

FED. ROAD DIST. N ^o	STATE	FED. AID PROJ. N ^o	FISCAL YEAR
10	OHIO	169	1920

I.C.H. N^o 145 SEC K
HOLMES COUNTY

1
10

FILE NO.
#498

STATE HIGHWAY DEPARTMENT OF OHIO
BUREAU OF CONSTRUCTION
SEC-K- MANSFIELD MILLERSBURG ROAD
I.C.H. N^o 145 PET. N^o 3943
HOLMES COUNTY
WASHINGTON TOWNSHIP 1920

INDEX

Title Page	p. 1
Typical Cross Sections	p. 2-6
Plans & Profile	p. 3-6
Cross Sections	p. 7-9
Summary Sheet	p. 10

The Standard Specifications of the State Highway Department of Ohio in force on date of contract will govern this improvement.

I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and that detours will be provided as shown on the plans and estimates.

Approved: *W. W. Purdy*
Date, 4-18-21 Resident Engineer.

Approved: *Walker G. Smith*
Date, 5-2-21 Division Engineer.

Approved: *Ett S. Smith*
Date, 5-4-1921 Chief Highway Engineer.

Approved: *Leon C. Gerich*
Date, 5/4/21 State Highway Commissioner.

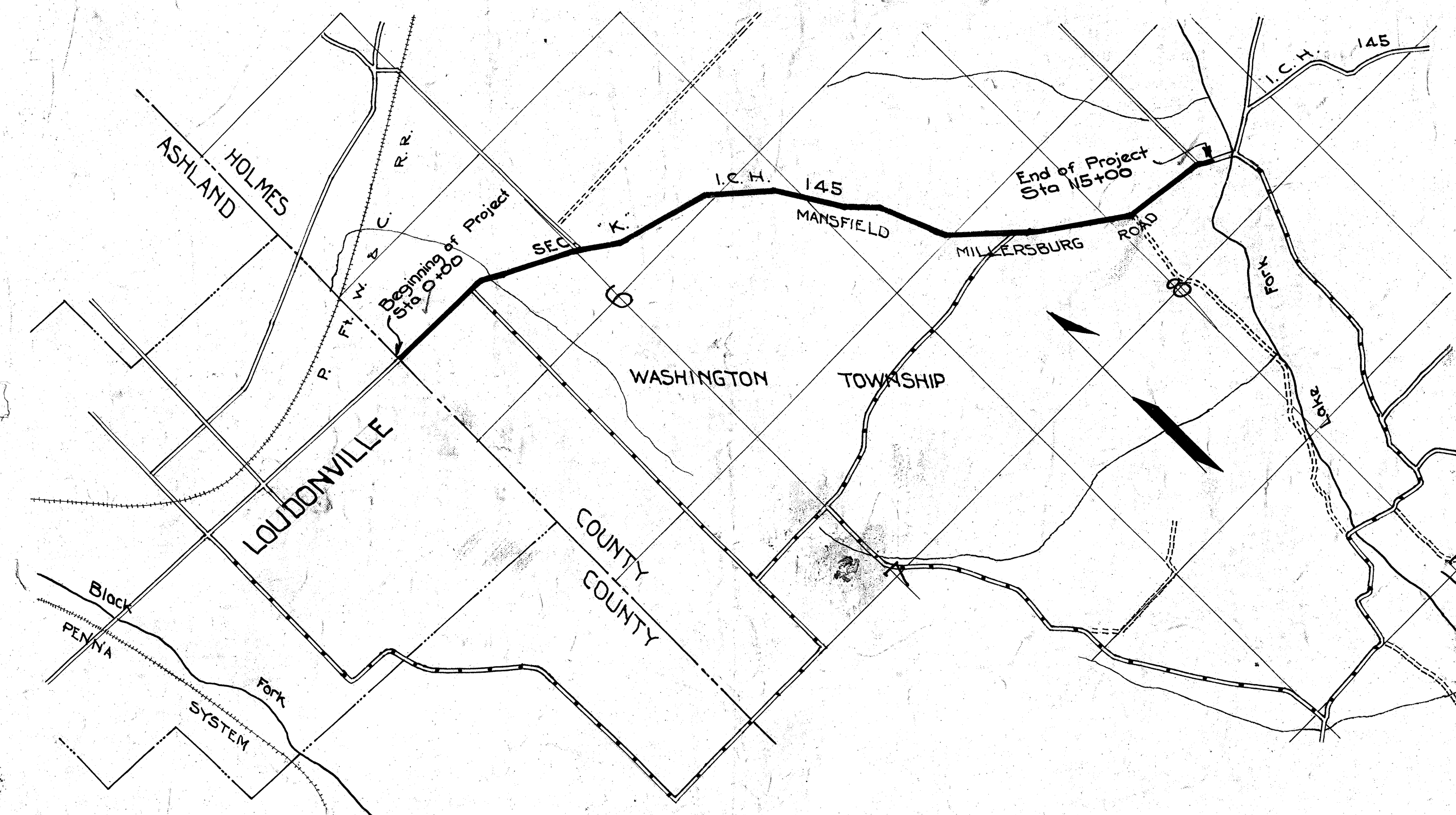
Recommended for Approval: _____
Date, _____ District Engineer
Bureau of Public Roads.

Recommended for Approval: _____
Date, _____ Chief Engineer
Bureau of Public Roads.

Approved: _____
Date, _____ Chief of Bureau.

CONVENTIONAL SIGNS

County Line	_____
Township Line	_____
Section Line	_____
Property Line not fenced	_____
Center Line	_____
Fence	_____
Steam Railroad	_____



We, the Commissioners of Holmes County hereby approve these plans and certify that the right-of-way 60' wide except as shown on plans, is available for the construction, maintenance and repair of the above highway.

John Burby
J. L. Lisle
Edw. Blase

Date, 4-18-21 County Commissioners

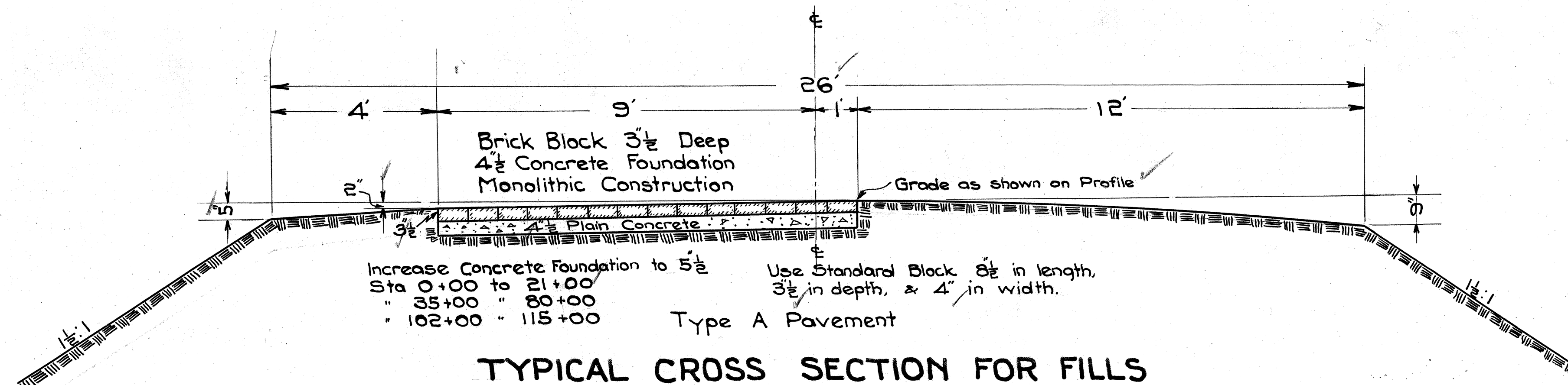
LOCATION PLAN

Scale 4" = 1 Mile
PORTION TO BE IMPROVED _____
DETOUR _____

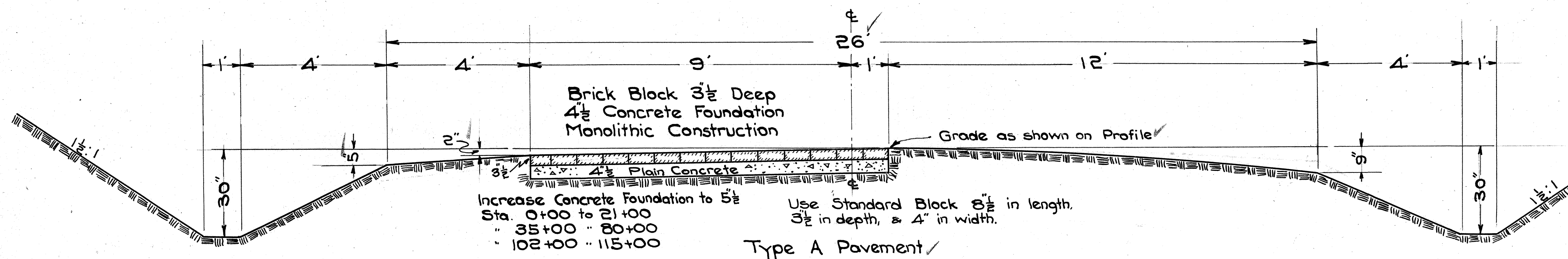
SCALES

Plan 1" = 100'
Profile (Horizontal) 1" = 100'
Profile (Vertical) 1" = 10'
Cross Sections 1" = 5'

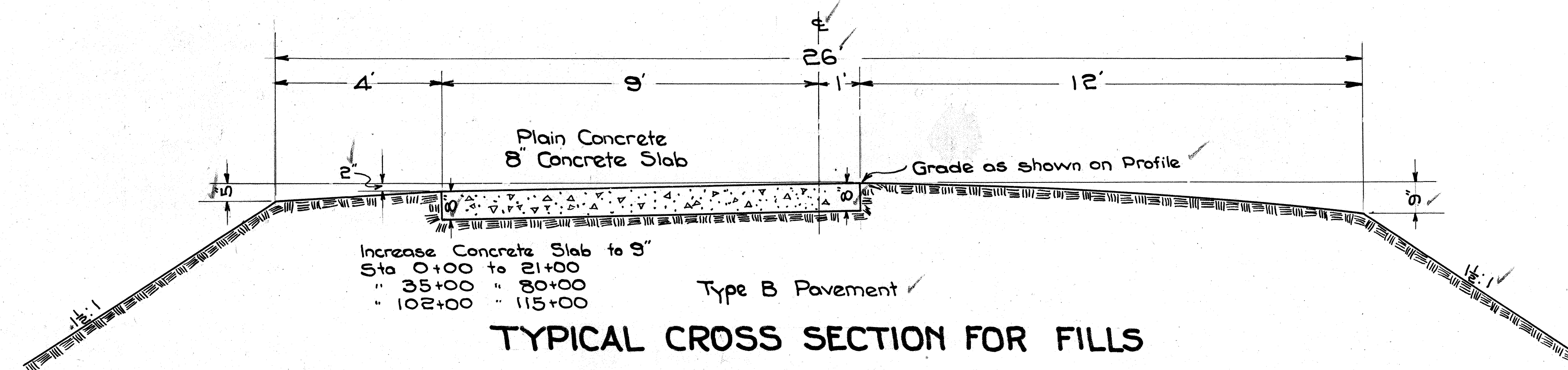
CONSTRUCTION BUREAU
NOV 27 1956
GROUND PHOTOLAB



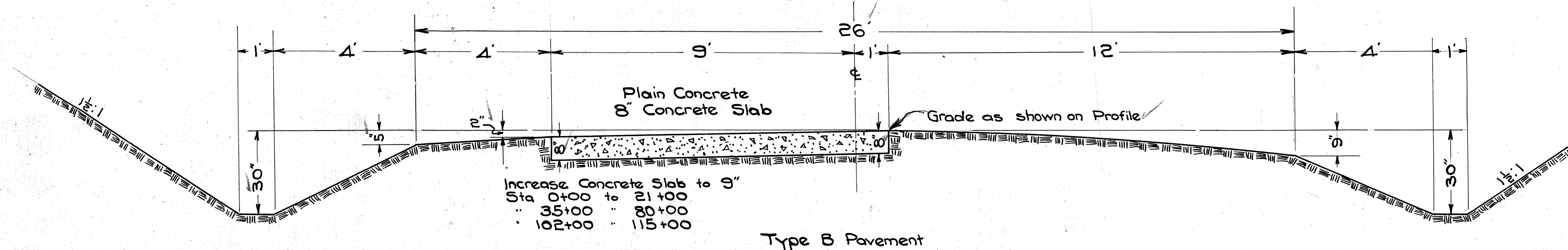
TYPICAL CROSS SECTION FOR FILLS



TYPICAL CROSS SECTION FOR CUTS



TYPICAL CROSS SECTION FOR FILLS



TYPICAL CROSS SECTION FOR CUTS

In order to secure proper alignment and grade, bolt holes shall be bored and the top of posts trimmed after the posts are set and the rails spiked to them.

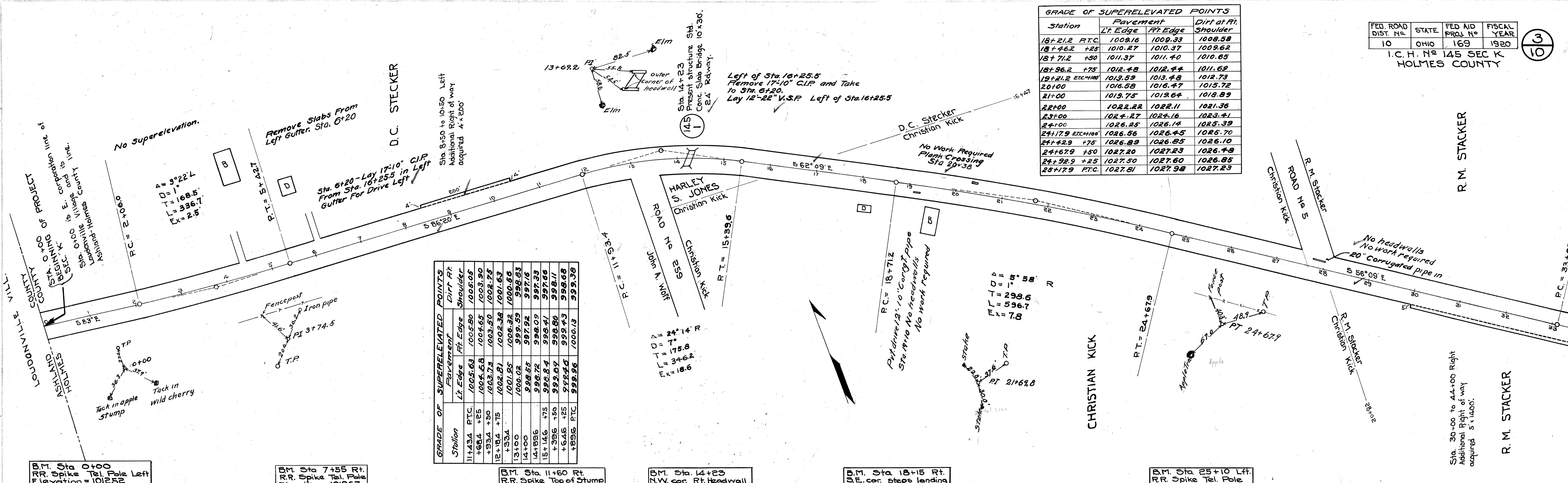
TYPE-E GUARD RAIL
STATE HIGHWAY DEPARTMENT
COLUMBUS, OHIO
FIG. 103 CUT No. 903

All surfaces in contact to be painted before assembling, and all exposed surfaces to have two (2) coats of white lead and linseed oil paint. Posts to be set vertical, in line parallel to grade line. Posts to be cut at top as shown on plan. Rails to be secured to posts as shown without splitting.

BILL OF MATERIALS FOR TWO PANELS	
2	Wood Rails 2" x 6"
2	Posts 6" x 7"
6	Carrage Bolts 3/4"
6	Washers 40d
6	Spikes 40d

Note: Pavement on all curves will be super-elevated. See tables on alignment sheets.

Station	Pavement		Dirt at Rt. Shoulder
	Lt. Edge	Rt. Edge	
18+21.2 R.T.C.	1009.16	1009.33	1008.58
18+46.2 +25	1010.27	1010.37	1009.62
18+71.2 +50	1011.37	1011.40	1010.65
18+96.2 +75	1012.48	1012.44	1011.69
19+21.2 ETC=1100	1013.59	1013.48	1012.73
20+00	1016.58	1016.47	1015.72
21+00	1019.57	1019.64	1018.89
22+00	1022.22	1022.11	1021.36
23+00	1024.27	1024.16	1023.41
24+00	1026.25	1026.14	1025.39
24+17.9 ETC=1100	1026.56	1026.45	1025.70
24+42.9 +75	1026.89	1026.85	1026.10
24+67.9 +50	1027.20	1027.23	1026.48
24+92.9 +25	1027.50	1027.60	1026.85
25+17.9 R.T.C.	1027.81	1027.98	1027.23



Station	Pavement Lt. Edge	Pavement Rt. Edge	Dirt at Rt. Shoulder
11+43.4 P.T.C.	1005.63	1005.80	1005.05
+58.4 +25	1004.68	1004.68	1003.90
+93.4 +50	1003.74	1003.50	1002.78
12+18.4 +75	1002.81	1002.38	1001.69
13+00	1001.85	1002.32	1000.56
14+00	1000.88	1001.92	999.59
14+89.6	999.85	999.72	998.09
15+14.6 +75	999.84	999.41	997.33
+39.6 +50	999.07	998.86	998.11
+64.6 +25	998.40	999.43	998.68
+89.6 P.T.C.	997.96	1000.13	999.39

B.M. Sta. 0+00
RR Spike Tel. Pole Left
Elevation = 1012.52

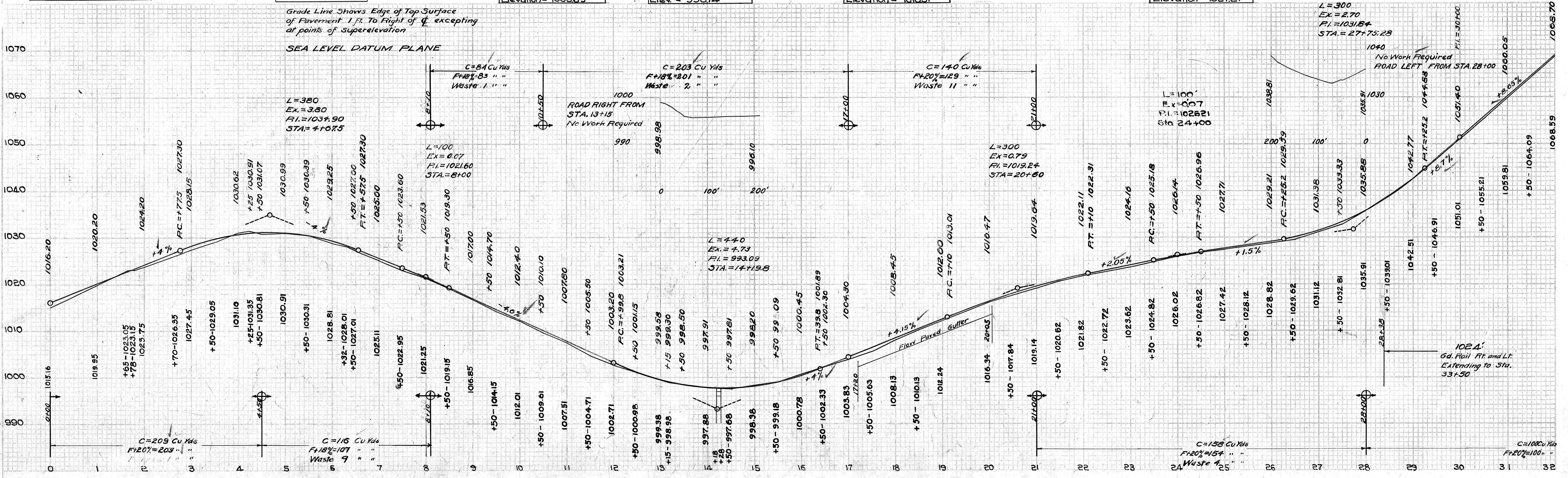
B.M. Sta. 7+55 R.T.
RR Spike Tel. Pole
Elevation = 1019.67

B.M. Sta. 11+60 R.T.
RR Spike Top of Stump
Elevation = 1003.69

B.M. Sta. 14+23
M.W. cor. Rt. Headwall
Elev. = 998.74

B.M. Sta. 18+15 R.T.
S.E. cor. steps landing
Elevation = 1010.51

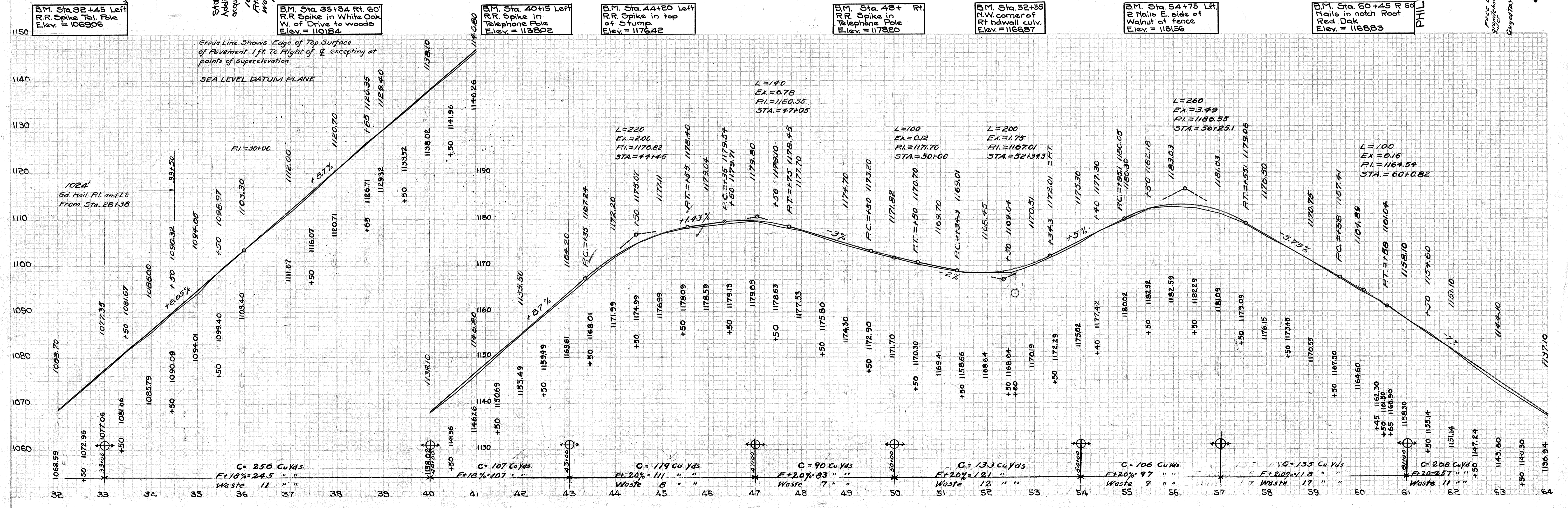
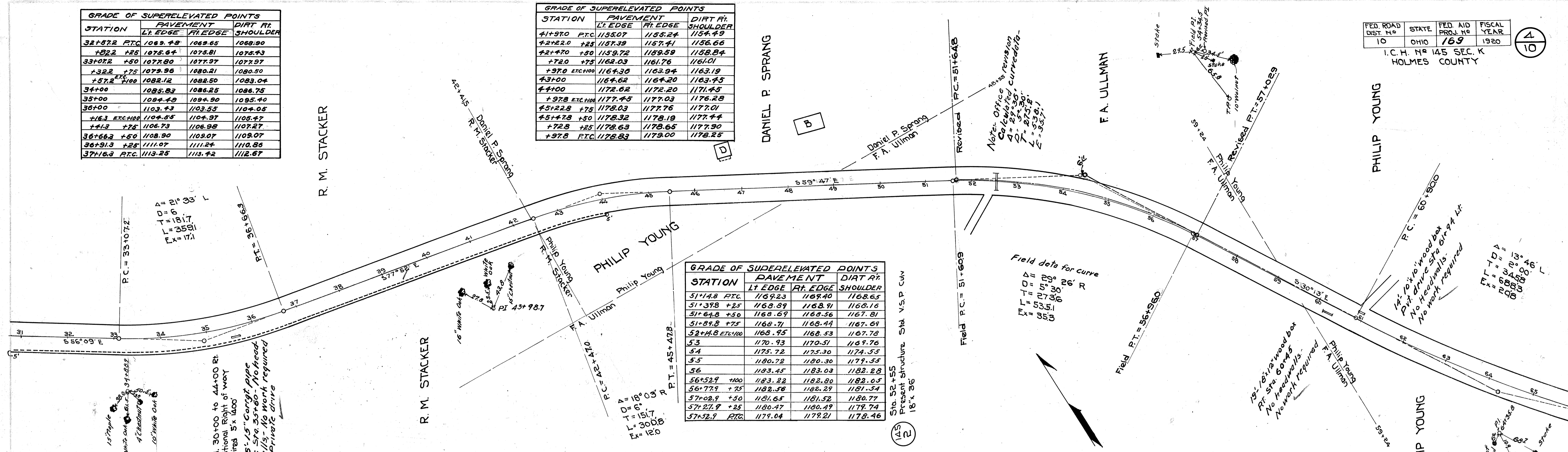
B.M. Sta. 25+10 L.T.
RR Spike Tel. Pole
Elevation = 1027.21



STATION	PAVEMENT		DIRT RT. SHOULDER
	Lt. EDGE	Rt. EDGE	
32+57.2 P.T.C.	1069.48	1069.65	1068.90
+32.2 +25	1075.64	1075.81	1074.93
33+07.2 +50	1077.80	1077.97	1077.97
+32.2 +75	1079.96	1080.21	1080.50
+37.2 +100	1082.12	1082.50	1083.04
34+00	1085.23	1086.25	1086.75
35+00	1089.49	1091.90	1095.40
36+00	1103.43	1103.55	1104.05
+16.3 EXT. HUB	1104.55	1104.97	1105.47
+41.3 +75	1106.73	1106.98	1107.27
36+66.3 +50	1108.90	1109.07	1109.07
36+91.3 +25	1111.07	1111.24	1110.86
37+16.3 P.T.C.	1113.25	1113.42	1112.67

STATION	PAVEMENT		DIRT RT. SHOULDER
	Lt. EDGE	Rt. EDGE	
41+97.0 P.T.C.	1155.07	1155.24	1154.49
+2+22.0 +25	1157.39	1157.41	1156.66
+2+47.0 +50	1159.72	1159.59	1158.84
+72.0 +75	1162.03	1161.76	1161.01
+97.0 EXT. HUB	1164.30	1163.94	1163.19
+3+00	1164.62	1164.20	1163.45
+4+00	1172.62	1172.20	1171.45
+97.8 EXT. HUB	1177.45	1177.03	1176.28
+5+22.8 +75	1178.03	1177.76	1177.01
+5+47.8 +50	1178.32	1178.19	1177.44
+72.8 +25	1178.63	1178.65	1177.90
+97.8 P.T.C.	1178.83	1179.00	1178.25

STATION	PAVEMENT		DIRT RT. SHOULDER
	Lt. EDGE	Rt. EDGE	
51+4.8 P.T.C.	1169.23	1169.40	1168.65
51+39.8 +25	1168.39	1168.41	1168.16
51+64.8 +50	1168.57	1168.36	1167.81
51+89.8 +75	1168.71	1168.44	1167.69
52+14.8 EXT. HUB	1168.95	1168.53	1167.78
53	1170.93	1170.51	1169.76
54	1175.72	1175.30	1174.53
55	1180.72	1180.30	1179.55
56	1183.45	1183.03	1182.28
56+52.9 +100	1183.22	1182.80	1182.05
56+77.9 +75	1182.36	1182.29	1181.54
57+02.9 +50	1181.65	1181.52	1180.77
57+27.9 +25	1180.47	1180.49	1179.74
57+52.9 P.T.C.	1179.04	1178.21	1178.46



Field data for curve
 $\Delta = 29^\circ 26' R$
 $D = 52.90$
 $T = 27.30$
 $L = 53.51$
 $E = 35.3$

12" dia wood box
 Rt. Sta 60+45
 No headwalls -
 No work required

14" dia wood box
 Ditch drive Sta 60+94.4
 No headwalls -
 No work required

Field data for curve
 $\Delta = 13^\circ 46' L$
 $D = 34.00$
 $T = 16.83$
 $L = 20.00$

B.M. Sta 32+45 Left
 R.R. Spike Tail Pole
 Elev. = 1069.06

Sta 30+00 to 44+00 Ext
 Additional Right of way
 acquired 5' x 100'
 16" dia corrug pipe
 Rt. Sta 35+60 - No head-
 walls - No work required
 Private drive

B.M. Sta 36+34 Rt. 60
 R.R. Spike in White Oak
 1/2 of Drive to woods
 Elev. = 1101.84

B.M. Sta 40+15 Left
 R.R. Spike in
 Telephone Pole
 Elev. = 1138.02

B.M. Sta 44+20 Left
 R.R. Spike in top
 of Stump.
 Elev. = 1176.42

B.M. Sta 48+ Rt
 R.R. Spike in
 Telephone Pole
 Elev. = 1178.80

B.M. Sta 52+55
 N.W. corner of
 Rt hdwall culv.
 Elev. = 1166.87

B.M. Sta 54+75 Lft
 2 Nails E. side of
 Walnut at fence
 Elev. = 1181.56

B.M. Sta 60+45 R 80
 Nails in notch Root
 Red Oak
 Elev. = 1168.83

L=140
 EX=6.78
 PI=1160.55
 STA=47+05

L=220
 EX=2.00
 PI=1176.82
 STA=44+45

L=100
 EX=0.12
 PI=1171.70
 STA=50+00

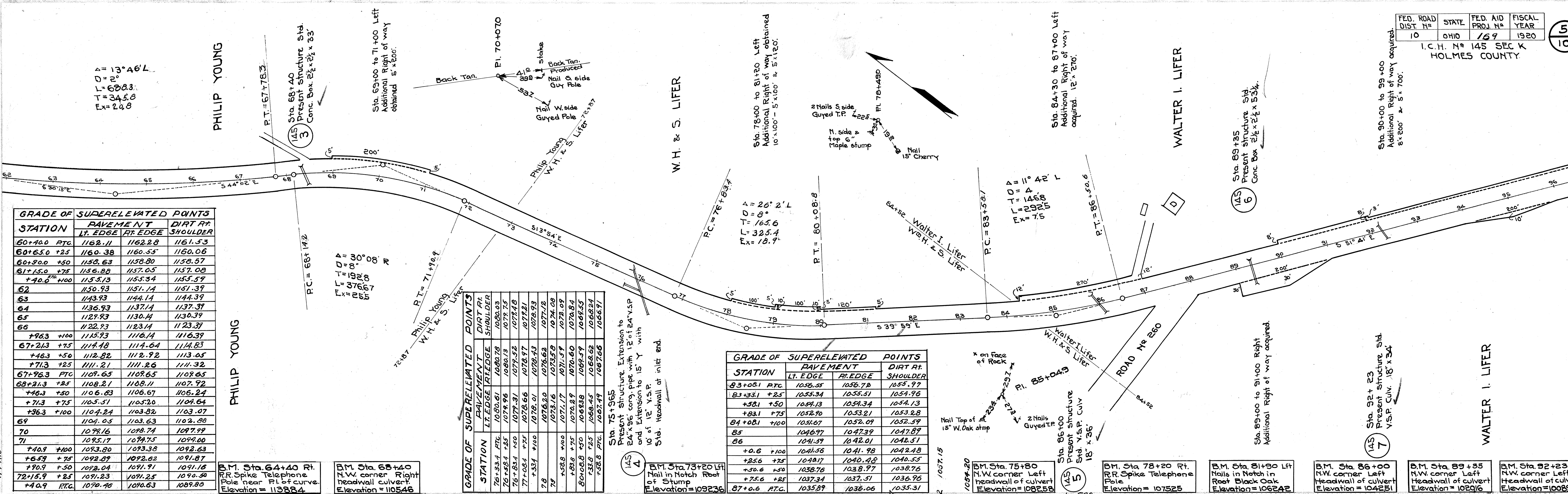
L=200
 EX=1.75
 PI=1167.01
 STA=52+34.3

L=260
 EX=3.49
 PI=1186.53
 STA=56+25.1

L=100
 EX=0.16
 PI=1164.54
 STA=60+08.2

Grade Line Shows Edge of Top Surface
 of Pavement 1 ft. To Right of Δ excepting at
 points of super-elevation
 SEA LEVEL DATUM PLANE

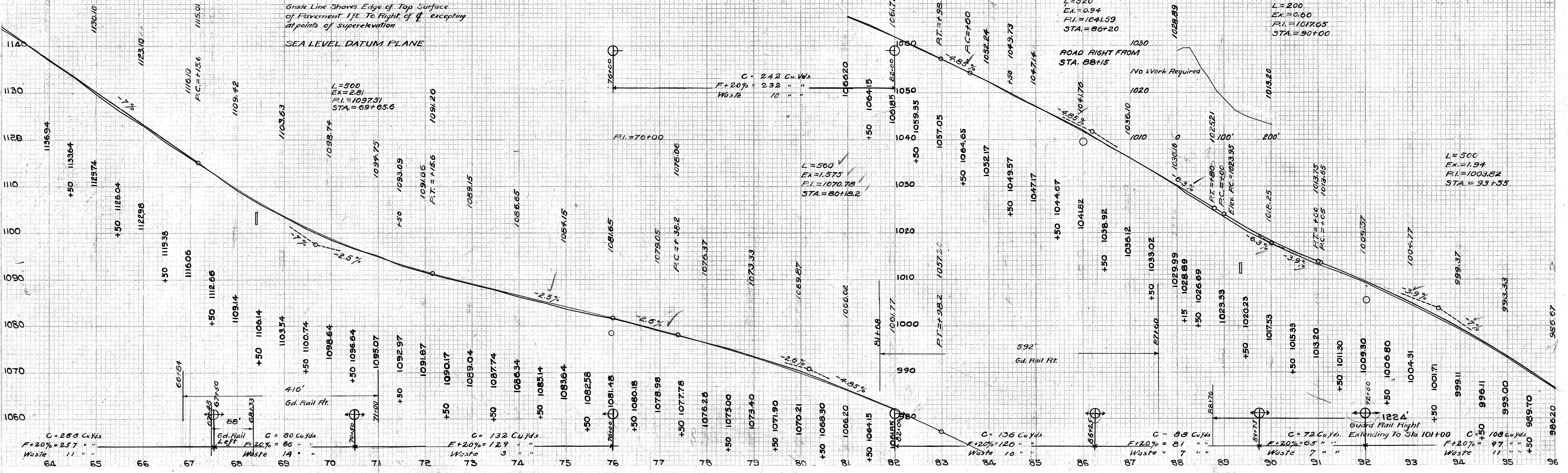
C = 256 Cu Yds. F+18% = 24.5 " " Waste 11 " "
 C = 107 Cu Yds. F+16% = 107 " " Waste 8 " "
 C = 119 Cu Yds. F+20% = 111 " " Waste 8 " "
 C = 90 Cu Yds. F+20% = 83 " " Waste 7 " "
 C = 133 Cu Yds. F+20% = 121 " " Waste 12 " "
 C = 106 Cu Yds. F+20% = 97 " " Waste 9 " "
 C = 135 Cu Yds. F+20% = 118 " " Waste 17 " "
 C = 268 Cu Yds. F+20% = 257 " " Waste 11 " "



STATION	GRADE OF SUPERELEVATED POINTS	
	PAVEMENT LT. EDGE	DIRT RT. SHOULDER
60+00 P.T.C.	1162.11	1161.53
60+65.0 +25	1160.38	1160.06
60+90.0 +50	1158.63	1158.57
61+15.0 +75	1156.88	1157.08
61+40.0 +100	1155.13	1155.59
62	1150.93	1151.39
63	1143.93	1144.39
64	1136.93	1137.39
65	1129.93	1130.39
66	1122.93	1123.39
+96.3 +100	1115.73	1116.39
67+21.3 +75	1114.48	1114.83
+46.3 +50	1112.82	1113.05
+71.3 +25	1111.21	1111.32
67+96.3 P.T.C.	1109.65	1109.65
68+21.3 +25	1108.21	1107.92
+46.3 +50	1106.83	1106.24
+71.3 +75	1105.51	1104.64
+96.3 +100	1104.24	1103.07
69	1104.03	1102.88
70	1099.16	1097.99
71	1095.10	1094.00
+40.9 +100	1093.87	1092.63
+65.9 +75	1092.87	1091.87
+90.9 +50	1092.04	1091.16
72+15.9 +25	1091.23	1090.50
+40.9 P.T.C.	1090.46	1089.80

STATION	GRADE OF SUPERELEVATED POINTS		
	PAVEMENT LEEDGE	DIRT RT. SHOULDER	DIRT RT. SHOULDER
76+33.4 P.T.C.	1090.61	1090.03	1090.03
76+68.4 +25	1089.96	1089.13	1089.13
76+83.4 +50	1089.31	1088.52	1088.52
77+08.4 +75	1088.66	1087.97	1087.97
+33.4 +100	1088.01	1087.43	1087.43
77	1087.36	1086.88	1086.88
+58.8 +75	1086.71	1086.29	1086.29
+83.8 +50	1086.06	1085.79	1085.79
+108.8 +25	1085.41	1085.32	1085.32
+133.8 P.T.C.	1084.76	1084.71	1084.71

STATION	GRADE OF SUPERELEVATED POINTS		
	PAVEMENT LT. EDGE	DIRT RT. SHOULDER	DIRT RT. SHOULDER
83+08.1 P.T.C.	1056.55	1056.79	1056.97
83+33.1 +25	1055.34	1055.51	1054.96
+58.1 +50	1054.13	1054.34	1054.13
+83.1 +75	1052.90	1053.21	1053.28
84+08.1 +100	1051.67	1052.09	1052.59
85	1046.97	1047.39	1047.89
86	1041.59	1042.01	1042.51
+0.6 +100	1040.56	1041.98	1042.48
+25.6 +75	1040.17	1040.48	1040.55
+50.6 +50	1038.76	1038.97	1038.76
+75.6 +25	1037.34	1037.51	1036.96
87+0.6 P.T.C.	1035.89	1036.06	1035.31



B.M. Sta. 64+40 R.I. RR Spike Telephone Pole near P.I. of curve. Elevation = 1138.84

B.M. Sta. 68+40 N.W. corner Right headwall culvert. Elevation = 1054.6

B.M. Sta. 73+20 L.H. Nail in Notch Root of Stump. Elevation = 1092.36

B.M. Sta. 75+80 N.W. corner Left headwall of culvert. Elevation = 1082.58

B.M. Sta. 78+20 R.I. RR Spike Telephone Pole. Elevation = 1075.25

B.M. Sta. 81+30 L.I. Nails in Notch in Root Black Oak. Elevation = 1062.42

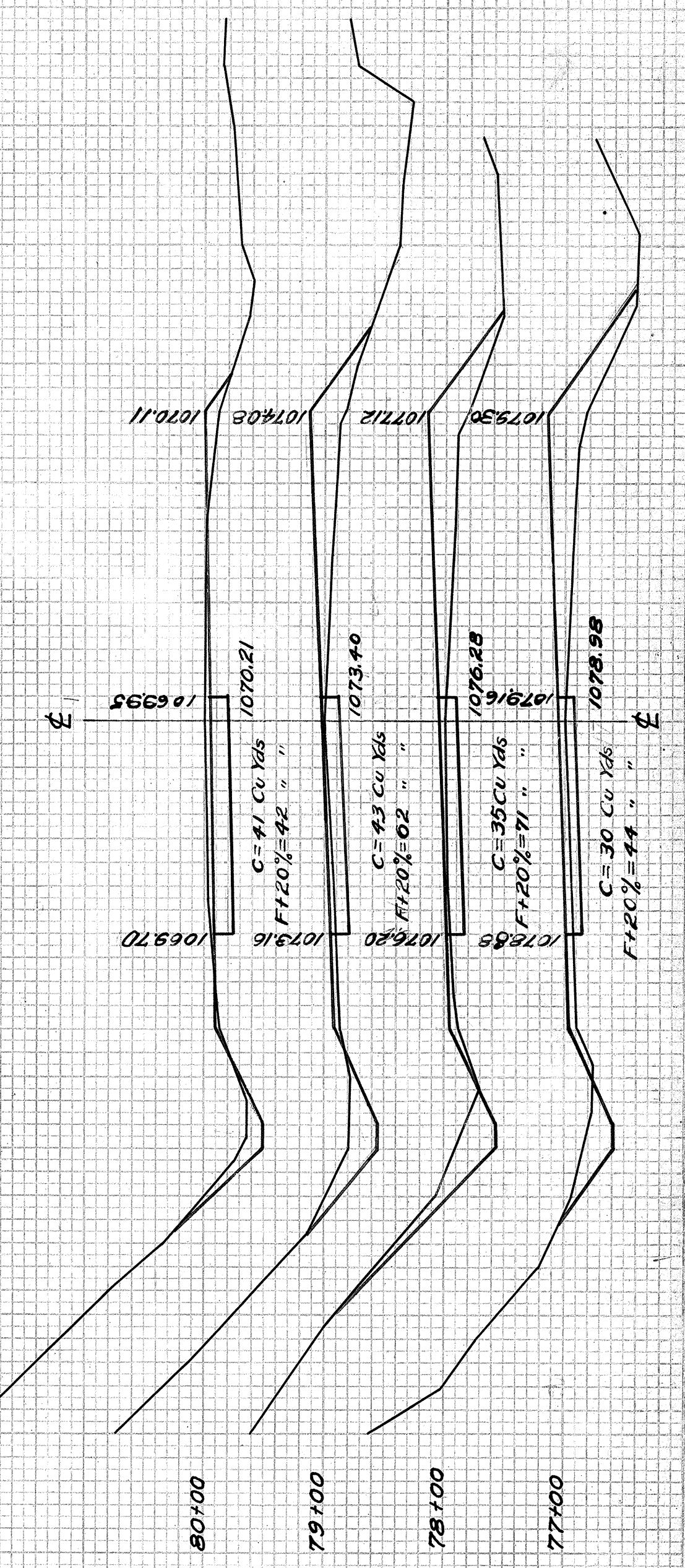
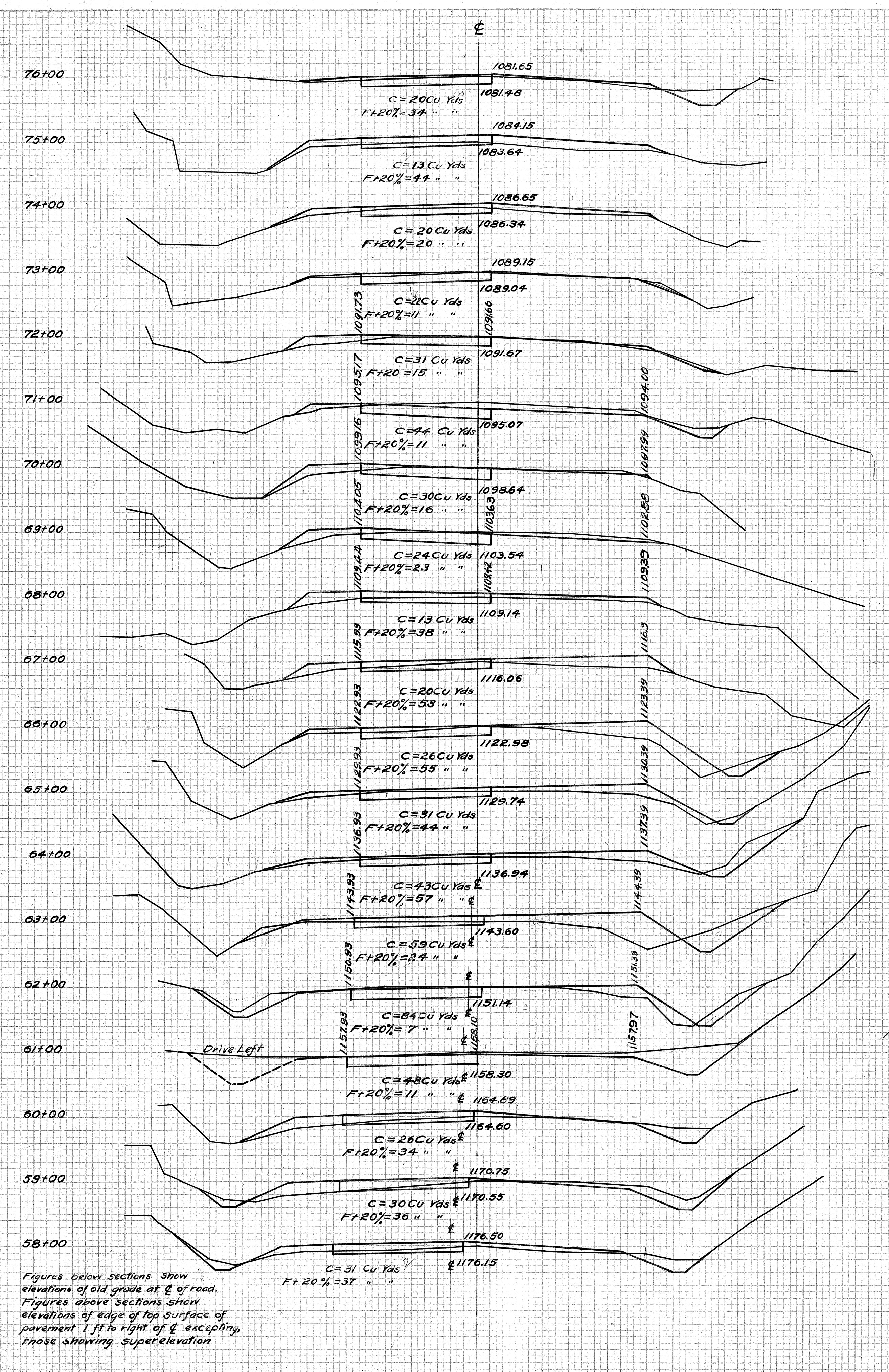
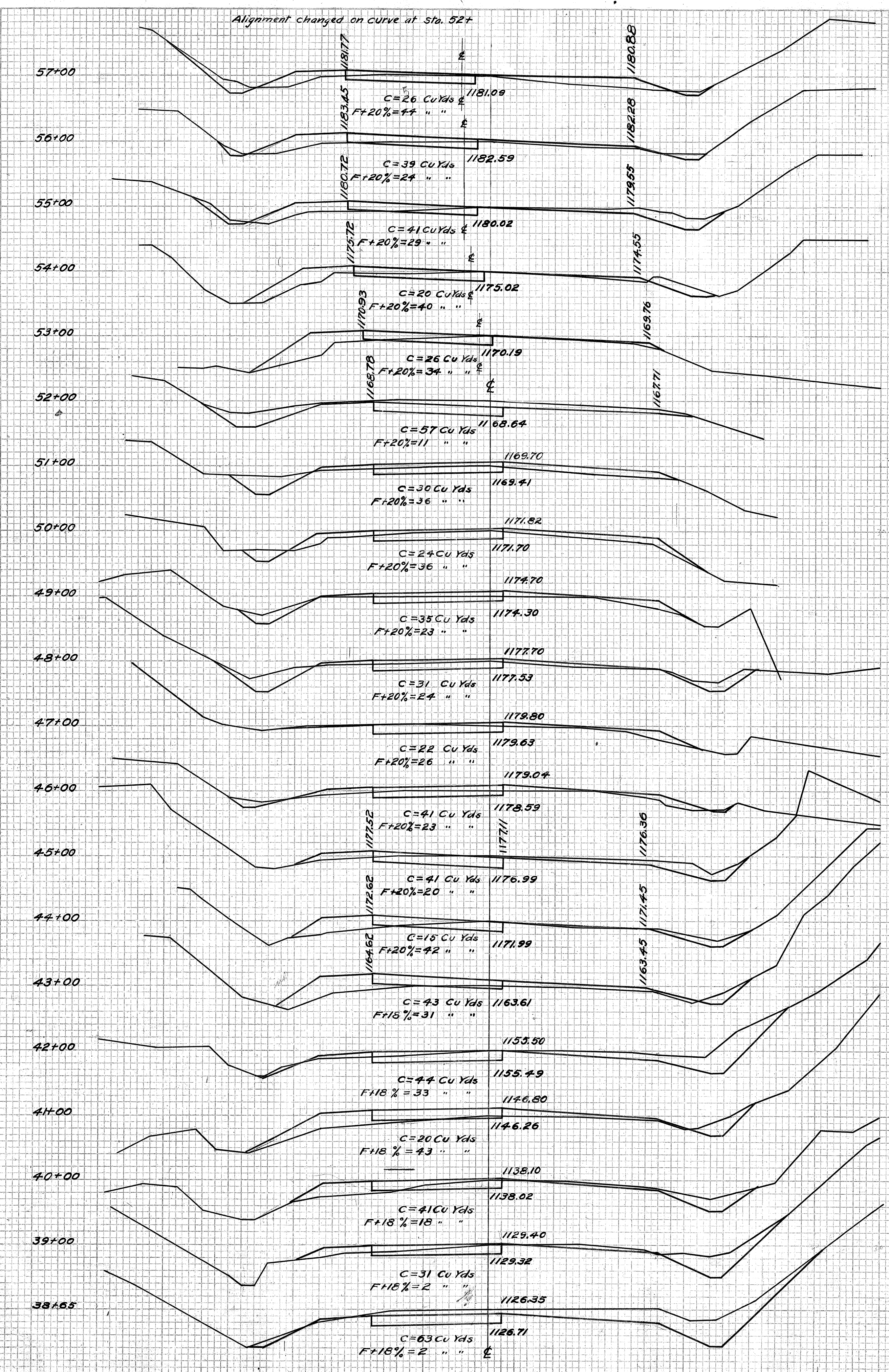
B.M. Sta. 86+00 N.W. corner Left headwall of culvert. Elevation = 1042.51

B.M. Sta. 89+35 N.W. corner Left headwall of culvert. Elevation = 1029.16

B.M. Sta. 92+23 N.W. corner Left headwall of culvert. Elevation = 1008.91

FINAL SURVEY SHEET
SURVEYED, PLOTTED, NOTE BOOK, TEMPLATE, CHECKED, NO.

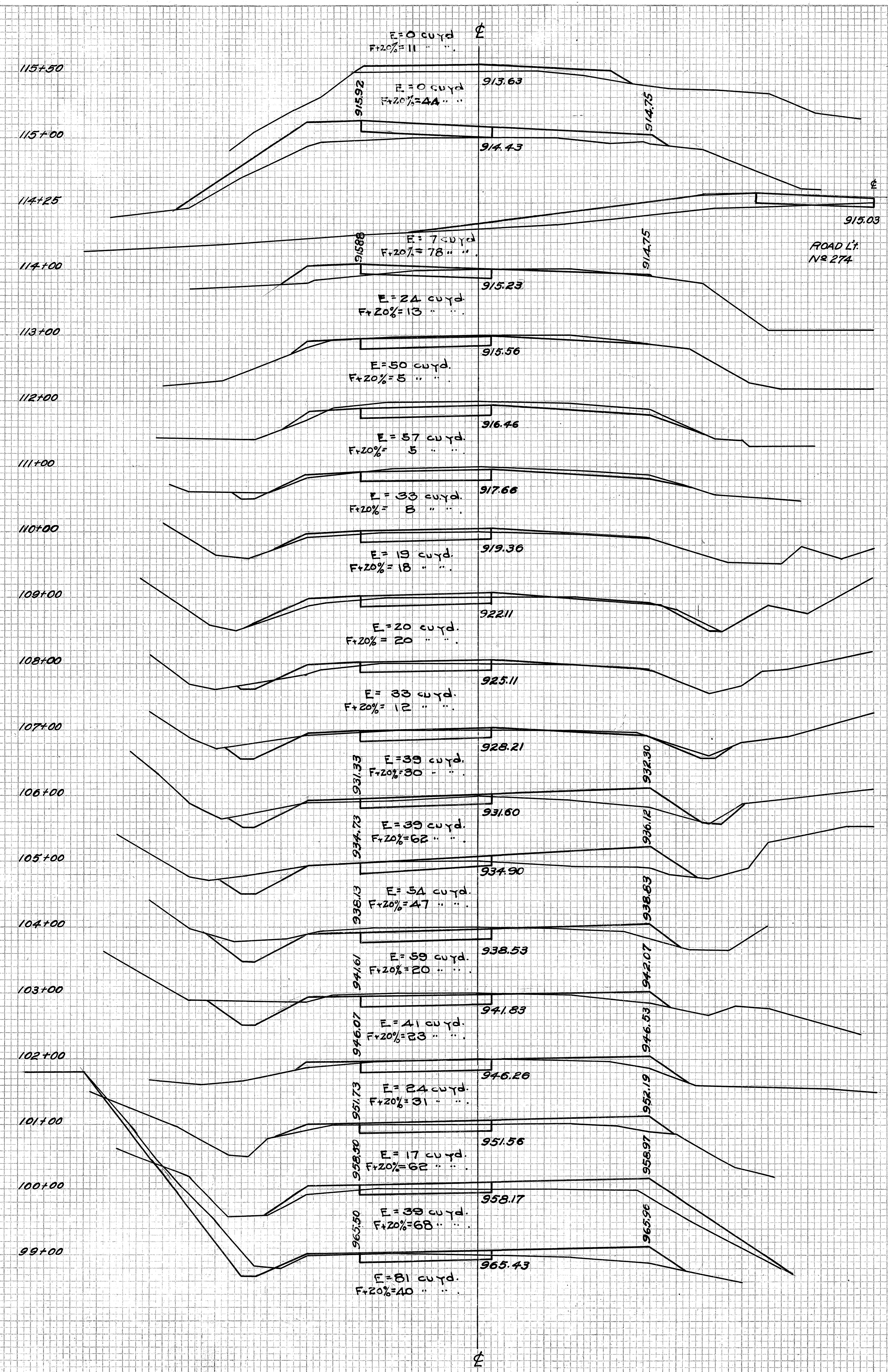
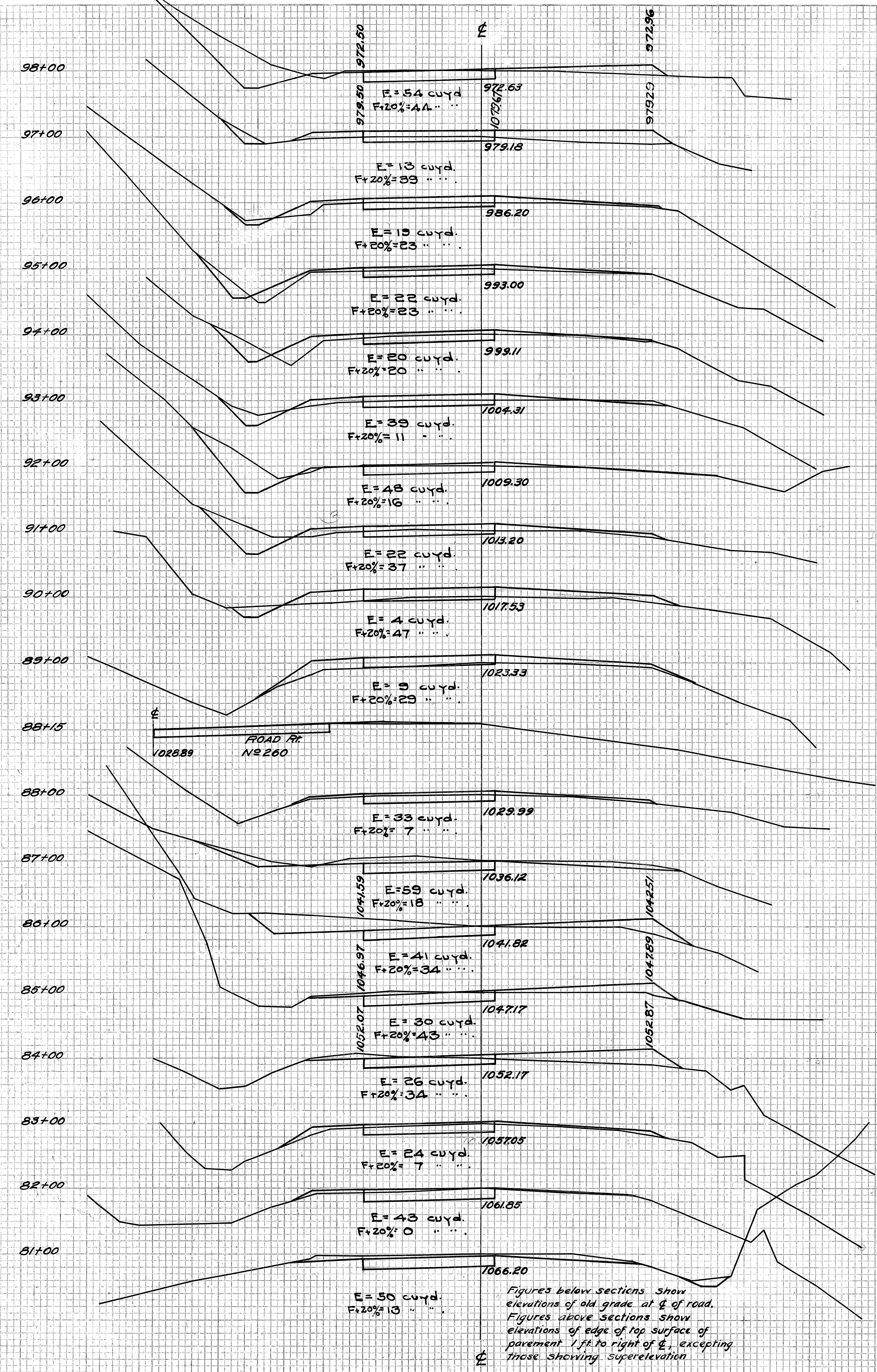
ORIGINAL SURVEY SHEET
SURVEYED, PLOTTED, NOTE BOOK, TEMPLATE, CHECKED, NO.



Figures below sections show elevations of old grade at CL of road. Figures above sections show elevations of edge of top surface of pavement 1 ft to right of CL excepting those showing super-elevation

FINAL SURVEY PLOTTED
NOTE BOOK NO. 10

DATE
NO. 10



Figures below sections show elevations of old grade at ϕ of road. Figures above sections show elevations of edge of top surface of pavement 1 ft. to right of ϕ , excepting those showing superelevation.

SUMMARY OF QUANTITIES

ROADWAY

Excavation	3,777 Cu.Yd.
Finishing Berms, Slopes and Ditches	11,500 Lin.Ft.
PAVEMENT TYPE "A"	
Monolithic Brick 10' wide Foundation 5½" Brick laid 3½" deep	8,778 Sq.Yd.
Monolithic Brick 10' wide Foundation 4½" Brick laid 3½" deep	4,000 Sq.Yd.
PAVEMENT TYPE "B"	
Plain Concrete 10' wide 9" thick	8,778 Sq.Yd.
Plain Concrete 10' wide 8" thick	4,000 Sq.Yd.
Guard Rail Type "E"	3,344 Lin.Ft.
Paved Gutter 6" Concrete	205 Sq.Yd.

STRUCTURES FOR PRIVATE DRIVES

Sta. 6+20 Left Lay 17'-10" C.I.P. to be taken from Sta 16+255 Left N° Headwalls

Sta. 16+255 Remove 17'-10" C.I.P. Lay 12'-22" V.S.P. N° Headwalls

Sta 107+24 Remove Shovel Mat from Left Gutter Lay 12'-12" V.S.P. No Headwalls

BRIDGES & CULVERTS

No work required. Drainage structures built with original grading contract.