

Bk. 8 - Dr. 16

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

----- Plan ----- Survey

----- Larpenteur Avenue -----

From Winthrop Ave. To East Ave. -----

Road Acc't. No. -----

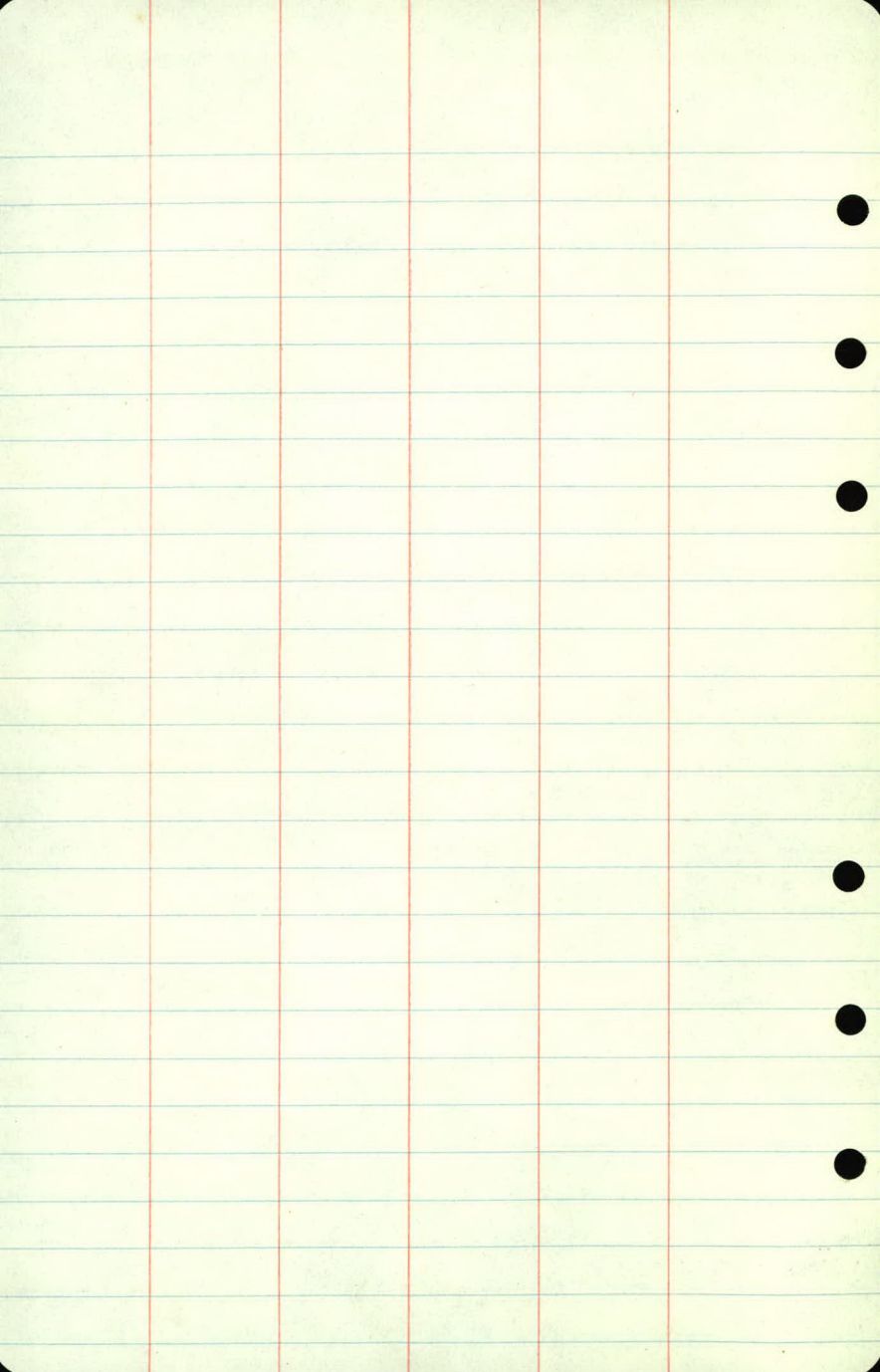
Date Filed 10/24/39..

File -----

PLAN SURVEY
L ARPENTUER AVE.
WINTHROP AVE to EAST AVE.

INDEX

Align	- 1-2
Topog.	- 3-6
Xsections	- 7-11



1

Alignment.

Sta	Point	ΔLt	ΔRt
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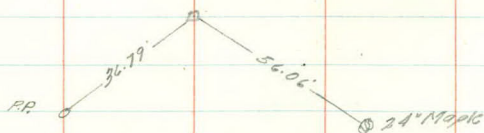
79	+58.3	=	ϕ East Ave
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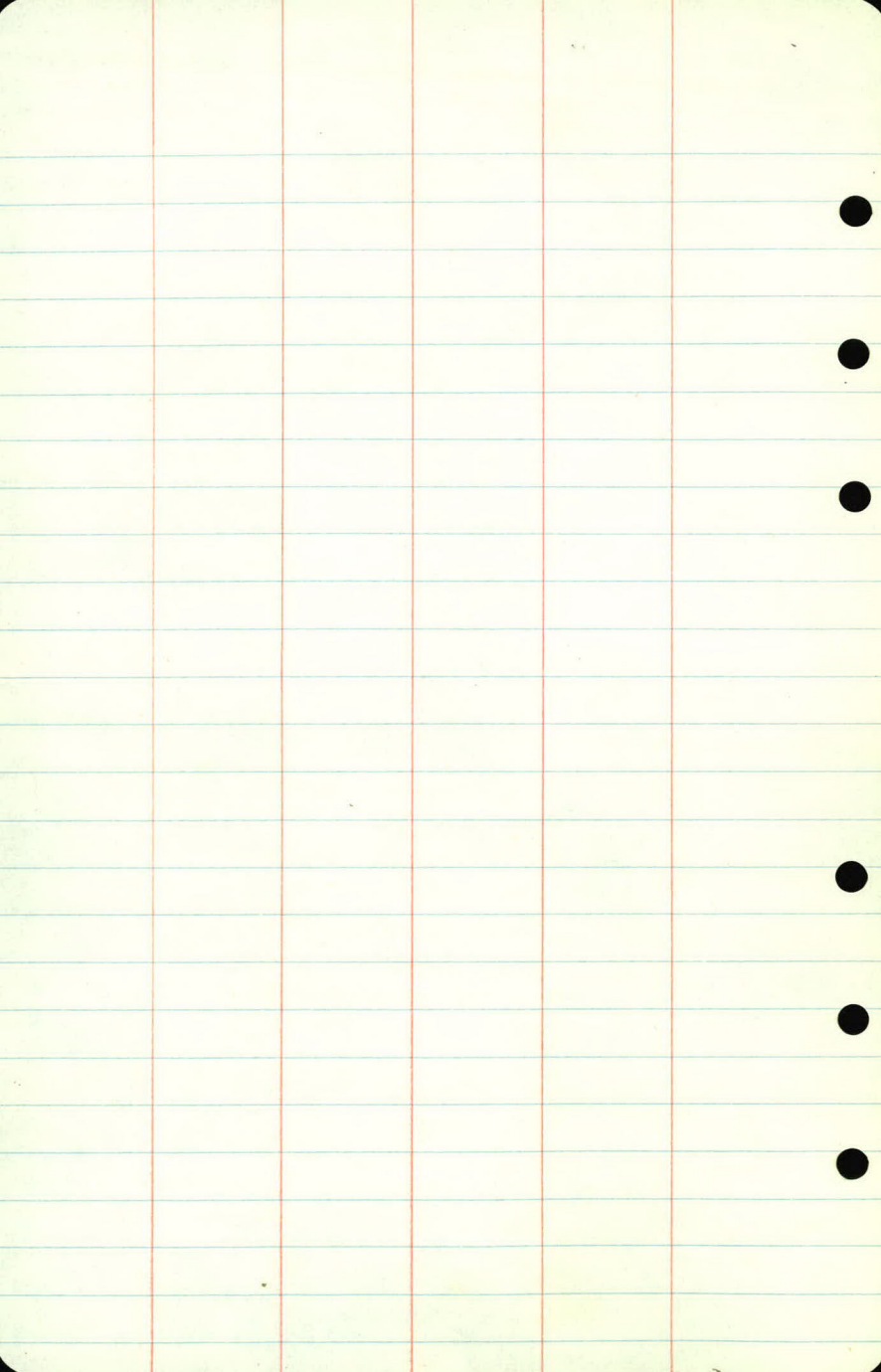
73	+12.87	=	ϕ Howard Ave
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66	+67.5	=	ϕ Winthrop Ave
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Bolt-Spike





Topography

	+36-PP-27'		+40-Cor. Shrubs-56'
70	+24-Cor. Patholc-70'	8'	+24-8" Trpk Oak-44'
		12'	+15-Cor. Pine Shrubs-56'-79'
			+109-8" Oak-46'-54'-56'
			+78-6" Oak-54' +85-12" Oak-55'
			+74-6" Oak-47' 6" Oak-55'-59'
			+64-2" Pine-56'
			+56-2" Pine-56'
			+50-3" Elm-53'
			+24-3" Elm-53'
	+33-6" 18" Walk-23'		+15-Cor. Park Area-59' 62-107'
	+26-Ent.		+109-6" Tree-57'
69	+08-PP-28'	8' 11'	+03-Fr. Cor-66'

68		9' 10'	+07-N.W. Cor Garage-45'
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+16-Ent.
+66-PP-28'

67		9' 10'	+67-6" Ent-15" X 20' C.M.-20'
			+55-4" Elm-27'
			+37-4" Elm-27'
			+15-6" Maple-27'

+88-PP-45'
+79-E. End 15 X 20' C.M.-23'

66

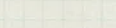
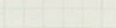
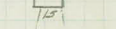
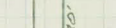
Water



200

 $174 \text{ Eol} - \frac{15'' \times 30''}{27'}$

oiled



+86-Water-30'
 +80-20"Oak-35'
 +70-Water-45'
 +62-8"Oak-34' - 12"Oak-38'
 Water 32'

77 10' 10' Water cr. 30'

+48-P.P.-28'
 +32-Ent.

Water-30'

76 10' 10'
 +92-Cor. Ho.-73'

+89-Waters Edge-35'

+70-5"Oak-43'
 +65-8"Oak-44'

+61-20"Oak-39'

+24-P.P.-28'

+47-5"Tw.Oak-55'

75 9' 11'

+46-24"Oak-30'
 +36-15"Oak-33'

+40-Ctr Green "9-83"-133'

74 8' 12'

+35-P.P.-28'

+96-15"Oak-58'

+92-12"Oak-50'

+71-12"Tw.Oak-42'

+61-8"Oak-42'

+54-15"Oak-55'

+46-Cor. Park Area-76'

+77-12"Oak-32'

+68-12"Oak-34'

+50-9"Oak-34'

73 7' 13'

+43-6"Oaks-42'-59'

+97-End Burn-33'

+86-Burn-35'-30'

+92-P.P.-T.P.-28'

+68-10"Oak-44'

+72-Burn-35'-19'

+95-8"Oak-45'

+84-2"Oak-46'

+80-15"Oak-35'

+30-Pine Shrub-59'-69'

+10-Cor. Park Area-75'

+25-Pine Shrub-63'

+21-Pine Shrub-69'

72 7' 12'

+95-Bog Scot Oaks-65'

Ent-12"X26"-C.M.-28'

+64-P.P.-28'

+52-Ent.

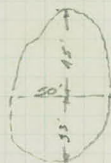
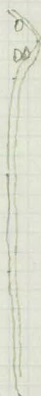
+60-12"Oak-48'

+80-Cor. Pine Shrub-68'-75'

+61-Shrubery-58'

+25-Cor. Mhole-67'

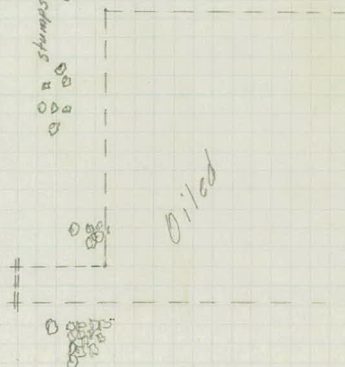
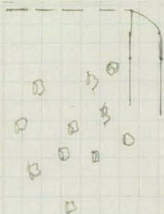
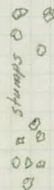
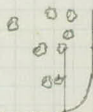
71 8' 13'



468- Burn- 20'-34'

445- Burn- 20'-35'

425- No Burn- 25'



70' +46" Edge Bl. Top - 50'

79

10' 10'

+95-10" Oak - 12'

+39-60" Store - 41'
+27-18" Tree - 32'
+22-PP - 28'

+40-60" Pothole - 30' - 50'

+14-15" Oak - 59'
+13-12" Oak - 47'

78

8' 10'

(Location of water
Hazard)

Δ Pt.

Dist. 6

All Δ or to Pt.
of for Tangent.
Transit at sta 77+00

77+00

154°32'

160'

139°05'

208'

117°32'

216'

114°25'

202'

93°47'

190'

78°17'

170'

64°03'

146'

53°37'

134'

37°53'

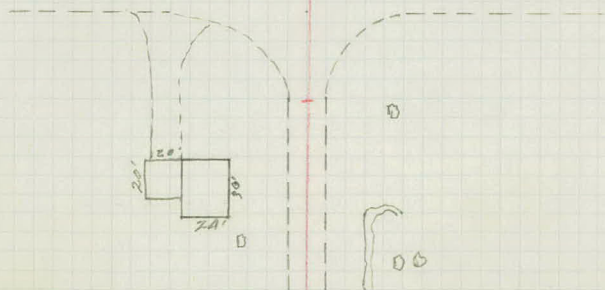
134'

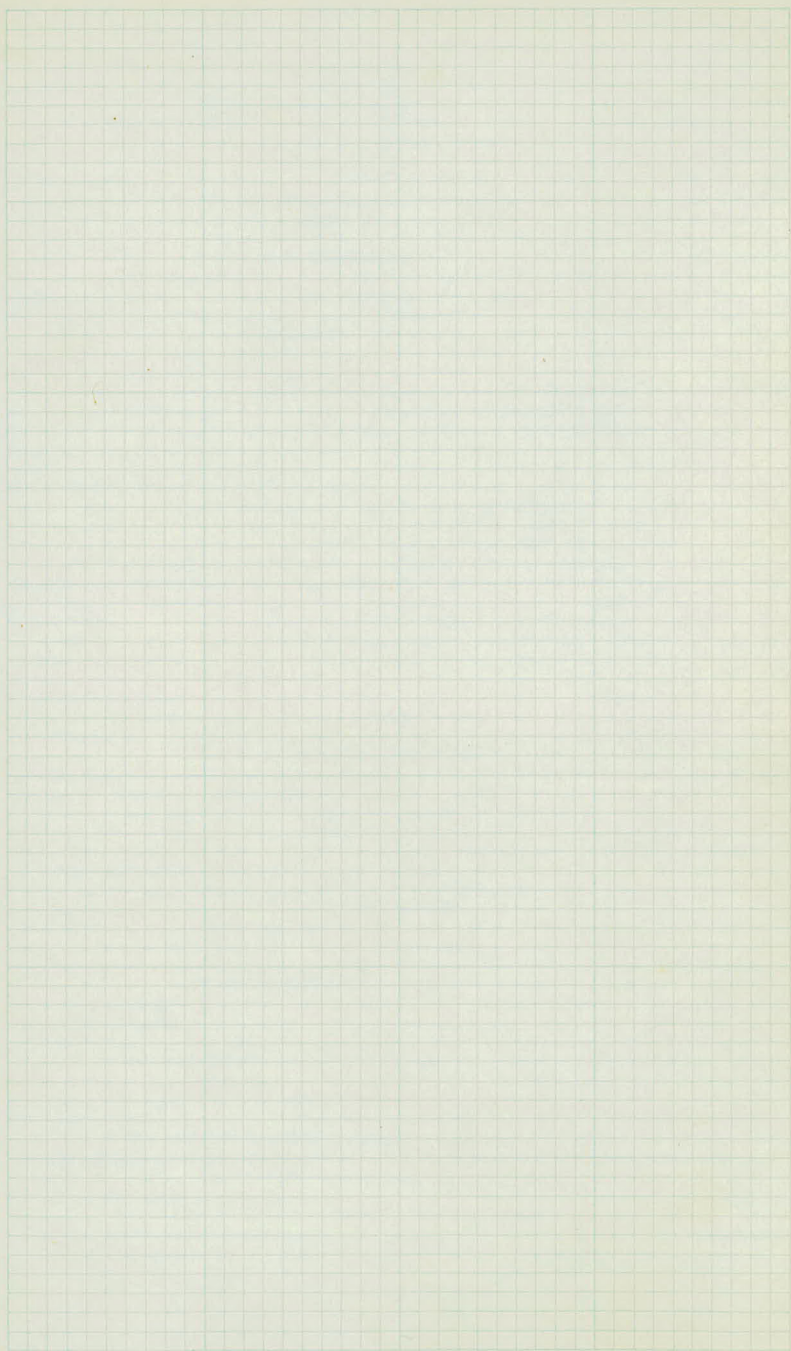
29°10'

127'

East

Ave.





X Sections

Sta	+	x	-	Elev.
B.M.	573	1028.63		1022.90
B.M.			775	1020.88
T.P.	522	1029.59	4.31	1024.32
B.M.			12.78	1016.76
66	+67.5			16.9
	+95			18.8
67	+09			19.4
	+50			22.0
68				24.3
	+50			25.9
69				26.8
	+40			26.7
	+70			26.5

Lt

L

Rt

E Cor Conc Perch of Store N.W. Cor East Ave & Larp. Ave.

Top Mont. Larp & East, Ave.

Top Bolt Spike Howard & Larp. Ave.

Spl. in P.P. Lt. 54, 66 + 50

127	128	121	137	137	131	128	126	128	126	133	137
50	36	21	19	18	17	8		11	12	43	50

75	76	100	103	120	120	115	110	107	109	114	127	101	107
30	41	31	20	18	17	16	9	10	18	22	29	30	

70	71	99	98	114	114	107	104	101	109	108	121	59	L.O.
50	41	32	20	19	18	17	8	10	18	18	23	48	

60	60	70	74	84	78	75	77	79	95	30	29	L.O.
50	35	31	20	19	8		9	17	23	45	50	

41	42	46	47	53	53	52	54	58	70	30	25	S.S.
50	37	31	21	18	8		9	18	23	38	50	

30	30	32	39	38	36	37	41	49	49	24	20
50	29	21	17	8		9	11	23	22	36	50

23	23	28	28	30	27	30	33	40	40	15	15
50	21	22	18	8		11	18	21	26	27	50

L.O.	30	27	27	32	28	30	32	43	43	13	12
	50	37	26	8		12	17	22	33	50	50

55	62	103	103	27	27	33	23	30	32	35	44	49	19	11
100	86	79	62	31	31	17	8		12	17	22	24	50	100

Sta.	+	x	-	Elev.
		1029.54		
70	Ent. Rt			26.1
+17				25.9
T.P.	4.12	1029.53	4.13	1025.41
+60				25.4
71				24.9
+23				24.7
+43	Ent. Lt			24.6
+56	" "			24.6
+73				24.5
72	4 Ent. Rt			24.5
+20				24.5
+56				24.5

Lt.

Q.

Rt.

$$\frac{34}{12} \frac{35}{50} \frac{26}{100}$$

$$\frac{115}{100} \frac{126}{84} \frac{123}{69} \frac{80}{50} \frac{37}{32} \frac{35}{25} \frac{39}{18} \frac{40}{8} \frac{36}{11} \frac{38}{17} \frac{41}{23} \frac{48}{33} \frac{48}{49} \frac{14}{100} \frac{08}{100}$$

Water

$$\frac{147}{100} \frac{140}{12} \frac{127}{65} \frac{91}{50} \frac{44}{33} \frac{40}{21} \frac{46}{19} \frac{45}{8} \frac{41}{13} \frac{42}{18} \frac{45}{22} \frac{54}{32} \frac{54}{50} \frac{12}{100} \frac{07}{100}$$

$$\frac{145}{100} \frac{134}{45} \frac{97}{50} \frac{50}{34} \frac{45}{21} \frac{51}{18} \frac{50}{7} \frac{46}{13} \frac{47}{18} \frac{50}{22} \frac{58}{32} \frac{58}{50} \frac{15}{100} \frac{09}{100}$$

$$\frac{131}{100} \frac{126}{66} \frac{50}{32} \frac{45}{21} \frac{52}{18} \frac{51}{7} \frac{48}{13} \frac{49}{18} \frac{52}{21} \frac{60}{32} \frac{57}{52} \frac{11}{100} \frac{10}{100}$$

$$\frac{91}{100} \frac{64}{50} \frac{51}{34} \frac{48}{23} \frac{52}{18} \frac{52}{7} \frac{49}{12} \frac{50}{17} \frac{53}{22} \frac{62}{32} \frac{61}{53} \frac{11}{100} \frac{09}{100}$$

$$\frac{86}{100} \frac{63}{50} \frac{53}{34} \frac{52}{16} \frac{52}{7} \frac{49}{100}$$

$$\frac{95}{100} \frac{101}{87} \frac{116}{29} \frac{109}{60} \frac{52}{33} \frac{51}{21} \frac{57}{19} \frac{52}{7} \frac{50}{12} \frac{51}{18} \frac{53}{23} \frac{64}{31} \frac{64}{52} \frac{13}{100} \frac{06}{100}$$

$$\frac{50}{13} \frac{50}{40} \frac{43}{10} \frac{24}{100} \frac{12}{100}$$

$$\frac{97}{100} \frac{85}{10} \frac{73}{47} \frac{46}{33} \frac{44}{21} \frac{53}{18} \frac{52}{7} \frac{50}{13} \frac{51}{17} \frac{55}{21} \frac{64}{32} \frac{64}{54} \frac{19}{75} \frac{13}{100} \frac{09}{100}$$

$$\frac{93}{100} \frac{80}{77} \frac{66}{45} \frac{50}{36} \frac{46}{20} \frac{51}{18} \frac{57}{13} \frac{54}{7} \frac{50}{13} \frac{52}{17} \frac{55}{23} \frac{68}{30} \frac{68}{54} \frac{09}{75} \frac{03}{100}$$

Sta.

+

x

-

Elev

1029.53

72 +99

24.3

73

24.3

+12.87 E. Howard Ave.

24.31

BM.

5.22

1024.31

(1024.32)

+27

24.3

+46

24.3

+69

24.3

+88

24.3

74

24.3

+50

24.5

75

24.5

+37

24.4

T.P.

2.75

1026.56

5.75

1023.78

Lt

L

Rt

$$\frac{90}{100} \quad \frac{74}{49} \quad \frac{50}{32} \quad \frac{67}{21} \quad \frac{55}{8} \quad \frac{52}{}$$

$$\frac{72}{50} \quad \frac{63}{22} \quad \frac{55}{7} \quad \frac{52}{13} \quad \frac{53}{18} \quad \frac{56}{21} \quad \frac{66}{39} \quad \frac{61}{55} \quad \frac{12}{82} \quad \frac{0.9}{100}$$

$$\frac{64}{50} \quad \frac{58}{45} \quad \frac{55}{8}$$

$$\frac{522}{12} \quad \frac{53}{17} \quad \frac{55}{22} \quad \frac{66}{23} \quad \frac{63}{54} \quad \frac{12}{100}$$

$$\frac{68}{50} \quad \frac{64}{29} \quad \frac{55}{7} \quad \frac{52}{12} \quad \frac{53}{16} \quad \frac{55}{21} \quad \frac{69}{31} \quad \frac{69}{55} \quad \frac{13}{74} \quad \frac{10}{100}$$

$$\frac{81}{50} \quad \frac{74}{42} \quad \frac{47}{33} \quad \frac{49}{21} \quad \frac{58}{18} \quad \frac{55}{7} \quad \frac{52}{12} \quad \frac{53}{17} \quad \frac{56}{21} \quad \frac{66}{34} \quad \frac{6.5}{56} \quad \frac{1.3}{81} \quad \frac{0.5}{100}$$

$$\frac{80}{50} \quad \frac{73}{43} \quad \frac{48}{32} \quad \frac{47}{21} \quad \frac{55}{18} \quad \frac{56}{8} \quad \frac{52}{12} \quad \frac{52}{17} \quad \frac{54}{21} \quad \frac{66}{33} \quad \frac{66}{54} \quad \frac{18}{64} \quad \frac{11}{100}$$

$$\frac{81}{50} \quad \frac{76}{42} \quad \frac{47}{32} \quad \frac{47}{21} \quad \frac{55}{19} \quad \frac{56}{8} \quad \frac{52}{11} \quad \frac{52}{17} \quad \frac{54}{21} \quad \frac{67}{32} \quad \frac{6.8}{50} \quad \frac{2.5}{48} \quad \frac{1.5}{79} \quad \frac{1.23}{100}$$

$$\frac{85}{50} \quad \frac{77}{44} \quad \frac{49}{33} \quad \frac{47}{21} \quad \frac{56}{19} \quad \frac{56}{8} \quad \frac{52}{11} \quad \frac{52}{17} \quad \frac{55}{22} \quad \frac{69}{33} \quad \frac{69}{50} \quad \frac{26}{63} \quad \frac{10.5}{73} \quad \frac{10.6}{100}$$

$$\frac{60}{50} \quad \frac{55}{38} \quad \frac{49}{34} \quad \frac{46}{21} \quad \frac{54}{18} \quad \frac{53}{8} \quad \frac{50}{11} \quad \frac{52}{17} \quad \frac{55}{22} \quad \frac{70}{32} \quad \frac{7.0}{50} \quad \frac{24}{61} \quad \frac{07}{74} \quad \frac{2.0}{100}$$

$$\frac{42}{50} \quad \frac{38}{36} \quad \frac{48}{33} \quad \frac{45}{21} \quad \frac{53}{18} \quad \frac{53}{9} \quad \frac{50}{10} \quad \frac{51}{17} \quad \frac{55}{21} \quad \frac{68}{31} \quad \frac{70}{55} \quad \frac{14}{66} \quad \frac{3.1}{75} \quad \frac{4.5}{100}$$

$$\frac{45}{50} \quad \frac{37}{35} \quad \frac{43}{32} \quad \frac{43}{21} \quad \frac{53}{18} \quad \frac{54}{70} \quad \frac{51}{10} \quad \frac{52}{17} \quad \frac{57}{22} \quad \frac{71}{31} \quad \frac{74}{50} \quad \frac{30}{36} \quad \frac{18}{68} \quad \frac{8.2}{100}$$

Sta.	+	Σ	-	Elev.
		1026.56		
75	+80			23.9
76	+50			23.2
77				22.6
	+50			22.2
78				22.0
	+63			21.8
79				21.5
	+23			21.2
	+29			21.1
	+36			21.1
	+42			21.0
				20.9
B.M.		5.69		1020.87

4-26-37
K.F.
L.B.H.
L.C.
A.B.

Lt. K Rt.

$\frac{30}{50} \frac{25}{40} \frac{18}{31} \frac{23}{20} \frac{28}{18} \frac{30}{9} \frac{21}{10} \frac{28}{18} \frac{32}{35} \frac{25}{40} \frac{80}{40}$

$\frac{72}{50} \frac{30}{32} \frac{30}{21} \frac{35}{17} \frac{36}{10} \frac{34}{10} \frac{35}{17} \frac{43}{30} \frac{76}{30} \frac{88}{35}$ Water

$\frac{100}{60} \frac{76}{50} \frac{38}{34} \frac{34}{21} \frac{42}{18} \frac{42}{9} \frac{40}{10} \frac{42}{18} \frac{47}{29} \frac{76}{34} \frac{86}{34}$

$\frac{87}{56} \frac{49}{37} \frac{42}{25} \frac{41}{21} \frac{49}{18} \frac{47}{9} \frac{44}{10} \frac{44}{18} \frac{47}{30} \frac{73}{37} \frac{80}{37}$

$\frac{85}{50} \frac{59}{39} \frac{44}{25} \frac{44}{21} \frac{50}{17} \frac{50}{7} \frac{46}{10} \frac{47}{17} \frac{50}{27} \frac{74}{27} \frac{82}{22}$

$\frac{48}{41} \frac{49}{23} \frac{55}{18} \frac{50}{8} \frac{48}{9} \frac{49}{16} \frac{51}{21} \frac{69}{21} \frac{74}{50}$

$\frac{58}{50} \frac{56}{27} \frac{60}{19} \frac{54}{9} \frac{51}{9} \frac{52}{16} \frac{54}{20} \frac{65}{26} \frac{65}{32} \frac{90}{39} \frac{50}{50}$

$\frac{64}{30} \frac{65}{27} \frac{61}{22} \frac{59}{16} \frac{55}{23} \frac{70}{32} \frac{70}{40} \frac{37}{40} \frac{53}{50}$

$\frac{86}{50} \frac{74}{49} \frac{68}{33} \frac{63}{29} \frac{55}{55} \frac{55}{16} \frac{67}{20} \frac{77}{50}$

$\frac{70}{50} \frac{66}{38} \frac{55}{21} \frac{55}{55} \frac{57}{18} \frac{69}{26} \frac{74}{50}$

$\frac{66}{50} \frac{57}{18} \frac{56}{23} \frac{57}{50} \frac{59}{50}$

$\frac{45}{50} \frac{61}{25} \frac{57}{23} \frac{52}{23} \frac{53}{50}$

