
"	$165^{\circ}15'$	1.05	✓			12.6		74.5
"	$124^{\circ}30'$	4.40	✓	- $2^{\circ}13'$	-17.0	5.0	-22.0	65.1
"	$122^{\circ}30'$	2.08	✓	- $3^{\circ}22'$	-12.2	5.1	-17.3	69.8
"	123°	7.80	✓			3.6		83.5
"	$298^{\circ}15'$	2.70	✓	+ $1^{\circ}22'$	+6.4	8.0	-1.6	85.5
"	$113^{\circ}30'$	7.22	✓			8.0		79.1
"	113°	3.95	✓	- $2^{\circ}36'$	-17.2	5.1	-22.3	64.8
"	$95^{\circ}-30'$	6.70	✓			15.8		71.3
"	$106^{\circ}-15'$	5.40	✓			14.0		73.1
"	86°	6.60	✓			1.8		85.3
"	$86^{\circ}-30'$	5.08	✓			10.6		76.5
"	$86^{\circ}-30'$	7.20	✓			4.0		83.1

Page 8 Transit. Obs. Line.
 Date 7-14-44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM	
				Up+ Down-	No. of Int. or Angle				
	H. I	987.06							
Ground	77°-15'	490		-	1°-26'	-11.4	5.1	-16.5	76.6 ✓
"	83°-15'	9.25		+	1°-20'	+21.5	5.1	+16.4	1003.5 ✓
"	87°-30'	390	✓	-	1°-33"	-10.5	5.1	-15.6	71.5
"	93°-45'	9.20	✓				4.2		82.9
"	98°- 0'	2.60	✓	-	2°-26'	-11.0	5.0	-16.0	71.1
"	85°-30'	2.60	✓	-	2°-42'	-12.2	6.0	-18.2	68.9
"	102°-30'	9.40	✓	-	1°-0'	-16.4	2.0	-18.4	68.7
"	60°-30'	2.70	✓	-	3°-27'	-16.4	6.0	-24.2	62.9
"	113°—	8.90	✓				0.8		86.3
Ground	390/5	2.60	✓	-	1°20'	-6.0	5.0	-11.0	76.1
"	113°30'	10.00	✓				9.5		77.6
"	4°45'	1.75	✓				2.0		85.1
"	118°45'	9.40	✓				12.1		75.0
"	67°15'	0.24	✓				4.0		83.1
"	322°30'	2.00	✓				10.4		87.5
"	12°—	1.01	✓				6.9		80.2

Page 9 Transit Clark Obs. Victoria St. Line
 Date 7-14-44 Rec. Anker In Roselawn Cemetery

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
								H.I. = 987.06
Ground	131°30'	8.50	✓			17.0		70.1
"	313°15'	1.23	✓			4.0		83.1
"	290°—	1.55	✓	+	2°45'	17.4	H.I. +2.3	89.4
"	295°—	2.20	✓	+	2°30'	9.6	10.0 -0.4	86.7
"	158°15'	9.20	✓	-	1°30'	24.1	H.I. -29.✓	57.9
"	285°—	4.00	✓	+	1°06'	9.7	10.0 -2.3	84.8
"	158°15'	6.52	✓	-	1°20'	15.✓	H.I. -20.3	66.8
"	141°30'	10.00	✓			19.7		67.4
"	141°15'	8.70	✓			19.9		67.2
"	277°15'	3.45	✓	+	2°36'	15.7	H.I. +10.6	97.7
"	141°30'	7.40	✓			16.5		70.6
"	141°45'	5.70	✓	-	1°48'	17.9	H.I. -23.0	64.1
"	255°15'	3.04	✓	+	4°—	21.2	H.I. +16.1	1003.2
"	235°45'	3.78	✓	+	2°12'	14.5	H.I. +9.4	96.5

H.I. 987.06
 - 0.99
 986.07
 + 3.38
 989.45
 - 13.65
 975.80
 + 2.35
 978.15
 - 4.19
 973.96 = B.M. E.I. 974.08

Page 4 Transit Obs. Line
Date 7-15-44 Rec.

[illegible]

Page. 3 Transit. Obs. Line.
 Date. 7-15-44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE			READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.			
	H.I. = 939.26								
Ground	17° —	4.10	✓	-	2° —	-14.3	5.1	-19.4	199
"	4° 45'	4.08	✓	-	0° 56'	-6.6	10.0	-16.2	22.7
"	332° 30'	3.06	✓	+	2° 05'	+11.1	5.1	+6.0	45.3
"	308° 45'	3.85	✓	+	1° 34'	+16.5	5.1	+5.4	44.7
"	333° 30'	4.62	✓	+	1° 52'	+18.0	5.1	+9.9	49.2
"	9° —	6.00	✓	-	0° 52'	-9.1	5.1	-14.2	25.1
"	335° —	6.15	✓	+	1° 32'	+16.5	5.1	+11.4	50.7
"	343° 15'	5.30	✓	+	1° 23'	+12.8	5.1	+7.7	47.0
"	334° —	2.85	✓	+	1° 51'	+11.6	10.0	+1.6	40.9
"	348° —	6.35	✓	+	0° 50'	+9.2	5.1	+4.1	43.4
"	4° —	8.70	✓	+	1° 26'	+21.8	5.1	+16.7	56.0
"	344° —	8.70	✓	+	1° 41'	+25.6	5.1	+20.5	59.8
"	346° — 15'	11.00	✓	+	1° 42'	+32.6	5.1	+27.5	66.8
"	355° — 45'	10.20	✓	+	2° —	+35.6	5.1	+30.5	69.8
"	11° — 45'	8.44	✓				2.0		37.3
"	18° — 30'	9.85	✓	+	1° 26'	+24.6	5.1	+19.5	58.8
"	17° —	7.00	✓	-	1° —	-12.2	5.1	-17.3	22.0

Page 2 Transit. Obs. Clark Line.
 Date 7-15-44 Rec. Anker

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle	Rod Equiv.		
								H.I. = 939.26
Ground	206° 30'	4.12	✓	-	2020'	-16.8	5.1	-21.9 174
" E Draw.	159° 30'	5.52	✓	-	2° 30'	-24.1	5.1	-29.2 10.1
"	176° 30'	4.40	✓	-	2010	-16.6	5.1	-21.7 17.6
"	150° 30'	4.50	✓	-	2° 37'	-20.5	5.1	-25.6 13.7
"	187° 45'	2.90	✓	-	3025	-17.3	5.1	-22.4 16.9
"	227° 30'	3.45	✓				7.0	32.3
"	200° 45'	1.85	✓	-	4005	-13.2	5.1	-18.3 21.0
"	138° 15'	3.05	✓	-	3° 25'	-18.2	5.1	-23.3 16.0
"	172° —	1.83	✓	-	4° 30'	-14.4	5.1	-19.5 17.8
"	120° —	2.32	✓	-	3° 04'	-12.4	5.1	-17.5 21.8
"	265° —	2.95	✓				2.4	36.9
"	89° 30'	0.43	✓				5.4	33.9
"	89° 30'	1.67	✓				15.1	24.2
"	267° 45'	1.60	✓				9.8	29.5
"	335° —	1.20	✓				0.9	38.4
"	34° —	2.50	✓	-	3° —	-13.1	5.1	-18.2 21.1

Page 1 Transit Clark Obs. Larpenleur Ave Line. From Grotto St
 Date 7-15-44 Rec. Anker 10 Pages

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
At Grotto + Larpenleur								
To $5\frac{1}{4}$ Cor. Sec. 14	270°00							
To Δ 13	315°33'	10.55						
	H.I. =	939.26						
At Δ 13								
To Grotto + Larpenleur	135°33'	10.26				17.63		921.63 ✓
To Δ 14	93°49	5.95						
Ground	183°30'	7.15		-	1°22'	-17.4	5.1 H.I.	-22.2 17.1 ✓
"	197°15'	7.22		-	1°30'	-18.9	5.1	-24.6 15.3 ✓
"	177°—	6.92		-	1°53'	-22.7	5.1	-27.8 11.5 ✓
"	197°30'	5.70	✓	-	1°54'	-18.9	5.1	-24.0 15.3
"	189°30'	6.25	✓	-	1°24'	-15.3	5.1	-20.4 18.9
"	211°—	5.00	✓	-	1°38'	-14.3	5.1	-19.4 19.9
"	187°30'	5.58	✓	-	2°13'	-21.6	5.1	-26.7 12.6
"	164°45'	7.20	✓	-	1°40'	-20.9	5.1	-26.0 13.3
"	197°—	4.62	✓	-	2°—	-16.1	5.1	-21.2 18.1

Page 5 Transit Obs. dark Line Lacpenteur Ave
Date 7-15-44 Rec. Fayer from Gratto

[illegible]

[illegible]

Ground
"
Low shoals are edge of Swamp.

$$\begin{array}{r} 44.93926 \\ - 1203 \\ \hline 927.23 \\ + 0.12 \\ \hline 927.11 \\ - 12.77 \\ \hline 914.34 \\ + 1.02 \\ \hline 915.36 \end{array}$$

$H_1 = 939.26$

H.I. Δ #14

91560

H/1. = 91536

At Δ 14

To Δ 13

To $\Delta 15$

Ground

So Edge of pot hole.

Ground

S. Edge of Pot hole

Ground

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		ROD EQUIV.	READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle				
				715.60					
				H.I. = 945.36					
Ground	62°30'	1.54							12.6
No Connection between pothole + swamp.							TP - 3.0 2.15 913.2191345 +15.60 928.81 = H.I. 5.12		
				H.I. = 928.81 929.05					923.69
A + Δ 15									
To Δ 14	293°50'	7.50							920.79
To Δ 16	188°-52'	4.12					8.26		920.55
S. Edge of Swamp	275°-30'	2.50	✓	- 5°30'	-23.4	5.0	-28.4		00.7
" " " "	315° 30'	1.54	✓	- 8°-56'	-23.9	5.0	-28.9		00.2
" " " "	21°-	2.80	✓	- 3°-57'	-19.3	10.0	-29.3		99.8
" " " "	40°-	5.50	✓	- 1°-45'	-16.8	10.0	-26.8		02.3
Ground	241°-	2.40	✓				8.0		21.1
"	265°-	80	✓				10.1		19.0
"	212°-	115	✓				6.4		22.7
"	224°-	3.22	✓				8.0		21.1
"	195°-	2.40	✓				9.0		20.1
"	156°-30'	2.55	✓				8.6		20.5

Page 7 Transit. Obs. Line.
 Date 7-17-44 Rec.

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+	No. of Int. Down- or Angle			
			929 05					
	H.I. = 928.81							
Ground	118°-0'	355	✓			8.8		20.3
"	92°-	100	✓			3.6		25.5
"	91°-	320	✓			3.8		25.3
"	51°-30'	125	✓			5.0		24.1
"	68°-	330	✓			2.0		27.1
"	15°-	3.65	✓			17.1		12.0
S. Edge of Swamp	42°-	360	✓	-	1°-45'-11.0	19.0	-30.0	99.1
Ground.	52°-	5.20	✓			8.4		20.7
"	60°-45'	5.00	✓			5.0		24.1
E. of Dalc. Street	40°-	605	✓			14.7		14.4
" " " "	54°-45'	545	✓			9.9		19.2
	72°-30'	5.30	✓			6.5		22.6
	88°-15'	5.70	✓			6.6		22.5
Ground	71°-30'	5.00	✓			3.5		25.6
"	92°-	5.52	✓			5.4		23.7
	103°	623	✓			8.0		21.1

Page 8 Transit Obs. Anker Line. Larpentour Ave
 Date. 7-17 Rec. F. W. M. from Grotto

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			<u>H.I. = 928.81</u>					
E of, Dale. Street	101°-45'	650	92.13 ✓			8.0		21.1
			<u>H.I. = 928.89</u>					
At Δ 16 (2 Lorp. Ave)								920.89
To Δ 15	85° 2'	4.12 ✓				2.20		920.55
To Lorp. t Grotto. (Mont.)	269°-58'	4.75 ✓				4.22		23.93
Ground	86°-45'	5.85 ✓				9.0		923.67
"	276°-	3.05 ✓				4.4		21.71
"	85°-40'	4.35 ✓				7.2		921.67
"	282°-15'	1.56 ✓				5.4		16.9
"	84°-30'	3.50 ✓				6.7		21.5
"	308°-	55 ✓				4.7		18.7
"	81°-	2.08 ✓				6.3		20.5
"	63°-45'	72				6.6		19.2
								21.2
								19.6
								19.3

921.63

Page 9 Transit Obs. Anker Line Larpenfour + Dale St.
Date 7-17-99 Rec. Fewer

OBJECT	AZIMUTH	STADIA	DIS- TANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
			H.I. = 924.21					H.I. = 275 above Hyd Elev 921.46
At Dale + Carpenter								
To Grotto + Carpenter	270°00							
Ground	344° - 45'	200	✓			4.4		198
E. Dale Street	333° -	1.97	✓			4.2		200
Ground	332° - 30'	065	✓			6.0		182
"	352° -	0.80	✓			6.5		177
"	78° -	1.70	✓			6.4		17.8
"	340° -	2.50	✓			4.6		19.6
"	339° -	4.37	✓			2.1		22.1
"	83° -	6.70	✓	+ 0° - 20'	+ 3.9	5.0	- 1.1	23.1
"	338°	5.85	✓			1.3		22.9
"	338° -	7.00	✓			2.5		21.7
"	41° - 45'	7.10	✓	+ 0° - 44'	+ 9.1	5.0	+ 4.1	283
"	28° - 30'	1.57	✓			8.1		16.1
"	6° - 15'	2.20	✓			7.0		17.2
"	6° - 45'	3.70	✓			4.3		19.9

Page ¹⁰ Transit Obs. *An. Ker* Line *Larpenteur & Dale St*
 Date *7-17-44* Rec. *F.E.M.E.R.*

OBJECT	AZIMUTH	STADIA	DISTANCE	INTERVALS OR VER. ANGLE		READ. ON ROD	DIFF. OF ELEV.	ELEVATION ABOVE DATUM
				Up+ Down-	No. of Int. or Angle			
	<i>H. 1 =</i>	<i>924.</i>	<i>21</i>					
<i>Ground</i>	<i>2°-30'</i>	<i>5.00</i>	<i>1</i>			<i>4.6</i>		<i>19.6</i>
	<i>1°-30'</i>	<i>5.20</i>				<i>8.0</i>		<i>16.2</i>

