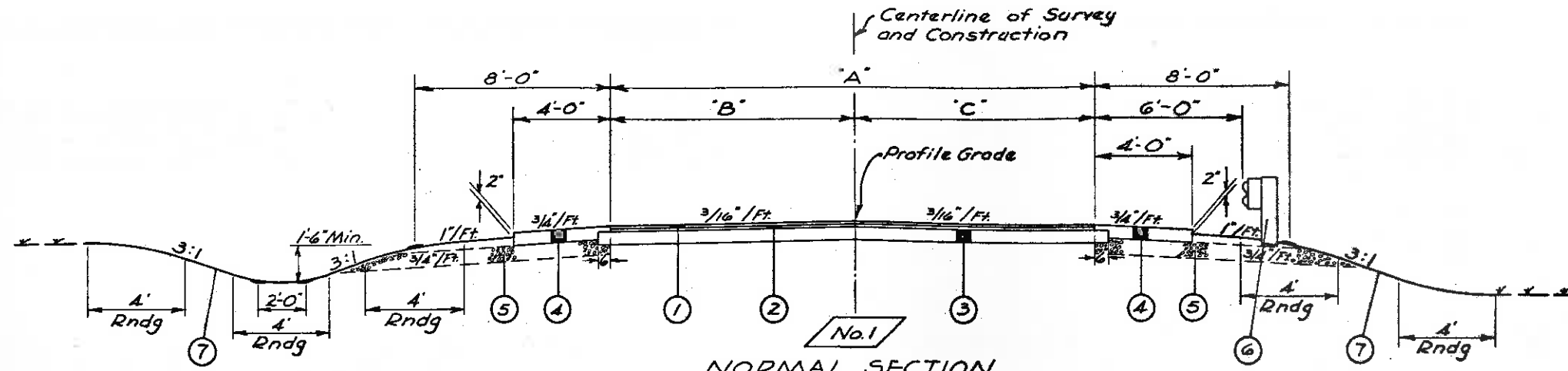


TYPICAL SECTIONS

TYPE 404 ON 301

FHWA REGION	STATE	PROJECT
5	OHIO	

LOGAN COUNTY
C.R. 39-4.98

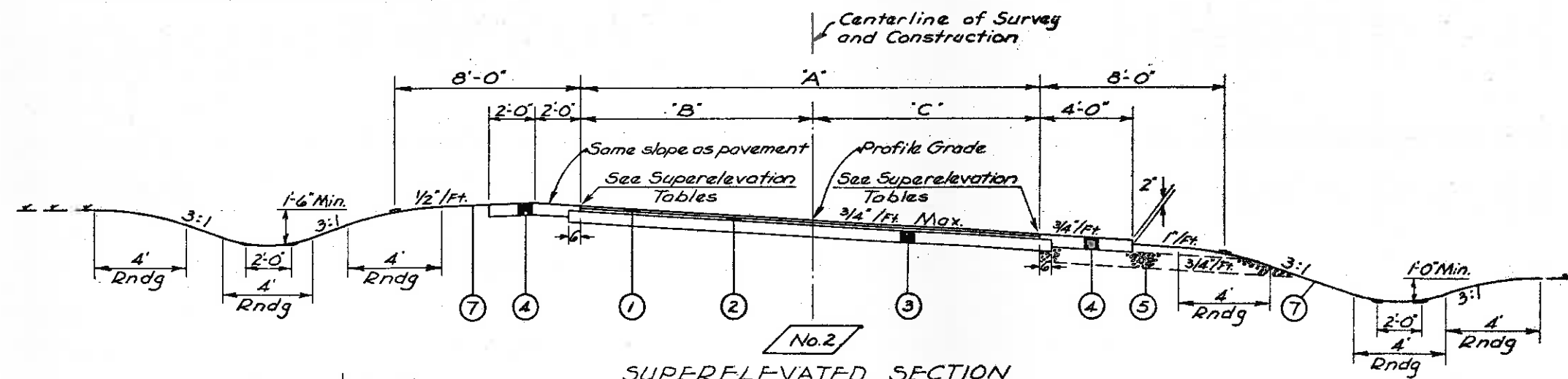


NORMAL SECTION
LIMITING STATIONS

Sta. 170+50 to 171+70	120 Lin. Ft.
Sta. 175+00 to 176+32	132 Lin. Ft.
Sta. 176+32 to 177+14	82 Lin. Ft. - Bridge Limits (Deduct)
Sta. 177+14 to 177+45	31 Lin. Ft.
Sta. 180+80 to 181+25	45 Lin. Ft.
Total	328 Lin. Ft.

STATION TO STATION	"A"	"B"	"C"
170+50 to 171+40	17'-3" to 18'-1"	12'-0" to 10'-0"	5'-3" to 8'-1"
171+40 to 172+00	18'-1" to 20'-0"	10'-0"	8'-1" to 10'-0"
172+00 to 180+25	20'-0"	10'-0"	10'-0"
180+25 to 181+25	20'-0" to 17'-8"	10'-0" to 7'-8"	10'-0"

- PAVEMENT SYMBOLS
- 2" 404 Asphalt Concrete on 408 Prime Coat @ 0.40 Gal. per Sq. Yd. on 6" 411 Stabilized Crushed Aggregate.
 - 6" 411 Stabilized Crushed Aggregate.

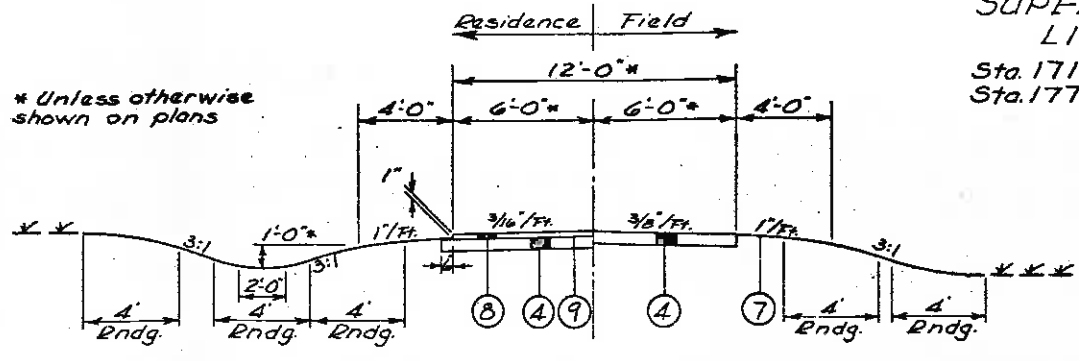


SUPERELEVATED SECTION
LIMITING STATIONS

Sta. 171+70 to 175+00	330 Lin. Ft.
Sta. 177+15 to 180+80	335 Lin. Ft.
Total	665 Lin. Ft.

- ① Item 404 1/4" Asphalt Concrete, AC-20
- ② Item 403 1/4" Asphalt Concrete, AC-20
- ③ Item 301 6" Bituminous Aggregate Base; AC-20, RT-11 or RT-12.
- ④ Item 411 6" Stabilized Crushed Aggregate
- ⑤ Item 605 Aggregate Drains (See General Note)
- ⑥ Item 606 Guardrail, Type 5
- ⑦ Item 659 Seeding & Mulching (See General Note)
- ⑧ Item 404 2" Asphalt Concrete, AC-20
- ⑨ Item 408 Bituminous Prime Coat; MC-30, MC-70, Primer 20, RT-2 or RT-3 @ 0.40 gal. per sq. yd.

* Unless otherwise shown on plans



TYPICAL DRIVE DETAIL

GENERAL NOTES

FIELD OFFICE: The Contractor shall provide a suitable field office having a minimum of 150 sq. ft. of floor space.

FARM DRAINS: See Sheet No. 17 for the Farm Drains Note.

ROUNDING OF CORNERS SHOWN ON CROSS-SECTIONS: The rounded corners shown on the typical sections, apply to all cross-sections even though otherwise shown on these plans.

ESTIMATED QUANTITIES: Specific locations and usage of estimated quantities set up on this plan to be used as directed by the Engineer shall be made a matter of record by incorporation into the final change order governing completion of this project. Estimated quantities of materials shall not be ordered for delivery to the project unless authorized by the Engineer.

LOCATION OF GUARDRAIL: The locations of guardrail runs, as shown in these plans, are subject to adjustment to assure that the planned installations will afford maximum protection for traffic.

SEEDING: Quantities for seeding are calculated for the soil areas between the work limits, as shown on the cross-sections.

WATERING PERMANENT SEEDED AREAS: The following estimated quantities are to be used as directed by the Engineer to promote growth of the permanent seeded areas.
Item 659 Water 6 M. Gal.

SCARIFICATION OF EXISTING PAVEMENT: Within the limits of construction where the existing pavement shall have less than twenty-four (24) inches of fill placed upon it the pavement shall be thoroughly scarified for its full depth, mixed with sufficient soil and properly recompact, to insure the elimination of any planes of separation between it and the embankment placed thereon. Payment for scarification as described above shall be included in Item 203 Embankment.

UTILITY OWNERSHIP:

Telephone: United Telephone Co. of Ohio
127 North Main Street
Bellefontaine, Ohio 43311

DRIVEWAYS: All driveways shall be Type I (BP-6) unless otherwise noted on the plans.

614 MAINTAINING TRAFFIC: In addition to the requirements for Item 614 Maintaining Traffic as indicated in the OMUTCD and pertinent items of the Construction and Materials Specifications, the following requirements shall apply:

C.R. No. 39 shall be closed to through traffic for the duration of the contract and a detour provided by Logan County as shown on the title sheet.

The Contractor shall provide and maintain, at all times, access for ingress and egress to the residence located south of Sta. 174+00.

Estimated quantities of Item 616 Calcium Chloride, Item 616 Water, and Item 410 Traffic Compacted Surface are provided in the plans for maintenance of local traffic and dust control. They shall be applied where directed and in the amounts requested by the Engineer.

Estimated Quantities (Totals to Gen. Sum.)
Item 616 Calcium Chloride 10 Tons
Item 616 Water 50 M. Gal.
Item 410 Traffic Compacted Surface, Type A or B 50 Cu. Yd.

All the preceding except 616 Calcium Chloride, 616 Water and 410 Traffic Compacted Surface shall be included in the lump sum price bid for Item 614 Maintaining Traffic.

EROSION CONTROL: Items 601 and 660 are provided in the plans for erosion control. Rock or turf of a stable nature will not be removed in order to place any of these items. The Engineer shall check and non-perform quantities or adjust locations and quantities for these items where indicated by field conditions during construction.

605 AGGREGATE DRAINS: An estimated quantity of Item 605 Aggregate Drains has been provided in these plans to be used if and as directed by the Engineer.
Item 605 Aggregate Drains - 200 Lin. Ft.

WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL: The following estimated quantities are to be used as directed by the Engineer for erosion and siltation control measures:

Item 207 Straw or Hay Bales 30 Each
Item 207 Temporary Seeding & Mulching 1100 Sq. Yd.
Item 601 Type C Rock Channel Protection (% bedding) 5 Cu. Yd.
Item 659 Commercial Fertilizer 0.05 Ton
Item 659 Repair Seeding & Mulching 300 Sq. Yd.
Item 659 Water 3 M. Gal.

ELEVATION DATUM: All elevations established in these plans are based upon U.S. Geodetic Survey datum. Specific locations and elevations of bench marks used for this project are shown in these plans.

SIGNING AND PAVEMENT MARKINGS: All necessary signing and pavement markings as indicated in the OMUTCD will be done by Logan County before completion of the contract.

TEMPORARY STREAM CROSSING: The County Engineer has determined that the Contractor will not be allowed to construct a temporary stream crossing at this site.

REMOVAL OF EXISTING PIPE: The removal of all existing pipe drains, which would normally be removed in various excavation items, shall be included for payment in the unit prices bid for the respective excavation items, unless otherwise itemized in the plans.

RC = 172+21.29		Rate = 3/4" / Ft.	
PT. = 174+42.62		Max. = 1.25'	
Flv. Lt. Edge	Width Lt.	Station	Profile Flv. Rt. Edge
1057.30	10'	171+40	1057.46
1057.11	10'	+50	1057.27
1056.64	10'	+75	1056.80
1056.16	10'	172+00	1056.32
1055.55	10'	+25	1055.85
1054.93	10'	+50	1055.37
1054.32	10'	+75	1054.90
1054.19	10'	+80	1054.80
1053.80	10'	173+00	1054.42
1053.33	10'	+25	1053.95
1052.85	10'	+50	1053.47
1052.38	10'	+75	1053.00
1052.09	10'	+90	1052.71
1051.97	10'	174+00	1052.52
1051.64	10'	+25	1052.05
1051.30	10'	+50	1051.37
1050.94	10'	+75	1051.10
1050.46	10'	175+00	1050.62
1049.99	10'	+25	1050.15
1049.89	10'	+30	1050.05

P.C. = 177+97.53		Rate = 3/4" / Ft.	
P.T. = 180+24.70		Max. = 1.25'	
Flv. Lt. Edge	Width Lt.	Station	Profile Flv. Rt. Edge
1047.00	10'	177+15	1047.16
1046.99	10'	+25	1047.09
1046.97	10'	+50	1046.93
1047.03	10'	+75	1046.85
1047.13	10'	178+00	1046.81
1047.30	10'	+25	1046.84
1047.52	10'	+50	1046.92
1047.57	10'	+55	1046.94
1047.70	10'	+75	1047.07
1047.90	10'	179+00	1047.21
1048.17	10'	+25	1047.54
1048.49	10'	+50	1047.86
1048.79	10'	+70	1048.16
1048.84	10'	+75	1048.24
1049.14	10'	180+00	1048.63
1049.47	10'	+25	1049.15
1049.79	9'-5"	+50	1049.62
1050.13	8'-10"	+75	1050.09
1050.46	8'-3"	181+00	1050.56
1050.63	8'-0"	+10	1050.75

659 Commercial Fertilizer
5435.54 x 20 / 10000 x 95 / 1700 = 0.50 Ton

Sheet No.	Ref. No.	Station to Station	Side	Calculation
5	1-P	170+50 to 175+00	Both	404 = 0.1042 [10(150) + (1/2)(2)(90) + (10/25)(150)] + 27 + 20(300)(0.1042) + 27 = 33.71 Cu. Yd. 403 = 0.1042 [10(150) + 50(90) + (10/25)(150)] + 27 + 20(300)(0.1042) + 27 = 33.71 Cu. Yd. 301 = 0.50 [10.5(60) + (12.5/25)(90) + (5.75/25)(150)] + 27 + 21(300)(0.50) + 27 = 170.07 Cu. Yd. 203 = [10(150) + 5(2)(90) + (10/25)(150)] + 9 + 20(300) + 9 = 910 Sq. Yd.
5	2-P	170+50 to 175+00	Rt.	411 = 1.854° x 385 + 27 = 26.4 Cu. Yd.
5	3-P	170+50 to 175+00	Lt.	411 = 1.854° x 395 + 27 = 27.2 Cu. Yd.
6	1-P	175+00 to 176+32	Both	404 = 20(132)(0.1042) + 27 = 10.19 Cu. Yd. 403 = 20(132)(0.1042) + 27 = 10.19 Cu. Yd. 301 = 21(132)(0.50) + 27 = 51.33 Cu. Yd. 203 = 20(132) + 9 = 293 Sq. Yd.
6	2-P	175+00 to 176+32	Both	411 = 2(132)(1.854°) + 27 = 18.1 Cu. Yd.
6	3-P	177+14 to 181+25	Both	404 = 0.1042 [10(100) + (10/25)(100)] + 27 + 20(311)(0.1042) + 27 = 31.27 Cu. Yd. 403 = 0.1042 [10(100) + (10/25)(100)] + 27 + 20(311)(0.1042) + 27 = 31.27 Cu. Yd. 301 = 0.50 [10.5(100) + (10.5/25)(100)] + 27 + 21(311)0.50 + 27 = 157.67 Cu. Yd. 203 = [10(100) + (10/25)(100)] + 9 + 20(311) + 9 = 900 Sq. Yd.
6	4-P	177+14 to 181+25	Rt.	411 = 1.854° (352) + 27 = 24.2 Cu. Yd.
6	5-P	177+14 to 181+25	Lt.	411 = 1.854° (416) + 27 = 28.6 Cu. Yd.

CALC. BY: R.A.B.
DATE: 5-23-80
CHKD. BY: C.R.K.
DATE: 1-5-81

GENERAL SUMMARY

CALC.
BY P.A.B.
DATE 5-23-81
CHKD.
BY C.R.K.
DATE 5-27-81

OHIO
FHWA
REGION 5

4
18

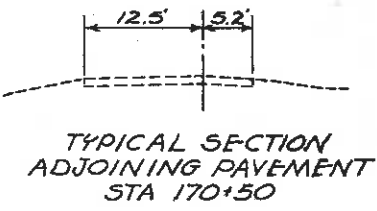
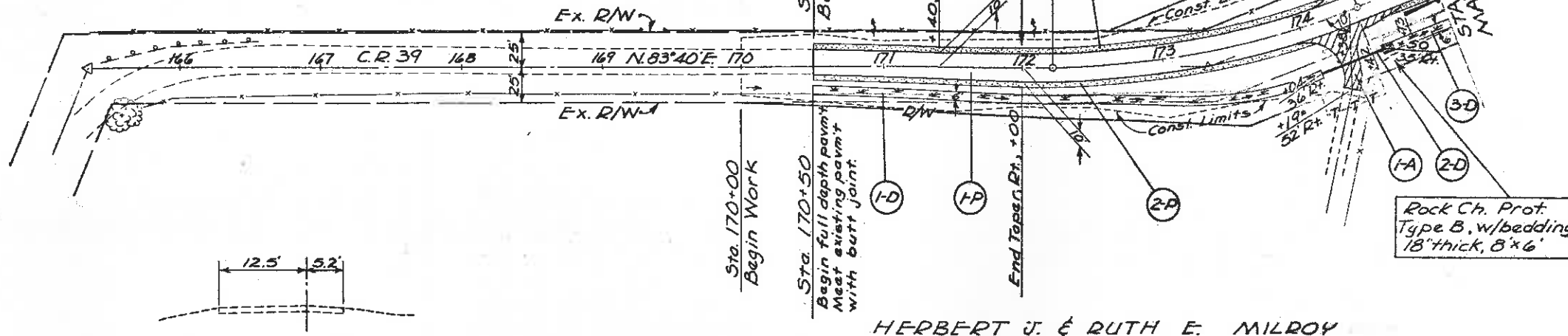
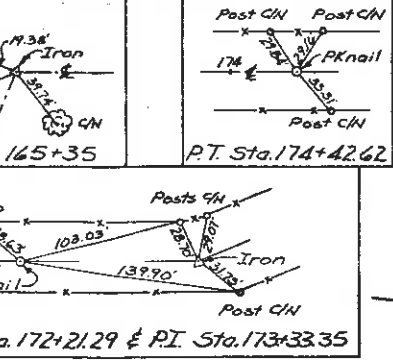
LOGAN COUNTY
C.R. 39-4.98

ITEM	SHEET NUMBER																ITEM	QUANT.	UNIT	DESCRIPTION <i>Type Code 6203 Unless Otherwise Shown</i>
	3	5	6	12	17	20	21	22	23	24	25	26	27	28	29	30				
201																	201	Lump	Lump	Clearing and Grubbing
202			64														202	64	Lin.Ft.	Pipe Removed for Storage, 24" and under
203			535	483					202								203	1220	Cu.Yd.	Excavation, not including Embankment Construction
203			1116	1544					24								203	2684	Cu.Yd.	Embankment
203			970	1193													203	2163	Sq.Yd.	Subgrade Compaction
606			4	532													606	536	Lin.Ft.	Guardrail, Type S
606				4													606	4	Each	Bridge Terminal Assembly, Standard Type B
606			2	2													606	4	Each	Anchor Assembly, Standard Type A
410			50														410	50	Cu.Yd.	Traffic Compacted Surface, Type A or B
616			50														616	50	M.Gal	Water
616			10														616	10	Ton	Calcium Chloride
EROSION CONTROL - Type Code 4005																				
207			1100														207	1100	Sq.Yd.	Temporary Seeding and Mulching
207			30														207	30	Each	Straw or Hay Bales
601				3	19					2							601	24	Cu.Yd.	Rock Channel Protection, Type B with bedding
601			5														601	5	Cu.Yd.	Rock Channel Protection, Type C without bedding
659				2083	2839					513							659	5435	Sq.Yd.	Seeding and Mulching
659			055														659	0.55	Ton	Commercial Fertilizer
659			300														659	300	Sq.Yd.	Repair Seeding and Mulching
659			9														659	9	M.Gal	Water
660				271	413												660	684	Sq.Yd.	Sodding
DRAINAGE																				
603				46													603	46	Lin.Ft.	24" Conduit, Type D
603					36												603	36	Lin.Ft.	12" Conduit, Type D
603										100							603	100	Lin.Ft.	6" Conduit, Type B
605			200														605	200	Lin.Ft.	Aggregate Drains
603										100							603	100	Lin.Ft.	6" Conduit, Type F
603										50							603	50	Lin.Ft.	6" Conduit, Type F
PAVEMENT																				
301				170	209												301	379	Cu.Yd.	Bituminous Aggregate Base; AC-60, RT-11 or RT-12
403				34	41												403	75	Cu.Yd.	Asphalt Concrete, AC-20
404				34	41												404	75	Cu.Yd.	Asphalt Concrete, AC-20
404				6													404	6	Cu.Yd.	Asphalt Concrete, AC-20 (Driveways)
408				42													408	42	Gal.	Bituminous Prime Coat: MC-30, MC-70, Primer 20, RT-2 or RT-3
411				89	83												411	172	Cu.Yd.	Stabilized Crushed Aggregate
MISCELLANEOUS																				
614			Lump														614	Lump	Lump	Maintaining Traffic
619			Lump														619	Lump	Lump	Field Office
623																	623	Lump	Lump	Construction Layout Stakes
624																	624	Lump	Lump	Mobilization
Structures over 20' Span see sheet no. 14 for estimated quantities																				

JANE SWETLAND

BEGIN PROJECT
STA. 172+00

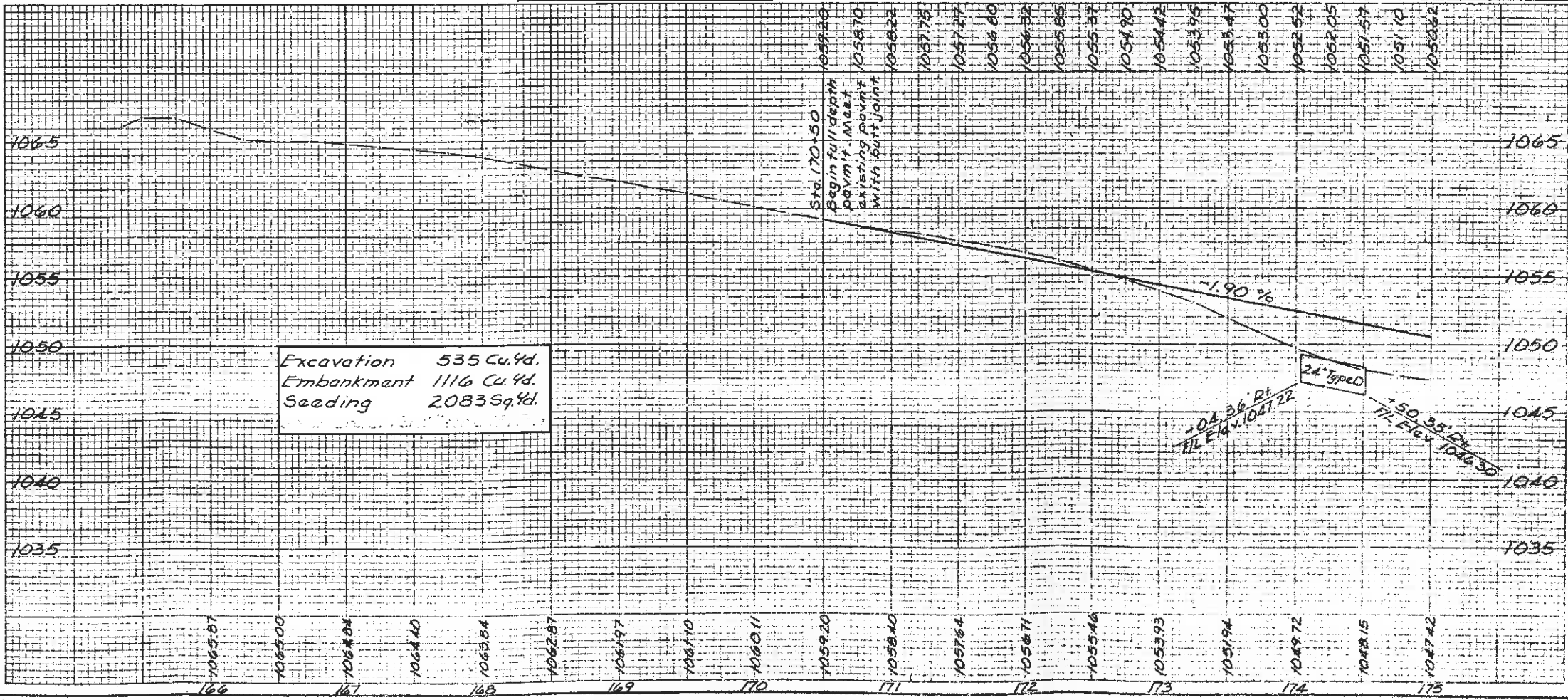
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R1: 173+33.35
Δ: 22° 08'
D: 10' 00'
R: 572.96'
L: 221.33'
T: 112.06'
E: 10.86'



HERBERT J. & RUTH E. MILROY

B.M. R.R spike in 28" dia. walnut, 33' Rt. Sta. 165+60
Elev. 1067.19

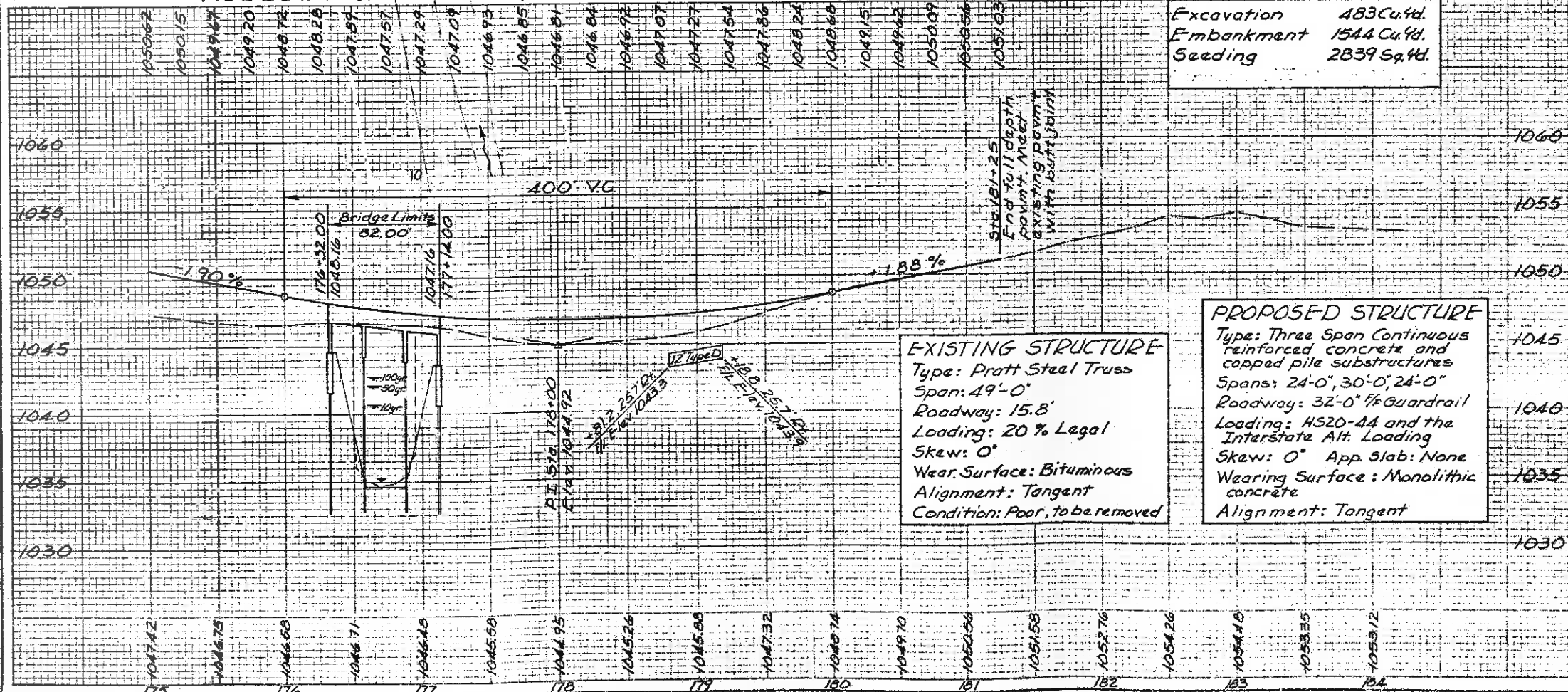
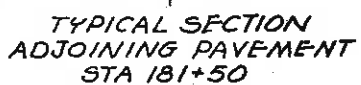
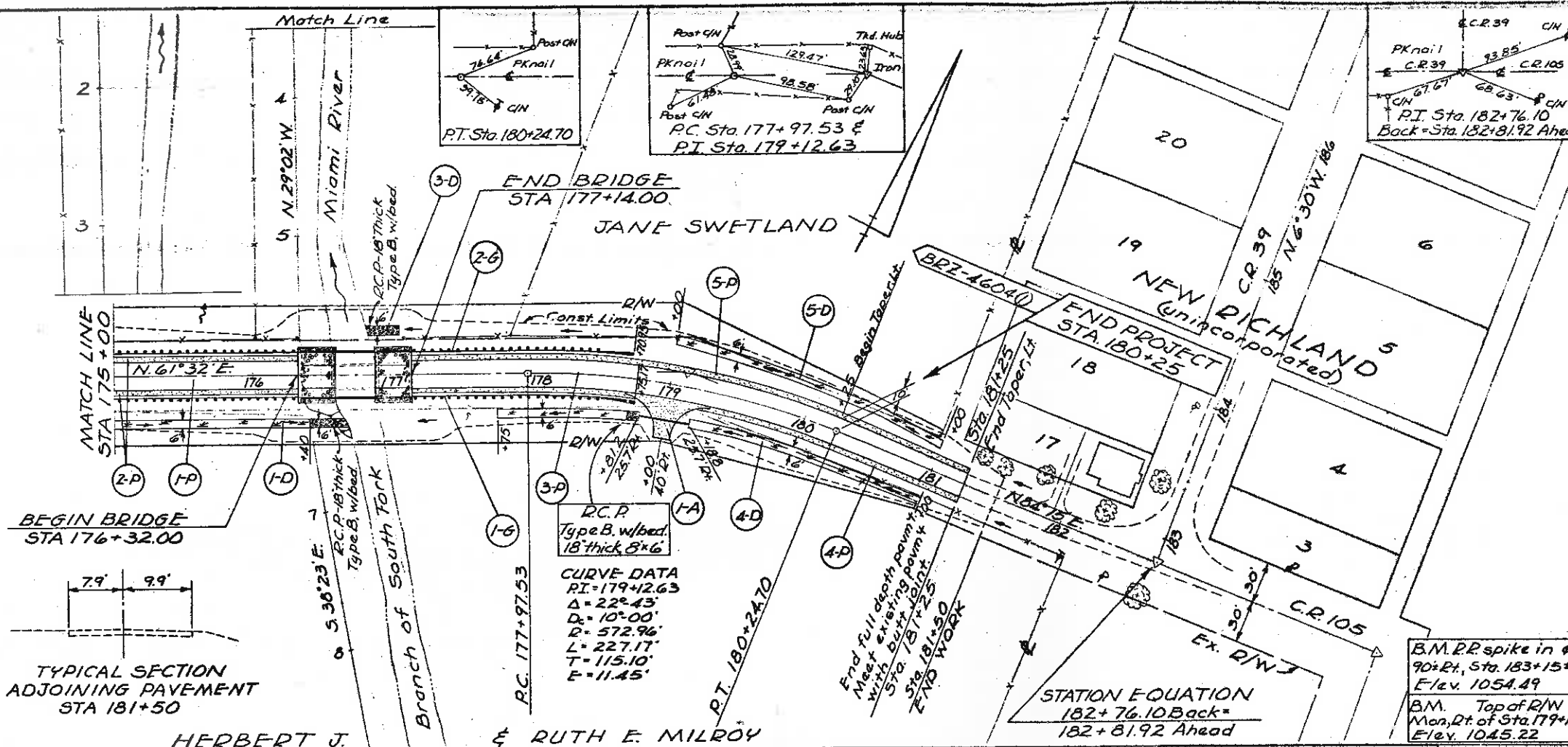
B.M. Date nail "28" in Telephone pole, Rt of Sta. 174+75, Elev. 1047.23



ESTIMATED QUANTITIES

REF NO.	STATION TO STATION	SIDE	404	405	301	404	411	408	203	603	CONDUITS	606	606	606	606	606	606	606							
			Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.	Asphalt/Asphalt Conc.							
1-A	174+38	Rt.																							
2-A	174+42	Lt.																							
1-P	170+50 to 175+00	Both																							
2-P	170+50 to 175+00	Rt.																							
3-P	170+50 to 175+00	Lt.																							
1-D	170+50 to 174+04	Rt.																							
2-D	174+04 to 174+50	Rt.																							
3-D	174+50 to 175+00	Rt.																							
1-G	174+75 to 175+00	Both																							
TOTALS to General Summary											33.71	33.71	170.07	5.86	89.08	42.22	970	46	46	20	44	4.00	2	2.7	271

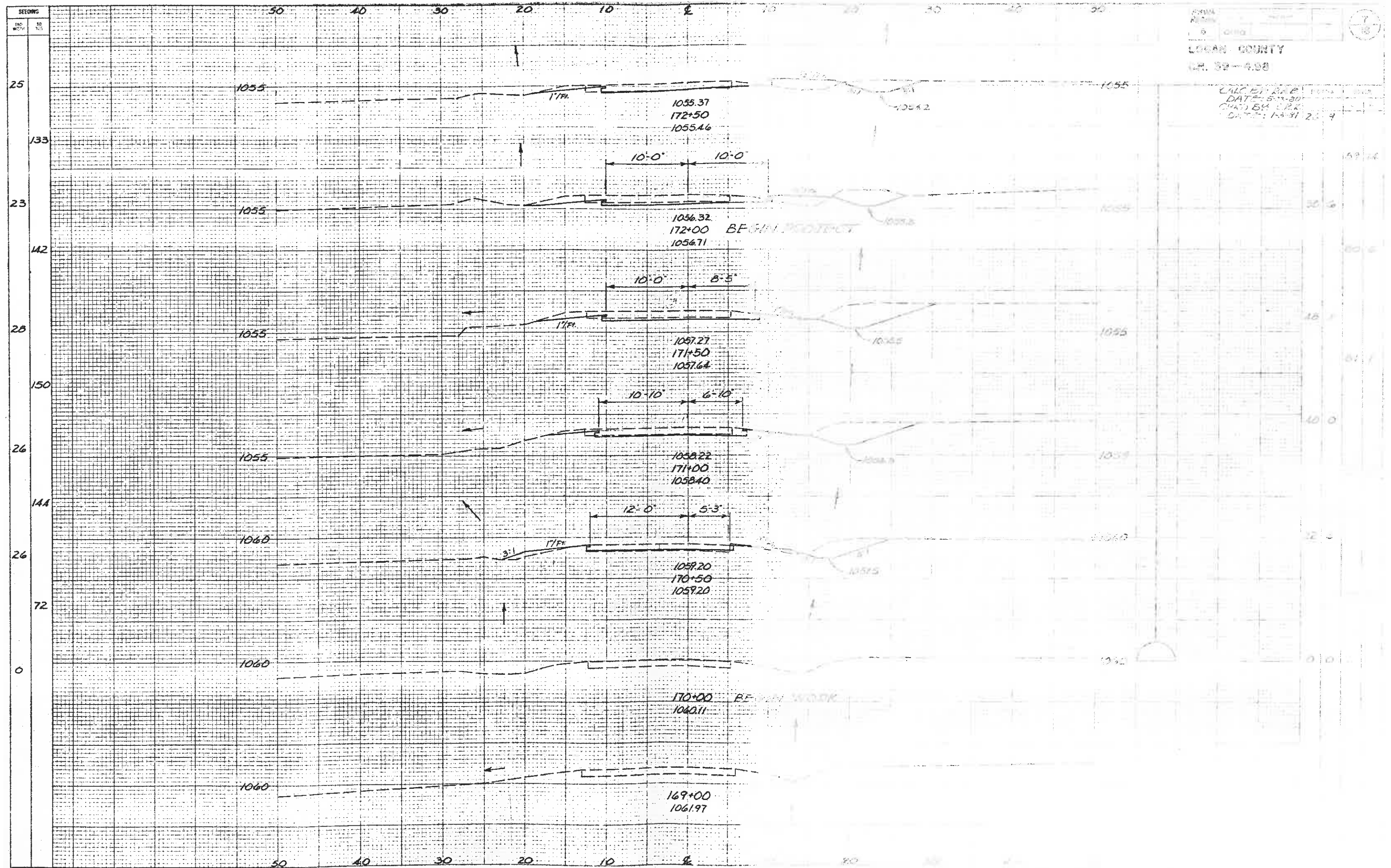
PLAN & PROFILE STA 166+00 to 175+00



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	ITEM	QUANTITY	UNIT	TOTALS to General Summary
1-A	179+00	Rt.	Excavation	483	Cu.Yd.	
1-P	175+00 to 176+32	Both	Embankment	1544	Cu.Yd.	
2-P	175+00 to 176+32	Both	Seeding	2839	Sq.Yd.	
3-P	177+14 to 181+25	Both	Excavation	483	Cu.Yd.	
4-P	177+14 to 181+25	Rt.	Embankment	1544	Cu.Yd.	
5-P	177+14 to 181+25	Lt.	Embankment	1544	Cu.Yd.	
1-D	175+00 to 176+65	Rt.	Excavation	483	Cu.Yd.	
3-D	176+80 to 177+05	Lt.	Excavation	483	Cu.Yd.	
4-D	177+75 to 181+00	Rt.	Excavation	483	Cu.Yd.	
5-D	177+00 to 181+00	Rt.	Excavation	483	Cu.Yd.	
1-G	175+00 to 178+75.17	Rt.	Excavation	483	Cu.Yd.	
2-G	175+00 to 178+70.95	Lt.	Excavation	483	Cu.Yd.	
TOTALS to General Summary						4146

PLAN & PROFILE STA 175+00 to 184+00



PLAN
 6
 LOGAN COUNTY
 CR. 32-4.58

CALC BY R.R.P.
 DATE: 5-23-30
 CHAS. B. R.R.
 DATE: 1-2-31 23 9

SEEINGS
 END
 25
 133
 23
 142
 28
 150
 26
 144
 26
 72
 0

1055
 1055.37
 172+50
 1055.46
 10'-0" 10'-0"
 1055
 1056.32
 172+00 BEGIN PROTECT
 1056.71
 10'-0" 8'-5"
 1055
 1057.27
 171+50
 1057.64
 10'-10" 6'-10"
 1055
 1058.22
 171+00
 1058.40
 1060
 3:1 1% F.F.
 12'-0" 5'-3"
 1055
 1059.20
 170+50
 1059.20
 1060
 170+00 BEGIN WORK
 1060.11
 1060
 169+00
 1061.97

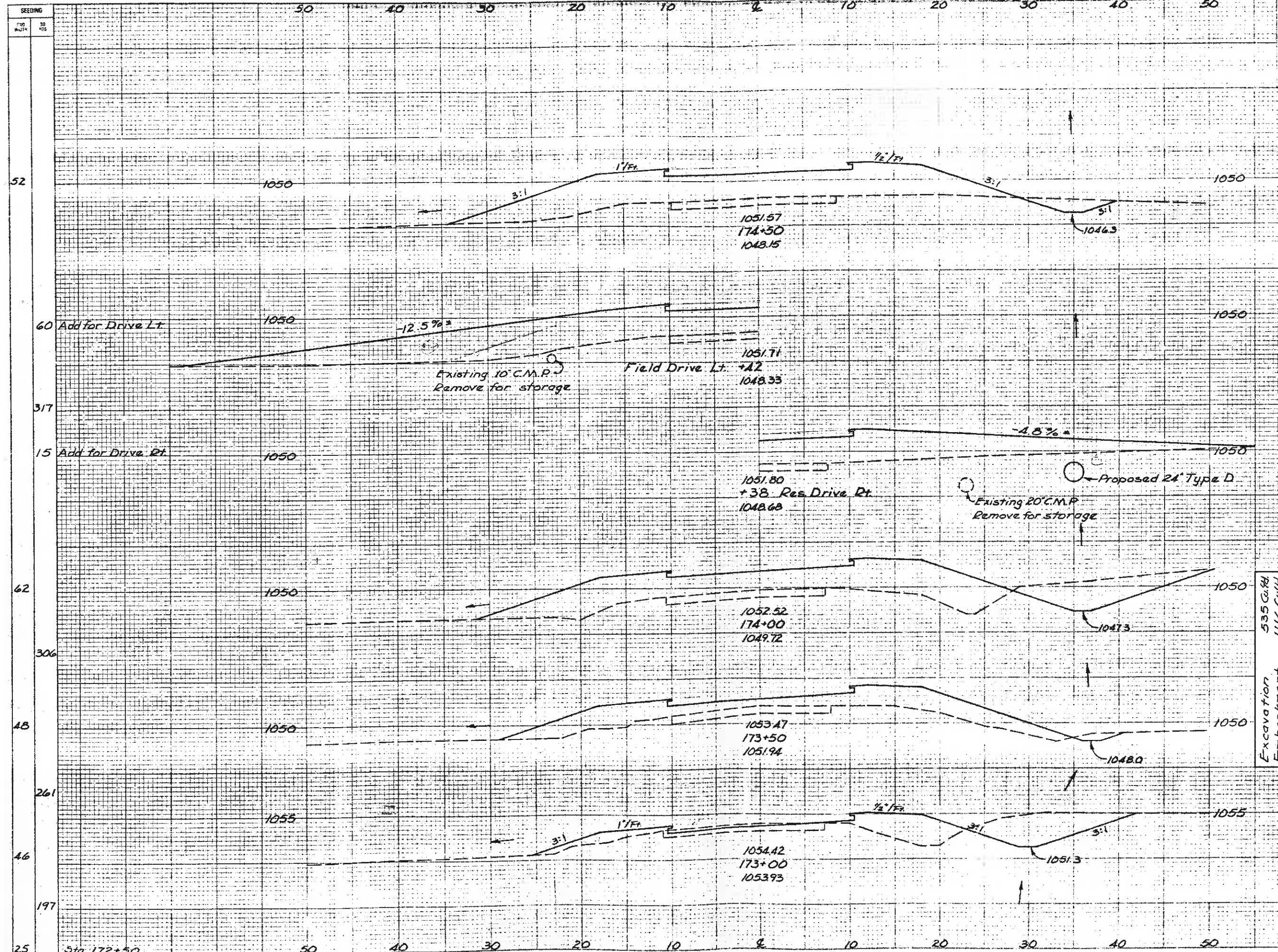
50 40 30 20 10 0 10 20 30 40 50

50 40 30 20 10 0 10 20 30 40 50

LOGAN COUNTY
C.R. 39-4.98

CALC. BY P.A.B.
DATE: 5-23-80
CHKD. BY C.R.K.
DATE: 1-5-81

END AREA		VOLUME	
INT.	EXT.	INT.	EXT.



Add Excavation for Aggregate Berms (Entire Project)
Deduct Embankment for Aggregate Berms (Entire Project)

Add for Drive Lt.

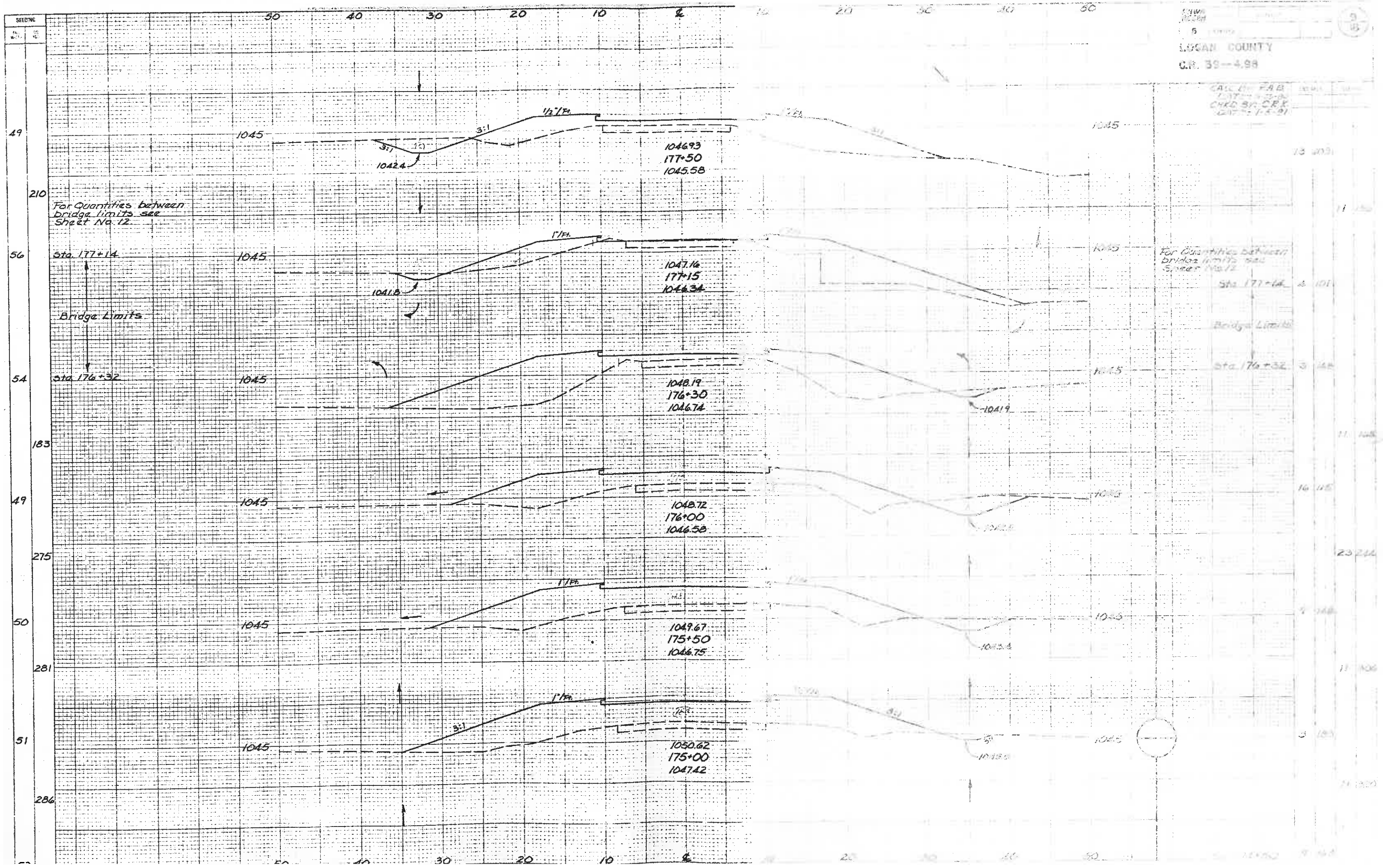
Add for Drive Rt.

Excavation 535 Cu.Yd.
Embankment 1116 Cu.Yd.
Seeding 2083 Sq.Yd.
Commercial Fertilizer 0.187 Ton
Quantities Carried to Sheet No 5

END AREA		VOLUME	
INT.	EXT.	INT.	EXT.
9	163		
			33
			-88
			78
			46
			295
			65
			41
			156
			41
			237
			3
			100
			43
			131
			43
			42
			64
			47

Sta. 172+50 26.9

CALL FOR FAB
CHECK BY CRK
DATE 1-5-91



For Quantities between
bridge limits see
Sheet No. 12

For Quantities between
bridge limits see
Sheet No. 12

Bridge Limits

Bridge Limits

Sta. 176+32

Sta. 176+32

183

11 183

49

16 49

275

23 275

50

9 50

281

17 281

51

3 51

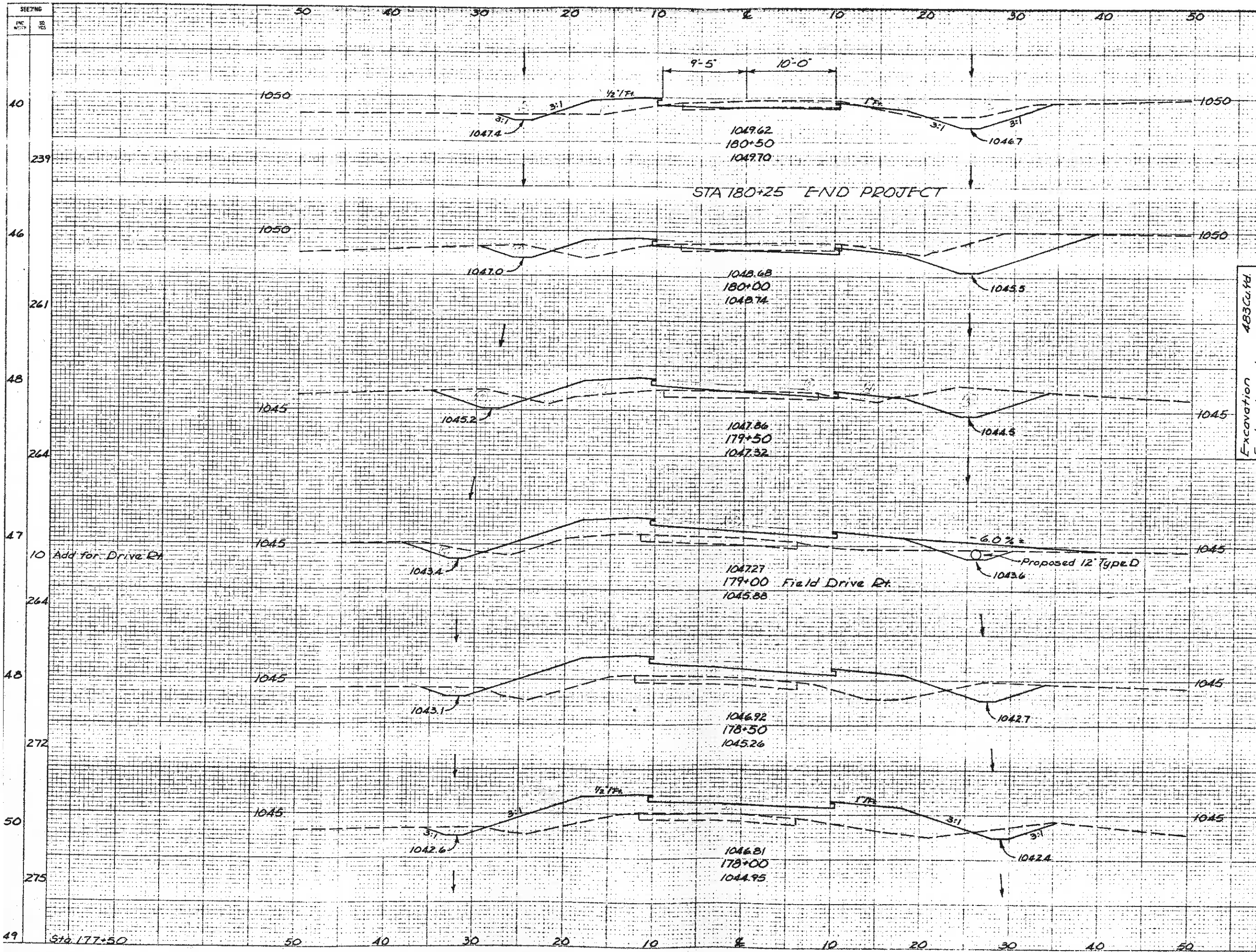
286

24 286

LOGAN COUNTY
C.R. 39-4.98

CALC BY: R.A.B.
DATE: 5-23-80
CHKD BY: C.R.K.
DATE: 1-5-81

END AREA		VOLUME	
CUT	FILL	CUT	FILL
29	16		



Excavation 483 Cu. Yd.
Embankment 1544 Cu. Yd.
Seeding 2839 Sq. Yd.
Commercial Fertilizer 0.2566 Ton
Quantities Carried to Sheet No. 6

END AREA		VOLUME	
CUT	FILL	CUT	FILL
29	16		
69	15	91	29
45	25	106	37
12	60	53	79
19	93	29	142
11	98	28	177
13	103	22	186

10 Add for Drive Rt

Add for Drive Rt

STA 180+25 END PROJECT

Field Drive Rt.

Proposed 12' Type D

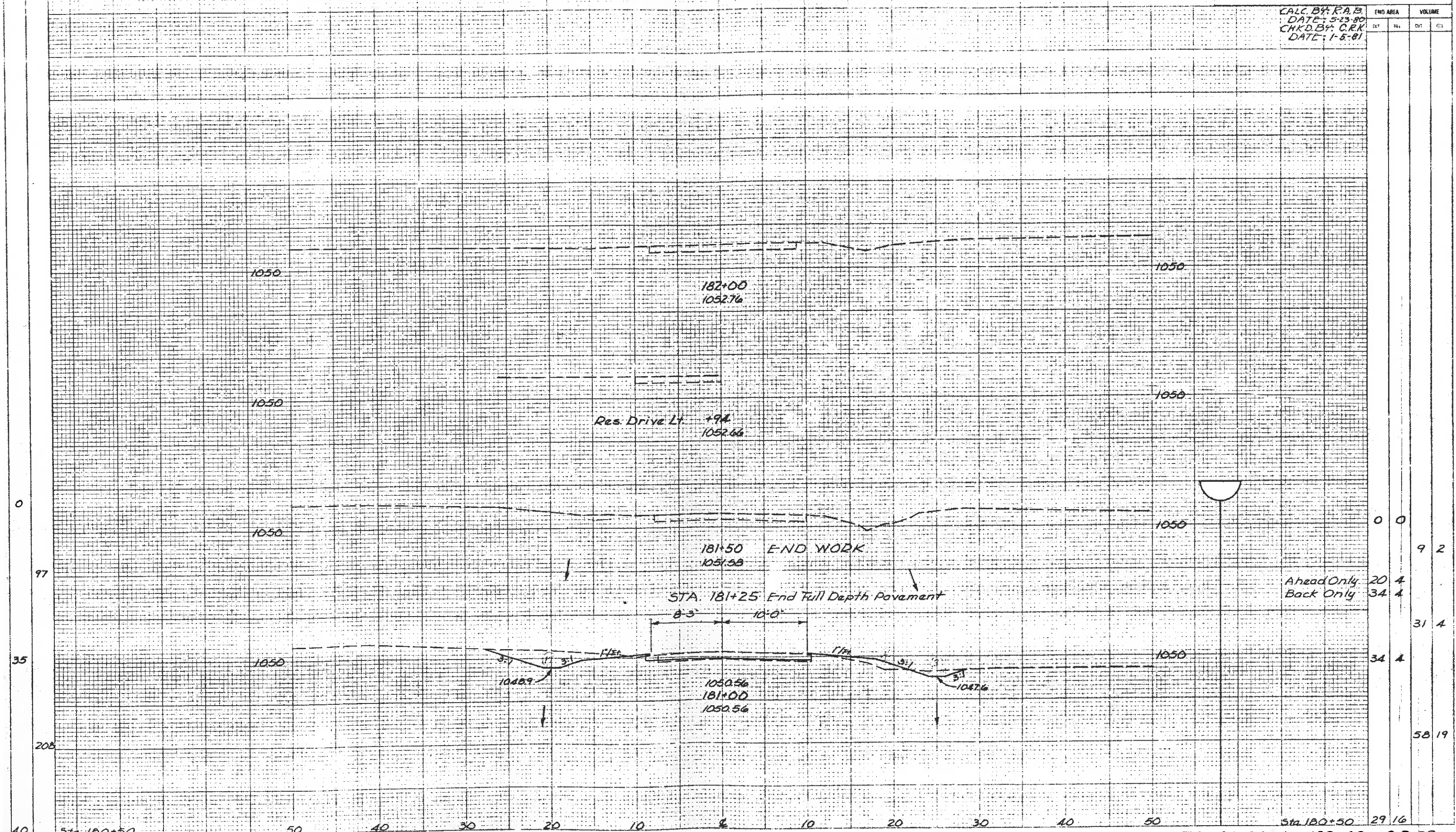
Sta 177+50

Sta 177+50

SHEET NO. 11
OF 18

LOGAN COUNTY
C.R. 39-4.98

CALC. BY: R.A.B.
DATE: 5-23-80
CHKD. BY: C.R.K.
DATE: 1-5-81



END AREA	VOLUME	
	CUT	FILL
0	0	0
97	9	2
35	20	4
	34	4
	31	4
	34	4
208	58	19
40	29	16

X-SECTIONS STA 181+00 TO 182+00 C.R. 39

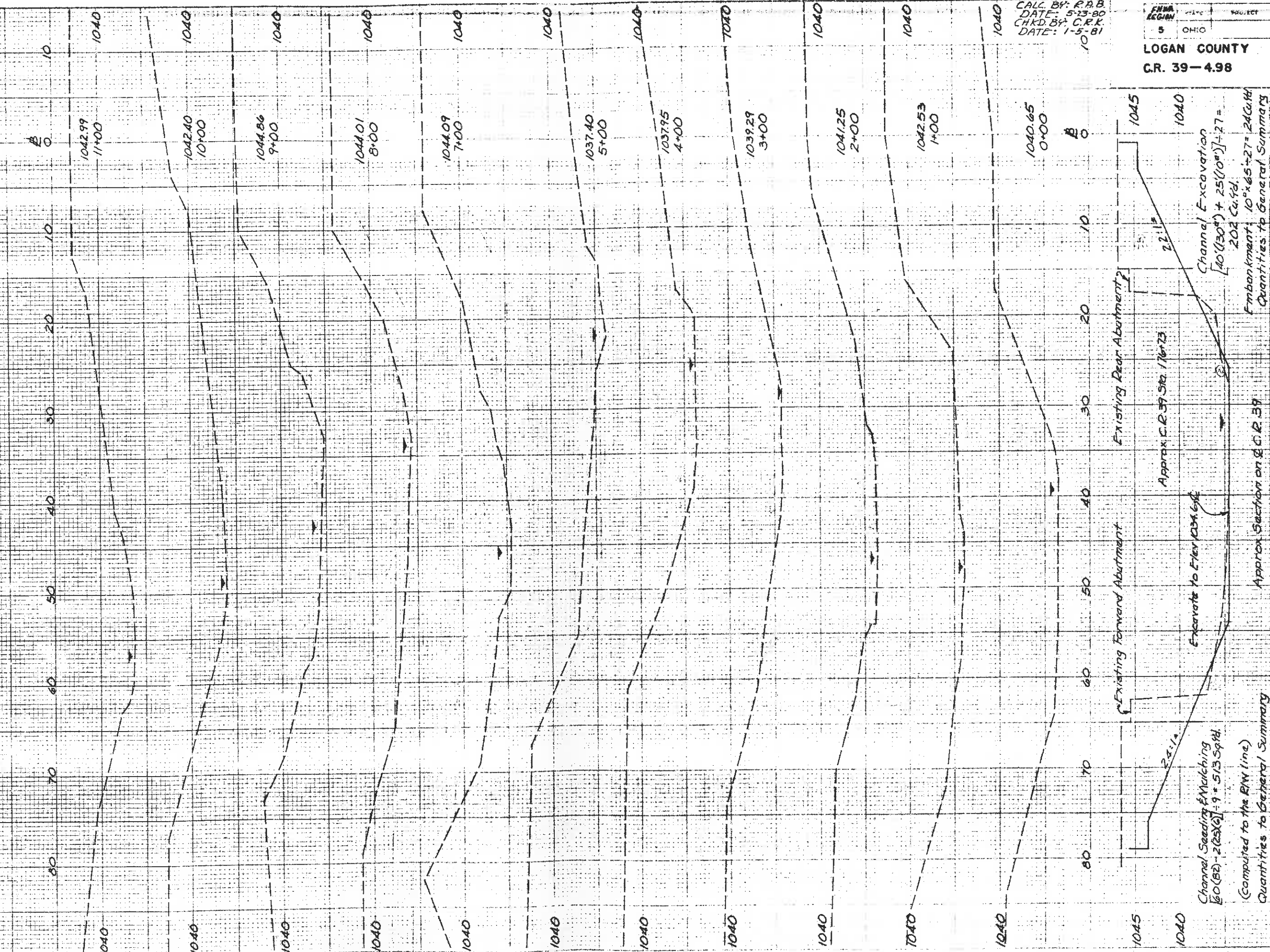
SECTION
NO. 1

CALC. BY: R.A.B.
DATE: 5-23-80
CHKD. BY: C.R.K.
DATE: 1-5-81

FEMA REGION 5 OHIO PROJECT

12/18

LOGAN COUNTY
C.R. 39-4.98



END AREA		VOLUME	
CU. YD.	SQ. FT.	CU. YD.	SQ. FT.

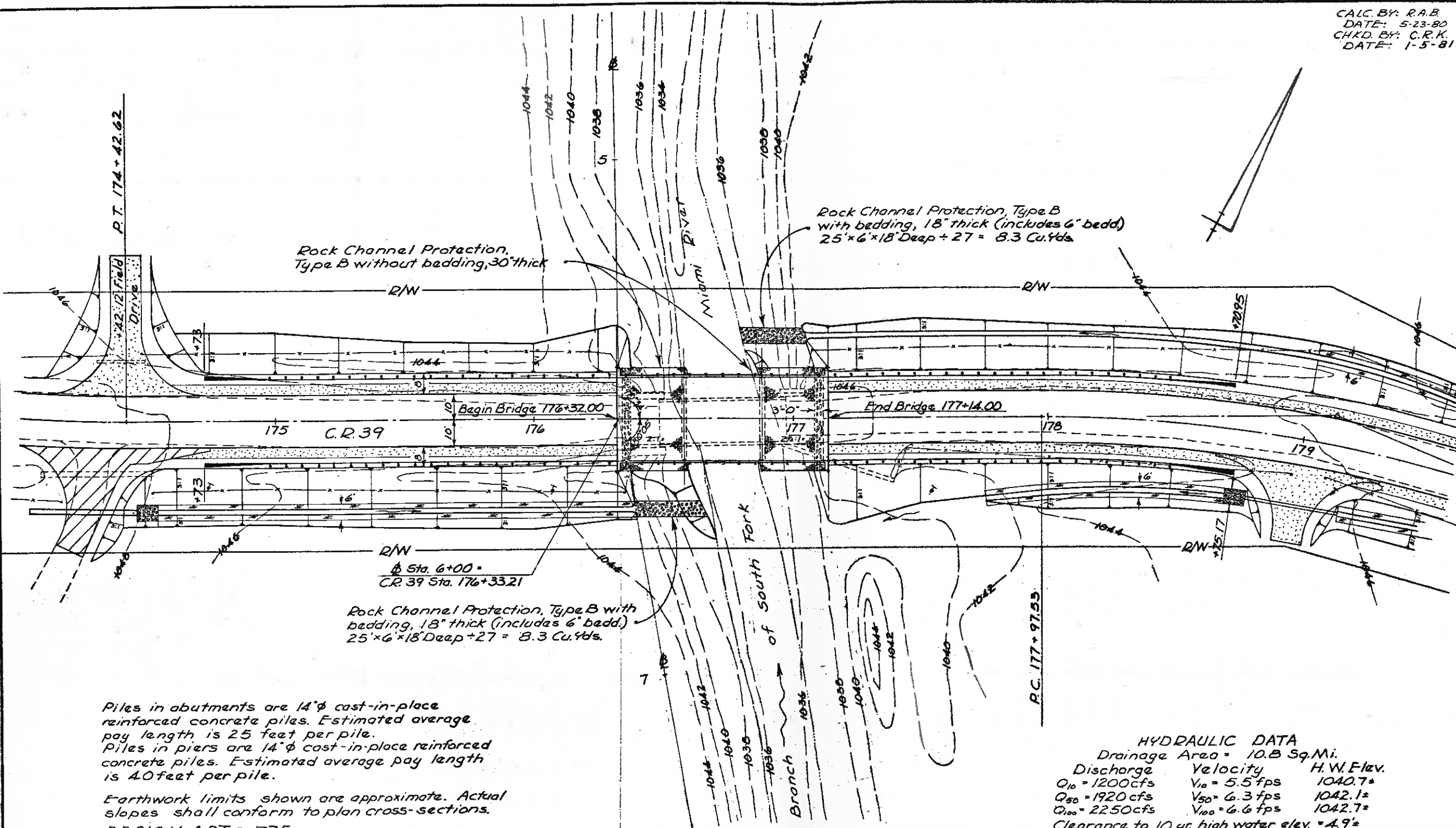
CHANNEL X-SECTIONS

CALC. BY: R.A.B.
 DATE: 5-23-80
 CHKD. BY: C.R.K.
 DATE: 1-5-81

FHWA REGION	STATE	PROJECT
5	OHIO	

13
18

LOGAN COUNTY
 C.R. 39-4.98

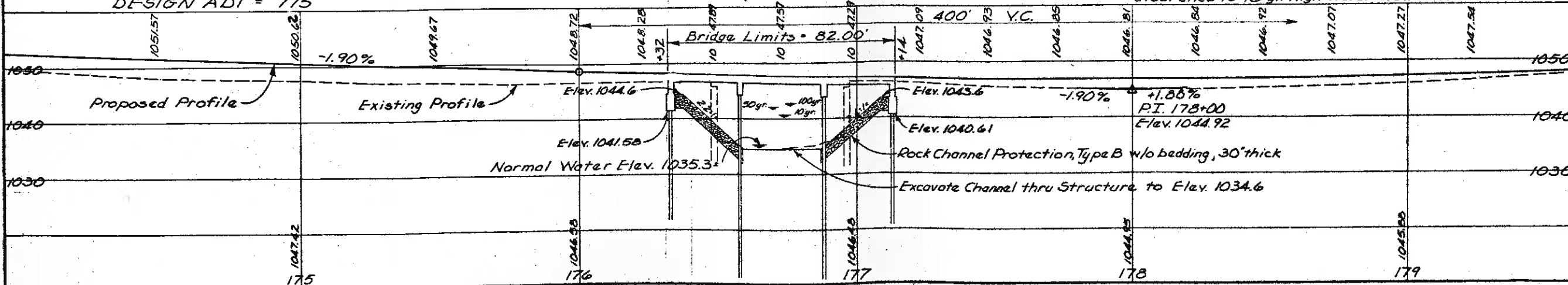


Piles in abutments are 14" ϕ cast-in-place reinforced concrete piles. Estimated average pay length is 25 feet per pile.
 Piles in piers are 14" ϕ cast-in-place reinforced concrete piles. Estimated average pay length is 40 feet per pile.

Earthwork limits shown are approximate. Actual slopes shall conform to plan cross-sections.
 DESIGN ADT = 775

HYDRAULIC DATA

Drainage Area = 10.8 Sq. Mi.	H. W. Elev.	
Discharge Q_{10} = 1200 cfs	V_{10} = 5.5 fps	1040.7'
Q_{50} = 1920 cfs	V_{50} = 6.3 fps	1042.1'
Q_{100} = 2250 cfs	V_{100} = 6.6 fps	1042.7'
Clearance to 10 yr. high water elev. = 4.9'		



EXISTING STRUCTURE

Type: Pratt Steel Truss
 Span: 49'-0"
 Roadway: 15.8'
 Loading: Unknown, 20% Legal
 Skew: 0°
 Wearing Surface: Bituminous
 Alignment: Tangent
 Condition: Poor, to be removed

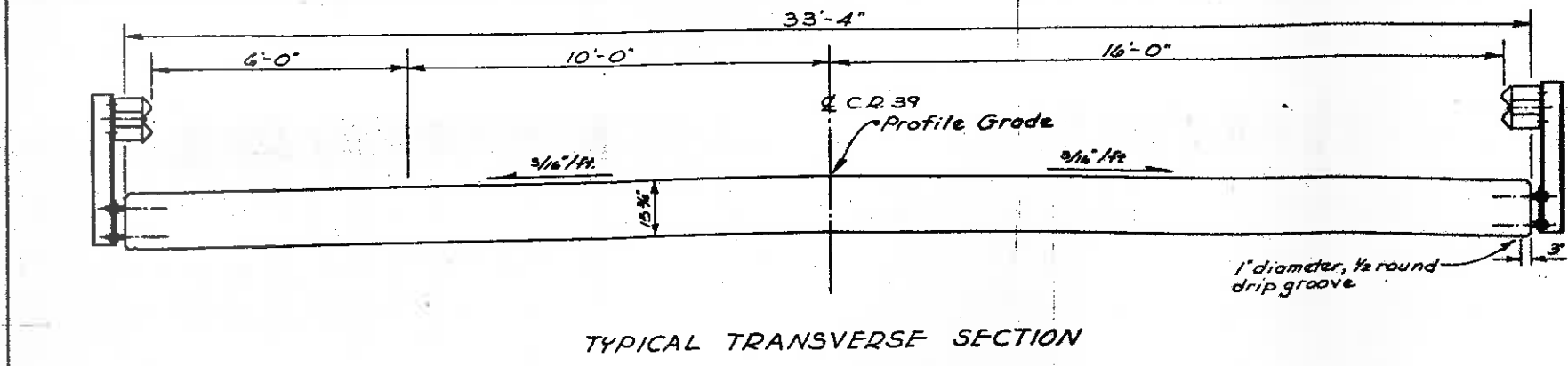
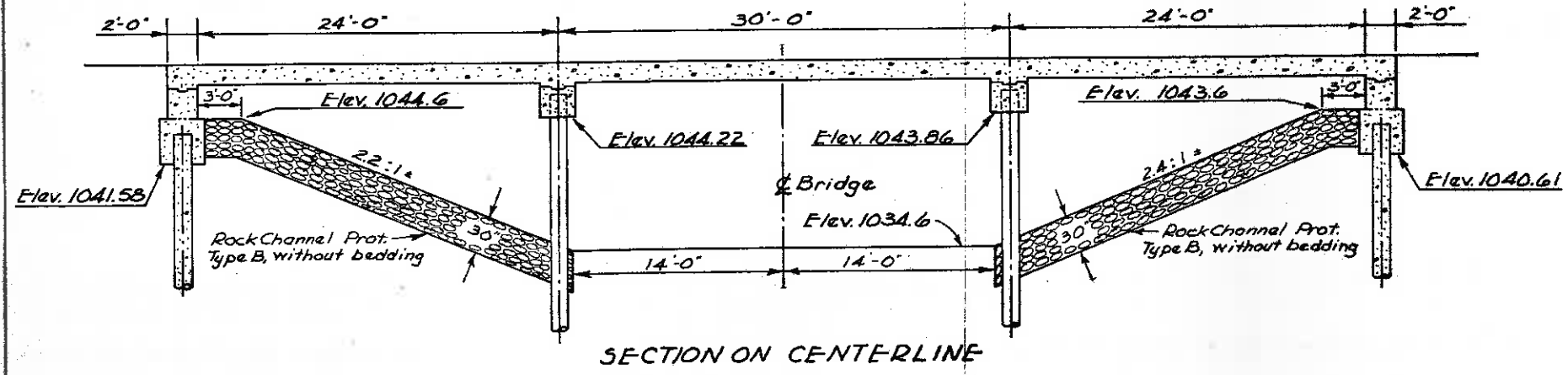
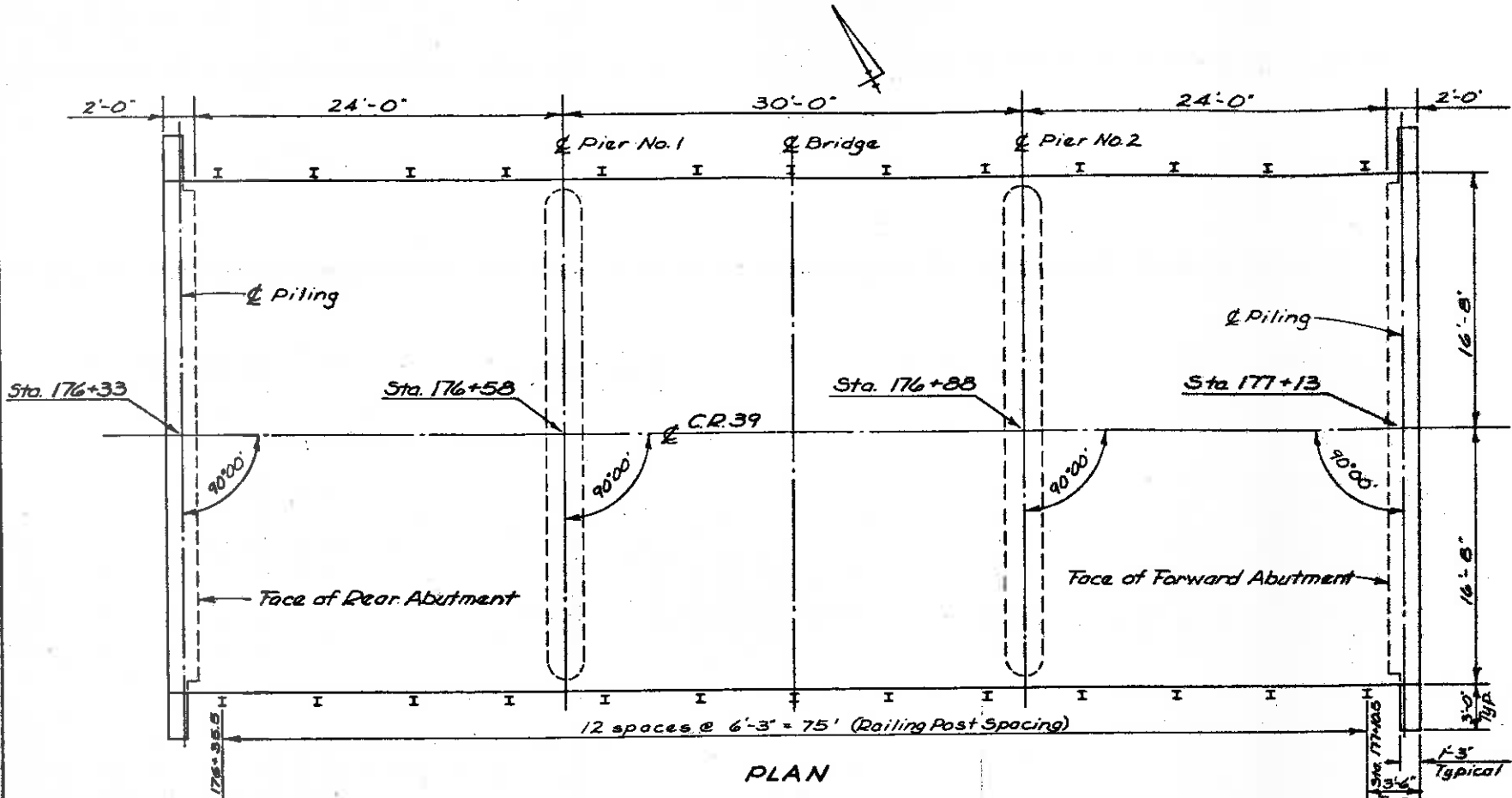
PROPOSED STRUCTURE

Type: Three span continuous reinforced concrete and capped pile substructures
 Spans: 24'-0", 30'-0", 24'-0"
 Roadway: 32'-0" % Guardrails
 Loading: HS 20-44 and the Interstate Alternate Loading
 Skew: 0°
 Wearing Surface: Monolithic concrete
 Alignment: Tangent
 Approach Slab: None

LOGAN COUNTY HIGHWAY DEPT. 115
 CHESTER R. KURTZ, CO. ENGINEER

SITE PLAN
BR. No. 39-4.98
Richland Township
Logan County
Over a Branch South Fork Miami River
Sta. 176+32 to Sta. 177+14

DESIGNED	DRAWN	CHECKED	REVIEWED	REVISED
R.A.B.	R.A.B.	C.R.K.	C.R.K.	R.A.B.
				3-12-80



ESTIMATED QUANTITIES							
ITEM	SUPER	PIERS	ABUT.	GEN.	QUANT.	UNIT	DESCRIPTION
202				Lump	Lump	Lump	Structure removed
503			87		87	Cu.Yd.	Unclassified excavation
505				Lump	Lump	Lump	Test Pile
507	480	350			830	Lin.Ft.	14" Cast-in-place reinforced concrete piles
509	18,295	1,507	4090		23,892	Lb.	Reinforcing steel
Special	9,421	1,130			10,551	Lb.	Epoxy coated reinforcing steel (See Proposal Note)
511	134				134	Cu.Yd.	Class S concrete, superstructure
511		11			11	Cu.Yd.	Class C concrete, pier caps
511			37		37	Cu.Yd.	Class C concrete, abutments
516	7				7	Sq.Ft.	1" Preformed Expansion Joint Filler
517	164.00				164.00	Lin.Ft.	Railing (deep beam rail with steel tubular backup and steel posts and bolts)
518			18		18	Cu.Yd.	Porous backfill
601				197	197	Cu.Yd.	Rock Channel Protection, Type B w/b bedding

GENERAL NOTES

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1973, including the Ohio "Supplement" to these specifications.

DESIGN DATA:
 Design Loading - HS 20-44 and the Interstate Alternate Loading
 Concrete Class 5 - $f'_c = 4500$ psi, unit stress = 1200 psi, superstructure
 Concrete Class C - $f'_c = 4000$ psi, unit stress = 1333 psi, substructure
 Reinforcing Steel - ASTM A615, A616, or A617, unit stress 20,000 p.s.i.
 Monolithic Wearing Surface - thickness is assumed for design purposes to be 1".

EMBANKMENT CONSTRUCTION: The embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the abutments. Excavation shall then be made for the abutments.

PILE CAPACITY: Piles shall be driven to a minimum bearing capacity of 22 tons per pile for the abutments and 36 tons per pile for the piers.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed. Suitable waste masonry may be placed as Bank Protection as directed by the Engineer.

DECK PROTECTION METHOD: Epoxy coated reinforcing steel, top mat only.

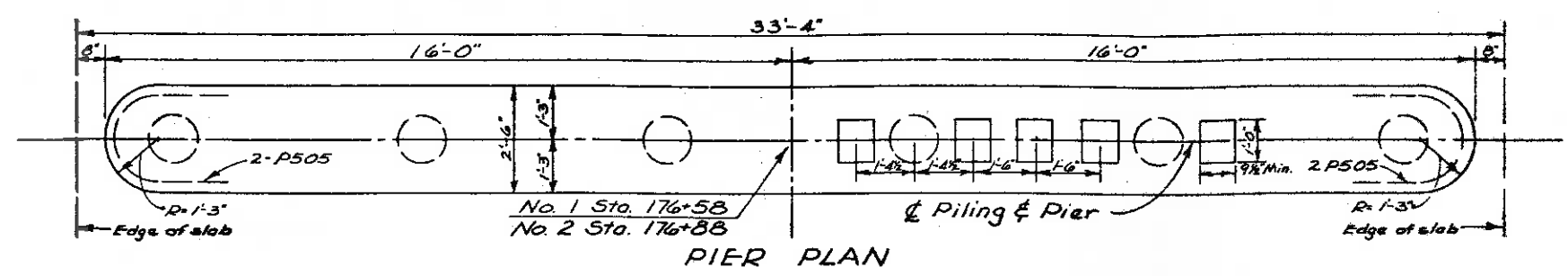
REFERENCE shall be made to Standard Drawing DBR-2-73, dated April 10, 1973 and to Supplemental Specification 836, dated March 12, 1975.

LOGAN COUNTY HIGHWAY DEPT. 2/5
CHESTER R. KURTZ, CO. ENGINEER

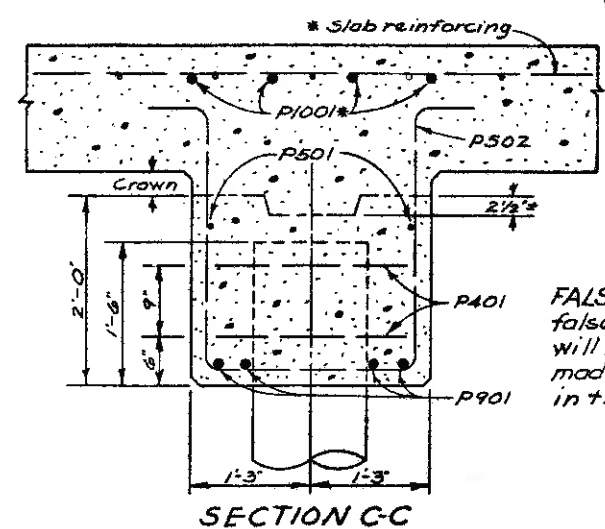
BRIDGE PLAN
BR. No. 39-4.98
Richland Township
Logan County

DESIGNED	DRAWN	CHECKED	REVIEWED	REVISED
P.A.B.	P.A.B.	C.R.K.	C.R.K.	

LOGAN COUNTY
C.R. 39-4.98



PIER PLAN

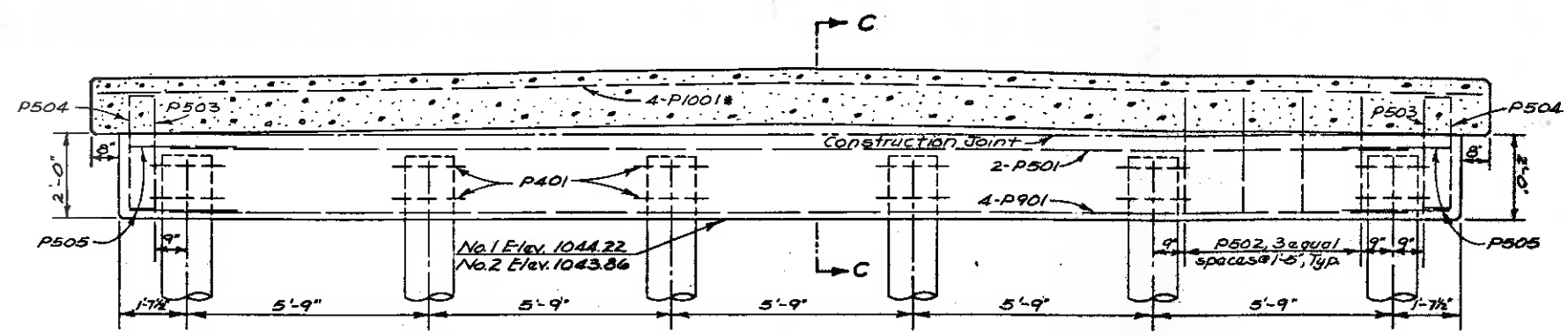


* denotes epoxy coated

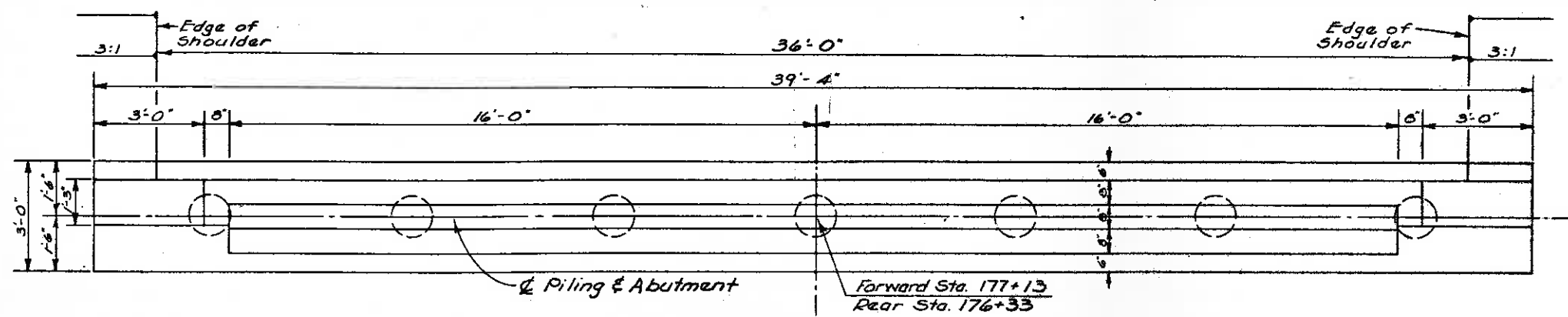
FALSEWORK SUPPORT: Attachment of falsework support members to pier piles will be permitted, if the attachment is made to that portion of pile encased in the pier cap.

SECTION C-C

PIER PILE-TYPE shall be 14" diameter cast-in-place reinforced concrete. The casings shall be of the type that is left in place and is designed to resist both direct compression and bending. The portion above the proposed surface of the ground shall be of uniform diameter (not tapered) and shall have a thickness of metal not less than 0.179 inches.

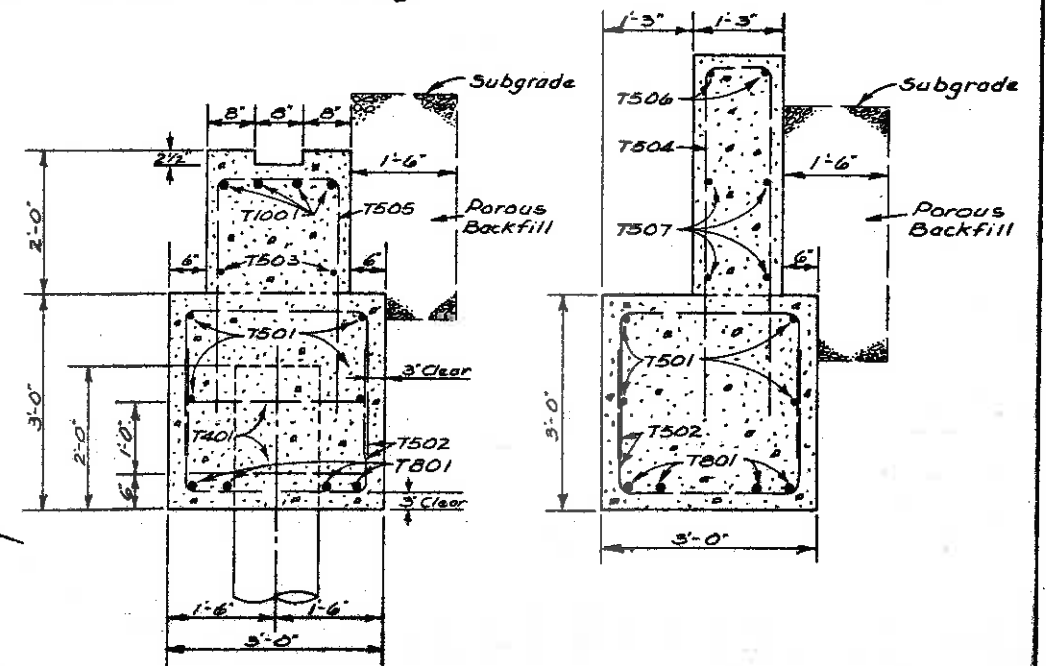


PIER ELEVATION



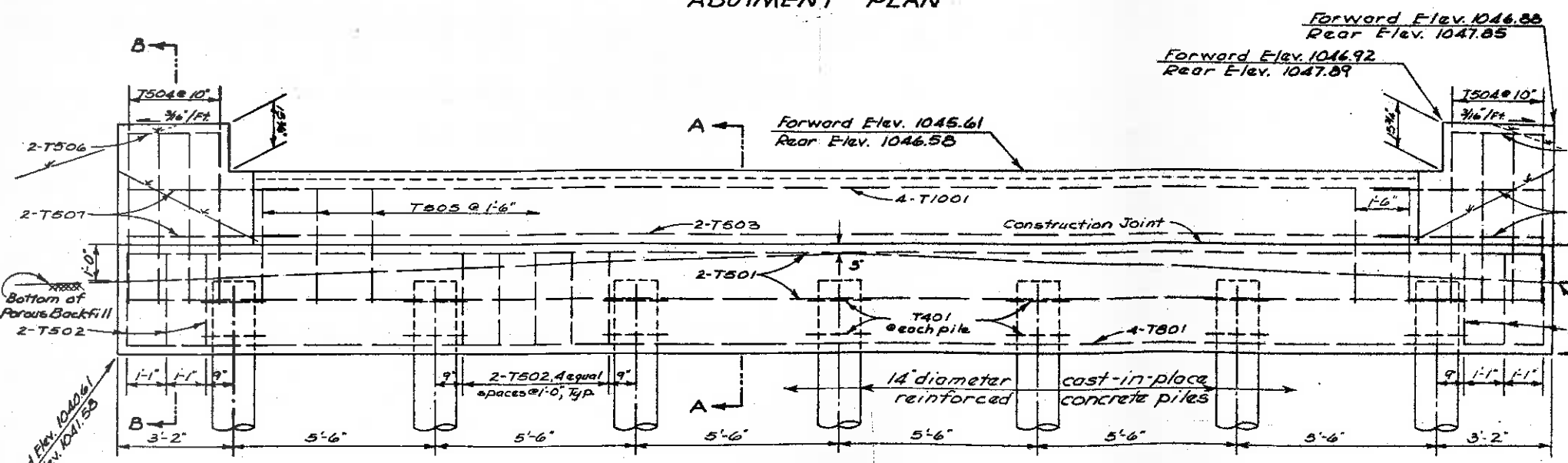
ABUTMENT PLAN

ABUTMENT PILES: 12" diameter cast-in-place reinforced concrete piles may be substituted for the 14" diameter cast-in-place reinforced concrete piles at the Contractor's option, for the abutments only.



SECTION A-A

SECTION B-B



ABUTMENT ELEVATION

POROUS BACKFILL shall extend upward to the plane of the subgrade, and laterally to the surface of the embankment slopes.

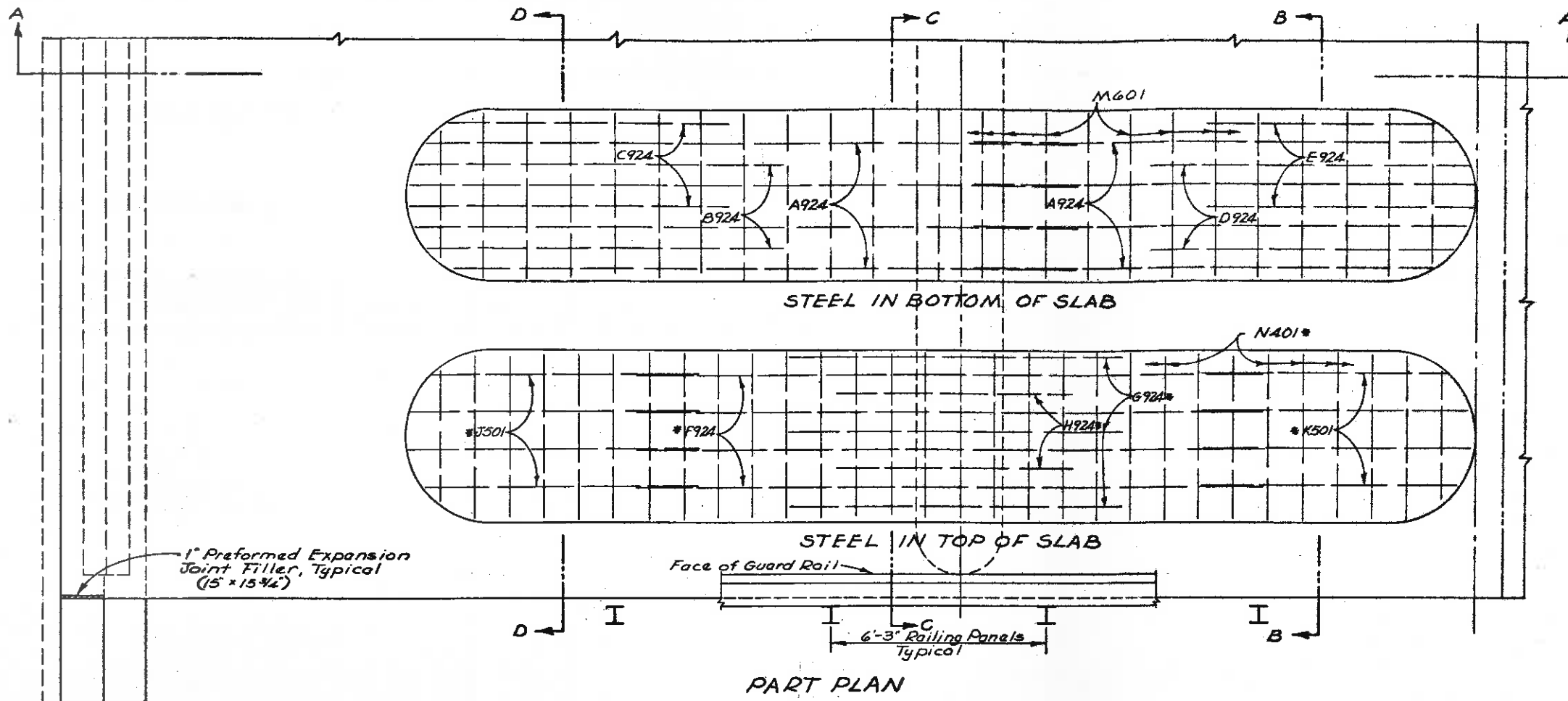
NOTE: In the abutment plan and elevation "Forward" denotes Forward Abutment and "Rear" denotes Rear Abutment.

LOGAN COUNTY HIGHWAY DEPT. 3/5
CHESTER R. KURTZ, CO. ENGINEER

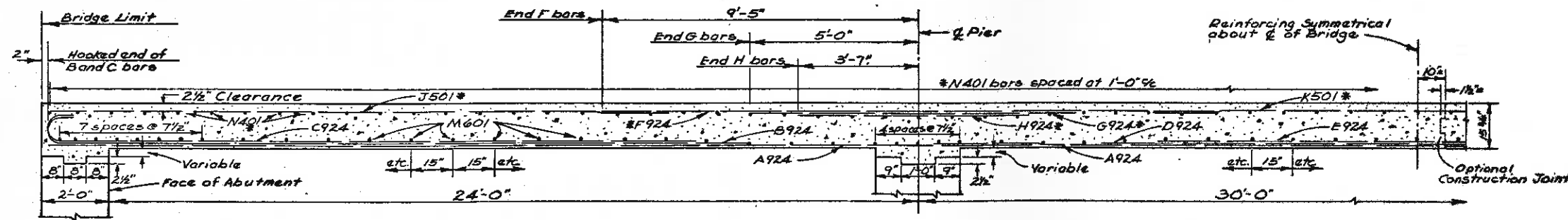
ABUTMENTS & PIERS
BR. No. 39-4.98
Richland Township
Logan County

DESIGNED	DRAWN	CHECKED	REVIEWED	REVISED
R.A.B.	R.A.B.	C.R.K.	C.R.K.	

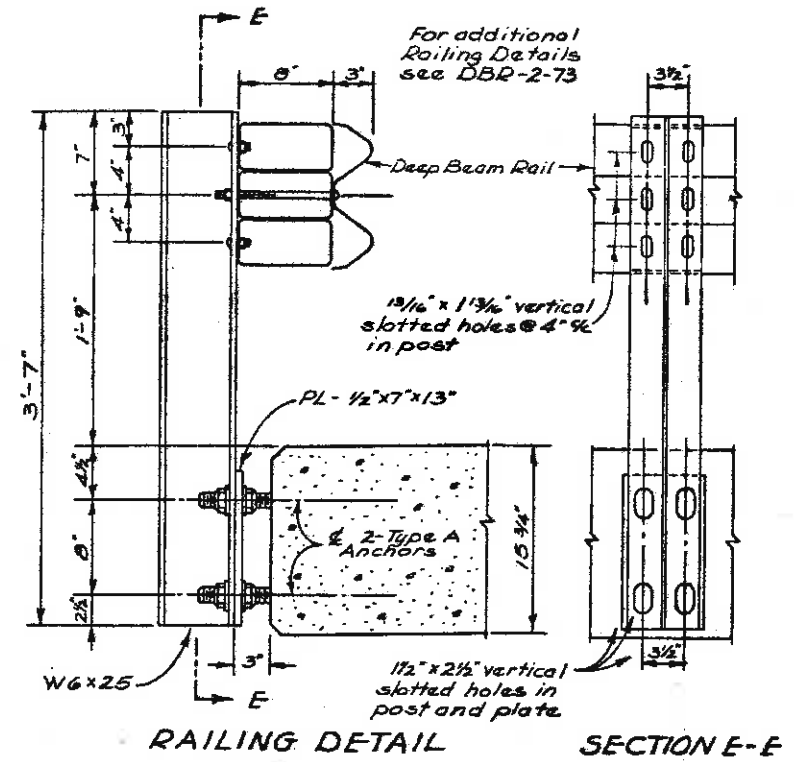
FHWA REGION	STATE	PROJECT
5	OHIO	



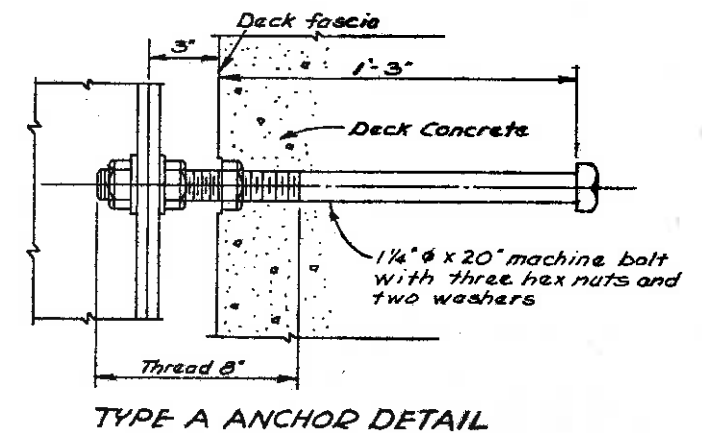
PART PLAN



SECTION A-A



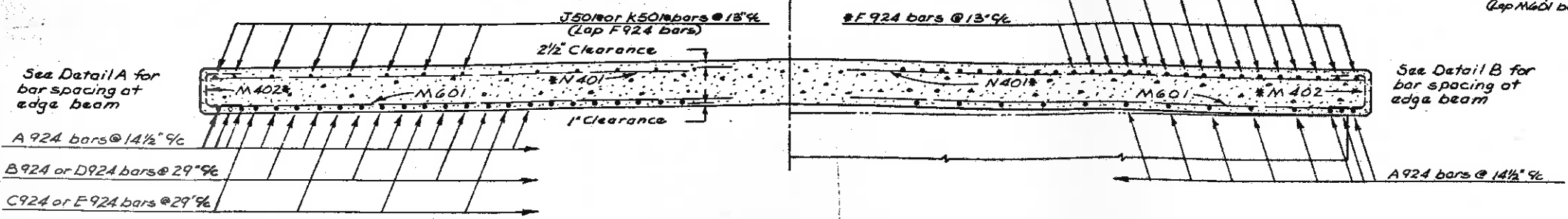
RAILING DETAIL SECTION E-E



TYPE A ANCHOR DETAIL

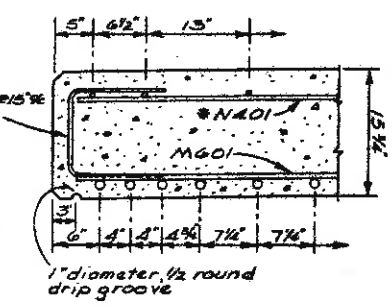
CAMBER of 1/800 of the span shall be provided in each span (in addition to that required for conformance with the profile of the highway) to allow for dead load deflection. This is the amount of camber required before falsework is released. To obtain this, proper allowance shall be made for deflection of falsework members.

* denotes epoxy coated bars

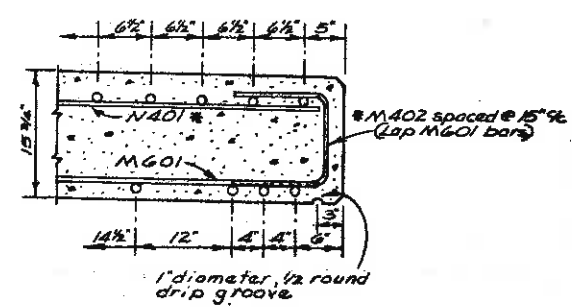


SECTION B-B AND D-D

SECTION C-C



DETAIL A



DETAIL B

DESIGNED	DRAWN	CHECKED	REVIEWED	REVISED
R.A.B.	R.A.B.	C.R.K.	C.R.K.	4/5

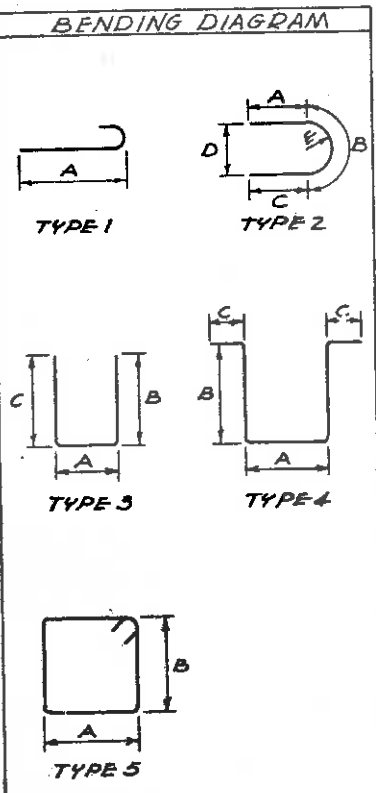
REINFORCING STEEL LIST

CALC. BY: R.A.B.
DATE: 5-23-80
CHKD. BY: C.R.K.
DATE: 1-5-81

FHWA REGION	STATE	PROJECT
5	OHIO	

17
18

LOGAN COUNTY
C.R. 39-4.98



MARK NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E
ABUTMENTS								
T401	28	8'-8"	162	5	1'-9"	2'-4 1/2"		
T501	8	38'-10"	324	S				
T502	144	6'-3"	939	3	2'-6"	2'-0"	2'-0"	
T503	4	31'-6"	131	S				
T504	16	10'-2"	170	3	0'-11"	4'-9"	4'-9"	
T505	44	7'-11"	363	3	1'-8"	3'-3"	3'-3"	
T506	4	2'-6"	10	S				
T507	16	4'-8"	78	S				
T801	8	38'-10"	829	S				
T1001	8	31'-6"	1084	S				
			4090	LBS				
PIERS								
P401	24	8'-0"	128	5	1'-9"	2'-0 1/4"		
P501	4	29'-6"	123	S				
P502	40	8'-5"	351	4	2'-2"	2'-9"	0'-7 1/2"	
P503	4	8'-3"	34	4	2'-0"	2'-9"	0'-7 1/2"	
P504	4	3'-9"	16	3	2'-9"	0'-7 1/2"	0'-7 1/2"	
P505	8	6'-4"	53	2	1'-7"	3'-1"	1'-7"	2'-0 1/4" 0'-11 1/2"
P901	8	29'-6"	802	S				
			1,507	LBS				
Epoxy Coated Bars								
P1001	8	32'-10"	1130	S				
			1,130	LBS				
SUPERSTRUCTURE								
M601	77	32'-10"	3797	S				
A924	93	29'-2"	9223	S				
B924	26	22'-0"	1945	1	20'-9"			
C924	26	20'-5"	1805	1	19'-2"			
D924	13	18'-11"	836	S				
E924	13	15'-7"	689	S				
			18,295	LBS				
Epoxy Coated Bars								
F924	64	18'-4"	3989	S				
G924	28	9'-9"	928	S				
H924	30	6'-11"	706	S				
J501	64	18'-3"	1218	S				
K501	32	15'-10"	528	S				
M402	130	2'-8"	232	3	0'-11"	1'-0"	1'-0"	
N401	83	32'-10"	1820	S				
			9,421	LBS				

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A700 is a No. 7 size bar and A1014 is a No. 10 size bar.

REINFORCING STEEL: At the option of the contractor, the T1001, T801, T501, T503, P1001, P901 and P501 bars may be furnished in one length as shown on Sheet No. 15 or in pairs lapped at or near the centerline of the roadway, the M601 and N401 bars as shown on Sheet No. 16 may be furnished in pairs of equal length or in pairs of different lengths in order to place the lap beyond a longitudinal construction joint at the centerline of the roadway. The pay quantity shall be according to the number and length of bars as shown in the reinforcing steel list at the left. The following lap splice lengths shall be used:

T1001, P1001	5'-10"
P901	4'-1"
T801	3'-3"
M601	1'-11"
T501, T503, P501	1'-7"
N401	1'-3"

ADDITIONAL GENERAL NOTES, from page 3/18

FARM DRAINS: All farm drains, which are encountered during construction, shall be provided with unobstructed outlets under the direction of the Engineer. Existing collectors which are located below the roadway ditch elevations, and which cross the roadway, shall be replaced within the construction limits by Item 603 Conduit, Type B, one commercial size larger than the existing conduit. Existing collectors and isolated farm drains, which are encountered above the elevation of the roadway ditches, shall be outletted into the roadway ditch by 603 Type F Conduit. The optimum outlet elevation shall be, if possible, one foot above the flowline elevation of the ditch. The location, type, size and grade of required replacements shall be determined by the Engineer during construction, and payment shall be made on final measurements. The following estimated quantities have been included in the General Summary for the work noted above:

Item 603 6" Conduit, Type B	100 Lin. Ft.
Item 603 6" Conduit, Type E	100 Lin. Ft.
Item 603 6" Conduit, Type F	50 Lin. Ft.
Item 601 Rock Channel Protection, Type B, w/bed. (18" thick) - 2 Cu. Yd.	

Necessary bends or branches shall be included for payment in the pertinent conduit item. None of the above materials shall be ordered by the Contractor until requested by the Engineer.

S in the column for "Type" indicates straight bars

LOGAN COUNTY HIGHWAY DEPT. 5/5
CHESTER R. KURTZ, CO. ENGINEER

STEEL LIST
BR. No. 39-4.98
Richland Township
Logan County

DESIGNED	DRAWN	CHECKED	REVIEWED	REVISED
R.A.B.	R.A.B.	C.R.K.	C.R.K.	

CALC. BY: P.A.B.
 DATE: 5-23-80
 CHKD. BY: C.R.K.
 DATE: 1-5-81

FHWA REGION	STATE	PROJECT
5	OHIO	

18
18

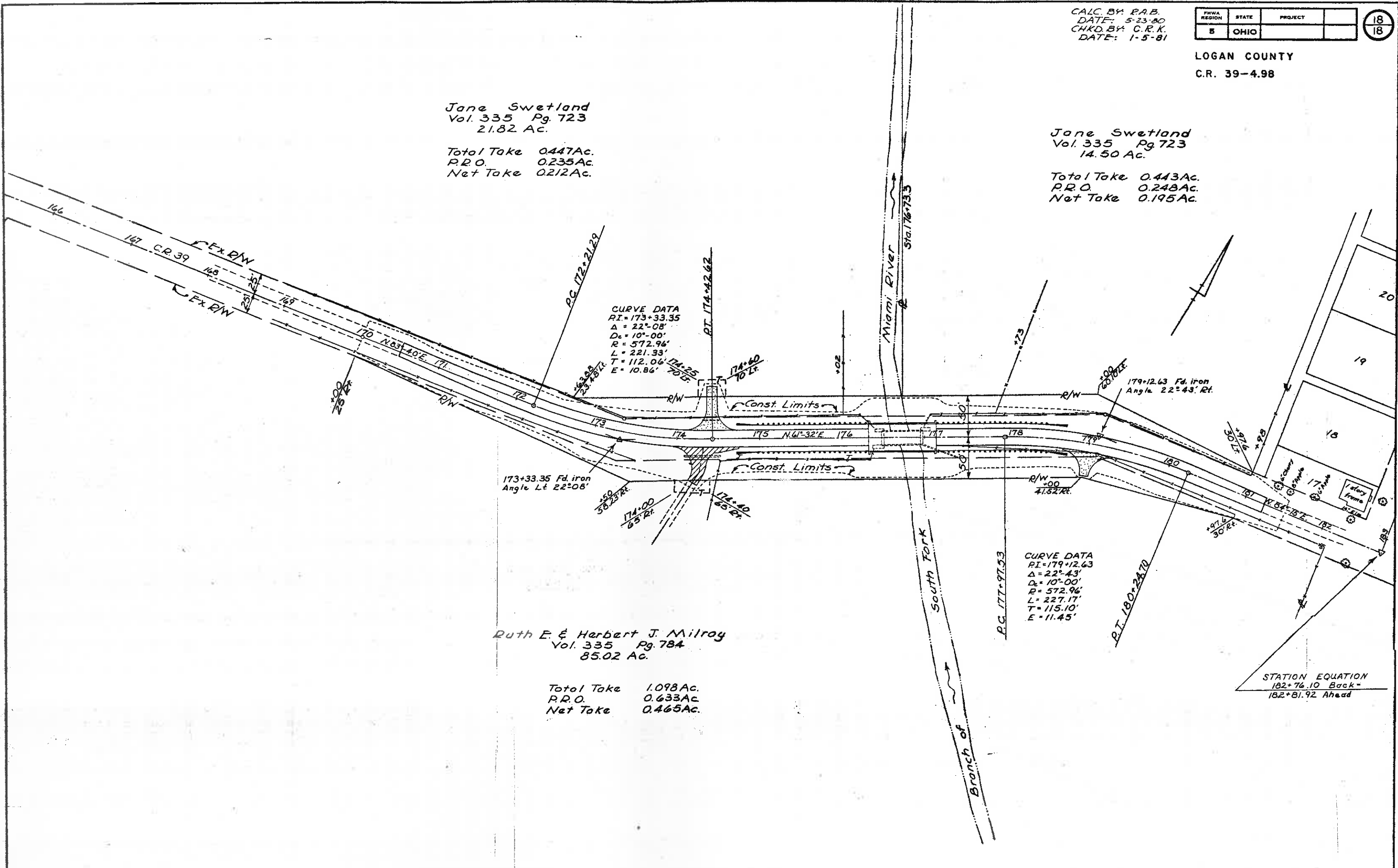
LOGAN COUNTY
 C.R. 39-4.98

Jane Swetland
 Vol. 335 Pg. 723
 21.82 Ac.

Total Take 0.447Ac.
 P.R.O. 0.235Ac.
 Net Take 0.212Ac.

Jane Swetland
 Vol. 335 Pg. 723
 14.50 Ac.

Total Take 0.443Ac.
 P.R.O. 0.248Ac.
 Net Take 0.195Ac.



Ruth E. & Herbert J. Milroy
 Vol. 335 Pg. 784
 85.02 Ac.

Total Take 1.098Ac.
 P.R.O. 0.633Ac.
 Net Take 0.465Ac.

STATION EQUATION
 182+76.10 Back=
 182+81.92 Ahead

LOG OF BORING

Date: 4-3-78
 Station: 176+32.84
 Sampler Type: Liner
 Water Elev: 1036.7

Boring No: 4
 Station: 176+32.1421
 Surface Elev: 1045.2

Elevation No.	Depth ft.	Description	W/C %
1045.2	0	3" Topsoil	
	1		
	2	Stiff Brown SILT, Some F.C. Sand, Little F.C. Gravel, Little Clay (Organic)	
	3		
	4		
	5	Stiff Brown Silty CLAY, Some F.C. Sand, Some F.C. Gravel	
	6		
	7		
	8		
	9		
	10	Stiff Gray Sand, Silty CLAY, Some F.C. Gravel, Little Clay	
	11		
	12		
1032.2	13		
	14	Extremely Compact Gray F.C. SAND and F.C. GRAVEL, Trace SILT	
	15		
	16		
	17		
	18		
	19		
	20	No Recovery	
	21		
	22		
	23		
	24	No Recovery	
	25		
	26		
	27		
	28		
	29		
	30	No Recovery	

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio, County of Logan, and CTL ENGINEERS do not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

STRUCTURE FOUNDATION INVEST-
 LOG C.R. 39-498
 Over Branch South Fork Miam River

DRAWN CHECKED REVIEWED REVISIONS
 P.A.B. C.R.K. C.R.K.
 1-15-81 1-15-81 1-15-81

LOG OF BORING

Date: 4-3-78
 Station: 176+32.84
 Sampler Type: Liner
 Water Elev: -

Boring No: 3
 Station: 176+32.84
 Surface Elev: 1046.3

Elevation No.	Depth ft.	Description	W/C %
1046.3	0	4" Topsoil	
	1		
	2	Extremely Stiff Gray SILT, Little Clay, Little F.C. Sand (Organic)	
	3		
	4	Extremely Compact F.C. GRAVEL, Some F.C. Sand, Trace Clay	
	5	Extremely Stiff Gray CLAY, Some F.C. Sand, Little SILT (Sand Layers)	
	6	No Recovery	
1026.3	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15	Extremely Stiff Gray SILT, Some F.C. Sand, Little SILT (Sand Layers)	
	16		
	17		
	18		
	19		
	20	No Recovery	
	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	30		

FOUNDATION INVESTIGATION: The foundation investigation was performed by CTL ENGINEERING, Columbus, Ohio. This Report was prepared by Logan County.

EXPLOATION: The exploration consisted of four drive sample borings, made on April 4, 1978.

INVESTIGATIONAL FINDINGS: The borings encountered 3 to 4 inches of topsoil overlying varying strata of brown to gray silt, silty sand and gravel, clayey silt, sand, silty clay, clayey sand and clay. Boring Nos 1, 2, & 4 were terminated at 30 foot depth. Ground water was encountered at Elev. 1036.7 in Boring No. 4.

LOG OF BORING

Date: 4-3-78
 Station: 177+13.114
 Sampler Type: Liner
 Water Elev: 1033.6

Boring No: 2
 Station: 177+13.114
 Surface Elev: 1046.1

Elevation No.	Depth ft.	Description	W/C %
1046.1	0	4" Topsoil	
	1		
	2	Firm Brown SILT, Some Clay, Some F.C. Sand, Some F.C. Gravel	
	3		
	4		
	5	No Recovery	
	6		
	7		
	8		
	9	Vary Stiff Gray Some (Boulder)	
	10		
	11		
	12	Extremely Stiff Brown CLAY, Little F.C. Sand, Trace F.C. Gravel (Gray Sand Layers)	
	13		
	14		
	15		
	16		
	17		
	18		
	19		
	20	No Recovery	
	21		
	22		
	23		
	24		
	25	Extremely Stiff Brown Some	
	26		
	27		
	28		
	29		
	30	Compact Brownish Gray Silty FINE SAND, Trace Clay	

SOIL COMPOSITION

The primary soil component is defined as containing more than 50 percent of the sample by weight. Minor components are defined as containing:

- 35 to 50 percent - And
- 20 to 35 percent - Some
- 10 to 20 percent - Little
- 1 to 10 percent - Trace

On the boring logs, the primary component is shown first and in capital letters. Minor components as shown by the terms relative amounts as shown by the terms and, some, little, and trace. A further description of fine, medium, or coarse is used to classify gravels and sands.

X 1/2 Indicates the No. of Blows for Sand Penetration Test, No. of Blows given in 6 inch increments - Profile View.

Ground Water During Drilling

Drive Sample Boring Location - Plan View

LOG OF BORING

Date: 4-3-78
 Station: 177+13.84
 Sampler Type: Liner
 Water Elev: 1033.6

Boring No: 1
 Station: 177+13.84
 Surface Elev: 1046.3

Elevation No.	Depth ft.	Description	W/C %
1046.3	0	3" Topsoil	
	1	Soft Brown SILT, Little F.C. Sand, Trace F.C. Gravel, Trace Clay (Organic)	
	2		
	3		
	4	Stiff Brown Some (Organic)	
	5		
	6	SAND and F.C. GRAVEL	
	7		
	8		
	9		
	10	Vary Stiff Gray CLAY, SILT, Little F.C. Sand, Little F.C. Gravel	
	11	Extremely Compact Brown Gray F.C. SAND, Little SILT, Little Clay, Trace F.C. Gravel	
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19	Extremely Stiff Brown Gray Silty CLAY, Little F.C. Sand, Trace F.C. Gravel (Sand Layers)	
	20		
	21		
	22		
	23		
	24	Extremely Stiff Brown Gray Silty CLAY, Little F.C. Sand, Trace F.C. Gravel (Sand Layers)	
	25		
	26		
	27		
	28		
	29		
	30	Very Stiff Brownish Gray CLAY, F.C. SAND, Little SILT, Trace F.C. Gravel	

BORING LOG LEGEND

TOPSOIL

SILT with varying proportions of Clay, Sand and Gravel

CLAY with varying proportions of Silty, Sand and Gravel

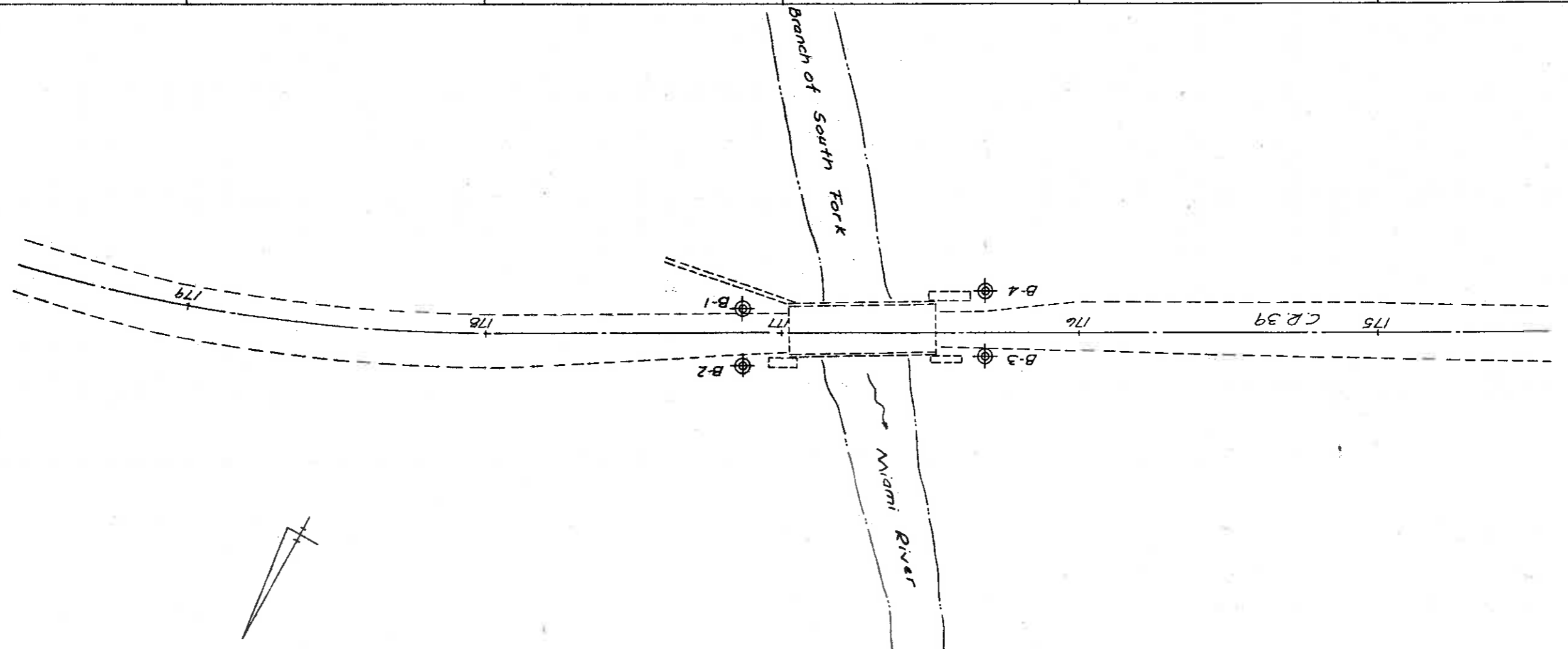
SAND with varying proportions of Silty, Clay and Gravel

SAND and GRAVEL or GRAVEL with silt and clay

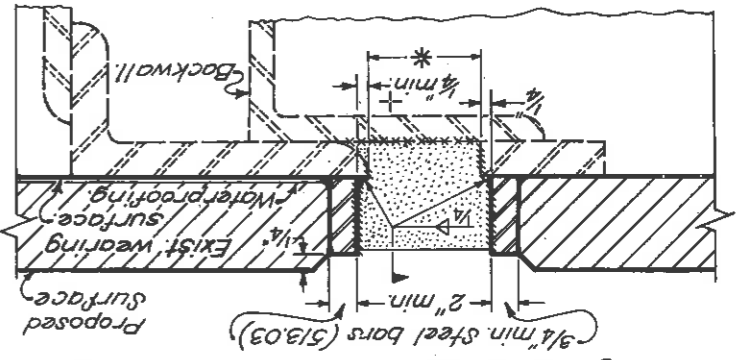
BOULDER

Silty CLAY or Clayey SILT with varying prop. of Sand & Gravel

Sandy SILT or Silty SAND with varying prop. of Sand & Gravel



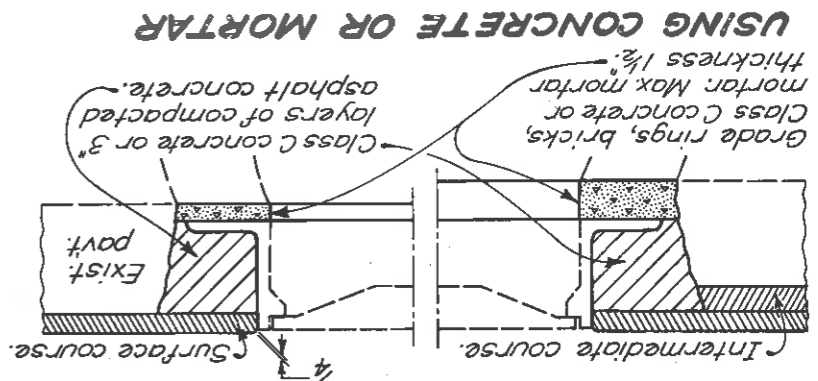
* Vertical extension of joints found to be closed to 1/2" or less may be non-performed as directed by the Engineer. + Increase as necessary to maintain 2" min. opening.



As a part of item 516, seal joint with a hot-applied bridge deck waterproofing material which also meets the requirements of 705.1. Sandblast vertical surfaces (1) and wipe clean. Seal joint before rust forms. If rust forms, re-sandblast. Use bond breaker on the horizontal surface (2).

MAINTENANCE OF TRAFFIC: Generally the bars shall be welded while the lane is closed for water-proofing or resurfacing. However, if traffic is routed over the bars before resurfacing, temporary ramps shall be constructed to the tops of the bars using 402 or 404 feathering at a max. slope of 6 1/4 in. The ramps shall be removed prior to resurfacing. Payment for placing and removing the ramps shall be included in the lump sum bid for item 614.

VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS

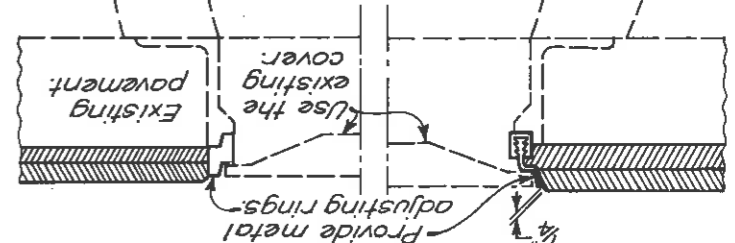


USING CONCRETE OR MORTAR

Grade rings, bricks, Class C concrete or 3" mortar. Max. mortar thickness 1 1/2". Provide metal adjusting rings. Use the existing cover. Existing pavement.

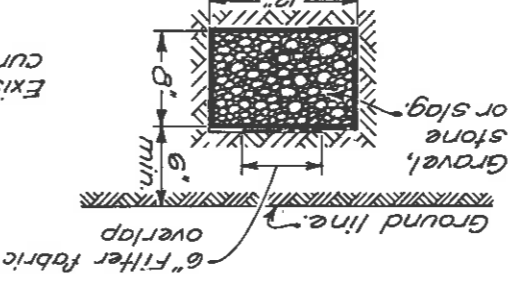
USING METAL ADJUSTING RINGS MANHOLES ADJUSTED TO GRADE

The metal adjusting rings shall be equal to the Series R-1979 by the Neenah Foundry Co. or the models L5, LB, SB, NB or MB by the National Utility Products Co. or an approved equal. Adjustment range 1" to 4 1/2".



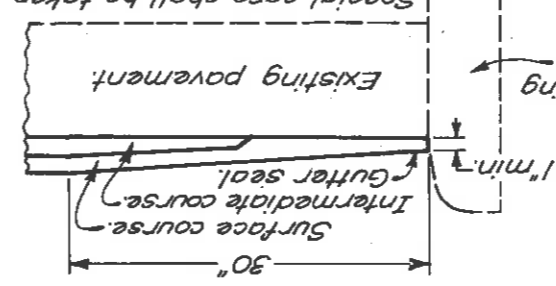
AGGREGATE DRAIN

Aggregate drains to be placed where and as directed by Engineer. Provide filter fabric when specified as a separate pay item.

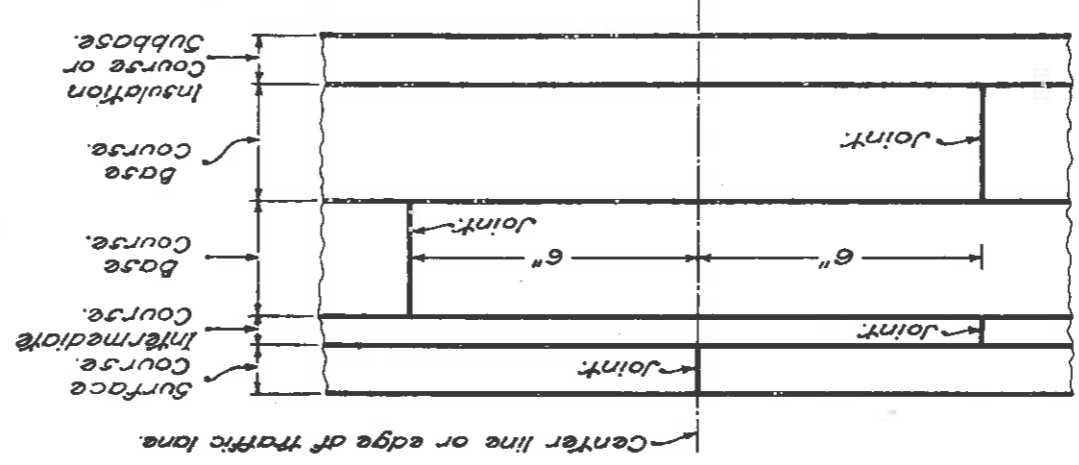


GUTTER FINISH

Special care shall be taken during construction to obtain maximum compaction of bituminous concrete in gutters.

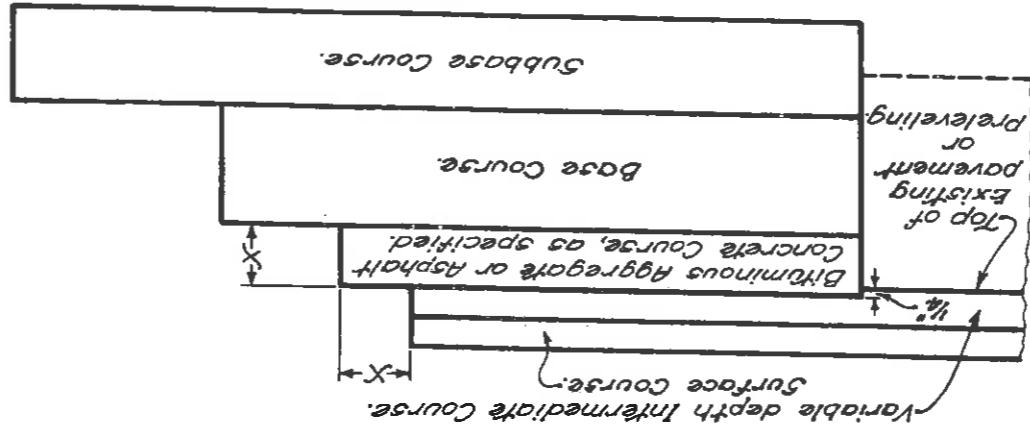


LAPPING LONGITUDINAL JOINTS



COURSE DETAIL FOR WIDENING

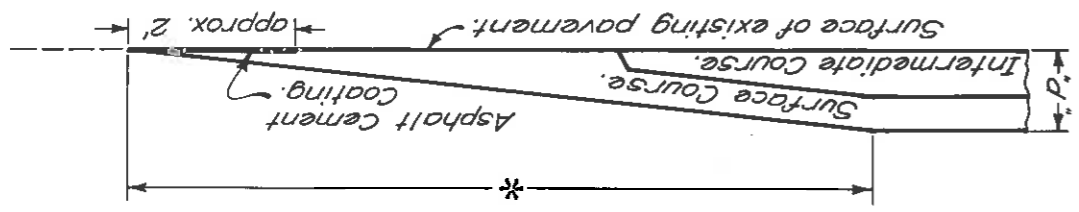
The Bituminous Aggregate in the upper part of the base widening shall finish approximately 1/4" above the existing pavement where no prelevelling is used. Where a prelevelling (using intermediate course material) is specified, it shall be placed prior to excavation of the widening trench and the upper course of the base widening shall finish approximately 1/4" above the prelevelling.



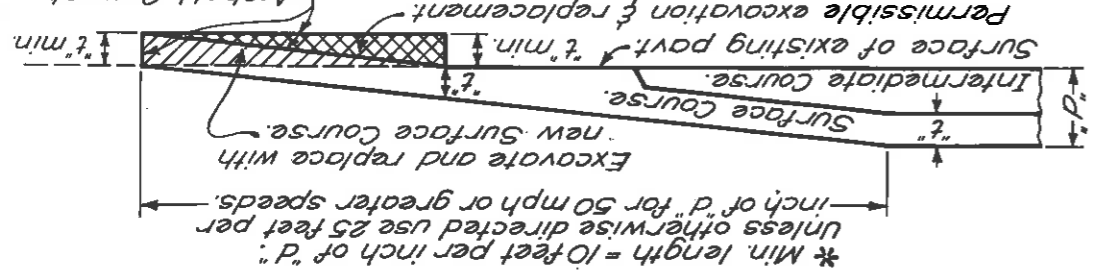
RESURFACING

PLACING FEATHERED AREAS

FEATHER EDGE TYPE

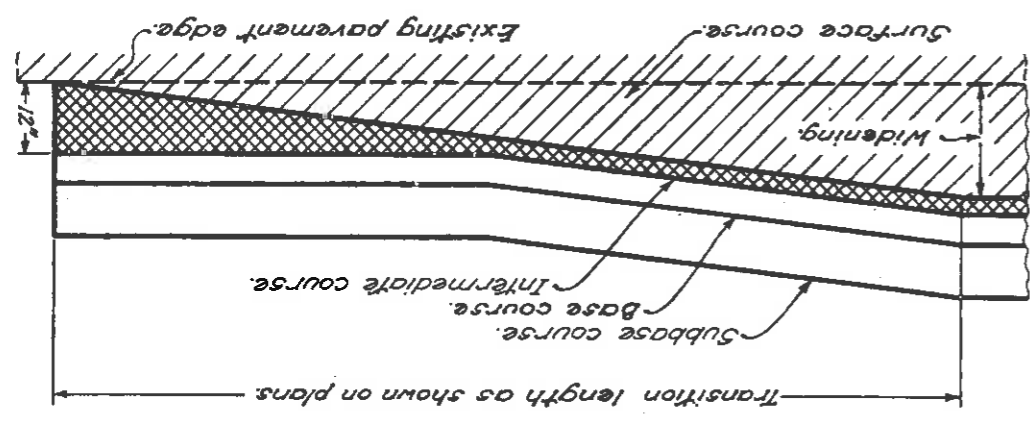


BUTT JOINT TYPE

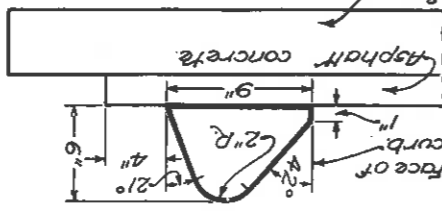


NOTE: Either type feathered area may be used unless type is specified by the plan.

MERGING EDGE OF PAVEMENT WIDENING WITH EDGE OF EXISTING PAVEMENT



TYPE I ASPHALT CONCRETE CURB



RESURFACING

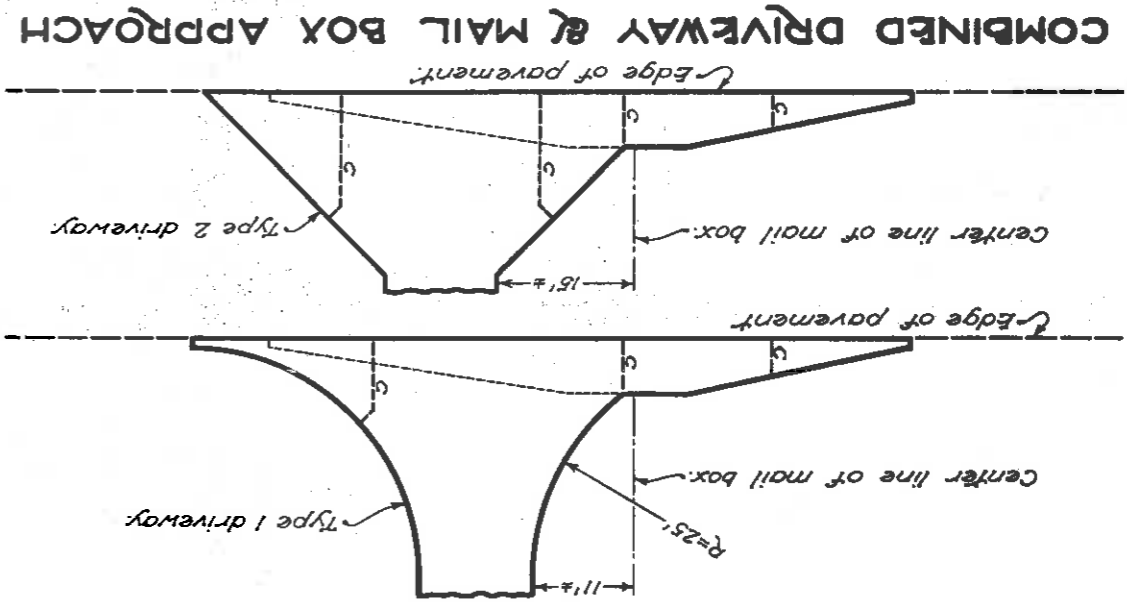
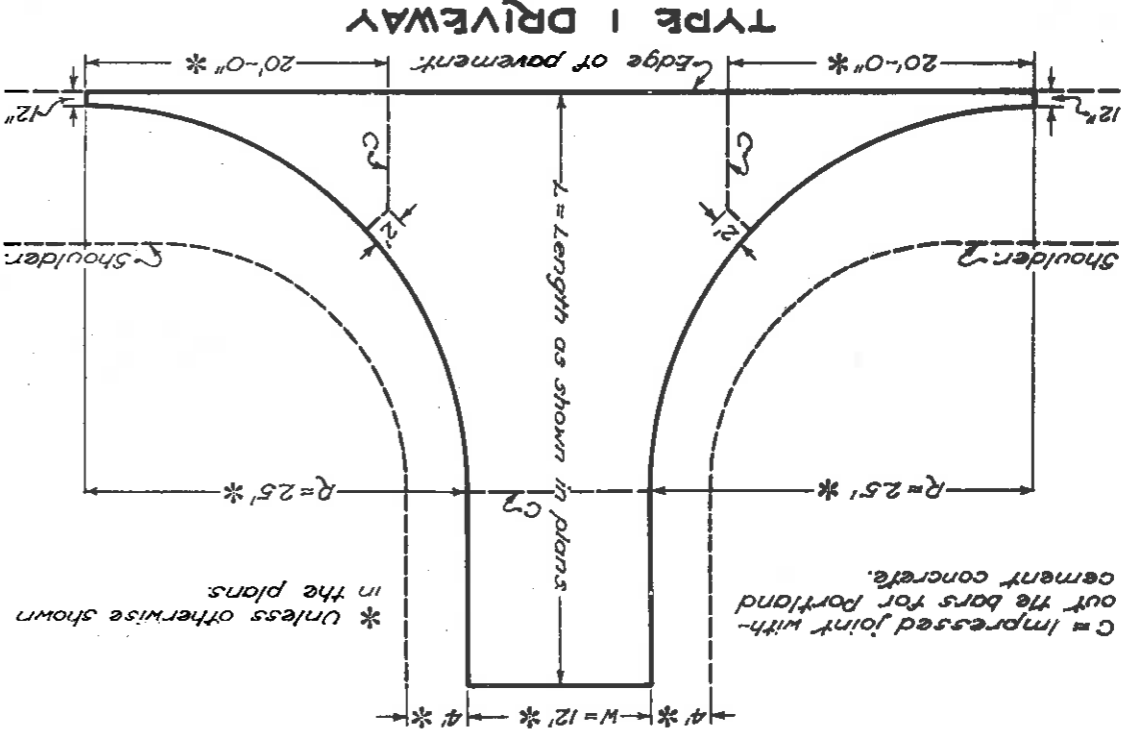
BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF TRANSPORTATION

STANDARD DRAWING
CONSTRUCTION
BP-5

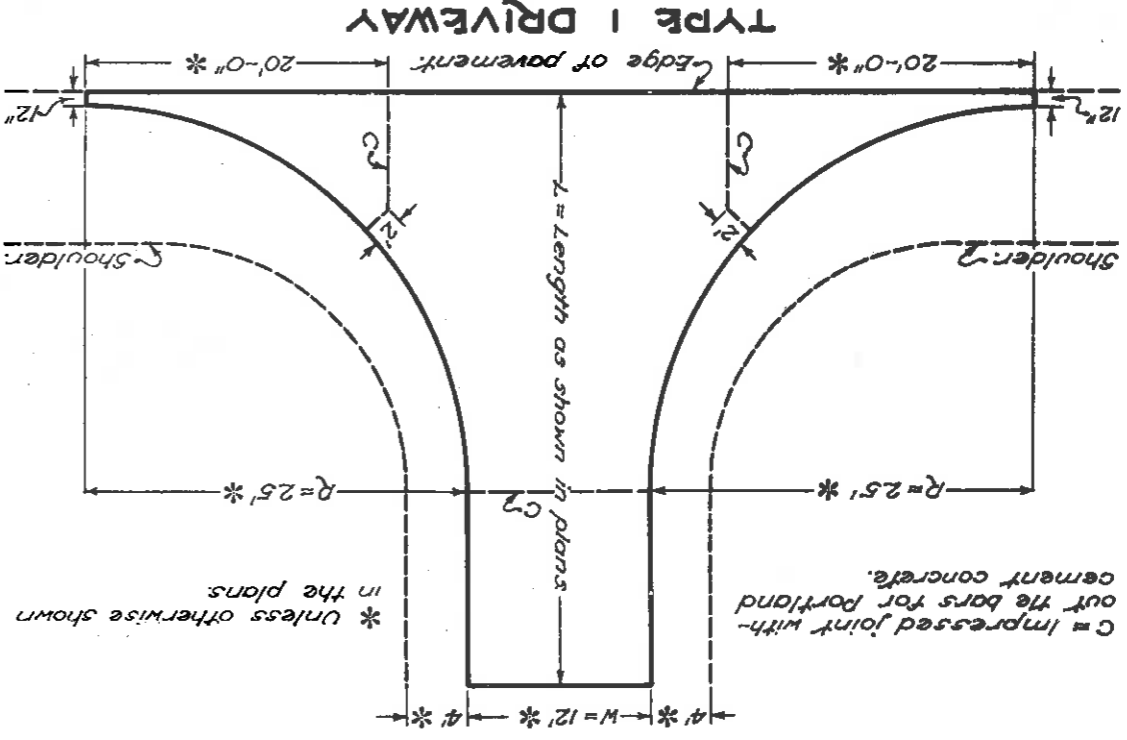
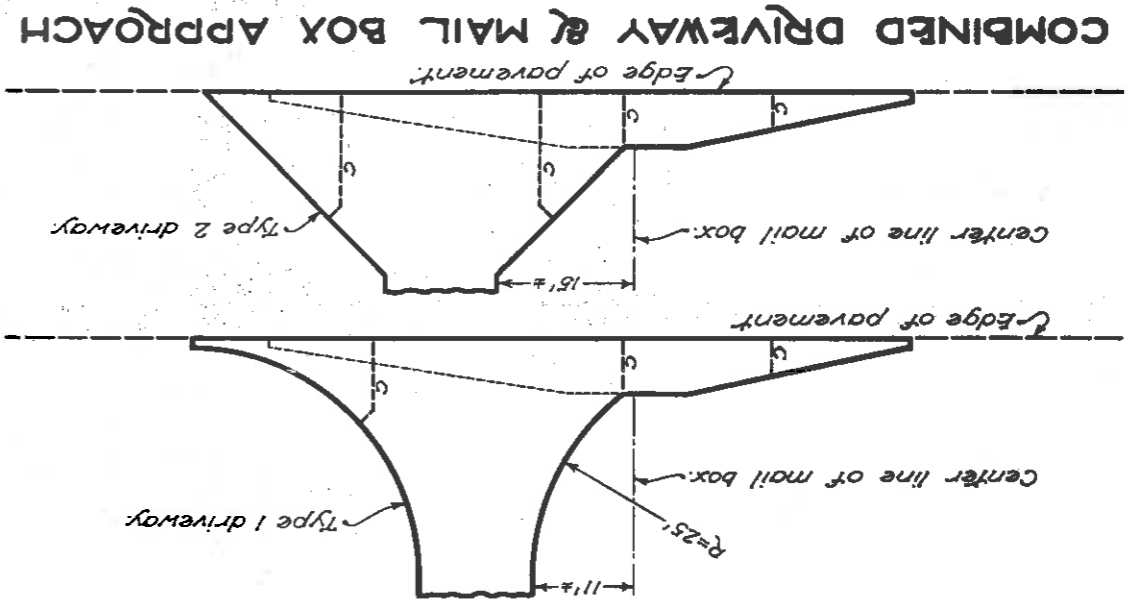
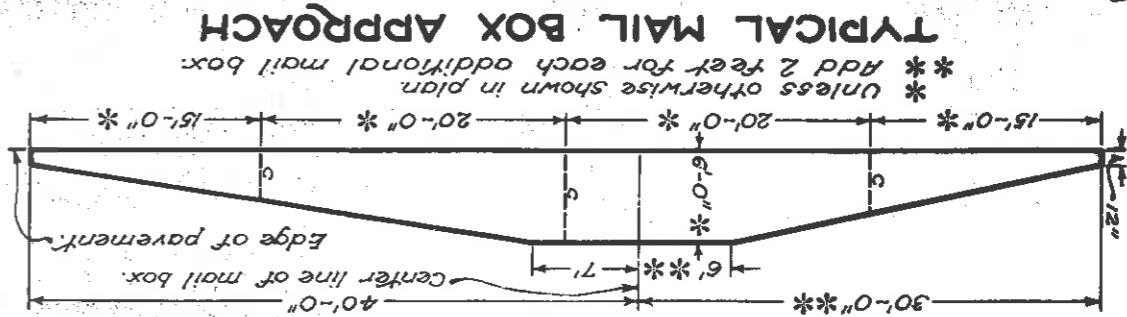
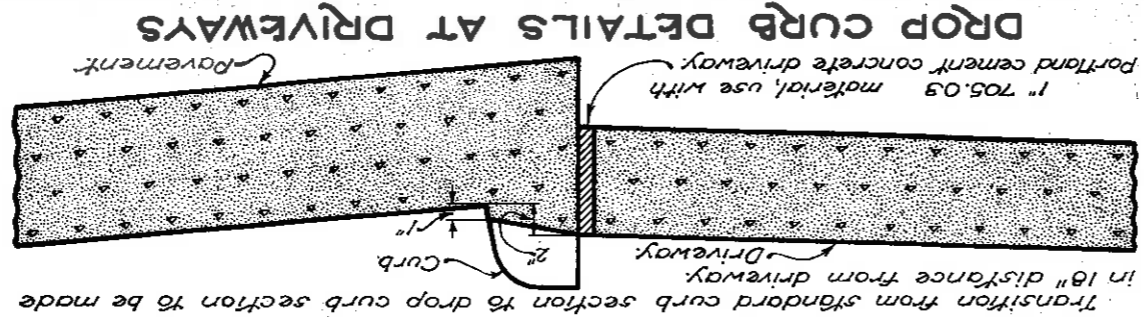
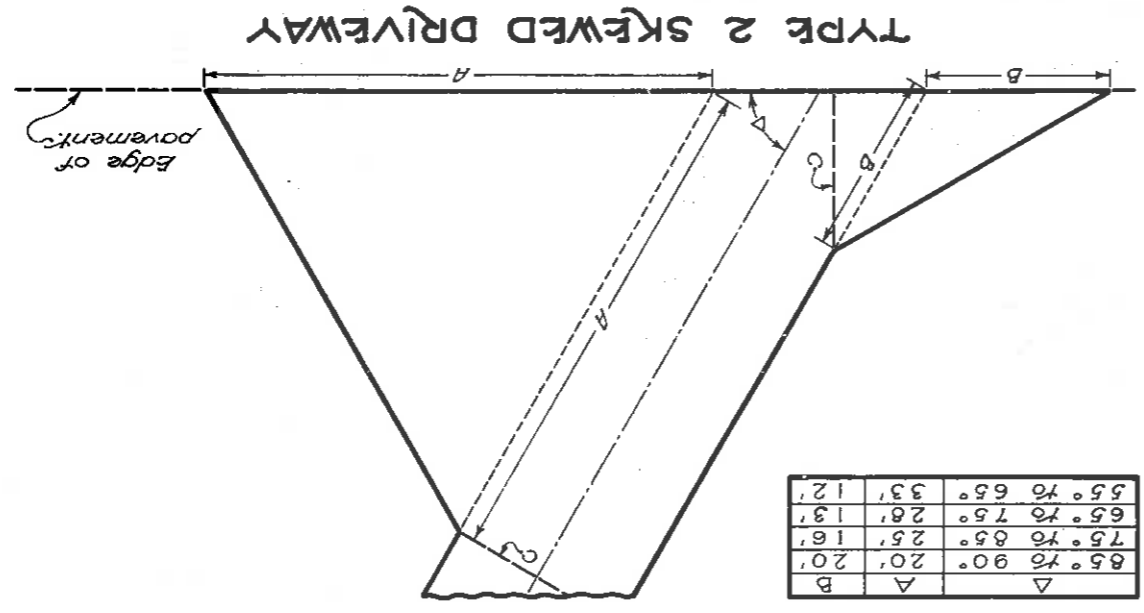
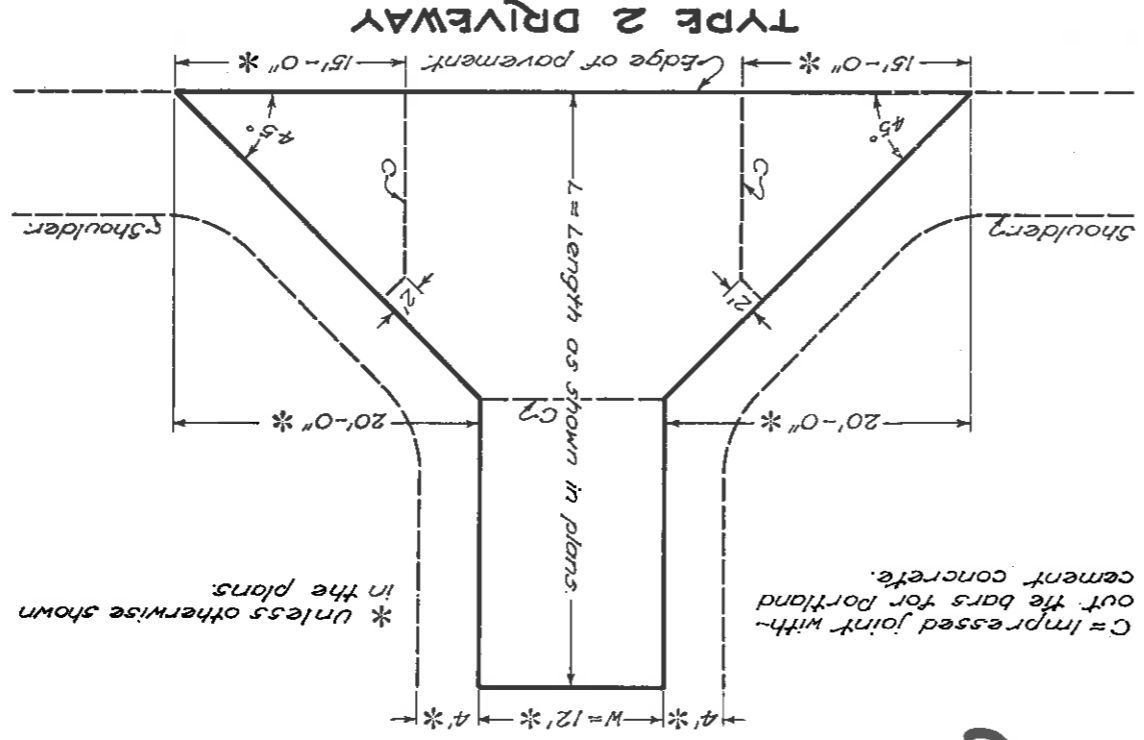
APPROVED: [Signature]
ENGR., L.D.

DATE: 6-1-71
8-1-75
8-11-75
4-16-79

DRIVEWAYS



△	△	△	△
8.5° to 9.0°	2.0'	2.0'	2.0'
7.5° to 8.5°	2.5'	2.5'	1.6'
6.5° to 7.5°	2.8'	2.8'	1.3'
5.5° to 6.5°	3.3'	3.3'	1.2'



DRIVEWAYS

NOTES

GENERAL: - The design details shown hereon shall govern the construction of driveways unless otherwise shown in the project plans.

The pavement type and thickness shall be specified in the project plans.

Driveway and mail box approaches shall be combined when feasible.

JOINTS: - Impressed joints for portland cement concrete driveways shall be 1/4" minimum width by 3" depth and shall be sealed with 705.01 or 705.02.

In addition to the joints shown hereon, impressed joints without the bars shall be placed in portland cement concrete driveways at intervals not to exceed seven feet in the portion of the driveway back of the flare.

DRIVEWAYS

STANDARD CONSTRUCTION DRAWING

BP-6

APPROVED BY: [Signature]

DESIGNER: L. & D.

DATE: 6-1-63

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF HIGHWAYS

DRIVEWAYS

STANDARD CONSTRUCTION DRAWING

BP-6

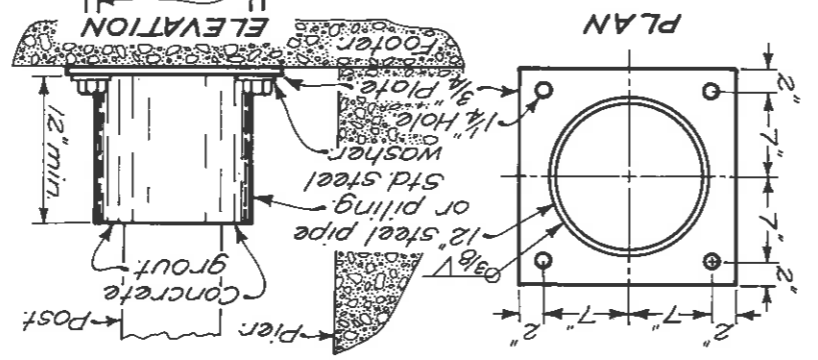
APPROVED BY: [Signature]

DESIGNER: L. & D.

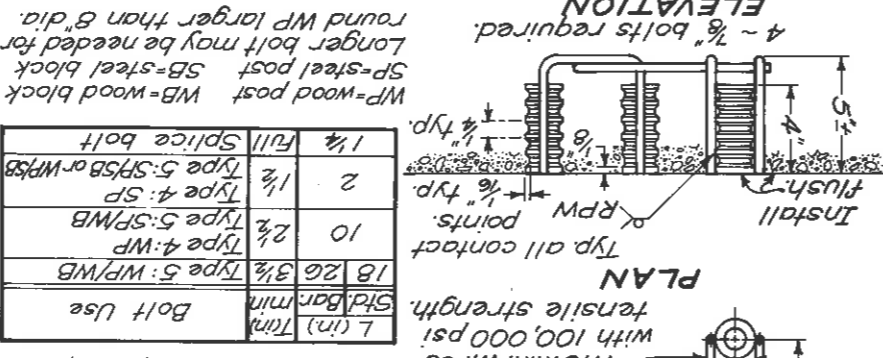
DATE: 6-1-63

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF HIGHWAYS

FOOTING ANCHOR
 Footing anchor and hardware need not be galvanized.
 * 3/8" hex head bolts with 5 unit compound anchors.



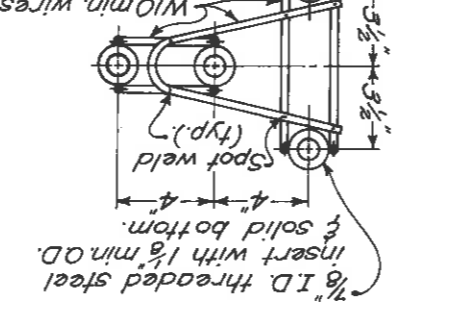
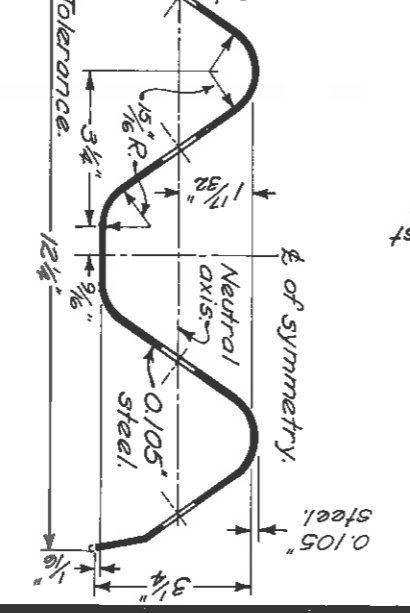
CONCRETE INSERT BUTTON HEAD BOLT
 (For post and splice bolts)



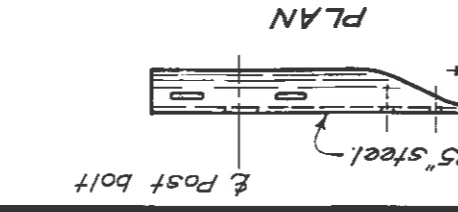
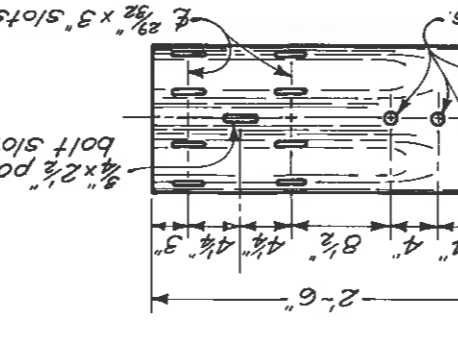
Use	Min. L (in)	Typ. L (in)	Max. L (in)	Min. Dia. (in)	Typ. Dia. (in)	Max. Dia. (in)
WP	18	26	3 1/2	1 1/2	1 1/2	1 1/2
WB	18	26	3 1/2	1 1/2	1 1/2	1 1/2
SP	10	2 1/2	2 1/2	1 1/2	1 1/2	1 1/2
WP	10	2 1/2	2 1/2	1 1/2	1 1/2	1 1/2
WB	10	2 1/2	2 1/2	1 1/2	1 1/2	1 1/2
SP	2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
WB	2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
SP	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
WB	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2



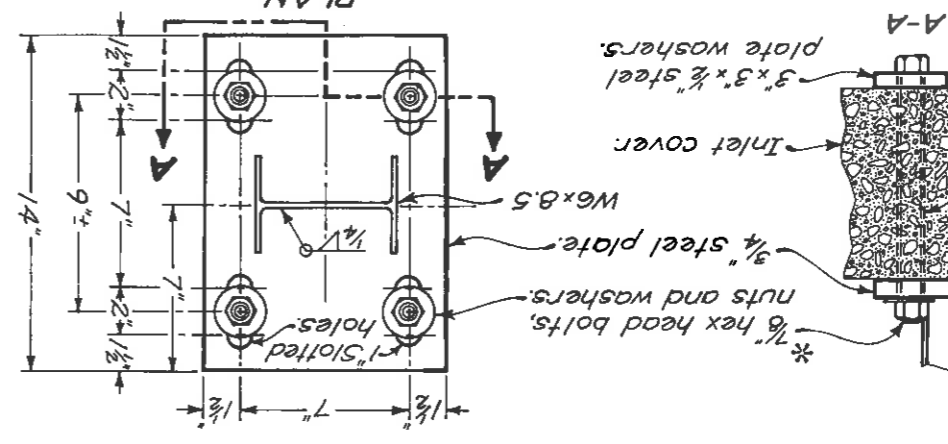
BEAM RAIL



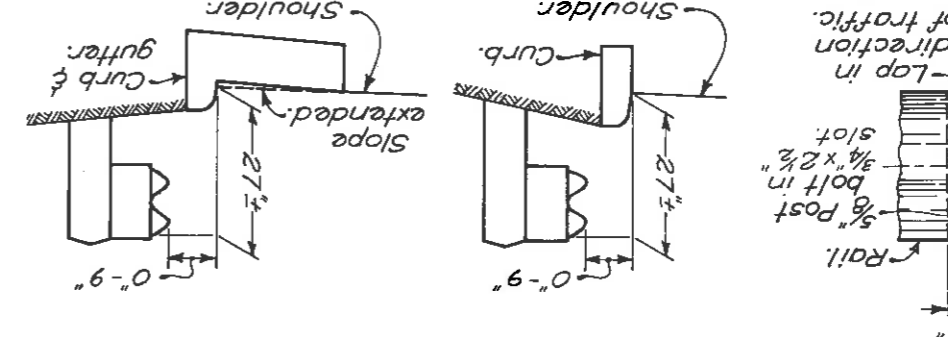
TERMINAL CONNECTOR



INLET MOUNTED POST



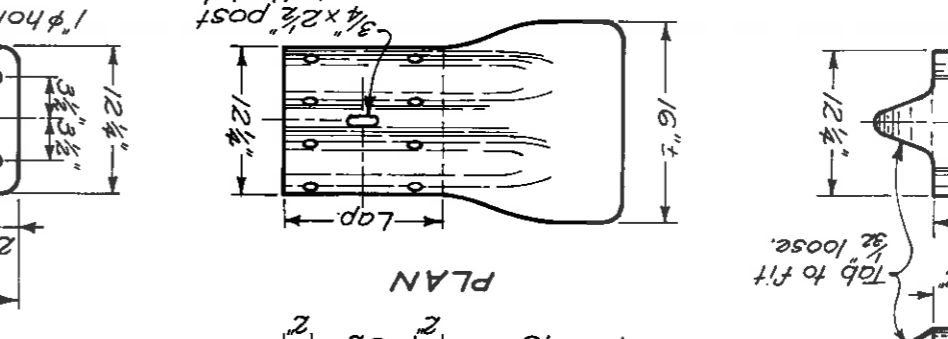
GUARDRAIL HEIGHT AT CURB



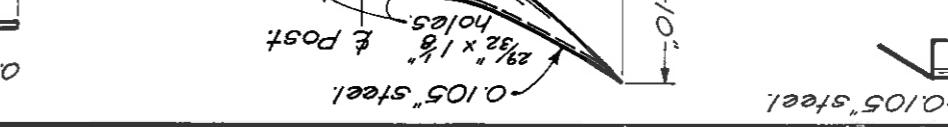
BEAM RAIL SPLICE



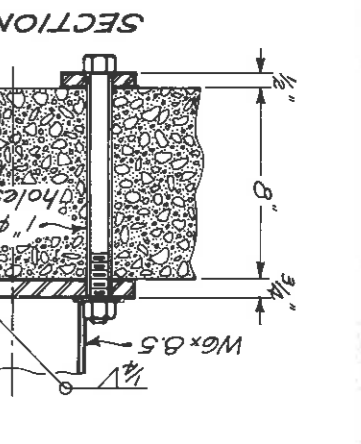
RECTANGULAR PLATE WASHER



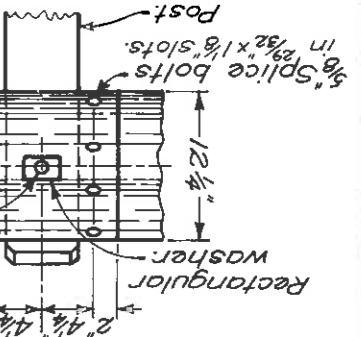
FLARED END SECTION



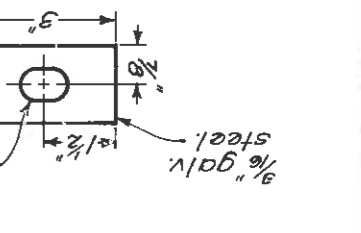
BUFFER END SECTION



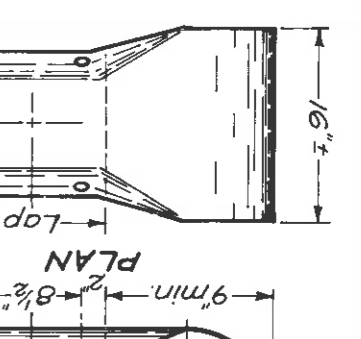
FLARED END SECTION



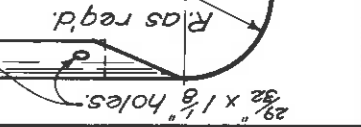
BEAM RAIL SPLICE



RECTANGULAR PLATE WASHER



FLARED END SECTION



NOTES

BEAM RAIL ELEMENTS shall be 12-g effective length, unless otherwise specified, with 3/4 x 2 1/2 post bolt slots on 6-3 centers regardless of post spacing. Field punching or drilling of bolt holes or slots for irregularly spaced posts shall be according to 606.05.

BEAM RAIL SPLICE between two rail elements, or rail and terminal connector shall be lapped in the direction of traffic. The buffer or flared end sections shall lap on the traffic face. A 12 back-up plate shall be provided at intermediate posts not having a rail splice.

SPECIAL POST MOUNTINGS: Inlet mounted posts are required for guardrail posts located on a drainage inlet. Footing anchors are required for guardrail posts located on footers with less than 3-5 cover except that for footer cover of 2-6 to 3-5 the posts may be installed by using a 4 minimum concrete encasement. The inlet in runs with steel posts.

Cost of the inlet mounted posts and footing anchors shall be included in the unit price bid for guardrail of the type required by the plan unless paid for separately.

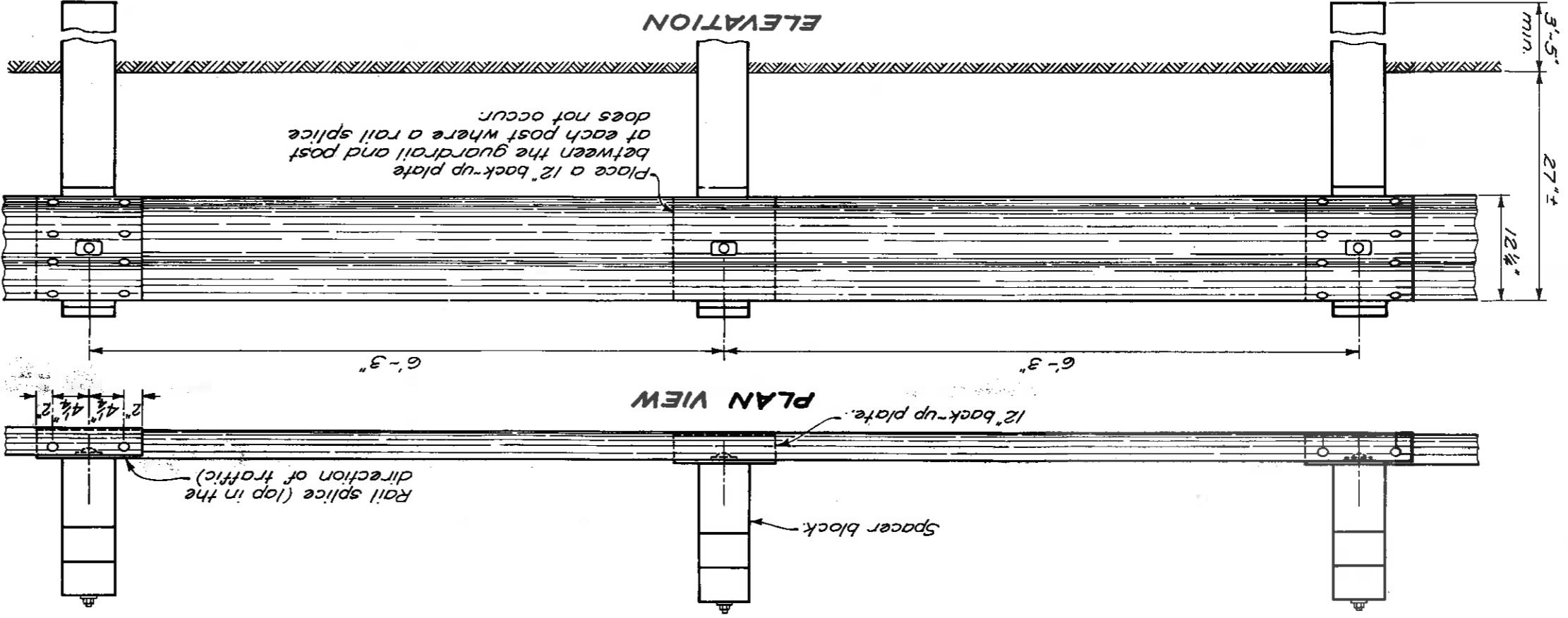
* Self-drilling anchors conforming to 712.01, or anchors per FF-5-325 Group II, Type 4, Class 1 or 2 with proof load certification per 712.01, may be substituted with the same bolt diameter specified.

APPROVED *[Signature]* ENGR. L. B. D.
STANDARD CONSTRUCTION DRAWING
GR-2B

GUARDRAIL
TYPE 5

DATE
 2-15-89
 11-9-71
 12-6-76

BUREAU OF LOCATION AND DESIGN
 OHIO DEPARTMENT OF TRANSPORTATION



NOTES

POSTS may be round (single rail only) or 6"x8" square - sawed pressure-treated wood or W6x8.5 galvanized steel. The same type post shall be used throughout the length of project unless otherwise required by the plans or permitted by the Engineer. Round posts shall be 5" plus or minus 1" in diameter at the top and not more than 11" of the butt with uniform taper from top to butt. Posts may be set in drilled holes or may be driven to grade.

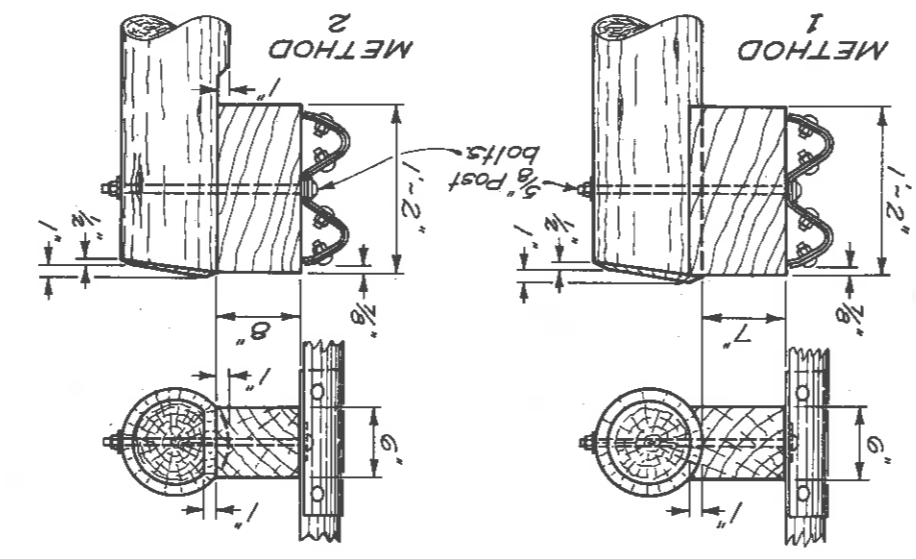
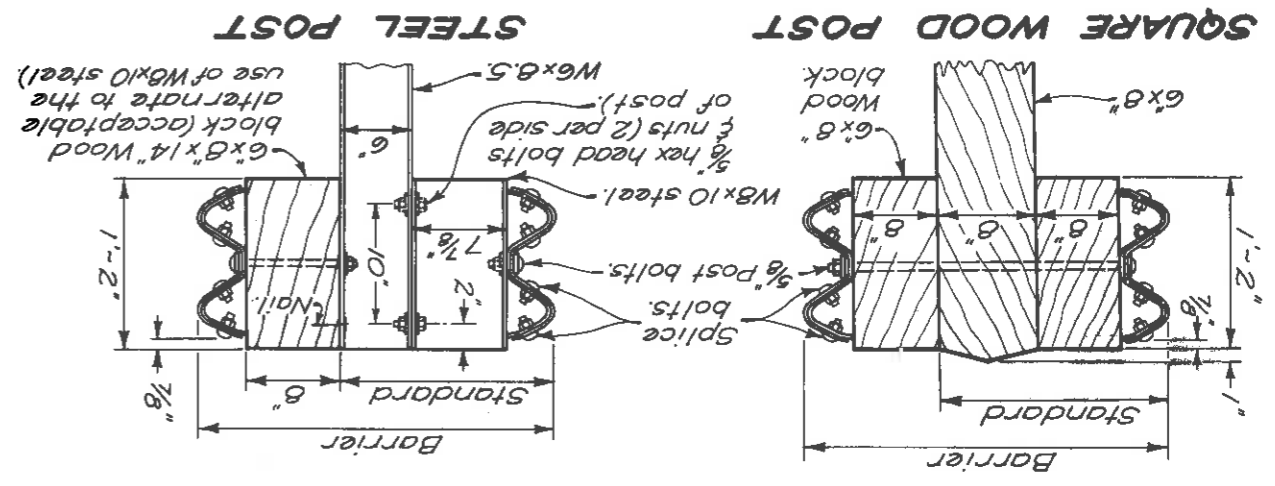
Wood posts shall be fabricated with square ends. Posts and spacer blocks shall be pressure-treated as per 710.14. Bolt holes shall be bored and tops of posts trimmed after posts are set. Posts set or driven to within 1/2" of grade need not be trimmed.

SPACER BLOCKS: When wood spacer blocks are used with the steel post, a roofing nail shall be driven through the hole in the adjacent flange to prevent blocks from turning.

WASHERS: Standard galvanized washers of appropriate size are required on post bolts where special washers are not indicated.

BARRICADE GUARDRAIL shall be mounted on Type 5 posts with 5/8" post bolts and washers as specified hereon. Omit spacer blocks and anchor assemblies. Place a flared end section at each end.

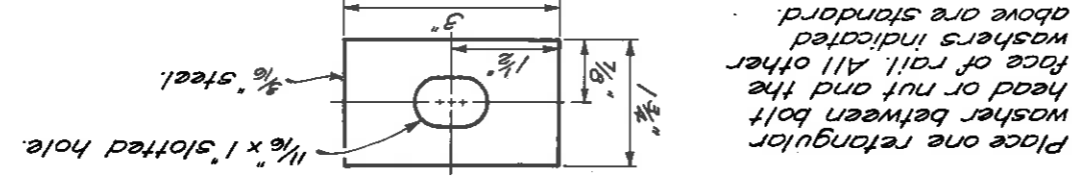
FOR DETAILS not shown see GR-1.



Alternate methods of placing the spacer blocks on the round posts may be submitted for consideration and approval by the Engineer.

ROUND WOOD POSTS

POST BOLT WASHER



Place one rectangular washer between bolt head or nut and the face of rail. All other washers indicated above are standard.

NOTES

PAYMENT for item 606, each, Bridge terminal assembly, shall include the additional cost in excess of normal guardrail cost, such as: additional or heavier posts, concrete encasement, wheelguard, terminal connector, anchors and other hardware, etc.; except, the TS&A spacers and tubing beyond the bridge limits, and the concrete insert anchor assemblies are included in the bridge rail or parapet cost.

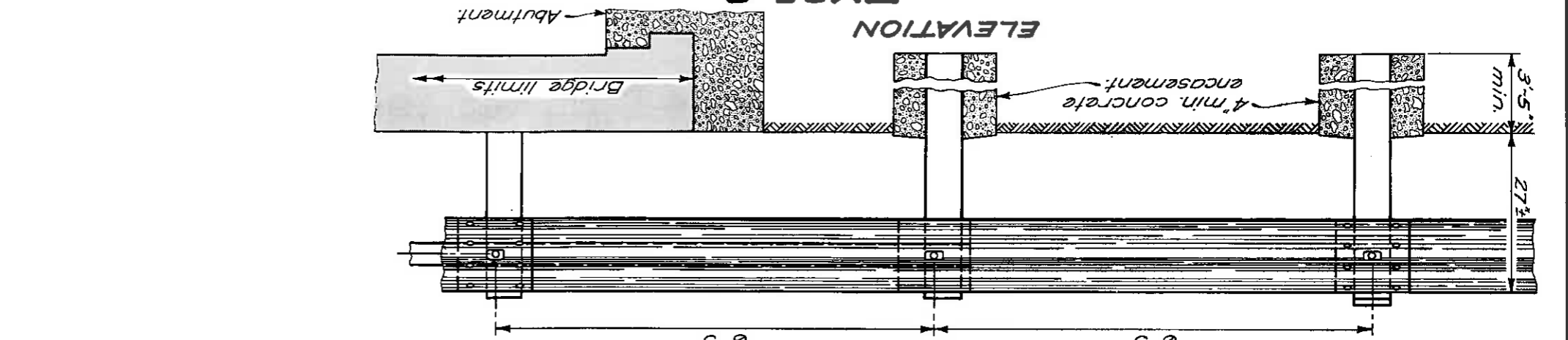
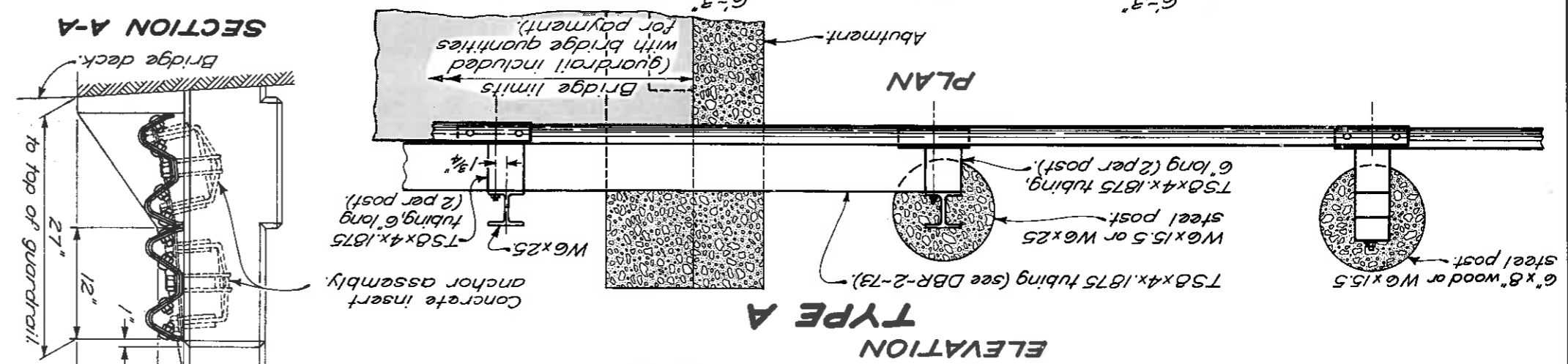
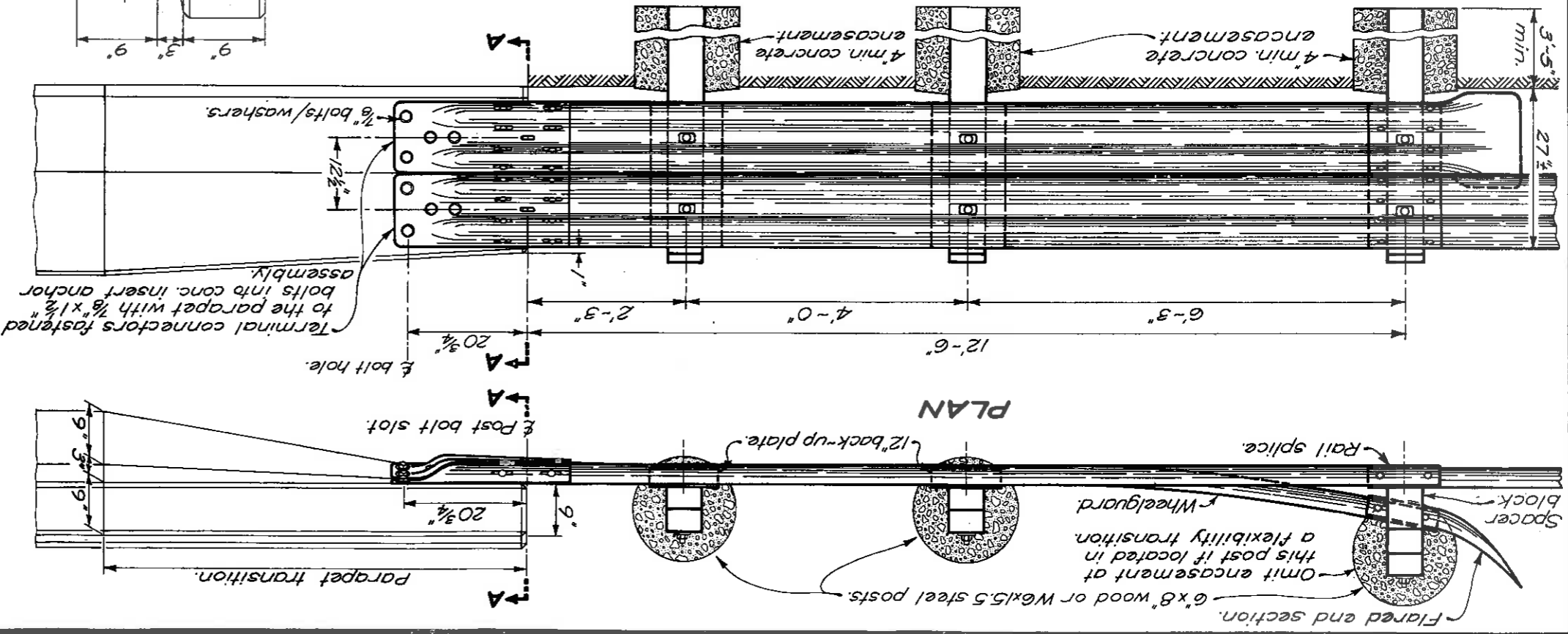
TYPE A: The wheelguard shall be required on all uncurbed approach connections, and on all uncurbed trailing connections on undivided highways. The wheelguard shall be omitted: on all curbed connections, on uncurbed trailing connections on divided or directional roadways, and all three posts shall have spacer blocks and concrete encasement.

TYPE B: Where guardrail is used as bridge railing the approach length on directional roadways and at both ends on undivided highways shall be not less than 125 feet plus the anchor assembly. The trailing length on directional roadways shall be not less than 25 feet plus anchor assembly.

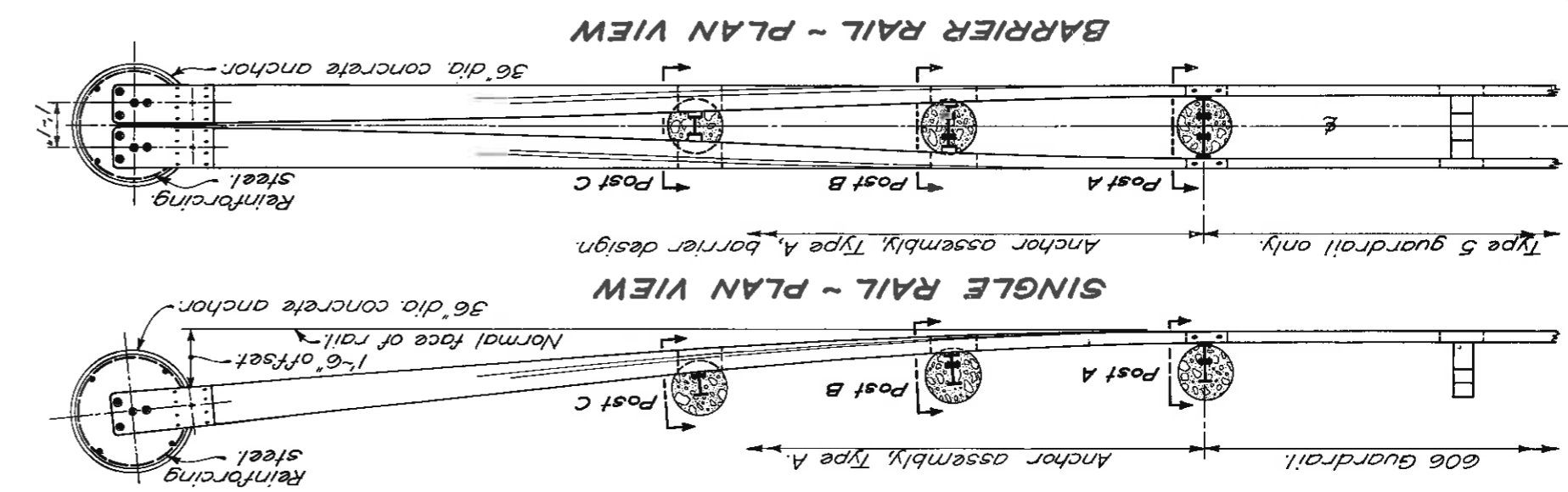
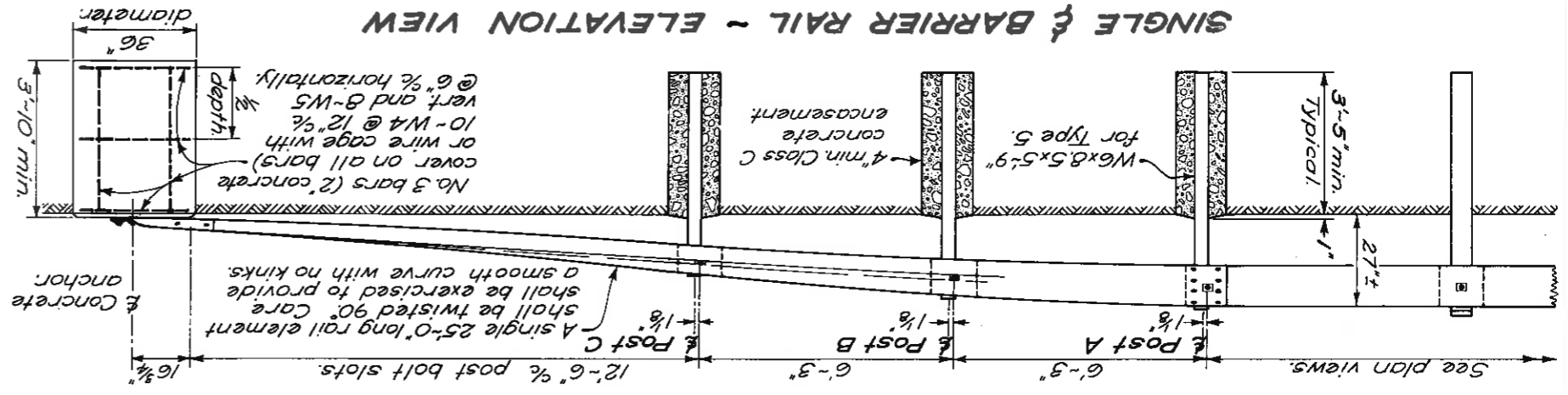
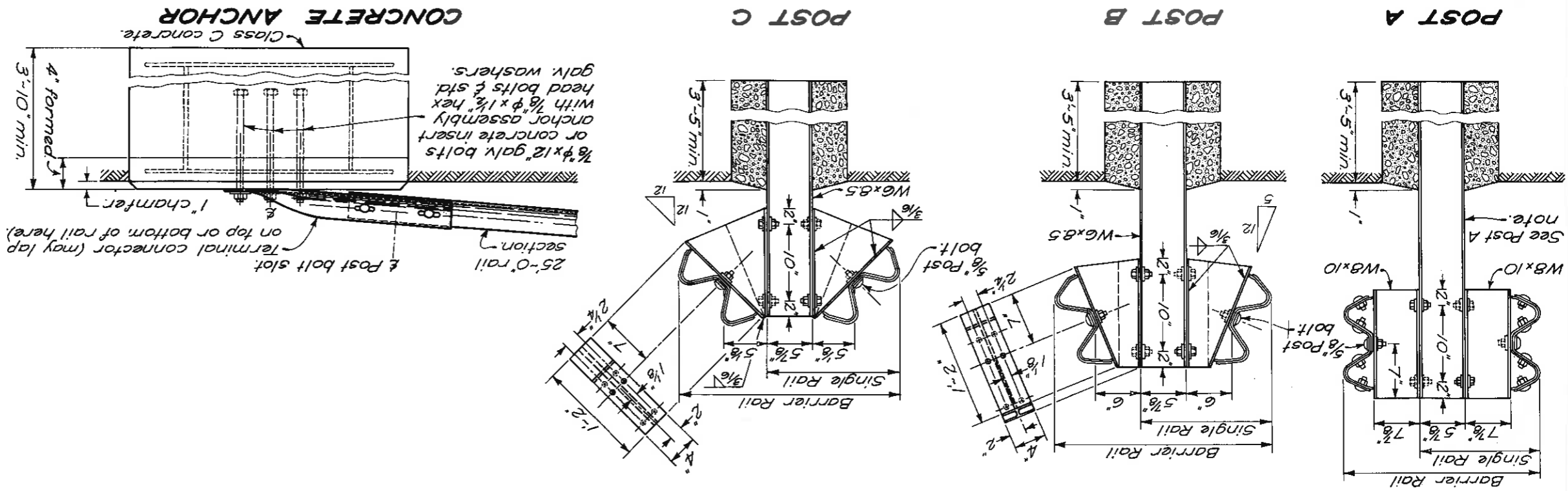
POST TYPE shall be the same material type as used on approach guardrail for Type A and the second post of Type B.

FOR DETAILS not shown, see GR-1 and other Standard Construction Drawings pertaining to design of specific guardrail type.

SELF-DRILLING ANCHORS meeting requirements of 712.01 with $\frac{1}{8}$ " x $1\frac{1}{2}$ " bolts with washers shall be used to fasten the terminal connectors to parapets for which an insert anchor assembly is not specified to be placed during the parapet construction.



APPROVED *W. J. Cunningham* ENGR., L.B.D.
STANDARD CONSTRUCTION DRAWING
GR-4
ANCHOR ASSEMBLY
 BUREAU OF LOCATION AND DESIGN
 OHIO DEPARTMENT OF TRANSPORTATION
 DATE 1-1-71
 11-9-71
 12-6-76



GENERAL: For details not shown, see GR-1 and other Standard Construction Drawings pertaining to specific guardrail type. All steel parts shall be galvanized.

ANCHOR ASSEMBLY TYPE A can be used at each free end of Type 4, 5 or 7 guardrail or barrier rail. It is primarily an approach end (for single rail installations), will be utilized only where shoulder width is insufficient for providing standard offsets shown on GR-5 and GR-6. Use of the 1'-6" offset will generally be limited to upgrading existing highways for safety or the construction or reconstruction of highways with design traffic less than 1000 ADT or design speeds less than 50 mph.

SPACERS for Posts B and C shall be made of 3/8" steel plate 710.15, or two sections of W6x8.5 or W6x10 cut in the web (see dashed line) and welded together on both sides. All steel spacers and posts may be provided with additional bolt holes so that these items will not be required to be made right and left handed. Spacers shall be fastened to their posts with two 5/8" hexhead bolts and nuts with standard washers on both sides.

POST BOLT WASHERS: Place one rectangular washer (see GR-1 for detail) between post bolt head or nut and the face of rail. All other washers indicated on this drawing are standard galvanized steel of the appropriate size.

CONCRETE ANCHOR: Form top 4" of anchor and slope the top to conform to slope of the adjacent ground. The 36" diameter anchor may be replaced by a 2'-6" square anchor at the contractor's option.

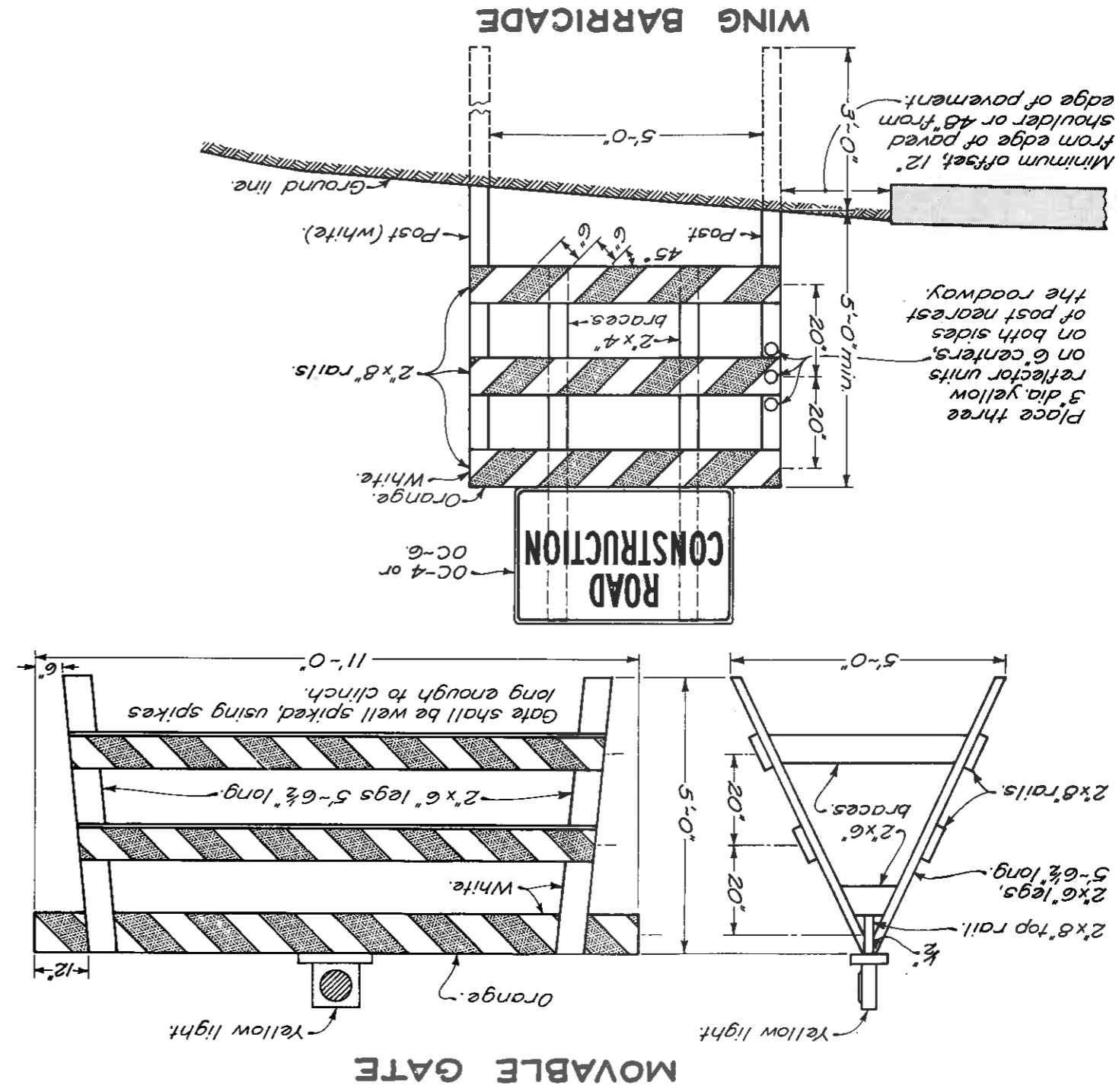
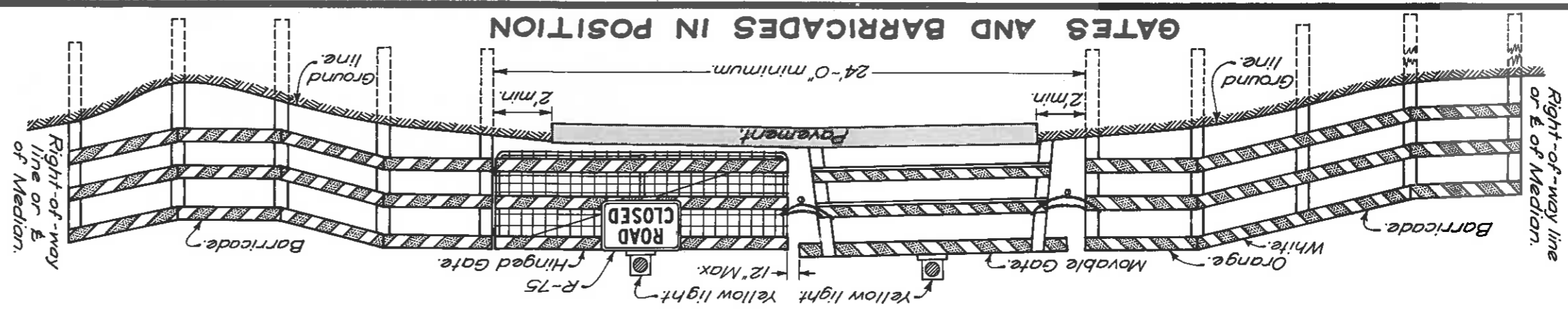
CONCRETE: All concrete shall be Class C. Minimum post encasement shall be 4".

POST A: Rail details are shown for Type 5 guardrail. Where anchor assembly is attached to Type 4 or 7 guardrail, Post A shall be a standard Type 4 or 7 line post set in concrete, and the spacer block shall be omitted. Post bolt shall be 3/8".

SINGLE & BARRIER RAIL - ELEVATION VIEW

BARRIER RAIL - PLAN VIEW

SINGLE RAIL - PLAN VIEW



BARRICADES shall be constructed according to details shown. Where traffic is maintained during construction, wing barricades shall be used on each shoulder: (1) at both ends of the project; (2) on all interchange entrance ramps or on the cross road preceding the entrance ramp; (3) on all other major approach roads as directed by the Engineer. When the road is closed to traffic, barricades and gates shall be used to effectively close the entire roadway including the median of divided highways. In urban areas and at locations where it is impracticable to extend the barricade to the right-of-way line because of a sidewalk or other obstruction, the ends of the barricade shall be located as directed by the Engineer to effect the desired closing of the highway.

PAINTING AND REFLECTORIZATION: All rails of the barricades and gates shall be reflectorized with orange and white reflectorized sheathing in 6" wide alternate stripes which slope downward toward the center line of the road at an angle of 45%. All three rails of the road closed barricade shall be striped on the side facing traffic. All three rails of the wing barricade and all gate rails shall be striped on both sides. All posts, braces, gate legs and any unstriped rails shall be painted white.

GATES: One gate shall be erected for each traffic lane. Gates shall be chained and padlocked to one another and to adjacent posts of the barricades. Chains shall be 1/4" stock or larger with welded links.

A hinged gate may be used and shall be an approved 12' by 4' steel frame form type, or a type approved by the Engineer. The gate shall be hung on hinge screw hooks, or as otherwise approved. Striping similar to that used on the movable gate shall be accomplished with 1"x8" lumber or with metal strips fastened to the center in an approved manner. The gate shall be supported at the

NOTES

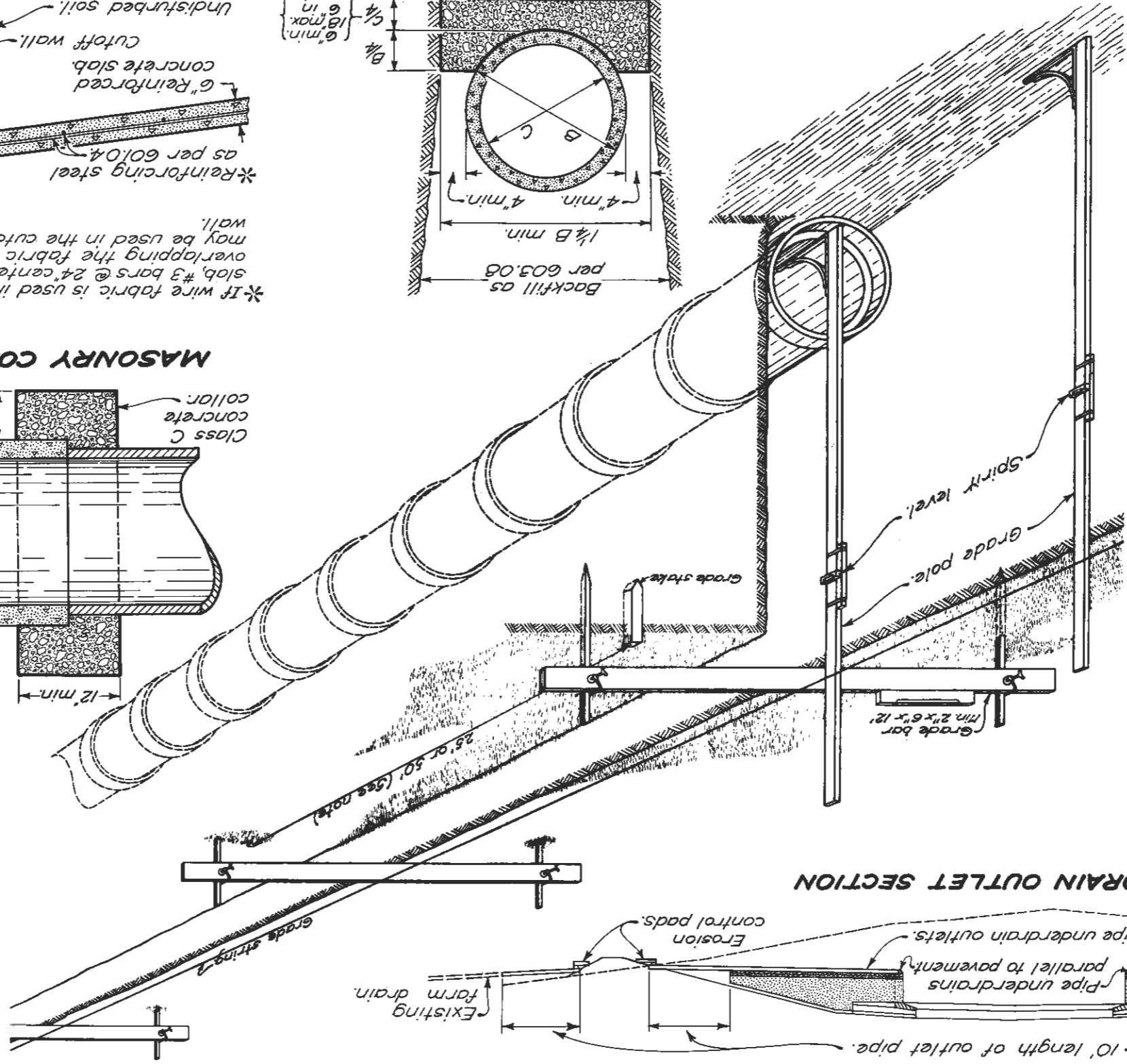
YELLOW LIGHT: Each gate shall be equipped with a steady burning yellow light, conspicuously visible at all distances up to 1000' under normal atmospheric conditions. The light, operated by battery, electric generator, commercial power or propane gas, shall be in operation at all times between sunset and sunrise during the period the highway is closed.

SIGNS: Where the road is closed to traffic by the erection of gates and barricades, a **ROAD CLOSED** sign (R-75) shall be mounted on the gate as shown. On three-lane pavement, the sign shall be mounted on the middle gate facing traffic. Where traffic is maintained, a **ROAD CONSTRUCTION TRAFFIC MAINTAINED** sign (OC-4) shall be used on the right shoulder wing barricade on the approach to major construction or maintenance jobs less than 2 miles in length. A **ROAD CONSTRUCTION NEXT MILES** sign (OC-6) shall be used on the right shoulder wing barricade on the approach to any major construction or maintenance job of 2 miles or more in length. An **END CONSTRUCTION** sign (OC-8) shall be erected above the right hand wing barricade facing traffic leaving the construction section. The signs on the wing barricades shall be erected above the top rail of the wing barricade on braces, as detailed hereon.

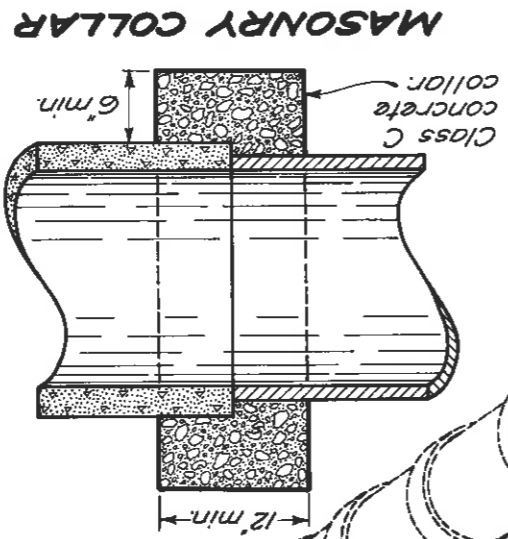
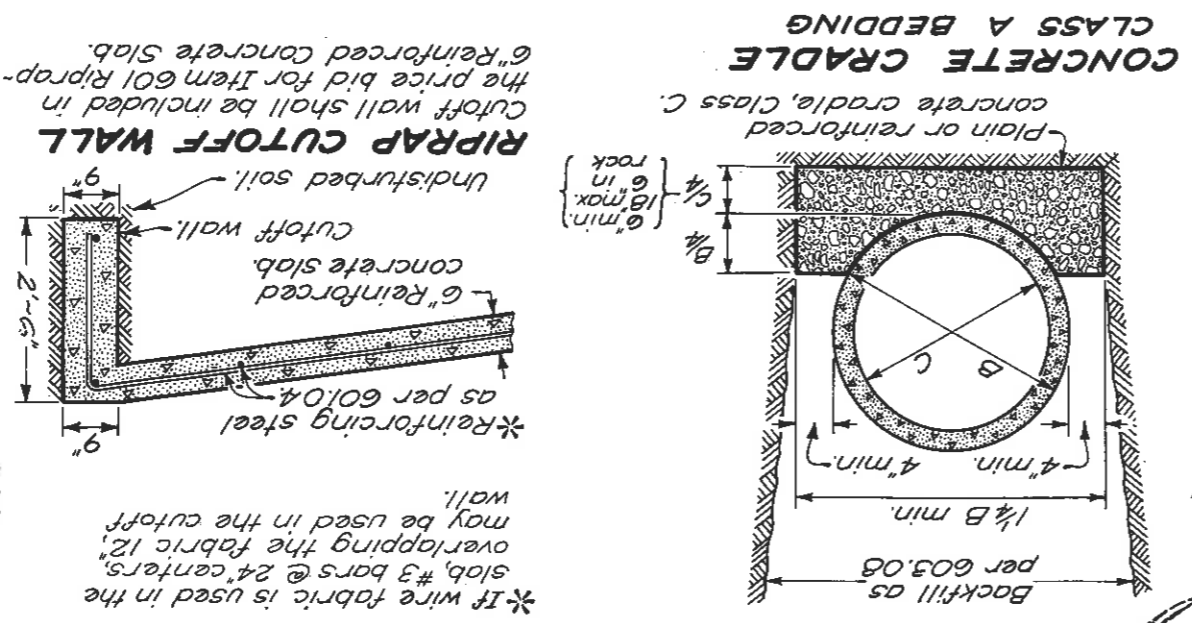
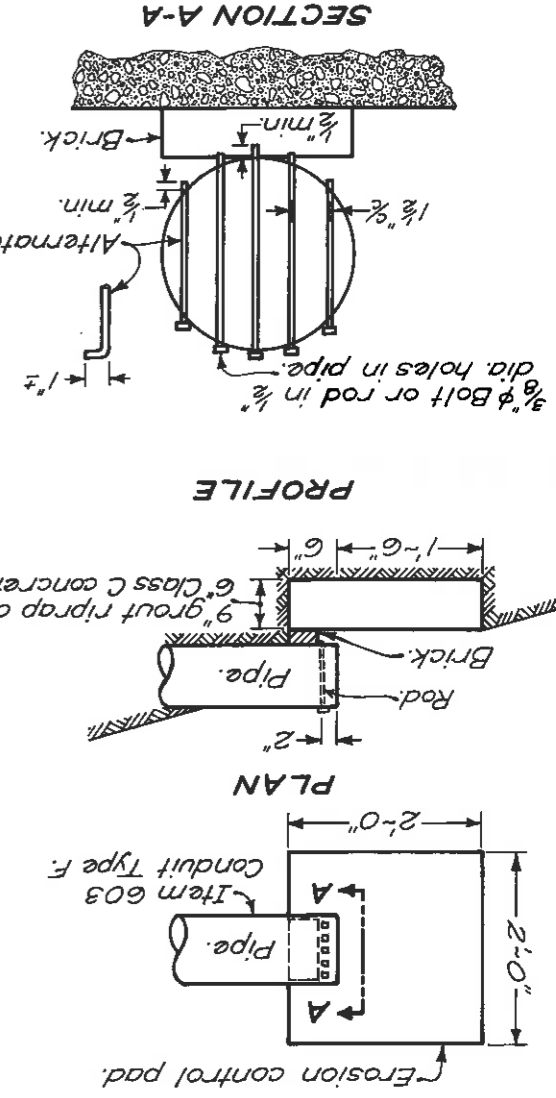
LUMBER used in the construction of the gates and barricades shall be No. 1 common Douglas fir, surfaced on four sides standard, or other materials approved by the Engineer. All sizes are nominal.

POSTS shall be sound 4"x4" sawed or 4 1/2" round. Rails of the barricade shall be bolted to the posts with 5/8" bolts.

CONSTRUCTION METHODS



Conduit Size	No. of Bolts
4"	2
6"	3
8"	5
10"	6
12"	7
15"	9
18"	11



GRADE STAKES shall be set at the following intervals:
 For grades less than 0.70% - 25 ft.
 For grades of 0.70% and over - 50 ft.

GRADE POLE shall be a straight pole dressed with corners rounded, size depending on length but approximately 1" x 2". The pole shall be equipped with a metal bracket on the bottom with a projecting length of 12". Notches shall be cut on the pole for the depth of the flowline below the grade string and for the depth of trench. A spirit level shall be used on the pole to determine when the pole is vertical.

ALTERNATE METHODS: The Engineer may approve other methods of determining alignment and gradient of pipe lines if the Contractor can demonstrate that the same degree of accuracy can be obtained as can be obtained by use of the method shown on this drawing.

MASONRY COLLARS: Where plans require that a pipe extension be joined to the end of an existing pipe with a butt joint, a collar shall be provided and the cost shall be included in the price bid for new conduit.

ANIMAL GUARDS shall be provided at the outlet end of all pipe underdrains and farm drains except when they outlet into a drainage structure. The steel bolts or rods for the animal guard shall be galvanized per 710.10. In lieu of drilling or punching the 1/2" diameter holes into the pipe, a metal collar meeting all of the above requirements, may be clamped on the end of the pipe, if approved by the Engineer. Payment for the erosion control pads and the animal guards shall be included in the price bid for Item 603 "Conduit, Type F."

BUREAU OF ROADWAY DESIGN
 OHIO DEPARTMENT OF TRANSPORTATION

DRAINS AND SEWERS

STANDARD CONSTRUCTION DRAWING
 MC-4

APPROVED *[Signature]*
 ENGR., R.D.

DATE 6-1-65
 6-13-69
 7-26-76

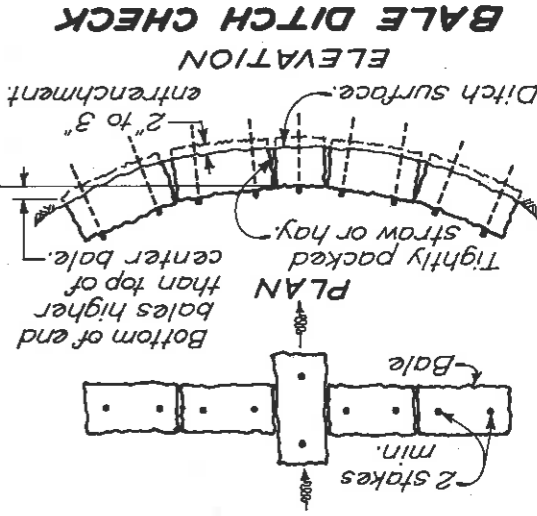
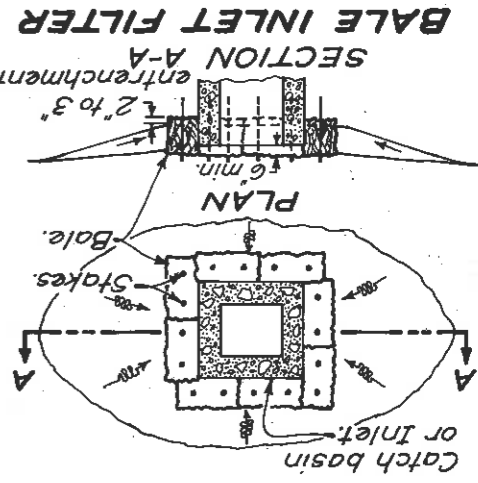
NOTES

STRAW OR HAY BALES

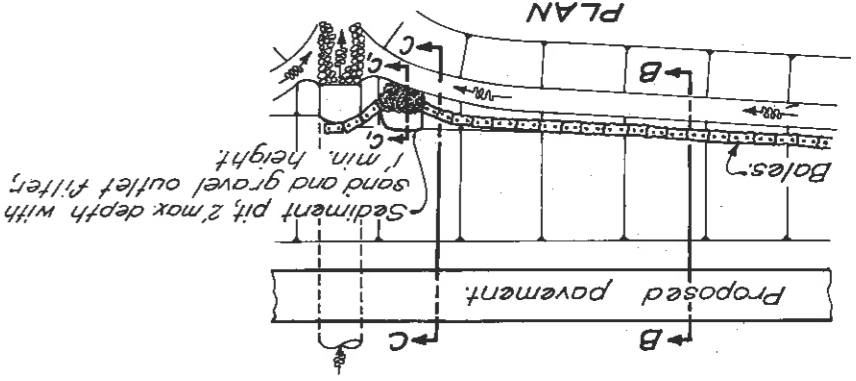
BALE PLACEMENT: Bales shall be tightly placed, adjacent, and entrenched 2" to 3" before staking; or a small amount of loose soil shall be lightly compacted along the upstream edge of the bales. Each bale shall be firmly staked with a minimum of 2 stakes at least 3' in length. Stakes shall be wooden 2x2, reinforcing bars or fence posts, as approved by the engineer. Loose straw or hay shall be scattered for a distance of 10' on the upstream side of each ditch check, and shall be wedged between and under staked bales.

SEDIMENT PITS shall be provided where directed by the Engineer and their cost included in the price bid for adjacent 207 items.

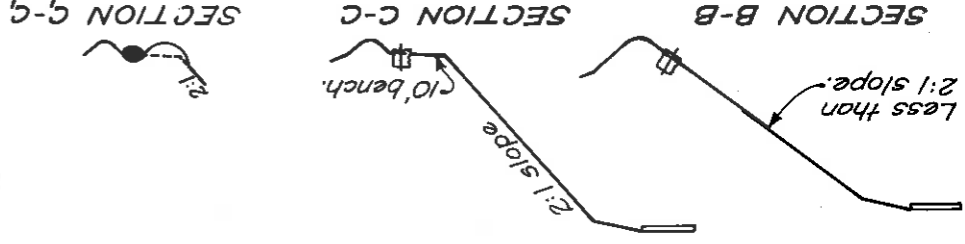
BASIS OF PAYMENT: Straw or hay bale installation shall be paid for under Item 207, Each, straw or hay bales. Cost will include placing, staking, maintaining and removing.



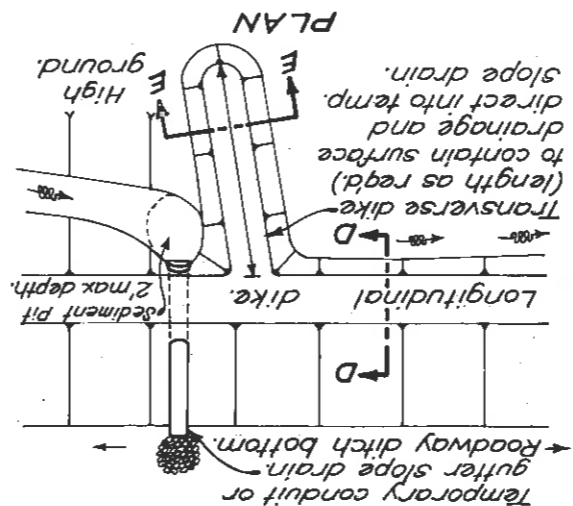
BALE DITCH CHECK



BALE FILTER DIKE

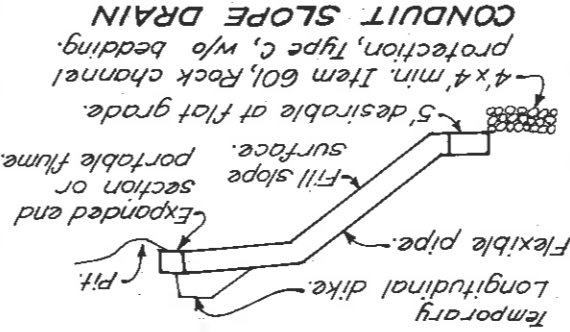


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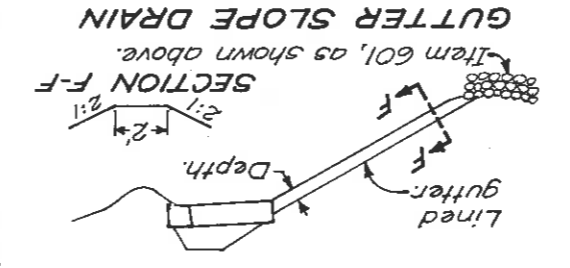
DIKES AND SLOPE PROTECTION

GENERAL: Dikes & drains shall be used when slopes higher than 8' are suspended for three weeks or more and/or as directed by the Engineer. Smaller dikes used at the end of a day's operation shall be considered as part of the earthwork. Temporary slope drains shall be suitably positioned and anchored to prevent movement or undermining. Free draining rock or coarse aggregate 2 min. Original channel. Deposited sediment shall be removed when the initial volume has been reduced one-half. The sand filter blanket on sediment basins shall be replaced when deposited sediment is removed. The cost of maintenance shall be covered by Item 207.



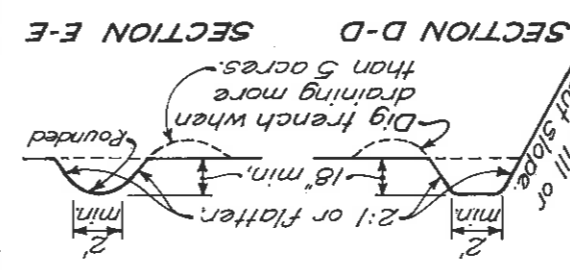
CONDUIT SLOPE DRAIN

4x4 min. Item 601, Rock channel protection, Type C, w/o bedding. 5' desirable at flat grade.



GUTTER SLOPE DRAIN

Item 601, as shown above.



SECTION D-D

SECTION E-E

TEMPORARY SLOPE DRAINS RECOMMENDED SIZES

Area in Smooth Corru. Half-gutter	Pipe Sizes
0-4 acres	6"
4-8 acres	8"
8-12 acres	10"
	15"
	21"
	12"

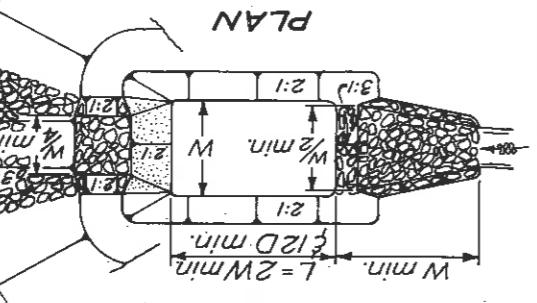
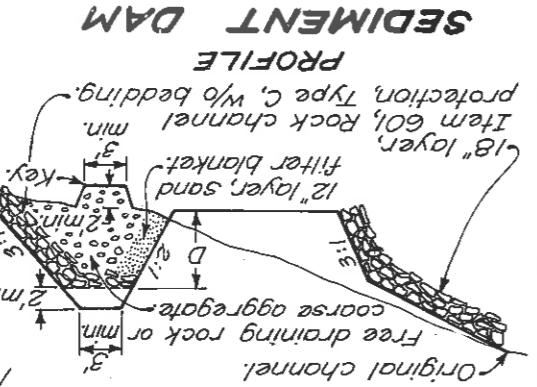
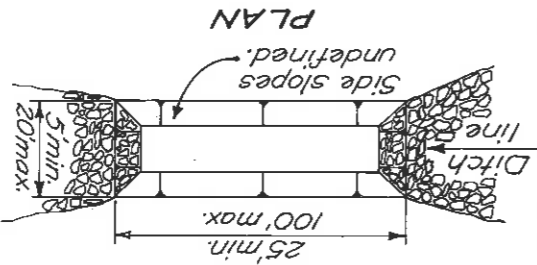
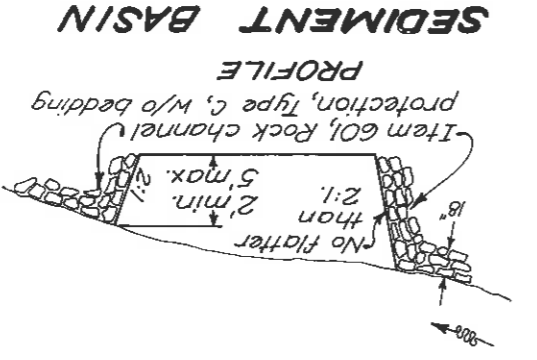
Not to scale.

SEDIMENT PITS shall be provided where directed by the Engineer and their cost included in the price bid for adjacent 207 items.

BASIS OF PAYMENT: Temporary dikes shall be paid for under Item 207, cubic yard, temporary benches, dikes, dams and sediment basins. Temporary slope drains shall be paid for under Item 207, linear foot, temporary slope drains. Rock required shall be paid for under Item 601, Rock channel protection, Type C, w/o bedding.

SEDIMENT BASIN PROFILE

Item 601, Rock channel protection, Type C, w/o bedding. No flatter than 2:1. 2 min. 5 max. 18" layer, sand filter blanket. 18" layer, rock channel min. protection, Type C, w/o bedding.



SEDIMENT BASINS & DAMS

EMBANKMENT for sediment basin construction shall be as per 203 compacted as directed by the Engineer.

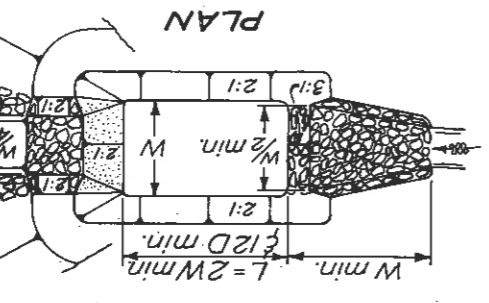
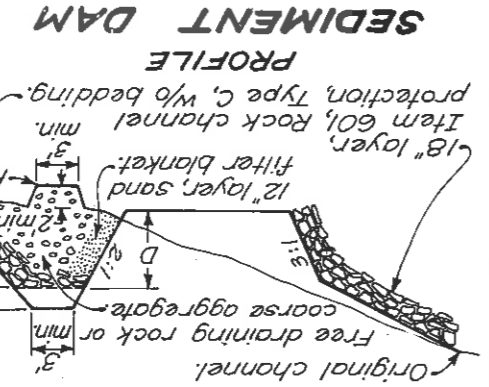
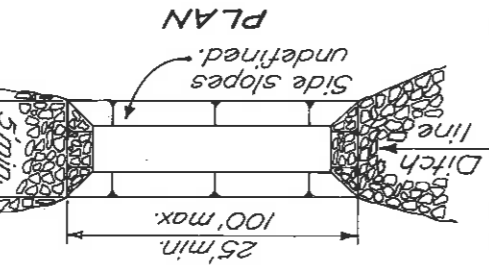
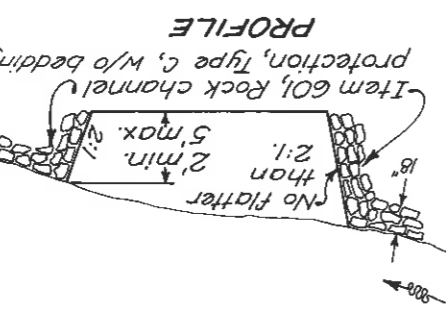
MAINTENANCE: Sediment pits, dams and basins shall be acceptably maintained. Deposited sediment shall be removed when the initial volume has been reduced one-half. The sand filter blanket on sediment basins shall be replaced when deposited sediment is removed. The cost of maintenance shall be covered by Item 207.

FILTERS: Plastic filter fabric, as approved by the engineer, may be substituted for the sand filter blanket on sediment dams. Such fabrics may be cleaned in lieu of replacement, when approved by the Engineer.

SIZE: A series of smaller basins or dams may be substituted for a larger basin or dam when approved by the Engineer.

BASIS OF PAYMENT: Sediment Dams and Basins shall be paid for under Item 207 Cubic Yard. Temporary benches, dikes, dams and sediment basins, Rock required shall be paid for under Item 601, Rock channel protection, Type C, w/o bedding.

SEDIMENT BASIN PROFILE



Not to scale.

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF TRANSPORTATION

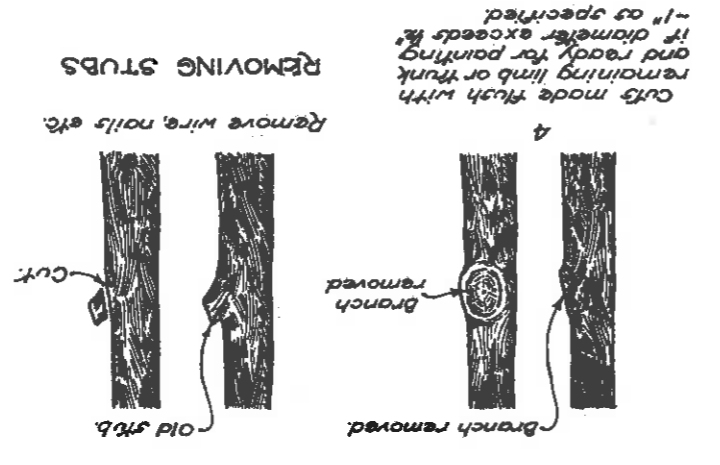
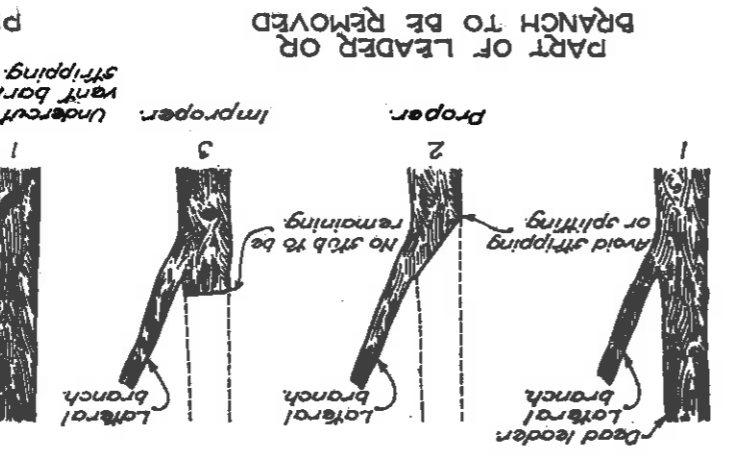
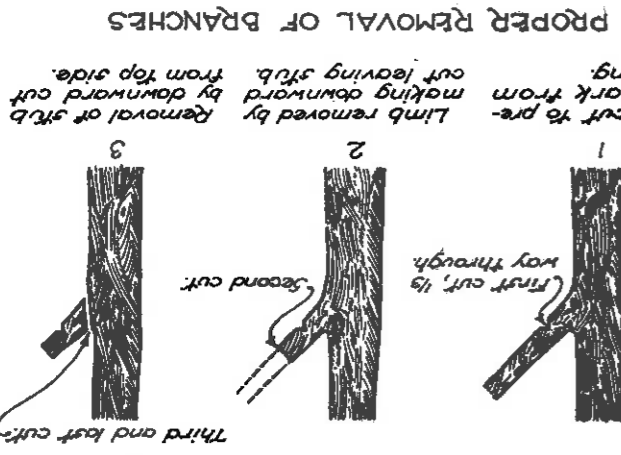
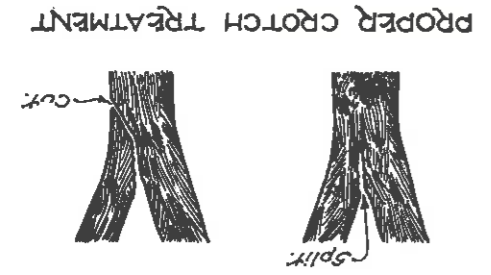
DATE 8-1-78

TEMPORARY EROSION CONTROL

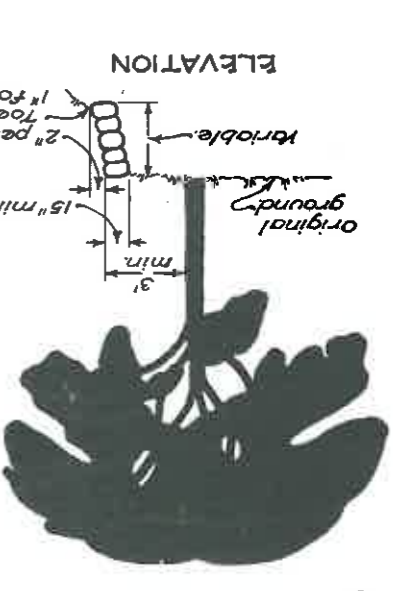
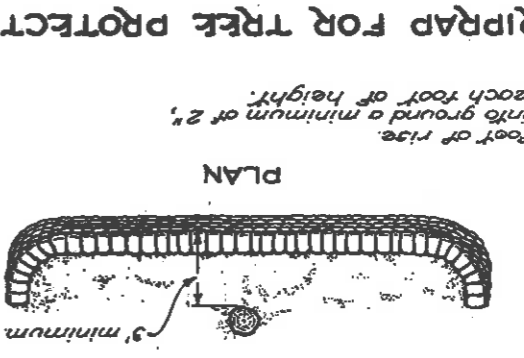
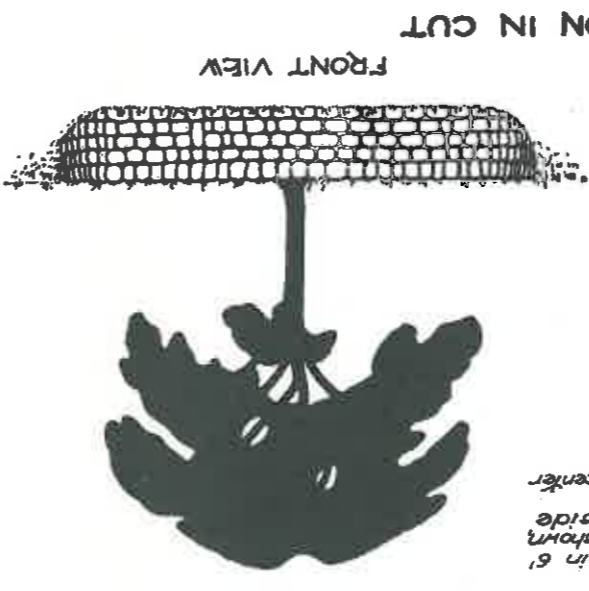
STANDARD CONSTRUCTION DRAWING
MC-11

APPROVED [Signature] ENGR., L. & E.

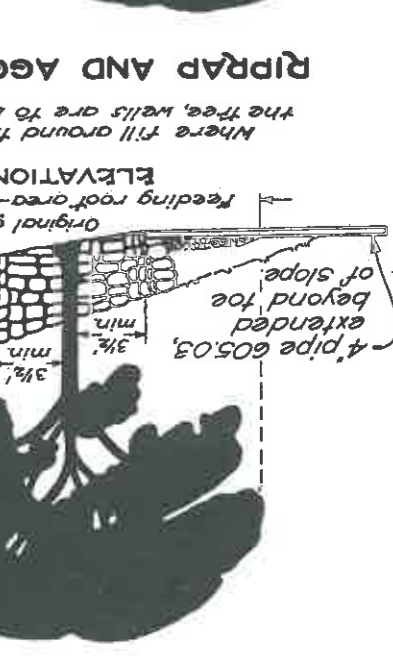
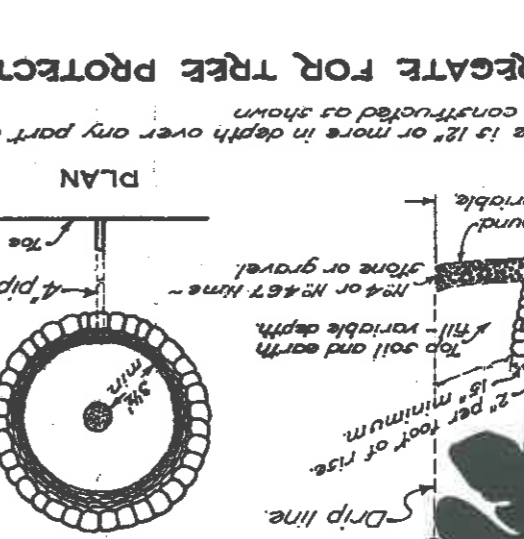
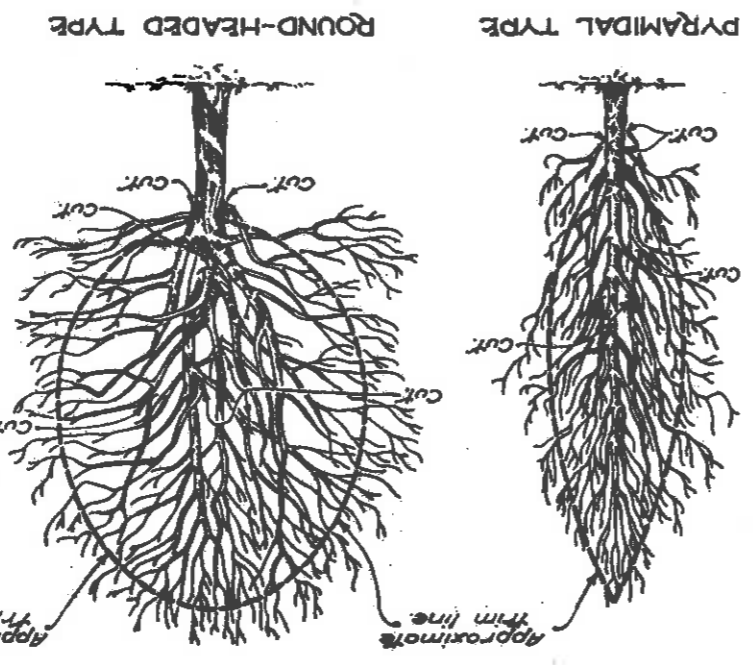
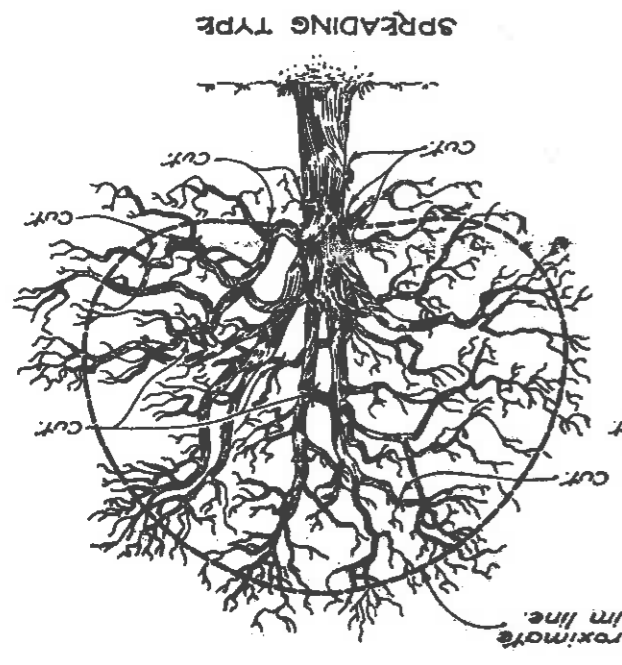
APPROVED *[Signature]* Engineer of Design Services
STANDARD CONSTRUCTION DRAWING
LA-1
LANDSCAPING
DATE 6-1-79
BUREAU OF DESIGN SERVICES
DIVISION OF HIGHWAYS
OHIO DEPARTMENT OF TRANSPORTATION



PRUNING



Where the top of slope in cut is within 6' or less of tree, riprap is to be placed as shown augmented by specifications for roadside improvement. Holes are to extend far enough from center of tree to amply cover roots.

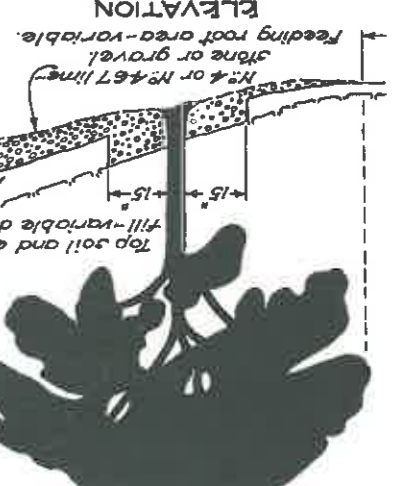
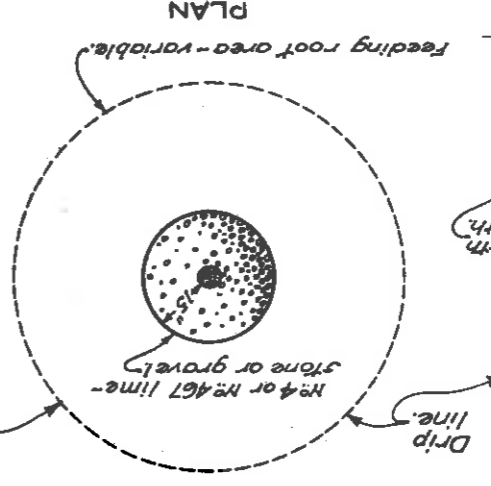


Where fill around tree is 12" or more in depth over any part of feeding root area or periphery of the tree, wells are to be constructed as shown.

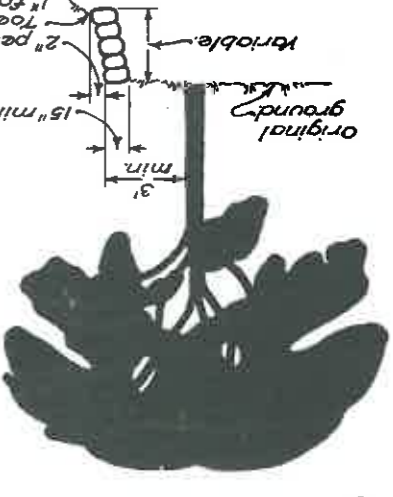
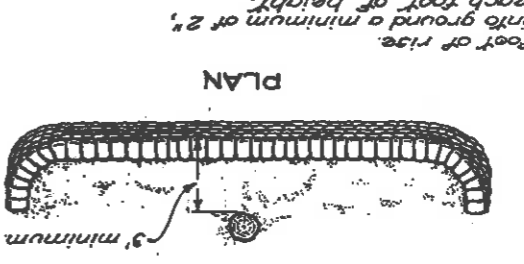
Wells to be circular and equal in height to fill around tree.

Snow fence shall be erected at the drip line to protect trees and their root systems during construction.

AGGREGATE FOR TREE ROOT AERATION IN FILL



RRIPAR FOR TREE PROTECTION IN CUT



Where the top of slope in cut is within 6' or less of tree, riprap is to be placed as shown augmented by specifications for roadside improvement. Holes are to extend far enough from center of tree to amply cover roots.

DATE: <i>5/10/73</i>	ENGINEER OF BRIDGES	INNES	T.G.C. CPD	BFG FHR	MFW
APPROVED: <i>Robert C. ...</i>	STANDARD	DEPARTMENT OF TRANSPORTATION BUREAU OF BRIDGES STATE OF OHIO			
DRAWING NO. DBR-2-73					

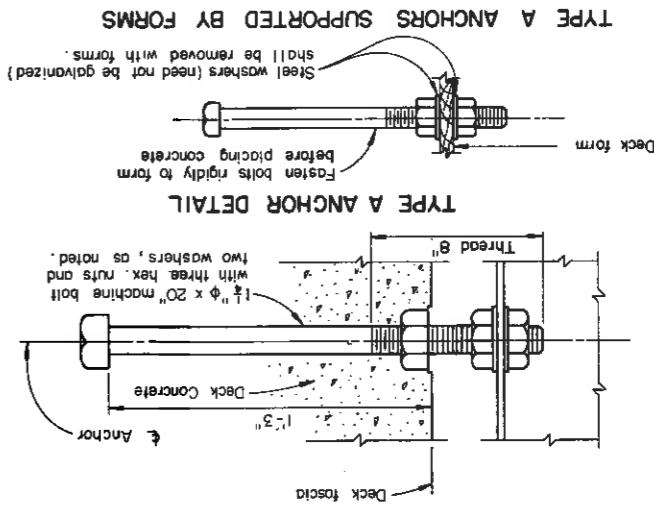
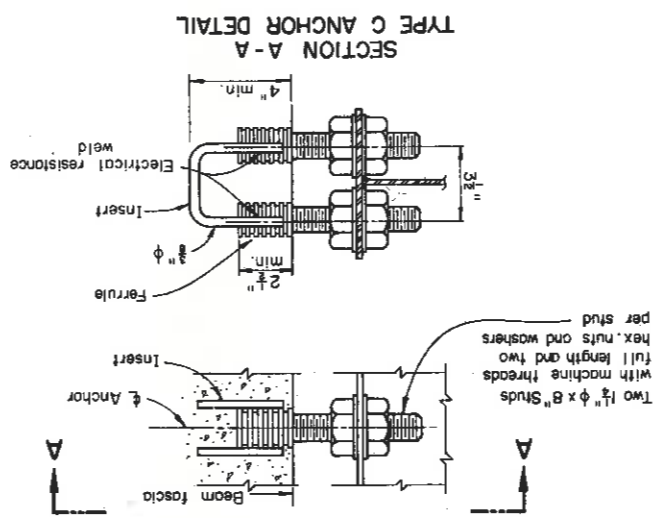
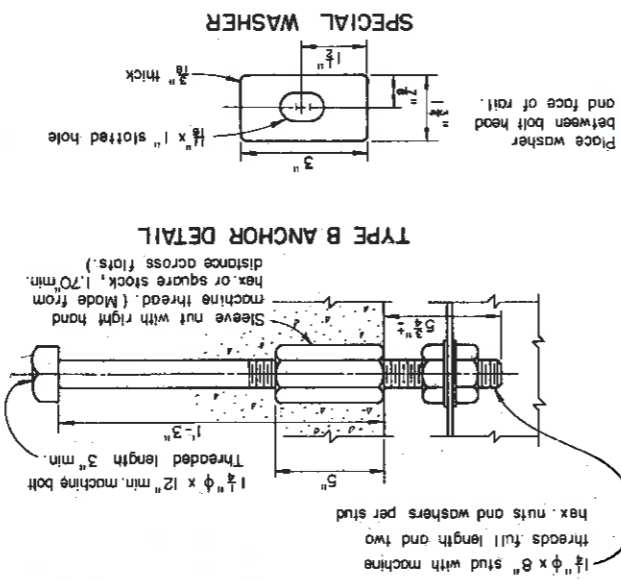
**DEEP BEAM
BRIDGE GUARD RAIL
WITH TUBULAR BACKUP**

REVISIONS

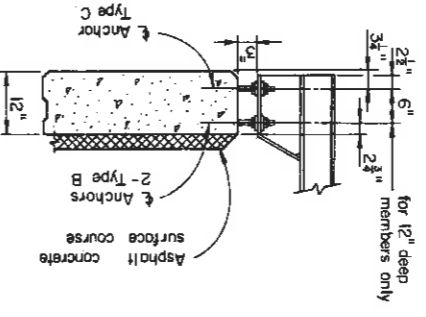
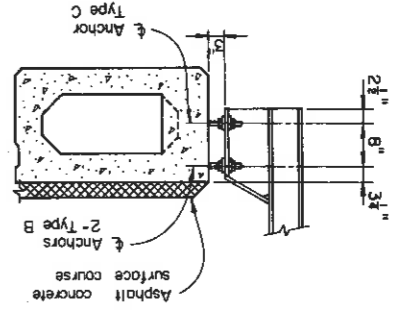
MATERIAL: All anchor bolts, nuts and studs shall conform to the physical properties of ASTM-A325 except that the minimum elongation shall be 10%. The chemical properties are waived.

GALVANIZING: All guard rail posts, tubes, hardware and accessories shall be galvanized in accordance with ASTM A123 or ASTM A153, except as otherwise noted.

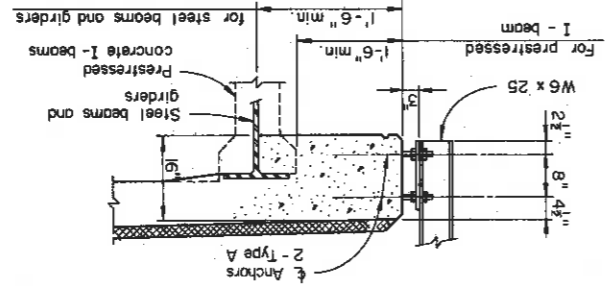
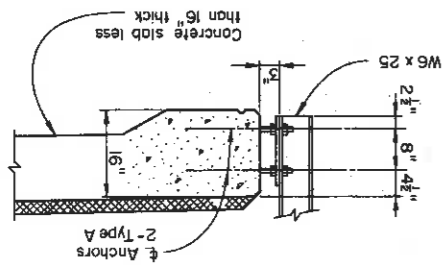
TYPE C ANCHOR INSERTS of a different type may be provided if approved by the Director.



**POST ANCHORAGE DETAILS
PRESTRESSED CONCRETE BOX BEAMS**



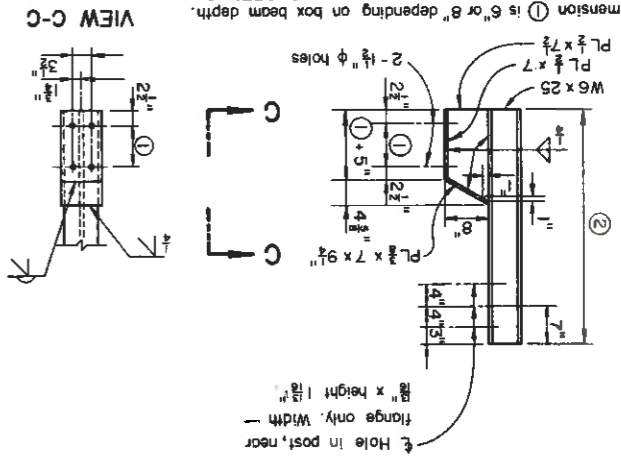
**POST ANCHORAGE DETAILS
LONGITUDINAL BEAM BRIDGES
CONCRETE SLABS**



(For use with prestressed concrete box beams)

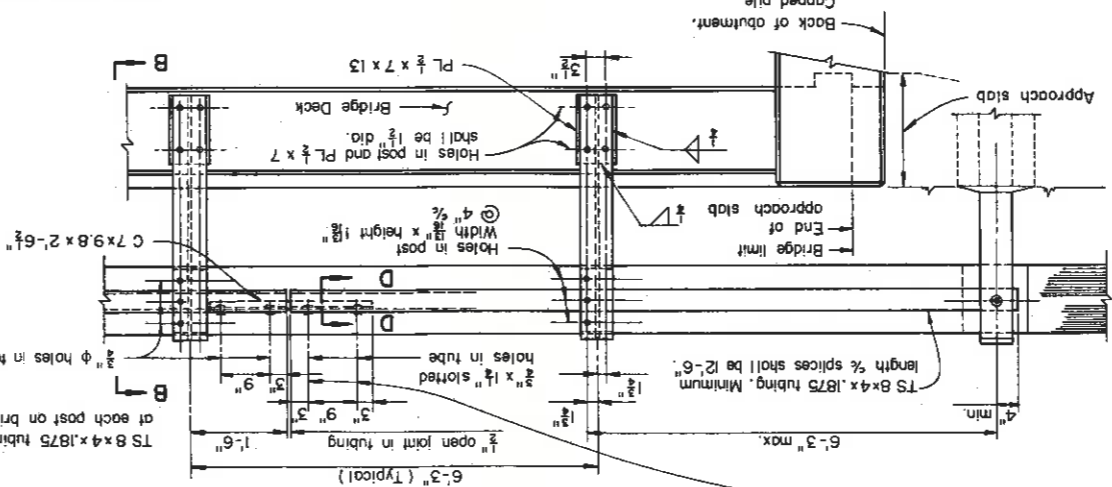
**SECTION B-B
TYPE 2 POST**

For Dimension (2) see project plans.
PRESTRESSED CONCRETE BOX BEAMS.
See project plans and POST ANCHORAGE DETAILS.
Dimension (1) is 6" or 8" depending on box beam depth.

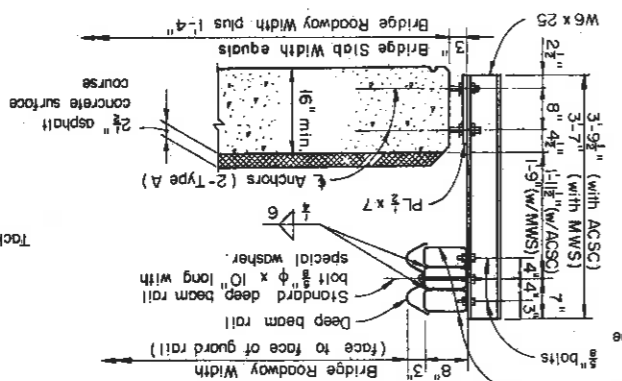
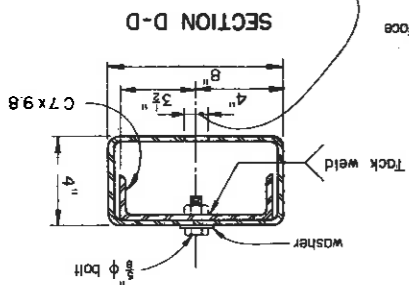


RAILING ELEVATION

(Type I posts shown)
ACSC indicates Asphalt
Concrete Surface Course.
MWS indicates Monolithic
Wearing Surface.



Boles in slotted holes shall not be drawn up so tight as to prevent sliding between the tube and channel.



(F)

Logan 7

CR-39 - 4.98

March 13, 1980

C. R. Tripp, Admin., Bur. Environmental Services

R. A. Allen

Delbert L. Leistner, District Deputy Director

Burley J. Sigman, Planning Engr.

Stream Data Form, P.F. No. LOG-017

Attached for your further processing are seven copies of the Stream Data Form, site map, and location map for a bridge replacement project in Logan County.

Originally the County Engineer had proposed to do 800± of channel relocation. However, due to the environmental problems he has decided to reduce the amount of channel work to that shown on the attached site plan. The work now proposed is within the right of way and involves only the minor shaping needed to place the Rock Channel Protection.

BJS

BJS:rba

Attach.

cc: File

Logan County Engr.

Sigman

STREAM DATA FORM

County LOGAN Date 3-14-80
 Route and Section CR-39 498
 Stream Name UNNAMED FORK GREAT MIAMI P.F. LOG-017

EXISTING CONDITIONS

- a. Is the stream flow: Year-round Intermittent _____
- b. Drainage area: 10.8 Sq. Mi. Average depth: 6"
- c. Average width: 20' ± Average depth: 6"
 Type of bottom: GRAVEL
 Are pools evident in the project area?
 1. Upstream NO distance from centerline _____
 2. Downstream NO distance from centerline _____
- d. Average height of banks: 8' ±
 Vegetation on banks: GRASS, WEEDS, AND SOME BRUSH
- e. Visible pollution: NO
- f. Is erosion evident along the banks and in the surrounding watershed?
 Yes _____ No
- g. Is existing structure to be replaced? Yes No _____

DESIGN

- a. Is the project on new grade? SLIGHT Yes No _____
- b. Is the project on new alignment? Description SEE ATTACHED SITE PLAN Yes _____ No
- c. Is new right of way required? Description SEE ATTACHED SITE PLAN Yes No _____
- d. Is the channel being deepened?
 widened? Length of work Yes _____ No
 relocated? Length of work Yes _____ No
 Length of work Yes No _____
 Length of work upstream 45' from d
 Length of work downstream 25' from e
 Structure Width or Culvert Length 32' w/ guardrails

SLIGHTLY shaped at the structure?

- e. Are any elements being placed within the water? Yes No _____
 Type of pier construction (if applicable): Capped piles Footers _____
 Culvert dimension (if applicable): _____
- f. Is the proposed waterway opening equal to or greater than the existing waterway opening? (use same datum base) Yes No _____
- g. If the waterway opening is reduced, what is the percent reduction? _____ %
- h. For Off-system Projects only. The County Engineer has determined that a bridge replacement in kind with respect to waterway opening is in the public interest based upon past flood experiences. Yes No _____

County Engineer _____

CONSTRUCTION

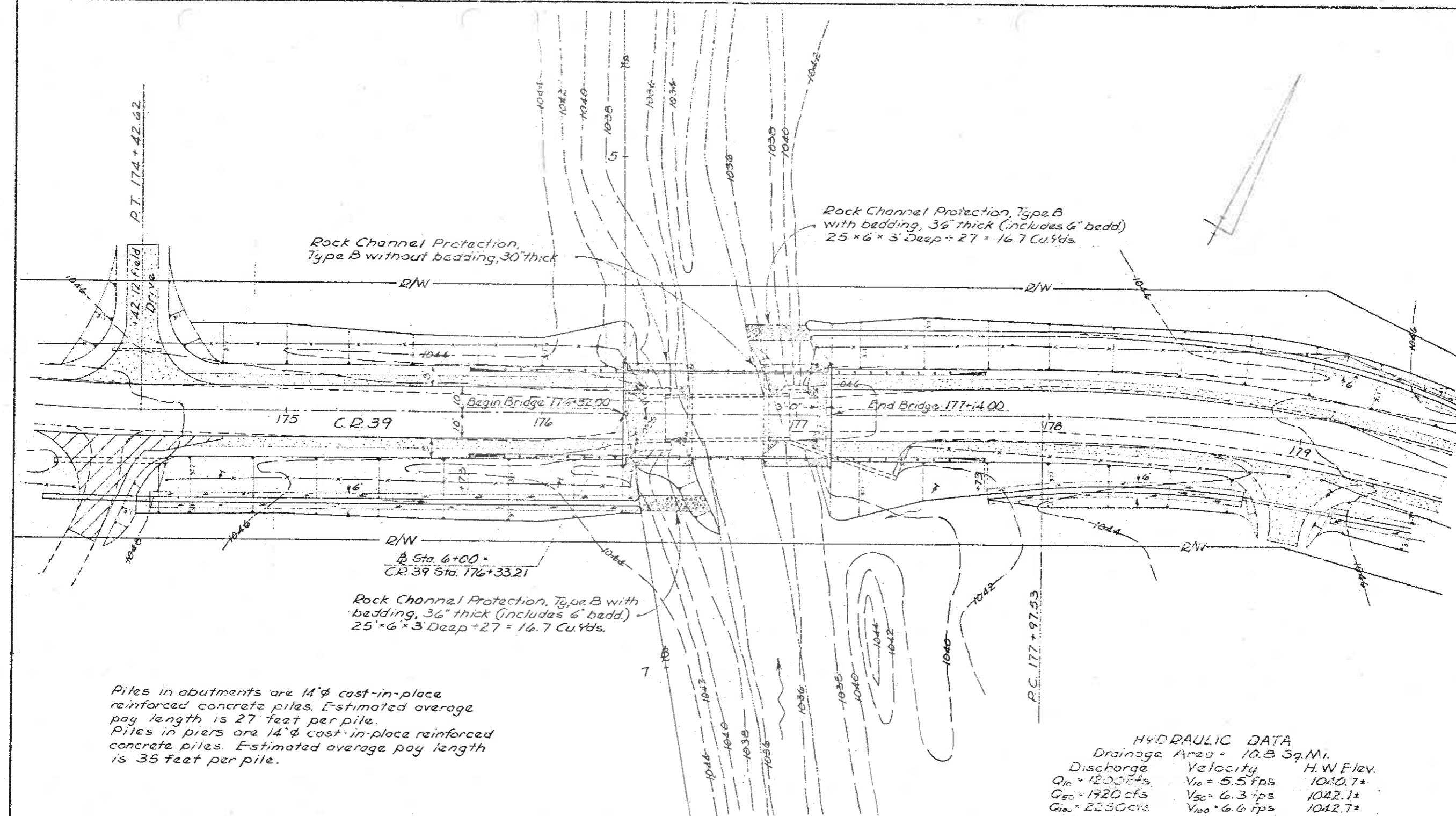
- a. Will cofferdams be required? Yes _____ No
- b. Is it likely that a temporary crossing or ford will be developed in conjunction with the project (either for the contractor's equipment or for vehicular traffic)? Yes _____ No

Prepared by Burley J. Sigman

Firm or Agency O.D.O.T. Dist. 7

DATE	BY	PROJECT

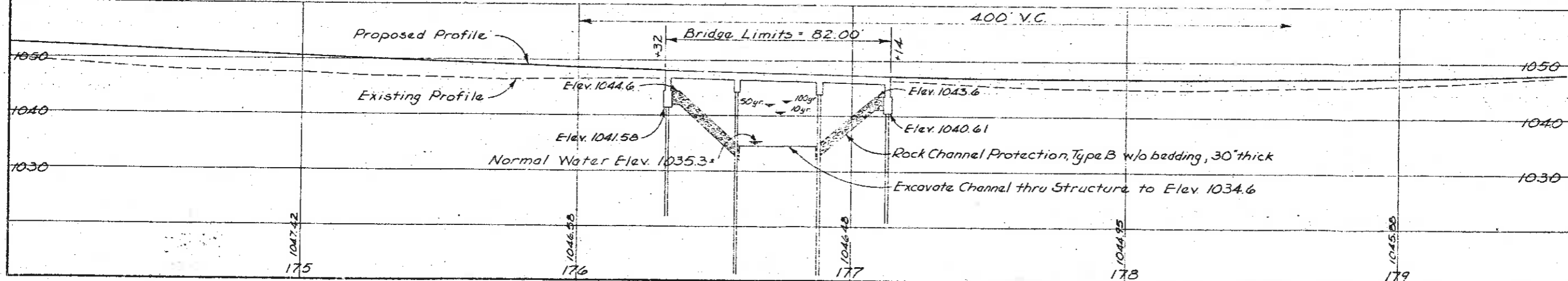
LOGAN COUNTY
BR. 39-4.98



Piles in abutments are 14" cast-in-place reinforced concrete piles. Estimated average pay length is 27 feet per pile.
Piles in piers are 14" cast-in-place reinforced concrete piles. Estimated average pay length is 35 feet per pile.

HYDRAULIC DATA

Drainage Area = 10.8 Sq. Mi.		
Discharge	Velocity	H.W. Elev.
$Q_{10} = 1200 \text{ cfs}$	$V_{10} = 5.5 \text{ fps}$	1040.7*
$Q_{50} = 1720 \text{ cfs}$	$V_{50} = 6.3 \text{ fps}$	1042.1*
$Q_{100} = 2250 \text{ cfs}$	$V_{100} = 6.6 \text{ fps}$	1042.7*



EXISTING STRUC

Type: Pratt Steel Tr
Span: 49'-0"
Roadway: 15.8'
Loading: Unknown
Skew: 0°
Wearing Surface: Bit
Alignment: Tangent
Condition: Poor

PROPOSED STRUC

Type: Three span cor
reinforced concrete
capped pile substr
Spans: 24'-0", 30'-0",
Roadway: 32'-0" % Gu
Loading: HS 20-44
Interstate Alternate
Skew: 0°
Wearing Surface: M
concrete
Alignment: Tangent

LOGAN COUNTY HIGHWAY DE
CHESTER R. KURTZ, CO. E.

SITE PLAN
BR No. 39-4.98
Richland Township
Logan County

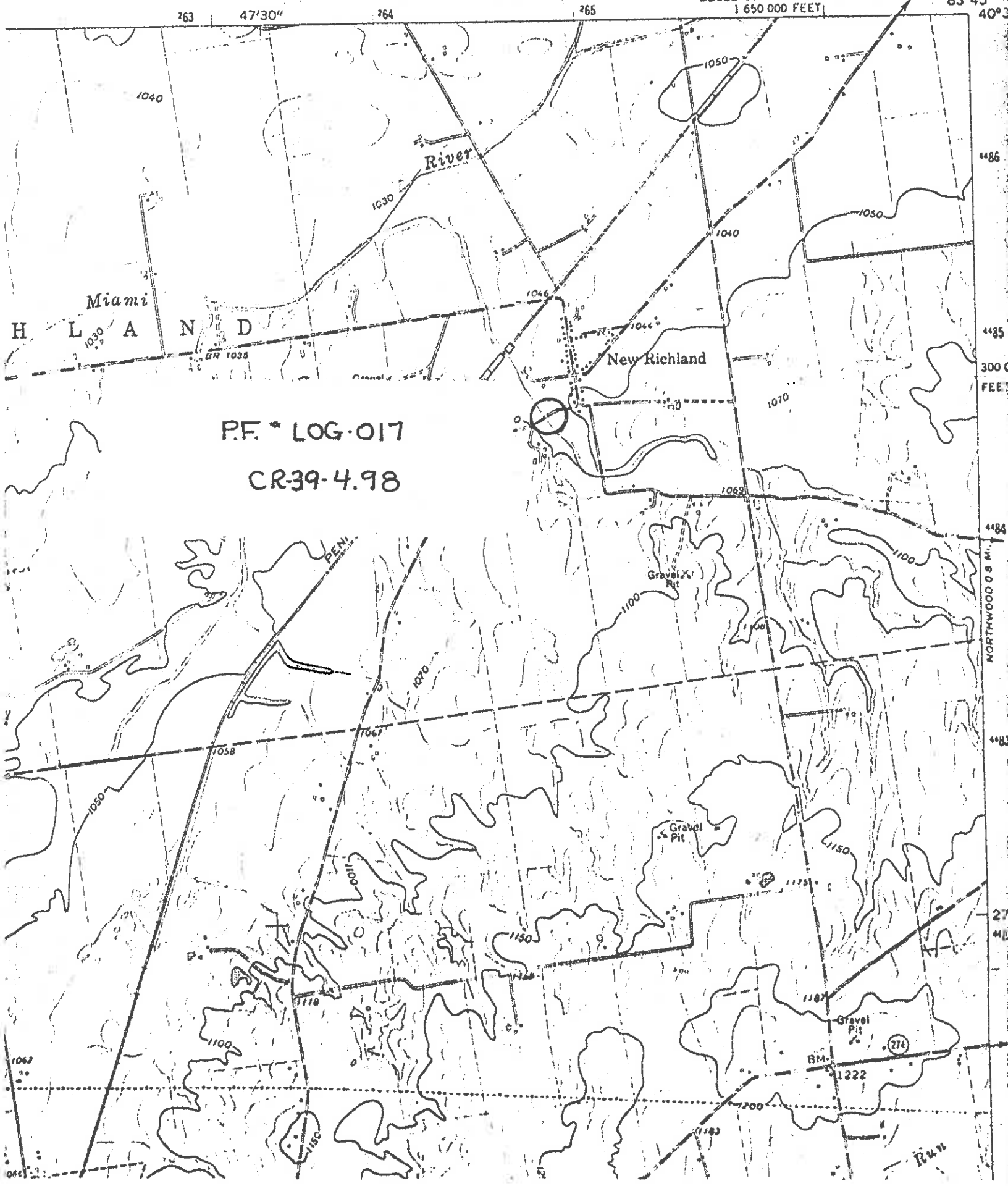
DESIGNED	DRAWN	CHECKED	REVIEW
R.A.B.	R.A.B.		

STATION
RESOURCES
SURVEY

HUNTSVILLE QUADRANGLE
OHIO-LOGAN CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

BELLE CENTER (OHIO 273) 0.6 MI.
1:650 000 FEET

83°45'
40°3'



P.F. * LOG-017
CR-39-4.98

H L A N D

New Richland

Gravel Pit

Gravel Pit

Gravel Pit

274

BM-1222

Run

NORTHWOOD ST.

F

Logan 7

CR-39 - 4.98

March 13, 1980

C. R. Tripp, Admin., Bur. Environmental Services
Delbert L. Leistner, District Deputy Director
Stream Data Form, P.F. No. LOG-017

R. A. Allen
Burley J. Sigman, Planning Engr.

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BJS

BJS:rba

Attach.

cc: File /

Logan County Engr.
Sigman



STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

INTER-OFFICE COMMUNICATION

County of LOGAN Dist. 7

S. H. CR 39 Sec. 4.98

Date September 25, 1979

To Delbert Leistner, District Deputy Director Attention: Hugh Simpson

From R. E. Catlin, Special Deputy Administering Officer, Ohio Department of Transportation Clearinghouse

Subject ODOT Clearinghouse "Early Coordination" Documentation - LOG-CR 39-4.98;
PF-LOG-17

The "Early Coordination" requirement (in compliance with the Federal Highway Administration's Federal-aid Highway Program Manual Volume 7, Chapter 7, Section 2 and Volume 7, Chapter 7, Section 1) has been completed for the subject project.

The original copies of all comments received from the review are enclosed for your use in future work on the subject project.

Late comments from that review will be forwarded upon receipt.

All comments must be considered and/or resolved during further project development.

Please keep this office informed of any correspondence initiated to resolve any of the comments.

R. E. Catlin
Special Deputy Administering
Officer
ODOT Clearinghouse

REC/hd

Attachments

cc: FHWA--w/atlc.
File
Reading

EARLY COORDINATION MAILING LIST

Those agencies from which comments were requested are indicated by an "X"

STATE AGENCIES

- (X) Department of Natural Resources
- (X) Department of Mental Health and Mental Retardation
- (X) Department of Administrative Services
- (X) Department of Health
- (X) Department of Highway Safety
- (X) Ohio Historical Society
- (X) Ohio Board of Regents
- (X) Ohio Environmental Protection Agency

METROPOLITAN STUDY AGENCY

()

FEDERAL AGENCIES

- (X) Department of the Interior:
 - Fish and Wildlife Service, Div. of Ecological Services
 - Fish and Wildlife Service, Office of Endangered Species
 - National Park Service
 - U.S. Geological Survey
 - Heritage Conservation and Recreation Service
 - Bureau of Mines
- (X) Environmental Protection Agency
- (X) Department of Housing and Urban Development
- () Department of Health, Education, and Welfare
- (X) Department of Agriculture
- () Bureau of Commercial Fisheries
- () U.S. Army Corps of Engineers
- () U.S. Coast Guard
- () Economic Development Administration

STATEWIDE AGENCIES

() Ohio Environmental Council

LOG-CR 39-4.98
PF-LOG-17
OH-TIP79-083

THE OHIO DEPARTMENT OF
NATURAL RESOURCES

Memo

TO: R.E. Catlin, Special Deputy Administering Officer
Ohio Department of Transportation **DATE:** September 19, 1979

FROM: Roger D. Hubbell, Assistant Chief *RH*
Office of Outdoor Recreation Services

SUBJECT: EARLY COORDINATION LOG CR 39-4.98

This Department has completed a review of the above referenced project. At this time we foresee no significant adverse environmental impacts that would result from the completion of the proposed project. Furthermore, there are no known endangered species that would be affected by the project.

RDH:sjd

OHIO DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL FACTORS CHECKLIST

08-17-79
PF-LOG-17
OH-TIP79-083

COUNTY: LOGAN

ROUTE: CR 39

SECTION: 4.98

INSTRUCTIONS - The information requested in this report is required for evaluation of criteria related to the improvement of highway services in the area shown on the attached map. Please complete this form and return to Mr. R. E. Catlin, Chief Engineer of Planning and Design, Ohio Department of Transportation, 25 South Front Street, P. O. Box 899, Columbus, Ohio 43216.

Check Marks should be placed in those blanks where your agency has expertise pertaining to the items covered. Written descriptions or discussions are solicited. Identify location on the attached map if possible, returning it with this form. Suggestions as to the source of additional data will also be welcomed. Please use reverse side or separate sheets for additional comments if necessary.

SIGNATURE AND RETURN ADDRESS MUST be completed to permit verification of data by the Department.

Yes No

1. Do unique ()geographic, ()geologic, ()geophysical, ()topographic features exist in this area? Description _____
2. Have ()existing, ()potential mineral resources been identified in this area? Description _____
3. Does the area contain extensive ()water supply wells, ()lakes, ()ponds? Description _____
4. Have ()known, ()suspected contamination problems been reported in the ()water supply wells, ()lakes, ()ponds mentioned in item 3 above?
5. Are some drainage courses subject to ()flash flooding, ()siltation, ()erosion, ()pollutants? Identify _____
6. Are soils in the area susceptible to ()erosion, ()landslides, ()settlement? Description _____
7. Have air pollution problems been reported in this area? Explain _____
8. Are there ()existing, ()pending air quality laws for this area? Sponsoring agency _____
9. Do unusual species of fish or wildlife ()reside, ()migrate in this area? Name if possible _____
10. Do species of wildlife exist in unusual quantity in this area? Name if possible _____
11. Do unusual species of ()trees, ()shrubs, ()vegetation exist in this area? Name if possible _____
12. Does an unusual ()quantity, ()quality of plant life exist in this area? Name if possible _____
13. Which of the following facilities exist in this area: ()parks, ()recreation lands, ()religious institution, ()athletic fields or buildings, ()forest or wildlife preserve, ()educational facility, ()historic site, ()eligible historic site, ()archaeological site, ()others? _____
14. Which of the following facilities are proposed in this area: ()parks, ()recreation lands, ()religious institution, ()wildlife preserve, ()educational facility, ()industrial complex, ()subdivision, ()urban renewal, ()others? _____
15. Are there planning and development controls for this area? Administered by _____
16. Are there ()existing, ()abandoned, ()rehabilitated sanitary landfills in this area? Identify _____
17. Names of agencies providing public services in the area:

Police _____	Fire _____
Ambulance _____	Gas _____
Electricity _____	Water _____
Sewage disposal _____	Solid waste disposal _____
Other _____	

18. OTHER COMMENTS: Please use reverse side or separate sheets.

SIGNATURE [Signature]

ADDRESS OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF NATURAL AREAS & PRESERVES
FOUNTAIN SQUARE BUILDING F
COLUMBUS, OHIO 43224

TITLE Ecological Analyst

ORGANIZATION _____

DATE 9/1/79

TELEPHONE NO 614 266 2000

OHIO DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL FACTORS CHECKLIST

08-17-79
PF-LOG-17
OH-TIP79-083

COUNTY: LOGAN

ROUTE: CR 39

SECTION: 4.98

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Yes	No	
1.	<input type="checkbox"/>	Do unique ()geographic, ()geologic, ()geophysical, ()topographic features exist in this area? Description _____
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6.	<input type="checkbox"/>	Are soils in the area susceptible to ()erosion, ()landslides, ()settlement? Description _____
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8.	<input type="checkbox"/>	Are there ()existing, ()pending air quality laws for this area? Sponsoring agency _____
9.	<input type="checkbox"/>	Do unusual species of fish or wildlife ()reside, ()migrate in this area? Name if possible _____
10.	<input type="checkbox"/>	Do species of wildlife exist in unusual quantity in this area? Name if possible _____
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16.	<input type="checkbox"/>	Are there ()existing, ()abandoned, ()rehabilitated sanitary landfills in this area? Identify _____
17.		Names of agencies providing public services in the area: Police _____ Fire _____ Ambulance _____ Gas _____ Electricity _____ Water _____ Sewage disposal _____ Solid waste disposal _____ Other _____
18.		OTHER COMMENTS: Please use reverse side or separate sheets.
SIGNATURE	<u>[Signature]</u>	ADDRESS <u>30 E. Broad St</u>
TITLE	<u>Asst. Dir. PW</u>	
ORGANIZATION	<u>OH DOT</u>	
DATE	<u>8/20/79</u>	TELEPHONE NO. <u>466-4780</u>



OHIO DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL FACTORS CHECKLIST

08-17-79
PF-LOG-17
OH-TIP79-083

COUNTY: LOGAN

ROUTE: CR 39

SECTION: 4.98

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Check Marks should be placed in those blanks where your agency has expertise pertaining to the items covered. Written descriptions or discussions are solicited. Identify location on the attached map if possible, returning it with this form. Suggestions as to the source of additional data will also be welcomed. Please use reverse side or separate sheets for additional comments if necessary.

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Yes No

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Police _____ Fire _____
Ambulance _____ Gas _____
Electricity _____ Water _____
Sewage disposal _____ Solid waste disposal _____
Other _____

18. OTHER COMMENTS: Please use reverse side or separate sheets. *No Comments*

SIGNATURE *Harvey J. Stuart* ADDRESS *240 Parsons Ave. Col. O. 43205*

TITLE *Chief of Field Services*

ORGANIZATION *Ohio Dept. of Highway Safety*

DATE *8-20-79* TELEPHONE NO. *614-466-3275* X

COUNTY: LOGAN

ROUTE: CR 39

SECTION: 4.98

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 Sewage disposal _____ Solid waste disposal _____
 Other _____

18. OTHER COMMENTS: Please use reverse side or separate sheets.

SIGNATURE Bert C. Drenner, Head
TITLE Review and Compliance Dept.
ORGANIZATION _____

ADDRESS Ohio Historic Preservation Office
Ohio Historical Center
I-71 and 17th Avenue
Columbus, Ohio 43217

DATE Aug 17, 1979

TELEPHONE NO. 466-1500 ext. 266

OHIO DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL FACTORS CHECKLIST

08-17-79
PF-LOG-17
OH-TIP79-083

COUNTY: LOGAN

ROUTE: CR 39

SECTION: 4.98

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 Ambulance _____ Gas _____
 Electricity _____ Water _____
 Sewage disposal _____ Solid waste disposal _____
 Other _____

18. OTHER COMMENTS: Please use reverse side or separate sheets. No comment

SIGNATURE Carl Wilhelm ADDRESS 361 E. Broad

TITLE Planning Coordinator

ORGANIZATION OFPA

DATE 8-22-79 TELEPHONE NO. 466-8866



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Division of Ecological Services
Columbus Field Office
3990 East Broad Street
Columbus, Ohio 43215

IN REPLY REFER TO:

September 6, 1979

Mr. R. E. Catlin
Chief Engineer of Planning and Design
Ohio Department of Transportation
25 South Front Street
Columbus, Ohio 43215

Dear Mr. Catlin:

This responds to your letters and attached information requesting our comments on the proposed projects described by the following Early Coordination notifications of a proposed highway action.

<u>Project No.</u>	<u>County</u>	<u>Route/Section</u>	<u>Notice Date</u>
OH-TIP79-083	Logan	CR 39/4.98	8/17/79
OH-TIP79-084	Logan	CR 1/5.60	8/17/79
OH-TIP79-085	Champaign	CR 14	8/17/79
OH-TIP79-089	Carroll	SR 39/1.54	8/28/79
OH-TIP79-091	Miami	SR 41/7.78; SR 202/9.94; and SR 504/0.07, 0.40	8/28/79
OH-TIP79-090	Carroll	SR 39/9.70	8/28/79
OH-TIP79-094	Hamilton	SR 126/17.05	8/28/79

These comments provide technical assistance only and do not constitute the report of the Secretary of the Interior on the project within the meaning of Section 2(b) of the Fish and Wildlife Coordination Act, nor do they represent the review comments of the Department of the Interior on any forthcoming environmental impact statement. These comments do not in any way preclude additional and separate evaluation and comments by the Fish and Wildlife Service, pursuant to any requirements for a permit from the Corps of Engineers, U. S. Army (Section 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act of 1977).

The U.S. Fish and Wildlife Service makes the following recommendations:

1. Channelization should be avoided.
2. Any instream work other than that necessary for the placement of coffer dams and piers should be avoided.

X

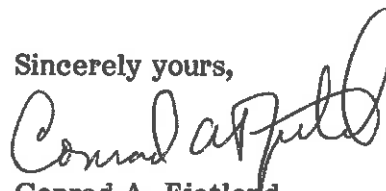
3. Channel shaping, where necessary, should be limited to areas above the mean water level.
4. All stream crossings should not impede the upstream and downstream movement of fish and other aquatic organisms.
5. Temporary crossings, if utilized, should be made with culverts and clean rock fill and should be removed immediately after construction is completed.
6. Cofferdams, if utilized, should be constructed with clean non-erodible material and removed after construction is completed.
7. Erosion control measures should be implemented.
8. Disrupted areas and available right-of-way should be planted with native vegetation of wildlife value.

The above recommendations are designed to mitigate adverse impacts to fish and wildlife resources. If they are implemented, the U.S. Fish and Wildlife Service would not anticipate any significant impacts to fish and wildlife as a result of the proposed projects, and would therefore have no objection to the projects. If, however, your project designs do not or cannot implement the above recommendations, please provide construction plans and any other available information and we will provide additional technical assistance comments.

In accordance with the Endangered Species Act of 1973, as amended, the information you have provided has been forwarded to the Regional Office, U.S. Fish and Wildlife Service, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111. Comments regarding endangered species will be forwarded under separate cover.

Thank you for the opportunity to provide comments at this early stage of coordination. With the exception of the above mentioned endangered species contacts, further correspondence on the project should be conducted directly with this office.

Sincerely yours,



Conrad A. Fjetland
Supervisor

cc: Chief, ODW, Columbus, OH



United States Department of the Interior

HERITAGE CONSERVATION AND RECREATION SERVICE
LAKE CENTRAL REGION
ANN ARBOR, MICHIGAN 48107

IN REPLY REFER TO:

1202-02 Ohio
HCRS 9-259

September 18, 1979

Mr. R. E. Catlin
Chief Engineer of Planning and Design
Ohio Department of Transportation
25 South Front Street
Columbus, Ohio 43215

Dear Mr. Catlin:

This is in response to your request for early coordination and comment concerning the proposed project to replace a bridge over a branch of the South Fork of the Miami River, on C.R. 39, 2.1 miles south of Belle Center in Logan County, Ohio.

Based on the information provided and our general knowledge of the area, it appears the project would not have significant adverse impacts on environmental resources within our area of jurisdiction and expertise. We suggest you confer with the State Historic Preservation Officer about potential impacts the project may have on cultural resources (see enclosed list).

This comment is provided as technical assistance and does not satisfy our obligation under the National Environmental Policy Act with respect to any negative declaration or environmental impact statement which may be prepared.

Sincerely,

Robert L. Pierce, Chief
Division of Planning Assistance

Enclosure

X

STATE HISTORIC PRESERVATION OFFICERS

Dr. David Kenney Director, Department of Conservation 602 William G. Stratton Building Springfield, Illinois 62706	ILLINOIS
Mr. Joseph D. Cloud, Director Department of Natural Resources 608 State Office Building Indianapolis, Indiana 46204	INDIANA
Dr. Martha Bigelow Director, Michigan History Division Department of State Lansing, Michigan 48918	MICHIGAN
Mr. Russell W. Fridley, Director Minnesota Historical Society 690 Cedar Street St. Paul, Minnesota 55101	MINNESOTA
Dr. Thomas H. Smith Director, The Ohio Historical Society Interstate 71 at 17th Avenue Columbus, Ohio 43211	OHIO
Mr. Richard A. Erney State Historical Society of Madison 816 State Street Madison, Wisconsin 53706	WISCONSIN

AR 307X

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

324 Silver Lake Pike - R. 1
Bellefontaine, Ohio 43311

August 28, 1979

Mr. R. E. Catlin
Deputy Director
Division of Transportation Planning
Ohio Department of Transportation
25 South Front Street
Columbus, Ohio 43216

Dear Mr. Catlin:

In accordance with your recent request to Robert E. Quilliam, we are returning to you, Ohio Department of Transportation, projects CR 39, Section 4.98 and CR 1, Section 5.60 in Logan County, Ohio.

Thank you for the opportunity to comment on these proposals.

Sincerely,

David Nesser
David Nesser
District Conservationist

Enclosures

cc: Clifton A. Maguire, Acting State Conservationist
Thomas C. Sommer, Area Conservationist



x

OHIO DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL FACTORS CHECKLIST

08-17-79
PF-LOG-17
OH-TIP79-083

COUNTY: LOGAN

ROUTE: CR 39

SECTION: 4.98

INSTRUCTIONS - The information requested in this report is required for evaluation of criteria related to the improvement of highway services in the area shown on the attached map. Please complete this form and return to Mr. R. E. Catlin, Chief Engineer of Planning and Design, Ohio Department of Transportation, 25 South Front Street, P. O. Box 899, Columbus, Ohio 43216.

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SIGNATURE AND RETURN ADDRESS MUST be completed to permit verification of data by the Department.

Yes No

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- 2. Have ()existing, ()potential mineral resources been identified in this area? Description _____
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- 4. Have ()known, ()suspected contamination problems been reported in the ()water supply wells, ()lakes, ()ponds mentioned in item 3 above?
- 5. Are some drainage courses subject to (X)flash flooding, ()siltation, (X)erosion, ()pollutants? Identify Stream Bank erosion cause by channel clogged with brush.
- 6. Are soils in the area susceptible to ()erosion, ()landslides, ()settlement? Description _____
- 7. Have air pollution problems been reported in this area? Explain _____
- 8. Are there ()existing, ()pending air quality laws for this area? Sponsoring agency _____
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 Ambulance _____ Gas _____
 Electricity _____ Water _____
 Sewage disposal _____ Solid waste disposal _____
 Other _____

18. OTHER COMMENTS: Please use reverse side or separate sheets.

SIGNATURE Dwight Nesser ADDRESS R#1324 Silver Lake Pike Bellefontaine OH 43111

TITLE District Conservationist

ORGANIZATION Soil Conservation Service

DATE 8-28-79 TELEPHONE NO. 593-2946



OHIO Department of TRANSPORTATION

James A. Rhodes/Governor
David L. Weir/Director
25 South Front Street
P. O. Box 899
Columbus, Ohio 43216

August 17, 1979

TO: See Attached List

FROM: R. E. Catlin
Chief Engineer of Planning and Design
Ohio Department of Transportation
25 South Front Street
Columbus, Ohio 43215

SUBJECT: EARLY COORDINATION
(In compliance with Federal Highway Administration's Federal-aid Highway Program Manual Vol. 7, Chapter 7, Section 2, and Vol. 7, Chapter 7, Section 5)

Existing evidence, i.e., traffic counts, forecasted traffic, accident data, loss in travel time, emergency repairs, etc., indicates that a highway improvement is needed as described on the following page and located approximately as shown on the attached map. This is a first notice to determine pertinent environmental factors that could affect the project and also to avoid potential conflicts with other public works. Please complete those questions on the Environmental Factors Checklist in your agency's area of expertise and return it with any additional comments to this office by 09-17-79 or we will assume that you have no special concerns related to this project.

If explanatory information is readily available in the form of brochures, maps, reports, etc., please identify these items and indicate how Department of Transportation personnel might obtain copies for review.

Please have the questionnaire signed by the individual providing the data and their title given along with an address and telephone number which can be used to obtain additional information if necessary. In responding to these notices we would appreciate if you would refer to our projects by the County, Route, and Section as they appear at the top of the Environmental Factors Checklist sheet.

Attachments

cc: FHWA, District, File, Reading

EARLY COORDINATION MAILING LIST

Those agencies from which comments were requested are indicated by an "X"

STATE AGENCIES

- (X) Department of Natural Resources
- (X) Department of Mental Health and Mental Retardation
- (X) Department of Administrative Services
- (X) Department of Health
- (X) Department of Highway Safety
- (X) Ohio Historical Society
- (X) Ohio Board of Regents
- (X) Ohio Environmental Protection Agency

METROPOLITAN STUDY AGENCY

- ()

FEDERAL AGENCIES

- (X) Department of the Interior:
 - Fish and Wildlife Service, Div. of Ecological Services
 - Fish and Wildlife Service, Office of Endangered Species
 - National Park Service
 - U.S. Geological Survey
 - Heritage Conservation and Recreation Service
 - Bureau of Mines
- (X) Environmental Protection Agency
- (X) Department of Housing and Urban Development
- () Department of Health, Education, and Welfare
- (X) Department of Agriculture
- () Bureau of Commercial Fisheries
- () U.S. Army Corps of Engineers
- () U.S. Coast Guard
- () Economic Development Administration

STATEWIDE AGENCIES

- () Ohio Environmental Council

LOG-CR 39-4.98
PF-LOG-17
OH-TIP79-083

Project Information:

1. Location: County - LOGAN
Route No. - CR 39
Termini - 2.1 Miles south of Belle Center over branch of
South Fork Miami River

2. Description (See Attached Maps):
 - (a) Type of Improvement: Replacement of existing structurally deficient truss bridge with a three span continuous reinforced concrete slab bridge.

 - (b) Purpose: To provide improved motorist services
 - (c) Length: .25 Miles
 - (d) Estimated Total Cost: \$120,000
Estimated Federal Aid: \$ 96,000

3. Type of Funding:
 - (a) Federal-aid Program - BRIDGE RELIEF ON THE SECONDARY OFF SYSTEM
Federal Highway Administration, Department of Transportation
 - (b) State Program -
Ohio Department of Transportation

4. Application to the Federal Highway Administration is expected to be made in ninety days.

5. As a minimum, an Environmental Assessment will be prepared for this project.

6. Public Hearings for this project will be in compliance with State and Federal regulations.

If any questions arise, please contact Mrs. Helen T. Stone, Environmental Clearinghouse Coordinator, Bureau of Environmental Services, Ohio Department of Transportation, 25 South Front Street, Columbus, Ohio 43215, Telephone Number (614) 466-7100 or 466-1916.

DATE: 08-17-79

OHIO DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL FACTORS CHECKLIST

08-17-79
PF-LOG-17
OH-TIP79-083

COUNTY: LOGAN

ROUTE: CR 39

SECTION: 4.98

INSTRUCTIONS - The information requested in this report is required for evaluation of criteria related to the improvement of highway services in the area shown on the attached map. Please complete this form and return to Mr. R. E. Catlin, Chief Engineer of Planning and Design, Ohio Department of Transportation, 25 South Front Street, P. O. Box 899, Columbus, Ohio 43216.

Check Marks should be placed in those blanks where your agency has expertise pertaining to the items covered. Written descriptions or discussions are solicited. Identify location on the attached map if possible, returning it with this form. Suggestions as to the source of additional data will also be welcomed. Please use reverse side or separate sheets for additional comments if necessary.

SIGNATURE AND RETURN ADDRESS MUST be completed to permit verification of data by the Department.

Yes No

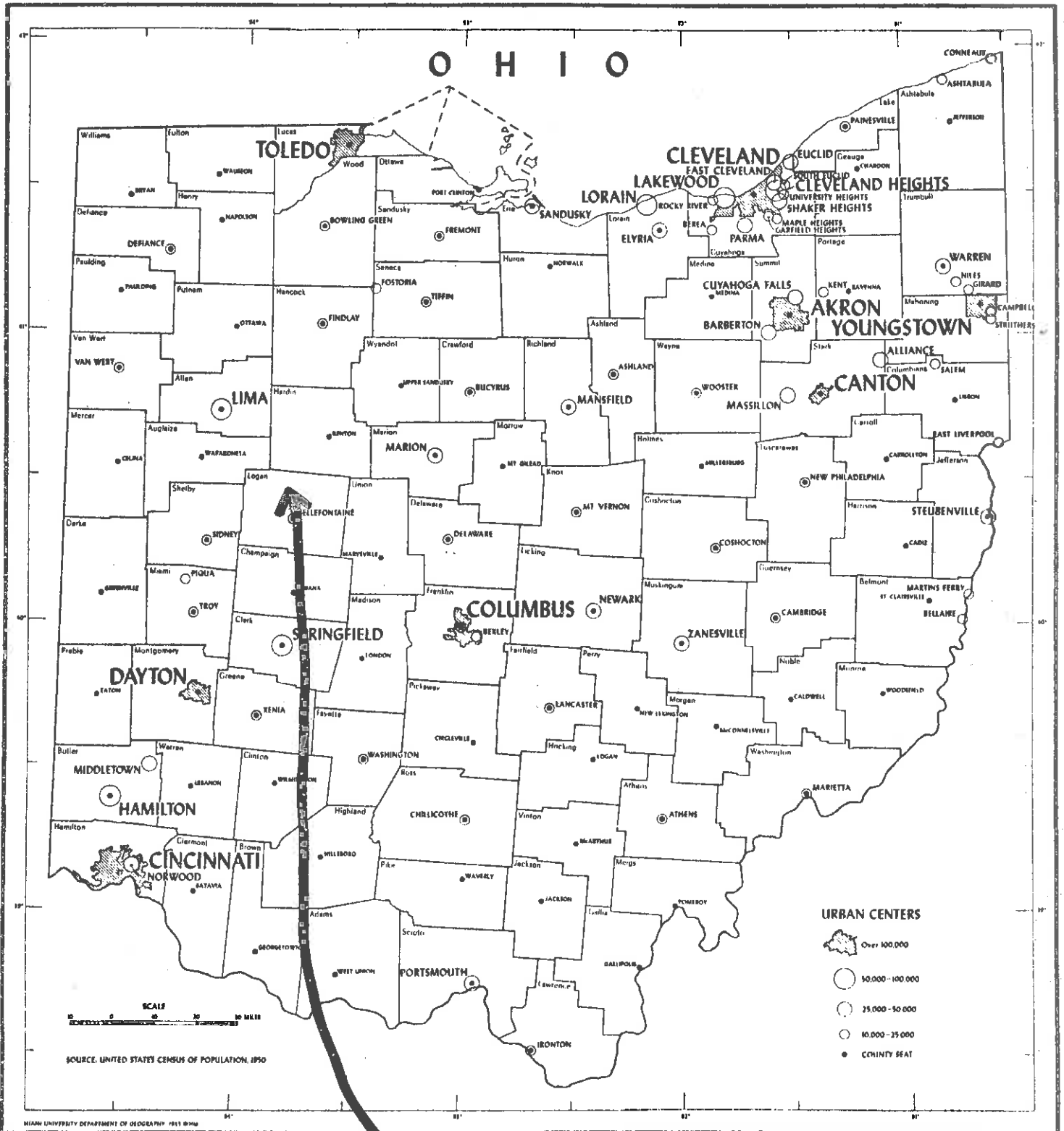
1. ___ ___ Do unique ()geographic, ()geologic, ()geophysical, ()topographic features exist in this area? Description _____
2. ___ ___ Have ()existing, ()potential mineral resources been identified in this area? Description _____
3. ___ ___ Does the area contain extensive ()water supply wells, ()lakes, ()ponds? Description _____
4. ___ ___ Have ()known, ()suspected contamination problems been reported in the ()water supply wells, ()lakes, ()ponds mentioned in item 3 above?
5. ___ ___ Are some drainage courses subject to ()flash flooding, ()siltation, ()erosion, ()pollutants? Identify _____
6. ___ ___ Are soils in the area susceptible to ()erosion, ()landslides, ()settlement? Description _____
7. ___ ___ Have air pollution problems been reported in this area? Explain _____
8. ___ ___ Are there ()existing, ()pending air quality laws for this area? Sponsoring agency _____
9. ___ ___ Do unusual species of fish or wildlife ()reside, ()migrate in this area? Name if possible _____
10. ___ ___ Do species of wildlife exist in unusual quantity in this area? Name if possible _____
11. ___ ___ Do unusual species of ()trees, ()shrubs, ()vegetation exist in this area? Name if possible _____
12. ___ ___ Does an unusual ()quantity, ()quality of plant life exist in this area? Name if possible _____
13. ___ ___ Which of the following facilities exist in this area: ()parks, ()recreation lands, ()religious institution, ()athletic fields or buildings, ()forest or wildlife preserve, ()educational facility, ()historic site, ()eligible historic site, ()archaeological site, ()others? _____
14. ___ ___ Which of the following facilities are proposed in this area: ()parks, ()recreation lands, ()religious institution, ()wildlife preserve, ()educational facility, ()industrial complex, ()subdivision, ()urban renewal, ()others? _____
15. ___ ___ Are there planning and development controls for this area? Administered by _____
16. ___ ___ Are there ()existing, ()abandoned, ()rehabilitated sanitary landfills in this area? Identify _____
17. Names of agencies providing public services in the area:
Police _____ Fire _____
Ambulance _____ Gas _____
Electricity _____ Water _____
Sewage disposal _____ Solid waste disposal _____
Other _____
18. OTHER COMMENTS: Please use reverse side or separate sheets.

SIGNATURE _____ ADDRESS _____

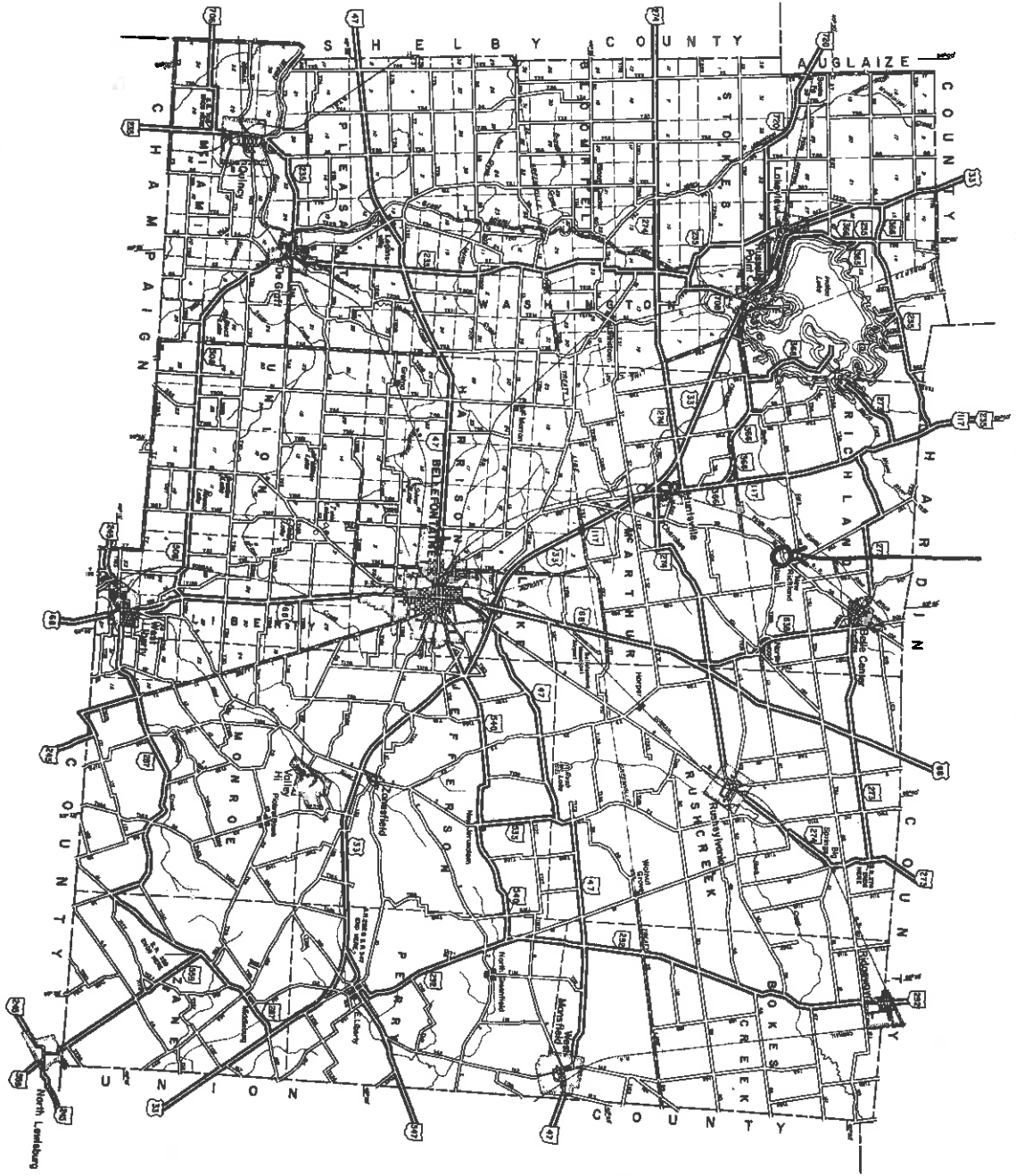
TITLE _____

ORGANIZATION _____

DATE _____ TELEPHONE NO. _____



LOG-CR 39-4.98
 PF-LOG-17
 OH-TIP79-083



0 1 2 3 4 5 6
SCALE OF MILES



Log-39-4.98
P.F. Log-17

LOGAN

OHIO
DEPARTMENT OF TRANSPORTATION
LOGAN COUNTY
11-27 46

Logan 7

C.R. #39

June 23, 1980

Byrd Finley, Jr., Bur. Environmental Services
Delbert L. Leistner, District Deputy Director
Environmental Assessment, P.F. No. LOG017

R. A. Allen

Burley J. Sigman, Planning
Engineer

Attached for your further processing are six copies of the Environmental Assessment for a bridge replacement project in Logan County.

One copy is for the U.S. Fish & Wildlife Service as they commented on the Stream Data Form.

BJS
BJS:rba
Attach.
cc: File ✓
Sigman
Kurtz

Also attached to 7 pager
were letters marked with a
X in corner S

ENVIRONMENTAL ASSESSMENT
SHORT FORM FOR DETERMINING NONMAJOR ACTION

Date June 23, 1980

County, Route, Section Logan-CR 39-4.98 PF LOG017

Federal Number BRZ-4604(1) State Job Number 07126(0)

TDP Category II Project Length 1100'+ Est. Cost \$150,000.00

Termini 2.1 miles south of Belle Center

Type Improvement Replacement of a bridge over an unnamed fork of the Great
Miami River

<u>Est. Traffic Data</u>	<u>Year</u>	<u>ADT</u>	<u>% Trucks</u>	<u>Operating Speed</u>
Present Day	<u>1980</u>	<u>475</u>	<u>5%</u>	<u>30 MPH</u>
Opening Day (Build)	<u></u>	<u></u>	<u></u>	<u></u>
Opening Day (No Build)	<u></u>	<u></u>	<u></u>	<u></u>
Design Year (Build)	<u>2000</u>	<u>775</u>	<u>5%</u>	<u>30 MPH</u>
Design Year (No Build)	<u></u>	<u></u>	<u></u>	<u></u>

1. Existing Facility Data

No. Lanes 2 Pavement Width 18' R/W Width 50'

Type Access Control None

Deficiencies of Existing Facility:

The existing structure is a narrow (15.8') Pratt truss, with a load reduction of 80%, and this structure is in poor condition.

Status of Any Improvements to Adjoining Sections:

There are no improvements planned to the adjoining sections, at this time.

2. Proposed Facility Data (Based on preferred alternative)

No. Lanes 2 Pavement Width 20' R/W Width 100'+

Approx. Amount New R/W Required (Acres, Sq. Ft., etc.) 0.9 Acre

No., Size & Type of R/W Takes (Include Preliminary R/W Plan):

There are three property owners from which strip right of way is required to make the minor changes in alignment and profile. This right of way will be acquired by the County. (See attached right of way plan.)

Relocation Assistance: No X Yes _____ Explain:

Benefits of Proposal:

This proposal will allow legal loads, and provide the width necessary to allow modern farming equipment to use this structure.

Consistency with Planning & Regional/Community Goals & Objectives:

This project is consistent with the goals and objectives of the area, that is, a safe and efficient highway system.

Major Design Features (General Vertical & Horizontal Alignment, Location of Interchanges, Separations, At-Grade Interchanges, River/Stream Crossings, etc.):

This structure will be a three span continuous concrete superstructure on a capped pile substructure. There will be minor profile and alignment corrections made. This structure is over an unnamed fork of the Great Miami River. (See attached site plan.)

Status of Plan Development (Plan Reviews, R/W, etc.):

At this time plans are 95% complete. The plans have been submitted to the Bridge Bureau for review.

3. Summary of Early Coordination (A-95, Early Coordination, Other Agencies, etc.):

Early Coordination was completed September 25, 1979, a copy of all replies is attached. A summary of all major comments is as follows:

Ohio Department of Natural Resources: No adverse impacts and no endangered species.

Ohio Historic Preservation Office: No historic sites, no eligible historic sites and no archaeological sites.

U.S. Fish & Wildlife Service: No significant losses to fish and wildlife resources.

U.S. Department of Agriculture, Soil Conservation Service: No major comments.

U.S. Department of Interior, Heritage Conservation & Recreation Service: No significant adverse impacts on the environmental resources.

This project has been coordinated for the stream work and there are no objections.

4. General Description of Surrounding Area:

Present and Proposed Land Use:

The present and proposed land use in the immediate area is predominately agricultural.

Character of Terrain:

The surrounding terrain is basically flat.

Natural Features (Lakes, Streams, Forests, Wetlands, etc.):

The stream is an unnamed branch of the South Fork of the Great Miami River.

It has been determined that the project is not located in or adjacent to wetlands as defined in Presidential Executive Order 11990.

Cultural Features (Parks, Recreation Areas, Historic Sites, Landmarks, Institutions, etc.):

There are no parks, recreation areas, historic sites, etc., in the surrounding area of the project.

Character of Surrounding Neighborhoods (Minorities, Low Income, Ethnic, etc.):

There are no known minorities, low income, ethnic or other groups in the surrounding area of the project.

Public Facilities and Services (Religious, Health, Educational Facilities, Public Utilities, Public Transportation, etc.):

The public facilities and services in the area are those typical to a rural area.

5. Summary of Alternatives (Consider No Build as a minimum):

The "No Build" alternative would result in perpetuating the deficient structure. Minor design changes in alignment and profile were the only other alternatives investigated.

6. Summary of Input from Publics (Public Meetings, Oral or Written Contact, Controversy, etc.):

A newspaper article publicized the proposal by the County Engineer to replace the structure. No comments on the article were received.

The County Commissioners have discussed this project during a regular meeting.

The County Engineer has met with the adjacent property owners.

7. Summary of Technical, Social or Economic Studies Relevant to the Proposal (Noise, Air, Water, etc.):

In coordination with the Ohio E.P.A. it has been determined that the proposal has been given the appropriate level of consideration with respect to air quality and is consistent with the approved State Implementation Plan as to the attainment and maintenance of air quality in accordance with the Federal Air Quality Standards.

This proposal is unrelated to traffic noise increases and no further documentation is required. No particular sensitive land use activities will be affected by the minor construction noises, but any applicable laws will be followed by the contractor.

8. Assessment of Proposed Action

	<u>No Effect</u>	<u>Minimal Effect</u>	<u>Significant Effect</u>
Land Use	X		
Planned Growth	X		
Activity/Development Patterns	X		
Traffic Volumes	X		
Travel Patterns	X		
Other Transportation Modes	X		
Access to an Area	X		
4(f)	X		
106	X		
Natural/Man-made Resources	X		

Based on the above, the project is considered to be a nonmajor action.

9. Assessment of Public Hearing Requirements

Chapter III of the TDP states that a public hearing must be held on a project when any of the following apply:

	<u>YES</u>	<u>NO</u>
R/W acquisition is considered significant:	_____	<u>X</u>
Changes to the layout or function of the connecting roadways or of the facility being improved are significant:	_____	<u>X</u>
Adverse impacts on abutting real property are significant and/or litigation or public controversy is anticipated:	_____	<u>X</u>
Social, economic, environmental or other effects on the surrounding area are significant:	_____	<u>X</u>

Based on the above, hearing recommendations are as follows:

- _____ No hearing required
- _____ Hearing requirements must be met
- _____ Opportunity to be offered
- _____ Hearing to be held

CALC. BY DAB.
 DATE: 8-31-80
 CHKD BY
 DATE:

NO.	STATE	PROJECT
5	OHIO	

LOGAN COUNTY
 C.R. 39-4.98

Jane Swetland
 Vol. 335 Pg. 723
 21.82 Ac.

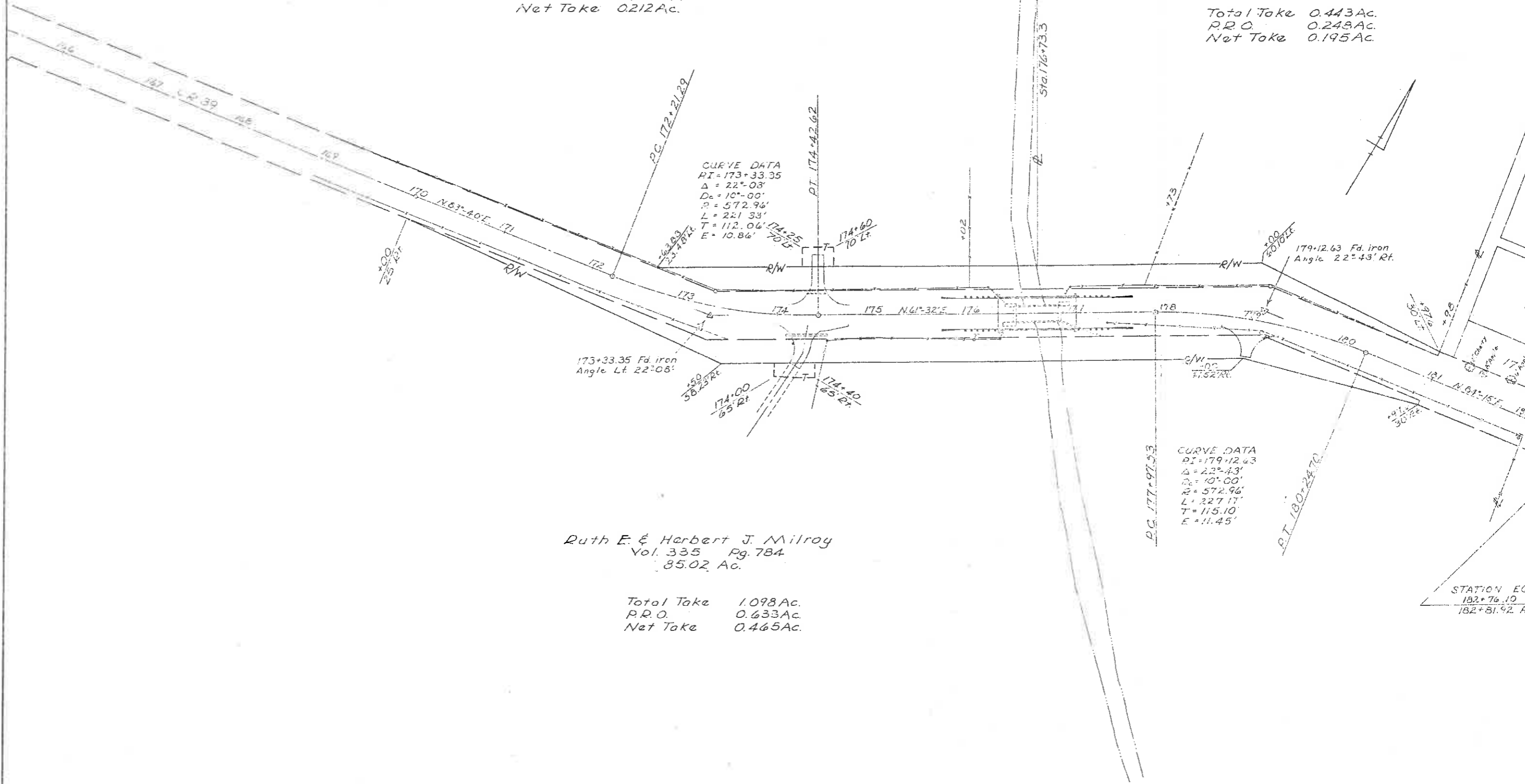
Total Take 0.447Ac.
 P.R.O. 0.235Ac.
 Net Take 0.212Ac.

Jane Swetland
 Vol. 335 Pg. 723
 14.50 Ac.

Total Take 0.443Ac.
 P.R.O. 0.248Ac.
 Net Take 0.195Ac.

Ruth E. & Herbert J. Milroy
 Vol. 335 Pg. 784
 85.02 Ac.

Total Take 1.098Ac.
 P.R.O. 0.633Ac.
 Net Take 0.465Ac.



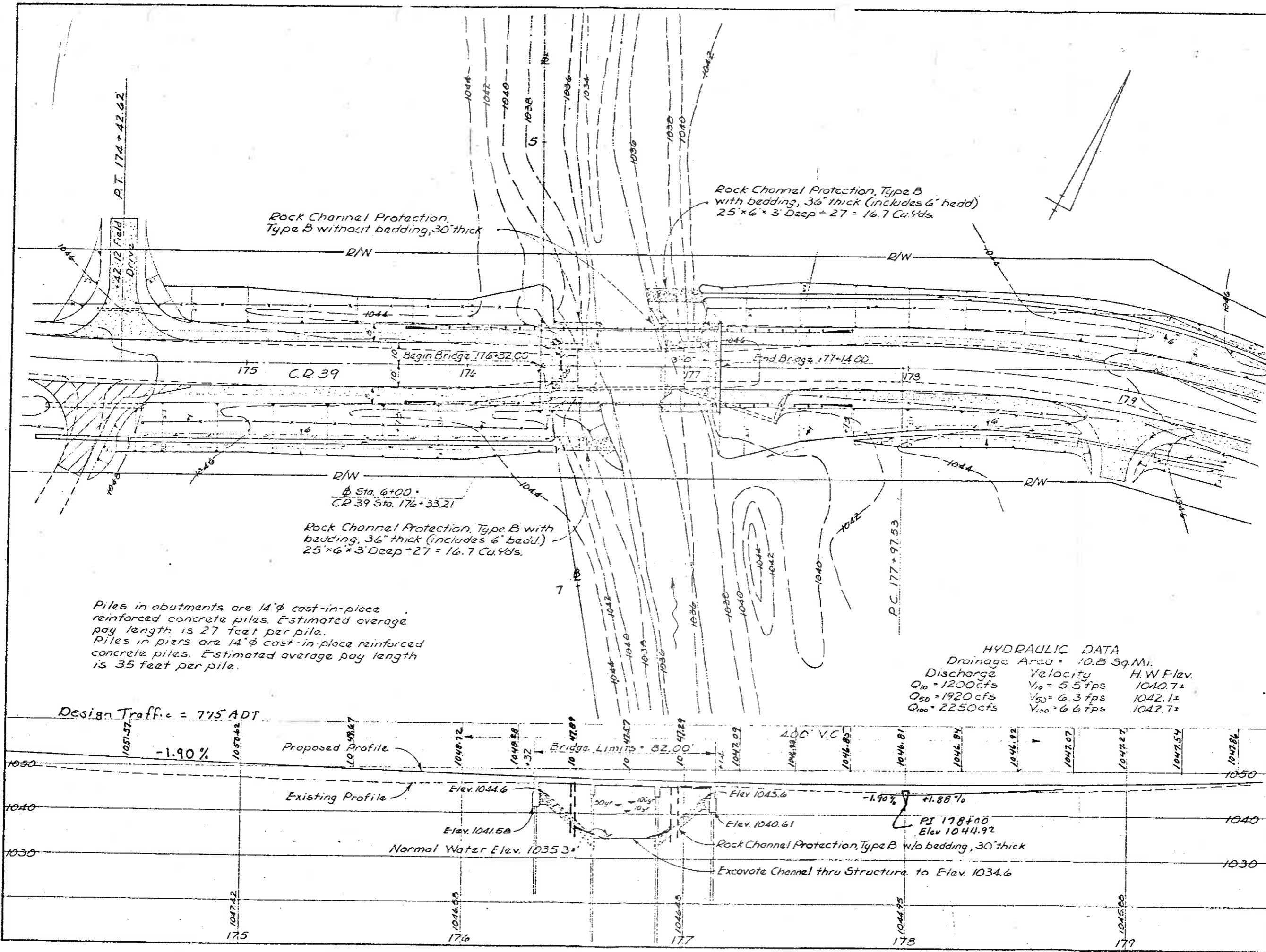
CURVE DATA
 PI=173+33.35
 $\Delta = 22^{\circ}-08'$
 $D_c = 10^{\circ}-00'$
 $R = 572.96'$
 $L = 221.33'$
 $T = 112.06'$
 $E = 10.86'$

CURVE DATA
 PI=179+12.63
 $\Delta = 22^{\circ}-43'$
 $D_c = 10^{\circ}-00'$
 $R = 572.96'$
 $L = 227.17'$
 $T = 115.10'$
 $E = 11.45'$

STATION EQ.
 $182+76.10 = L$
 $182+81.92 = A$

FHWA REGION	STATE	PROJECT
5	OHIO	

LOGAN COUNTY
BR. 39-4.98



Rock Channel Protection, Type B with bedding, 36" thick (includes 6" bedd) 25'x6'x3' Deep = 27 = 16.7 Cu.Yds.

Rock Channel Protection, Type B without bedding, 30" thick

Rock Channel Protection, Type B with bedding, 36" thick (includes 6" bedd) 25'x6'x3' Deep = 27 = 16.7 Cu.Yds.

Piles in abutments are 14"φ cast-in-place reinforced concrete piles. Estimated average pay length is 27 feet per pile.
Piles in piers are 14"φ cast-in-place reinforced concrete piles. Estimated average pay length is 35 feet per pile.

HYDRAULIC DATA

Drainage Area = 10.8 Sq.Mi.		
Discharge	Velocity	H.W. Elev.
Q ₁₀ = 1200 cfs	V ₁₀ = 5.5 fps	1040.7±
Q ₅₀ = 1920 cfs	V ₅₀ = 6.3 fps	1042.1±
Q ₁₀₀ = 2250 cfs	V ₁₀₀ = 6.6 fps	1042.7±

Design Traffic = 775 ADT

EXISTING STRU

Type: Pratt Steel T.
Span: 49'-0"
Roadway: 15.8'
Loading: Unknown
Skew: 0°
Wearing Surface: B.
Alignment: Tangen
Condition: Poor

PROPOSED STRU

Type: Three span co reinforced concrete capped pile subst
Spans: 24'-0", 30'-0",
Roadway: 32'-0" % Gu
Loading: HS 20-4. Interstate Alternat
Skew: 0°
Wearing Surface: N concrete
Alignment: Tongen

LOGAN COUNTY HIGHWAY DE
CHESTER R. KURTZ, CO. E

SITE PLAN
BR. No. 39-4.9
Richland Townsh.
Logan County
Over a Branch of the South E
Sta 176+32 to Sta 1
DESIGNED DRAWN CHECKED REVIEW
R.A.B. R.A.B.

(F)

JUL 03 1980



STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

INTER-OFFICE COMMUNICATION

County LOG Dist. 7

Rte./Sec. CR 39-4.98

Date July 1, 1980

Attn. Environmental Specialist

AU-76 Rev. 2-79

To John W. McBee, Division Administrator, FHWA
From Byrd Finley, Jr., P.E., Administrator,
Bureau of Environmental Services
Subject Recommended Project Procedures

By

P.F. LOG-17

This office has reviewed the attached Environmental Document for the LOG-CR 39-4.98 project for a determination of the type of project procedures to be used under existing regulations and we offer the following recommendations:

I. Environmental Considerations:

Based on this review of the Environmental Document, in light of FHPM 7-7-2, the document should be processed as a:

- Environmental Impact Statement () Draft () Final
- Environmental Assessment
- FONSI
- X Categorical Exclusion

II. Public Hearing Considerations:

Based on the description of the project in this Environmental Document in relation to the criteria described in the Transportation Development Process, the public hearing status is as follows:

- X No hearing required.
- Hearing required.

III. Noise Considerations:

NA Based on available information, exceptions to the design noise levels may be required.

See attached comments.

BF: RAA 

Attachment

cc: District 7
Mr. Henderson
File
Reading File



STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
INTER-OFFICE COMMUNICATION

County of LOG Dist. 7
S. H. ^{C.R.} 39 Sec. 4.98
Date 6/25/80

To File Attention: _____
From R. A. Allen, Jr.
Subject Environmental Document "In House" Review: LOG-C.R.39-4.98
P.F. LOG-17

Please review the attached LOG-39-4.98 for your specialty, attach comments if appropriate, and forward to next person:

A. Engineering and Technical Systems

- 1. Noise
 - a. Report status _____
 - b. Discussion in document unrelated 6/24/80 FWA
 - c. Exception required: Yes _____ No
- 2. Air
 - a. Report status Exempted - 20 Aug 1979 - HCT
 - b. Discussion in document OK to Process - 24 June 1980 - HCD

B. Community Involvement

- 1. Hearing: Required _____ Not Required 6/24/80 RVM
- 2. Discussion in document PI OK w/DP 6-25-80

C. Cultural and Natural Systems

- 1. Historic
 - a. Report status Cleared 8-17-79
 - b. Discussion in document OK to process 6-24-80
- 2. Prehistoric
 - a. Report status Cleared 8-17-79 July
 - b. Discussion in document OK to process
- 3. Biological
 - a. FWS and DNR coordination _____ OK 6-30-80
 - b. Wetlands _____ OK TCJ
 - c. Prime and unique farmlands _____ N.A.
 - d. Discussion in document OK
- 4. Section 4(f)
 - a. Coordination _____ N.A. 6/26/80
 - b. Discussion in document _____ OK FB

D. Processing Recommendations

- 1. Send to FHWA as a Categorical
- 2. _____
- 3. (Draft) Exclusion
- 4. _____
- 5. (Final) NOA 7-1-80



STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

INTER-OFFICE COMMUNICATION

County of LOG Dist. 7

S. H. CR-39 Sec. 4.98

Date 20 Aug 1979

To Delbert L. Leistner, District Deputy Director Attention: Mike Holt

From Charles R. Tripp, Administrator, By: H. C. Davidson
Bureau of Environmental Services

Subject Air Quality Status for Project LOG CR-39 - 4.98

Fed. No. BRZ-4604(1) PF # LOG-17

On this project, the following existing conditions are noted: (X) Low traffic volume (X) Project unrelated to air quality () is (X) is not located in an AQMA () New Facility (X) Modified Existing Facility.

This project is consistent with the provisions of an agreement reached between the Ohio Department of Transportation and the Ohio Environmental Protection Agency; wherein, projects of this nature and/or where traffic predictions are below the criteria established in the Federal EPA Indirect Source Regulation, will not require a detailed air quality analysis.

Projects so categorized are considered consistent with the Ohio SIP and as meeting the objectives of FHWA's Federal-Aid Highway Program Manual, Volume 7, Chapter 7, Section 9. The following statement must be contained in either the Environmental Impact Statement or the Negative Declaration whichever is applicable and may constitute the entire Air Quality Section:

"This type of highway proposal has been evaluated and found to have no significant effect on air quality. Based upon documented agreement between the Ohio Department of Transportation and Ohio EPA, a detailed air quality analysis is not considered necessary for individual highway proposals of this type.

In coordination with the Ohio EPA, it has been determined that the proposal has been given the appropriate level of consideration with respect to air quality and is consistent with the approved State Implementation Plan as to the attainment and maintenance of air quality in accordance with Federal Air Quality Standards".

NOTE: In Environmental Assessments only the second paragraph will be included; do not use both paragraphs.

This communication constitutes the necessary documentation that the air quality requirements are waived for the subject project.

CRT:HCD: *HCD*

cc: OEPA, Harry Judson* - FHWA, Don Wells* - H. C. Davidson* - R. A. Allen - L&D, W. J. Cunningham - Reading File

* = w/attachment

Memo

To: Bridge Files
From: Stephanie Ann Goff, Assistant Engineer
Date: 11/10/98
Re: Change in Bridge Numbers

In 1998, the Logan County Engineer's Office had Mastermind Systems re-run the control point information for all of Logan County.

Therefore, all of the log points for the bridges have changed. In each file, a BR-87 was filled out showing the change in log points and this memo was attached to show the reason for the changes.

PROCESSING REF.	TRAN. CODE
STRUCTURE FILE NO.	8
4633547	C

CARD	MPO CODE	CITY OR TOWN (FIPS)	ON/UNDER SYSTEM	ROUTE NUMBER	DIRECT. SUFFIX	DESIGNATION	PREF. ROUTE	4 FEATURE(S) INTERSECTED
9	10	12	17 18	19	24	25	26 27	
A				C0039				

5 INV. RTE. BRIDGE NO.	6	7	8	9	10	11	12	13
COUNTY	UNIT NUMBER	INVENTORY ROUTE A.D.T.	INVENTORY ROUTE TRUCK TRAFFIC	DIR. TRAF.	TEMP. STRUCT.	NETWORK	PARALLEL	
52	55	60	62	68	70	75	76	77 78 79 80
	0493							

ENGLISH UNITS
 DEC-1-96
 I.O.CO. ENGINEER

OHIO DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 BRIDGE INVENTORY & APPRAISAL CODE SHEET

REMARKS DATA RECORD
 DATE STAMP
 CODED BY
 DATE

CARD	NHS	MACRO COR	FUNCTIONAL CLASS	TOT. MIN. HORIZONTAL CLEAR	NON-CARD. OPENING	CARDINAL OPENING	FT.	IN.	DEFENSE	ON/UNDER SYSTEM	ROUTE NUMBER	DIRECT. SUFFIX	DESIGNATION	PREF. ROUTE	23 FEATURE(S) INTERSECTED	COUNTY	UNIT NUMBER	INVENTORY ROUTE A.D.T.	A.D.T. YEAR			
9	10	11	12	14	17	20	24	25	27	28	29	30	35	36	37	38	63	66	71	73	79	80
B																						

CARD	INTERSECTED ROUTE TRUCK TRAFFIC	NHS	MACRO COR	FUNCTIONAL CLASS	TOT. MIN. HORIZONTAL CLEAR	NON-CARD. OPENING	CARDINAL OPENING	DIR. TRAF.	NETWORK	PARALLEL	DEFENSE	PRACTICAL MAXIMUM VERTICAL CLEARANCE	BY-PASS LENGTH	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS	TOLL	YEAR BUILT	YEAR MAJOR REHAB.	NO. LANES	HORIZ. CURVE	DEG.	MIN.	SKEW	ELECT.	GAS	SAW SEW.	TELEPHO	T.V. CABLE	WATER	OTHER	DESIGN LOADING		
9	10	15	16	17	19	22	25	26	27	28	29	30	34	36	38	40	44	46	48	52	53	57	61	63	65	69	71									78	80
C																																					

CARD	APPROACH ROADWAY WIDTH	BRIDGE ROADWAY WIDTH (CB/CB)	DECK WIDTH (OUT/OUT)	MEDIAN TYPE	MED. OP. / CL.	SIDEWALKS	LEFT	RIGHT	CURBS	SIDEWALKS	LEFT	RIGHT	FLARED	COMPOSITE	RAIL TYPE	DECK DRAIN	DECK TYPE	EXT. DECK PRO.	INT. DECK PRO.	WEARING SURFACE	THICKNESS (INCHES)	MAIN SPANS	APPR. SPANS	NUMBER	TYPE	NUMBER	TYPE	MAXIMUM SPAN LENGTH	OVERALL STRUCTURE LENGTH							
9	10	13	17	21	24	25	28	31	32	33	34	35	36	37	38	39	40	41	42	43	45	48	51	54	57	60	64	70	75							80
D																																				

CARD	ABUTMENTS	PIERS	FOUNDATION	MIN. VERT. UNDERCLEAR. (MAIN LANES)	MIN. LATERAL UNDERCLEAR. TO EDGE OF LANE	MINIMUM VERTICAL CLEAR ON BRIDGE	MINIMUM LATERAL CLEARANCE TO EDGE OF LANE	V.C. AT VERTICAL LIFT BRIDGE																													
9	10	11	12	13	14	16	17	18	20	21	22	24	25	26	27	28	29	30	31	33	35	36	37	38	42	46	49	52	55	58	62	65	68	71	74	77	80
F																																					

CARD	LOAD RATING	PROPOSED IMPROVEMENTS	FUTURE A.D.T.	DESIGNATED INSPECTION FREQUENCY	INSP. RESP.	MAINT. RESP.	TYPE SERVICE																					
9	10	13	16	19	21	22	23	26	28	29	30	32	33	39	45	51	57	59	65	67	69	71	72	73	76	78	79	80
F																												

G																																			
H																																			
I																																			

Old # 0498

S T A T E OF O H I O
DEPT OF TRANSPORTATION

BUREAU OF ACCOUNTING & AUDITING
DISBURSEMENTS SECTION

ACCOUNTS PAYABLE - INVOICE NO. 0963

In Account With: Logan County
Treasurer
Bellefontaine, Ohio 43311
T.I.# 31-6400231W

Date: August 2, 1983
County: Logan Dist. No. 7
Route: C.R. 39 Section 4.98
Project No.: 405-81
F.A.P.NO.: BRZ-4604(1)
Contractor: Frantz Brothers, Inc
Type: 404 on 301 & Structures

PROJECT COST

TOTAL PRELIMINARY ENGINEERING

\$ 2,614.16

CONSTRUCTION

Contract \$171,365.35
Travel & Equipment 1,245.55
Expense, Advertising, Etc. 1,876.10
Construction Engineering 14,651.55
Total Construction \$189,138.55

TOTAL PROJECT COSTS-----\$191,752.71

PARTICIPATION

Logan County, per contract, shall assume and contribute the entire cost and expense of the improvement less the amount of Federal Funds allocated. The County further agrees to bear 100% of the following:

1. Preliminary Engineering
2. Rights-of-way
3. All costs for added construction items generating extra work contracts under Ohio Laws, unless performance is approved by the State of Ohio and Federal Highway Administration before work is authorized.

COST TO: LOGAN COUNTY

Total Project Cost \$191,752.71
Less Federal Participation (149,042.00)
Balance of Project Cost

\$ 42,710.71

Total Cost To Logan County

\$ 42,710.71

LESS CREDITS TO: LOGAN COUNTY

Advance Payment per Inv. No. 5374
Rev. Vou. 775 \$48,640.00
Total Advance Payments and Credits

\$ 48,640.00

AMOUNT DUE LOGAN COUNTY

\$ 5,929.29

DISTRIBUTION

Original Voucher () Duplicate Voucher () Remittance (X)
Original Contract No. 28974 () E. E. No. 516056 () E. E. No. 517405 Refund
District No. 7 Engineer () District No. 7 Auditor ()
District No. 7 Engineer of Planning ()
Bureau of Accounting & Auditing
Estimate Section () ()
Programming ()

RECEIVED

AUG 18 1983

LOGAN COUNTY
ENGINEER

STATE OF OHIO
DEPT OF TRANSPORTATION

BUREAU OF ACCOUNTING & AUDITING
DISBURSEMENTS SECTION

CHARGE TO

LINE	AGENCY	INST.	VOUCHER NO.	RECAP NO.	FUND	YEAR	HOUSE BILL NO.	DATE		DIV.	PROG.	ACT.	REFERENCE NO.	ENCUMBRANCE NO.
								MO.	DAY					
1	770				02	83	694			20	71	90	0963	517405
2														
1	TRANS CODE	APP UNIT	APP ITEM	OBJECT CODE	AMOUNT		STATE JOB NO.		FEDERAL PREFIX		AGREEMENT NO.		NUMBER SER.	
1	51	770	733	73-100	\$5,929.29		S 399910							
2														

Approved *R. Fugner*

, Auditor Date *S. 4-83*



OHIO Department of TRANSPORTATION

James A. Rhodes/Governor
David L. Weir/Director
25 South Front Street
P.O. Box 899
Columbus, Ohio 43216-0899
District Seven
P O Box 381
Sidney, OH 45365
September 8, 1982

Frantz Brothers, Inc.
P O Box 27
Sidney, OH 45365

RECEIVED
SEP 13 1982
LOGAN COUNTY

RE: Project No. 405-81
Logan County
C R 39

Dear Sirs:

Attached is the approved copy of Change Order No. 2, relative to subject Project, for your records.

Sincerely,

Delbert L Leistner
District Deputy Director

Jack R. Siler
Jack R Siler
District Construction Engineer

JRS:TJR:hb
cc: County ✓
Project
File
Encl. C O 2

C-77 REV Sheet 1 of 1 Contract No. 28974
 County LOGAN Route No. C R 39-4.98
 Project No. 81-405 Federal No. BRZ-4604(1)
 Change Order No. 2 Part. or Proposal No. _____

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 BUREAU OF CONSTRUCTION

CHANGE ORDER

SEP 8 1982

PROPOSED WORK OR NON-PERFORMANCE IN CONNECTION
 WITH CONTRACT ITEMS (See Directive No. DH - 23C)

Contract Order No.	Contract Ref. No.	Item No.	Location	Part Code	Additions 8 OR Non-Perf 9		Description	Unit	Dashed Lines Indicate Decimal Point Positioning	33 38 A 42		43 48 A 52		53 58 A 62	
					Quantity Or Lump					Unit Price Or Lump Sum Amt		Additions		Non-Per- formances	
	30	7	301	See Explan	01	Lump	Price adjustment, asphalt cemen. Deduction on final estimate			568.50				568.50	
	31	7	403	See Explan	01	Lump	Price adjustment, asphalt cemen. Deduction on final estimate			141.75				141.75	
	32	7	404	See Explan	01	Lump	Price adjustment, asphalt cemen. Deduction on final estimate			141.75				141.75	
	33	7	404	See Explan	01	Lump	Price adjustment, asphalt cemen. Deduction on final estimate			11.34				11.34	
Totals												0.00		863.34	
GRAND TOTALS												0.00		863.34	

I hereby agree to perform the work and to the non-performance of work as listed above.

Frantz Brothers, Inc.
 (Contractor)

By _____ (Date) 8/27/82
 Title _____

Requested Jack R. Silva 7-23-82
 (District Construction Engineer) (Date)
 Recommended John J. Barry 7-26-82
 (District Deputy Director) (Date)
 Design changes concurred in _____ (Date) 19____
 (Engineer of Bridges)
 Design changes concurred in _____ (Date) 19____
 (Engineer of Roadway Design)
 Approved J.K.H. [Signature] 8/27/82
 (Engineer of Construction) (Date)
 J.K.H. 8/27/82

EXPLANATION OF NECESSITY FOR ABOVE ITEMS

PARTICIPATION CODE

01. 07126-0 BRZ-4604(1) No breakdown

REF NOS 30, 31, 32, & 33- Price adjustment, Asphalt Cement, as per Proposal Note.

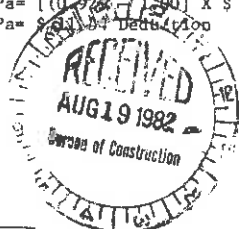
Items subject to adjustment: 301, 403, 404
 Letting date: June 9, 1981: Ib= \$ 200.00/Ton
 Placement month(all items): October 1981: Ip= \$ 185.00/Ton
 Ip/Ib= \$ 185.00/\$200.00= 0.925
 Item 301, 403, and 404 are subject to compensation adjustment; calculation of the adjustment is as follows:

Ref 30, Item 301, Bituminous aggregate base: 5% AC
 Placement month: October 1981 Ip= \$ 185.00/Ton
 Pa= [(Ip/Ib) - 1.00] X C X Q
 Ip/Ib= 0.925
 C= (Ib)(%AC) / 100= (\$200.00)(5.0)/100= \$ 10.00
 Q= 758 Tons
 Pa= [0.925-1.00] X \$ 10.00 X 758
 Pa= \$ 568.50 deduction

Ref 31, Item 403, Asphalt concrete: 6.3% AC
 Placement month: October 1981 Ip= \$ 185.00/Ton
 Pa= [(Ip/Ib) - 1.00] X C X Q
 Ip/Ib= 0.925
 C= (Ib)(%AC) / 100= (\$200.00)(6.3) / 100= \$ 12.60
 Q= 150 Tons
 Pa= [0.925-1.00] X \$12.60 X 150 Pa= \$ 141.75 Deduction

Ref 32, Item 404, Asphalt concrete, 6.3% AC
 Placement month: October 1981 Ip= \$ 185.00/Ton
 Pa= [(Ip/Ib) - 1.00] X C X Q
 Ip/Ib= 0.925
 C= (Ib)(%AC) / 100= (\$200.00)(6.3)/100= \$ 12.60
 Q= 150 Tons
 Pa= [0.925-1.00] X \$ 12.60 X 150
 Pa= \$ 141.75 Deduction

Ref 33, Item 404, Asphalt concrete, driveways 6.3% AC
 Placement month: October 1981 Ip= \$ 185.00/Ton
 Pa= [(Ip/Ib) - 1.00] X C X Q
 Ip/Ib= 0.925
 C= (Ib)(%AC) / 100= (\$200.00)(6.3) / 100= \$ 12.60
 Q= 12 Tons
 Pa= [0.925-1.00] X \$ 12.60 X 12
 Pa= \$ 11.34 Deduction



CURRENT STATUS OF ENGINEERING AND CONTINGENCY FUND (To be supplied by District Office)

1. Amount of original Engineering and Contingency Fund* (Enc. Est. No. C. 516056)	\$ 18,794.51
2. Additions to or deductions from Fund Amount* (Enc. Est. No. 811703)	\$ 2,500.00
3. Total Engineering and Contingency Fund (1+2)	\$ 21,294.51
4. Totals of Change Orders No. _____ to No. <u>1</u> inclusive	\$ 0.00
5. This order	\$ 863.34
6. Totals	\$ 863.34
7. Total Non-performance from Line 6	\$ 863.34
8. Net increase (+) or decrease (-) due to Change Orders	\$ 863.34
Actual Engineering costs to date	\$ 9,828.37
Estimated additional Engineering to complete project	\$ 531.15
Algebraic sum of Lines 8, 9 and 10	\$ 9,496.18
Balance or Overdraft	\$ 11,798.33



OHIO Department of
TRANSPORTATION

James A. Rhodes/Governor
David L. Weir/Director
25 South Front Street
P.O. Box 899
Columbus, Ohio 43216-0899

District Seven
P O Box 381
Sidney, OH 45365
August 17, 1982

Frantz Brothers, Inc.
P O Box 59
Sidney, OH 45365

AUG 19 1982

LOGAN COUNTY

RE: Project No. 405-81
Logan County
County Road 39

Dear Sirs:

Attached is the approved copy of Change Order No. 3 & Final, relative to subject Project, for your records.

Sincerely,

Delbert L Leistner
District Deputy Director

Jack R Siler
Jack R Siler
District Construction Engineer

JRS:TJR:hb
cc: County ✓
Project
File
Encl. C O 3 & F

C-77a Rev. Sheet 2 of 2 Contract No. 28974
 County LOGAN Route No. C R 39-4.98
 Project No. 81-405 Federal No. BRZ-4604(1)
 Change Order No. 3 of Final Part or Proposal No.

STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
 BUREAU OF CONSTRUCTION

CHANGE ORDER

PROPOSED WORK OR NON-PERFORMANCE IN CONNECTION
 WITH CONTRACT ITEMS (See Directive No. DC-12D)

Contract Ref. No.	Item No.	Location	Quantity Or Lump	Unit	Description	Unit Price Or Lump Sum Am't.		Non-Per- formances
						Unit Price Or Lump Sum Am't.	Additions	
48	518	See Explan	3	C Y	(brought forward Porous backfill	20.00	885.60	6,722.40 60.00
Totals							885.60	6,782.40
GRAND TOTALS							885.60	6,782.40

I hereby agree to perform the work and to the non-performance of work as listed above.

Frantz Brothers, Inc.

By: *John Frantz* (Contractor) Date: 7/22/82
 Title: *Owner*

Requested by: *Jack P. Silvers* (Division Construction Engineer) Date: 7-23-82
 Approved by: *William L. Linton* (Division Deputy Director) Date: 7-26-82
 Logan County Commissioners

PARTICIPATION CODE
 01. 07126-0 BRZ-4604(1) No breakdown
 REF NOS 3 & 4- These nonperformances the results of final measurements and calculations from the earthwork cross sections including the adjustments in the earthwork quantities resulting from the revised profile elevations as per previously approved Change Order No. 1
 REF NO 9- This additional quantity required for use at the direction of the Engineer for the maintenance of local traffic.
 REF NOS 10,11,13,14,15,19,20,25,27, & 28- These quantities were included in the plans to be used at the direction of the Engineer but were not required.
 REF NO 16- This additional quantity was placed at the direction of the Engineer for erosion control.
 REF NO 17- This additional quantity the results of final measurements and calculations for the soil areas seeded between the work limits in accordance with the plan notes including the adjustments in slopes resulting from the revised profile as per previously approved Change Order No. 1.
 REF NO 18- This addition is the net results of the quantity included in the plans to be used at the direction of the Engineer and not required and of final calculations based on the final pay quantities for seeding and sodding.
 REF NO 21- Results of final measurements and calculations for the sod placed in accordance with the plans.
 REF NO 35- Results of final measurements and calculations based on plan lines.

EXPLANATION OF NECESSITY FOR ABOVE ITEMS

REF NO 41- This quantity not required to obtain required bearing and/or approved penetration. Piling report is on file with the Bureau of Bridges.
 REF NO 48- Results of final measurements and calculations in accordance with Sec 518.10 of the Specifications.

The above additional work did not delay the final completion of the Project.

CURRENT STATUS OF ENGINEERING AND CONTINGENCY FUND (To be supplied by Division Office)

1. Amount of original Engineering and Contingency Fund* (Enc. Est. No. C- 516056)		\$ 18,794.51
2. Additions to or deductions from Fund Amount* (Enc. Est. No. 811703)		\$ 2,500.00
3. Total Engineering and Contingency Fund (1+2)		\$ 21,294.51
4. Totals of Change Orders No. 1 to No. 2 inclusive	Non-Performance \$ 863.34	Additions and Extra Work \$ 0.00
5. This order 3 & Final	\$ 6,782.40	\$ 885.60
6. Totals	\$ 7,645.74	\$ 885.60
7. Total Non-performance from Line 6		\$ 7,645.74
8. Net decrease (---) due to Change Orders		\$ 6,760.14
9. Actual Engineering costs to date 4-17-82		\$ 9,828.37
10. Estimated additional Engineering to complete project		\$ 531.15
11. Algebraic sum of Lines 8, 9 and 10		\$ 3,599.38
12. Balance of Funds		\$ 17,695.13

* Do not include Detour Funds.

CERTIFICATION OF DOCUMENTED PAY QUANTITIES

By signatures indicated below, the District Construction Engineer and the District Deputy Director of District 7 of the Ohio Department of Transportation, do hereby certify that the net final pay quantities arrived at as a result of the cumulative actions taken on all change orders on Project No. 405-81 are substantially correct and have been verified as follows:

1. The final quantities arrived at by the Project Engineer/ Project Supervisor have been reviewed by the District Level Review Team in accordance with all the requirements of the "MINIMUM REQUIREMENTS FOR DISTRICT LEVEL REVIEW OF FINAL PAY QUANTITIES FOR CONTRACT ITEMS", published August 22, 1969.
2. Final earthwork pay quantities have been determined in accordance with the requirements of the Manual of Procedures for Earthwork and the IOC to all District Construction Engineers dated October 29, 1975, subject: "District Level Review of Final Earthwork Quantities."
3. If the review of the originally selected items revealed more than just a few inaccuracies, the Review Team has continued to select additional pay items for review until all pay items have been reviewed, if necessary, to assure that the final pay quantities resulting from cumulative effect of all change orders can be accepted as substantially correct.
4. In any instances where the pay quantity arrived at by the Review Team varied from the pay quantity earned in by the Project Engineer/ Project Supervisor, the difference has been resolved to the mutual satisfaction of both parties.
5. The final pay quantities resulting from the cumulative effect of all change orders are mutually acceptable to the Review Team and the Project Engineer/Project Supervisor.

Signed *James P. Soley*
District Construction Engineer

Date 7-23-82

Signed *Robert L. Luster*
District Deputy Director

Date July 26, 1982

Note: An executed Form CB-1 shall be submitted to the Construction Bureau with each Final Change Order.

Project No. 405-81
 Logan County
 C. R. 39-4.98

SUMMARY of QUANTITIES to be used as DIRECTED by the ENGINEER

Ref No. 9, Item 410 Traffic compacted surface, Type A or B		
Estimated quantity	50	C Y
Used: Sta 170 + 50 to 174 + 25	<u>52</u>	
Addition Change Order No. 3 & F	2	C Y
Ref NO. 10, Item 616 Water		
Estimated quantity	50	M Gals
Used:	0	
Nonperformed Change Order NO. 3 & F	<u>50</u>	M Gals
Ref NO. 11, Item 616 Calcium chloride		
Estimated quantity	10	Tons
Used	0	
Nonperformed Change Order N. 3 & F	<u>10</u>	Tons
Ref NO 13, Item 207 Temporary seeding, and mulching		
Estimated quantity	1,100	S Y
Used:	0	
Nonperformed Change Order No. 3 & F	<u>1,100</u>	S Y
Ref No. 14, Item 207 Straw or hay bales		
Estimated quantity	30	Ea
Used:	0	
Nonperformed Change Order No. 3 & F	<u>30</u>	Ea
Ref NO 15, Item 601 Rock channel protection, Type B with bedding		
Estimated quantity	2	C Y
Used	0	
Nonperformed Change Order No. 3 & F	<u>2</u>	C Y
Ref NO. 16, Item 601 Roch channel protection, Type C without bedding		
Estimated quantity	5	C Y
Used: Sta 176 + 31 to 176 + 56 Lt	8	
Addition on Change Order No. 3 & F	<u>3</u>	C Y
Ref NO. 18, Item 659 Commercial fertilizer		
Estimated quantity	0.05	Ton
Used	0.00	
Nonperformed Change Order NO. 3 & F	<u>0.05</u>	Ton
Ref NO. 19, Item 659 Repair seeding and mulching		
Estimated quantity	300	S Y
Used	0	
Nonperformed Change Order NO. 3 & F	<u>300</u>	S Y

As Directed Quantities, (cont'd)

Ref No 20, Item 659 Water		
Estimated quantity		
Used	9	M Gals
Nonperformed Change Order NO. 3 & F	$\frac{0}{9}$	M Gals
Ref NO 25, Item 603 6" conduit, Type B		
Estimated quantity		
Used	100	L F
Nonperformed Change Order NO. 3 & F	$\frac{0}{100}$	L F
Ref NO. 26, Item 605 Aggregate drains		
Estimated quantity		
Used Sta 174 _ 57 to 180 _ 80	200	L F
Addition or Nonperformance	$\frac{200}{0}$	
Ref NO 27, 6" conduit, Type E		
Estimated quantity		
Used	100	L F
Nonperformed Change Order NO. 3 & F	$\frac{0}{100}$	L F
Ref NO 28, 6" conduit, Type F		
Estimated quantity		
Used: Sta 172 + 75 Rt	50	L F
Nonperformed Change Order No. 3 & F	$\frac{10}{40}$	L F

BRIDGE INVENTORY & APPRAISAL CODE SHEET

1	FILE NO.	4633547A
2	TRANS. CODE	

9	CARD NO.	107000014C0039
10	0001 DISTRICT	
11	CITY OR TOWN	
12	ON/UNDER SYSTEM	
13	ROUTE NUMBER	
14	TOT. MIN HORIZONTAL CLEAR.	
15	NON-CARD. OPENING	
16	DECK WIDTH	
17	BRIDGE (CB/CB)	
18	ROADWAY WIDTH	
19	APPROACH ROADWAY WIDTH	
20	SECTION NUMBER	
21	SECTION BEGIN LENGTH	
22	SECTION END LENGTH	
23	SECTION CLASS	
24	FUNCTIONAL CLASS	
25	ROMIN. JURISD.	
26	FED. AID SYSTEM	
27	A.O.T. YEAR	
28	INTERSECTED ROUTE (TENS)	
29	SECTION NUMBER	
30	SECTION BEGIN	
31	SECTION END	
32	SECTION CLASS	
33	SECTION BEGIN LENGTH	
34	SECTION END LENGTH	
35	TOT. MIN HORIZONTAL CLEAR.	
36	NON-CARD. OPENING	
37	DECK WIDTH	
38	ROADWAY WIDTH	
39	APPROACH ROADWAY WIDTH	
40	SECTION NUMBER	
41	SECTION BEGIN LENGTH	
42	SECTION END LENGTH	
43	SECTION CLASS	
44	FUNCTIONAL CLASS	
45	ROMIN. JURISD.	
46	FED. AID SYSTEM	
47	A.O.T. YEAR	
48	INTERSECTED ROUTE (TENS)	
49	SECTION NUMBER	
50	SECTION BEGIN LENGTH	
51	SECTION END LENGTH	
52	SECTION CLASS	
53	SECTION BEGIN LENGTH	
54	SECTION END LENGTH	
55	TOT. MIN HORIZONTAL CLEAR.	
56	NON-CARD. OPENING	
57	DECK WIDTH	
58	ROADWAY WIDTH	
59	APPROACH ROADWAY WIDTH	
60	SECTION NUMBER	
61	SECTION BEGIN LENGTH	
62	SECTION END LENGTH	
63	SECTION CLASS	
64	FUNCTIONAL CLASS	
65	ROMIN. JURISD.	
66	FED. AID SYSTEM	
67	A.O.T. YEAR	
68	INTERSECTED ROUTE (TENS)	
69	SECTION NUMBER	
70	SECTION BEGIN LENGTH	
71	SECTION END LENGTH	
72	SECTION CLASS	
73	SECTION BEGIN LENGTH	
74	SECTION END LENGTH	
75	TOT. MIN HORIZONTAL CLEAR.	
76	NON-CARD. OPENING	
77	DECK WIDTH	
78	ROADWAY WIDTH	
79	APPROACH ROADWAY WIDTH	
80	SECTION NUMBER	

9	CARD NO.	2
10	SECTION NUMBER	
11	SECTION BEGIN LENGTH	
12	SECTION END LENGTH	
13	SECTION CLASS	
14	FUNCTIONAL CLASS	
15	ROMIN. JURISD.	
16	FED. AID SYSTEM	
17	A.O.T. YEAR	
18	INTERSECTED ROUTE (TENS)	
19	SECTION NUMBER	
20	SECTION BEGIN LENGTH	
21	SECTION END LENGTH	
22	SECTION CLASS	
23	SECTION BEGIN LENGTH	
24	SECTION END LENGTH	
25	TOT. MIN HORIZONTAL CLEAR.	
26	NON-CARD. OPENING	
27	DECK WIDTH	
28	ROADWAY WIDTH	
29	APPROACH ROADWAY WIDTH	
30	SECTION NUMBER	
31	SECTION BEGIN LENGTH	
32	SECTION END LENGTH	
33	SECTION CLASS	
34	SECTION BEGIN LENGTH	
35	SECTION END LENGTH	
36	TOT. MIN HORIZONTAL CLEAR.	
37	NON-CARD. OPENING	
38	DECK WIDTH	
39	ROADWAY WIDTH	
40	APPROACH ROADWAY WIDTH	
41	SECTION NUMBER	
42	SECTION BEGIN LENGTH	
43	SECTION END LENGTH	
44	SECTION CLASS	
45	SECTION BEGIN LENGTH	
46	SECTION END LENGTH	
47	TOT. MIN HORIZONTAL CLEAR.	
48	NON-CARD. OPENING	
49	DECK WIDTH	
50	ROADWAY WIDTH	
51	APPROACH ROADWAY WIDTH	
52	SECTION NUMBER	
53	SECTION BEGIN LENGTH	
54	SECTION END LENGTH	
55	SECTION CLASS	
56	SECTION BEGIN LENGTH	
57	SECTION END LENGTH	
58	TOT. MIN HORIZONTAL CLEAR.	
59	NON-CARD. OPENING	
60	DECK WIDTH	
61	ROADWAY WIDTH	
62	APPROACH ROADWAY WIDTH	
63	SECTION NUMBER	
64	SECTION BEGIN LENGTH	
65	SECTION END LENGTH	
66	SECTION CLASS	
67	SECTION BEGIN LENGTH	
68	SECTION END LENGTH	
69	TOT. MIN HORIZONTAL CLEAR.	
70	NON-CARD. OPENING	
71	DECK WIDTH	
72	ROADWAY WIDTH	
73	APPROACH ROADWAY WIDTH	
74	SECTION NUMBER	
75	SECTION BEGIN LENGTH	
76	SECTION END LENGTH	
77	SECTION CLASS	
78	SECTION BEGIN LENGTH	
79	SECTION END LENGTH	
80	TOT. MIN HORIZONTAL CLEAR.	

9	CARD NO.	3
10	INTERSECTED ROUTE (TENS)	
11	SECTION NUMBER	
12	SECTION BEGIN LENGTH	
13	SECTION END LENGTH	
14	SECTION CLASS	
15	FUNCTIONAL CLASS	
16	ROMIN. JURISD.	
17	FED. AID SYSTEM	
18	A.O.T. YEAR	
19	INTERSECTED ROUTE (TENS)	
20	SECTION NUMBER	
21	SECTION BEGIN LENGTH	
22	SECTION END LENGTH	
23	SECTION CLASS	
24	SECTION BEGIN LENGTH	
25	SECTION END LENGTH	
26	TOT. MIN HORIZONTAL CLEAR.	
27	NON-CARD. OPENING	
28	DECK WIDTH	
29	ROADWAY WIDTH	
30	APPROACH ROADWAY WIDTH	
31	SECTION NUMBER	
32	SECTION BEGIN LENGTH	
33	SECTION END LENGTH	
34	SECTION CLASS	
35	SECTION BEGIN LENGTH	
36	SECTION END LENGTH	
37	TOT. MIN HORIZONTAL CLEAR.	
38	NON-CARD. OPENING	
39	DECK WIDTH	
40	ROADWAY WIDTH	
41	APPROACH ROADWAY WIDTH	
42	SECTION NUMBER	
43	SECTION BEGIN LENGTH	
44	SECTION END LENGTH	
45	SECTION CLASS	
46	SECTION BEGIN LENGTH	
47	SECTION END LENGTH	
48	TOT. MIN HORIZONTAL CLEAR.	
49	NON-CARD. OPENING	
50	DECK WIDTH	
51	ROADWAY WIDTH	
52	APPROACH ROADWAY WIDTH	
53	SECTION NUMBER	
54	SECTION BEGIN LENGTH	
55	SECTION END LENGTH	
56	SECTION CLASS	
57	SECTION BEGIN LENGTH	
58	SECTION END LENGTH	
59	TOT. MIN HORIZONTAL CLEAR.	
60	NON-CARD. OPENING	
61	DECK WIDTH	
62	ROADWAY WIDTH	
63	APPROACH ROADWAY WIDTH	
64	SECTION NUMBER	
65	SECTION BEGIN LENGTH	
66	SECTION END LENGTH	
67	SECTION CLASS	
68	SECTION BEGIN LENGTH	
69	SECTION END LENGTH	
70	TOT. MIN HORIZONTAL CLEAR.	
71	NON-CARD. OPENING	
72	DECK WIDTH	
73	ROADWAY WIDTH	
74	APPROACH ROADWAY WIDTH	
75	SECTION NUMBER	
76	SECTION BEGIN LENGTH	
77	SECTION END LENGTH	
78	SECTION CLASS	
79	SECTION BEGIN LENGTH	
80	SECTION END LENGTH	

9	CARD NO.	4
10	APPROACH ROADWAY WIDTH	
11	MEDIAN TYPE	
12	FLARED BRIDGE (CB/CB)	
13	DECK (OUT/OUT)	
14	DECK DRAIN.	
15	RAIL. TYPE	
16	LEFT	
17	RIGHT	
18	HEARING SURFACE	
19	NUMBER	
20	TYPE	
21	THICKNESS (INCH)	
22	NUMBER	
23	TYPE	
24	CODE	
25	NUMBER	
26	TYPE	
27	CODE	
28	NUMBER	
29	TYPE	
30	CODE	
31	NUMBER	
32	TYPE	
33	CODE	
34	NUMBER	
35	TYPE	
36	CODE	
37	NUMBER	
38	TYPE	
39	CODE	
40	NUMBER	
41	TYPE	
42	CODE	
43	NUMBER	
44	TYPE	
45	CODE	
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67	NUMBER	
68	TYPE	
69	CODE	
70	NUMBER	
71	TYPE	
72	CODE	
73	NUMBER	
74	TYPE	
75	CODE	
76	NUMBER	
77	TYPE	
78	CODE	
79	NUMBER	
80	TYPE	

9	CARD NO.	5
10	REAR FWD. OTHER	
11	PIERS	
12	ABUTMENTS	
13	PIERS	
14	ABUTMENTS	
15	PIERS	
16	ABUTMENTS	
17	PIERS	
18	ABUTMENTS	
19	PIERS	
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54	ABUTMENTS	
55	PIERS	
56	ABUTMENTS	
57	PIERS	
58	ABUTMENTS	
59	PIERS	
60	ABUTMENTS	

9	CARD NO.	6
10	OPERATING RATING	
11	INVENTORY RATING	
12	OHIO % OF LEGAL RATING	
13	RATING YEAR	
14	INBP. RESP.	
15	HAZ. RESP.	
16	DECK GEOM.	
17	UNDERCLEAR.	
18	SAFE LOAD CAP.	
19	WATERWAY ADEQ.	
20	APPR. ALIGN.	
21	REMAIN. LIFE	
22	YEAR NEEDED	
23	TYPE SERVICE	
24	TYPE WORK	
25	LENGTH OF IMPROVEMENT	
26	IMPR. DES. LOAD	
27	PROPOSED ROAD WIDTH	
28	NUMBER LANES	
29	DESIGN (TENS)	
30	YEAR A.O.T.	
31	YEAR R.O.M.Y.	
32	TOTAL COST (\$1000'S)	
33	YEAR OF COSTS	
34	PRELIM. ENG.	
35	DEMO-LITIGATION	
36	SUB-STRUCTURE	
37	SUPER-STRUCTURE	
38	PRIORITY	

OFFICIAL USE ONLY

O.A. CODE _____

REVIEWED BY _____

DATE _____

MAY 21 1982

CODED BY P.A. Bruce DATE 1-14-82

CHECKED BY _____ DATE _____

(1) INVENTORY ROUTE (2) CITY OR TOWN (3) ON/UNDER SYSTEM (4) FEATURE(S) INTERSECTED (5) INV. RTE. BRIDGE NO. (6) SECTION I.D. NUMBER (7) INVENTORY ROUTE (8) A.O.T. YEAR (9) FED. AID SYSTEM (10) ROMIN. JURISD. (11) FUNCTIONAL CLASS (12) DISTRICT (13) COUNTY (14) STRAIGHT LINE MILEAGE (15) COUNTY (16) STRAIGHT LINE MILEAGE (17) COUNTY (18) FEATURE(S) INTERSECTED (19) INTER. RTE. BRIDGE NO. (20) SECTION NUMBER (21) SECTION BEGIN LENGTH (22) SECTION END LENGTH (23) SECTION CLASS (24) SECTION BEGIN LENGTH (25) SECTION END LENGTH (26) TOT. MIN HORIZONTAL CLEAR. (27) NON-CARD. OPENING (28) DECK WIDTH (29) ROADWAY WIDTH (30) APPROACH ROADWAY WIDTH (31) SECTION NUMBER (32) SECTION BEGIN LENGTH (33) SECTION END LENGTH (34) SECTION CLASS (35) SECTION BEGIN LENGTH (36) SECTION END LENGTH (37) TOT. MIN HORIZONTAL CLEAR. (38) NON-CARD. OPENING (39) DECK WIDTH (40) ROADWAY WIDTH (41) APPROACH ROADWAY WIDTH (42) SECTION NUMBER (43) SECTION BEGIN LENGTH (44) SECTION END LENGTH (45) SECTION CLASS (46) SECTION BEGIN LENGTH (47) SECTION END LENGTH (48) TOT. MIN HORIZONTAL CLEAR. (49) NON-CARD. OPENING (50) DECK WIDTH (51) ROADWAY WIDTH (52) APPROACH ROADWAY WIDTH (53) SECTION NUMBER (54) SECTION BEGIN LENGTH (55) SECTION END LENGTH (56) SECTION CLASS (57) SECTION BEGIN LENGTH (58) SECTION END LENGTH (59) TOT. MIN HORIZONTAL CLEAR. (60) NON-CARD. OPENING (61) DECK WIDTH (62) ROADWAY WIDTH (63) APPROACH ROADWAY WIDTH (64) SECTION NUMBER (65) SECTION BEGIN LENGTH (66) SECTION END LENGTH (67) SECTION CLASS (68) SECTION BEGIN LENGTH (69) SECTION END LENGTH (70) TOT. MIN HORIZONTAL CLEAR. (71) NON-CARD. OPENING (72) DECK WIDTH (73) ROADWAY WIDTH (74) APPROACH ROADWAY WIDTH (75) SECTION NUMBER (76) SECTION BEGIN LENGTH (77) SECTION END LENGTH (78) SECTION CLASS (79) SECTION BEGIN LENGTH (80) SECTION END LENGTH



OHIO Department of TRANSPORTATION

James A. Rhodes/Governor
David L. Weir/Director
25 South Front Street
P. O. Box 899
Columbus, Ohio 43216

District Seven
P O Box 381
Sidney, OH 45365
June 28, 1982

RECEIVED
JUL 1 1982

LOGAN COUNTY

Mr. Chester R. Kurtz
County Engineer
P O Box 427
Bellefontaine, OH 45311

RE: Project No. 405-81
County Road No. 39
Logan County

Dear Chet:

In response to your letter dated June 9, 1982 and our on the site inspecting held Wednesday, June 23, 1972 with Don Carpenter, O D O T Bureau Area Construction Engineer

As per your letter:

- Item 1 The Wing Walls were build approximately 2" long. This was corrected as per your instruction by boxing out that portion of the deck on four corners.
- Item 2 The error was caused by the Contractor transposing the wrong Bench Mark elevation on a Bench Mark set by him. The Engineering on the Project is a bid Item and the sole responsibility pf the Contractor. The 1.0 foot error as made is the sole responsibility of the Contractor. The change in design as submitted by the Contractor on Change Order No. 1 is approved by the County and the administrating O D O T Agencies as required and is part of the approved Contract.
- Item 3 The seeding and sodding was completed around the middle of October of 1981. It appeared in the Fall of 81' that although the Contractor claimed that a seeding bed was prepared before seeding, there was concern over the quality of the bed. The seed contractor was notified and required to come in again and repair these areas. At our on the site meeting, it was agreed that some areas did not come into a good stand, while other areas did come into a good stand. We agreed that possibly the buried telephone cable put in after seeding caused some damage. In the one quadrant the ditch scouring and washes through the back slopes gives mute testimony to intense Spring rainfall in this immediate area. This could lead us to believe that the seed job as a whole was subject to intense rainfall and some damage before actual growth started. The seeding Contractor stated that all sod was pegged when installed. The sod damage was in the area of ditch scouring from intense water flow coming from an adjacent farm field. The damage was such that the water ripped the center section of the sod areas, leaving

the outsides in place and growing. The rest of the sod on the Project appeared to be growing and doing nicely. Since our Project site meeting, I have talked with Mr. Learner, (the seed contractor), and stated our grievances. In that period in which he is working on another Project on IR 75 and SR 36, he has agreed to review his work on this Project as a matter of good business relationship and fertilize plus repair areas that could be considered as questionable. Mr. Carpenter and myself feel that the Contractor did do his job installing the sod and Mother Nature in her way, caused the Project sod damage.

- Item 4 The falsework pile was cut off to the top of the water before final inspection and that left under water, was put on the Project punch list. The Contractor attempted to cut the underwater piles off two different times before Winter set in, breaking two different saws. Thus the delay to this Spring to complete the pile cut-offs.

In respect to the additional monies spent by the County for dump rock and the fixing of back-slopes scoured by intense rainfall from adjacent farm fields, we feel that the Project plans did not recognize this area and during the life of the Project the intense rainfall that caused the damage did not occur.

On a Project administration bases, we feel that the documentation on record and in our files will stand-up under any Federal or State Audit.

Chet, with any agency that O D O T administers the Contract, the Agency is invited to participate in Project inspection to cut their own costs. It is however necessary for us to run our own people in for such testing purposes that Specification require and then run them out again.

We hope that this response to your letter is indicative of our feelings and responsibility to administrate Contracts sold in your County with the use of Federal Aid Monies. Our Agency relationships have been good in the past and we feel that these relationships shall continue to be so in the future.

Sincerely,

Delbert L Leistner
District Deputy Director



Jack R Siler
District Construction Engineer

JRS:hb

cc: D L Leistner, D D D
File

R E S O L U T I O N O F A C C E P T A N C E

RESOLUTION NO. 234-82

NAME OF STREET _____ PROJECT NO. 405-81

COUNTY ROAD NO. 39 CONTRACT NO. 28974

June 9, 1982

Ohio Department of Transportation
District Seven
P.O.Box 381
Sidney, Ohio 45365
Attention: Delbert L. Leistner
District Deputy Director

Re: Project No. 405-81
Logan County
County Road No.39

Dear Mr. Leistner:

Attached is the Resolution of Acceptance for subject project which I reluctantly had the Commissioners approve.

The contractor did not perform the work as per plans and ODOT's inspection was not satisfactory. I cite the following examples:

1. Bridge deck design had to be changed at the abutment because contractor built the wing-walls incorrect.
2. Bridge was built 1.0 foot too low because of error in setting elevations. I feel ODOT inspector should have caught this error.
3. Seeding and sodding was very poorly done. Seed bed was not properly prepared. No erosion measures were taken as stated on plans. Considerable wash-out occurred over the winter.
4. There was considerable delay before the falsework piling was cut off.

It will cost the county additional monies to correct the erosion that has occurred and to reseed and resod the area.

I feel ODOT was very lax in enforcing the specifications and performing inspection.

Since the county was paying for these services, I feel we did not get our money's worth for this project. I hate to think that I will have to put an inspector on future jobs to inspect the inspectors.

COPY

9-5-2

(150-F)

Project No. 405 (1981)

Logan—County Road 39—4.98

BRZ-4604(1)

Type—404 on 301 & Structure

*Contract No. 28974
Award. 6-11-81*

PROPOSAL

STATE OF OHIO

-15.979%

DEPARTMENT OF TRANSPORTATION

DAVID L. WEIR, Director

Letting — June 9, 1981

(Exact Prequalification Name and Address Must Appear Below)

DO NOT SUBMIT MORE THAN ONE BID PROPOSAL FOR EACH BID

Submitted by Frosty Brothers, Inc.

Street 3883 W Michigan, Box 59

Postoffice Sidney

State Ohio Zip Code 45365

Have you double checked your bid ? ? ?

RA

PROJECT No. 405

Non-Collusion Affidavit

STATE OF OHIO
COUNTY OF Shelby ss.

I, ALVIN WHEELER VICE PRESIDENT
(Name of party signing affidavit) (Title)

being duly sworn, do depose and say:

That FRANZ BRAS, Inc
(Insert name of Individual, Co-partnership, or Corporation)

its agent, officers or employees have not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal.

FEDERALLY REQUIRED EEO CERTIFICATION

The bidder hereby certifies that he has has not participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that he has has not filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Check both appropriate spaces of "has or has not" above.

"I do hereby certify that if I/we subcontract a portion of the work required by this contract, I/we shall take affirmative action to seek out and affirmatively solicit the interests, capability and prices of minority business enterprises and consider them as potential subcontractors and to document the results of such contacts and shall designate a liaison officer who will administer the contractor's minority business enterprise program."

Alvin Wheeler
(Signature)

Vice President
(Title)

Sworn to and subscribed before me this 9 day of June, 1981.
Jack L. Hewitt Notary Public in and for Shelby County, Ohio.

My commission expires JACK L. HEWITT
NOTARY PUBLIC, STATE OF OHIO
My Commission Expires Jan. 23, 1983

(SEAL)



To the Director of the Ohio Department of Transportation:

The undersigned, having full knowledge of the site, plans and specifications for the following improvement and the conditions of this proposal, hereby agrees to furnish all services, labor, materials, and equipment necessary to complete the entire project, according to the plans, specifications and completion dates, and to accept the unit prices specified below for each item as full compensation for the work in this proposal.

Date Set for Completion: October 15, 1981

The total amount of the bid, based on the approximate quantities given below and the unit prices specified by the bidder amounts to the sum of

ONE HUNDRED SEVENTY EIGHT THOUSAND ONE HUNDRED TWENTY FIVE AND 49/100 DOLLARS (\$ 178,125.49)

UNIT PRICE CONTRACT

For improving County Road 39-4.98 in Richland Township, Logan County, Ohio, in accordance with plans and specifications by grading, draining and paving with asphalt concrete or a bituminous aggregate base and by constructing:

Bridge No. LOG-C.R. 39-4.98, consisting of a continuous concrete slab on capped-pile substructure (spans 24'-30'-24', roadway 32' between guardrails), over a Branch of South Fork Miami River.

Pavement width Varies. Project length 825.00 ft. or 0.156 mile. Work length 1,150.00 ft. or 0.217 mile.

Ref. Item No.	Approximate Unit Quantities	ITEM	ITEMIZED PROPOSAL			
			Unit Price Bid		Total Amount Bid	
			\$	cts.	\$	cts.
ROADWAY						
1	201	lump clearing and grubbing.....				
2	202	64 lin. ft. pipe removed for storage, 24" and under	6	00	384	00
3	203	1,220 cu. yds. excavation not including embankment construction	4	00	4880	00
4	203	2,684 cu. yds. embankment	5	00	13420	00
5	203	2,163 sq. yds. subgrade compaction	50	00	1581	00
6	606	536 lin. ft. Guardrail, Type 5	7	00	3152	00
7	606	4 each bridge terminal assembly, Standard Type B	150	00	6000	00
8	606	4 each anchor assembly, Standard Type A	500	00	2000	00
9	410	50 cu. yds. traffic compacted surface, Type A or B	5	00	250	00
10	616	50 M. gals. water	10	00	5	00
		Lump Sum			2000	00

11 608 10 tons calcium chloride 10 00 100 00

12 Total Roadway 28472 50

EROSION CONTROL

13 207 1,100 sq. yds. temporary seeding and mulching 1 10
 14 207 30 each straw or hay bales 3 00 30 00
 15 601 24 cu. yds. rock channel protection, Type B with bedding 30 00 700 00
 16 601 5 cu. yds. rock channel protection, Type C without bedding 30 00 150 00
 17 659 5,435 sq. yds. seeding and mulching 35 00 1700 00
 18 659 0.55 ton commercial fertilizer 00 00 330 00
 19 659 300 sq. yds. repair seeding and mulching 00 00 30 00
 20 359 9 M. gals. water 1 00 9 00
 21 660 684 sq. yds. sodding 3 25 2725 00

22 Total Erosion Control 5425 00

DRAINAGE

23 603 46 lin. ft. 24" conduit, Type D 35 00 1610 00
 24 603 36 lin. ft. 12" conduit, Type D 25 00 900 00
 25 603 100 lin. ft. 6" conduit, Type B 1 35 135 00
 26 605 200 lin. ft. aggregate drains 0 00 1600 00
 27 603 100 lin. ft. 6" conduit, Type E 50 00 50 00
 28 603 50 lin. ft. 6" conduit, Type F 1 00 50 00

29 Total Drainage 4345 00

PAVEMENT

30 301 379 cu. yds. bituminous aggregate base: AC-20, RT-11 or RT-12 54 00 2046 00
 31 403 75 cu. yds. asphalt concrete, AC-20 62 00 4650 00
 32 404 75 cu. yds. asphalt concrete, AC-20 60 00 4950 00
 33 404 6 cu. yds. asphalt concrete, AC-20 (driveways) 180 00 1080 00
 34 408 42 gals. bituminous prime coat: MC-30, MC-70, Primer 20, FT-2 or RT-3 6 00 252 00
 35 411 172 cu. yds. stabilized crushed aggregate 16 00 2752 00

STRUCTURE OVER 20 FOOT SPAN

Bridge No. LOG-C.R. 39-4-98

36 Total Pavement 34150 00

37 202 Lump structure removed 10 00 6000 00
 38 503 87 cu. yds. unclassified excavation 00 00 870 00

11 616 10 tons calcium chloride 12.00 100.00

12 Total Roadway 28472.50

EROSION CONTROL

13 207 1,100 sq. yds. temporary seeding and mulching 601.10
 14 207 30 each straw or hay bales 90.00
 15 601 24 cu. yds. rock channel protection, Type B with bedding 720.00
 16 601 5 cu. yds. rock channel protection, Type C without bedding 150.00
 17 659 6,435 sq. yds. seeding and mulching 35.00
 18 659 0.65 ton commercial fertilizer 1902.25
 19 659 300 sq. yds. repair seeding and mulching 330.00
 20 659 9 M. gals. water 9.00
 21 660 684 sq. yds. sodding 2725.00

22 Total Erosion Control 5425.65

DRAINAGE

23 603 48 lin. ft. 24" conduit, Type D 35.00
 24 603 36 lin. ft. 12" conduit, Type D 25.00
 25 603 100 lin. ft. 6" conduit, Type B 35.00
 26 605 200 lin. ft. aggregate drains 8.00
 27 603 100 lin. ft. 6" conduit, Type E 50.00
 28 603 50 lin. ft. 6" conduit, Type F 50.00

29 Total Drainage 4345.00

PAVEMENT

30 301 375 cu. yds. bituminous aggregate base: AC-20, RT-11 or RT-12 54.00
 31 403 75 cu. yds. asphalt concrete, AC-20 62.00
 32 404 75 cu. yds. asphalt concrete, AC-20 66.00
 33 404 6 cu. yds. asphalt concrete, AC-20 (driveways) 180.00
 34 408 42 gals. bituminous prime coat: MC-30, MC-70, Primer 20, RT-2 or RT-3 6.00
 35 411 172 cu. yds. stabilized crushed aggregate 16.00
 36 Total Pavement 24150.00

STRUCTURE OVER 20 FOOT SPAN
 Bridge No. LOG-C.R. 39-4.98

37 202 Lump structure removed 6000.00
 38 603 87 cu. yds. unclassified excavation 10.00
 Total 870.00

39	Special	10,561 lbs. epoxy coated reinforcing steel	Lump	54	5697	54
40	505	lump test pile	Sum	500	00	00
41	507	830 lin. ft. 14" cast-in-place reinforced concrete piles	70	16,000	00	
42	509	23,892 lbs. reinforcing steel	40	9556	80	
43	511	134 cu. yds. Class "S" concrete, superstructure	185	24790	00	
44	511	11 cu. yds. Class "C" concrete, pier caps	225	2475	00	
45	511	37 cu. yds. Class "C" concrete, abutments	185	6845	00	
46	516	7 sq. ft. 1" preformed expansion joint filler	10	70	00	
47	517	164.00 lin. ft. railing (deep beam rail with steel tubular backup and steel posts and bolts)	45	7052	00	
48	518	18 cu. yds. porous backfill	20	340	00	
49	601	197 cu. yds. rock channel protection, Type B without bedding	70	5516	00	
50		Total, Structure Over 20 Foot Span		90832	34	
51	624	Lump Mobilization	Lump	Sum	3200	00
52	619	Lump Field Office	Lump	Sum	2000	00
53	103.05	Lump Premium for Contract Performance Bond and for Payment Bond	Lump	Sum	1700	00
54	623	Lump Construction Layout Stakes	Lump	Sum	5000	00
55	614	Lump Maintaining Traffic	Lump	Sum	3000	00
56		TOTAL AMOUNT OF THE BID			178,125	49

Have you double checked your bid ? ? ? Errors or omissions could result in your bid's being declared informal.

Project No. 405

Contract No. 28974

BRZ-4604 (1)

A G R E E M E N T

UNIT CONTRACT PRICE -- SEE SECTIONS 5525.11 AND 5531.02 R.C. OF OHIO

This agreement, made this 14th day of July A.D. 1981
(Do not fill in above date)

between the State of Ohio, hereinafter called the party of the first part, and _____

Frantz Brothers, Inc.

_____ of Sidney, Ohio and _____
successors, executors, administrators and assigns, hereinafter called the party of the second part.

WITNESSETH: That for and in consideration of payments hereinafter mentioned, to be made by party of the first part, party of the second part agrees to furnish all materials excepting the following:

and all appliances, tools and labor, and perform all the work required for _____

See Proposal

of Section(s) _____ I.R. No. _____ S.R. No. U.S. _____ S.R. No. _____

Township _____ County Logan

State of Ohio, according to the plans and specifications and estimates and to the satisfaction and acceptance of the party of the first part* and subject to inspection at all times and approval of the Federal Highway Administration, and in accordance with the laws of the State of Ohio, and the rules and regulations pursuant to the Federal Highway Act of November 9, 1921, (42 U.S. Statutes at large, p. 212) entitled "An Act to provide that the United States shall aid the States in the construction of rural post roads, and for other purposes."*

The party of the second part further covenants and agrees that the following papers shall be bound with or accompany, and be an essential part of this contract: Notices to contractors, plans and specifications, agreement, contract performance bond and payment bond and approximate estimate and proposal.

* * * * * This part of agreement applies to Federal Aid Projects only.

In consideration of the premises the party of the first part agrees to pay to the party of the second part the appropriate sum of ONE HUNDRED SEVENTY EIGHT THOUSAND ONE HUNDRED TWENTY FIVE

AND ----- 49/100 Dollars

(\$ 178,125.49). The actual sum to be paid, however, will be the aggregate total determined by the work actually performed by the party of the second part, calculated upon the unit price set out in his proposal hereto attached and made part hereof.

IN WITNESS WHEREOF, the party of the first part has hereunto subscribed by its Director of Transportation, and the party of the second part has affixed their name.

STATE OF OHIO

Attest:

Jean E. Chamber
Secretary to the Director

By David L. Weir
Director of Transportation

Important Notice
if an individual doing business under a firm name, so state, giving both names.
If a partnership, so state, giving names and post office addresses of all partners, on lines opposite.
If a corporation, give full corporation name and state under the laws of what state you are incorporated; officer signing should add his title after his signature and furnish certificate of power to sign.

CONTRACTOR

FRANIZ BROS INC
By Richard J. Franiz

6/23/81

(Date signed by Contractor)

NOTICE

Instructions to Contractors in regard to furnishing Contract Performance and Payment Bonds:

If a surety company bond is furnished, each bond must be accompanied by a Power of Attorney of the Agent of the Company signing same, showing that said agent is authorized to execute bonds in a sum sufficient to cover the amount of the bond in each particular case. Each bond must also be accompanied by certificates signed by the Superintendent of the Division of Insurance, State of Ohio, showing that said Company is authorized to do business in Ohio and by a recent financial statement of said Surety Company.

If personal bonds are given, it is necessary that the "Justification of Sureties" which will be found immediately following the Contract Bond, be filled out and properly executed, or in lieu of that, the printed "Auditor's Certificate" which is made a part of each contract, must be filled out by the County Auditor of the County in which the individual sureties reside.

IN FURNISHING CONTRACT PERFORMANCE AND PAYMENT BONDS, EACH CONTRACTOR WILL PLEASE SEE THAT THE ABOVE PROVISIONS ARE COMPLIED WITH BY THE BONDSMAN IN EACH CASE.

CONTRACT PERFORMANCE BOND

(5525.16, 153.54 et seq.)

KNOW ALL MEN BY THESE PRESENTS:

THAT WE (1) Frantz Brothers, Inc., of Sidney, Ohio

as principal, and (2) The United States Fidelity and Guaranty Company

as sureties,
are held and firmly bound unto the State of Ohio

In the penal sum of TWO HUNDRED TWELVE THOUSAND DOLLARS AND NO CENTS
(\$ 212,000.00) Dollars, for the payment of
which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators,
successors and assigns.

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, Said principal has heretofore filed with the Director of Transportation of the State of Ohio, a written
bid or proposal for the construction and completion of Section

See Proposal for Project No. 405-1981

I.R. No. _____ S.R. No. U.S. _____ S.R. No. _____

Section(s) _____

in _____ Township, Logan County, Ohio,

and

WHEREAS, Said Director of Transportation has accepted said bid or proposal and has awarded to said principal
the contract for the construction and completion of the aforesaid work:

Now, if the said principal shall well, truly and faithfully comply with and perform each and all of the terms,
covenants and conditions of such contract on his (its) part to be kept and performed, according to the tenor thereof,
and within the time prescribed and will perform the work embraced therein upon the terms proposed and within the
time prescribed and in accordance with the plans, specifications and estimates furnished therefor, to which reference is
here made, the same being a part hereof, as if fully incorporated herein, and will indemnify the State, County,
Municipality and Township, and in case of a railroad grade separation, the railroad company (or companies) involved
against any damage that may result by reason of the negligence of the contractor in making said improvement or doing
said work, then this obligation shall be void, otherwise the same shall remain in full force and effect; it being expressly
understood and agreed that the liability of the surety for any or all claims hereunder shall in no event exceed the penal
amount of this obligation as herein stated.

The said sureties hereby stipulate and agree that any failure to complete work at the time named in the contract,
or extensions of time for completion, or modifications, omissions or additions in or to the terms of said contract, or in

or to the plans, specifications and estimates, shall not in any wise affect the obligations of said sureties on their bond.

Signed this 23rd day of June, 19 81.

In presence of (MUST BE WITNESSED)

Jack L. Pullen
Witness to Principal
Address of Witness

Frantz Brothers, Inc.
Principal
By Richard J. Frantz

Reverend L. Mitchell
Witness to Attorney-in-fact
120 North Main Ave., Sidney, OH 45365
Address of Witness

United States Fidelity and Guaranty Co.
Name of Surety Company
Charles J. Stewart
Signature of Attorney-in-fact
120 North Main Avenue, Sidney, OH 45365
Address of Attorney-in-fact

Sureties

INSTRUCTIONS

Attach corporate seal of principal if corporation.

Attach corporate seal if surety company is signing as surety.

(1) If a corporation, insert on page 3, "A corporation organized under the laws of the State of (Name of State) with its principal place of business at (Address)."

(2) If a surety company, insert on page 3, "A corporation organized under the laws of the State of (Name of State) and duly authorized to transact business within the State of Ohio."

If the above bond is executed by private individuals as sureties, the affidavits in justification of sureties must be filled out in detail; or in lieu of said affidavits, a certificate of the County Auditor of the County in which said sureties or one of them, reside, or have property, may be furnished to the effect that in his judgment such sureties possess the qualifications required by Section 1341.01 Ohio Revised Code which reads as follows:

"Sureties must be residents of this State, and worth, in the aggregate, double the sum to be secured, beyond the amount of their debts, and have property liable to execution in this State equal to the sum to be secured."

If signed by a surety company said bond must be accompanied by (1) a certificate of the superintendent of insurance, that such surety company is authorized to transact business in this State; and (2) the power of attorney of the agent of such company showing his authority to execute said bond on its behalf, which power of attorney must be dated not more than ninety days previous to the signing of the contract; and (3) a recent financial statement of the surety company. In the event the bond exceeds 10% of the capital and surplus of the surety company signing the bond, the excess amount must be reinsured in some other surety company licensed to do business in Ohio and a certificate showing such reinsurance must accompany said bond.

PAYMENT BOND

(5525.16, 153.54 et seq. O.R.C.)
(also see 1311.27, 5525.12)

KNOW ALL MEN BY THESE PRESENTS:

THAT WE (1) Frantz Brothers, Inc., of Sidney, Ohio -

as principal, and (2) The United States Fidelity and Guaranty Company

as sureties,
are held and firmly bound unto the State of Ohio

in the penal sum of TWO HUNDRED TWELVE THOUSAND DOLLARS AND NO CENTS

(\$ 212,000.00) Dollars, for the payment of
which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators,
successors and assigns.

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, Said principal has heretofore filed with the Director of Transportation of the State of Ohio, a written
bid or proposal for the construction and completion of Section

See Proposal for Project No. 405-1981

I.R. No. S.R. No. U.S. S.R. No.

Section(s)

in Logan Township, Logan County, Ohio,

and

WHEREAS, Said Director of Transportation has accepted said bid or proposal and has awarded to said principal
the contract for the construction and completion of the aforesaid work:

Now, if the said principal shall pay all lawful claims of any subcontractors, materialmen, laborers or mechanics
who have performed labor or furnished material, fuel, tools or machinery and for the use of and repairs to machinery
and equipment used in carrying forward, performing or completing said contract, said principal and sureties agreeing
and assenting that this undertaking shall be for the benefit of any subcontractor, materialman, laborer or mechanic,
having a just claim, then this obligation shall be void, otherwise the same shall remain in full force and effect; it being
expressly understood and agreed that the liability of the surety for any or all claims hereunder shall in no event exceed
the penal amount of this obligation as herein stated.

The said sureties hereby stipulate and agree that any failure to complete work at the time named in the contract,
or extensions of time for completion, or modifications, omissions or additions in or to the terms of said contract, or in

or to the plans, specifications and estimates, shall not in any wise affect the obligations of said sureties on their bond.

Signed this 23rd day of June, 19 81.

In presence of (MUST BE WITNESSED)

Jack A. Allison
Witness to Principal
Address of Witness

Frantz Brothers, Inc.
Principal
By Richard Frantz

Arnold L. Miller
Witness to Attorney-in-fact
120 N. Main Ave., Sidney, OH 45365
Address of Witness

United States Fidelity and Guaranty Co.
Name of Surety Company
Jack A. Stewart
Signature of Attorney-in-fact
120 North Main Avenue, Sidney, OH 45365
Address of Attorney-in-fact

Sureties

INSTRUCTIONS

Attach corporate seal of principal if corporation.

Attach corporate seal if surety company is signing as surety.

(1) If a corporation, insert on page 5, "A corporation organized under the laws of the State of (Name of State) with its principal place of business at (Address)."

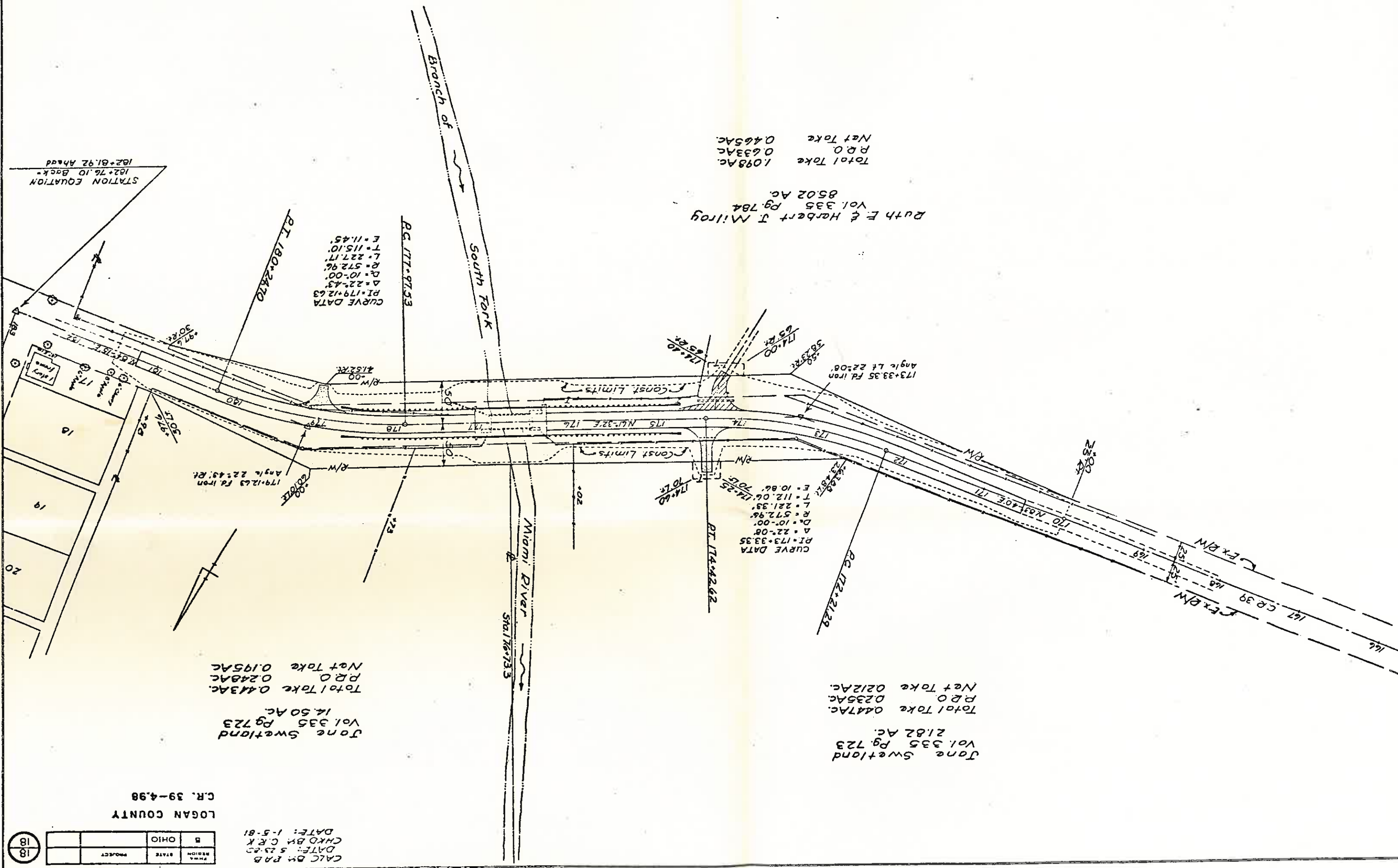
(2) If a surety company, insert on page 5, "A corporation organized under the laws of the State of (Name of State) and duly authorized to transact business within the State of Ohio."

If the above bond is executed by private individuals as sureties, the affidavits in justification of sureties must be filled out in detail; or in lieu of said affidavits, a certificate of the County Auditor of the County in which said sureties or one of them, reside, or have property, may be furnished to the effect that in his judgment such sureties possess the qualifications required by Section 1341.01 Ohio Revised Code which reads as follows:

"Sureties must be residents of this State, and worth, in the aggregate, double the sum to be secured, beyond the amount of their debts, and have property liable to execution in this State equal to the sum to be secured."

If signed by a surety company said bond must be accompanied by (1) a certificate of the superintendent of insurance, that such surety company is authorized to transact business in this State; and (2) the power of attorney of the agent of such company showing his authority to execute said bond on its behalf, which power of attorney must be dated not more than ninety days previous to the signing of the contract; and (3) a recent financial statement of the surety company. In the event the bond exceeds 10% of the capital and surplus of the surety company signing the bond, the excess amount must be reinsured in some other surety company licensed to do business in Ohio and a certificate showing such reinsurance must accompany said bond.

ONE POWER OF ATTORNEY, ONE CERTIFICATE OF COMPLIANCE AND ONE FINANCIAL STATEMENT ARE SUFFICIENT TO COVER BOTH BONDS, SINCE BOTH BONDS MUST BE EXECUTED BY THE SAME SURETY.



Total Take 1.098 AC
 P.D.O. 0.633 AC
 Net Take 0.465 AC
 Ruth E & Herbert J Milroy
 Vol. 335 Pg. 784
 8502 AC

CURVE DATA
 P.I. 179+12.63
 Δ = 22° 43'
 D = 10'-00"
 R = 572.96'
 L = 227.17'
 T = 115.10'
 E = 11.45'

CURVE DATA
 P.I. 173+33.35
 Δ = 22° 08'
 D = 10'-00"
 R = 572.96'
 L = 221.35'
 T = 112.06'
 E = 10.86'

Jone Swetland
 Vol. 335 Pg. 723
 14.50 AC
 Total Take 0.413 AC
 P.D.O. 0.248 AC
 Net Take 0.195 AC

Jone Swetland
 Vol. 335 Pg. 723
 21.82 AC
 Total Take 0.447 AC
 P.D.O. 0.235 AC
 Net Take 0.212 AC

LOGAN COUNTY
 C.R. 39-4.98

CALC BY PAB	DATE: 5-25-80
CHKD BY CRK	DATE: 1-5-81
REGION	OHIO
STATE	OHIO
PROJECT	

John R. Jurgensen Company
 11641 Mosteller Rd., Cincinnati, O. 1,171,676.62 1,171,676.62

405
 LOGAN - County Road 39 - 4.98 -
 BRZ-4604(1) - Type 404 on 301
 and Structure - Date Set for
 Completion: October 15, 1981.
 Estimate \$212,000.00

AWARDED TO:		FRANTZ BROTHERS, INC.....	\$	178,125.49	
		3883 West Michigan Street, Box 59		<u>178,125.49</u>	
		Sidney, Ohio 45365	\$	178,125.49	15.98
		Wren Reese, Inc.			
		P.O. Box 349, Napoleon, Ohio		179,140.30	
		Sherburn Company			
		P.O. Box 32, Van Wert, Ohio		181,766.51	Informal
		Righter Company, Inc.			
		4290 Indianola Ave., Columbus, Ohio		187,761.30	
		Watson-Podiak and Associates, Inc.			
		5751 Pondview Dr., Kettering, Ohio		209,972.20	