

Rock #100 - Dr 8

LAKE JOHANNA - LAKE VALENTINE WATERWAY

9-22-30

RETURN TO State Department of Drainage and Waters, St. Paul, Minn.

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

Page 1 Transit Obs. Weber Line Lake Jabrona To Volantina
 Date 2-19-30 Rec. Beaton and Langlois Flats

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.		
At O No 1. HI = 5.1						875.9		
At O No 1. EI = 870.84								
to P.O.T. on Sea								
CHK A3 line E of mont								
to O No 2	116-54	310						
Gen'l elev Flats	335-40	412				2.6		873.3 ✓
Edge brush on island W.	328-45	410				0.7		75.2 ✓
Gen'l elev	328-35	330				1.6		74.3 ✓
Gen'l elev Flats	336-50	316				3.2		72.7 ✓
Edge brush NE end island	322-00	295				0.9		75.0 ✓
Gen'l elev Flats	325-00	250				3.5		72.4 ✓
Edge brush NE end island	314-15	342				1.0		74.9 ✓
Gen'l elev Flats	313-50	265				3.0		72.9 ✓
Edge brush NE end Isl.	308-00	395				1.7		74.2 ✓
Gen'l elev Flats	308-15	326				2.9		73.0 ✓
Gen'l elev. Flats	304-10	425				3.1		72.8 ✓
Top of slope NE end Isl	312-25	389		+ 0-30	+34	4.0	-0.6	75.3 ✓

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VALUABLE

Page 2 Transit Obs. Line
 Date 2-19-30 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.		
<i>Contd At 01</i>						<u>875.9</u>		
Top of slope NW end Isle	325-35	344		+	1-00	+6.0	5.0	+1.0 876.9 ✓
End ditch E	318-55	216						
<i>N.W. & S. E. ditch</i> Inter X E.W. ditch with main	285-05	310						
Gravel elev. Flats	297-10	110					4.1	71.8 ✓
" " "	252-00	122					4.5	71.4 ✓
N. & S. fence line - Gravel.	1-10	130					3.8	72.1 ✓
<i>Gravel elev. Flats</i> edge hay field - N.W. fence	0-40	270					3.7	72.2 ✓
End ditch running S.	335-45	245						
edge hay field Gravel elev	350-15	402						
N.W. ditch	345-40	412						
Gravel elev Flats	2-40	385					3.3	72.6 ✓
N.W. edge swamp	27-00	494					3.3	72.6 ✓
Toe S. slope Knoll	31-15	440					1.5	74.4 ✓
Toe S.E. " "	31-10	357					1.5	74.4 ✓
Edge swamp No.	22-05	410					3.4	72.5 ✓
Toe E slope Knoll	36-35	262					2.2	73.7 ✓
Edge swamp No.	24-00	286					3.4	72.5 ✓

Page 3 Transit Obs. Line
 Date 7-19-70 Rec. 875.9

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.			
<i>Cont'd</i> OBJECT <u>01</u>									
Toe E. slope Knoll	37-55	182					0.8		875.1 ✓
Edge swamp W	37-30	190					3.3		72.6 ✓
Toe E. slope Knoll	80-45	197					0.1		75.8 ✓
Edge swamp W	55-25	133					3.2		72.7 ✓
Toe E. slope ^{grade line} on E.W. sec	92-15	228					0.3		75.6 ✓
Edge swamp ^{grade line} W. on E.W. sec.	92-15	126					3.9		72.0 ✓
Toe E. slope S. bank ditch	114-45	288					1.6		74.3 ✓
bottom of E.W. ditch	115-15	290					3.9		
N bank " " "	115-50	292					0.9		75.0 ✓
End ditch edge swamp ^{W.}	124-15	250					4.6		71.3 ✓
Toe E slope Knoll	124-15	314					1.6		74.3 ✓
Edge swamp W	139-25	293					4.6		71.3 ✓
Toe E. slope Knoll	129-40	390					0.4		75.5 ✓
Edge swamp W	142-30	420					5.0		70.9 ✓
Toe S.E. pt. of fill ^{traverse} W. end	131-00	468		+ 0.40		+5.5	4.3	+1.2	77.1 ✓
Edge swamp W	134-50	448					2.3		73.6 ✓
Elev on E. slope fill	131-35	500					3.5		72.4 ✓

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Page 4 Transit Obs. LineDate 2-12-22 Rec.

8759

OBJECT	Azimuth	Stadia	Distance	Intervals or Ver. Angle		Read. on Rod	Diff. of Elev.	Elevation above Datum
				Up + Down	No. of Int. or Angle			
Cont'd AT 01								
Top R.R. Gill W. end trestle	128-00	530		+	3-33	+33.0	3.6	+29.4 905.3 ✓
Toe S. slope R.R. Gill	128-00	500		+	2-30	+21.9	5.5	+16.4 892.3 ✓
Top S. slope Knoll	128-00	435		+	1-45	+13.3	4.1	+9.2 85.1 ✓
Top E. slope Knoll	126-35	422		+	2-10	+16.0	3.1	+12.9 88.8 ✓
Top of Knoll	124-30	435		+	2-15	+17.0	3.2	+13.8 89.7 ✓
Toe W. slope Knoll	124-55	448		+	2-25	+19.0	10.2	+8.8 84.7 ✓
" " " "	116-40	495		+	1-05	+9.5	2.5	+2.0 77.9 ✓
Elev on W. slope Knoll	118-50	424		+	1-05	+8.0	4.1	+3.9 79.8 ✓
Toe W. slope Knoll	115-10	422		+	0-55	+6.8	2.1	-0.3 75.6 ✓
Top of E. slope Knoll	124-30	372		+	1-20	+8.7	2.9	+5.8 81.7 ✓
N bank E.W. ditch Top Knoll	112-30	315		+	1-00	+5.5	2.6	+2.9 78.8 ✓
Bottom E.W. ditch	111-45	312	✓	+	0-35	+3.2	6.5	-3.3 72.6 ✓
S. bank E.W. ditch Top Knoll	110-20	308		+	1-00	+5.4	3.5	+1.9 77.8 ✓
^{Slope to S.} Top Knoll on E.W. sec ^{Fence line}	92-06	265		+	2-30	+11.6	2.3	+9.3 85.2 ✓
2-20-30								
Cont'd AT 01 H.I. = 5.0								
Elev on E. slope Knoll	79-20	225		+	4-30	+17.6	2.1	+15.5 91.3 ✓
875.8								

8758

Page 5 Transit. Obs. Line. Date 2-20-30 Rec. 8758

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			
<i>Cont'd A to 1</i>								
Elev on E slope Knoll	61-20	211		+2-35	+9.5	2.1	+7.4	883.2 ✓
Elev on S.E. slope "	52-50	248		+2-15	+9.7	2.2	+7.5	83.3 ✓
" " S. " "	50-20	310		+1-55	+10.4	3.5	+6.9	82.7 ✓
" " S. " "	39-55	316		+1-00	+8.4	2.5	+2.9	78.7 ✓
" " S.W. " "	45-00	348		+1-00	+6.1	2.0	+4.1	79.9 ✓
Top Knoll E.	69-00	243		+4-55	+20.7	2.2	+18.5	94.3 ✓
" " "	77-55	250		+4-30	+19.6	2.2	+17.4	93.2 ✓
E. Slope Top pond under ^{truss}	138-30	460				2.2		73.8 ✓
Edge pond W.	146-10	422				6.4		69.4 ✓
" " "	146-05	352				6.3		69.5 ✓
" " S.W.	146-10	246				6.5		69.3 ✓
Gravel elev. flats	122-30	165				5.7		70.1 ✓
Edge pond S.W.	148-40	190				6.6		69.2 ✓
Gravel elev. flats	161-20	80				6.5		69.3 ✓
Edge pond S	171-40	173				6.4		69.4 ✓
Edge swamp SE	204-25	122				6.5		69.3 ✓
N. End ditch - edge ^{SE} swamp	203-30	202				6.6		69.2 ✓

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Page 6 Transit Obs. LineDate 2-20-30 Rec.

(875.8)

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			
Cont'd At 01								
Edge swamp S.E.	210-20	245				6.1		869.7 ✓
Edge pond E.	196-15	283				6.3		69.5 ✓
Δ pt. in N.W. & S.E. ditch	239-45	202						
Fence cor. W. & S. fence	90-00	4				5.1		70.7
#								
At 02 HI = 5.15								
CHK. Az. ^{CROSS on top} Wageroth hall - S.	329-42							881.1
Elev. of 02								875.97
to 01	116° 56'	310						
to 03	17-41	258						
Elev on W slope Knoll	114-50	157				3.5		77.6 ✓
toe W. slope Knoll	112-15	202				6.1		75.0 ✓
toe S. slope RR Sill	121-35	240		+	1-15	+5.2	8.2	-3.0 84.1 ✓
Elev. on S. " " "	130-05	215		+	2-45	+10.0	6.1	+3.9 85.0 ✓
toe S. slope " " "	115-10	270				5.0		76.1 ✓
Elev on S slope RR Sill	120-00	270		+	1-25	+6.7	3.4	+3.3 84.4 ✓

(881.1)

Page 7 Transit Obs. Line
 Date 7-20-30 Rec. 881.1

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	Rod Equiv.		
<i>Cont'd At 02</i>								
Toe S. slope RR Hill	105-30	350				5.1		876.0 ✓
Elev. on S. " " "	110-00	350		+1-25	+8.7	2.7	+6.0	87.1 ✓
Toe S. slope " " "	102-30	408				1.1		80.0 ✓
Elev. on S. slope " "	104-40	418				3.1		78.0 ✓
" " " " "	100-15	450				3.3		77.8 ✓
Elev ^{on} E. slope Hill	96-30	448		+1-30	+11.8	4.3	+7.5	88.6 ✓
" " " " "	99-25	400				2.3		78.8 ✓
Toe E. slope Hill	95-00	390				5.2		75.9 ✓
Elev. on E. slope Hill	89-00	470		+1-45	+14.4	6.0	+8.4	89.5 ✓
Toe E. slope "	84-00	430				2.7		78.4 ✓
Elev. on E. slope hill	84-00	500		+1-30	+13.1	3.6	+9.5	90.6 ✓
Elev. " " " "	78-30	500		+0-55	+8.0	3.5	+4.5	85.6 ✓
Toe E. slope hill	78-30	410				3.1		78.0 ✓
Top of E. slope to pond	71-25	400		+1-30	+10.5	7.0	+3.5	84.6 ✓
Top " " " " "	64-00	297		+1-15	+6.5	6.5	0.0	81.1 ✓
<i>S.E. cor. brush on E.W. Sec line</i>								
Toe E. slope to pond also fence ^{cor}	60-10	265				5.8		75.3 ✓
Elev. on N.E. slope also on S. fence ^{line}	54-45	268				4.7		76.4 ✓

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891.1

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	Rod Equiv.		
<i>Contd At ②</i>								
<i>fence line</i> top E. slope to pond also S.	39-00	292				4.3		876.8 ✓
Elev on N.E. slope hill	55-40	305		+ 0-45	+4.0	2.5	+1.5	82.6 ✓
" " " " " "	45-15	310		+ 1-00	+5.4	2.6	+2.8	83.9 ✓
<i>berry patch</i> " " E. slope - N. point of	33-00	345		+ 0-55	+5.5	2.7	+2.8	83.9 ✓
<i>fence</i> top E. slope to pond also S.	32-40	308				3.4		77.7 ✓
Center of pond	28-30	240				8.8		72.3 ✓
Edge of pond W.	33-00	264				7.6		73.5 ✓
<i>fence sec line</i> Edge of pond W. on E.W.	55-45	233				7.9		73.2 ✓
<i>fence sec line</i> Center of pond on E.W.	46-45	190				8.8		72.3 ✓
<i>fence</i> Edge pond E. on E.W. sec line	29-05	150				7.9		73.2 ✓
<i>fence E.W. sec line</i> Elev on W. slope knoll on	15-25	134				4.1		77.0 ✓
Edge pond E.	20-10	195				7.0		74.1 ✓
Edge pond E	34-00	114				8.0		73.1 ✓
Edge " "	56-15	64				7.5		73.6 ✓
W. end E.W. ditto	58-10	64						
Edge pond N.E.	95-00	90				8.1		73.0 ✓
Edge " N. and N.E. edge <i>brush</i>	99-25	200						73.0 ✓

Page 7 Transit Obs. Line
 Date 2-20-30 Rec. (881.1)

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	Rod Equiv.			
Contd At 02									
Edge pond N end ^{brush} Wedge	99-45	263							873.0 ✓
Edge brush W. edge pond	94-00	310							73.0 ✓
Wedge pond and edge brush W	84-25	312							73.0 ✓
center of brush (in pond)	83-45	255					7.5		873.6 ✓
E. edge brush " "	78-25	192							
center of pond	67-35	166					9.0		72.1 ✓
#									
At 03 HI = 5.0									
At 03 Elev. 876.89									
Chk. Az. ^{top pt of NE} power line standard	247-53								881.9
To 02	17-41	758							
To 04	314-54	549							
Elev on W. slope Knoll	202-10	578		+ 0-40	+6.7	3.9	+2.8		84.7 ✓
" " " "	200-00	560				3.2			78.7 ✓
" " " "	205-45	525		+ 0-40	+6.1	3.6	+2.5		84.4 ✓
" " " "	203-35	475				4.7			77.2 ✓

(881.9)

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Obs. Line

Date 2-20-30 Rec.

(881.9)

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>Cont'd A103</i>									
Top of Knoll S.	211-20	520		+	1-30	+13.6	3.6	+10.0	891.9 ✓
Toe W. slope Knoll	211-10	372					6.9		75.0 ✓
Elev on S.W. slope Knoll	211-00	465		+	0-40	+5.4	3.3	+2.1	84.0 ✓
Elev on S. slope	216-10	432		+	0-15	+1.9	3.2	-1.3	80.6 ✓
Toe W slope Knoll	222-50	330					6.6		75.3 ✓
Toe slope S. point Knoll	232-50	340					7.1		74.8 ✓
Elev on SE. slope Knoll	219-00	485					2.2		79.7 ✓
" " SW "	219-05	373					3.5		78.4 ✓
Δ pt in fence	195-00	396					2.0		74.9 ✓
Edge pond S.W.	197-00	495					8.6		73.3 ✓
Edge pond S.W.	193-30	460							73.0 ✓
" " S	199-10	410							73.0 ✓
Toe E slope hill Δ pt in fence	193-45	295					2.0		74.9 ✓
Gen'l elev center swamp	209-35	280					9.3		72.6 ✓
Toe E. slope hill also ¹¹⁹⁴ fence center swamp	197-10	165					7.0		74.9 ✓
N edge brush Gen'l in curving fence line	231-00	195					8.8		73.1 ✓
Toe E slope hill also	194-40	69					6.4		75.5 ✓

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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.			
<i>Cont'd At 03</i>									
Edge brush edge swamp E.	232-15	280					9.0		872.9 ✓
Edge swamp E.	215-00	294					8.9		73.0 ✓
^{slope hill} Δ pt in fence to E	139-30	25					3.8		78.1 ✓
Edge Swamp E	204-25	382					8.2		73.7 ✓
" " W	197-30	366					8.6		73.3 ✓
^{on E slope hill} S edge hermie patch - Elev.	131-15	91		+ 2-25		+3.8	1.4	+2.4	84.3 ✓
edge swamp W.	197-30	277					8.3		73.6 ✓
Elev E slope hill in patch	166-50	160		+ 2-20		+6.5	1.8	+4.7	86.6 ✓
Edge swamp W	209-30	205							
^{in patch} Elev on E. slope hill	181-15	271		+ 1-35		+7.5	3.4	+4.1	86.0 ✓
Edge swamp W	208-30	92							
Edge brush N.W.	238-10	102							
^{line E & W} Edge brush W. on fence	308-50	152							
Edge swamp W " "	223-50	115							
Elev on E slope hill	63-00	53		+ 4-15		+3.9	1.2	+2.7	84.6 ✓
^{Toe E slope hill} Fence InterX N.S. & E fence	336-00	102					6.4		75.5 ✓
Toe E slope hill (fence line)	50-00	6					4.4		77.5

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(881.9)

OBJECT	Azimuth	Stadia	Distance	Intervals or Ver. Angle		Read. on Rod	Diff. of Elev.	Elevation above Datum
				Up + No. of Int. Down - or Angle	Rod Equiv.			
<i>Cutd At 03</i>								
<i>Gen'l elev.</i>	<i>290-00</i>	<i>65</i>				<i>8.0</i>		<i>873.9</i> ✓
<i>Elev on E slope hill</i>	<i>0-50</i>	<i>94</i>		<i>+ 2-15</i>	<i>+3.7</i>	<i>7.5</i>	<i>+2.2</i>	<i>84.1</i> ✓
<i>Edge swamp W. ^{Top E slope hill} fence line</i>	<i>335-30</i>	<i>160</i>				<i>7.0</i>		<i>74.9</i> ✓
<i>EL on E Slope hill</i>	<i>345-15</i>	<i>161</i>		<i>+ 1-20</i>	<i>+3.7</i>	<i>1.8</i>	<i>+1.9</i>	<i>83.8</i> ✓
<i>Edge swamp W. ^{Slope hill} F.L. ^{Top E}</i>	<i>335-00</i>	<i>254</i>				<i>7.5</i>		<i>74.4</i> ✓
<i>EL on E Slope hill</i>	<i>341-30</i>	<i>235</i>		<i>+ 0-45</i>	<i>+3.3</i>	<i>2.3</i>	<i>+1.0</i>	<i>82.9</i> ✓
<i>Edge swamp W. ^{Slope hill} F.L. ^{Top E}</i>	<i>333-55</i>	<i>345</i>				<i>7.3</i>		<i>74.6</i> ✓
<i>EL on E Slope hill</i>	<i>338-00</i>	<i>347</i>		<i>+ 0-50</i>	<i>+5.0</i>	<i>2.7</i>	<i>+2.3</i>	<i>84.2</i> ✓
<i>Edge swamp ^{E Slope hill} SW F.L. ^{Top}</i>	<i>331-10</i>	<i>434</i>				<i>7.6</i>		<i>74.3</i> ✓
<i>EL on E. slope hill</i>	<i>334-20</i>	<i>440</i>		<i>+ 0-35</i>	<i>+4.5</i>	<i>3.2</i>	<i>+1.3</i>	<i>83.2</i> ✓
<i>" " " " "</i>	<i>332-45</i>	<i>485</i>		<i>+ 1-35</i>	<i>+4.9</i>	<i>3.4</i>	<i>+1.5</i>	<i>83.4</i> ✓
<i>Gen'l Elev. in swamp</i>	<i>323-05</i>	<i>470</i>				<i>7.9</i>		<i>74.0</i> ✓
<i>Edge brush W.</i>	<i>318-40</i>	<i>392</i>						
<i>" " "</i>	<i>314-00</i>	<i>303</i>						
<i>Gen'l Elev. in swamp</i>	<i>317-00</i>	<i>242</i>				<i>8.4</i>		<i>73.5</i> ✓
<i>Edge brush W.</i>	<i>307-00</i>	<i>236</i>						

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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.		
At 0 4 H.I. = 5.15								
At 0 4 Elev = 874.40								
Top pt of power								
CHK. Az. line standard N.E. 221-30								
To 0 3	314° 54'	549						
To 0 5	246-59	691						
Toe E slope hill-end fence	43-30	122				2.9		876.7 ✓
Slope hill								
Edge swamp S.W. F.L. toe E	79-40	150				4.7		74.9 ✓
Elev on E. slope hill	46-40	154		+ 2-35	+6.9	1.8	+5.1	84.7 ✓
Toe E slope hill N slope	29-30	115				2.2		77.4 ✓
N slope								
Elev on E slope hill 2	25-15	156		+ 3-50	+10.4	1.8	+8.6	88.2 ✓
Toe N slope Rd	7-35	108				1.5		78.1 ✓
Elev on N slope Rd	15-00	126		+ 3-10	+7.0	1.6	+5.4	85.0 ✓
Toe N slope Rd	325-55	120				2.3		77.3 ✓
Elev on N slope Rd	352-35	114		+ 2-40	+5.3	1.0	+4.3	83.9 ✓
W. Edge Concrete Foundation								
Toe N slope Rd	311-25	156				0.4		79.2 ✓
Elev on N slope Rd	313-50	164		+ 2-25	+6.9	0.8	+6.1	85.7 ✓
Toe N. slope Rd	305-15	200		+ 2-00	+7.0	4.0	+3.0	82.6 ✓

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Page 14 Transit Obs. Line

Date Rec.

879.6

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>Cont'd At 04</i>								
End fence running N.	292-15	176				3.3		876.3 ✓
20'E. X 36'S.								
N.W. cor concrete Foundation	299-40	134				3.4		76.2 ✓
N.E. cor Shed 20'SW X 12'SE	294-30	214		+ 0-55	+ 3.4	2.0	+ 1.4	81.0 ✓
Beginning fence N.	288-45	122				4.4		75.2 ✓
Fence line N & S	250-00	125	✓					
" " " "	255-55	172						
Inter X fences	217-15	197						
" " "	228-00	230						
N.W. fence line	201-00	220	✓					
	222-30	240	?					
Δ in fence	182-36	286				6.2		73.4 ✓
Δ " "	214-00	220						
Edge brush E. (fence line)	172-40	290						
Edge brush E	191-00	277				6.7		72.9 ✓
Edge " "	174-40	216				6.6		73.0 ✓
Δ in fence	188-20	382				6.8		72.8 ✓
Edge brush power line	177-00	110						

Page 15 Transit Obs. Line
 Date 2-20-30 Rec. 879.6

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>Cont'd 4404</i>								
S. Edge brush	122-40	84	✓					
Gen'l elev	210-00	98				5.9		873.7 ✓
Edge swamp S.	304-00	102	✓					
" " "	345-20	80						
" " SW	33-20	84	✓					
" " W	66-30	131				5.0		874.6 ✓
± dirt Rd.	27-10	229		+ 7-00	+27.7	3.1	+24.6	904.2 ✓
" " "	359-45	167		+ 8-00	+23.0	4.8	+18.2	897.8 ✓
" " "	323-15	187		+ 5-30	+17.8	4.9	+12.9	92.5 ✓
" " "	304-00	264		+ 2-40	+12.3	4.3	+8.0	87.6 ✓
± Int'X with ^{Blvd.} Johanna	289-25	387		+ 1-30	+10.0	5.9	+4.1	83.7 ✓
E. edge brush	176-30	400				6.5		73.1 ✓
Gen'l elev.	181-35	483				6.6		73.0 ✓
" " "	184-35	568				6.8		72.8 ✓
N.S. Fence	192-00	540				6.4		73.2 ✓
± Johanna Blvd	276-10	452		+ 1-10	+7.9	3.2	+4.7	84.3 ✓
△ in fence	192-35	508						

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Page 16 Transit Obs. Line Date 2-20-30 Rec.

979.6

OBJECT	Azimuth	Stadia	Distance	Intervals or Ver. Angle		Read. on Rod	Diff. of Elev.	Elevation above Datum
				Up + Down -	No. of Int. or Angle			
Cont'd AT 4								
E Lake Johanna Blvd	267-00	543		+ 0-55		+8.7	3.7	+5.0 884.6 ✓
Fence line SE 2 N.W.	189-30	440	✓					
Gen'l elev	197-15	590					6.6	73.0 ✓
Edge swamp S.	284-50	210					4.4	75.2 ✓
" " S.	259-40	271					4.0	75.6 ✓
W. toe of wooded ^{swamp} Knoll edge	275-00	196					4.4	75.2 ✓
Edge Swamp S.	266-35	215					4.6	75.0 ✓
" " NW ^{wood Knoll} toe slope	259-35	266					4.8	74.8 ✓
Top wood Knoll	265-15	265					2.0	77.0 ✓
Edge Swamp N. toe slope ^{wood Knoll}	258-10	342					4.4	75.2 ✓
Top wood Knoll	266-25	328					0.0	79.6 ✓
Toe N. slope Blvd edge wood	277-20	340					2.4	77.2 ✓
Edge swamp toe slope ^{Knoll} wood	261-15	410					4.1	75.5 ✓
Top Knoll (wooded)	267-35	355					0.0	79.6 ✓
Gen'l elev swamp	247-15	430					5.4	74.2 ✓
Toe E slope Knoll (wood)	267-10	408					2.1	77.5 ✓
Gen'l elev swamp	242-00	300					5.6	74.0
#	#							

Page 17 Transit Obs. Line
 Date 7-21-30 Rec.

881.1

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	Rod Equiv.		
At 05 H.I. = 4.9								
At 05 Elev = 876.21								
Chk Az ^{cross}	333-32							
to 04	246°59'	690						
to 06	174-32	410						
N shoulder Blvd.	44-00	470				0.0		881.1 ✓
" " "	38-40	442		+ 0-35	+4.5	3.2	+1.3	82.4 ✓
toe N. ^{wooded} slope Blvd	42-15	370				2.3		78.8 ✓
N. shoulder Blvd	36-45	375		+ 0-50	+5.4	2.9	+2.5	83.6 ✓
toe N. ^{wooded} slope Blvd	40-45	296				4.5		76.6 ✓
N shoulder Blvd	33-15	300		+ 1-00	+5.2	2.5	+2.7	83.8 ✓
toe N ^{wooded} slope "	34-00	210				5.4		75.7 ✓
N shoulder "	26-40	222		+ 1-15	+4.8	2.1	+2.7	83.8 ✓
toe N ^{wooded} slope "	24-15	130				6.1		75.0 ✓
N. shoulder "	12-15	170		+ 1-30	+4.5	1.8	+2.7	83.8 ✓
toe N ^{wooded} slope "	327-45	80				4.3		76.8 ✓
N. shoulder "	340-50	132		+ 1-45	+4.0	1.0	+2.4	83.5 ✓

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Page	18	Transit	Obs.	Line						
Date	2-21-30	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.
Cont'd At 05										
Toe N. wooded slope Blvd	287-00	170				2.5		878.6		
N. shoulder Blvd.	307-30	157		+1-15	+3.4	1.8	+1.6	82.7		
E Lake & Johanna Blvd.	302-30	260		+1-15	+5.7	2.3	+3.4	84.5		
" " " "	334-00	180		+1-30	+4.7	1.9	+2.8	83.9		
" " " "	06-20	199		+1-30	+5.2	2.0	+3.2	84.3		
Gen'l elev N. slope to swamp	267-45	250				3.5		77.6		
" " " " " "	264-45	145				4.3		76.8		
Gen'l elev	294-40	28				6.0		75.1		
" "	60-30	122				6.9		74.2		
Edge swamp S. edge box	51-00	220	✓			6.6		74.5		
" " SE, " "	68-10	230	✓			6.9		74.2		
" " SE, " "	87-20	171				7.5		73.6		
" " E, " "	112-20	211				7.9		73.2		
" " E, " "	124-35	305				7.6		73.5		
" " N.E. " "	125-00	408				7.8		73.3		
" " NE, " "	125-30	500				7.9		73.2		
Edge pond SE	100-40	252				9.9		71.2		

881.1

Page 19 Transit Obs. Line Date 2-21-30 Rec. 881.1

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	Rod Equiv.			
Cont'd At 05									
Edge pond S.	84-10	321					9.7		871.4 ✓
" " E.	112-45	335					10.0		71.1 ✓
" " S.	81-55	393							71.1 ✓
" " NE	114-40	440							71.1 ✓
" " SW	84-35	480							71.1 ✓
" " NW	106-25	544							71.1 ✓
" " W	94-00	540							71.1 ✓
" " W	100-30	544							71.1 ✓
Elev W slope Isle-edge brush	139-00	432					5.5		75.6 ✓
Gen'l elev. toe slope Isle	134-45	423					7.2		73.9 ✓
" " " " "	135-30	316					7.2		73.9 ✓
Elev W slope Isle edge brush	141-25	318					5.3		75.8 ✓
Gen'l elev toe slope Isle	137-30	230					7.2		73.9 ✓
Elev SW slope edge brush	142-10	218					5.4		75.7 ✓
Gen'l toe slope Isle	139-10	160					7.5		73.6 ✓
Elev SW slope edge brush	152-50	145					5.1		76.0 ✓
Gen'l toe slope Isle	143-00	90					7.4		73.7 ✓

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Page 20 Transit Obs. Line Date 2-21-30 Rec.

881.1

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			
Cont'd At 05								
Edge brush S. slope Isle	162-25	119.				5.2		875.9 ✓
Gen'l toe S slope Isle	177-00	35				6.2		74.9 ✓
Edge brush E slope Isle	174-45	152				6.2		74.9 ✓
Gen'l clew toe slope Isle	187-15	121				7.8		73.3 ✓
Gen'l on W. slope	215-35	170				7.4		73.7 ✓
" " " "	243-15	190				5.2		75.9 ✓
top slope Sand Isle	160-15	160				3.4		77.7 ✓
Δ in ditch	259-40	425				6.0		75.1 ✓
top slope Isle	160-00	200		+ 1-20	+ 4.6	5.0	-0.4	80.7 ✓
Δ in ditch	248-15	301						
top slope Isle	154-45	248		+ 1-25	+ 6.1	5.2	+0.9	82.0 ✓
Δ in ditch	215-35	224						
top of Isle W.	146-05	330		+ 0-45	+ 4.3	3.7	+0.6	81.7 ✓
Δ in ditch	197-40	238						
" " "	196-15	255						
" " "	191-00	262						
top of W slope Isle	142-40	382		+ 0-35	+ 3.9	6.9	-3.0	78.1 ✓

Page 21 Transit Obs. Line
 Date 7-21-30 Rec.

877.1

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	Rod Equiv.		
At 06 HI = 5.1								
At 06 Elev 872.04								
Chk Az								
to 05	174°32'	410						
to 01 ment.	121-01	561						
Gen'l. toe E. slope Isle	66-45	109				4.3		872.8 ✓
Elev on E slope edge brush	52-00	145				1.8		77.3 ✓
" " " " "	24-50	126				2.3		74.8 ✓
Gen'l toe E slope Isle	25-05	96				4.1		73.0 ✓
" " " " "	352-00	126				3.7		73.4 ✓
Elev E slope edge brush D-15		145				1.9		75.2 ✓
" SE " " "	355-00	200				2.1		75.0 ✓
Gen'l toe S.E. slope Isle	349-30	202				4.0		73.1 ✓
top SE slope Isle	7-25	195		+ 2-50	+9.6	6.0	+3.6	80.7 ✓
" E " "	23-25	191		+ 2-50	+8.4	1.7	+6.5	83.6 ✓
" " " "	40-00	176		+ 2-30	+7.7	1.9	+5.8	82.9 ✓
" " " "	55-40	180		+ 2-15	+7.1	2.9	+3.2	80.3 ✓

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Page 22 Transit Obs. Line Date 2-21-30 Rec. 877.1

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>Cont'd At 0 6</i>								
<i>Elev. in middle of Isle</i>	<i>74-50</i>	<i>202</i>		<i>+1-20</i>	<i>+4.7</i>	<i>4.0</i>	<i>+0.7</i>	<i>877.8</i> ✓
<i>top E. slope Isle</i> <i>0 NO. 6 15 in center</i>	<i>79-30</i>	<i>165</i>		<i>+1-25</i>	<i>+4.1</i>	<i>4.8</i>	<i>-0.7</i>	<i>76.4</i> ✓
<i>Power line ROW.</i>	<i>46-30</i>							
 								
<i>At 0 no. 7 HI = 5.1</i>								
<i>At 0 no 7 Elev. = 871.61</i>								<u>876.7</u>
<i>CHK Az nail in Top Pen Post</i> <i>N.</i>	<i>170-35</i>							
<i>to 0 no 1</i>	<i>180-38'</i>	<i>707</i>						
<i>to 0 no 8</i>	<i>151-06</i>	<i>698</i>						
<i>0 no 1 to 0 no 7.</i>	<i>186-38</i>	<i>707</i>						
<i>N point of Knoll for slope</i>	<i>293-00</i>	<i>278</i>		<i>+1-00</i>	<i>+5.7</i>	<i>3.4</i>	<i>+2.3</i>	<i>99.0</i> ✓
<i>to E slope RR fill - ROW fence</i>	<i>293-10</i>	<i>335</i>		<i>+1-35</i>	<i>+9.2</i>	<i>5.7</i>	<i>+3.5</i>	<i>80.2</i> ✓
<i>top E slope of Knoll</i>	<i>300-00</i>	<i>287</i>		<i>+2-25</i>	<i>+12.1</i>	<i>3.4</i>	<i>+8.7</i>	<i>85.4</i> ✓
<i>to E slope RR fill top Knoll</i>	<i>299-30</i>	<i>340</i>		<i>+2-25</i>	<i>+14.4</i>	<i>4.0</i>	<i>+10.4</i>	<i>87.1</i> ✓
<i>" " " " "</i>	<i>305-00</i>	<i>311</i>		<i>+3-00</i>	<i>+16.3</i>	<i>2.6</i>	<i>+13.7</i>	<i>90.4</i> ✓
<i>" " " " "</i>	<i>194-00</i>	<i>408</i>		<i>+2-20</i>	<i>+16.6</i>	<i>5.0</i>	<i>+11.6</i>	<i>88.3</i> ✓

Page 23 Transit Obs. Line Date 2-21-30Rec. 876.7

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.			
<u>Cont'd At 0 7</u>									
Elev on N. slope R.R. S.W.	290-15	410		+	2-20	+16.7	5.1	+11.6	888.3 ✓
Elev on W " hill "	283-00	400		+	1-55	+13.4	5.0	+8.4	85.1 ✓
Elev " " " "	276-20	378		+	1-50	+12.1	2.9	+9.2	85.9 ✓
Toe W slope - hill	281-30	350		+	1-20	+8.1	3.7	+4.4	81.1 ✓
Elev on S.W. slope hill	270-45	330		+	2-15	+13.0	2.6	+10.4	87.1 ✓
" " " " " "	266-00	265		+	2-30	+11.6	2.3	+9.3	86.0 ✓
Toe S.W. " "	279-10	278		+	1-20	+6.5	3.4	+3.1	79.8 ✓
middle of pot hole	287-15	295		+	1-40	+8.6	6.5	+2.1	78.8 ✓
Fence Cor. N & W fence	139-30	26					5.0		71.7 ✓
E. W. fence line on W ^{slope}	116-35	134					6.1		70.6 ✓
Fence cor E & N S fence	113-45	242					6.7		70.0 ✓
Δ in N.S. fence	104-10	235					6.7		70.0 ✓
End of ditch N edge ^{pond}	106-00	227					7.5		69.2 ✓
N.S. fence	82-00	282					6.9		69.8 ✓
N.W. edge pond	86-30	245					7.3		69.4 ✓
N.S. fence	68-15	344					6.4		70.3 ✓
Wedge pond	75-20	295					7.2		69.5 ✓

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Page 24 Transit Obs. LineDate 2-21-30 Rec.

876.7

OBJECT	Azimuth	Stadia	Distance	Intervals or Ver. Angle		Read. on Rod	Diff. of Elev.	Elevation above Datum
				Up + Down -	No. of Int. or Angle	Rod Equiv.		
<i>Cont'd At 07</i>								
N.S. fence	58-30	385				6.2		870.5 ✓
W. edge pond	67-20	335						69.5 ✓
Fence Cor. N.D. RR-Road Fence	52-10	418				5.3		71.4 ✓
W edge pond	57-20	366						69.5 ✓
" " "	46-00	392						69.5 ✓
" " " under trestle	40-05	415						69.5 ✓
Elev. on E. slope RR fill	44-00	454				3.4		73.3 ✓
" " " " " "	47-30	505		+ 0-30	+ 4.4	2.5	+ 1.9	78.6 ✓
" " NE slope " " "	51-45	520		+ 0-55	+ 8.3	3.6	+ 4.7	81.4 ✓
" " " " " "	50-30	540		+ 2-00	+ 18.9	2.7	+ 16.2	92.9 ✓
Toe NE slope RR fill	51-30	488				2.7		74.0 ✓
Toe E. slope ^{wooded} hill on RR RRW. Fence	56-35	497				1.8		74.9 ✓
Toe N. slope RR fill ^{Slope Hill} Elev. on E	53-45	520		+ 0-45	+ 6.8	4.7	+ 2.1	78.8 ✓
Elev. on E. slope Hill & RDW. Fence	57-20	520		+ 1-25	+ 11.4	3.6	+ 7.8	84.5 ✓
Toe E. slope Hill - E. edge woods	63-50	472				1.7		75.0 ✓
Elev. on E. slope wooded Hill	63-25	490		+ 1-10	+ 10.0	4.5	+ 5.5	82.2 ✓
Toe E. slope Hill - E. edge woods	73-00	443				1.3		75.4 ✓

Page 25 Transit. Obs. Line. Date 2-21-30 Rec. 876.7

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.			
<i>Cont'd At 07</i>									
Elev. on E. slope wooded hill	71-30	460		+	1-05	+8.7	4.3	+4.4	881.1 ✓
" " " " "	81-30	420		+	0-40	+4.9	3.1	+1.8	78.5 ✓
Toe E. slope hill - E. edge woods	81-10	400					2.5		74.2 ✓
Elev. on E. slope wooded hill	87-20	420		+	1-35	+11.6	2.1	+9.5	86.2 ✓
Toe E. slope hill - E. edge woods	90-30	390	✓				1.8		74.9 ✓
" " " " " "	102-30	375	✓				2.1		74.6 ✓
Elev. on E. slope wooded hill	102-15	400		+	1-40	+11.6	3.0	+8.6	85.3 ✓
" " " " " "	109-00	430	✓	+	1-00	+7.5	2.1	+5.4	82.1 ✓
Toe E. slope hill - E. edge woods	110-45	408					1.7		75.0 ✓
Gen'l elev	121-30	368					5.3		71.4 ✓
" "	108-00	325					4.8		71.9 ✓
N. & S. ditch - N. S. ^{line} fence	127-00	318	✓				2.5		69.2 ✓
Gen'l elev. - E. slope To pond	88-40	330					4.9		71.8 ✓
" " " " " "	74-00	380					4.7		72.0 ✓
" " " " " "	61-40	430					4.6		72.1 ✓
N. edge pond	97-30	154					7.0		69.7 ✓
N.E. edge pond	76-20	66							69.7 ✓

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Page 26 Transit Obs. LineDate 2-21-30 Rec.

Rec.

Line

876.7

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			
Cont'd At 07								
N.E. edge pond	18-30	72						86.9.7✓
E. " "	350-40	157						69.7✓
" " "	346-50	205						69.7✓
E. edge pond under trestle	343-35	262				6.9		69.8✓
	77							
At 08 HI = 5.0								
At 08 Elev = 871.53								876.5
Chk Az SE cor house N.	161° 43' 30"							
to 07	151° 06'	696						
to 09	164-27	715						
Toe E slope hill - E. edge woods	12-20	420				2.2		74.3✓
Elev on E slope wooded hill	10-20	460		+ 1-35	+12.7	4.0	+8.7	85.2✓
" " " " " "	16-00	445		+ 2-00	+15.5	2.2	+13.3	89.8✓
Toe E slope hill - E. edge woods	22-50	395		+ 0-50	+6.7	3.0	+2.7	79.2✓
Toe " " " N.E. cor. woods	33-50	450				1.8		74.7✓
Elev on E slope wooded hill	23-30	432		+ 2-25	+18.2	3.1	+15.1	91.6✓

Page 27 Transit Obs. Line Date 2-21-30 Rec. 876.5

OBJECT	Azimuth	Stadia	Distance	Intervals or Ver. Angle		Read. on Rod	Diff. of Elev.	Elevation above Datum
				Up + Down -	No. of Int. or Angle	Rod Equiv.		
Cont'd At 08								
N.E. toe slope hill	48-00	310				2.2		874.3 ✓
Elev on E slope wood hill	28-55	415		+ 2-05	+15.1	2.0	+13.1	89.6 ✓
Toe E. slope hill	60-00	300				1.4		75.1 ✓
Elev on E slope wooded hill	35-00	390		+ 2-30	+17.0	2.0	+15.0	91.5 ✓
Toe E slope hill	79-00	250				3.0		73.5 ✓
Elev on N.E. slope hill ^{woods} edge	43-00	380		+ 2-45	+18.2	1.9	+16.3	92.8 ✓
Toe E slope hill	101-00	235				3.0		73.5 ✓
Elev on N.E. slope hill	52-30	382		+ 2-35	+17.2	1.9	+15.3	91.8 ✓
Elev on E " "	61-35	375		+ 2-25	+15.8	1.9	+13.9	90.4 ✓
Elev " " " "	73-00	348		+ 2-40	+16.2	1.8	+14.4	90.9 ✓
" " " " "	81-45	300		+ 2-35	+13.5	1.5	+12.0	88.5 ✓
" " " " "	92-55	291		+ 2-25	+12.2	2.4	+9.8	86.3 ✓
" " SE " "	108-55	280		+ 2-10	+10.6	1.4	+9.2	85.7 ✓
" " " " "	119-00	295		+ 1-45	+9.0	1.5	+7.5	84.0 ✓
Toe SE slope hill	132-00	235				2.1		74.4 ✓
Elev on SE slope " E.W. ^{fence line}	132-00	336		+ 1-25	+8.3	1.7	+6.6	83.1 ✓
Toe E. slope Fence cor. -	161-00	300				5.4		71.1 ✓
S O W Fences								

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VALUABLE

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876.5

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			
Cont'd At 08								
W. end of fence	146-30	310	✓			6.0		875.5 ✓
Fence cor. N.W.	163-00	318				5.3		71.2 ✓
E ditch X	162-10	310				4.0		72.5 ✓
Toe W. slope knoll	175-10	320				3.9		72.6 ✓
N. edge swamp	141-45	180				5.6		70.9 ✓
N.W. " "	118-50	175						70.9 ✓
W. " "	92-10	190						70.9 ✓
Gentl elev. swamp	107-15	102				5.7		70.8 ✓
W. edge swamp	58-25	240						70.9 ✓
Gentl elev swamp	53-00	124				5.6		70.9 ✓
W. edge swamp	33-00	288				5.2		71.3 ✓
Gentl elev swamp	19-25	189				5.6		70.9 ✓
W. edge swamp	15-20	336						70.9 ✓
Gentl elev swamp	5-00	260				6.4		70.1 ✓
SW edge swamp	0-45	390				5.0		71.5 ✓
Gentl elev swamp	358-15	315				6.3		70.2 ✓
S. edge "	355-15	450				5.1		71.4 ✓

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 Date 7-21-30 Rec. 876.5

RETURN TO State Department of Drainage and Waters, St. Paul, Minn.

VALUABLE

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>Cont'd At 0 8</i>								
<i>Grntl elev swamp</i>	<i>352-00</i>	<i>480</i>				<i>5.9</i>		<i>870.6 ✓</i>
<i>S. edge " "</i>	<i>354-20</i>	<i>538</i>						<i>71.5 ✓</i>
<i>Δ in N&S ditch &</i>	<i>345-15</i>	<i>205</i>				<i>7.0</i>		
<i>S. edge swamp at ditch</i>	<i>347-15</i>	<i>55</i>				<i>5.7</i>		<i>70.8 ✓</i>
<i>S.E. edge swamp</i>	<i>259-30</i>	<i>63</i>				<i>5.4</i>		<i>71.1 ✓</i>
<i>E " "</i>	<i>230-00</i>	<i>134</i>						<i>71.0 ✓</i>
<i>F " "</i>	<i>216-00</i>	<i>185</i>						<i>71.0 ✓</i>
<i>NE " "</i>	<i>198-45</i>	<i>210</i>						<i>71.0 ✓</i>
<i>N.E. " "</i>	<i>181-15</i>	<i>238</i>						<i>71.0 ✓</i>
<i>N " "</i>	<i>171-30</i>	<i>303</i>						<i>71.0 ✓</i>
<i>N. Edge Swamp at ditch X</i>	<i>163-00</i>	<i>295</i>				<i>6.5</i>		<i>70.0 ✓</i>
<i>Elev. on W. slope - Knoll</i>	<i>181-00</i>	<i>330</i>				<i>3.3</i>		<i>73.2 ✓</i>
<i>Top SW toe Knoll</i>	<i>192-00</i>	<i>267</i>				<i>4.0</i>		<i>72.5 ✓</i>
<i>" " " "</i>	<i>200-30</i>	<i>265</i>				<i>4.0</i>		<i>72.5 ✓</i>
<i>Elev. on SW. slope - Knoll</i>	<i>208-50</i>	<i>355</i>		<i>+ 0-35</i>	<i>+3.6</i>	<i>1.8</i>	<i>+1.8</i>	<i>78.3 ✓</i>
<i>Top Knoll</i>	<i>207-10</i>	<i>390</i>		<i>+ 1-15</i>	<i>+8.5</i>	<i>3.0</i>	<i>+5.5</i>	<i>82.0 ✓</i>
<i>Elev on SW. slope</i>	<i>189-30</i>	<i>337</i>		<i>+ 0-25</i>	<i>+2.4</i>	<i>2.7</i>	<i>-0.3</i>	<i>76.2 ✓</i>

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(876.5)

OBJECT	Azimuth	Stadia	Distance	Intervals or Ver. Angle		Read. on Rod	Diff. of Elev.	Elevation above Datum
				Up + Down -	No. of Int. or Angle	Rod Equiv.		
<i>Cont'd At O 8.</i>								
Top Knoll	199-00	400		+	1-20	+9.3	3.0	+6.3 882.8✓
Elev on W slope Knoll	185-20	390		+	0-25	+2.8	3.0	-0.2 76.3✓
Top Knoll	193-20	396		+	1-00	+6.9	3.0	+3.9 80.4✓
Elev on N slope Knoll	190-00	425		+	0-55	+6.8	6.1	+0.7 77.2✓
" " NE " "	207-30	455		+	1-15	+10.0	7.3	+2.7 79.2✓
" " NE " "	202-10	460		+	1-15	+10.0	7.3	+2.7 79.2✓
" " NE " "	209-30	435		+	1-05	+8.2	7.2	+1.0 77.5✓
//								
At O 9 HI = 5.1								
At O 9 Elev 871.11								
Chk A3 W. pt. roof ^{shed} _{hay}	141-15							
To O 8	164°27'	714						
To O 10	160-51	748						
Δ in N & S ditch ^{N. fence} _{end of}	347-00	301						
Sedge swamp	348-30	390					5.6	70.6✓
S.W " "	337-00	305					5.6	70.6✓

(876.2)

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VALUABLE

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>Cont'd A 0 9</i>									
<i>SE edge swamp</i>	<i>322-00</i>	<i>274</i>							<i>870.6</i> ✓
<i>Elev NW slope Knoll</i>	<i>315-45</i>	<i>325</i>					<i>3.1</i>		<i>73.1</i> ✓
<i>SE edge swamp</i>	<i>303-30</i>	<i>275</i>							<i>70.6</i> ✓
<i>Elev on NW slope Knoll</i>	<i>306-50</i>	<i>347</i>					<i>2.6</i>		<i>73.6</i> ✓
<i>E. edge swamp</i>	<i>290-30</i>	<i>305</i>							<i>70.6</i> ✓
<i>Elev on N slope Knoll</i>	<i>298-00</i>	<i>400</i>					<i>3.0</i>		<i>73.2</i> ✓
<i>E edge swamp</i>	<i>280-00</i>	<i>360</i>					<i>5.9</i>		<i>70.3</i> ✓
<i>" " " - E end ditch</i>	<i>271-50</i>	<i>360</i>							<i>70.3</i> ✓
<i>NE edge swamp</i>	<i>263-10</i>	<i>318</i>							<i>70.3</i> ✓
<i>NE " "</i>	<i>247-30</i>	<i>275</i>							<i>70.3</i> ✓
<i>NE " "</i>	<i>233-40</i>	<i>278</i>							<i>70.3</i> ✓
<i>Gen'l elev swamp</i>	<i>319-30</i>	<i>170</i>					<i>6.1</i>		<i>70.1</i> ✓
<i>" " "</i>	<i>290-00</i>	<i>182</i>					<i>6.0</i>		<i>70.2</i> ✓
<i>E ESW ditch</i>	<i>274-20</i>	<i>187</i>					<i>6.7</i>		
<i>N edge swamp SE edge pond</i>	<i>215-25</i>	<i>270</i>					<i>6.1</i>		<i>70.1</i> ✓
<i>Gen'l elev swamp</i>	<i>251-40</i>	<i>186</i>					<i>6.0</i>		<i>70.2</i> ✓
<i>S edge pond</i>	<i>225-40</i>	<i>216</i>					<i>6.6</i>		<i>69.6</i> ✓

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(876.2)

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>Cont'd At 09</i>									
E edge pond	207-20	292					6.6		869.6 ✓
NE S ditch	195-00	146					7.8		
E edge pond & fence line	196-00	340							69.6 ✓
E edge pond & fence	203-30	306							69.6 ✓
Fence Cor N & E fence	187-45	200							
Fence Cor S & W fence	184-00	234							
NE edge pond on fence line	186-00	395							69.6 ✓
Fence line	172-00	247					7.5		68.7 ✓
N edge pond & fence line	177-40	455					2.0		69.2 ✓
N.W. edge pond	171-30	178							69.2 ✓
SW edge pond	155-45	250							69.2 ✓
SW edge pond on fence line	162-10	290							69.2 ✓
SW edge pond	153-00	321							69.2 ✓
W edge "	152-00	400							69.2 ✓
Fence line in pond	156-00	388							69.2 ✓
N.E. & W fence	172-20	490							69.2 ✓
N edge pond fence Inter X	172-20	490							
Gravel elev in pond	165-00	428					8.0		68.2 ✓

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 Date 2-21-30 Rec. 876.2

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>Cont'd A to 9</i>									
Gen'l elev in pond	169-40	352					2.9		868.3 ✓
" " " "	175-45	321					7.8		68.4 ✓
" " " "	183-50	310					7.8		68.4 ✓
" " " "	202-00	200					7.6		68.6 ✓
" " " "	194-15	290					2.9		68.3 ✓
East InterX of N.S. & E.W. ^{ditches}	288-30	50					7.5		68.7
E of E.W. ditch (3')	74-50	65							
Gen'l elev swamp	355-30	104					5.8		70.4 ✓
" " "	356-10	234					5.8		70.4 ✓
SW edge swamp	350-30	353							70.4 ✓
S " "	6-00	300							70.4 ✓
for N.E. slope hill	1-30	390					2.6		73.6 ✓
S.W. edge swamp	18-00	270							70.4 ✓
for NE slope hill	11-20	362					1.3		74.9 ✓
SW edge swamp	33-30	248					6.1		70.1 ✓
N.E. for slope hill	21-30	335					2.7		73.5 ✓

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VALUABLE

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876.2

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.		
Cont'd A+O 9								
Wedge swamp	51-25	212						870.1 ✓
NE cor slope hill	33-00	345				2.0		74.2 ✓
Wedge swamp	68-20	188						70.1 ✓
cor E slope hill	41-15	300		+ 0-40	+3.5	3.0	+0.5	76.7 ✓
Wedge swamp End ditch	84-30	190						70.1 ✓
Gen'l elev slope to swamp	41-50	328				4.3		71.9 ✓
" " " " "	52-00	320				4.3		71.9 ✓
W. edge swamp	109-10	207				5.5		70.7 ✓
Elev on NE slope hill	48-10	315		+ 0-45	+5.4	3.0	+2.4	78.6 ✓
NW edge swamp	126-05	238						70.7 ✓
Elev on E slope hill	57-20	362		+ 0-35	+3.7	2.8	+0.9	77.1 ✓
" " " " "	64-40	320		+ 0-35	+3.3	2.6	+0.7	76.9 ✓
SE cor fence ^{hex shed} enclosing	136-25	280				5.2		71.0 ✓
Gen'l elev slope to swamp	59-30	385				4.0		72.2 ✓
NW edge swamp	144-00	296						70.7 ✓
Elev on E slope hill	78-00	256				2.1		74.1 ✓
InterX of SW edge pond & NW edge swamp	152-30	345						70.1 ✓

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Date 2-21-30 Rec.

876.2

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.		
Cont'd At 09								
Elev on E slope hill	93-30	255				2.6		873.6 ✓
" " " " "	105-40	272				2.7		73.5 ✓
NE cor fence ^{hay shed} enclosing	144-45	380				5.0		71.2 ✓
Elev on SE slope hill	116-30	302				2.0		74.2 ✓
" " " " "	124-00	345				1.3		74.9 ✓
SW cor hay shed	133-00	330				3.8		72.4 ✓
SW cor fence ^{hay shed} enclosing	127-00	320				3.3		72.9 ✓
SE cor hay shed	136-30	315				4.6		71.6 ✓
NE " " "	140-20	360						
2-22-30								
Cont'd At 09 HI = 4.9								
Elev NE slope hill	6-00	415		+ 1-05	+7.8	3.1	+4.7	80.7 ✓
" " " " "	15-45	384		+ 1-45	+11.7	2.9	+8.8	84.8 ✓
" " " " "	25-35	378		+ 1-55	+12.6	2.9	+9.7	85.7 ✓
" on E " "	31-40	412		+ 1-55	+13.8	3.1	+10.7	86.7 ✓
" " " " "	38-25	437		+ 2-05	+15.9	3.1	+12.8	88.8 ✓
" " " " "	44-45	460		+ 2-10	+17.4	3.3	+14.1	90.1 ✓

876.0

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Date 2-22-30 Rec. _____

876.0

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			
Cont'd At 0 9								
Elev on E slope hill	52-10	445		+2-05	+16.2	3.2	+13.0	889.0 ✓
" " " "	58-50	414		+2-05	+15.0	3.1	+11.9	87.9 ✓
" " SE " "	65-30	376		+2-10	+14.2	2.9	+11.3	87.3 ✓
" " " " "	78-15	314		+2-15	+12.3	2.6	+9.7	85.7 ✓
" " E " "	90-20	325		+1-35	+9.0	2.6	+6.4	82.4 ✓
" " " " "	99-00	340		+1-35	+9.4	2.7	+6.7	82.7 ✓
" " " " "	103-25	364		+1-35	+10.0	2.8	+7.2	83.2 ✓
" " " " "	114-15	365		+1-40	+10.6	2.8	+7.8	83.8 ✓
" " " " "	123-20	388		+1-45	+11.8	3.0	+8.8	84.8 ✓
" " NE slope hill	125-35	435		+1-45	+13.3	3.2	+10.1	86.1 ✓

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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.			
At O 10. HI = 5.1									
At O 10 Elev = 870.54									
CHK Az-W. pt road ^{shed} _{key} 161-30									
to O 9	160°51'	748							
to O 11	172-09	709							
Elev. on N.E. slope hill	21-05	424		+	1-35	+11.7	3.1	+8.6	884.2 ✓
" " " " "	28-20	418		+	1-45	+12.8	3.1	+9.7	85.3 ✓
" " E. " "	30-15	380		+	1-50	+12.2	4.9	+7.3	82.9 ✓
" " S.E. " "	30-00	323		+	1-55	+10.8	3.6	+7.2	82.8 ✓
" " E. " "	35-00	255		+	2-35	+11.5	2.3	+9.2	84.8 ✓
" " " " "	48-10	236		+	3-05	+12.7	2.2	+10.5	86.1 ✓
" " " " "	60-35	210		+	3-00	+11.0	2.0	+9.0	84.6 ✓
Fence line E.W. to sec 28									
Elev. on E. slope hill on	75-55	182		+	3-30	+11.1	1.9	+9.2	84.8 ✓
on E.W. to sec 28									
to E slope hill on fence	69-40	128		+	1-00	+2.2	1.6	+0.6	76.2 ✓
" " slope hill	54-50	175		+	1-00	+2.0	1.9	+1.1	76.7 ✓
" " " "	32-15	206		+	0-30	+1.8	2.0	-0.2	75.4 ✓
" " " "	24-50	263		+	1-35	+2.7	2.3	+0.4	76.0 ✓

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Page 38 Transit

Obs. Line

Date 2-22-30 Rec.

875.6

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>Cont'd A 010</i>								
to SE slope hill	22-30	310		+0-30	+2.7	2.5	+0.2	875.8 ✓
to E slope hill	24-00	355		+1-00	+6.2	2.8	+3.4	79.0 ✓
to NE " "	19-10	385		+0-45	+5.0	2.9	+2.1	77.7 ✓
" " " "	12-50	440		+0-40	+5.1	3.2	+1.9	77.5 ✓
" E " "	6-00	480		+0-30	+4.2	3.4	+0.8	76.4 ✓
N.W. cor fence ^{now shed} enclosing	5-25	411				3.0		72.6 ✓
Gen'l elev slope to swamp	9-30	333				3.8		71.8 ✓
" " " " " "	358-05	326				3.0		70.6 ✓
" " " " " "	9-00	248				4.3		71.3 ✓
" " " " " "	356-45	250				5.2		70.4 ✓
" " " " " "	9-15	145				5.1		70.5 ✓
" " " " " "	348-30	150				5.4		70.2 ✓
Gen'l on EW fence line ^{line 28}	16-15	45				5.3		70.3 ✓
" " " " " "	312-05	65				5.1		70.5 ✓
Edge pond W	348-50	290				6.6		69.0 ✓
" " NW	335-30	232						69.0 ✓
Fence cor S & E Fence	344-00	290						

Page 29 Transit Obs. Line
 Date 2-22-30 Rec. 875.6

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>Cant'd At 0 10</i>									
N edge pond	326-10	230							869.0 ✓
N edge pond end ditch	320-00	300							69.0 ✓
Δ in fence	319-30	280							
" " "	317-00	286							
Fence line on E side ^{ditch}	308-45	218							
Gen'l elev	319-05	184					6.4		69.2 ✓
Inter X ^{running S 2 E side ditch} 4 line fence 2 fence	288-00	154							
Inter X ^{ty line fence} W side ditch on	289-40	141							
Inter X ^{ty fence run N} 4 line fence 2 fence	74-50	130		+ 1-45		+4.0	1.6	+2.4	78.0 ✓
E.W. fence paralleling ty line	78-40	175		+ 3-40		+11.2	1.9	+9.3	84.9 ✓
N.S. fence ^{top E slope hill} 1 line	112-00	111		+ 1-25		+2.8	1.5	+1.3	76.9 ✓
Elev on E slope hill	109-25	180		+ 3-45		+11.8	1.9	+9.9	85.5 ✓
" " " " "	133-00	200		+ 3-55		+13.6	2.0	+11.6	87.2 ✓
Top E slope hill on N.S. fence	148-00	145		+ 1-15		+3.2	1.7	+1.5	77.1 ✓
Elev on E slope hill	151-10	222		+ 3-10		+12.3	2.1	+10.2	85.8 ✓
Δ to W in N.S. fence	164-55	211		+ 0-50		+3.1	2.0	+1.1	76.7 ✓
Elev on NE slope	149-30	256		+ 3-10		+14.2	4.3	+9.9	85.5

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VALUABLE

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875.6

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.		
Cont'd A+O 10								
℄ Road 10' Rd	156-50	226		+	0-25	+1.6	4.1	-2.5 873.1 ✓
" " " "	178-20	190					3.0	72.6 ✓
℄ Rd over ditch culv.	201-20	191					3.9	71.7 ✓
℄ Road	211-35	220					4.5	71.1 ✓
Inter X of Ngs ditch & ditch	204-00	180					7.7	7
℄ Rd	229-55	385					3.1	72.5 ✓
bottom E.W. ditch	231-20	395					6.3	6
Flow line ^{48 in culv - 14' long} S. end culv.	202-50	185					7.9	67.7 ✓
To S slope Rd - Gen'l on slope ^{to swamp}	87-10	166					4.6	71.0 ✓
Gen'l on slope To	174-20	75					4.4	71.2 ✓
Gen'l elev.	222-15	115					5.4	70.2 ✓
" "	260-15	73					5.5	70.1 ✓
2-24-30								
Cont'd A+O 10 HI = 5.1								
Gen'l elev. on W. slope To ditch	234-00	304					4.0	71.6 ✓
" " flats	244-50	220					5.7	69.9 ✓

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 Date 2-24-30 Rec. 874.8

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 011 - HI = 4.9								
At 011 - Elev = 869.94								
CHK A3. ^{top water tank} New Brighton	109-25'							
to 010	172°09'	709						
to 012	85-05	915						
℄ Road	0-25'	446				0.0		874.8 ✓
Fence Line S. side Rd	1-05	457		+1-00	+8.0	4.9	+3.1	77.9 ✓
℄ Road	11-15	450		+0-55	+7.2	4.9	+2.3	77.1 ✓
Δ in fence line S. side Rd	16-40	425		+1-25	+10.5	4.9	+5.6	80.4 ✓
℄ Road	23-30	421		+1-50	+13.6	4.9	+8.7	83.5 ✓
Fence line S. side Rd	32-00	452		+1-40	+13.2	4.9	+8.3	83.1 ✓
℄ Road	36-35	390	X	+1-20	+9.1	4.9	+4.2	79.0 ✓
Fence line S. side Rd.	39-45	526		+1-30	+13.8	4.9	+8.9	83.7 ✓
℄ Road	47-40	605		+1-00	+10.6	4.9	+5.7	80.5 ✓
Fence cor.	51-00	657		+0-55	+10.5	4.9	+5.6	80.4 ✓
S.E. cor. hen house 36' N x 44' W.	52-35	643		+0-50	+9.4	4.9	+4.5	79.3 ✓
N.E. cor shed 10' N x 14' W	58-50	738		+0-45	+9.7	4.9	+4.8	79.6 ✓

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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.
Cont'd A + Q 11									
N.E. cor barn 60 N x 40 W	66-40	725		+	0-30	+6.3	4.9	+1.4	876.2 ✓
N.E. cor. chix. coop 14 N x 32 W	51-50	690		+	1-05	+13.0	4.9	+8.1	82.9 ✓
Fence cor.	50-00	605		+	0-55	+9.7	4.9	+4.8	79.6 ✓
Nd S fence line	48-30	684		+	1-15	+15.0	4.9	+10.1	84.9 ✓
Fence line N side Rd	42-20	524		+	1-05	+10.0	4.9	+5.1	79.9 ✓
Elev on N slope hill	44-20	615		+	1-30	+16.1	4.9	+11.2	86.0 ✓
Fence line N side Rd	31-45	450		+	1-25	+11.2	4.9	+6.3	81.1 ✓
Elev. on N slope hill	38-35	555		+	2-10	+21.0	4.9	+16.1	90.9 ✓
Fence cor	18-30	400		+	1-05	+7.6	4.9	+2.7	77.5 ✓
Elev on N slope hill	28-10	510		+	2-15	+20.0	4.9	+15.1	89.9 ✓
" " NE " "	14-10	465		+	2-15	+18.3	4.9	+13.4	88.2 ✓
Toe NE slope ^{edge plots} hill	337-30	378					5.2		69.6 ✓
Toe NE slope ^{plots} hill edge	11-20	280					5.1		69.7 ✓
Elev on N slope hill	23-45	370		+	1-00	+6.5	4.9	+1.6	76.4 ✓
Toe N slope on N.S. fence	24-45	285					5.2		69.6 ✓
Δ in fence	29-30	238					5.3		69.5 ✓
Toe N slope hill	43-10	342					5.2		69.6 ✓

Page 47 Transit Obs. Line
 Date 2-24-30 Rec. 874.8

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.			
Cont'd At 0 11									
Elev on N slope hill	36-00	418					0.8		874.0
Fence line	71-00	185					6.0		68.8
top N slope hill	44-20	475					2.0		72.8
Fence cor	112-35	255					6.0		68.8
edge swamp S	55-30	410					5.4		69.4
" " "	62-30	522					5.6		69.2
top N slope hill	55-15	580					1.5		73.3
Fence line	109-45	418					6.4		68.4
Elev on slope N	64-55	646					2.0		72.8
Fence line	108-00	610							
Gen'l on slope N.	73-25	638					4.9		69.9
Fence cor.	107-00	843							
Gen'l elev	82-00	715					6.0		68.8
Edge swamp S.W.	73-35	575							69.2
" " S	61-43	462							69.2
Δ in ditch	131-20	492							
Edge swamp S	55-00	857							69.2

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Obs. Line

Date 2-24-30 Rec.

874.2

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>Cont'd At 011</i>								
<i>Δ in ditch</i>	<i>30-50</i>	<i>287</i>						
<i>Edge swamp S.E.</i>	<i>38-15</i>	<i>275</i>						<i>869.2</i> ✓
<i>Δ in ditch</i>	<i>110-10</i>	<i>237</i>						
<i>Edge swamp E for ^{Knoll}</i>	<i>95-15</i>	<i>285</i>						<i>69.2</i> ✓
<i>" " " " "</i>	<i>74-10</i>	<i>325</i>						<i>69.2</i> ✓
<i>Δ in ditch</i>	<i>27-00</i>	<i>235</i>						
<i>Edge swamp S. for Knoll</i>	<i>69-10</i>	<i>410</i>						<i>69.2</i> ✓
<i>" " S.W. " "</i>	<i>76-50</i>	<i>495</i>						<i>69.2</i> ✓
<i>Δ in ditch</i>	<i>335-00</i>	<i>280</i>						
<i>Edge swamp W for Knoll</i>	<i>85-30</i>	<i>560</i>						<i>69.2</i> ✓
<i>" " NW " "</i>	<i>93-20</i>	<i>567</i>						<i>69.2</i> ✓
<i>Δ in ditch</i>	<i>343-10</i>	<i>445</i>						
<i>Edge swamp N. for Knoll</i>	<i>100-35</i>	<i>450</i>						<i>69.2</i> ✓
<i>Top Knoll N.E.</i>	<i>95-00</i>	<i>360</i>				<i>3.8</i>		<i>71.0</i> ✓
<i>" " S.E.</i>	<i>98-00</i>	<i>365</i>				<i>3.2</i>		<i>71.6</i> ✓
<i>" " S.</i>	<i>77-40</i>	<i>440</i>				<i>3.8</i>		<i>71.0</i> ✓
<i>" " S.W.</i>	<i>84-00</i>	<i>500</i>				<i>4.0</i>		<i>70.8</i> ✓

Page 45 Transit Obs. Line
 Date 7-24-30 Rec. 874.8

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>Cont'd At 011</i>									
Top Knoll N	92-15	462				3.8		871.0	✓
Top Knoll center	85-30	412				3.5		71.3	✓
Elev on S.W. slope hill	303-15	643		+	1-00	+11.2	4.9	+6.3	81.1 ✓
" " SW " "	300-05	673		+	1-15	+14.7	4.9	+9.8	84.6 ✓
" " SW " "	298-00	636		+	1-25	+15.8	4.9	+10.9	85.7 ✓
" " SW " "	302-05	580		+	0-40	+6.8	4.9	+1.9	76.8 ✓
" " SW " "	298-30	570		+	1-15	+12.4	4.9	+7.5	82.3 ✓
" " SW " "	302-00	482		+	1-00	+8.4	4.9	+3.5	78.3 ✓
" " SW " "	298-45	487		+	1-40	+14.2	4.9	+9.3	84.1 ✓
" " W " "	301-50	495		+	1-10	+10.1	4.9	+5.2	80.0 ✓
" " W " "	297-25	400		+	2-00	+14.0	4.9	+9.1	73.9 ✓
" " W " "	299-25	320		+	1-00	+5.6	4.9	+0.7	75.5 ✓
" " W " "	294-30	340		+	2-15	+13.4	4.9	+8.5	83.3 ✓
" " W " "	284-10	280		+	1-40	+8.2	4.9	+3.3	78.1 ✓
" " W " "	283-00	305		+	3-00	+16.0	4.9	+11.1	85.9 ✓
" " W " "	267-00	295		+	3-10	+16.2	4.9	+11.3	86.1 ✓
" " W " "	255-00	280		+	1-35	+7.7	4.9	+2.8	77.6 ✓

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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>Cont'd At 0 11</i>									
Elev. on W. slope hill	235-00	310		+	2-40	+14.4	4.9	+9.5	884.3 ✓
" " W " "	234-30	328		+	3-00	+17.2	4.9	+12.3	87.1 ✓
" " W " "	233-30	300		+	1-30	+7.8	4.9	+2.9	77.7 ✓
" " W " "	208-40	390		+	2-05	+14.2	4.9	+9.3	84.1 ✓
" " W " "	205-10	345		+	1-00	+6.0	4.9	+1.1	75.9 ✓
" " S.W. " "	184-45	423		+	0-45	+5.5	4.9	+0.6	75.4 ✓
" " S.W. " "	186-25	450		+	1-35	+15.0	4.9	+10.1	84.9 ✓
" " S.W. " "	172-35	573		+	1-20	+12.0	4.9	+7.1	81.9 ✓
" " S.W. " "	162-45	562		+	1-10	+11.4	4.9	+6.5	81.3 ✓
NE. cor hay shed ^{32' 5"} 100' W x	158-40	580					2.2		72.6 ✓
Toe S.W. slope hill & N toe knoll	164-45	406					4.7		70.1 ✓
Top knoll	163-15	336					0.7		74.1 ✓
Toe W. slope hill edge flats	193-10	308					4.2		70.6 ✓
Toe E. " knoll " "	174-00	322					5.7		69.1 ✓
Toe W. " hill " "	235-45	185					5.8		69.0 ✓
Toe S " knoll " "	161-35	252					6.0		68.8 ✓
Toe W " hill " "	316-00	220							69.0 ✓

Page 47 Transit Obs. Weber LineDate 7-24-30 Rec. Beaton874.8

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.		
Cast'd At 011								
toe S. slope Knoll edge Slope	133-00	290						869.0
toe S.W. slope hill " "	318-35	475						69.0
///								
At 012 - H.I. = 5.1								
At 012 - Elev. 872.68								
Chk Az ^{top water tower} New Brighton	118-13							
to 011	85°05'	915						
to 013	157-40	710						
N.W. corner shed 40'5" x 20' E	334-30	398		+ 1-10	+8.1	5.1	+3.0	80.8
toe N.W. slope Knoll	331-00	234				4.1		73.7
toe W " "	351-15	452				4.8		73.0
Elev on W " "	346-20	470		+ 1-10	+9.6	5.1	+4.5	82.3
^{Elev on W. slope Knoll} toe N. slope pavement fill	347-10	620		+ 0-30	+5.4	5.1	+0.3	78.1
± pavement	347-15	695		+ 1-50	+22.2	5.1	+17.1	94.9
± " "	3-00	677		+ 1-35	+18.7	5.1	+13.6	91.4
± " "	22-15	740		+ 1-50	+23.7	5.1	+18.6	96.4

877.8

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Page 48 Transit Obs. Line Lake Johanna to Valentine to
 Date 2-24-30 Rec. Lang Lake Cuts (8778)

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.			
Cont'd At 012									
S.W. cor house 60' N x 26' E	340-00	444		+	2-00	+15.5	5.1	+10.4	888.2 ✓
Elev on ^{Slope All} E slope hill toe N.	23-00	645		+	1-10	+13.2	5.1	+8.1	85.9 ✓
toe E slope hill	23-00	620					3.0		74.8 ✓
toe N. slope pavement fill	11-30	640					4.6		73.2 ✓
" " " " "	360-00	625					4.4		73.4 ✓
toe E slope hill	30-30	600					4.2		73.6 ✓
Elev on E. " "	30-40	630		+	0-55	+10.1	5.1	+5.0	82.8 ✓
" " " " "	52-30	625		+	0-55	+10.0	5.1	+4.9	82.7 ✓
toe E. slope "	52-35	600					3.9		73.9 ✓
" " " Hill	71-00	618					3.4		74.4 ✓
Elev on E. slope hill	70-25	632		+	0-55	+10.1	5.1	+5.0	82.8 ✓
" " " " "	88-40	705		+	0-55	+11.3	5.1	+6.2	84.0 ✓
toe E. slope hill	90-20	673					3.8		74.0 ✓
" " " "	105-40	735					4.1		73.7 ✓
Elev on E. slope hill	105-15	795		+	0-55	+12.7	5.1	+7.6	85.4 ✓
Elev " E " "	120-30	930		+	0-45	+12.2	5.1	+7.1	84.9 ✓
toe E slope hill	124-00	892					3.4		74.4 ✓

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 Date 2-24-30 Rec.

877.8

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			
<i>Cont'd At 0 12</i>								
Edge pond N.W.	124-00	610				7.1		870.7 ✓
" " W.	110-00	622				7.0		70.8 ✓
" " W.	89-30	600						70.8 ✓
" " W	65-50	548						70.8 ✓
" " S.W.	46-30	545						70.8 ✓
" " S.	29-50	555						70.8 ✓
" " S.	17-00	532						70.8 ✓
" " S.E.	5-00	485						70.8 ✓
" " S.	8-30	532						70.8 ✓
" " E	360-00	362						70.8 ✓
" " E	356-00	180						70.8 ✓
Gen'l elev on S. slope of ^{Knoll}	303-15	70				5.9		71.9 ✓
Edge pond E	50-35	26				7.1		70.7 ✓
Gen'l elev on S. slope of ^{Knoll}	188-15	90				4.1		73.7 ✓
Edge pond	147-00	145						70.7 ✓
Top Knoll	172-30	246		+ 1-15	+5.4	5.1	+0.3	78.1 ✓
Gen'l elev	161-00	340				5.3		72.5 ✓

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Page 50 Transit Wabau Obs. Wabau LineDate 2-24-30 Rec. Boston

(877.8)

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.			
Cont'd At 012									
Edge pond N.E.	155-30	305						870.7	✓
Gen'l elev flats	149-15	495				4.6		73.2	✓
Edge pond N. beg. ditch	151-35	420				7.8		70.0	✓
Gen'l elev flats	141-40	640				4.7		73.1	✓
Edge pond N	139-00	550				7.1		70.7	✓
N & S fence	223-10	180							
" " " " - S. end	301-10	165				7.1		70.7	✓
#									
At 013 HI = 5.1									
At 013 Elev = 869.16									
Chk Az. N. pt. top cupole on	330-31								
to 012	157-40	710							
to 014	238-23	507							
Gen'l on e ridge	44-00	106				1.5		72.8	✓
to S slope Ridge	45-35	315				3.0		71.3	✓
Gen'l elev.	45-45	384				3.4		70.9	✓

(874.3)

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Date 2-26-30 Rec.

874.3

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.		
Coot A 013								
Grail elev box field	63-15	338				3.0		871.3
" " " "	47-00	460				2.9		71.4
Top E slope wooded hill	62-00	540				0.0		74.3
ON " " " "	63-00	580		+ 1-05	+11.0	3.9	+7.1	81.4
Top " " " "	72-30	495		+ 0-35	+5.0	4.5	+0.5	74.8
ON " " " "	73-15	535		+ 1-05	+10.1	3.7	+6.4	80.7
Top " " " "	81-30	425				0.0		74.3
ON " " " "	84-15	510		+ 1-25	+12.6	4.5	+8.1	82.4
Top of Knoll	92-10	382		+ 1-10	+7.9	2.9	+5.0	79.3
Top E. slope pt of Knoll	91-00	355				0.0		74.3
Top E slope wooded hill	107-00	382				1.9		72.4
ON " " " "	99-00	450		+ 1-15	+9.8	3.2	+6.6	80.9
Top " " " "	110-15	450				2.3		72.0
ON " " " "	106-20	500		+ 1-15	+11.0	2.5	+8.5	82.8
Top " " " "	114-25	520				0.0		74.3
ON " " " "	111-30	578		+ 1-10	+11.6	2.9	+8.7	83.0
ON SE. " " " "	117-25	575		+ 0-45	+7.5	2.9	+4.6	78.9

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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.
Cont'd A1013									
ON SE slope wooded hill	117-50	625		+	1-05	+11.8	3.1	+8.7	883.0
toe " " " "	118-00	468					3.7		70.6
ON S " " "	126-30	550		+	1-45	+16.8	3.7	+13.1	87.4
toe " " " "	127-30	575					0.0		74.3
ON " " " "	135-30	480		+	1-25	+12.0	2.4	+9.6	83.9
toe " " " "	131-00	415					0.0		74.3
ON " " " "	140-15	445		+	1-30	+11.6	2.2	+9.4	83.7
toe " " " "	142-15	350					0.8		73.5
ON " " " "	148-00	385		+	1-45	+11.9	1.9	+10.0	84.3
toe " " " "	155-40	325					1.5		72.8
ON " " " "	161-30	365		+	1-30	+9.8	1.8	+8.0	82.3
toe SE " " "	171-00	350					1.3		73.0
ON " " " "	173-45	405		+	1-30	+10.6	2.0	+8.6	82.9
toe " " " "	180-00	415					1.1		73.2
ON E " " "	179-30	480		+	1-15	+10.4	3.4	+7.0	81.3
toe E " " "	183-35	500					1.8		72.5
ON " " " "	179-40	530		+	1-35	+15.2	7.7	+7.5	81.8

Page 53 Transit Obs. Line Date 2-26-30 Rec. 874.3

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>Contd At 013</i>									
Top E slope wooded hill	183-35	565					1.0		873.3 ✓
Gen'l elev ^{swamp} of slope to	190-30	565					4.5		69.8 ✓
Gen'l elev edge swamp	198-55	590					5.8		68.5 ✓
Gen'l elev	192-39	452					5.9		68.4 ✓
" " edge swamp	203-30	455					5.3		69.0 ✓
" "	187-15	345					5.5		68.8 ✓
" " edge swamp	198-00	318					5.3		69.0 ✓
Gen'l elev	167-00	275					4.7		69.6 ✓
" "	136-15	295					4.0		70.3 ✓
" " edge swamp	152-00	205					5.8		69.0 ✓
" "	121-20	330					5.0		69.3 ✓
" " edge swamp	123-00	230							69.3 ✓
" "	105-30	203					4.1		70.2 ✓
" beq. ditch, Running N.E.									
" " edge swamp	111-00	180							
E. pt of Knoll, edge hay	82-45	260					0.5		72.8 ✓
ditch Running N.E.	178-40	131							
Gen'l elev	86-45	110					4.0		70.3 ✓

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Page 54 Transit Obs. Line Date 7-26-70 Rec.

874.3

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			
Cont'd At 013								
Gen'l elev. edge swamp S.	49-30	38						870.0
" " " " "	315-30	185						70.0
" "	342-30	160				4.2		70.1
ditch running N.	315-30	190				5.9		69.1
Gen'l elev edge swamp S.	315-10	310						70.0
" "	313-45	325				4.5		69.8
" " edge swamp S.	297-00	460						70.0
" "	304-25	465				4.5		69.8
" "	300-00	610				4.3		70.0
" " edge Swamp S.	295-50	620						70.0
" "	298-45	718				4.8		69.5
" " edge swamp S	294-30	785						70.0
Gen'l elev in swamp	254-00	70				6.0		68.3
" " " " "	213-45	135						70.0
ditch running N.E.	201-10	200						
Gen'l elev. in swamp	228-40	275						68.0
" " " " "	219-30	392						68.0

Page 55 Transit Obs. Line Date 2-26-30 Rec.

(8743)

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>Cont'd. At 513</i> <i>with No 5 ditch</i>									
Inter X of ditch running NE	219-10	425							
for NW slope Knoll	335-40	344					2.1		872.2
" N " "	329-00	365					3.1		71.2
Edge swamp NE - SW edge hog	221-30	495							68.0
for NE slope Knoll	321-35	472					2.8		71.5
Edge swamp E. - W. edge hog	238-25	412							68.0
" " " - " " "	255-01	432							68.0
Gen'l elev in swamp	255-45	352							68.0
" " " "	268-40	278							68.0
Edge swamp S.E.	293-10	820	X						68.0
Gen'l elev in swamp	282-30	385							68.0
" " " "	285-45	426							68.0
Edge swamp S.E.	286-10	775							68.0
Gen'l elev in swamp	281-45	470							68.0
Edge swamp E	276-35	670							68.0
Gen'l elev. in swamp	283-00	522							68.0
Edge swamp E	269-15	530							68.0

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874.3

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>Cont'd At 013</i>								
<i>Gen'l elev in swamp</i>	<i>289-00</i>	<i>550</i>						<i>867.0</i> ✓
<i>" " " "</i>	<i>294-00</i>	<i>660</i>						<i>67.0</i> ✓
<i>" " " "</i>	<i>292-00</i>	<i>650</i>				<i>7.1</i>		<i>67.2</i> ✓
<i>Gen'l elev in swamp</i>	<i>291-35</i>	<i>785</i>						<i>67.0</i> ✓
<i>" " " "</i>	<i>282-15</i>	<i>653</i>						<i>67.0</i> ✓
<i>##</i>								
<i>At 014 HI 5.0</i>								
<i>At 014 Elev 869.66</i>								
<i>Chk A3 top N of cupola on</i>	<i>356-48</i>							
<i>to 013</i>	<i>238°23'</i>	<i>507</i>						
<i>to 015</i>	<i>140-41</i>	<i>697</i>						
<i>main N2S ditch</i>								
<i>E ditch running N.E. to</i>	<i>159-00</i>	<i>155</i>						
<i>Edge swamp W. edge box</i>	<i>183-20</i>	<i>182</i>						<i>67.0</i> ✓
<i>" " W. edge box</i>	<i>226-15</i>	<i>142</i>						<i>67.0</i> ✓
<i>Edge hay field E.</i>	<i>278-20</i>	<i>240</i>						
<i>N2S ditch</i>	<i>278-20</i>	<i>245</i>						

874.7

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				
Cont'd At 014									
E N2S ditch	302-00	360							
Gentle elev. hay field	325-00	580					4.9		869.8
E N2S ditch	315-55	352							
Gentl. elev. hay field	319-00	410					5.2		69.5
" " " "	325-40	240					5.0		69.7
" " " "	351-00	65					5.0		69.7
" " " "	177-00	80					5.0		69.7
" " " "	281-25	125					6.1		68.6
" " " "	306-10	300					6.1		68.6
" Just No. of hay stand	299-45	492					4.7		70.0
Toe W. slope hill	296-30	615					1.3		73.4
ON " " " of wood seed patch	294-00	620		+ 0-55	+10.0		4.1	+5.9	80.6
Toe " " " "	287-00	598					8.4		74.3
ON " " " of wood N. end patch	286-15	615		+ 1-05	+11.6		4.1	+7.5	82.2
Toe " " " "	277-35	600					0.2		74.5
ON " " " "	278-30	635		+ 7-15	+14.0		4.2	+9.8	84.5
Toe " " " "	266-30	610		+ 0-30	+5.3		4.0	+1.3	76.0

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874.7

OBJECT	Azimuth	Stadia	Distance	Intervals or Ver. Angle		Read. on Rod	Diff. of Elev.	Elevation above Datum
				Up + Down -	No. of Int. or Angle	Rod Equiv.		
<i>Can't d At 014</i>								
ON W. slope hill	266-30	632		+	1-25	+15.6	4.2	886.1
toe " " "	257-20	590					1.3	73.4
ON " " "	257-20	620		+	1-28	+14.4	4.1	85.0
toe " " "	246-18	600					1.0	73.7
toe " " "	232-00	615					1.5	73.2
ON " " "	246-18	630		+	1-20	+14.6	4.2	85.1
ON " " "	232-00	775		+	1-15	+17.0	4.4	87.3
toe " " "	222-20	665					0.0	74.7
ON " " "	222-20	700		+	1-15	+15.5	4.5	85.7
toe " " "	211-00	655					1.0	73.7
ON " " "	211-40	705		+	1-20	+15.2	4.5	85.4
toe " " "	201-45	663					2.1	72.6
ON " " "	204-30	725		+	0-55	+11.6	4.6	81.7
toe " " "	199-20	738					1.8	72.9
Gentle elev Flats	192-50	620					5.8	68.9
" " "	186-55	545					6.0	68.7
" " "	209-10	560					6.0	68.7

Page 59 Transit Obs. Line
 Date 2-26-30 Rec. 874.7

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			
Cont'd At 014								
E N S ditch	183-25	520	X					
Gen'l elev flats	232-20	535				6.0		868.7
" " "	196-00	480				6.0		68.7
" " "	253-30	590						68.7
E N S ditch	194-40	360						
Gen'l elev flats	211-45	365				6.6		68.1
" " "	271-50	485				6.1		68.6
ditch running S.W.								
Inter X of N S ditch with	204-50	305				8.0		66
Gen'l elev flats	291-00	455				6.0		68.7
" " "	218-00	380				6.7		68.0
" " "	212-00	490				6.0		68.7
" " "	279-00	330				6.0		68.7
" " "	235-00	445				6.6		68.1
" " "	250-00	350				6.2		68.5
" " "	133-10	225						68.5
" " "	151-50	370				6.5		68.2
" " "	162-30	468				6.6		68.1

RETURN TO State Department of Drainage and Waters, St. Paul, Minn.

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Page 60 Transit Obs. Line Date 2-26-30 Rec. 874.7

OBJECT	Azimuth	Stadia	Distance	Intervals or Ver. Angle		Read. on Rod	Diff. of Elev.	Elevation above Datum	
				Up + Down -	No. of Int. or Angle	Rod Equiv.			
<i>Cont'd ATO 14</i>									
<i>Gen'l elev.</i>	<i>172-05</i>	<i>465</i>				<i>6.7</i>		<i>868.0</i>	✓
<i>or " "</i>	<i>178-00</i>	<i>320</i>						<i>68.0</i>	✓
<i>#</i>									
<i>2-27-30</i>									
<i>ATO 15 - HI = 5.15</i>									
<i>ATO 15 - Elev 869.96</i>									
<i>2nd fence's born</i>									
<i>CHK A3, top of Cupola N. on</i>	<i>343-15</i>								
<i>to O 16</i>	<i>202-41</i>	<i>563</i>							
<i>to O 14</i>	<i>140-41</i>	<i>698</i>							
<i>Toe N.E. slope wooded hill</i>	<i>352-35</i>	<i>195</i>		<i>+</i>	<i>1-00</i>	<i>+3.4</i>	<i>4.0</i>	<i>-0.6</i>	<i>874.5</i> ✓
<i>" " " " "</i>	<i>0-25</i>	<i>233</i>		<i>+</i>	<i>1-10</i>	<i>+4.7</i>	<i>2.2</i>	<i>+2.5</i>	<i>77.6</i> ✓
<i>" " " " "</i>	<i>19-25</i>	<i>205</i>					<i>0.0</i>		<i>75.1</i> ✓
<i>ON " " " "</i>	<i>19-45</i>	<i>240</i>		<i>+</i>	<i>1-50</i>	<i>+7.7</i>	<i>1.2</i>	<i>+6.5</i>	<i>81.6</i> ✓
<i>Top E " " "</i>	<i>41-40</i>	<i>192</i>					<i>0.0</i>		<i>75.1</i> ✓
<i>ON E " " "</i>	<i>41-50</i>	<i>230</i>		<i>+</i>	<i>1-55</i>	<i>+7.7</i>	<i>1.2</i>	<i>+6.5</i>	<i>81.6</i> ✓
<i>Toe E " " "</i>	<i>72-10</i>	<i>135</i>					<i>0.4</i>		<i>74.7</i> ✓
<i>ON E " " "</i>	<i>78-20</i>	<i>170</i>		<i>+</i>	<i>2-30</i>	<i>+7.4</i>	<i>0.9</i>	<i>+6.5</i>	<i>81.6</i> ✓

875.1

Page 61 Transit Obs. Line 875.1
 Date 2-27-30 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>Cont'd At 015</i>								
Toe SE slope wooded hill	119-10	105				1.1		874.0
ON " " " "	119-10	152		+ 238	+6.6	0.8	+5.8	80.9
Toe " " " "	164-20	148				1.4		73.7
ON " " " "	160-20	197		+ 1-55	+6.6	0.9	+5.7	80.8
Toe " " " "	184-40	230				1.4		73.7
ON " " " "	174-05	252		+ 1-35	+8.4	2.0	+6.4	81.5
Toe E. <i>Point of Hill</i> " " "	189-55	300				2.0		73.1
ON N.E. " " "	172-25	286		+ 2-10	+10.8	6.0	+4.8	79.9
Gen'l elev in hay field	199-20	315				3.9		71.2
Edge swamp W.	215-50	366				5.9		69.2
" " W	225-40	217				5.6		69.5
Gen'l elev in hay field	202-45	180				4.4		70.7
" " " " "	182-00	50				4.4		70.7
Edge swamp W.	260-40	84						69.2
" " W.	286-15	80						69.2
Gen'l elev in hay field	24-00	101				4.6		70.5
" " " " "	330-15	156				4.6		70.5

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Page 62 Transit Obs. Weber Line Lake Johanna To Lake
 Date 2-27-30 Rec. Boston Valentine To Long Lake (875.1)

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			
Cont'd At 0 15								
Gen'l elev. in swamp	274-20	215				6.9		868.2 ✓
" " " "	255-10	335						68.2 ✓
E N.S. ditch	252-30	433						
Gen'l elev in swamp	229-05	420						68.5 ✓
" " " "	214-45	472				6.6		68.5 ✓
#								
At 0 16 - H.I. 5.3								
At 0 16 - Elev. 868.51								(873.8)
Chk. Az. ^{3 story brick bldg to NW.} top flagpole S.W. cor	137-32							
to 0 15	202° 41'	563						
running N.W. Inter X								
N.S. ditch at pt where ditch	258-45	42						
E & W sec line fence	258-45	42						
E ditch running NW ?	280-15	136						
Gen'l elev	298-40	184				5.0		68.8 ✓
A pt in ditch N.W. ?	284-45	240						

Page 63 Transit Obs. Line
 Date 2-22-30 Rec. 873.8

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>Cont'd At 016</i>								
<i>Beq ditch</i>	<i>282-00</i>	<i>335</i>				<i>5.7</i>		
<i>Grail elev flats</i>	<i>292-45</i>	<i>355</i>				<i>5.3</i>		<i>868.5</i>
" " "	<i>312-45</i>	<i>348</i>						<i>68.5</i>
" " "	<i>319-30</i>	<i>410</i>						<i>68.5</i>
" " "	<i>328-45</i>	<i>480</i>						<i>68.5</i>
" " <i>in boy field</i>	<i>316-00</i>	<i>540</i>				<i>3.4</i>		<i>70.4</i>
" " " " "	<i>306-00</i>	<i>464</i>				<i>3.5</i>		<i>70.3</i>
" " " " "	<i>287-10</i>	<i>445</i>				<i>5.0</i>		<i>68.8</i>
" " " " "	<i>293-45</i>	<i>515</i>				<i>3.0</i>		<i>70.8</i>
<i>Toe W. slope hill</i>	<i>303-25</i>	<i>590</i>				<i>0.0</i>		<i>73.8</i>
<i>ON</i> " " "	<i>302-25</i>	<i>640</i>		<i>+</i>	<i>7-05</i>	<i>+12.2</i>	<i>4.2</i>	<i>+8.0</i> <i>81.8</i>
<i>Toe</i> " " "	<i>296-10</i>	<i>633</i>		<i>+</i>	<i>0-55</i>	<i>+10.2</i>	<i>3.2</i>	<i>+7.0</i> <i>80.8</i>
<i>ON</i> " " "	<i>296-10</i>	<i>655</i>		<i>+</i>	<i>1-25</i>	<i>+16.3</i>	<i>3.3</i>	<i>+13.0</i> <i>86.8</i>
<i>Toe</i> " " "	<i>290-25</i>	<i>590</i>		<i>+</i>	<i>0-50</i>	<i>+8.6</i>	<i>4.0</i>	<i>+4.6</i> <i>78.4</i>
<i>ON</i> " " "	<i>290-25</i>	<i>625</i>		<i>+</i>	<i>1-35</i>	<i>+17.3</i>	<i>4.1</i>	<i>+13.2</i> <i>87.0</i>
<i>Toe</i> " " "	<i>284-35</i>	<i>545</i>		<i>+</i>	<i>0-50</i>	<i>+7.9</i>	<i>3.7</i>	<i>+4.2</i> <i>78.0</i>
<i>ON</i> " " "	<i>284-35</i>	<i>565</i>		<i>+</i>	<i>1-40</i>	<i>+16.4</i>	<i>3.8</i>	<i>+12.6</i> <i>86.4</i>

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Page 64 Transit _____ Obs. _____ Line _____Date 2-27-30 Rec. _____

873.8

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>Contd At 616</i>								
toe W slope hill	287-50	495				3.4		870.4 ✓
toe " " "	275-35	455		+	1-00	+8.0	5.3	+2.7 76.5 ✓
ON " " "	275-35	493		+	1-50	+15.8	3.4	+12.4 86.2 ✓
Gen'l elev on W slope to ^{Swamp}	280-00	400				2.9		70.9 ✓
ON W. slope hill on sec line ^{France}	268-35	453		+	2-05	+16.6	3.3	+13.3 87.1 ✓
toe " " " " " "	268-30	416		+	1-30	+10.8	7.0	+3.8 77.6 ✓
ON W. slope Hill	261-00	430		+	2-25	+18.1	3.1	+15.0 88.8 ✓
Gen'l on W. slope to ditch ^{ON EW sec. line}	268-28	345		+	1-00	+6.0	8.7	-2.7 71.1 ✓
ON W slope hill	245-30	390		+	2-40	+18.2	2.0	+16.2 90.0 ✓
toe " " "	259-40	390		+	1-10	+7.9	3.0	+4.9 78.7 ✓
toe " " "	247-00	342		+	1-15	+7.7	2.7	+5.0 78.8 ✓
Gen'l elev on W slope to ^d	247-00	390				1.6		72.2 ✓
ON W. slope hill	232-00	350		+	3-10	+19.3	2.7	+16.6 90.4 ✓
toe " " "	234-45	312		+	1-35	+8.6	2.6	+6.0 79.8 ✓
ON W. slope hill and S. toe ^{Slope Co. Rd. F.}	221-40	350		+	2-55	+17.7	1.7	+16.0 89.8 ✓
toe W slope hill	227-30	230		+	0-30	+2.0	3.1	-1.1 72.7 ✓
Co. Rd. F.	218-40	370		+	3-40	+23.8	2.8	+21.0 94.8 ✓

Page 65 Transit Obs. Line
 Date 7-27-30 Rec. 873.8

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>Cont'd At 016</i>								
<i>Co. Rd. F.</i> Toe W slope hill - S. toe	213-50	293		+	1-10	+6.0	2.5	+3.5 877.3
<i>Co. Rd. F.</i>	204-45	310		+	3-20	+18.0	2.6	+15.4 89.2
Toe S slope fill Rd	199-00	246					1.5	72.3
<i>Co. Rd. F.</i>	183-45	269		+	2-20	+11.0	1.4	+9.6 83.4
Toe S. slope fill Rd	183-45	227					4.1	69.7
<i>Co. Rd. F. over culv</i>	166-55	259		+	1-55	+8.6	2.3	+6.3 80.1
<i>Flow line 36" ^{Si. end} conc culv</i>	166-30	212					6.6	67.5
<i>Co. Rd. F.</i>	143-10	280		+	1-00	+4.7	2.4	+2.3 76.1
Toe S slope fill, Rd	150-00	238					4.0	69.8
<i>Co. Rd. F.</i>	125-30	332		+	0-30	+2.9	2.6	+0.3 74.1
Toe S slope fill, Rd	127-25	290					2.4	71.4
<i>Co. Rd. F.</i>	107-55	421		+	1-25	+3.1	3.1	0.0 73.8
Toe S slope fill Rd	107-55	380					3.0	70.8
<i>Co. Rd.</i>	100-30	515		+	0-25	+3.8	3.6	+0.2 74.0
Toe S slope fill Rd	102-00	440		+	0-15	+1.8	3.2	-1.4 72.4
<i>Elev on E. slope hill</i> Top of cut S. side Co Rd F.	97-05	500		+	0-50	+7.3	3.5	+3.8 70.0
<i>Sec line fence Inter X fence running S.</i> Toe E. slope hill at pt. where ^{wooded}	91-20	420					0.0	73.8

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Page 66 Transit.....Obs.....Line.....Date 2-27-30.....Rec.....

873.8

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>Contd At 016</i>								
<i>wooded</i> On E. slope hill - on sec line <i>sence</i>	92-15	488		+	1-00	+8.5	3.4	+5.1 878.9 ✓
<i>running S. from sec line</i> Toe E slope hill on <i>sence</i>	83-35	415					1.3	72.5 ✓
On E slope hill	83-35	615		+	1-00	+10.8	3.6	+7.2 81.0 ✓
Toe E " "	78-15	445		+	0-30	+3.9	3.2	+0.7 74.5 ✓
On E. " "	75-05	470		+	1-15	+10.4	3.4	+7.0 80.8 ✓
<i>wooded</i> Toe NE. slope hill	70-00	430		+	0-35	+4.4	3.2	+1.2 75.0 ✓
On " " " " "	67-00	460		+	1-20	+10.7	5.3	+5.4 79.2 ✓
Toe " " " " "	66-45	374		+	0-30	+3.3	3.0	+0.3 74.1 ✓
On " " " " "	61-00	390		+	1-40	+11.4	5.0	+6.4 80.2 ✓
Toe " " " " "	53-50	320		+	0-50	+4.7	3.6	+1.1 74.9 ✓
On " " " " "	52-10	355		+	1-40	+10.4	3.8	+6.6 80.4 ✓
Point of Knoll	43-00	272					0.5	73.3 ✓
Toe E slope hill at pt.	43-20	320		+	1-00	+5.6	3.0	+2.6 76.4 ✓
Top of Knoll NW.	49-35	203					1.4	72.4 ✓
N.W. toe slope Knoll	56-45	245					3.4	70.4 ✓
Gen'l elev. Hay Field	91-35	322					4.5	69.3 ✓
Gen'l elev Hay Field	76-00	330					3.4	70.4 ✓

Page 67 Transit Obs. Line
 Date 7-27-30 Rec. 873.8

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			
Cont'd A to 16								
Edge swamp S.W.	178-25	218						
Elev on slope E	99-00	384				3.1		870.7
Edge swamp S.W.	49-30	105						
Beg ditch running E	112-30	315				5.8		68.0
Edge swamp W.	8-50	144						
Gen'l elev hay field	123-00	245				5.1		68.7
" " hay field	55-00	160				4.5		69.3
∅ ditch running E.	123-30	178						
Gen'l elev. on sec line ^{fence}	93-40	142				5.0		68.8
" " hay field	124-10	100				5.1		68.7
Top E. slope Knoll	35-25	245				1.9		71.9
^{ditch coming to Intert} NLS ditch at pt. where	190-00	122						
Δ in NLS ditch	170-00	78						
" " " " " "	200-00	58						
Gen'l elev hay field	191-30	170				4.6		69.2
" " " " "	222-45	170				4.6		69.2
ELW sec line fence	267-45	222						

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

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 Date 2-17-30 Rec. 883.6

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.
Cont'd At 0 1									
Elev on N.E. slope hill	333-10	200		+	2-25	+8.4	2.0	+6.4	890.0 ✓
toe N.E. point hill	219-30	217					3.0		80.6 ✓
Elev on E. slope hill	334-50	252		+	2-45	+12.2	6.2	+6.0	89.6 ✓
toe N. slope	315-00	290					1.8		81.8 ✓
Elev on N. slope hill	319-55	314		+	1-45	+9.6	2.6	+7.0	90.6 ✓
toe slope N.	303-30	362					2.7		80.9 ✓
Elev on N. slope	307-35	385		+	1-15	+8.4	2.9	+5.5	89.1 ✓
Elev on N. slope	297-15	500		+	1-05	+9.5	3.5	+6.0	89.6 ✓
toe N. slope	293-25	485					2.5		81.1 ✓
Gen'l elev	287-35	470					5.9		77.7 ✓
Gen'l	294-05	345					6.9		76.7 ✓
Edge brush Gen'l	279-10	448					8.9		74.7 ✓
Gen'l	282-40	320					9.3		74.3 ✓
S. bank ditch E.W.	268-35	440					10.4		73.2 ✓
bottom ditch	268-10	441					11.0		72.6 ✓
N. bank	267-45	441					10.4		73.2 ✓
S. bank ditch at Δ pt	268-00	319					10.5		73.1 ✓

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Page 3 Transit _____ Obs. _____ Line _____Date 2-17-30 Rec. _____

883.6

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>Cont'd A401</i>								
<i>bottom</i>	<i>267-25</i>	<i>320</i>				<i>11.1</i>		<i>872.5</i> ✓
<i>N. bank ditch at Apt</i>	<i>266-55</i>	<i>320</i>				<i>10.4</i>		<i>73.2</i>
<i>Gen'l on S slope to swamp</i>	<i>358-05</i>	<i>450</i>				<i>10.8</i>		<i>72.8</i> ✓
<i>Gen'l " " " "</i>	<i>251-20</i>	<i>327</i>				<i>10.6</i>		<i>73.0</i> ✓
<i>Edge brush & swamp</i>	<i>245-00</i>	<i>480</i>				<i>9.5</i>		<i>74.1</i> ✓
<i>Edge " " "</i>	<i>244-00</i>	<i>342</i>				<i>9.5</i>		<i>74.1</i> ✓
<i>E.W. fence Gen'l</i>	<i>234-30</i>	<i>510</i>				<i>4.3</i>		<i>79.3</i> ✓
<i>E W fence "</i>	<i>227-20</i>	<i>395</i>				<i>3.9</i>		<i>79.7</i> ✓
<i>top S. Slope hill</i>	<i>230-40</i>	<i>528</i>		<i>+ 0-12</i>	<i>+1.8</i>	<i>2.0</i>	<i>-0.2</i>	<i>83.4</i> ✓
<i>top S. Slope hill</i>	<i>225-25</i>	<i>405</i>				<i>2.9</i>		<i>80.7</i> ✓
<i>Elev. on S. Slope hill</i>	<i>226-30</i>	<i>540</i>		<i>+ 1-55</i>	<i>+18.0</i>	<i>5.0</i>	<i>+13.0</i>	<i>96.6</i> ✓
<i>" " " "</i>	<i>221-25</i>	<i>450</i>		<i>+ 1-55</i>	<i>+15.0</i>	<i>6.0</i>	<i>+9.0</i>	<i>92.6</i> ✓
<i>" " " "</i>	<i>215-40</i>	<i>397</i>		<i>+ 2-15</i>	<i>+15.6</i>	<i>3.0</i>	<i>+12.6</i>	<i>96.2</i> ✓
<i>top S. Slope</i>	<i>226-00</i>	<i>448</i>				<i>0.7</i>		<i>82.9</i> ✓
<i>top " "</i>	<i>220-45</i>	<i>361</i>				<i>2.1</i>		<i>81.5</i> ✓
<i>top " "</i>	<i>210-00</i>	<i>308</i>				<i>1.1</i>		<i>82.5</i> ✓
<i>Elev on S Slope hill</i>	<i>206-25</i>	<i>350</i>		<i>+ 2-30</i>	<i>+15.2</i>	<i>2.7</i>	<i>+12.5</i>	<i>96.1</i> ✓

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883.6

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.
Cont'd At 01									
E gully	203-15	310		+	0-55	+5.0	2.5	+2.5	886.1 ✓
top bank E side gully	202-00	340		+	2-10	+12.7	1.2	+11.0	94.6 ✓
E gully	199-25	335		+	1-55	+11.2	7.6	+3.6	87.2 ✓
top W. bank gully	199-15	325		+	2-00	+11.6	3.6	+8.0	91.6 ✓
toe S. slope hill	202-05	282					0.6		83.0 ✓
Elev on S. Slope hill	190-15	287		+	1-45	+8.7	2.4	+6.3	89.9 ✓
toe S. slope	192-05	235					3.9		79.7 ✓
Elev on S. slope ^{on N.S. 1/4 line} also from	177-35	285		+	1-30	+7.4	2.4	+5.0	88.6 ✓
toe S. slope ^{line fence} also on N.S. 1/4	177-35	261					3.8		79.8 ✓
Low point between hills	177-20	230					3.7		79.9 ✓
N bank ditch at Δ pt	175-30	222					7.8		75.8 ✓
bottom " " " "	174-45	215					10.8		72.8 ✓
S bank	174-05	212					8.5		75.1 ✓
NE bank ditch at Δ pt	187-50	147					7.9		75.7 ✓
bottom " " " "	187-10	142					10.2		73.4 ✓
S.W. bank " " " "	187-00	137					8.3		75.3 ✓
Grail on E ^{Swamp} slope to	178-25	64					6.9		76.7 ✓

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Date 2-17-30 Rec.

883.6

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>Cont'd At 01</i>								
<i>Gen'l on slope to swamp</i>	<i>307-15</i>	<i>134</i>				<i>6.7</i>		<i>876.9</i> ✓
<i>" " " " "</i>	<i>302-05</i>	<i>237</i>				<i>7.6</i>		<i>76.0</i> ✓
<i>Edge swamp</i>	<i>263-25</i>	<i>114</i>				<i>9.4</i>		<i>74.2</i> ✓
<i>" " "</i>	<i>285-00</i>	<i>218</i>				<i>8.9</i>		<i>74.7</i> ✓
<i>S bank of ditch</i>	<i>230-00</i>	<i>150</i>				<i>10.4</i>		<i>73.2</i> ✓
<i>bottom " "</i>	<i>229-35</i>	<i>152</i>				<i>11.1</i>		<i>72.5</i>
<i>N bank " "</i>	<i>228-33</i>	<i>153</i>				<i>10.6</i>		<i>73.0</i>
<i>S bank " "</i>	<i>238-35</i>	<i>235</i>				<i>10.3</i>		<i>73.3</i> ✓
<i>bottom " "</i>	<i>257-40</i>	<i>238</i>				<i>11.1</i>		<i>72.5</i>
<i>N. bank " "</i>	<i>256-40</i>	<i>240</i>				<i>10.0</i>		<i>73.6</i>
<i>Gen'l on slope to swamp</i>	<i>214-50</i>	<i>210</i>				<i>8.4</i>		<i>75.2</i> ✓
<i>Edge swamp</i>	<i>241-50</i>	<i>262</i>				<i>9.6</i>		<i>74.0</i> ✓
<i>E.W. Fence line</i>	<i>207-00</i>	<i>260</i>				<i>2.1</i>		<i>81.6</i> ✓
<i>Gen'l on slope to swamp</i>	<i>230-15</i>	<i>300</i>				<i>7.8</i>		<i>75.8</i> ✓
<i>E.W. Fence line</i>	<i>221-30</i>	<i>342</i>				<i>3.6</i>		<i>80.0</i> ✓

#

Page 6 Transit Obs. Line Date 8-17-30 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.		
At $\odot$ 2 HI = 5.15 Elev $\odot$ no. 2 = 880.09								885.2
Chk. Az ^{top Water Tower in} New Brighton	113°-02'							
To $\odot$ 1	282°-46'	940						
To $\odot$ 3	259°-56'	866						
Elev. on N slope hill	85-35	390		+ 1-00	+6.9	2.9	+4.0	889.2 ✓
Toe N. slope	90-55	386.				4.4		80.8 ✓
Toe N. slope	86-10	300				2.9		82.3 ✓
Elev on N slope hill	81-10	298		+ 2-20	+12.2	6.5	+5.7	90.9 ✓
Toe N. slope	87-30	220				3.4		88.6 ✓
Elev on N slope hill	79-20	220		+ 0-45	+2.9	2.1	+0.8	86.0 ✓
Toe N. slope	77-00	140				2.3		87.5 ✓
Elev on N slope hill	66-45	152		+ 5-00	+13.2	1.8	+11.4	96.6 ✓
Toe N. slope	65-35	71				2.9		82.3 ✓
Elev on N. slope hill	30-00	84		+ 5-45	+8.4	1.4	+7.0	92.2 ✓
Toe N. slope	4-30	20				3.6		81.6 ✓
Elev on N slope hill	334-45	70		+ 7-15	+8.8	1.3	+7.5	92.7 ✓
Toe N. slope	303-00	90				3.6		81.6 ✓

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Page 7 Transit Wabash Line Area between S.H. No. 62 and cen.
 Date 2-17-30 Rec. Boston Sect. 28 - to N.E.S. of proposed change

OBJECT	Azimuth	Stadia	Distance	Intervals or Ver. Angle		Read. on Rod	Diff. of Elev.	Elevation above Datum	
				Up + No. of Int. Down - or Angle	Rod Equiv.				
<u>Cont'd At 02</u>								<u>885.2</u>	
<u>Elev on N slope hill</u>	<u>1328-25</u>	<u>111</u>		<u>+ 4-45</u>	<u>+8.7</u>	<u>1.6</u>	<u>+7.1</u>	<u>892.3</u>	<u>✓</u>
<u>" " " " "</u>	<u>318-15</u>	<u>190</u>		<u>+ 3-05</u>	<u>+10.2</u>	<u>1.9</u>	<u>+8.3</u>	<u>93.5</u>	<u>✓</u>
<u>Toe N. slope</u>	<u>309-10</u>	<u>181</u>				<u>2.6</u>		<u>82.6</u>	<u>✓</u>
<u>Elev on N. slope hill</u>	<u>313-15</u>	<u>265</u>		<u>+ 2-35</u>	<u>+12.0</u>	<u>2.3</u>	<u>+9.7</u>	<u>94.9</u>	<u>✓</u>
<u>Toe N. slope</u>	<u>307-40</u>	<u>258</u>				<u>2.2</u>		<u>83.0</u>	<u>✓</u>
<u>Elev on N slope hill</u>	<u>309-45</u>	<u>350</u>		<u>+ 2-00</u>	<u>+12.2</u>	<u>2.7</u>	<u>+9.5</u>	<u>94.7</u>	<u>✓</u>
<u>Toe N. slope</u>	<u>304-15</u>	<u>336</u>				<u>1.7</u>		<u>83.5</u>	<u>✓</u>
<u>Elev on N slope hill</u>	<u>305-15</u>	<u>425</u>		<u>+ 1-25</u>	<u>+10.5</u>	<u>3.1</u>	<u>+7.4</u>	<u>92.6</u>	<u>✓</u>
<u>Toe N. slope</u>	<u>299-30</u>	<u>410</u>				<u>2.1</u>		<u>83.1</u>	<u>✓</u>
<u>Elev on N.E. slope hill</u>	<u>302-40</u>	<u>488</u>		<u>+ 1-20</u>	<u>+10.4</u>	<u>3.4</u>	<u>+7.0</u>	<u>92.2</u>	<u>✓</u>
<u>Toe N.E. point hill</u>	<u>296-05</u>	<u>460</u>				<u>7.0</u>		<u>84.2</u>	<u>✓</u>
<u>W bank of M.S. ditch</u>	<u>303-45</u>	<u>515</u>	}	<u>+ 1-35</u>	<u>+14.2</u>	<u>6.6</u>	<u>+7.6</u>	<u>92.8</u>	<u>✓</u>
<u>Bottom " " " "</u>	<u>303-15</u>	<u>520</u>		<u>+ 1-25</u>	<u>+12.8</u>	<u>8.6</u>	<u>+4.2</u>	<u>89.4</u>	
<u>Edge of " " " "</u>	<u>302-45</u>	<u>530</u>		<u>+ 1-25</u>	<u>+13.2</u>	<u>7.6</u>	<u>+5.6</u>	<u>90.8</u>	
<u>W bank " " " "</u>	<u>297-30</u>	<u>486</u>		<u>+ 0-45</u>	<u>+6.4</u>	<u>4.4</u>	<u>+2.0</u>	<u>87.2</u>	<u>✓</u>
<u>Toe slope N.</u>	<u>292-15</u>	<u>480</u>				<u>1.3</u>		<u>83.9</u>	<u>✓</u>
<u>Bottom of N.E.S. ditch</u>	<u>297-05</u>	<u>488</u>	}	<u>+ 0-40</u>	<u>+5.7</u>	<u>5.4</u>	<u>+0.3</u>	<u>85.5</u>	

Page 8 Transit Obs. Line
 Date 2-17-30 Rec. 885.2

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			
Cont'd A+O 2								
E bank of NRS ditch	296-50	490	}	+ 0-40	+5.7	4.5	+1.2	886.4
Elev on W slope hill	293-55	543		+ 1-10	+11.0	3.7	+7.3	92.5
Toe slope NW ^{hill} point	282-15	478				4.4		80.8
Elev on W slope hill	290-00	550		+ 1-00	+9.7	3.7	+6.0	91.2
Elev on slope at NW pt.	282-35	536		+ 0-35	+5.7	3.7	+2.0	87.2
Gravel on slope to ditch	275-45	470				7.5		77.7
S bank of EW ditch	267-10	472				9.1		76.1
bottom " " "	266-45	475	}			10.7		74.5
N bank " " "	266-15	470				8.5		76.7
Gravel on S slope to ditch	258-15	475				2.3		77.9
Toe S slope hill	252-00	485				3.8		81.4
Elev on slope hill	246-50	510		+ 1-00	+8.9	3.6	+5.3	90.5
Toe S.W. slope hill	244-45	420				4.1		81.1
Elev on W slope hill	230-45	475		+ 1-35	+13.4	3.4	+10.0	95.2
Toe W. slope	231-25	410				2.5		82.7
Elev on W slope hill	224-25	500		+ 1-50	+16.0	3.5	+12.5	97.7
Toe W slope hill	220-45	442				3.0		82.2

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885.2

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				
Cont'd At 02									
Elev on N. slope - hill	224-55	545		+1-25	+13.7	6.7	+7.0	892.2	✓
Toe slope NW. pt hill	215-40	500				3.7		81.5	✓
Toe slope N.	221-20	570		+0-45	+7.5	8.9	-1.4	83.8	✓
Gen'l on slight slope to N.	209-35	505				6.9		78.3	✓
Gen'l " " " " "	206-35	600				4.9		80.3	✓
Δ in fence	206-30	512				6.5		78.7	✓
Fence line - N.E.	216-30	680				1.5		83.7	✓
Gen'l on slight slope to N.	219-40	656				4.2		81.0	✓
Toe N. slope hill	222-25	640		+0-35	+6.5	8.5	-2.0	83.7	✓
Toe S. slope hill	203-30	540				4.1		81.1	✓
" SE " "	210-00	605				0.5		84.7	✓
Toe S. slope hill	198-30	500				4.5		80.7	✓
Elev on S slope hill	201-05	600		+0-25	+4.4	4.0	+0.4	85.6	✓
Elev " " " " "	191-00	552		+0-25	+4.0	3.7	+0.3	85.5	✓
Toe S. slope	181-30	498				4.3		80.9	✓
Elev on S slope hill	181-30	540		+0-25	+3.9	3.7	+0.2	85.4	✓
" " " " "	173-15	562		+0-40	+6.6	3.8	+2.8	88.0	✓

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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.		
<i>Cont'd At. 0 2.</i>								
Toe S. slope hill	171-45	533				4.0		881.2 ✓
Elev on S slope hill	165-25	570		+ 0-45	+7.5	3.9	+3.6	88.2 ✓
Toe S. slope	164-15	535				4.2		81.0 ✓
Elev on S slope	158-35	605		+ 0-45	+7.9	3.0	+4.9	90.1 ✓
Toe S. slope	157-00	562				5.0		80.2 ✓
Elev on S. slope	151-35	670		+ 0-35	+6.8	4.4	+2.4	87.6 ✓
Toe S. slope	151-00	643				2.9		82.3 ✓
Elev on S. slope	145-30	735		+ 0-40	+8.7	4.7	+4.0	89.2 ✓
Toe S slope	143-30	682				4.2		81.0 ✓
E.W. fence line	146-45	620				7.0		78.0 ✓
Grd'l on slight ^{swamp} slope to	140-00	540				11.7		73.5 ✓
Edge swamp	150-30	445				11.0		74.2 ✓
Gen'l elev. - middle swamp	131-00	462				13.0		72.2 ✓
" " " "	141-40	365				12.5		72.7 ✓
N bank o f EW ditch	135-10	320				11.8		73.4 ✓
bottom " " " "	134-45	318	}			12.4		72.8
S bank " " " "	134-30	316				11.7		73.5

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Page 11 Transit Obs. Line Date 2-17-30 Rec.

885.2

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			
Contd At 02								
Edge swamp	122-00	258				10.7		874.5 ✓
Gen'l	122-20	405				12.6		72.6 ✓
Gen'l on slope to swamp	102-20	220				7.9		77.3 ✓
Edge swamp	112-10	370				10.6		74.6 ✓
Gen'l on slope to swamp	113-50	105				8.3		76.9 ✓
Gen'l " " " "	100-10	355				8.6		76.6 ✓
Edge swamp	146-30	167				10.7		74.5 ✓
S bank ditch at Δ pt	164-30	220				10.8		74.4 ✓
bottom " " " "	164-50	222				12.5		72.7
N bank " " " "	165-30	226				11.0		74.2
Gen'l on slight slope ^{swamp} to	243-15	62				8.2		77.0 ✓
Edge swamp	173-50	342				11.1		74.1 ✓
S bank EW ditch	208-50	135				9.6		75.6 ✓
bottom " " "	208-25	139				12.0		73.2
N bank " " "	208-15	144				9.3		75.9
Gen'l on slope to swamp	176-25	410				10.0		75.2 ✓
" " " " "	198-00	241				10.6		74.6 ✓

Page 12 Transit Obs. Line
 Date 2-17-30 Rec. 885.3

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.			
<i>Cont'd A+O 2</i>									
<i>Gen'l on slope to swamp</i>	<i>191-20</i>	<i>410</i>					<i>10.1</i>		<i>875.1</i> ✓
<i>" " " " "</i>	<i>203-15</i>	<i>370</i>					<i>10.6</i>		<i>74.6</i> ✓
<i>" " " " "</i>	<i>204-30</i>	<i>425</i>					<i>9.5</i>		<i>75.7</i> ✓
<i>Top W. slope hill</i>	<i>218-00</i>	<i>338</i>					<i>9.1</i>		<i>76.1</i> ✓
<i>Gen'l on slope to swamp</i>	<i>214-30</i>	<i>265</i>					<i>10.4</i>		<i>74.8</i> ✓
<i>" " " " ditch</i>	<i>239-45</i>	<i>290</i>					<i>8.8</i>		<i>76.4</i> ✓
<i>" " " " "</i>	<i>233-55</i>	<i>211</i>					<i>7.8</i>		<i>77.4</i> ✓
<i>" " " " "</i>	<i>256-15</i>	<i>260</i>					<i>10.1</i>		<i>75.1</i> ✓
<i>N bank EW ditch</i>	<i>265-45</i>	<i>220</i>					<i>10.2</i>		<i>75.0</i> ✓
<i>Bottom " " "</i>	<i>266-15</i>	<i>218</i>	}				<i>11.3</i>		<i>73.9</i>
<i>S bank " " "</i>	<i>267-05</i>	<i>214</i>					<i>10.4</i>		<i>74.8</i>
<i>N bank EW ditch at A.pt.</i>	<i>275-10</i>	<i>290</i>					<i>10.3</i>		<i>74.9</i> ✓
<i>Bottom " " " " "</i>	<i>276-00</i>	<i>290</i>	}				<i>11.6</i>		<i>73.6</i>
<i>S bank " " " " "</i>	<i>276-35</i>	<i>288</i>					<i>9.8</i>		<i>75.4</i>
<i>Gen'l on slope to ditch</i>	<i>289-30</i>	<i>195</i>					<i>7.8</i>		<i>77.4</i> ✓
<i>" " " " "</i>	<i>282-50</i>	<i>295</i>					<i>10.0</i>		<i>75.2</i> ✓
<i>" " " " "</i>	<i>294-50</i>	<i>296</i>					<i>7.6</i>		<i>77.6</i> ✓

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Page 13 Transit Obs. Line
 Date 2-17-30 Rec.

885.2

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			
Cont'd At 02								
Top N slope hill	290-15	410				6.4		878.8 ✓
Grail on slope to ditch	280-20	380				9.7		75.5 ✓
" " " " "	263-35	385				9.4		75.8 ✓
" " " " "	250-00	365				7.0		78.2 ✓
S bank EW ditch	270-10	395				9.4		75.8 ✓
bottom " " "	269-30	395	}			11.2		74.0
N bank " " "	268-45	395				9.2		76.0
//								
At 03 HI = 5.1				Elev 0 no 3 = 877.66				882.8
Chk A3 ^{No. edge chimney} on base in S.E.				290° 38'				
to 02	259° 56'		868					
to 04								
Top N slope hill	49-10	330				1.9		80.9 ✓
Elev on N slope hill	41-40	395		+ 2-15	+15.5	3.0	+12.5	95.3 ✓
Elev on N slope hill	35-40	323		+ 1-20	+7.6	3.6	+4.0	886.8 ✓
Top N slope hill	32-25	370		+ 4-00	+25.8	3.8	+22.0	904.8 ✓

882.8

Page 14 Transit. Obs. Line. Date 2-17-30 Rec. 882.8

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.		
Cont'd A+03								
toe N slope hill	27-25	300	-			1.8		881.0 ✓
top hill	25-20	352	+	4-35	+28.8	3.8	+25.0	907.8 ✓
toe N. slope	15-10	304				0.0		882.8 ✓
top N. slope	16-35	353	+	4-05	+24.8	2.8	+22.0	904.8 ✓
toe N. slope	1-15	348	+	0-30	+3.0	2.7	+0.3	883.1 ✓
top slope	6-20	398	+	3-45	+26.0	4.0	+22.0	904.8 ✓
toe N. slope	358-05	395	+	0-50	+5.7	3.0	+2.7	885.5 ✓
top slope	359-15	458	+	3-10	+25.3	4.3	+21.0	903.8 ✓
toe N. slope	345-25	420	+	0-40	+4.9	3.1	+1.8	884.6 ✓
top slope	354-45	470	+	3-15	+26.6	4.3	+22.3	905.1 ✓
toe N. slope	336-45	444	+	0-35	+4.5	3.2	+1.3	884.1 ✓
top slope	346-05	490	+	3-25	+29.4	4.4	+25.0	907.8 ✓
toe N. slope	322-30	490	+	0-35	+5.0	3.4	+1.6	884.4 ✓
top slope	337-10	500	+	3-00	+26.5	4.5	+22.0	904.8 ✓
Elev on N. slope	327-45	495	+	1-30	+13.0	4.5	+8.5	891.3 ✓
" " " "	332-00	500	+	2-15	+19.5	3.5	+16.0	98.8 ✓
Elev on N. "	324-00	550	+	1-30	+14.7	3.7	+11.0	93.8 ✓

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VALUABLE

Page 15 Transit Obs. Weber LineDate 2-17-30 Rec. Boston

882.8

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				
Cont'd At 03									
Toe N. slope	321-30	510		+	0-45	+6.7	4.5	+2.2	885.0 ✓
Elev on W. slope	316-25	570		+	1-25	+14.0	3.8	+10.2	93.0 ✓
Toe W. slope	316-35	530		+	0-30	+4.7	3.7	+1.0	82.8 ✓
Elev on NW slope	311-00	590		+	1-30	+19.0	5.0	+14.0	96.8 ✓
Toe NW. slope	309-00	535		+	0-35	+5.6	3.6	+2.0	84.8 ✓
Elev on N. slope	311-00	660		+	1-15	+14.3	5.3	+9.0	91.8 ✓
Toe N. slope	304-45	582		+	0-25	+4.2	4.9	-0.7	82.1 ✓
Elev on N. slope	306-30	702		+	1-15	+15.5	4.5	+11.0	93.8 ✓
Toe N. slope	305-00	650		+	0-25	+4.7	5.3	-0.6	82.2 ✓
Elev on N.W. slope	302-10	730		+	1-05	+13.8	4.6	+9.2	92.0 ✓
Toe N.W. slope	301-10	685		+	0-20	+4.0	4.5	-0.5	82.3 ✓

2-18-30

Cont'd At 03 Same H.I.

882.8

Toe NW. slope	300.35	694					0.7		82.1 ✓
Top NW. slope	302-05	734		+	1-00	+12.8	4.8	+8.0	90.8 ✓
NE slope	298-00	855		+	0-35	+8.7	5.3	+2.4	85.2 ✓

Page 16 Transit Obs. Line
 Date 2-18-30 Rec. 882.8

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>Contd</i>								
£ 20' Field entrance	295-25	855		+	0-25	+6.2	5.3	+1.1 883.9
£ S.T.H. No 62	292-35	880		+	0-35	+9.0	6.4	+2.6 85.4
" " " " "	288-30	710		+	0-25	+5.2	4.5	+0.7 83.5
Toe W slope fill S.T.H. no. 62	291-00	700					2.0	80.8
£ S.T.H. No 62	285-05	615		+	0-35	+6.3	4.1	+2.2 85.0
Gen'l on N. slope to ditch	295-20	625					4.8	78.0
Toe W slope fill S.T.H. no. 62	288-40	598					3.7	79.1
Gen'l on N. slope to ditch	289-55	660					2.3	80.5
" " " " " "	293-00	570					6.0	76.8
Elev. on N. slope hill	307-15	530		+	0-35	+5.6	3.6	+2.0 84.8
Gen'l. on N. slope to ditch	314-45	502					1.0	81.8
" " " " " "	321-10	442					2.6	80.2
" " " " " "	334-20	382					4.6	78.2
" " " " " "	297-45	400					5.9	76.9
" " " " " "	319-50	322					6.4	76.4
S. bank E.W. ditch	302-45	288					6.8	76.0
bottom " "	302-15	287					7.6	75.2

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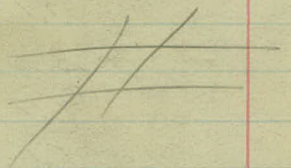
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Page 17 Transit Obs. Weber LineDate 2-18-30 Rec. Beaman

882.8

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>Cont'd At 03</i>								
N. bank E.W. ditch	301-50	286	}			6.4		876.4
S. bank END E.W. ditch	288-45	565				5.8		77.0 ✓
bottom at end E.W. ditch	288-30	562	}			6.8		76.0
<i>W. side S.H. No 2</i> N. bank end ditch, toe slope	288-00	562				6.5		76.3
Toe W. slope S.H. No 62	279-20	410				7.0		75.8 ✓
Gen'l on S. slope To ditch	296-10	290				6.5		76.3 ✓
" " " " " "	312-10	200				6.9		75.9 ✓
D S.H. No 62	254-20	312		+ 1-15	+6.8	4.5	+2.3	85.1 ✓
Toe W. slope hill S.H. 62	257-30	286		+ 0-20	+1.7	2.4	-0.7	82.1 ✓
Gen'l on N. slope To ditch	349-15	184				7.1		75.7 ✓
Top ditch-cut W. S.H. 62	246-20	235		+ 1-10	+4.8	2.2	+2.6	85.4 ✓
Elev on S. slope To ditch	253-35	175				1.9		80.9 ✓
N. slope To ditch	349-30	310				5.9		76.9 ✓
Elev on S. slope To ditch	234-55	80				1.5		81.3 ✓
N. slope To ditch	327-00	348				6.3		76.5 ✓
Gen'l on N. slope To ditch	18-30	220				5.5		77.3 ✓
Elev on S. slope hill	192-20	90				0.2		82.6 ✓

Page 18 Transit Obs. Weber Line area between S.H. 62 and cen. Sect
 Date 2-18-30 Rec. Beaton 28-70 N.E.S. at proposed line 229.2

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>Contd A+03</u>								
<u>N. slope to ditch</u>	<u>45-45</u>	<u>230</u>				<u>5.2</u>		<u>877.6</u> ✓
<u>Elev. S. slope to ditch</u>	<u>119-30</u>	<u>77</u>				<u>2.3</u>		<u>80.3</u> ✓
<u>top S. slope</u>	<u>95-40</u>	<u>164</u>		<u>+ 2-05</u>	<u>+5.8</u>	<u>1.8</u>	<u>+4.0</u>	<u>86.8</u> ✓
<u>top " "</u>	<u>94-40</u>	<u>240</u>		<u>+ 2-05</u>	<u>+8.8</u>	<u>5.2</u>	<u>+3.6</u>	<u>86.4</u> ✓
<u>Elev on S. slope</u>	<u>87-00</u>	<u>240</u>		<u>+ 0-55</u>	<u>+3.8</u>	<u>4.2</u>	<u>-0.4</u>	<u>82.4</u> ✓
<u>top S. slope</u>	<u>93-45</u>	<u>324</u>		<u>+ 1-45</u>	<u>+10.0</u>	<u>4.6</u>	<u>+5.4</u>	<u>77.4</u> ✓
<u>Elev on S. slope hill</u>	<u>88-10</u>	<u>325</u>		<u>+ 1-10</u>	<u>+6.6</u>	<u>6.6</u>	<u>0.0</u>	<u>82.8</u> ✓
<u>N. slope to ditch</u>	<u>61-30</u>	<u>320</u>				<u>4.9</u>		<u>77.9</u> ✓
<u>N. slope to ditch</u>	<u>47-30</u>	<u>268</u>				<u>1.3</u>		<u>81.5</u> ✓
								

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