

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

1

LOGAN COUNTY
LOG-33-10.85

LOG-33-10.85

N.Y.C. R.R. GRADE SEPARATION
LOGAN COUNTY

McARTHUR TOWNSHIP
HARRISON TOWNSHIP
LAKE TOWNSHIP
JEFFERSON TOWNSHIP

CONVENTIONAL SIGNS

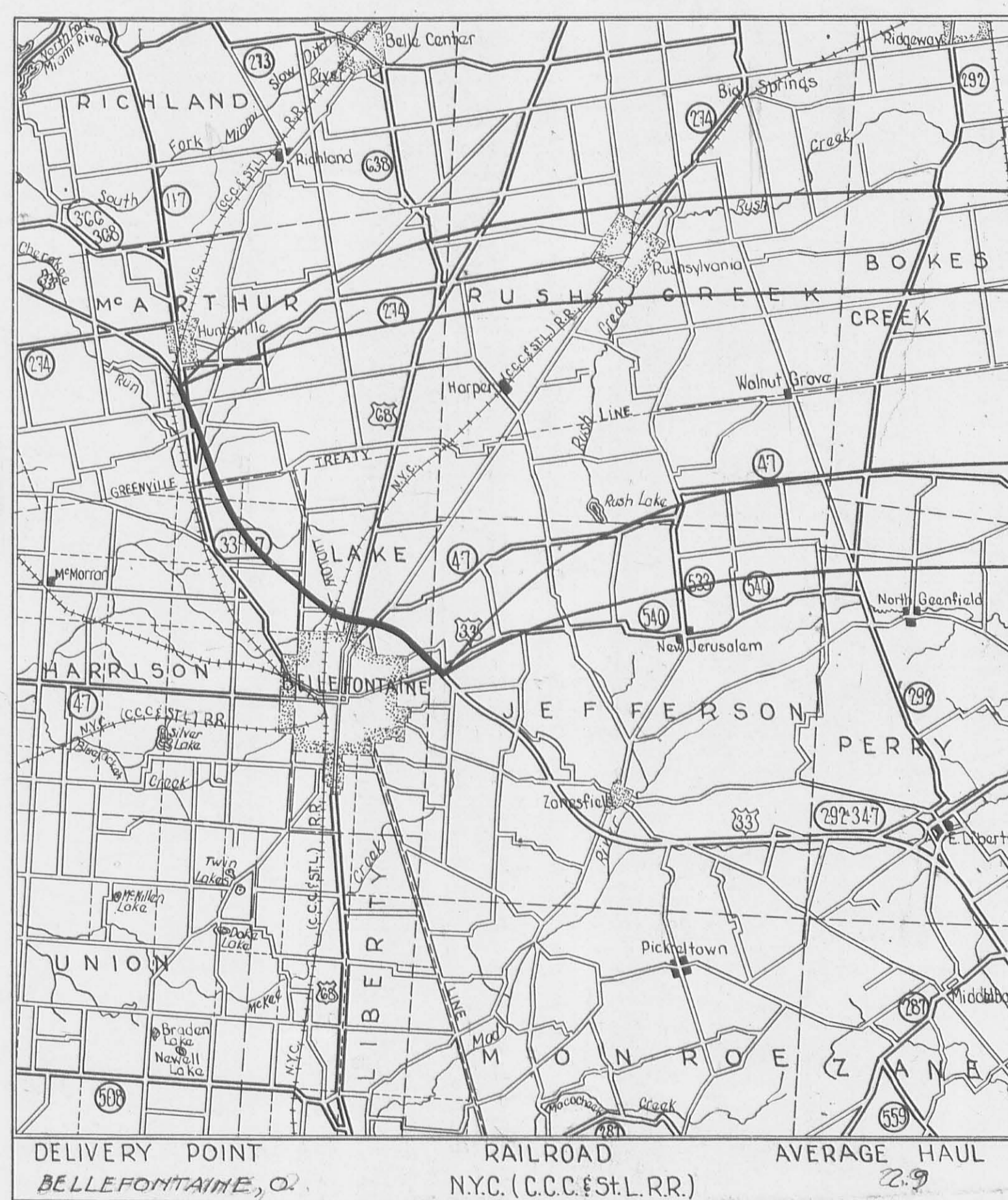
COUNTY LINE	-----
TOWNSHIP LINE	-----
SECTION LINE	-----
CORPORATION LINE	-----
PROPERTY LINE	-----
FENCE LINE	-----
CENTER LINE	-----
POLE LINE	-----
RAILROAD	-----
HEDGE	-----
DRAIN PIPE (NEW)	-----
DRAIN PIPE (OLD)	-----
GUARD RAIL (NEW)	-----
GUARD RAIL (OLD)	-----
TREES & STUMPS TO BE REMOVED	-----
R/W LINE (PROPOSED)	-----

LINE DATA

BEGIN WORK STA. 567+22.50
 BEGIN PROJECT STA. 574+16.86
 STATION EQUATION STA. 781+31.65 BACK = STA. 782+62.89 AHEAD
 STATION EQUATION STA. 902+83.12 BACK = STA. 904+56.29 AHEAD
 END PROJECT STA. 915+75
 END WORK STA. 917+50 34,723 LIN. FT.
 ADD FOR APPROACHES:
 EXISTING U.S.R. 33 SOUTH OF HUNTSVILLE 2,600 LIN. FT.
 BEGIN WORK STA. 648+00 ; END WORK STA. 674+00
 COUNTY ROAD #37 950 LIN. FT.
 BEGIN WORK STA. 15+00 ; END WORK STA. 24+50
 COUNTY ROAD #39 RELOCATION 955 LIN. FT.
 BEGIN WORK STA. 15+00 ; END WORK STA. 24+55
 TWP ROAD #57 750 LIN. FT.
 BEGIN WORK STA. 16+75 ; END WORK STA. 24+25
 TWP ROAD #218 RELOCATION 2407 LIN. FT.
 BEGIN WORK STA. 0+50 ; END WORK STA. 23+52
 TWP ROAD #56 500 LIN. FT.
 BEGIN WORK STA. 18+00 ; END WORK STA. 23+00
 TWP ROAD #217 RELOCATION 3,162 LIN. FT.
 BEGIN WORK STA. 1+57 ; END WORK STA. 33+00
 EXIST. U.S.R. #68 1,775 LIN. FT.
 BEGIN WORK STA. 496+50 ; END WORK STA. 514+25
 EX. ST. S.R. #274 173.5 LIN. FT.
 BEGIN WORK STA. 580+74.5 ; END WORK STA. 582+50
 Twp. Rd. #221 237.5 LIN. FT.
 BEGIN WORK STA. 7+50 ; END WORK STA. 9+87.5
 EXIST. U.S.R. #33 920 LIN. FT.
 BEGIN WORK STA. 1+00+50 ; END WORK STA. 1+00+50
 NET LENGTH OF PROJECT 33,922.73 LIN. FT. OR 6.42 MILES
 NET LENGTH OF WORK 19,148.59 LIN. FT. OR 9.31 MILES

INDEX OF SHEETS

TITLE SHEET	1	TWP. ROAD #57	2
SCHEMATIC PLAN	2	ROADSIDE PARKS	3-12
TYPICAL SECTIONS	13-14	TWP. ROAD #218 RELOCATION	15-24
GENERAL NOTES	25-30	TWP. ROAD #56	31-41
TABLES & CALCULATIONS	42-77	TWP. ROAD #217 RELOCATION	78-1
GENERAL SUMMARY		EXIST. U.S.R. #68	
DETAILS		EXIST. U.S.R. #68 INTERCHANGE	
PLAN & PROFILES		EXIST. S.R. #47	
X-SECTIONS		EXIST. U.S.R. #33 No. OF BELLEFONTAINE	
APPROACHES		STRUCTURE 20FT. SPAN & UNDER	
EXISTING U.S.R. 33 So. OF HUNTSVILLE		STRUCTURE OVER 20FT. SPAN	
INTERCHANGE So. OF HUNTSVILLE		CHANNEL SECTIONS	
COUNTY ROAD #37		R/W PLANS	
COUNTY ROAD #39 RELOCATION			

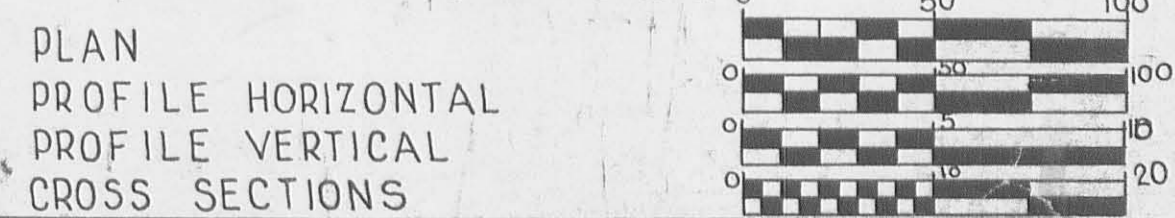


LOCATION PLAN

Scale: 1" = 2 Miles

PORTION TO BE IMPROVED
 STATE HIGHWAYS
 OTHER ROADS
 DETOUR

SCALES



STANDARD DRAWINGS

No	Date	No	Date

LIMITED ACCESS
 THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR OF HIGHWAYS IN ACCORDANCE WITH THE PROVISIONS OF SEC. 55.11.02 OF THE REVISED CODE OF OHIO.

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

THE RIGHT OF WAY NECESSARY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY TO TRAFFIC, EXCEPT AS NOTED ON SHEET No. AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

BEGIN PROJECT STA. 574+16.86	APPROVED DATE	_____	DIVISION DEPUTY DIRECTOR
	APPROVED DATE	_____	ENGINEER OF BRIDGES
END PROJECT STA. 915+75	APPROVED DATE	_____	ENGINEER OF LOCATION & DESIGN
	APPROVED DATE	_____	DEPUTY DIRECTOR OF DESIGN & CONSTRUCTION
	APPROVED DATE	_____	DEPUTY DIRECTOR OF RIGHT OF WAY
	APPROVED DATE	_____	DEPUTY DIRECTOR OF PLANNING & PROGRAMMING
	APPROVED DATE	_____	FIRST ASSISTANT DIRECTOR
	APPROVED DATE	_____	DIRECTOR OF HIGHWAYS

PRELIMINARY ISSUED

JUN 10 1964

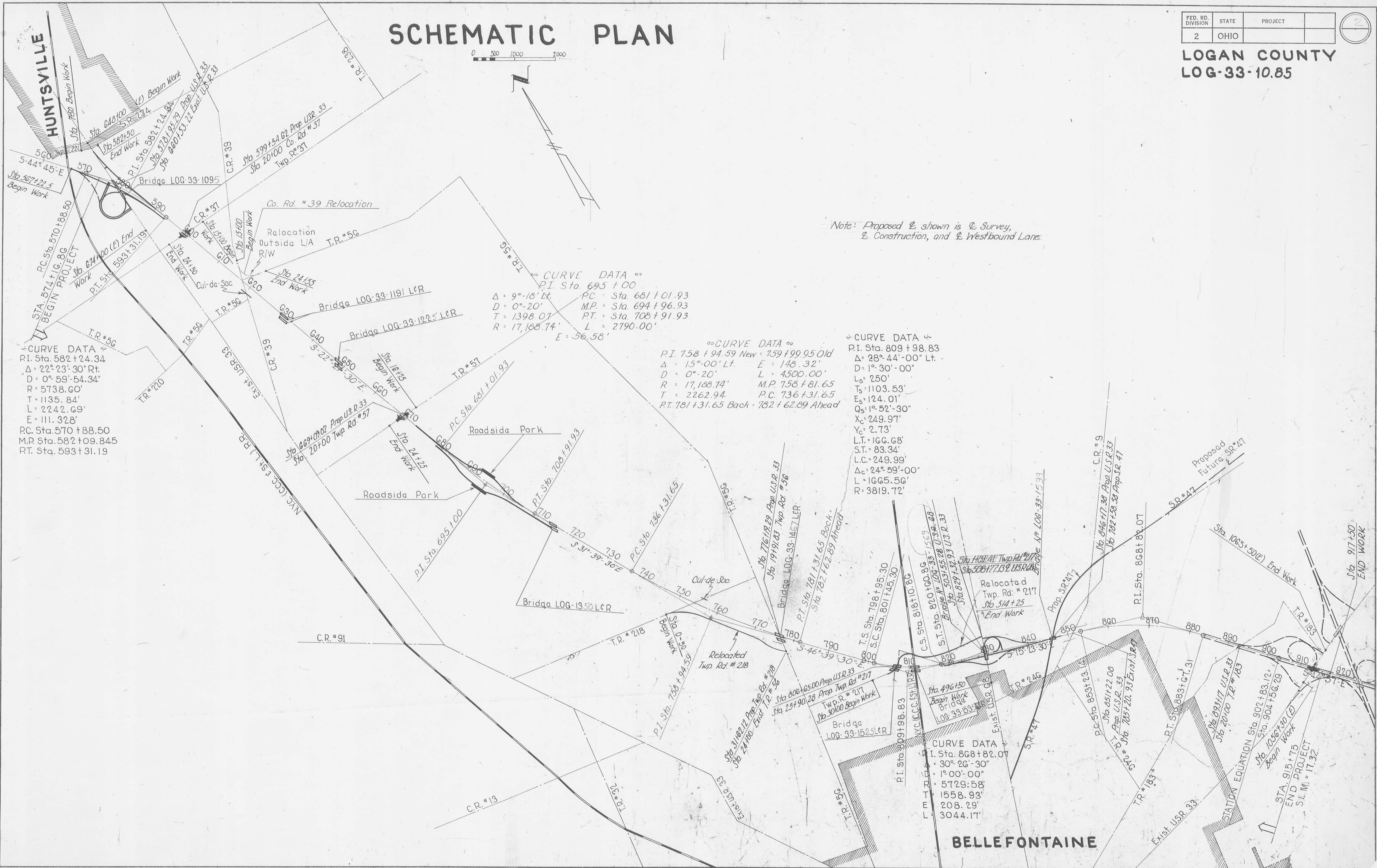
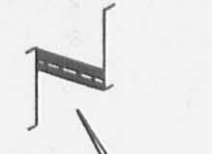
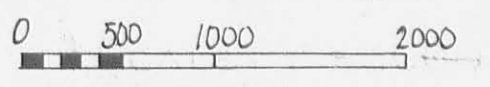
OHIO DEPT. HIGHWAYS
 DIV. 7, SIDNEY, OHIO

DEPARTMENT OF COMMERCE
 BUREAU OF PUBLIC ROADS

APPROVED: _____
 DIVISION ENGINEER DATE

I-48

SCHEMATIC PLAN



Note: Proposed \mathcal{L} shown is \mathcal{L} Survey,
 \mathcal{L} Construction, and \mathcal{L} Westbound Lane.

∞ CURVE DATA ∞
P.I. Sta. 582+24.34
 $\Delta = 22^\circ 23' 30''$ Rt.
D = 0° 59' 54.34"
R = 5738.60'
T = 1135.84'
L = 2242.69'
E = 111.328'
P.C. Sta. 570+88.50
M.P. Sta. 582+09.845
P.T. Sta. 593+31.19

∞ CURVE DATA ∞
P.I. Sta. 695+00
 $\Delta = 9^\circ 18' 14''$
D = 0° 20'
T = 1398.07'
R = 17,188.74'
E = 56.58'
P.C. Sta. 681+01.93
M.P. Sta. 694+96.93
P.T. Sta. 708+91.93
L = 2790.00'

∞ CURVE DATA ∞
P.I. Sta. 758+94.59 New = 759+99.95 Old
 $\Delta = 15^\circ 00' 00''$ Lt.
D = 0° 20'
R = 17,188.74'
T = 2262.94'
P.T. Sta. 781+31.65 Back = 782+62.89 Ahead
E = 148.32'
L = 4500.00'
M.P. 758+81.65
P.C. 736+31.65

∞ CURVE DATA ∞
P.I. Sta. 809+98.83
 $\Delta = 28^\circ 44' 00''$ Lt.
D = 1° 30' 00"
L = 250'
T_s = 1103.53'
E_s = 124.01'
Q_s = 1° 52' 30"
X_c = 249.97'
Y_c = 2.73'
L.T. = 166.68'
S.T. = 83.34'
L.C. = 249.99'
 $\Delta_c = 24^\circ 59' 00''$
L = 1665.56'
R = 3819.72'

CURVE DATA
P.I. Sta. 868+82.07
 $\Delta = 30^\circ 26' 30''$
D = 1° 00' 00"
T = 5729.58'
L = 1558.93'
E = 208.29'
L = 3044.17'

LOCATION PLAN



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	1964

LOGAN COUNTY
LOG-33~10.85
LIMITED ACCESS

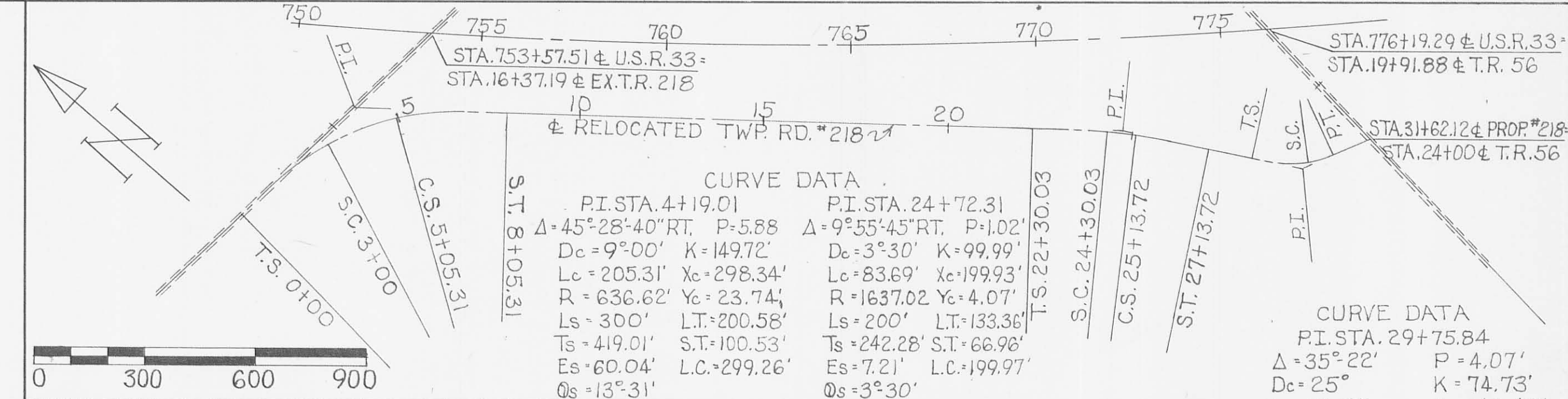
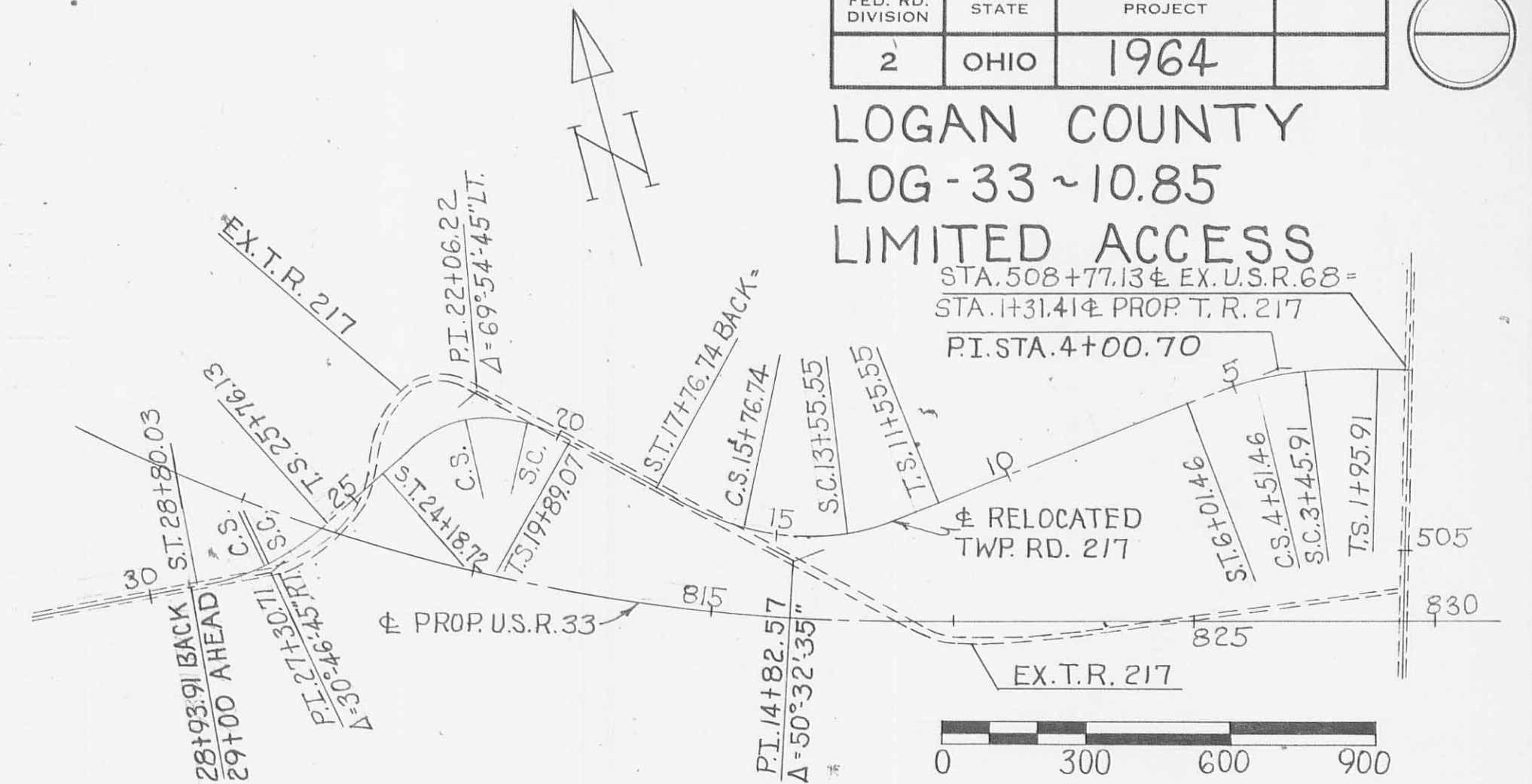
STA. 508+77.13 EX. U.S.R. 68
STA. 1+31.41 EX. PROP. T.R. 217
PI. STA. 4+00.70

CURVE DATA

PI. STA. 4+100.70	PI. STA. 14+82.57
Δ = 23°00'	Δ = 50°32'35"
Ls = 150'	Lt = 100.07
Dc = 9°00'	S.T. = 50.07'
Ts = 204.79'	Lc = 149.91'
Es = 14.5'	Ac = 9°30'
Os = 6°45'	Yc = 54.39'
P = 1.47'	Xc = 149.79'
K = 74.96'	Yc = 5.88'
	K = 99.85'

CURVE DATA

PI. STA. 22+06.22	PI. STA. 27+30.71
Δ = 69°54'45" LT.	Δ = 30°46'45"
R = 229.18'	Ls = 150'
P = 1.82'	Dc = 25°
L.S. = 100'	Lc = 129.65'
Ki = 4.992'	P2 = 7.22'
Yc1 = 7.25'	Ke = 9937'
Xc1 = 99.53'	Yc2 = 28.70'
Ts1 = 217.15'	Xc2 = 196.23'
	Os = 15°
	Lc = 3.90'
	Xc = 148.98'
	Yc = 13.03'



CURVE DATA

PI. STA. 582+24.34
Δ = 22°23'30" RT.
D = 0°59'54.34"
R = 5738.60'
T = 1135.84'
L = 2242.69'
E = 111.328'

PI. STA. 695+00.00

Δ = 9°18' LT.
D = 0°20'
R = 17188.74'
T = 1398.07'
L = 2790'
E = 56.58'

PI. STA. 758+94.59

Δ = 15°00' LT.
D = 0°20'
R = 17188.74'
T = 2262.94'
L = 4500'
E = 148.32'

PI. STA. 868+82.07

Δ = 30°26'30" RT.
D = 1°00'
R = 5729.58'
T = 1558.93'
L = 3044.17'
E = 208.29'

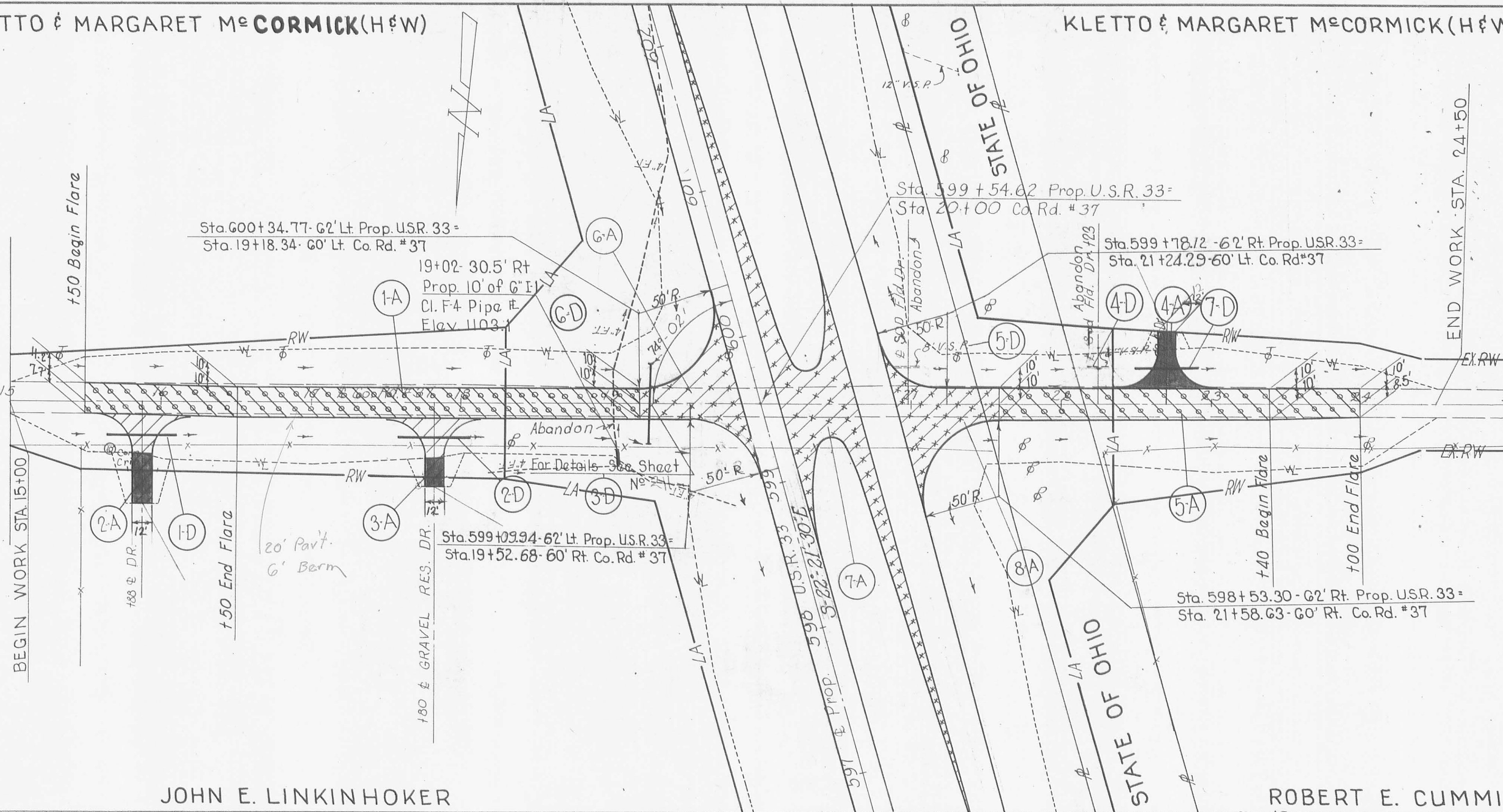
PI. STA. 809+98.83

Δ = 28°44'00" LT.	
Dc = 1°30'	Yc = 2.73'
Ls = 250'	Lt = 166.68'
Ts = 1103.53'	S.T. = 83.34'
Es = 124.01'	Lc = 249.99'
Os = 1°52'30"	Δc = 24°59'
Xc = 249.97'	L = 1665.56'
	Rc = 3819.72'

DATE RECORDED	APPROVED
VOL. _____	DATE _____
PAGE _____	RIGHT-OF-WAY ENGINEER DIVISION 7
	REGISTERED SURVEYOR N° 3128

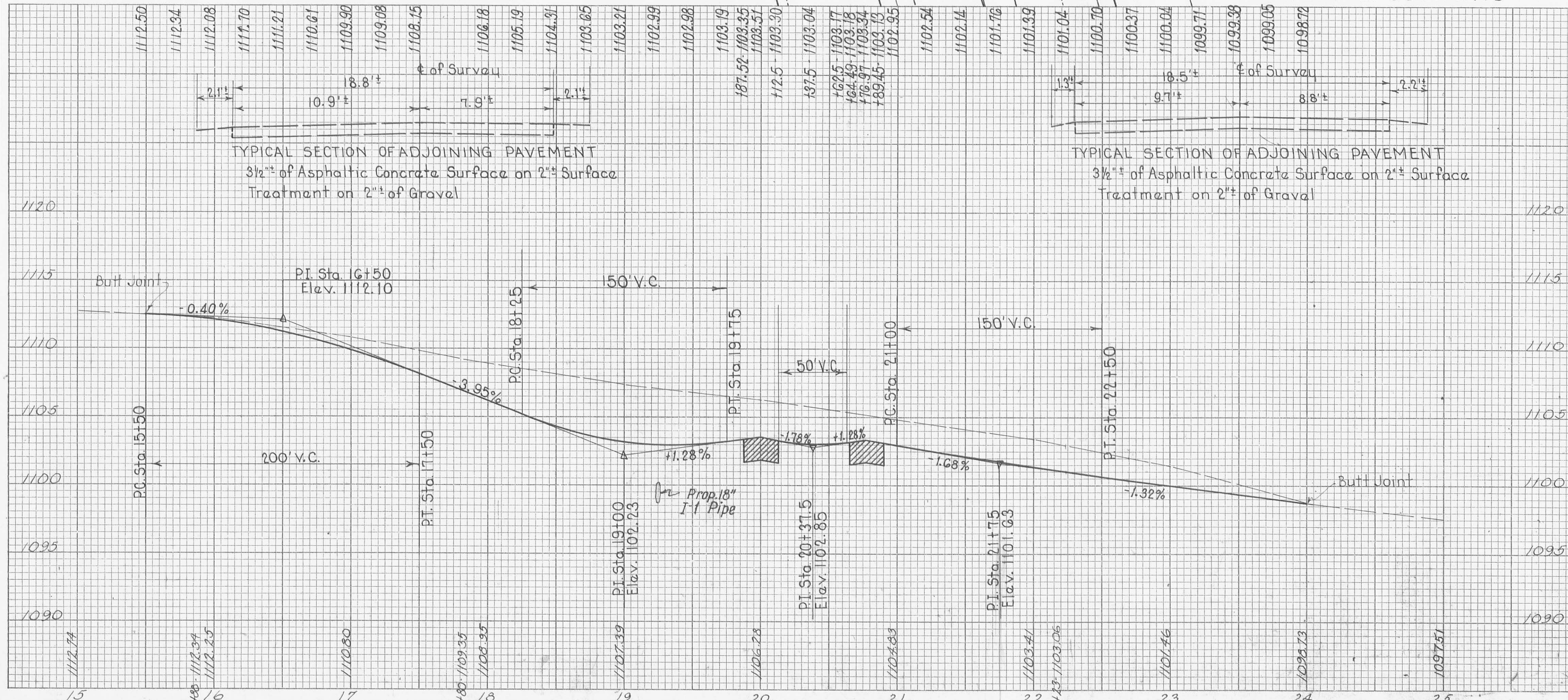
BEGIN SHEET

END SHEET



JOHN E. LINKINHOKER

ROBERT E. CUMMINS



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	TYPE	T-35 Asph. Conc Surface Course Cu. Yds.	T-30 Asph. Conc Bituminous Prime Coat Gals.	B-35 Asph. Conc Leveling Course Cu. Yds.	B-19 Subbase Aggregate Base Course Cu. Yds.	I-18 Aggr. for Shoulders Cu. Yds.	I-15 Pipe 15' Dia. Cl. F4 Lin. Ft.	I-11 Pipe 10' Dia. Cl. A1 Lin. Ft.	I-12 Pipe 15' Under 15' Under Lin. Ft.	F-1 12' Pipe Cl. F4 Lin. Ft.	E-12 Pipe 15' Under 15' Under Lin. Ft.	I-1 Pipe 10' Dia. Cl. A1 Lin. Ft.	I-2 Masonry Course Cu. Yd.	B-35 Asph. Conc Base Course Cu. Yd.	B-20 Waterbound Macadam Base Sq. Yds.	SEE SHEET NO.																		
1-A	15+50 to 19+18.34	Lt. Rt.		28.3	325.0	39.5	118.5	10.2																												
2-A	15+88 to 17+80	Rt.		3.9	28.0	10.3	10.3	5.7																												
3-A	17+80 to 21+58.63	Lt.		8.4	912.7	25.8	77.5	14.3																												
4-A	21+58.63 to 24+00	Lt.		8.4	121.7	12.7	65.0	10.2																												
5-A	15+50 to 16+11	Rt.		18.4	121.7	12.7	62.7	10.2																												
6-A	19+18.34 to 19+17.52	Lt.		8.4	28.0	10.3	60.7	5.7																												
7-A	20+12 to 20+64	Lt.		22.5	329.4	33.8	169.1	14.3																												
8-A	20+64 to 21+58.63	Lt.		8.4	121.7	12.7	60.7	14.3																												
1-D	15+65 to 16+11	Rt.							48																											
2-D	17+56 to 18+04	Rt.																																		
3-D	19+25 to 22+42	Lt.																																		
4-D	22+06 to 22+42	Lt.																																		
5-D	20+88 to 21+06	Lt.																																		
6-D	19+02 to 22+92	Rt.																																		
7-D	22+48 to 22+92	Lt.																																		
8-D	16+00 to 24+00	Lt. Rt.																																		
TOTALS TO CALCULATIONS																		46	14	58	0.60	14.63	25.4	308.1	68.9	846.5	25.4	308.1	14.63	46	32	58	0.60	11.94	14.63	
TOTALS TO GENERAL SUMMARY																		308	10	92	27.43	308	53	295	5.7	14.3	53	295	46	32	58	0.60	11.94	14.63	308	14.63

PLAN & PROFILE CO. RD. # 37 - Sta. 15+00 to Sta. 25+00

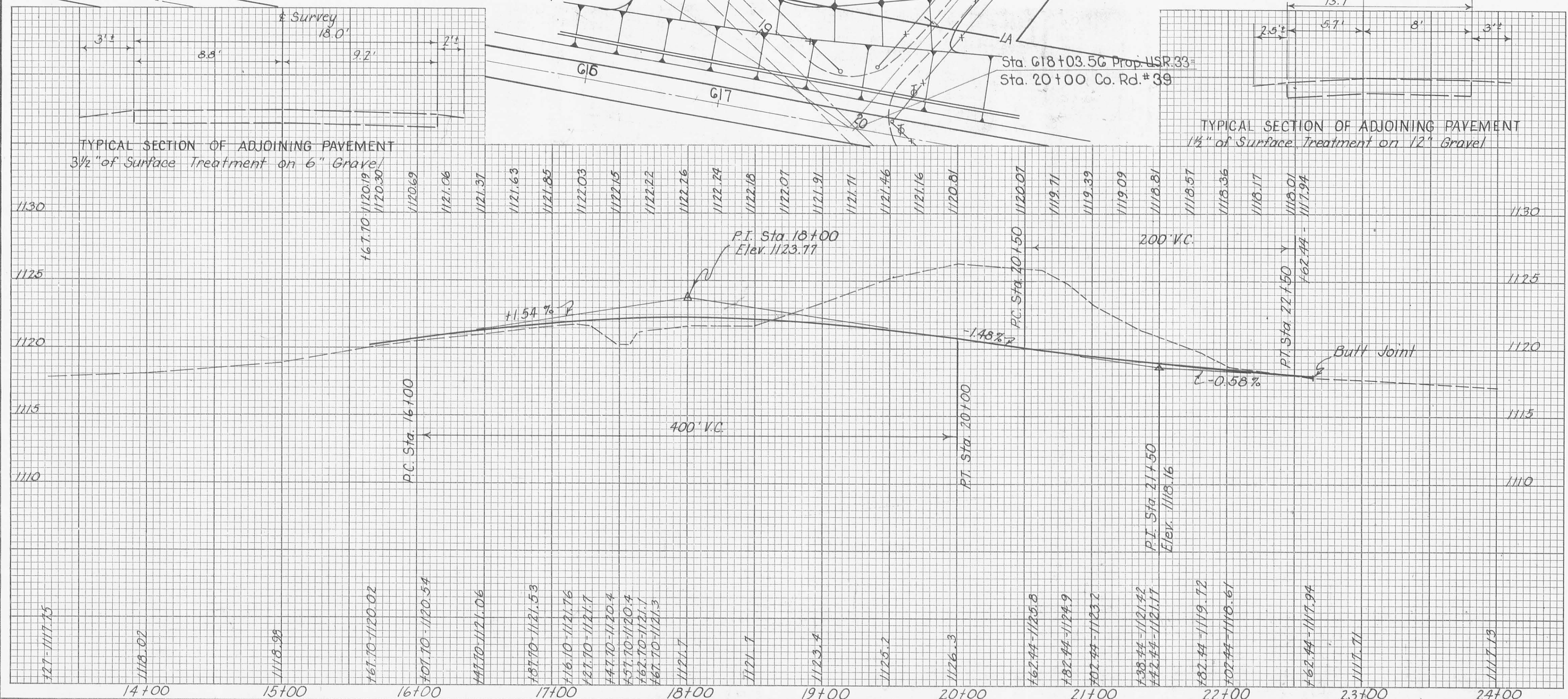
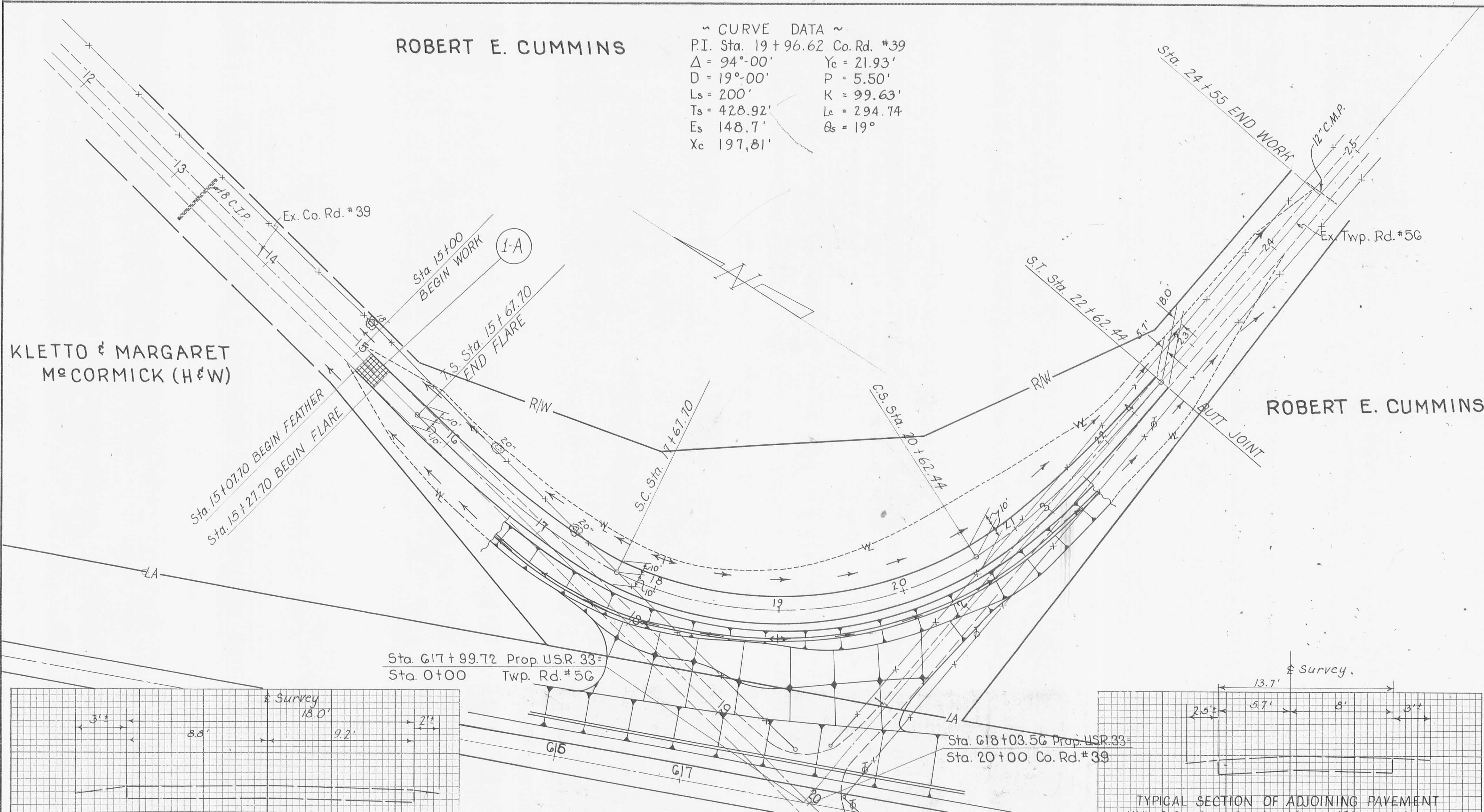
ROBERT E. CUMMINS

~ CURVE DATA ~
 P.I. Sta. 19+96.62 Co. Rd. #39
 $\Delta = 94^{\circ}00'$ $Y_c = 21.93'$
 $D = 19^{\circ}00'$ $P = 5.50'$
 $L_s = 200'$ $K = 99.63'$
 $T_s = 428.92'$ $L_c = 294.74'$
 $E_s = 148.7'$ $\theta_c = 19^{\circ}$
 $X_c = 197.81'$

LOGAN COUNTY
 LOG-33-10.85

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

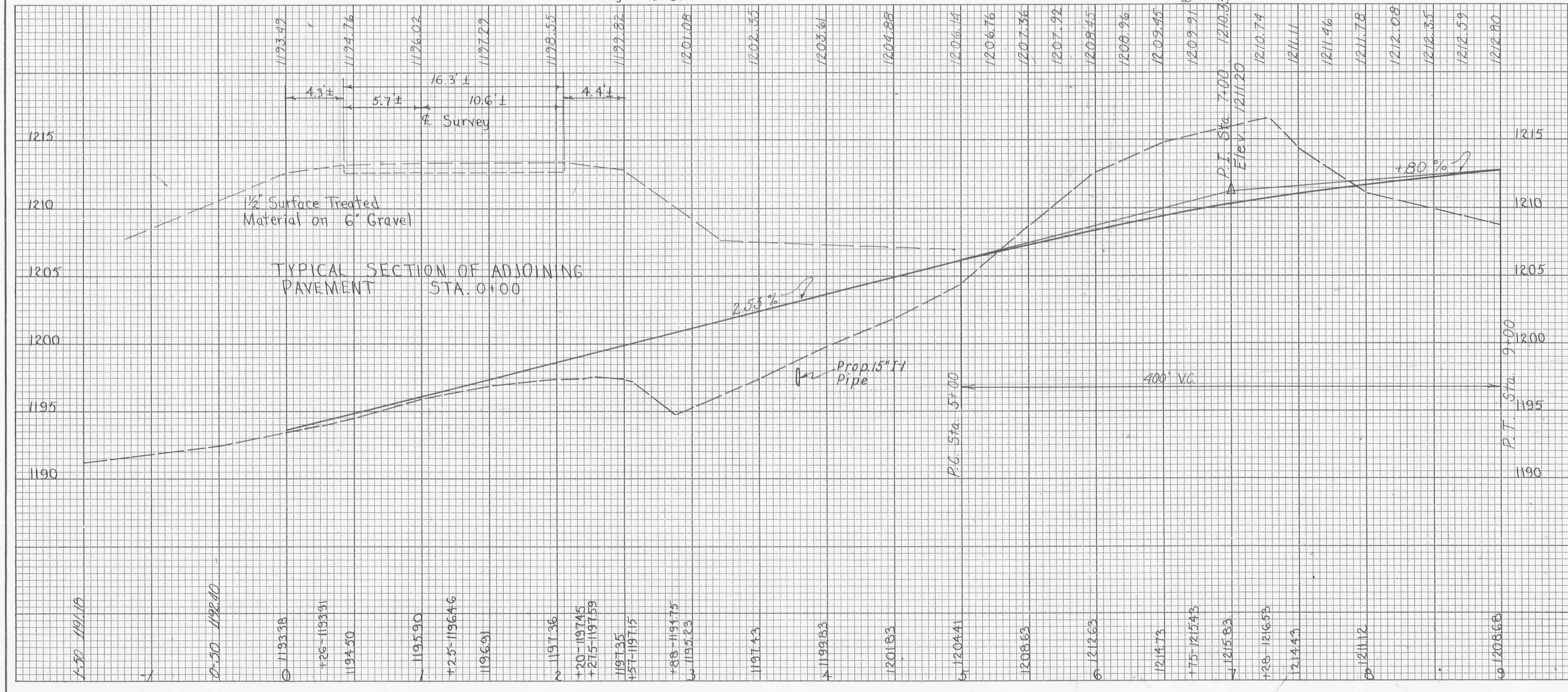
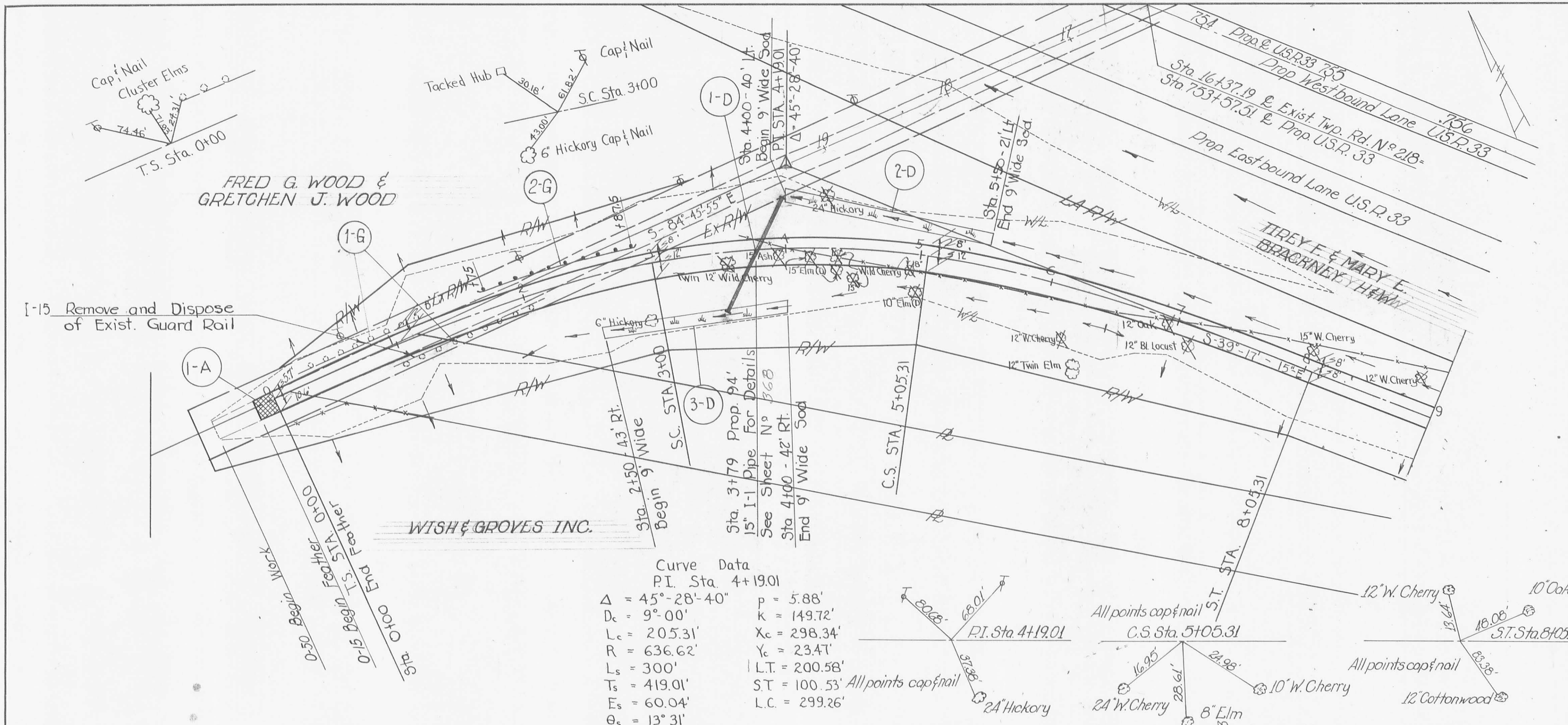
215



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	TYPE C	ESTIMATED QUANTITIES
I-A	15+00 TO 15+27.70	L&R	T-35 Asph. Conc. Surface Course Cu. Yds.	1.2
TOTALS TO CALCULATIONS				1.2
TOTALS TO SUMMARY				

PLAN & PROFILE STA. 14+00 TO STA. 24+00 CO. RD #39 & TWP. RD. #56 RELOC.

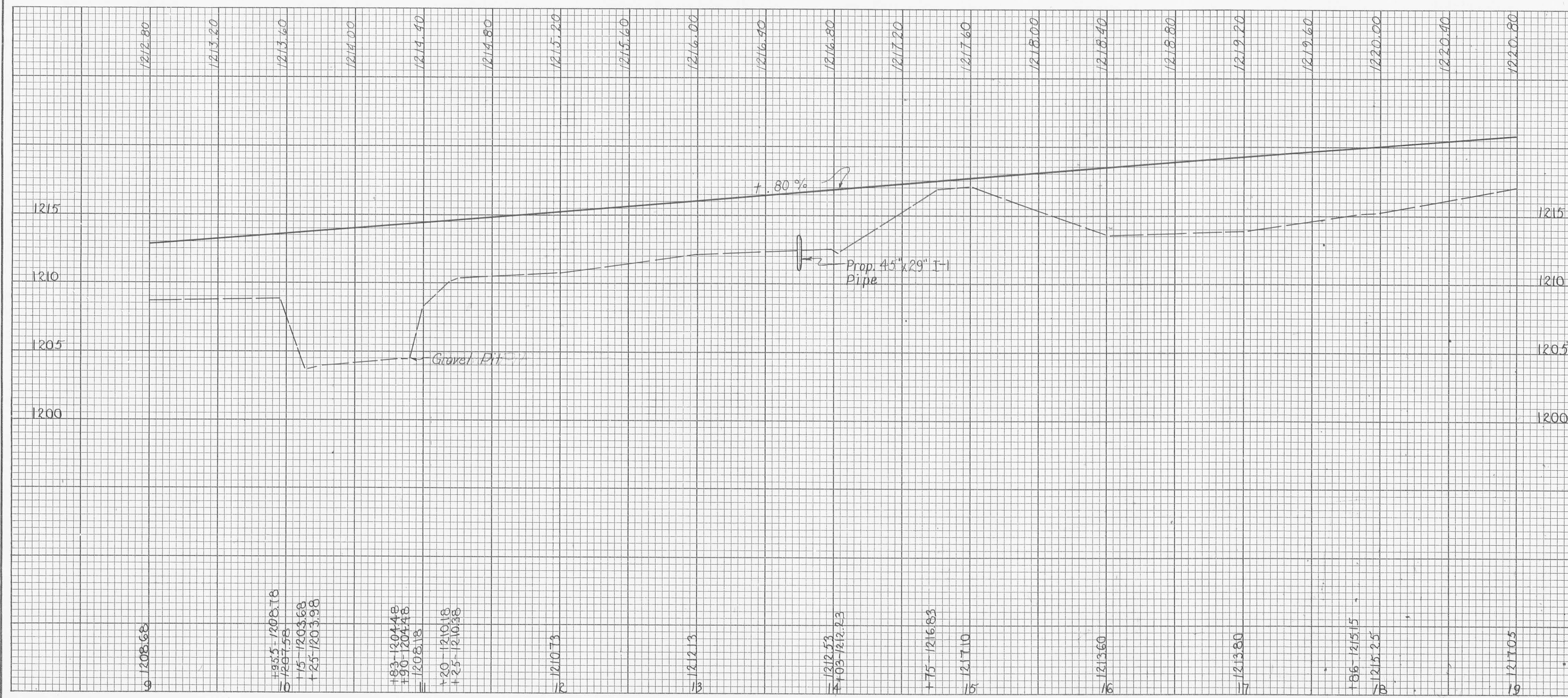
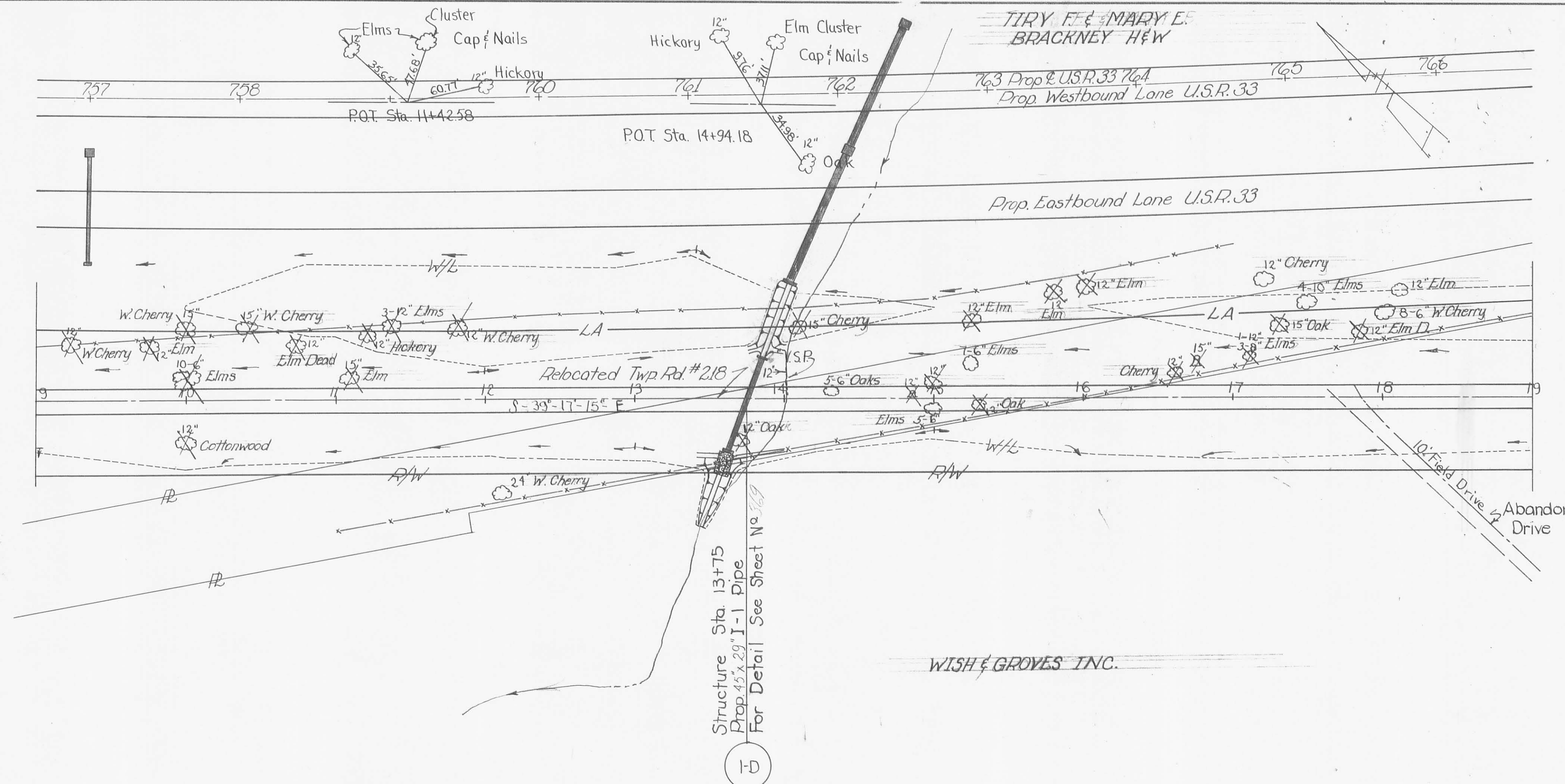


ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	T-35 Asph. Conc. Surf. Course	D-35 Asph. Conc. Levelling Course	1-1 15" Class A-1 Course	1-2 Masonry	L-10 Scrubbing	I-15 Removal of Existing Guard Rail	I-9 Renewal of Stone Underdrain	I-15 Guard Rail	ESTIMATED QUANTITIES								
			Cu. Yds.	Cu. Yds.	Sq. Yds.	Sq. Yds.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.									
1-A	0-15 to 0+00		1.2	0.1															
1-D	3+79	Lt.			94	0.52	158												
2-D	4+00 to 5+50	Rt.					242												
3-D	0+50 to 3+00	Lt.						240											
1-G	0+22 to 2+15	Lt.								112.5									
2-G	1+75 to 2+87.5	Lt.																	
TOTALS TO CALCULATIONS											1.2	0.1	94	51	296	240	242	112.5	
TOTALS TO GENERAL SUMMARY																			

PLAN & PROFILE STA. 1+00 TO STA. 9+00 PROP. T.R. 218

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	



ESTIMATED QUANTITIES

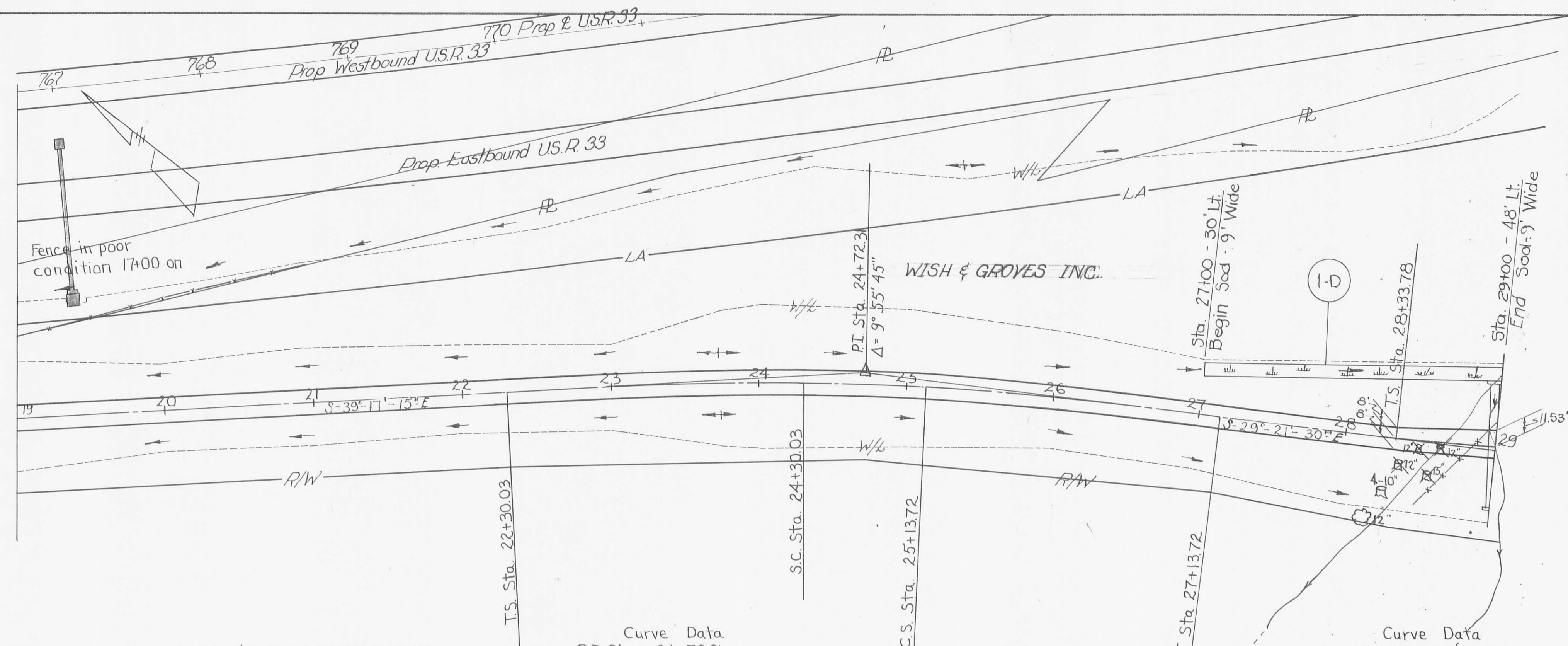
REF. NO.	STATION TO STATION	SIDE	ITEM	QUANTITY	UNIT	PRICE	TOTAL	
I-1			45"x29" Sec. 16 (6) C.I. Pipe Lim. Ft.	60	Lm. Ft.		60	
I-2			Masonry Cu. Yds.	1.56	Cu. Yds.		1.56	
I-10			Damp Rock Channel Protection Cu. Yds.	12.5	Cu. Yds.		12.5	
E-3			Channel Excavation Under No. 2	41	Lm. Ft.		41	
E-10			Prop. Road Stone	18	Lm. Ft.		18	
I-9			Under No. 2 Lim. Ft.	440	Lm. Ft.		440	
TOTALS TO CALCULATIONS								
TOTALS TO GENERAL SUMMARY								

PLAN & PROFILE STA. 9+00 TO STA. 19+00 PROP. T.R. 218

LOGAN COUNTY
LOG-33-10.85

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

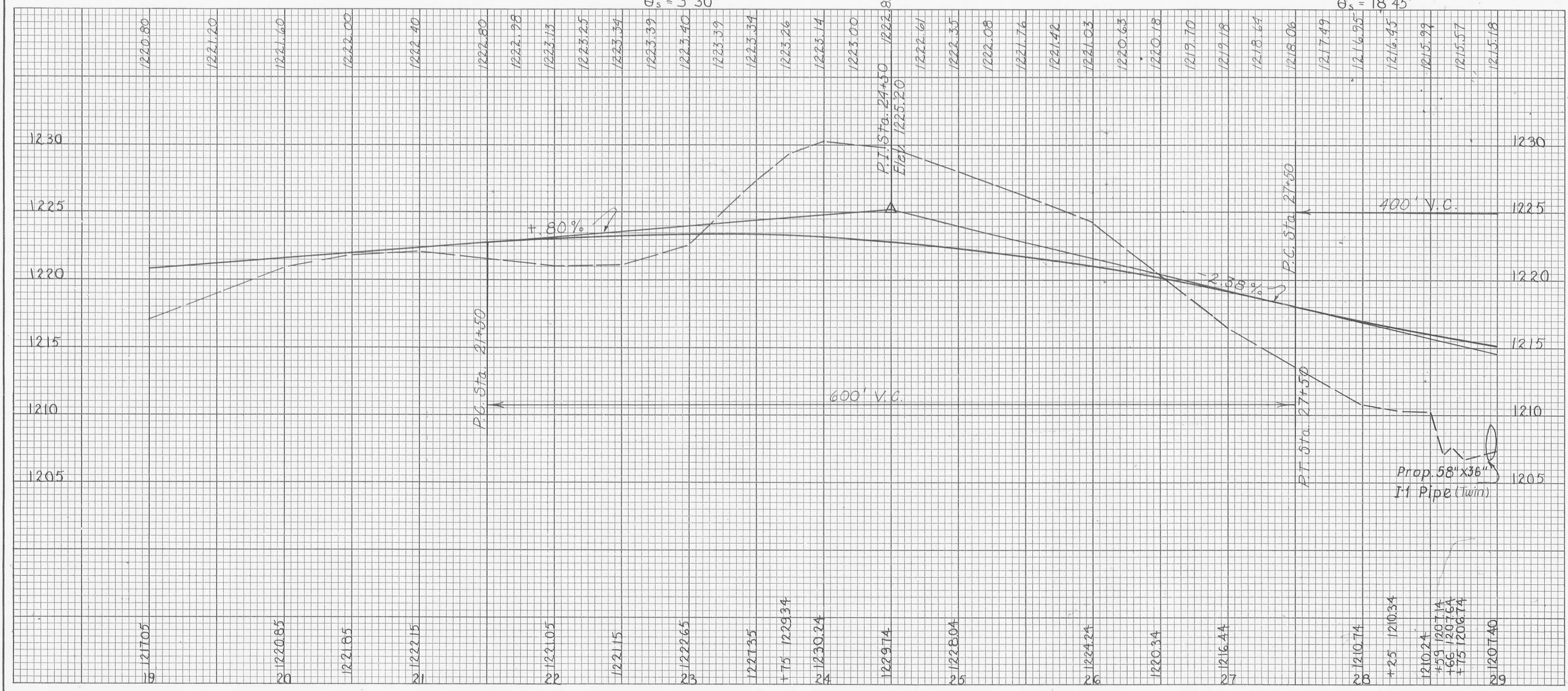
245



WISH & GROVES INC.

Curve Data
P.I. Sta. 24+72.31
 $\Delta = 9^\circ 55' 45''$ $p = 102'$
 $D_c = 3^\circ 30'$ $K = 99.99$
 $L_c = 83.69'$ $X_c = 199.93'$
 $R = 1637.02$ $Y_c = 4.07'$
 $L_s = 200'$ $L.T. = 133.36'$
 $T_s = 242.28$ $S.T. = 66.69'$
 $E_s = 7.21$ $L.C. = 199.97'$
 $\theta_s = 3^\circ 30'$

Curve Data
P.I. Sta. 29+75.84
 $\Delta = 35^\circ 22'$ $p = 4.07'$
 $D_c = 25^\circ$ $K = 74.73'$
 $L_c = 66.47'$ $X_c = 148.40'$
 $R = 229.18'$ $Y_c = 16.24'$
 $L_s = 150'$ $L.T. = 100.57'$
 $T_s = 142.04'$ $S.T. = 50.52'$
 $E_s = 15.64'$ $L.C. = 149.29'$
 $\theta_s = 18^\circ 45'$



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	L-10 Sodding Sq. Yds.	I-9 Stone Underdrains No. - 2 Lin. Ft.	ESTIMATED QUANTITIES
J-D	27+00 to 29+00	Lt.	200		
	19+50 to 28+50	HERE		300	
TOTALS TO CALCULATIONS					200
TOTALS TO GENERAL SUMMARY					300

PLAN & PROFILE STA. 19+00 TO STA. 29+00 PROP. T.R. 218

