

Bk 10 - Dr. 16

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

_____ Plan _____ Survey

SOUTH SHORE BLVD CONNECTION

From South Shore Blvd. Co. S.T.H. #100

Also Cottage Park Rd.,

Road Acc't. No. _____

Date Filed. 12/24/39

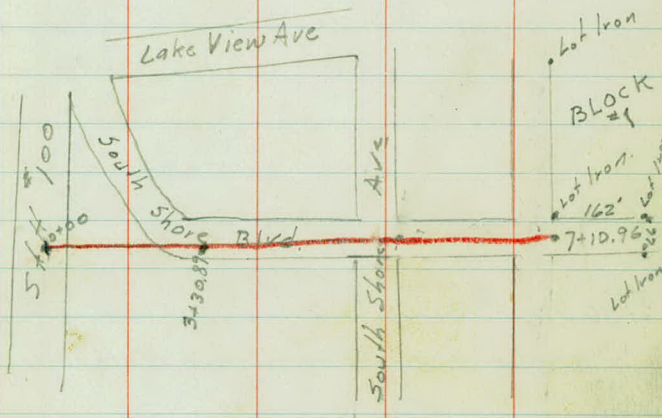
File. _____

stadia survey 1949
Near Gardenette Park,

60911

Plan Survey

South Shore Blvd.
Connection
to S.T.H. #100



8/29/39

R.O.P.
C.F.
E.B.

Done 9/6/39

Sta.	Pt.	Angle	Deflections
		Lt Rt	Curve Data

7+10.96

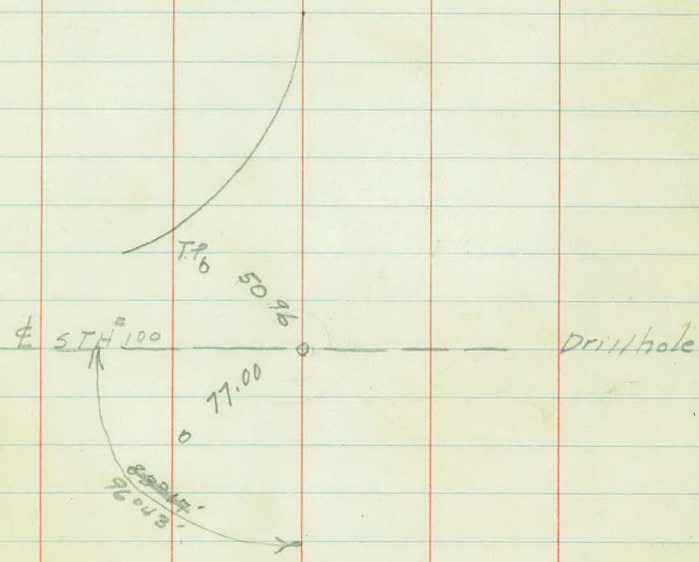
Black Corner.

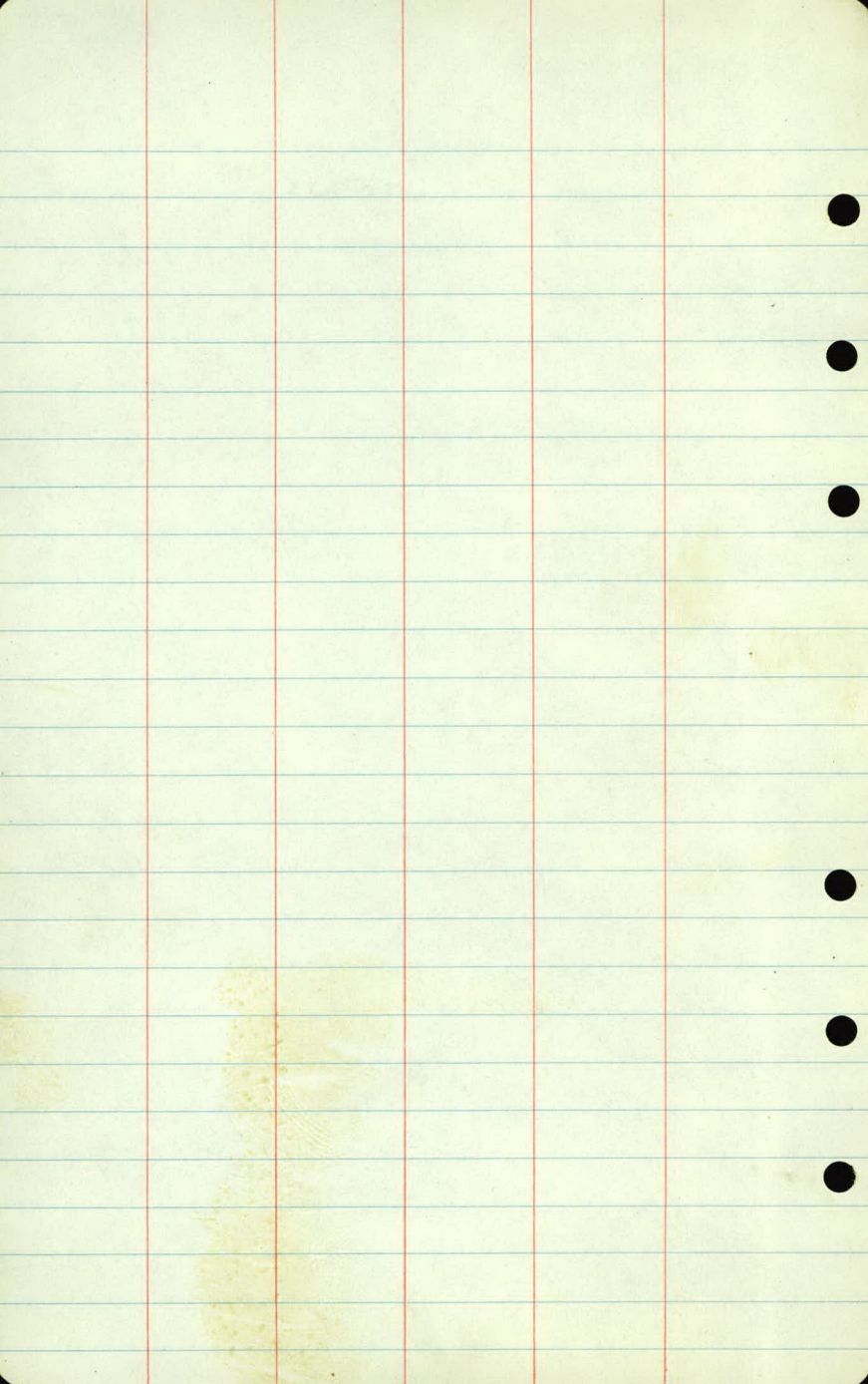
3+30.89 = Sta. 631+96⁶⁸ P.C. 32° Curve Rt. S. Shore Blvd.
See S. Shore Blvd Notes.

0+00

± 5TH 100

55.29 33.0' Spike
56.24 Con. Block Iron.
T.P. P.P.





Topography

5

4 Shldr 7

+75 shldr 8

+50 shldr 9

+25 shldr. 11'

3 + shldr 16'

+75 shldr - 24'

+50 shldr - 11-36

+05 End 6' R/R 121'

2 ^{from 40.} shldr - 49.77

+50 Fe. 70'

+50 shldr. 100-131

+11. Beg. End. Rad. 212-181'

1 Shldr. 141'

+91 End Fe. 147

+83 Beg. Rad. 182

+56 Fe. Cor. 92'

+37 Fe Cor. 75

+30 Group 5 Pops - 30'

+25 P. P. 43'

0

shldr 14

+75 shldr 14

+50 shldr 12

+25 shldr 11

12" x 24 C. M.

+26 En 21'

+01 P. P. 25'

shldr 7'

+71 shldr x 6 €

+50 Fe. - 52

+07. Fe x 3 €

+66 Street Car Bed

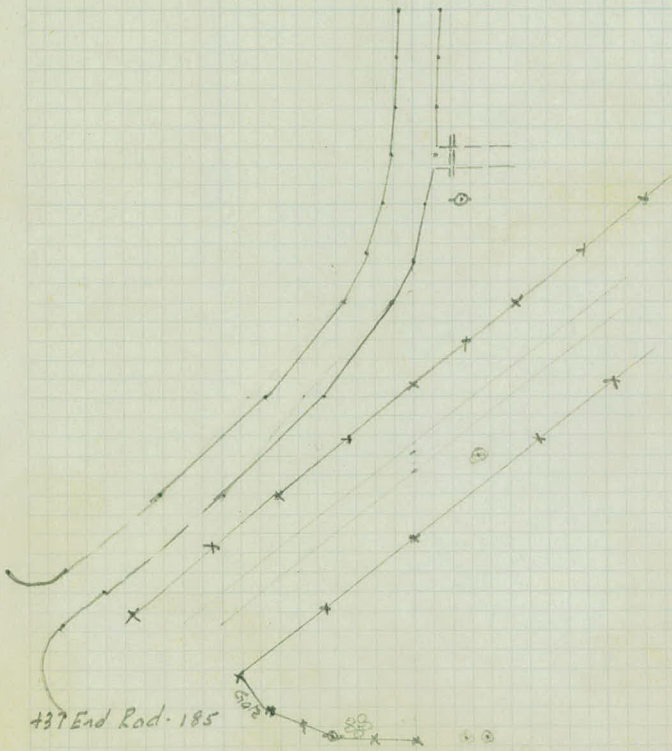
+70 B.E. Brush 32

+28 Fe x 3 €

+21 Fe x 3 €

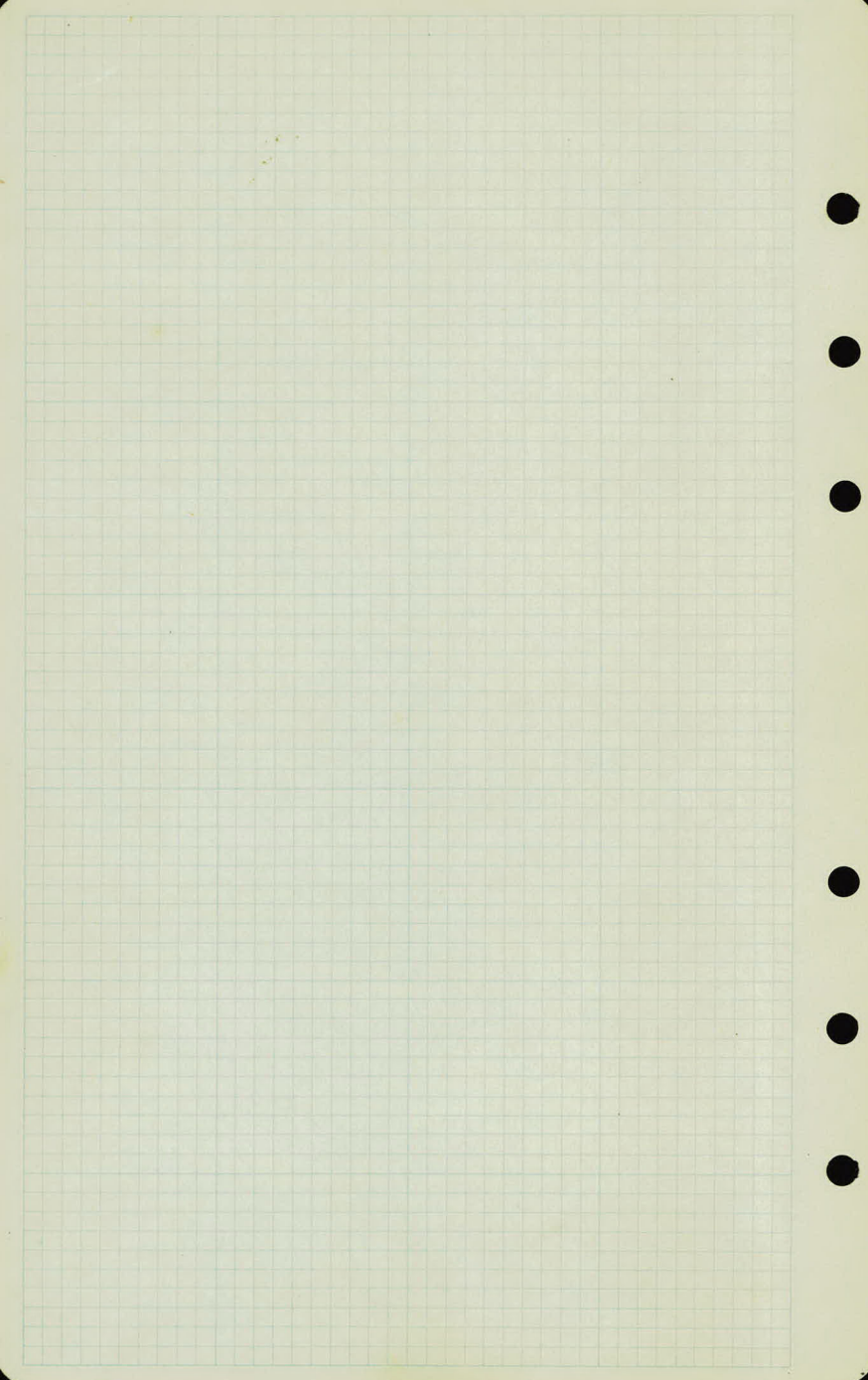
+10 Edge Pave x 3 €

+23-4 Pops - 26-36"



437 End Rod. 185

500

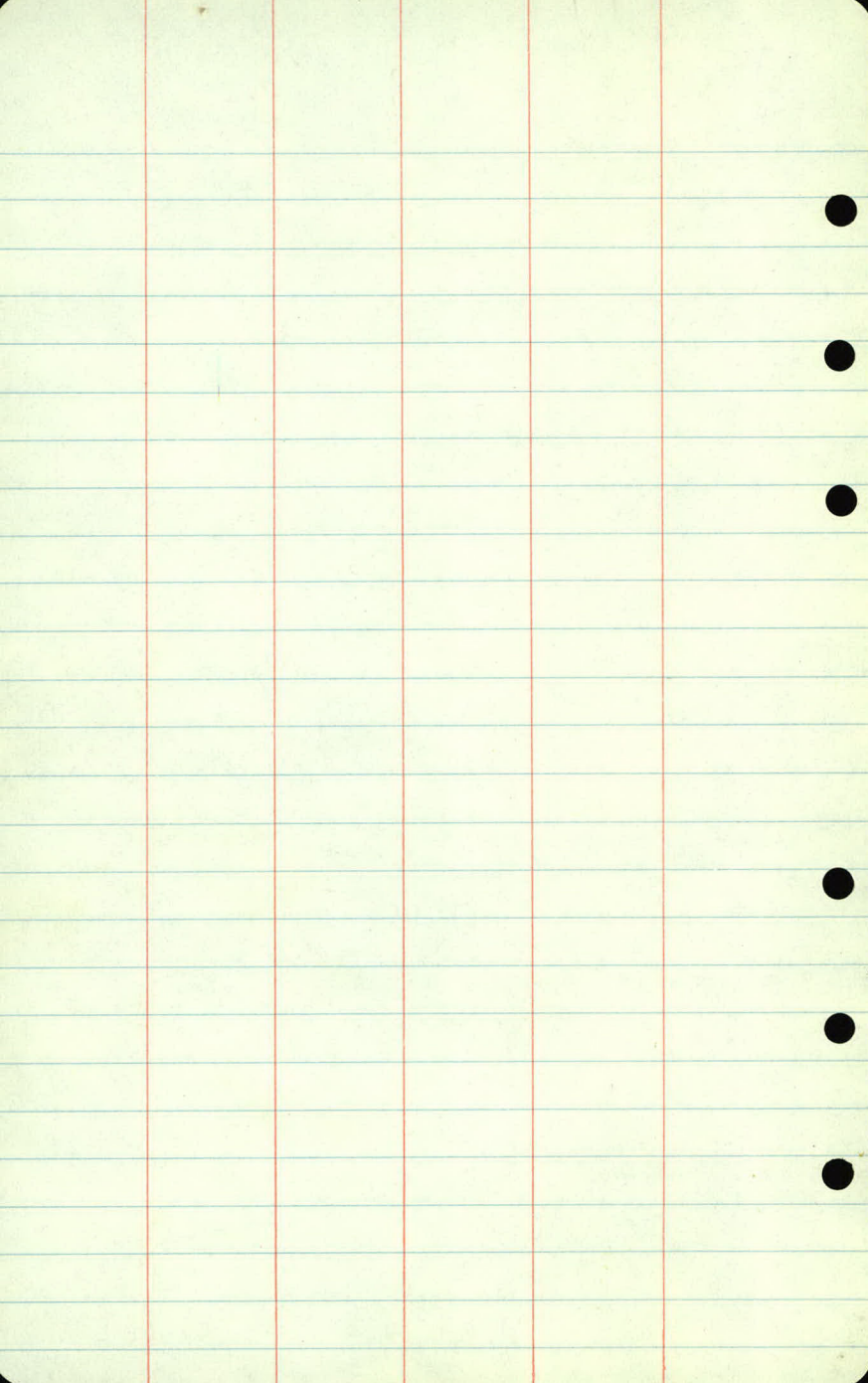


Bench Levels

Pt	+	π	-	Elev.
B.M.	3.75	946.92		941.17
T.P.	5.20	947.67	4.45	942.47
T.P.	3.00	947.74	4.93	942.74
T.P.	0.95	939.72	8.97	938.77
B.M.			11.70	928.02

Brass Plug in Pav. W.B. Ave & Co. Rd. "F"

Top Drill Hole 0+00



Cross Sections

Sta	+	π	-	Elev.
B.M.	4.73	932.75		928.02
0-100			12.8	20.0
0-50			11.3	21.5
0-30	Toe Shldr		9.6	23.2
0-15	Top Shldr		4.8	28.0
0+00			4.73	28.02
+14	Top Shldr		4.8	28.0
+20	Toe Shldr		7.6	25.2
+50			7.8	25.0
1			8.8	24.0
+16			7.7	25.1

4. E 2f.

Top Drill Hole 0+00

Top water Goose Lake ^{919.83} 8/29/39

$\frac{13.1}{100}$ $\frac{13.1}{50}$ $\frac{12.92}{12.8}$ $\frac{12.2}{50}$ $\frac{11.8}{100}$

$\frac{11.5}{100}$ $\frac{11.8}{50}$ 11.3 $\frac{10.5}{50}$ $\frac{10.0}{100}$

$\frac{9.5}{100}$ $\frac{9.5}{50}$ 9.6 $\frac{8.4}{50}$ $\frac{7.6}{100}$

$\frac{5.2}{100}$ $\frac{5.4}{50}$ 4.8 $\frac{4.4}{50}$ $\frac{3.6}{100}$

$\frac{5.6}{225}$ $\frac{4.91}{200}$ $\frac{4.92}{100}$ 4.73 $\frac{4.30}{50}$

$\frac{5.25}{225}$ $\frac{4.93}{200}$ $\frac{4.91}{100}$ $\frac{4.93}{30}$ 4.8 $\frac{4.4}{50}$

$\frac{5.05}{225}$ $\frac{4.75}{200}$ $\frac{4.95}{100}$ 7.6 $\frac{6.6}{50}$

4.8 5.9 6.8 $\frac{5.3}{145}$ $\frac{4.5}{92}$ $\frac{7.0}{82}$ $\frac{6.9}{50}$ $\frac{7.8}{50}$ 7

$\frac{7.9}{106}$ $\frac{7.3}{100}$ $\frac{5.5}{93}$ $\frac{4.8}{71}$ $\frac{8.0}{57}$ $\frac{8.5}{26}$ $\frac{7.8}{5}$ 8.8 $\frac{9.3}{50}$

$\frac{8.0}{127}$ $\frac{8.7}{133}$ $\frac{6.6}{142}$ $\frac{5.8}{162}$ $\frac{6.2}{186}$ $\frac{7.3}{200}$ $\frac{6.5}{215}$ $\frac{5.6}{225}$

$\frac{8.9}{132}$ $\frac{8.4}{82}$ $\frac{5.5}{72}$ $\frac{5.3}{50}$ $\frac{8.4}{38}$ $\frac{9.2}{19}$ $\frac{9.3}{12}$ $\frac{8.7}{7}$ 9.3 $\frac{8.9}{22}$ $\frac{8.9}{50}$

$\frac{6.8}{131}$ $\frac{5.8}{159}$ $\frac{6.3}{184}$ $\frac{8.0}{179}$ $\frac{7.5}{205}$ $\frac{6.1}{212}$ $\frac{5.7}{225}$

Sta	+	π	-	Elev.
-----	---	---	---	-------

		932.75		
--	--	--------	--	--

1+23			9.0	23.8
------	--	--	-----	------

+42			9.1	23.7
-----	--	--	-----	------

+56			4.7	28.1
-----	--	--	-----	------

+72			4.8	28.0
-----	--	--	-----	------

TP	806	934.47	6.34	926.41
----	-----	--------	------	--------

+82			9.2	25.3
-----	--	--	-----	------

2+00			9.5	25.0
------	--	--	-----	------

+25			10.3	24.2
-----	--	--	------	------

+45			7.6	26.9
-----	--	--	-----	------

41 21

$$\begin{array}{r} 8.7 \ 5.5 \ 4.9 \ 8.6 \\ 75 \ 63 \ 40 \ 22 \end{array}$$

$$\begin{array}{r} 8.1 \ 9.2 \ 8.6 \\ 9.0 \ 6 \ 33 \ 50 \end{array}$$

$$\begin{array}{r} 8.8 \ 7.0 \ 5.8 \ 6.4 \ 7.8 \ 7.6 \ 8.0 \ 7.9 \ 7.2 \ 6.0 \ 5.7 \\ 115 \ 125 \ 150 \ 175 \ 185 \ 193 \ 197 \ 200 \ 210 \ 215 \ 225 \end{array}$$

$$\begin{array}{r} 6.7 \ 6.1 \ 7.0 \ 9.2 \ 7.2 \ 5.2 \ 4.6 \ 9.0 \ 7.8 \ 8.1 \\ 152 \ 124 \ 101 \ 92 \ 48 \ 39 \ 20 \ 9.1 \ 21 \ 30 \ 50 \end{array}$$

$$\begin{array}{r} 9.2 \ 9.2 \ 8.6 \ 8.0 \ 5.7 \ 5.7 \\ 166 \ 191 \ 200 \ 207 \ 215 \ 225 \end{array}$$

$$\begin{array}{r} 6.1 \ 6.7 \ 7.6 \ 9.5 \ 9.4 \ 8.4 \ 5.1 \ 8.5 \ 8.8 \ 8.6 \ 7.6 \ 7.7 \\ 108 \ 89 \ 80 \ 71 \ 47 \ 36 \ 25 \ 4.7 \ 11 \ 21 \ 34 \ 39 \ 50 \end{array}$$

$$\begin{array}{r} 6.3 \ 9.4 \ 9.9 \ 9.7 \ 8.5 \ 7.9 \ 5.9 \ 5.5 \\ 136 \ 140 \ 150 \ 175 \ 200 \ 209 \ 218 \ 225 \end{array}$$

$$\begin{array}{r} 6.3 \ 6.7 \ 6.5 \ 9.7 \ 9.7 \ 8.2 \ 7.8 \ 4.2 \ 7.4 \ 7.6 \ 8.6 \ 7.6 \\ 104 \ 82 \ 68 \ 52 \ 45 \ 11 \ 9 \ 4.8 \ 20 \ 33 \ 42 \ 46 \ 50 \end{array}$$

$$\begin{array}{r} 7.4 \ 8.6 \ 8.4 \ 6.6 \ 6.3 \ 6.3 \ 5.8 \ 5.5 \\ 113 \ 116 \ 128 \ 137 \ 169 \ 200 \ 218 \ 225 \end{array}$$

F.L. Outlet 4" Tile 8.68 from above H.L.

$$\begin{array}{r} 7.8 \ 8.9 \ 8.6 \ 11.8 \ 11.3 \ 10.1 \ 6.4 \ 6.2 \ 5.5 \ 9.4 \ 9.8 \\ 75 \ 57 \ 50 \ 41 \ 34 \ 5 \ 9.2 \ 5 \ 23 \ 30 \ 44 \ 50 \end{array}$$

$$\begin{array}{r} 7.7 \ 7.6 \ 8.1 \ 10.7 \ 11.0 \ 9.8 \ 9.3 \ 6.5 \ 5.5 \ 9.0 \ 9.0 \\ 59 \ 42 \ 31 \ 24 \ 16 \ 12 \ 9.5 \ 20 \ 20 \ 50 \ 55 \ 60 \end{array}$$

$$\begin{array}{r} 8.0 \ 7.3 \ 7.1 \ 8.0 \ 9.7 \ 10.6 \ 9.9 \ 5.7 \ 6.8 \\ 50 \ 38 \ 22 \ 9 \ 4 \ 10.3 \ 20 \ 34 \ 41 \ 61 \end{array}$$

$$\begin{array}{r} 8.0 \ 7.9 \ 7.0 \ 6.8 \ 8.4 \ 10.2 \ 9.6 \ 9.2 \ 7.0 \\ 50 \ 40 \ 22 \ 10 \ 7.6 \ 5 \ 13 \ 46 \ 44 \ 56 \end{array}$$

Sta	+	π	-	Elev
-----	---	---	---	------

		934.47		
--	--	--------	--	--

3+00				
------	--	--	--	--

			5.8	
--	--	--	-----	--

				28.7
--	--	--	--	------

+50				
-----	--	--	--	--

			4.5	
--	--	--	-----	--

				30.0
--	--	--	--	------

4+00				
------	--	--	--	--

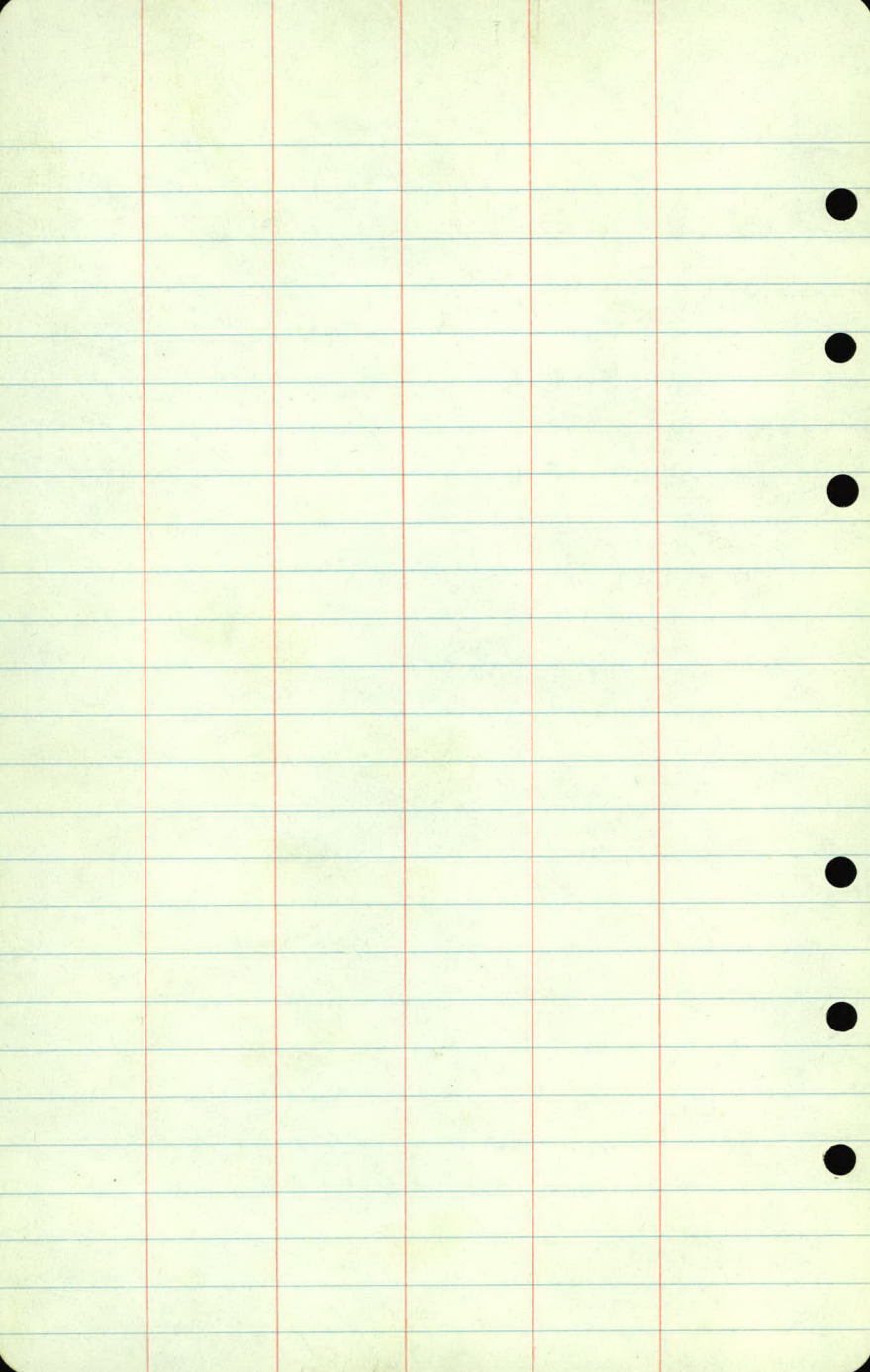
			3.4	
--	--	--	-----	--

				31.1
--	--	--	--	------

5.7 6.5 5.9 6.0 6.3 8.3 8.4 6.8 5.9 5.7
35 16 5 5.8 7 12 17 23 26 44 30

3.0 3.5 6.3 6.1 4.9 4.8 6.4 6.3 3.4 3.8
50 30 21 17 12 4.5 12 19 27 31 50

1.2 1.7 5.2 5.2 3.9 3.4 3.7 5.6 5.3 2.0 1.7
50 29 20 16 11 3.4 2 15 20 27 32 50



slope stakes
south shore Blvd.
and
J.T.H - 100

Sta.	+	π	-	Grade	Ditch Grade L.F.	Gr. Rod.
B.M.	4.88	932.90			928.02	
0	+00			28.3		
	+14			28.0		
	+20			27.9		
	+50			27.5		
1				27.1	25.5	7.4
	+16			27.1	25.6	7.3
	+23			27.1	25.6	7.3
	+42			27.1	25.7	
	+56			27.1	25.8	7.1
	+72			27.3	26.0	6.9
	+82			27.3	26.1	6.8

25.9

Crawle Road.

4A

4

24

Drill Hole in Pavement & stop at 00

5.0

$$\begin{array}{r} 77 \\ - 27 \\ \hline \end{array}$$

$$\frac{77}{-27/23.1}$$

5.4

$$\begin{array}{r} 0.0 \\ 149 \end{array} \quad \begin{array}{r} 0.0 \\ 96 \end{array} \quad \begin{array}{r} -18 \\ 50 \end{array} \quad \begin{array}{r} 80 \\ -26 \end{array}$$

$$\frac{80}{-26/22.8}$$

5.8

$$\begin{array}{r} 12^3 / 7.4 \\ 1200 \end{array} \quad \begin{array}{r} 980 / 21 \\ 10.0 \end{array} \quad \begin{array}{r} 630 / 67 \\ 0.0 \end{array} \quad \begin{array}{r} 89 \\ -31 \end{array}$$

$$\frac{9.8}{-4.0} / 27.0$$

5.8

5.8

$$\begin{array}{r} 68.3 \\ \times 0.0 \\ \hline \end{array} \quad \begin{array}{r} 75.0 \\ \times 0.0 \\ \hline \end{array} \quad \begin{array}{r} 9.1 \\ \times 0.0 \\ \hline \end{array}$$

$$\frac{80}{2.2/21.6}$$

5.8

$$\begin{array}{r} 56^{\circ} 2' / 71 \\ 1800 \end{array} \quad \begin{array}{r} 27.1 / 0.4 \\ 0.0 \end{array} \quad \begin{array}{r} 4.8 \\ 4.0 \end{array}$$

$$\begin{array}{r} 8.9 \\ - 31/24.3 \end{array}$$

5.6

$$\begin{array}{r} 3 \text{ m}^3 / \frac{6.9}{100} \quad \frac{4.8}{10.8} \end{array}$$

76
26.00/26.7

5.6

$$240 \overline{) 240} \quad \frac{240}{240}$$

$$\begin{array}{r} 76 \\ - 20 \\ \hline \end{array}$$

$$\frac{7.2}{20.4} / 47.2$$

Sta	+	π	-	Grade
	4.95	932.97		928.02
2				27.5
+25				27.8
+45				28.0
3				28.7
+50				
B.M.	4.32	932.34		928.02
				22.74
				25.5
				21.55
				21.24

Grade Rod

L_t

R

R_t

5.5

$$\frac{80}{-25}$$

$$\frac{46}{10.9/13.0}$$

5.2

$$15.0/\frac{5.2}{0.0}$$

$$\frac{90}{-38}$$

$$\frac{92}{-40/27.0}$$

5.0

$$\frac{61}{-11}$$

$$\frac{87}{-37/26.1}$$

4.3

$$\frac{4.3}{0.0}$$

$$\frac{12}{-27/23.7}$$

Drill Hole in Pav. 40400

9.6

N. End Culv. Under Sashore Blvd. (56' Culv.)

6.84

Grade Top C.B. C.B. 3.26' Deep.

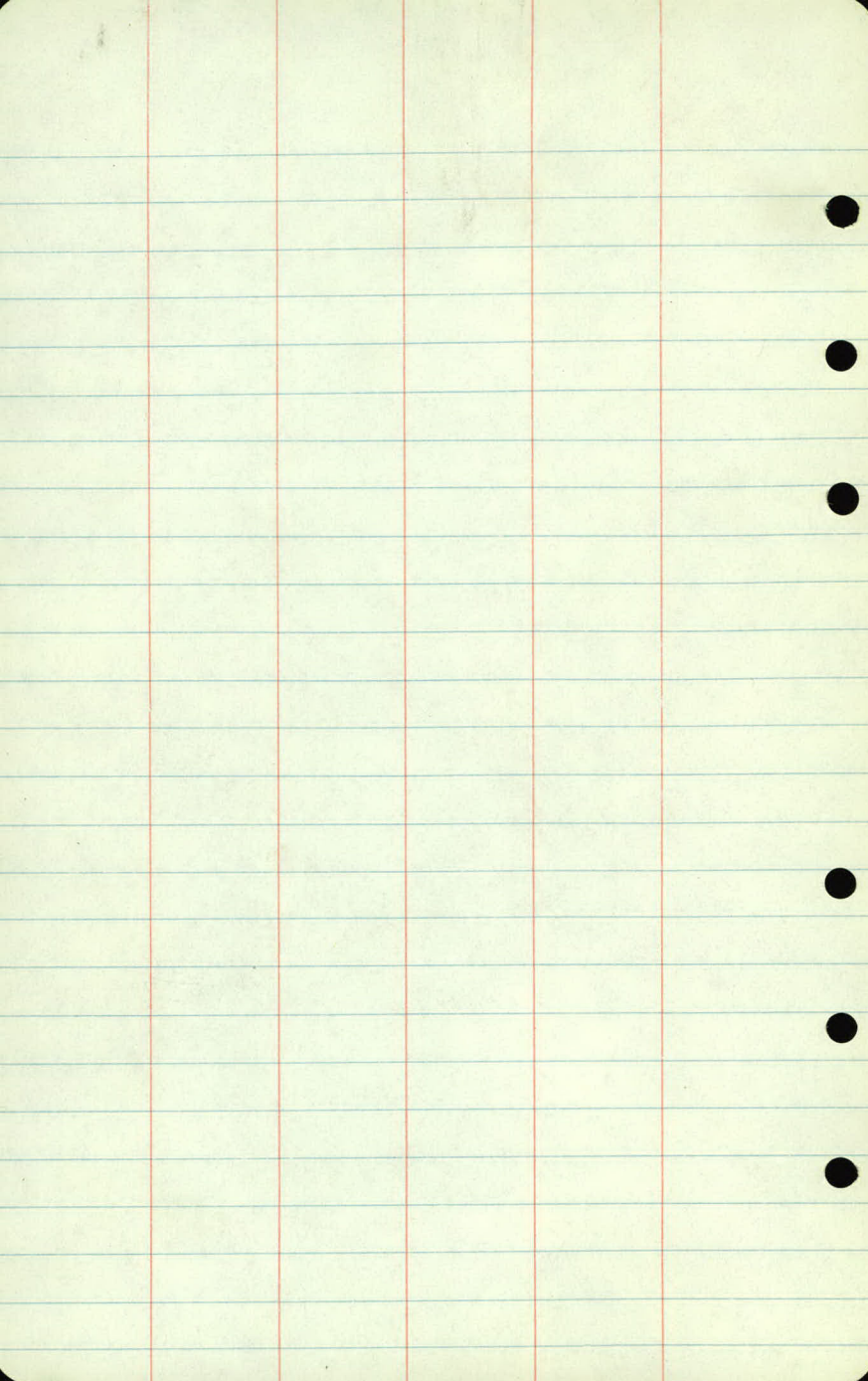
10.79

Grade East Edge Pav.

$$15.6/\frac{4.57}{16.22}$$

11.10

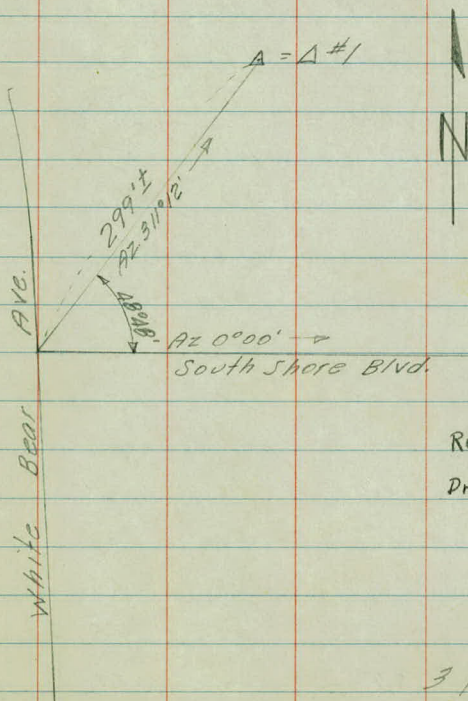
Flow Line W. End Culv. Under S.T.H. #100



Cottage Park Road

Stadia Survey

N.E. of So. Shore Blvd R.S.T.H. 100



Rec'd. 3-19-45

Drawn 3-20-45

3 pages

Object	Azimuth	Dist	Rod	Elev
π At A #1	Use int. for B.M.		H.I.	932.19 ✓
To Int So. Shore				X
Blvd. & White Bear Ave	131°12'	2.99	4.17	928.02 ✓
		Water =	6.10	26.10 ✓
Top C.M. X Dr	169°55'	54	64	25.80 ✓
E Road	186°-30'	.19	4.9	27.3 ✓
"	354°-30'	.80	5.2	27.0 ✓
"	354°-00'	1.43	5.0	27.2 ✓
"	252°-57'	1.55	5.6	26.6 ✓
"	254°-55'	77	5.5	26.7 ✓
"				
12" C.M. X Dr	Water =		5.93	26.26 ✓
" " "	255°-00'	28	6.75	25.44 ✓
" " "	221°-30'	46	7.1	25.1 ✓
S.E. Cottage	341°-00'	1.35 ✓		
S.W. Cor. "	338°-30'	1.20 ✓		
N.W. " "	325°-00'	1.34	5.3	26.9 ✓
15" B. Elder	330°05'	82	6.0	26.2 ✓
" "	334°35'	81	6.1	26.1 ✓
" "	331°30'	73	5.9	26.3 ✓
" "	328°25'	67	6.2	26.0 ✓
" "	327°05'	62	5.8	26.4 ✓
" "	273°15'	33	5.8	26.4 ✓
15" Tw. BE	291°45'	51	5.7	26.5 ✓

3/16-45
K.A.
C.F.
C.M.

2

Object	Azimuth	Dist H.L.	Rod	Elev. 932.19 ✓
Beg Hedge	342°-15'	1.07	5.7	26.5 ✓
End Hedge	269°-30'	72	5.5	26.7 ✓
Cor Hedge	266°-45'	23	6.5	25.7 ✓
S.E. Cor Bldg.	303°-55'	79	5.5	26.7 ✓
SW. " "	283°-20'	5.4	5.8	26.4 ✓
N.W. " "	268°-15'	90	5.2	27.0 ✓
Runs N.W. & N.E. Fence Cor.	257°-46'	157	5.6	26.6 ✓
Approx Ditch Line	261°-15'	112	6.3	25.9 ✓
" " "	255°-45'	162	6.0	26.2 ✓
" " "	318°-45'	29	6.5	25.7 ✓
" " "	341°-15'	80	6.3	25.9 ✓
6" Ash Tr.	313°-30'	133		
" " "	319°-45'	101	✓	
12" Stump				
Lilliac Bush	313°-45'	167	✓	
" "				
Proposed Loc. of Title Line as shown by member	353°-05'	57	50	27.2 ✓
of Town Park	310°-05'	215	7.00	25.2 ✓
6" Elm	310°-12'	188		
" "		167		
Elev Goose Lake			610	26.1

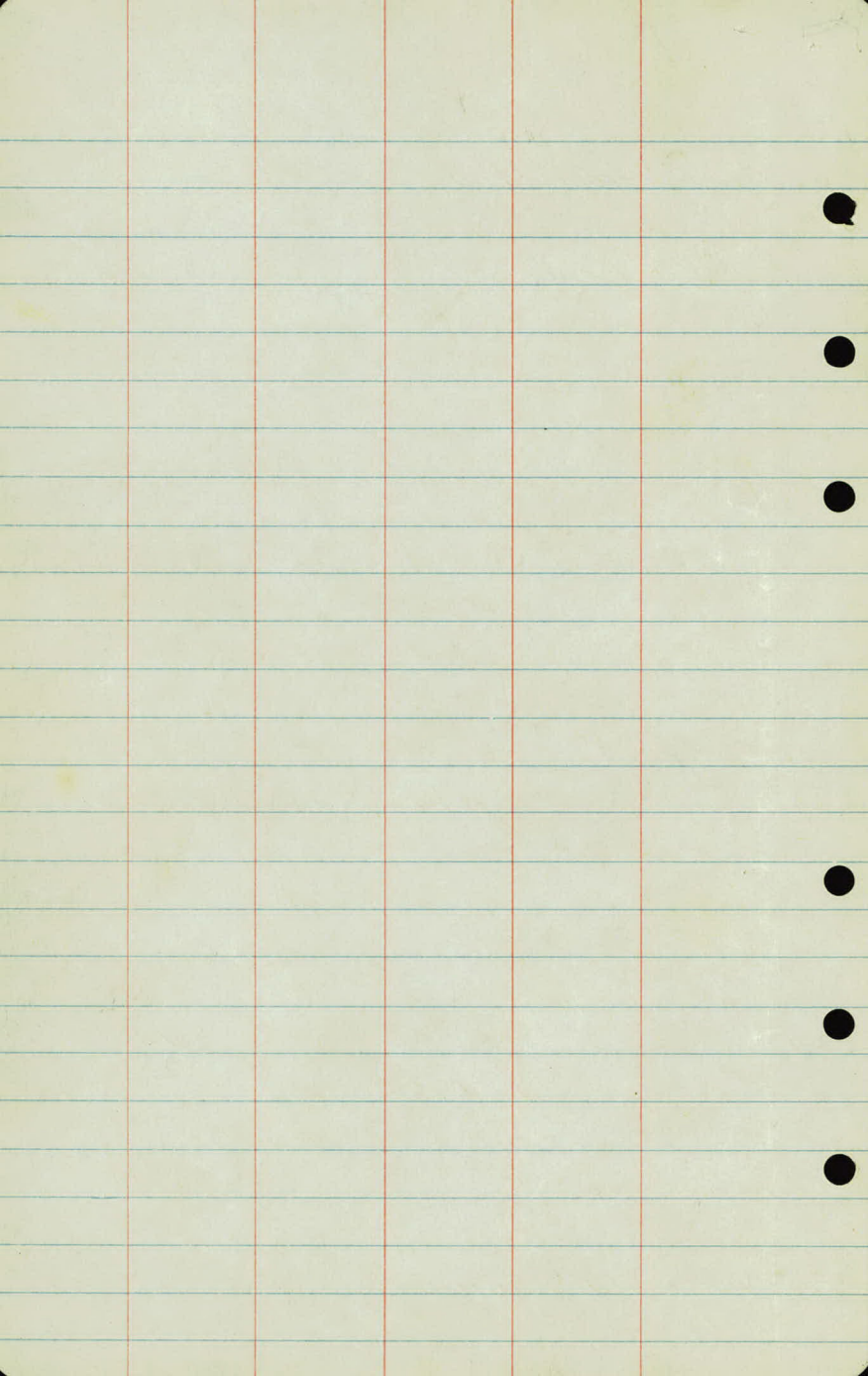
Profile of proposed tile line

Sta	+	π	—	Elev	
				932.19	✓
0	+00		50	27.2	✓
	+13		58	26.4	—
	+16		63	25.9	
	+21		65	25.7	
	+24		64	25.8	
	+46		60	26.2	
	+61		58	26.4	
	+92		51	27.1	
1			44	27.8	
	+21		33	28.9	
	+44		31	29.1	
	+74		63	25.9	
	+77		7.00	25.2	

Get H.I. from stadia

= E of Road

Edge Water White Bear Lake.



1
Near Gardenette Park

Stadia Survey

S.T.H. 100 - So. Shore Blvd. & Vicinity

Object	Az.	Stadia
π at Φ Lilac Lane and Belleview Ave. #		
To Int. So. Shore Blvd. and Belleview Ave	0°00'	
B.M. Φ Pav. at Lilac Lane and # S.T.H. 100		
Check elev. at So. Shore Φ Belleview		
To Φ Lilac Lane Φ S.T.H. 100	270°13'	
G.E.	296°50'	
"	323° -	
"	286°20'	
"	305°25'	
"	283° -	
"	297°50'	
" in ditch	279°40'	
"	289°50'	
"	279°10'	
"	277°50'	
"	277°20'	
"	278°25'	
"	275°20'	
"	284°40'	
"	288°00'	

7-8-4
K.A.
G.B.
A.M.
P.C.

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

H.I. = 944.72

419

9.25

935.47

12.26

932.50
1.46

571

80

8.2

36.5

123

12.2

32.5

130

9.9

34.8

152

11.9

32.8

160

10.2

34.5

172

12.2

32.5

170
OK.

12.0

32.7

170

13.1

31.6

195

12.3

32.4

240

10.3

34.4

280

8.6

36.1

190

7.2

37.5

345

7.4

37.3

260

7.5

37.2

290

8.5

36.2

OBJECT

AZI

STADIA

G.E.

293°10'

" 298°50'

" 312°50'

" 319°40'

" 305° -

" 328°20'

" 328°20'

" 299°20'

" 339°20'

" 296°10'

" 292°10'

" 296°50'

" 298°40'

" 341°40'

" 302°40'

" 332°35'

" 331°05'

" \ 11.5 304°50'

" 332°50'

" 310°15'

" 326°10'

" 317°20'

" 325°20'

" 320°30'

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
H.I. = 944.72					
230			11.2		33.5
195					
2			11.5		33.2
220			10.6		34.1
200			10.0		34.7
270			11.3		33.4
170			10.7		34.0
145			12.0		32.7
310	-1°15'	-6.8	5.0	-11.8	32.9
145			12.7		32.0
340			10.7		34.0
370	-0°50'	-5.4	3.0	-8.4	36.3
395			9.60		35.1
390			11.0		33.7
257			11.6		33.1
350			10.0		34.7
220			11.1		33.6
213			10.0		34.7
330			13.2		31.5
310			13.5		31.2
290	-1°00'	-5.0	7.0	-12.0	32.7
410			13.3		31.4
250			10.6		34.1
285			11.0		33.7
285			11.9		32.8

OBJECT

AZI

STADIA

G.E.	\11.2	315°50'
"	\13.3	326°40'
"		311°20'
"	$\frac{1}{2} = 1.90$	322°—
"		317°30'
"		322°05'
"		313°—
"		308°50'
"		304°10'
"		317°15'
"		301°50'
"		316°35'
"		307°20'
"	$\frac{1}{2} = 2.30$	310°20'
"	$\frac{1}{2} = 2.40$	310°—
"		305°—
"		329°10'
"	$\frac{1}{2} = 1.85$	330°05'
"		336°20'
"	$\frac{1}{2} = 1.70$	341°05'
"		318°20'

7-8-99

4

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
	H.I. =	944.72			
315 315			12.8		31.9
390			15.3		29.4
340	-0°51'	- 5.0	8.1	-13.1	31.6
380	-0°51'	- 5.6	9.0	-14.6	30.1
330	-0°51'	- 4.9	8.5	-13.4	31.3
370	-0°51'	- 5.5	8.1	-13.6	31.1
370	-0°51'	- 5.5	8.1	-13.6	31.1
400	-0°51'	- 5.9	6.6	-12.5	32.2
415	-0°51'	- 6.1	6.1	-12.2	32.5
420	-0°51'	- 6.2	8.8	-15.0	29.7
400	-0°51'	- 5.9	5.8	-11.7	33.0
460	-0°51'	- 6.8	11.2	-18.0	26.7
430	-1°15'	- 9.3	3.0	-12.3	32.4
460	-1°15'	-10.0	4.2	-14.2	30.5
480	-1°15'	-10.5	8.1	-18.6	26.1
470	-1°15'	-10.2	3.5	-13.7	31.0
350	-0°28'	- 2.8	12.0	-14.8	29.9
370	-1°08' 0	- 7.3	7.0	-14.3	30.4
295	-1°08'	- 5.8	6.3	-12.1	32.6
340	-1°11'	- 7.0	6.0	-13.0	31.7
145			12.4		32.3

OBJECT

AZI

STADIA

5

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

[illegible]

DEPT

STAGE

STAGE

At intersection Bellevue & South Shore Blvd.

To Ints. Lilac Lane & Bellevue 180° 0.35

190° 30'

197° 40'

S.E.

SW Cor. Ho. 198° 50'

N.E.

At " " 206° 50'

248° 00'

213° 30'

252° 30'

∠ So Shore Blvd. 272° 40'

Shanklin 282° 40'

∠ Drive 263° 10'

✓ FL 12" cm 264° 20'

✓ FL 15" cm 265° 40'

B. Slope 260° 40'

ditch 256° 00'

Shoulder 265° 30'

∠ 272° 20'

Shoulder 268° 40'

266° 20'

2670

∠ entrance 272° 00'

∠ Cemetery 266° 20'

East End FL 12" cm 263° 20'

West end Barrid-

7-12-49

GB
AM
MB
BC.

6

DIST.	VERT. ANGLE	ROD EQUIV	ROD	DIFF.	ELEV.
-------	----------------	--------------	-----	-------	-------

HI = 937.82

5.32

932.50

429

+1.70

39.52

185'

5.2

32.6

165'

4.1

33.7

112'

3.7

34.1

80'

4.1

33.7

75'

5.0

32.8

45'

5.2

32.6

145'

7.3

30.5

75'

6.6

31.2

78'

7.3

30.5

155'

8.3

29.5

143'

10.5

27.3

166'

11.1

26.7

105'

9.5

28.2

108'

6.1

31.7

103'

7.5

30.2

240'

10.5

27.3

240'

10.7

27.1

244'

12.5

25.3

280'

10.5

27.3

276'

10.4

27.4

265'

12.7

25.1

OBJECT

AZI

STADIA

To Ints. Bellevue & S. Shore Blvd

L

271°50'

L Shoulder

269°20'

268°00'

 $\frac{1}{2} = 170$

L

272°00'

Shoulder.

269°20'

To L/100 & S. Shore Blvd. 271°30'

To A (L/100 & S. Shore Blvd)

To A Inters. Bellevue & S. Shore Blvd 271°30'

To A Lilac Lane & 100' 192°07½'

Shoulder

189°40'

"

185°20' - 0.1

S. Shore Blvd & Hwy 100

B.M. USGS in PP.

GE

175°10'

"

166°20'

"

156°30'

163°30'

163°30'

156°40'

156°40'

 $\frac{1}{2} = 0.1$

VERT. ROD RO DIFF. ELEV.
ANGLE EQUIV

$$HI = 937.82$$

330'		10.6	27.2
335'		11.0	26.8
340'		12.7	25.1
380'		10.5	27.3
380'		11.1	26.7
479'		9.93	27.89

$$HI = 933.32$$

$$HI = 3329$$

$$HI = 933.35$$

		HI	5.4		927.89
481			0.9		32.4
436'			+2.08		35.37
430			+2.35		35.65
425			+2.02		35.32
			6.04		927.31
400	+1°08'	+7.9	3.0	+4.9	38.2
390'	+1°30'	+10.2	6.0	+4.2	37.5
410'	+1°30'	+10.7	6.4	+4.3	37.6
360'	+1°30'	+9.4	5.2	+4.1	37.4
310'	+1°30'	+8.1	4.6	+3.5	36.8
250'	+1°30'	+6.5	5.2	+1.3	34.6
194'	—		1.5		31.8

$\overline{\Lambda}$ 933.3

OBJECT

AZI

STADIA

GZ

175°28'

"

266°10'

"

166°30' 0.3

"

145°30'

"

165°58'

"

166°40'

"

166°40'

"

170°46'

"

175°16' $\frac{1}{2} = 170$

"

125°26'

"

112°00'

"

175°16'

"

125°36'

"

174°46'

"

176°10'

"

169°40'

173°26'

172°40'

172°00'

148°40'

172°20'

± #100

188°10'

shoulder

190°40'

ANGLE DIST. ROD DIFF. ELEV.

HI = 983.32

185'			6.3		27.0
195'			1.7		31.6
215'			+0.77		^{34.1} 28.6 ?
163			7.3		26.0
230'	+1°05'	+4.3	2.0	+2.3	35.6
285'	+1°05'	+5.4	2.2	+3.2	36.5
330'	+1°00'	+5.7	1.9	+3.8	37.1
335'	+1°00'	+5.8	1.7	+4.1	37.4
340'	+1°00'	+5.9	2.7	+3.2	36.5
168'	—		7.7		25.6
150'	—		8.9		24.4
290'	+1°00'	+5.0	3.0	+2.0	35.3
130'	—		9.3		24.0
260'	+1°00'	+4.5	1.6	+2.9	36.2
255'	+1°00'	+4.4	1.0	+3.4	36.7
260'	+1°00'	+4.5	1.6	+2.9	36.2
222'	+1°00'	+3.9	2.0	+1.9	35.2
205'	—		2.1		31.2
205'			1.4		31.9
125'			9.4		23.9
125'			8.7		24.6
310'			0.7		32.6
315'			0.8		32.5

OBJECT

AZI

STADIA

GE

162°20'

"

Shoulder

192°30'

"

Toe

193°30'

"

138°50'

198°20'

111°50'

207°30'

125°00'

~~22~~

211°10'

159°50'

215°20'

137°30'

Edge of Lake

217°30'

211°40'

207°40'

201°20'

196°40'

196°50'

201°20'

207°00'

Lake

210°10'

105°10'

203°40'

Sh

102°10'

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

$$HI = 933.32$$

85			8.4		24.9
315'			3.9		29.4
315'			3.0		30.3
105			9.6		23.7
320'			4.9		28.4
107			9.9		23.4
335'			6.8		26.5
70'			8.8		24.5
345'			3.9		29.4
70'			7.8		25.5
330'			6.3		27.0
45'			8.5		24.8
300'			8.69		25.6
270'			7.1		26.2
280'			8.5		24.8
265'			10.1		23.2
255'			8.3		25.0
220'			8.8		24.5
225'			9.7		23.6
225'			7.8		25.5
225'			8.7		24.6
85'			8.7		24.6
185'			8.5		24.8
75'			6.4		26.9

OBJECT

T 933.3 AZ

STADIA

	199°40'
± S. Shore Bld	89°50'
Lake	208°30'
	72°20'
Lake	240°30'
"	325°10'
Shoulder	344°40'
± # 100	06°30'
±	190°20'
Shoulder.	161°20'
	231°20'
Bank	274°20'
Shoulder	180°30'
Shoulder	172°50'
	207°40'
	200°40'
±	188°10'
Toe	170°30'
Shoulder.	193°20'
	195°30'
	196°40'
Toe	194°40'
	192°30'
Sh. ±	179°10'

ROD

DATE

ELEV.

HI = 933.32

190	7.9	25.4
75	5.9	27.4
115	8.7	24.6
80'	6.1	27.2
45'	8.7	24.6
48'	8.7	24.6
45'	6.0	27.3
45'	5.7	27.6
17'	5.3	28.0
55'	8.1	25.2
22	5.4	27.9
22	4.4	28.9
100'	4.5	28.8
50	5.3	28.0
75'	4.2	29.1
85'	4.8	28.5
95'	4.5	28.8
90'	7.5	25.8
135	3.9	29.4
150'	3.5	29.8
165'	7.4	25.9
175'	6.2	27.1
180'	3.6	29.7
140	7.5	25.7

OBJECT

AZI

STADIA

☒

☒

187°50'

Shoulder

183°30'

☒

187°50'

Shoulder

191°10'

Toe

181°00'

Toe

193°30'

Shoulder

184°10'

☒

188°00'

Shoulder

191°00'

✓ FL 13" cm

192°25'

Toe

192°20'

Shoulder

190°50'

☒

188°10'

Shoulder

184°40'

Toe

182°40'

"

182°40'

Shoulder

183°50'

45°30'

32°00'

39°40'

49°20'

53°20'

65°40'

74°30'

HI = 933.32

	ROD	DIFF	ELEV
190	3.0		30.3
145'	4.1		29.2
235'	2.4		30.9
240'	2.5		30.8
205'	4.5		28.8
235'	7.3		26.0
205'	2.7		30.6
270'	1.3		32.0
265'	1.8		31.5
255'	5.55		27.27
290'	4.9		28.4
290'	1.3		32.0
290'	1.1		32.2
295'	0.7		32.6
275'	2.3		31.0
230'	3.4		29.9
230	1.9		31.4
55'	6.1		27.2
110'	6.3		27.0
170'	7.3		26.0
160'	7.7		25.6
130'	7.2		26.1
110	6.4		26.7
170'	7.4		25.9

OBJECT

AZI

STADIA

GE

62°30'

72°00'

☼

74°20'

shoulder

80°20'

80°20'

80°20'

✓ FL 12" CM

66°20'

☼ ent

69°10'

✓ FL 12" CM

73°40'

shoulder

52°30'

☼

50°00'

shoulder

45°40'

46°30'

28°30'

☼

27°10'

Shoulder

32°10'

32°00'

☼ #100

07°10'

Shoulder

357°40'

352°00'

edge Lake

348°20'

" "

354°30'

Bank

358°40'

DIST.	VERT. ANGLE	ROD EQU.	ROD	DIFF.	ELEV.
-------	-------------	----------	-----	-------	-------

$$HI = 933.32$$

165'			7.8		25.5
185'			7.1		26.2
210'			6.3		27.0
245'			6.7		26.6
250'			7.4		25.9
260'			6.7		26.6
220'			8.3		25.0
225'			6.3		27.0
230'			8.4		24.7
175'			7.3		26.0
190'			6.6		26.7
200'			6.9		26.4
215'			9.9		23.4
190'			6.6		26.7
210'			6.1		27.2
220'			6.8		26.5
225'			8.1		25.2
80'			5.7		27.6
84'			5.8		27.5
85'			4.8		28.5
90'			8.7		24.6
150'			8.7		24.6
145'			4.7		28.6

OBJECT

AZI

STADIA

Shoulder

1°30'

Φ #100

7°20'

Shoulder

6°30'

1°40'

Bank

0°00'

edge Lake

357°30'

Φ

04°10'

Shoulder

01°30'

Toe

358°40'

Bank

355°00'

edge Lake

353°10'

34°30'

Shoulder

06°00'

07°50'

40°10'

10°30'

41°50'

08°20'

48°00'

Φ S. Shore Blvd

12°00'

14°00'

47°50'

16°20'

54°30'

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
H.I. = 933.32					
140'			6.0		27.3 .
132'			5.7		27.6 .
220'			5.8		27.5 .
220'			6.0		27.3 .
215'			5.4		27.9 .
220'			8.7		24.6 .
290'			5.9		27.4 .
284'			6.0		27.3 .
290'			8.9		24.4 .
285'			6.7		26.6 .
2.85'			8.7		24.6 .
2.45'			8.7		24.6 .
300'			5.5		27.8 .
300'			6.3		27.0 .
250'			8.9		24.4 .
310'			5.4		27.9 .
260'			7.1		26.2 .
250'			5.6		27.7 .
235'			7.1		26.2 .
250			5.7		27.6 .
260'			6.4		26.9 .
230'			9.8		23.5 .
270'			5.7		27.6 .
225'			7.0		26.3 .

OBJECT

AZ.

STADIA

edge pave.

10°10'

Beg Rad.

12°40'

pt on Rad.

15°50'

FL.

43°00'

pt. on Rad

22°20'

" " "

31°50'

Top MH Grate

39°30'

✓ FL. of MH

39°58'

pt on Rad.

29°

30°20'

35°20'

✓ S. Shore

12°20'

✓ FL 15" CM

30°50'

Pt. on Rad.

19°20'

" " "

26°00'

~~=====~~

✓

29°10'

pt on Rad

31°50'

33°10'

✓

38°50'

32°10'

✓

48°30'

28°50'

Rad

43°30'

✓

29°50'

$$HI = 933.32$$

190'	5.5	27.8
170'	5.6	27.7
200'	6.5	26.8
212'	10.7	22.6
200'	6.5	26.8
212'	6.7	26.6
160'	8.2	25.1
160	11.1	22.2
230'	7.8	25.5
245'	6.9	26.4
255'	8.5	24.8
228	5.8	27.5
280'	8.9	24.4
250'	6.8	26.5
250'	6.7	26.6
250'	6.9	26.9
275'	7.6	25.7
302'	8.3	25.0
290'	6.4	26.9
320'	7.2	26.1
345'	6.1	27.2
350'	7.3	26.0
330'	6.7	26.6
350'	6.6	26.7

OBJECT

STADIA

☼	40°20'
ditch	37°30'
Pt on Rad.	35°20'
	24°30'
NW Cor Ho.	30°10'
SW Cor Ho	38°10'
SE	40°30'
GE	40°30'
"	41°10'
"	20°40'
"	39°00'
"	26°40'
"	47°30'
"	48°20'
S. W. Cor Ho.	62°10'
SE Cor Ho	69°30'
	79°50'
To A on Cemetery ent.	112°33 $\frac{1}{2}$
To A on Lake View Ave	47°35 $\frac{1}{2}$
✓ FL 10" cm	94°20'
✓ FL ditch 10" cm	94°10'
ditch	94°10'
ditch	94°10'

DIST.	VERT. ANGLE	ROD EQU.	ROD	DIFF.	ELEV.
-------	-------------	----------	-----	-------	-------

HI = 933.32

310			7.2		26.1
315			7.9		25.4
335'			6.9		26.4
335'			8.0		25.3
385'			4.5		28.8
350'			4.3		29.0
370'			4.4		28.9
330'			5.1		28.2
322'			8.1		25.2
320'			7.1		26.2
320'			8.2		25.1
290'			7.2		26.1
360'			7.5		25.8
285			6.0		27.3
260			5.5		27.8
275'			5.5		27.8
195'			6.9		26.4
220'			4.64		228.68
344			6.51		226.81
430'			4.0		29.3
438'			3.9		29.4
440			3.3		30.0
427			3.7		29.6

OBJECT

AZ

STADIA

π @ Δ on Lake View Ave

To A @ Φ Hwy 100 & S.S. Blvd. $227^{\circ}35\frac{1}{2}$

BM USCS.

Top B. Slope $11^{\circ}50'$

GE (Lawn) $7^{\circ}50'$

$30^{\circ}40'$

$8^{\circ}10'$

$7^{\circ}10'$

$21^{\circ}20'$

Lake $8^{\circ}10'$

Toe $9^{\circ}40'$

$21^{\circ}20'$

Lake $21^{\circ}20'$

π @ Δ on Cemetery Ent

To A Hwy 100 & South S. Blvd $292^{\circ}33\frac{1}{2}$

& Cem Ent $337^{\circ}20'$

$236^{\circ}50'$

$22^{\circ}30'$

$30^{\circ}20'$

$50^{\circ}10'$

$75^{\circ}10'$

$86^{\circ}10'$

37.7
8.7
29.6

16

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

HI = 932.03
933.03

HI = 5.22

926.81

344

4.12

27.91

4.74

921.31

20'

4.6

27.4

75'

3.2

28.8

80'

3.3

28.7

132'

3.2

28.8

190'

3.8

28.2

175'

4.5

27.5

215'

8.47

23.56

200'

6.3

25.7

180

6.6

25.4

193

8.5

23.5

933.90 ✓

HI = 5.22

928.68 ✓

224

6.0

27.9

35'

6.1

27.8

50'

7.5

26.4

35'

6.2

27.7

55'

8.6

25.3

72'

8.1

25.8

75'

6.3

27.6

62'

6.3

27.6

OBJECT

AZI

STADIA

GE

58°20'

103°40'

149°40'

225°20'

301°40'

310°20'

To A Lilac Lane & Hwy 100

To A Hwy #100 & South

12°07 1/2' 10.92

21°00'

28°50'

26°20'

33°20'

39°10'

12" x 10'
FL 12" CM

26°30'

FL " 4

31°40'

GE

38°20'

To A @ Lilac Lane & Bellaview

90°25' 4.50

BM PP NW Cor @

Lilac Lane & #110

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

 π 933.9

45'			6.1		27.8
65'			4.6		29.3
22'			4.9		29.0
35'			5.3		28.6
55'			8.4		25.5
70'			9.0		24.9

 $HI = 940.99$
 $HI = 5.6$

435			13.10		27.9
2.45'	$-0^{\circ}35'$	2.5	6.0	8.5	32.5
200			6.2		34.8
192'			10.4		30.6
160'			8.6		32.4
150'			6.1		34.9
162'			9.91		31.1
152'			9.55		31.45
125'			8.9		32.1
570'			2.95		38.05
			6.53		34.47

OBJECT

AZI

STADIA

18 ~~16~~
~~16~~

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	----------------	---------------	-----	-------	-------

House Location Check

7-15-49

OBJECT

AZI

STADIA

To A on Cemetery ent.

To A Hwy 100 & S. Shore Blvd.

292 33 $\frac{1}{2}$ '

To Ho SW cor.

07°25'

SW Cor. Porch

12°15'

- SW cor. house.

110°30'

19 ~~18~~
17

DIST.	VERT. ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	-------------	------------	-----	-------	-------

928.68

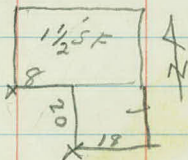
224

210'

191'

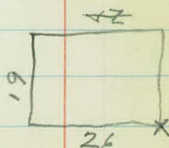
6.0

57.8



142'

2.6



OBJECT

AZI

STADIA

DIST.

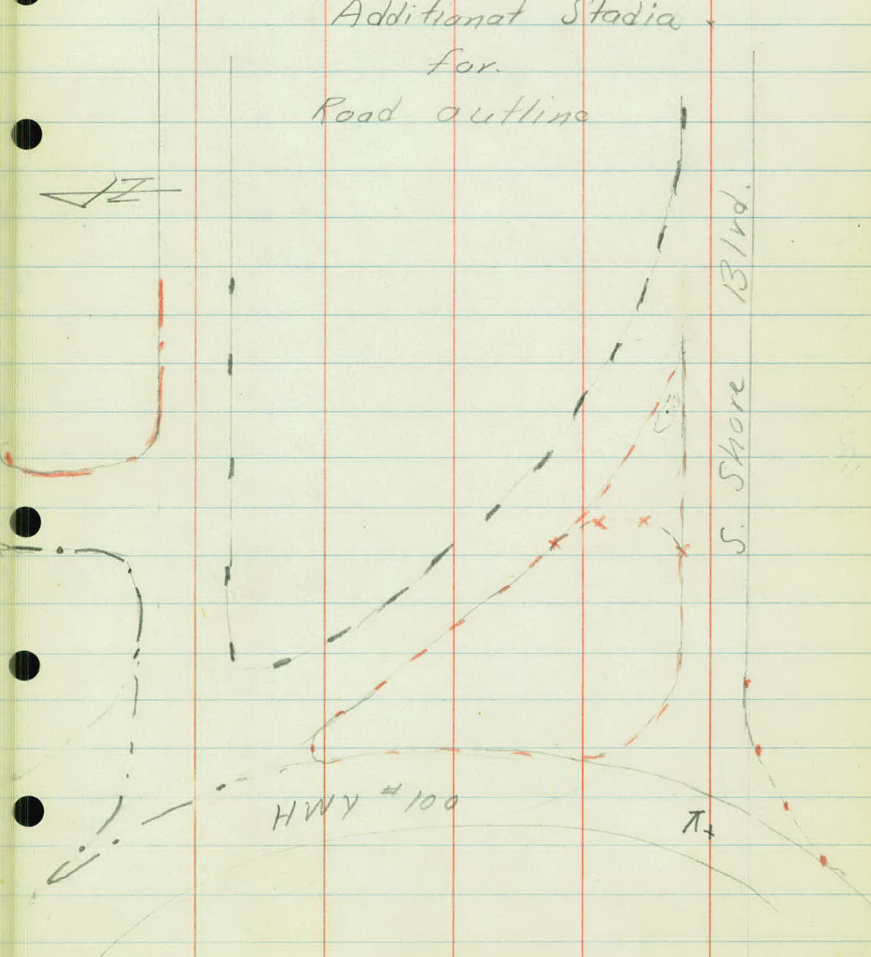
VERTI
ANGLEROD
EQUIV.

ROD

DIFF.

ELEV.

Additonal Stadia
for
Road outline



OBJECT

AZI

STADIA

Wye
Inside of
 A @ Hwy #100 & S.S. Blvd.

Wye
Inside of
 To S.S. Blvd & Bellevue

Wye
Inside of
 Wye intersection

Wye
Inside of
 N side S.S. Blvd

Wye
Inside of
 "

Wye
Inside of
 "

Wye
Inside of
 " Beg Rad

Wye
Inside of
 pt on Rad.

Wye
Inside of
 end Rad. Edge pave. on #100

Wye
Inside of
 Edge " " " "

Wye
Inside of
 Beg Rad.

Wye
Inside of
 pt on "

Wye
Inside of
 end Rad

Wye
Inside of
 Beg Rad

91°30'

88°20'

87°40'

87°00'

83°50'

75°00'

56°05'

17°10'

13°00'

10°50'

13°20'

11°30'

21°40'

31°20'

46°00'

62°00'

76°00'

89°30'

88°30'

85°00'

78°50'

67°40'

DIST.	VERT ANGLE	ROD EQUIV.	ROD	DIFF	ELEV.
-------	---------------	---------------	-----	------	-------

250'

200'

165'

108' ✓

55' ✓

38' ✓

54' ✓

100' ✓

160' ✓

190' ✓

205' ✓

107' ✓ — ? 207

190' ✓

180' ✓

185' ✓

202' ✓

365' ✓

315' ✓

268' ✓

235' ✓

210' ✓

OBJECT

AZI

STADIA

54°00' ✓

41°10' ✓

32°30' ✓

29°00' ✓

end Rad.

29°50' ✓

37°10' ✓

44°20' ✓

48°40' ✓

53°40' ✓

53°40' ✓

48°40' ✓

Beg Rad.

41°50' ✓

39°10' ✓

end Rad.

35°20' ✓

31°20' ✓

24°20' ✓

20°30' ✓

21°10' ✓

Beg Curve

28°05' ✓

32°05' ✓

32°40' ✓

end Curve

29°50' ✓

DIST.	VERT ANGLE	ROD EQUIV.	ROD	DIFF.	ELEV.
-------	---------------	---------------	-----	-------	-------

200' ✓

200' ✓

210' ✓

230' ✓

245' ✓

270' ✓

305' ✓

335' ✓

380' ✓

410' ✓

365' ✓

310' ✓

310' ✓

320' ✓

350' ✓

390' ✓

430' ✓

395' ✓

350' ✓

320' ✓

285' ✓

265' ✓

OBJECT

AZI

STADIA

Beg Rad.	24°40'	✓
	20°30'	✓
end R	14°30'	✓
	10°10'	✓
end Rad - edge Pav	4°30'	✓
edge Pav	6°40'	✓
" "	8°50'	✓

end Rad	97°20'	✓
Beg Rad	177°30'	✓
pt on Rad	132°20'	✓
	94°30'	✓

Beg Rad	86°30'	✓
Pt on Rad,	84°10'	✓
" " "	78°10'	✓
end Rad.	69°50'	✓

<u>DIST.</u>	<u>VERT. ANGLE</u>	<u>ROD EQUIV.</u>	<u>ROD</u>	<u>DIFF.</u>	<u>ELEV.</u>
--------------	------------------------	-----------------------	------------	--------------	--------------

250' ✓

250' ✓

255' ✓

274' ✓

330' ✓

285' ✓

230' ✓

65' ✓

52' ✓

271' ✓

110' ✓

152' ✓

172' ✓

190' ✓

190' ✓

OBJECT

AZI

STADIA

To Knute ANKER

Date 8-28-72 Time 2:20 pm

WHILE YOU WERE OUT

M. Gregg Becket

of _____

Phone _____
Area Code Number Extension

TELEPHONED		PLEASE CALL	
CALLED TO SEE YOU	☒	WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
	RETURNED YOUR CALL		

Message Please rush your
review. He will call
back later today

Joe
Operator

LARGE FORMAT DRAWING

**INSERT
HERE**



Your document partner helping organize your business.