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STATE OF OHIO
DEPARTMENT OF HIGHWAYS

F-674(12)

FED. RD DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

1/225

ROSS COUNTY
ROS-35-25.05

ROS-35-25.05

SCIOTO, SPRINGFIELD & LIBERTY TOWNSHIPS

ROSS COUNTY

GRADE SEPARATION WITH THE CHESAPEAKE AND OHIO RAILWAY

DESIGN DESIGNATION

Current A.D.T. (1964)	4,580
Design Year A.D.T. (1990)	13,110
D.H.V.	1,704
D. (directional distribution)	60-40
T. (percent B&C Trucks)	24.5%
V. (design speed)	70 M.P.H.

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line ——— or ———
Fence Line (existing) —×—×— (proposed) —×—×—
Center Line 352 + 353
Trees , Stumps , (to be removed)
Utility Poles: Telephone , Power , Light

Limited Access (only) ——— LA ———
Right of Way (only) ——— RW ———
Limited Access & Right of Way ——— LA&RW ———
Existing Right of Way
Property Line —℄— (in existing fence) —×—℄—×—
Railroad
Guardrail (existing) —o—o—o— (proposed) ———

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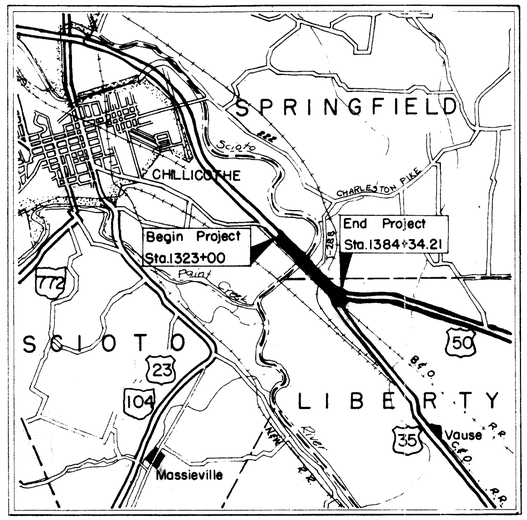
Sheet Numbers 174-192 Deleted

Sheet Nos. 129, 139, & 153 revised 7-18-69 EBL



LOCATION MAP

SCALE OF MILES
1 0 1 2 3

Portion to be improved
State Roads
Other Roads

SCALES

Plan 50' 0 50'
Profile: Horizontal 50' 0 50'
Profile: Vertical 5'810' 0 5'810'

LINE DATA

Begin Project	Sta 1323+00 E.B.		
End Project	Sta 1384+34.21 E.B.		
Net Length of Project			6,134.21 Lin. Ft. or 1.161 Mile
Add for Equation:			
Sta.1320+01.02 Bk. = Sta.1319+97.50 Ahd.	W.B.	(+)	3.52 Lin. Ft.
Add for Approaches:			
U.S.R. 35	Sta.1301+00 to Sta.1323+00	W.B.	2,200.00 Lin. Ft.
Lick Run Road	Sta. 15+00 to Sta. 33+43.66		1,843.66 Lin. Ft.
Athens Road	Sta. 136+00.29 to Sta. 147+97.62		1,197.33 Lin. Ft.
	Sta. 157+00.00 to Sta. 191 +35.48		3,435.48 Lin. Ft.
Temp. Conn.	Sta. 84+58 to Sta. 99+50		1,492.00 Lin. Ft.
Total Length of Approaches			10,171.99 Lin. Ft. or 1.927 Mile
Total Length of Work			16,306.20 Lin. Ft. or 3.088 Mile

LIMITED ACCESS

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director of Highways in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio.

1969 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved W. Tournay Rausch
Date 9-6-68 Division Deputy Director

Approved C.T.H. Allbaugh
Date 5-5-69 Engineer of Bridges

Approved R.E. Gatlin
Date 5-6-69 Engineer of Location & Design

Approved George J. Thornyak
Date 5-6-69 Deputy Director of Design & Construction

Approved T.H. Board
Date 5-16-69 Deputy Director of Right of Way

Approved Thomas M. Mayer
Date 5-15-69 Deputy Director of Planning & Programming

Approved R.W. Wilson
Date 5-19-69 First Assistant Director

Approved P.E. Machatka
Date 5-19-69 Director of Highways

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS						
BP-5	6-1-65	BP-1	6-1-65	GR-6	7-15-68	
BP-6	6-1-65	BP-2	12-1-68	BR-1-65	11-24-65	
FACI-1	9-15-67	BP-3	12-1-68	SD-1-65	11-8-65	
FACI-2	6-1-65	BP-4	12-1-68	AS-1-67	1-11-68	
GR-1	1-1-67	BP-7	1-1-66	FSB-1-62	1-15-63	
HW-E	6-1-65	CB-2-2A&B	6-1-65	F-1	3-10-69	
I-2A	12-1-68			F-3	3-10-69	
MC-1	10-1-67	CB-3	6-1-65	L-1	6-1-65	
MC-5	6-1-65	CB-5	6-6-68	MC-3	11-1-68	
MC-4	6-1-65	CB-8	6-6-68			
MC-6	6-1-65	GR-2A	1-1-67	CB-6	6-1-65	
MC-7	12-1-68	GR-2B	2-15-68			
MH-1	12-1-68	GR-5	1-15-68			

SUPPLEMENTAL SPECIFICATIONS	
1001	1-1-69
801	1-1-69
808	1-1-69
811	1-1-69
815	1-1-69
816	1-1-69
825	1-1-69
809	1-1-69
810	1-1-69
927	1-1-69
806	1-1-69

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
APPROVED:

DIVISION ENGINEER DATE

Project: Ross County ROS-35-25.05
Date of Letting 19 , Contract No.

LD 0300
12-29-67

TYPICAL SECTION SCHEDULE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

3 / 225

ROSS COUNTY
ROS-35-25.05

STATION TO STATION	SEE SHEET NUMBER	DESCRIPTION
U.S.R. 35 EASTBOUND		
1323+00 to 1336+60	4	Typical Section A
1336+60 to 1336+86.34	31	Feather Area
1336+86.34 to 1350+17.50	—	Existing Kilgore Bridge (No Work)
1350+17.50 to 1350+27.00	11	Detail See Sheet No. 11
1350+27.00 to 1350+55.61	5	Typical Section C
1350+55.61 to 1360+88.39	5	Typical Section D
1360+88.39 to 1365+23.74	4	Typical Section B
1365+23.74 to 1382+94.22	6	Typical Section E
1382+94.22 to 1384+34.21	6	Typical Section E
U.S.R. 35 WESTBOUND		
1323+00 to 1336+83.99	4	Typical Section A
1336+83.99 to 1337+08.99	13	Approach Slab
1337+08.99 to 1349+94.69		Bridge
1349+94.69 to 1350+19.69	13	Approach Slab
1350+19.69 to 1351+56.99 (Back)	5	Typical Section C
1351+71.43 (Ahead) to 1363+70.76	5	Typical Section D
1363+70.76 to 1365+86.38	4	Typical Section B
1365+86.38 to 1384+45.38	6	Typical Section E
RAMP C		
60+53.84 to 62+75	92	Detail
62+75 to 69+76.40	7	Typical Section F
69+76.40 to 72+93.98	7	Typical Section G
72+93.98 to 79+26.72	93	Detail
ATHENS ROAD		
136+00.29 to 142+10	84	Detail (Ramp B Exit)
142+10 to 142+25	84	Detail (Ramp B Exit) Feather Area
142+25 to 147+97.62	85	Detail (Lick Run Rd. & Athens Rd.)
147+97.62 to 157+00		No Work
157+00 to 158+00	106	Feather Area
158+00 to 165+88.28	8	Typical Section I
165+88.28 to 166+33.17	8	Typical Section H
166+33.17 to 166+58.17	13	Approach Slab
166+58.17 to 169+11.85		Bridge
166+11.85 to 169+36.85	13	Approach Slab
169+36.85 to 169+98.09	8	Typical Section H
169+98.09 to 181+26.72	8	Typical Section I
181+26.72 to 182+02.85	8	Typical Section H
182+02.85 to 187+91.50	8	Typical Section I
187+91.50 to 191+25.48	86	Detail
191+25.48 to 191+35.48	86	Feather Area
LICK RUN ROAD		
15+00 to 16+29.38	9	Typical Section J
16+29.38 to 20+76.69	9	Typical Section K
20+76.69 to 22+38.77	9	Typical Section J
22+38.77 to 27+31.66	9	Typical Section K
27+31.66 to 28+48.13	9	Typical Section J
28+48.13 to 28+73.13	13	Approach Slab
28+73.13 to 30+75.75		Bridge
30+75.75 to 31+00.75	13	Approach Slab
31+00.75 to 31+07.38	9	Typical Section J
31+07.38 to 31+99.09	9	Typical Section K
31+99.09 to 33+43.66	85	Detail (Lick Run Rd. & Athens Rd.)
TEMPORARY CONNECTION		
82+71.00 to 92+47.10	9	Typical Section L
92+47.10 to 94+00	55	Detail

LEGEND

①	310	Subbase, Grading A as per plan.
②	304	4" Aggregate Base
③	301	3" Bituminous Aggregate Base 702.01 (85-100); or 702.09 AT-10
④	409	Sealcoat Cover Aggregate using 0.008 cu. Yd. No. 8 Aggregate per Sq. Yd. and 0.3 Gal. Sealcoat Bituminous Material per Sq. Yd. (See Note in Proposal)
⑤	605	6" Shallow Pipe Underdrains
⑥	Special	Drainage Connection, using No. 8 Aggregate (See Note in Proposal)
⑦	451	9" Reinforced Portland Cement Concrete Pavement.
⑧	612	4" Concrete Median as per plan
⑨	609	Concrete Curb, Std. Type 2-A.
⑩	609	Combination Curb and Gutter, Std. Type 2.
⑪	310	Subbase, thickness as shown
⑫	408	Bituminous Prime Coat 702.03 RT 2 or 3 applied at the rate of 0.40 gal. per sq. yd.
⑬	304	6" Aggregate Base
⑭	404	1½" Asphalt Concrete (85-100)
⑮	605	Aggregate Drains
⑯		Not Used
⑰	659	Seeding and Mulching
⑱	609	Concrete Curb, - Std. Type 6.
⑲		Granular Material, as per plan (See Note on Sheet No. 18)
⑳	402	3" Asphalt Concrete (85-100)
㉑	609	Concrete Curb, Std. Type 7.
㉒	609	Concrete Curb, Std. Type 8.
㉓	402	2" Asphalt Concrete (85-100)
㉔	402	3" Asphalt Concrete (85-100)
㉕	407	Tack Coat, 702.04 MS-2 or RS-1; or 702.02 RC-70 or RC-250 applied at the rate of 0.10 gal. per Sq. Yd.

SEQUENCE OF CONSTRUCTION OPERATIONS

Sequence of operations (1) install pipe underdrain on outside shoulder. Installation of shallow underdrain in median may be deferred until 451 is placed, (2)* place subbase out to outside edge of underdrain or to one foot beyond edge of pavement where no underdrain is present. (3) construct 451 (4) remove subbase and any contaminated backfill over drain and replace with No. 8 aggregate as shown by ⑥, (5) complete shoulder construction.

* Payment shall be made for all subbase placed in this operation.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL SECTION SCHEDULE AND PAVEMENT LEGEND

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
			MEG			

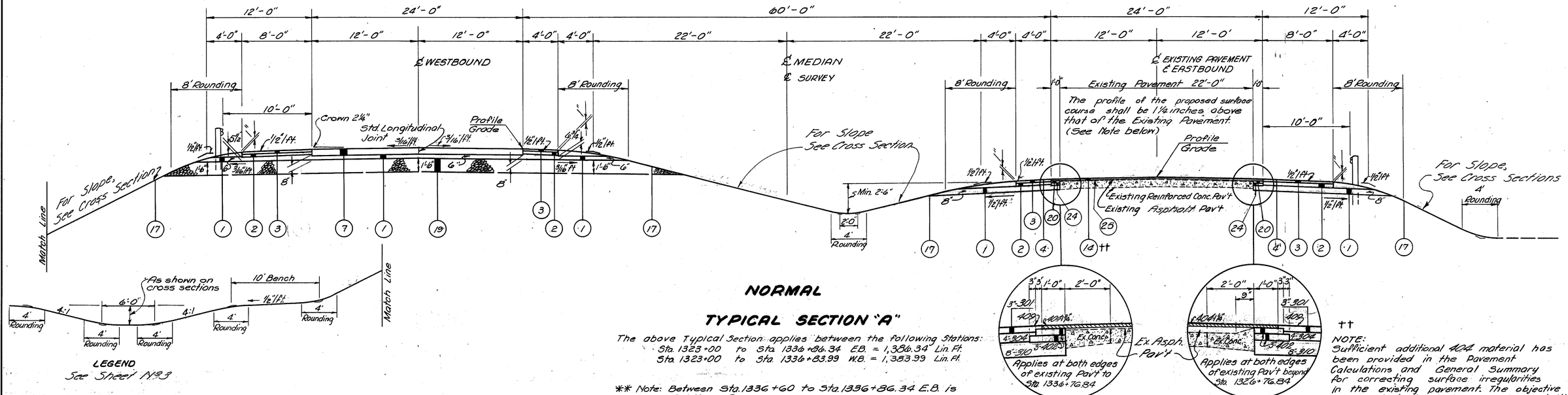
TYPICAL SECTIONS

TYPE-451

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

4 / 225

ROSS COUNTY
ROS-35-25.05



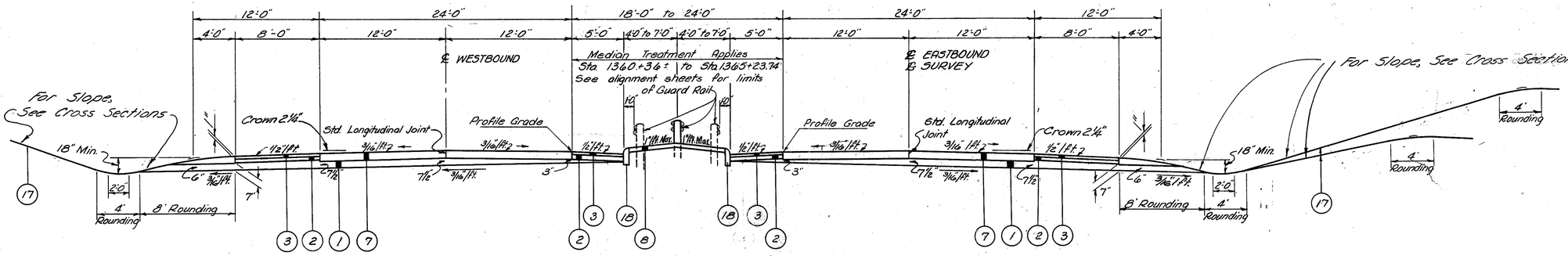
NORMAL

TYPICAL SECTION "A"

The above Typical Section applies between the following Stations:
Sta. 1323+00 to Sta. 1336+86.34 E.B. = 1,386.34 Lin. Ft.
Sta. 1323+00 to Sta. 1336+83.99 W.B. = 1,383.99 Lin. Ft.

** Note: Between Sta. 1336+60 to Sta. 1336+86.34 E.B. is Feather Area.

†† NOTE: Sufficient additional 404 material has been provided in the Pavement Calculations and General Summary for correcting surface irregularities in the existing pavement. The objective in this instance is to correct irregularities rather than to obtain strict conformity to a 3/16" /ft. crown slope.



NORMAL NARROW MEDIAN

TYPICAL SECTION "B"

The above Typical Section applies between the following stations:
Sta. 1360+88.39 to Sta. 1365+23.74 E.B. = 435.35 Lin. Ft.
Sta. 1363+70.76 to Sta. 1365+86.38 W.B. = 215.62 Lin. Ft.

Note: Median uniform width of 18'-0" E/P to E/P
Sta. 1363+70.76 to Sta. 1365+23.74

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL SECTIONS
U.S.R. 35

SCALE		DATE				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.B.	R.W.B.	L.K.M.	W.B.			

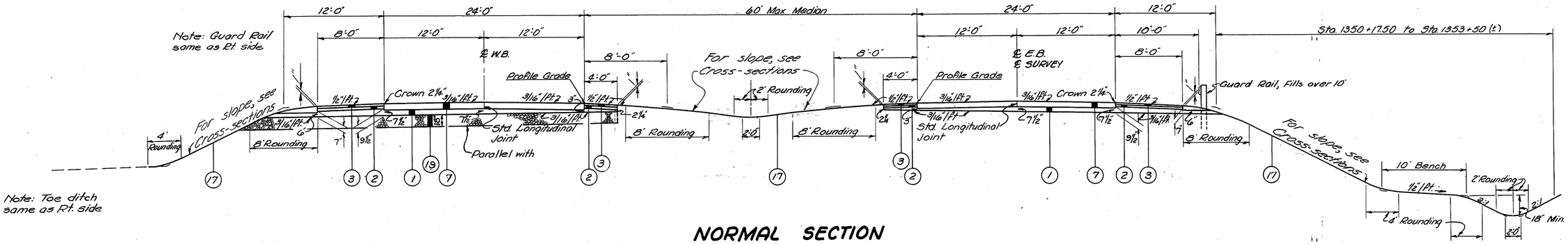
TYPICAL SECTIONS

TYPE-451 ~~TYPE CODE 451~~

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

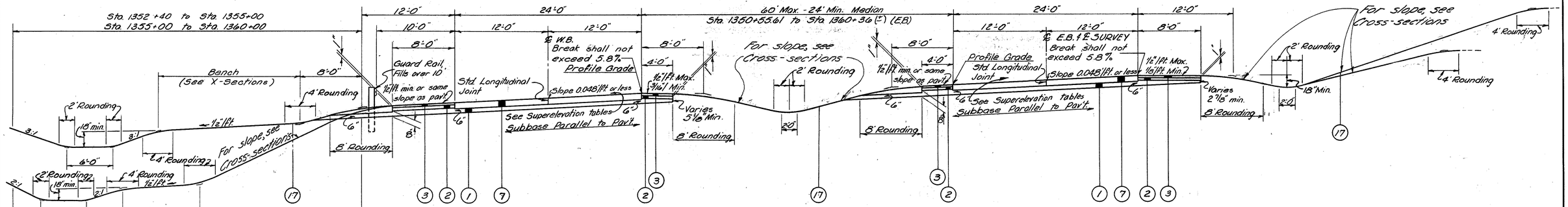
5-225

ROSS COUNTY
ROS-35-25.05



NORMAL SECTION
TYPICAL SECTION "C"

The above Typical Section applies between the following stations:
Sta. 1350+27.00 to Sta. 1350+55.61 (Eastbound) = 28.61 L.F.
Sta. 1350+19.69 to Sta. 1351+56.99 Back (Westbound) = 137.30 L.F.



SUPERELEVATED SECTION
TYPICAL SECTION "D"

The above Typical Section applies between the following stations:
Sta. 1350+55.61 to Sta. 1360+88.39 (Eastbound) = 1,032.78 L.F.
Sta. 1351+71.43 Ahead to Sta. 1363+70.76 (Westbound) = 1,199.33 L.F.

Note:
For Legend, See Sheet No. 3

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL SECTIONS
U.S.R. 35

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	L.L.F.	T.W.J.			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

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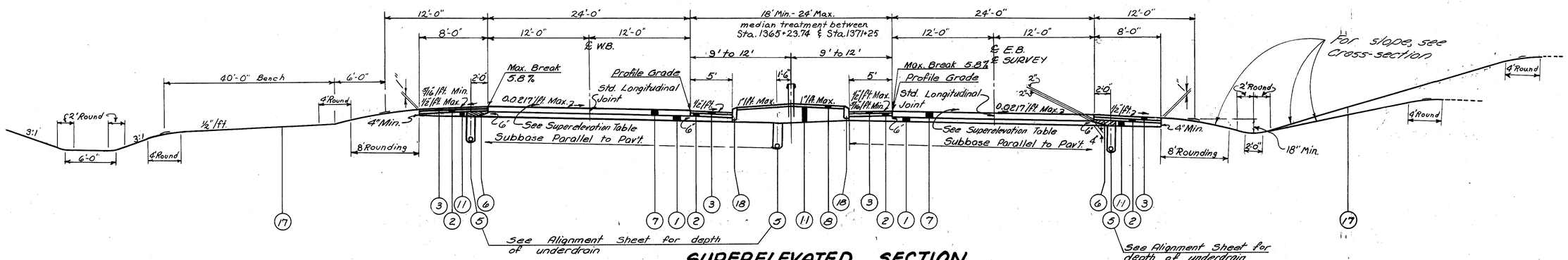
225

ROSS COUNTY
ROS-35-25.05

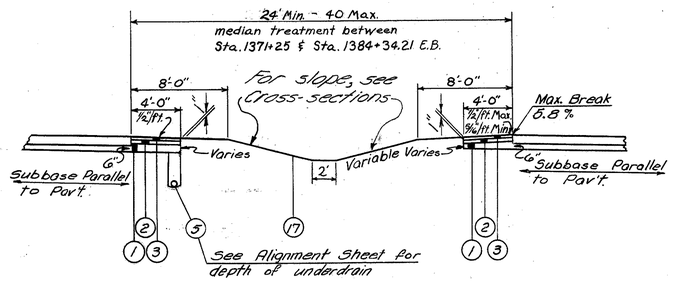
TYPICAL SECTIONS
TYPE-451



SUPERELEVATED SECTION
TYPICAL SECTION "E"

The above Typical Section applies between the following stations=

Sta. 1365+86.38	to	1384+45.38	West Bound	= 1,859.00 Lin. Ft.
Sta. 1365+23.74	to	1382+94.22	East Bound	= 1,770.48 Lin. Ft.
Sta. 1382+94.22	to	1384+34.21	East Bound	= 139.99 Lin. Ft.



PART SECTION

Note:
For Legend, See Sheet No 3

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL SECTIONS
U.S.R. 35

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	L.L.F.				

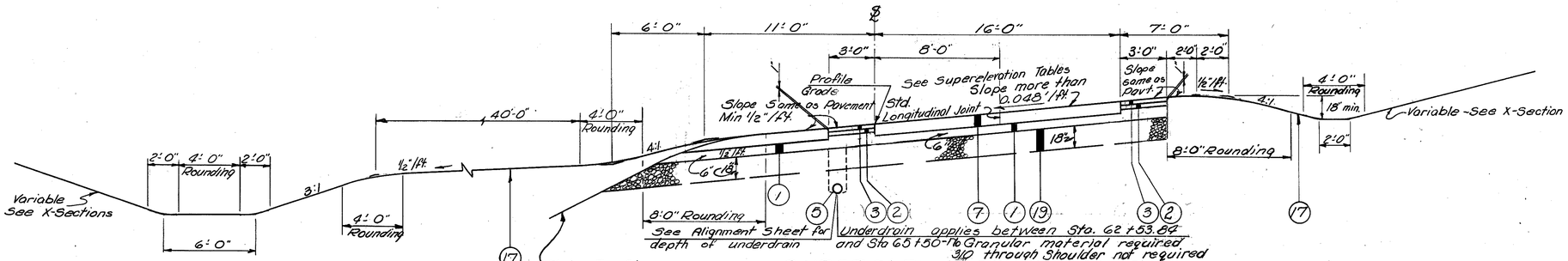
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

7
225

ROSS COUNTY
ROS-35-25.05

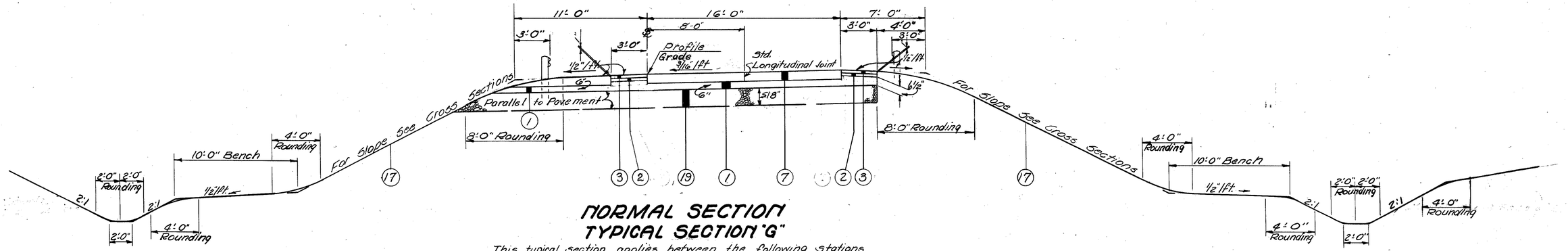
TYPICAL SECTIONS

TYPE 451



SUPERELEVATED SECTION
TYPICAL SECTION "F"

This typical section applies between the following stations
Sta. 62+75.00 to Sta. 69+76.40 Ramp "C" = 701.40 Lin. Ft.



NORMAL SECTION
TYPICAL SECTION "G"

This typical section applies between the following Stations
Sta. 69+76.40 to Sta. 72+93.98 Ramp "C" = 317.58 Lin. Ft.

LEGEND
See Sheet No 3

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

RAMP TYPICAL SECTIONS

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	P.J.M.	W.G.			

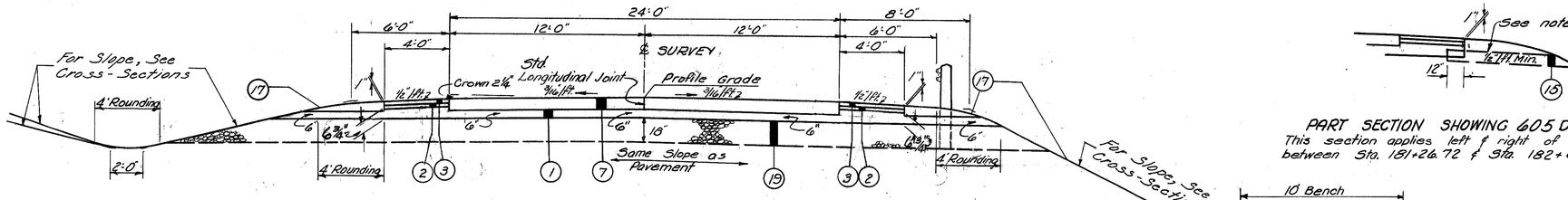
TYPICAL SECTIONS

TYPE 451

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

8
225

ROSS COUNTY
ROS -35- 25.05

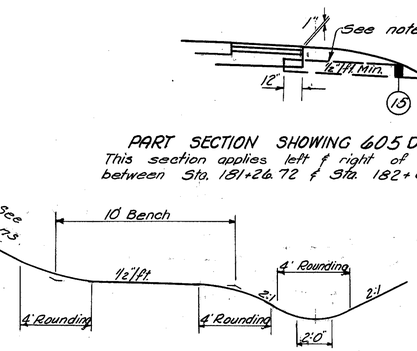


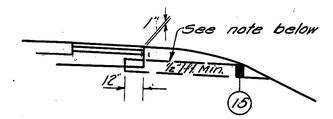
NORMAL TYPICAL SECTION "H"

The above Typical Section applies between the following stations:

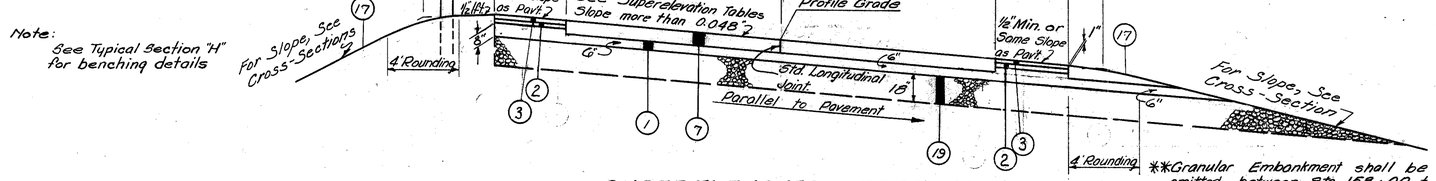
Sta. 165+88.28	to	Sta. 166+33.17	= 44.89 Lin. Ft.
Sta. 169+36.85	to	Sta. 169+98.09	= 61.24 Lin. Ft.
†Sta. 181+26.72	to	Sta. 182+02.85	= 76.13 Lin. Ft.
		Total	= 182.26 Lin. Ft.

†Granular Embankment shall be omitted between Sta. 181+26.72 to Sta. 182+02.85 See Part Section





PART SECTION SHOWING 605 DETAILS
This section applies left & right of centerline between Sta. 181+26.72 & Sta. 182+02.85



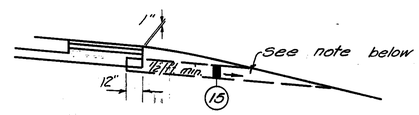
Note:
See Typical Section "H" for benching details

SUPERELEVATED SECTION TYPICAL SECTION "I"

The above Typical Section applies between the following stations:

Sta. 158+00.00	to	Sta. 165+88.28	= 788.28 Lin. Ft.
* Sta. 169+98.09	to	Sta. 181+26.72	= 1,128.63 Lin. Ft.
** Sta. 182+02.85	to	Sta. 187+91.50	= 588.65 Lin. Ft.
		Total	= 2,505.56 Lin. Ft.

**Granular Embankment shall be omitted between Sta. 158+00 to Sta. 159+50 & Sta. 175+75 to Sta. 181+26.72 & Sta. 182+02.85 to Sta. 187+91.50. See Part Section.



PART SECTION SHOWING 605 DETAILS
This section applies between Sta. 158+00 to Sta. 159+50 & Sta. 175+75 to Sta. 181+26.72 & Sta. 182+02.85 to Sta. 187+91.50

* Sta. 174+05.46 to Sta. 179+26.72 (Variable width) Shown on Sht. No. 93

LEGEND - SEE SHEET No. 3

NOTE:
ITEM 605 AGGREGATE DRAINS
605 Aggregate drains shall be placed under the shoulder on each side of the normal crowned sections at all transverse joints and midway between each transverse joint, but the maximum spacing between aggregate drains shall not exceed thirty (30) feet. On superelevated sections the aggregate drains shall be placed same as above except only on the low side.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL SECTION ATHENS ROAD

SCALE DATE

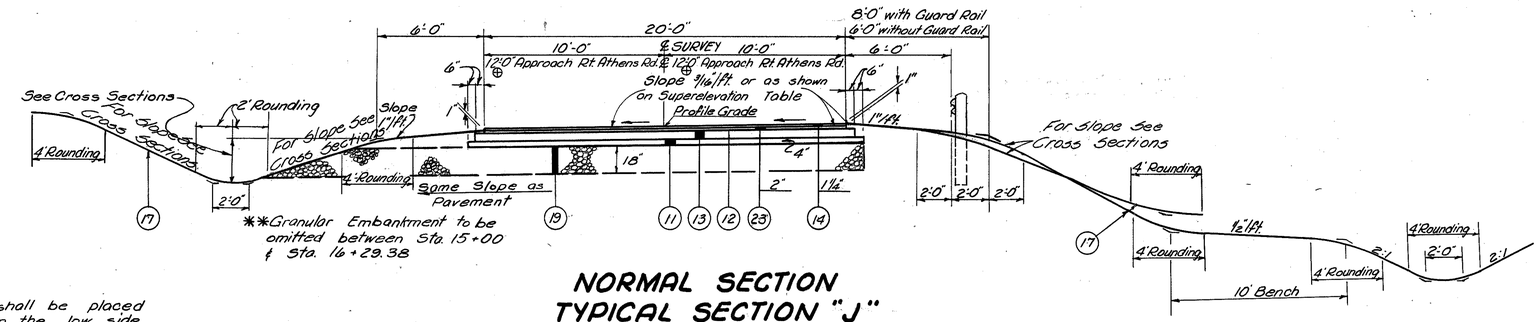
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RWG	EWG	W.G.C. CLF	Neg.			

TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

9
225

ROSS COUNTY
ROS-35-25.05



**Granular Embankment to be omitted between Sta. 15+00 & Sta. 16+29.38

NOTE:

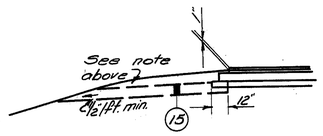
600 Aggregate drain shall be placed under the shoulder on the low side at intervals of twenty-five (25) feet.

NORMAL SECTION
TYPICAL SECTION "J"

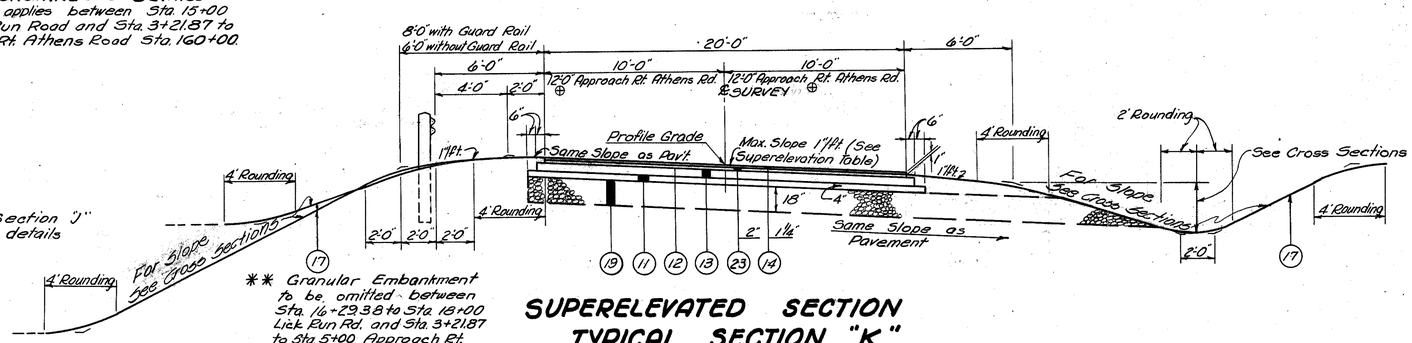
The above Typical Section applies between the following stations:

**Lick Run Road	Sta. 15+00	to	Sta. 16+29.38	=	129.38 L.F.
Lick Run Road	Sta. 20+76.69	to	Sta. 22+38.77	=	162.08 L.F.
Lick Run Road	Sta. 27+31.66	to	Sta. 28+48.13	=	116.47 L.F.
Lick Run Road	Sta. 31+00.75	to	Sta. 31+07.38	=	6.63 L.F.
⊕ Approach Rt. Athens Road Sta. 160+00	Sta. 1+74.30	to	Sta. 3+21.87	=	147.57 L.F.
				Total =	562.13 L.F.

LEGEND
See Sheet No. 3



PART SECTION SHOWING 608 DETAILS
This part section applies between Sta. 15+00 to Sta. 18+00 Lick Run Road and Sta. 3+21.87 to Sta. 5+00 Approach Rt. Athens Road Sta. 160+00.

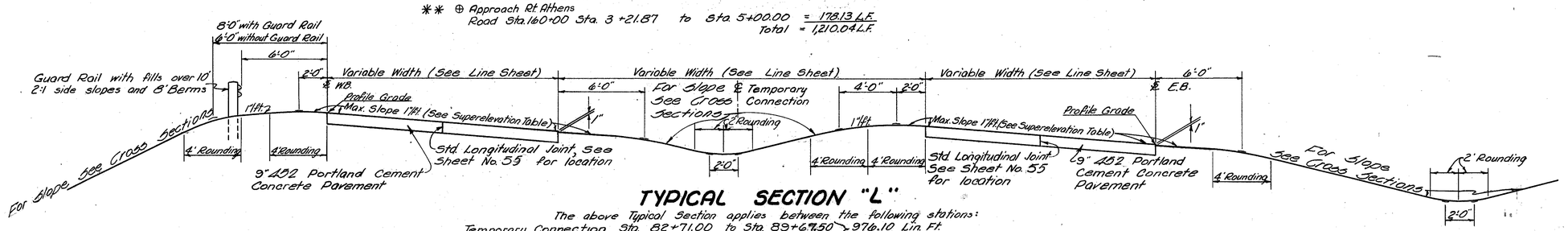


** Granular Embankment to be omitted between Sta. 16+29.38 to Sta. 18+00 Lick Run Rd. and Sta. 3+21.87 to Sta. 5+00 Approach Rt. Athens Rd. Sta. 160+00.

SUPERELEVATED SECTION
TYPICAL SECTION "K"

The above Typical Section applies between the following stations:

** Lick Run Road	Sta. 16+29.38	to	Sta. 20+76.69	=	447.31 L.F.
Lick Run Road	Sta. 22+38.77	to	Sta. 27+31.66	=	492.89 L.F.
Lick Run Road	Sta. 31+07.38	to	Sta. 31+99.09	=	91.71 L.F.
** ⊕ Approach Rt. Athens Road	Sta. 160+00 Sta. 3+21.87	to	Sta. 5+00.00	=	178.13 L.F.
				Total =	1,210.04 L.F.



TYPICAL SECTION "L"

The above Typical Section applies between the following stations:
Temporary Connection Sta. 82+71.00 to Sta. 89+67.50 } 976.10 Lin. Ft.
Note: Sta. 89+67.50 to Sta. 92+47.10 }
Some pavement and berms with a median.
The pavement slope is straight between the profile grades of Westbound and Eastbound.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

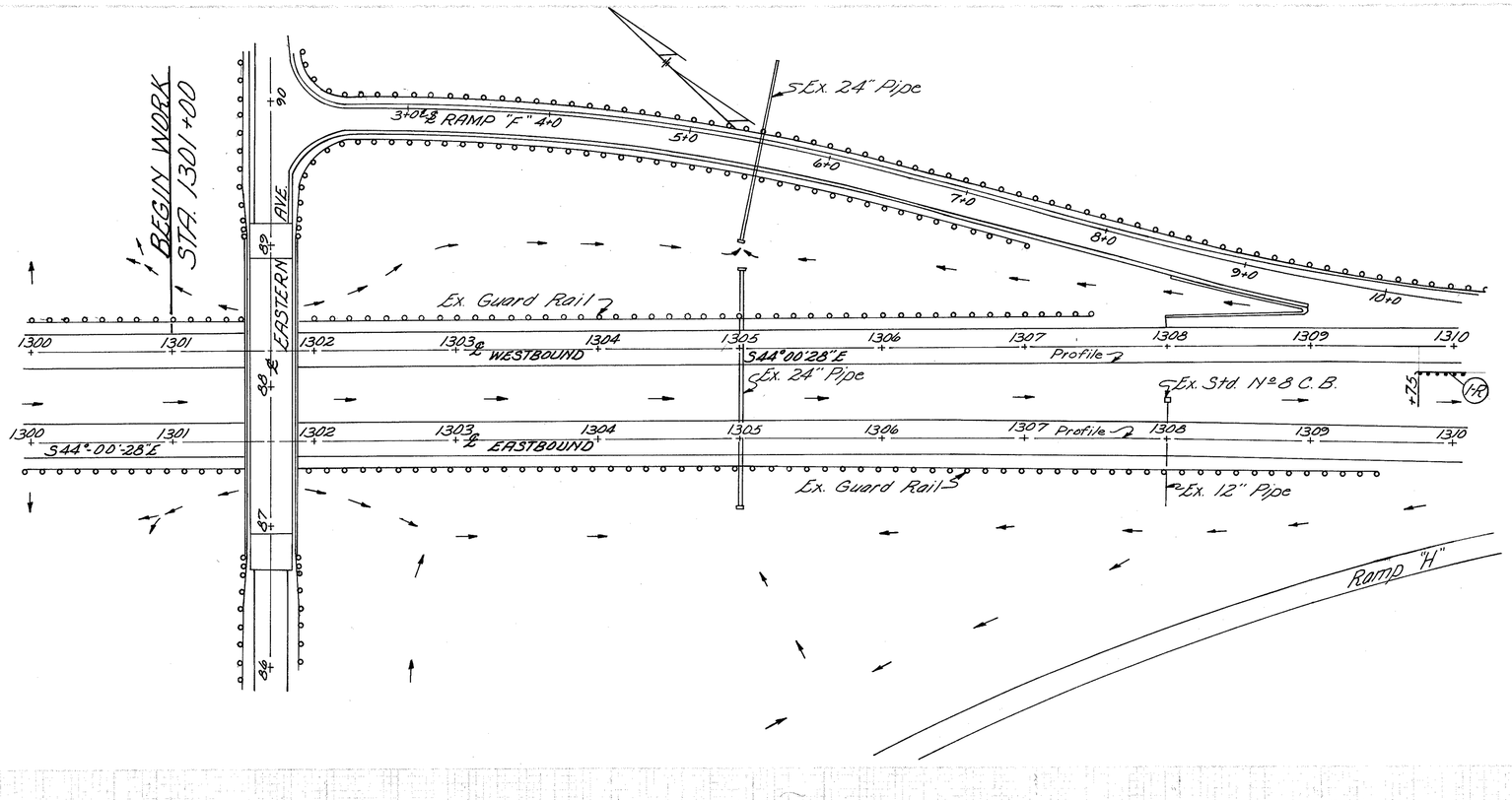
TYPICAL SECTIONS LICK RUN RD., APPROACH RT. ATHENS RD. STA. 160+00 & TEMPORARY CONNECTION

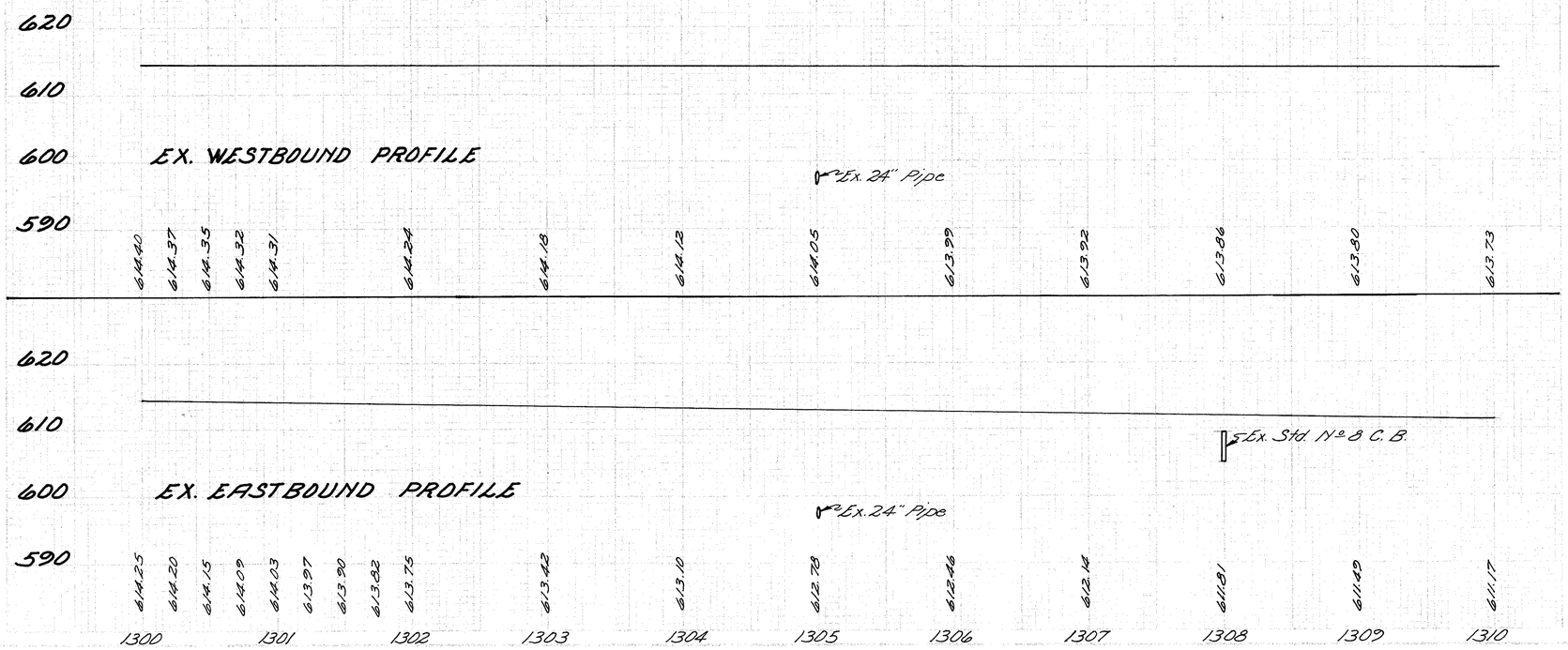
SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	L.L.F.	W.E.B.			

ROSS COUNTY
ROS-35-25.05

28-A
225





606 Guard Anchor Assembly 13'-5" Lt. Eff. Each 1
2.5

1-R 1309+75 to 1310+00 (W.B.) Rt

2.5 1

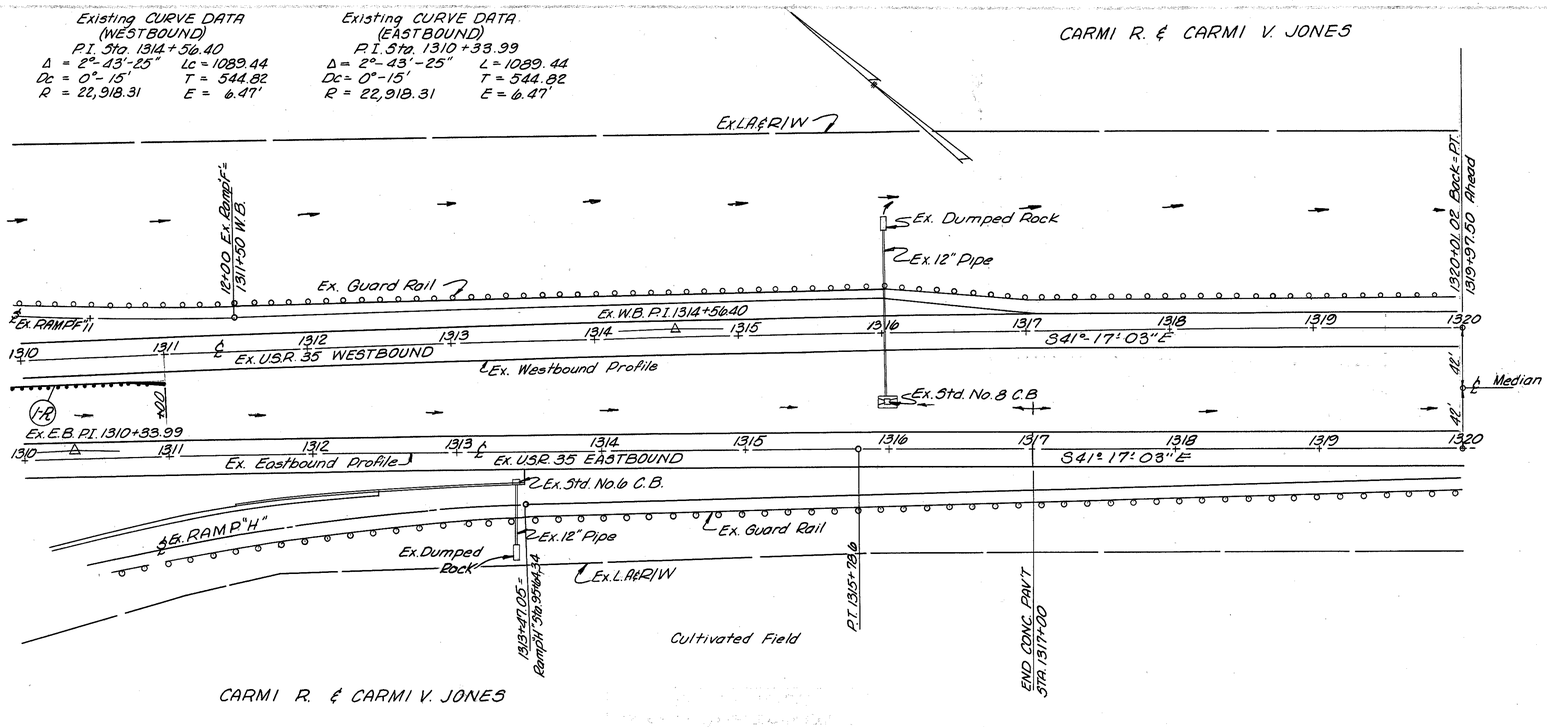
STA. 1300+00 TO STA. 1310+00

RES. ENG. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

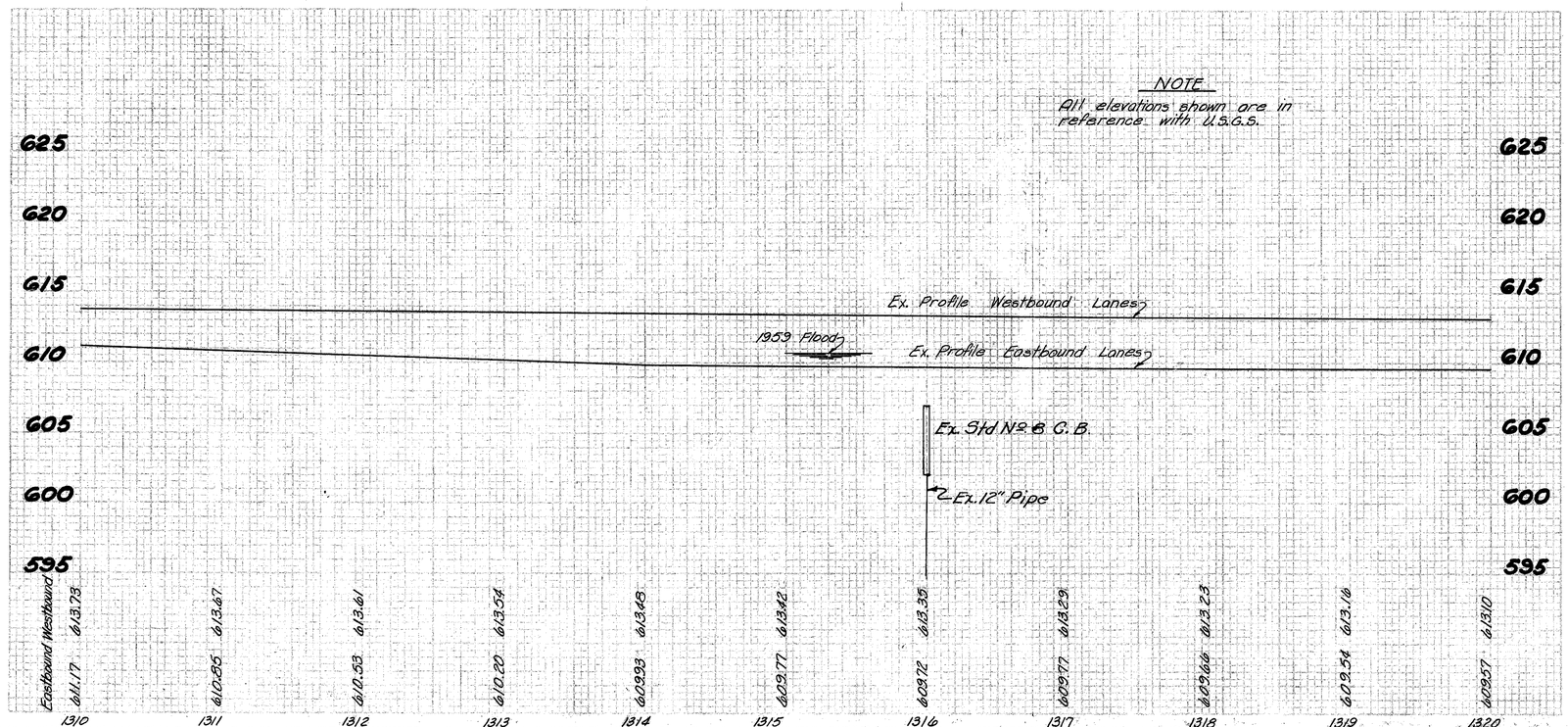
29
225

Existing CURVE DATA
(WESTBOUND)
P.I. Sta. 1314+56.40
Δ = 2°-43'-25" Lc = 1089.44
Dc = 0°-15' T = 544.82
R = 22,918.31 E = 6.47'

Existing CURVE DATA
(EASTBOUND)
P.I. Sta. 1310+33.99
Δ = 2°-43'-25" L = 1089.44
Dc = 0°-15' T = 544.82
R = 22,918.31 E = 6.47'



NOTE
All elevations shown are in reference with U.S.G.S.



ROADWAY ~ QUANTITIES

Reference No.	Station to Station	Side	606 Guard Rail Type 5	606 Approach End Assembly
			Lin. Ft.	Each
1-R	1310+00 to 1311+20 (W.B.)	Rt.	100	1
			TOTAL	1

ROSS COUNTY
ROS-35-25.05

CARMI R. & CARMI V. JONES

Cultivated Fields

Typical Section of adjoining pavement is the same as Typical Section "A"

Brush & Trees

Ex. L.A. & R/W

BEGIN PROJECT STA. 1323+00

Construction Limits

End Conc. Pav't (KB) Placed on ROS35-28.82

Ex. 12" Pipe

Begin Pav't Construction on Westbound Lanes

SLM 25.13

Prop. Rock Channel Protection 6'x 20'x 1.5'

Ex. Guard Rail (to remain in place)

Ex. Conc. Pav't

Existing Concrete Pavement

Profile Westbound Lanes

Westbound Profile

1320 1321 1322 1323 1324 1325 1326 1327 MEDIAN PROPOSED U.S.R. 35 1329.54 1'17'03"E 1330

Construction Limits

Ex. Std. No. 8 C.B.

Ex. Traffic Dividers

6' Sod

Survey ℄

℄ Ex. Pavement

Eastbound Profile

Profile Eastbound Lanes

8" Maple B.M.

Ex. Guard Rail (to remain in place)

Construction Limits

Ex. L.A. & R/W

GR 100

12" to 13"

1" 402 Asphalt Concrete Leveling Course

1" 402 Asphalt Concrete Surface Course

2"

F-674 (11) F-674 (12)

S.L.M. 25.05

Cultivated Field

PAVEMENT REPLACEMENT WHERE EXISTING TRAFFIC DIVIDERS ARE REMOVED - Sta. 1321+20 to Sta. 1326+00

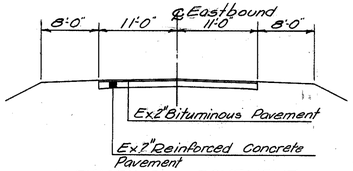
Cost of 404 and 402 shall be included in cost of Removal of Traffic Dividers.

CARMI R. & CARMI V. JONES

Federal Project Equation Sta. 1323+00 [F-674 (12) & F-674 (11)] = Sta 105+22.23 [FAP-454-F(1)]

BENCH MARK
Spike in 8" Maple
64' Rt. & Sta. 1323+65 & Median
Elev. 609.47

NOTE: Existing Guard Rail is Flexible Steel Plate Tension Type with Posts 16'-0" Center to Center (Except Lt. 1320+00 to 1323+00 which is Steel beam type deep)



EXISTING PAVEMENT TYPICAL SECTION

Westbound Profile

612.91 612.90 612.90 612.90 612.92 612.94 612.97 613.02 613.06 613.12 613.19 613.27 613.35 613.44 613.55 613.66 613.78 614.28 614.78 615.28

BEGIN PROJECT V.P.C. STA. 1323+00

400' V.C.

V.P.T. Sta. 1327+00

620 615 610 605 600 595 590

Profile of proposed Westbound Lanes +0.5%

V.P.I. Station 1325+00 El. 612.78

-0.063%

1959 Flood

Profile of proposed Eastbound Lanes 1'4 above Ex. Pav't

Profile Existing Pavement

Profile Existing Pavement

℄ Grate 605.53
℄ C.B. 602.00
Ex. Std. No. 8 C.B.
9.40' Rt. 1322+00

Excavation 3,197 Cu. Yd.
Embankment 32,168 Cu. Yd.
Seeding & Mulching 13.846 Sq. Yd.

Prop. Std. No. 8 C.B. 8.5' Rt. Sta. 1327+00
℄ Grate 606.03
℄ C.B. 600.52

Eastbound Westbound

613.10 613.04 612.97 612.91 609.20 609.28 609.27 609.82 609.84 610.55 611.49

609.57 609.53 609.53 609.43

1320 1321 1322 1323 1324 1325 1326 1327 1328 1329 1330

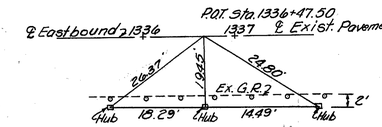
STA. 1320+00 TO STA. 1330+00 & MEDIAN

ROADWAY - QUANTITIES - DRAINAGE

Item	Description	Unit	See Sheet No.	Reference or Structure No.	Station to Station	Side	Total
601	Rock Channel Protection	Sq. Yds. Cu. Yds.	1	1-R	1321+20 to 1326+00	Rt.	100 9
601	Sodding	Sq. Yds.	40	2-R	1320+95 to 1327+29	Lt./Rt.	100 9
602	Catch Basin Standard No. 8	Each		3-R	176 ℄ Used		1
602	Concrete Masonry	Cu. Yds.		4-R	Def. ℄ Used		0.23
603	12" Conduit Type B & Bedding	Lin. Ft.		5-R	1323+00 to 1330+00	Lt.	700 117 0.23
202	Existing Pavement Removed and Disposed of	Sq. Yds.		6-R	1329+00 to 1330+00	Rt.	700
202	Removal & Disposal of Ex. Traffic Dividers & Replace Pav't (as per Plan)	Each	54				54 975
606	Guard Rail Type 5	Lin. Ft.					1400

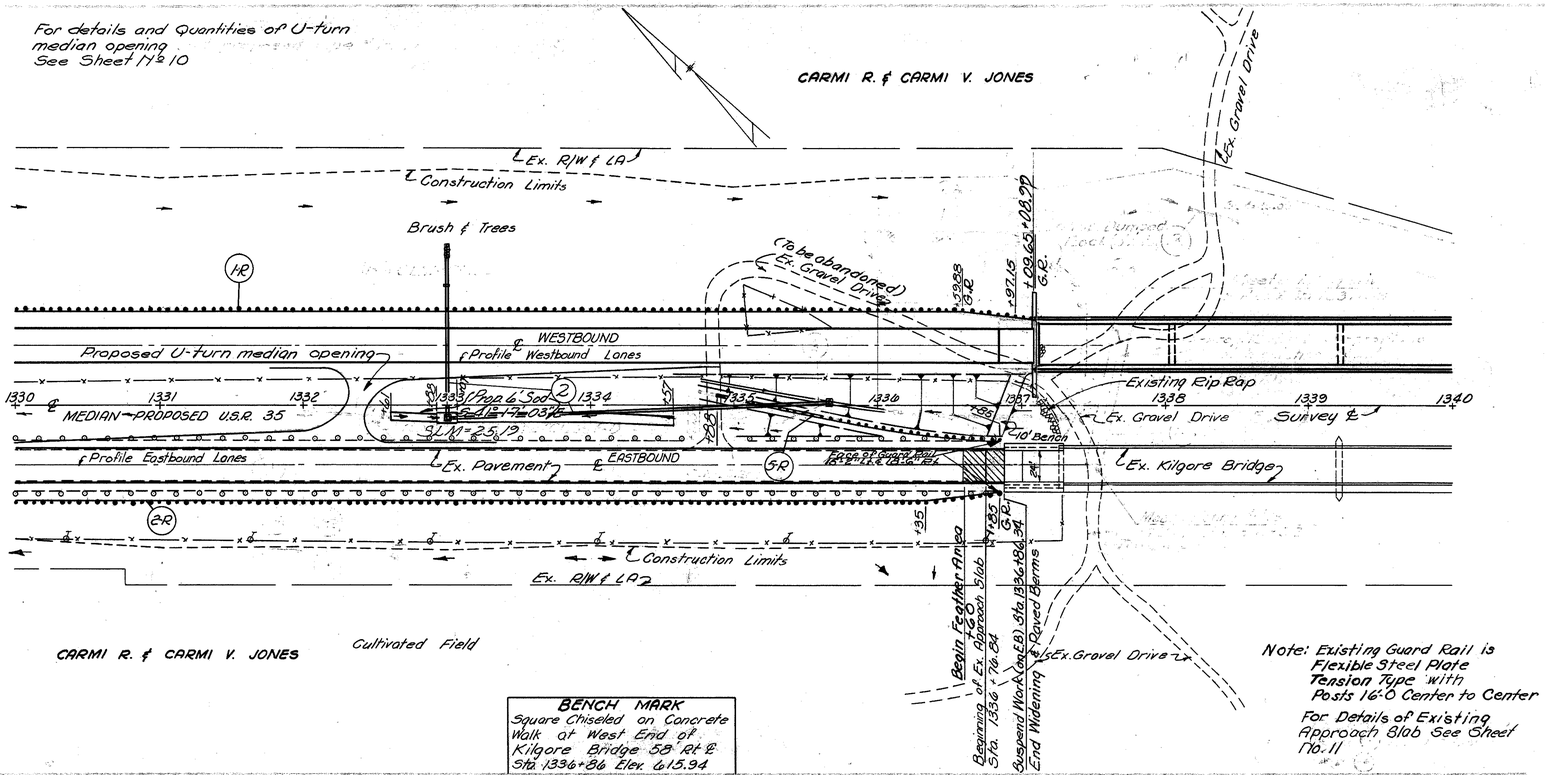
* Carried to Structure Box, Sheet No. 22

ROSS COUNTY
ROS-35-25.05



REFERENCE POINT

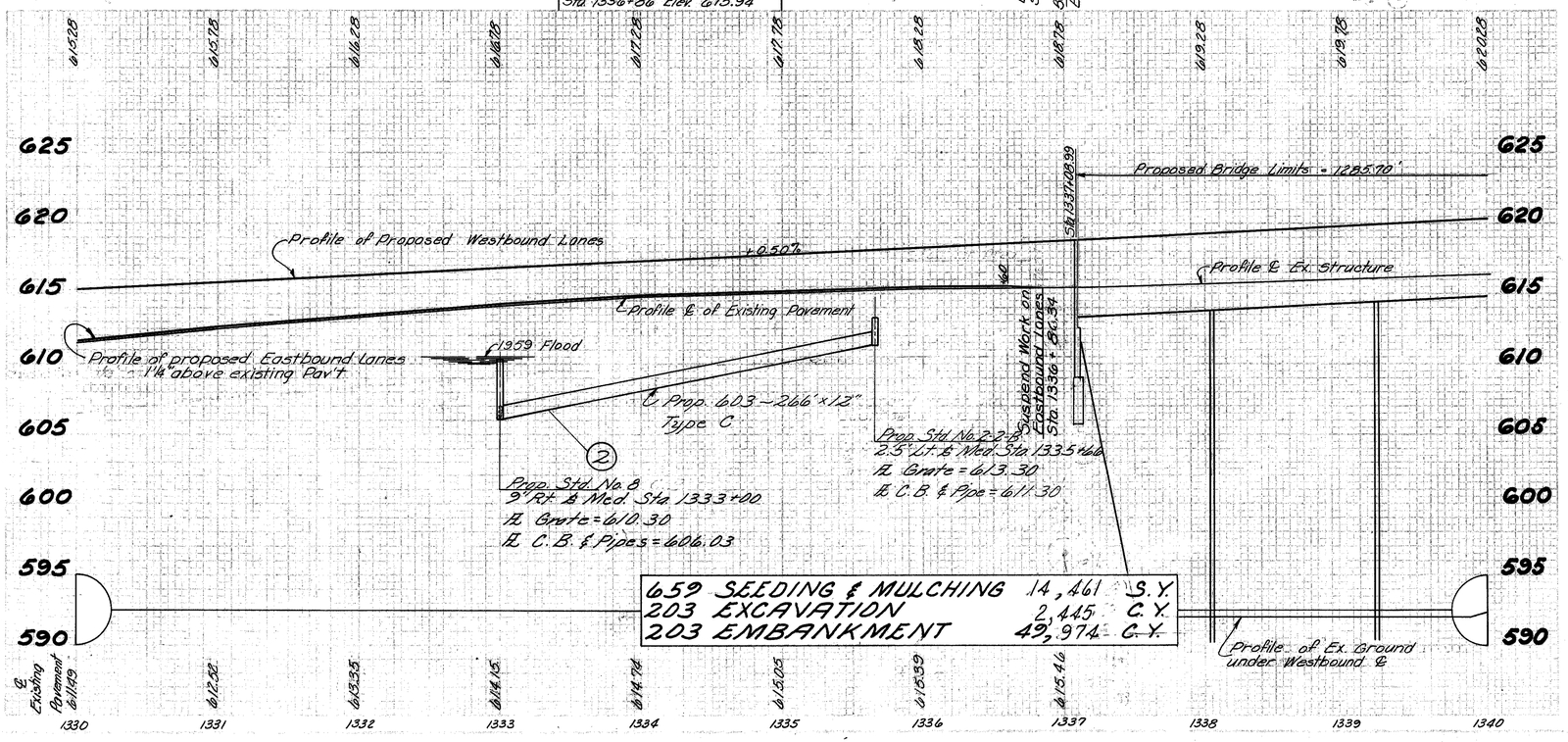
For details and Quantities of U-turn median opening See Sheet No. 10



BENCH MARK
Square Chiseled on Concrete Walk at West End of Kilgore Bridge 58' Rt. ℄ Sta. 1336+86 Elev. 615.94

Note: Existing Guard Rail is Flexible Steel Plate Tension Type with Posts 16'-0 Center to Center

For Details of Existing Approach Slab See Sheet No. 11



659 SEEDING & MULCHING	14,461	S.Y.
203 EXCAVATION	2,445	C.Y.
203 EMBANKMENT	42,974	C.Y.

ROADWAY - QUANTITIES - DRAINAGE

Item		Unit	Total	See Sheet Number	Reference or Structure No.	Station to Station		
606	Bridge Terminal Assembly, as per plan	Each	1	8	1-R	1330+00 to 1337+09.65	Lt.	
					2-R	1330+00 to 1336+85	Rt.	
606	Bridge Terminal Assembly	Each	1	7	3-R	Not Listing		
					4-R	Not Listing		
606	Approach End Assembly	Each	1	4	5-R	1334+88 to 1336+85	Lt. & Rt.	
606	Guard Rail Type 5	Lin. Ft.	1525		2	1333+00 - 1335+66	Lt. & Rt.	
							Lt.	712.5
							Rt.	687.5
606	Guard Rail Type 5 Barrier Design	Lin. Ft.	75					
	Side							
	Total							

* Carried to Sht. No. 21

STA. 1330 TO STA. 1340

DIV. NO.	STATE	PROJECT	
2	OHIO	F-674 (12)	—

32
225

ROSS COUNTY
ROS-35-25.05

Scioto River Channel Excavation
See Sheet No. 121 & 122

Wooded Area

CARMI R. & CARMI V. JONES

Wooded Area

Ex. R/W & LA?

Wooded Area

RIVER

L.A. & R.W.

Wooded Area

* Prop. 18" Sadd.

Ex. R/W & LA?

Wooded Area

Wooded Area

Wooded Area

CARMI R. & CARMI V. JONES

SCIOTO

Wooded Area

L.A. & R.W.

1340 1341 1342 1343 1344 1345 1346 1347 1348 1349 1350

℄ MEDIAN PROPOSED U.S.R. 35

100+00 BK = Sta. 1343+60

541°17'03" E

SURVEY ℄

Ex. Kilgore Bridge

90°

+102 +101 +98

BENCH MARK
Top of Steel Piling North Edge of East Abutment of Ex. Kilgore Bridge 20' Lt. Sta. 1349+75 (E.B.) Elev. 597.93

EXISTING BRIDGE DATA (Nº 208-35-2532)
TYPE: Continuous Steel Truss Bridge with Concrete Floor and Substructure
SPANS: 2 Units @ 195'-234'-195' ℄ Bearings 1250' ℄ End Pins
ROADWAY: 24' Plus 1 - 4'6" Sidewalk on Right
LOADING: H-15-33
SKEW: None
WEARING SURFACE: 3½" Monolithic Concrete
APPROACH SLAB: 25' Long
CONDITION: Good
DISPOSITION: To Remain in Place

PROPOSED BRIDGE DATA
BRIDGE NO. ROS-35-2532 L
TYPE: Welded Hinged Girder with Concrete Deck and Substructure.
SPANS: 93.6'-3@117'-126'-140'-126'-3@117'-93.6'
ROADWAY: 33'-0" ℄ of 6" Curbs
SKEW: 0°-00'
LOAD FREQUENCY: CF-2000 (57)
WEARING SURFACE: 1" Monolithic Concrete
APPROACH SLABS: AS-1-67 (25' Long)
RAILING: Aluminum Rail and Supports with Concrete Parapet
ALIGNMENT: Tangent

* Note: Quantity Carried on Sheet No. 33.

Westbound
620.28 620.47 620.53 620.64 620.75 620.85 620.93 621.01 621.07 621.13 621.17 621.21 621.24 621.25 621.26 621.25 621.24 621.21 621.18 621.14 621.08 621.02 620.94 620.86 620.76 620.66 620.55 620.47 620.30 619.80 619.30 618.80

625 620 615 610 605 600 595 590

626' V.C.

Proposed Bridge Limits = 1285.70

+0.5% -0.5%

V.P.I. Sta. 1343+51.84
Elev. 622.04

V.P.C. 1340+38.84

V.P.T. 1348+64.84

+0.30%

Profile ℄ Ex. Bridge (E.B.)

Sta. 1349+64.69

Profile of Existing Ground Under Westbound ℄

1342+30

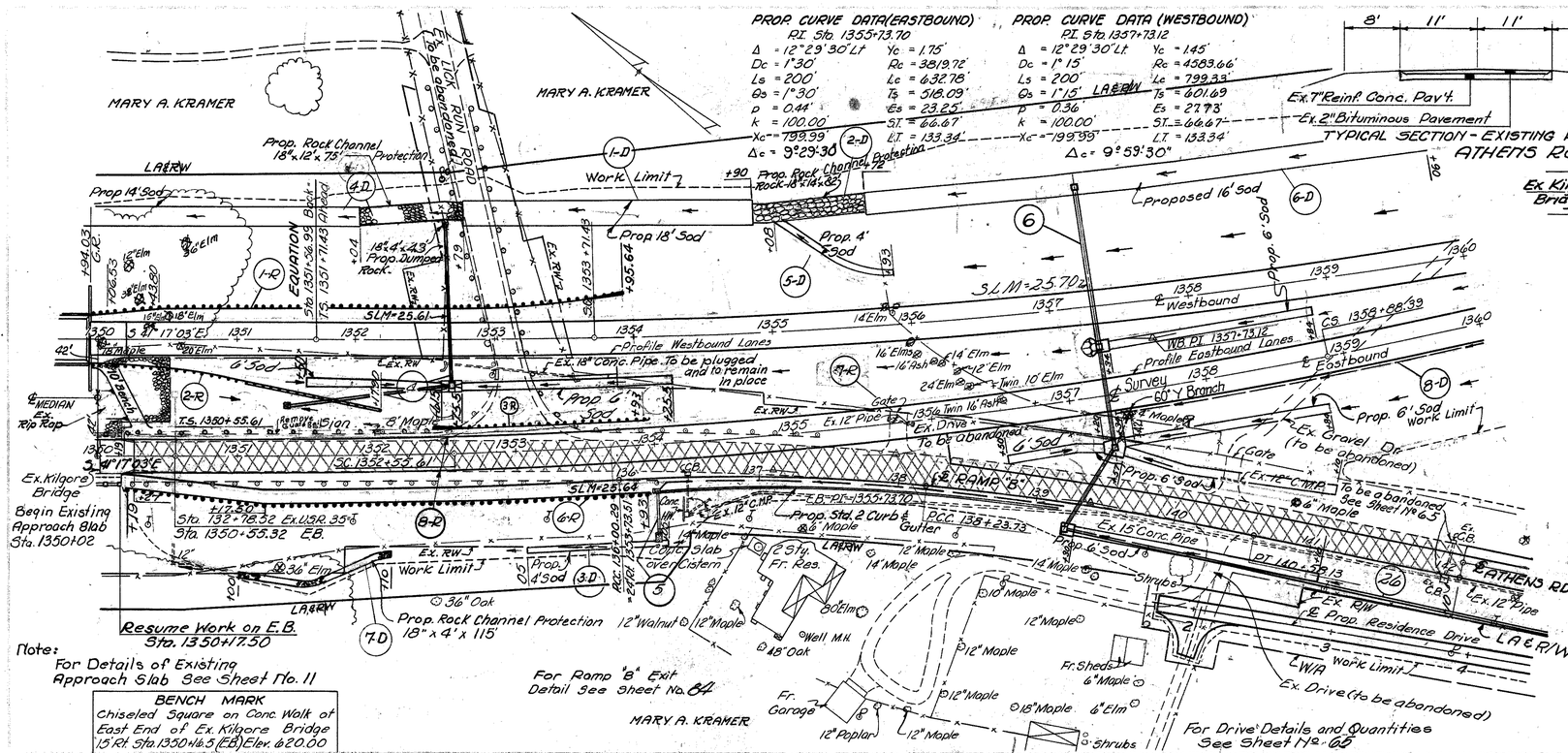
1348+79

Excavation	0 Cu. Yd.
Embankment	0 Cu. Yd.
Seeding & Mulching	0 Sq. Yd.

Excavation	257 Cu. Yd.
Embankment	1,506 Cu. Yd.
Seeding & Mulching	452 Sq. Yd.

1340 1341 1342 1343 1344 1345 1346 1347 1348 1349 1350

STA. 1340+00 TO STA. 1350+00 MEDIAN



F674(12)

ROSS COUNTY
ROS-35-25.05

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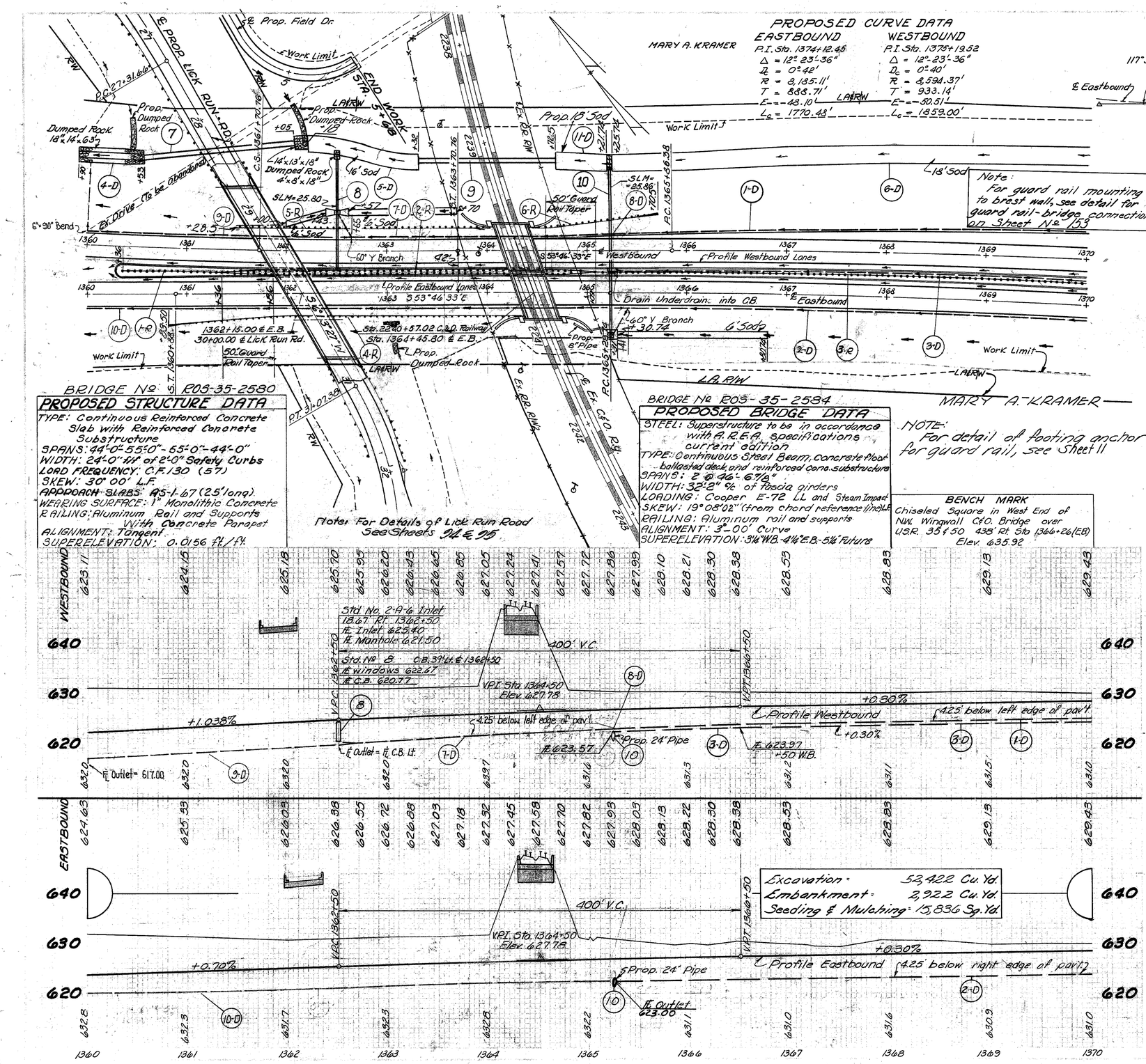
225

| ROADWAY ~ QUANTITIES ~ DRAINAGE | | |

F-674(12)

ROSS COUNTY
ROS-35-25.05



PROPOSED CURVE DATA

EASTBOUND	WESTBOUND
P.I. Sta. 1374+12.45	P.I. Sta. 1375+19.52
Δ = 12° 23' 36"	Δ = 12° 23' 36"
℄ = 0° 42'	D_c = 0° 40'
R = 8,185.11'	R = 8,594.37'
T = 888.71'	T = 933.14'
E = 48.10'	E = 50.51'
L_c = 1770.48'	L_c = 1859.00'

PROPOSED STRUCTURE DATA

BRIDGE No. ROS-35-2580

TYPE: Continuous Reinforced Concrete Slab with Reinforced Concrete Substructure
SPANS: 44'-0" - 55'-0" - 55'-0" - 44'-0"
WIDTH: 24'-0" fit of 2'-0" Safety Curbs
LOAD FREQUENCY: C.F. 130 (57)
SKEW: 30° 00' L.F.
APPROACH SLABS: AS-1-67 (25' long)
WEARING SURFACE: 1" Monolithic Concrete
RAILING: Aluminum Rail and Supports With Concrete Parapet
ALIGNMENT: Tangent
SUPERELEVATION: 0.0156 Ft./Ft.

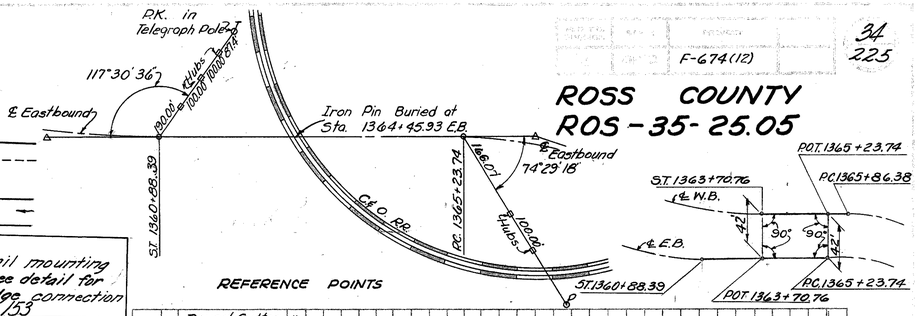
PROPOSED BRIDGE DATA

BRIDGE No. ROS-35-2584

STEEL: Superstructure to be in accordance with A.R.E.A. specifications current edition
TYPE: Continuous Steel Beam, Concrete floor ballasted deck and reinforced conc. substructure
SPANS: 2 @ 96'-6 7/8"
WIDTH: 32'-2" c/c of Fascia girders
LOADING: Cooper E-72 LL and Steam Impact
SKEW: 19° 08' 02" (from chord reference line) L.F.
RAILING: Aluminum rail and supports
ALIGNMENT: 3°-00' Curve
SUPERELEVATION: 3¼" W.B.-4¼" E.B.-5¼" Future

BENCH MARK

Chiseled Square in West End of NW. Wingwall C&O. Bridge over U.S.R. 35 & 50 438' Rt. Sta. 1366+26 (E.B.)
Elev. 635.92



ROADWAY ~ DRAINAGE ~ QUANTITIES

Item	Description	Unit	Quantity
601	Paved Gutter Type-I modified as per plan	Lin. Ft.	20
601	Rock Channel Protection	Cu. Yds.	81
604	Standard No. 8 C.B.	Each	1
604	Inlet Std. No. 2-A Length = 6'	Each	1
660	Sodding	Sq. Yds.	1306
622	Pipe Special for Underdrain: 6"x90° Bend; 6"x60° Y Branch	Each	1
622	Concrete Masonry	Cu. Yds.	0.23
623	12" Conduit Type B B. Bedding	Lin. Ft.	110
603	6" Conduit Type F	Lin.	10
605	6" Shallow Pipe Underdrain	Lin. Ft.	2544.50
606	Anchor Assembly	Each	1
606	Approach End Assembly	Each	1
606	Guard Rail Type 5	Lin. Ft.	750
606	Guard Rail Type 5 Barrier Design	Lin. Ft.	100

Item	Side	Station to Station	Unit	Quantity	See Sheet Number	Reference or Structure No.
660	Lt.	1360+36 E.B. to 1361+36 E.B.	Lf.	492.5		
660	Lt.	1361+09 E.B. to 1365+09 E.B.	Lf.			
660	Rt.	1360+83.5 E.B. to 1364+33.5 E.B.	Rf.	350	1	1-R
660	Lt.	1361+28.5 W.B. to 1364+03.5 W.B.	Lf.	275	1	2-R
660	Lt.	1364+45.5 W.B. to 1365+70.5 W.B.	Lf.	125	1	3-R
660	Rt.	1360+00 to 1362+46	Rf.			
660	Lt.	1360+00 to 1365+20	Lf.			
660	Rt.	1362+72.5 to 1364+52.72	Lf.			
660	Lt.	1365+29 to 1370+00 (W.B.)	Lf.			
660	Rt.	1365+28 to 1370+00 (E.B.)	Rf.			
660	Lt.	1365+30 to 1370+55 (W.B.)	Lf.			
660	Lt.	1359+90 to 1360+55 (W.B.)	Lf.			
660	Lt.	1362+05 to 1363+32 W.B.	Lf.			
660	Lt.	1362+25.72 to 1363.3 70+00	Lf.			
660	Lt.	1362+54 to 1365+19	Lf.			
660	Lt.	1365+19 to 1365+29	Lf.			
660	Rt.	1360+00 to 1362+46	Lf. & Rf.	306	10	5-D
660	Lt. & Rt.	1360+00 to 1365+20	Lf. & Rf.	520	10	6-D
660	Rt.	1362+72.5 to 1364+52.72	Lf.	471	10	7-D
660	Lt.	1365+29 to 1370+00 (W.B.)	Lf.	494	10	8-D
660	Rt.	1365+28 to 1370+00 (E.B.)	Rf.	470	10	9-D
660	Lt.	1362+25.72 to 1363.3 70+00	Lf.			10-D
660	Lt. & Rt.	1362+54 to 1365+19	Lf. & Rf.	283	10	11-D
660	Lt. & Rt.	1365+19 to 1365+29	Lf. & Rf.		10	12-D
660	Lt. & Rt.	1365+23.74 (E.B.) to 1365+86.38 (E.B.)	Lf. & Rf.	592.5/600	3	1
			Total		2544.50	

* Carried to Structure Box, Sheet No. 22

STA. 1360+00 TO STA. 1370+00

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

35
225

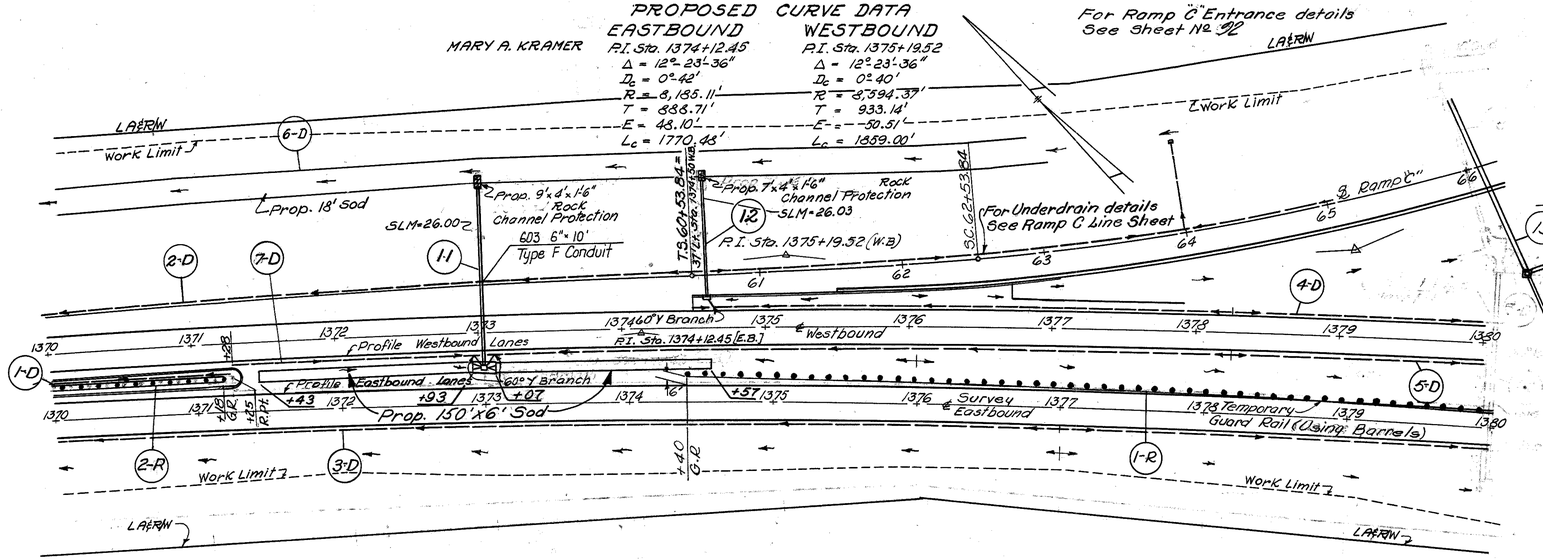
ROSS COUNTY
ROS-35-25.05

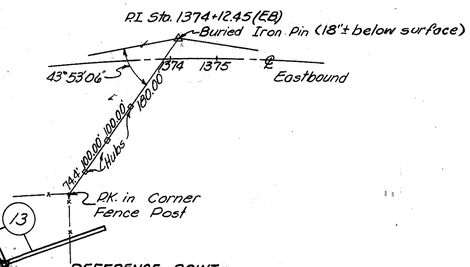
MARY A. KRAMER

PROPOSED CURVE DATA

	EASTBOUND	WESTBOUND
	P.I. Sta. 1374+12.45	P.I. Sta. 1375+19.52
	Δ = 12°-23'-36"	Δ = 12°-23'-36"
	D_c = 0°-42'	D_c = 0°-40'
	R = 8,185.11'	R = 8,594.37'
	T = 886.71'	T = 933.14'
	E = 48.10'	E = 50.51'
	L_c = 1770.48'	L_c = 1859.00'

For Ramp C Entrance details
See Sheet No. 92

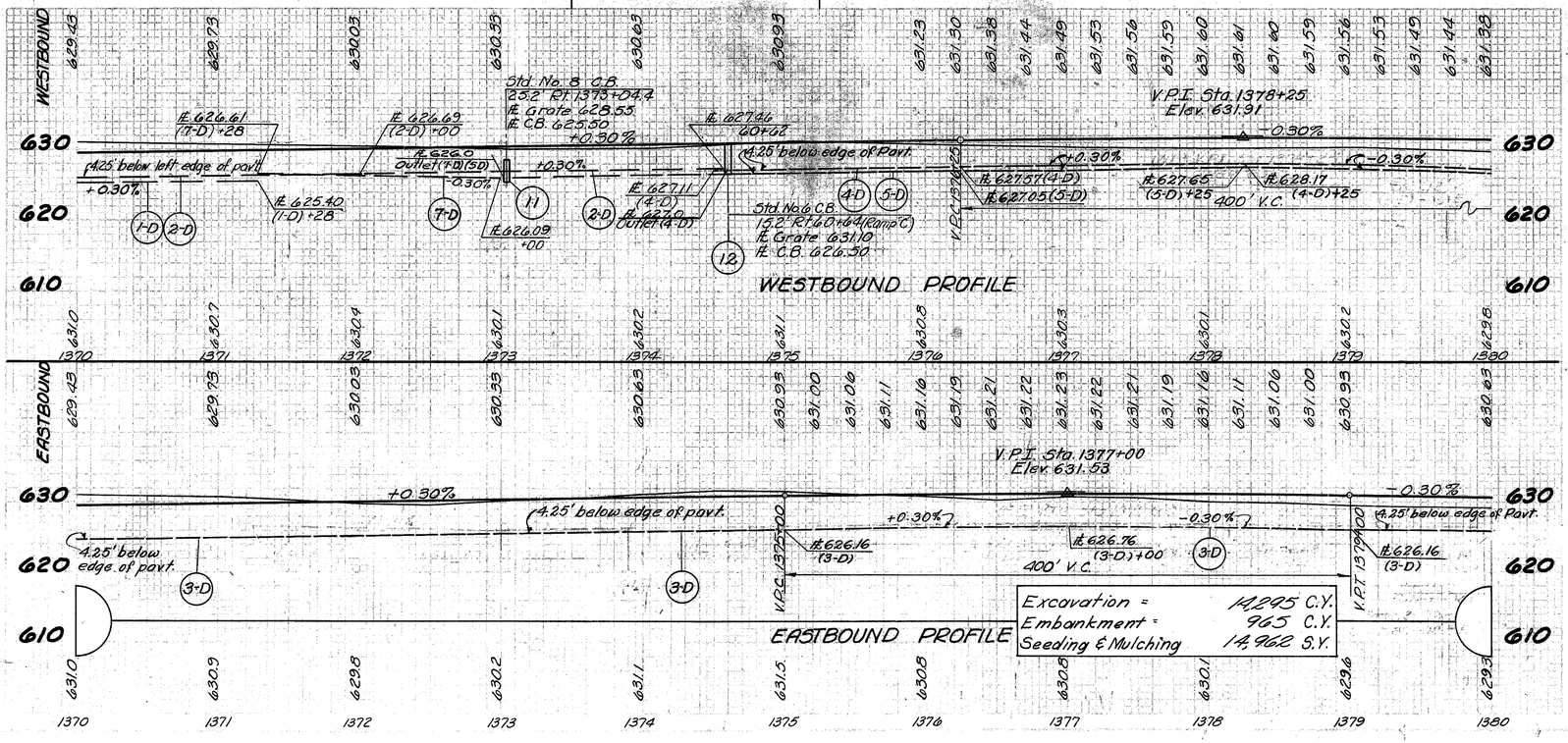




REFERENCE POINT

MARY A. KRAMER

BENCH MARK
RR Spike in Power Pole
394' Rt. @ Sta. 1380+35 (EB)
Elev. 630.93



Excavation =	14,295 C.Y.
Embankment =	965 C.Y.
Seeding & Mulching	14,962 S.Y.

~ DRAINAGE ~ ROADWAY ~ QUANTITIES

| Item | Station to Station | Side | See Sheet Number | Reference or Structure No. | | |

BRIDGE Nº ROS-35-2619

PROPOSED STRUCTURE DATA

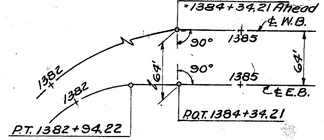
TYPE: Continuous Steel Beam with Concrete Deck and Substructure
SPAN: 51'-73'-73'-51'
ROADWAY: 28' f/f 2'-0" Safety Curbs
LOAD FREQUENCY: C.F 400 (57)
SKEW: 37°-30' R.F.
WEARING SURFACE: 1" Monolithic Concrete
APPROACH SLABS: AS-1-67 (25' long) Special
RAILING: Aluminum Rail and Supports and Concrete Parapet
ALIGNMENT: Tangent

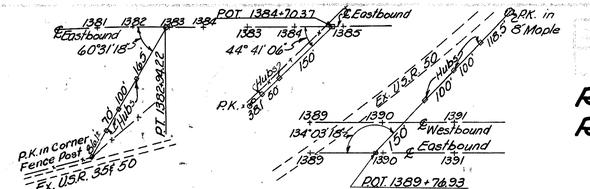
PROPOSED ATHENS ROAD
See Sheet Nº 67-68

PROPOSED CURVE DATA

EASTBOUND		WESTBOUND	
P.I. Sta.	1374+12.45	P.I. Sta.	1375+19.52
Δ	12° 23' 36"	Δ	12° 23' 36"
D_c	0° 42'	D_c	0° 40'
R	8,185.11'	R	8,594.37'
T	888.71'	T	933.14'
E	48.10'	E	50.51'
L_c	1770.48'	L_c	1859.00'

P.T. 1384+45.38 Back = 1384+34.21 Ahead
℄ W.B.





REFERENCE POINTS

F-674(12)

36
225

ROSS COUNTY
ROS-35-25.05

EQUATION
P.T. Sta. 1384+45.38 (W.B.) Back =
Sta. 1384+34.21 (E.B. & W.B.) Ahead

I.P. S. L. M. 26.25

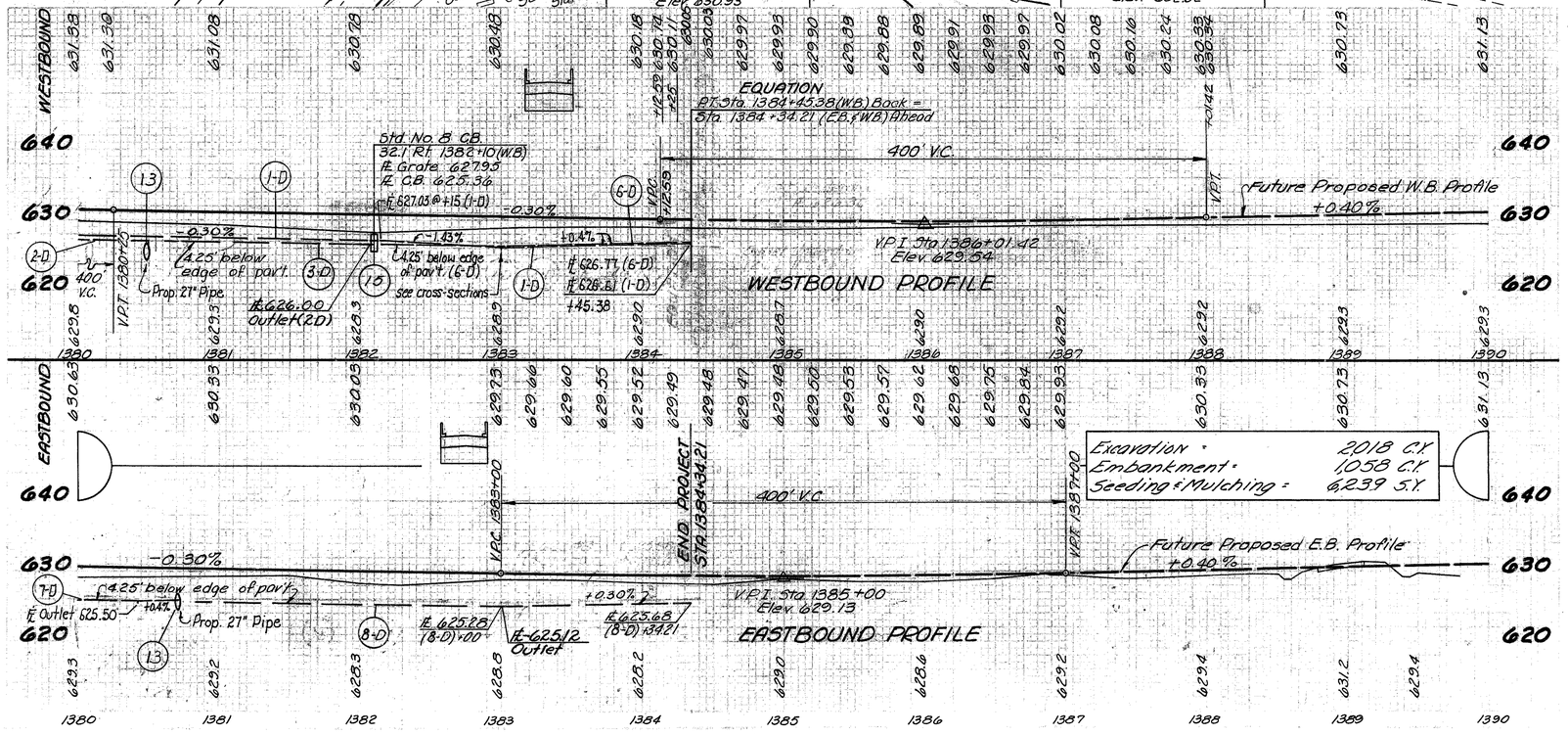
FUTURE PROPOSED U.S.R. 35 & 50

For Details of Temporary Approach U.S.R. 35 to U.S.R. 50 See Sheet No. 61

P.C.C. 80+70.00 ℄ N.B. = 12' Lt. 1381+00 (W.B.)
603 6"×10' Type F Cndt.
Profile Westbound Lane 2
Profile Eastbound Lane 2
Temporary Guard Rail (using barrels)
6" Cross
12' Rt. 1381+87.40 E.B. =
P.C.C. 82+10.07 ℄ E.B. =
6"×90°
6"×60° Y Branch
S.L.M. = 26.14
S.L.M. = 26.17
End Paved Berm
P.C. 81+71.38
P.T. 1382+94.22
6"×6" Tee
Prop. 6" Sod
Prop. 12' Sod
603 6"×10' Type F Conduit
Survey Eastbound
Work Limits
Ex. Field Drive (to be Abandoned)
Westbound S 41° 22' 57" E
S 48° 23' 59" E
For Locating Turn-around see Sheet No. 61
Temporary Connection
Temp. Conn. (W.B.)
Temp. Conn. (E.B.)
12" C.M.P. to be removed in place.
Prop. 4'-9" Ø
Ex. R/W
1389+21.92
Temp. Approach 35-50
Prop. 40' Temp. Road 69+55.5 Temp. No.
L.A. & R/W
Work Limits
Sta. 1382+72.43 (E.B.) Sta. 167+44.54 Athens
Sta. 165+88.28
Prop. 16' Sod
Conc. Slab for (Septic Tank F-674(12))
Shingle Pump House
Conc. Block Fruit Stand
Car Shelter
Conc. Slab
Metal Service Station
Ex. Traffic Island
Existing U.S.R. 50
Ex. Roadside Park
Ex. Gravel Drive to be Abandoned
Stop Signs
U.S.R. 50 Sign
For Temporary Connection See Sheet No. 55
L Ahead
END PROJECT Sta. 1384+34.21

BENCH MARK
R.R. Spike in Power Pole 394' Rt. Sta. 1380+35 (E.B.)
Elev. 630.93

BENCH MARK
Chiseled Square in Stop Sign Base in Traffic Island at 206' Rt. Sta. 1386+20 (E.B.)
Elev. 632.52



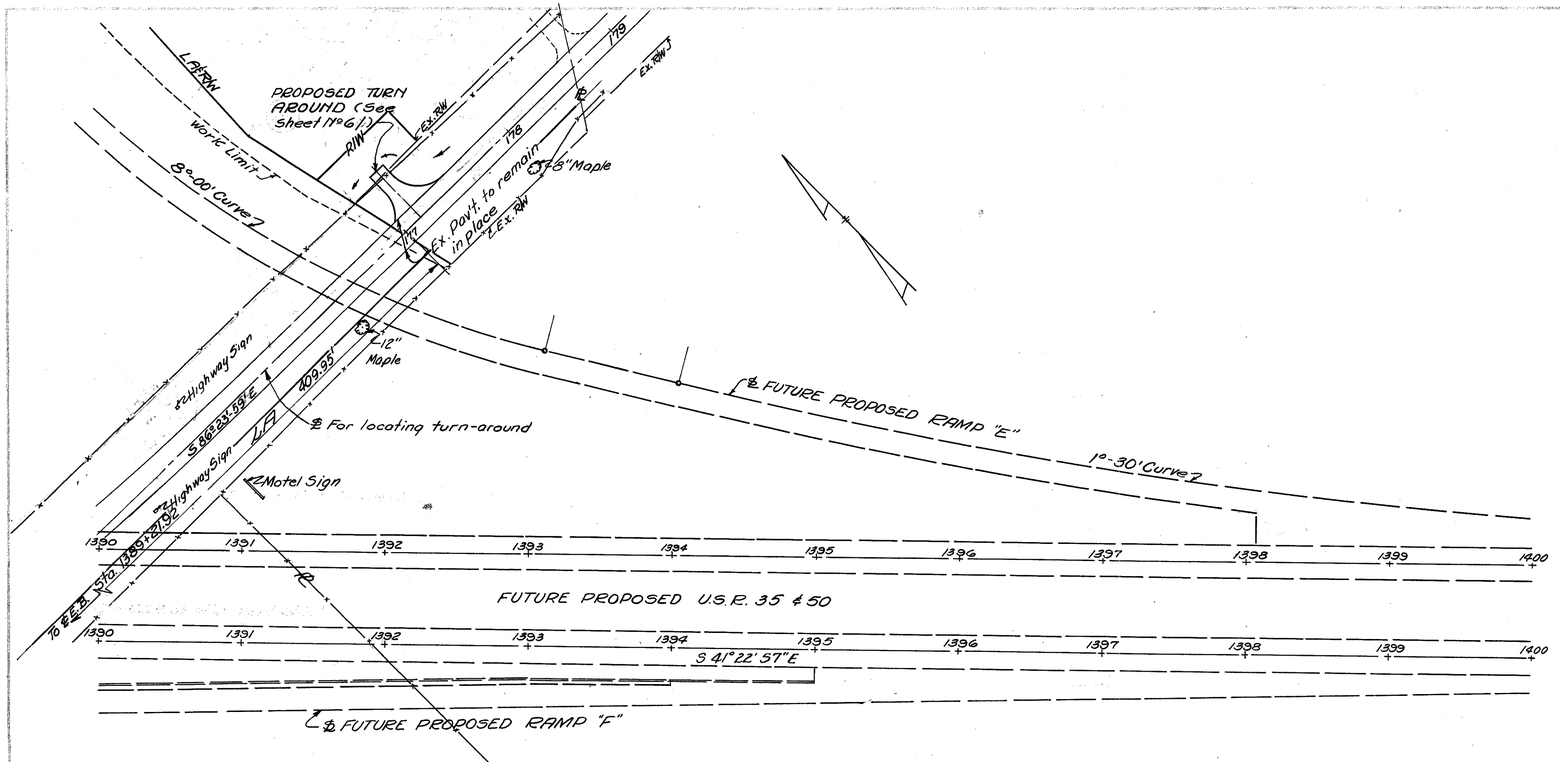
ROADWAY ~ QUANTITIES ~ DRAINAGE

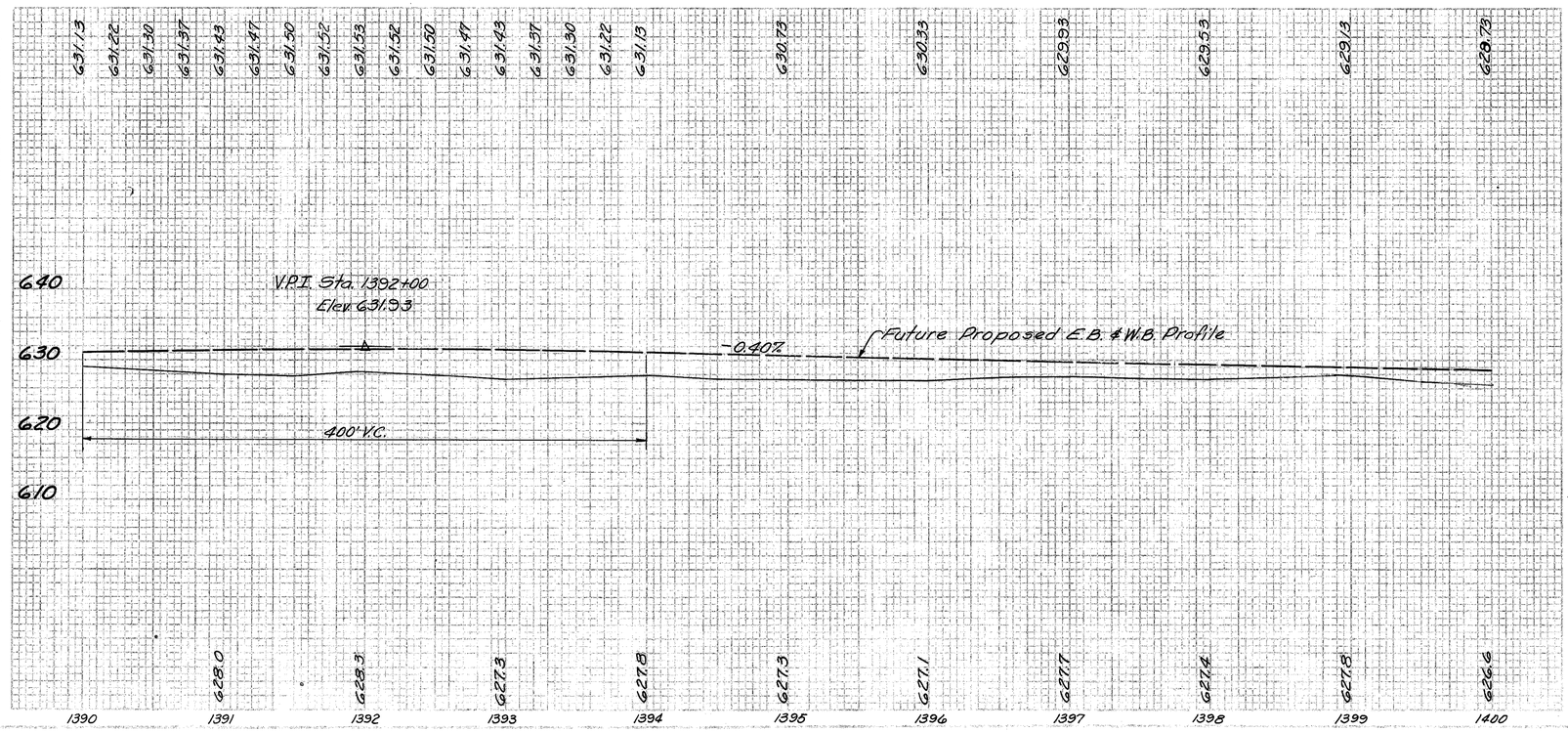
| Reference or Structure No. | See Sheet Number | Station to Station | Unit | 1380+00 to 1384+35 | | |

FED. ROAD DIVISION	STATE	PROJECT	
5	OHIO	F-674(12)	

37
225

ROSS COUNTY
ROS-35-25.05





ROADWAY ~ QUANTITIES ~ DRAINAGE

Side	Station to Station	See Sheet Number	Reference or Structure No.

STA. 1390+00 TO STA. 1400+00

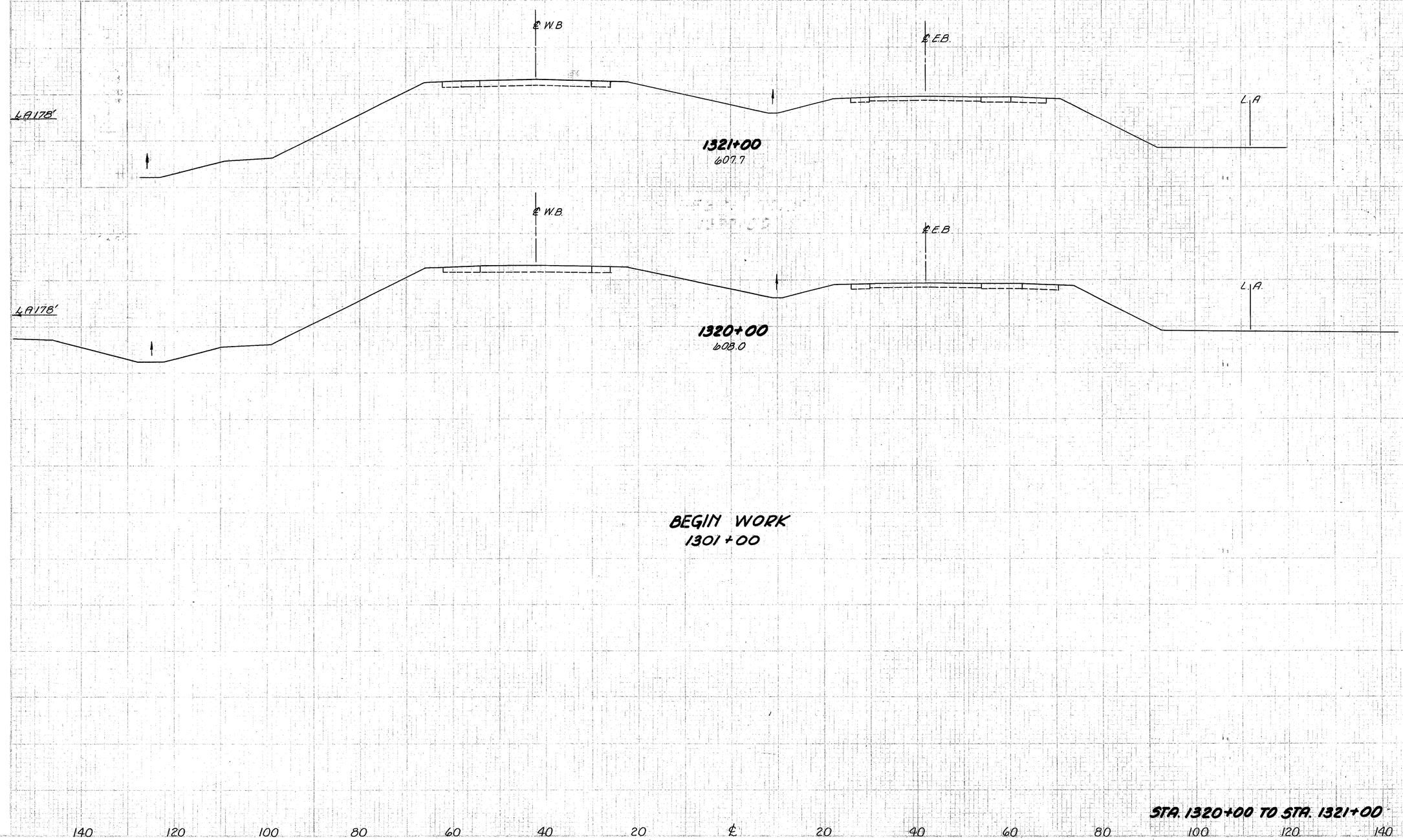
SHEETING	
END WIDTH	CU. YDS.
0	

TOT. NO. PROJECTS	STATE	PROJECT	
2	OHIO	F-674(12)	

38
225

ROSS COUNTY
ROS-35-25.05

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0		0	0



| SECTIONS | | |

PROJ. NO.	STATE	PROJECT	
0	OHIO	F-674(12)	

40
225

ROSS COUNTY
ROS-35-25.05

SECTIONS

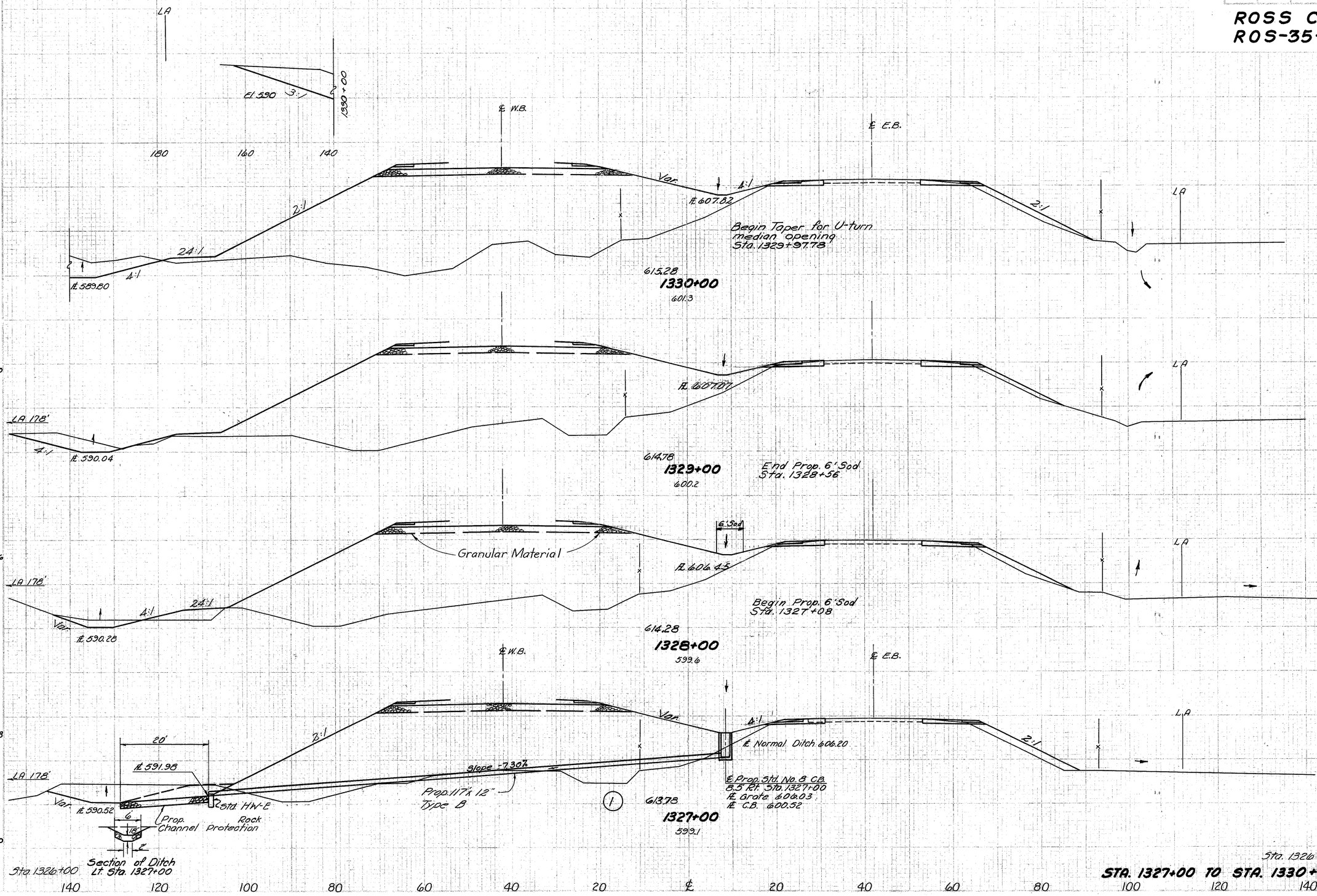
SEC. WIDTH	SEC. VERT.
216	
2,300	
198	
2,156	
190	
2,128	
193	
2,150	
194	

END AREA

CUT	FILL
151	1797
411	6587
71	1760
211	6457
43	1727
267	6137
101	1587
444	5615
139	1445

VOLUME

CUT	FILL



STA. 1327+00 TO STA. 1330+00

PROJECT NUMBER	PHASE	PROJECT	
2	0410	F-674(12)	

41
225

ROSS COUNTY
ROS-35-25.05

End Taper for U-Turn
Median Opening
Sta. 1334+75

End Prop. 6' Sod @
Sta 1334+57

℄ W.B.

℄ E.B.

6' Sod

Var.

4:1

℄ 611.00

Prop. 603-266' × 12" Type C

2:1

2:1

125' L.A.

L.A.

206

617.28

1334+00

602.3

70 1849

3:1

℄ 588.84

4:1

24:1

Begin Prop. 6' Sod @
Sta 1333+07

2,300

3726869

L.A.

Granular Material

℄ 610.60

(2) See Detail of Prop. Structure

End Prop. 6' Sod @
Sta 1332+93
See Sheet No. 106

125' L.A.

208

616.78

1333+00

603.7

131 1860

℄ 589.08

U-Turn Median Opening
Sta. 1332+36.39
See Sheet No. 10

Begin Prop. 6' Sod @
Sta 1332+61

Add for U-turn median opening

110
4746931

2,311

L.A.

℄ 610.00

125' L.A.

208

616.28

1332+00

602.7

125 1883

℄ 589.32

℄ W.B.

℄ E.B.

4376948

2,328

L.A.

Var.

4:1

℄ 609.00

2:1

2:1

125' L.A.

24:1

3:1

4:1

615.78

1331+00

601.8

111 1869

211

℄ 589.56

4856789

2,372

Sta. 1330+00

151 1797

216

Sta. 1330+00

STA. 1331+00 TO STA. 1334+00

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

SEEDING	
END WIDTH	SQ. YDS.

SEC. NO.	STATE	PROJECT	
2	OHIO	F-674(12)	

42
225

ROSS COUNTY
ROS-35-25.05

END AREA		VOLUME	
CUT	FILL	CUT	FILL

End Guard Rail
Sta. 1337+09.65

℄ W.B.

℄ E.B.

L.A.

2:1

24:1

Beginning of Ex. Approach Slab
Sta. 1336+76.84

125' L.A.

618.74
1336+91
605.7

End Guard Rail
Sta. 1336+86

End Guard Rail
Rt. Sta. 1336+85

50

2090

Begin Prop. Dumped Rock
Channel Protection (3' thick)
Lt. ℄ Sta. 1336+00

Face of Guard Rail

Var.

Granular Material

El. 614.1

545

105 6832

L.A.

Ahead

Back

58

195

El. 588.36

618.28
Prop. Catch Basin **1336+00**
2.5' Lt. ℄ Median Sta. 603.5
1335+66 El. Grate = 613.60
El. C.B. = 611.60
See Sheet No. 106

57 2000

℄ W.B.

Face of Guard Rail

℄ E.B.

2,228

4:1

El. 616.00

El. 613.0

Prop. 603 - 266' x 12" Type C

274 6509

L.A.

206

2,289

El. 588.60

617.78
1335+00
605.5

91 1515

298 6250

Begin Guard Rail
Sta. 1334+88

206

Sta. 1334+00

70 1849

Sta. 1334+00

STA. 1335+00 TO STA. 1336+91

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

SECOND	
RWD WIDTH	SQ. YDS.

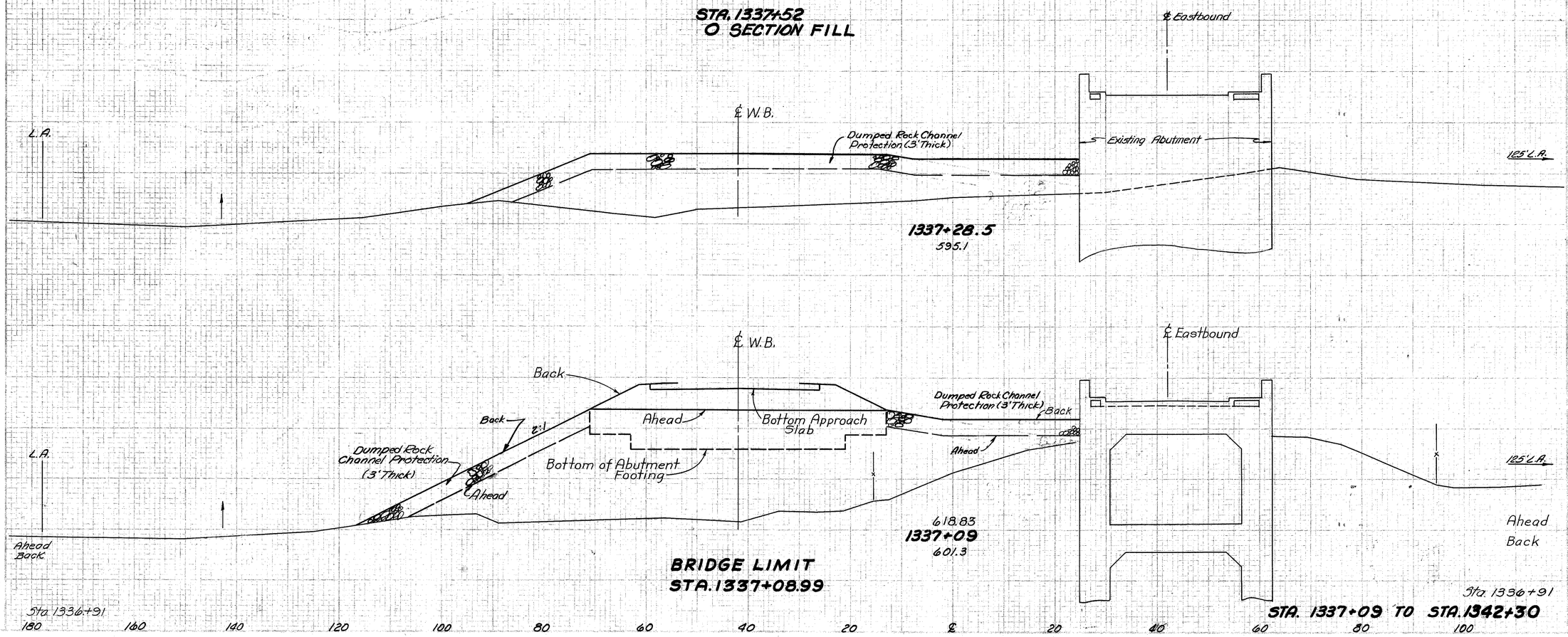
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

43
225

ROSS COUNTY
ROS-35-25.05

RWD AREA		VOLUME	
CUT	FILL	CUT	FILL

STA. 1337+52
0 SECTION FILL



	0 304
	0 699
	0 917
Ahead	0 1839
Back	0 2276
	0 1455
	0 2090

0
38
88
50

MEETING	
END STATION	SQ. FOOT

FED. ROAD PROJECT	STATE	PROJECT	
2	OHIO	F-674(12)	

44
225

ROSS COUNTY
ROS-35-25.05

END AREA		VOLUME	
CUT	FILL	CUT	FILL
89	1876		
		32	806
62	1910		
		30	692
		64	686
72	406		
		40	128
Sta 1349+58		54	0
		128	

Resume Work on E.B.
Sta. 1350+17.50

Begin Guard Rail
Sta 1350+19

℄ W.B.

Face of Guard Rail

Approach Slab

Bottom Approach Slab

Granular Material

Existing Riprap

Existing Sheet Steel Piling

1350+16.5
619.4

L.A. 110'

139

L.A. 200

14' Sod

℄ 591.66

176

Bottom Approach Slab

Existing Riprap

1350+05
619.4

L.A. 110'

L.A. 200

14' Sod

137

℄ 591.54

155

Ahead

Rock Channel Protection (3' Thick)

Rock Channel Protection (3' Thick)

Back

Bottom Approach Slab

Ahead

Back

2:1

Ahead

Bottom Abutment Footing

L.A. 200

14' Sod

1½" I Ft.

142
41

Ahead
Back

℄ 591.44

1340+95
619.4

AHEAD 102 1830
BACK 102 1411
L.A 110'

BRIDGE LIMIT
STA. 1349+94.69 (W.B.)

Begin Guard Rail
Sta 1349+94.03

Begin Guard Rail
Sta 1349+94.08

99

℄ W.B.

Rock Channel Protection (3' Thick)

L.A. 200'

14' Sod

48

Ahead
Back (in Ditch)

2:1

2:1

℄ 591.24

Begin 14' Sod Sta 1349+58

Add for Ditch 1348+79 to 1349+58

198

0.0 Section Ditch Sta. 1348+79 ℄ 590.0

1349+75
619.3

L.A. 110'

1348+79

STA 1349+58 BEGIN FILL

STA. 1349+75 TO STA. 1350+16.5

Add For Ditch STA 1348+79 to 1349+58

180 160 140 120 100 80 60 40 20 ℄ E.B. 20 40 60 80 100

CONT. NO.	STATE	PROJECT	
2	OHIO	F-674(12)	45 225

ROSS COUNTY
ROS-35-25.05

CUM STATIONS	CUM DIST.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
201	1233			170	867
198	1133			326	2396
210	2162			147	1460
201	733			191	3211
139				58	2008
				287	6563
				106	1735
				140	2596
				89	1876

Begin 18' Sod
End 12' Rock Channel Protection
Lt. W.B. Sta. 1352+79 W.B.

℄ W.B.

Begin Prop. 6' Sod
Sta. 1352+75.5 (W.B.)

Prop. Std. No. 8 C.B.
34' Rt. ℄ W.B.
Sta. 1352+68.50
℄ Grate = 614.75
℄ C.B. = 611.00
℄ Normal Ditch 614.75

L.A. 200
12'
18"
2:1
2:1
6:1
8:1
6:1
6:1
½"/1'
2:1
L.A.
½"/1'
2:1
2:1
℄ 606.0
℄ 607.7

Prop. 603 - 119' × 12" Type C

End Prop. 6' Sod
Sta. 1352+61.5 (W.B.)

End Guard Rail
Sta. 1352+17.90 (W.B.)

620.01
1352+55.61
620.9

Face of Guard Rail

End 4' Dumped Rock
Rt. E.B. Sta. 1352+10

℄ W.B.
6' Sod
6:1
6:1
℄ Granular Material
℄ 615.80
2:1
L.A.
℄ 607.4

619.85
1352+00
620.4

L.A. 200
12'
18"
2:1
2:1
℄ 594.5

Begin 12' Rock Channel Protection
Lt. W.B. Sta. 1352+08 W.B.
End 14' Sod

℄ W.B.
6' Sod
4:1
Face of Guard Rail
6:1
℄ 616.3
4:1
℄ 617.0

Begin Prop. 6' Sod
Sta. 1351+50

℄ Prop. 603 - 116' × 12" Type C

PROP. STD. No. 2-2-B
C.B. 36.5' LT (E.B.)
STA. 13.51+36
℄ GRATE 616.2
℄ C.B. 613.32
SEE SHEET No. 107 ④

619.70
1351+50
620.0

L.A.
½"/1'
2:1
2:1
℄ 598.0

L.A. 200
14' Sod
2:1
2:1
℄ 593.0

Face of Guard Rail
℄ W.B.
Var.
℄ 616.6 Var.

Begin 4' Dumped Rock
Rt. E.B. Sta. 1351+00

2:1
2:1

619.43
1350+55.32
619.6

L.A. 200'
14' Sod
2:1
2:1
℄ 592.05

L.A. 110'

Sta. 1350+16.5

℄ E.B.

STA. 1350+55.32 TO STA. 1352+55.61

Sta. 1350+16.5

180 160 140 120 100 80 60 40 20 20 40 60 80 100

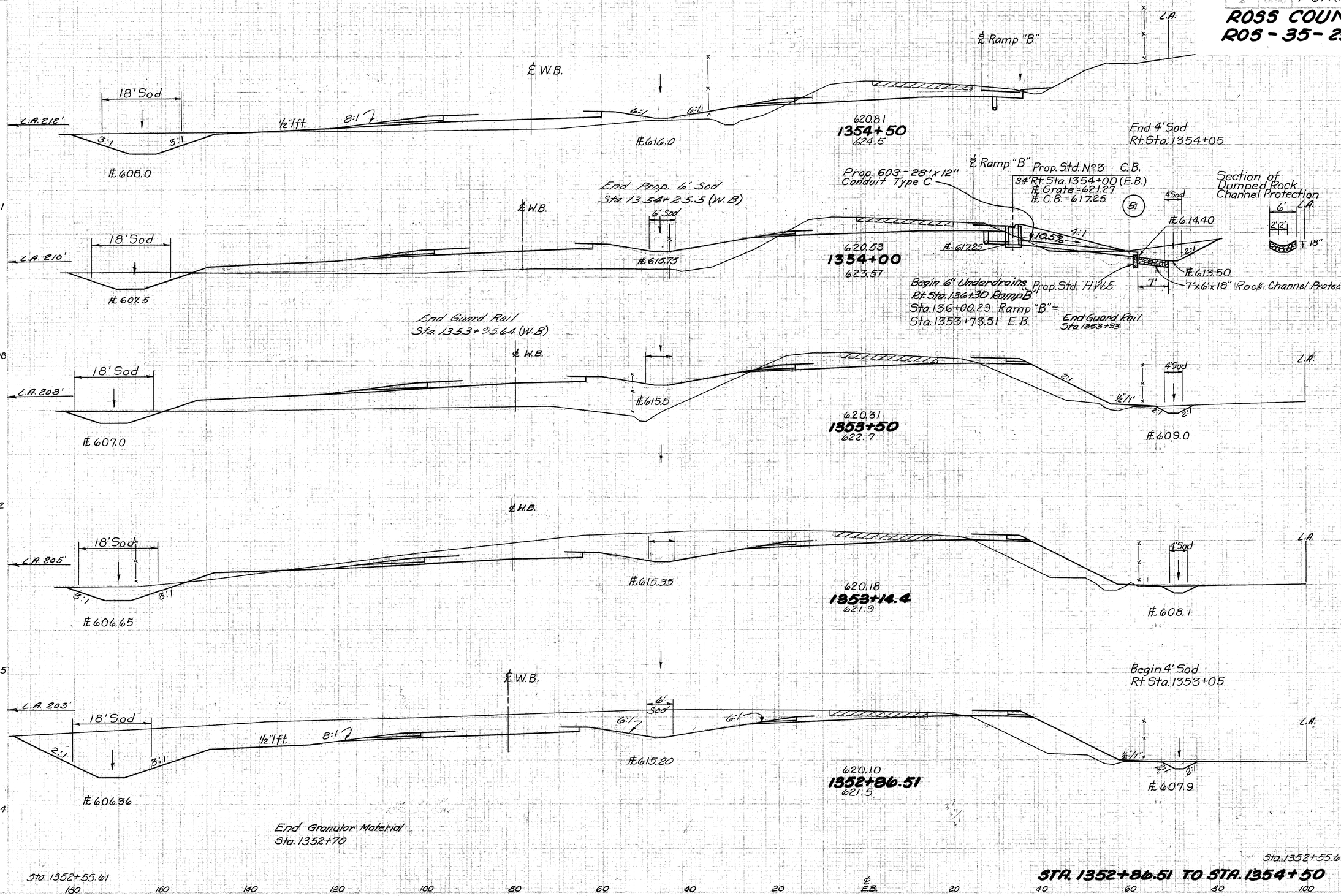
SECTION	
SIDE WIDTH	SIDE SLOPE

FED. OR DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

46
225

ROSS COUNTY
ROS-35-25.05

END AREA		VOLUME	
CUT	FILL	CUT	FILL



| DESIGN | | |

STA. 1362+15 (E.B.) = STA. 30+00 LICK RUN ROAD

FED. OR. DIVISION | STATE | PROJECT
F-674(12)

48
225

ROSS COUNTY
ROS-35-25.05

Quantity Limit Back
Full Section Ahead

L.A. 185'

2:1 | 3:1 | 1/2"/1 ft. | 2:1 | 6' Sod | 4:1 | 8:1

℄ W.B.

Prop. 54" Pipe
℄ 618.90

Begin 43'x6' Prop. Sod
@ Sta. 1362+00
℄ 623.50

626.03
1362+00
631.7

℄ 624.0

8:1 | Var.

L.A. 76'

227 Ahead
105 Back

AHEAD 1795 0
BACK 1045 0

Begin Prop. Guard Rail
Sta. 1361+28.5 (WB)
28.5

1272 L.A. 185'

2:1

℄ W.B.

Prop. 54" Pipe
℄ 618.50

℄ 621.68

625.33
1361+00
632.3

℄ 623.6

L.A. 76'

4380 0

124

Drainage from
Lick Run Road

54" Pipe Outlet ℄ 618.32
End Rock Channel Protection
Sta. 1360+53

Begin Guard Rail
Sta 1360+36

Begin Guard Rail
Sta. 1360+83.5 (E.B)

1320 0

3485 0

1879 L.A. 195'

2:1 | 14' D.R. | 2:1 | 3:1 | 1/2"/1 ft. | 6:1 | 8:1

℄

℄ 622.9

℄ 623.32

624.63
1360+00
632.8

L.A. 76'

Sta. 1360+50 2444 0

4526 4

214

℄ 616.0
Begin Rock Channel. Prot.
Sta. 1359+90
End 16' Sod

603 6"x 10" Type F Conduit
Outlet 84' Lt. Sta. 1360+00 (W.B.)
@ ℄ Elev. 617.00

605 6"x 60' Underdrain

Begin 6" Underdrain
Lt. Sta. 1360+00 (W.B.)

2444 4

2428 L.A. 204'

16' Sod | 5:1

℄

℄ 621.5

℄ 623.08

623.93
1359+00
632.6

L.A. 78'

Var.

9582 28

223

℄ 615.0

2730 11

2306 L.A. 210'

16' Sod | 2:1 | 3:1 | 1/2"/1 ft. | 6:1 | 8:1

℄ W.B.

6' Sod | End 6' Sod Sta. 1358+84 (E.B.)

6:1

℄ 620.5

End 6' Sod Sta. 1358+84 | 6' Sod | 8:1 | 6:1

℄ 622.8

623.23
1358+00
632.9

Begin 6" Underdrain
Rt. Sta. 1357+31 (E.B.)

Quantity Limit

L.A. 169'

10649 43

Notes:
For cross-section extensions,
See Ramp "B", Sheet 71

192

℄ 614.0

3020 12

1950

9890 44

159 Sta. 1357+00

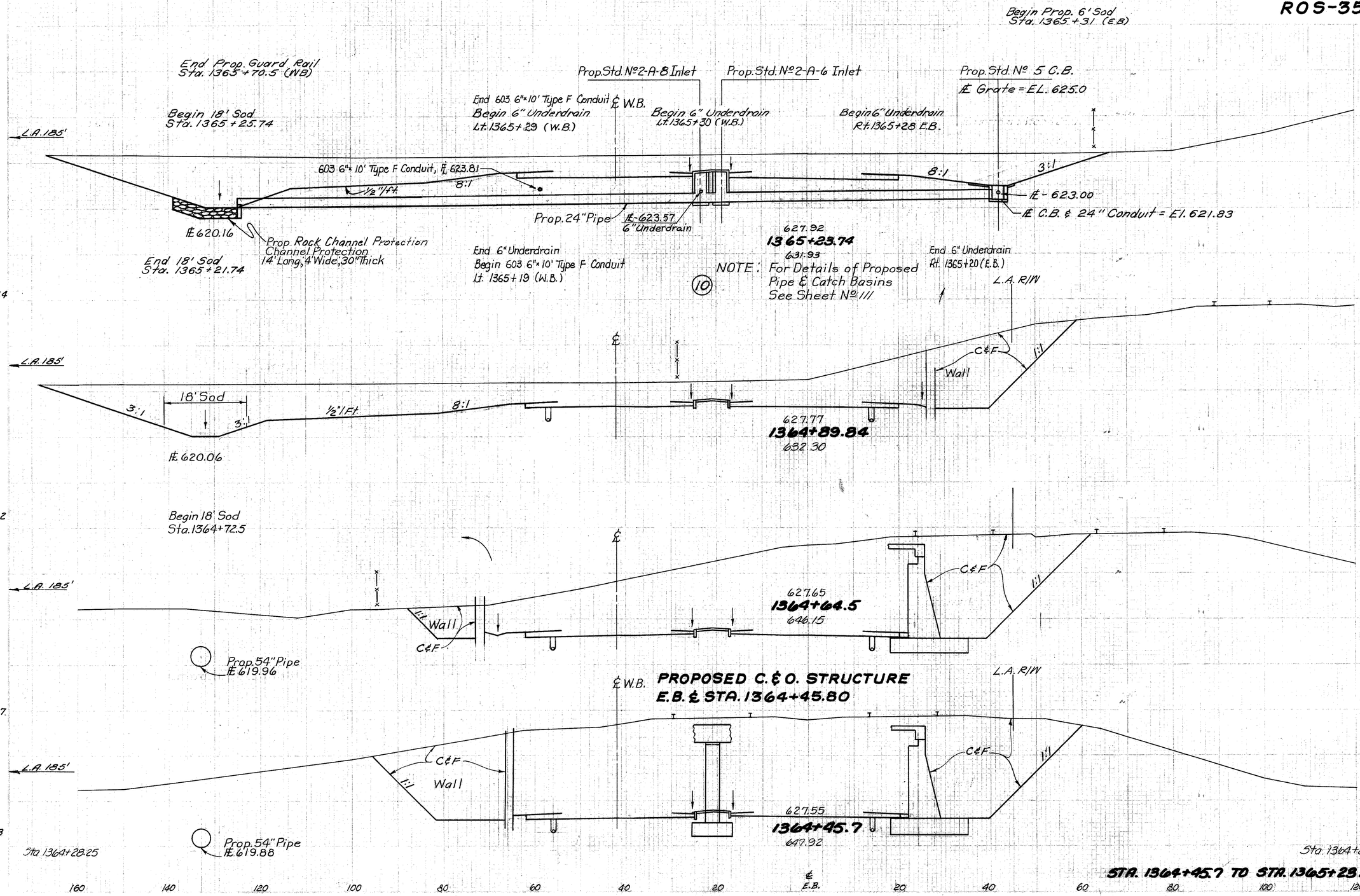
Sta. 1357+00 2320 12

180 160 140 120 100 80 60 40 20 ℄ E.B. 20 40 60 80 100

STA. 1358+00 TO STA. 1362+00

| SEQUENCE | | |

ROSS COUNTY
ROS-35-25.05

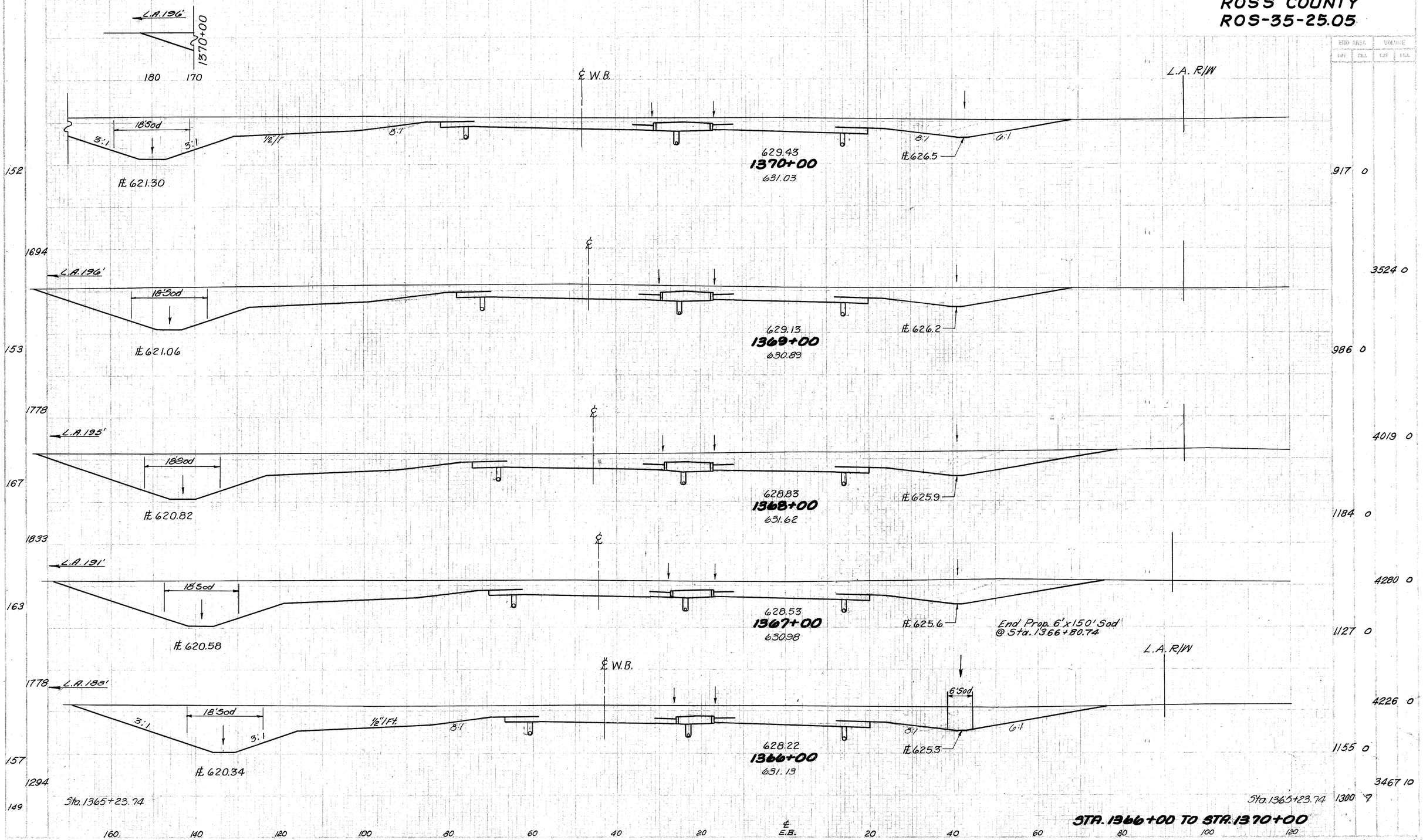


FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

51
225

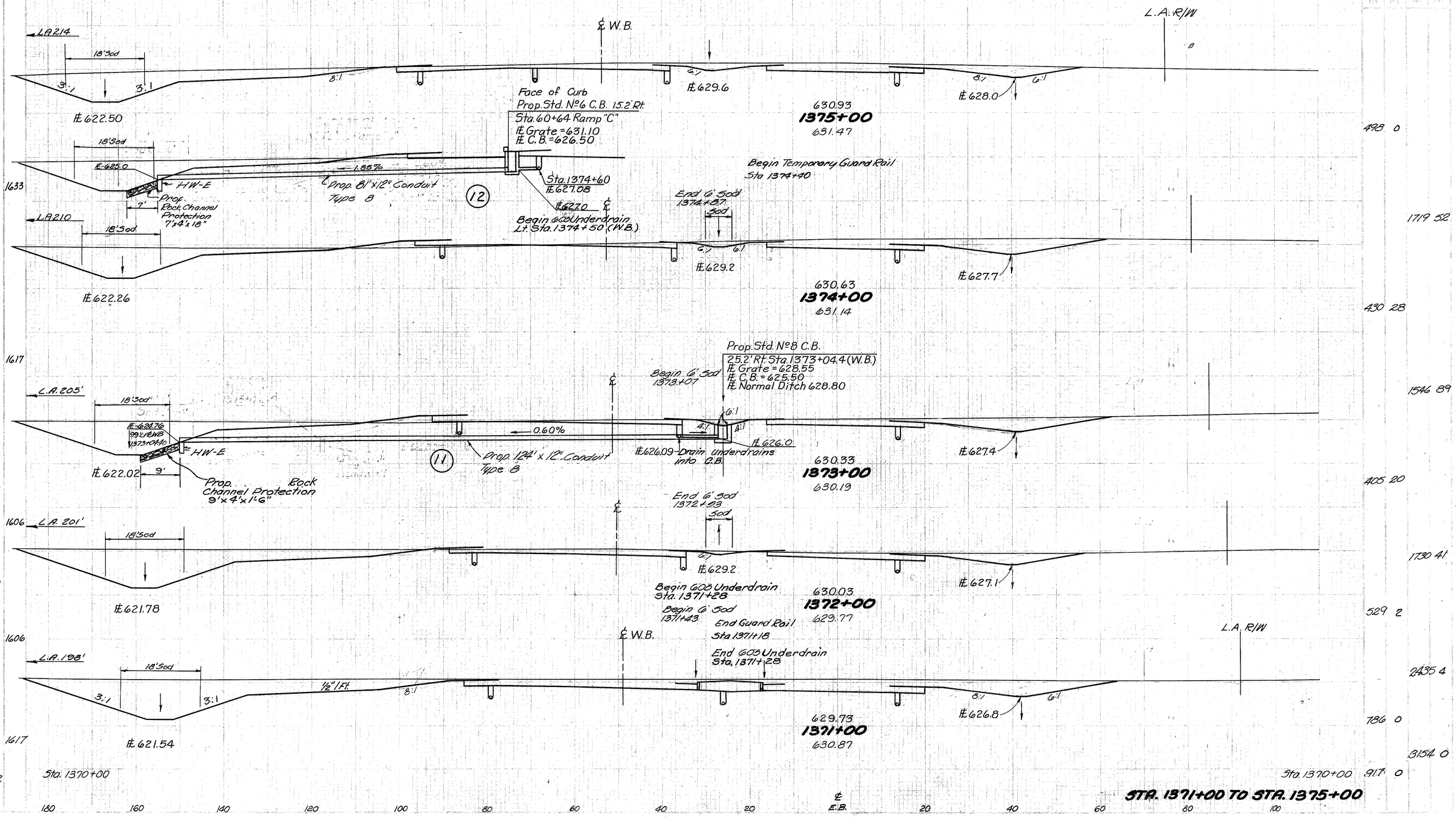
ROSS COUNTY
ROS-35-25.05

EXCAVATION		EMBANKMENT		END AREA		VOLUME	
ROCK	SOIL	ROCK	SOIL	CUT	FILL	CUT	FILL
				152		917	0
				1694		3524	0
				153		986	0
				1778		4019	0
				167		1184	0
				1833		4280	0
				163		1127	0
				1778		4226	0
				157		1155	0
				1294		3467	10
				149		1300	7



STA. 1366+00 TO STA. 1370+00

ROSS COUNTY
ROS-35-25.05



ROSS COUNTY
ROS-35-25.05

End 605' 6" Pipe Underdrain
Rt. of E.B. Sta. 1380+72
℄ 625.85

Outlet 55' Rt. E.B. Sta. 1380+43
℄ 625.50

End 605' 6" Pipe Underdrain
Rt. of W.B. Sta. 1380+50
℄ 626.98

Rt. of E.B. Sta. 1380+43
℄ 625.73

603' 6"x 90' Type B Conduit @ Class B Bedding

603' 6"x 10' Type F Conduit

PART-SECTION SHOWING UNDERDRAIN OUTLET DETAILS

Begin 6' Sod
L.A.E.B. Sta. 1380+42
℄ Normal Ditch 629.4

℄ W.B.

L.A. R/W

6:1 6:1 8:1 6:1

℄ 629.00

℄ 627.13

℄ 625.9

Quantity Limit

630.63
1380+00
629.25

128

100 71

NOTE: For Details of 27" Pipe
See Sheet Nº 112

1393

℄ Ramp "C"

℄

6:1 8:1 8:1 6:1

℄ 629.2

℄ 629.6

℄ 626.6

Quantity Limit

For Cross Section
Ext. See Sht. Nº 80

630.93
1379+00
629.58

112

315 202

70 38

1144

℄ Ramp "C"

℄

6:1 8:1

℄ 630.6

℄ 629.8

℄ 627.6

Quantity Limit

631.16
1378+00
630.12

293 198

94

Drainage From Ramp "C"

LA 225

18'Sod

3:1

1377+00

200 180

88 69

285 237

1017

℄ Ramp "C"

℄

18'Sod

6:1 8:1

8:1

℄ 631.0

℄ 630.0

℄ 628.6

Quantity Limit Ahead

Ahead 66 59
Back 310 67

631.23
1377+00
630.82

89
164

℄ 622.98

Ahead
Back

LA 219

1376+00

200 180

1756

℄ Ramp "C"

℄ W.B.

L.A. R/W

18'Sod

1/2" / Ft.

3:1 3:1 8:1

6:1 6:1 8:1 6:1

℄ 630.2

℄ 628.3

1235 133

152

℄ 622.74

631.16
1376+00
630.76

357 5

1583 9

1633

142

Sta. 1375+00

Sta. 1375+00

498 0

180 160 140 120 100 80 60 40 20 ℄ E.B. 20 40 60 80 100

STA. 1376+00 TO STA. 1380+00

SHEET NO.	STATE	PROJECT	
2	OHIO	F-674(12)	

54
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ROSS COUNTY
ROS-35-25.05

END AREA		VOLUME	
CUT	FILL	CUT	FILL

℄ W.B.

LA154

1385+00
628.56

End Guard Rail
Sta. 1384+35

END PROJECT STA. 1384+34.21

For Cross Section Extensions
See Sheet 1 No. 78

See Temporary Connection
Cross Sections

2:1

4:1

Temporary U.S.R.35
Westbound

Temporary U.S.R.35
Eastbound

See Temporary Connection
Ahead
Back

79

Prop. 24" Pipe

17

℄ 628.5

℄ 626.47

℄ 626.63

8:1

6:1

℄ 626.5

629.52
1384+00
628.17

See Temporary
Connection Ahead
Back

50 26

End 8' Sod
Rt. Sta. 1383+50

End 12' Sod
Lt. W.B. Sta. 1383+20

End 6' Sod
Lt. E.B. Sta. 1383+57

1328

Outlet 64.5 Lt. W.B. 1383+00
@ ℄ 625.80

12' Sod

603 6"x 10' Type 'F' Conduit

8:1

6:1

℄ 625.54

603 6"x 70' Type B Conduit
with Class B Bedding

℄ 626.07

℄ 626.23

℄ 629.2

6' Sod

Begin 605 6" Pipe Underdrain
Rt. of W.B. Sta. 1382+14

Prop. Std. No. 8 C.B.
Sta. 1382+10.0 W.B. 32.1' Rt
℄ Grate = 627.95
℄ C.B. = 625.36
℄ Normal Ditch = 628.2

629.73
1383+00
628.77

℄ 625.23

605 6"x 29' Pipe Underdrain

603 6"x 10' Type F Conduit

℄ 625.12

8' Sod

Drainage from Athens Road
LA164

Begin 8' Sod Rt. Sta. 1382+83

398 130

165 44

160

1522

STA. 1382+72.43 (E.B.) = STA. 167+44.84 ATHENS ROAD

12' Sod

℄ 624.96

℄ Outlet =
EL. 624.98

6'

6:1

HW-E
Rock Channel
Protection 4'x 6'x 18"

Prop. 603-96' x 12" Type B

15

0.40%

Prop. 6"x 9' Underdrain

℄ 626.38

603 6"x 10'
Type F

Outlet Underdrain
into C.B. ℄ 626.00

8:1

Begin 6' Sod
Lt. E.B. Sta. 1382+08

630.03
1382+00
628.27

16

Prop.
24" Pipe

420 315

114

62 126

1656

Begin Prop. 12' Sod
Sta. 1381+14 (WB)

Hdwl. - 64.3' Lt. WBL & Sta. 1382+10.0

℄ W.B.

End 605 6" Pipe Underdrain
Rt. of W.B. Sta. 1382+06

End 6' Sod
Lt. E.B. Sta. 1381+93

Drainage from Athens Road

565 357

184

4:1

8:1

6:1

℄ 624.54

℄ 628.8

℄ 624.64

630.33
1381+00
629.24

Begin 605 6" Pipe Underdrain
Rt. of W.B. Sta. 1381+61

Begin 605 6" Pipe Underdrain
Rt. of W.B. Sta. 1380+83

243 67

1738

635.256

128

Sta. 1380+00

Sta. 1380+00 100 71

STA. 1381+00 TO STA. 1384+34.21

180 160 140 120 100 80 60 40 20 ℄ E.B. 20 40 60 80 100

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

55
225

ROSS COUNTY
ROS-35-25.05

MARY A. KRAMER

FLORA H. IMMEL

FLORA H. IMMEL

PROP. ATHENS RD.

END PROJECT
PT. 1388+45.58 (WB)
Sta. 1387+33.71 (EB)

PI Sta. 86+35.00 ℄ TEMP. W.B.

PI Sta. 87+03.37 32' Lt. ℄ EB. 1387+03.37

PI Sta. 87+52.49 ℄ TEMP. E.B.

Buried I.P.

PI. Sta. 87+03.37 ℄ Median

Tangent 2.5%

Tangent to Ex. U.S.R. 35

35.13

Ex. Field Drive

149.50'

Hub

14.1'

P.K. in Pole

REFERENCE POINT

Temporary Approach U.S.R. 35 to U.S.R. 50
See Sheet No. 61

Varies 11'-0" to 0'-6"

Varies 11'-0" to 0'-0"

℄ Temp. Conn.

40# Bit Prime Coat

9"-304

3"-402 Base Course

1½"-402 Leveling Course

1½"-404 Surface Course

PAVEMENT BUILDUP
Sta. 92+47.10 to 94+00

Existing Bridge № ROS-35-263
EXISTING BRIDGE DATA
TYPE: Concrete Bridge with Continuous Steel Beam
SPAN: 54'-62'-54' ℄ Bearings
ROADWAY: 24' plus two 3' Sidewalks
LOADING: H-15-33
SKEW: 45° L.F.
WEARING SURFACE: 1" Monolithic Concrete
CONDITION: GOOD
DISPOSITION: To Remain in Place

(SIGN ERECTION)
END WORK
STA. 101+68

TEMPORARY U.S.R. 35 WESTBOUND

TEMPORARY CONNECTION

TEMPORARY U.S.R. 35 EASTBOUND

℄ PROP. U.S.R. 35 W.B.

℄ PROP. U.S.R. 35 E.B.

Temporary Guard Rail

Prop. 12' Sod

Prop. 8' Sod

Prop. 6' Sod

Prop. 4' Sod

Existing Asphalt Pavement to be removed under Item 203

Roadside Park

Gravel Drive (To be abandoned)

Ex. G.R. (to be removed)

Ex. U.S.R. 35

Ex. G.R.

Ex. traffic dividers

Ex. Curb

Ex. Traffic Islands

Stop Signs

Stop Sign

Ex. Pavement to be used by local and (50 to 35) traffic for approach to U.S.R. 35 E.B.

Ex. R/W

Ex. Sump

Ex. G.R. to be removed

Highway Sign on Conc. Base

Highway Sign

Traffic Dividers to be removed by others

Ex. Guard Rail to remain in place (Flexible Steel Plate Tension Type)

Ex. Structure

Note: All existing pavement to remain in place.

Work Limits

L.A. R/W

Prop. 12" Pipe

12" C.M.P.

10" C.M.P.

Car Shelter

Conc. Slab for Septic Conc. Tank

Blk. Fruit Stand

Shingle Pump House

Fillers Caps for Gas Tanks

Metal Service Station

Posts

Ed's Roadside Market Sign

Light Pole

Sign Post

U.S.R. 35 to 50

Sign

Maple

Hub

P.K. Nail

Ex. 12" C.M.P.

Ex. 24" Maple

Ex. 30" Maple

Ex. 12" C.M.P.

Ex. 18" Maple

Ex. 24" Maple

Ex. 8" Maple

Ex. 12" Maple

Ex. 36" Maple

Ex. 30" Maple

Ex. 24" Maple

Ex. 18" Maple

Ex. 12" Maple

Ex. 8" Maple

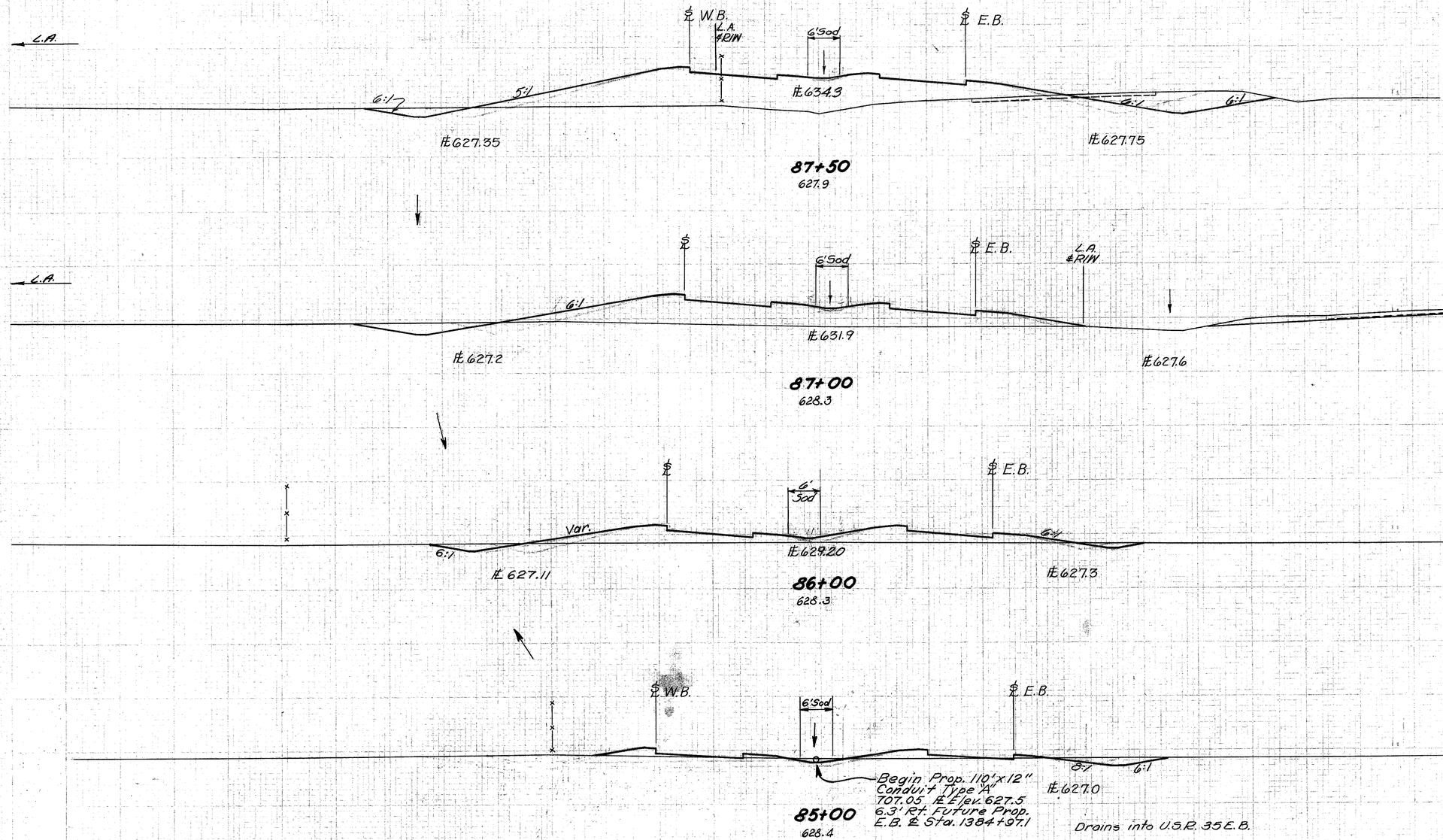
Ex. 24" Maple

Ex. 30" Maple

Ex. 36

FED. AID PROJECT	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO	F-674(12)		50	225

ROSS COUNTY
ROS-35-25.05



SUB AREA		CUM. AREA	
CUT	FILL	CUT	FILL
		100	470
		165	731
		78	320
		176	896
		17	164
		69	369
		20	35
		130	113

Sta. 84+00 50 26

TEMPORARY CONNECTION
STA. 85+00 TO STA. 87+50

SHEETS		STATE	PROJECT		57
2	OHIO	F-674(12)			225

ROSS COUNTY
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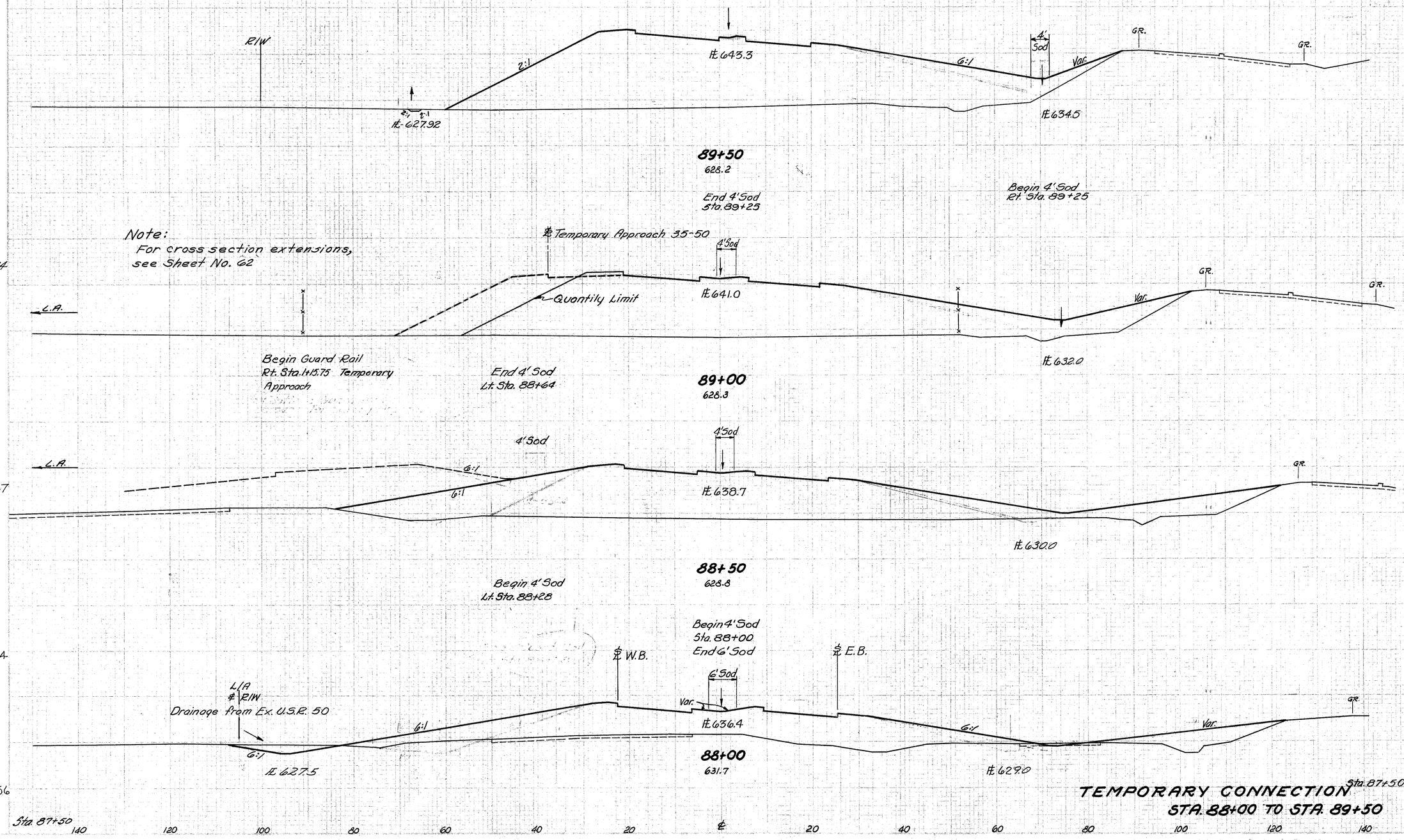
		END AREA		VOLUME	
		CUT	FILL	CUT	FILL
138				1	1520
794				1	2648
148				0	1340
94.7				0	2,431
193				0	1,286
1,114				23	1908
208				25	775
956				117	1154
136				100	470



TEMPORARY CONNECTION
STA. 88+00 TO STA. 89+50

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

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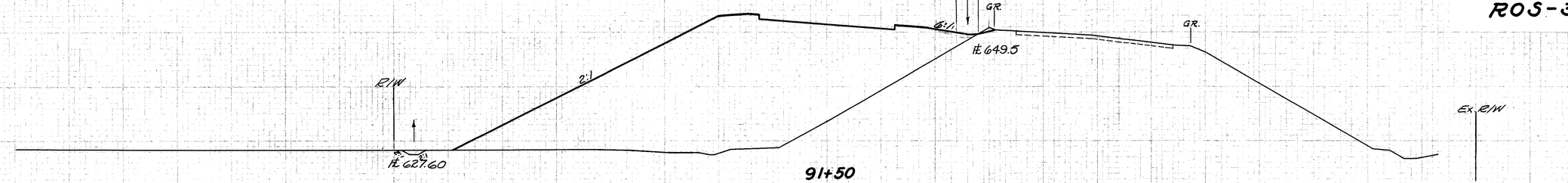
225

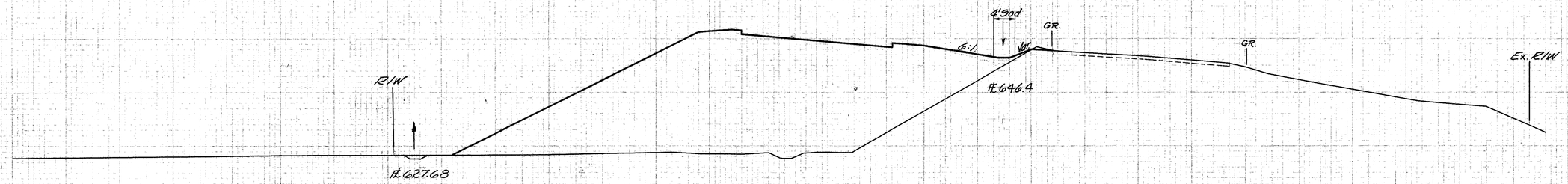
ROSS COUNTY
ROS-35-25.05

End 4' Sod
Rt. Sta. 91+60

Begin Guard Rail
Sta. 91+65.13

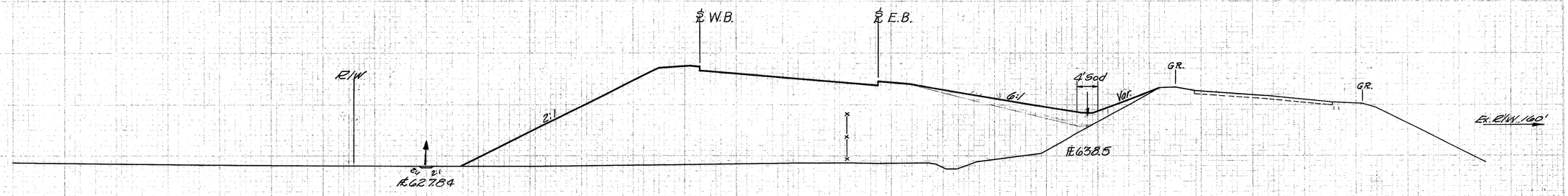


91+50
633.6



91+00
628.9

90+50
628.4



90+00
628.5

TEMPORARY CONNECTION
STA. 90+00 TO STA. 91+50

	BND AREA CUT	BND AREA FILL	VOLUME CUT	VOLUME FILL
Sta. 89+50	1	1,520		
	2	2,907	1,620	
	2	2,935	2,811	
	1	1,550	1,330	
	3	2,815	2,611	

| | | |

SEC. NO.	STATE	PROJECT	
2	OHIO	F-674(12)	

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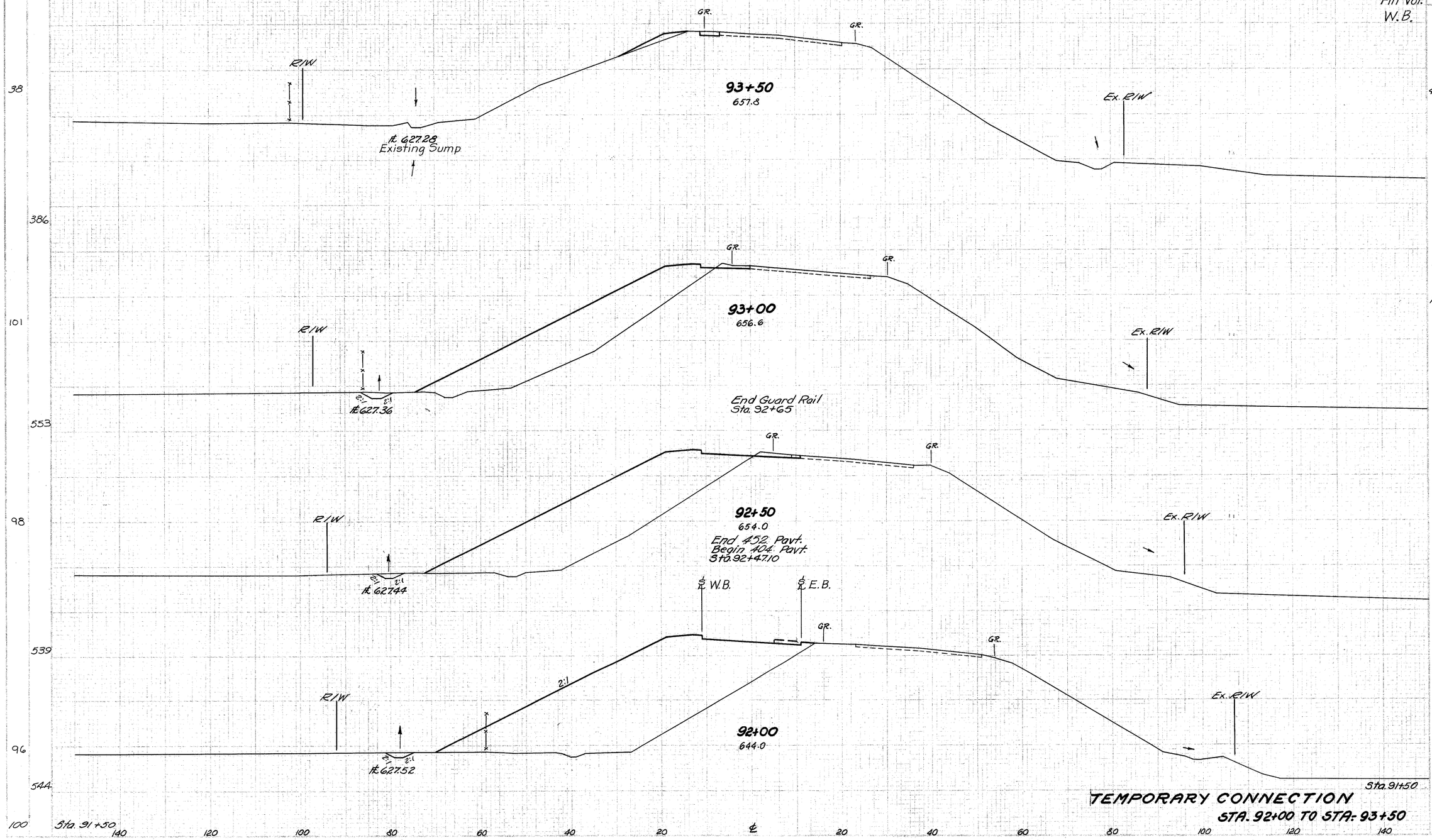
ROSS COUNTY
ROS-35-25.05

Fill Vol.
W.B.

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	4	11		
			16	483
	13	511		
			24	1127
	13	706		
			17	1,599
	5	1,021		
			7	2,177
Sta. 91+50	3	1,330		



TEMPORARY CONNECTION
STA. 92+00 TO STA. 93+50

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

60
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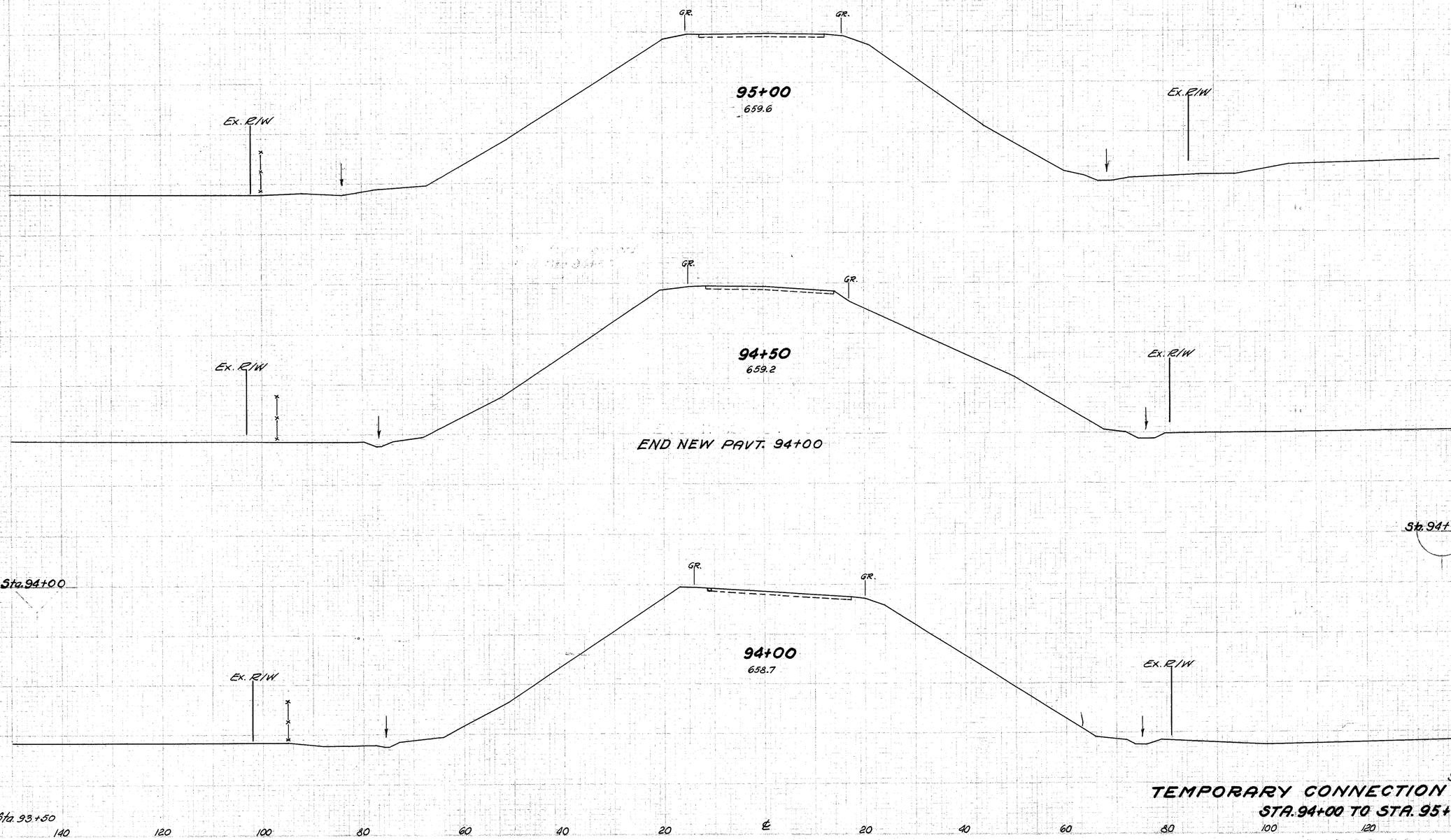
ROSS COUNTY
ROS-35-25.05

(SIGN ERECTION)
END WORK STA. 101+68

End Guard Rail
Lt. Sta. 95+67

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Fill Vol. W.B.				



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

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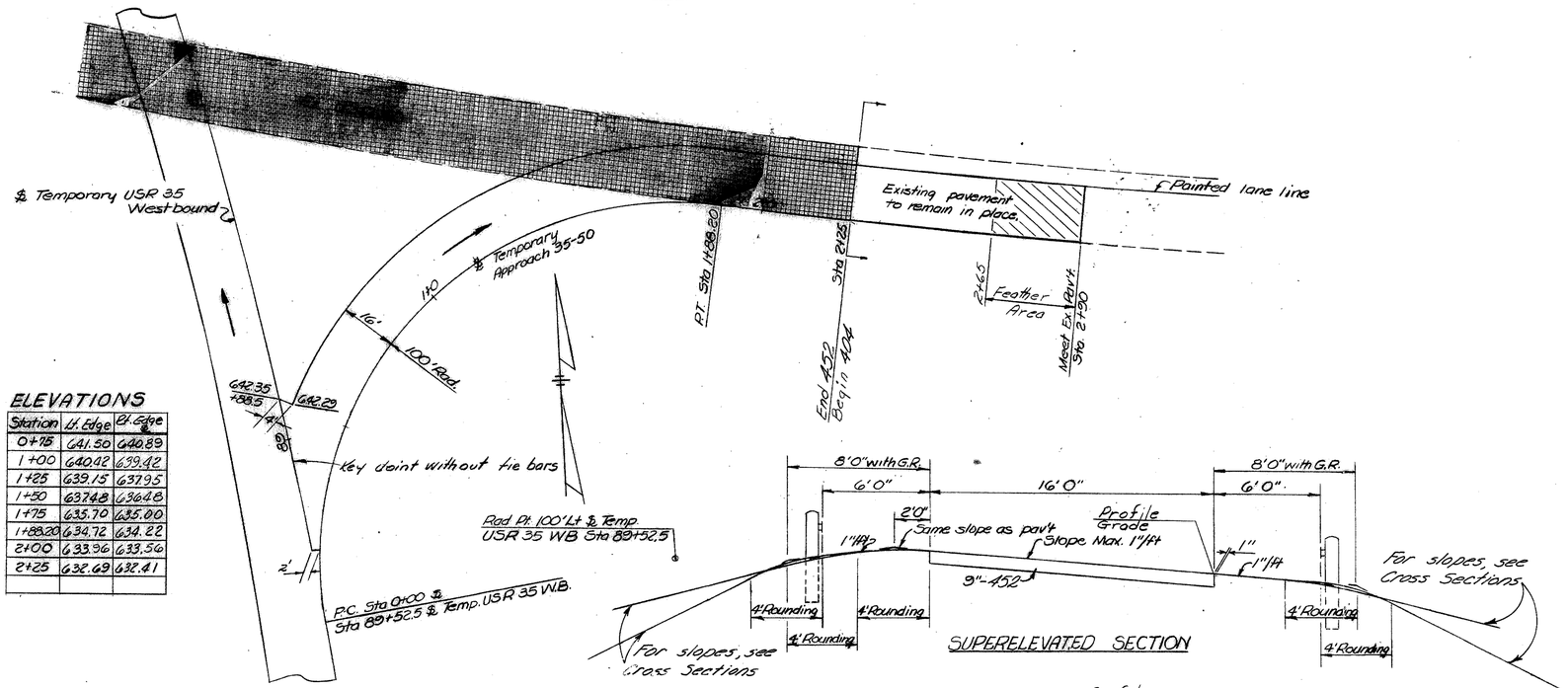
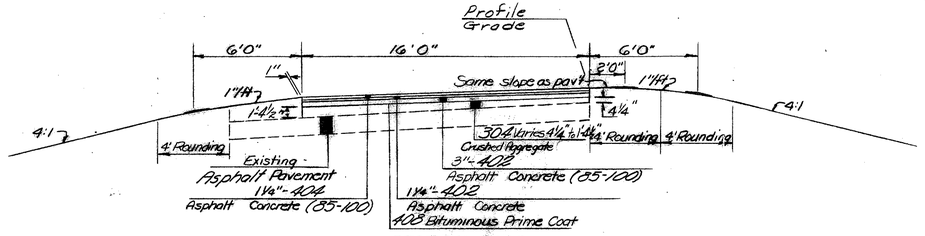
ROSS COUNTY
ROS-35-25.05

LEGEND
Pavement to be abandoned



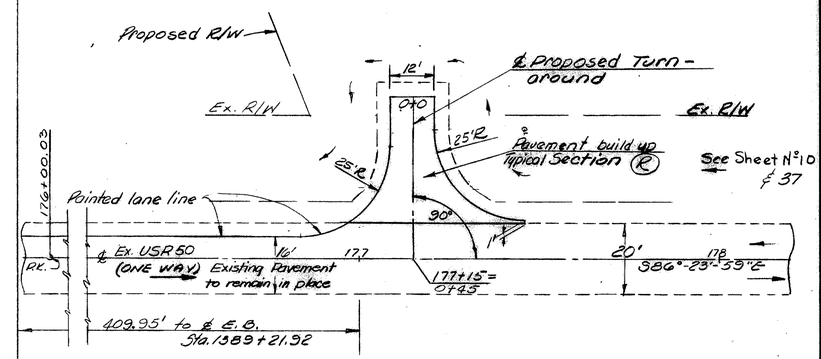
ELEVATIONS

Station	Lt. Edge	Rt. Edge
0+75	641.50	640.89
1+00	640.42	639.42
1+25	639.15	637.95
1+50	637.48	636.48
1+75	635.70	635.00
1+88.20	634.72	634.22
2+00	633.96	633.56
2+25	632.69	632.41

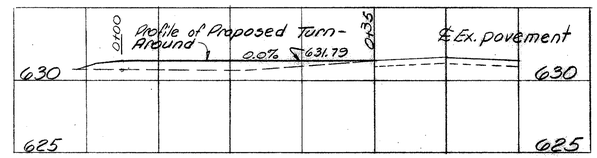


STATION 2+25

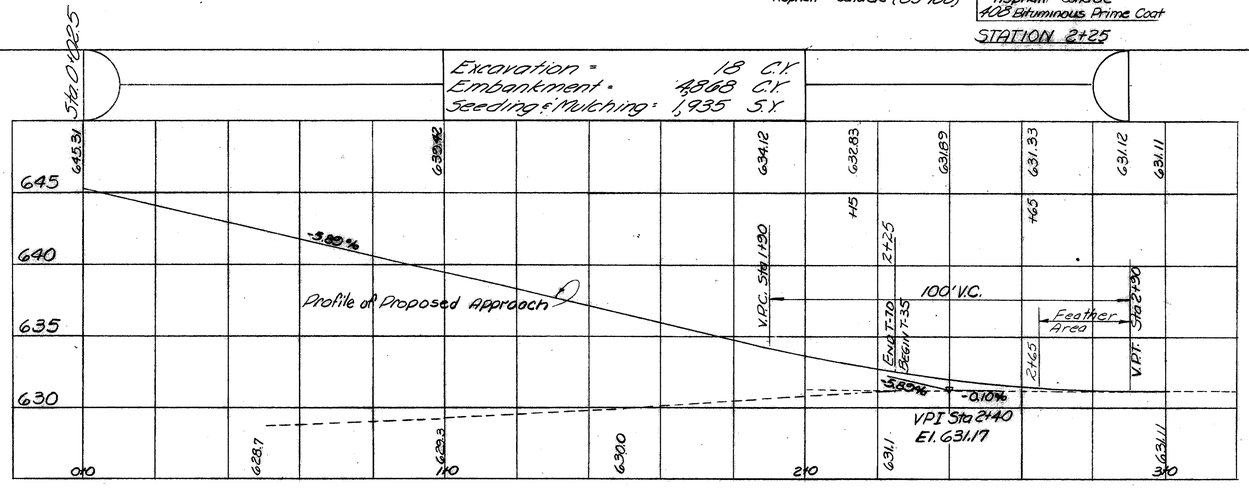
TEMPORARY APPROACH 35-50



PLAN



PROFILE OF PROPOSED TURN-AROUND



PROFILE TEMPORARY APPROACH 35-50

ESTIMATED QUANTITIES

Item	Description	Temp. Approach Sch. 35-50	Turn-around	unit
408	Bituminous Prime Coat, applied at the rate of 0.40 Gal./Sq. Yd.	115.6	73	Sq. Yds.
304	Aggregate Base	10.3	10.1	Cu. Yds.
404	Asphalt Concrete (85-100)	3.3	4.1	Cu. Yds.
402	Asphalt Concrete (85-100)	3.3		Cu. Yds.
452	9" Plain Portland Cement Concrete Pavement	365.9		Sq. Yds.
402	Asphalt Concrete (85-100)	3.0		Cu. Yds.

Quantities carried to Sht. N° 21

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

TEMPORARY APPROACH 35-50
&
PROPOSED TURN-AROUND

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO	F-674(12)		

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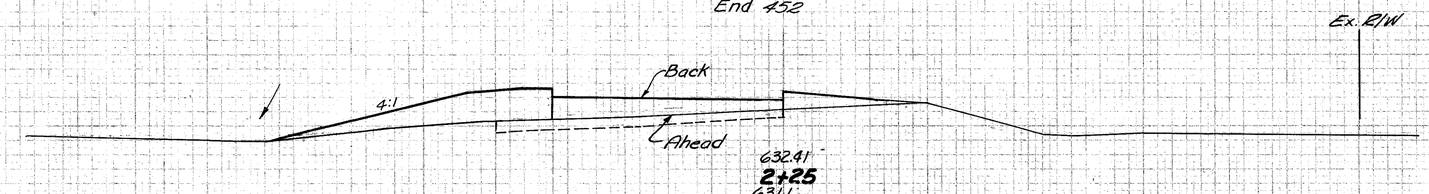
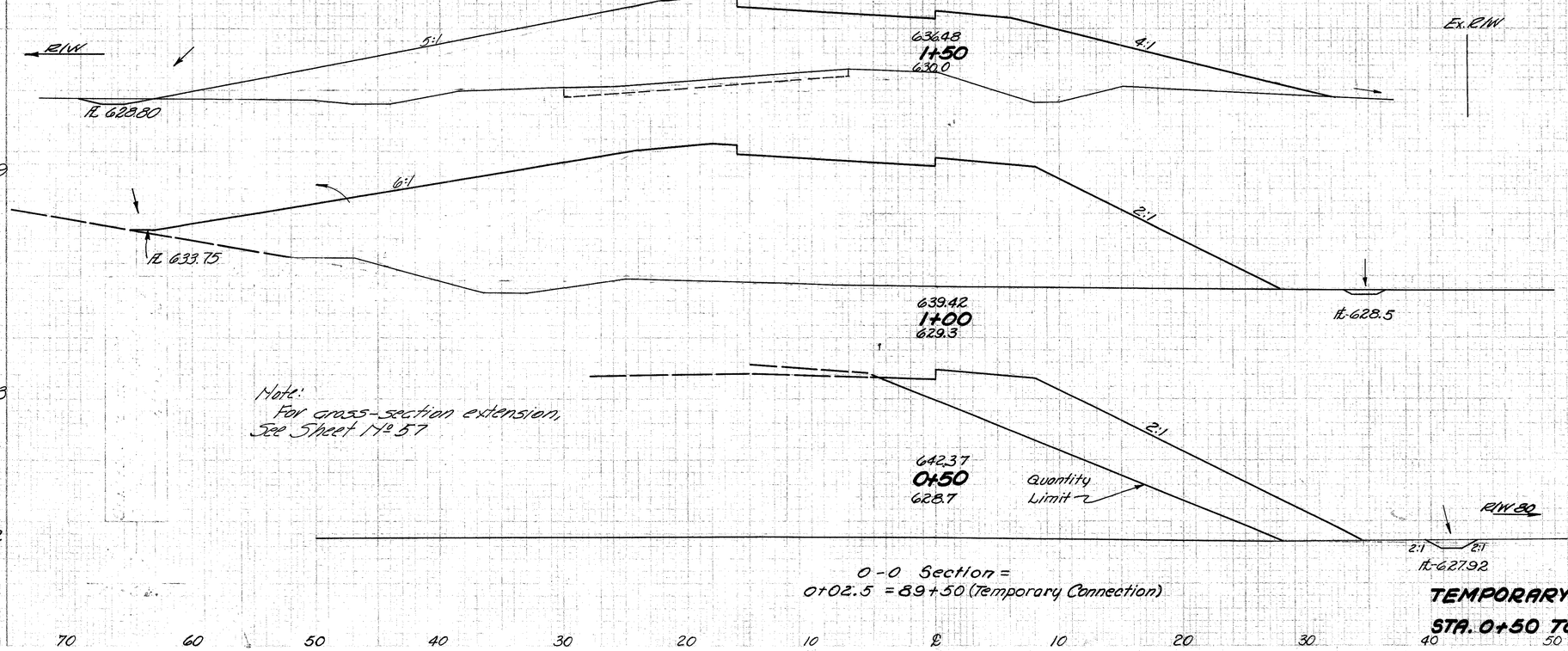
ROSS COUNTY
ROS-35-25.05

Seeding End Sq Width Yds
0
123
34
508
88
639
142
533
50
132
0





Sta.	Cut	Fill	Cut Yd	Fill Yd
Sta. 2+90	0	0		
			0	41
2+25 Ahead	0	34		
Back	0	52		
			6	1,108
	4	746		
			5	1964
	1	1375		
			4	1514
	3	260		
			3	241
0+02.5	0	0		

0-0 Section =
0+02.5 = 8.9+50 (Temporary Connection)

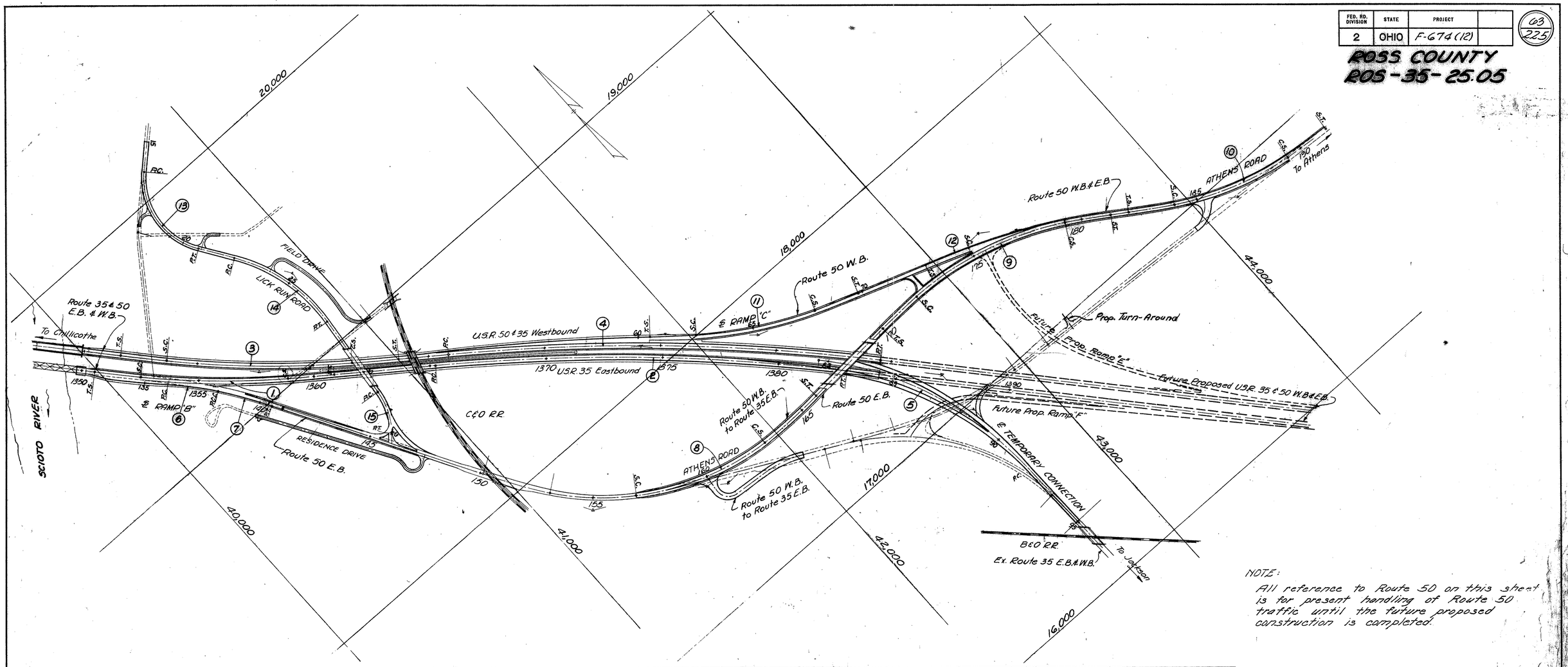
TEMPORARY APPROACH U.S.R.35 to U.S.R.50

STA. 0+50 TO STA. 2+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

03
225

ROSS COUNTY
ROS-35-25.05



NOTE:
All reference to Route 50 on this sheet is for present handling of Route 50 traffic until the future proposed construction is completed.

INTERCHANGE CURVE DATA & COORDINATES

	TANGENT TO CURVE (T.C.) OR TANGENT TO SPIRAL (T.S.) STA.	N	E	SPIRAL TO CURVE (S.C.) STA.	N	E	POINT OF INTERSECTION STA.	N	E	CURVE TO SPIRAL (C.S.) STA.	N	E	CURVE TO TANGENT (C.T.) OR SPIRAL TO TANGENT (S.T.) STA.	N	E	Δ	Ts or T	Es or E	Ls	Xc	Yc	Dc	Rc	Δc or Θ	Lc
U.S.R. 35 EASTBOUND																									
1.	1350+55.61	19,602.75	39,989.64	1352+55.61	19,453.62	40,122.90	1355+73.70	19,213.43	40,331.48	1358+88.39	19,026.86	40,589.13	1360+88.39	18,907.27	40,749.43	12°29'30"	518.09'	23.25'	200'	199.99'	1.75'	1°30'	3819.72'	1°30'	632.78'
2.	1365+23.74	18,650.002	41,100.626	—	—	—	1374+12.45	18,124.822	41,817.558	—	—	—	1382+94.22	17,458.011	42,405.069	12°23'36"	888.71'	48.10'	—	—	—	0°42'	8185.11'	—	1770.48'
U.S.R. 35 WESTBOUND & TEMP. CONNECTION																									
3.	1351+71.43	19,532.006	40,119.641	1353+71.43	19,432.681	40,252.689	1357+73.12	19,129.868	40,516.632	1361+70.76	18,893.651	40,841.556	1363+73.76	18,774.292	41,002.034	12°29'30"	601.69'	27.93'	200'	199.99'	1.45'	1°15'	4583.66'	1°15'	799.33'
4.	1365+86.38	18,646.867	41,175.978	—	—	—	1375+19.52	18,095.432	41,928.752	—	—	—	1384+45.38	17,395.284	42,545.634	12°23'36"	933.14'	50.51'	—	—	—	0°40'	8594.37'	—	1859.00'
5.	81+71.38	17,571.384	42,347.672	—	—	—	87+03.37	17,172.175	42,699.561	—	—	—	91+90.13	16,640.217	42,705.434	40°45'00"	531.99'	95.60'	—	—	—	4°00'	1432.40'	—	1018.75'
RAMP "B" (ATHENS ROAD)																									
6.	136+00.23	19,351.370	40,187.340	—	—	—	137+12.24	19,180.586	40,331.072	—	—	—	138+23.73	19,180.586	40,331.072	8°56'15"	111.95'	4.37'	—	—	—	4°00'	1432.39'	—	223.44'
7.	138+23.73	19,180.856	40,331.072	—	—	—	139+41.03	19,085.224	40,399.376	—	—	—	140+58.18	18,983.389	40,457.591	5°51'36"	117.30'	3.00'	—	—	—	2°30'	2291.83'	—	234.40'
ATHENS ROAD																									
8.	—	—	—	156+84.94	17,652.444	41,370.664	159+93.78	17,479.521	41,626.554	162+68.28	17,458.609	41,934.685	165+88.28	17,464.457	42,234.396	30°10'02"	308.84'	40.89'	300'	299.49'	13.07'	5°00'	1145.92'	7°30'	603.34'
9.	169+98.09	17,490.314	42,643.389	171+98.09	17,498.284	42,843.192	175+79.75	17,527.014	43,223.891	179+26.72	17,312.280	43,539.558	181+26.72	17,205.742	43,708.775	37°08'42"	581.66'	79.92'	200'	199.90'	4.65'	4°00'	1432.40'	4°00'	728.63'
10.	182+02.85	17,163.692	43,772.239	184+02.85	17,057.154	43,941.456	186+77.65	16,901.442	44,168.042	189+35.48	16,885.842	44,442.531	191+35.48	16,866.483	44,641.553	29°18'18"	474.80'	49.35'	200'	199.90'	4.65'	4°00'	1432.40'	4°00'	532.63'
RAMP "C"																									
11.	60+53.84	18,129.901	41,870.627	62+53.84	18,002.571	42,024.818	65+19.65	17,827.079	42,224.563	67+76.40	17,744.379	42,472.270	69+76.40	17,676.404	42,665.331	21°40'37"	465.81'	35.57'	200'	199.95'	3.49'	3°00'	1909.86'	3°00'	522.56'
12.	72+93.98	17,673.678	42,965.901	74+93.98	17,506.793	43,154.368	77+10.76	17,429.555	43,356.925	79+26.72	17,322.717	43,545.547	—	—	—	8°39'17"	216.78'	8.19'	200'	199.98'	2.33'	2°00'	2864.79'	2°00'	432.74'
LICK RUN ROAD																									
13.	16+29.38	20,118.010	40,729.657	—	—	—	18+98.93	19,930.246	40,531.530	—	—	—	20+76.69	19,704.714	40,679.153	30°31'00"	269.55'	98.80'	—	—	—	18°00'	318.31'	—	447.31'
14.	22+38.77	19,569.102	40,767.917	—	—	—	24+95.43	19,354.355	40,908.482	—	—	—	27+31.66	19,099.208	40,880.655	39°25'52"	256.66'	44.60'	—	—	—	8°00'	716.20'	—	492.89'
15.	31+07.38	18,725.703	40,839.920	—	—	—	32+04.76	18,628.897	40,829.362	—	—	—	32+96.38	18,554.568	40,766.449	34°01'15"	97.38'	14.56'	—	—	—	18°00'	318.31'	—	189.00'

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

GENERAL PLAN
GEOMETRIC LAYOUT

SCALE 0 100' 200' 300' DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.		LKM				

F.A. NO. DIVISION	STATE	PROJECT		64
2	OHIO	F-674(12)		225

ROSS COUNTY
ROS -35 -25.05

PROP. CURVE DATA
P.I. Sta. 137+12.24
Δ = 8°56'15"
Dc = 4°
T = 111.95'
R = 1432.39'
Lc = 223.44'
E = 4.37'

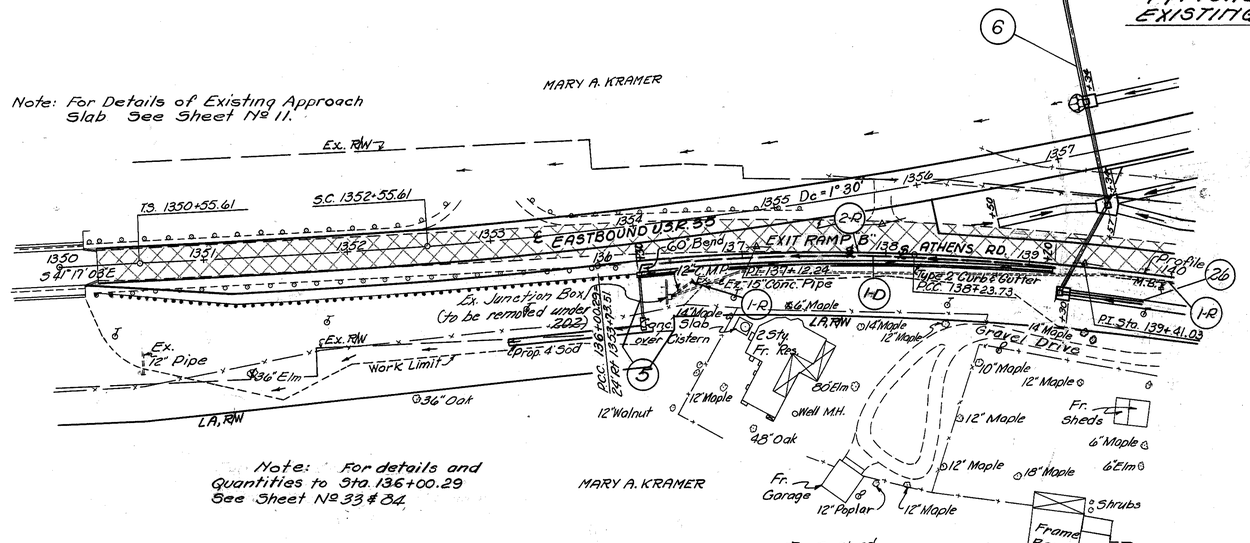
PROP. CURVE DATA
P.I. Sta. 139+41.03
Δ = 3°51'36"
Dc = 2°30'
T = 117.30'
R = 2291.83'
Lc = 234.40'
E = 3.00'

℄ Exist Pav't.
22'
7" Reinforced Concrete
2" Asphalt Pavement

TYPICAL SECTION OF EXISTING PAVEMENT

Note: For Details of Existing Approach Slab See Sheet Nº 11.

MARY A. KRAMER

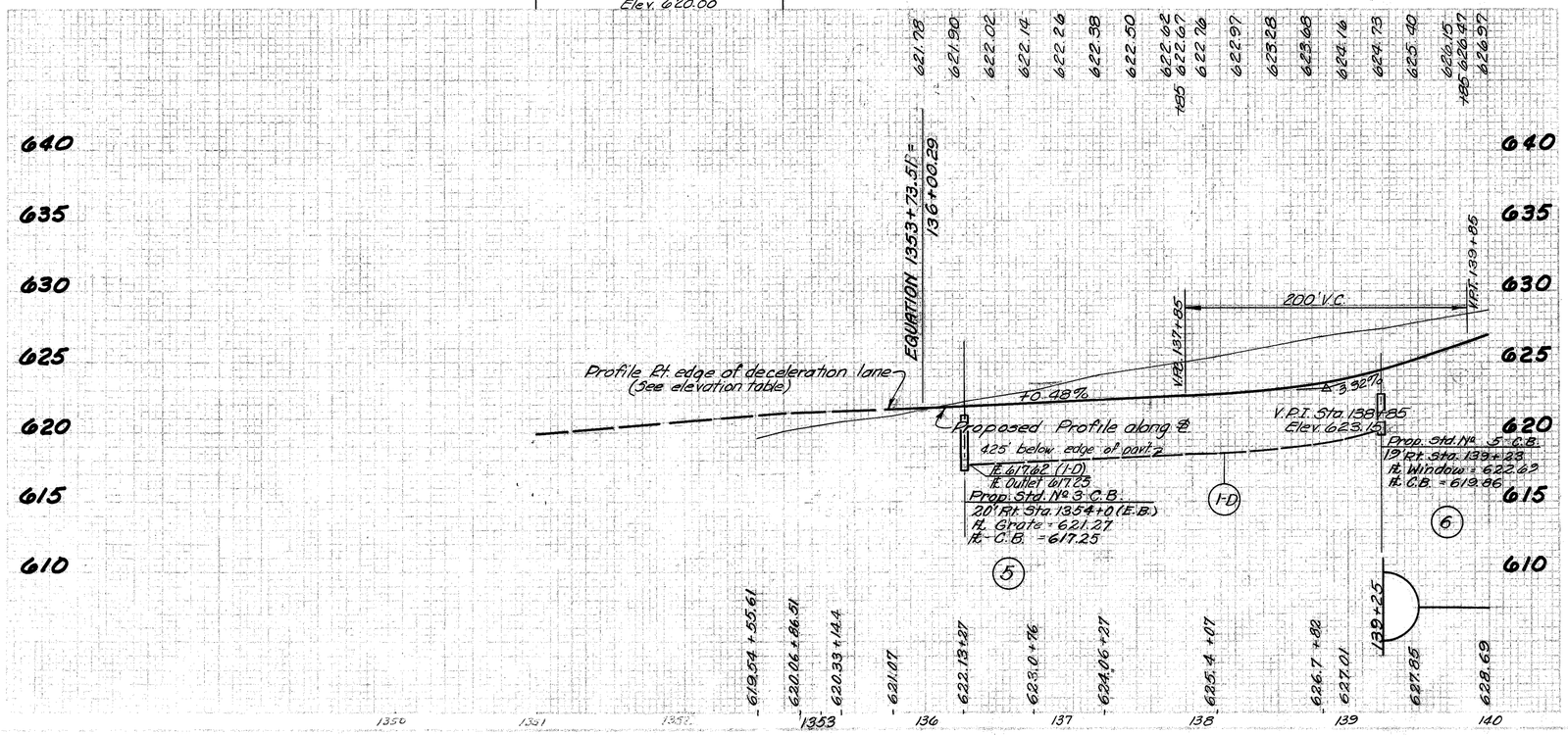


Note: For details and Quantities to Sta. 136+00.29 See Sheet Nº 33 & 34.

MARY A. KRAMER

For Details of Exit Ramp "B" See Sheet Nº 84

BENCH MARK
Chiseled Square on Conc. Walk at East End of Ex. Kilgore Bridge 15' Rt. Sta. 1350+76.5 (E.B.)
Elev. 620.00



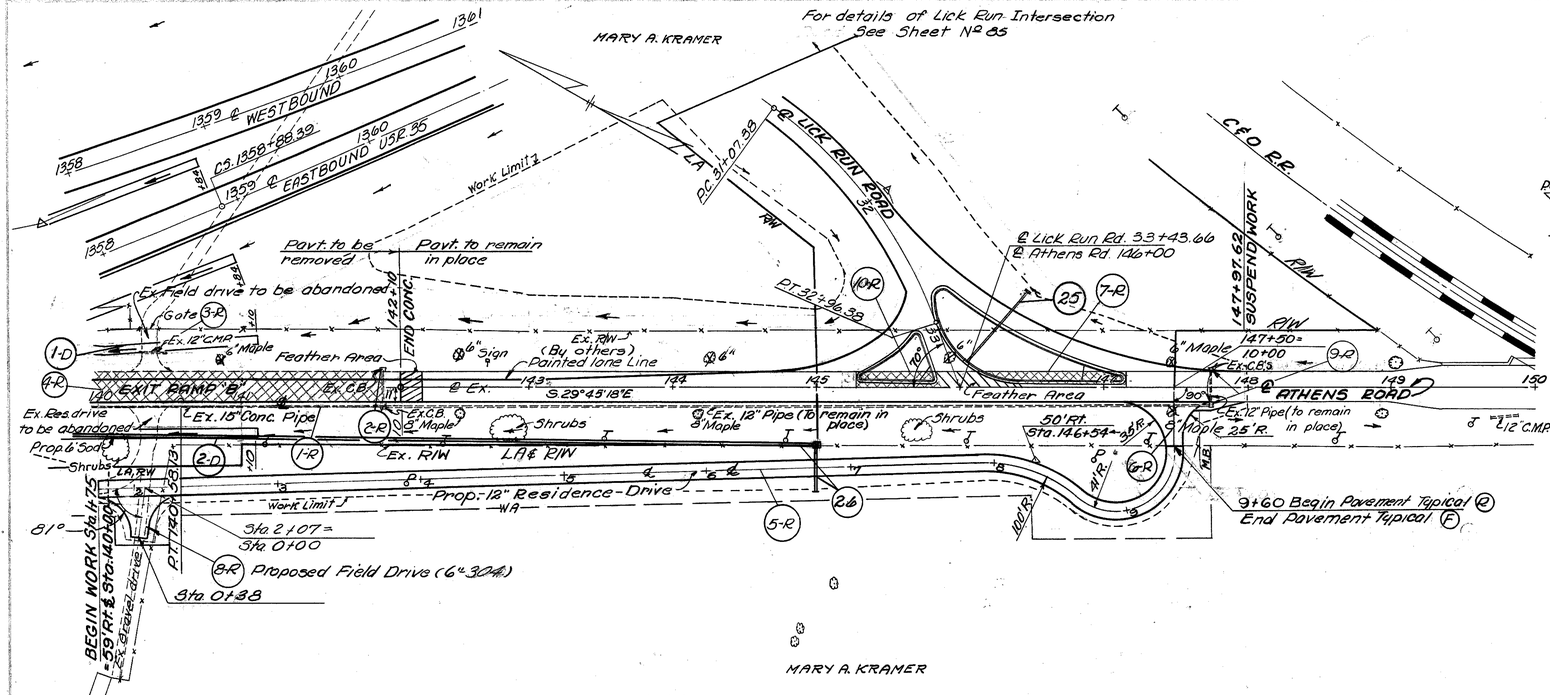
~ DRAINAGE ~ QUANTITIES ~ ROADWAY ~

										Pipe Special for Underdrains 6"x60" Bend									1
605	603	Conduit Type F Shallow Pipe Underdrains	Lin.Ft.	6															288
202		Catch Basin Removed	Each	1															1
202	202	Pipe Removed 24" and Under	Sq.Yds	Lin.Ft. 400															
202		Ex. Pav't. Removed & Disposed		985															
		Side																	
		Station to Station			136+50 to 140+00	136+00.29 to 140+00													
		See Sheet Number			5	6	2b												
		Reference or Structure No.			1-R	2-R		1-D											
		1354+00 (E.B.)	Ft.		46														
		1357+0 (E.B.) 139+23 (Ramp B) Lt. of ℄ Ft.			108	120													
		136+30 to 139+20	Rt.																
		139+23 to 145+00	Rt.			120													
		TOTAL																	
				985	400														288

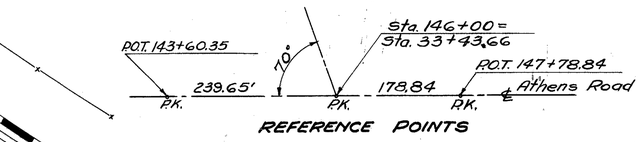
STA. 136+00.29 TO STA. 140+00 ATHENS ROAD

FED. HWY. DIVISION	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO	F-674 (12)		65	225

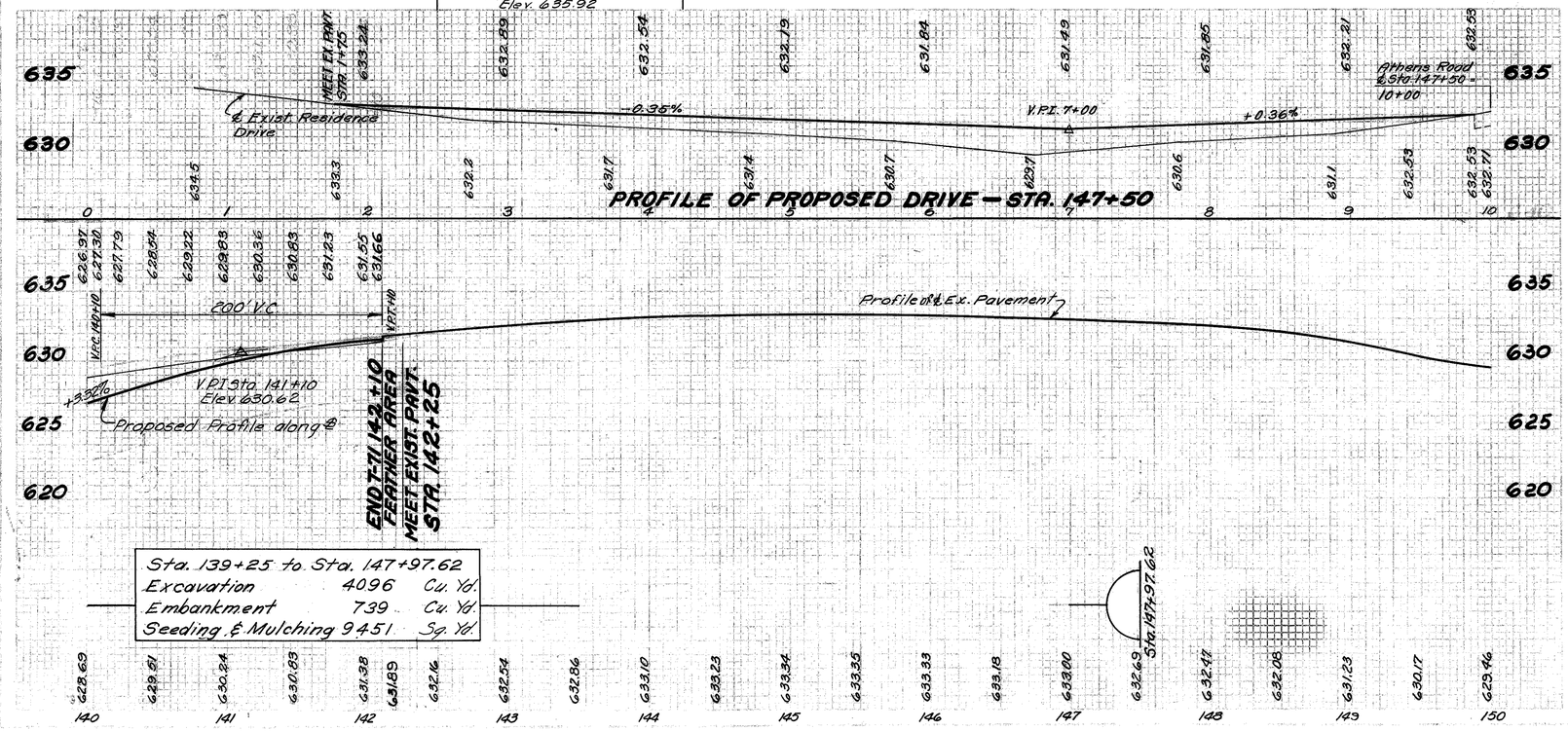
ROSS COUNTY
ROS-35-25.05



BENCH MARK
Chiseled Square in W. End of N.W. Wingwall C&O Bridge over Ex. 35 E 50
438' Rt. ℄ Sta. 1366+26 (E.B.)
Elev. 635.92



REFERENCE POINTS



Sta. 139+25 to Sta. 147+97.62		
Excavation	4096	Cu. Yd.
Embankment	739	Cu. Yd.
Seeding & Mulching	9451	Sq. Yd.

ROADWAY ~ QUANTITIES ~ DRAINAGE

Reference or Structure No.	See Sheet Number	Station to Station	Side	202 Ex. Pav't. Removed & Disposed of Sq. Yds.	202 Pipe Removed 24" and Under Lin. Ft.	202 Catch Basin Removed Each	304 Aggregate Base 6" Sq. Yds.	304 Aggregate Base Cu. Yds.	407 Bituminous Prime Coat-App. @ 0.40 Gals./Sq. Yd. Sq. Yds.	407 Asphalt Conc. 2" Cu. Yds.	407 Asphalt Conc. Sq. Yds.
1-R	140	140+00 to 142+10	Lt./Ext.		210						
2-R	140	142+00	Lt./Ext.		18						
3-R	140	140+30 to 140+48	Lt.		18						
4-R	140	140+00 to 142+10	Lt. & Rt.	514							
5-R	140	1+75 to 9+60 (Res. Drive)	℄								
6-R	140	9+60 to 9+98 (Res. Drive)	℄								
7-R	140	146+13 to 147+20	Lt.	94							
8-R	140	2+07 Res. Drive	Rt.			2					
9-R	140	147+76	Lt. & Rt.								
10-R	140	145+93 to 146+86	Lt.	54							
1-D	140	140+00 to 141+10	Lt.				174	12.3			
2-D	140	140+00 to 141+10	Rt.				103.2	5.7			
25	110	146+	Lt.				103.0	12.3			
26	120	139+23 to 145+00	Rt.								
		Total		662	246	4	1103.0	486.7	1103.2	57	1103.2

Reference or Structure No.	See Sheet Number	Station to Station	Side	Sodding Sq. Yds.
1-D	140	140+00 to 141+10	Lt.	74
2-D	140	140+00 to 141+10	Rt.	74
				148

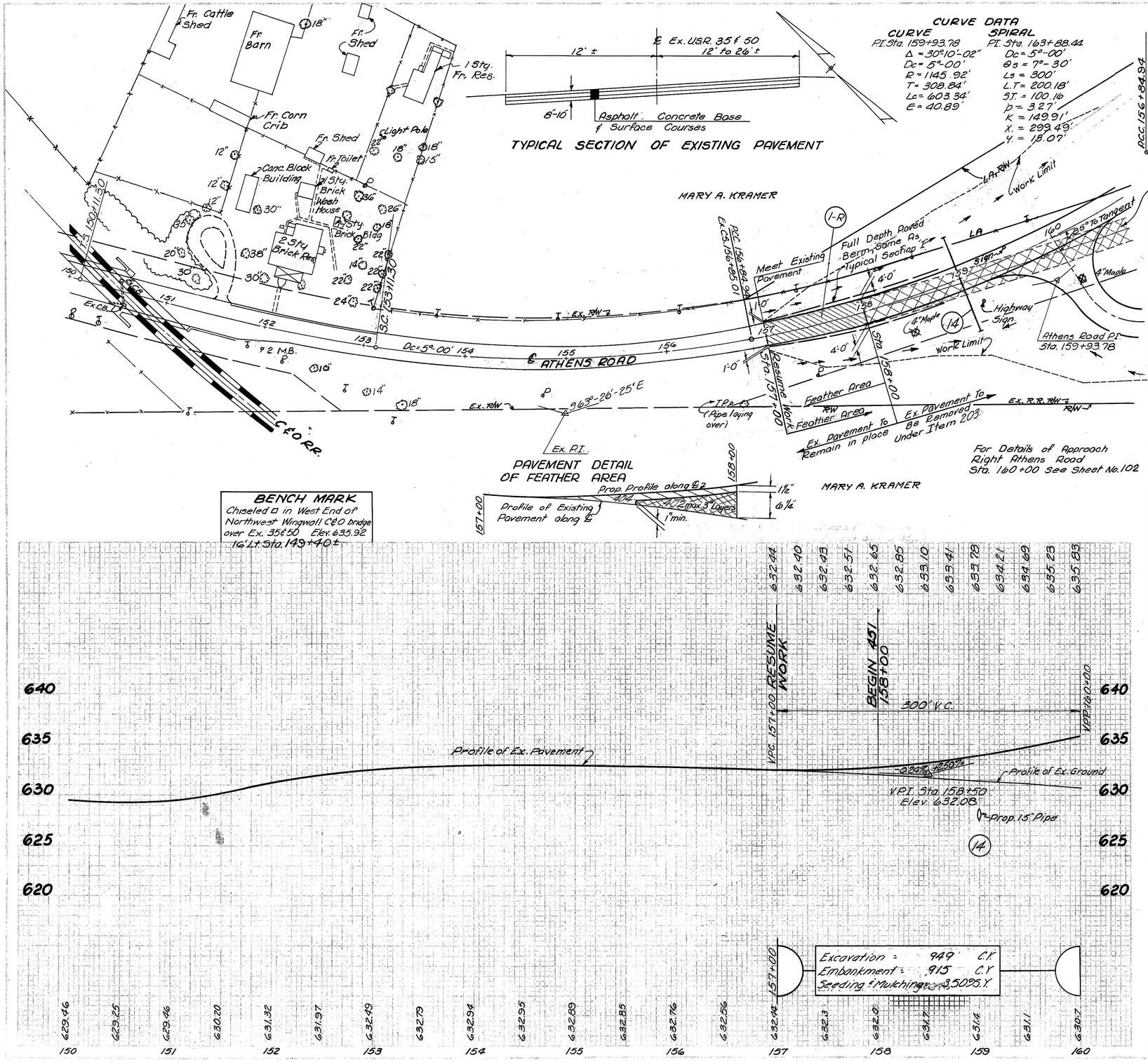
* Carried to Sht. Nº 21

STA. 140+00 TO STA. 150+00 ATHENS ROAD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

66
225

ROSS COUNTY
ROS-35-25.05

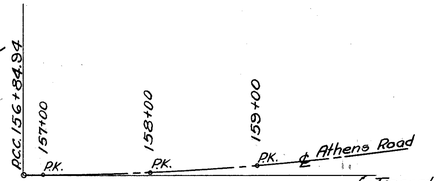


TYPICAL SECTION OF EXISTING PAVEMENT

CURVE DATA

CURVE
P.I. Sta. 159+93.78
Δ = 30°10'-02"
Dc = 5°-00'
R = 1145.92'
T = 308.84'
Lc = 603.34'
E = 40.89'

SPIRAL
P.I. Sta. 163+88.44
Dc = 5°-00'
θs = 7°-30'
Ls = 300'
L.T. = 200.18'
S.T. = 100.16
p = 3.27'
k = 149.91'
X = 299.49'
Y = 18.07'



REFERENCE POINTS

PAVEMENT DETAIL OF FEATHER AREA

MARY A. KRAMER

For Details of Approach Right Athens Road Sta. 160+00 see Sheet No. 102

BENCH MARK
Chiseled □ in West End of Northwest Wingwall C℄O bridge over Ex. 35℄50 Elev. 635.92
16' Lt. Sta. 149+40±

ROADWAY ~ QUANTITIES ~ DRAINAGE

| Item | | Unit | | |

ESTD	SHT			67
2	GRID	F-674 (12)		225

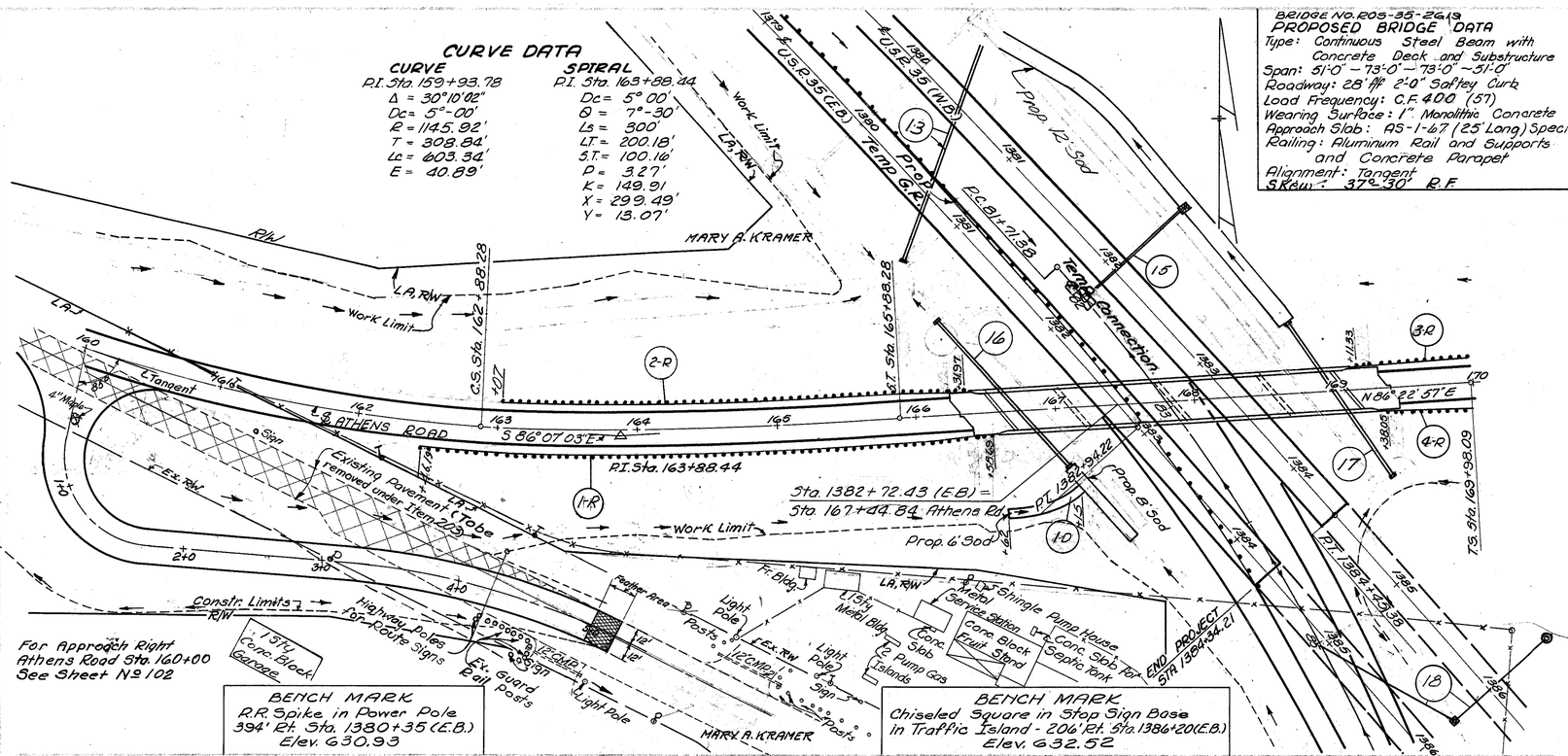
ROSS COUNTY
ROS -35 - 25.05

Note: See Sheet No. 14 for special sod at bridge approaches.
For Details not shown on U.S.R. 35, See Sheet No. 36

CURVE DATA

CURVE	SPIRAL
P.I. Sta. 159+93.78	P.I. Sta. 163+88.44
Δ = 30°10'02"	Dc = 5°00'
Dc = 5°-00'	Θ = 7°-30'
R = 1145.92'	Ls = 300'
T = 308.84'	L.T. = 200.18'
Lc = 603.34'	S.T. = 100.16'
E = 40.89'	P = 3.27'
	K = 149.91
	X = 299.49'
	Y = 13.07'

BRIDGE NO. ROS-35-26.19
PROPOSED BRIDGE DATA
Type: Continuous Steel Beam with Concrete Deck and Substructure
Span: 51'-0" – 73'-0" – 73'-0" – 51'-0"
Roadway: 28' flr. 2'-0" Safety Curb
Load Frequency: C.F. 400 (S1)
Wearing Surface: 1" Monolithic Concrete
Approach Slab: RS-1-67 (25' Long) Special
Railing: Aluminum Rail and Supports and Concrete Parapet
Alignment: Tangent
S Rein.: 37°-30' R.F.



For Approach Right Athens Road Sta. 160+00 See Sheet No. 102

BENCH MARK
R.R. Spike in Power Pole
394' Rt. Sta. 1380+35 (E.B.)
Elev. 630.93

BENCH MARK
Chiseled Square in Stop Sign Base in Traffic Island - 206' Rt. Sta. 1386+20 (E.B.)
Elev. 632.52

ROADWAY ~ QUANTITIES ~ DRAINAGE

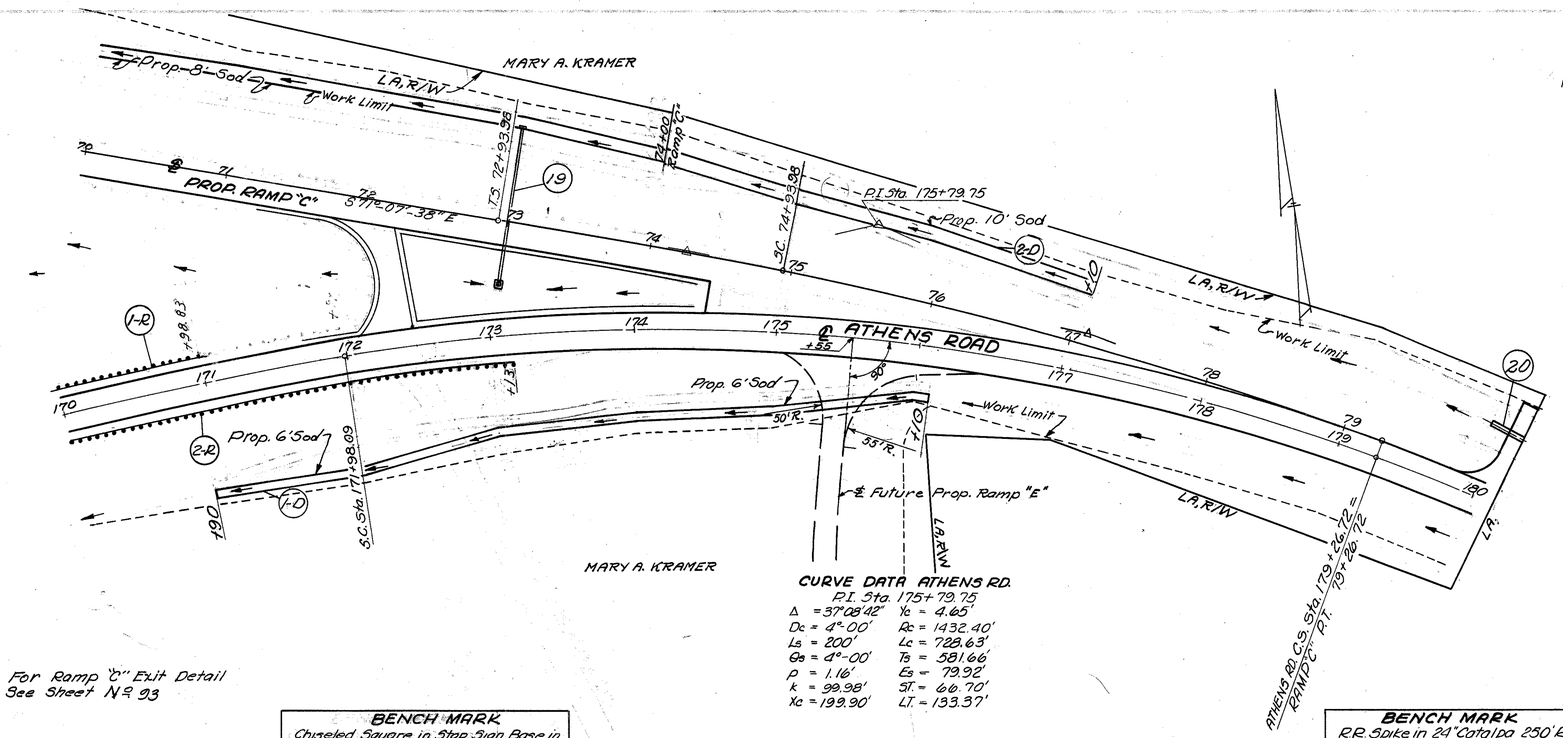
Reference or Structure No.	See Sheet Number	Station to Station	Side		606 Sodding	Sq. Yds.
1-R	112	162+48.19 to 166+58.69	Rt.			
2-R	54	165+07 to 166+31.97	Lt.			
3-R	114	169+11.33 to 170+00	Lt.			
4-R	115	169+38.15 to 170+00	Rt.			
1-0	116	166+42 to 167+15	Rt.			
13	112	1380+48.64 (W.B.)	Lt. fet.			
15	54	1382+10 (W.B.)	Lt.			
16	114	166+73.5	Lt. fet.			
17	115	169+00.9	Lt. fet.			
18	116	1386+00 (E.B.)	Lt.			
				TOTAL		836.0

Reference or Structure No.	See Sheet Number	Station to Station	Side		606.04 Bridge Terminal Assembly	Each
1-R	112	162+48.19 to 166+58.69	Rt.		1	
2-R	54	165+07 to 166+31.97	Lt.		1	
3-R	114	169+11.33 to 170+00	Lt.		1	
4-R	115	169+38.15 to 170+00	Rt.		1	
				TOTAL	4	

Reference or Structure No.	See Sheet Number	Station to Station	Side		606.06 Approach End Assembly	Each
1-R	112	162+48.19 to 166+58.69	Rt.		1	
2-R	54	165+07 to 166+31.97	Lt.		1	
3-R	114	169+11.33 to 170+00	Lt.		1	
4-R	115	169+38.15 to 170+00	Rt.		1	
				TOTAL	4	

Reference or Structure No.	See Sheet Number	Station to Station	Side		606.06 Guard Rail Type 5	Unit
1-R	112	162+48.19 to 166+58.69	Rt.		412.5	Lin. Ft.
2-R	54	165+07 to 166+31.97	Lt.		325	Lin. Ft.
3-R	114	169+11.33 to 170+00	Lt.		88.5	Lin. Ft.
4-R	115	169+38.15 to 170+00	Rt.		62	Lin. Ft.
				TOTAL	887.0	

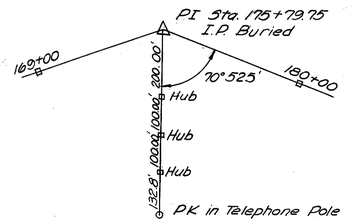
STA. 160+00 TO STA. 170+00 ATHENS ROAD



For Ramp "C" Exit Detail
See Sheet No. 93

CURVE DATA ATHENS RD.
P.I. Sta. 175+79.75

Δ	= 37°08'42"	Yc	= 4.65'
Dc	= 4°-00'	Rc	= 1432.40'
Ls	= 200'	Lc	= 728.63'
Θs	= 4°-00'	Ts	= 581.66'
p	= 1.16'	Es	= 79.92'
k	= 99.98'	St.	= 66.70'
Xc	= 199.90'	L.T.	= 133.37'



REFERENCE POINT

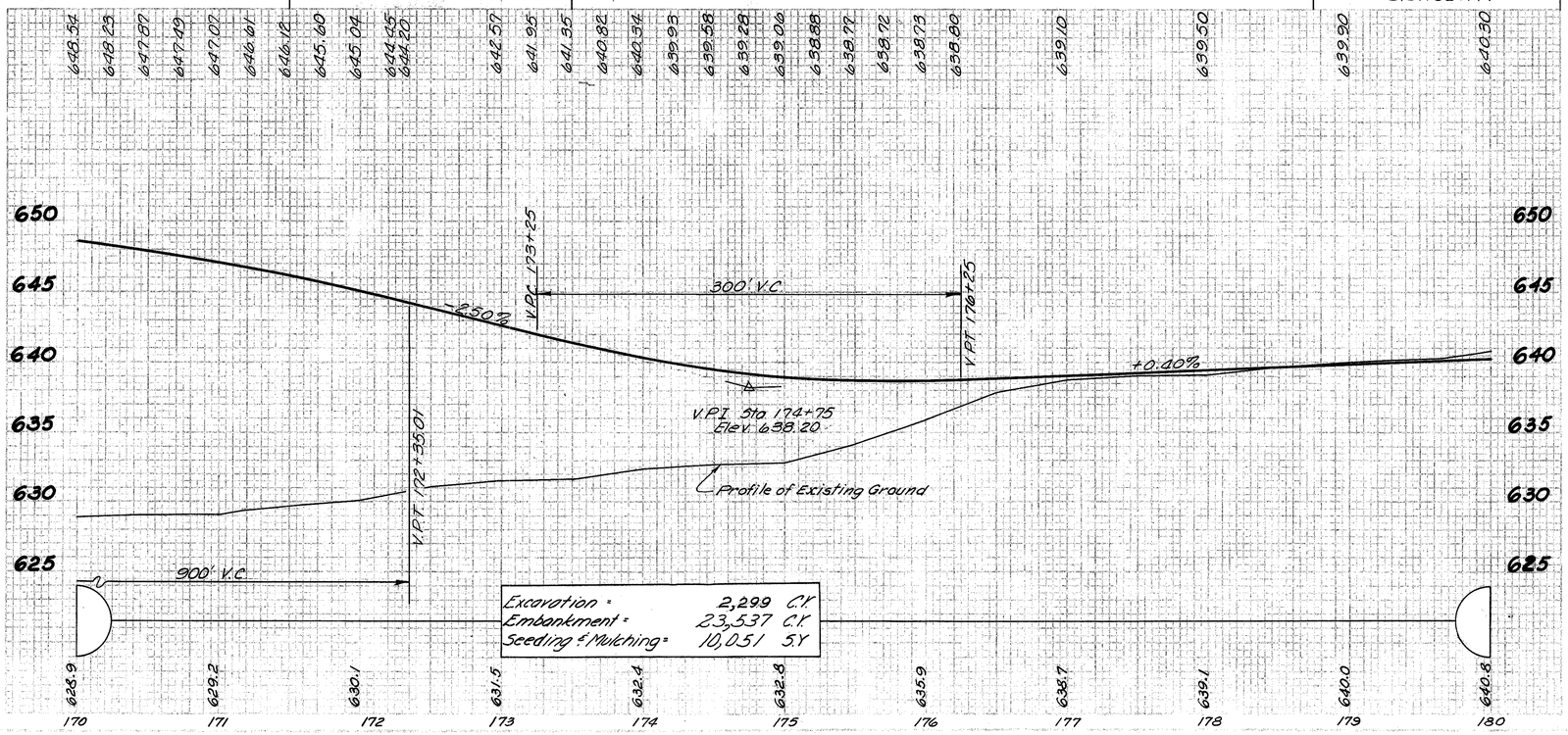
FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

68
225

ROSS COUNTY
ROS - 35 - 25.05

BENCH MARK
Chiseled Square in Stop Sign Base in Traffic Island at 206' Rt. ℄ Sta. 1386+20 E.B. U.S.R. 35 - Elev. 632.52

BENCH MARK
R.R. Spike in 24" Catalpa 250' Rt. Athens Rd. Sta. 180+10
Elev. 639.47



Excavation =	2,299 C.Y.
Embankment =	23,537 C.Y.
Seeding & Mulching =	10.051 5.Y.

ROADWAY ~ QUANTITIES ~ DRAINAGE

See Sheet Number	Reference or Structure No.	Station to Station	Side	660 Sodding	346	345	169
				S.Y.			
	1-R	170+00 to 170+98.83	Lt.				
	2-R	170+00 to 173+1.3	Rt.				
	1-D	170+90 to 176+1.10	Rt.				
	2-D	74+00 (Ramp C) to 177+10	Lt.				
19		73+00 (Ramp C")	Lt.				
20		180+14.88	Lt.				
		TOTAL					

See Sheet Number	Reference or Structure No.	Station to Station	Side	606 Approach End Assembly Each	606 Guard Rail Type 5 Lin. Ft.	612.06
	1-R	170+00 to 170+98.83	Lt.	1	99	
	2-R	170+00 to 173+1.3	Rt.	1	330	
		TOTAL		2	429	2

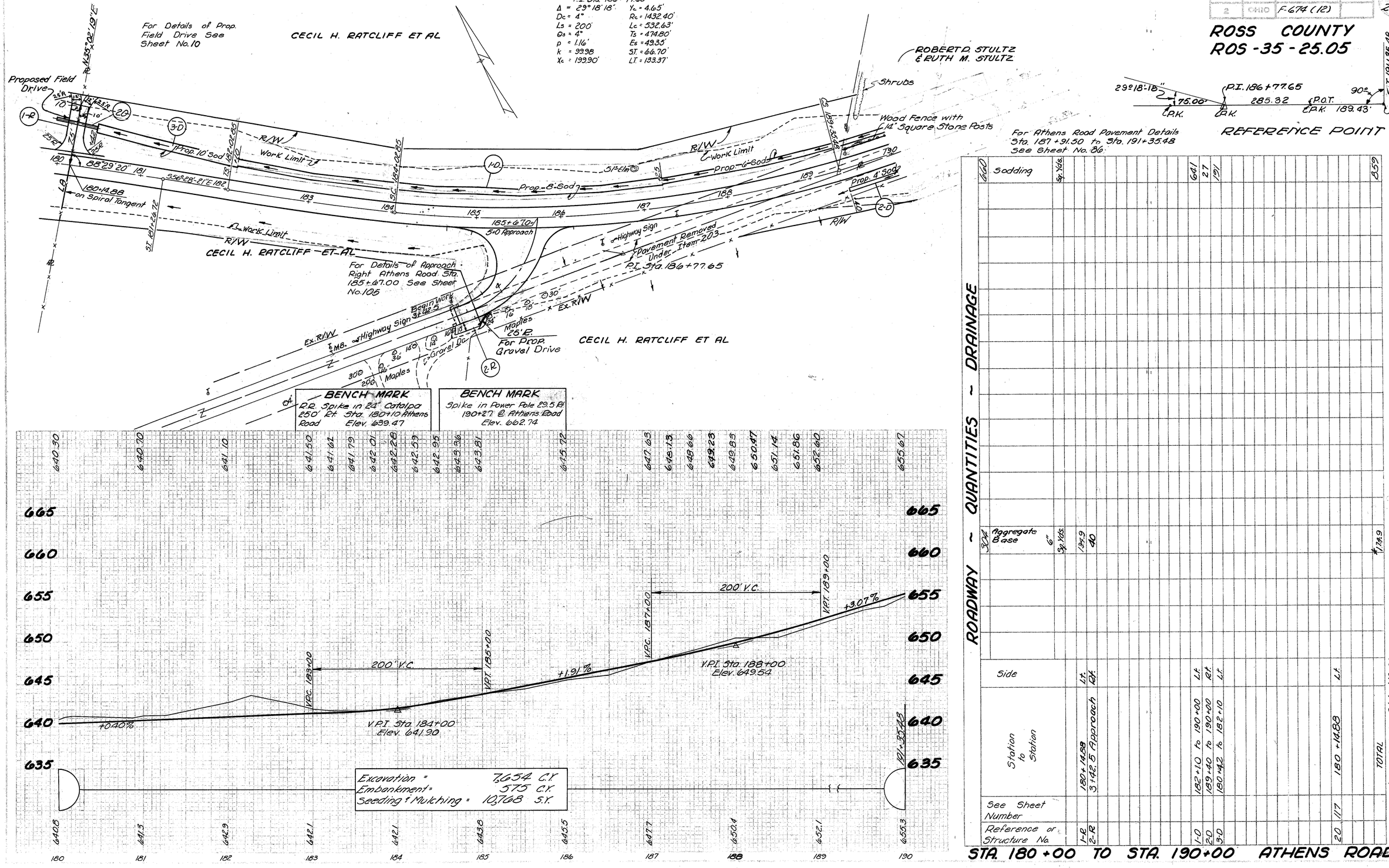
STA. 170+00 TO STA. 180+00 ATHENS ROAD

FED. ROAD DIVISION	STATE	PROJECT	
5	OHIO	F-674 (12)	

69
225

ROSS COUNTY
ROS-35-25.05

PROP. CURVE DATA
P.I. Sta. 186+77.65
Δ = 29°18'18" Yc = 4.65'
Dc = 4° Rc = 1432.40'
Ls = 200' Lc = 532.63'
θs = 4° Ts = 474.80'
p = 1.16' Es = 49.35'
k = 99.98 ST. = 66.70'
Xc = 199.90' LT. = 183.37'



ROADWAY ~ QUANTITIES ~ DRAINAGE

See Sheet Number / Reference or Structure No.	Station to Station	Side	304 Aggregate Base 6" Sq. Yds.	659 Sodding Sq. Yds.
1-R	180+14.88	Lt.	139.9	
2-R	3+42.5 Approach	Rt.	40	
1-0	182+10 to 190+00	Lt.		641
2-0	189+40 to 190+00	Rt.		27
3-0	180+42 to 182+10	Lt.		191
20	1+17			859
20	180+14.88	Lt.	#139.9	
	TOTAL			

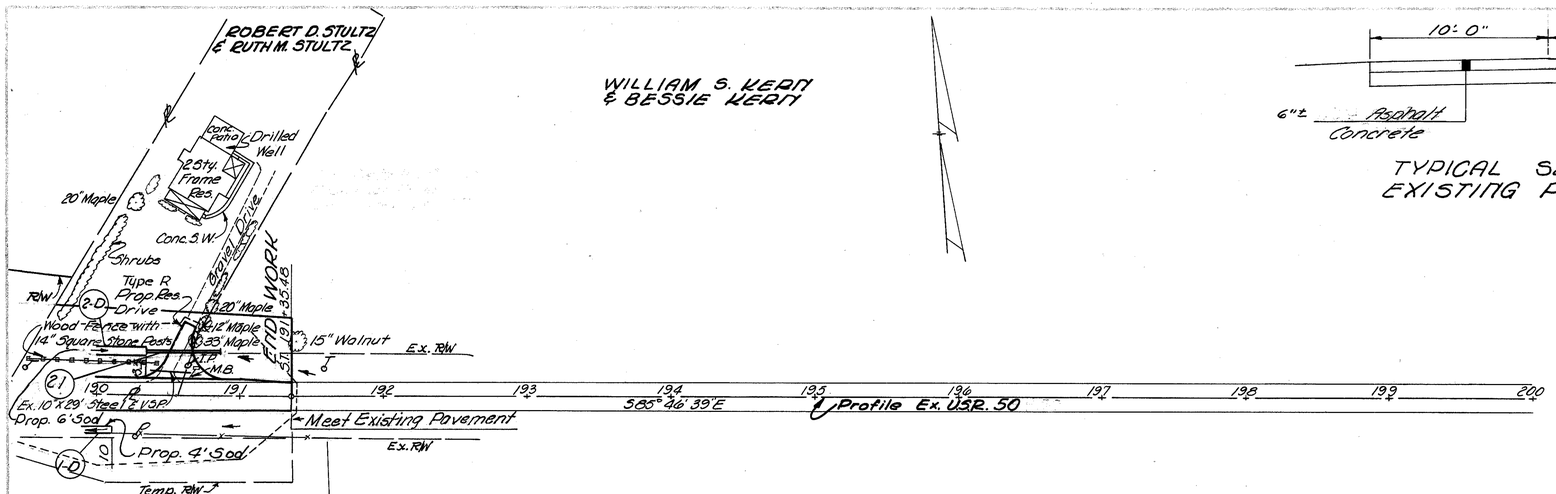
Carried to Sht. No. 21

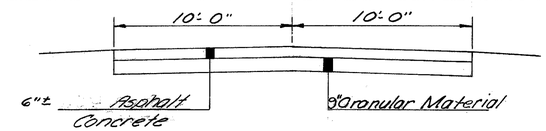
STA. 180+00 TO STA. 190+00 ATHENS ROAD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

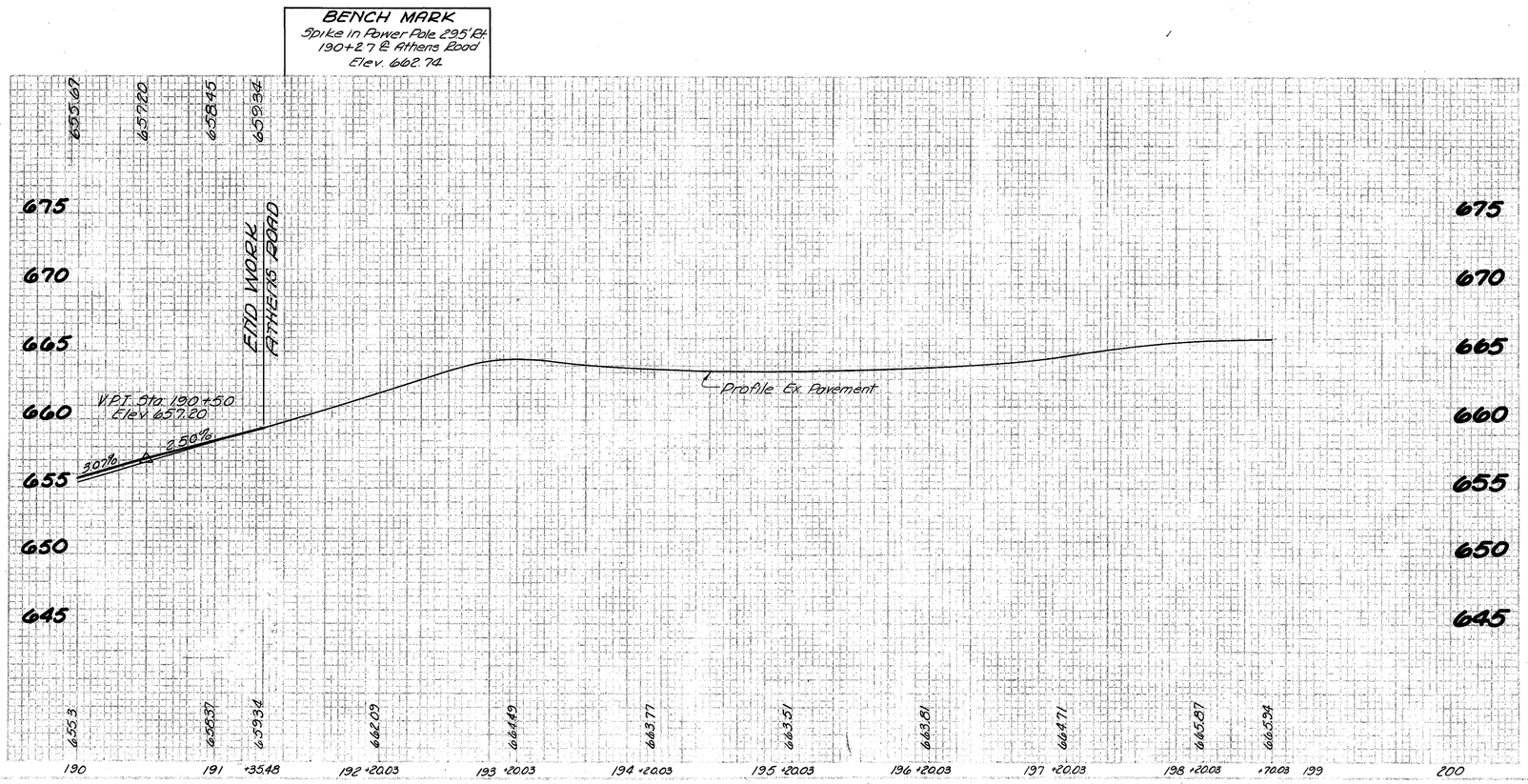
70
225

ROSS COUNTY
ROS -35-25.05





TYPICAL SECTION
EXISTING PAVEMENT



ROADWAY ~ QUANTITIES ~ DRAINAGE

Reference or Structure No.	See Sheet Number	Station to Station	Side	
1-D		190+00 to 190+10	Rt.	
2-D		190+00 to 190+35	Lt.	
21	117	190+50 ±	Lt.	
		Total		

660 Sodding 3 sq. yd. 4 24 28

STA. 190+00 TO STA. 200+00 ATHENS ROAD

F-674(12)

71
225

ROSS COUNTY
ROS-35-25.05

END AREA | VOLUME
CUT | FILL | CUT | FILL

122
1,450
139
1,411
116
1,128
87
661
72
0

T.R/W | Ex. R/W | Painted Lane Line | ℄ Ex. Pav't | LA Ex. R/W | ℄ Drive | W/A

6:1 | 8:1 | 6:1 | 3:1

℄ 628.6 | 632.54 | **143+00** | ℄ 628.5

℄ 624.03 ⌀ 2 Prop. 603-577'×12" Candwit Type C

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

141 9

579 25

Ahead 206 6
Sta. 142+10
Back 221 13

℄ Ex. Pav't Sta. 142+10 =
11' Lt. ℄ Ramp B Sta. 142+10
Meet Existing Pavement

T.R/W | Ex. R/W | LA Ex. R/W | ℄ Drive | W/A

4:1

℄ 628.2 | 631.55 | **142+00** | 631.38 | ℄ 628.2 ⌀ 2 ℄ 623.28

81 5

221 13

End 6' Sod Ex. R/W Lt. Sta. 141+10

End 6' Sod Rt. Sta. 141+10

LA Ex. R/W | L.A. Ex. R/W | ℄ Drive | W/A

6' Sod | 6' Sod

4:1 | 6:1

℄ 627.8 | 629.83 | **141+00** | 630.24 | ℄ 627.8 ⌀ 2 ℄ 622.03

891 43

260 10

Quantity Limit

L.A. Ex. R/W | ℄ Drive | W/A

6' Sod | 6' Sod

Ahead

8:1 | 3:1 | Ahead & Back

6:1 | 6:1

626.97

℄ 625.6 | **140+00** | 628.69 | ℄ 625.5 ⌀ 2 ℄ 620.78

Meet Ex. Pav't of Proposed Drive 59' Rt. Sta. 140+00

1,000 41

Ahead 280 12
Sta 140+00
Back 270 0

Note:
For cross-section extensions
See Sheet № 47 & 48

Begin 6' Sod Lt. Sta. 139+57

Begin 6' Sod Rt. Sta. 139+30

Quantity Limit

Ramp B

L.A. Ex. R/W

2:1 | 4:1 | 6:1 Var.

⑥ For Detail See Sheet No.

Std. #5 C.B. 19' Rt. ℄ Ramp B Sta. 139+23
℄ C.B. 619.86
℄ Grate 622.69

For Proposed Storm Sewer System See Sheet № 108

⑥

℄ 622.5 | 624.73 | **139+25** | 627.43

Prop. 603-577'×12" Candwit Type C with Class 'B' Bedding

750 14

Ahead 270 10
Sta. 139+25
Back 0 0

NOTE: For Earthwork Back Sta. 139+25
See Sheet № 47

139+25

139+25
Ahead
Back

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120

(RAMP "B")
ATHENS ROAD STA. 139+25 TO STA. 143+00

SHEET NO.	STATE	PROJECT		TOTAL SHEETS
2	OHIO	F-674(12)		72
				225

ROSS COUNTY
ROS-35-25.05

SECTION	END WIDTH	STA.	SHR AREA CUT	SHR AREA FILL	SHR VOLUME CUT	SHR VOLUME FILL
		149+00				
		631.23				
		R/W				
		Ex. R/W				
0		147+97.62				
		148+00				
		632.47				
		SUSPEND WORK STA. 147+97.62 = 0.0 SECTION				
		End Proposed Res. Drive @ Sta. 147+50 See Sheet No. 65				
		Sta. 147+97.62	0	0		
297					47	31
55		4:1 4:1 ℄ 629.8				
		147+00			26	17
481		633.00				
		Ex. R/W ℄ Drive W/A W/A				
118		3:1 4:1 R/W			49	96
		146+50				
533		633.18			27	87
		℄ 629.2 Drains into Lick Run Road				
		6:1 Var ℄ 630.0 ℄ Drive W/A			44	152
74		℄ 629.8				
		Quantity Limit			21	77
		Note: For cross section extensions, See Sheet No. 100				
		146+00				
419		633.33				
		R/W Quantity Limit Ex. R/W ℄ Drive W/A			25	125
77		145+50				
522		633.35			6	58
		Drainage from Lick Run Rd. ℄ 629.6 ℄ Drive W/A				
		℄ 628.7			38	83
111		6:1 6:1 ℄ 629.4 2:1				
		145+00				
		633.34			35	32
		(26) Prop. 603-577' x 12" Conduit Type C with Class B Bedding For Detail See Sheet No. 120				
1,244						
		Painted Lane Line LA Ex. R/W ℄ Drive W/A				
113		6:1 8:1 6:1 Var 3%			198	83
		℄ 629.0 144+00 ℄ 629.2				
1,305		633.10 9° Prop. 603-577' x 12"			72	13
		℄ 625.78 Conduit Type C			394	41
122		Sta. 143+00			Sta. 143+00 141	9

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

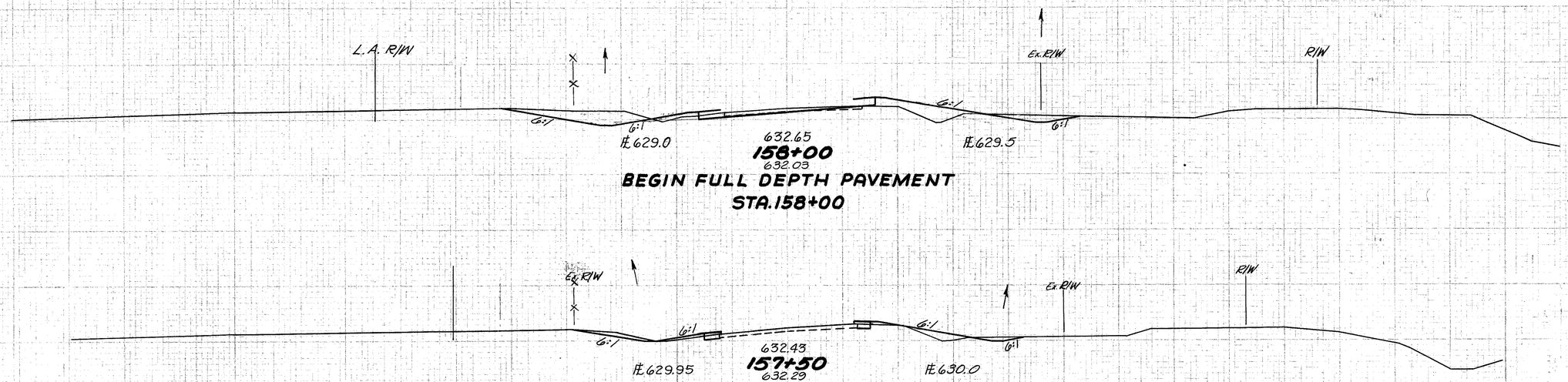
(RAMP "B")
ATHENS ROAD STA. 144+00 TO STA. 149+00

SHEET NO.	TOTAL SHEETS
2	OHIO

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	73 225

ROSS COUNTY
ROS-35-25.05

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	51	34		
			57	47
	10	17		
			12	16
	3	0		



ATHENS ROAD STA. 157+00 TO STA. 158+00

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

FED. AID DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

74
225

ROSS COUNTY
ROS-35-25.05

SECTION		END AREA		VOLUME	
CAT.	STA.	CUT	FILL	CUT	FILL
	156				
	123	Ahead		Ahead	104 335
		Back		Back	104 253
	717				203 415
	135				115 195
	656				219 322
	101				121 153
	700				273 257
	151				174 125
	753				251 178
	120				97 68
	614				137 94
	101	Sta. 158+00		Sta. 158+00	51 34

L.A. R/W

Quantity Limit Back

Quantity Limit Ahead Ex. R/W

Var.

6:1

E 626.95

637.08
160+50
629.35

℄ Sta. 160+00 = 0+0 Approach Rt. Sta. 160+00 Athens Road

Ex. R/W

Quantity Limit

Var.

E 627.10

Granular Material

635.83
160+00
630.69

Quantity Limit Ahead

Ex. R/W

R/W 157'

6:1

E 627.2

634.69
159+50
631.09

Begin Granular Material and End 605 Sta. 159+50

Ex. R/W

R/W

2:1

6.4%

Var.

633.78
159+00
631.36

℄ 100' x 15" Conduit

E 627.4

E- 627.7

(14) See Sheet No 113

L.A. R/W

Ex. R/W

R/W

6:1

E- 628.2

633.10
158+50
631.67

E- 629.0

Sta. 158+00

Sta. 158+00

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

ATHENS ROAD STA. 158+50 TO STA. 160+50

FED. RD. DIVISION	STATE	PROJECT		75
2	OHIO	F-674(12)		225

ROSS COUNTY
ROS-35-25.05

Begin Guard Rail
Lt. ℄ Sta. 643+07

L.A. R/W

156

4:1

4:1

Granular Material

℄ 626.2

643.33
163+00
629.46

Quantity Limit

4:1

3:1

℄ = 629.0

844

148

℄ 626.35

642.08
162+50
629.74

Quantity Limit

4:1

℄ = 629.5

Begin Guard Rail
Rt. ℄ Sta. 162+46.19

794

138

4:1

4:1

℄ 626.50

640.83
162+00
629.95

Quantity Limit

5:1

℄ 630.0

Note:
For Cross Section Ext.
See Sheet Nº 103, 104

778

142

4.75:1

5:1

℄ 626.65

639.58
161+50
630.44

Quantity Limit

4:1

6:1

℄ 630.5

797

145

836

156

L.A. R/W

5:1

5:1

℄ 626.8

638.33
161+00
630.65

Quantity Limit

6:1

6:1

℄ 631.0

Sta. 160+50

Sta. 160+50

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

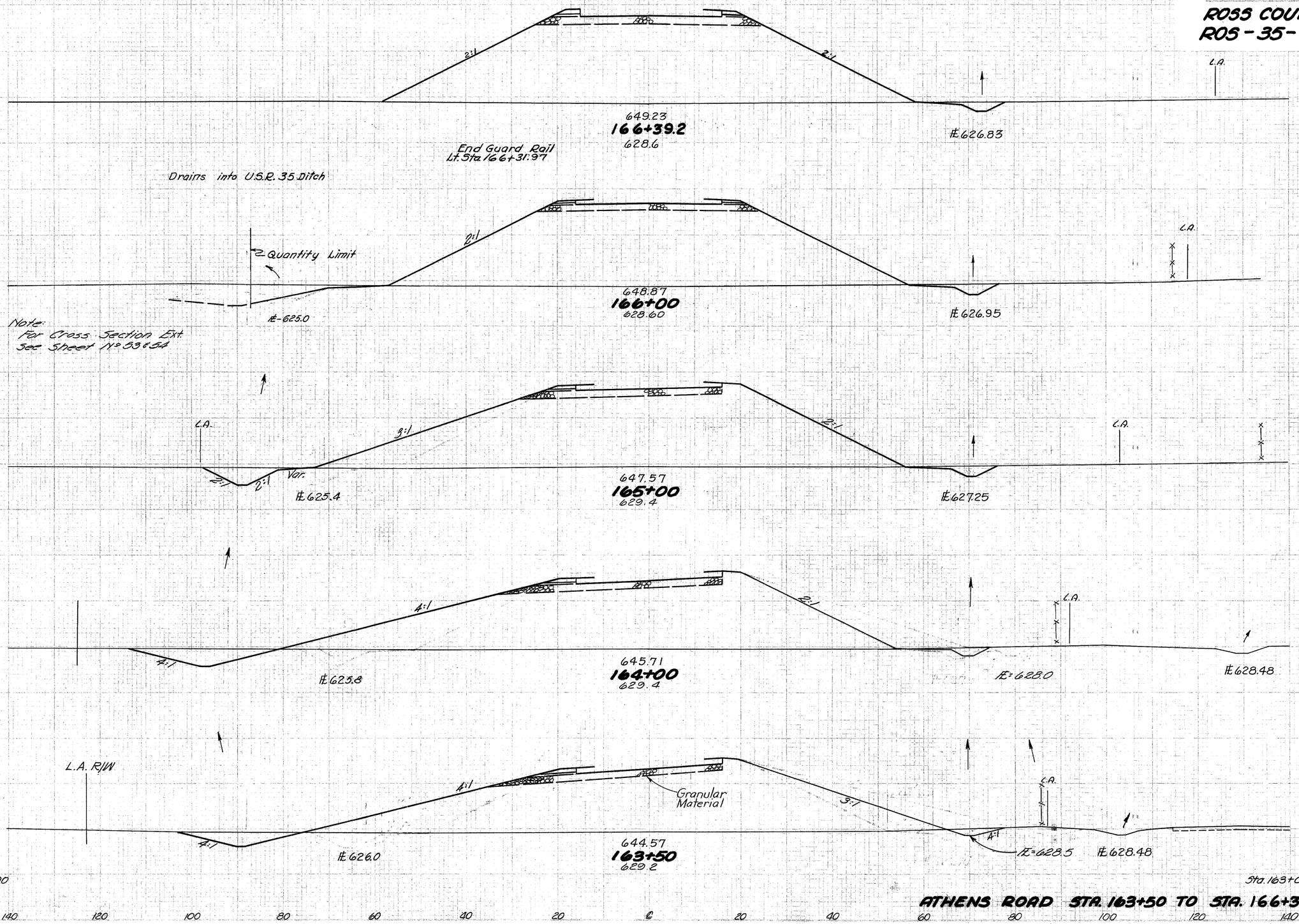
ATHENS ROAD STA. 161+00 TO STA. 163+00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
			40	1170
			74	1950
			40	936
			70	1565
			35	754
			76	1228
			47	572
			103	1023
			64	533
			156	804
			104	335

FED. OR DIVISION	STATE	PROJECT		76 225
5	OHIO	F-674(12)		

ROSS COUNTY
ROS-35-25.05

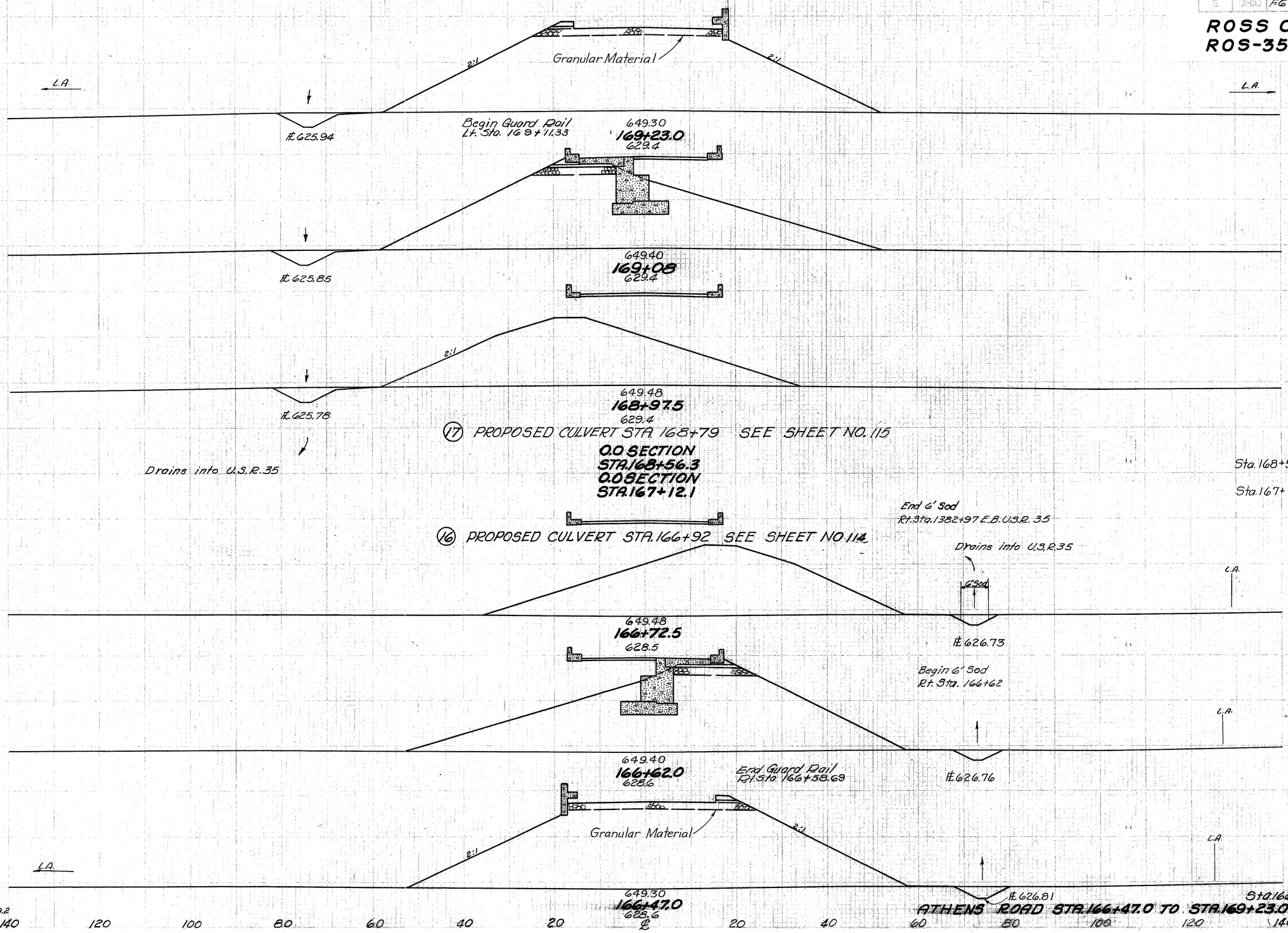
SECTION		END AREA		VOLUME	
END WIDTH	DIS. TANS.	CUT	FILL	CUT	FILL
140					
			17		1549
627					
				66	2167
148					
			74		1436
1817					
					244 5311
179					
			58		1432
2011					
					254 5050
183					
			79		1295
989					
					127 2357
173					
			58		125
914				91	2242
156					
			40		1170



ATHENS ROAD STA. 163+50 TO STA. 166+39.2

SECTION	STATE	PROJECT		77
2	OHIO	FG74 (12)		225

ROSS COUNTY
ROS-35-25.05



SECTIONS		END AREA		VOLUME	
SO WIDTH	SO TOS.	CUT	FILL	CUT	FILL
132			28	1341	
	207				16 689
116			29	1138	
	115				11 371
81			29	769	
	70				22 587
0		Sta. 168+56.3	0	0	
		Sta. 167+12.1	0	0	
0					11 590
	57				
71			15	805	
	108				6 386
114			16	1179	
					10 716
	205		20	1400	
					5 426
132					
140	118	Sta. 166+39.2	17	1549	

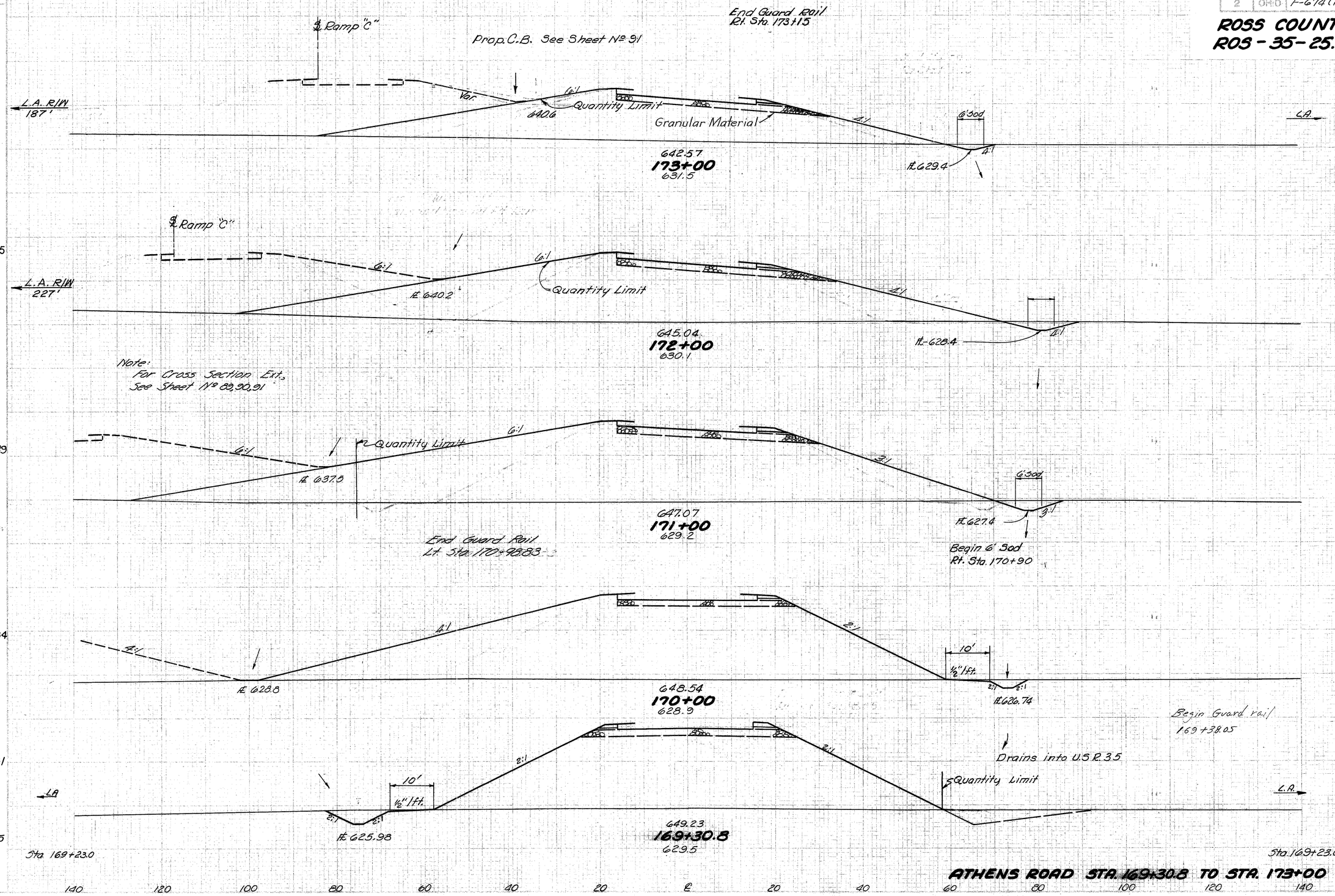
FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

76
225

ROSS COUNTY
ROS-35-25.05

SHEETING

END WIDTH	DIA.
70	
945	
100	
1289	
132	
1,634	
162	
1131	
132	
115	
132	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		6	876
		41	4373
		16	1485
		63	6047
		18	1750
		57	6645
		13	1808
		56	4228
		30	1491
		8	409
		28	1341

ATHENS ROAD STA. 169+30.8 TO STA. 173+00

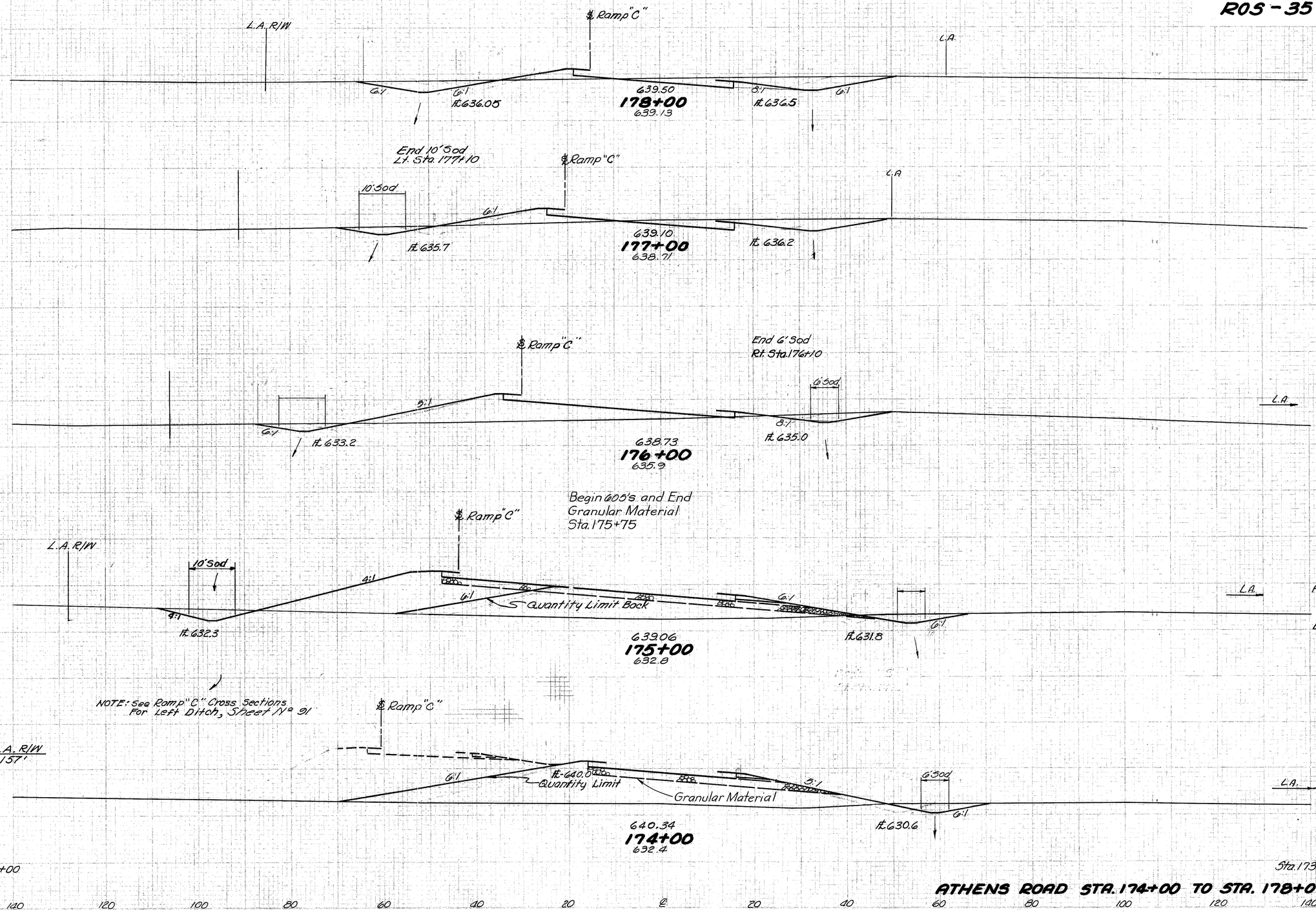
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

SECTIONS	
SEC. WIDTH	SEC. DIST.
79	
	811
67	
	761
70	
	967
104	
Ahead	
40	
Back	
	550
59	
	717
70	

REG. NO. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

79
225

ROSS COUNTY
ROS-35-25.05



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	100	21		
			339	122
	83	45		
			206	467
	28	207		
			131	1624
Ahead	43	670		
Back	13	339		
			46	1587
	12	518		
			33	2581
Sta. 173+00	6	876		

ATHENS ROAD STA. 174+00 TO STA. 178+00

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

FED. RD. DIVISION	STATE	PROJECT		80 225
2	OHIO	F-674 (12)		

ROSS COUNTY
ROS-35-25.05

SECTIONS END WIDTH	SQ. FEET
70	922
96	1067
96	1183
117	1294
116	1083
79	

R/W 8'Sod 6:1 8:1 641.50 183+00 642.1 ℄ 638.90 ℄ 640.0 6:1 8:1 R/W

Begin 8' Sod
End 10' Sod
Lt. Sta. 182+10

R/W 10'Sod 641.10 182+00 642.9 ℄ 638.60 ℄ 639.4 R/W

R/W 10'Sod 640.70 181+00 641.3 ℄ 637.60 ℄ 638.6 R/W

Begin 10' Sod
Lt. Sta. 180+42

L.A. R/W End Work on Proposed Drive 0+84 Profile Proposed Drive Lt. ℄ Sta. 180+14.88 1.4% 180+14.88 = 0+0 Drive L.A.

640.30 180+00 640.8 ℄ 637.0 ℄ 637.4

20 For Proposed Pipe See Sheet No. 117

Add for Drive Lt. ℄ Sta. 180+14.88

L.A. R/W ℄ Ramp "C" L.A. 6:1 8:1 639.90 179+00 640.0 ℄ 636.40 ℄ 636.8 6:1 6:1

Sta. 178+00 Sta. 178+00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
176	0		
		924	0
323	0		
		1049	0
240	0		
		872	7
		113	
231	4		
		813	30
208	12		
		570	61
100	21		

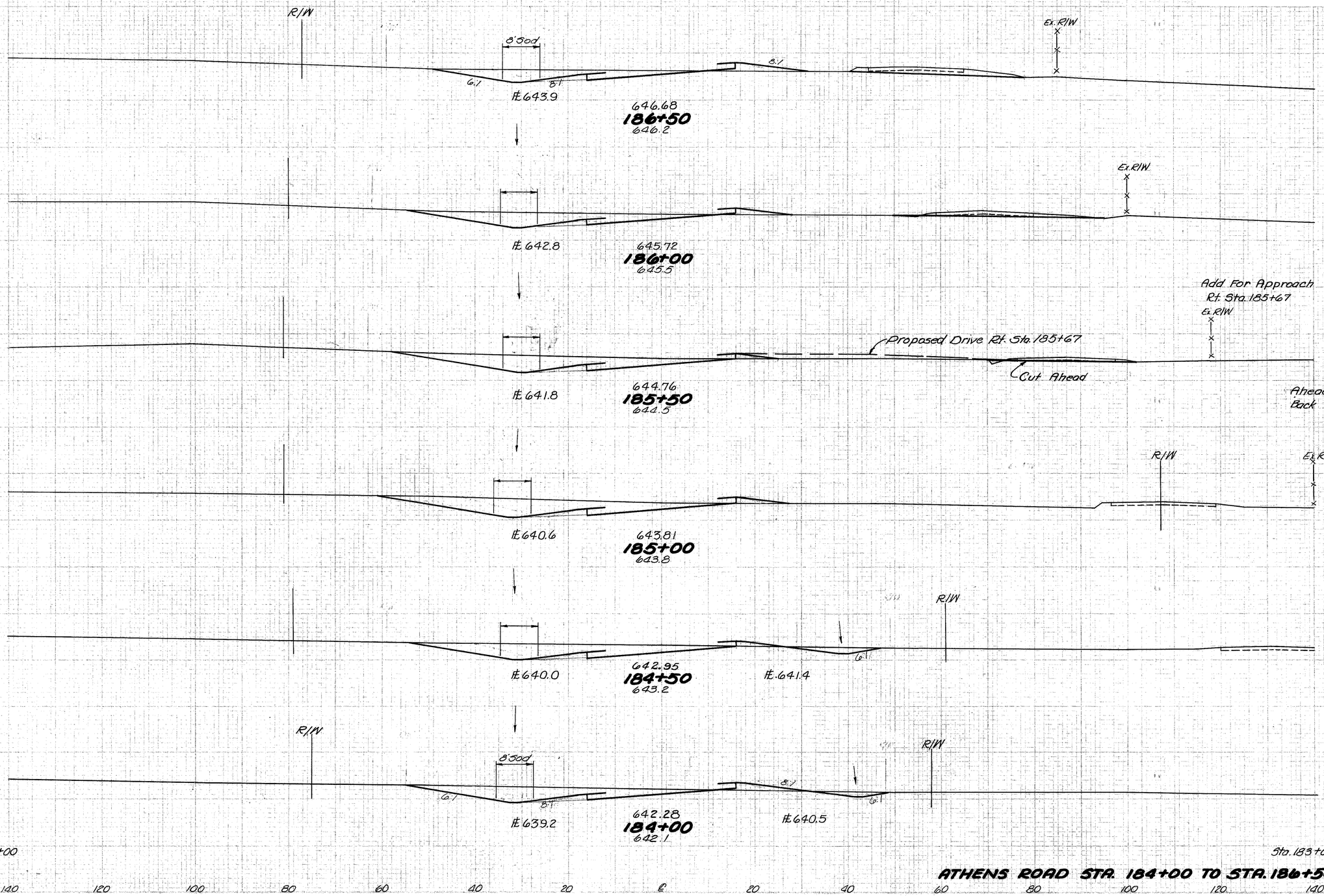
ATHENS ROAD STA. 179+00 TO STA. 183+00

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

FED. DIV.	STATE	PROJECT		81
2	OHIO	F-674 (12)		225

ROSS COUNTY
ROS-35-25.05

SECTIONS	
CUT	FILL
104	
	644
128	
	736
137	
	542
	356
70	
	375
65	
750	
70	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
136	23		
			262 33
147	13		
			49
			290 22
Ahead		166	10
Back		144	8
			277 17
155	10		
			285 8
152	9		
			259 26
128	19		
			563 18
176	0		

ATHENS ROAD STA. 184+00 TO STA. 186+50

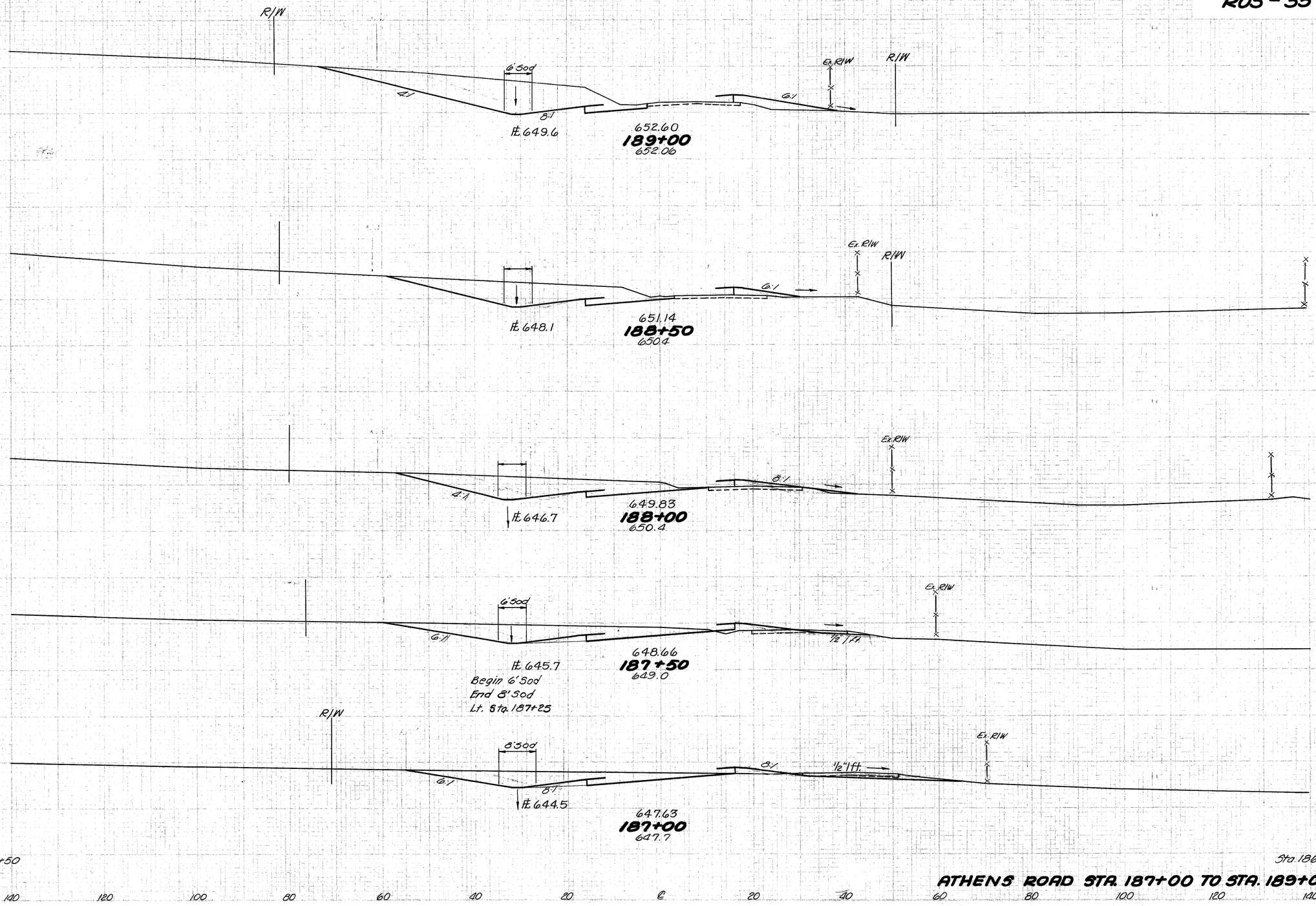
STA. NO. ANTECED.	STATE	PROJECT	
2	OHIO	F-674(12)	

82
225

ROSS COUNTY
ROS-35-25.05

SECTION

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
95				
444			284	36
65			441	50
389			192	18
75			351	35
453			187	20
88			335	35
511			174	18
96			322	28
556			174	12
			287	33
104			136	23

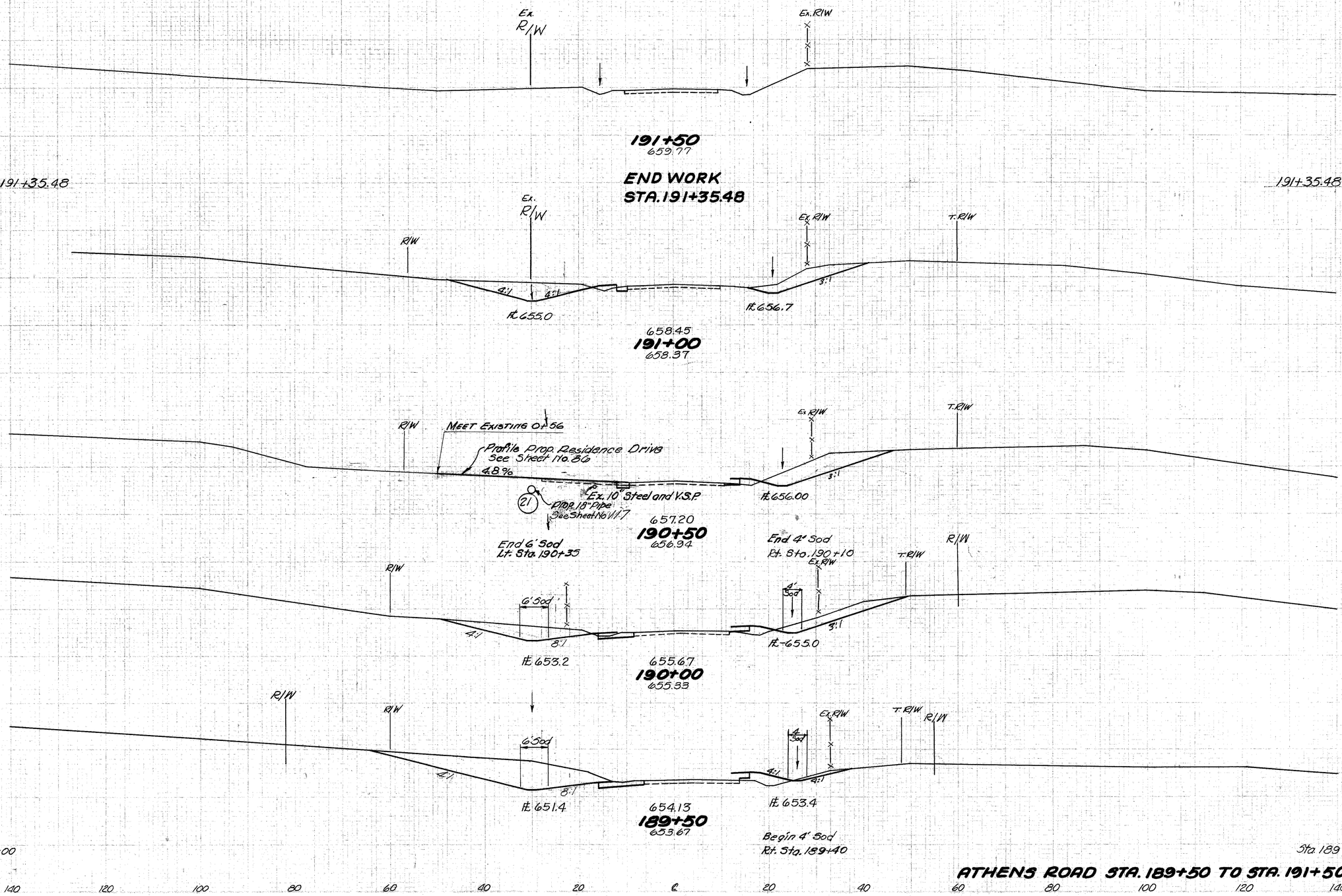


ATHENS ROAD STA. 187+00 TO STA. 189+00

SEC. NO.	KIND	PROJECT		83
2	ORIG	F-674(12)		225

ROSS COUNTY
ROS-35-25.05

END AREA		VOLUME	
CUT	FILL	CUT	FILL



| | | |

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

84
225

ROSS COUNTY
ROS-35-25.05

End Ex. Approach Slab & Butt Ex. Approach Slab STA. 1350+27

Existing Structure

1350 | 1351 | 1352 | 1353

S41°17'03"E

TS. 1350+55.61

SC. 1352+55.61

℄ Prop. Eastbound U.S.R. 35

A

MATCH LINE

QUANTITY LIMIT

12'

+34.5

+17.50

100'

+17.50

6'

L.J.

Note: For Details around the Existing Approach Slab See Sheet N°11.

PLAN

P.C.C. 136+00.29 = 24'Rt. 1353+73.51

NOTE: For elevations not shown see elevation table.

LEGEND

- L.J. Standard Longitudinal Joint
- C.J. Standard Contraction Joint
- S.E. Standard Expansion Joint
- Paved Berm

7'-0" | 8'-0" | 8'-0" | 11'-0"

2'-0" | 3'-0" | 3'-0"

Same Slope as Pav't

Slope more than 0.015 ft/ft

Profile Grade ℄

1½"/ft.

4:1

8" | 6" | 8"

8' Rounding | 6' Rounding

Same Slope as Pav't ¾"/ft. Min.

SECTION D-D

B | C | D | E | G

1354 | 1355 | 1356 | 1357

DC = 1°-30"

Dc = 4°

Dc = 2°-30'

23'

12'

RAMP "B"

P.C.C. 138+23.73

+17.53

P.C.C. 136+00.29 = 24'Rt. 1353+73.51

END 451 PAVEMENT

ATHENS ROAD

P.T. 140+58.13

(T-35) Feather Area QUANTITY LIMIT STA. 142+25

℄ Ex. Pavement

Match Line See Sheet No. 85

PLAN

24'-0" | Varies See Plan | 11'-0" | 12'-0" | 11'-0"

℄ E.B. | ℄ Ramp B

Profile Grade E.B. | Profile Grade ℄

variable See plan 2'-0" | Variable 6'-0" Max.

1½"/ft. | 1"/ft. | 1¼"/ft.

6" | 11"-3" | 4' Rounding

L.J. | 7 | 1 | 2 | 10 | 3 | 5

6-See Sheet N°3

See Alignment Sheet for depth of underdrain

SECTION B-B

24'-0" | 12'-0" | Varies | 4'-0" | 3'-0" | See Plan View | See Plan View | 11'-0"

Varies 6'-0" to 8'-0" (Min) (Max)

Varies 12'-0" to 8'-0" (Min) (Max)

℄ E.B. | Profile Grade Ramp B ℄

1"/ft. | 1½"/ft. | 6:1 | 6:1 | 4' Rounding | 4' Rounding

variable See plan 2'-0" | Variable 6'-0" Max. | 1¼"/ft. | 1"-3" | 6" | 4'-0" Rounding

6-See Sheet N°3

See Alignment Sheet for depth of underdrain

SECTION C-C

12'-0" | 8'-0" | 3'-0"

℄ E.B.

see elevation table

Face of Guard Rail

⅛"/ft. | 1" | 6" | 6' Rounding | 2:1

L.J. | 7 | 1 | 2 | 3

SECTION A-A

7'-0" | 8'-0" | 8'-0" | 11'-0"

3'-0" | 3'-0"

Profile Grade ℄

½"/ft. | 3/16"/ft. | 1" | ½"/ft.

6" | 8" | 8' Rounding

4:1

SECTION E-E

6" Curb butted against catch basin curb casting and shall be included in bid price for catch basin

2'-0"

C.B. N°3

SECTION G-G

ESTIMATED PAVEMENT QUANTITIES F-674 (12)

No.	Item	Description	Quantity	Unit
3	301	3" Bituminous Aggregate Base	739.9	Sq. Yds.
2	304	4" Aggregate Base	739.9	Sq. Yds.
10	609	Standard Type 2 Combination Curb and Gutter	292	Lin. Ft.
1	310	Subbase, Grading A (As per plan)	593	Cu. Yds.
	404	Asphalt Concrete (B5-100)	0.7	Cu. Yd.
7	451	9" Reinforced Portland Cement Concrete Pavement	1610.9	Sq. Yds.

Quantities carried to Sh^t N°21

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

PAVEMENT DETAILS
EXIT RAMP "B"
STA. 1350+17.50 U.S.R. 35 TO STA. 142+25 ATHENS RD.

SCALE 0 10 20 30 DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		W.D.J.				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

95
225

ROSS COUNTY
ROS-35-25.05

ESTIMATED PAVEMENT QUANTITIES

No		Description	Quantity	Unit
2&13	304	Aggregate Base (As shown)	136.1	Cu. Yds.
3	301	3" Bituminous Aggregate Base	165	Sq. Yds.
20	402	Asphalt Concrete (85-100)	38.5	Cu. Yds.
11	310	Subbase	99	Cu. Yds.
15	605	Aggregate Drains	190	Lin. Ft.
10	609	Standard Type 2 Combination Curb and Gutter.	452	Lin. Ft.
8	612	4" Concrete Median Pavement, Standard Type 1	40	Sq. Yds.
1	310	Subbase, Grading A (As per plan)	36.7	Cu. Yds.
12	408	Bituminous Prime Coat @ 0.40 gal./S.Y.	679.9	Sq. Yds.
4	409	Seal Coat Cover Aggregate using No.8 @ 0.008 C.Y./S.Y.	165	Sq. Yds.
4	409	Seal Coat Bituminous Material @ 0.3 gal./S.Y.	165	Sq. Yds.
14	404	Asphalt Concrete (85-100)	25.3	Cu. Yds.

Quantities carried to Sht. No 21

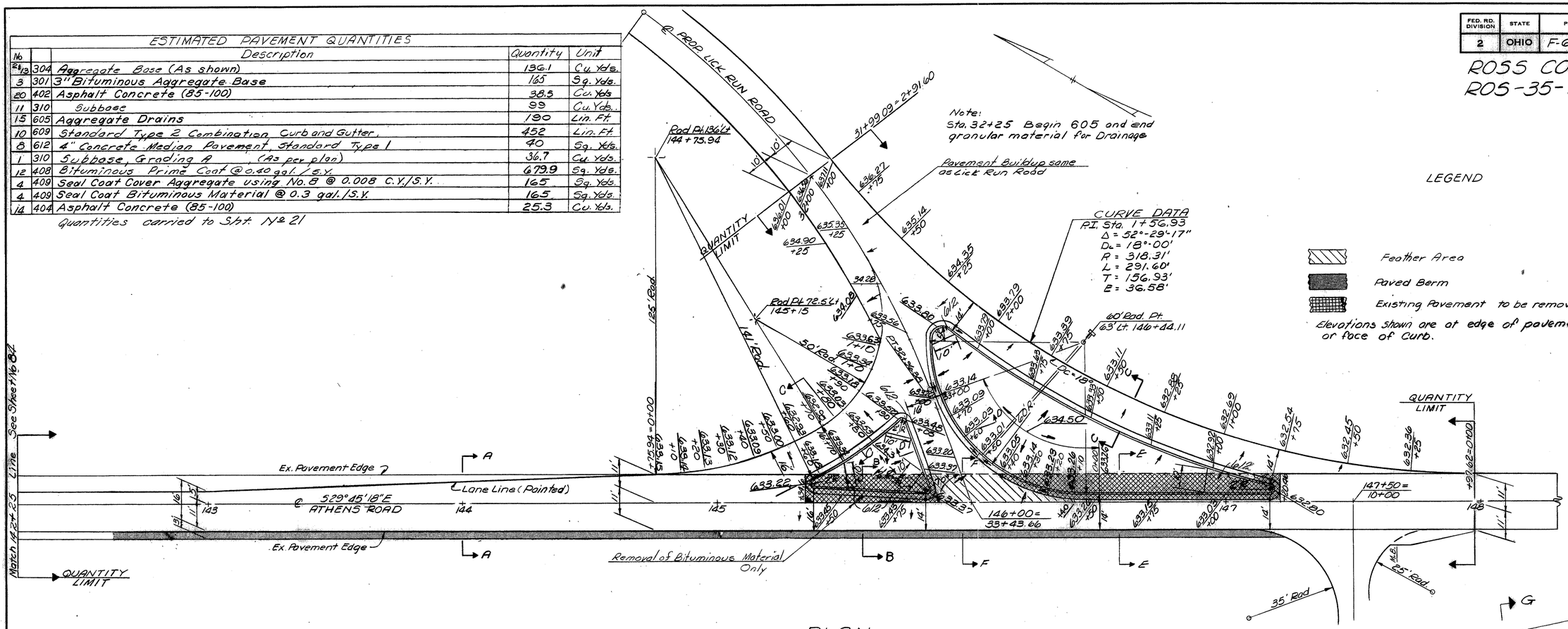
Note:
Sta. 32+25 Begin 605 and end granular material for Drainage

Pavement Buildup same as Lick Run Road

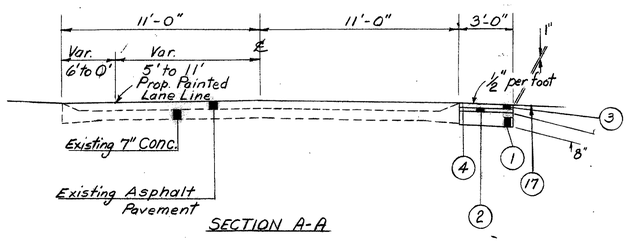
CURVE DATA
P.I. Sta. 1+56.93
Δ = 52°-29'-17"
D_a = 18°-00'
R = 318.31'
L = 291.60'
T = 156.93'
E = 36.58'

LEGEND
- Feather Area
- Paved Berm
- Existing Pavement to be removed

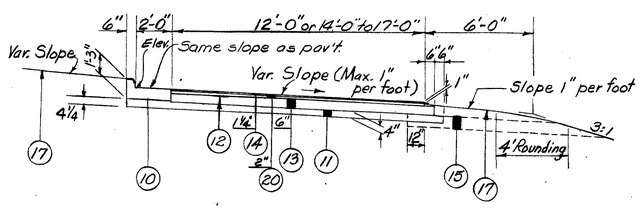
Elevations shown are at edge of pavement or face of Curb.



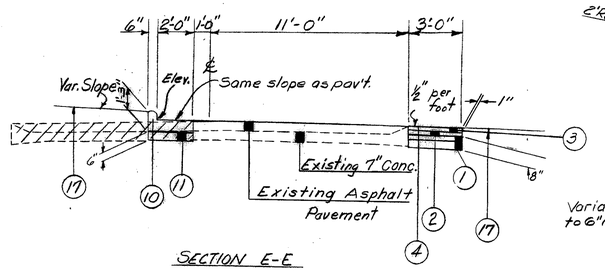
PLAN



SECTION A-A



SECTION C-C



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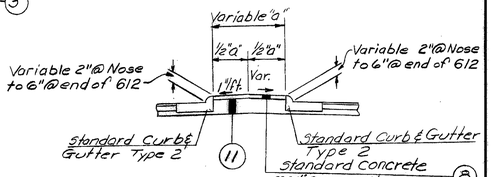
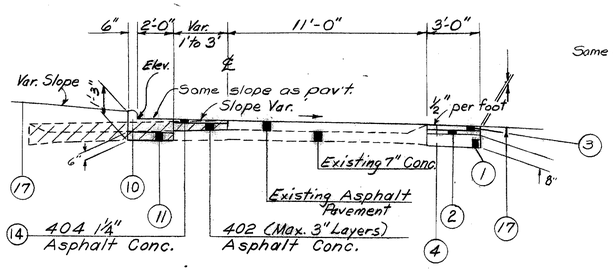
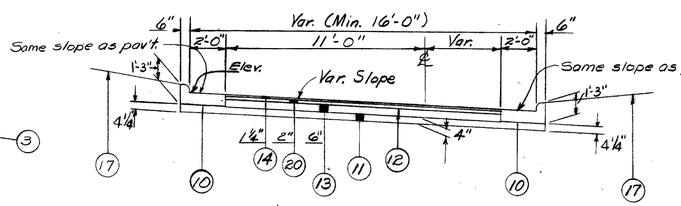


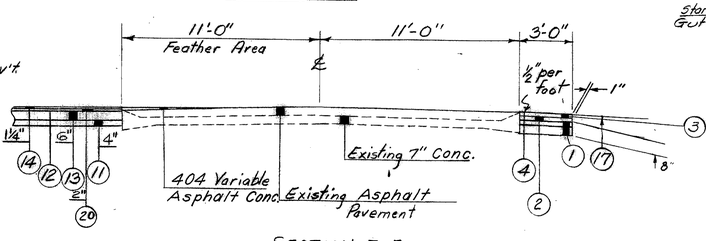
SECTION G-G



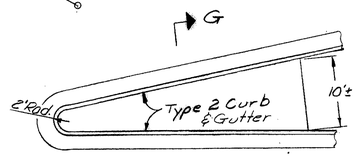
SECTION B-B



SECTION D-D



SECTION F-F



ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

PAVEMENT DETAILS
INTERSECTION
LICK RUN RD. & ATHENS RD.
STA. 142+25 TO STA. 147+97.62

SCALE 0 10 20 30 DATE

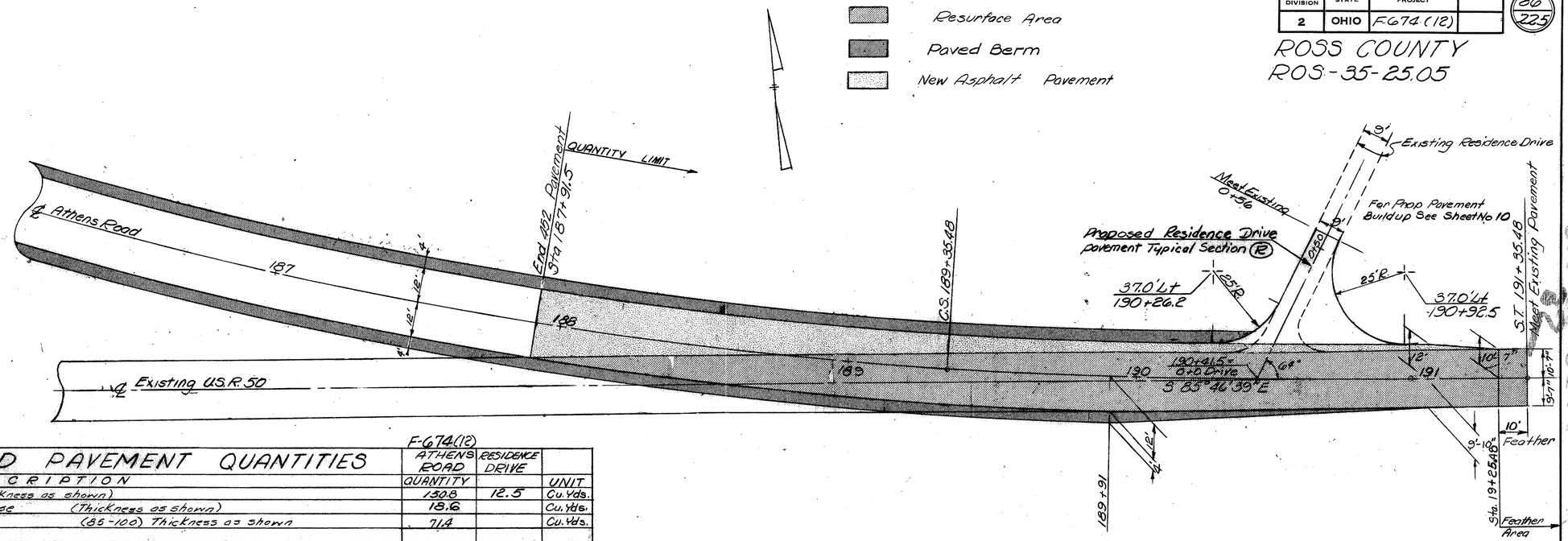
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HIZ		L.K.M.	HLZ			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

86/225

ROSS COUNTY
ROS-35-25.05

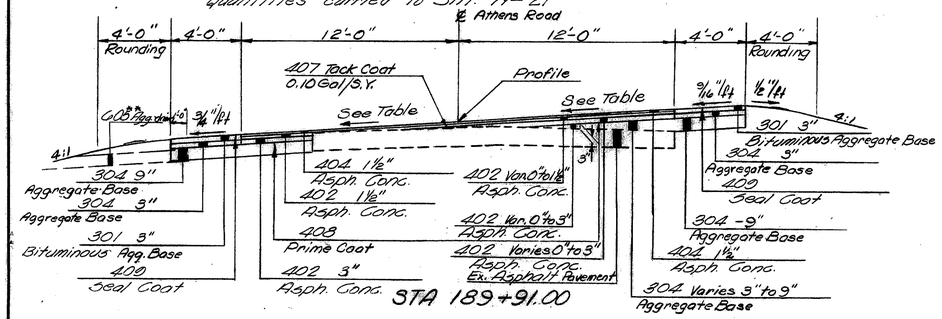
LEGEND
- Resurface Area
- Paved Berm
- New Asphalt Pavement

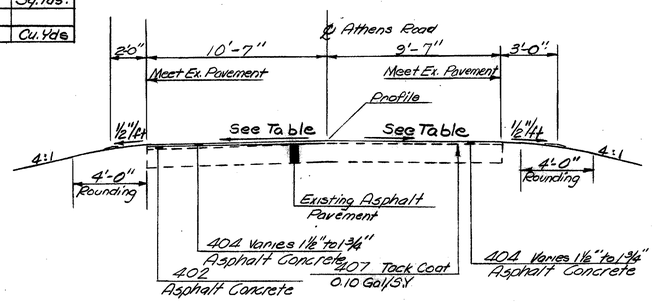


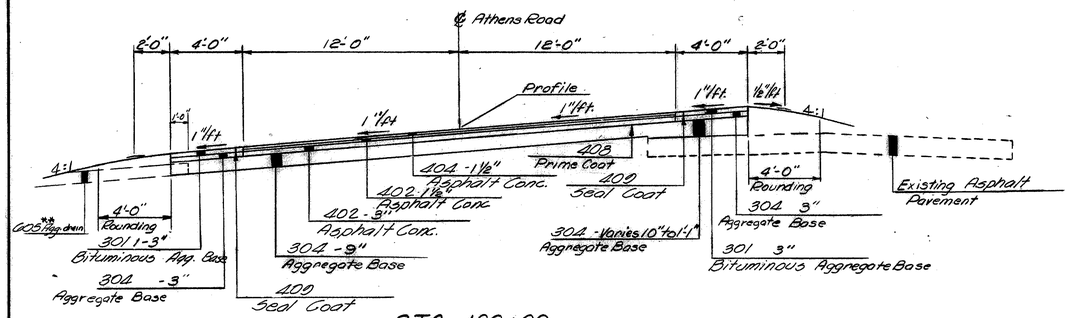
F-674(12)

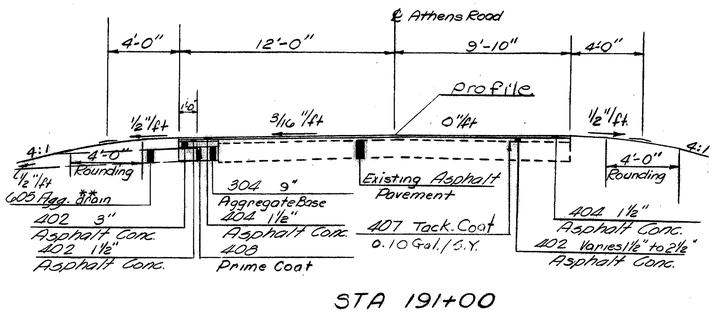
ITEM	DESCRIPTION	ATHENS ROAD QUANTITY	RESIDENCE DRIVE	UNIT
304	Aggregate Base (Thickness as shown)	150.8	12.5	Cu.Yds.
301	Bituminous Aggregate Base (Thickness as shown)	18.6		Cu.Yds.
402	Asphalt Concrete (85-100) Thickness as shown	7.4		Cu.Yds.
605	Aggregate Drains	120.0		Lin.Ft.
407	Tack Coat @ 0.10 gal./S.Y.	463.3		Sq.Yds.
408	Bituminous Prime Coat @ 0.40 gal./S.Y.	459.5	90	Sq.Yds.
409	Seal Coat Cover Aggregate No. 8 Aggregate	223.0		Sq.Yds.
409	Seal Coat Bituminous Material Applied @ rate of 0.3 gal/Sq.Yd.	223.0		Sq.Yds.
402	Asphalt Concrete (80-100) Thickness as shown	37.3	5.0	Cu.Yds.

Quantities carried to Sht. No. 21









PAVEMENT ELEVATIONS

STATION	LEFT EDGE	DISTANCE LEFT	℄	DISTANCE RIGHT	RIGHT EDGE
188+0	648.83	12'-0"	649.83	12'-0"	650.83
188+50	650.14		651.14		652.14
189+00	651.60		652.60		653.60
189+35.48	652.79		653.69		654.59
189+55.48	653.50		654.30		655.10
189+75.48	654.22		654.92	12'-0"	655.62
189+95.48	654.93		655.53	11'-11"	656.13
190+15.48	655.65		656.15	11'-6"	656.65
190+35.48	656.36		656.76	11'-1"	657.16
190+55.48	657.04		657.34	10'-9"	657.64
190+75.48	657.64		657.84	10'-4"	658.04
190+95.48	658.15	12'-0"	658.34	9'-11"	658.41
191+15.48	658.68	11'-2"	658.84	9'-9"	658.78
191+35.48	MEET	EXISTING	PAVEMENT		

** Note: Agg. drains Shall be placed at 25' intervals on the left - Sta 187+91.5 to 191+25

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

PAVEMENT DETAILS
ATHENS ROAD
STA 187+91.5 TO 191+35.48

SCALE DATE

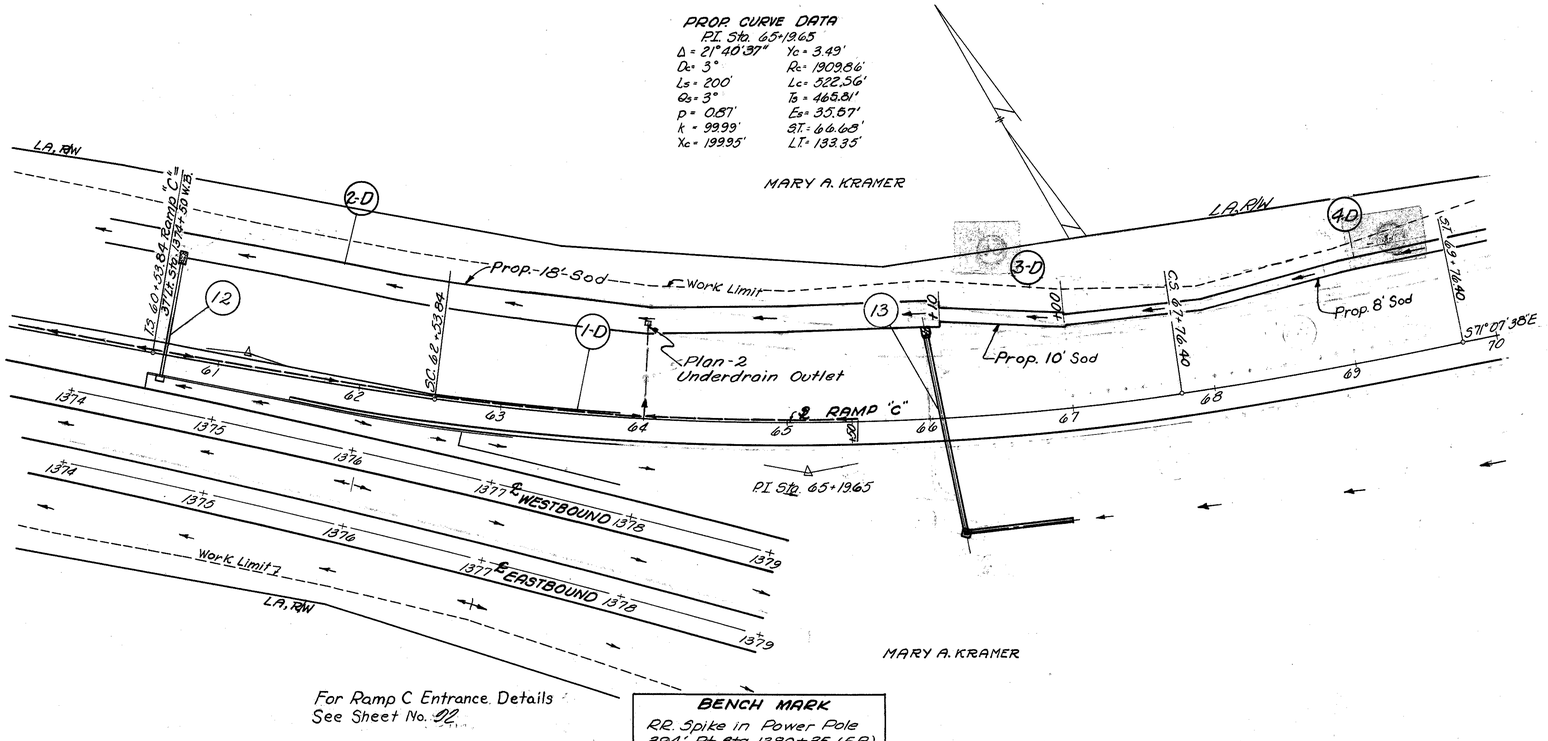
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
N.R.	N.R.	N.R.	T.H.Z.			

FED. ROAD DIVISION	STATE	PROJECT		
5	OHIO	F-6.74 (12)		

87
225

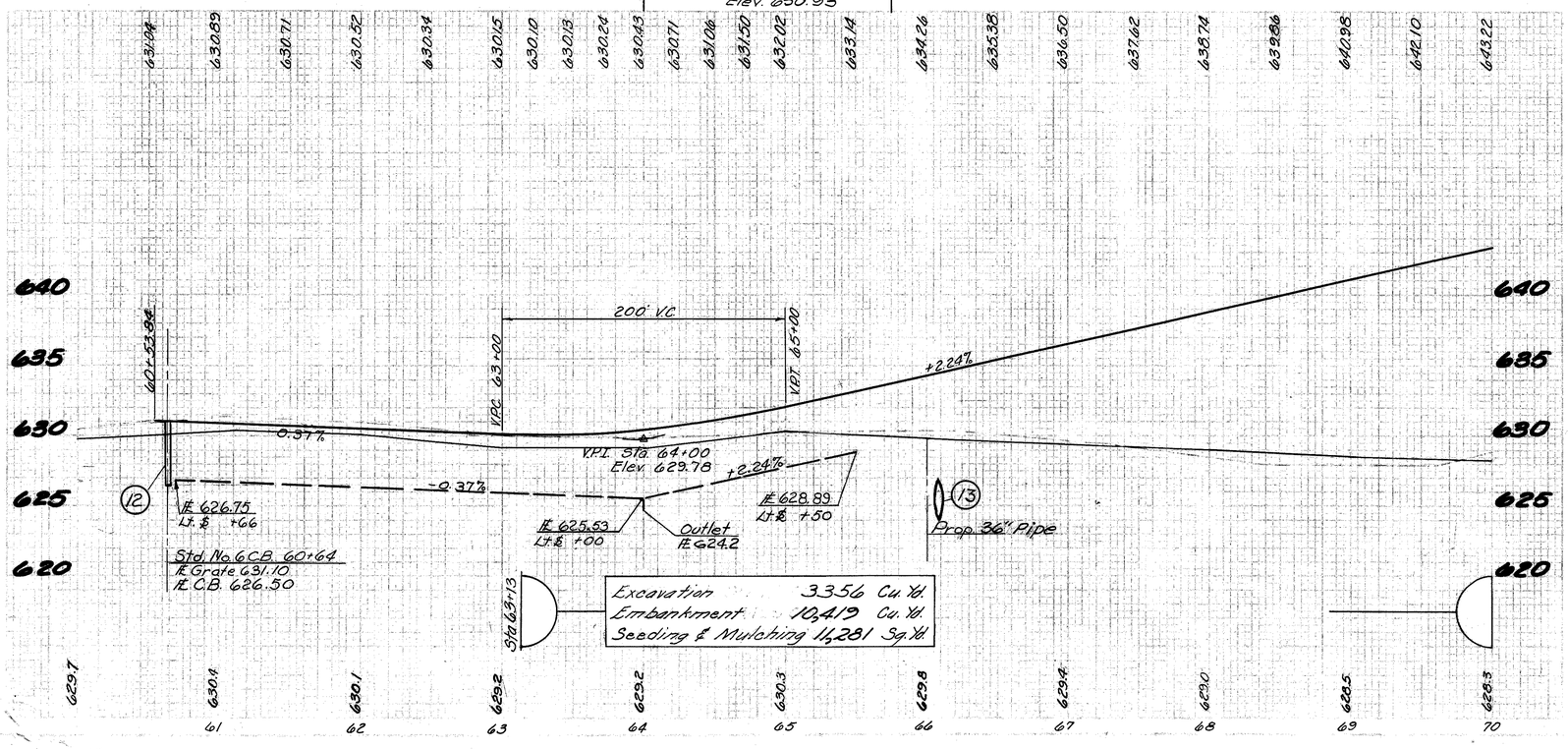
ROSS COUNTY
ROS-35-25.05

PROP. CURVE DATA
P.I. Sta. 65+19.65
Δ = 21°40'37" Yc = 3.49'
Dc = 3° Rc = 1909.86'
Ls = 200' Lc = 522.56'
Θs = 3° Ts = 465.81'
p = 0.87' Es = 35.57'
k = 99.99' ST. = 66.68'
Xc = 199.95' LT. = 133.35'



For Ramp C Entrance Details
See Sheet No. 92

BENCH MARK
RR. Spike in Power Pole
394' Rt. Sta. 1380+35 (EB)
Elev. 630.93



Excavation	3356	Cu. Yd.
Embankment	10,419	Cu. Yd.
Seeding & Mulching	11,281	Sq. Yd.

ROADWAY ~ QUANTITIES ~ DRAINAGE

| | | |

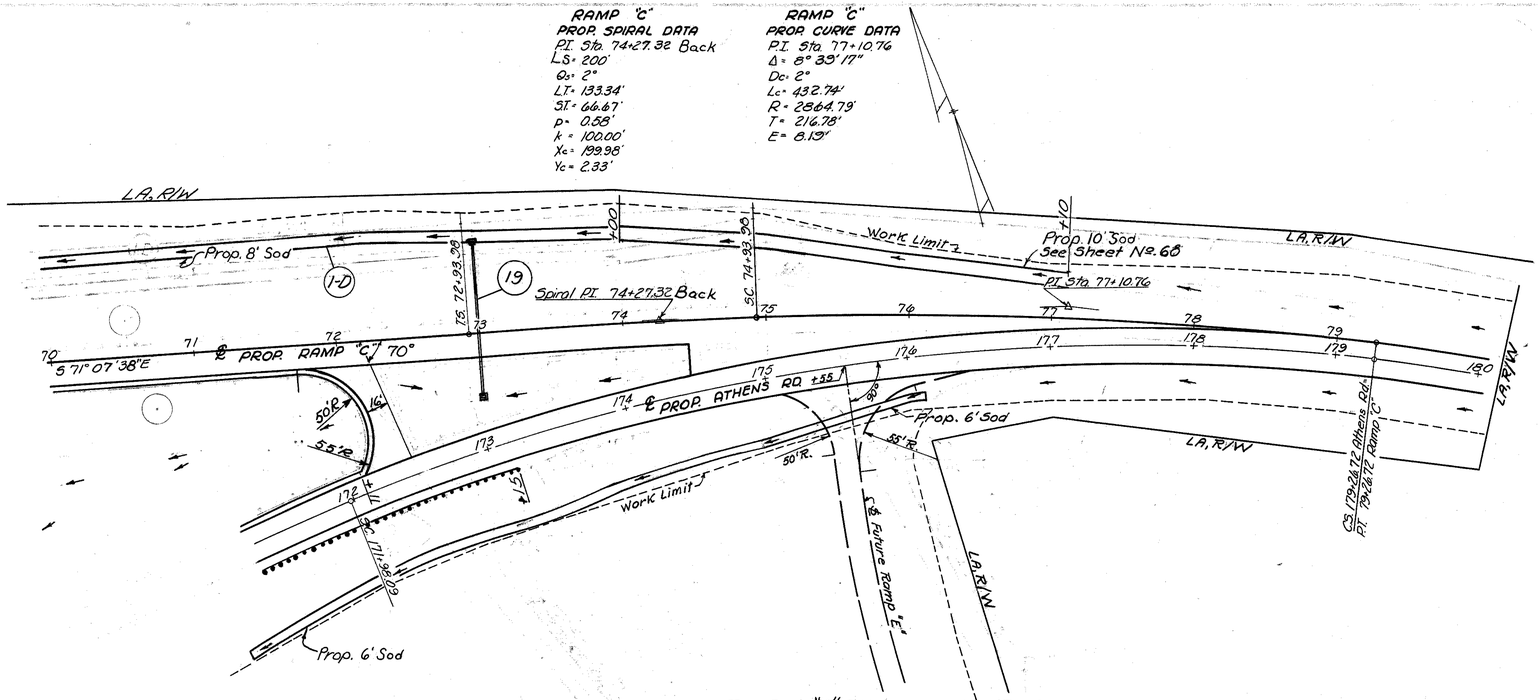
PLANS DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

88
225

ROSS COUNTY
ROS -35- 25.05

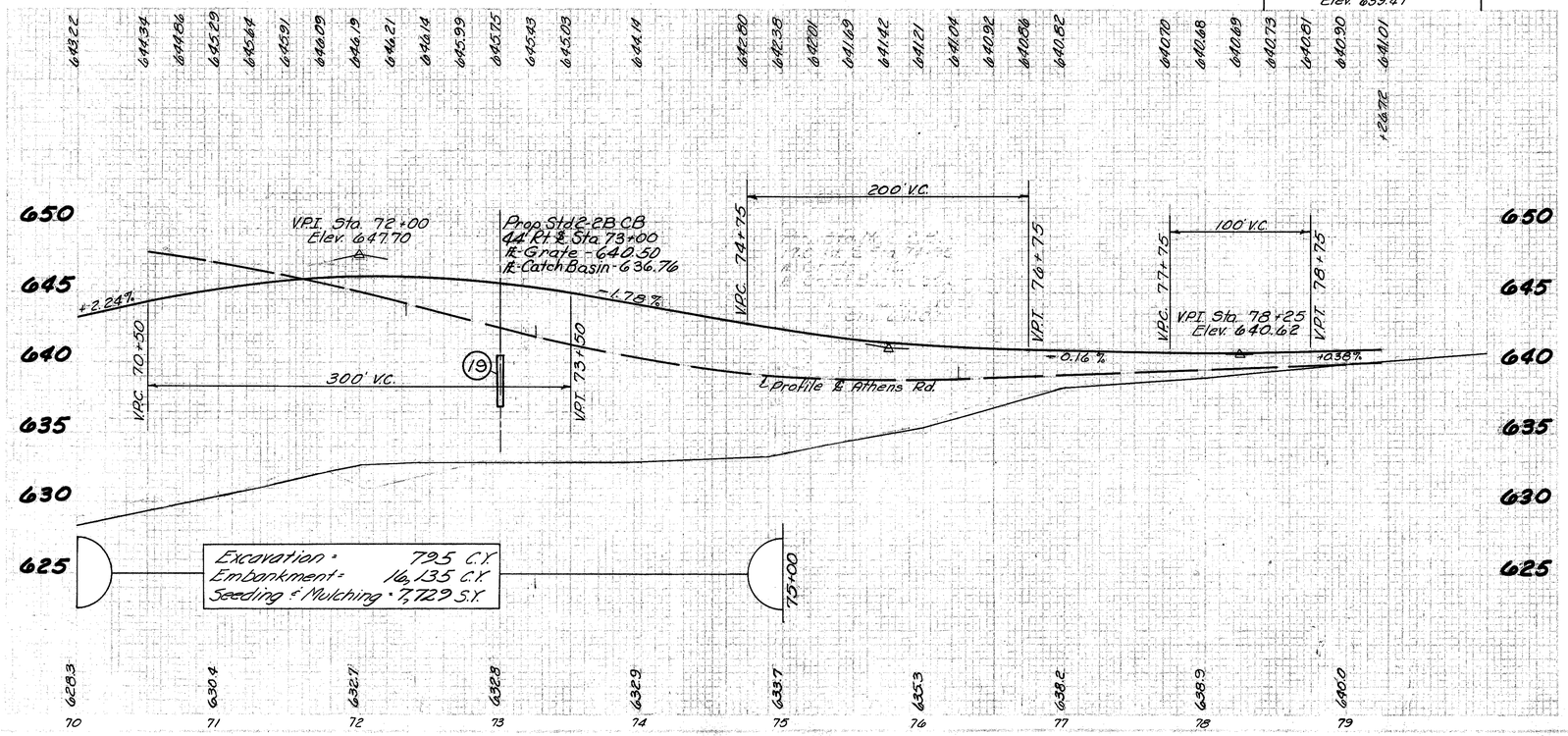
RAMP "C"
PROP. SPIRAL DATA
PI Sta. 74+27.32 Back
L_S = 200'
Q_S = 2°
LT = 133.34'
ST = 66.67'
p = 0.58'
k = 100.00'
X_c = 199.98'
Y_c = 2.33'

RAMP "C"
PROP CURVE DATA
P.I Sta. 77+10.76
Δ = 8° 35' 17"
Dc = 2°
Lc = 432.74'
R = 2864.79'
T = 216.78'
E = 8.19'



For Ramp "C" Exit ℄ ATHENS ROAD
Details See Sheet No. 93

BENCH MARK
R.R. Spike in 24" Catalpa
250' Rt Sta. 180+10 Athens Rd.
Elev. 639.47



~ ROADWAY ~ QUANTITIES ~ DRAINAGE

601	Channel Protection	C.Y.						1	1
660	Sodding	S.Y.					356		356
604	Catch Basin Std. No. 2-2B	Each						1	1
612	Concrete Masonry	C.Y.						0.23	*0.23
603	Conduit Type B with Class B Bedding	L.in Ft.						108	108
	Side						Lt.	Rt.	
	Station to Station						70+00 to 74+00	73+00	
	See Sheet Number							19	91
	Reference or Structure No.						L-D		

*Carried to Structure Box, Sht. No. 22

STA. 70+00 TO STA. 79+26.72 RAMP "C"

DIV. OF SURVEYS	STATE	PROJECT	
2	OHIO	F-674 (12)	

89
225

ROSS COUNTY
ROS-35-25.05

END AREA		VOLUME	
CUT	FILL	CUT	FILL

Begin 8' Sod
End 10' Sod
Lt. Sta. 67+00

Begin Guard Rail
Lt. Sta. 67+00

L.A. R/W

10' Sod

5:1

6:1

℄ Granular Material

186

℄ 625.9

636.50
67+00
629.4

℄ 624.4

225 485

Begin 10' Sod
Sta. 66+10
End 18' Sod

1722

℄ U.S.R. 35 W.B.

713 1444

18' Sod

6:1

Var.

Quantity limit

4:1

124

℄ 623.70

(13) For Details of Prop. Pipe See Sheet No. 112

634.26
66+00
629.8

Begin Granular Material
End 6" Underdrains
Sta. 65+50

Begin Guard Rail
Rt. Sta. 65+46

℄ 629.0

160 295

1289

℄

18' Sod

1/2"/Ft.

556 696

103

℄ 623.46

632.02
65+00
630.3

℄ 629.25

Quantity Limit

140 81

1106

Plan-2
Outlet Underdrain
℄ 624.2

18' Sod

℄

609 282

91

℄ 623.22

Prop. 603.6" x 10' Type F Conduit

Prop. 605.6" x 52' Pipe Underdrain

℄ 625.63

℄ 630.5

Quantity limit

630.43
64+00
629.2

189 39

850

L.A. R/W

℄ U.S.R. 35 W.B.

678 98

18' Sod

1/2"/Ft.

3:1

6:1

8:1

85 Ahead
0 Back

℄ 622.98

℄ 631.0

Ahead 232 19
Back 0 0

Note: For Grass Section Extension, See Sheet No. 63

63+13
629.2

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP "C" STA. 63+13 TO STA 67+00

FED. TO DIVISION	STATE	PROJECT	
2	OHIO	F-G74 (12)	

90
225

ROSS COUNTY
ROS-35-25.05

Athens Road ℄

L.A. R/W

8' Sod

4:1

6:1

Quantity Limit

℄ 630.8

646.19
72+00
632.7

℄ 637.6

℄ 630.0

645.29
71+00
630.4

Note:
For Cross Sections Ext.
See Sheet No. 78

℄ 628.25

℄ 628.8

643.22
70+00
628.3

℄ 626.5

℄ 625.8

℄ 625.80

640.98
69+00
628.5

℄ 626.2

℄ 625.2

℄ 625.35

638.74
68+00
629.0

Sta 67+00

RAMP "C" STA. 68+00 TO STA. 72+00

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
167				
	47	963		
1811				
			1704	347
159				
	45	1384		
1911				
			1854	785
185				
	55	1200		
1722				
			1443	594
125				
	23	741		
1378 1497 Add for area between u.s.r. 35, Athens Road and Ramp "C"				
			1412	422
123				
	53	567		
1717				
			5151	948
186				
Sta 67+00			2254	85

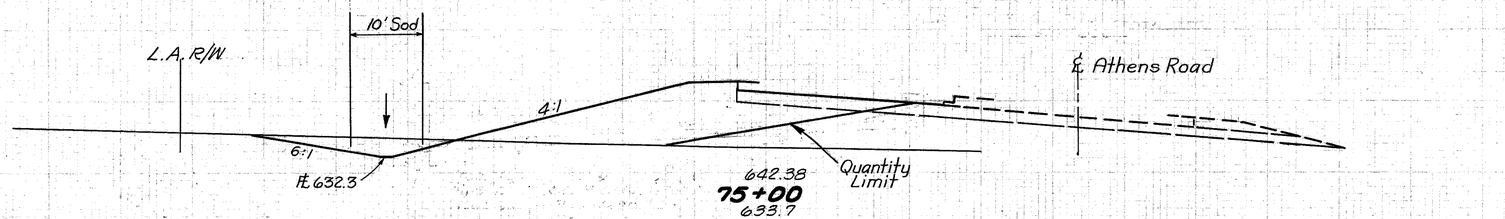
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

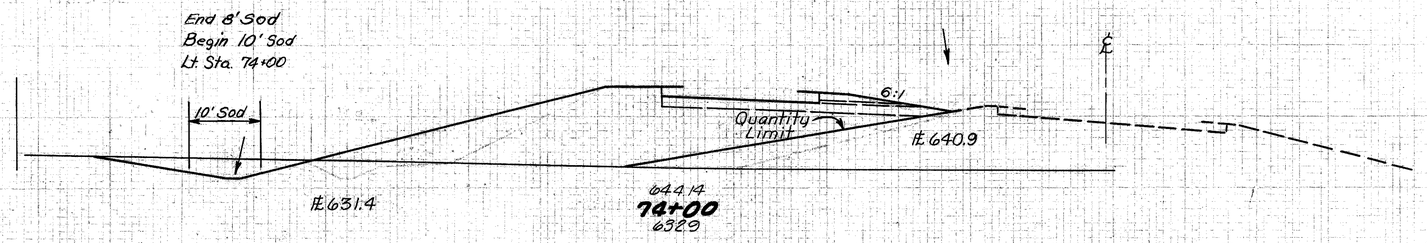
SHEET NO.	STATE	PROJECT	
2	OHIO	F-674 (12)	

91
225

ROSS COUNTY
ROS-35-25.05

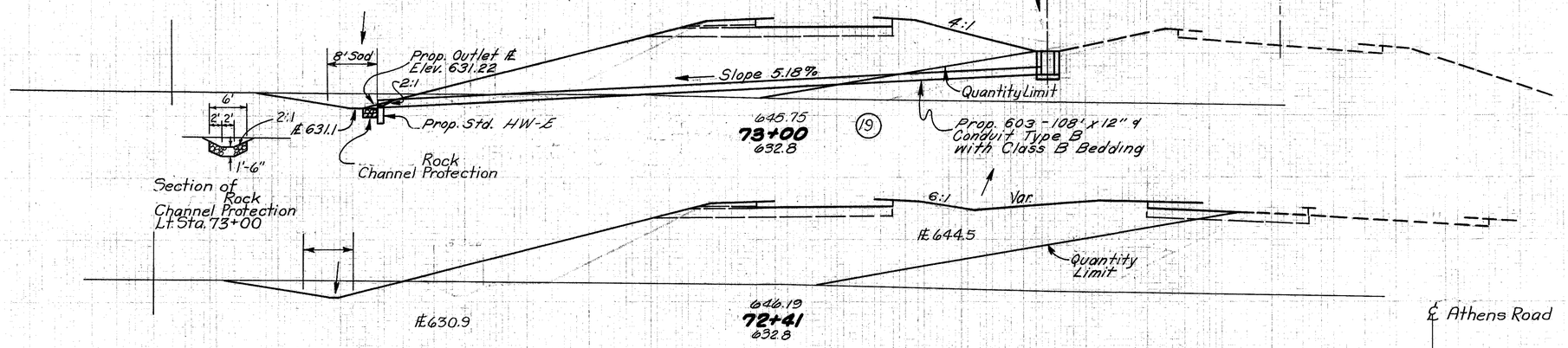
Note: See Athens Road Cross Sections





Prop. Std. № 2-2B C.B.
44' Rt. Sta. 73+00 Ramp "C"
℄ Grate = 640.50
℄ Catch Basin = 636.76

Note:
For Cross Section Ext.,
See Sheet № 78, 79



RAMP "C" STA. 72+22 TO STA 75+00

Cal. JBH 4-25-68

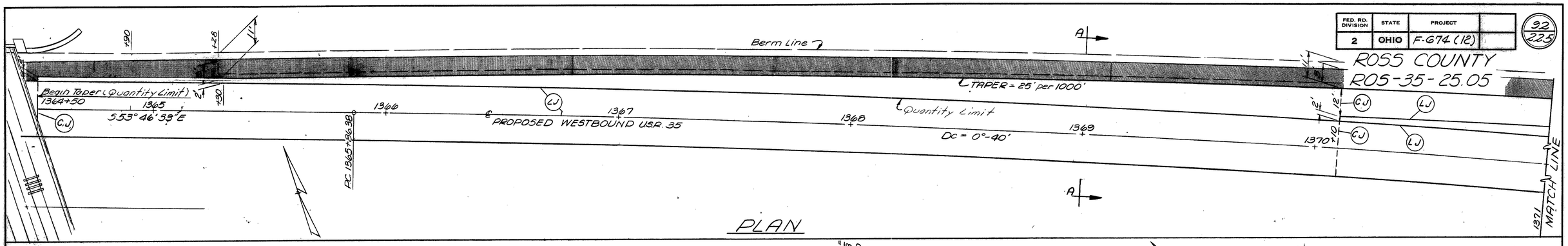
		END AREA		VOLUMES	
		CUT	FILL	CUT	FILL
0	Ahead				
82	Back				
	Ahead	0	0		
	Back	41	280		
1106					
		150	1467		
117					
		40	512		
1372					
				139	2222
130					
				35	688
931					
		81	1841		
154					
		39	927		
270					
		31	689		
101					
		48	960		
				39	784
328	Sta. 72+00				
	Sta. 72+00	47	963		
167					

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

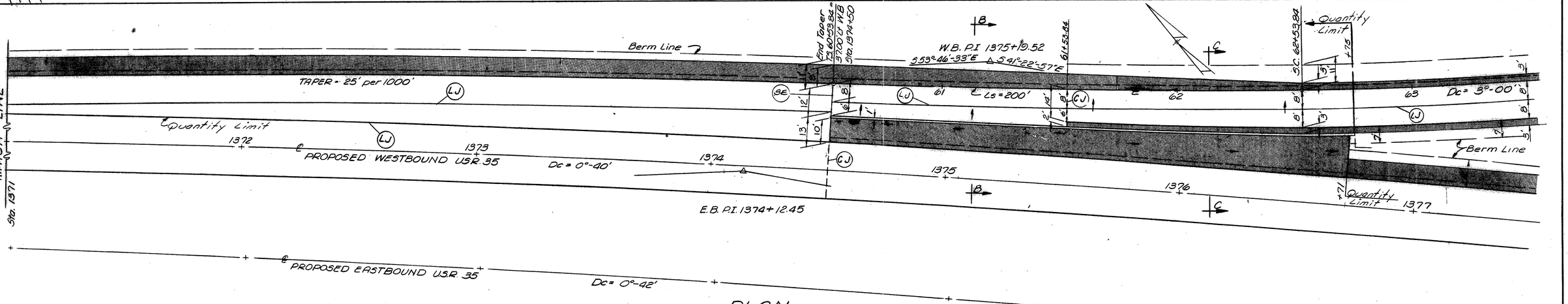
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

92
225

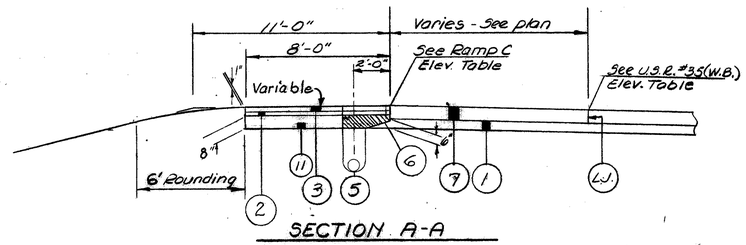
ROSS COUNTY
ROS-35-25.05

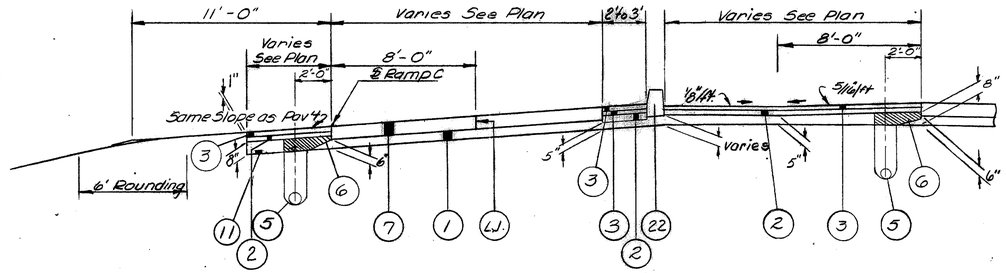


PLAN

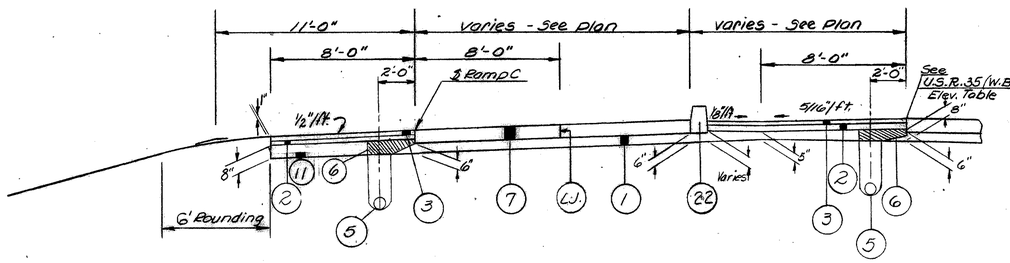


PLAN





SECTION C-C



SECTION B-B

ESTIMATED PAVEMENT QUANTITIES F-674(12)

No.	Item	Description	Quantity	Unit
3	301	3" Bituminous Aggregate Base	1,227.1	Sq. Yds.
2	304	4" Aggregate Base	1,402.5	Sq. Yds.
22	609	Standard Type B Concrete Curb.	223	Lin. Ft.
1	310	Subbase Grading A As per plan (Thickness as shown)	377.5	Cu. Yds.
7	451	9" Reinforced Portland Cement Concrete Pavement	1,770.5	Sq. Yds.
11	310	Subbase	243.5	Cu. Yds.

Quantities carried to Sht No. 21

LEGEND

- (L.J.) Standard Longitudinal Joint
- (C.J.) Standard Contraction Joint
- Paved Berm.
- (S.E.) Standard Expansion Joint.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

PAVEMENT DETAILS ENTRANCE RAMP "C"

SCALE 0 10 20 30 DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		LKM				

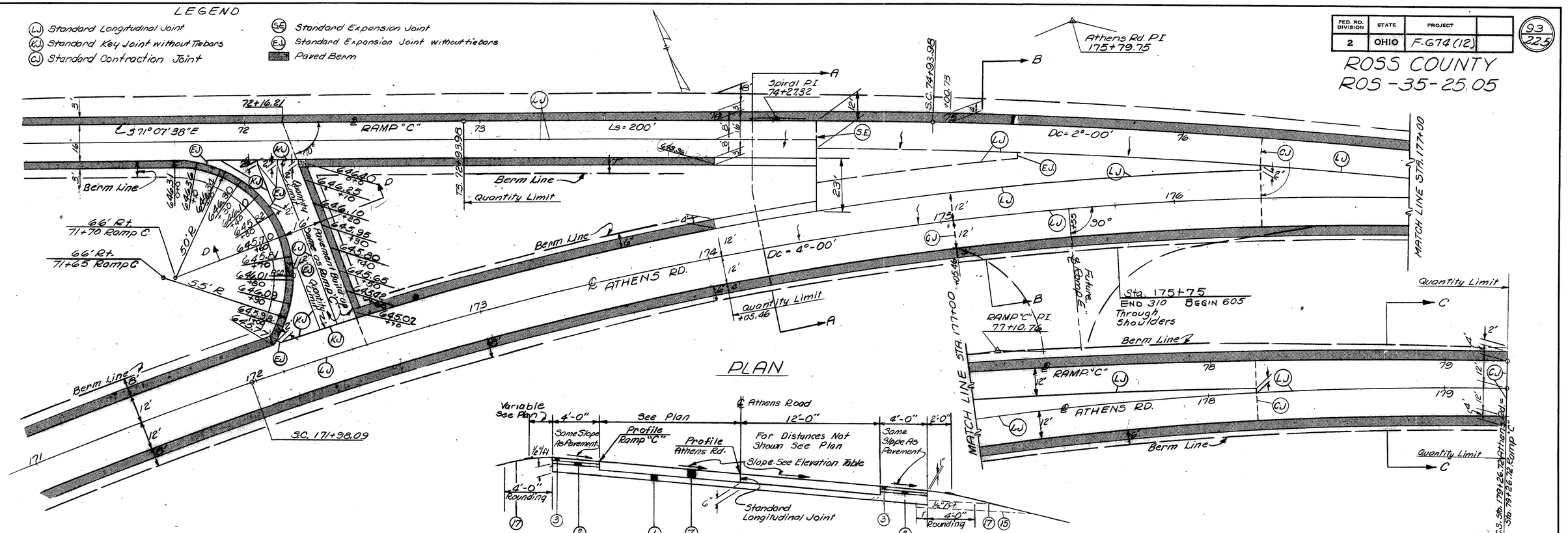
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

93/225

ROSS COUNTY
ROS-35-25.05

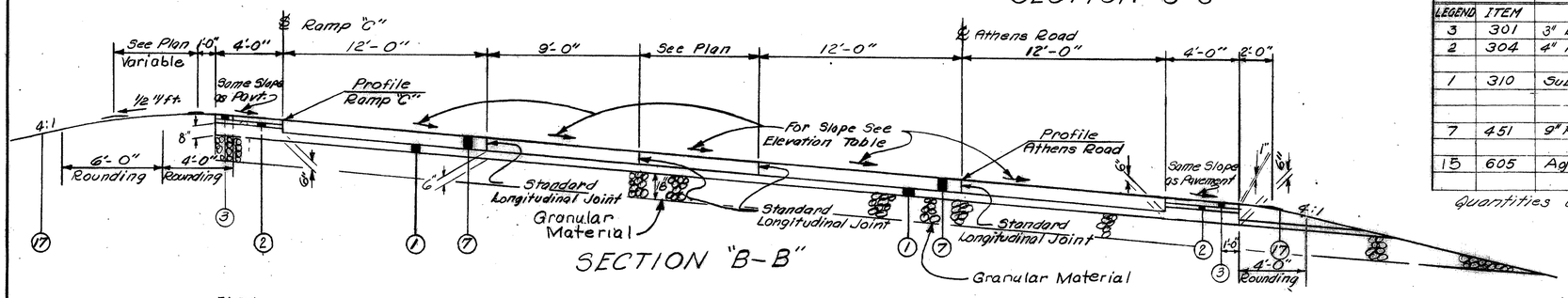
LEGEND

- (LJ) Standard Longitudinal Joint
- (KJ) Standard Key Joint without Tiebars
- (CJ) Standard Contraction Joint
- (SE) Standard Expansion Joint
- (EJ) Standard Expansion Joint without tiebars
- Paved Berm

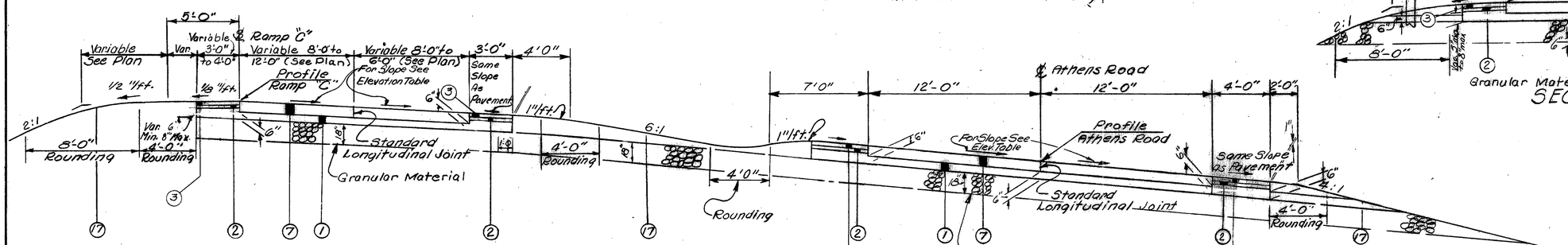


PLAN

SECTION "C-C"



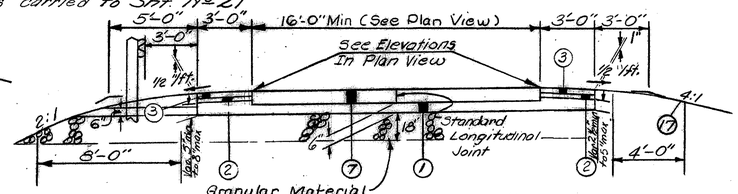
SECTION "B-B"



SECTION "A-A"

LEGEND	ITEM	ESTIMATED PAVEMENT QUANTITIES DESCRIPTION	QUANTITIES CROSS OVER	QUANTITIES RAMP C & ATHENS RD.	UNIT
3	301	3" Bituminous Aggregate Base	37.9	614.2	Sq. Yds.
2	304	4" Aggregate Base	57.9	614.2	Sq. Yds.
1	310	Subbase Grading A As per plan (Thickness As Shown)	34.2	347.9	Cu. Yds.
7	451	9" Reinforced Portland Cement Concrete Pavement	184.1	2361.3	Sq. Yds.
15	605	Aggregate Drains		135	Lin. Ft.

Quantities carried to Sht. No. 21



SECTION "D-D"

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

PAVEMENT DETAILS
EXIT RAMP "C"

SCALE 0 10 20 30 DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
N.H.R.		W.G.L.	H.E.B.			

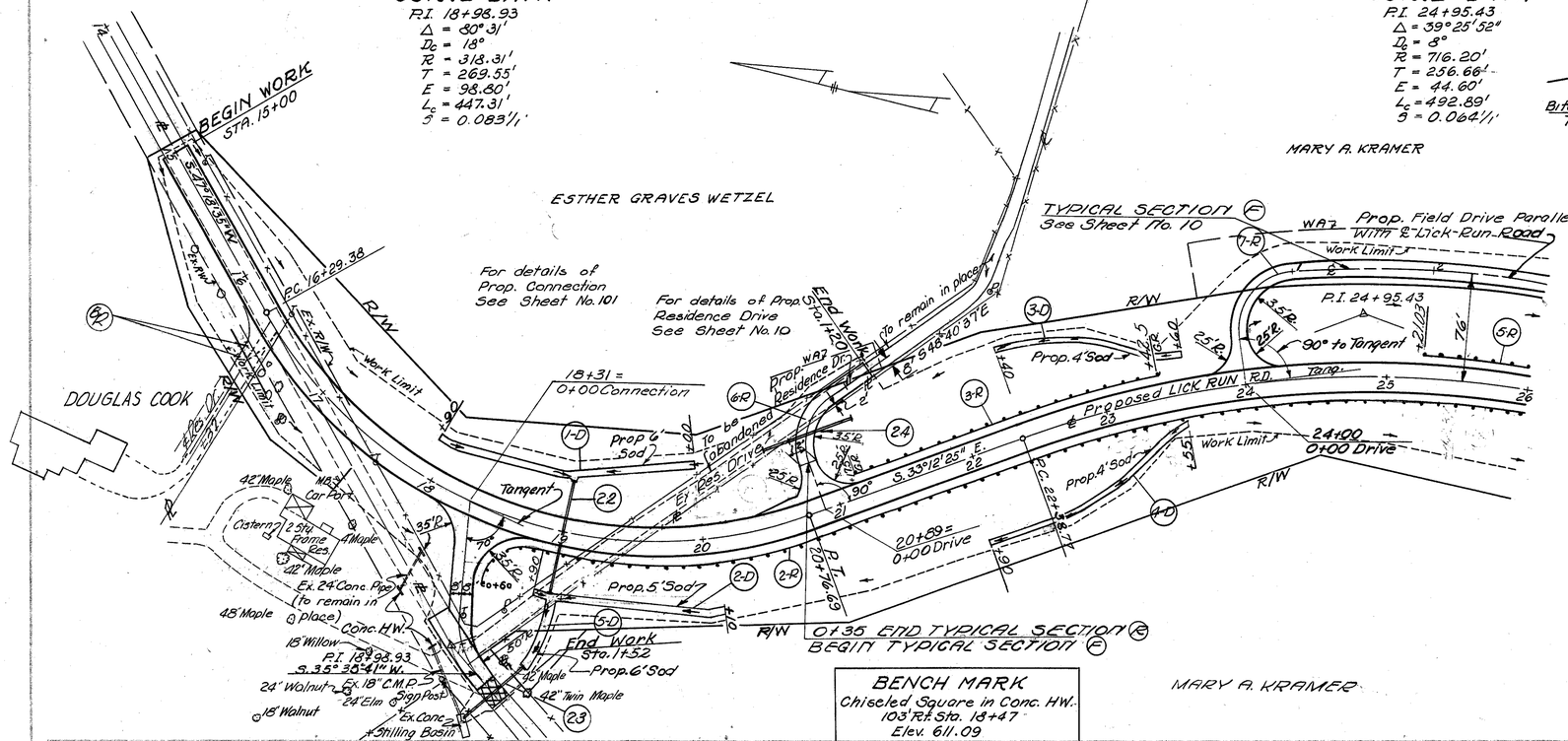
FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

94
225

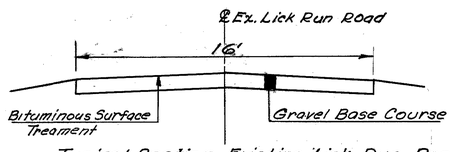
ROSS COUNTY
ROS-35-25.05

CURVE DATA
P.I. 18+98.93
Δ = 80°31'
D_c = 18°
R = 318.31'
T = 269.55'
E = 98.80'
L_c = 447.31'
$\bar{S}$ = 0.083'/'

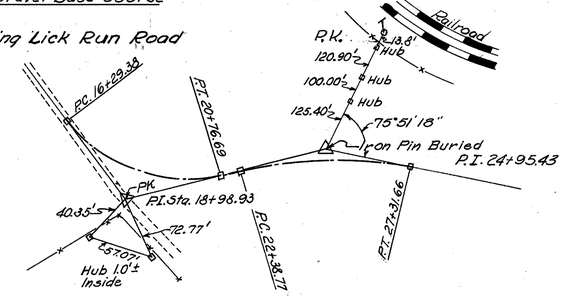
CURVE DATA
P.I. 24+95.43
Δ = 39°25'52"
D_c = 8°
R = 716.20'
T = 256.66'
E = 44.60'
L_c = 492.89'
$\bar{S}$ = 0.064'/'



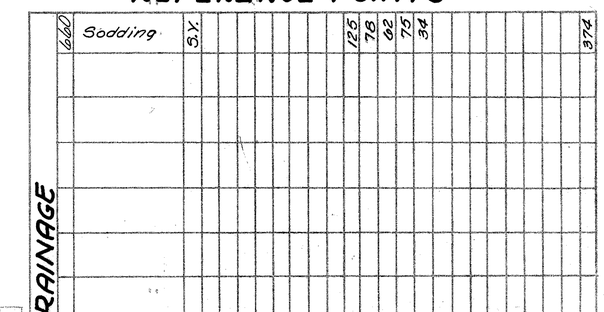
BENCH MARK
Chiseled Square in Conc. HW.
103' Rt. Sta. 18+47
Elev. 611.09



Typical Section Existing Lick Run Road



REFERENCE POINTS



ROADWAY ~ QUANTITIES ~ DRAINAGE

Station to Station	See Sheet Number	Reference or Structure No.		600 Sodding SY	603 12" Conduit Type D	606 Approach End Assembly Each	608 Asphalt Concrete (SS-1(00) 2" Sq. Yds.	608 Bituminous Prime Coat applied @ 0.4 gal. per Sq. Yd. Sq. Yds.	304 Aggregate Base 6" Sq. Yds.	304 Aggregate Base 5" Cu. Yds.	606 Anchor Assembly Each	606 Guard Rail Type 4 Lin. Ft.	Side	Station to Station
				125										
				18										
				02										
				75										
				34										
374														
		2-R	Rt.									1	112.5	at 50 Pipes connection to 28+00
		3-R	Lt.										22.5	21+17.50 to 23+42.5
		5-R	Lt.										28.97	25+21.03 to 26+00
		6-R	Lt.						113.3	11.2				20+89 to 24+00
		7-R	Lt.				808	4.5						24+00 to 26+00
		8-R	Rt.						39.3					16+37 to 17+90
		1-D	Lt.					7.1						17+90 to 20+10
		2-D	Rt.							18.8				18+90 to 20+10
		3-D	Lt.											22+40 to 23+60
		4-D	Rt.											21+90 to 23+55
		5-D	Lt.											19+00
	2.2	118	Lt. & Rt.											19+00
	2.3	118	Rt.											18+98.93
	2.4	119	Lt.											20+89 (0+59 Res. Drive)
				1874.10	1	1300	504.6	180.8	701.6	3	48			Total to Sht 1 of 21

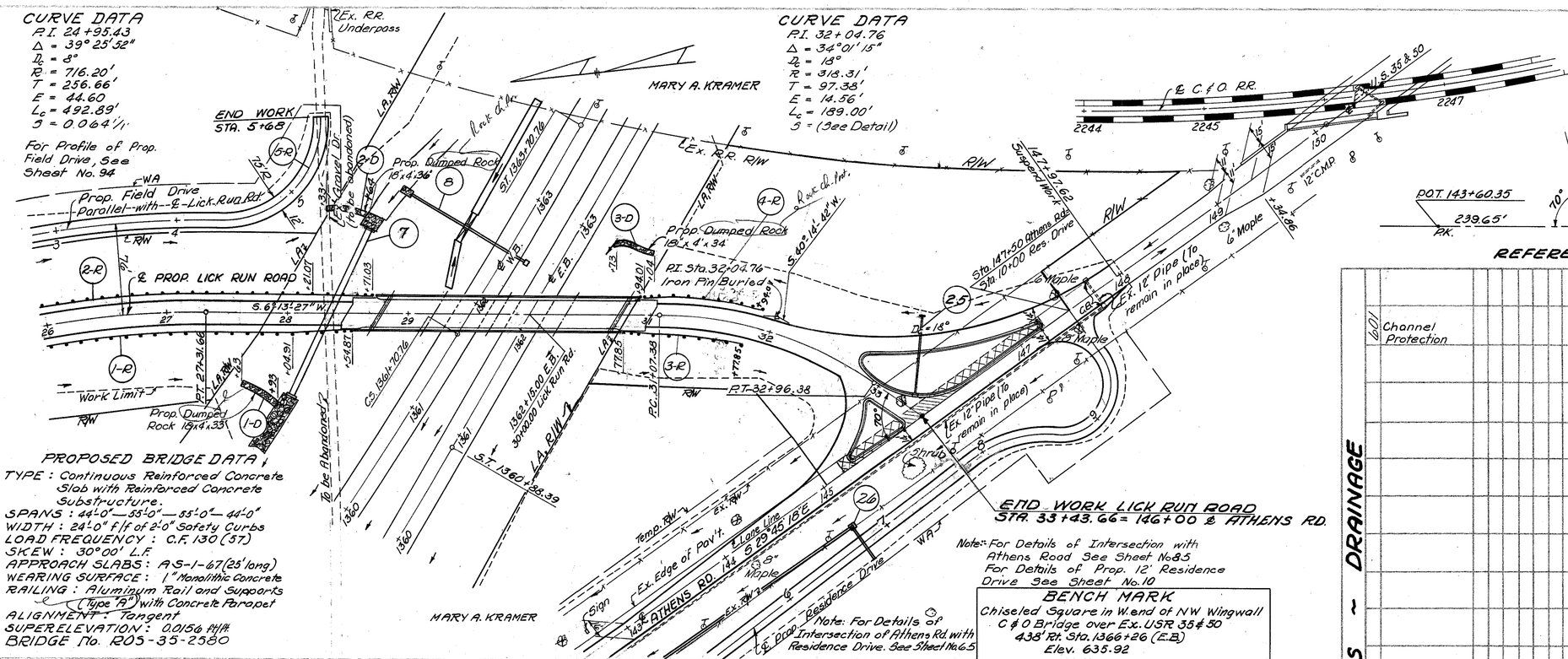
* Carried to Sht 1 of 21

LICK RUN ROAD STA. 15+00 TO STA. 26+00

SHEET NO. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

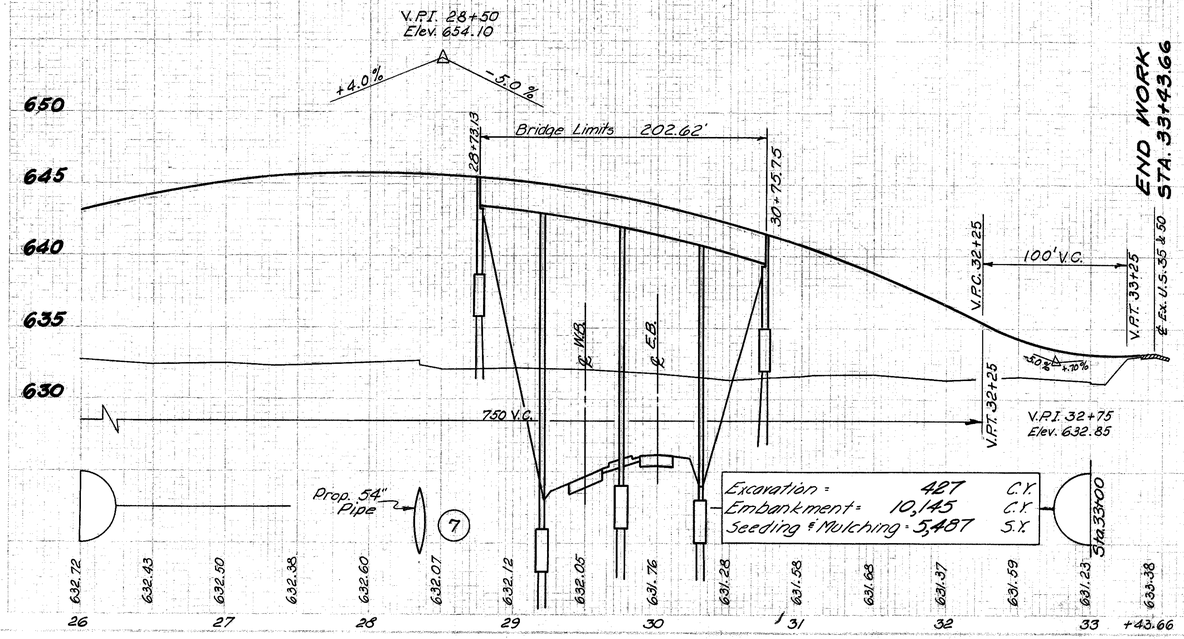
95
225

ROSS COUNTY
ROS-35-25.05



PROPOSED BRIDGE DATA

TYPE : Continuous Reinforced Concrete Slab with Reinforced Concrete Substructure.
SPANS : 44'-0" — 55'-0" — 55'-0" — 44'-0"
WIDTH : 24'-0" f/f of 2'-0" Safety Curbs
LOAD FREQUENCY : C.F. 130 (57)
SKEW : 30°00' L.F.
APPROACH SLABS : AS-1-67(25' long)
WEARING SURFACE : 1" Monolithic Concrete
RAILING : Aluminum Rail and Supports (Type "B") with Concrete Parapet
ALIGNMENT : Tangent
SUPERELEVATION : 0.015% ft/ft.
BRIDGE No. 205-35-2580



ROADWAY ~ QUANTITIES

See Sheet Number	Reference or Structure No.	Station to Station	Side	Type 4 Guard Rail (606)	Bridge Terminal Assembly (606)	Approach End Assembly (606)	Aggregate Base (304)
				Lin. Ft.	Each	Each	Sq. Yds.
	1-R	26+00 to 28+54.87	Rt.	254.87	1		
	2-R	26+00 to 28+71.03	Lt.	271.03	1		
	3-R	30+77.85 to 31+77.85	Rt.	100.00	1		
	4-R	30+94.01 to 31+94.01	Lt.	100.00	1		
	5-R	28+00 to 28+30	Lt.				3880
7	109	28+35	Lt. Ext.				
8	4.9	1362+50 (NB)	Lt.				
2.5	112	0+50 (Return)	Lt.				
26	120	139+23 to 145+00 (Return)	Rt.				
		TOTAL		725.92	4	2	13880

4 Carried to Sht. No. 21

| | | | |

SEQ. NO. IN SCHEME	STATE	NUMBER	
2	OHIO	F-674(12)	

96
225

ROSS COUNTY
ROS-35-25.05

END GUARD RAIL
Lt. Sta. 16+45
END GUARD RAIL
Rt. Sta. 19+45

End 6' Sod
Lt. Sta. 20+00

End 5' Sod
Rt. Sta. 20+10

R/W
6'Sod
1/2" / Ft.
3:1
2:1
5'Sod
℄ 608.5
℄ 608.5

620.10
20+00
611.64

Add for Ditch
Rt. ℄ Sta. 19+00

R/W
℄-607.6
6'Sod
3:1
Slope 0.60%
℄-607.1
5'Sod
3:1
Slope 3.1%
Add for Ditch
Rt. Sta. 19+00
℄607.6
Prop. 27"x82' Conduit
Type A
706.02 or 706.08
616.68
19+00
611.56
(23) FOR CULVERT DETAILS SEE SHEET 118
℄ 607.0
Begin 5'Sod
Rt. Sta. 18+90
(23) FOR CUVERT DETAILS SEE SHEET Nº 118

Add For Connection
Rt. ℄ Sta. 18+31

R/W
6'Sod
0.00%
0+35
Profile of Prop. Connection
Rt. Sta. 18+31
-10%
End Work
1+52
Add for Connection
Rt. 18+31
℄ 608.5
℄ 608.0
Profile of Ex. Lick Run Road

614.40
18+00
610.71

Begin 6'Sod
Lt. Sta. 17+90
Begin Granular Material
End 6.0.3 Sta. 18+00
Through Existing 24" Pipe
R/W
R/W
℄ 609.2
℄ 608.9

613.28
17+00
611.70

R/W
R/W
Prop. Res Dr. +37
-5.0%
3:1
2:1
3:1
2:1
Prop. 48"-12" 603 conduit Type D
℄ 609.6
℄ 609.3
Res Drive +37

613.30
16+00
613.02

R/W
R/W
Back
Ahead

BEGIN WORK AND PAV'T.

613.90
15+00
613.90

Ahead Sta 14+98
Back

LICK RUN ROAD STA. 15+00 TO STA. 20+00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
47	439		
		161	
		254	1233
90	227		
		155	
		243	698
41	150		
		159	367
45	48		
		0	72
		196	117
61	15		
		150	30
Ahead	20	1	
Back	0	0	

107 1106 97 92 895 136 69 695 56 622 56 356 8 0

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

SEC. NO. CONTROL	STATE	PROJECT	
2	OHIO	F 674 (12)	

97
225

ROSS COUNTY
ROS-35-25.05

SECTIONS

END WIDTH	SQ. YDS.
104	
656	
132	
711	
124	
1339	
117	
1245	
107	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		20	627
		35	1621
		18	1124
		27	2074
		11	1116
		87	3439
		36	741
		154	2185
		47	439

End Guard Rail
16' Lt. Sta. 23+42.5

End Guard Rail
16' Rt. Sta. 20+57.5

R/W
4'Sod
2:1
1/2"/Ft.
2:1
2:1
4'Sod
1/2"/Ft.
2:1
2:1
R/W

℄ 618.5

632.10
23+00
620.80

℄ 620.0

R/W
4'Sod
4'Sod
R/W

℄ 611.5

℄ 612.0

630.10
22+50
613.52

Begin 4'Sod
Lt. Sta. 22+40

R/W
R/W
4'Sod

℄ 610.4

Begin Guard Rail
16' Lt. Sta. 21+17.5

628.10
22+00
611.74

℄ 610.4

Begin 4' Sod
Rt. Sta. 21+90

END WORK
STA. 1+20

W/R
R/W
Profile of Prop. Res. Drive
Lt. Sta. 20+89
-10%
2:1
2:1
R/W

Add for Drive
Lt. Sta. 20+89

Profile of Ex. Res. Drive

℄ 609.4

℄ 609.4

624.10
21+00
611.43

Sta. 20+00

Sta. 20+00

LICK RUN ROAD STA. 21+00 TO STA. 23+00

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

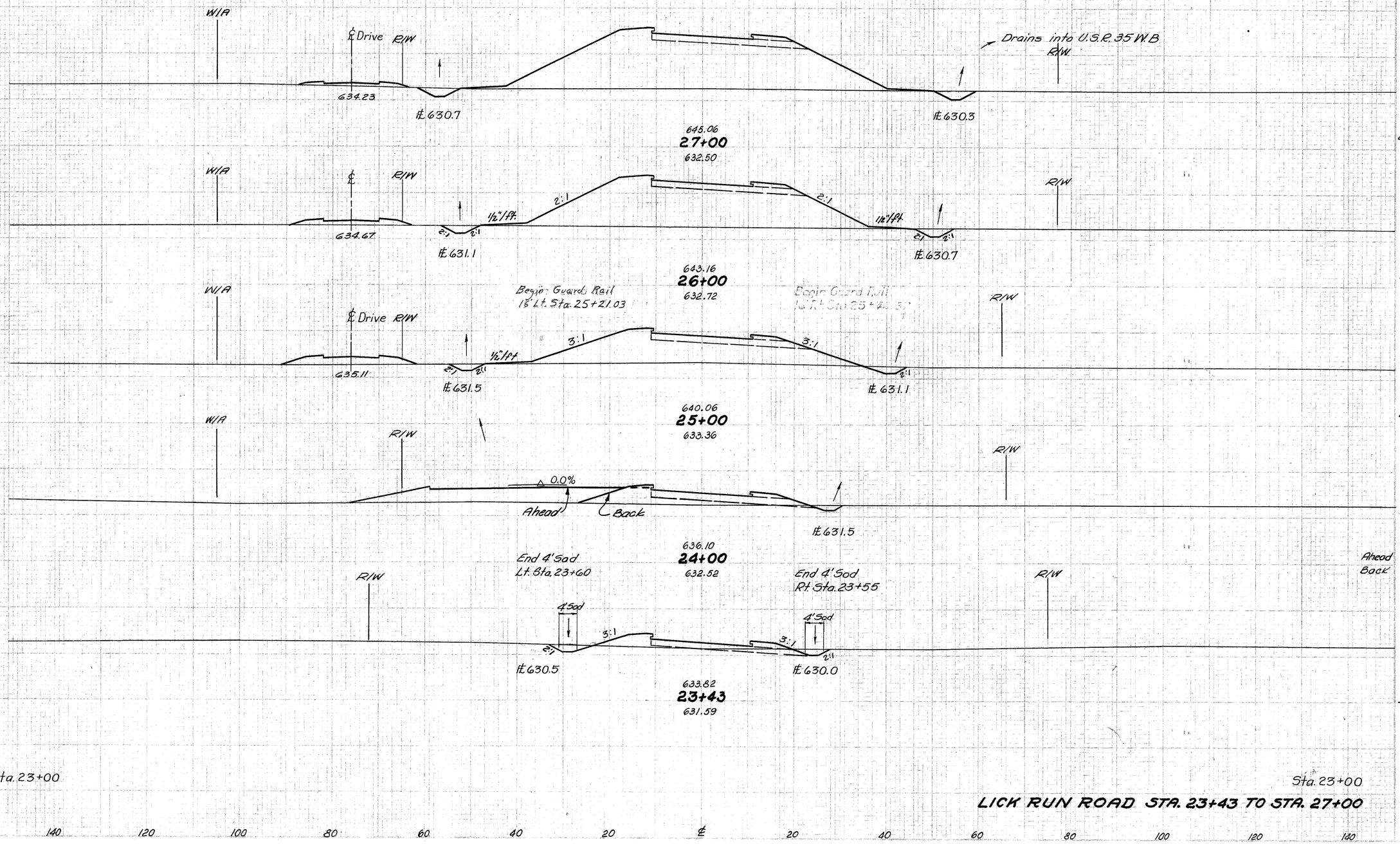
FED. R.D. REGION	STATE	PROJECT		
2	OHIO	F-674 (12)		

98
225

ROSS COUNTY
ROS-35-25.05

SEEDING

END WIDTH	LBS. TOS.
124	
1361	
121	
1283	
110	
950	
61	
339	
46	
358	
104	



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	20	754		
			70	2506
	18	599		
			63	1817
	16	382		
			43	1215
Ahead	7	274		
Back	7	125		
			41	216
	32	80		
			41	563
	20	627		

LICK RUN ROAD STA. 23+43 TO STA. 27+00

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

SHEET NO.	STATE	PROJECT	
2	OHIO	F-674 (12)	

99
225

ROSS COUNTY
ROS-35-25.05

End Guard Rail
16' Rt. Sta. 31+77.85

End Rock Channel Protection
Lt. Sta. 31+09

R/W

4"
1½"/Ft.
2:1
2:1
2:1
2:1
1½"/Ft.
2:1
2:1
℄ 628.3
℄ 630.2

Begin Guard Rail
14'-6" Lt. Sta. 30+94.01

640.66
31+00
631.58

R/W

Quantity Limit
Begin Rock Channel Prot.
Lt. Sta. 30+73

641.27
30+82
631.80

℄ 625.9

Begin Guard Rail
14'-6" Rt. Sta. 30+77.85

For Cross Section Drains into U.S.R. 35 E.B.
Ext., See Sht. No. 49

Quantity Limit
℄ E.B.
R/W

30+67
632.20

0:0 SECTION STA. 30+50
BRIDGE

Sta. 30+50

0:0 SECTION STA. 29+05

Sta. 29+05

Quantity Limit
Quantity Limit
℄ W.B.
Edge of Berm

28+83
631.70

End Guard Rail
14'-6" Lt. Sta. 28+71.03

Quantity Limit
Quantity Limit
℄ W.B.
Edge of Berm

Lt. Sta. 28+64
Dumped Rock
Lt. Sta. 28+33
Drains into U.S.R. 35 W.B.

Sta. 28+35
Prop. 152'-54" Conduit
Type A, 706.02
See Sheet No. 49

645.55
28+68
632.10

End Guard Rail
14'-6" Rt. Sta. 28+54.87

Quantity Limit

R/W

645.76
28+00
632.60

For Cross Section
Ext., See Sheet No. 48

Rt. Sta. 27+93
Rock Channel Protection.
Rt. Sta. 27+63

Sta. 27+00

Sta. 27+00

LICK RUN ROAD STA. 28+00 TO STA. 31+00

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	38	451		
			13	293
	0	428		
			0	177
	0	210		
			0	66
Sta. 30+50	0	0		
Sta. 29+05	0	0		
			0	175
	0	430		
			0	319
	0	718		
			20	1886
	16	780		
			67	2841
Sta. 27+00	20	754		

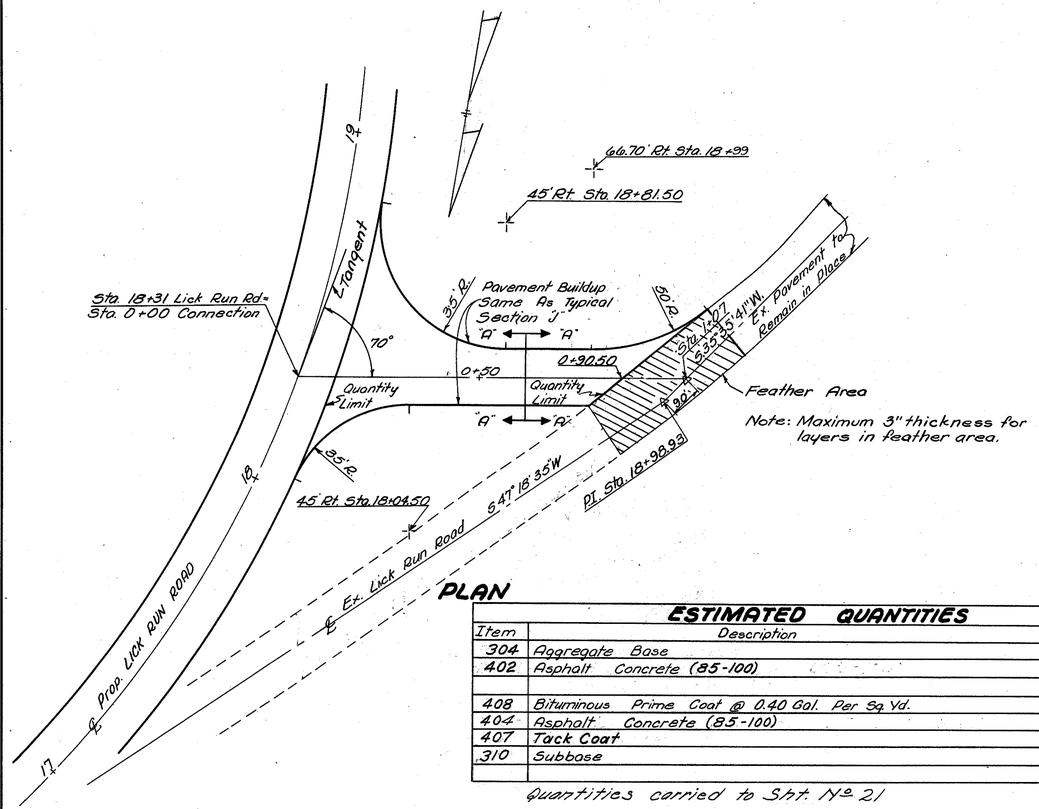
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

| SEE CHART | | |

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

101
225

ROSS COUNTY
ROS -35- 25.05



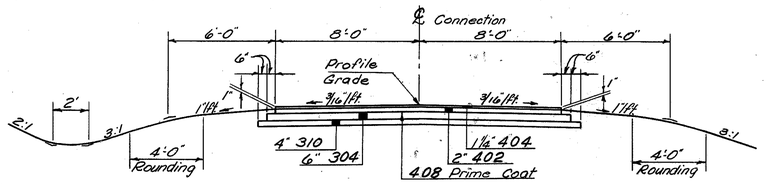
Note: Maximum 3" thickness for layers in feather area.

PLAN

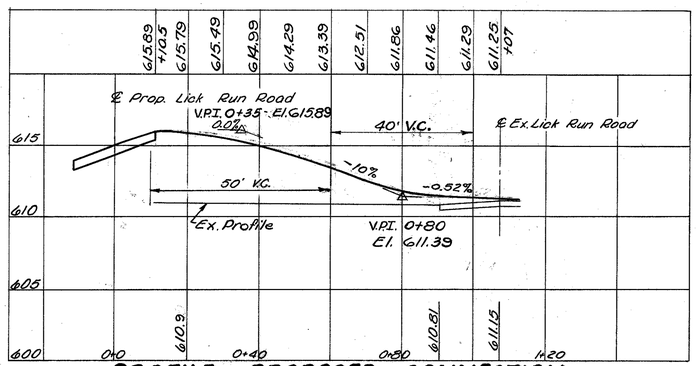
ESTIMATED QUANTITIES

Item	Description	Quantity	Unit
304	Aggregate Base	35.9	Cu. Yds.
402	Asphalt Concrete (85-100)	15.8	Cu. Yds.
408	Bituminous Prime Coat @ 0.40 Gal. Per Sq. Yd.	215.1	Sq. Yds.
404	Asphalt Concrete (85-100)	9.9	Cu. Yds.
407	Tack Coat	80	Sq. Yds.
310	Subbase	25.2	Cu. Yds.

Quantities carried to Sht. No. 21



SECTION "A"-"A"



PROFILE PROPOSED CONNECTION TO EXISTING LICK RUN ROAD

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

PROPOSED CONNECTION TO EXISTING LICK RUN ROAD

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
			WBS			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

102
225

ROSS COUNTY
ROS-35-25.05

CURVE DATA
P.I. Sta. 4+22.00
$\Delta = 21° 45' 48''$
$D_c = 11° 00'$
$T = 100.13'$
$L_c = 197.85'$
$R = 520.87''$
$E = 9.54'$

Legend No.	Item	ESTIMATED PAVEMENT QUANTITIES	Quantity	Unit
13	304	Aggregate Base (6")	121.3	Cu. Yds.
23	402	Asphalt Concrete (85-100)	39.2	Cu. Yds.
	407	Tack Coat For Feather Areas	92	Sq. Yds.
12	408	Bituminous Prime Coat at 0.40 Gal. Per Sq. Yd	706	Sq. Yds.
14	404	Asphalt Concrete (85-100)	27.6	Cu. Yds.
11	310	4" Subbase	83.3	Cu. Yds

Quantities carried to Sht. 1 1/2 21

MARY A. KRAMER

LA

Paved Berm

0+0 Approach = 160+00 Athens Road

160

161

Athens Road

162

To Tangent

Pavement Quantity Limit

Paved Berm

℄ Pavement To Be Removed Under Item 202

℄ Ex. U.S.R. 35 ± 50

S. 3° 2' 17" W.

75' Rad. Rd. Ct. Sta. 159+22

15' 15'

59' Rt. Sta. 160+67

62' Rt. Sta. 160+67

75' Rad.

65' Rad.

50' Rad.

℄ Ex. R/W

Pavement Buildup Same As Typical Section "J"

CURVE DATA
P.I. = 1+38.00
$\Delta = 98° 30'$
$R = 65'$
$T = 75.44'$
$E = 34.58'$
$L_c = 111.74'$

P.T. 1+74.30

Profile ℄

S. 85° 12' 13" E.

See Typical Section J & K.

2+0

3+0

4+0

Sta. 1+38.00

R.R. R/W

Pavement Quantity Limit

Work Limits

P.C. 3+21.87

R/W

37' Rt. Sta. 4+38

Concrete Block Garage

LA. & R/W

Work Limits

Signbase

END FULL DEPTH PAVEMENT

Feather Area

S. 63° 26' 25" E.

Meet Ex. Pavement

Existing 12" C.M.P. (To Remain in Place).

Quantity Limit

P.T. 5+19.72 Meet Existing Pavement

MARY A. KRAMER

V.P.C. 636.83
637.35 (+.37)
V.P.T. 637.26
636.66
635.07
633.48
631.89
V.P.C. 631.09
630.80 (+.75)
630.70

℄ Prop. Athens Road V.P.I. Sta. 0+37 Elev. 637.66

+3.33%

8.33%

-1.59%

Proposed Profile along ℄

V.P.C. 0+12

50' V.C.

V.P.T. 0+62

V.P.C. 4+50

50' V.C.

V.P.T. 5+00

Feather Area

Meet Existing Pavement

End Work Sta. 5+19.72

0.0%

640
635
630
625

0+12

630.65 +03 630.77 +16 631.17 +28.7 630.89 +32 630.79 +39 628.62 +40 628.62 +44.5 631.20 +57 631.39 +63 629.84 1+04 628.51 1+99 628.74 +53 630.25 3+46.5 630.76 +24 630.80 +36 628.68 +38 628.73 +45 629.96 +60 630.20 E.M. +17 630.47 +75 630.52 5+18 630.60 +36.5 630.61

Excavation =	201	C.Y.
Embankment =	4,278	C.Y.
Seeding & Mulching =	3,170	S.Y.

V.P.I. Sta. 4+75
Elev. 630.70

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

APPROACH RIGHT STA. 160+00 ATHENS ROAD

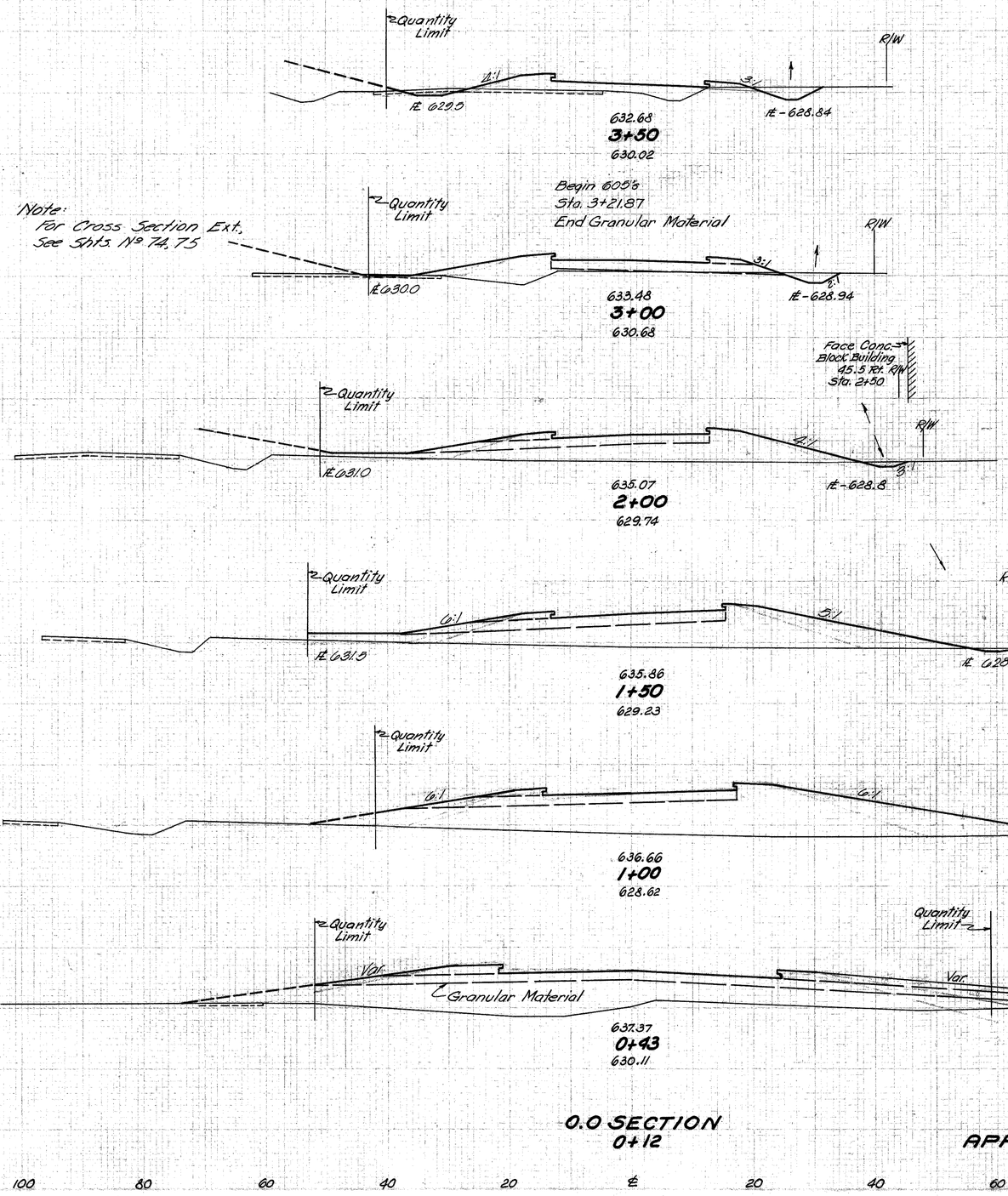
SCALE 0 10 20 30 DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
N.R.	N.R.	L.P.				

ES. DIVISION	STATE	PROJECT		103
2	OHIO	F-674(12)		225

ROSS COUNTY
ROS-35-25.05

SECTIONS PER WIDTH	SECTIONS SQ. YDS.
50	
	295
56	
	728
70	
	464
02	
	500
88	
	491
67	
	116
0	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
29	64		
		40	177
14	127		
		37	726
6	265		
		0	637
4	423		
		4	966
0	620		
		0	1272
0	604		
		0	346
0	0		

Sta. 0+12

0.0 SECTION
0+12

100 80 60 40 20 ℄ 20 40 60 80 100

APPROACH RIGHT ATHENS ROAD STA. 160+00
STA. 0+12 TO STA. 3+50

FED. DIV.	STATE	PROJECT	
2	OHIO	F-674(12)	

104
225

ROSS COUNTY
ROS-35-25.05

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
13		7	1
12		18	3
84		28	9
18		12	7
106		30	46
52		20	42
283		40	88
50		28	64

5+19.72

0.0 SECTION
STA. 5+19.72

5+19.72

Ex. R/W

End Full Depth Pavement
Sta. 5+00

Ex. R/W

℄ Existing 12" C.M.P.

630.70
5+00
630.56

℄ Quantity Limit

G. R/W

631.09
4+50
630.50

℄ 628.64

℄ Quantity Limit

R/W

℄ 629.0

631.89
4+00
630.39

℄ 628.74

Note:
For Cross Section Ext.,
See Sheet No 74

Sta. 3+50

Sta. 3+50

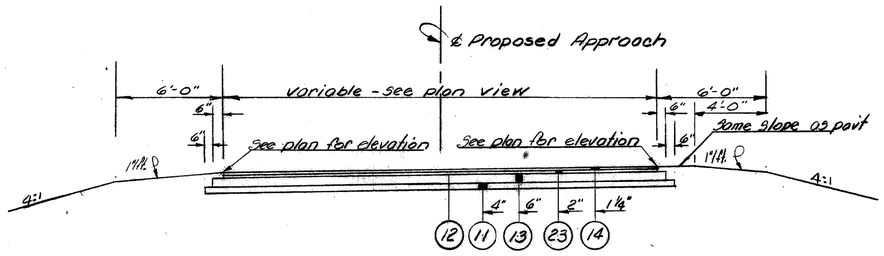
APPROACH RIGHT ATHENS ROAD STA. 160+00
STA. 4+0 TO STA. 5+19.72

100 80 60 40 20 ℄ 20 40 60 80 100

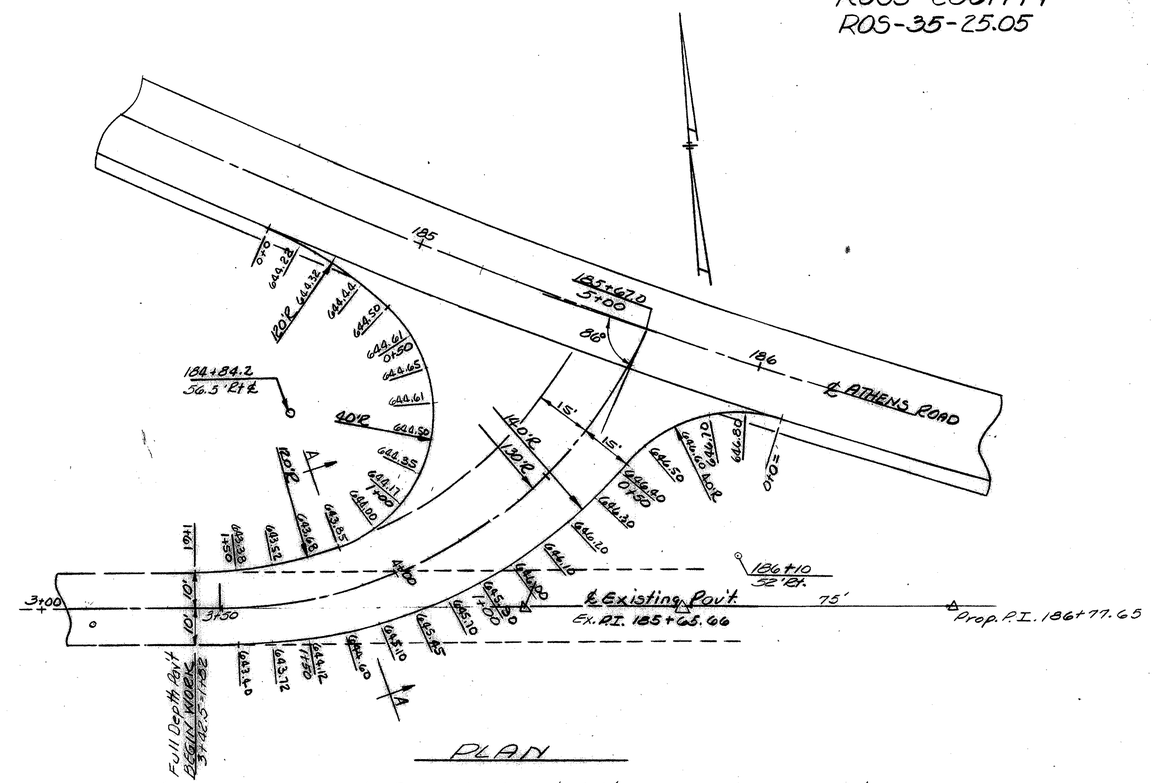
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

105
225

ROSS COUNTY
ROS-35-25.05

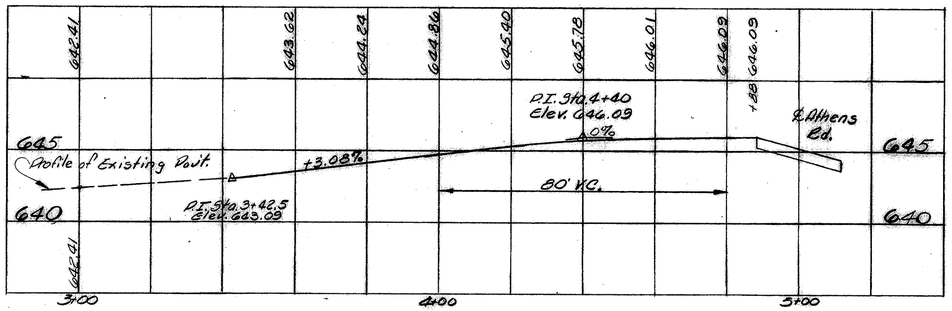


TYPICAL SECTION A-A



PLAN

NOTE: For Details of Gravel Drive at Right of Sta. 3+42.5 See Sheet Nº 69.



PROPOSED PROFILE

ESTIMATED QUANTITIES

Legend	Item	Description	Quantity	unit
11	310	Subbase	75.4	Cu. Yds.
12	408	Bituminous Prime Coat, applied at the rate of 0.40 Gal./Sq.Yd.	622.7	Sq. Yds.
13	304	6" Aggregate Base	650.7	Sq. Yds.
14	404	Asphalt Concrete (85-100)	21.6	Cu. Yds
23	402	Asphalt Concrete (85-100)	34.6	Cu. Yds

Quantities carried to Sht. Nº 21

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

DETAIL OF APPROACH
RIGHT OF ATHENS ROAD
STA. 185+67.0

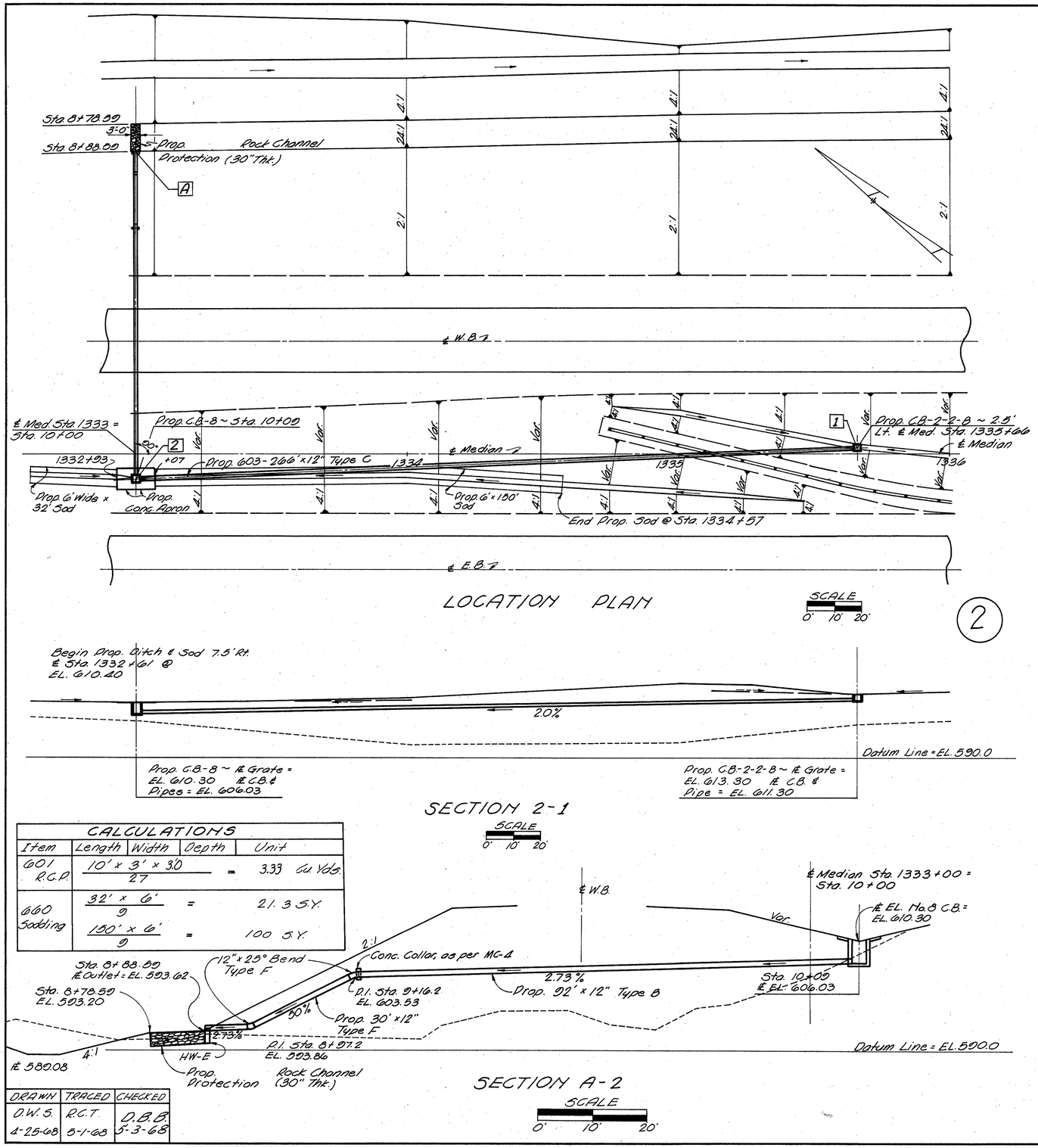
SCALE DATE 11-12-63

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RayCons			HLG			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

106
225

ROSS COUNTY
ROS-35-25.05



LOCATION PLAN

SCALE 0' 10' 20'

2

SECTION 2-1

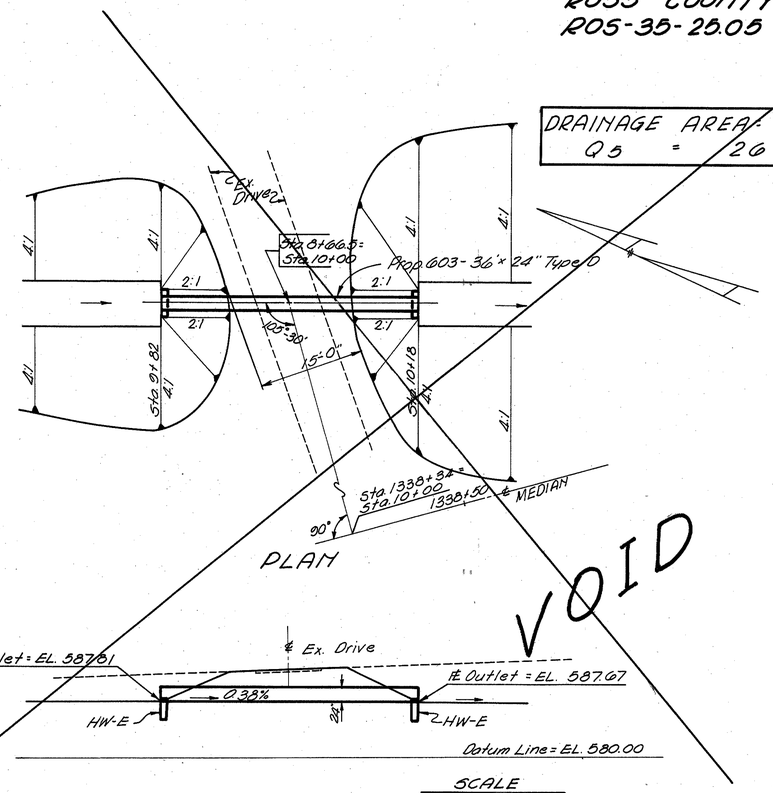
SCALE 0' 10' 20'

CALCULATIONS				
Item	Length	Width	Depth	Unit
601 R.C.P.	10' x 3' x 3.0 / 27	=		3.33 Cu Yds.
660 Sodding	32' x 6' / 9	=		21.3 S.Y.
	150' x 6' / 9	=		100 S.Y.

SECTION A-2

SCALE 0' 10' 20'

DRAWN	TRACED	CHECKED
O.W.S.	R.C.T.	D.B.B.
4-25-68	5-1-68	5-3-68



SECTION ALONG ℄ PIPE

SCALE 0' 10' 20'

3

ESTIMATED QUANTITIES

No	ITEM		QUANTITY	UNIT
2	601	Rock Channel Protection, Type B	3	Cu Yds.
2	602	Concrete Masonry	0.23	Cu Yds.
2	603	12" Conduit Type B with Class B Bedding	92	Lin. Ft.
2	603	12" Conduit Type F	30	Lin. Ft.
2	603	12" Conduit Type C with Class B Bedding	266	Lin. Ft.
2	604	Catch Basin, Standard 14 No 2-2-B	1	Each
2	604	Catch Basin, Standard 14 No 8	1	Each
2	660	Sodding	121	Sq. Yds.

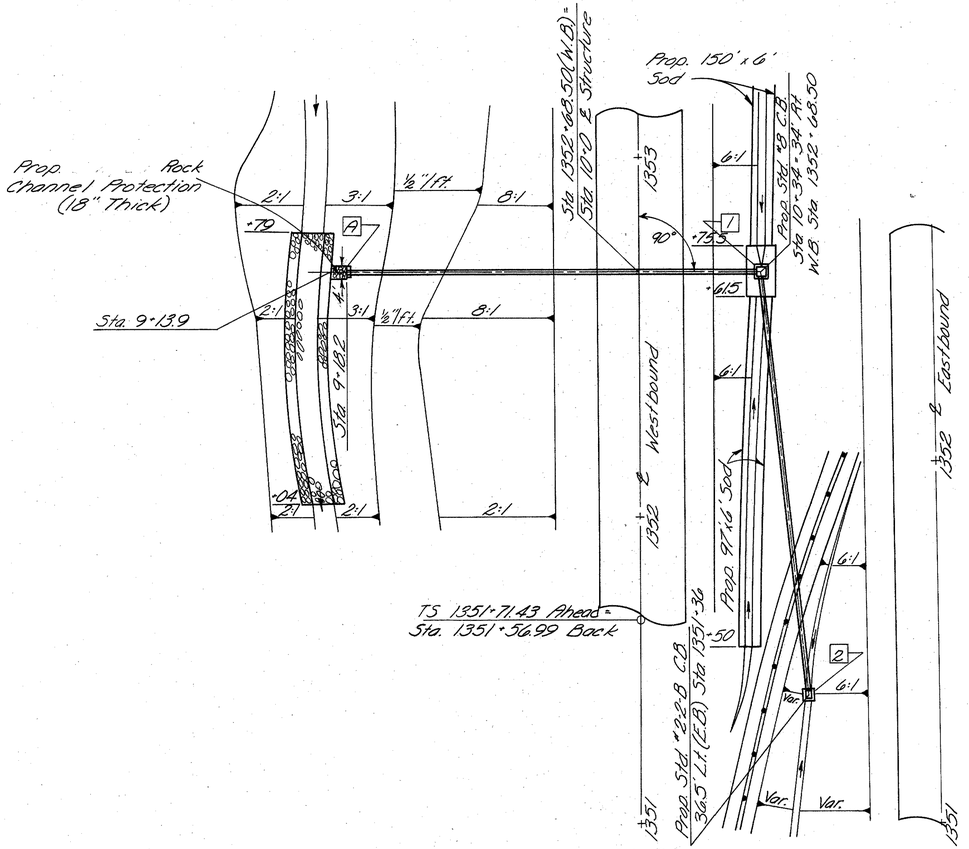
STANDARD CONSTRUCTION DRAWINGS
HW-E
CB-2-2-B
CB-8

(2) PROP. 603 CONDUIT TYPE C — RT. ℄ MED. STA. 1333+00 TO LT. ℄ MED. STA. 1335+66
(2) PROP. 603 CONDUIT TYPE B & F — LT. & RT. ℄ MED. STA. 1333+00

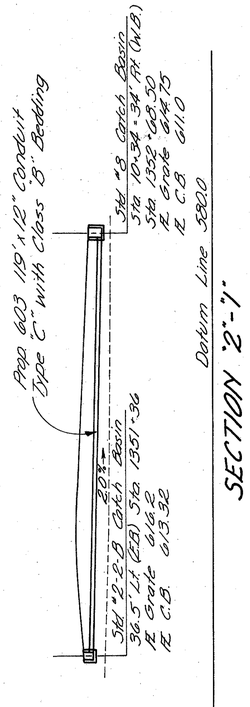
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

107
225

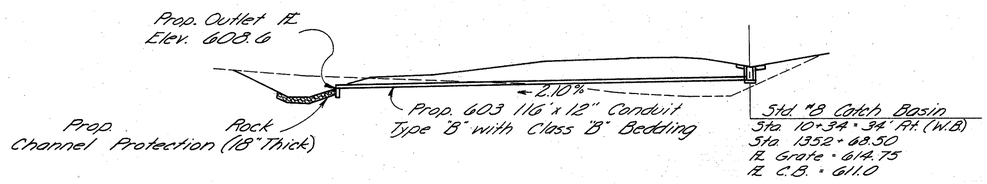
ROS 35-25.05



PLAN



SECTION "2"-"1"



SECTION "A"-"1"

STANDARD CONSTRUCTION DRAWING
HW-E, CB"B, and CB"22-B

CALCULATIONS				
Item	Length	Width	Depth	Unit
601 R.C.P.	4.3' x 4.0' / 27	x 2.0'	=	1.27 C.Y.
660 Sodding	247' x 6' / 9		=	164.7 S.Y.

ESTIMATED QUANTITIES

603	12"ϕ Conduit Type B with Class B Bedding	116 L.F.
603	12"ϕ Conduit Type C with Class B Bedding	119 L.F.
604	Catch Basin, Std. No. B	1 Ea.
604	Catch Basin, Std. No. 2-2-B	1 Ea.
601	Rock Channel Protection Type B	1 C.Y.
602	Concrete, Masonry	0.23 C.Y.
660	Sodding	165 S.Y.

0' 20' 40'
Scale

DRAWN	TRACED	CHECKED
L.L.F. 4-23-68	H.M.M. 5-2-68	D.B.B. 5-4-68

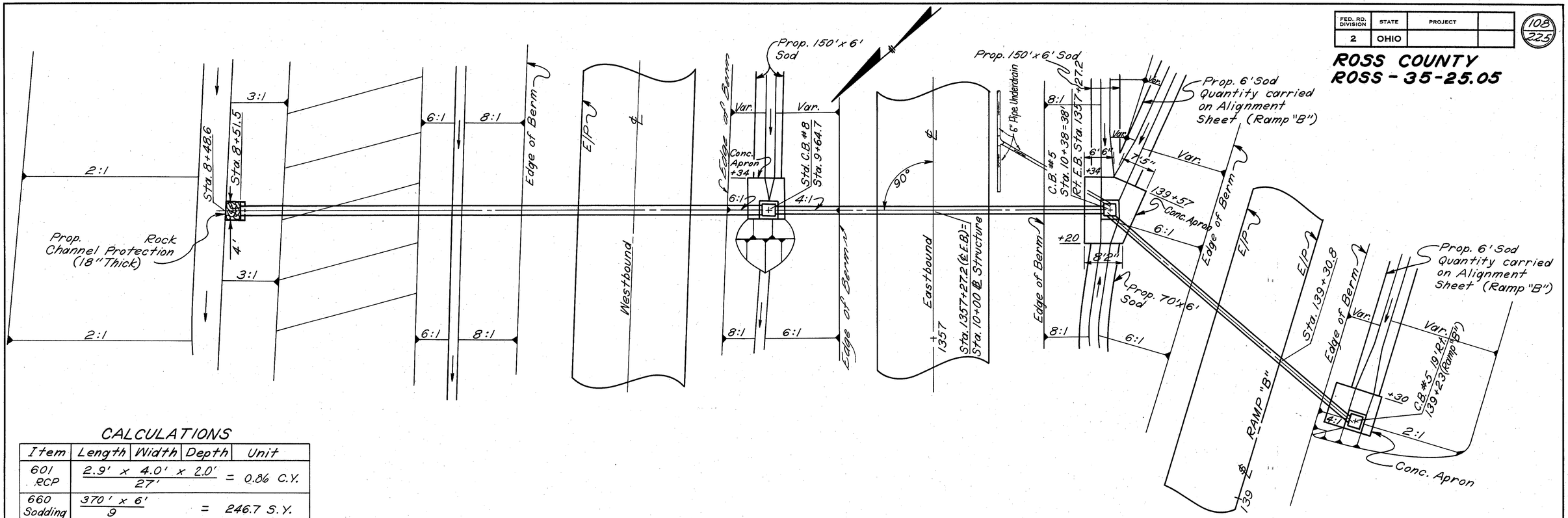
ROS. 35 & STA. 1352+68.50 (W.B.)
PROPOSED 603 CONDUIT TYPE B AND
PROPOSED 603 CONDUIT TYPE C

4

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

108
225

ROSS COUNTY
ROSS - 35 - 25.05



CALCULATIONS

Item	Length	Width	Depth	Unit
601 RCP	$\frac{2.9' \times 4.0' \times 2.0'}{27'}$			= 0.86 C.Y.
660 Sodding	$\frac{370' \times 6'}{9}$			= 246.7 S.Y.

PLAN

DRAINAGE DATA
Drainage Area 7 Ac
Q25 20.2 cfs

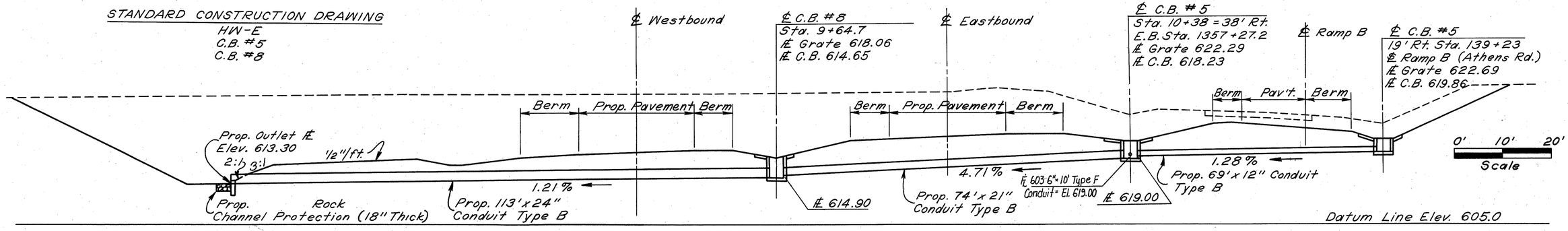
DRAINAGE DATA
Drainage Area 6 Ac
Q25 17.5 cfs

DRAINAGE DATA
Drainage Area 1 Ac
Q25 3.5 cfs

ESTIMATED QUANTITIES

603	12" ϕ Conduit Type B with Class B Bedding	69	L.F.
603	21" ϕ Conduit Type B with Class B Bedding	74	L.F.
603	24" ϕ Conduit Type B with Class B Bedding	113	L.F.
602	Concrete Masonry	0.41	C.F.
604	Catch Basin, Std. #5	2	Ea.
604	Catch Basin, Std. #8	1	Ea.
601	Rock Channel Protection, Type B	1	C.Y.
660	Sodding	247	S.Y.

STANDARD CONSTRUCTION DRAWING
HW-E
C.B. #5
C.B. #8



SECTION

DRAWN	TRACED	CHECKED
L.L.F. 4-26-68	J.B.H 4-29-68	D.B.B. 5-3-68

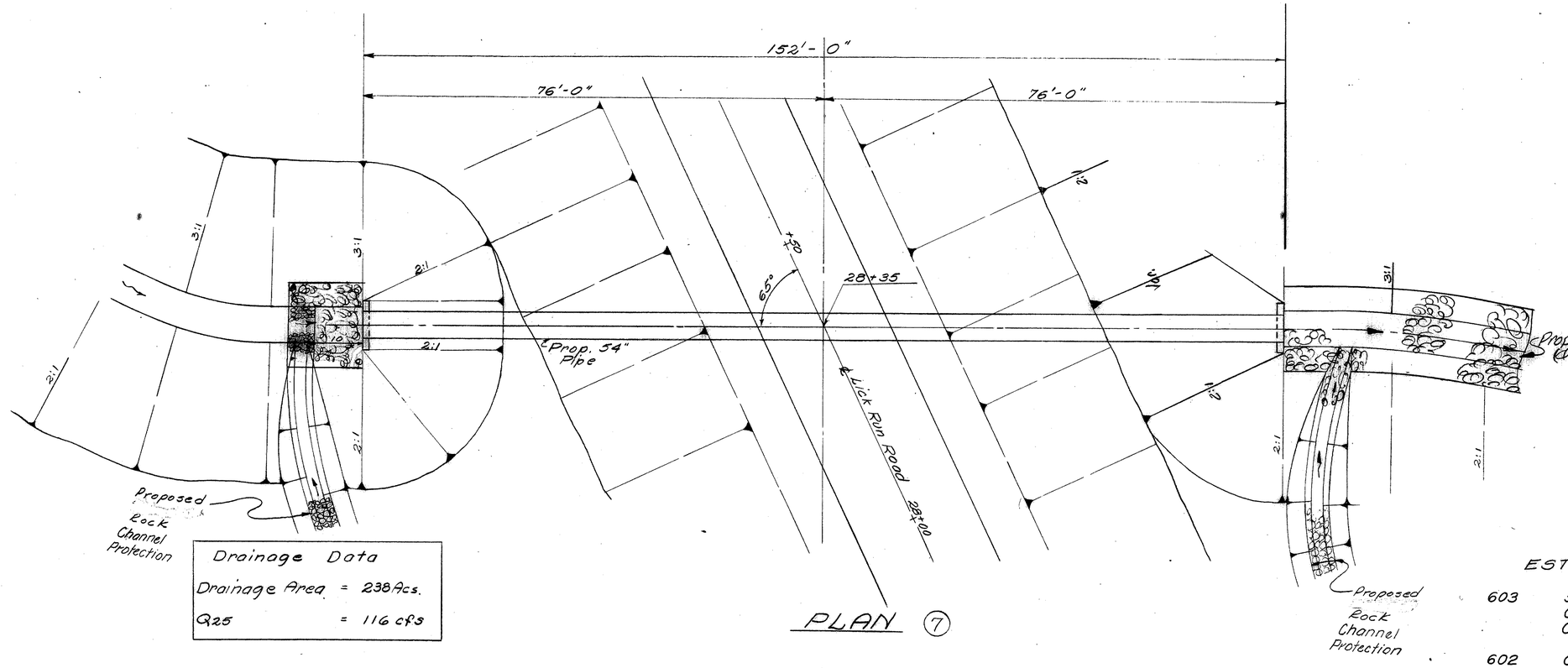
ROS - 35 STA. 1357+27.2
PROP. 603 CONDUIT TYPE B

6

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

109
225

ROSS COUNTY
ROS-35-25.05

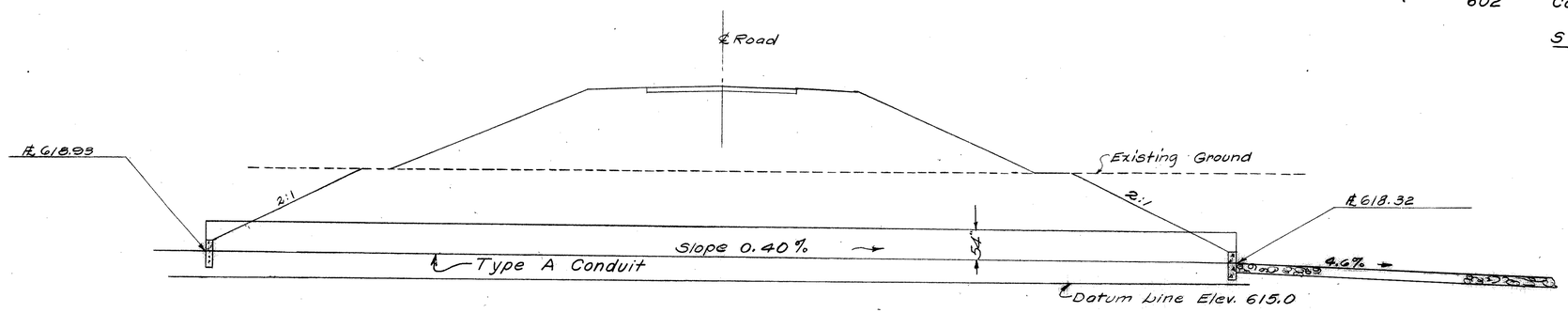


Drainage Data

Drainage Area = 238 Acs.

Q25 = 116 cfs

PLAN ⑦



SECTION

ESTIMATED QUANTITIES

603	54" Conduit Type A with Class B Bedding 706.02 Class IV	152 Lin. Ft.
602	Concrete, Masonry	1.92 Cu. Yds.

STANDARD CONSTRUCTION DRAWING
HW-E

REVISIONS

DRAWN	TRACED	CHECKED
JBK 3-21-68	JBH 3-25-68	D.B.B. 5-10-68

ELMER S. BARNETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

CULVERT DETAIL

LICK RUN ROAD
STA. 28+35

⑦

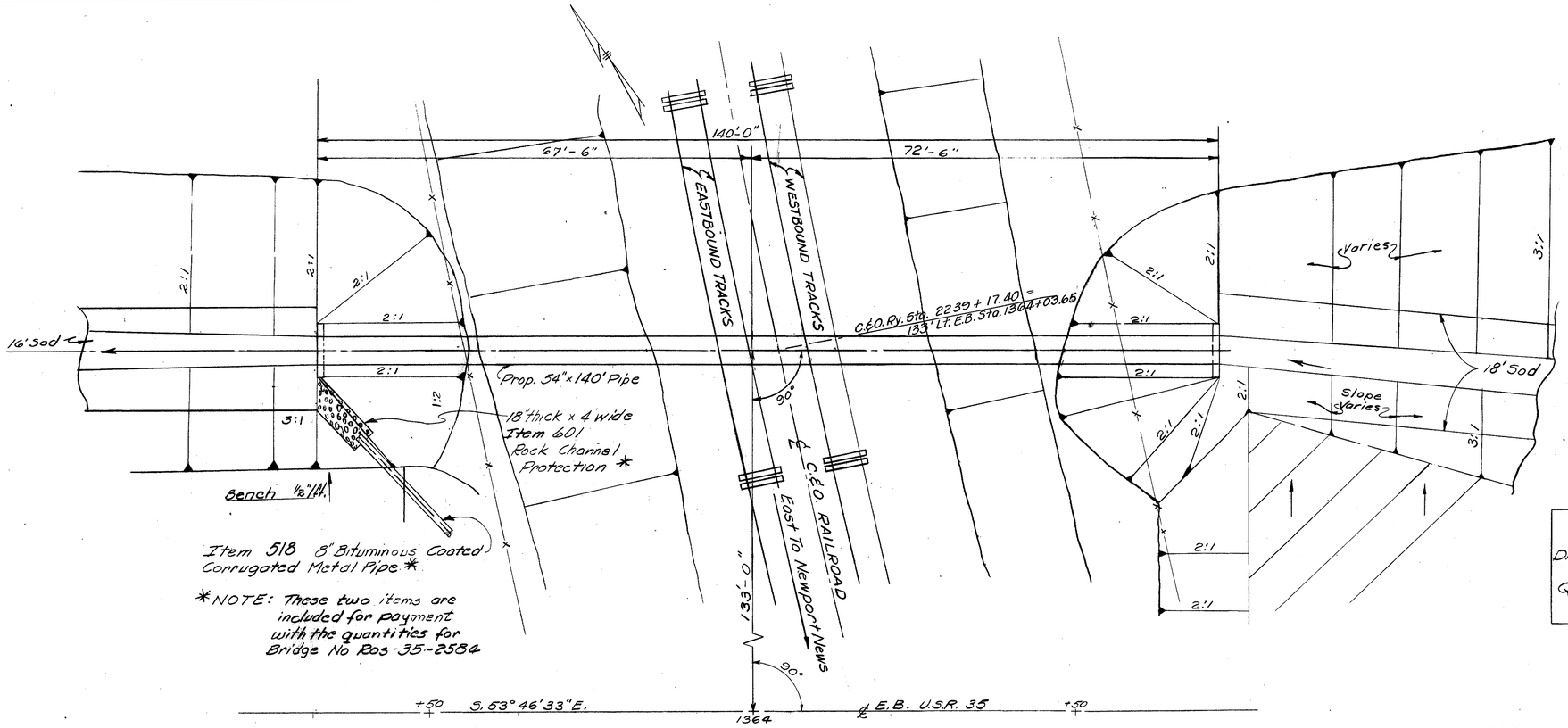
SCALE 0 5 10'

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
N.R.	N.R.	E.R.J.	W.L.J.			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

110
225

ROSS COUNTY
ROS-35-25.05



*NOTE: These two items are included for payment with the quantities for Bridge No Ros-35-2584

PLAN (9)

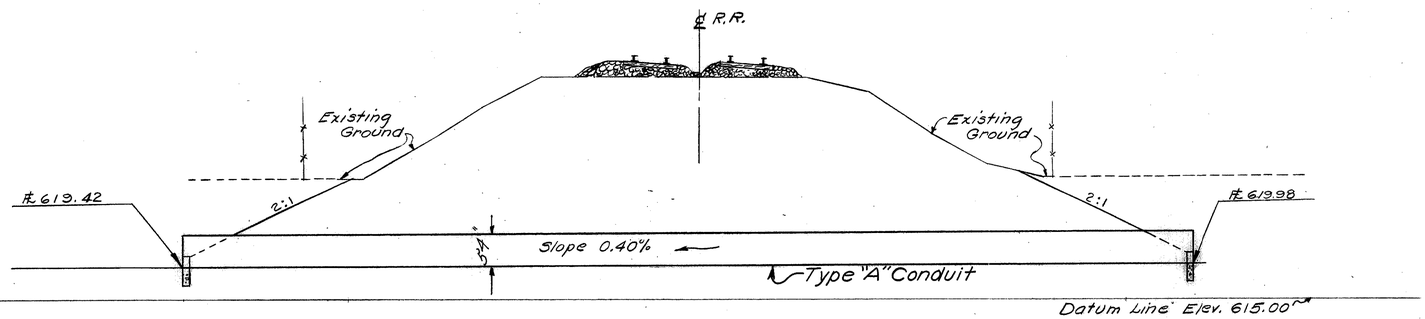
Drainage Data
Drainage Area = 237 Acs.
Q 25 = 116 cfs

ESTIMATED QUANTITIES

602	Concrete, Masonry	1.92 Cu. Yds.
603	54" Conduit Type A under Railroad 706.02 Class V	140 Lin. Ft.

**Note: See Proposal Note for Method of Installation of Pipe under Railroad

STANDARD CONSTRUCTION DRAWING
HW-E



SECTION

REVISIONS

DRAWN	TRACED	CHECKED
JBK 3-21-68	JBH 3-25-68	D.B.B. 5-10-68

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

CULVERT DETAIL
C&O.R.R. STA. 2239+19.5
LT. STA. 1364 ± ℄ E.B.
(9)

SCALE 0 5' 10'

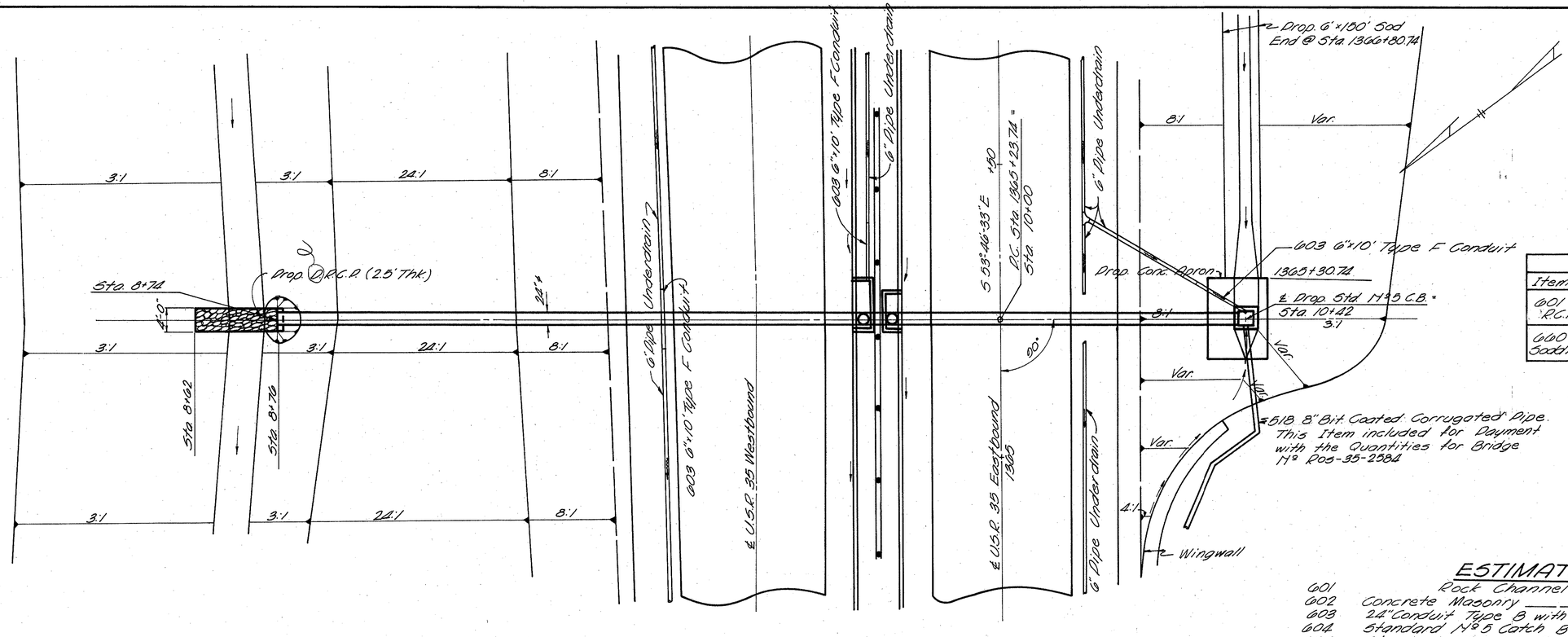
DESIGNED	DRAWN	TRACED	DATE	CHECKED	DATE	REVIEWED	DATE	REVISED
N-R	N-R	6-5						

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

111
225

ROSS COUNTY
ROS-35-25.05

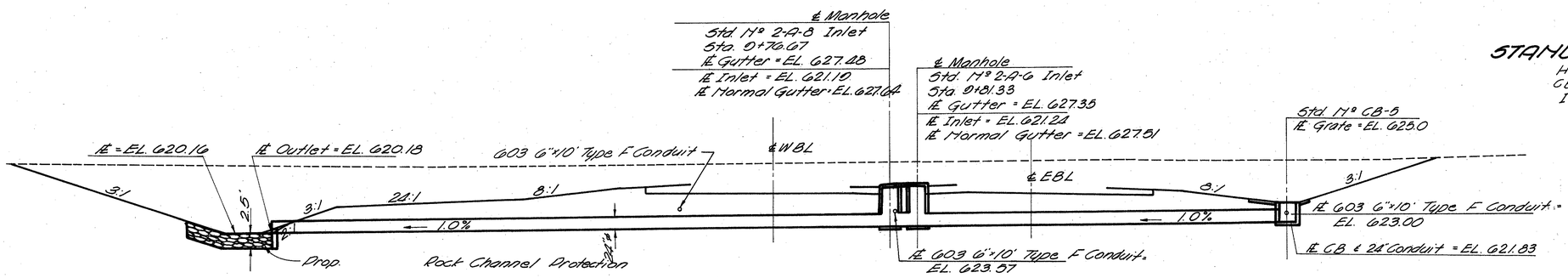
DRAINAGE AREA = 11 Ac.
Q25 = 18 C.F.S



CALCULATIONS				
Item	Length	Width	Depth	Unit
601 R.C.P.	14'	4'	3.0' / 27	= 6.2 Cu Yds.
660 Sodding	150'	6' / 9.		= 100 Sq Yds.

ESTIMATED QUANTITIES

601	Rock Channel Protection Type B	6 Cu Yds.
602	Concrete Masonry	41 Cu Yds.
603	24" Conduit Type B with Class B Bedding	106 Lin Ft.
604	Standard Nº 5 Catch Basin	1-Each
604	Standard Nº 2-A-6 Paved Shoulder Inlet	1-Each
604	Standard Nº 2-A-8 Paved Shoulder Inlet	1-Each
660	Sodding	100 Sq Yds.



Datum Line = EL. 610.0

STANDARD CONSTRUCTION DWG'S

HW-E
CB-5
I-2A

SCALE
0' 10' 20'

Drawn	Traced	Checked
D.W.S. 8-1-68	R.C.T. 5-6-68	J.B.K. 5-8-68

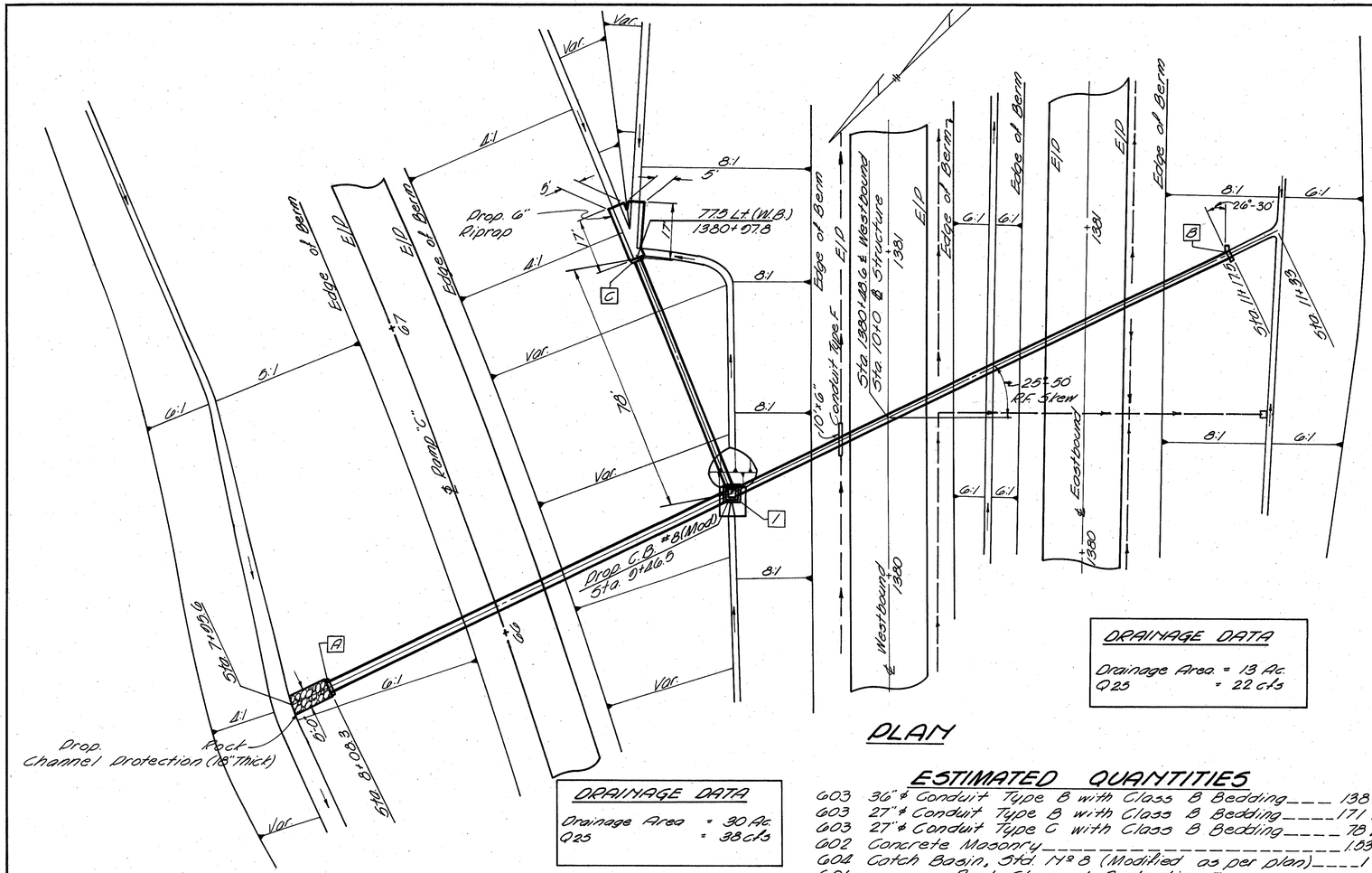
ROS-35 EBL STA. 1365+23.74
PROPOSED 603 CONDUIT TYPE B

10

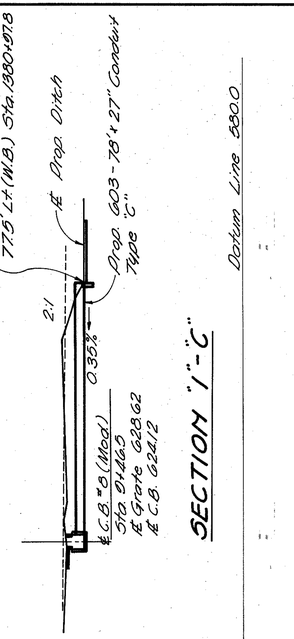
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

112
225

ROSS COUNTY
ROSS-35-25.05



PLAN



SECTION 1"-C"

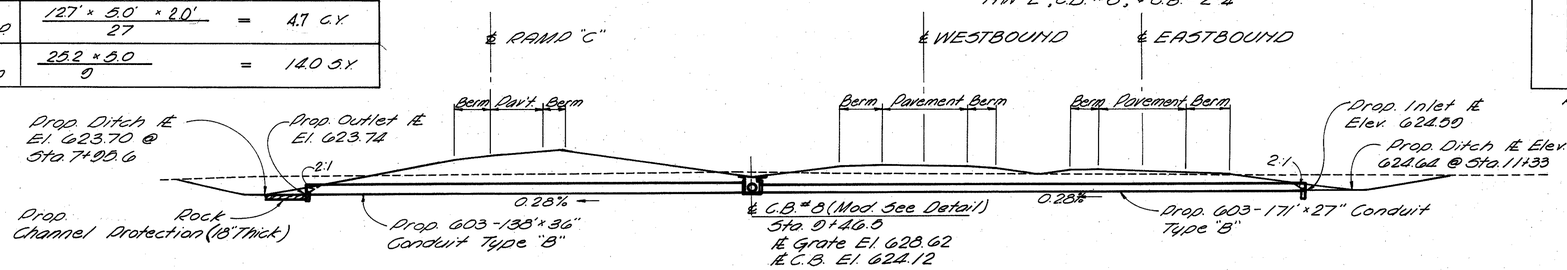
Datum Line 5800

ESTIMATED QUANTITIES

603	36" ϕ Conduit Type B with Class B Bedding	138 L.F.
603	27" ϕ Conduit Type B with Class B Bedding	171 L.F.
603	27" ϕ Conduit Type C with Class B Bedding	78 L.F.
602	Concrete Masonry	1.33 C.Y.
604	Catch Basin, Std 114 8 (Modified as per plan)	1 Ea.
601	Rock Channel Protection Type B	5 C.Y.
601	Riprap, using 6" Rein. Conc. Slab, as per plan	14 S.Y.

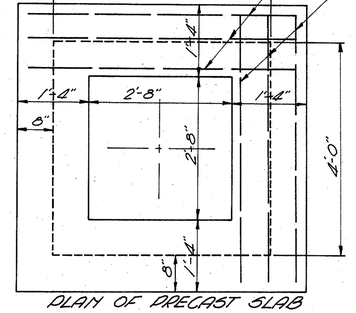
STANDARD CONSTRUCTION DRAWINGS
HW-E, C.B. #8, ℄ C.B. #2-4

CALCULATIONS					
Item	Length	Width	Depth		Unit
601 R.C.P.	127'	5.0'	2.0' / 27	=	4.7 C.Y.
601 Riprap	25.2	5.0	0	=	14.0 S.Y.

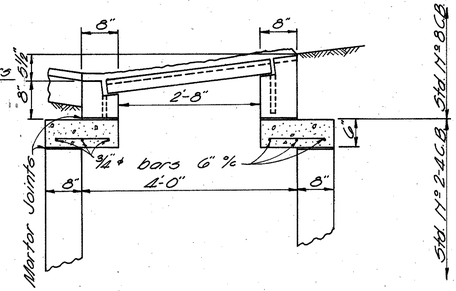


SECTION "A"-"1"-"B"

Datum Line 5800



PLAN OF PRECAST SLAB



12-¾" ϕ × 5'-0" bars required

DETAIL OF NO. 8 CATCH BASIN (MODIFIED)

SCALE
0' 10' 20' 30' 40'

DRAWN	TRACED	CHECKED
L.L.F. 5-6-68	R.C.T. 5-8-68	J.B.K. 5-9-68

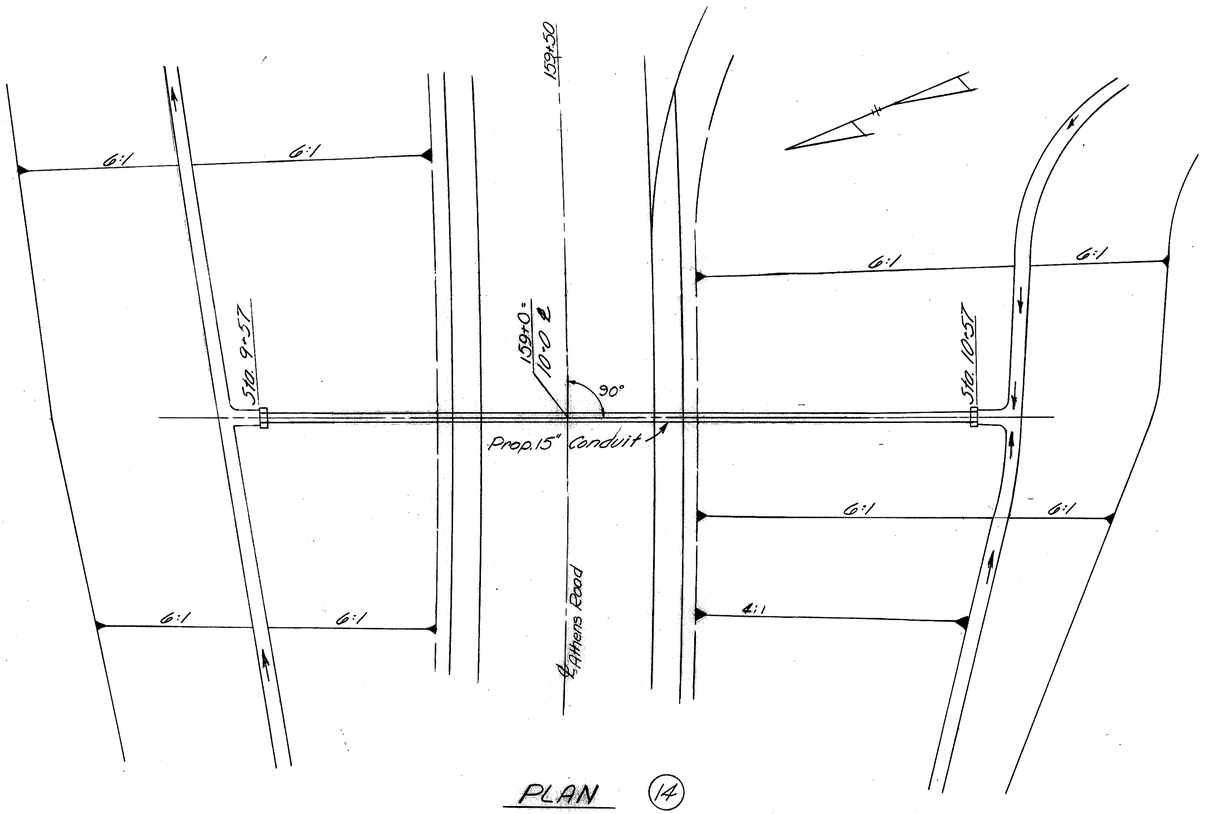
ROS-35 STA 1380+48.6 (WESTBOUND)
PROPOSED 603 CONDUIT TYPE B & C

13

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

113
225

ROSS COUNTY
ROS -35-25.05



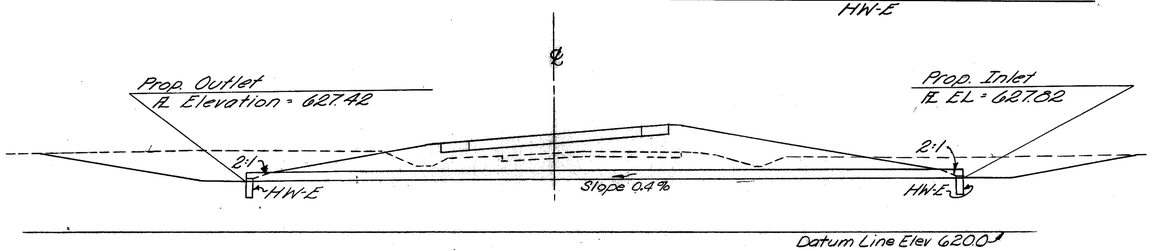
PLAN (14)

DRAINAGE DATA	
Drainage Area	2 Ac.
Q_{25}	4.6 cfs

ESTIMATED QUANTITIES

603	15"ϕ Conduit Type "A" with Class "B" Bedding 706.01, 706.02, or 706.08	100 L.F.
602	Concrete Masonry	0.52 C.Y.

STANDARD CONSTRUCTION DRAWING
HW-E



SECTION

REVISIONS

DRAWN	TRACED	CHECKED
L.L.F. 5-9-68	H.M.M. 5-10-68	O.B.B. 5-10-68

Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

CULVERT DETAIL
ATHENS RD.
STA. 159+00

(14)

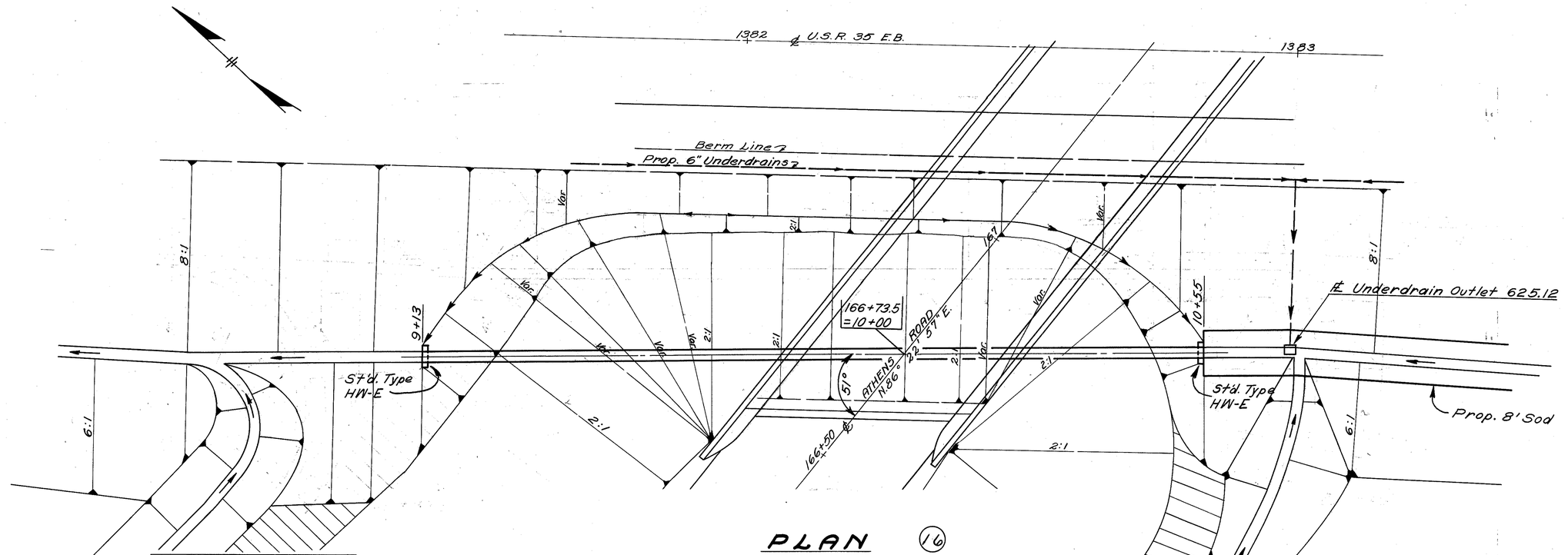
SCALE 0' 10'

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
NR	NR	NR	OBB			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

114
225

ROSS COUNTY
ROS-35-25.05



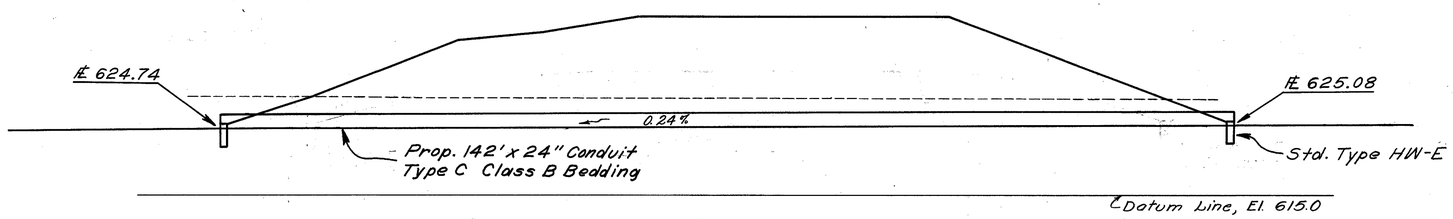
PLAN (16)

DRAINAGE DATA	
Drainage Area	4 Ac.
Q25	16 cfs

ESTIMATED QUANTITIES

602 — Concrete Masonry — 0.82 C.Y.
603 — 24" Type C Class R
706.02 Item III or 707.13 B Bedding — 142 L.F.

STANDARD CONSTRUCTION DRAWINGS
HW-E



SECTION

REVISIONS		
Drawn	Traced	Checked
DWS 5-14-68	JBH 5-15-68	D.B.B. 5-16-68

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL
ATHENS ROAD - STA. 166+73.5

(16)

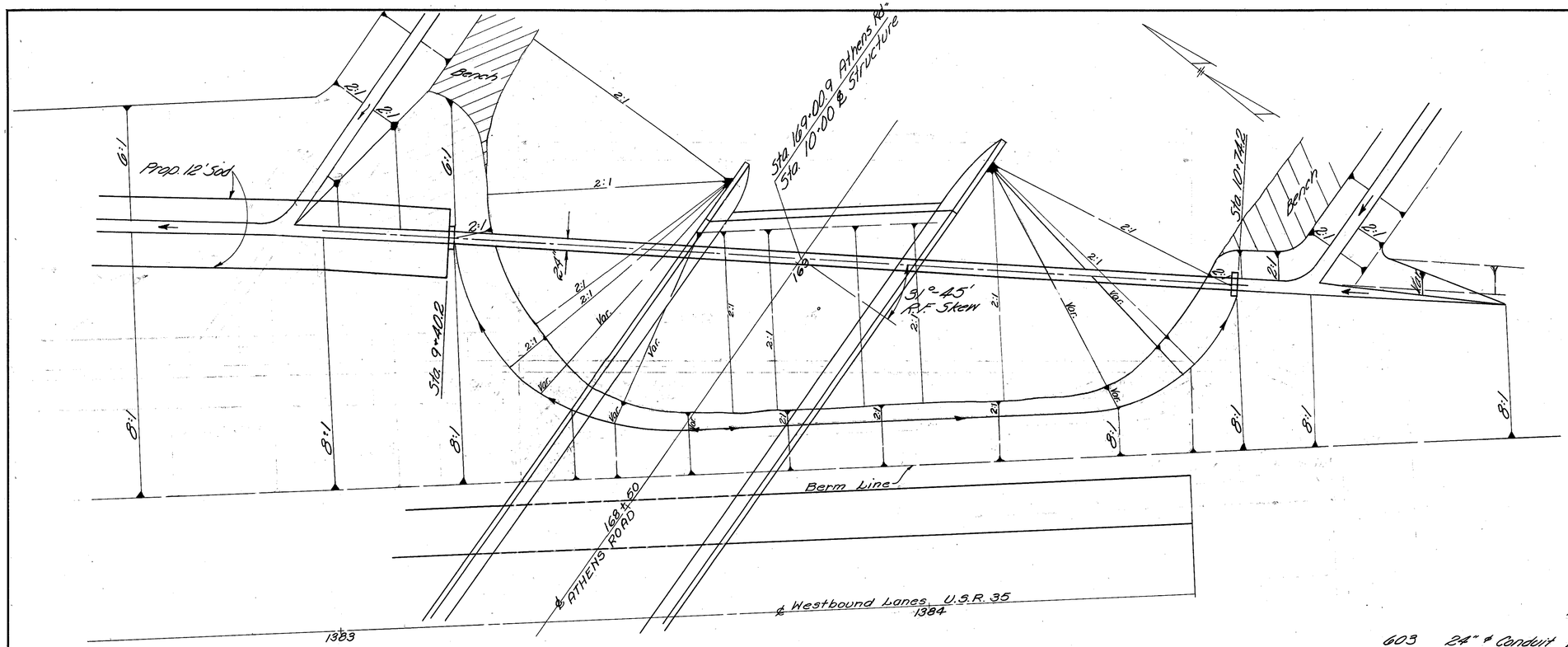
SCALE 0 5' 10' DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
NR	NR	ERS				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

115
225

ROSS COUNTY
ROS-35-25.05



PLAN (17)

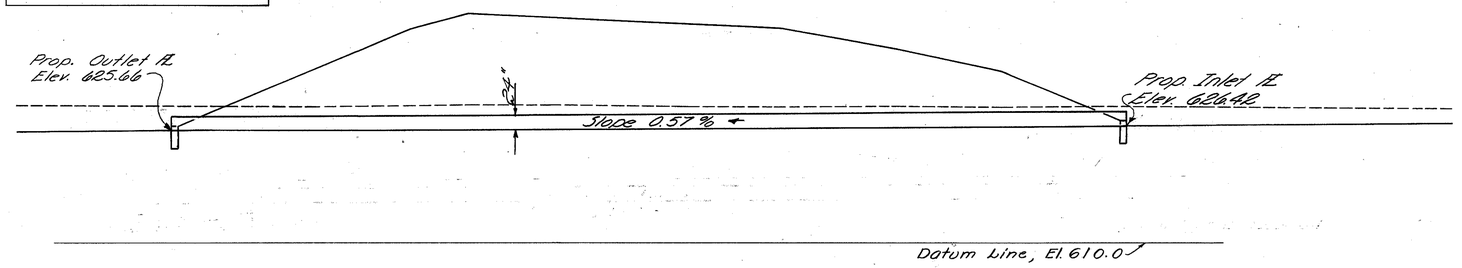
706.02 class III or 707.13

ESTIMATED QUANTITIES

603	24" ϕ Conduit Type "C" with Class "B" Bedding	134	L.F.
602	Concrete Masonry	082	C.Y.

STANDARD CONSTRUCTION DRAWING
HW-E

DRAINAGE DATA	
Drainage Area	13.0 Ac.
Q25	20.2 cfs



SECTION

REVISIONS

DRAWN	TRACED	CHECKED
L.L.F. 5-7-68	H.M.M. 5-16-68	D.B.B. 5-16-68

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL
ATHENS RD.
STA. 169+00.9

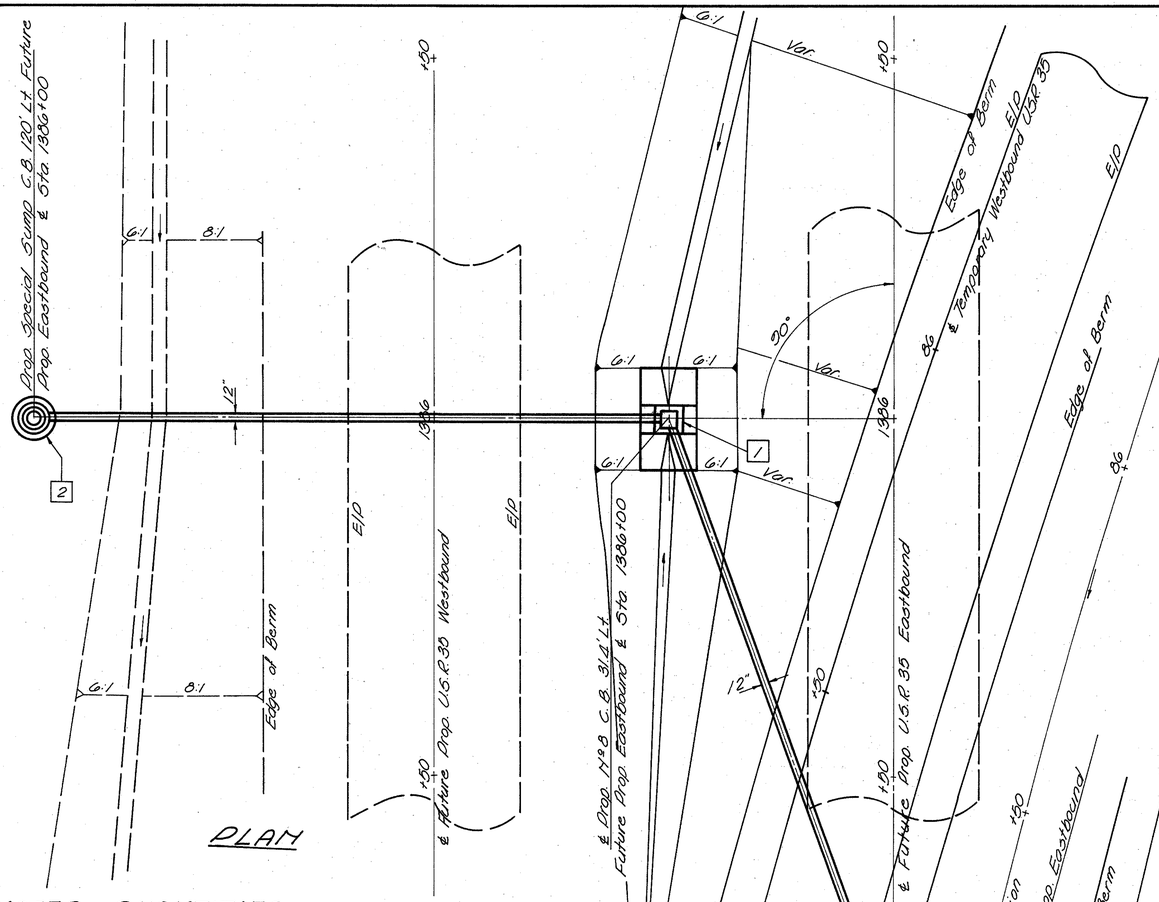
SCALE 0 5' 10' DATE (17)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
N-R	N-R	BRB	HMM			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

116
225

ROSS COUNTY
ROS-35-25.05

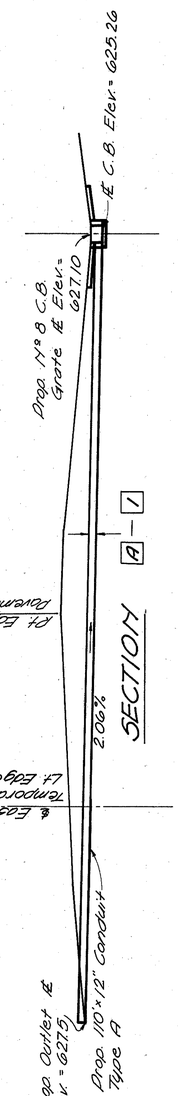


ESTIMATED QUANTITIES

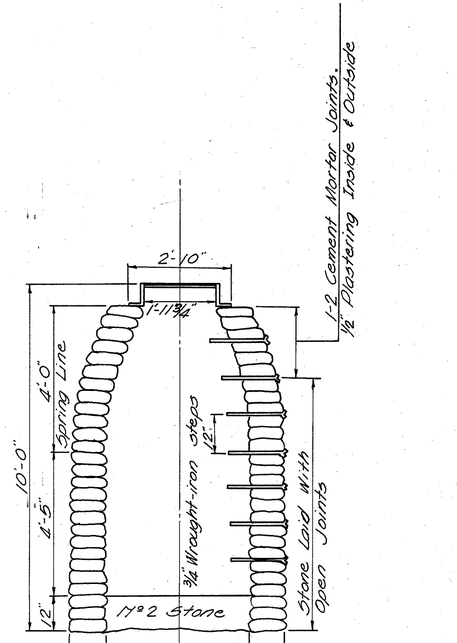
604	Catch Basin Std 1Nº 8	1 Each
604	Catch Basin Special Sump	1 Each
603	12"ϕ Conduit Type A with Class B Bedding 707.06	110 Lin.Ft.
603	12"ϕ Conduit Type B with Class B Bedding	89 Lin.Ft.

STANDARD CONSTRUCTION DRAWINGS

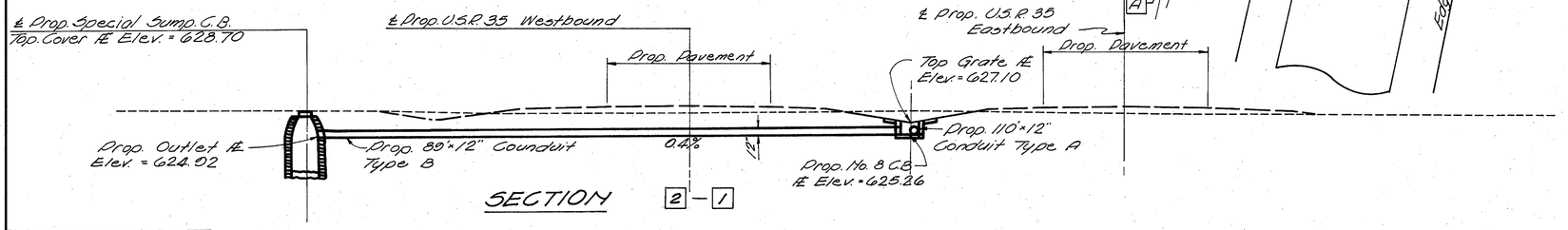
C.B.-8
M.H.-1 Cover & Steps



Datum Line Elev. = 610.00



SPECIAL SUMP CATCH BASIN WITH STD. MANHOLE-1 COVER
No Scale



SCALE
0' 10' 20'

DRAWN	TRACED	CHECKED
D.B.B. 5-12-68	R.C.T. 5-16-68	D.W.S. 5-16-68

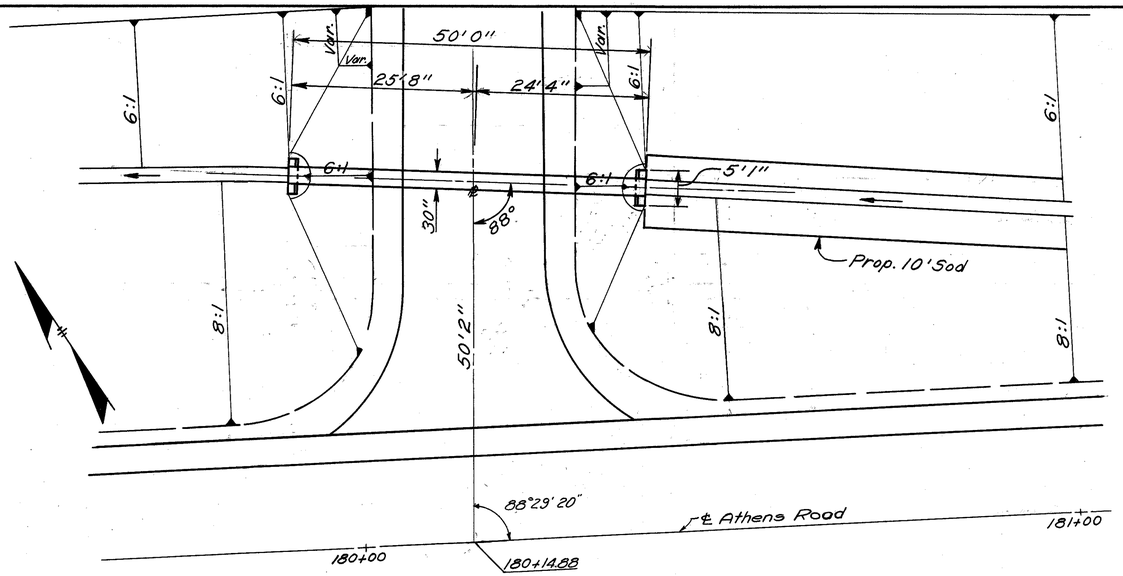
ROS-35 STA. 1386+00 (EASTBOUND)
PROPOSED 603 CONDUIT TYPE A & B

18

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

117
225

ROSS COUNTY
ROS-35-25.05



PLAN

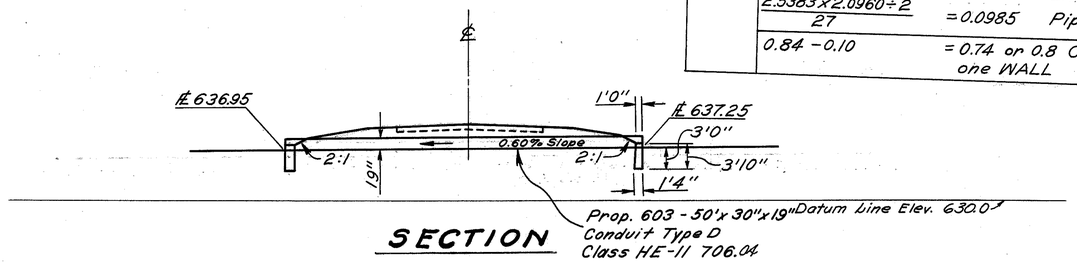
(20)

ESTIMATED QUANTITIES

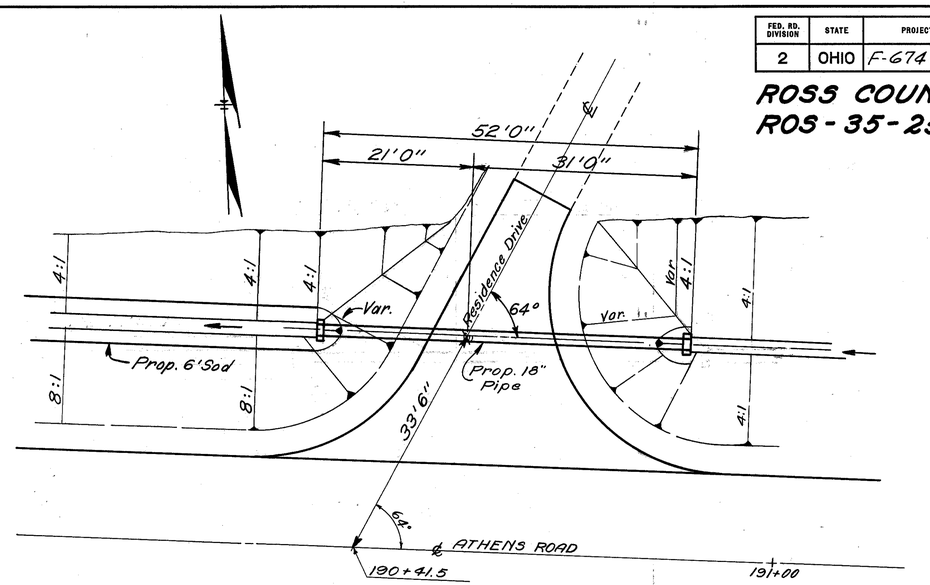
603	30" x 19" Conduit Type D Class HE-II 706.04	50 Lin. Ft.
602	Concrete, Masonry	1.6 Cu. Yds.

DRAINAGE DATA		
Drainage Area=	18	Acs.
Q10	= 22	cfs

CALCULATIONS				
Item	Length	Width	Depth	Unit
602 Concrete Masonry	2.333 x 3.8333 / 2			= 4.47 □' End Area
	5.08 x 4.47 / 27			= 0.84 C.Y.
	3.0417 x 2.1250 x .7854			= 5.0765 □' End Area of Pipe
	5.0765 ÷ 2			= 2.5383 □' End Area to Top of Pipe
	2.5383 x 2.0960 ÷ 2 / 27			= 0.0985 Pipe Ded.
	0.84 - 0.10			= 0.74 or 0.8 C.Y. one WALL



SECTION



PLAN

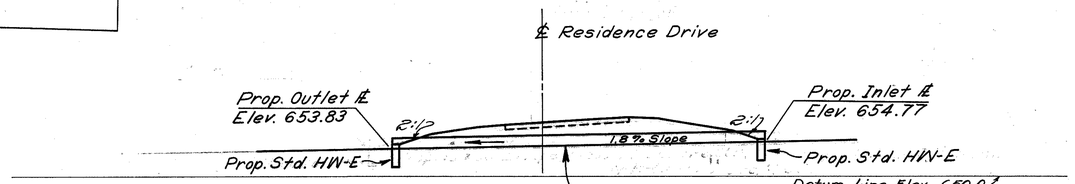
(21)

ESTIMATED QUANTITIES

603	18" Conduit Type D 706.01, 706.02 or 706.08	52 Lin. Ft.
602	Concrete, Masonry	0.60 Cu. Yds.

DRAINAGE DATA		
Drainage Area=	8	Acs.
Q10	= 13	cfs

STANDARD CONSTRUCTION DRAWING
HW-E



SECTION

REVISIONS		
DRAWN	TRACED	CHECKED
L.L.F. 5-6-68	J.B.H. 5-14-68	D.B.B. 5-16-68

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL
RESIDENCE DRIVE (20)
LEFT ATHENS RD. ℄ STA. 190+41.5
LEFT ATHENS RD. ℄ STA. 180+14.88

(21)

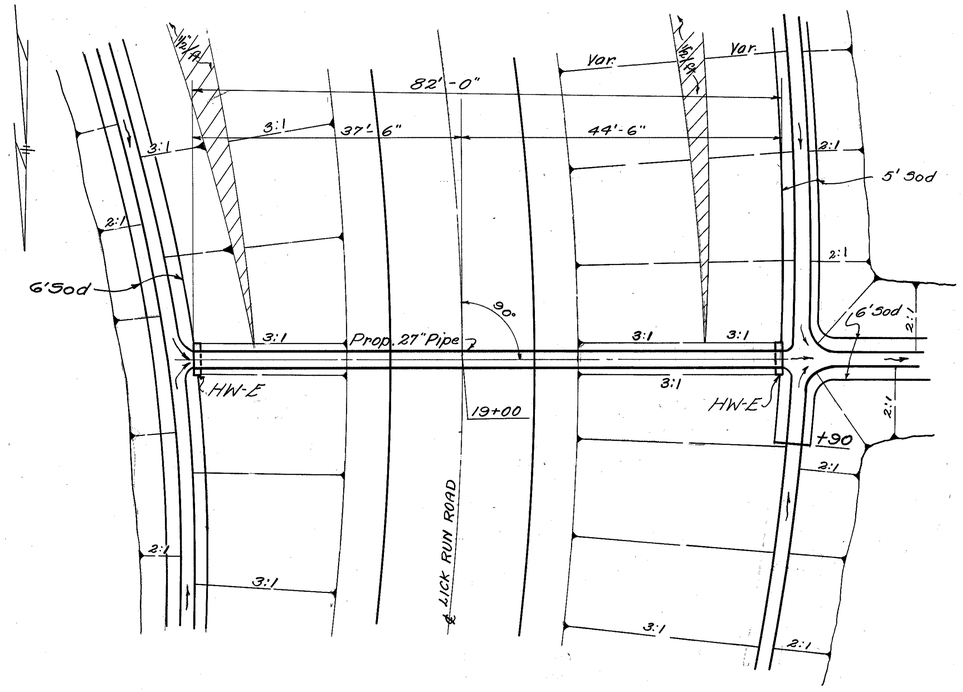
SCALE 0 5' 10' DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
N.R.	N.R.	[illegible]	[illegible]			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674(12)	

118
225

ROSS COUNTY
ROS-35-25.05



PLAN

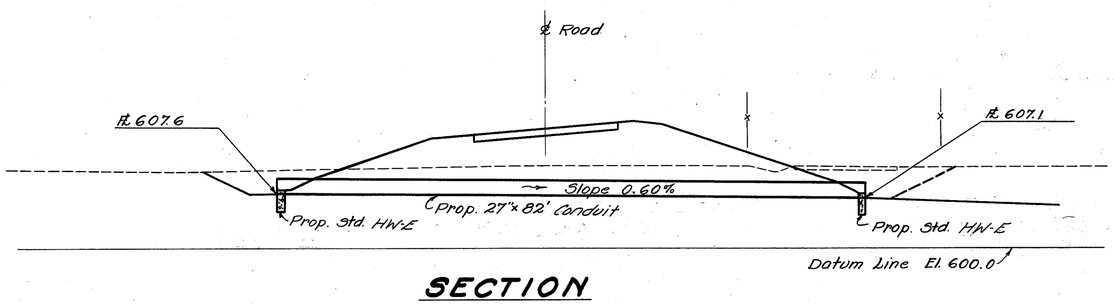
(22)

DRAINAGE DATA	
Drainage Area	25 Acs.
Q_{10}	= 32 cfs

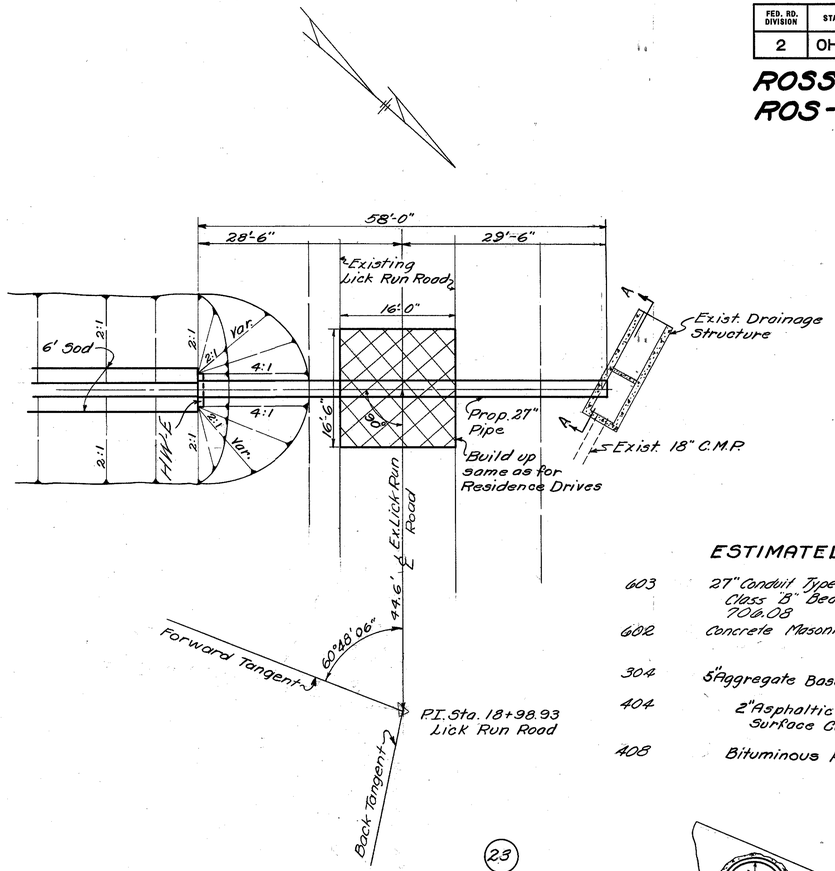
ESTIMATED QUANTITIES

602	Concrete Masonry	0.94 C.Y.
603	27" Conduit Type A 706.02 or 706.08	82.0 L.F.

STANDARD CONSTRUCTION DRAWING
HW-E



SECTION



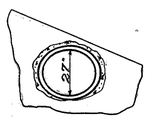
(23)

PLAN

ESTIMATED QUANTITIES

603	27" Conduit Type "A" with Class "B" Bedding 706.02 or 706.08	58 Lin. Ft.
602	Concrete Masonry	0.47 Cu. Yds.
304	5" Aggregate Base Course	4.1 Cu. Yds.
404	2" Asphaltic Concrete Surface Course	1.7 Cu. Yds.
408	Bituminous Prime Coat	30 Sq. Yds.

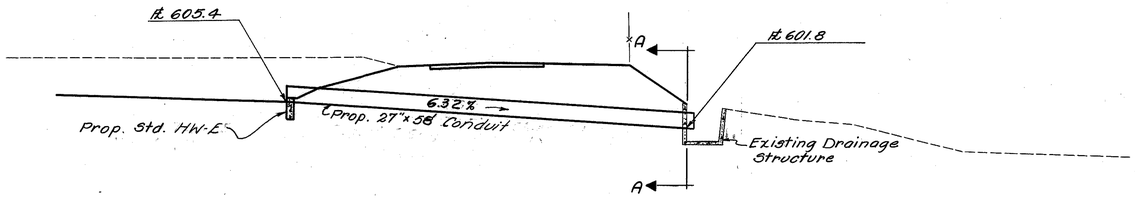
NOTE:
Proposed 27" Pipe shall be placed thru the wall of the existing drainage structure and shall be grouted in place. All work and Materials required will be included for payment in the price bid per lineal foot of pipe.



SECTION A-A

DRAINAGE DATA	
Drainage Area	= 27 Acs.
Q_{10}	= 34 cfs

STANDARD CONSTRUCTION DRAWING
HW-E



SECTION

CALCULATIONS

Item	Length	Width	Depth		Unit
304	16.5'	16.0'	0.417' / 27	=	4.10 C.Y.
404	16.5'	16.0'	0.167' / 27	=	1.70 C.Y.
408	16.5'	16.0' / 9		=	30 S.Y.

REVISIONS

DRAWN	TRACED	CHECKED
J.B.K. 5-8-68	H.M.M. 5-9-68	D.B.B. 5-10-68

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAILS
LICK RUN ROAD
STA. 19+00 (22)
STA. 18+98.93 (23)

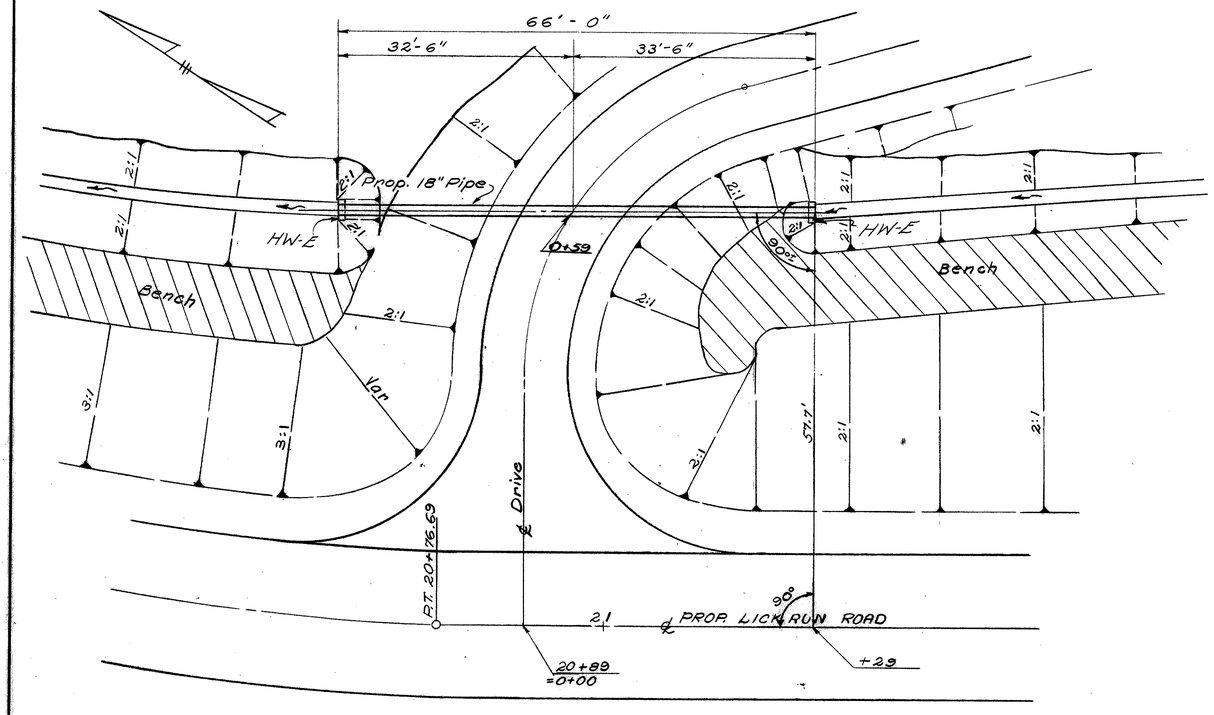
SCALE 0 5' 10' DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
NR	BRB	CRP	TWG			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

119
225

ROSS COUNTY
ROS-35-25.05



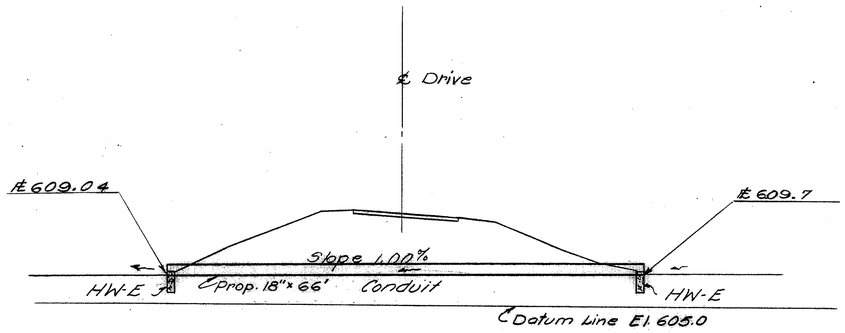
PLAN (24)

DRAINAGE DATA
Drainage Area = 6 Acs
Q_{10} = 12 cfs

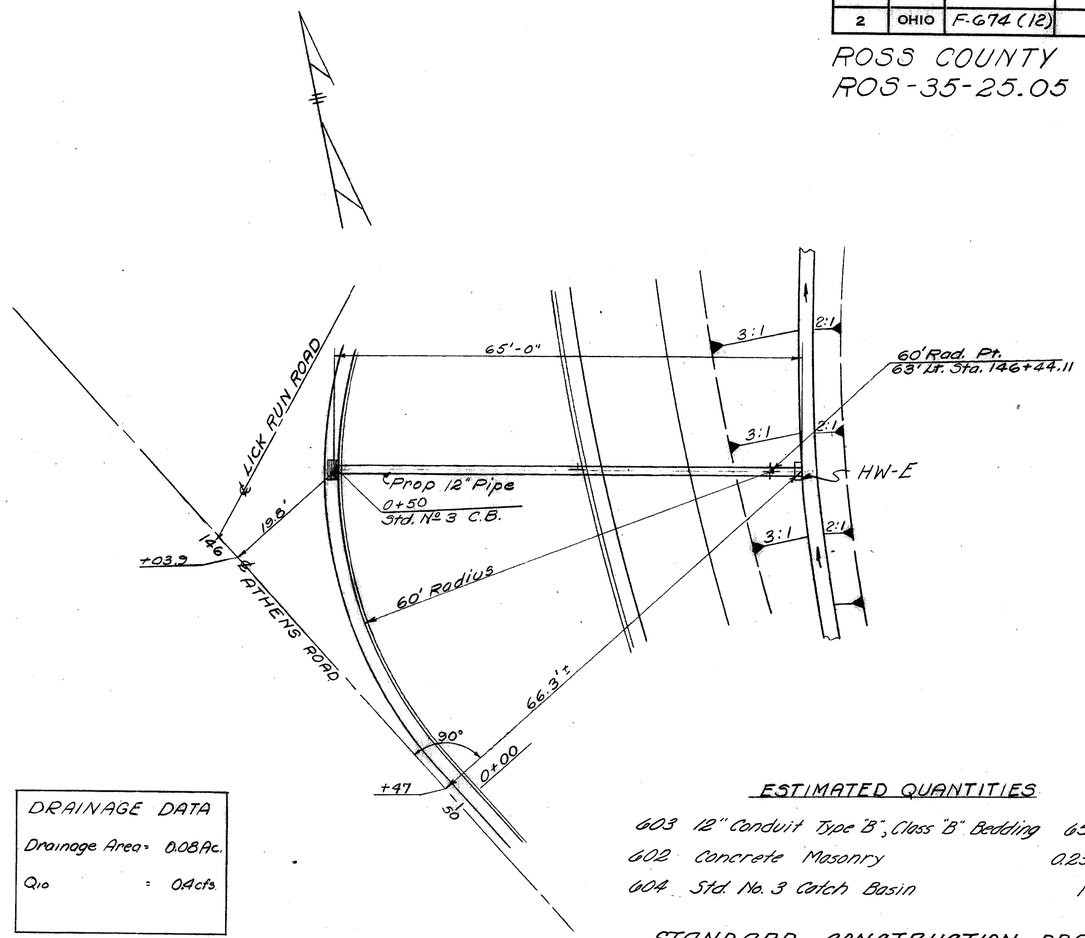
ESTIMATED QUANTITIES

603	18" Conduit Type D	66 Lin.Ft.
602	Concrete Masonry	0.60 Cu.Yds.

STANDARD CONSTRUCTION DRAWING
HW-E



SECTION



DRAINAGE DATA
Drainage Area = 0.08 Ac.
Q_{10} = 0.4 cfs

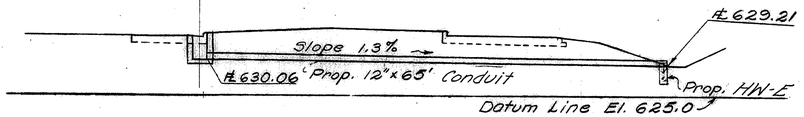
ESTIMATED QUANTITIES

603	12" Conduit Type "B", Class "B" Bedding	65 Lin.Ft.
602	Concrete Masonry	0.23 Cu.Yds.
604	Std. No. 3 Catch Basin	1 Each

STANDARD CONSTRUCTION DRAWINGS
HW-E
C.B. № 3

PLAN (25)

Sta. 0+50 on Curb Return
℄ Prop. Std. № 3 C.B.
R. @ Curb = 633.01
R. Grate = 632.84
R. C.B = 630.06



SECTION

REVISIONS

DRAWN	TRACED	CHECKED
J.B.K. 5-8-68	H.M.M. 5-9-68	D.B.B. 5-10-68

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

DRAINAGE DETAILS (24) (25)

DRIVE - STA. 0+59
(Lt. Sta. 20+89 Lick Run Road)
STA. 0+50 CURB RETURN
(Lick Run & Athens Rd Intersection)

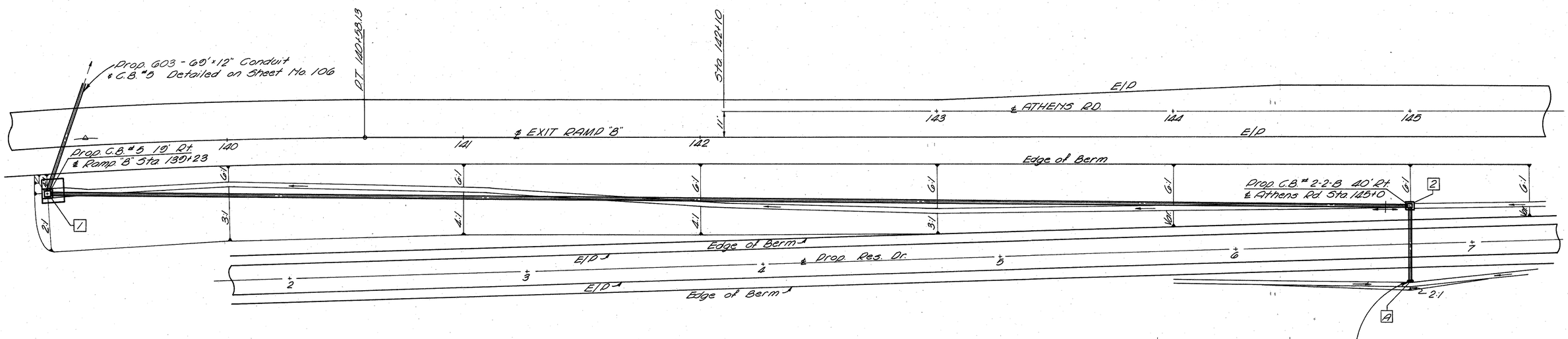
SCALE 0 5' 10' DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
			7462			

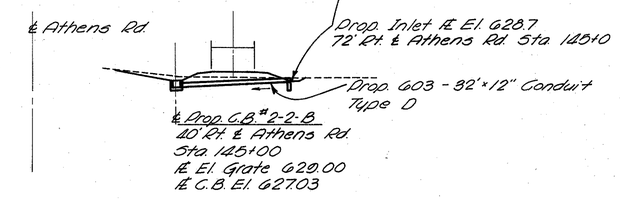
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

120
225

ROSS COUNTY
ROS-35-25.05



PLAN

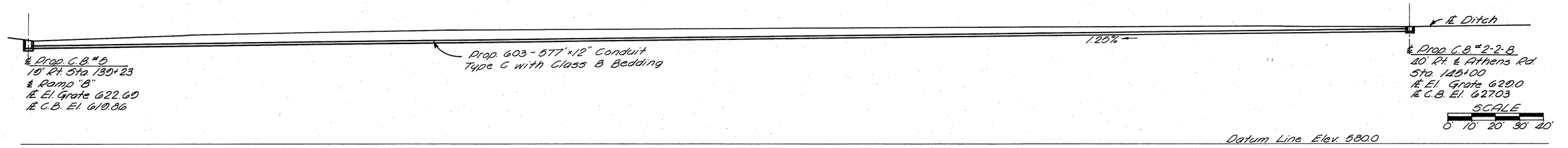


SECTION "2"-"A"

ESTIMATED QUANTITIES

603	12" ϕ Conduit Type C" with Class "B" Bedding	577 L.F.
603	12" ϕ Conduit Type "D"	32 L.F.
602	Concrete, Masonry	0.23 C.Y.
604	Catch Basin, Std. No. 2-2-B	1 Ea.

STANDARD CONSTRUCTION DRAWING
HW-E & C.B. #2-2-B



SECTION "1"-"2"

DRAWN	TRACED	CHECKED
L.L.F. 5-6-68	R.C.T. 5-9-68	J.B.K 5-13-68

ROS-35 RT. OF ATHENS RD. STA. 139+23 TO 145+00
PROPOSED 603 CONDUIT TYPE C & D

26

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

121
225

ROSS COUNTY
ROS-35-25.05

Begin Channel Excavation Sta. 96+00

Buried I.P. 93+64.52 ℄ = ℄ B&O Main Line

℄ B&O R.R.

Cross on Concrete @ End of Pier

164.16'

342.7'

Wooded Area

Tree Line

℄ Reference
PK Spike in 42" Maple Tree
5' above ground

17.45'

Hub

21.74'

110°43'30"

20.87'

℄

94 95 96 ℄ 97 98 99 +25 101 102 103 N48°42'57"E. 104 105 ℄ 106

1343 1344 1345 1346

Ex. R/W & L.A.

2:1

Toe of Slope

75'

Offset Line

℄ Reference
Buried I.P. 100+00 ℄ =
1343+80 ℄ Median Prop. U.S.R. 35

Excavate to Elevation 584.5

CARMI R. & CARMI V. JONES

CARMI R. & CARMI V. JONES

Channel Easement Line

2:1

Excavate to Elev. 584.5

Toe of Slope

Tree Line

℄ E/W

Tree Line

℄ E/W

BEGIN CHANNEL EXCAVATION STA. 96+00

Ex. Kilgore Bridge

S. 41°17'03"E.

℄ Median Prop. U.S.R. 35

SCIOTO RIVER

NOTES: Remove all Trees within Channel Easement.

See R/W Plan for line of Channel Easement.

BENCH MARK
Chiselled on West Side of Existing Pier 165' Rt. ℄ Sta. 99+77
Elevation - 596.03

595
590
585
580

Profile of Existing Ground @ ℄

Excavation 62,698 Cu. Yds.

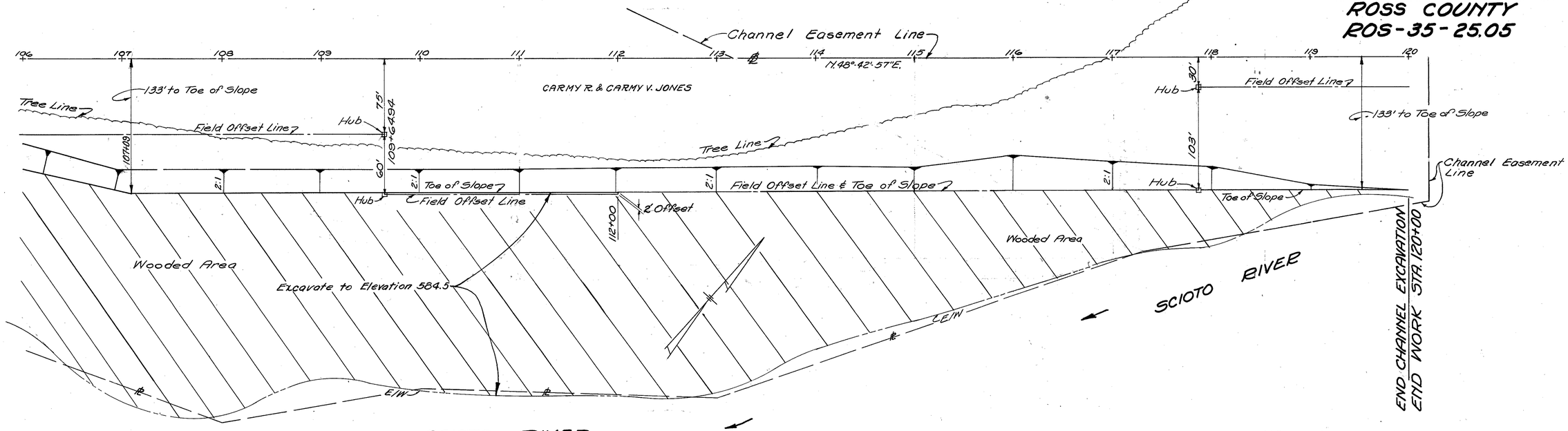
SCIOTO RIVER CHANNEL EXCAVATION
STA. 93+00 TO STA. 106+00

93 94 95 96 97 98 99 100 101 102 103 104 105 106

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

122
223

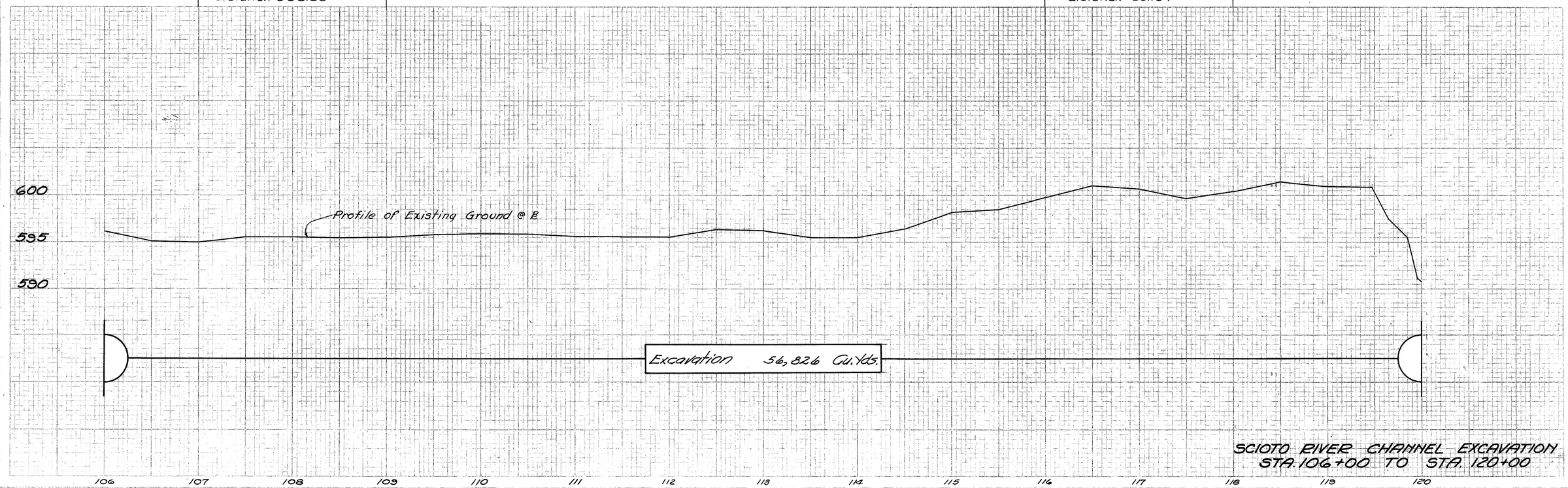
ROSS COUNTY
ROS-35-25.05



BENCH MARK
R.R. Spike in 20" Maple Tree
81' Rt. & Sta. 108+50±
Elevation 598.23

BENCH MARK
R.R. Spike in 24" Elm Tree
30' Lt. & Sta. 117+87
Elevation 601.04

NOTE: Remove all Trees within Channel Easement.



SCIOTO RIVER CHANNEL EXCAVATION
STA. 106+00 TO STA. 120+00

BEGIN	
END SOUTH	SC. TOS.

FED. RD. DIVISION	STATE	PROJECT		123 225
2	OHIO	F-674(12)		

ROSS COUNTY
ROS-35-25.05

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Sta. 99+00	2026			6391
Sta. 98+00	1425			
Sta. 97+00	631			3807
Sta. 96+00	0			1169

584.5
99+00
590.4

Excavate to 584.5

Sta. 99+00

C.E.

584.5
98+00
590.9

Sta. 98+00

C.E.

584.5
97+00
589.2

Excavate to 584.5

Sta. 97+00

Channel Easement

MATCH LINE STA. 96+00.0

290 300 320

MATCH LINE

Sta. 96+00

96+00
592.1

BEGIN CHANNEL EXCAVATION
STA. 96+00

RT. SCIOTO RIVER CHANNEL EXCAVATION
STA. 96+00 TO STA. 99+00

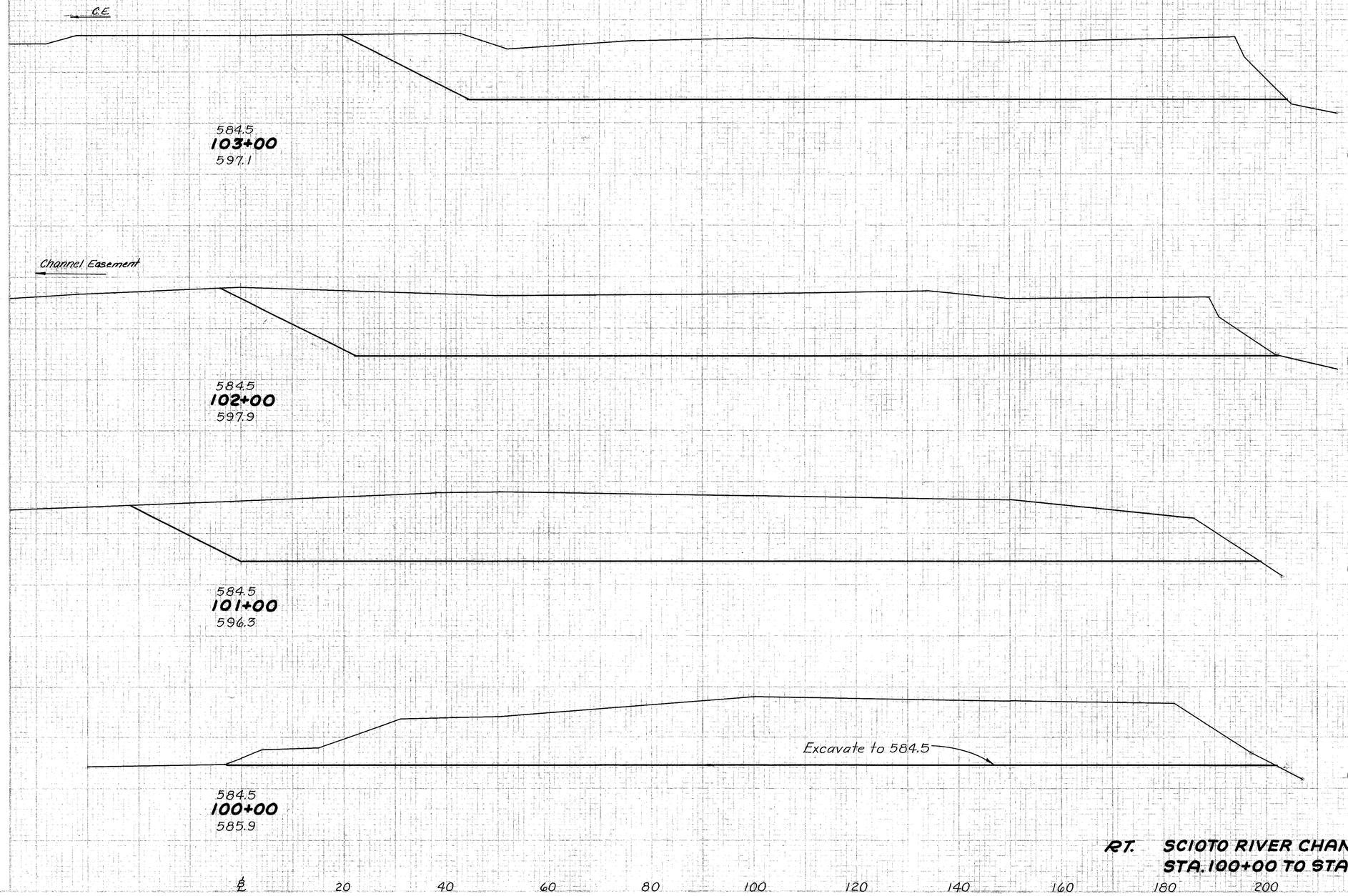
℄ 20 40 60 80 100 120 140 160 180 200 220 240 260 280 290

SECTIONS	
BRIDGE WIDTH	SQ. YDS.

FED. RI DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

123A
225

ROSS COUNTY
ROS-35-25.05



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Sta. 103+00	1939			
			7763	
Sta. 102+00	2253			
			8778	
Sta. 101+00	2487			
			8517	
Sta. 100+00	2112			
			7663	
Sta. 99+00	2026			

RT. SCIOTO RIVER CHANNEL EXCAVATION
STA. 100+00 TO STA. 103+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

123B
225

ROSS COUNTY
ROS-35-25.05

GRADING

END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

C.E.

584.5
109+00
595.6

Excavate to El. 584.5

MATCH LINE STA. 109+00

MATCH LINE

260 280 300 320

Sta. 109+00 1180

4283

C.E.

584.5
108+00
595.5

Sta. 108+00 1133

3907

C.E.

584.5
107+00
594.9

Sta. 107+00 977

4194

C.E.

584.5
106+00
596.1

Sta. 106+00 1288

5169

C.E.

584.5
105+00
596.3

Sta. 105+00 1503

6317

Channel Easement

584.5
104+00
597.4

Excavate to El. 584.57

Sta. 104+00 1908

Sta. 103+00 1939

7124

℄ 20 40 60 80 100 120 140 160 180 200 220 240 260

RT. SCIOTO RIVER CHANNEL EXCAVATION
STA. 104+00 TO STA. 109+00

SEEDING

SEED WIDTH	SEED TONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

123C
225

ROSS COUNTY
ROS-35-25.05

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Sta 114+00	1634			
			5752	
Sta 113+00	1472			
			5193	
Sta 112+00	1332			
			5009	
Sta 111+00	1373			
			4980	
Sta 110+00	1316			
			4622	
Sta 109+00	1180			

584.5
114+00
596.1
50' to ℄

C.E.

Excavate to El. 584.5

584.5
113+00
596.6
50' to ℄

C.E.

584.5
112+00
595.9
50' to ℄

C.E.

584.5
111+00
596.7
50' to ℄

C.E.

Channel Easement

584.5
110+00
596.7
50' to ℄

Excavate to El. 584.5

50 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340

RT. SCIOTO RIVER CHANNEL EXCAVATION
STA. 110+00 TO STA. 114+00

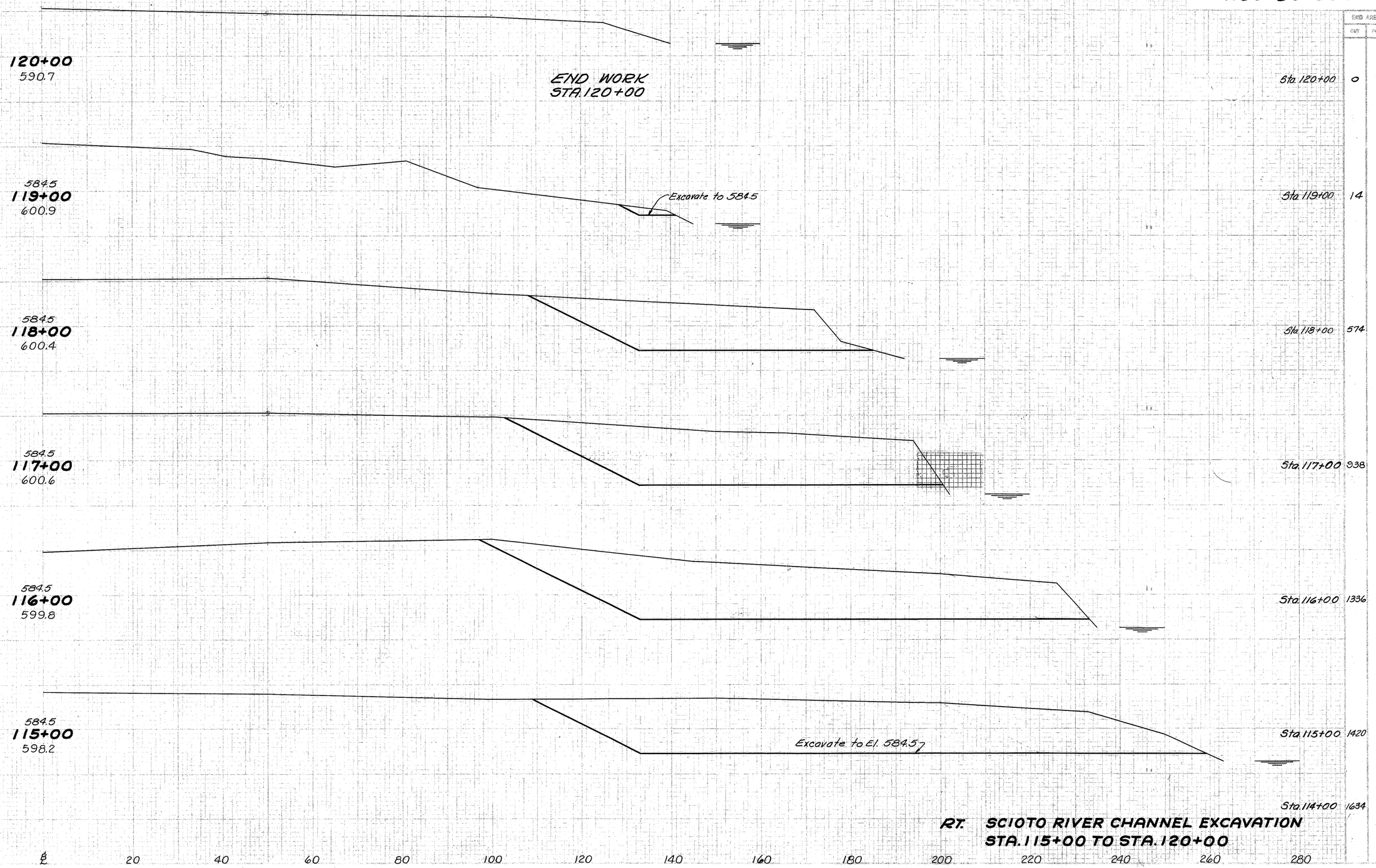
SECTION

CUT (CU YDS)	FILL (CU YDS)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-674 (12)	

123D 225

ROSS COUNTY
ROS-35-25.05



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
Sta. 120+00	0			
			26	
Sta. 119+00	14			
			1089	
Sta. 118+00	574			
			2800	
Sta. 117+00	938			
			4211	
Sta. 116+00	1336			
			5104	
Sta. 115+00	1420			
			5656	
Sta. 114+00	1634			

RT. SCIOTO RIVER CHANNEL EXCAVATION
STA. 115+00 TO STA. 120+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

123-E 225

ROS-35-25.05

Lt. ℄ 107+55

R.=15'

Top of Spur Dike El.=612.0

Grade shaded area to Elev. 586±

590

588

R=300'

P.T.=670' Lt. ℄ Sta. 104+43

NOTE: Embankment and spur dike of this sheet shall be done immediately after Clearing and Grubbing.

A

A

2:1

2:1

2:1

Outlet ℄ El.=586.00
602 Lt. ℄ Sta. 103+00

Inlet ℄ El.=586.50
732 Lt. ℄ Sta. 103+08

603-24" Conduit Type "D"
700.01-130 Lt. ℄

Lt. ℄ 103+44

5% Prop. 12' Ramp Drive

Lt. ℄ Sta. 103+56

NOTE: Since the river is constantly altering the cross sections, they should be retaken prior to construction.

596

594

592

590

588

586

584

582

580

578

576

574

606

604

602

600

598

596

594

592

590

588

586

584

582

580

578

576

574

Top of Spur Dike El.=612.0

To Washington, C.H.

Prop. U.S.R. 35 Westbound Lanes

Existing Structure ℄ Eastbound Lanes

To Jackson

1335 1336 1337 1338 1339 1340 1341 1342 1343 1344 1345

102 101 100 99

Prop. Channel ℄ Sta. 100+00 = ℄ Sta. 1343+60

CALCULATIONS

Item	Length	Width	Depth	Unit
601 R.C.P.	4,025'	x 63'	x 3.5' / 27	= 8464 C.Y.

Reference or Struc. No.	Station to Station	304 Aggregate Base 6" Sq. Yds.
1-R	102+56 - 103+44	116

Lt. ℄ 99+00

12'

Top of Spur Dike Elev.=612.0

610

Top of rock Elev.=610.00

2:1 slope

601.08 Rock Channel Protection "Type A"

600

590

10'-0"

Elev. 588 Water Level (4-69)

Assumed ground line 7-1-69 ?

Elev. 586.0±

SECTION-A-A

SUPPLEMENTAL SITE PLAN
BRIDGE No. ROS.35 25322
U.S.R. 35 over SCIOTO RIVER

ROSS COUNTY U.S.R. 35
STA. 1335+00 to STA. 1345+00

1			
2			

123-F
225

ROSS COUNTY
ROS-35-25.05

		EHD AREA		VOLUME	
		CUT	FILL	CUT	FILL
75	STA. 102+00 LT.	2880	1380		
722				8359	4709
55	STA. 101+00 LT.	1634	1163		
333				3631	4354
5	STA. 100+00 LT.	327	1188		
28				606	2200
0	STA. 99+00 LT.	0	0		

Calc. H.M.M. 4-24-69
Checked L.L.F. 4-24-69

Calc. L.L.F. 4-24-69
Checked H.M.M. 4-24-69

Quantity Limit

659 SEEDING	5,472 S.Y.
203 EXCAVATION	54,043 C.Y.
203 EMBANKMENT	43,923 C.Y.

SCIOTO RIVER CHANNEL EXCAVATION

LEFT OF STA. 99+00 TO STA. 102+00

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

123-B
225

ROSS COUNTY
ROS-35 - 25.05

STATION				END AREA		VOLUME	
				CUT	FILL	CUT	FILL
0	580	STA. 107+55	580	0	0		
49				1890	1866		
16		STA. 107+00 LT.		1856	1832		
606	580		580	6275	7519		
93		STA. 106+00 LT.		1532	2228		
950	580		580	6244	7252		
78		STA. 105+00 LT.		1840	1688		
861	580		580	7370	6289		
77		STA. 104+00 LT.		2140	1708		
967	580		580	9149	5171		
97		STA. 103+00 LT.		2800	1084		
956		SCIOTO RIVER CHANNEL EXCAVATION		10519	4563		
75	STA. 102+00		STA. 102+00	2880	1380		

Calc. L.L.F. 4-24-69
Checked H.M.M. 4-24-69

Calc. DWS. 4-24-69
Checked H.M.M. 4-24-69

Var.

2:1

℄ Inlet = El. 586.5

℄ Outlet = El. 586.00

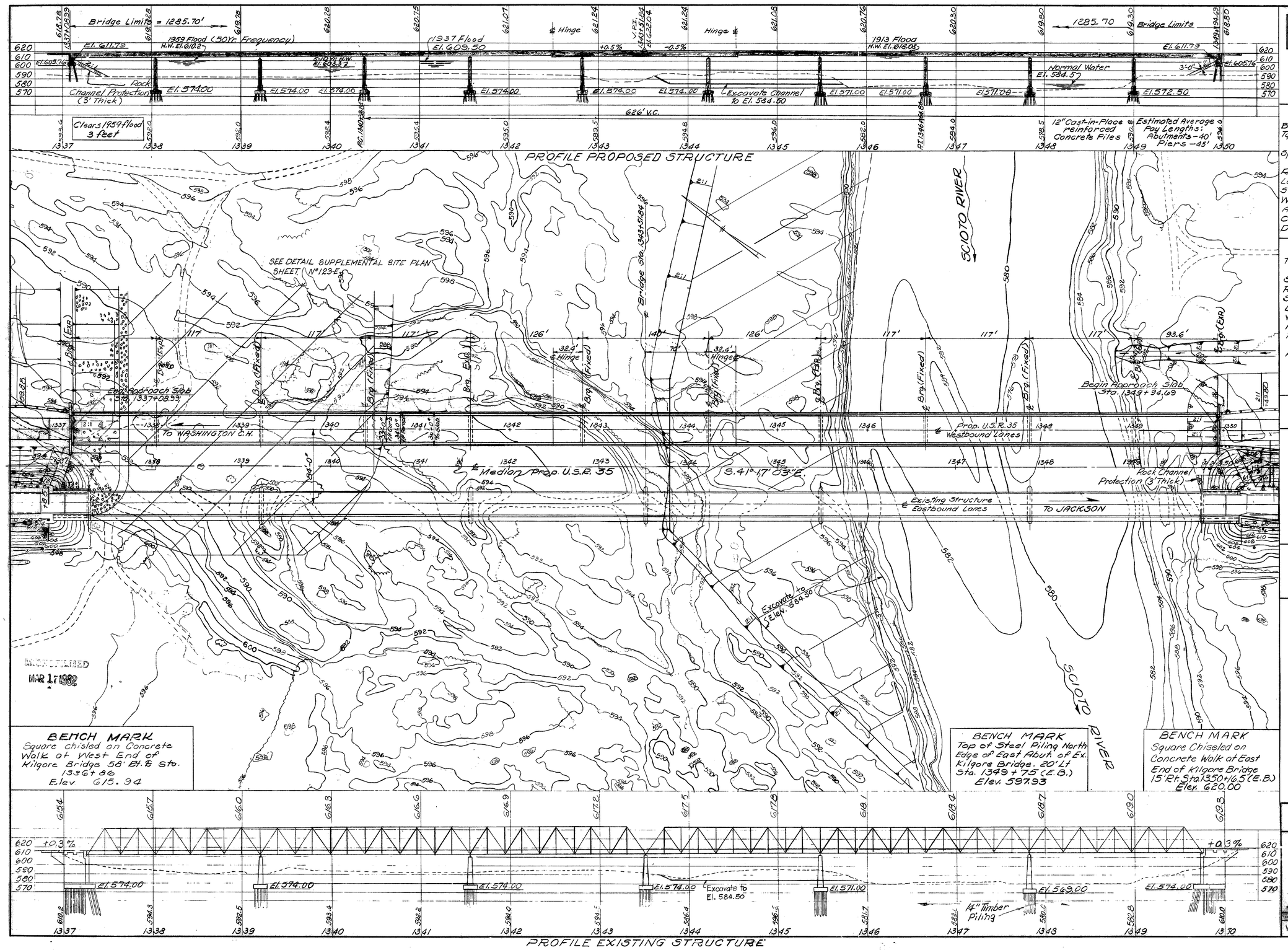
0.44% →

Prop. 603-24" Conduit Type "D", 707.01 — 130 L.F.

(3)

LEFT OF STA. 103+00 TO STA. 107+00

Was 124



FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

124/223

ROSS COUNTY
ROS-35-25.05

EXISTING BRIDGE DATA

Bridge No: ROS-35-25.53
Type: Continuous Steel Truss Bridge with Concrete Floor and Substructure
Spans: 2 Units @ 195'-234'-195' ℄ Bearings. 1250' ℄ End Pins
Roadway: 24' plus 1-4'-6" Sidewalk on Right
Loading: H-15-33
Skew: None
Wearing Surface: 3/4" Monolithic Concrete
Approach Slab: 25' Long
Condition: Good
Disposition: To remain in place

PROPOSED BRIDGE DATA

TYPE: Welded Hinged Girder with Concrete Deck and Substructure.
SPAN: 93.6'-3@117'-126'-140'-126'-3@117'-93.6'.
ROADWAY: 33'-0" f/f of 6" Curbs.
SKEW: 0°-00'
LOAD FREQUENCY: CF-2000 (57)
WEARING SURFACE: 1" Monolithic Concrete
APPROACH SLABS: AS-1-67 (25' Long)
RAILING: Aluminum Rail and Supports with Concrete Parapet.
ALIGNMENT: Tangent.

DRAINAGE AREA

3,859 Square Miles

Q 50 = 184,000 c.f.s.

1976 Equivalent Passenger Vehicles = 9380 Vehicles per day.

BENCH MARK
Square chisled on Concrete Walk at West End of Kilgore Bridge 58' Rt. & Sta. 1336+86
Elev. 615.94

BENCH MARK
Top of Steel Piling North Edge of East Abut. of Ex. Kilgore Bridge. 20' Lt Sta. 1349+75 (E.B.)
Elev. 597.93

BENCH MARK
Square Chiseled on Concrete Walk at East End of Kilgore Bridge 15' Rt. Sta. 1350+16.5 (E.B.)
Elev. 620.00

RELEASED FOR PUBLICATION MAR 17 1982

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

SITE PLAN
BRIDGE No. ROS-35-2532L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY U.S.R. 35
STA. 1337+08.99 to STA. 1349+94.69

SCALE	DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	W.I.C.	R.U.M. L.P.				10/29/81	

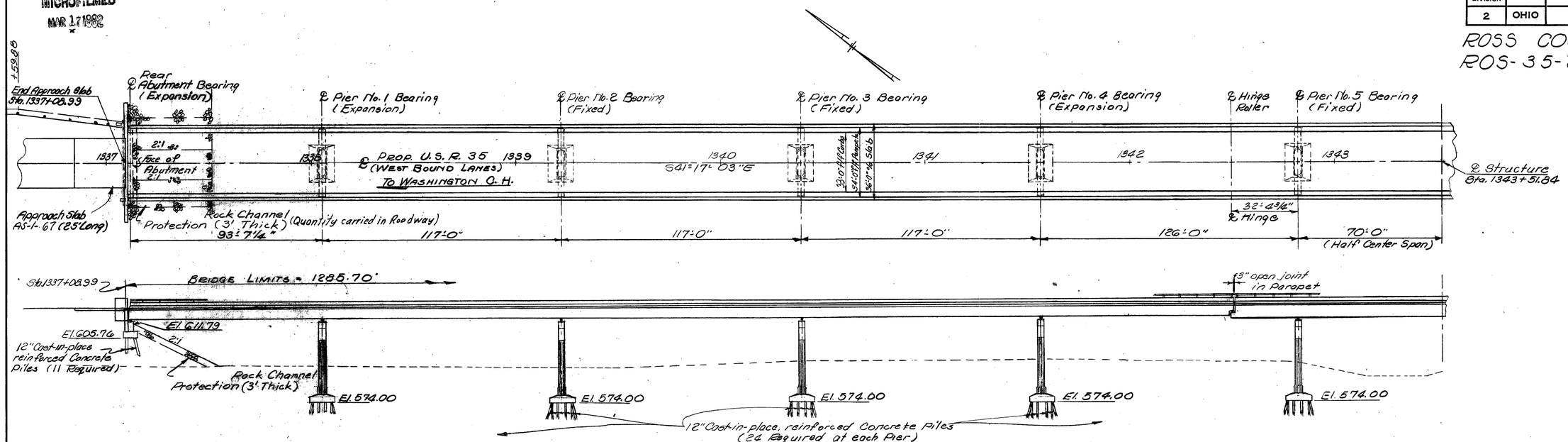
C9706

MICROFILMED
MAR 17 1982

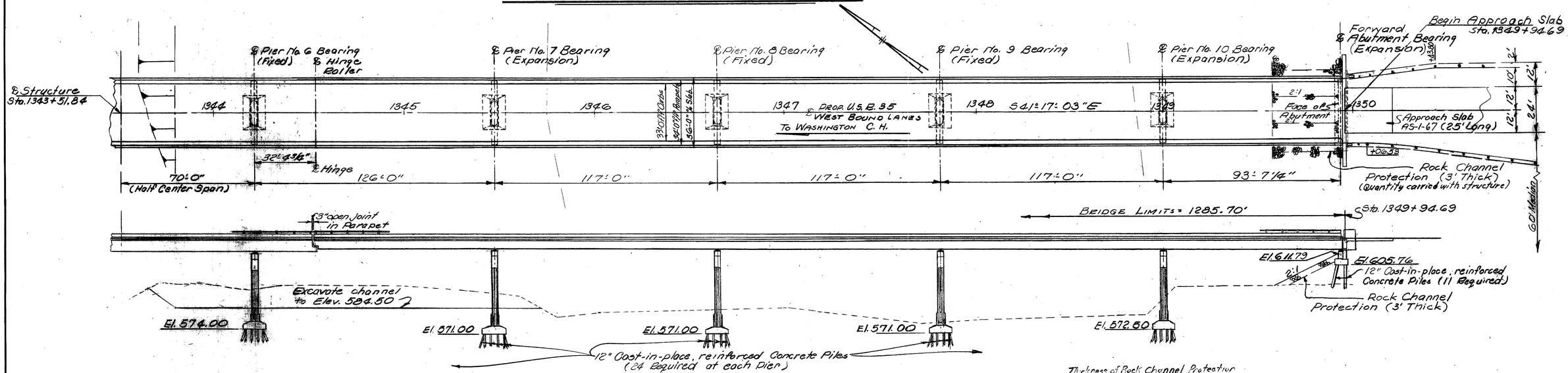
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

125/225

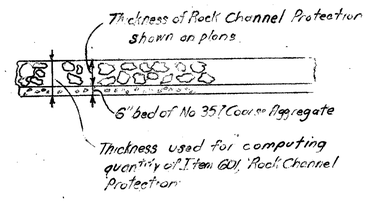
ROSS COUNTY
ROS-35-25.05



HALF GENERAL PLAN AND ELEVATION
(WEST HALF)



HALF GENERAL PLAN AND ELEVATION
(EAST HALF)



DETAIL OF ROCK CHANNEL PROTECTION

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

GENERAL PLAN AND ELEVATION
BRIDGE NO. ROS-35-2532 L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY — U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69

SCALE			DATE			
QUANTITIES	DRAWN	TRACED	CHECKED	APPROVED	DATE	REVISED
W.I.C.	R.J.M.		J.H.L.	W.W.L.	10/29/64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

126
225

ROSS COUNTY
ROS-35-25.05

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPER	GENERAL	AS BUILT	
503	Lump	Sum	Cofferdams, Cribs and Sheeting				Lump		
503	1744	Cu. Yds.	Unclassified Excavation	93	1651				
601	670	Cu. Yds.	Rock Channel Protection Type A				670		
511	1433	Cu. Yds.	Class C Concrete, Superstructure			1433			
511	691	Cu. Yds.	Class C Concrete, Pier Stems and Caps		691				
511	93	Cu. Yds.	Class C Concrete, Abutments above Footings	93					
511	310	Cu. Yds.	Class C Concrete, Footings	61	249				
825	5830	Sq. Yds.	Concrete Surface Treatment	46		5784			
509	520,453	Pounds	Reinforcing Steel	10,805	38,703	410,945			
513	1,819,700	Pounds	Structural Steel			1,819,700			
514	1,819,700	Pounds	Field Painting of Structural Steel			1,819,700			
517	2,565.08	Lin. Ft.	Railing (aluminum rail and supports and concrete parapet)			2,565.08			
505	Lump	Sum	First Test Pile				Lump		
506	Lump	Sum	First Pile Test Load				Lump		
506	1	Each	Subsequent Pile Test Load				1		
507	11,680	Lin. Ft.	12" Cast-in-place Reinforced Concrete Piles	880	10,800				
518	33	Cu. Yds.	Porous Backfill	33					
518	44	Each	Scuppers, including supports			44			
518	66	Lin. Ft.	6" Helical Perforated CMP, including specials 707.01	66					
518	48	Lin. Ft.	6" Helical CMP, non-perforated. 707.01	48					
808	1433	Units	Water Reducing, Set Retarding Admixture			1433			

MICROFILMED
MAR 17 1982

FIELD SPLICE NOTES

BOLTS Shall be 1" diameter high strength.
Machine Finish: The concrete bridge deck shall be finished by the use of a finishing machine.

WELDED ATTACHMENTS: No attachments shall be made by field welding to the top flanges or flange plates of continuous beams or plate girders within a distance of 0/0 of the span length on either side of the interior Supports. Welding for attachments to the top flanges at other parts of the spans shall be kept at least 2" from the edge of flange

GENERAL NOTES

REFERENCE shall be made to Standard Drawings BS-1-67 revised 1-11-68, SD-1-65 and 11-8-65, BR-1-65 revised 11-24-65, FSB-1-62 revised 1-15-63 and Supplemental Specifications 808 dated 1-1-69, 811 dated 1-1-69, 825 dated 1-1-69 927 dated 1-1-69. On Std. Dng. FSB-1-62 reference to M7.11 shall be considered to read 711.17

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with current revisions thereof.

Design Loading: CF-2000 (57)
Concrete, Class C: basic unit stress - 1,333 p.s.i. Substructure
basic unit stress - 1,133 p.s.i. Superstructure
Structural Steel: ASTM A36, basic unit stress - 20,000 p.s.i.
Reinforcing Steel: ASTM A615, A616, A617, Deformed, Intermediate or Hard Grade. Basic unit stress - 20,000 p.s.i.

PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments for a minimum period of 30 days, after which excavation shall be made for the abutments and piles driven.

EXCAVATION QUANTITY for the abutments includes the removal of fill material required for construction of the abutments. Excavation quantity for the piers includes the removal of material between the surface of the proposed channel and the bottom of the pier footings.

PILES shall be driven to a minimum bearing capacity of 34 tons per pile for the abutments, 46 tons per pile for Piers No. 1, 2, 3, 4, 7, 8, 9, 10 and 48 tons per pile for Piers No. 5 and 6.

WELDS on non-stress carrying members are shown thus N

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

STRUCTURAL STEEL: Steel used for the fabrication of rollers and roller bearing plates shall conform to the requirements of Sec. 711.04. All other structural steel shall conform to the requirements of 711.01, ASTM A36.

ITEM S-7.10, High Strength Steel Bolts, Nuts and Washers, paragraph two (2), shall be completely revised and the last sentence of paragraph four (4) revised to read as follows:

"In the final assembly of the parts to be bolted, drift pins shall be placed in a sufficient number of holes (not less than 25 percent for field erection) to provide and maintain accurate alignment of holes and parts, and sufficient bolts shall be installed and brought to a snug tight condition to bring the parts into complete contact. Bolts shall then be installed in any remaining open holes and tightened to a snug tight fit after which all bolts shall be tightened completely by calibrated wrenches or by the turn-of-nut method. Drift pins shall then be replaced with bolts, tightened in the same manner."

"Bolt lengths determined by the use of Table No. 1 shall be adjusted to the next 1/2-inch length increment."

GIRDER ERECTION: The Contractor shall submit to the Director, for approval, three prints showing his proposed erection procedure for the plate girders.

STAINLESS STEEL FASTENERS shall be properly passivated to remove surface impurities and shall be furnished with a Lustrous finish.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

ESTIMATED QUANTITIES AND GENERAL NOTES
BRIDGE NO. ROS-35-2532L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY U.S.R. 35
STA 1337+08.99 TO STA 1349+94.69

SCALE DATE

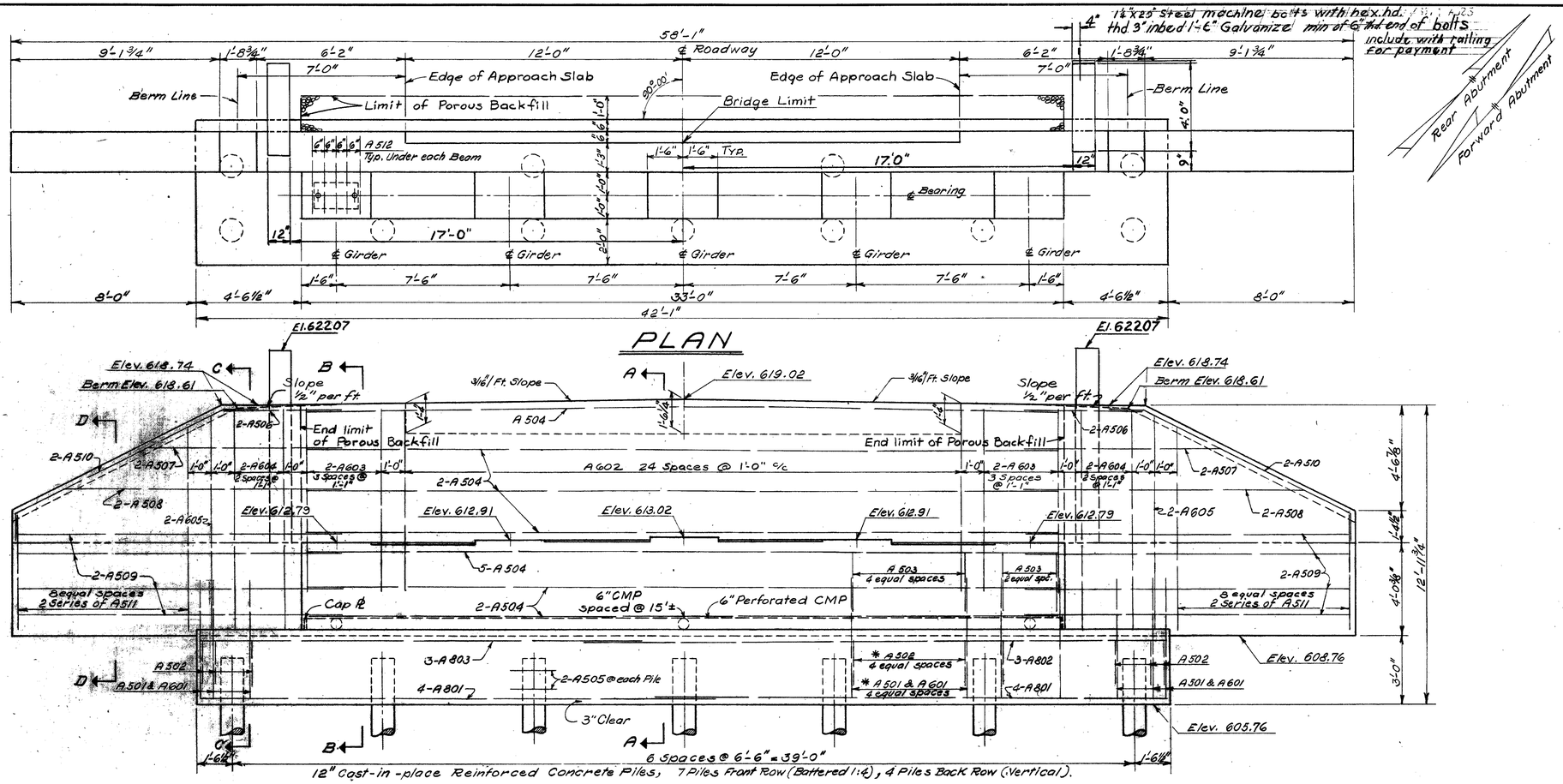
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WIC	A.J.M.		AJM			

MICROFILMED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

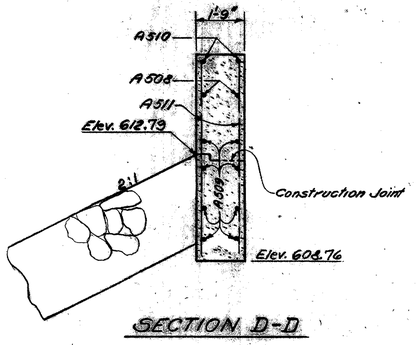
(127) (225)

ROSS COUNTY
ROS-35-25.05

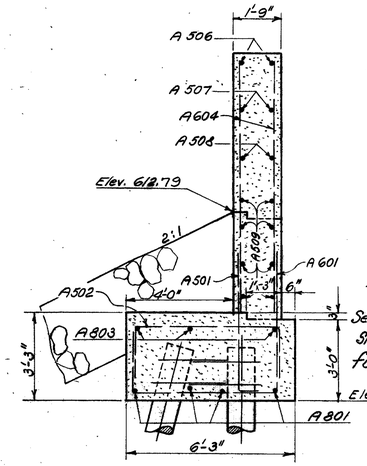


PLAN

ELEVATION



SECTION D-D



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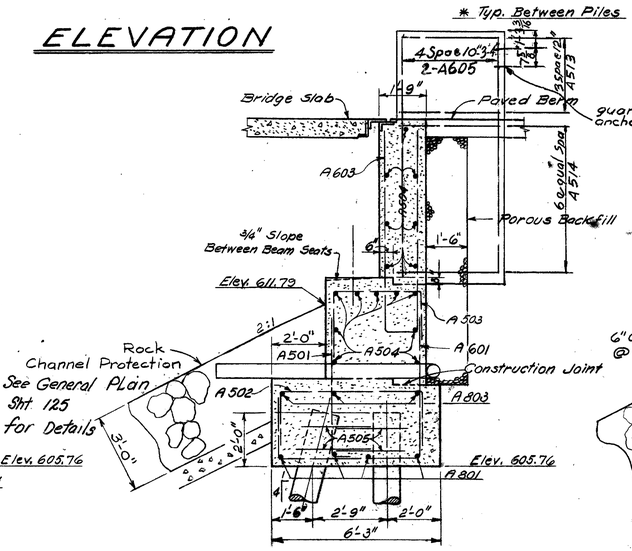
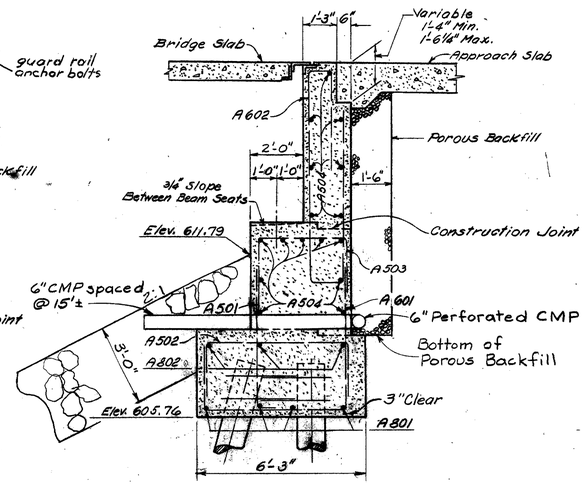


SECTION B-B



SECTION A-A

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

ABUTMENT DETAILS

BRIDGE No. ROS-35-2532 L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY U.S.R. 35
STA. 1337+08.99 To STA. 1349+94.69

SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S.	F.H.S.	L.P.	K.L.W.	W.L.	10/29/64	

NOTES

POROUS BACKFILL shall extend upward to the approach slab, paved berms and to the surface of the earth shoulders, and outward to the limits as shown on the "Elevation" view.

BRIDGE SEAT REINFORCEMENT: Special care shall be taken in placing of reinforcing bars in the bridge seats so as to avoid interference with the anchor bars.

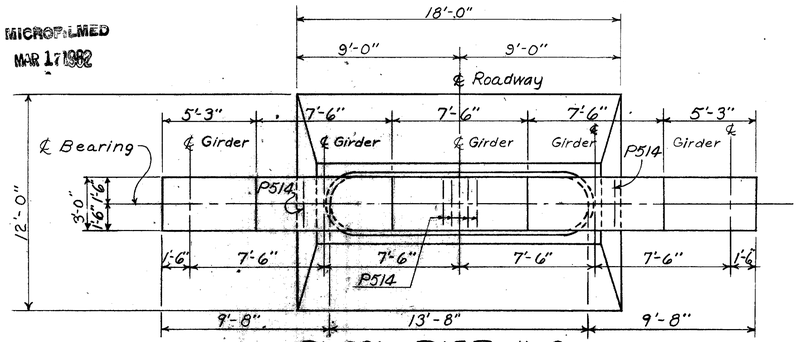
End Post are included with abutments for payment

MICROFILMED
MAR 17 1982

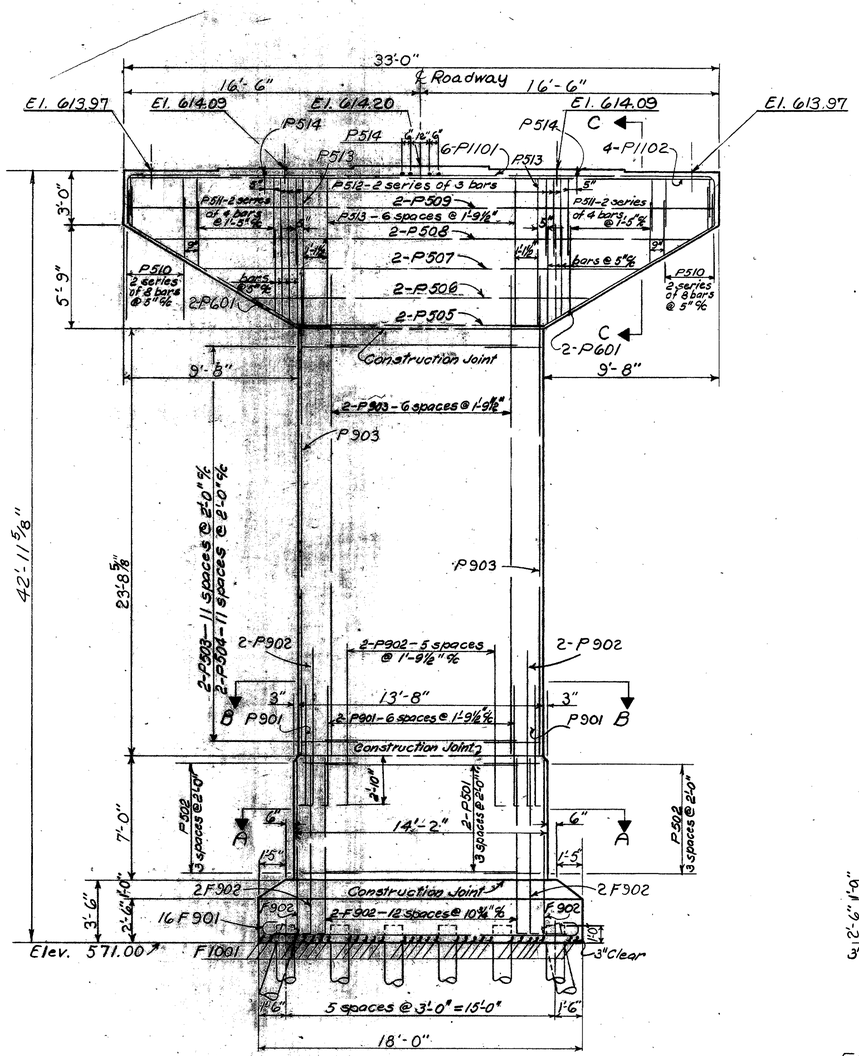
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

128/229

ROSS COUNTY
ROS-35-25.05

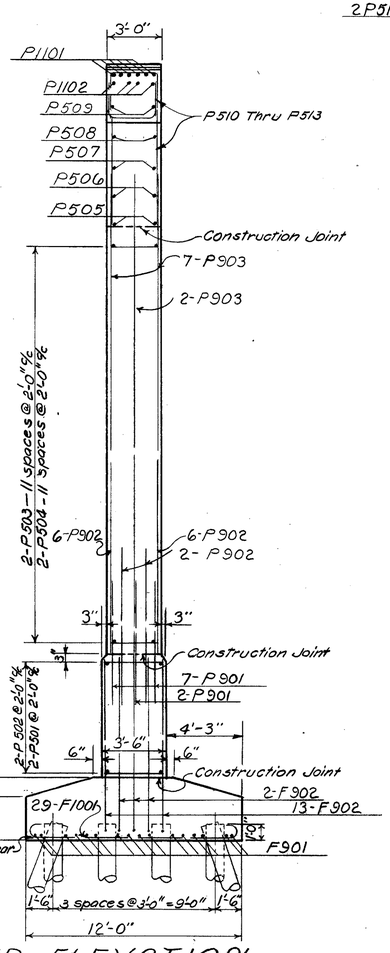


PLAN - PIER # 8



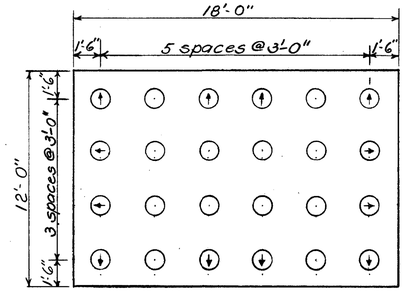
ELEVATION - PIER # 8

Ⓐ Denotes direction of batter
Amount of batter ~ 1:4



END ELEVATION

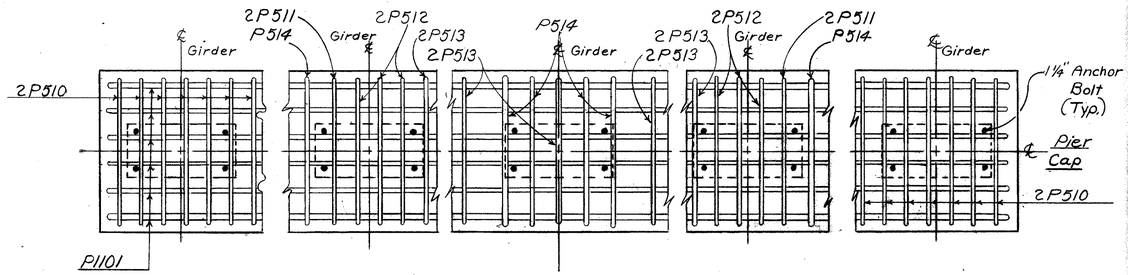
All piles 12" Cast-in-place Reinforced Concrete



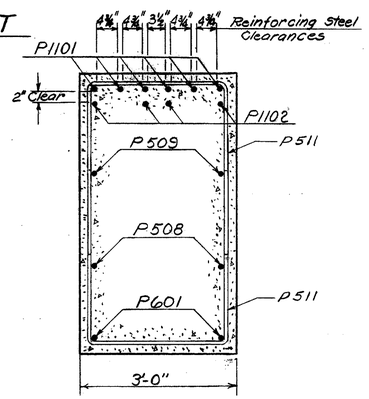
PILE PLAN

NOTES

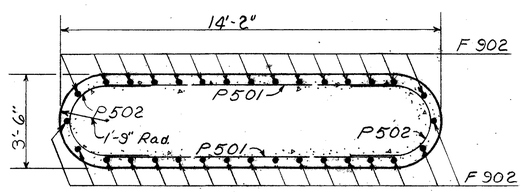
Care shall be taken in placing the reinforcing steel under Girder seats so as not to interfere with bearing anchor bolts.



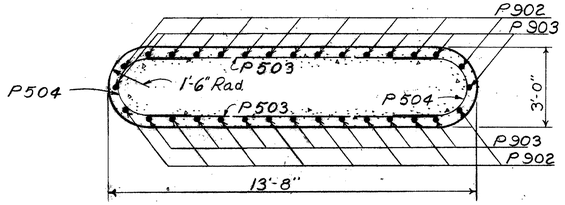
ANCHOR BOLT LAYOUT



SECTION C-C



SECTION A-A



SECTION B-B

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

PIER DETAILS

BRIDGE No. ROS-35-2532 L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY — U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69

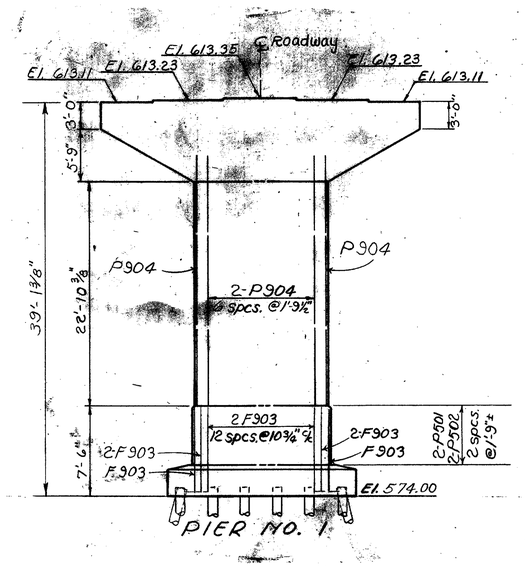
SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DJP	DER		[illegible]	[illegible]	10/24/64	

MICROFILMED
MAR 17 1982

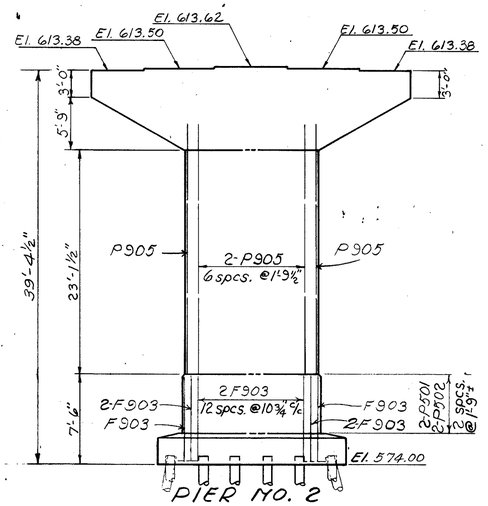
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

129/225

ROSS COUNTY
ROS-35-25.05



PIER NO. 1



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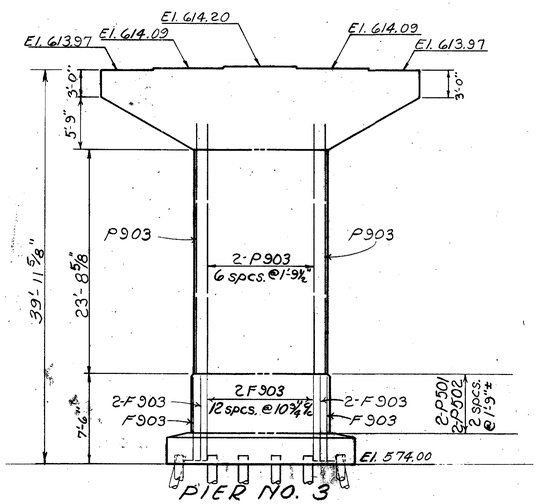

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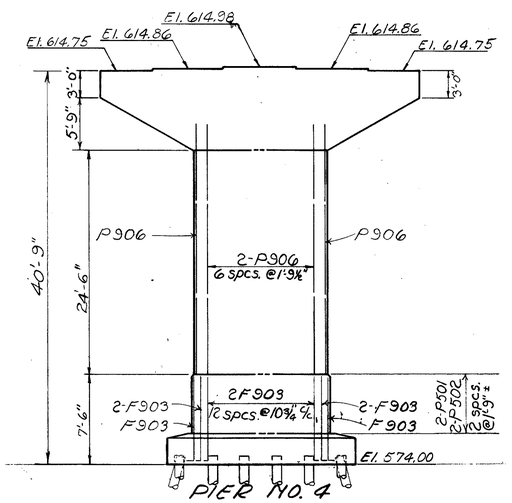

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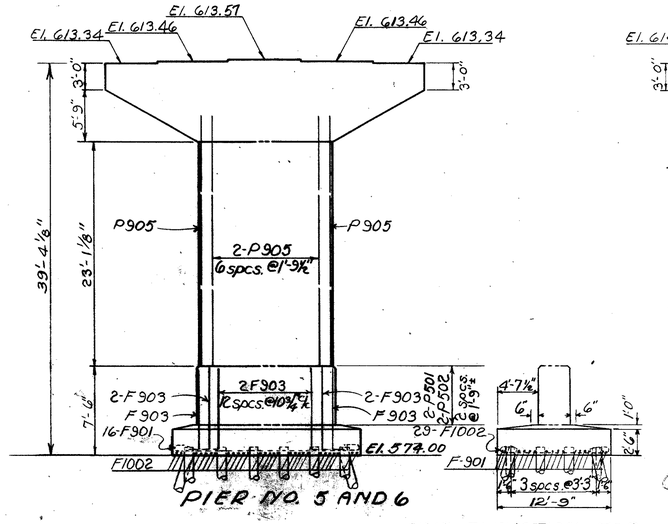
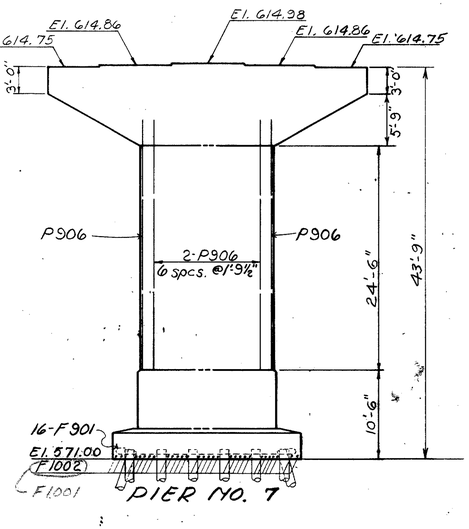


PIER NO. 5 AND 6

END ELEVATION FOR
PIER NO. 5 AND 6



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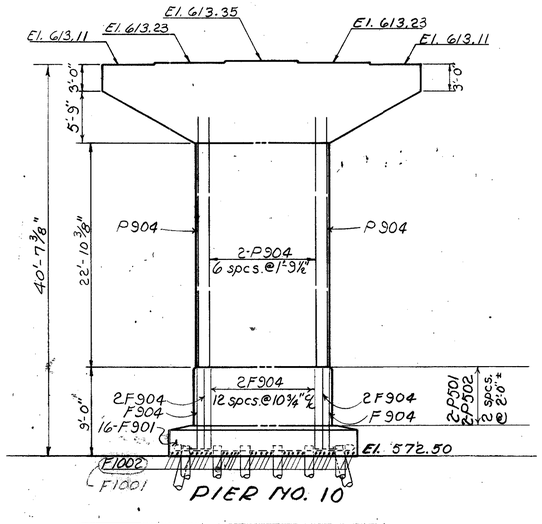

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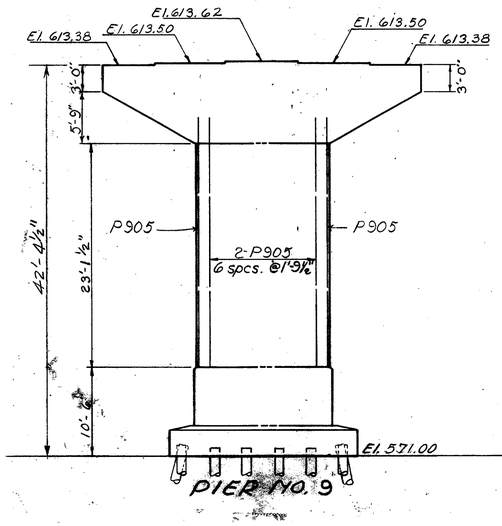

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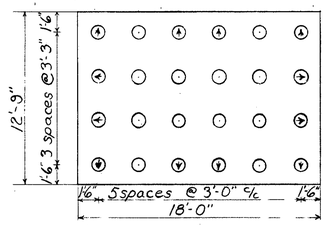


PILE PLAN FOR PIER NO. 5 AND 6

For Pile Plan of Piers 1, 2, 3, 4, 7, 9 and 10 see Pile Plan for Pier No. 8.

NOTE: For dimensions, reinforcing steel and details not shown, see Pier No. 8.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

PIER DETAILS

BRIDGE No. ROS-35-2532 L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69

SCALE

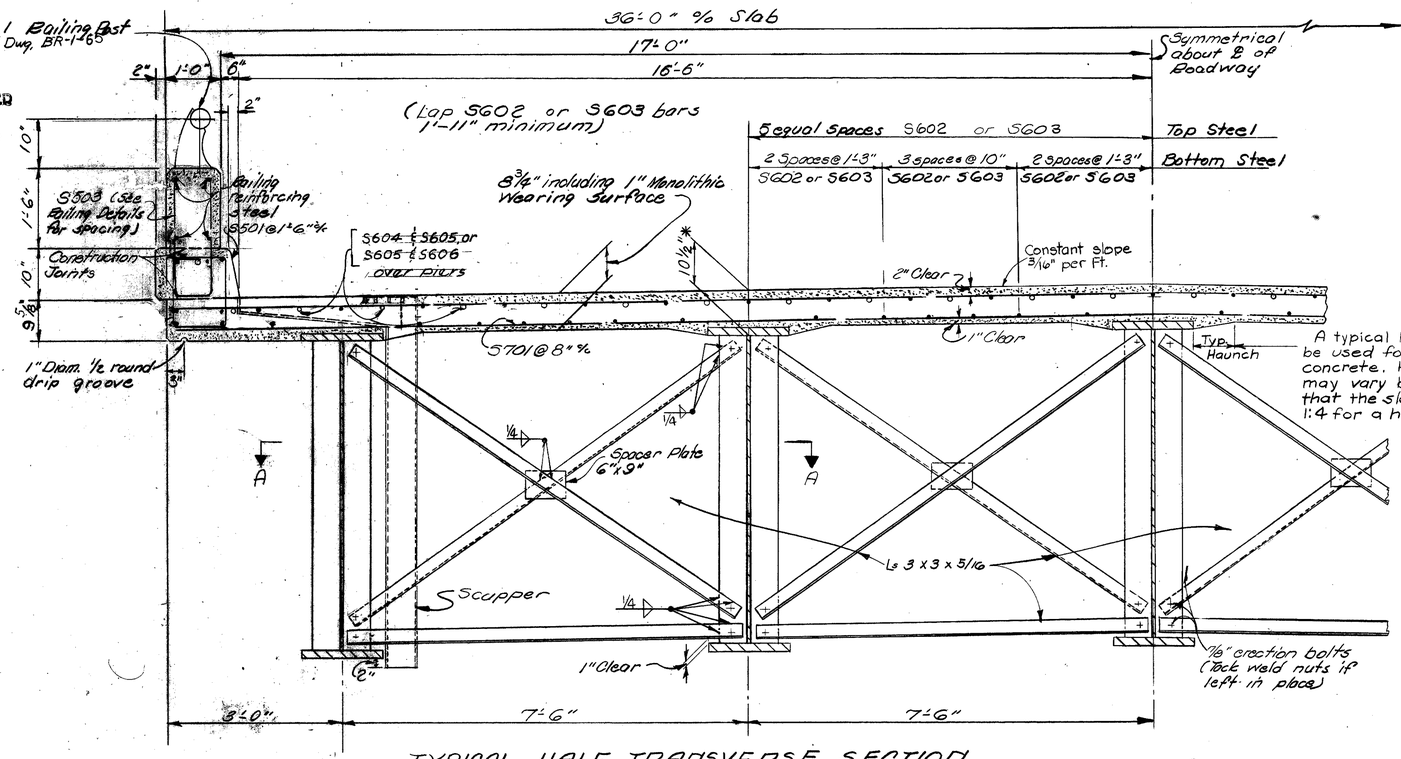
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DJP	DER		FHJ	MK	10/24/64	7-12-65

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

130/225

ROSS COUNTY
ROS-35-25.05

MICROFILMED
MAR 17 1992

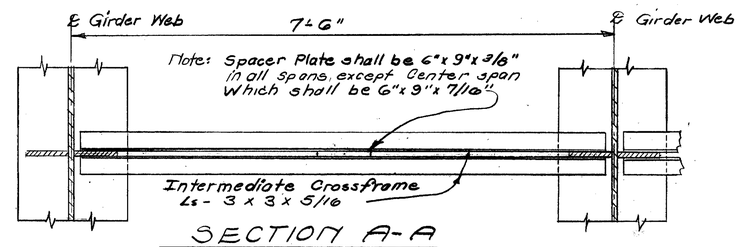


TYPICAL HALF TRANSVERSE SECTION

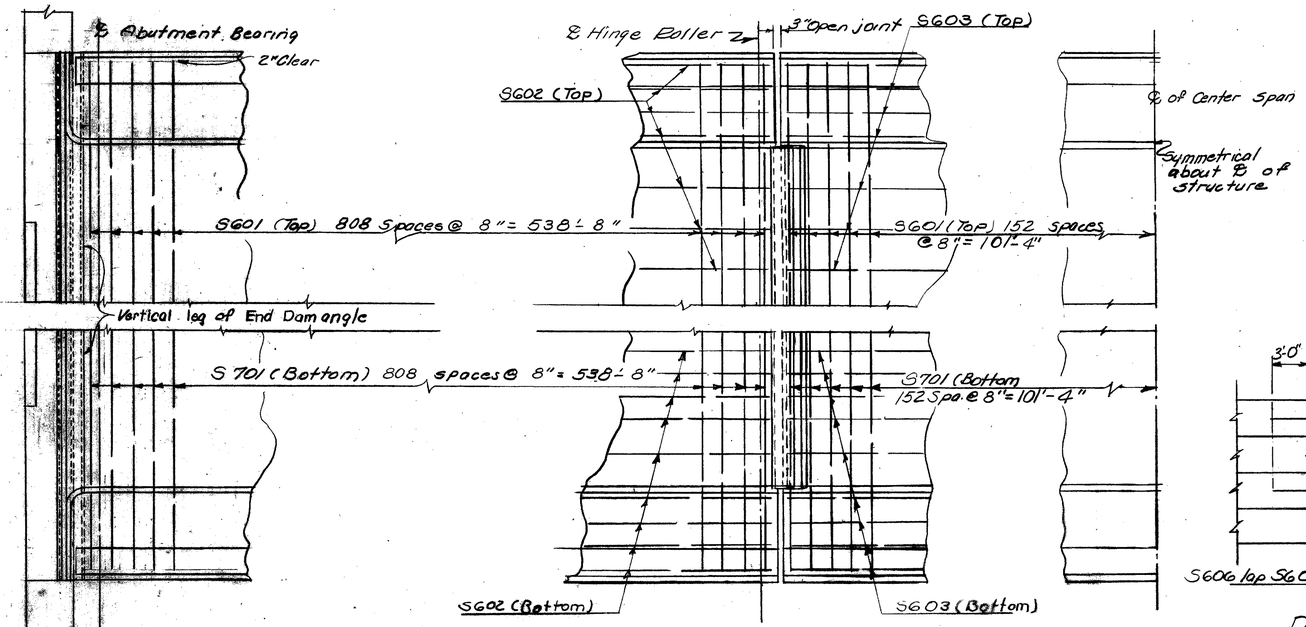
NOTES

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 511.19 of the Construction and Material Specifications.

A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.



SECTION A-A



PART PLAN SLAB REINFORCING

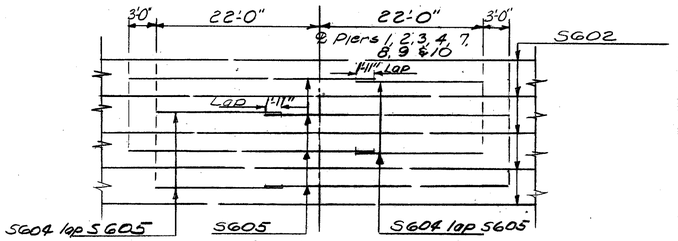


DIAGRAM SHOWING STAGGER OF S604 AND S605 OVER PIERS 1, 2, 3, 4, 7, 8, 9 & 10

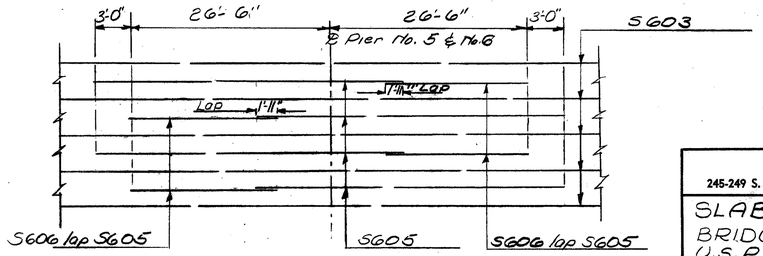


DIAGRAM SHOWING STAGGER OF S605 AND S606 OVER PIERS NO. 5 & NO. 6

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

SLAB REINFORCING DETAILS
BRIDGE NO ROS-35-2032 L
U.S.R. 35 over SCIOTO RIVER

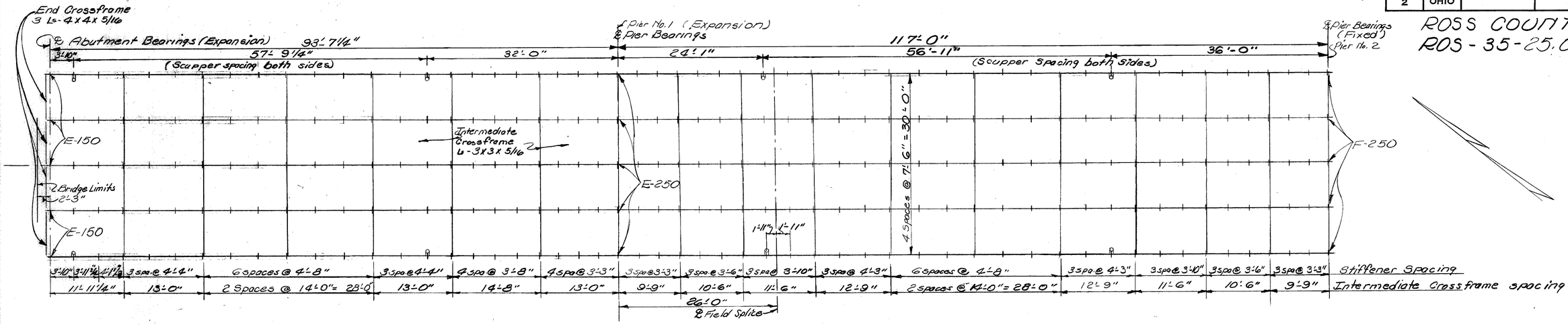
ROSS COUNTY — U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69

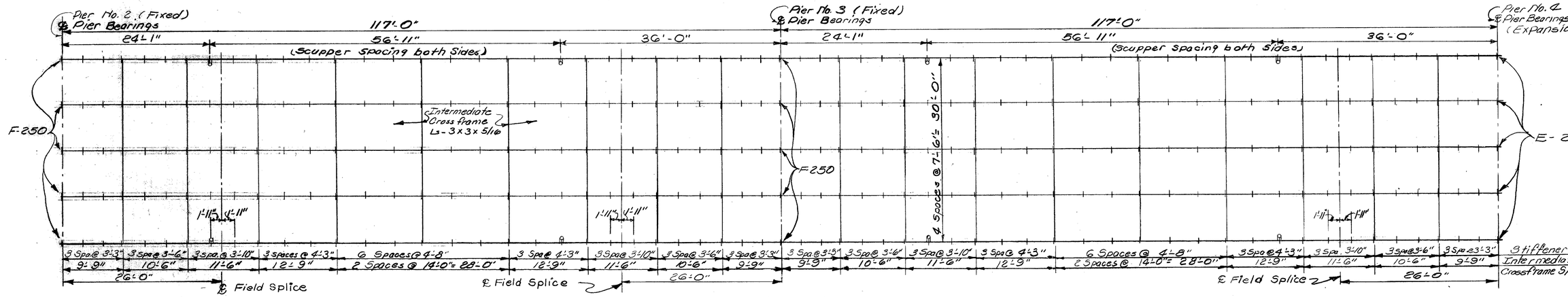
SCALE				DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED		DATE	REVISED
W.I.C.	R.J.M.		F.H.S.	W.L.		10/24/64	

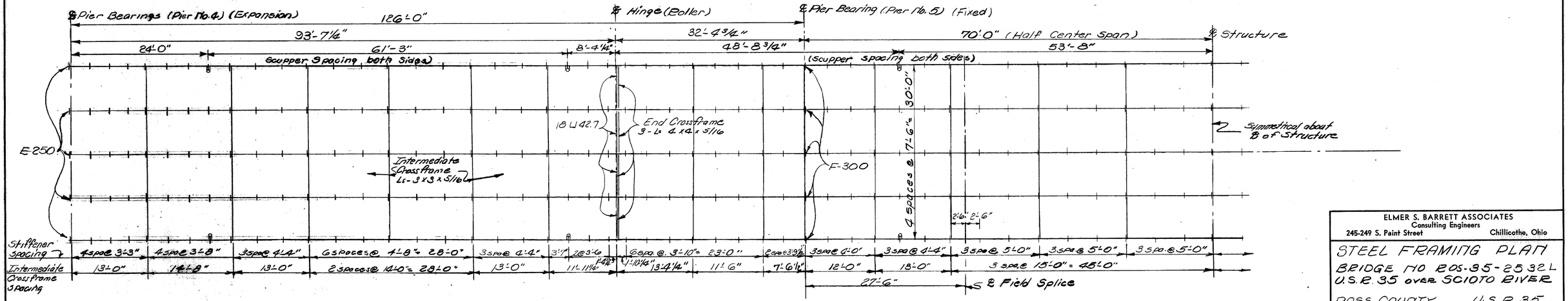
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

131
225

ROSS COUNTY
ROS-35-25.05







HALF STEEL FRAMING PLAN

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

STEEL FRAMING PLAN
BRIDGE NO ROS-35-25.32 L
U.S.R. 35 over SCIOTO RIVER

ROSS COUNTY U.S.R. 35
STA. 1937+08.99 TO STA. 1349+94.69

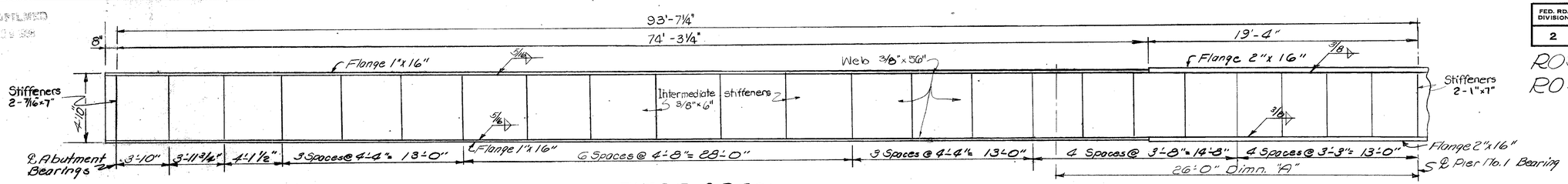
SCALE — DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.E.C.	P.J.M.		F.H.S.	W.L.	10/24/64	

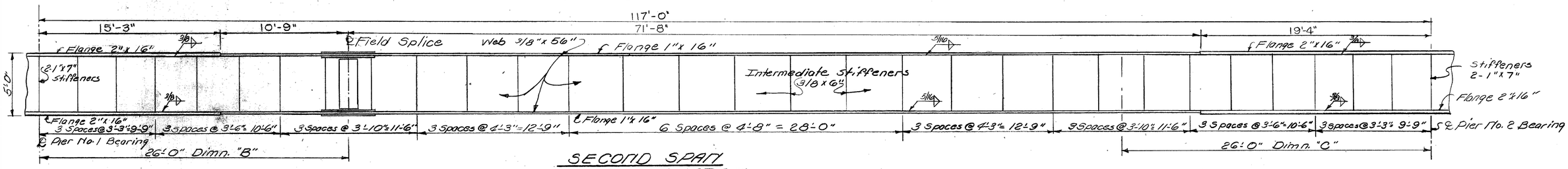
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

132
225

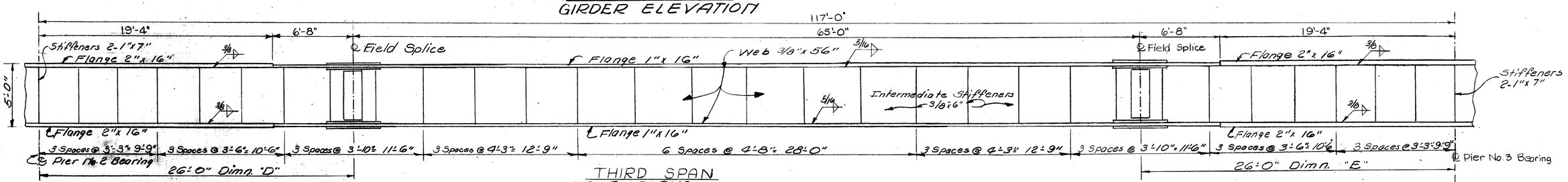
ROSS COUNTY
ROS-35-25.05



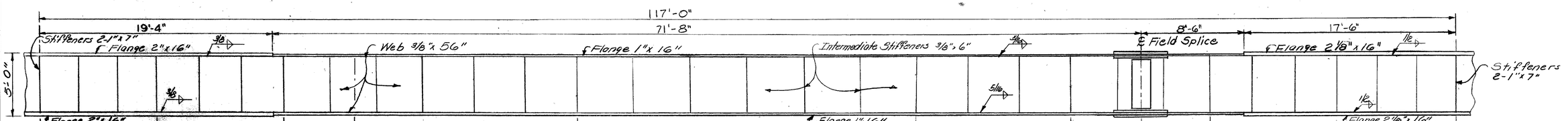
FIRST SPAN
GIRDER ELEVATION



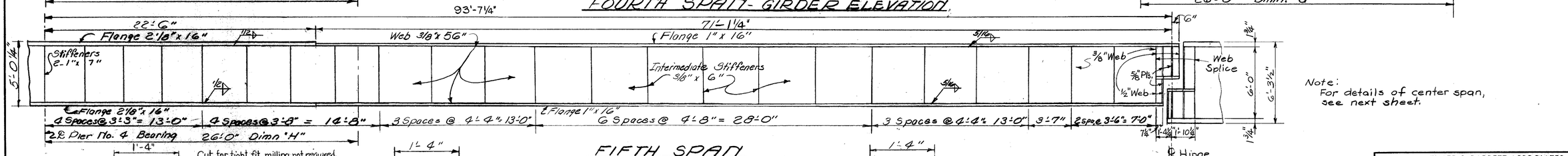
SECOND SPAN
GIRDER ELEVATION



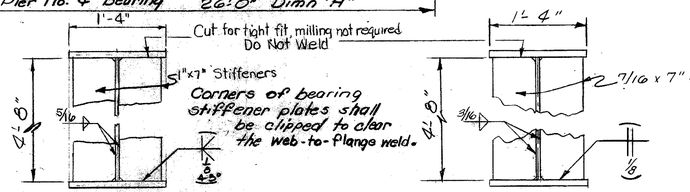
THIRD SPAN
GIRDER ELEVATION



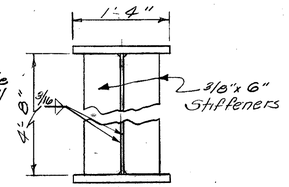
FOURTH SPAN - GIRDER ELEVATION



Note:
For details of center span, see next sheet.



Corners of intermediate stiffener plates shall be clipped to clear the web-to-flange weld.



Intermediate stiffeners shall have contact bearing with the compression flange.

The top flange shall be considered the tension flange from Dimn. "A" thru Dimn. "H" as indicated on the "GIRDER ELEVATIONS". For the remaining length of the girder, the bottom flange shall be considered the tension flange.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

GIRDER ELEVATIONS

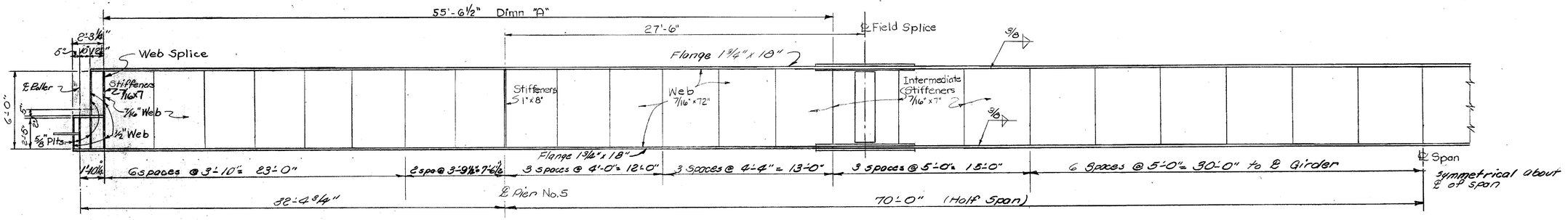
BRIDGE NO. ROS-35-2552 L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	P.J.M.				10/29/64	

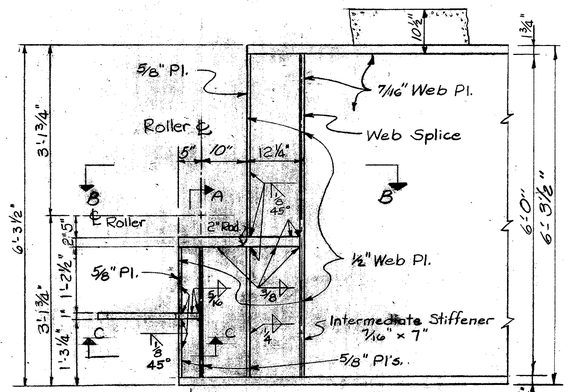
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

133
225

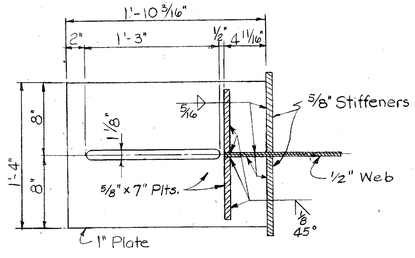
ROSS COUNTY
ROS-35-25.05



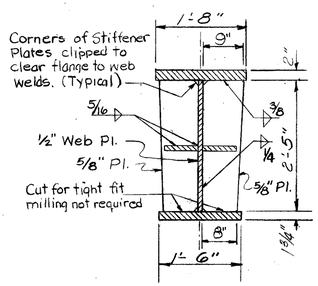
SIXTH SPAN GIRDER ELEVATION



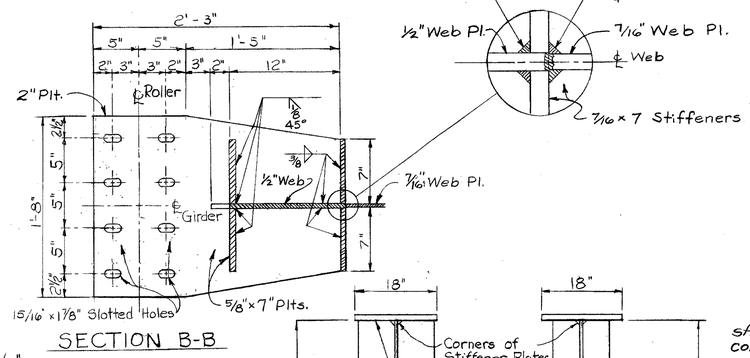
SIXTH SPAN GIRDER END



SECTION C-C



SECTION A-A



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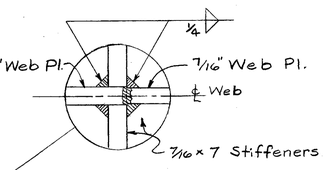
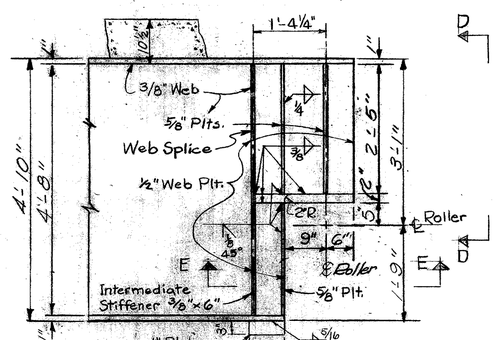
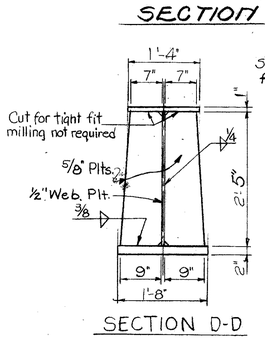




FIFTH AND SEVENTH SPAN GIRDER ENDS



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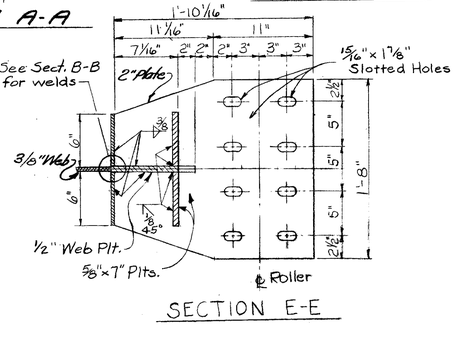
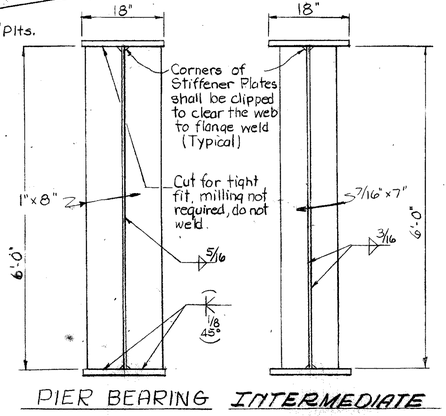


SECTION E-E



PIER BEARING INTERMEDIATE STIFFENER DETAILS

Intermediate stiffeners shall have contact bearing with the compression flange.

The top flange shall be considered the tension flange thru Dimn. "A" as indicated on the "GIRDER ELEVATION". For the remaining length of the girder, the bottom flange shall be considered the tension flange.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

GIRDER DETAILS

BRIDGE NO. ROS-35-2532 L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY — U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69

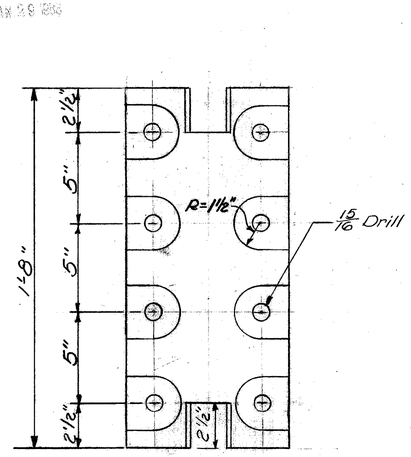
SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	R.J.M.		F.H.S.	D.W.K.	10/29/69	

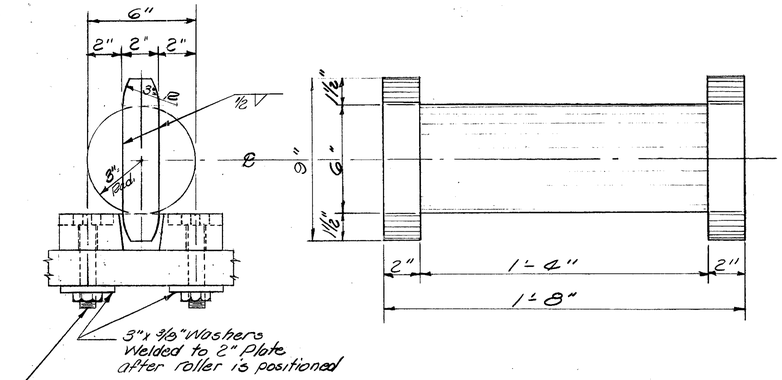
RECEIVED
JAN 29 2015

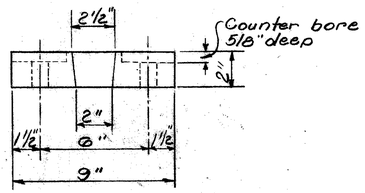
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

134
225

ROSS COUNTY
ROS-35-25.05

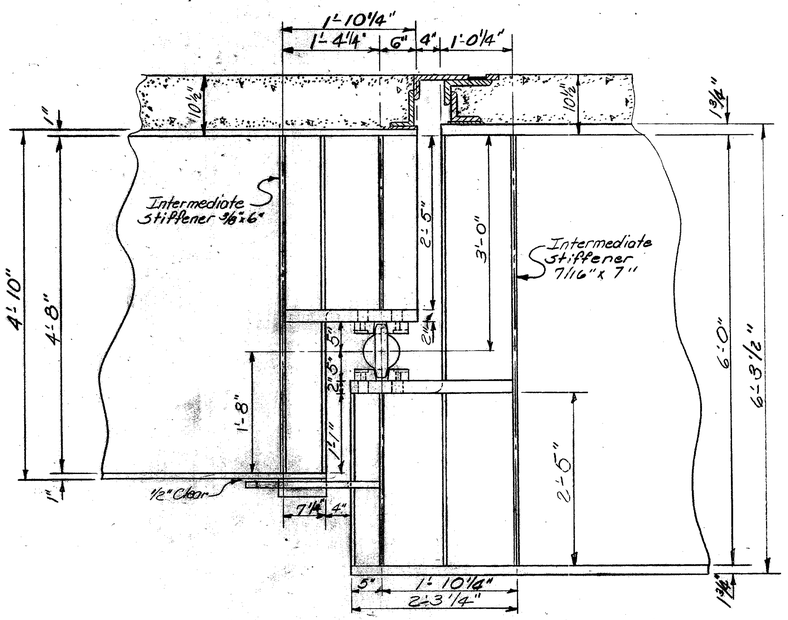






ROLLER BEARING PLATE

ROLLER DETAILS



HINGE ASSEMBLY

DEFLECTION AND CAMBER

SPAN	DISTANCE FROM ℄ BEARING	INTERIOR GIRDERS: DEFLECTION DUE TO WEIGHT OF STEEL	INTERIOR GIRDERS: DEFLECTION DUE TO REMAINING DEAD LOAD	INTERIOR GIRDERS: CONVEXITY REQUIRED FOR VERTICAL CURVE	INTERIOR GIRDERS: SUM OF DEFLECTION AND CONVEXITY	INTERIOR GIRDERS: REQUIRED CAMBER	EXTERIOR GIRDERS: DEFLECTION DUE TO WEIGHT OF STEEL	EXTERIOR GIRDERS: DEFLECTION DUE TO REMAINING DEAD LOAD	EXTERIOR GIRDERS: CONVEXITY REQUIRED FOR VERTICAL CURVE	EXTERIOR GIRDERS: SUM OF DEFLECTION AND CONVEXITY	EXTERIOR GIRDERS: REQUIRED CAMBER
1ST SPAN	23.40'	.15"	.44"	—	.59"	5/8"	.15"	.53"	—	.68"	5/8"
	46.80'	.17"	.50"	—	.67"	5/8"	.17"	.61"	—	.78"	3/4"
	70.20'	.07"	.22"	—	.29"	1/4"	.07"	.26"	—	.33"	3/8"
2ND SPAN	29.25'	.05"	.14"	—	.19"	1/4"	.05"	.16"	—	.21"	1/4"
	58.50'	.22"	.65"	—	.87"	7/8"	.22"	.78"	—	1.00"	1"
	87.75'	.02"	.07"	—	.09"	1/8"	.02"	.08"	—	0.10"	1/8"
3RD SPAN	29.25'	.05"	.16"	—	.21"	1/4"	.05"	.19"	—	0.24"	1/4"
	58.50'	.18"	.53"	—	.71"	3/4"	.18"	.64"	—	0.82"	7/8"
	87.75'	.06"	.17"	—	.23"	1/4"	.06"	.20"	—	0.26"	1/4"
4TH SPAN	29.25	.04"	.13"	.24"	.41"	3/8"	.04"	.16"	.24"	0.44"	1/2"
	58.50	.16"	.47"	.33"	.96"	1"	.16"	.57"	.33"	1.06	1"
	87.75	.04"	.12"	.24"	.40"	3/8"	.04"	.14"	.24"	0.42"	3/8"
5TH SPAN	23.40	.01"	.11"	.23"	.35"	3/8"	.01"	.13"	.23"	0.37"	3/8"
	46.80	.10"	.48"	.35"	.93"	7/8"	.10"	.57"	.35"	1.02"	1"
	70.20	.10"	.54"	.37"	1.01	1"	.10"	.67"	.37"	1.14"	1 1/8"
	93.60	-.06"	.19"	.29"	.42"	3/8"	-.06"	.23"	.29	0.46"	1/2"
6TH SPAN	35.00	.19"	.32"	.35"	.86"	7/8"	.19"	.38"	.35	0.92"	7/8"
	70.00	.30"	.54"	.47"	1.31"	1'1/4"	.30"	.65"	.47"	1.42	1 3/8"
	105.00	.19"	.32"	.35"	.86"	7/8"	.19"	.38"	.35	0.92	7/8"

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

ROLLER DETAILS AND DEFLECTION AND CAMBER
BRIDGE NO ROS-35-2532 L
U.S.R. 35 OVER SCIOTO RIVER
ROSS COUNTY — U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69
SCALE — DATE

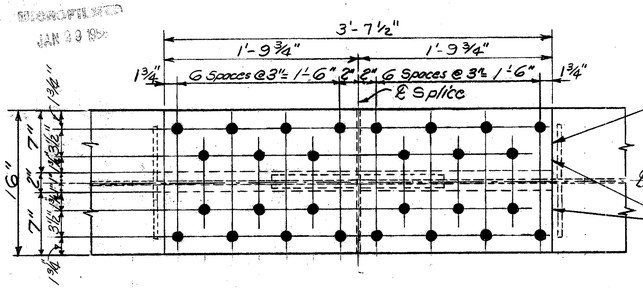
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	R.J.M.		FHB	WIC	10/20/14	

FIELD SPLICE DETAILS
(FRICTION TYPE)

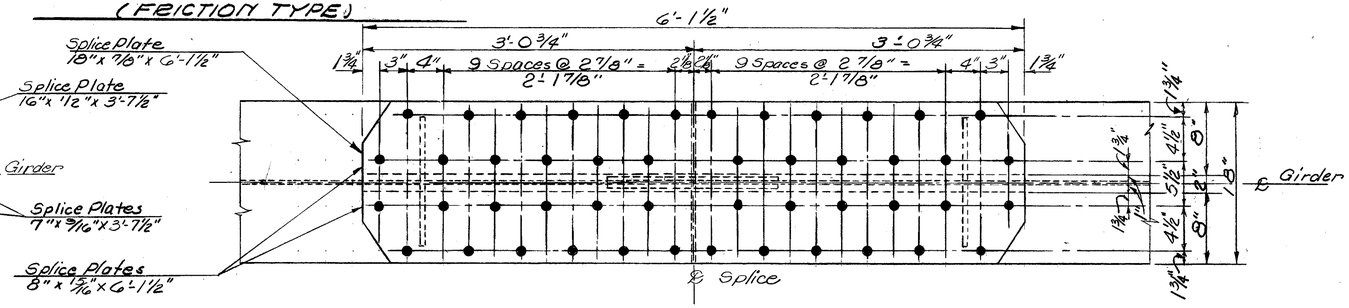
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

135
225

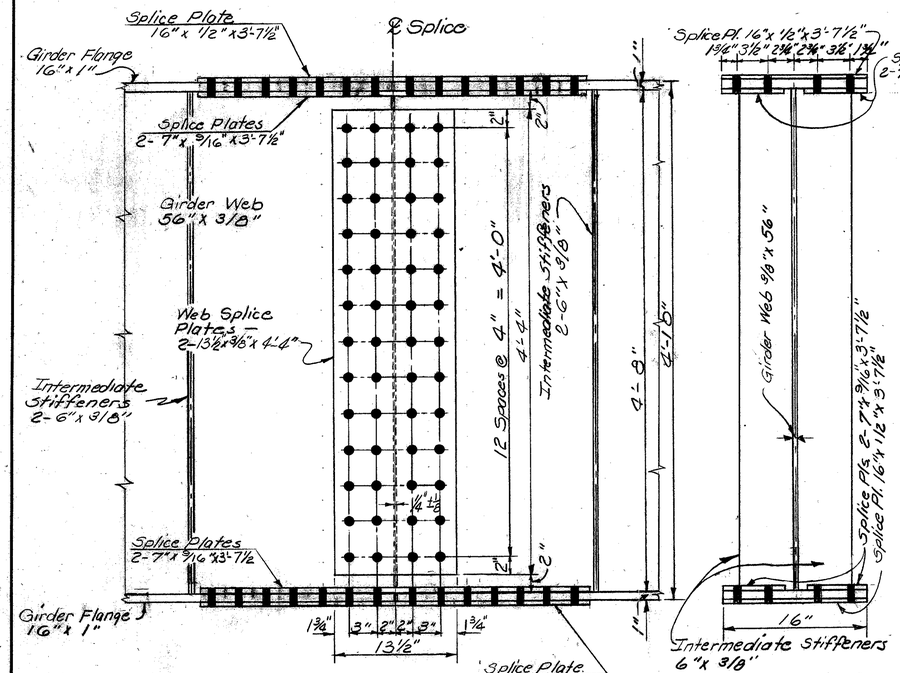
ROSS COUNTY
ROS-35-25.05



PLAN



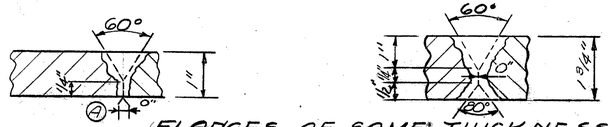
PLAN



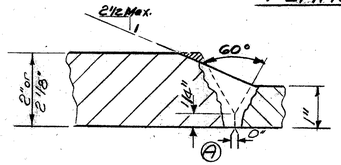
ELEVATION

END ELEVATION

END UNITS

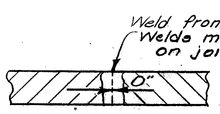


FLANGES OF SAME THICKNESS

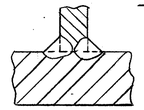


FLANGES OF DIFFERENT THICKNESS

WELDED JOINTS
Automatic Submerged Arc Process
(G) All flange butt-welds shall be ground flush.
Note (A) Weld after placing at least one pass on other side.
Optional shop splices will be permitted in the webs and flanges of girders but their location shall be submitted to the Director for approval.

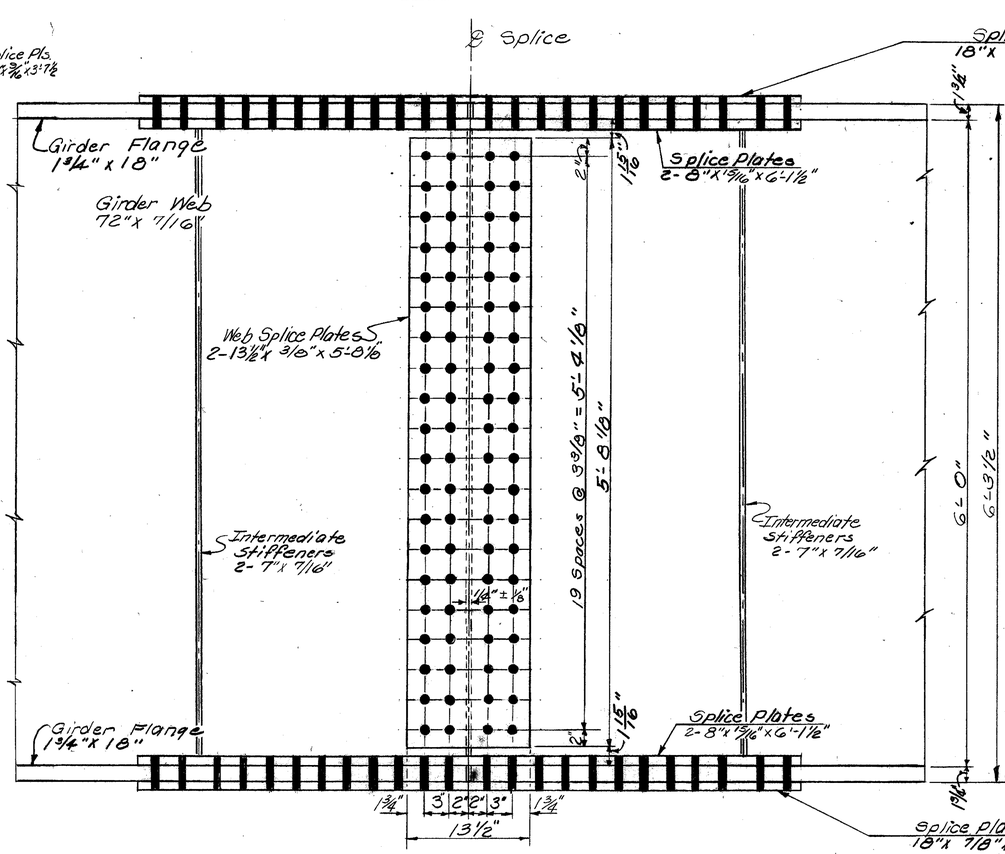


WEB SPLICE

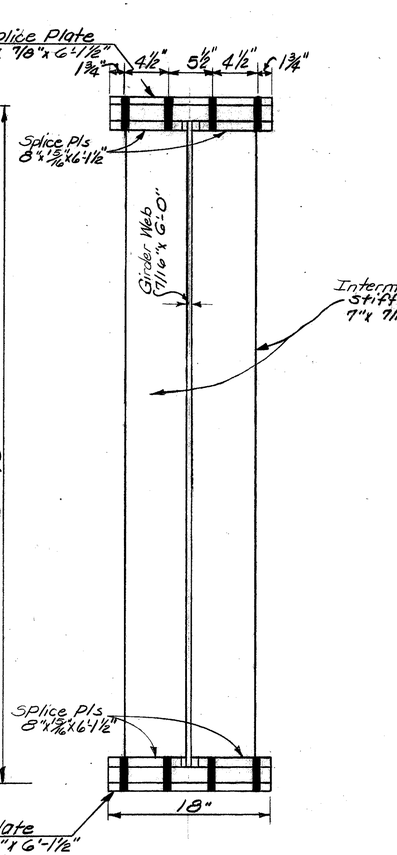


WEB TO FLANGE WELD

SHOP SPLICE WELDS



CENTER UNIT



END ELEVATION

Note: See Sheet No. 126 for Field Splice Notes

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

GIRDER SPLICE DETAILS

BRIDGE NO. ROS-35-2532 L
U.S.R. 35 OVER SCIOTO RIVER
ROSS COUNTY U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69

SCALE DATE

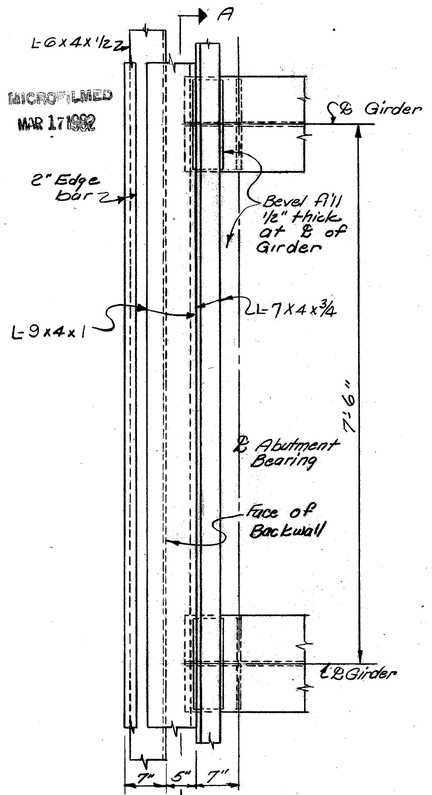
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	P.J.M.		FHS			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

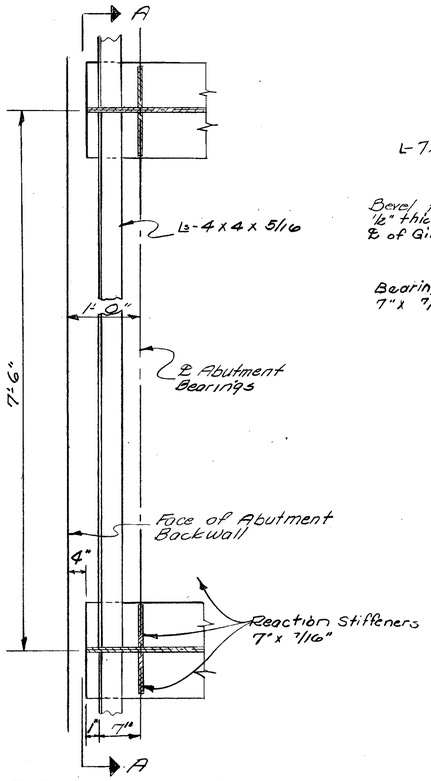
136
225

ROSS COUNTY
ROS-35-25.05

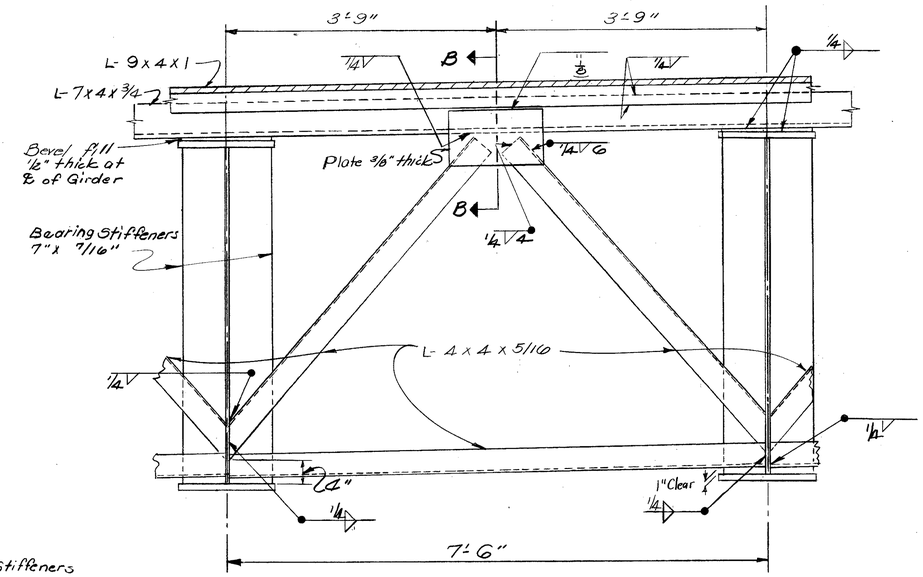
MICROFILMED
MAR 17 1992



PART PLAN
END DAM

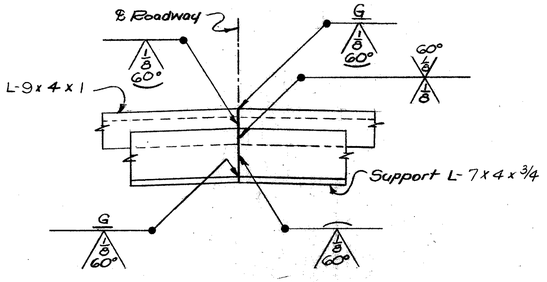


PART PLAN
END CROSSFRAMES

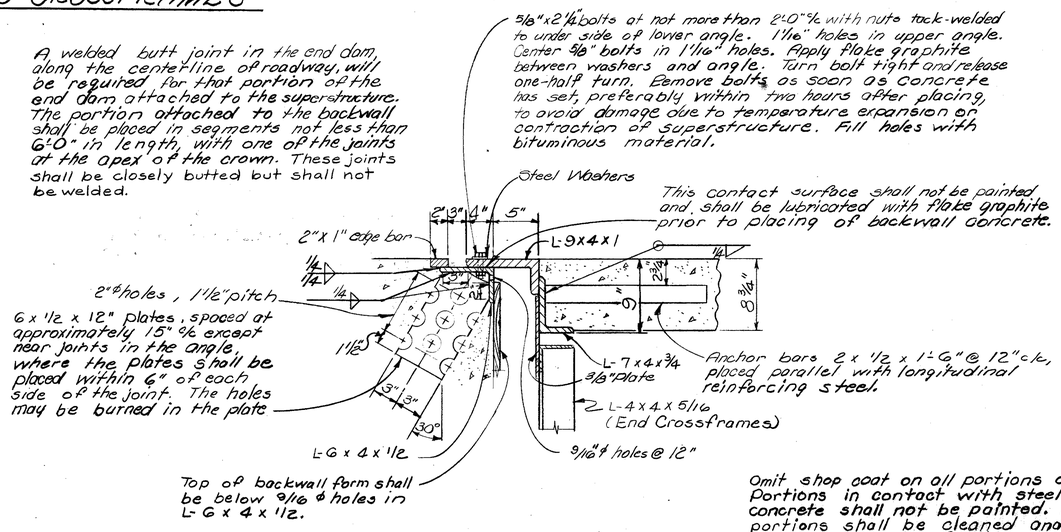


SECTION A-A

A welded butt joint in the end dam along the centerline of roadway, will be required for that portion of the end dam attached to the superstructure. The portion attached to the backwall shall be placed in segments not less than 6'-0" in length, with one of the joints at the apex of the crown. These joints shall be closely butted but shall not be welded.



WELDED BUTT JOINT IN SUPERSTRUCTURE
END DAM ANGLES AT ℄ OF ROADWAY



SECTION B-B

Omit shop coat on all portions of end dam. Portions in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and given the shop coat in the field as well as the two field coats.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

END DAM DETAILS
AT ABUTMENT
BRIDGE NO ROS-35-2532 L
U.S.R.35 over SCIOTO RIVER
ROSS COUNTY U.S.R.35
STA. 1337+08.99 TO STA. 1349+94.69

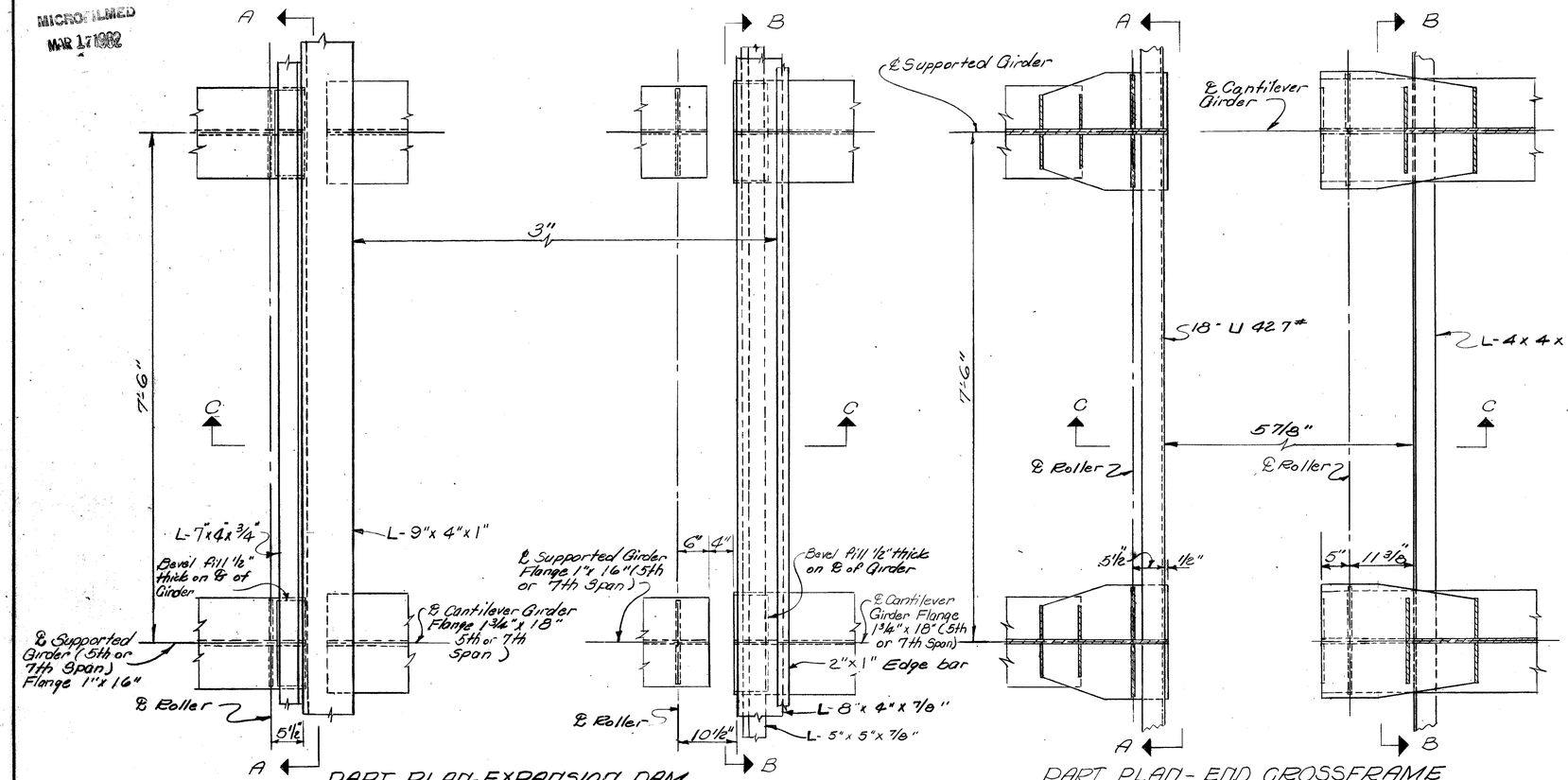
SCALE				DATE	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	R.J.M.		F.H.L.	W.K.	10/29/64	

MICROFILMED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

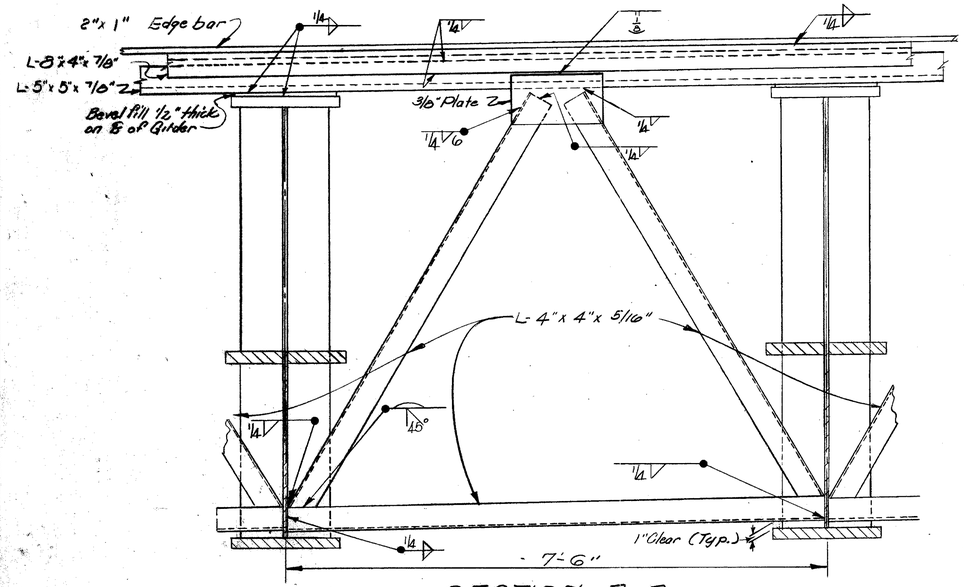
187
225

ROSS COUNTY
ROS-35-25.05

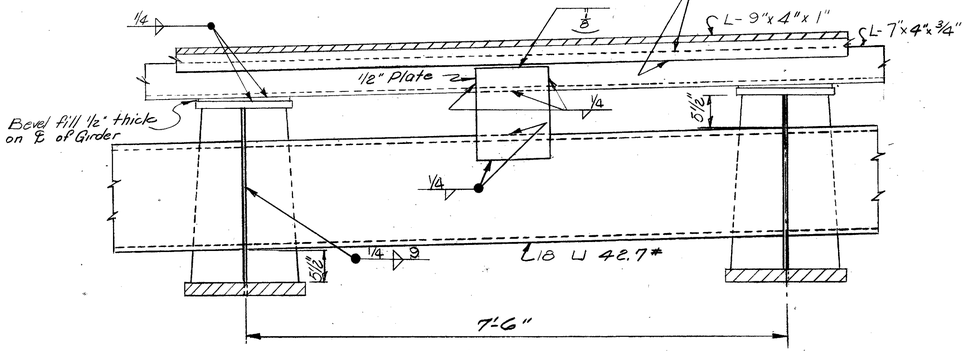


PART PLAN-EXPANSION DAM

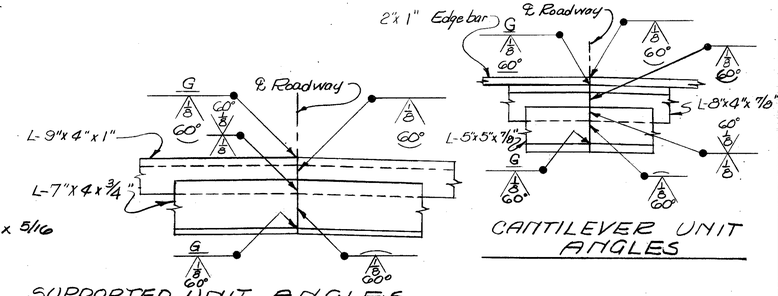
PART PLAN-END CROSSFRAME



SECTION B-B



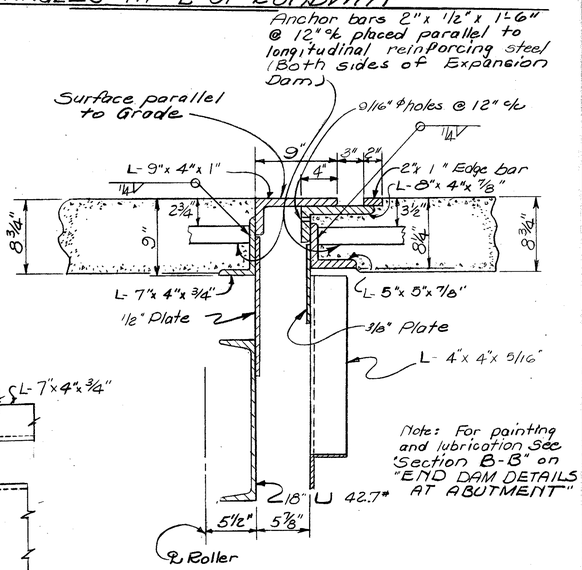
SECTION A-A



SUPPORTED UNIT ANGLES

CANTILEVER UNIT ANGLES

WELDED BUTT-JOINT IN SUPERSTRUCTURE END DAM ANGLES AT ℄ OF ROADWAY



Note: For painting and lubrication see "Section B-B" on "END DAM DETAILS AT ABUTMENT"

SECTION C-C

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

END DAM DETAILS AT HINGE

BRIDGE NO. ROS-35-2532L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69

SCALE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	R.J.M.		F.A.S.	W.K.	10/29/04	

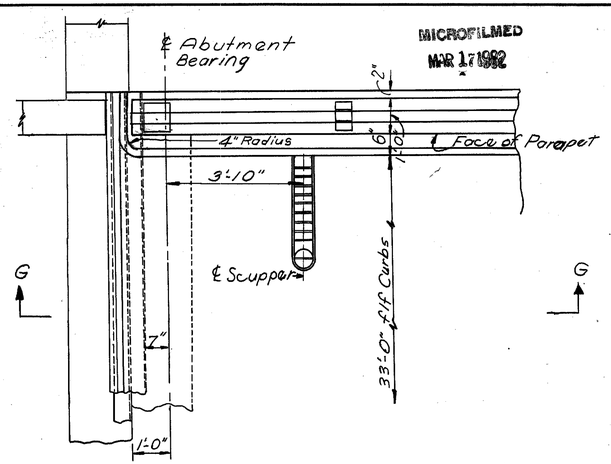
DATE

MICROFILMED
MAR 17 1982

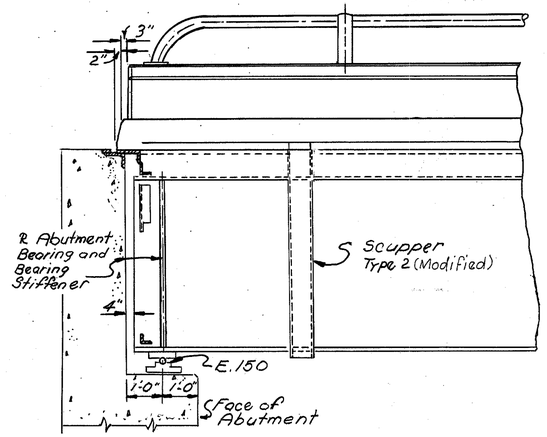
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

138/225

ROSS COUNTY
ROS-35-25.05



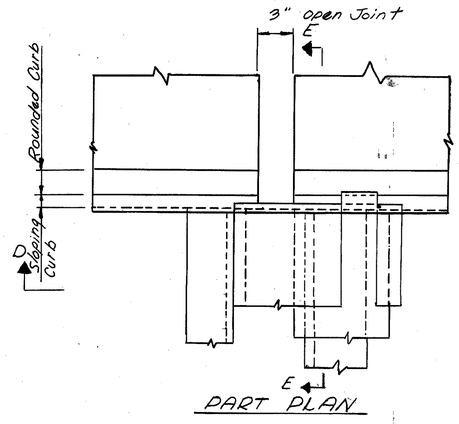
PART PLAN AT ABUTMENT



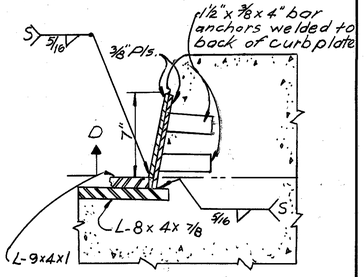
SECTION G-G

NOTES

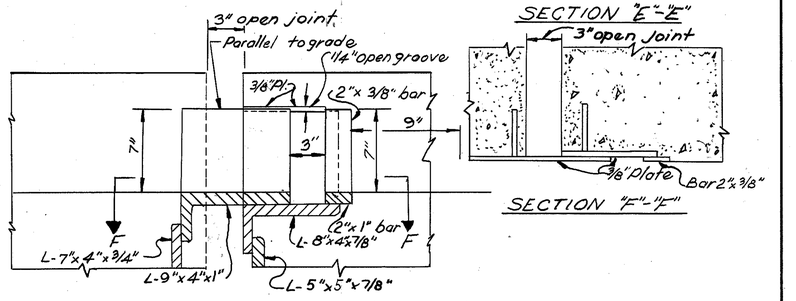
See Std. Dwg. SD-1-65 for Scupper details - modify dimensions to suit installation.



PART PLAN



SECTION "E"-"E"



SECTION D-D

EXPANSION DAM AT HINGE BEARING
CURB PLATE DETAILS

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

GUTTER and SCUPPER DETAILS
EXPANSION DAM DETAILS
BRIDGE NO. ROS-35-2532 L
U.S.R. 35 OVER SCIOTO RIVER
ROSS COUNTY U.S.R. 35
STA 1337+08.99 TO STA 1349+94.69

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		G.F.J.				

RECEIVED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

139
225

ROSS COUNTY
ROS-35-25.05

539'-9" Length of Parapet

8" 4'-9" 10 Spaces @ 8'-4" = 83'-4" (Railing Post Spacing) 5'-9 1/16" 2'-6 3/4"

2-R501 2-R502

3503 @ 6 equal Spaces = 9'-3" 9'-7"

3503-11 equal spaces = 16'-4" (Typical for all 16'-8" Parapet Joint Spacing)

5 Spaces @ 16'-8" = 83'-4" (Parapet Joint Spacing) 93'-7 1/4"

1 1/4" 1'-7 1/4"

℄ Abutment Bearing

℄ Pier No. 1 Bearing

1/4" gray sponge rubber preformed expansion Joint Filler (Sec. 705.03 AASHO M-153) Included with Item 517 for payment

2'-6 3/4" 13 Spaces @ 8'-4" = 108'-4" (Railing Post Spacing) 6'-1 1/2" 2'-2 3/4"

2-R502

3503 11 equal Spaces = 16'-4" (Typical)

7 Spaces @ 16'-8" = 116'-8" (Parapet Joint Spacing) 117'-0"

1'-7 1/4" 1'-11 1/4"

℄ Pier No. 2 Bearing

2'-2 3/4" 13 Spaces @ 8'-4" = 108'-4" (Railing Post Spacing) 6'-5 1/4" 1'-10 3/4"

2-R502 2-R506

3503-11 equal spaces = 16'-4" (Typical)

3503-12 equal spaces = 18'-4" 18'-8"

6 Spaces @ 16'-8" = 100'-0" (Parapet Joint Spacing) 117'-0"

1'-11 1/4" 3 1/4"

℄ Pier No. 3 Bearing

1'-10 3/4" 13 Spaces @ 8'-4" = 108'-4" (Railing Post Spacing) 6'-9 1/4" 1'-6 3/4"

2-R507 2-R502 2-R506

3503 @ 10 equal spaces = 14'-4" 14'-8"

3503-11 equal spaces = 16'-4" (Typical)

3503-12 equal spaces = 18'-4" 18'-8"

5 Spaces @ 16'-8" = 83'-4" (Parapet Joint Spacing) 117'-0"

3 1/4" 7 1/4"

℄ Pier No. 4 Bearing

539'-9" Length of Parapet

1'-6 3/4" 11 Spaces @ 8'-4" = 91'-8" (Railing Post Spacing) 1'-0"

2-R507 2-R502 2-R503

3503 @ 10 equal spaces = 14'-4" 14'-8"

3503 11 eq. Spa. = 16'-4" (Typical for all 16'-8" Parapet Joint Spacing)

3503 9 equal spaces = 13'-2" 13'-6"

4 Spaces @ 16'-8" = 66'-8" (Parapet Joint Spacing) 93'-7 1/4"

7 1/8" 7 1/8"

℄ Pier No. 4 Bearing

℄ End of Parapet

℄ Roller

101'-6 1/4" (Half Length of Parapet in Center Span)

3" Open Joint in Parapet

1'-10 3/16"

11 Spaces @ 8'-8 7/8" = 96'-1 5/8" (Railing Post Spacing)

4'-4 7/16"

2-R504 2-R505

7 1/4" 10 1/2"

3503 9 equal spaces = 18'-3" 1'-7 1/16" 32'-2 3/4"

3503 12 equal Spaces = 17'-1" (Typical for all 17'-5 3/4" Parapet Joint Spacing)

1"

5 Spaces @ 17'-5 9/16" 87'-4 1/4" (Parapet Joint Spacing) 70'-0" (Half Center Span)

℄ Roller

℄ Pier No. 5 Bearing

℄ Span and Structure

Symetrical about ℄ Structure

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

RAILING DETAILS

BRIDGE NO. 205-35-2532L
U.S. R. 35 over SCIOTO RIVER

ROSS COUNTY U.S.R. 35
STA. 1337+08.99 TO STA. 1349+94.69

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	P.J.M.		F.H.B.	W.I.C.	10/29/64	

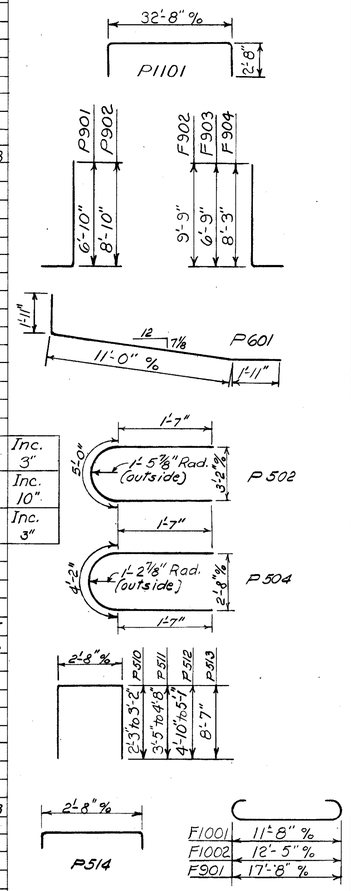
MICROFILMED
MAR 17 1982

REINFORCING STEEL LIST

TEN PIERS

Bar Number	Number Required	Length	Shape	Weight
P1101	60	37'-4"		11,901
P1102	40	32'-5"		6,889
P901	160	7'-10"		4,261
P902	160	9'-10"		5,349
P903	32	26'-7"		2,892
P904	32	25'-9"		2,802
P905	64	26'-0"		5,658
P906	32	27'-5"		2,983
P601	40	14'-8"		881
P501	66	10'-8"		734
P502	66	8'-2"		562
P503	240	10'-8"		2,670
P504	240	7'-4"		1,836
P505	20	13'-8"		285
P506	20	18'-9"		391
P507	20	24'-3"		506
P508	20	29'-10"		622
P509	20	32'-6"		678
P510	40 Series of 8 Bars	6'-11" to 8'-9"		2,614 Inc. 3"
P511	40 Series of 4 Bars	9'-3" to 11'-9"		1,752 Inc. 10"
P512	40 Series of 3 Bars	12'-1" to 12'-7"		1,544 Inc. 3"
P513	90	19'-7"		1,838
P514	60	3'-8"		229
F1001	232	14'-6"		14,475
F1002	58	15'-3"		3,806
F901	160	20'-2"		10,971
F902	96	10'-9"	L	3,509
F903	192	7'-9"	L	5,059
F904	32	9'-3"	L	1,006
TOTAL TEN PIERS				98,703

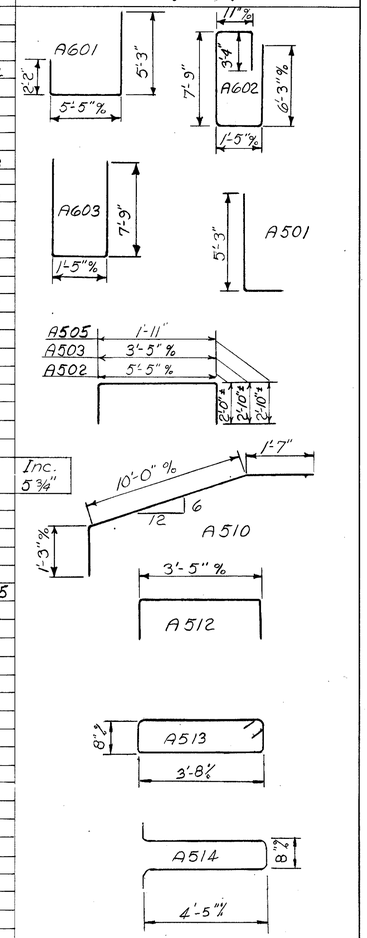
Bending Diagrams



ONE ABUTMENT

Bar Number	Number Required	Length	Shape	Weight
A801	8	22'-1"		472
A802	3	25'-2"		202
A803	3	19'-0"		152
A601	34	12'-6"		638
A602	25	19'-1"		717
A603	8	16'-8"		200
A604	12	9'-5"		170
A605	44	9'-2"		606
A501	34	5'-9"		204
A502	34	9'-2"		325
A503	26	8'-10"		240
A504	16	32'-8"		545
A505	28	7'-4"		214
A506	4	5'-0"		21
A507	4	8'-3"		34
A508	4	12'-0		50
A509	16	14'-0"		234
A510	4	12'-9"		53
A511	4 Series of 9 bars	5'-0" to 8'-10"		260 Inc. 5¾"
A512	25	4'-5"		115
A513	16	9'-2"		153
A514	28	10'-3"		299
TOTAL TWO ABUTMENTS				10,805

Bending Diagrams



SUPERSTRUCTURE

Bar Number	Number Required	Length	Shape	Weight
S701	1923	35'-8"		140,192
S601	1923	35'-8"		103,018
S602	2394	30'-3"		108,773
S603	441	30'-8"		20,313
S604	208	18'-11"		5,910
S605	260	30'-0"		11,716
S606	52	27'-11"		2,180
S501	1712	4'-6"		8035
S503	1856	5'-7"		10,808
TOTAL SUPERSTRUCTURE				410,945

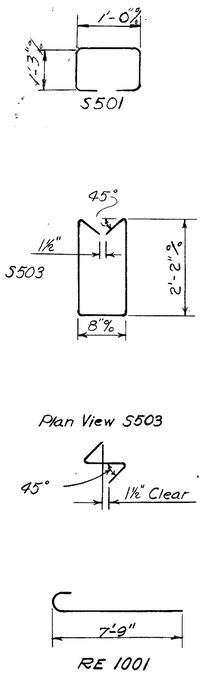
RAILING STEEL

R501	16	9'-3"		
R502	432	16'-4"		
R503	16	13'-2"		
R504	16	13'-9"		
R505	80	17'-1"		
R506	32	18'-4"		
R507	32	14'-4"		

REPLACEMENT STEEL

RE1101	1	8'-6"	
RE1001	1	8'-2"	
RE901	3	7'-10"	
RE801	1	7'-6"	
RE701	8	7'-2"	
RE601	13	6'-11"	
RE501	3	6'-7"	

Bending Diagrams



ROSS COUNTY
ROS-35-25.05

-NOTES-

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, A501 is a No. 5 size bar and A1001 is a No. 10 size.

RAILING STEEL in the parapet wall is included in Item 517 Railing for payment.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

REINFORCING STEEL LIST
BRIDGE No. ROS-35-2532 L
U.S.R. 35 over SCIOTO RIVER
ROSS COUNTY U.S.R. 35
STA. 1337+08.99 To STA. 1349+94.69

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WIC	DER		FHA	WL	10/24/64	

MICROFILMED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

141
223

ROSS COUNTY
ROS-35-25.05

PROPOSED STRUCTURE DATA

TYPE: Continuous Reinforced Concrete Slab with Reinforced Concrete Substructure
SPANS: 44'-0"-55'-0"-55'-0"-44'-0"
WIDTH: 24'-0" plus 2 @ 2'-0" Safety Curbs
LOAD FREQUENCY: C.F. 130 (57)
SKEW: 30° 00' L.F. (Special)
APPROACH SLABS: AS-1-67 (25' long)
WEARING SURFACE: 1" Monolithic Concrete
RAILING: Aluminum Rail and Supports with Concrete Parapet
ALIGNMENT: Tangent
SUPERELEVATION: 0.0156 ft. per ft.
1976 ADT 550

CURVE DATA - U.S.R. 35

Eastbound	Westbound
P.I. Sta. 1355+73.70	P.I. Sta. 1357+73.12
Δ = 12° 29' 30" Lt.	Δ = 12° 29' 30" Lt.
D_c = 1° 30'	D_c = 1° 15'
L_s = 200.00'	L_s = 200.00'
θ_s = 1° 30'	θ_s = 1° 15'
p = 0.44'	p = 0.36'
k = 100.00'	k = 100.00'
X_c = 199.99'	X_c = 199.99'
Y_c = 1.75'	Y_c = 1.45'
R = 3819.72'	R = 4583.66'
L_c = 632.78'	L_c = 799.33'
T_s = 518.09'	T_s = 601.69'
E_s = 23.25'	E_s = 27.77'
S.T. = 66.67'	S.T. = 66.67'
L.T. = 133.34'	L.T. = 133.34'

CURVE DATA

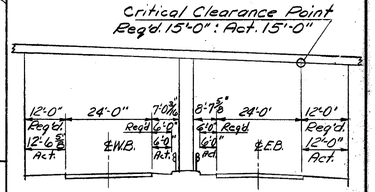
P.I. Sta. 32+04.76
Δ = 34°-01'-15"
D_c = 18°-00'
R = 318.31'
T = 97.38'
L_c = 189.00'
E = 14.56'

CURVE DATA

P.I. Sta. 24+95.93
Δ = 39°-25'-52"
D_c = 8°-00'
R = 716.20'
T = 256.66'
L = 492.89'
E = 44.60'

BENCH MARK

Chiseled Square in West End of N.W. Wingwall C&O. Bridge over U.S.R. 35 & 50. - 438' Rt. Sta. 1366+26 (E.B.) Elev. 635.92



CLEARANCE DIAGRAM
(Section Normal to U.S.R. 35)

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

SITE PLAN
BRIDGE NO. ROS-35-2580
U.S.R. 35 UNDER LICK RUN ROAD

ROSS COUNTY — U.S.R. 35
STA. 1362+15.00 (E.B.)

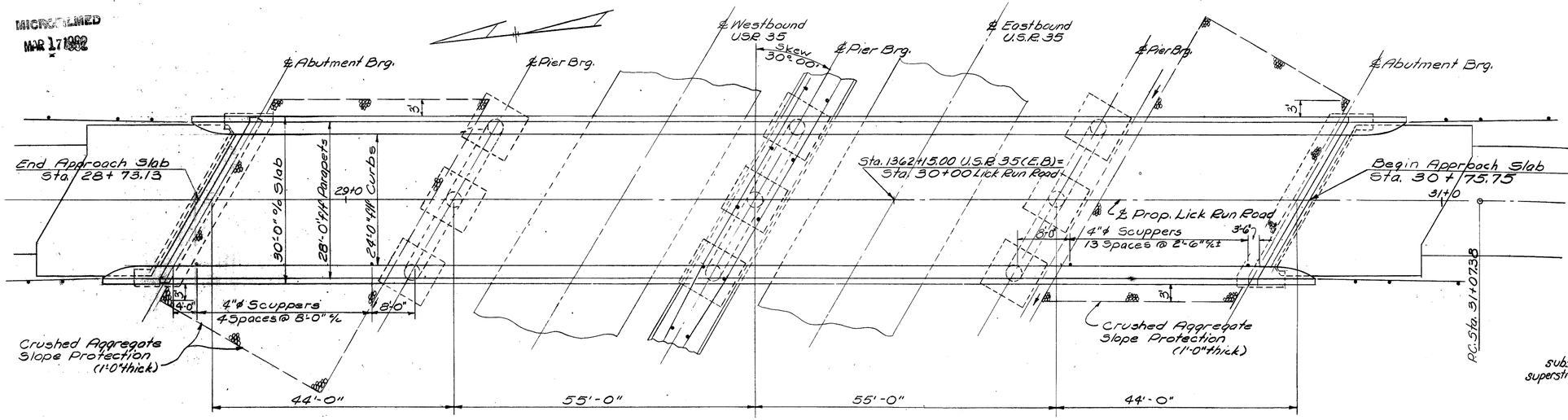
SCALE	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DESIGNED: WJE	WOJ		WJE	WJE	10/29/64	

MICROFILMED
MAR 17 1982

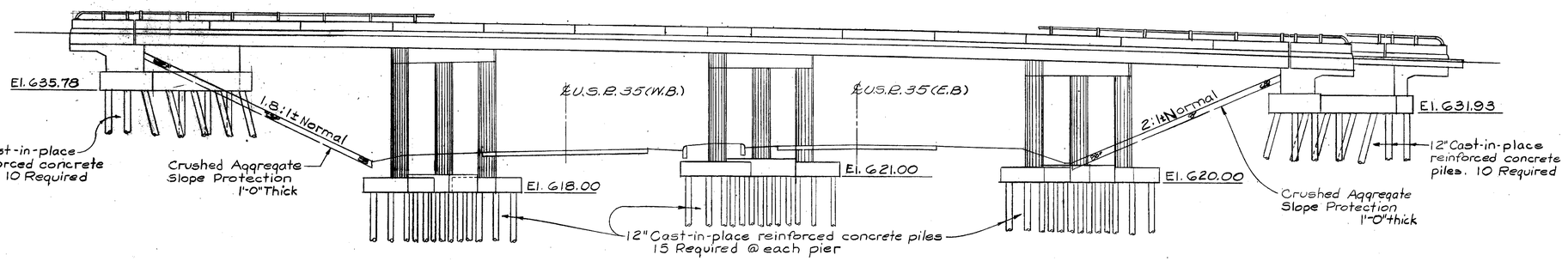
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

142/223

ROSS COUNTY
ROS-35-25.05



GENERAL PLAN



GENERAL ELEVATION

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION	ABUT'S.	PIERS	SUPER	GENERAL	AS BUILT	
503	350	Cu.Yds.	Unclassified Excavation	148	202				
511	471	Cu.Yds.	Class C Concrete, Superstructure			471			
511	81	Cu.Yds.	Class C, Concrete, Pier Caps and Columns		81				
511	60	Cu.Yds.	Class C Concrete, Abutments above Footings	60					
511	123	Cu.Yds	Class C Concrete, Footings	52	71				
825	835	Sq.yds	Concrete surface treatment	27		808			
509	147,492	Lbs.	Reinforcing Steel	9,098	25,784	112,610			
516	61	Sq.Ft.	1/4" Preformed expansion joint filler	61					
516	4,900	Lbs.	Structural steel expansion joints			4,900			
516	225	Lbs.	1/4" Rolled bronze sliding plates 711.16	225					
517	441.16	Lin.Ft.	Railing, Type 1 aluminum rail and supports and concrete parapets.	41.33		399.83			
505	Lump	Sum	First test pile				Lump		
507	2420	Lin.Ft.	12" cast-in-place reinforced concrete piles	850	1,570				
518	58	Lin.Ft.	6" Helical perforated CMP, 707.01 , including specials	58					
518	46	Lin.Ft.	6" Helical CMP, 707.01 , non-perforated.	46					
518	19	Each	Scuppers, 4"ϕ cast or wrought iron pipe			19			
518	18	Cu.Yds.	Porous Backfill	18					
601	409	Sq.Yds.	Crushed aggregate slope protection				409		
808	471	Units	Water-reducing, set-retarding admixture			471			

GENERAL NOTES

REFERENCE shall be made to Standard Drawing BR-1-65 revised 11-24-65 and to Supplemental Specifications 808 dated 1-1-69 & 825 dated 1-1-69.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with current revisions thereof.
Design Loading - CF 130 (57)
substructure Concrete Class C - basic unit stress 1,333 p.s.i.
superstructure Concrete Class C - basic unit stress 1,133 p.s.i.
Structural Steel - ASTM A36 basic unit stress 20,000 p.s.i.

Reinforcing Steel - ASTM A615, A616, A617 Deformed Intermediate or Hard Grade. Basic unit stress 20,000 p.s.i. Except, spiral reinforcment shall be plain, A306 or A499 with basic unit stress of 18,000 p.s.i.

PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments for a minimum period of 30 days, after which excavation shall be made for the abutments and piles driven.

EXCAVATION QUANTITY for the abutments includes the removal of fill material required for construction of the abutments. Excavation quantity for the Piers includes the removal of material between the surface of the proposed roadway and the bottom of the pier footing.

PILES shall be driven to a minimum bearing capacity of 40 Tons per pile for the abutments and 42 Tons per pile for the piers.

~~SURFACE FINISH OF CONCRETE: The requirements of Sec. 5-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:~~

~~a. The entire superstructure except the top and bottom surfaces of safety curbs and roadways.~~

~~b. The entire surface of piers and abutments except the face of the spill-through abutments between limits of the slab.~~

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

WELDS on non-stress carrying members are shown thus: N

STAINLESS STEEL FASTENERS shall be properly passivated to remove surface impurities and shall be furnished with a lustrous finish.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

GENERAL PLAN AND ELEVATION, EST. QUANTITIES AND GEN. NOTES
BRIDGE NO. ROS-35-2580
U.S.R. 35 UNDER LICK RUN ROAD
ROSS COUNTY U.S.R. 35
STA. 1362+15.00 (E.B.)

SCALE DATE

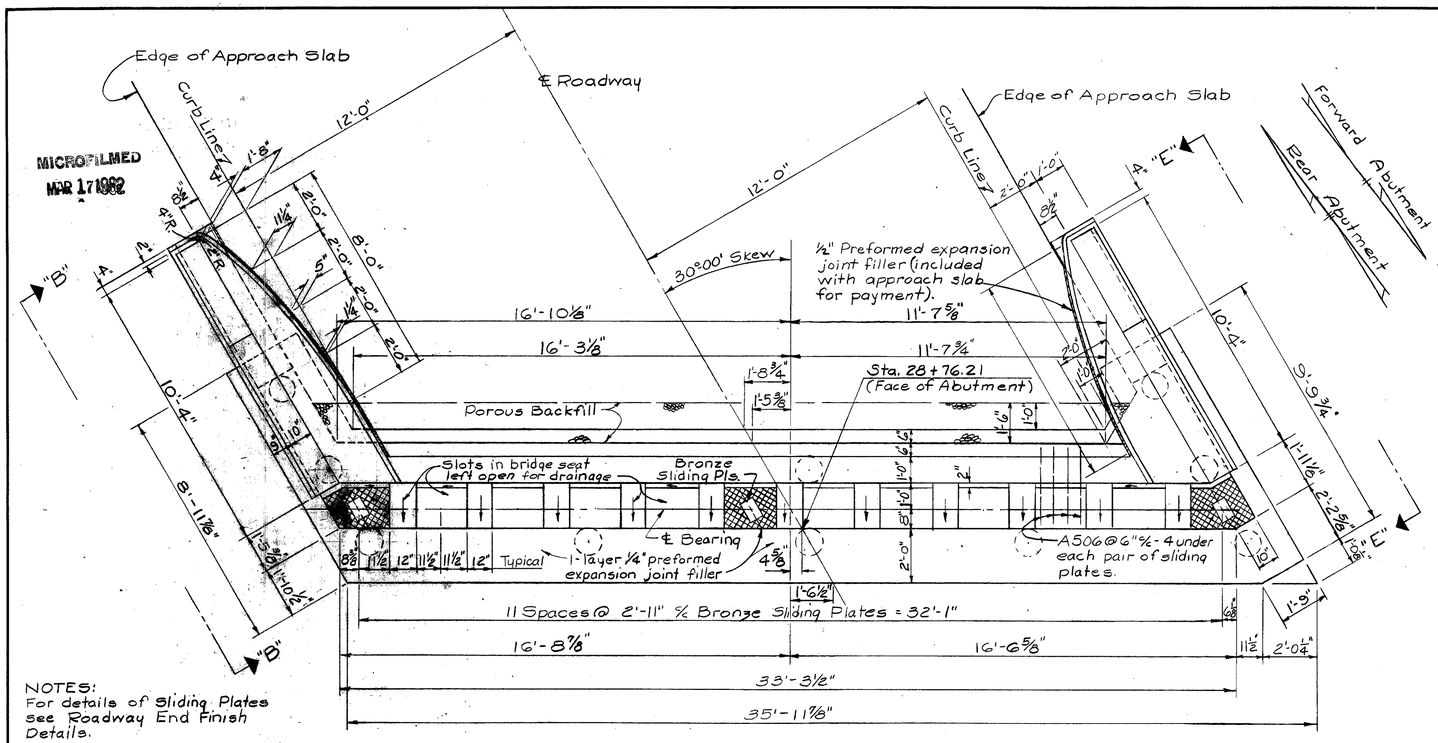
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
[illegible]	W.B.J.		[illegible]	[illegible]	10/24/64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

143/225

ROSS COUNTY
ROS-35-25.05

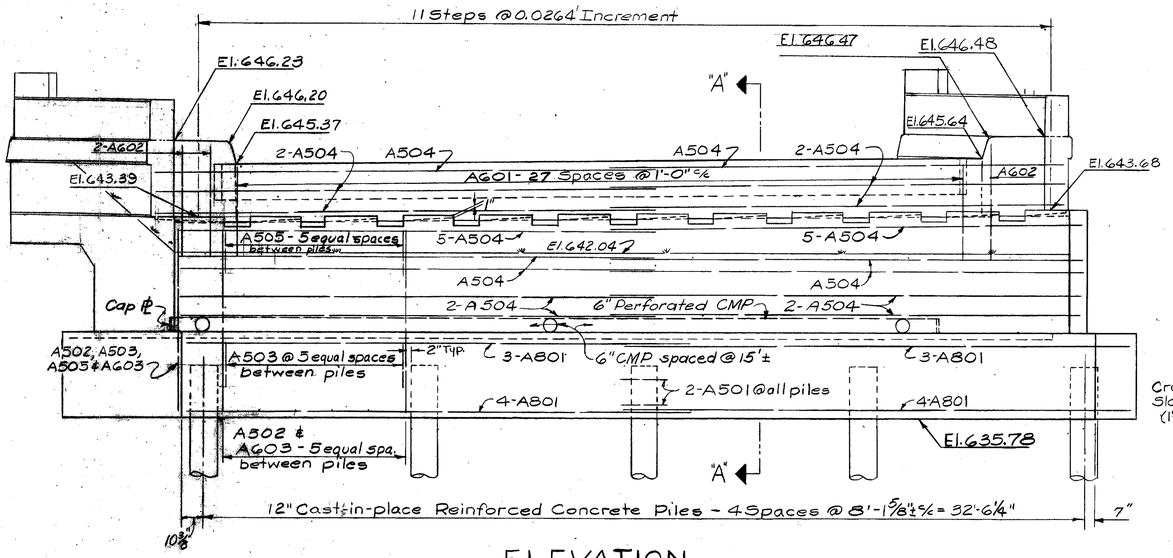
MICROFILMED
MAR 17 1982



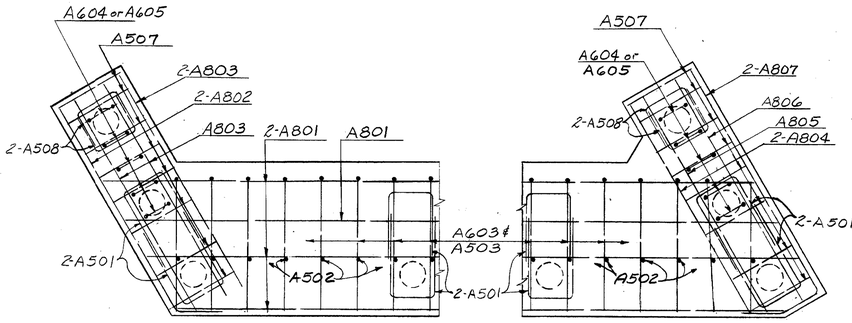
PLAN

NOTES:
For details of Sliding Plates see Roadway End Finish Details.

Sliding Plates and preformed expansion joint filler shall be at all raised portions of bridge seat.



ELEVATION
REAR ABUTMENT

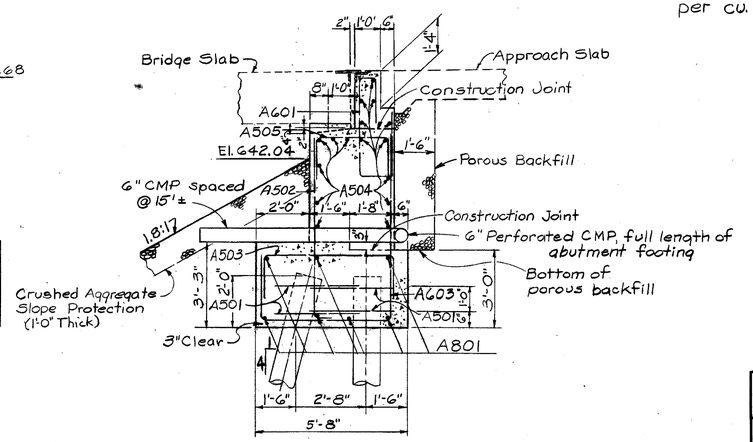


PART FOOTING PLAN

NOTES:

CONCRETE shall be Class "E".

POROUS BACKFILL shall extend upward to the approach slab and outward to the abutment wings. Excavation therefor in excess of that required for construction of the abutment shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.



SECTION "A"-"A"

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

ABUTMENT DETAILS
BRIDGE NO. ROS-35-2580
U.S.R. 35 UNDER LICK RUN ROAD
ROSS COUNTY — U.S.R. 35
STA. 1362+15.00 (E.B.)

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.W.H.	W.D.J.		H.B.Z.	M.K.	10/29/64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

144/225

ROSS COUNTY
ROS-35-25.05

2R506

1¼"x20" Guard rail anchor bolts with hex nuts thd 3", imbed 1'-6" ASTM A325 Galvanize the nuts and 6" min. of thd end Include with railing for payment

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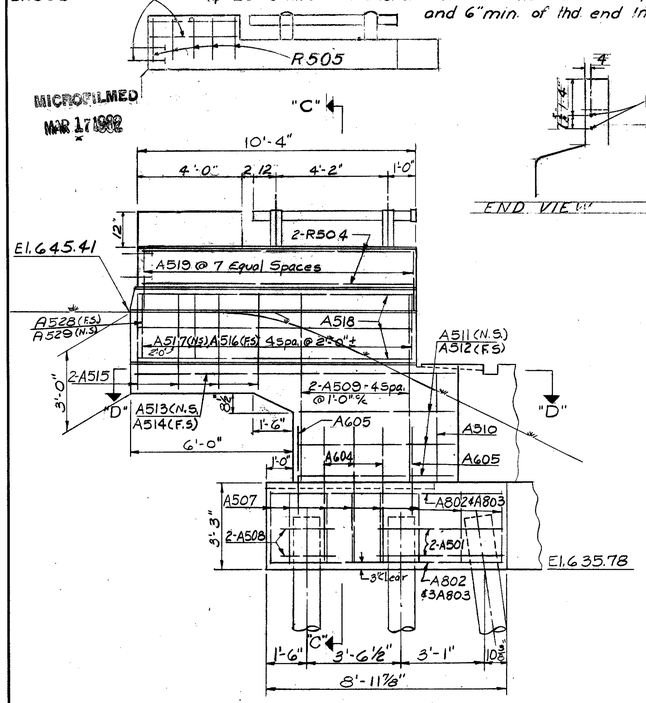
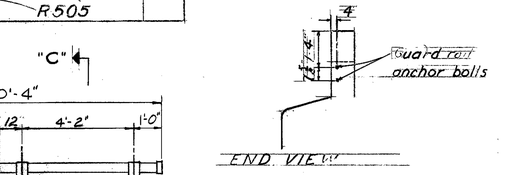
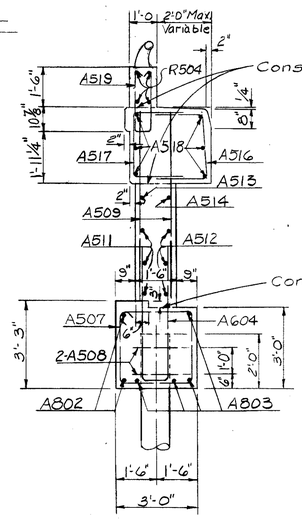
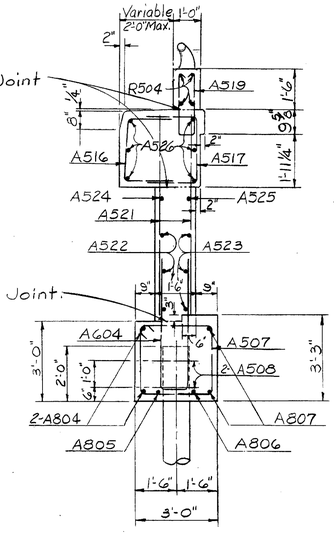


VIEW "B"-"B"

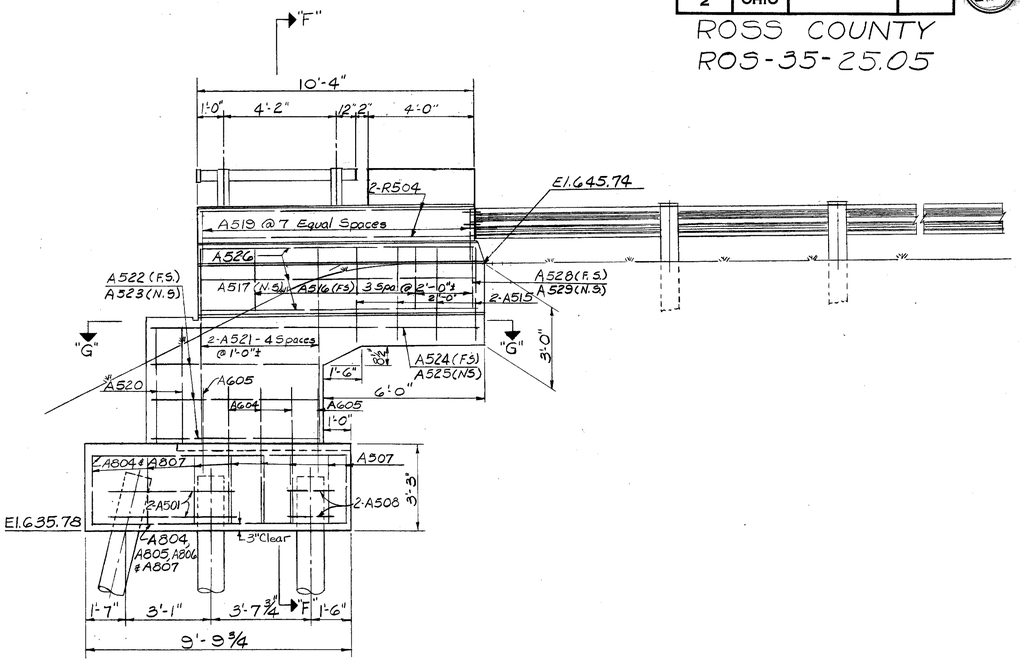




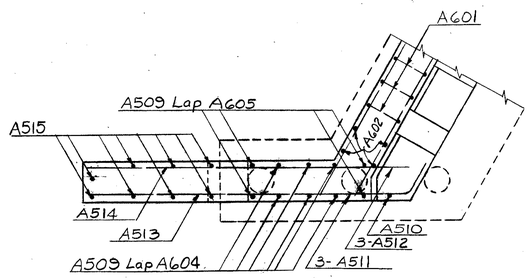
SECTION "C"-"C"



SECTION "F"-"F"



VIEW "E"-"E"



SECTION "D"-"D"

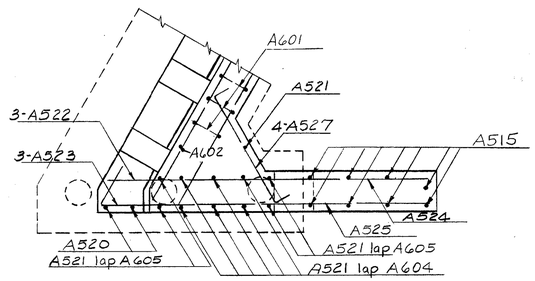
NOTES

SEE Standard Drawing BR-1-65 for details of aluminum railing and concrete parapet.

ALUMINUM RAILING and Concrete Parapet Wall are included with 517 Railing for payment.

LEGEND

N.S. indicates Near Side
F.S. indicates Far Side



SECTION "G"-"G"

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

REAR ABUTMENT DETAILS
BRIDGE NO. ROS-35-2580
U.S.R. 35 UNDER LICK RUN ROAD
ROSS COUNTY U.S.R. 35
STA. 1362+15.00 (E.B.)

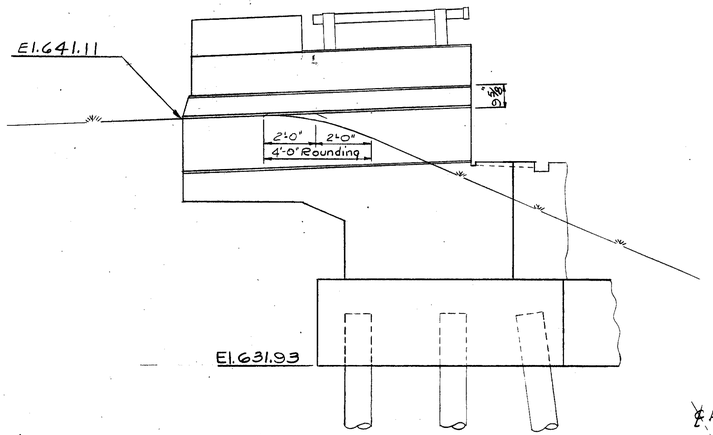
SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JWH	W.D.J.		HBS	ML	10/30/64	

MICROFILMED
MAR 17 1982

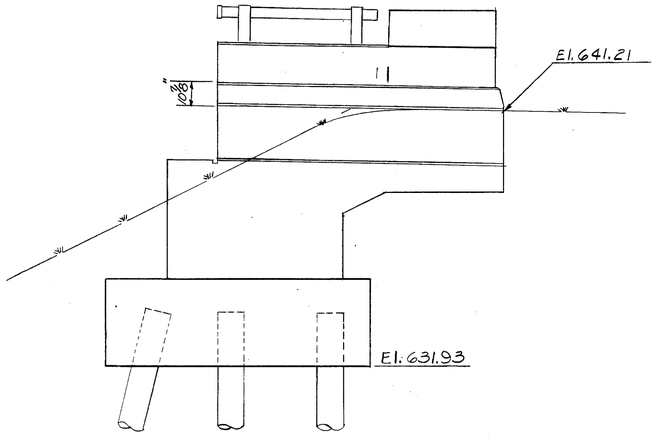
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

145/225

ROSS COUNTY
ROS-35-25.05

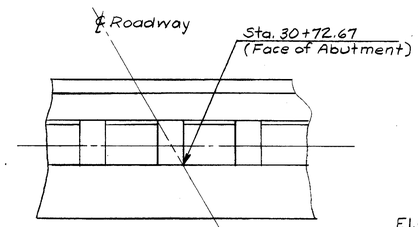


VIEW "B"-"B"

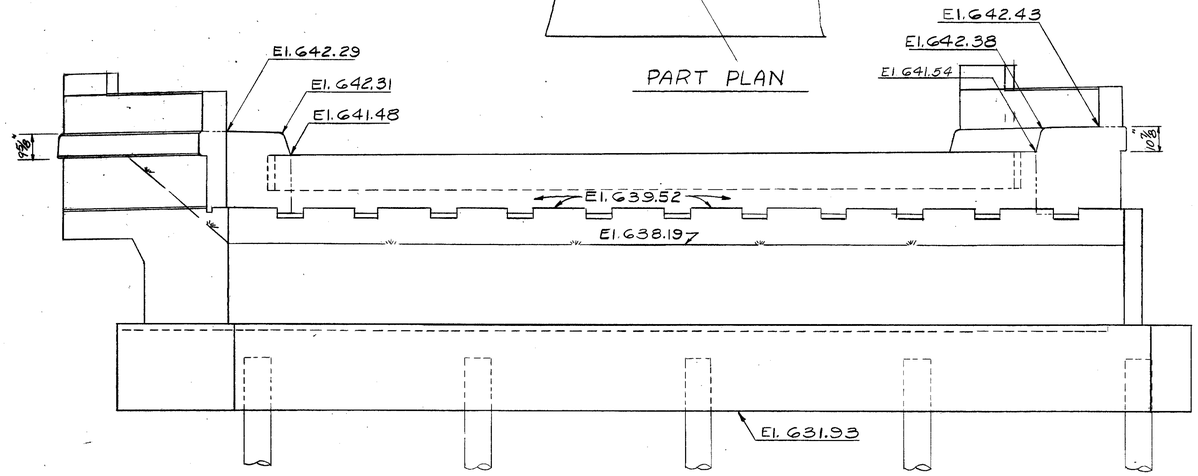


VIEW "E"-"E"

NOTE:
Reinforcing steel, dimensions, details and notes not shown identical to Rear Abutment Details



PART PLAN



ELEVATION
FORWARD ABUTMENT

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

ABUTMENT DETAILS
BRIDGE NO. ROS-35-2580
U.S.R 35 UNDER LICK RUN ROAD
ROSS COUNTY — U.S.R. 35
STA. 1362+15.00 (E.B.)

SCALE — DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.W.H.	W.D.J.		H.B.Z.	M.K.	10/30/64	

MICROFILMED
MAR 17 1992

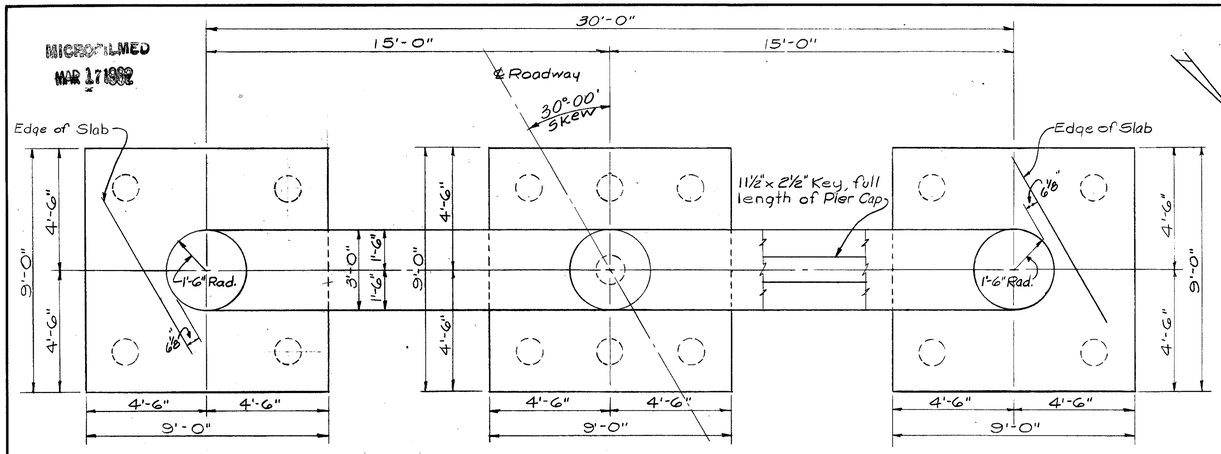
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

146
225

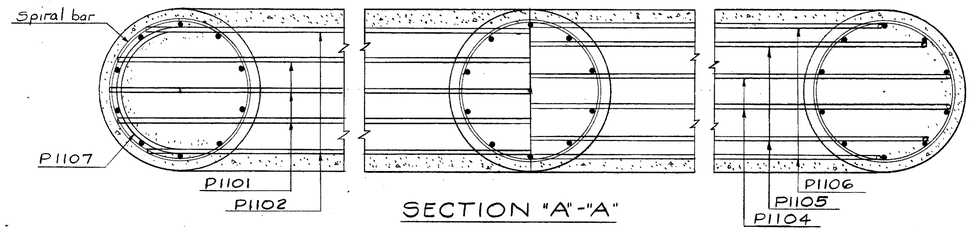
ROSS COUNTY
ROS-35-25.05

NOTES:

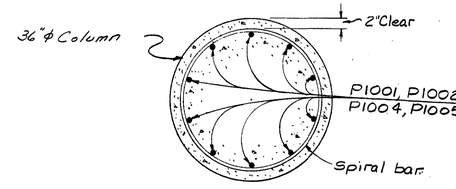
PILES shall be 12" Cast-in-place reinforced concrete piles.



PLAN
ALL PIERS



SECTION "A"-"A"



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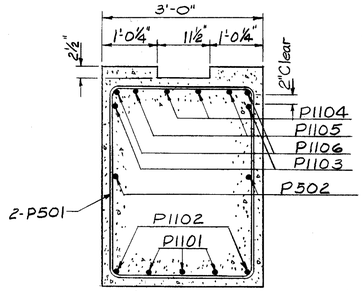
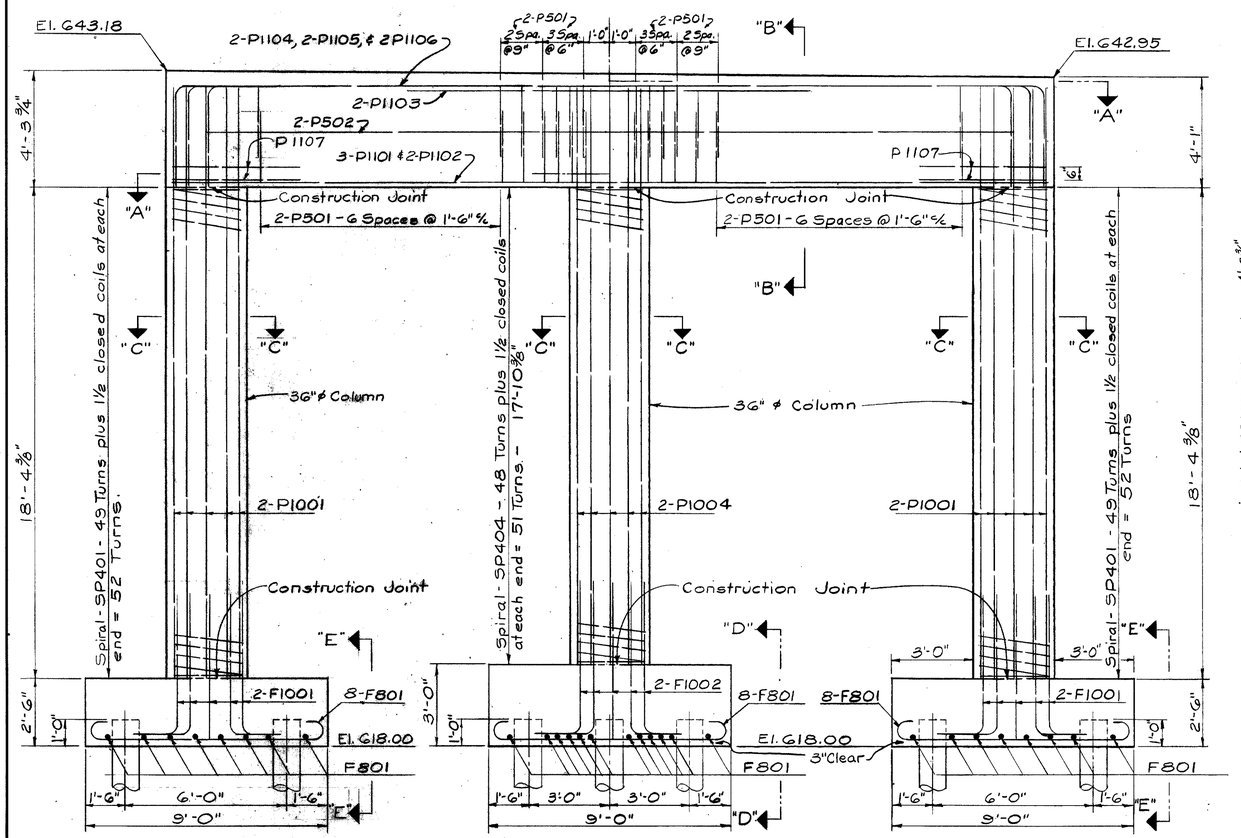
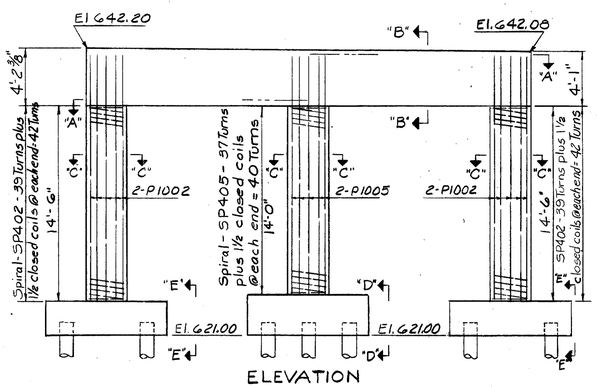


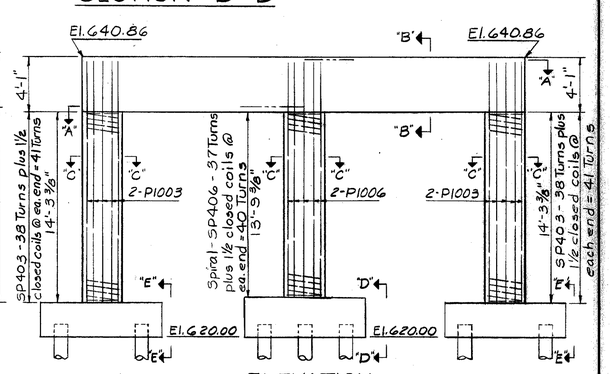
SECTION "B"-"B"



ELEVATION
REAR PIER

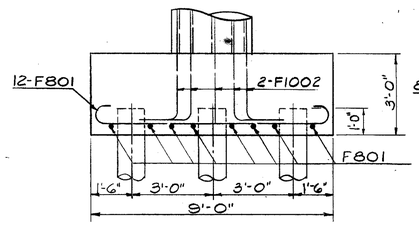


ELEVATION
CENTER PIER

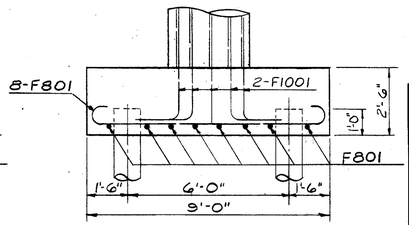


ELEVATION
FORWARD PIER

NOTE: All details, dimensions and reinforcing steel not shown in Center Pier and Forward Pier Elevation are identical to Rear Pier Elevation.



VIEW "D"-"D"



VIEW "E"-"E"

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

PIER DETAILS
BRIDGE NO. ROS-35-2580
U.S.R. 35 UNDER LICK RUN ROAD
ROSS COUNTY U.S.R. 35
STA. 1362+15.00 (E.B.)

SCALE DATE

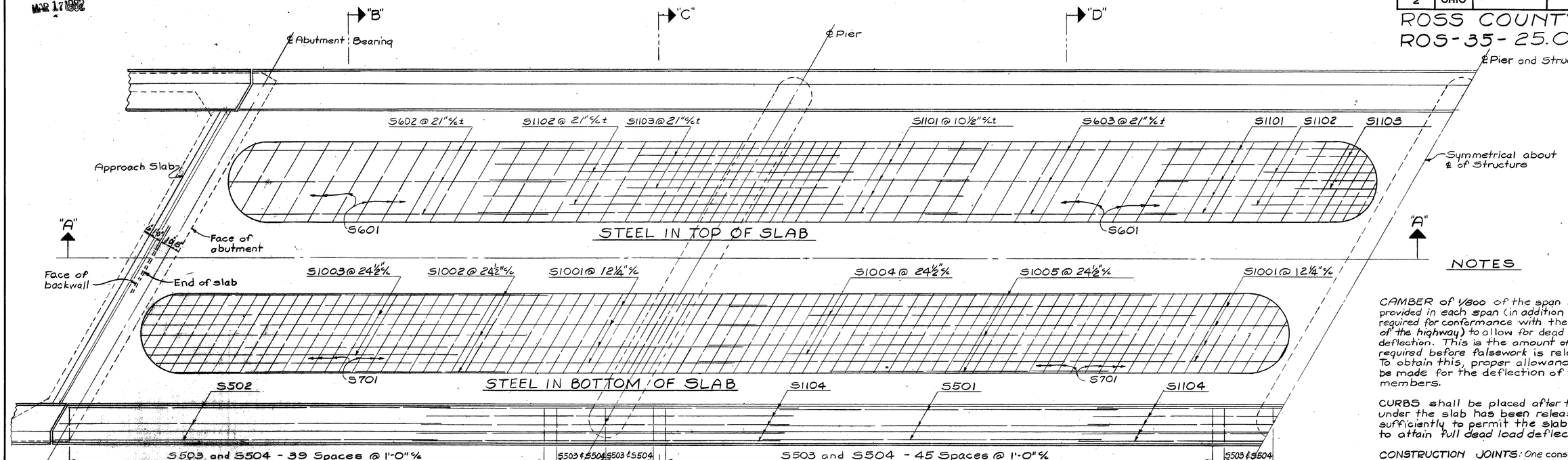
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JWH	WDJ			WL	10/30/64	

MICROFILMED
MAR 17 1982

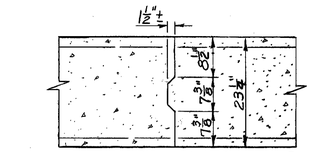
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

147
225

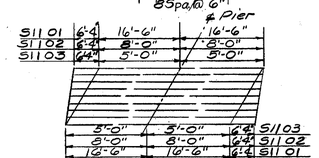
ROSS COUNTY
ROS-35-25.05



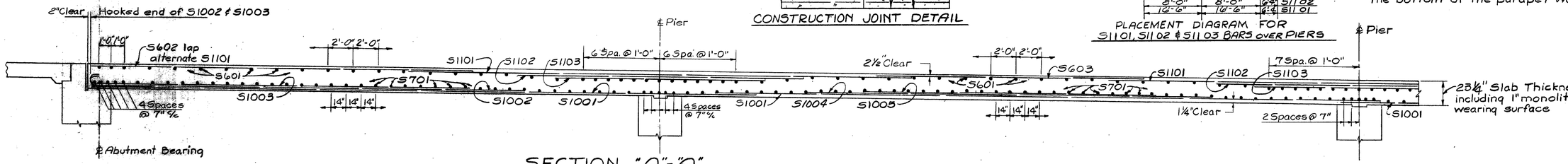
PART PLAN



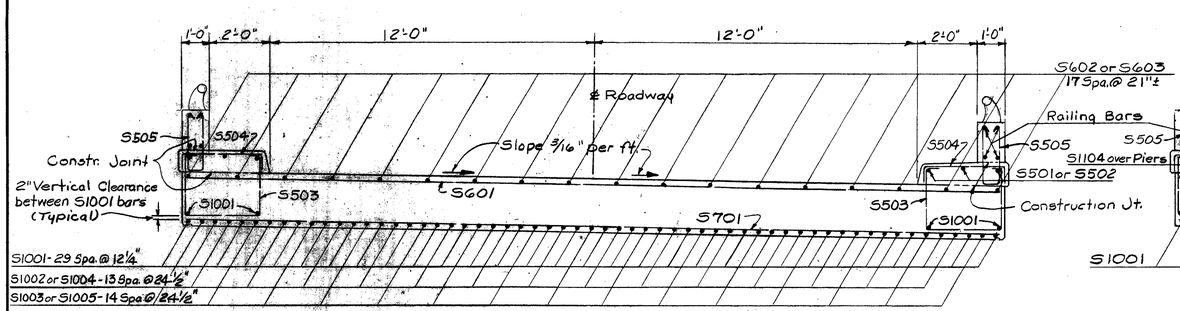
CONSTRUCTION JOINT DETAIL



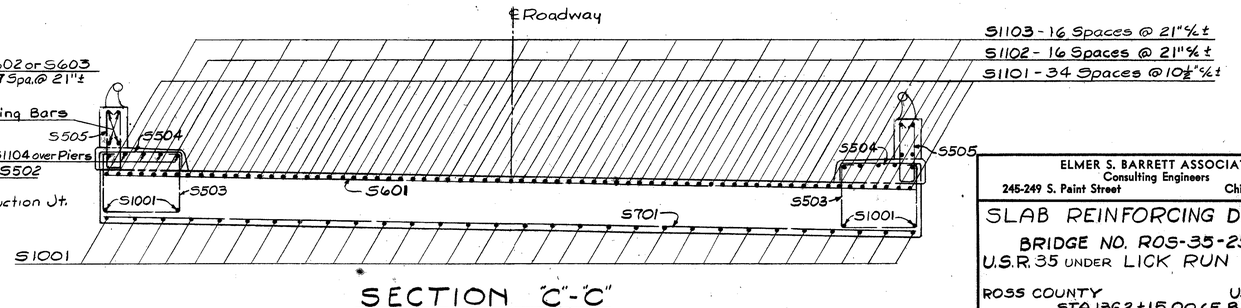
PLACEMENT DIAGRAM FOR S1101, S1102 & S1103 BARS over PIERS



SECTION "A"-"A"



SECTION "B"-"B" AND "D"-"D"



SECTION "C"-"C"

NOTES

CAMBER of 1/800 of the span shall be provided in each span (in addition to any 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 the deflection of falsework members.

CURBS shall be placed after the shoring under the slab has been released sufficiently to permit the slab spans to attain full dead load deflection.

CONSTRUCTION JOINTS: One construction joint in the bridge slab may be placed on the transverse centerline of an interior span or 1'-0"± off the transverse centerline if necessary to miss transverse reinforcing bars. One longitudinal joint on the centerline of roadway will be permitted. A horizontal construction joint shall be placed between each curb and the top of the slab and between each curb and the bottom of the parapet wall.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

SLAB REINFORCING DETAILS
BRIDGE NO. ROS-35-2580
U.S.R. 35 UNDER LICK RUN ROAD

ROSS COUNTY — U.S.R. 35
STA. 1362 + 15.00 (E.B.)

SCALE			DATE		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.W.H.	W.D.J.		H.B.Z.	W.K.	10/30/64	

MICROFILMED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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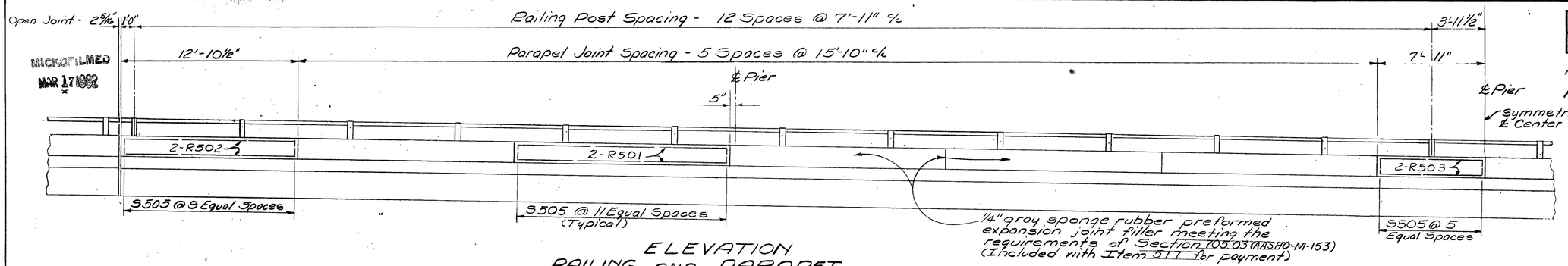
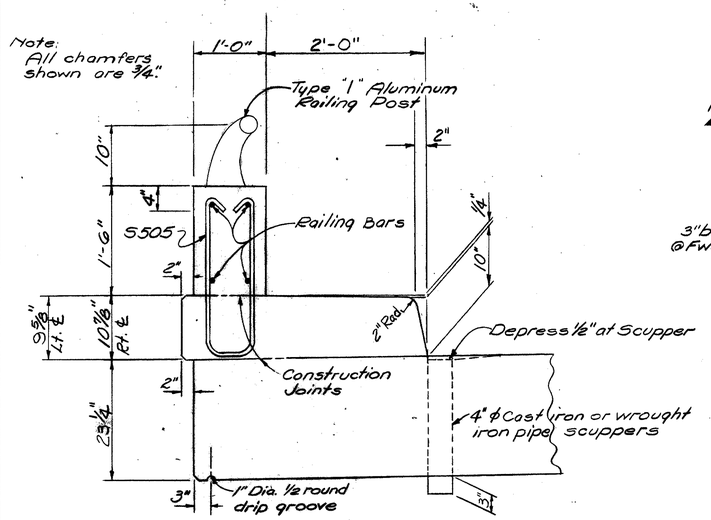
225

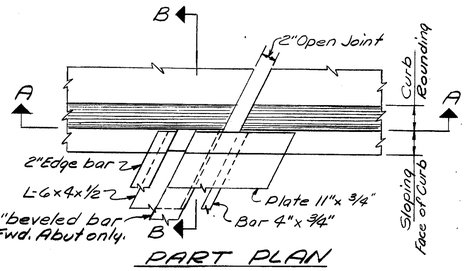
ROSS COUNTY
ROS-35-25.05



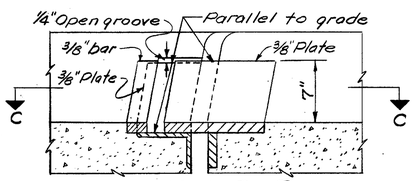
ELEVATION
RAILING AND PARAPET



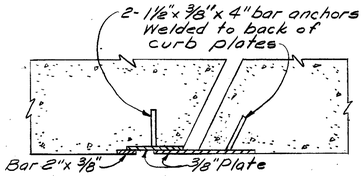
PART SECTION
TREATMENT OF PARAPET AND FASCIA



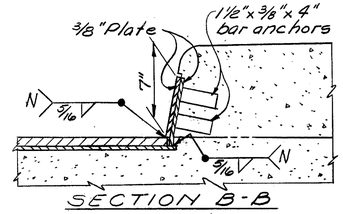
PART PLAN



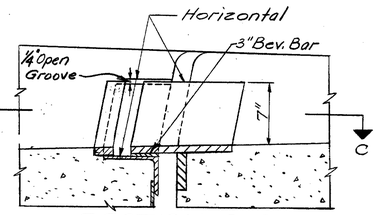
SECTION A-A
(Rear Abutment)



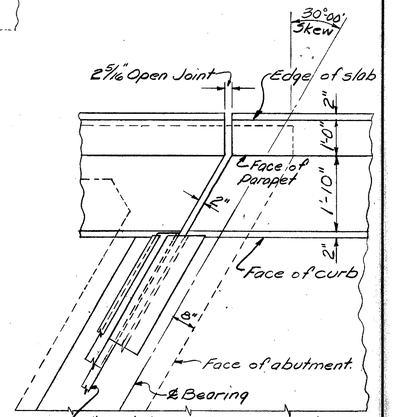
SECTION C-C



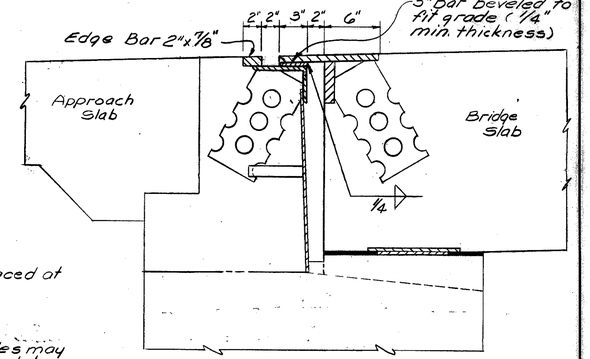
SECTION B-B



SECTION A-A
(Forward Abutment)



PART PLAN AT ABUTMENT

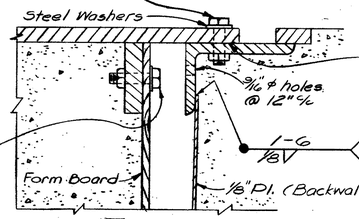


FORWARD ABUTMENT
ROADWAY END FINISH

Note:
For Details not shown see Roadway End Finish - Rear abutment.

No joints will be permitted in End Finish.

5/8" x 2 1/2" ϕ bolts at not more than 2'-0" c/c with nuts tack-welded to under side of lower angle. 1 1/16" ϕ holes in upper plate. Center 5/8" bolts in 1 1/16" holes. Apply flake graphite between washer and plate. Turn bolt tight and release one half turn. Remove bolts as soon as concrete has reasonably set, preferably within two hours, to avoid effect of temperature expansion or contraction of superstructure. Fill holes with bituminous material.



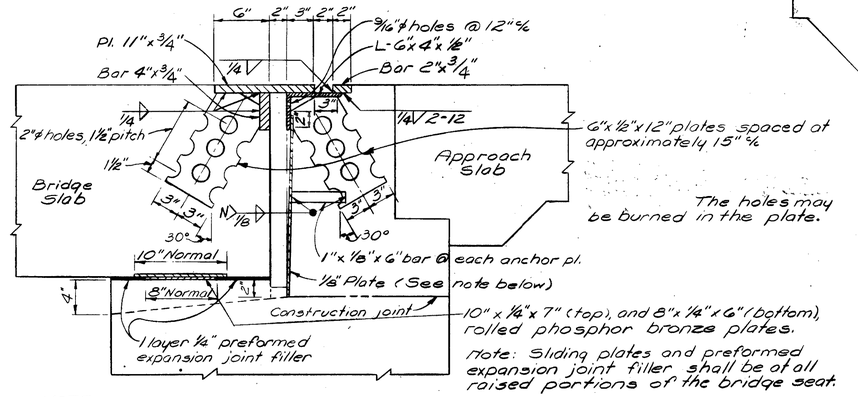
5/8" x 2 1/2" bolts @ 1'-6" c/c with nuts welded to the bar, temporary support for end finish during placing of slab concrete. Remove bolts with forms.

This contact surface shall not be painted but shall be lubricated with flake graphite prior to placing of backwall concrete.

Omit shop coat on all portions of end dam. Portions in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and given the shop coat in the field as well as two field coats.

END FINISH DETAILS

CURB PLATE DETAILS



The holes may be burned in the plate.

Note: Sliding plates and preformed expansion joint filler shall be of all raised portions of the bridge seat.

NOTE:
1/8" Backwall form plate shall be provided in lengths not to exceed 6'-0", joints between lengths shall be tightly butted and no joints shall be placed opposite drainage slots in bridge seat; plates shall be notched to fit around anchor plates.

REAR ABUTMENT
ROADWAY END FINISH

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

SUPERSTRUCTURE DETAILS
BRIDGE NO. ROS-35-2580
U.S.R. 35 UNDER LICK RUN ROAD
ROSS COUNTY U.S.R. 35
STA. 1362+15.00 (E.B.)

SCALE			DATE		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.W.H.	W.D.J.		H.E.B.	W.L.	10/30/64	

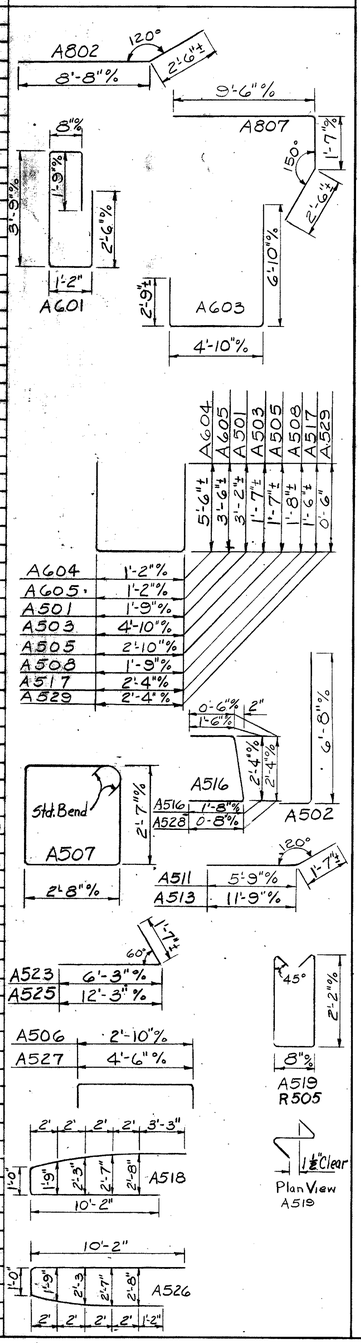
MICROFILMED
MAR 17 1982

REINFORCING STEEL LIST

ONE ABUTMENT

Bar Number	Number Required	Length	Shape	Weight
A801	14	18'-10"	—	704
A802	2	11'-2"	—	60
A803	4	9'-2"	—	98
A804	2	8'-8"	—	46
A805	1	9'-2"	—	24
A806	1	9'-6"	—	25
A807	2	13'-3"	—	71
A601	28	9'-2"	—	386
A602	5	4'-3"	—	32
A603	25	14'-1"	—	529
A604	6	11'-10"	—	107
A605	4	7'-10"	—	47
A501	20	7'-9"	—	162
A502	25	7'-2"	—	187
A503	25	7'-9"	—	202
A504	32	17'-8"	—	590
A505	25	5'-8"	—	148
A506	48	3'-10"	—	192
A507	16	11'-3"	—	188
A508	8	4'-9"	—	40
A509	10	6'-8"	—	70
A510	1	4'-2"	—	4
A511	3	7'-4"	—	23
A512	3	6'-3"	—	20
A513	1	13'-4"	—	14
A514	1	11'-9"	—	12
A515	16	3'-6"	—	58
A516	9	5'-3"	—	49
A517	9	5'-1	—	48
A518	3	22'-1"	—	69
A519	16	5'-7"	—	93
A520	2	4'-6"	—	9
A521	10	7'-0"	—	73
A522	3	6'-0"	—	19
A523	3	7'-8	—	24
A524	1	12'-1"	—	13
A525	1	13'-8"	—	14
A526	3	20'-0"	—	63
A527	4	5'-6"	—	23
A528	2	3'-3"	—	7
A529	2	3'-1"	—	6
TOTAL ONE ABUTMENT				4549
TOTAL TWO ABUTMENTS				9098

Bending Diagrams



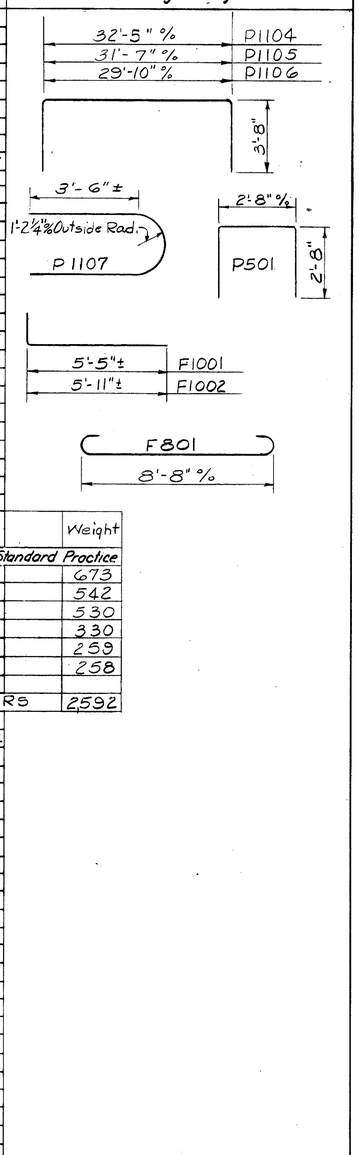
THREE PIERS

Bar Number	Number Required	Length	Shape	Weight
P1101	9	32'-3"	—	1542
P1102	6	31'-2"	—	994
P1103	6	15'-0"	—	478
P1104	6	39'-1"	□	1246
P1105	6	38'-3"	□	1219
P1106	6	36'-6"	□	1164
P1107	12	10'-9"	C	685
P1001	20	22'-0"	—	1893
P1002	20	18'-2"	—	1563
P1003	20	17'-11"	—	1542
P1004	10	21'-5"	—	922
P1005	10	17'-6"	—	753
P1006	10	17'-4"	—	746
P501	144	7'-9"	□	1164
P502	6	29'-10"	—	187
F1001	60	6'-6"	L	1678
F1002	30	7'-0"	L	904
F801	156	10'-10"	C	4512
SUB-TOTAL THREE PIERS				23,192

SPIRAL

Bar Number	No. Required	Core Dia % Spiral	Length	Pitch	Weight
Other details in accordance with CRSI Standard Practice					
SP401	2	32"	18'-4⅞"	4½"	673
SP402	2	32"	14'-6"	4½"	542
SP403	2	32"	14'-3⅜"	4½"	530
SP404	1	32"	17'-10⅜"	4½"	330
SP405	1	32"	14'-0"	4½"	259
SP406	1	32"	13'-9⅜"	4½"	258
TOTAL SPIRAL - THREE PIERS					2592
TOTAL - THREE PIERS					25,784

Bending Diagrams



SUPERSTRUCTURE

Bar Number	Number Required	Length	Shape	Weight
S1101	105	39'-4"	—	21,943
S1102	51	22'-4"	—	6,051
S1103	51	16'-4"	—	4426
S1104	30	30'-3"	—	4,822
S1001	136	52'-4"	—	30626
S1002	28	35'-6"	C	4,277
S1003	30	31'-1"	C	4,013
S1004	28	31'-10"	—	3,835
S1005	30	23'-0"	—	2,969
S701	183	34'-2"	—	12,780
S601	121	34'-2"	—	6,210
S602	36	30'-0"	—	1,622
S603	36	21'-0"	—	1,136
S501	12	27'-11"	—	349
S502	12	31'-4"	—	392
S503	446	7'-11"	□	3,683
S504	446	3'-8"	□	1,706
S505	304	5'-7"	⊠	1,770
TOTAL SUPERSTRUCTURE				112,610

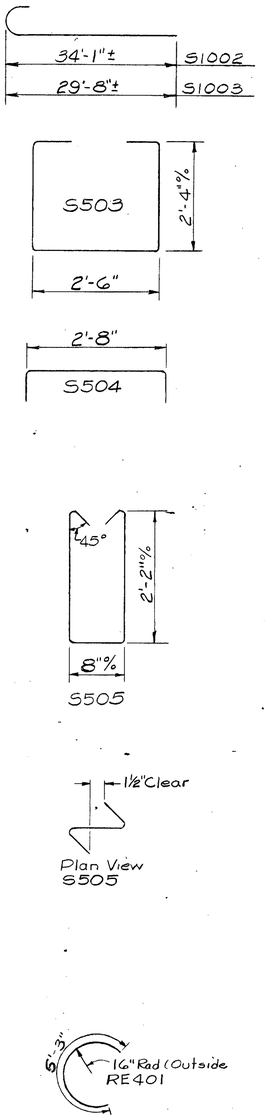
REPLACEMENT STEEL

RE1101	3	8'-6"	—
RE1001	3	8'-2"	—
RE801	1	7'-6"	—
RE701	1	7'-2"	—
RE601	1	7'-11"	—
RE501	1	6'-7"	—
RE401	1	6'-3"	C

RAILING STEEL

R501	80	15'-6"	—
R502	16	12'-6"	—
R503	16	7'-7"	—
R504	16	10'-0"	—
R505	20	5'-7"	⊔
R506	16	3'-8	—

Bending Diagrams



~NOTES~

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four digits are used, indicate the bar size. For example, A501 is a number 5 size bar and P1001 is a number 10 size bar.

RAILING STEEL in the parapet wall is included with Item 517 Railing for payment.

SPIRAL REINFORCING BARS: The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "Number of Turns" shown is the "Length" divided by the pitch plus three turns (total number of closed coils) expressed as the nearest whole number.

Spiral reinforcing bars shall not have deformations but shall in all other respects conform to Item 509. The closed coils shall be provided at the ends of each spiral unit. Four steel channel, tee or angle spacers weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers based on 0.68 lb. per lin. ft. will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

FED. RD. DIVISION	STATE	PROJECT	
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ROSS COUNTY
ROS-35-25.05

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

REINFORCING STEEL LIST
BRIDGE NO. ROS-35-2580
U.S.R. 35 UNDER LICK RUN ROAD
ROSS COUNTY — U.S.R. 35
STA. 1362+15.00 (E.B.)

SCALE		DATE				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JWH	WDJ		HEZ	WK	10/30/64	

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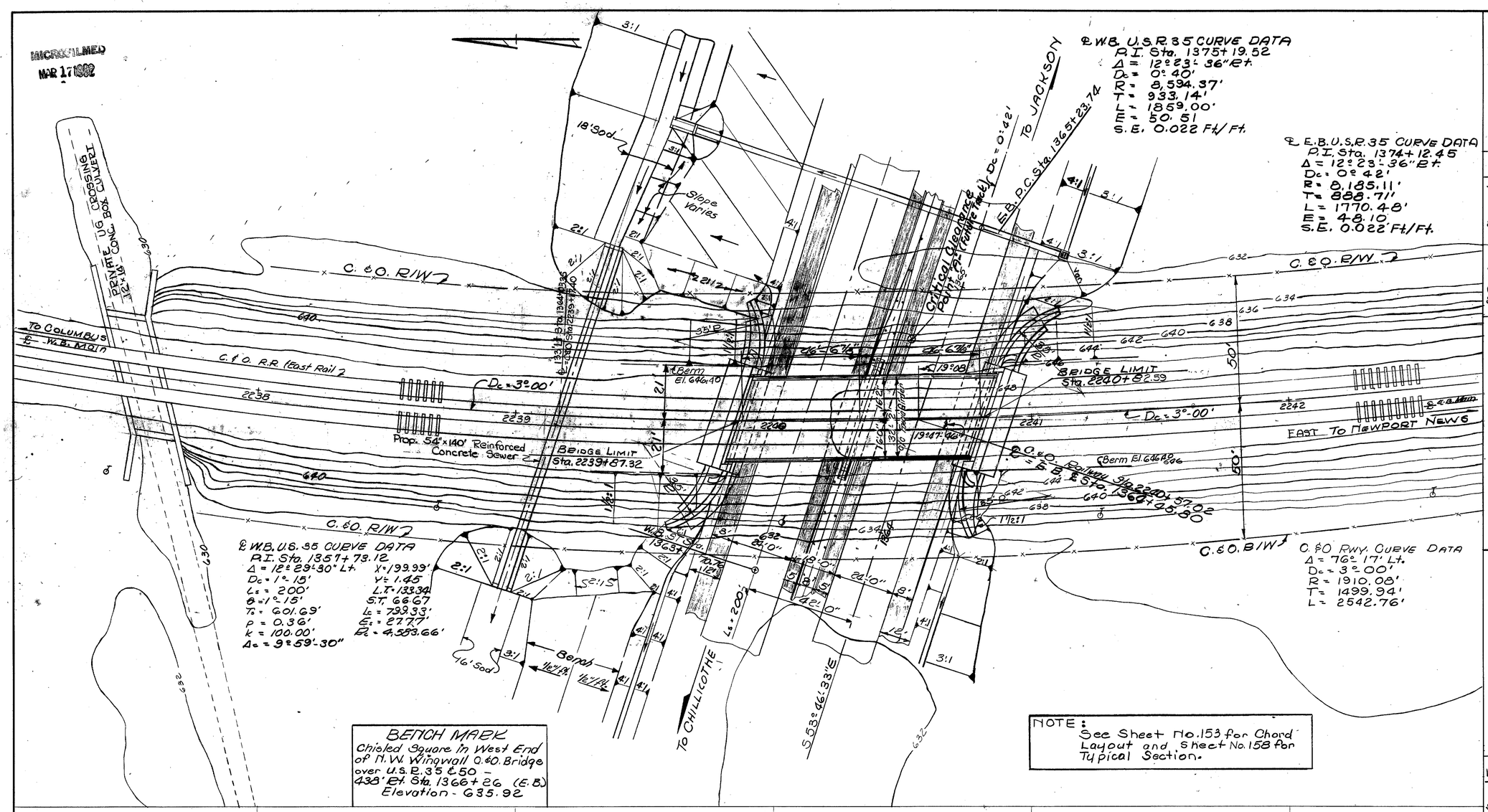
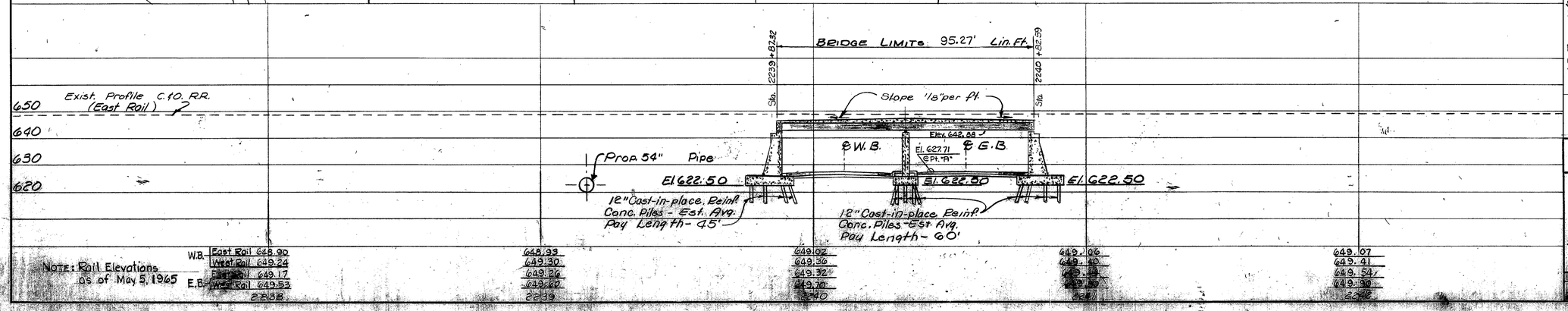
MAR 17 1982



NOTE: See Sheet No. 153 for Chord Layout and Sheet No. 158 for Typical Section.

BENCH MARK
Chisled Square in West End of N.W. Wingwall O.℄O. Bridge over U.S.R. 35 ℄ 50 - 438' Et. Sta. 1366+26 (E.B.)
Elevation - 635.92



NOTE: Rail Elevations as of May 5, 1965

| | | |

MICROFILMED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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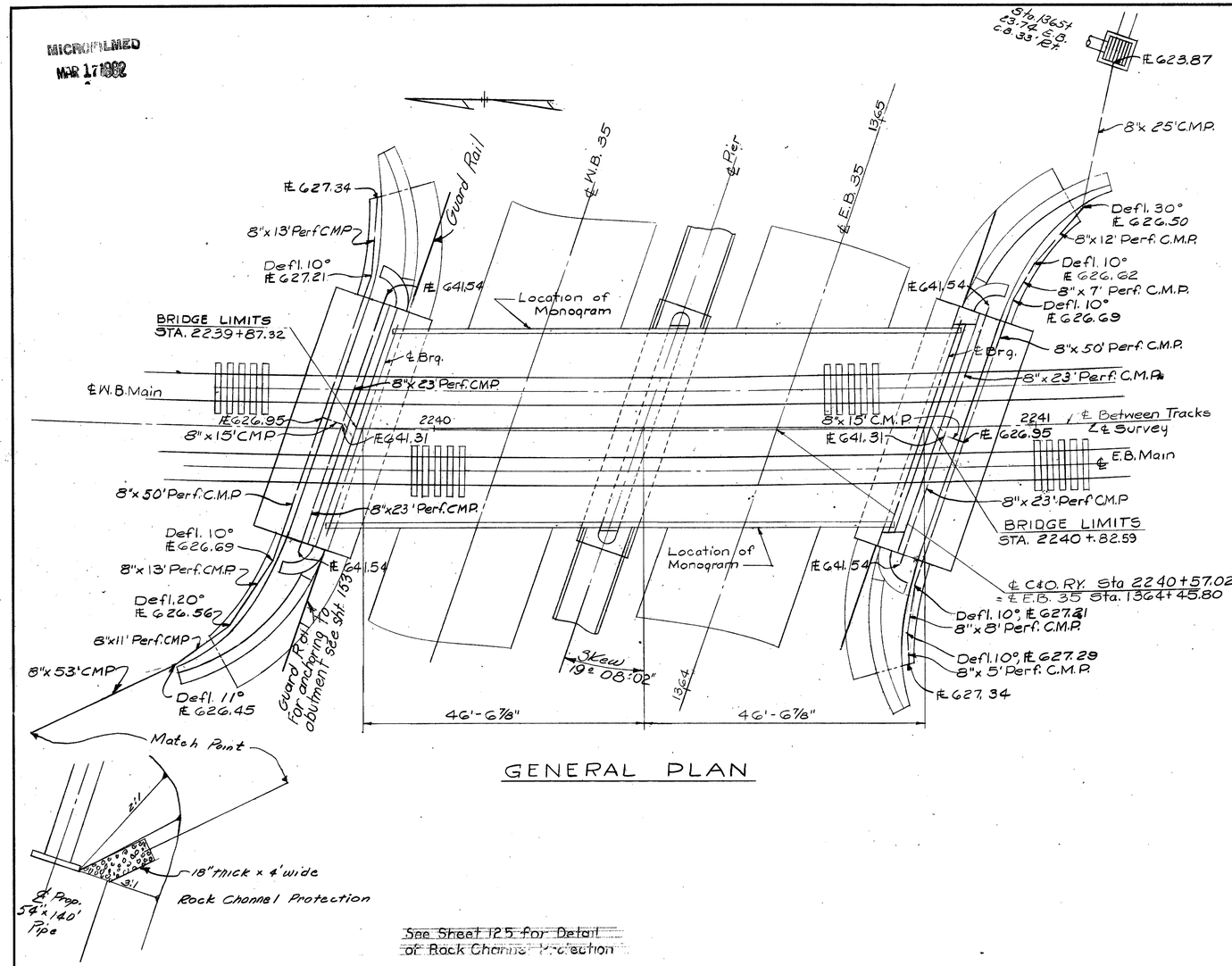
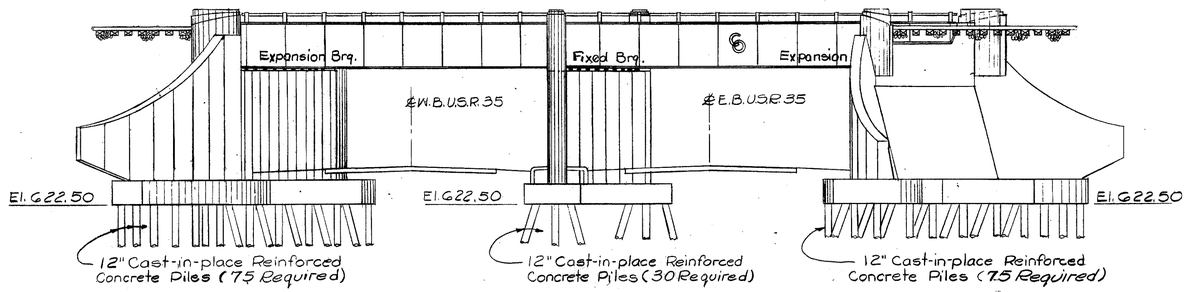
ROSS COUNTY
ROS-35-25.05



GENERAL PLAN

See Sheet 125 for Detail of Rock Channel Protection



GENERAL ELEVATION

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION	SUPER	ABUT'S.	PIER	GENERAL	AS BUILT
503	399	Cu.Yds.	Unclassified Excavation		336	63		
503	Lump	Sum	Cofferdams, cribs and sheeting				Lump	
511	129	Cu.Yds	Class C Concrete, Superstructure	129				
511	579	Cu.Yds	Class C Concrete, Abutments & Pier Wall		501	78		
511	358	Cu.Yds	Class C Concrete, Footings		316	42		
512	340	Sq.Yds	Type A Waterproofing	27	313			
512	174	Lin.Ft.	Waterproofing, 1"x12" Premolded Sealing Strip	102	72			
809	390	Sq.Yds.	5 Ply Membrane Waterproofing, Type "D"	390				
809	390	Sq.Yds.	3" Concrete protective cover	390				
509	3,510	Sq.Ft.	Welded wire fabric, 6x6 x 7 gage.	3,510				
509	65,706	Pounds	Reinforcing Steel	22,958	35,504	7,244		
810	335,100	Pounds	Structural Steel	335,100				
514	335,100	Pounds	Field Painting of Structural Steel	335,100				
516	18	Sq. Ft.	1½" Preformed Expansion Joint Filler		18			
516	458	Sq. Ft.	½" Preformed Expansion Joint Filler, Type II		458			
516	65	Sq Ft	¼" Preformed Expansion Joint Filler, Type II		65			
516	441	Lin.Ft.	Copper Strip (16oz. x 8" wide) Perforated		354	87		
516	87	Lin.Ft.	Folded Copper Strip (16oz x 15" wide) Perforated		87			
516	27	Lin.Ft.	Folded Copper Strip (16oz x 17" wide) Perforated		27			
516	146	Lin.Ft.	Bent Copper Strip (16oz x 9" wide) Perforated	73	73			
516	198	Lin.Ft.	Bent Copper Strip (16oz x 6" wide) Perforated	198				
517	188.29	Lin.Ft.	Railing, Type 1, aluminum rail and supports.	188.29				
505	Lump	Sum	First Test Pile				Lump	
507	9680	Lin.Ft	12" Cast-in-place Reinforced Concrete Piles		7880	1800		
518	232	Cu.Yds	Porous Backfill		232			
518	108	Lin.Ft.	8" Non-perforated corrugated metal pipe including Specials 707.01, bituminous coated as per 707.04		108			
518	261	Lin.Ft.	8" Perforated corrugated metal pipe including Specials 707.01, bituminous coated as per 707.04.		261			
601	4	Cu. Yds.	Rock channel protection, Type B		4			
Special	462	Lin.Ft.	Joint Sealing Compound, Carey Noah's Pitch or Equal.	204	258			
808	129	Units	Water-reducing, set-retarding admixture.	129				
Special	Lump	Sum	Roll-in bents and appurtenances.	Lump				

C&O RY. BRIDGE *F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

GENERAL PLAN & ELEVATION AND ESTIMATED QUANTITIES
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C&O. RY.
ROSS COUNTY — U.S.R. 35
STA. 1364+45.80

SCALE	DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	MICRO'D
		W.D.J.				6/8/65	

MICROFILMED
MAR 17 1982

GENERAL NOTES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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ROSS COUNTY
ROS-35-25.05

CONSTRUCTION PROCEDURE

THE RAILWAY COMPANY WILL:	THE CONTRACTOR SHALL:
1. FURNISH FLAGMAN, WATCHMEN AND ENGINEERING INSPECTION.	
2. FURNISH MATERIALS FOR AND MAKE ALL ALTERATIONS TO SIGNALS AND T & T FACILITIES.	
3. FURNISH, ERECT AND MAINTAIN TEMPORARY TRESTLE, EXCAVATE AS NECESSARY TO CAP PILES, PLACE STEEL AND TIMBER STRINGERS, AND PERFORM ALL TRACK WORK INCIDENTAL TO THIS CONSTRUCTION.	
	4. PERFORM ALL EXCAVATION NECESSARY BELOW THAT EXCAVATED BY RAILWAY COMPANY.
5. PLACE BRACING FOR TEMPORARY TRESTLE AS EXCAVATION BY THE CONTRACTOR PROGRESSES.	
	6. CONSTRUCT ABUTMENT BREASTWALLS AND PIERS TO CONSTRUCTION JOINT ELEVATION.
	7. FURNISH ALL LABOR AND MATERIALS, EXCEPT ROLLERS, TO ERECT FALSEWORK FOR ROLLING BRIDGE IN PLACE FROM BOTH SIDES OF RAILWAY.
	8. ERECT SUPERSTRUCTURE ON BLOCKING ON ROLLING-IN BENTS.
9. REMOVE PORTION OF TEMPORARY TRESTLE NECESSARY TO ROLL SPANS INTO POSITION.	
10. PLACE ROLLERS UNDER SPANS ON ROLLING-IN BENTS AND ROLL SPANS INTO POSITION.	
11. PLACE TIMBER FALSEWORK STRINGERS AT ENDS OF SPANS AFTER SPANS ARE ROLLED IN.	
	12. AFTER RAILWAY COMPANY HAS ROLLED SUPERSTRUCTURE INTO POSITION, SOLDER COPPER DAMS IN JOINTS BETWEEN SUPERSTRUCTURE AND ABUTMENTS AND BETWEEN SLABS AND PLACE PROTECTION ON JOINTS.
	13. REMOVE PORTION OF FALSEWORK BENTS LEFT IN STRUCTURE BETWEEN ABUTMENTS AFTER SUPERSTRUCTURE HAS BEEN ROLLED IN PLACE.
	14. CONSTRUCT ABUTMENT WINGWALLS AND PLACE ABUTMENT AND PIER CONCRETE ABOVE CONSTRUCTION JOINT.
	15. REMOVE ROLLING-IN BENT FALSEWORK.
	16. INSTALL ABUTMENT PIPE DRAINS AND WATERPROOFING AND BACKFILL TO BOTTOM OF FALSEWORK STRINGERS
17. BACKFILL FROM BOTTOM OF TIMBER STRINGERS AND REMOVE PORTION OF TRESTLE NECESSARY TO PLACE BALLAST AND TRACK.	
18. FURNISH AND PLACE BALLAST, TRACK AND INSIDE GUARD RAIL.	

DESIGN: A.R.E.A. SPECIFICATIONS FOR STEEL RAILWAY BRIDGES DATED 1964, A.R.E.A. SPECIFICATIONS FOR CONCRETE AND REINFORCED CONCRETE RAILWAY BRIDGES AND OTHER STRUCTURES DATED 1962, AND A.R.E.A. SPECIFICATIONS FOR THE DESIGN OF CONTINUOUS STEEL RAILWAY BRIDGES DATED 1962.

DESIGN LOADING COOPER, E-72, WITH STEAM IMPACT
CONCRETE, CLASS C : BASIC UNIT STRESS - 1,333 PSI SUPERSTRUCTURE
CONCRETE, CLASS C : BASIC UNIT STRESS - 1,133 PSI SUBSTRUCTURE
STRUCTURAL STEEL: ASTM A36, BASIC UNIT STRESS - 20,000 PSI*
REINFORCING STEEL: ASTM, A515, A516, A517 , DEFORMED, INTERMEDIATE OR HARD GRADE, BASIC UNIT STRESS - 20,000 PSI

CONSTRUCTION: STATE OF OHIO, DEPARTMENT OF HIGHWAYS, CONSTRUCTION AND MATERIAL SPECIFICATIONS, DATED JANUARY 1, 1969

REFERENCE SHALL BE MADE TO STANDARD DRAWING BR-1-65 , REVISED NOV. 24, 1965, SUPPLEMENTAL SPECIFICATIONS 808 DATED 1-1 -69, 809 & 811 BOTH DATED 1-1-69, 810 DATED 1-1-69

BENCH MARK: CHISELED SQUARE IN WEST END OF N.W. WING WALL C&O BRIDGE OVER USR 35 AND 50 438 FEET RIGHT OF STATION 1366+26 (EAST BOUND) ELEVATION - 635.92, TO STATE DATUM.

DETAIL DRAWINGS: THE RAILWAY COMPANY SHALL APPROVE AND BE FURNISHED A COMPLETE SET OF FABRICATION STEEL DRAWINGS IN INK ON TRACING CLOTH OR CLOTH REPRODUCTIONS. (INCLUDED WITH ITEM 810 FOR PAYMENT)

POROUS BACKFILL: 2 FEET THICK SHALL EXTEND UP TO THE RAILROAD BALLAST AND TO THE SURFACE OF EARTH SHOULDERS, AND OUTWARD TO THE ENDS OF THE WING WALLS AND SURFACE OF THE EMBANKMENT SLOPES. THE POROUS BACKFILL SHALL EXTEND DOWN TO THE FLOW LINE OF THE 8" DIAMETER, PERFORATED, BITUMINOUS COATED, CORRUGATED METAL PIPE ABUTMENT DRAIN.

SHEETING AND BRACING: BEFORE CONSTRUCTION IS STARTED, EIGHT SETS OF PRINTS SHOWING DETAILS OF THE SHEETING AND BRACING TO BE USED FOR EXCAVATION ADJACENT TO THE TEMPORARY TRESTLES OR ROLLING-IN-BENTS SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL BY THE DEPARTMENT OF HIGHWAYS AND BY THE RAILWAY COMPANY. SHEETING AND BRACING PLANS ARE TO BE PREPARED BY A PROFESSIONAL ENGINEER AND SHALL BEAR HIS SEAL & SIGNATURE. ONE COPY OF HIS DESIGN COMPUTATIONS SHALL ACCOMPANY THE PLANS SUBMITTED FOR APPROVAL.

RAILROAD AERIAL LINES SHALL BE RELOCATED BY THE RAILROAD. THE CONTRACTOR SHALL USE ALL PRECAUTIONS NECESSARY TO SEE THAT THE LINES ARE NOT DISTURBED DURING THE CONSTRUCTION STAGE AND SHALL CO-OPERATE WITH THE RAILROAD IN THE RELOCATION OF THESE LINES. THE COST OF THE RELOCATION SHALL BE INCLUDED IN THE RAILROAD FORCE ACCOUNT WORK.

PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 45 TONS PER PILE FOR THE ABUTMENTS AND 43 TONS PER PILE FOR THE PIER.

STAINLESS STEEL FASTENERS shall be properly passivated to remove surface impurities and shall be furnished with a lustrous finish.

WATERPROOFING: TYPE "D" WATERPROOFING CONSISTS OF FOUR LAYERS OF ASPHALTIC FELT, ONE MIDDLE LAYER OF ASPHALTIC TREATED FABRIC AND SIX MOPPINGS OF ASPHALTIC TYPE "D" WATERPROOFING AND THREE INCH REINFORCED CONCRETE PROTECTION SHALL COMPLY WITH SUPPLEMENTAL SPECIFICATION NO. 809. TYPE "A" WATERPROOFING SHALL BE USED FOR DAMPPROOFING THE BACKS OF THE ABUTMENTS, WINGWALLS AND ENDS OF SUPERSTRUCTURE SLAB EXCEPT SURFACES WHERE PREMOLDED SEALING STRIP IS USED. IT SHALL COVER SURFACES FROM TOP OF FOOTING TO FINISHED EARTH LINE OR TO THE LIMITS OF MEMBRANE WATERPROOFING.

ALIGNING RAILROAD TRACKS: AFTER THE CONTRACTOR HAS COMPLETED ALL EXCAVATION AND BACKFILL ADJACENT TO THE RAILROAD TRACKS IN COMPLIANCE WITH SEC. E-2.04 AND E-2.08 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SUBJECT TO THE SUPERVISIONS OF THE RAILROAD COMPANY, NOTHING IN SEC. E-2.04, E-2.08 OR G-8.07 OF THE SPECIFICATIONS SHALL BE CONSTRUED TO HOLD THE CONTRACTOR LIABLE FOR ALIGNING AND RESURFACING THE RAILROAD TRACKS.

EXCAVATION QUANTITY CALCULATIONS: THE LIMITS OF THE 503 UNCLASSIFIED EXCAVATION ARE SHOWN ON THE "CHORD LAYOUT AND EXCAVATION PLAN SHEET".

PLASTIC CEMENT: SHALL MEET THE REQUIREMENTS GIVEN ON PAGE 29-2-6 1955 A.R.E.A. MANUAL. (REFER TO SUPPLEMENTAL SPECIFICATION NO. 809).

DESIGN DATA

Cooper's E-72 Loading and Steam Impact.

BEAMS:

Center of Abut. Brg. to Center of Pier Brg. - 46'-6⅞" (two spans continuous)
Beam Spacing - 2'-5½" c/c.
D.L. Camber - 0" Beams to be fabricated with convex flange up.

	Negative Moment	Positive Moment	End Shear	Reaction
DEAD LOAD	337.5$^{k'}$	189.0$^{k'}$	36.1^{k}	72.2^{k}
LIVE LOAD *	402.3	349.7	46.8	79.9
IMPACT	286.1	248.1	33.4	50.1
CENTRIFUGAL FORCE	184.0	160.0	22.0	36.6
	1,209.9$^{k'}$	946.8$^{k'}$	138.3^{k}	238.8^{k}

* INCLUDES ECCENTRICITY AND TILT

ALLOW $f_c = 20.0 - 6\left(\frac{7.75 \times 12}{12.117}\right) = 19.65\ k/in^2$

S.M. REQ'D. NEG. MOM. $= \frac{1209.9 \times 12}{19.65} = 739\ in^3$

SM 36 WF 194 $= 663.6\ in^3$
2-11" x 3/8" PLS $= 191.4$
SM FURNISHED $= 855.0\ in^3$

SM REQ'D. POS. MOM. $= \frac{946.8 \times 12}{19.65} = 579.0\ in^3$

SM FURNISHED (36 WF 194) $= 663.6\ in^3$

WEB AREA REQ'D. $= \frac{138.3}{12.5} = 11.06\ in^2$

WEB AREA FURNISHED $= 36.48 \times 0.770 = 28.09\ in^2$
ALLOW. DIAGONAL TENSION $= 20\ k/in^2$
MAX. DIAGONAL TENSION $= 17.6\ k/in^2$

C&O RY. BRIDGE # F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

GENERAL NOTES & DESIGN DATA
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C.&O. RY.
ROSS COUNTY U.S.R. 35
STA. 1364+45.80

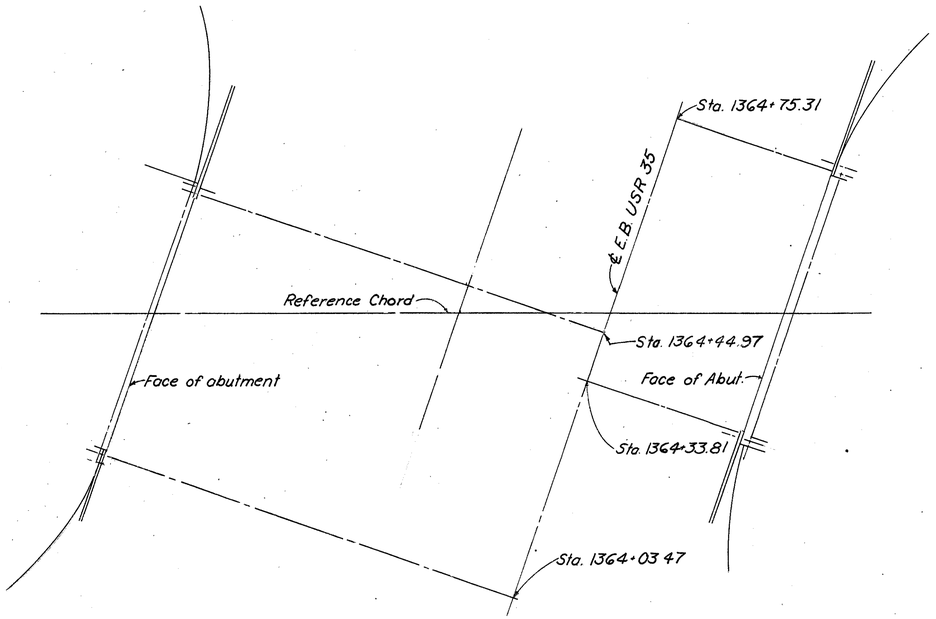
SCALE	DRAWN	TRACED	CHECKED	REVISIONS	DATE	APPROVED
	KDS				6/8/65	

MICROFILMED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

153 / 225

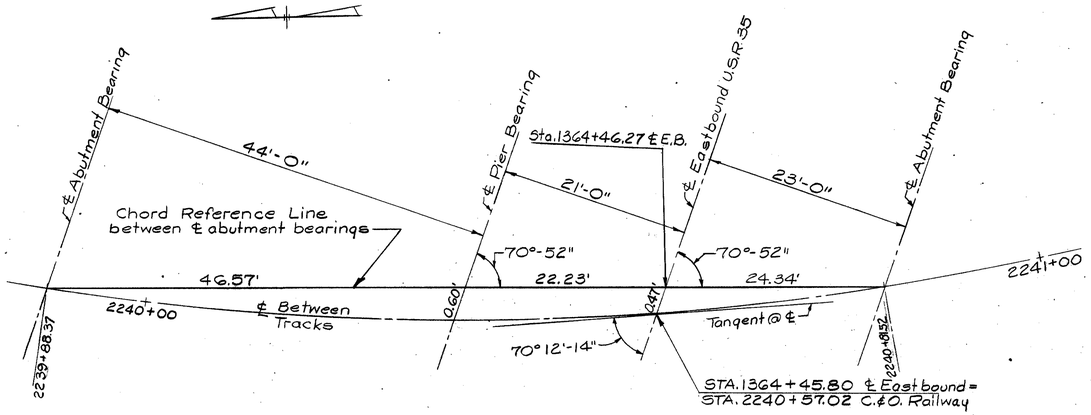
ROSS COUNTY
ROS-35-25.05



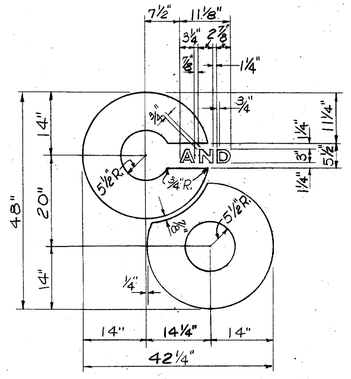
GUARD RAIL ATTACHMENTS

~~Anchorage is to consist of two $\frac{3}{4}$"×4" bolts on 6" pitch anchored to obutment or wall with suitable expandable anchors.~~
Cost to be included in unit price bid for 606 Guard Rail, Type S.

Anchorage is to be made using Connection Bracket as shown on sheet 16.

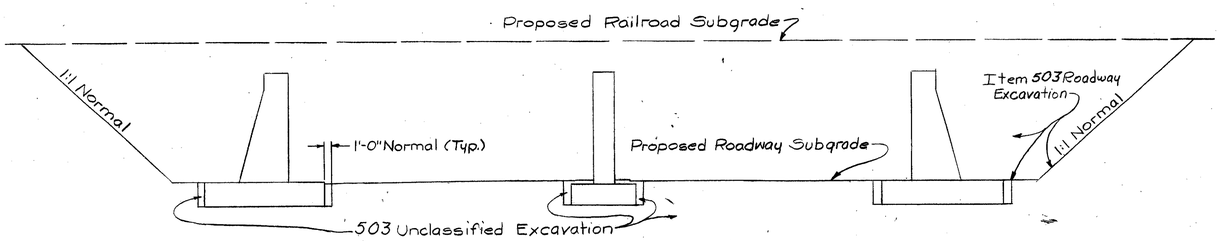


CHORD LAYOUT



DETAIL OF C. & O. RY. MONOGRAM

To be painted black by Contractor on the web of the fascia girder. (For location see General Plan and Elevation) The cost of painting monogram shall be included with Item 514 Field painting of Structural Steel.



STRUCTURE EXCAVATION LIMITS

C&O RY. BRIDGE # F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

CHORD LAYOUT AND STRUCTURE EXCAVATION LIMITS
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C. & O. RY.
ROSS COUNTY — U.S.R. 35
STA. 1364+45.80

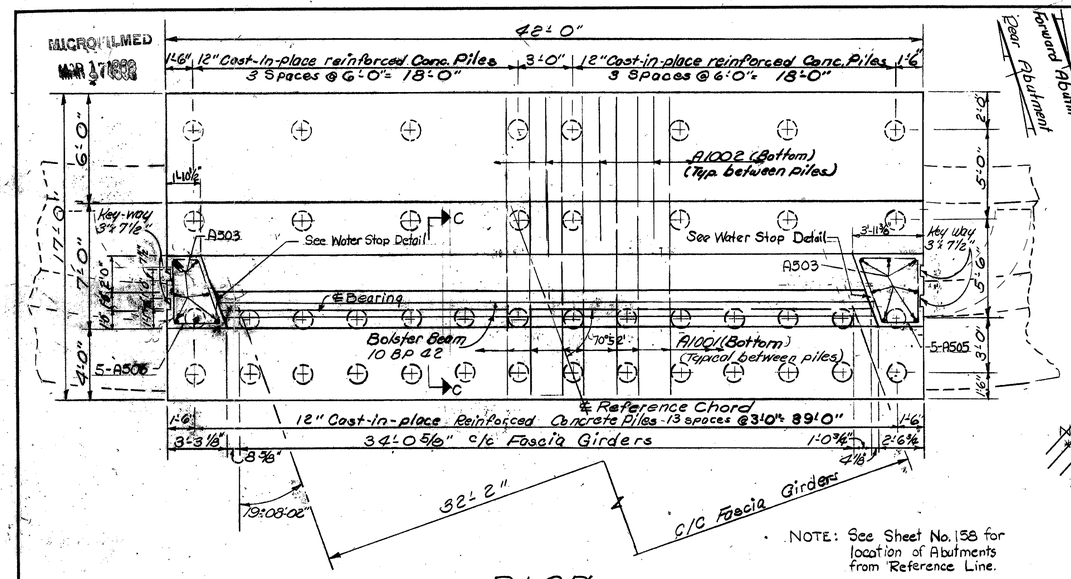
SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	WORKED
W.E.	W.D.J.		K.W.B.	W.K.	6/8/65	1965

MICROFILMED
MAR 17 1969

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

154/225

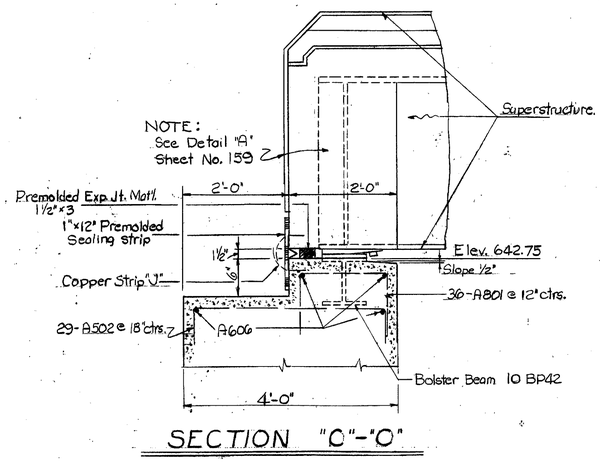
ROSS COUNTY
ROS-35-25.05



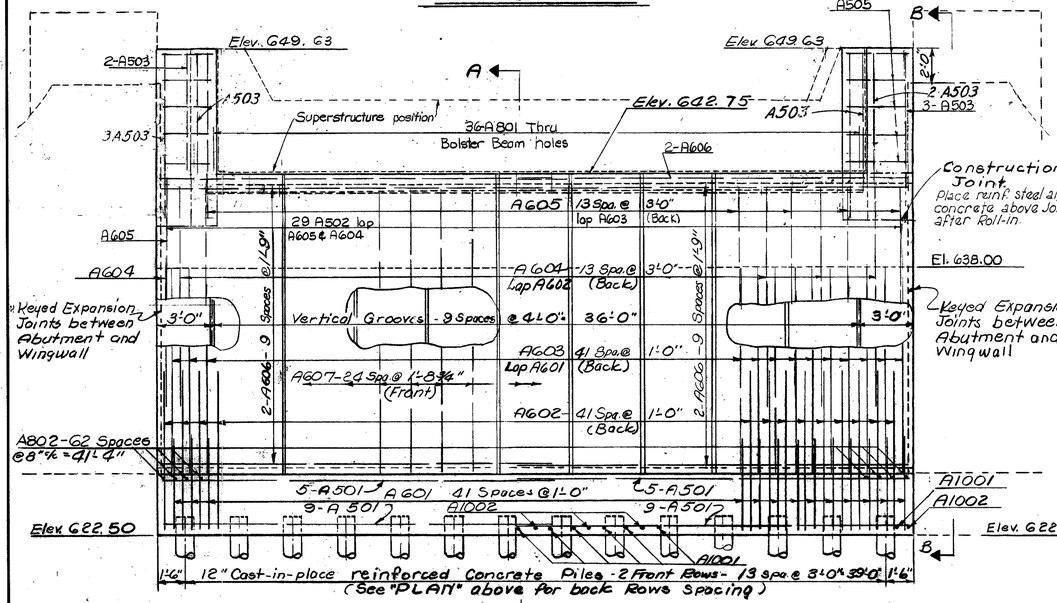
PLAN

NOTE: See Sheet No. 158 for location of Abutments from 'Reference Line.

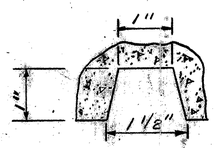
NOTE:
* These bars to be butt welded. A507 bars extend 1" above construction joint. Weld A503 & A504 to A507 after rolling in.



SECTION "C"-"O"

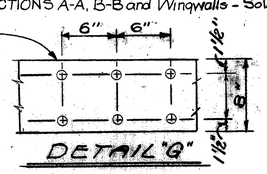


ELEVATION

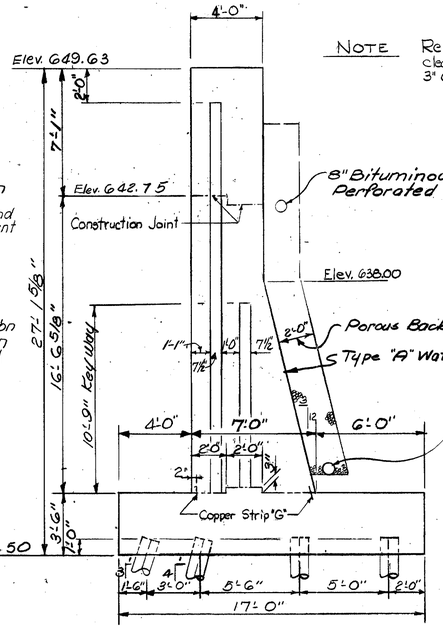


TYPICAL SECTION THRU VERTICAL GROOVE

16 oz. x 8" Wide Copper Strip with 1¼" ℄ holes @ 6" c/c. (For Location see SECTIONS A-A, B-B and Wingwalls - Solder Joints.)

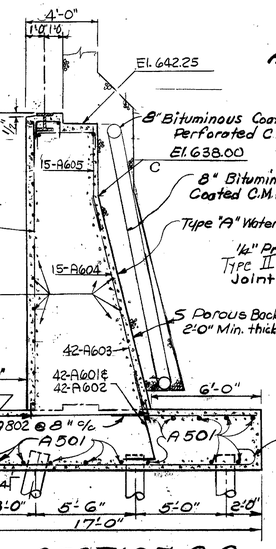


DETAIL "Q"

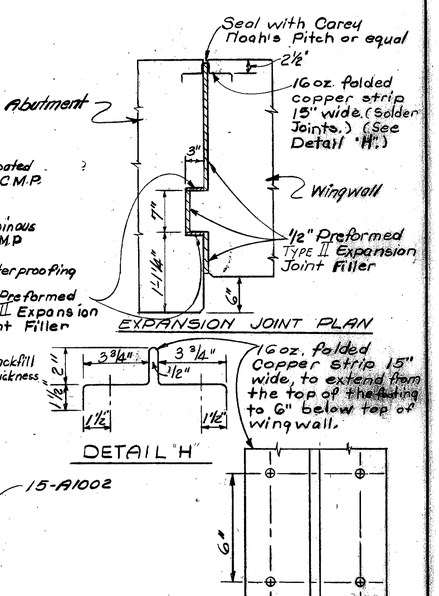


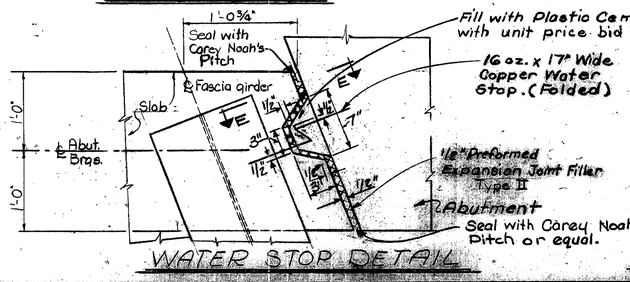
VIEW B-B

NOTE Reinforcing steel to be 2" clear in abutment walls and 3" clear in footing.

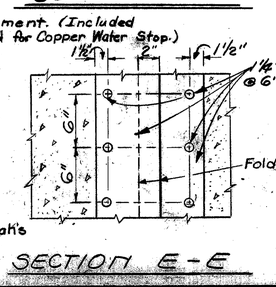


SECTION A-A





WATER STOP DETAIL



SECTION E-E

EXPANSION JOINT DETAILS
C&O RY. BRIDGE * P484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

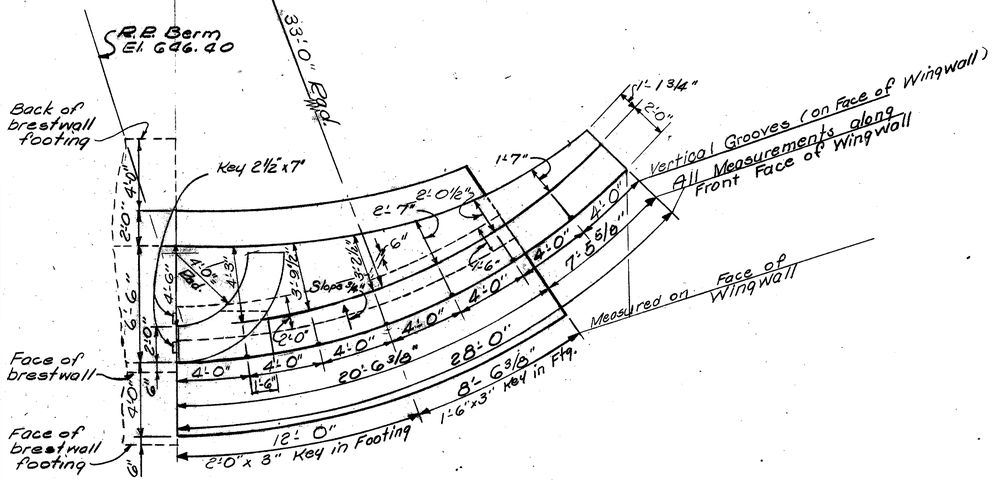
ABUTMENT DETAILS
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C. & O. R.Y.
ROSS COUNTY U.S.R. 35
STA 1364+45.80

SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	P.J.M.		J.W.H.	W.I.C.	6/8/65	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

185
225

ROSS COUNTY
ROS-35-25.05



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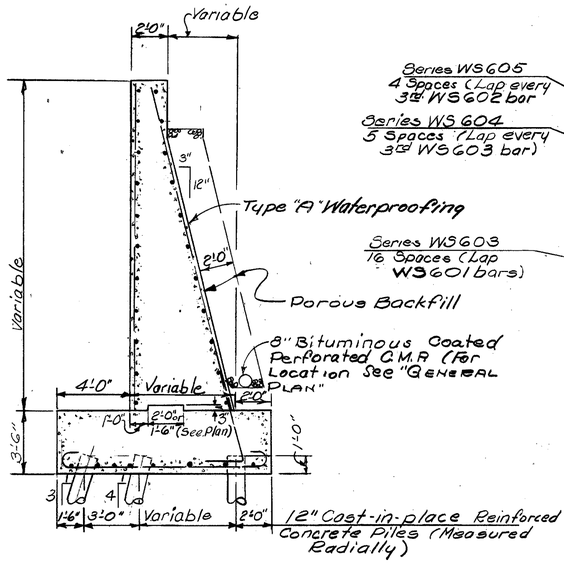
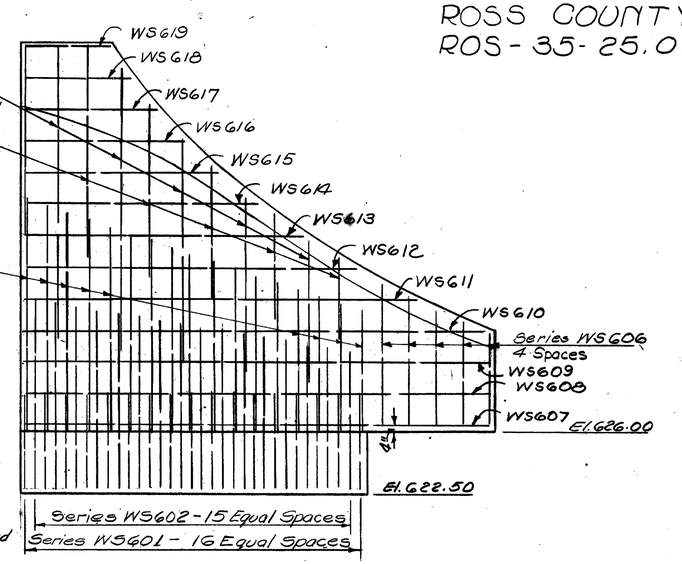
MAR 17 1982

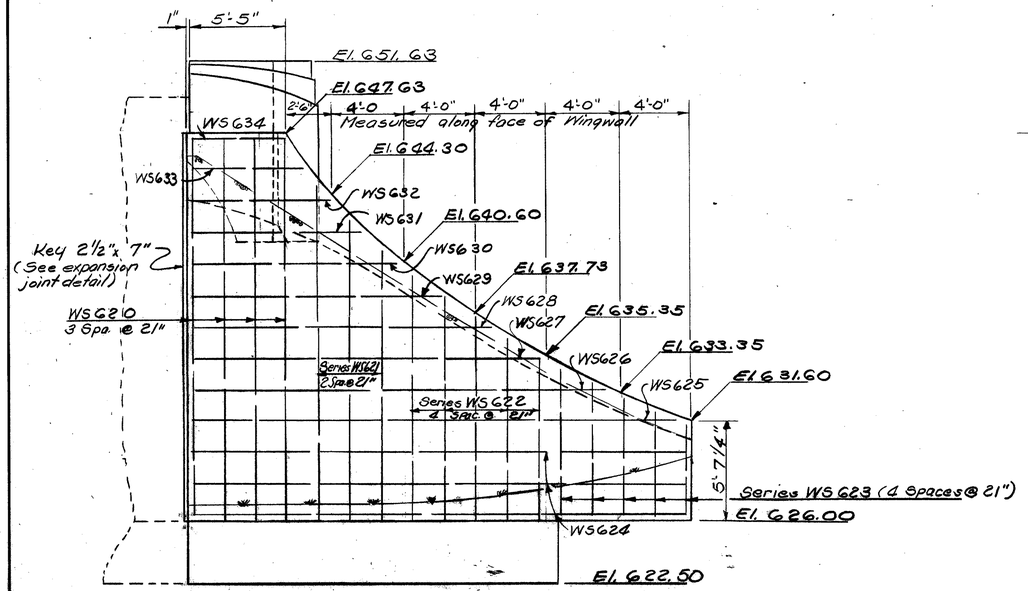
PLAN- NORTHEAST AND SOUTHWEST WINGWALL



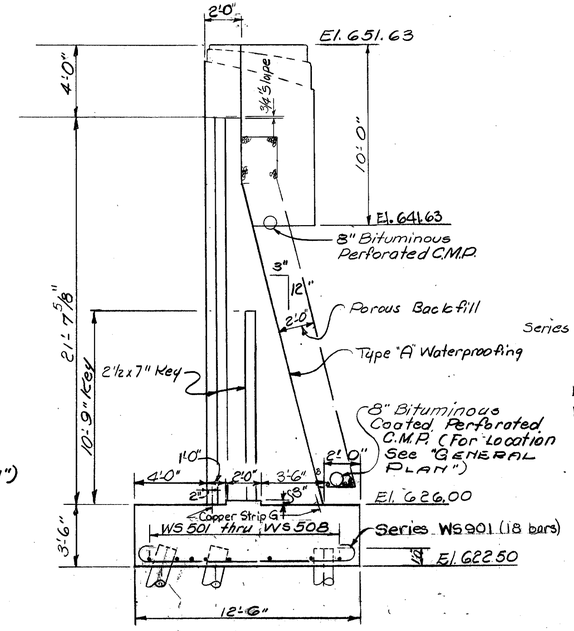
TYPICAL RADIAL SECTION



DEVELOPED REAR ELEVATION
(STEEL IN BACK OF WINGWALL)

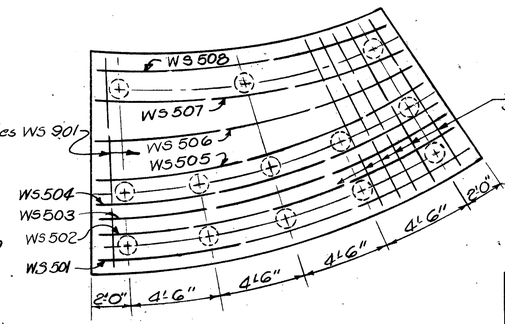


DEVELOPED FRONT ELEVATION
(STEEL IN FRONT FACE OF WINGWALL)



END ELEVATION

Note: For "END POST DETAILS" See "Northwest and Southeast Wingwall Details."



FOOTING PLAN

C&O RY. BRIDGE #F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

NORTHEAST AND SOUTHWEST WINGWALL DETAILS
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C. & O. RY.
ROSS COUNTY — U.S.R. 35
STA. 1364+45.80

SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	APPROVED
W.I.O.	P.J.M.		J.W.H.	W.I.O.	6/18/65	

MICROFILMED
MAR 17 1992

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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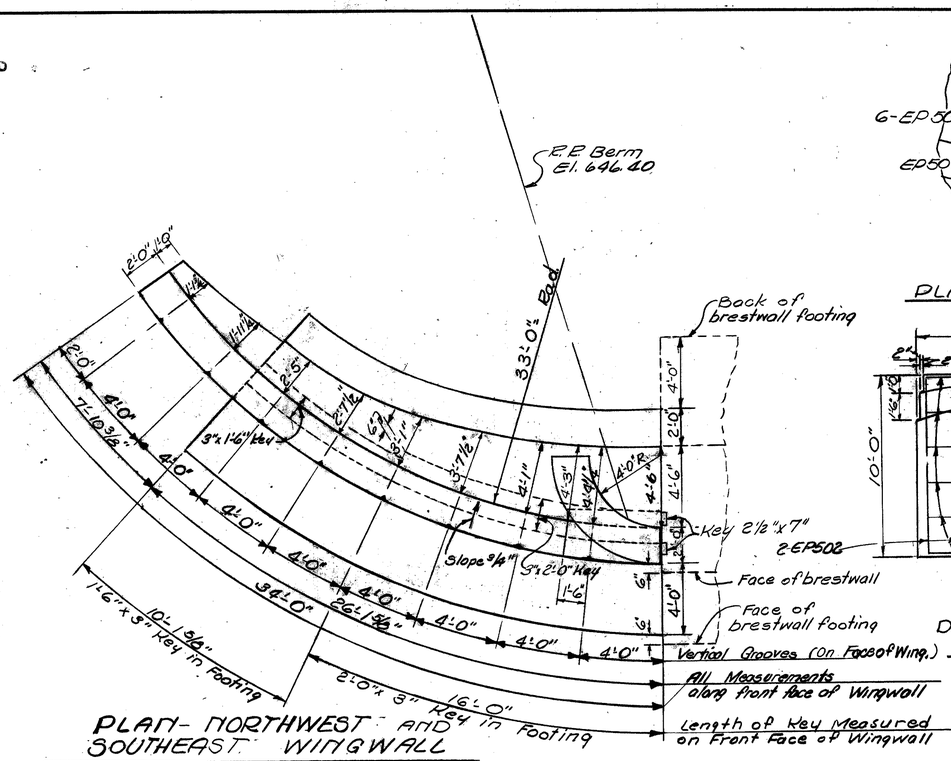
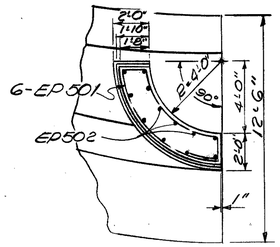
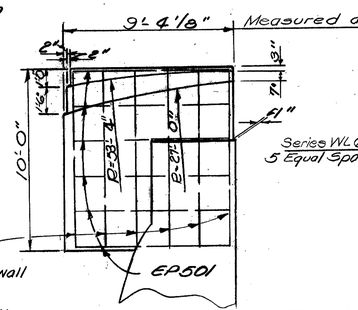
ROSS COUNTY
ROS-35-25.05



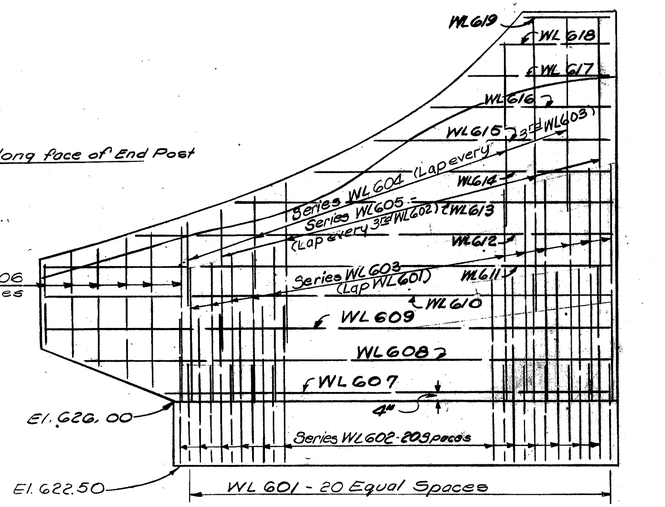
PLAN- NORTHWEST AND SOUTHEAST WINGWALL



PLAN- END POST

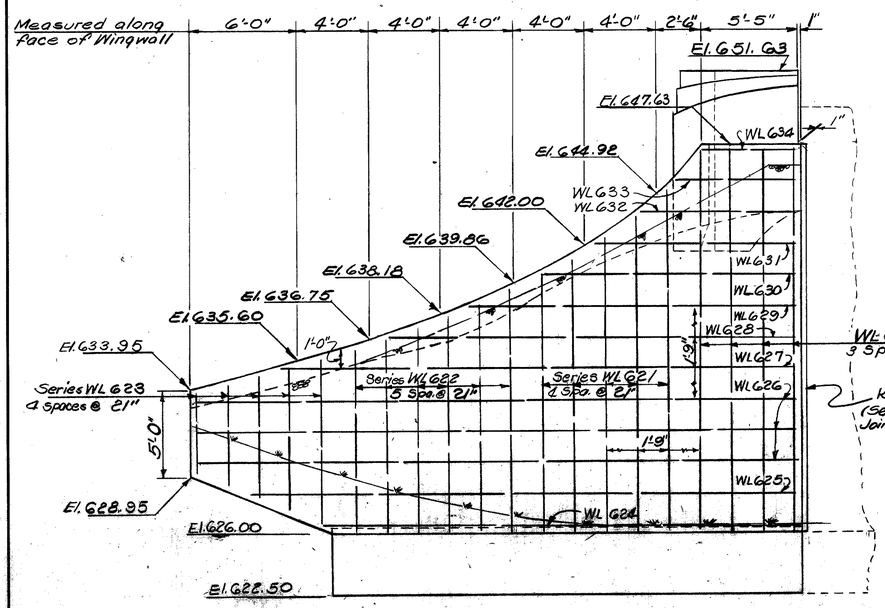


DEVELOPED ELEVATION OF END POST

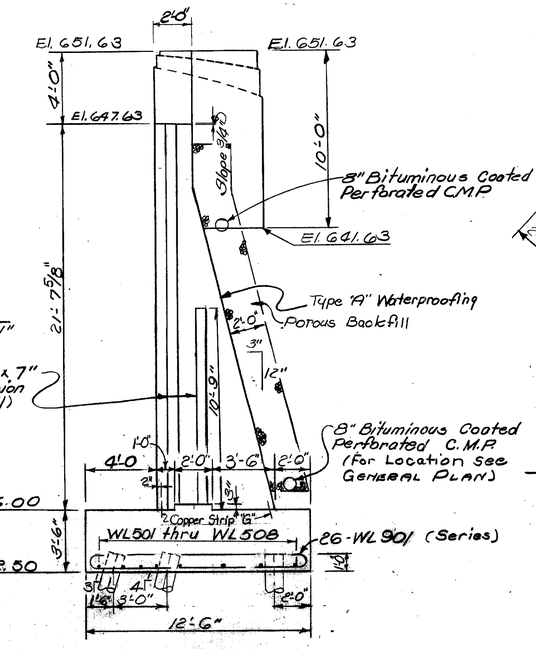


DEVELOPED REAR ELEVATION (STEEL IN BACK OF WINGWALL)

Note:
Reinforcing steel to be 2" clear in Wingwall above footings, and 3" clear in footings.

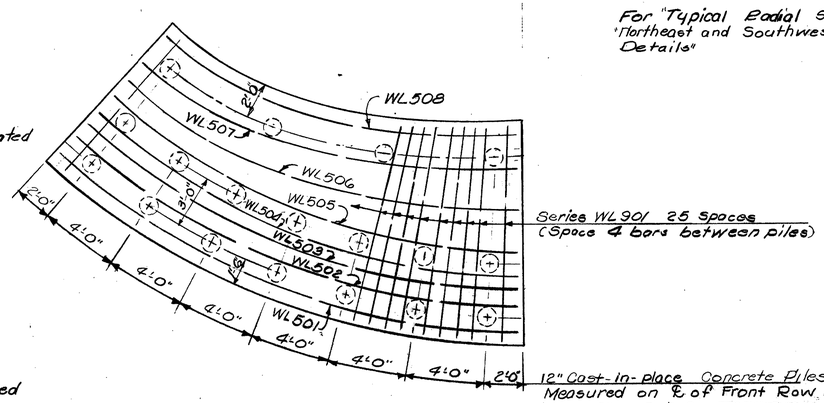


DEVELOPED FRONT ELEVATION (STEEL IN FRONT FACE OF WINGWALL)



END ELEVATION

For "Typical Radial Section" see "Northeast and Southwest Wingwall Details"



FOOTING PLAN

C&O RY. BRIDGE *F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

NORTHWEST AND SOUTHEAST WINGWALL DETAILS
BRIDGE NO. ROS-35-25.84
U.S.R. 35 UNDER C. & O. RY.
ROSS COUNTY — U.S.R. 35
STA. 1364+45.80

SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	P.J.M.		JWH		6/8/65	

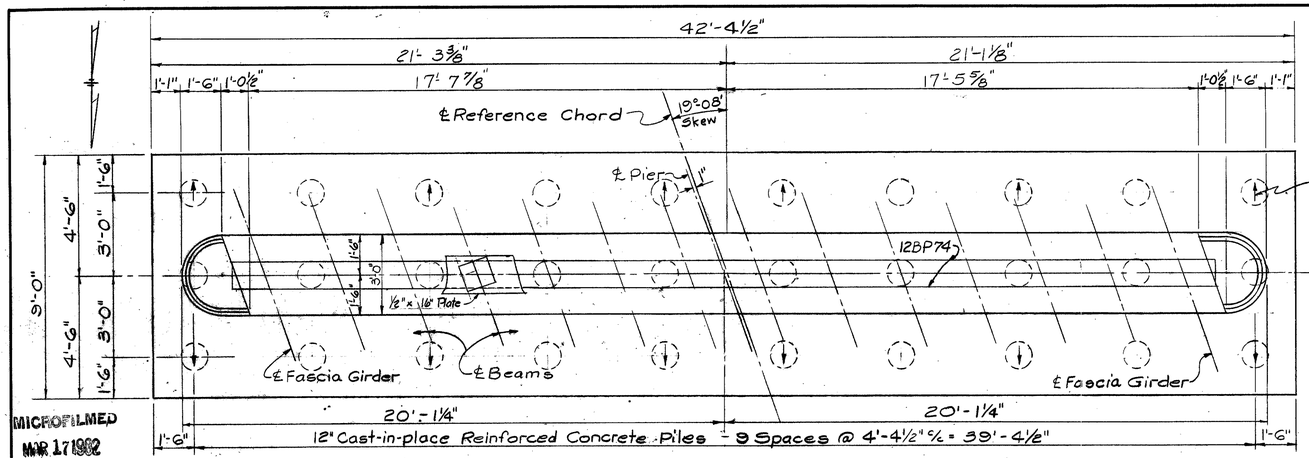
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

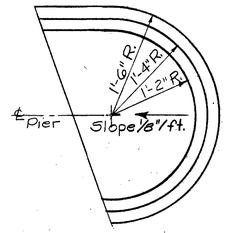
157/225

ROSS COUNTY
ROS-35-25,05

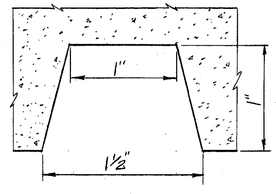
MICROFILMED
MAR 17 1982

PIER PLAN





VIEW "F"-"F"



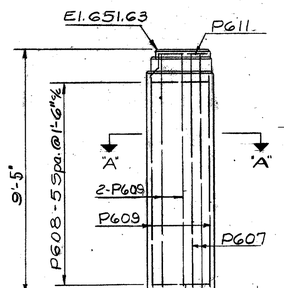
VERTICAL GROOVE DETAIL

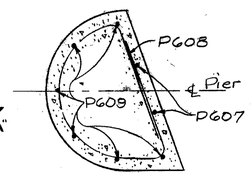
Note: Reinforcing steel shall be 2" clear except where otherwise shown.

LEGEND

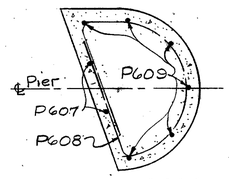
⊕ - Denotes direction of batter

N.S.- Near Side
F.S- Far Side

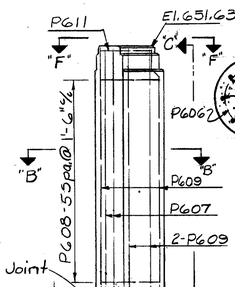


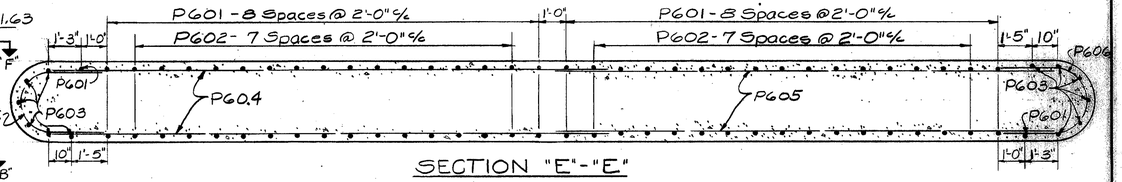


SECTION "A"-"A"

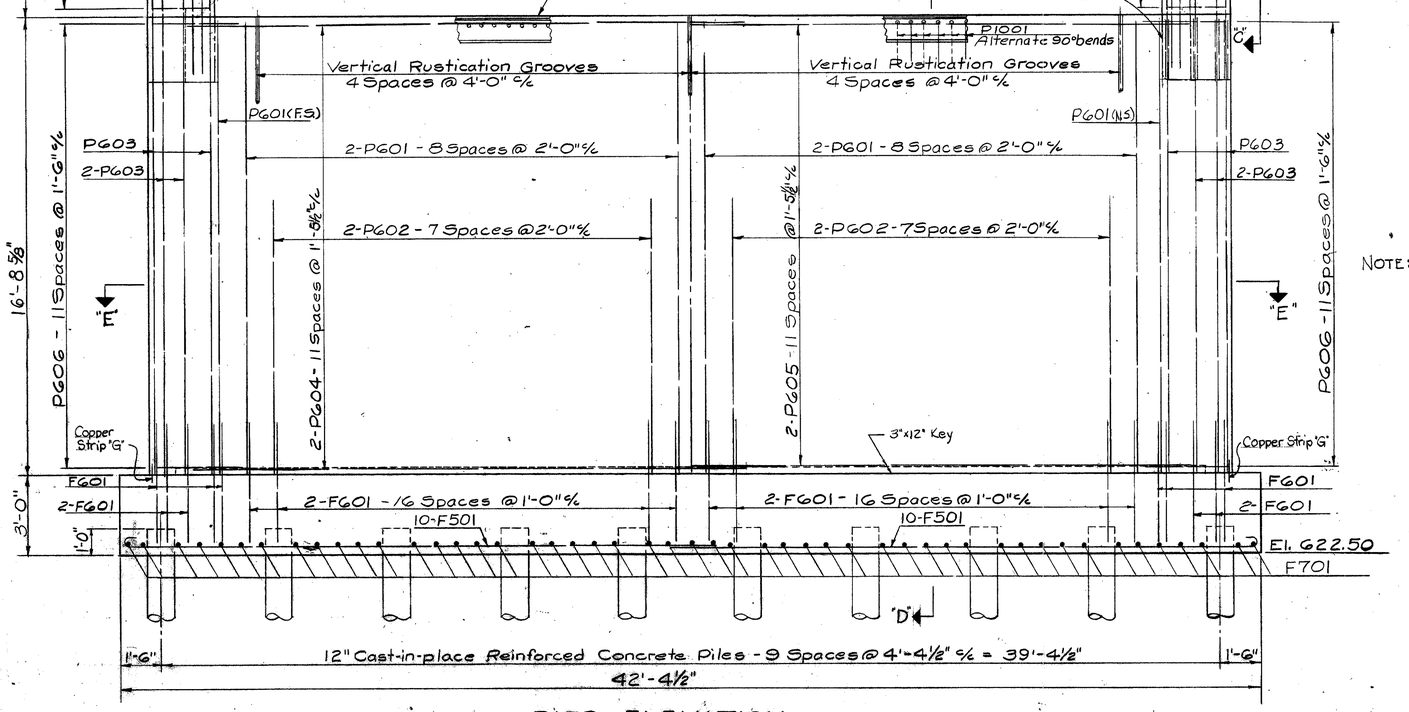


SECTION "B"-"B"

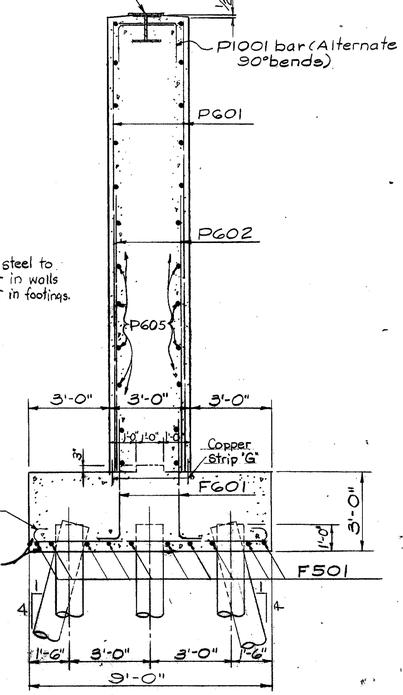




SECTION "E"-"E"

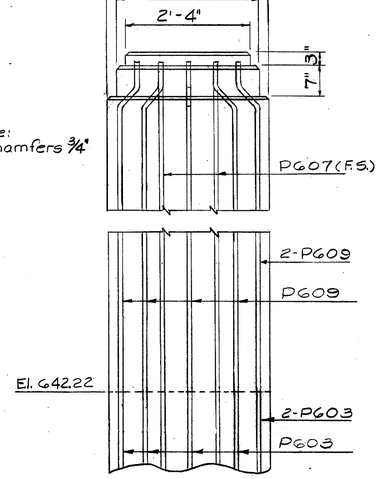


PIER ELEVATION



NOTE: Reinforcing steel to be 2" Clear in walls and 3" Clear in footings.

SECTION "D"-"D"



VIEW "C"-"C"

C&O RY. BRIDGE # F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

PIER DETAILS
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C.&O. RY.
ROSS COUNTY — U.S.R.35
STA. 1364+45.80

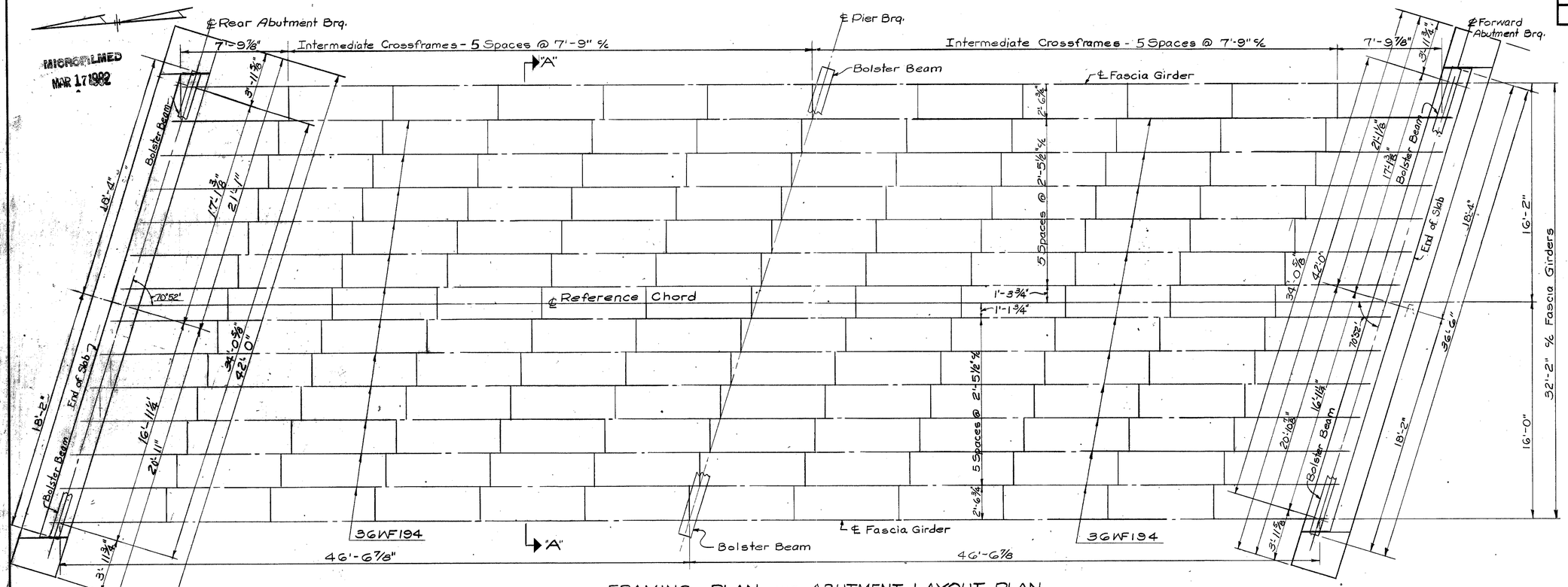
SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S.	W.D.J.		K.D.N.	M.L.	6/8/66	

MICROFILMED
MAR 17 1992

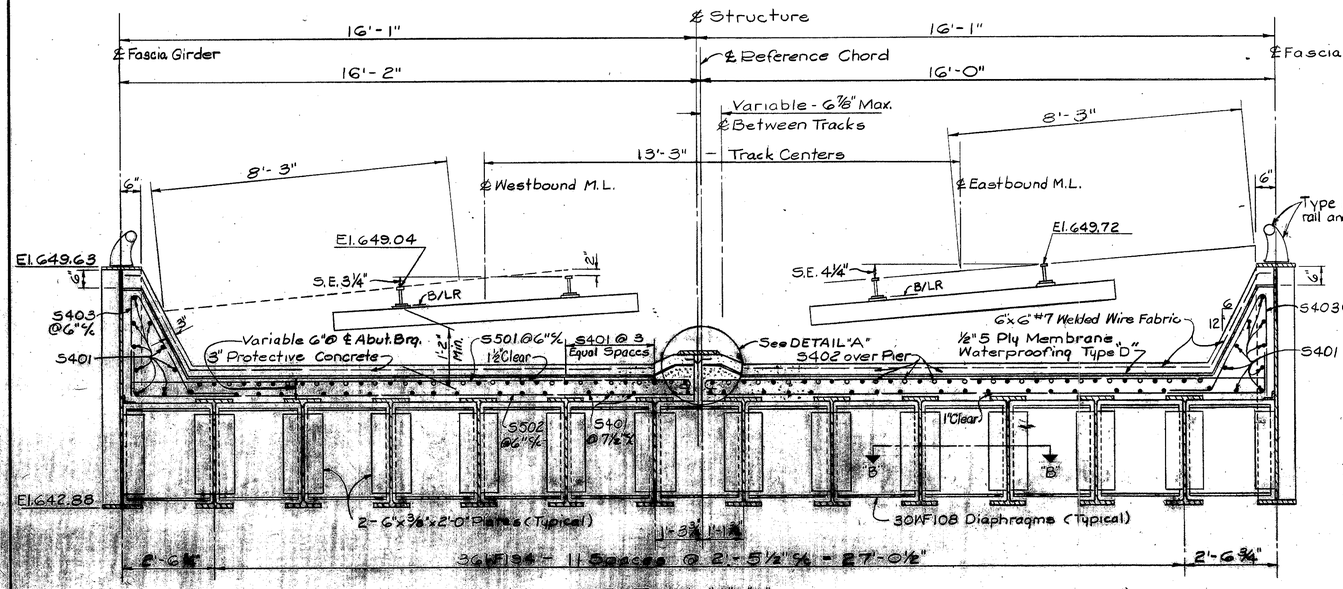
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

158
225

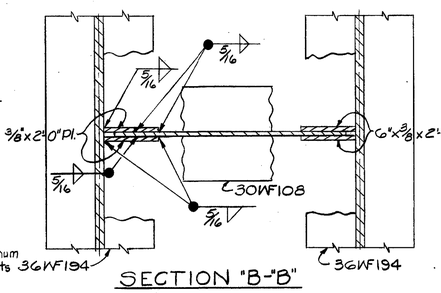
ROSS COUNTY
ROS-35-25.05



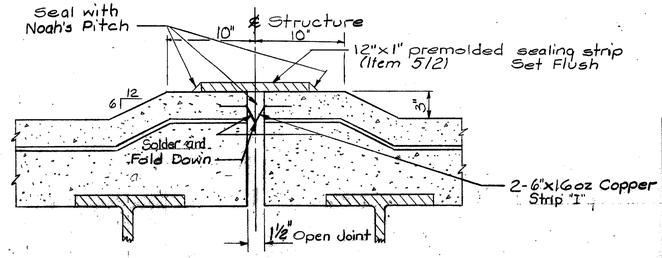
FRAMING PLAN AND ABUTMENT LAYOUT PLAN



SECTION "A-A"



SECTION "B-B"



DETAIL "A"

C&O RY. BRIDGE #F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

SUPERSTRUCTURE FRAMING DETAILS AND ABUTMENT LAYOUT PLAN
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C.&O. R.Y.
ROSS COUNTY — U.S.R. 35
STA. 1364+45.80

SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	WDJ		WLC	WLC	6/18/65	

MICROFILMED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

ROSS COUNTY
ROS-35-25.05

95'-2⅞"

℄ Abutment Bearing "A"

℄ Pier Brg.

S401- @ 7½" ℄ between Longitudinal Beams

℄ Abutment Bearing

℄ Fascia Girder

S502 - 182 Spaces @ 6" ℄

Slope Down 12" @ ℄ Pier Brg. to 6" @ ℄ Abut. Brg. (See Section "B"-"B")

3GWF194

BOTTOM STEEL

1"x12" Premolded Sealing Strip

1½" Open Joint

℄ Structure

Slope Down 12" @ ℄ Pier Brg. to 6" @ ℄ Abut. Brg. (See Section "B"-"B")

S501 - 182 Spaces @ 6" ℄

TOP STEEL

S401- 16 Equal Spaces

For Section "A"-"A" See Sheet No. 154

"A"

SLAB PLAN

16'-1"

16'-1"

½" Preformed Exp. Jt. Type II

℄ Fascia Girder

1'-0¾"

½"

3" Recess

El. 649.63

17" Folded Copper - See Water-Stop, Sheet No. 154

½" Preformed Expansion Jt. Type II

3-S407

3-S408

3-S409

3" Min. Reinforced Concrete Protection

½" 5 Ply Membrane Waterproofing Type "D"

16 oz. x 8" Copper Strip "G"

Type "A" Waterproofing

1"x12" Premolded Sealing Strip

2-9" Copper Strip "J" See Detail "A"

Abutment

1"x12" Premolded Sealing Strip

2-6" Copper Strip "I" See Detail "A"

1½" Open Joint

Seal with Noah's Pitch

VIEW "C"-"C"

6"

3" 3"

1¼" holes @ 6" ctrs.

COPPER STRIP "I"

9"

3" in concrete

COPPER STRIP "J"

1'-8"

16 oz. x 6" Copper Flashing "I"

℄ 1"x12" premolded sealing strip

Extend around end of Slab as shown

3"

Solder

6"x6" #7 Welded Wire Fabric

½"-5 Ply Membrane Waterproofing Type "D"

1½" Open Joint

SECTION "D"-"D"

Extend flashing around end of slab and solder to horizontal flashing between slab and abutment to form water-tight joint

Membrane Waterproofing

Pour diaphragm at end of slab prior to rolling in

Seal with Noah's pitch Copper Strip "J"

1"x12" Premolded sealing strip

Solder copper strips together and fold as shown. Cover with sealing strip.

1½"

DETAIL "A"

6" ℄ Brg.

℄ Pier Bearing

End ½" 5 Ply Membrane Waterproofing Type "D"

Elev. 649.63

1"x12" Premolded Sealing Strip (See Detail "A")

6"x8" Copper Flashing

½" 5 Ply Membrane Waterproofing Type "D"

3" Protective Concrete S501 @ 6" ℄

6"x6" No. 7 Welded Wire Fabric

16 oz. x 8" Copper Flashing (See Detail "G" Sheet No. 154)

S501

S502

S401

S502 @ 6" ℄

S406

S404 3 between each beam
S405 3 outside fascia girder
4 between center beams

3'-3⅜"

Note: S404 & S405 bars 2 required between each beam.

℄ Brg.

SECTION "B"-"B"

Skew 19°-08'

S401

S402

℄ Pier

3'-0" 10'-6" 10'-6" 3'-0"

DIAGRAM SHOWING STAGGER OF S402 BARS OVER PIER

C&O RY. BRIDGE # F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

SLAB DETAILS

BRIDGE NO. ROS-35-25.84
U.S.R. 35 UNDER C. & O. R.Y.

ROSS COUNTY U.S.R. 35
STA. 1364+43.80

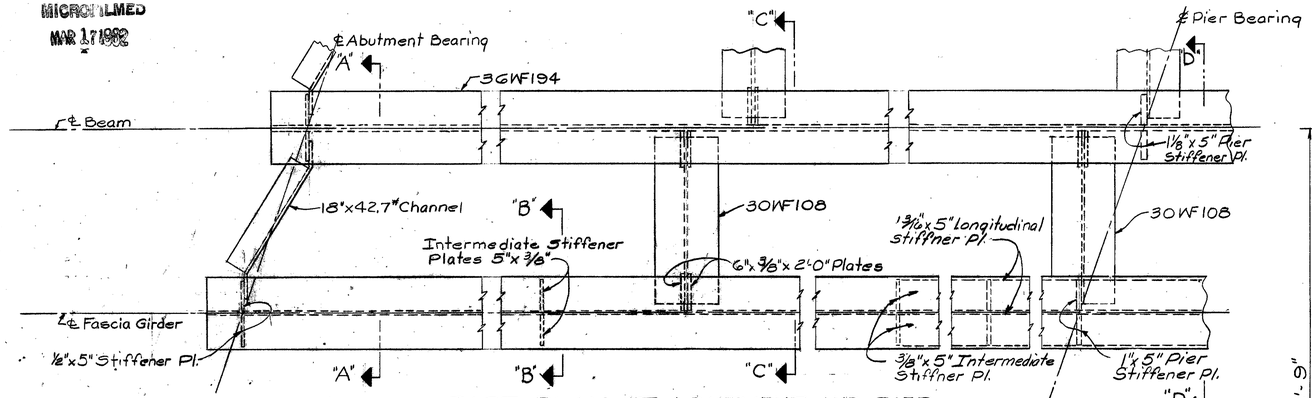
SCALE	DATE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.W.B.	W.D.J.		[illegible]	[illegible]	6/8/65	

MICROFILMED
MAR 17 1982

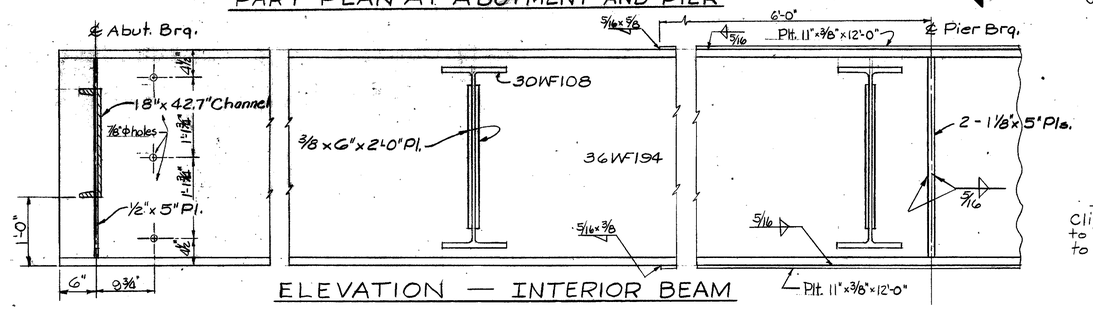
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

160
223

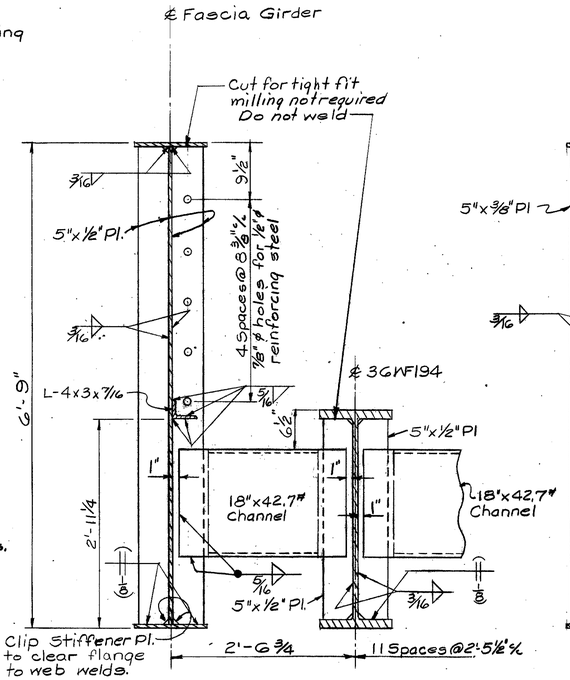
ROSS COUNTY
ROS-35-25.05



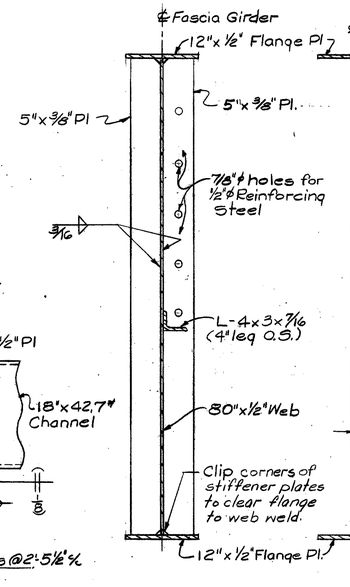
PART PLAN AT ABUTMENT AND PIER



ELEVATION — INTERIOR BEAM



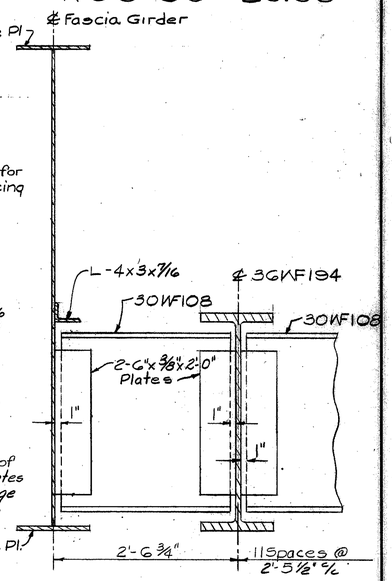
SECTION "A"-"A"



SECTION "B"-"B"

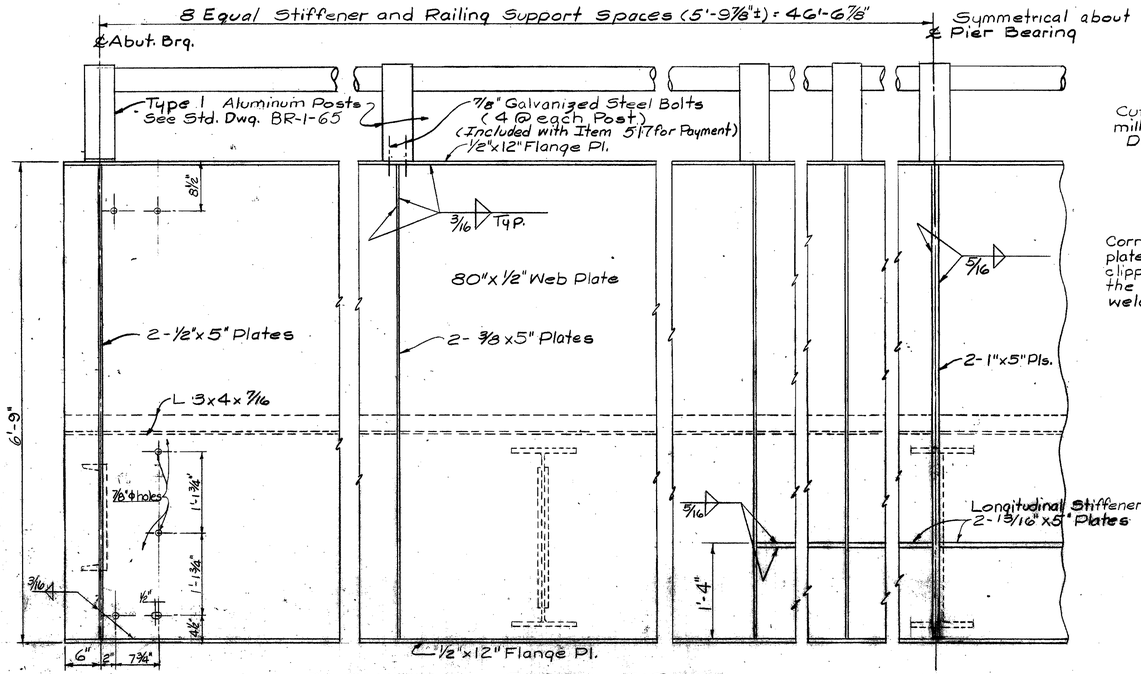
Intermediate stiffeners shall have contact bearing with the compression flange.

The top flange shall be considered the tension flange from 12'-0" on either side of the ℄ of Pier. For the remaining length of the girder the bottom flange shall be considered the tension flange.

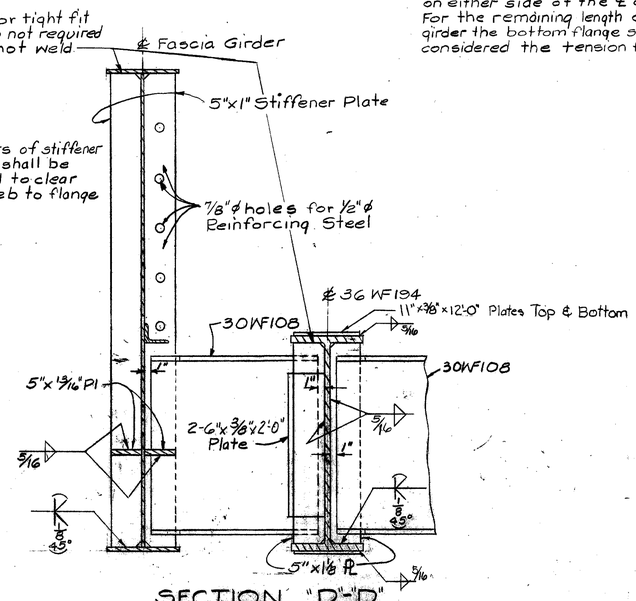


SECTION "C"-"C"

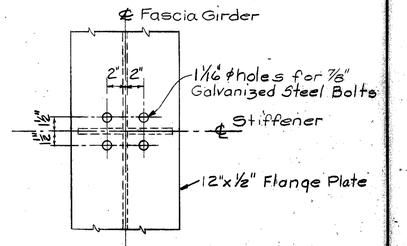
Note: For welding of 30WF108 See Section "B"-"B" Sheet No. 158



ELEVATION — FASCIA GIRDER



SECTION "D"-"D"



RAILING POST HOLES

C℄O RY. BRIDGE # F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

STEEL FRAMING
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C.℄O. RY.
ROSS COUNTY — U.S.R. 35
STA. 1364+45.80

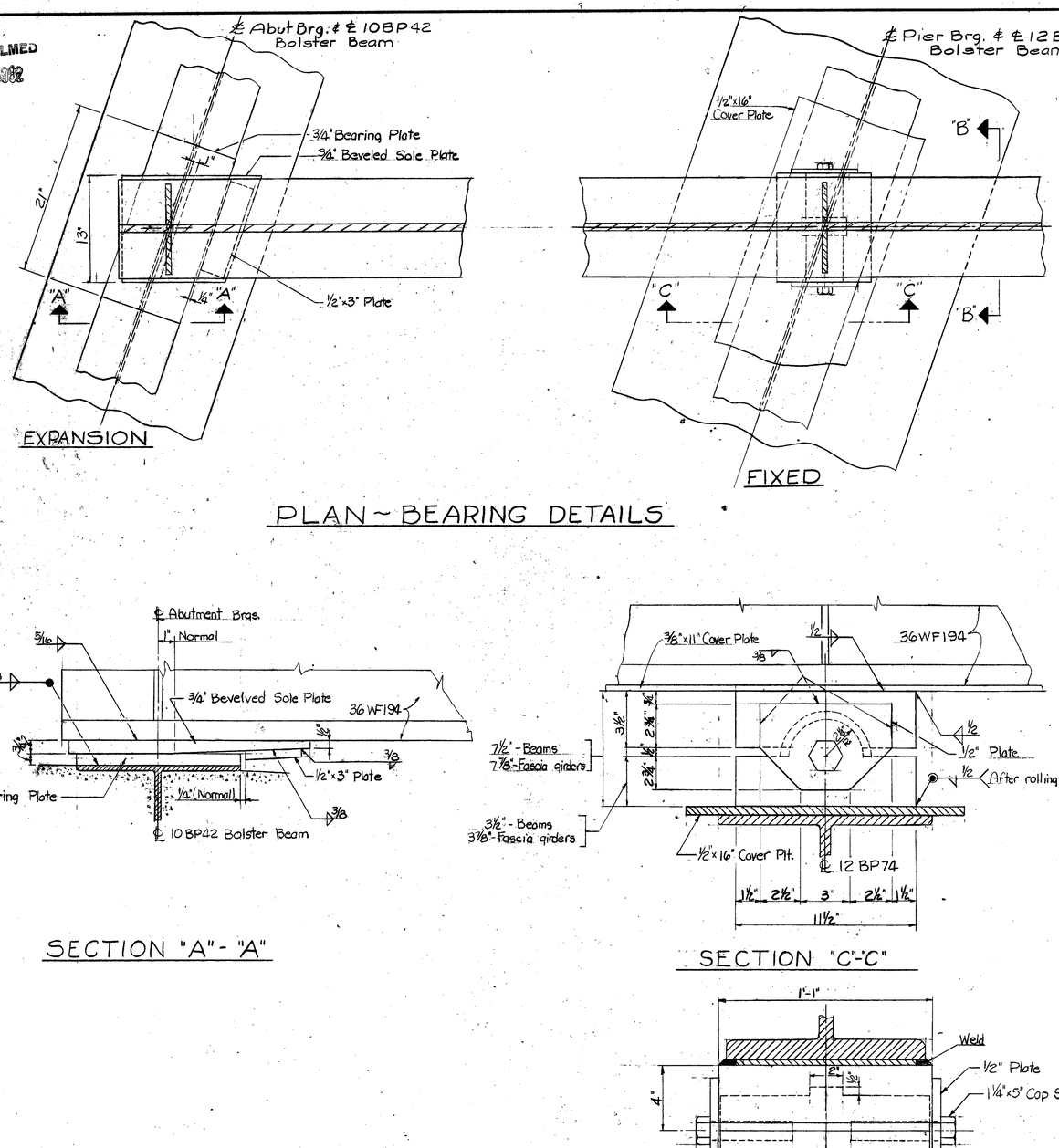
SCALE				DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	W.D.J.				6/8/65	

MICROFILMED
MAR 17 1982

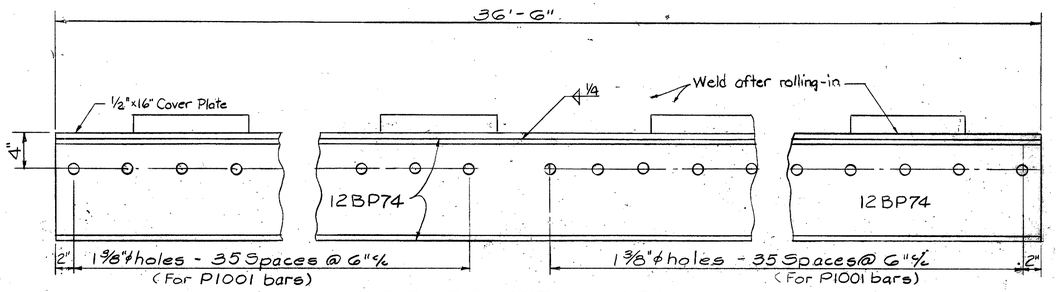
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

161
225

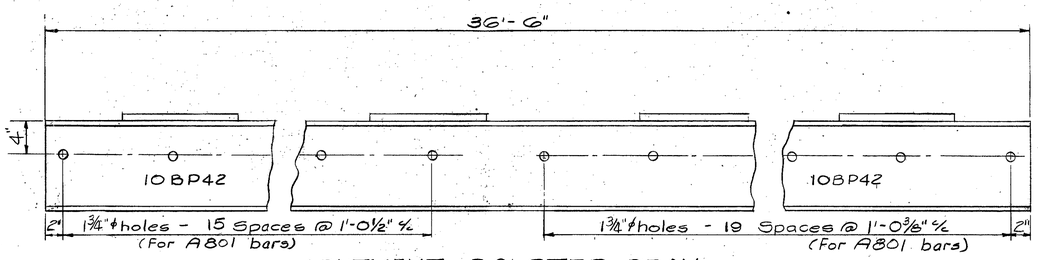
ROSS COUNTY
ROS-35-25.05



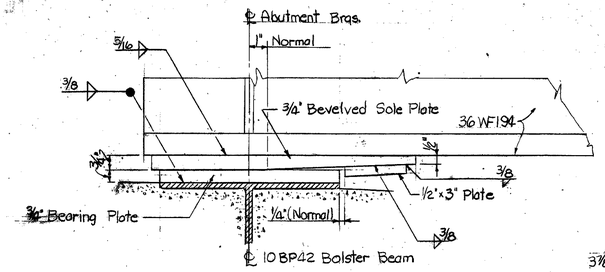
PLAN ~ BEARING DETAILS



PIER BOLSTER BEAM
(1 Required)

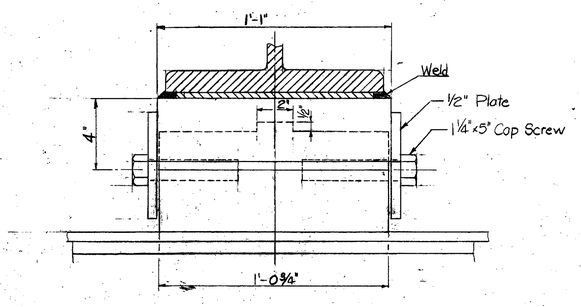


ABUTMENT BOLSTER BEAM
(2 Required)

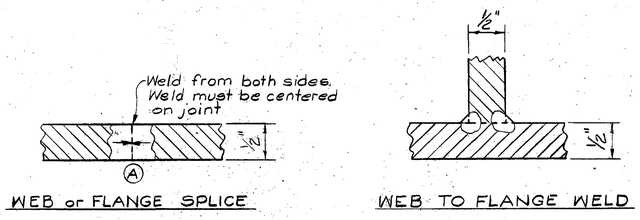


SECTION "A"-"A"

SECTION "C"-"C"



SECTION "B"-"B"



WEB or FLANGE SPLICE

WEB TO FLANGE WELD

SHOP SPLICE WELDS
(FASCIA GIRDER)

WELDED JOINTS
Automatic Submerged Arc Process

(G) All flange butt-welds shall be ground flush.

Ⓐ Weld after placing at least one pass on other side

Optional shop splices will be permitted in the web and flanges of fascia girders but their location shall be submitted to the Director for approval.

C&O RY. BRIDGE #F484

ELMER S BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

BEARING & SHOP SPLICE DETAILS
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C.&O. R.Y
ROSS COUNTY — U.S.R. 35
STA. 1364+45.80

SCALE — DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	W.D.J.				6/8/65	

MICROFILMED

MAR 17 1982

REINFORCING STEEL LIST

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

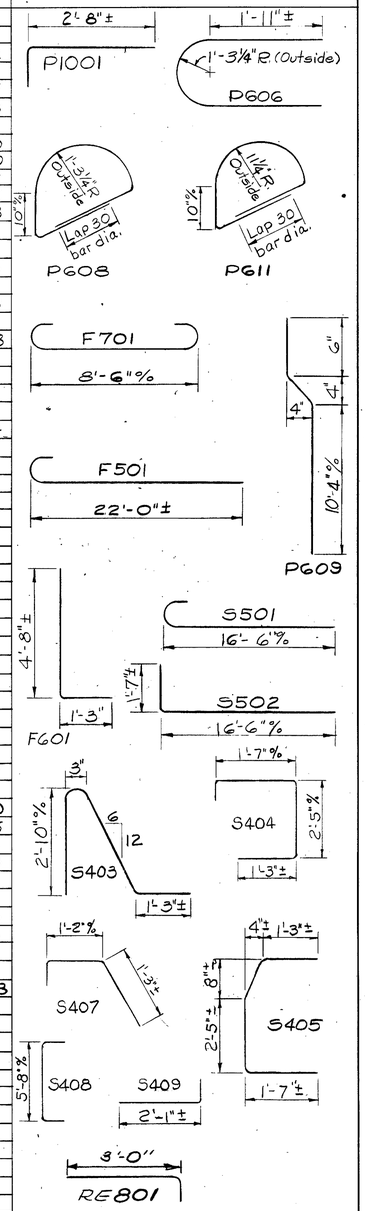
162 / 225

ROSS COUNTY
ROS-35-25.05

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 A501 is a number 5 size bar and A1001 is a number 10 size.

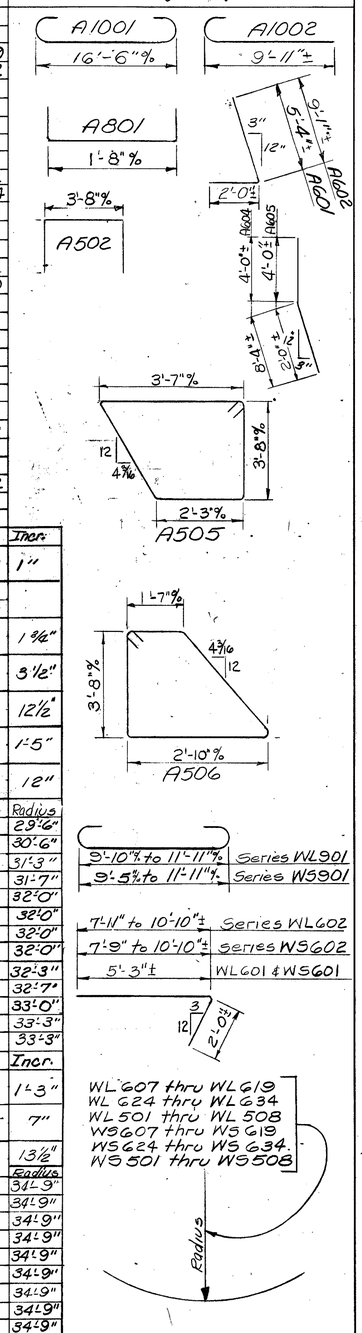
Bar Number	Number Required	Length	Shape	Weight
PIER				
P1001	72	3'-9"	⌐	1162
P601	38	16'-5"	—	937
P602	32	10'-3"	—	493
P603	12	16'-10"	—	303
P604	24	20'-6"	—	739
P605	24	18'-7"	—	670
P606	24	7'-10"	⊂	282
P607	4	11'-2"	—	67
P608	12	9'-4"	⌐	168
P609	12	11'-3"	—	203
P611	2	7'-9"	⌐	23
F701	49	10'-2"	⊂	1018
F601	82	5'-9"	L	708
F501	20	22'-7"	⊂	471
TOTAL PIER REINFORCING				7,244
SUPERSTRUCTURE				
S501	366	17'-1"	⊂	6,521
S502	366	18'-3"	⊂	6,967
S401	352	24'-8"	—	5,800
S402	34	24'-0"	—	545
S403	382	7'-6"	⌐	1,914
S404	92	5'-5"	⌐	333
S405	92	5'-10"	⌐	358
S406	36	17'-7"	—	423
S407	12	2'-11"	⌐	23
S408	12	6'-8"	⌐	53
S409	12	2'-7"	⌐	21
TOTAL SUPERSTRUCT.				22,958
REPLACEMENT STEEL				
RE1001	1	8'-2"	—	
RE901	1	7'-10"	—	
RE801	1	3'-11	⌐	
RE701	2	7'-2"	—	
RE601	2	6'-11"	—	
RE501	1	6'-7"	—	
RE401	1	6'-3"	—	

Bending Diagrams

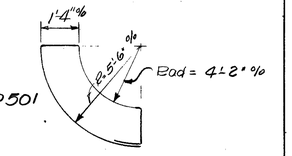


Bar Number	Number Required	Length	Shape	Weight
ABUTMENT BREASTWALL	One Abutment			
A1001	28	19'-4"	⊂	2329
A1002	15	11'-4"	⊂	732
A801	36	4'0"	⌐	384
A802	63	7'11"	—	1,332
AG01	42	7'-2"	⌐	452
AG02	42	11'-0"	⌐	694
AG03	42	12'3"	—	773
AG04	15	12'4"	—	278
AG05	15	6'-0"	—	135
AG06	44	21'-8"	—	1,432
AG07	25	16'-6"	—	620
A501	28	21'-7"	—	630
A502	29	5'-0"	⌐	151
A503	14	8'-5"	—	123
A505	5	13'-9"	⌐	72
A506	5	12'-4"	⌐	64
TOTAL ONE ABUTMENT				10,201
TOTAL TWO ABUTMENTS				20,402
N.W. & S.E. WINGWALLS				Incr.
WL901	1 Series of 26 bars	12'-4" To 14'-5"	⊂	1,182 1"
WL601	21	7'-1"	⌋	223
WL602	1 Series of 21 bars	9'-9" To 12'-9"	⌋	354 1'-9½"
WL603	1 Series of 21 bars	7'-4" To 13'-2"	—	323 5'½"
WL604	1 Series of 7 bars	5'-0" To 11'-8"	—	85 12½"
WL605	1 Series of 7 bars	9'-11" To 16'-5"	—	128 1'-5"
WL606	1 Series of 6 bars	4'-8" To 9'-8"	—	65 12"
				Radius
WL607	1	22'-1"	⌒	33 29'6"
WL608	1	26'-7"	⌒	40 30'-6"
WL609	1	29'-11"	⌒	45 31'-3"
WL610	1	30'-2"	⌒	45 31'-7"
WL611	1	30'-7"	⌒	46 32'-0"
WL612	1	26'-3"	⌒	39 32'0"
WL613	1	20'-9"	⌒	31 32'-0"
WL614	1	16'-10"	⌒	25 32'-0"
WL615	1	13'-2"	⌒	20 32'-3"
WL616	1	10'-5"	⌒	16 32'-7"
WL617	1	8'-2"	⌒	12 33'0"
WL618	1	6'-3"	⌒	9 33'-3"
WL619	1	5'-0"	⌒	8 33'-3"
WL620	4	21'-4"	—	128 Incr.
WL621	1 Series of 5 bars	14'-9" To 19'-0"	—	124 1'-3"
WL622	1 Series of 6 bars	10'-8" To 13'-1"	—	105 7"
WL623	1 Series of 5 bars	4'-8" To 9'-2"	—	52 13½"
				Radius
WL624	1	26'-3"	⌒	39 34'-9"
WL625	1	30'-5"	⌒	46 34'-9"
WL626	3	33'-3"	⌒	150 34'-9"
WL627	1	28'-6"	⌒	43 34'-9"
WL628	1	22'-6"	⌒	34 34'-9"
WL629	1	18'-3"	⌒	27 34'-9"
WL630	1	14'-0"	⌒	21 34'-9"
WL631	1	10'-6"	⌒	16 34'-9"
WL632	1	8'-7"	⌒	13 34'-9"

Bending Diagrams



Bar Number	Number Required	Length	Shape	Weight	Bending Diagrams
N.E. or S.W. WINGWALLS (CONTINUED)					Radius
WL633	1	6'-8"	⌒	10	34'9"
WL634	1	5'-2"	⌒	8	34'9"
WL501	1	27'-10"	⌒	29	38'-5"
WL502	1	26'-11"	⌒	28	36'-9"
WL503	1	26'-4"	⌒	27	36'-0"
WL504	1	25'-7"	⌒	27	35'-3"
WL505	1	24'-8"	⌒	26	33'9"
WL506	1	23'-3"	⌒	24	32'-0"
WL507	1	22'-6"	⌒	23	30'-3"
WL508	1	21'-0"	⌒	22	28'-3"
EP501	12	18'-1"	⌐	226	
EP502	22	9'-8"	—	242	
TOTAL ONE WINGWALL				4219	
TOTAL N.W. & S.E. WINGWALLS				8438	
N.E. & S.W. WINGWALLS					Incr.
WS901	1 Series of 18 bars	11'-11" To 14'-5"	⊂	806	1¾"
WS601	17	7'-1"	⌋	181	
WS602	1 Series of 16 bars	9'-7" To 12'-9"	⌋	267	2½"
WS603	1 Series of 17 bars	6'-7" To 13'-3"	—	253	5"
WS604	1 Series of 6 bars	4'-6" To 12'-10"	—	78	1'-8"
WS605	1 Series of 5 bars	7'-9" To 18'-5"	—	98	2'-8"
WS606	1 Series of 5 bars	5'-2" To 8'-0"	—	49	8½"
					Radius
WS607	1	23'-7"	⌒	35	30'-0"
WS608	1	23'-11"	⌒	36	30'-6"
WS609	1	24'-3"	⌒	36	31'-0"
WS610	1	23'-7"	⌒	35	31'-5"
WS611	1	20'-5"	⌒	31	31'-6"
WS612	1	17'-7"	⌒	26	31'-7"
WS613	1	15'-3"	⌒	23	32'-0"
WS614	1	12'-9"	⌒	19	32'-2"
WS615	1	10'-9"	⌒	16	32'-6"
WS616	1	8'-10"	⌒	13	32'-10"
WS617	1	7'-3"	⌒	11	33'-3"
WS618	1	5'-10"	⌒	9	33'-3"
WS619	1	4'-10"	⌒	7	33'-3"
WS620	4	21'-4"	—	128	Incr
WS621	1 Series of 3 bars	18'-8" To 19'-1"	—	76	1'-9½"
WS622	1 Series of 5 bars	9'-1" To 13'-9"	—	86	14"
WS623	1 Series of 5 bars	5'-2" To 8'-5"	—	52	10"
					Radius
WS624	3	27'-4"	⌒	123	34'-9"
WS625	1	26'-10"	⌒	40	34'-9"
WS626	1	22'-7"	⌒	34	34'-9"
WS627	1	19'-6"	⌒	29	34'-9"
WS628	1	16'-7"	⌒	25	34'-9"
WS629	1	13'-9"	⌒	21	34'-9"
WS630	1	11'-5"	⌒	17	34'-9"
WS631	1	9'-5"	⌒	14	34'-9"
WS632	1	7'-8"	⌒	12	34'-9"
WS633	1	6'-0"	⌒	9	34'-9"
WS634	1	5'-1"	⌒	8	34'-9"
WS501	1	21'-9"	⌒	23	38'-3"
WS502	1	21'-1"	⌒	22	36'-9"
WS503	1	20'-7"	⌒	21	36'-0"
WS504	1	20'-0"	⌒	21	35'-3"
WS505	1	19'-4"	⌒	20	33'-9"
WS506	1	18'-3"	⌒	19	32'-0"
WS507	1	17'-3"	⌒	18	30'-3"
WS508	1	16'-4"	⌒	17	28'-3"
EP501	12	18'-1"	⌐	226	
EP502	24	9'-8"	—	242	
TOTAL ONE WINGWALL				3,332	
TOTAL N.E. & S.W. WINGWALLS				6,664	
TOTAL ABUTMENTS				35,504	



C&O RY. BRIDGE #F484

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

REINFORCING STEEL LIST
BRIDGE NO. ROS-35-2584
U.S.R. 35 UNDER C. & O. RY.
ROSS COUNTY — U.S.R. 35
STA. 1364+45.80

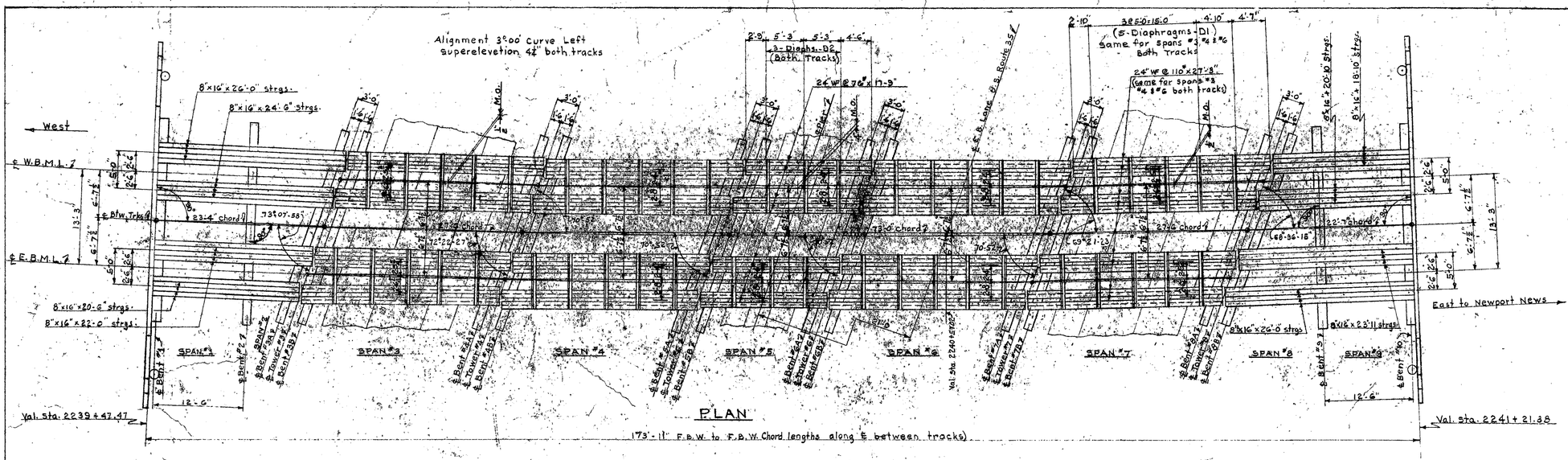
SCALE — DATE

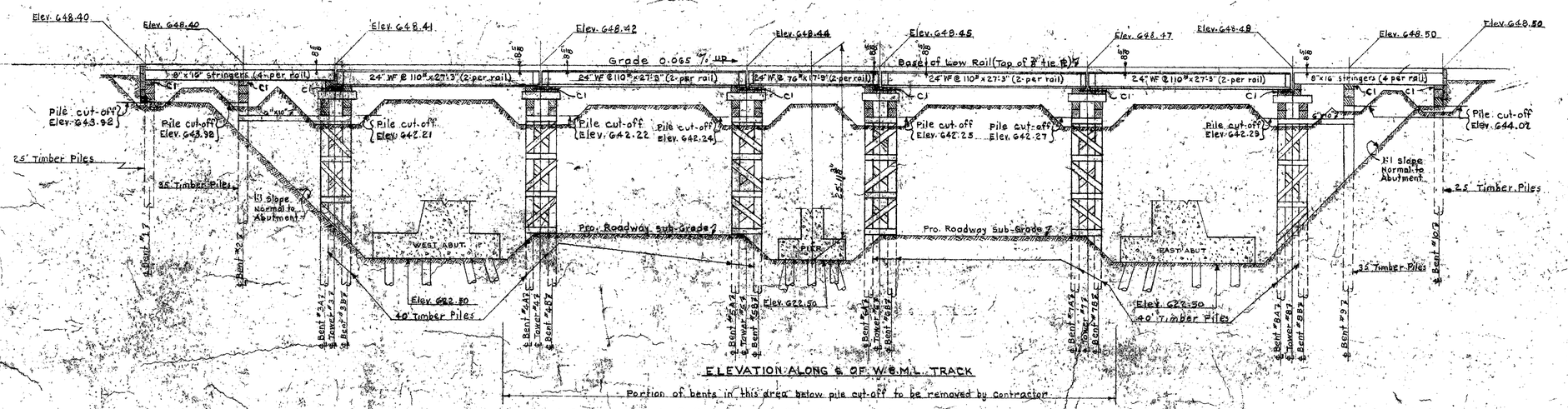
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WIC	W.O.J. P.J.M.		JWH	WK	6/8/65	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

(182A 225)

R05-35-25.05

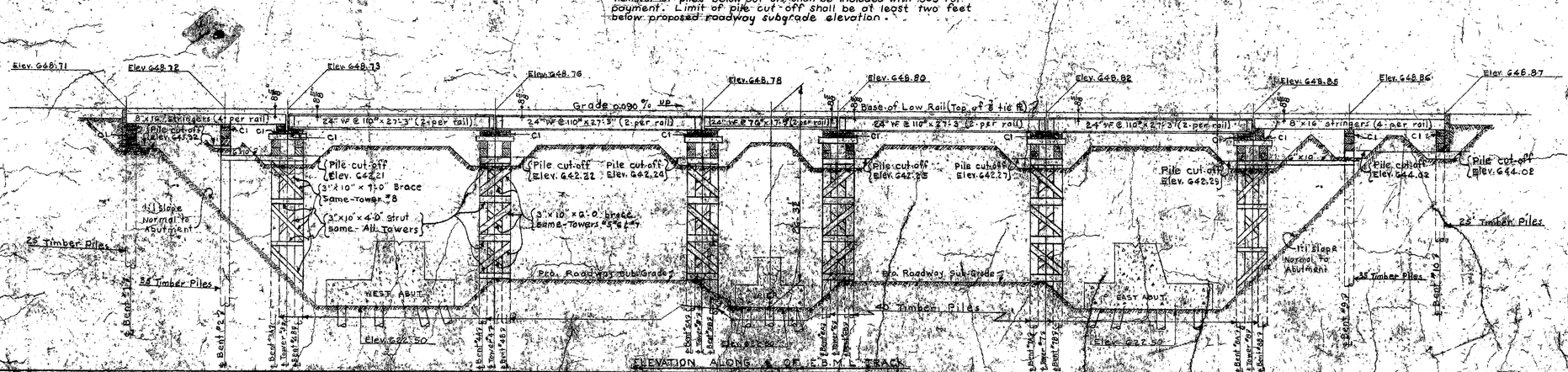




ELEVATION ALONG ℄ OF E.B.M.L. TRACK

Portion of bents in this area below pile cut-off to be removed by Contractor

Removal of piles below cut-off shall be included with 503 for payment. Limit of pile cut-off shall be at least two feet below proposed roadway subgrade elevation.



ELEVATION ALONG ℄ OF E.B.M.L. TRACK

GENERAL NOTES:

Structural Steel: A.R.E.A. Specs. for steel Railway Bridges, dated 1967, using A.S.T.M. A36 steel.

Welding: A.W.S. Specifications for welded Highway and Railway Bridges, dated 1966, using the electric arc process.

Design: C.&O. H8 Engine, specification steam impact and overload stresses.
Maximum pile load = 17 Tons.
Maximum soil pressure 2.7 Tons/□' (Capping off piles)

Bench Mark: Chisled square in west end of N.W. Wingwall C.&O. bridge over U.S. Rt. 35 & 50, 438 Ft. Rt Highway Sta. 1366+26 (E.B. Lane) Elev. 635.92.

ERECTOR NOTE:

Fasten timber blocking with ⅞"x18" drift bolts.
Fasten timber caps to piles with ⅞"x 22" drift bolts.
Fasten tie blocks to ties with 30d nails every tie.
Fasten guard rails to ties with ⅝"x8" sealtite Lag Bolts (washer head).
Fasten ties to stringers with ⅞"x14" drift bolts every 4th tie.
Fasten stringers to caps with ⅞"x 22" drift bolts.
Fasten stringers together with 2-¾"x 26" bolts each side of bent per rail.
Dap all 8"x16" stringers to 1-3½" over caps.

FORCE ACCOUNT WORK TO BE DONE BY C.&O. RAILWAY COMPANY

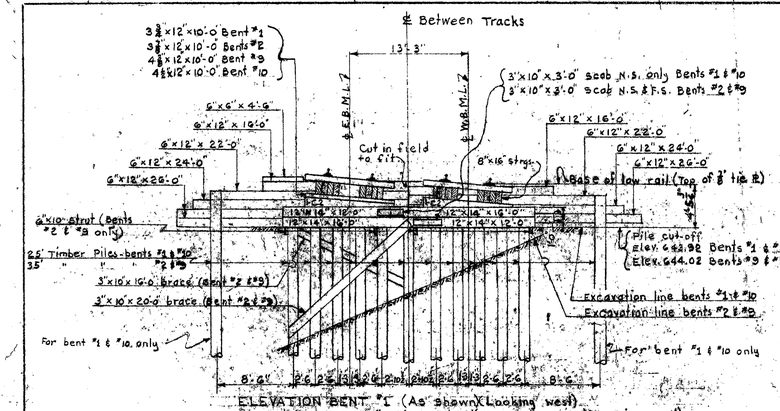
(1) Make alterations to signal and T.&T. facilities.
(2) Furnish, erect and maintain temporary trestle, excavating only as necessary to place caps and stringers. Place bracing on bents and towers as excavation by Contractor progresses.
(3) Remove portion of trestle, above pile cut-off, between Abutments, to roll new span into place.
(4) Roll bridge superstructure into position as outlined on dwg. "50125-3.
(5) Place temporary spans at ends of bridge after it is rolled into position.
(6) Place track and ballast on new bridge.
(7) Backfill from bottom of steel and timber stringers and remove portion of trestle necessary to place ballast and track.
(8) Place ballast and track.

Material salvaged from the temporary trestle to be the property of the contractor

Highway Bridge No. R05-35-2584 work this dwg. with dwg. "50125-1 & -2 For list of materials required see dwg "50125-1.

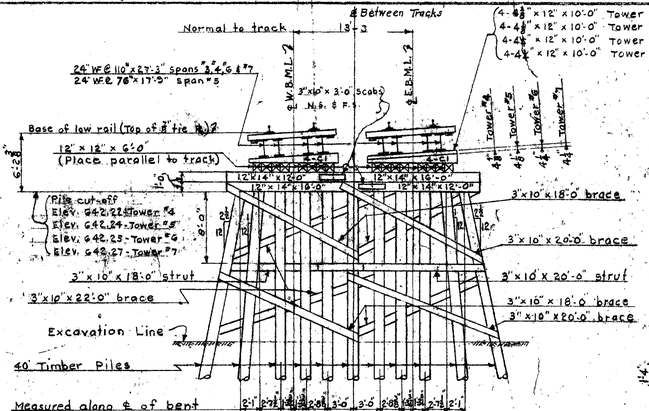
Temp. A.F.E. 44887

REVISIONS	THE CHESAPEAKE AND OHIO RAILWAY COMPANY
	Chief Engineer's Office, Huntington, West Virginia
	TEMPORARY TRESTLE DETAILS BUILDING BRIDGE "F-484 U.S. ROUTE "35 UNDERPASS
	V.A. JUNCTION, OHIO
	ASHLAND-RUSSELL DIVISION — RUSSELL, K.Y.
	SCALE: 1" = 10'-0" VAL. SEC. DRAWING NO.
	DATE: 3-11-68
CORR. FILE NO. H-1425	DRAWN: E.B.N. V-43 50125
	CHECKED: W.C.S.



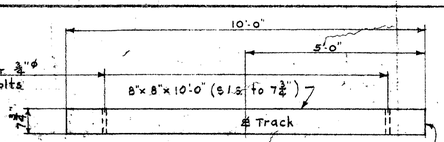
ELEVATION BENT #1 (As shown) Looking west)
ELEVATION BENT #10 (Opp. hand) Except as noted) Looking East)
ELEVATION BENT #2 (As shown) Looking west)
ELEVATION BENT #9 (Opp. hand) Except as noted) Looking East)
(Omit backwall timbers on bents #2 & #9)

Scale: ⅜"=1'-0"



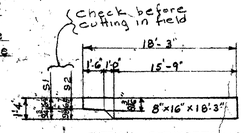
ELEVATION BENTS #4A, #5A, #6A & #7A (As shown) Looking East)
ELEVATION BENTS #4B, #5B, #6B & #7B (Opp. hand) Looking West)

Scale: ⅜"=1'-0"



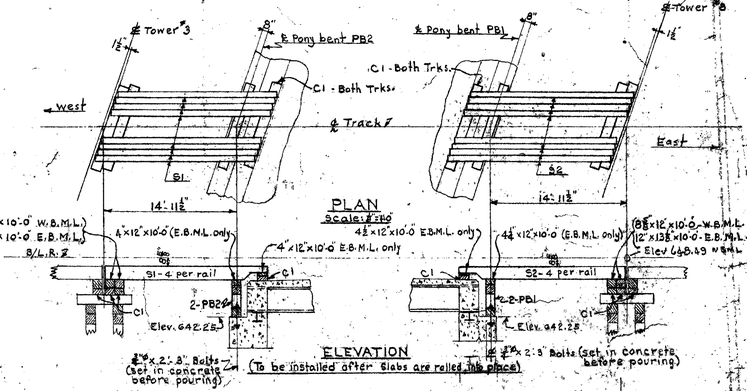
TIE DETAIL
177-REQ'D. Mk. #1 (W.B.M.L.)
177-REQ'D. Mk. #2 (E.B.M.L.)
(Holes for ¾"ø Hook bolts to be bored in field. See plan for location)

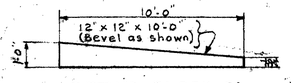
Scale: ½"=1'-0"



DETAIL-STRINGERS-S1 & S2
16-REQ'D.-S1
16-" -S2

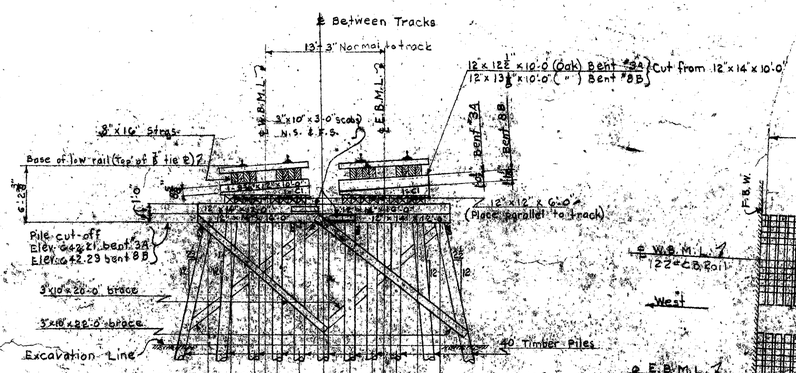
No scale





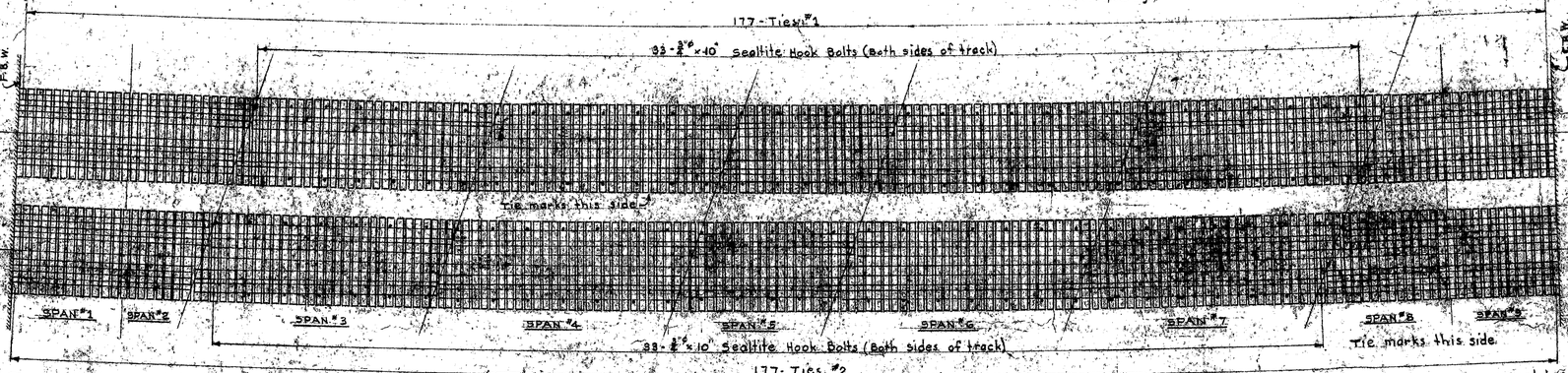
DETAIL BLOCK-C1

No scale



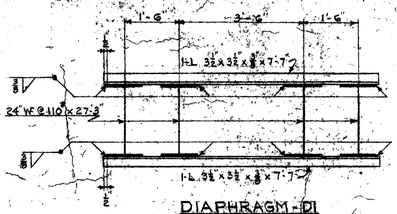
ELEVATION BENT #3A (As shown) Looking East)
ELEVATION BENT #3B (Opp. Hand) Except as noted) Looking West)

Scale: ⅜"=1'-0"



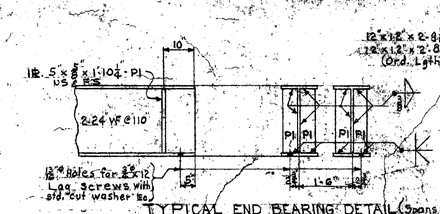
TIE PLAN

Scale: ⅛"=1'-0"



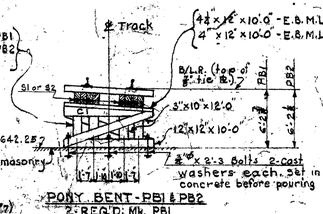
DIAPHRAGM-D1
40-Req'd.

Scale: ⅜"=1'-0"



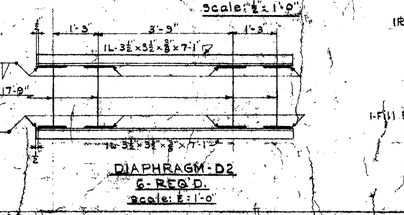
TYPICAL END BEARING DETAIL (Spans #3, #4, #6 & #7)

Scale: ½"=1'-0"



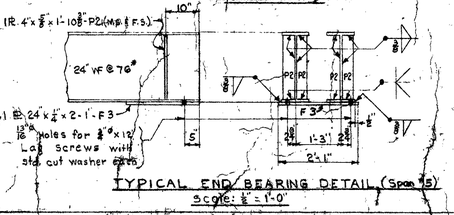
PONY BENT-PB1 & PB2
2-REQ'D. Mk. PB1
2-REQ'D. Mk. PB2

Scale: ⅜"=1'-0"



DIAPHRAGM-D2
6-REQ'D.

Scale: ⅜"=1'-0"



TYPICAL END BEARING DETAIL (Span #5)

Scale: ½"=1'-0"

Work this dwg. with dwg. "50125-2 & 3"
For list of materials required see dwg. 50125-4

Highway Bridge No. ROS-35-2584

Temp. A.F.E. 44267

REVISIONS	THE CHESAPEAKE AND OHIO RAILWAY COMPANY
	Chief Engineer's Office at Huntington, West Virginia
	TEMPORARY TRESTLE DETAILS
	BUILDING BRIDGE "F-484
	U.S. ROUTE "35" UNDERPASS
	V&A JUNCTION, OHIO
	ASHLAND-RUSSELL DIVISION - RUSSELL S-D
	SCALE: As Noted / KAL SEC. / DRAWING NO.
	DATE: 3-11-66
CORR. FILE NO. H-14-25	DRAWN: E.B.N. / CHECKED: HVC / Y-46-44 / 50125-1

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

ROS-35-25.05

1658
725

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

P05-35-25.05

F.B.W. Sta. 2239+47.47

℄ Bent #1 ℄ Bent #2 ℄ Tower #3 ℄ Tower #4 ℄ Tower #5 ℄ Tower #6 ℄ Tower #7 ℄ Bent #8 ℄ Bent #9 ℄ Bent #10

F.B.W. Sta. 2241+21.38

West

℄ W.B.M.L.℄

℄ Betw. Tracks ℄

℄ E.B.M.L.℄

8"x16"x6'-0" strgs. 8"x16"x14'-0" strgs. 8"x16"x13'-3" strgs. 8"x16"x13'6" strgs. 8"x16"x14'3" strgs. 8"x16"x13'-9" strgs. 8"x16"x13'-9" strgs. 8"x16"x6'-0" strgs. 8"x16"x9'-0" strgs. 8"x16"x6'-0" strgs. 8"x16"x13'-9" strgs. 8"x16"x13'-9" strgs. 8"x16"x6'-0" strgs. 8"x16"x13'-3" strgs. 8"x16"x13'-9" strgs. 8"x16"x13'-3" strgs. 8"x16"x13'-3" strgs. 8"x16"x14'-0" strgs. 8"x16"x6'-0" strgs. 8"x16"x10" strgs. 8"x16"x

Falsework stringers shown on drawing 50125 placed in step #11

8"x16"x22'-0" strgs.

8"x16"x ' strgs.

8"x16"x23'-11" strgs.

8"x16"x26'-0" strgs.

Falsework stringers shown on drawing "50125 placed in step #1

East to Newport News

13'-9" 13'-9" 13'-9" 13'-9" 9'-0" 9'-0" 13'-9" 13'-9" 13'-9" 13'-9"

PLAN
Scale: 1/8" = 1'-0"

Elev. 648.40 (W.B.M.L.) Elev. 648.72 (E.B.M.L.)
Elev. 648.40 (W.B.M.L.) Elev. 648.71 (E.B.M.L.)
Elev. 648.41 (W.B.M.L.) Elev. 648.73 (E.B.M.L.)
Grade 0.065 % up → W.B.M.L.
Grade 0.09 % up → E.B.M.L.
Elev. 648.42 (W.B.M.L.) Elev. 648.76 (E.B.M.L.)
Elev. 648.44 (W.B.M.L.) Elev. 648.78 (E.B.M.L.)
Elev. 648.45 (W.B.M.L.) Elev. 648.80 (E.B.M.L.)
Base of low rail (Top of 8" tie ℍ)
Elev. 648.47 (W.B.M.L.) Elev. 648.82 (E.B.M.L.)
Elev. 648.48 (W.B.M.L.) Elev. 648.85 (E.B.M.L.)
Elev. 648.50 (W.B.M.L.) Elev. 648.86 (E.B.M.L.)
Elev. 648.50 (W.B.M.L.) Elev. 648.87 (E.B.M.L.)

C.I. Note "B"

STEP #11 STEP #9 STEP #7 STEP #5 STEP #3 STEP #1

3⅜"x12"x10'-0" (E.B.M.L. only) 8⅝"x12"x10'-0" (E.B.M.L. only)
4⅜"x12"x10'-0" (E.B.M.L. only) 8⅝"x12"x10'-0" (E.B.M.L. only)
4½"x12"x10'-0" (E.B.M.L. only) 8⅝"x12"x10'-0" (E.B.M.L. only)
3⅜"x12"x10'-0" (E.B.M.L. only) 8⅝"x12"x10'-0" (E.B.M.L. only)
4⅜"x12"x10'-0" (E.B.M.L. only) 8⅝"x12"x10'-0" (E.B.M.L. only)
4½"x12"x10'-0" (E.B.M.L. only) 8⅝"x12"x10'-0" (E.B.M.L. only)
24" WF @ 110# x 27'-3" (2-per rail)
24" WF @ 76# x 17'-9" (2-per rail)

STEP #12 STEP #8 STEP #2 STEP #10 STEP #4 STEP #13 STEP #6

8"x16" stringers (4-per rail)

ELEVATION ALONG ℄ BETWEEN E.B.M.L. & W.B.M.L. TRACKS
TEMPORARY TRESTLE
(see drawing "50125)
Scale: 1/8" = 1'-0"

3⅜"x12"x10'-0" Bent 3A & 3B
4⅜"x12"x10'-0" " 4A & 4B
4⅝"x12"x10'-0" " 5A & 5B
4⅞"x12"x10'-0" " 6A & 6B
4¾"x12"x10'-0" " 7A & 7B
4⅞"x12"x10'-0" " 8A & 8B

Bents 3A & 3B 4A & 4B 5A & 5B 6A & 6B 7A & 7B 8A & 8B

13'-3" (Normal to track)
℄ E.B.M.L.
℄ W.B.M.L.
8"x16" stringers
B/L.R.F.
12"x14"x12'-0"
12"x16"x16'-0"
Pile cut-off
3"x10"x3'-0" scabs N.S. & E.S.

TYPICAL FOR CAPPING OFF BENTS IN TOWERS #3, #4, #5, #6, #7 & #9 (except as noted)
steps: #1, #3, #5, #7, #9 & #11
(Looking west)
scale: 1/8" = 1'-0"

Note "B"
Keep stringers blocked to both bents while passing traffic. (Typical for all bents.)

Note:
Procedure for capping off piles same for both tracks. Blocking marked thus ⊛ is for E.B. track only.

13'-3" (Normal to track)
℄ E.B.M.L.
℄ W.B.M.L.
8"x16" stringers
8"x8"x10'-0" Tie
7⅞"x8"x10'-0" Tie
B/L.R.F.
2-C.I.
2-12"x12"x10'-0"
12"x12"x4'-0"
Varies

DETAIL · BENT A (Looking west)
Scale: 1/4" = 1'-0"

Work this dwg. with dwg. "50125, sheet 3
For list of materials required see dwg. "50125-A

Highway Bridge No. ROS-35-2584
Temp. A.F.E. 44267

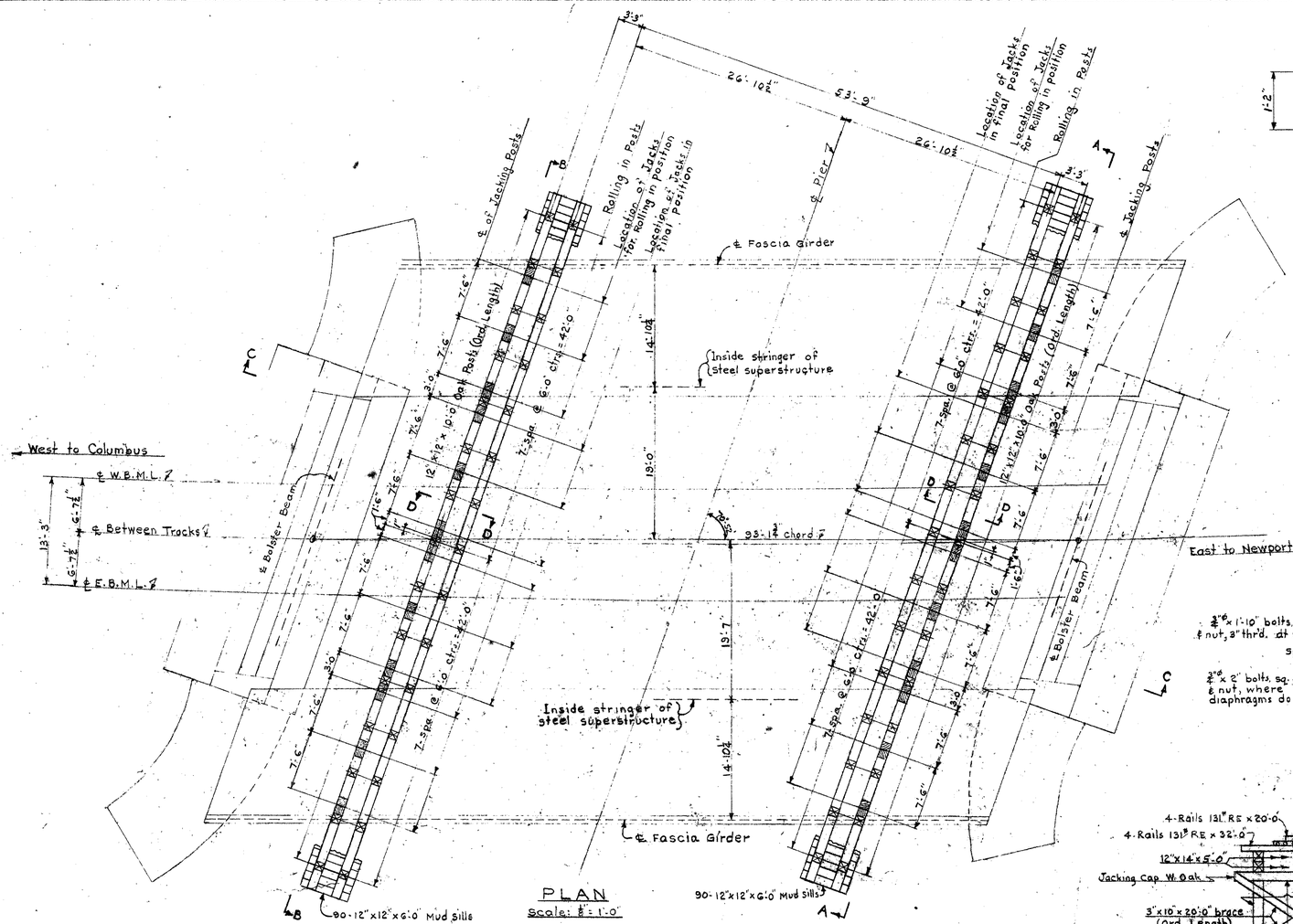
REVISIONS	THE CHESAPEAKE AND OHIO RAILWAY COMPANY Chief Engineer's Office — Huntington, West Virginia
	CAPPING OFF DETAILS TEMPORARY TRESTLE BUILDING BRIDGE "F-484 U.S. ROUTE 35 UNDERPASS V. A. JUNCTION, OHIO. ASHLAND-RUSSELL DIVISION-RUSSELL S-D

CORR. FILE NO.	SCALE: As Noted DATE: 3-11-66 DRAWN: E.B.N. CHECKED: H.C.J.	VAL. SEC.	DRAWING NO.
H-1425		V-46 44	50125-2

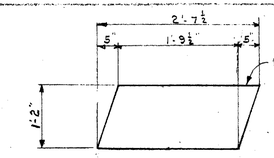
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

1420
225

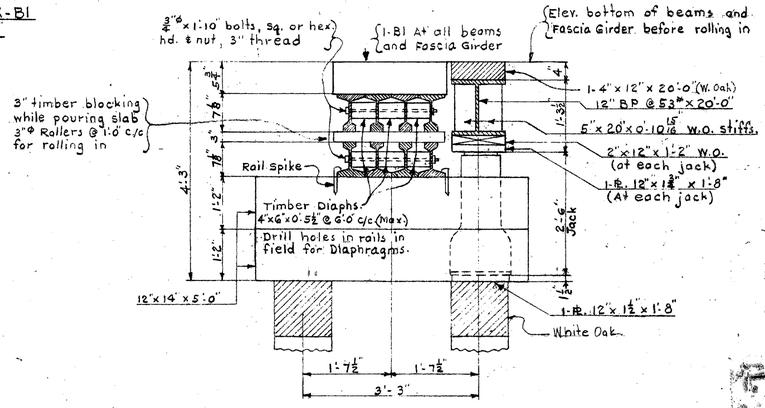
ROS-35-25.05



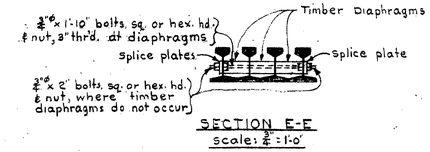
PLAN
Scale: 8' = 1'-0"



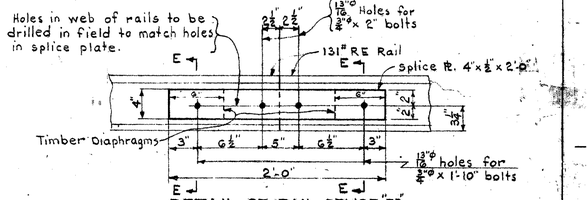
DETAIL BLOCK-B1
Scale: ½" = 1'-0"
28-Req'd



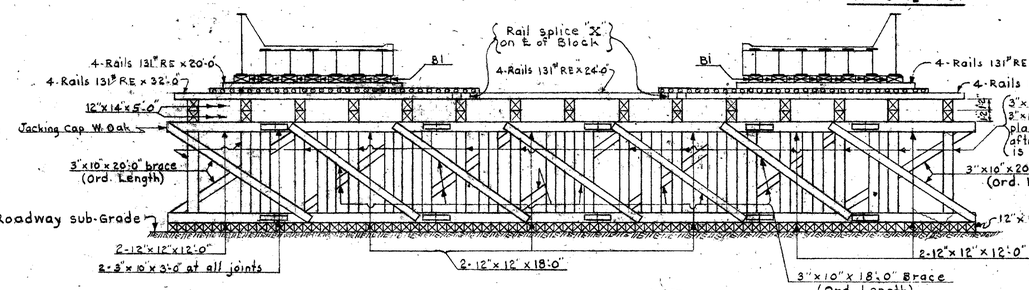
SECTION D-D
Scale: ¾" = 1'-0"



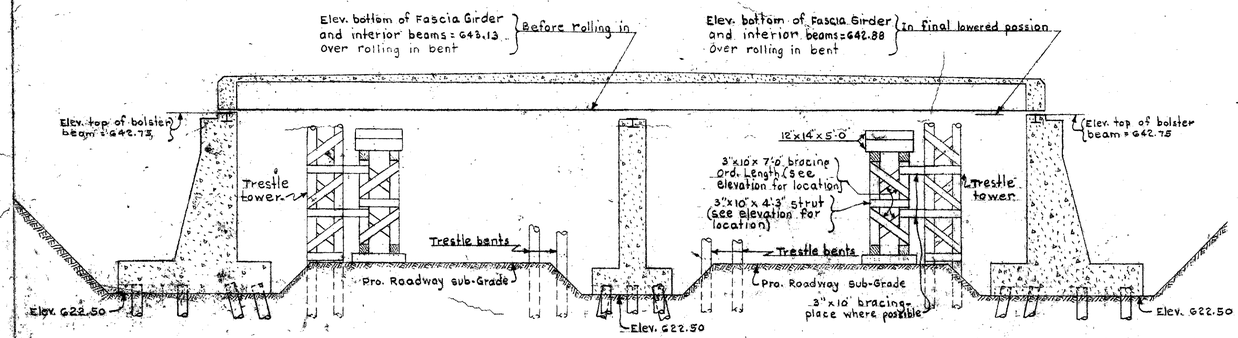
SECTION E-E
Scale: ½" = 1'-0"



DETAIL OF RAIL SPLICE "X"
Scale: 1½" = 1'-0"



ELEVATION A-A (As Shown)
ELEVATION B-B (Similar)
(Far side bent same except omit jacking posts)
Scale: ⅛" = 1'-0"



SECTION C-C
Scale: 8' = 1'-0"

NOTE:
Contractor shall furnish all labor and materials, except rollers, to erect and remove falsework for rolling bridge into place. He shall furnish jacking beams.
Contractor shall erect steel superstructure on this falsework using 3" blocking in place of rollers, and pour slab completely, also place waterproofing and protection.
Railway Company will furnish and place 3" rollers, roll span into place, then lower into final position and place ballast and track without cost to Contractor.
Contractor shall pour walls on abutments above horizontal construction joint near bridge seat elevation after span is in final position.
Contractor shall solder all copper strips and place joint material.

DESCRIPTION OF HARDWARE
Fasten timber blocking, caps and sills with ¾"ø x 18" drift bolts.
Fasten caps to posts with 1-¾"ø x 22" drift bolts per post. 2 per post toed.
Fasten post to sills with 2-¾"ø x 22" drift bolts per post.
Bolt all bracing to post with ¾"ø bolts
Bolt all scabs, using 2-¾"ø bolts each side of splice.
All bolts to have sq. or hex hd. and nuts and 2 cast washers each.
All drift bolts to have button heads.
Total weight of each slab with rails, ties and ballast to be rolled in = 857 Tons. (Maximum jacking load = 66 Tons at each jack.)
Total weight of each slab without rails, ties and ballast to be rolled in = 224 Tons. (Maximum jacking load = 218 Tons at each jack).
Soil pressure = 2.0 Tons

Highway Bridge No. ROS-35-2584

Work this dwg. with dwgs. #50125, -1 & -2
For list of materials required see dwg. #50125-4

Temp A.F.E. 44267

REVISIONS	THE CHESAPEAKE AND OHIO RAILWAY COMPANY Chief Engineer's Office — Huntington, West Virginia
	FALSEWORK FOR ROLLING SUPERSTRUCTURE INTO PLACE BUILDING BRIDGE C-484 U.S. ROUTE #35 UNDERPASS V. A. JUNCTION, OHIO ASHLAND-RUSSELL DIVISION — RUSSELL SUB.
CORR. FILE NO. H-1428	SCALE: As Noted DATE: 3-11-66 DRAWN: E.B.N. CHECKED: HC &
	VAL. SEC. V-46 44
	DRAWING NO. 50125-3

MATERIAL REQUIRED FOR CAPPING OFF BENTS

16 - 8" x 16' x 6'-0" Stringers
36 - do x 13'-9" "
4 - do x 13'-3" "
4 - do x 13'-6" "
4 - do x 14'-0" "
32 - do x 9'-0" "
8 - 12" x 12 x 10'-0" Blocks
40 - do x 4'-0" "
8 - C1 from temporary trestle

Reuse

Make 4 Bents "A" & Reuse

HARDWARE

16 - 7/8" x 10" Drift Bolts (Button head)
96 - 7/8" x 18" " " (" ")
48 - 7/8" x 22" " " (" ")

24 - 7/8" x 36" Bolts sq. or hex hd.
32 - 7/8" x 54" Rods 3" thread each end
88 - sq. or hex nuts, 7/8" tap
112 - std. cast washers for 7/8" bolts

MATERIAL REQUIRED FOR TEMPORARY TRESTLE

TIMBER

26 - 25'-0" Timber Piles
22 - 35'-0" " "
132 - 40'-0" " "

354 - 8" x 8" x 10'-0" Bridge Ties (9 is to 1/2)

2 - 6" x 6" x 4'-6 Backing off Timbers
4 - 6" x 12" x 16'-0" " "
4 - do x 22'-0" " "
4 - do x 24'-0" " "
4 - do x 26'-0" " "
52 - 12" x 12" x 10'-0" Beveled Blocks - C1

1 - 3 1/2" x 12" x 10'-0" Block
1 - 3 1/2" x 12" x 10'-0" "
3 - 4 1/2" x 12" x 10'-0" "
1 - 4 1/2" x 12" x 10'-0" "
32 - 12" x 14" x 12'-0" caps
32 - 12" x 14" x 14'-0" "
4 - 8" x 16" x 18'-10" Stringers
4 - do x 20'-6" "
4 - do x 20'-10" "
4 - do x 22'-0" "
4 - do x 23'-11" "
4 - do x 24'-6" "
8 - do x 26'-0" "
1 - 12" x 12 1/2" x 10'-0" Block (Oak)
1 - 12" x 13 1/2" x 10'-0" " (") +
2 - 6 1/2" x 12" x 10'-0" Blocks
4 - 3 1/2" x 12" x 10'-0" "
8 - 4 1/2" x 12" x 10'-0" "
4 - 4 1/2" x 12" x 10'-0" "
96 - 12" x 12" x 6'-0" "
2 - 6" x 10" x 6'-0" Struts
2 - do x 10'-0" "
2 - do x 12'-0" "
2 - do x 14'-0" "

27 - 2" x 4" x 16'-0" Tie Blocks
64 - 3" x 10" x 3'-0 Scabs
160 - do x 4'-0" struts
96 - do x 6'-0" Bracing
40 - do x 7'-0" "
2 - do x 16'-0" "
50 - do x 18'-0" "
34 - do x 20'-0" "
22 - do x 22'-0" "

STRUCTURAL STEEL

8 - 24" WF @ 76# x 17'-9"
32 - 24" WF @ 110# x 27'-3"
80 - L5 3 1/2" x 3 1/2" x 5/8" x 7'-7" - D1
12 - L5 do x 7'-1" - D2
8 - Fill Pls. 24" x 3/4" x 2'-1" - F3
128 - Stiff. Pls. 5" x 3/8" x 1'-10 1/2" - P1
32 - " " 4" x 3/8" x 1'-10 3/8" - P2
80 - 3/4" x 1'-0" Lag screws
80 - Std. cut washers for 3/4" Lag screws

DECK HARDWARE

710 - 1/4" x 8" sealtite Lag screws
30 - 3/4" x 14" Button Head Drift bolts
132 - 3/4" x 10" sealtite Hook Bolts complete with nut washer

TRESTLE HARDWARE

100 - 3/4" x 10" Drift Bolts (Button Head)
52 - 3/4" x 14" " " (" ")
330 - 3/4" x 18" " " (" ")
300 - 3/4" x 22" " " (" ")

60 - 3/4" x 20" Bolts sq. or hex hd.
1350 - 3/4" x 21" " " " "
85 - 3/4" x 23" " " " "
260 - 3/4" x 26" " " " "
64 - 3/4" x 36" " " " "
1819 - sq. or hex nuts, 3/4" tap
3638 - Std. Cast washers for 3/4" bolts

MATERIAL REQUIRED FOR TWO END SPANS AFTER SLABS ARE ROLLED INTO PLACE

16 - 8" x 16" x 18'-3" Stringers - S1
16 - do x 18'-3" Stringers - S2
4 - 8 5/8" x 12" x 10'-0"
2 - 12" x 13 3/8" x 10'-0"
1 - 4" x 12" x 10'-0"
1 - 4 1/2" x 12" x 10'-0"
4 - 12" x 12" x 10'-0" - C1 (Beveled)
2 - 12" x 12 1/2" x 10'-0"

HARDWARE

48 - 7/8" x 36" bolts, sq. or hex hd.
48 - sq. or hex nuts, 7/8" tap
96 - std. cast washers for 7/8" bolts

16 - 7/8" x 10" Drift bolts (Button head)
48 - 7/8" x 14" " " (" ")
16 - 7/8" x 18" " " (" ")
64 - 7/8" x 22" " " (" ")

MATERIAL REQUIRED FOR TWO PONY BENTS PB1 & PB2

4 - 12" x 12" x 10'-0" - C1 (Beveled)
4 - 12" x 12" x 10'-0" Sills
16 - 12" x 12" x 3'-0" Posts (Ord. Lgth.)
2 - 4 1/2" x 12" x 10'-0" Block
2 - 4" x 12" x 10'-0" "
8 - 3" x 10" x 12'-0" Bracing

HARDWARE

16 - 7/8" x 10" Drift Bolts (Button head)
48 - 7/8" x 22" " " (" ")

48 - 7/8" x 18" Bolts sq. or hex hd.
12 - 7/8" x 27" " " " "
70 - Sq. or hex nuts 7/8" tap
140 - Std. cast washers for 7/8" bolts

MATERIAL REQUIRED FOR ROLLING IN BENTS

24 - 12" x 12" x 12'-0" caps & sills
24 - do x 18'-0" " " "
108 - do x 10'-0" Posts (Oak)
180 - do x 6'-0" Mud sills
60 - 12" x 14" x 5'-0" Blocks
80 - 3" x 10" x 3'-0" Scabs
48 - do x 4'-3" struts
20 - do x 5'-0" "
96 - do x 7'-0" Bracing
40 - do x 18'-0" "
16 - do x 20'-0" "

HARDWARE

480 - 7/8" x 18" Drift Bolts (Button head)
325 - 7/8" x 22" " " (" ")

336 - 7/8" x 18" Bolts, sq. or hex hd.
210 - 7/8" x 21" " " " "
546 - sq. or hex nuts, 7/8" tap
1092 - std. cast washers for 7/8" bolts

Used material meeting the requirements of 711.26 may be furnished by the contractor for Rolling in Bents.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

162E 225

R05-35-25.05

NOTE:
All timber to be untreated

For details see dwgs. #50125,-1,-2 & -3

Highway Bridge No. R05-35-2584

Temp. A.F.E. 44267

REVISIONS	THE CHESAPEAKE AND OHIO RAILWAY COMPANY ENGINEERING DEPARTMENT		
	MATERIALS REQUIRED TEMPORARY TRESTLE BUILDING BRIDGE #F-484 U.S. ROUTE #35 UNDERPASS V.A. JUNCTION, OHIO		
	ASHLAND-RUSSELL DIVISION — RUSSELL S-D		
	SCALE: None	VAL. SEC.	DRAWING NO.
	DATE: 3-11-66	V-46	
	DRAWN: E.B.N.	44	50125-4
CORR. FILE NO. H-1425	CHECKED:		

MICROFILMED
MAR 17 1982

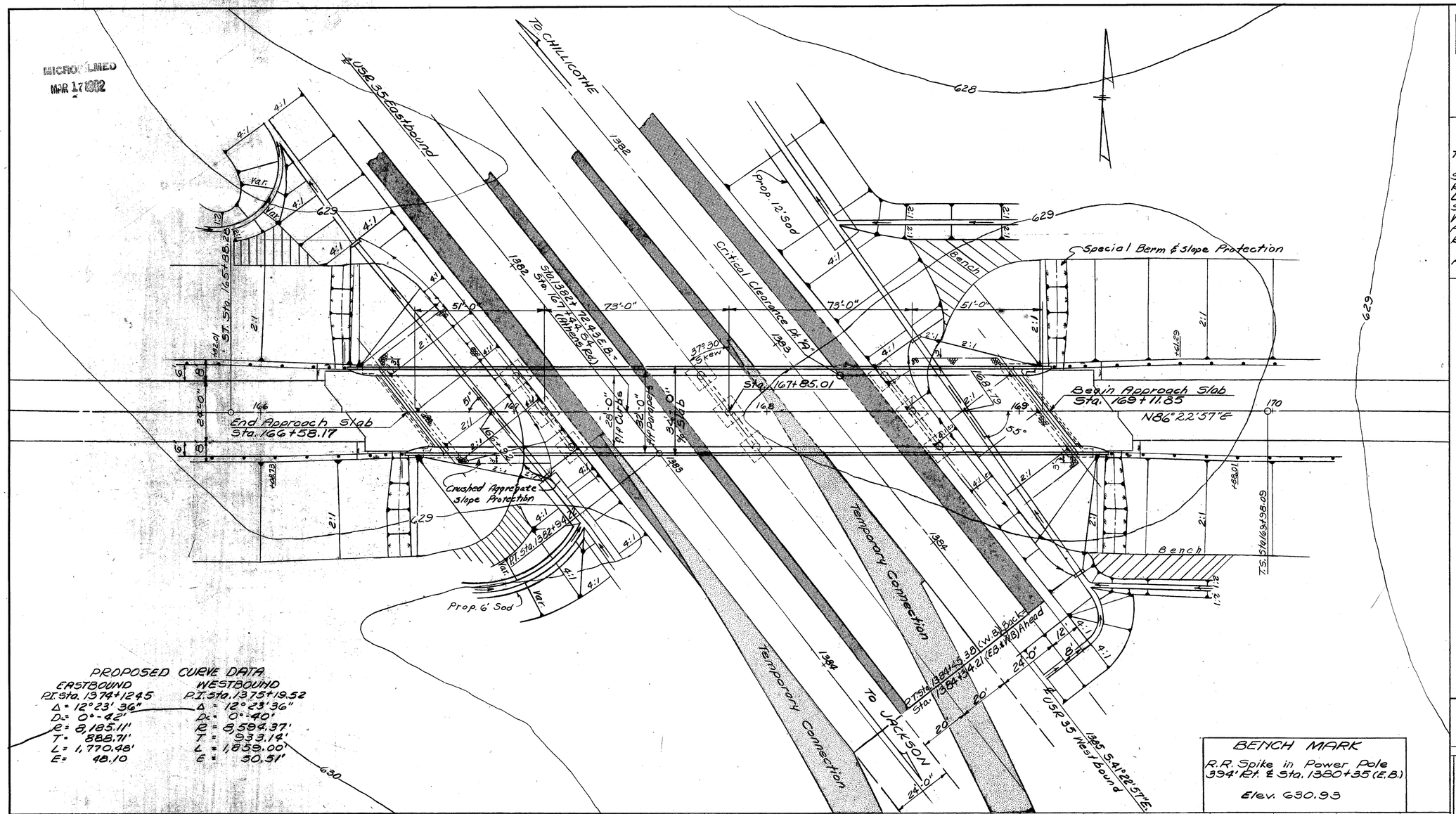
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

163
125

ROSS COUNTY
ROS-35-25.05

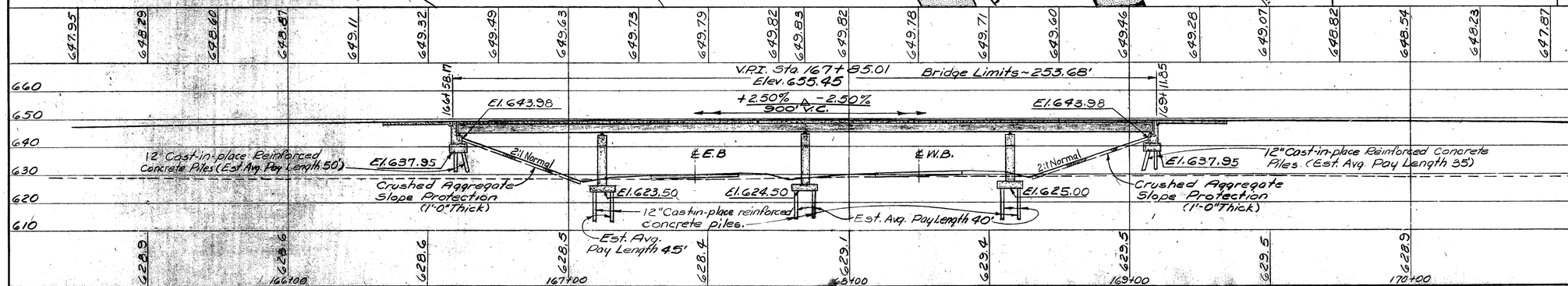
PROPOSED STRUCTURE DATA

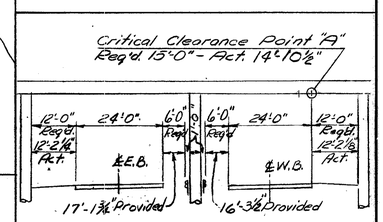
TYPE: Continuous Steel Beam with Concrete Deck and Substructure
SPAN: 51'-0" - 73'-0" - 73'-0" - 51'-0"
ROADWAY: 28' 1½" 2'-0" Safety Curbs
LOAD FREQUENCY: C.F. 400 (S7)
SKEW: 37° 30' R.F.
WEARING SURFACE: 1" Monolithic Concrete
APPROACH SLABS: AS-1-67 (25' Long) Special
RAILING: Aluminum Rail and Supports and Concrete Parapet
ALIGNMENT: Tangent
1976 ADT 850



BENCH MARK

R.R. Spike in Power Pole
394' Rt. & Sta. 1380+35 (E.B.)
Elev. 630.93





CLEARANCE DIAGRAM
(SECTION NORMAL TO U.S.R. 35)

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

SITE PLAN
BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS RD.

ROSS COUNTY U.S.R. 35
STA. 1382 + 72.43 (E.B.)

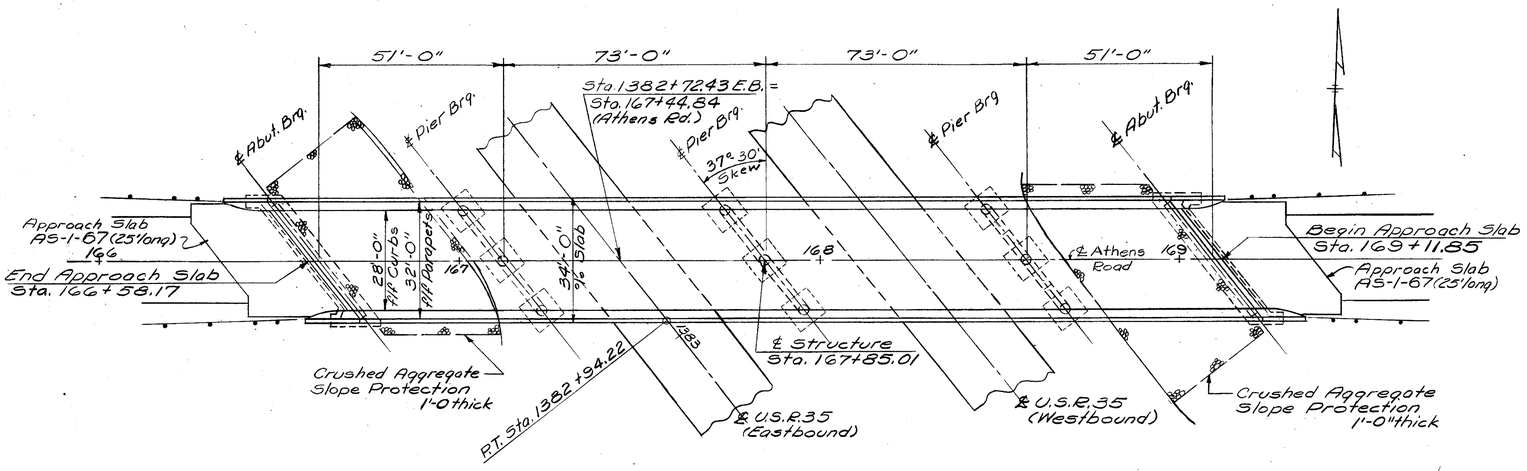
SCALE		DATE				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WJC	W.D.J.		7/82	WK	10/30/64	

MICROFILMED
MAR 17 1992

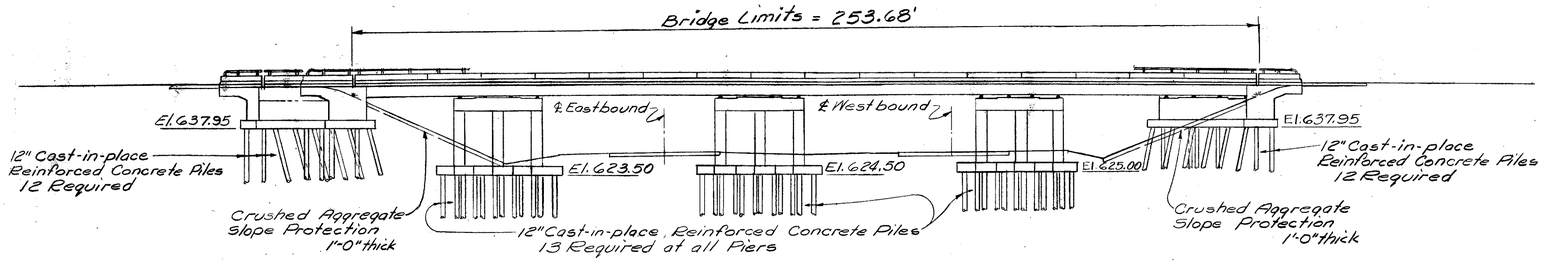
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

164
223

ROSS COUNTY
ROS-35-25.05



GENERAL PLAN



GENERAL ELEVATION

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION	ABUT'S.	PIERS	SUPER	GENERAL	AS BUILT	
503	388	Cu.Yds.	Unclassified Excavation	201	187				
601	497	Sq.Yds.	Crushed Aggregate Slope Protection				497		
511	284	Cu.Yds.	Class C Concrete, Superstructure			284			
511	82	Cu.Yds.	Class C Concrete, Pier Caps and Columns		82				
511	90	Cu.Yds.	Class C Concrete, Abutments above Footings	90					
511	138	Cu.Yds.	Class C Concrete, Footings	71	67				
509	112,976	Lbs.	Reinforcing Steel	11,572	24,792	76,612			
513	225,000	Lbs.	Structural Steel			225,000			
514	225,000	Lbs.	Field Painting of Structural Steel			225,000			
825	1122	Sq.Yds.	Concrete Surface Protection	51		1071			
517	553.67	Lin.Ft.	Railing aluminum rail and supports and concrete parapet	53.67		500.00			
505	Lump	Sum	First Test Pile				Lump		
507	2640	Lin.Ft.	12" Cast-in-place Reinforced Concrete Piles	1020	1620				
518	72	Lin.Ft.	6" Helical perforated CMP, 70701 including specials	72					
518	48	Lin.Ft.	6" Helical CMP, 70701, non-perforated.	48					
518	12	Each	Scuppers, including supports			12			
518	30	Cu.Yds.	Porous Backfill	30					
808	284	Each	Water Reducing, Set-Retarding Admixture			284			

GENERAL NOTES

*REFERENCE shall be made to Standard Drawing BR-1-65 revised 11-24-65, FSB-1-62 revised 1-15-63.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

Design Loading: C F-400 (57)
Concrete, Class C: basic unit stress - 1,333 p.s.i. Substruct.
Concrete, Class C: basic unit stress - 1,133 p.s.i. Superst.
Structural Steel: ASTM A36, basic unit stress - 20,000 p.s.i.,

Reinforcing Steel - ASTM A515; A516, A517 Deformed, Intermediate, or Hard Grade. Basic unit stress 20,000 p.s.i. Except spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 p.s.i.

PROCEDURE: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments for a minimum period of 30 days, after which excavation shall be made for the abutments and piles driven.

EXCAVATION QUANTITY for the abutments includes the removal of fill material required for construction of the abutments.

PILES shall be driven to a minimum bearing capacity of 33 tons per pile for the abutments and 45 tons per pile for the piers.

WELDS on Non-Stress carrying members are shown thus. N

*REFERENCE Contd Supplemental Specifications 808 dated 1-1-69, 811 dated 1-1-69, 825 dated and 927 dated 1-1-69 On Std. Dng. FSB-1-62, Specification reference M-7.11 shall be considered to read 711.17

WELDED ATTACHMENTS: No attachments shall be made by field welding to the flanges or flange plates of continuous beams or plate girders within a distance of 0.10 of the span length on either side of the top flanges at other parts of the spans shall be kept at least 2" from edge of flange.

SURFACE FINISH OF CONCRETE: The requirements of Sec. 511.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:
a. The entire superstructure except the top and bottom surfaces of safety curbs and roadways.
b. The entire surface of piers and abutments except bridge seats, backwalls and the face of the spill through abutments between outside beams.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

STAINLESS STEEL FASTENERS shall be properly passivated to removed surface impurities and shall be furnished with a lustrous furnish.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

GENERAL PLAN AND ELEVATION, EST. QUANTITIES AND GEN. NOTES
BRIDGE NO. ROS-35-26.19
U.S.R. 35 UNDER ATHENS ROAD
ROSS COUNTY U.S.R. 35
STA. 1382+72.43 (E.B.)

SCALE
DATE

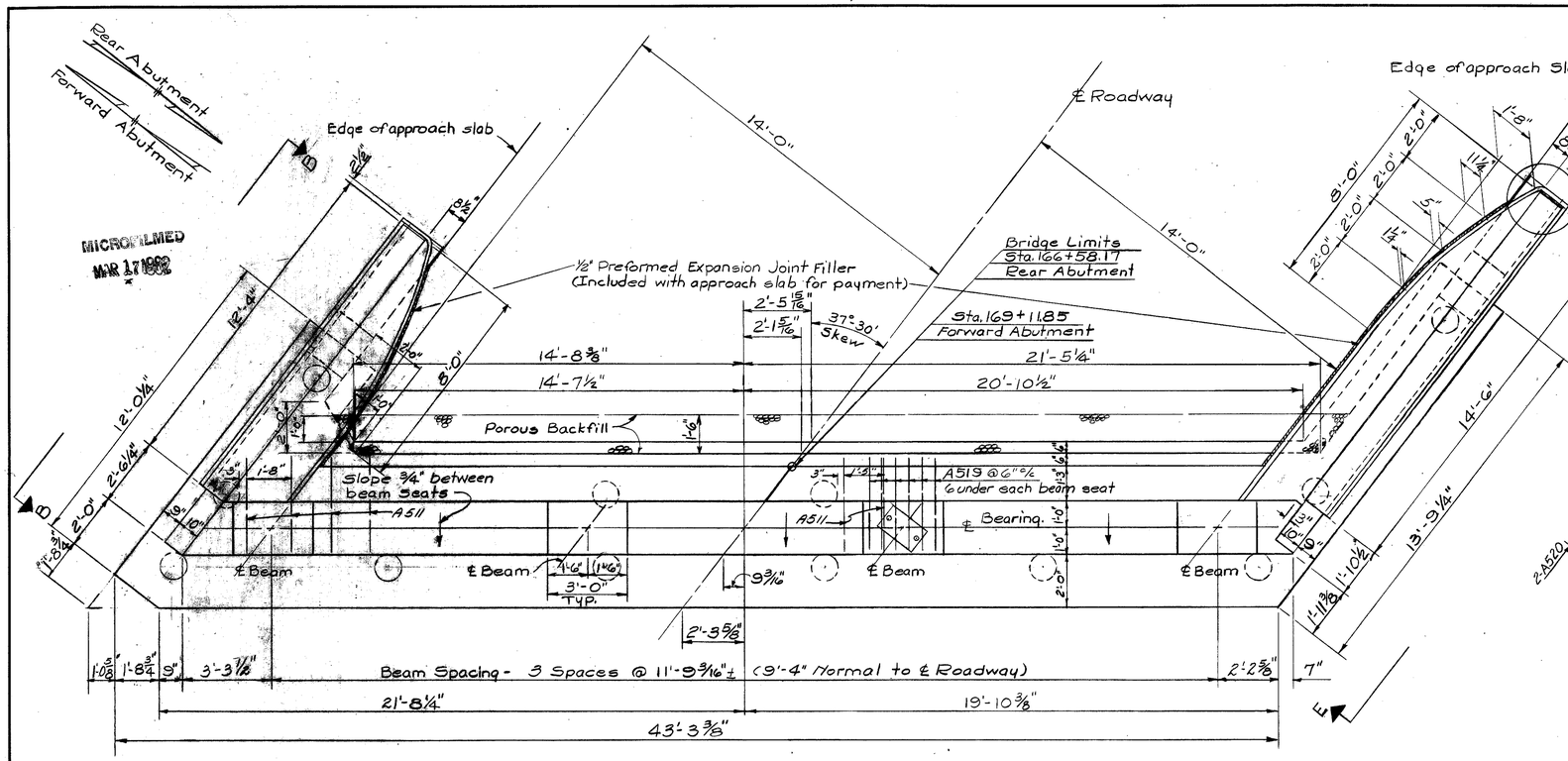
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.D.D.	W.Q.W.		H.E.Z.	W.L.	10/30/64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

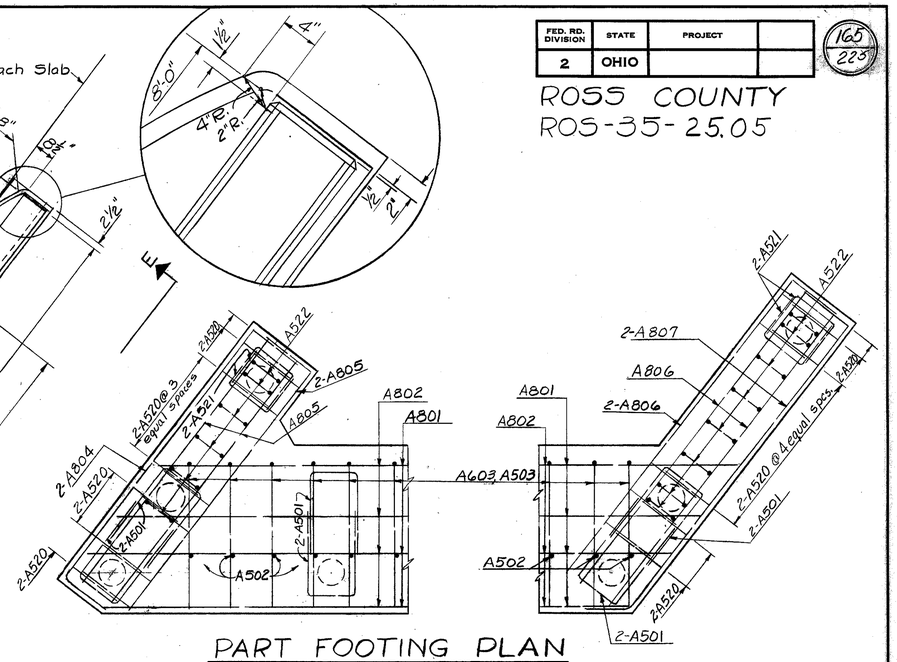
165/223

ROSS COUNTY
ROS-35-25.05

MICROFILMED
MAR 17 1982



PLAN



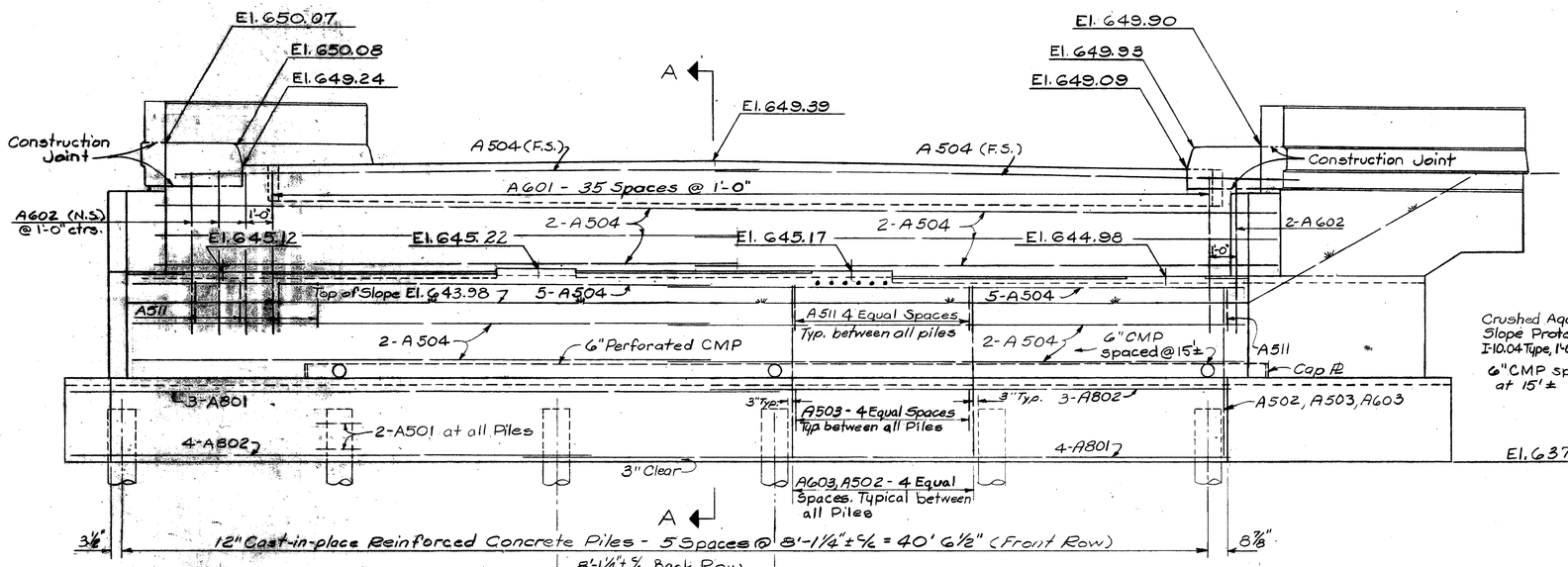
PART FOOTING PLAN

NOTES

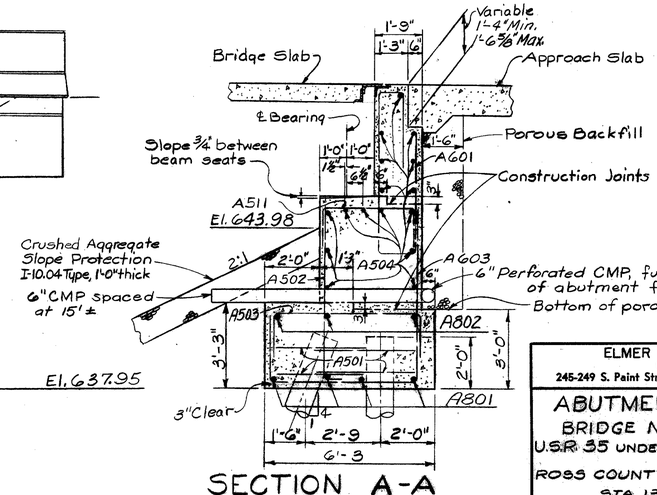
POROUS BACKFILL shall extend upward to the approach slab and outward to the abutment wings.

BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of the anchor bar holes.

LEGEND
N.S. - denotes Near Side
F.S. - denotes Far Side



ELEVATION



SECTION A-A

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

ABUTMENT DETAILS
BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD

ROSS COUNTY U.S.R. 35
STA. 1382 + 72.43 (E.B.)

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KDD	WDJ		HEB	WL	10/20/64	

MICROFILMED
MAR 17 1999

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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ROS-35-25.05

NOTES

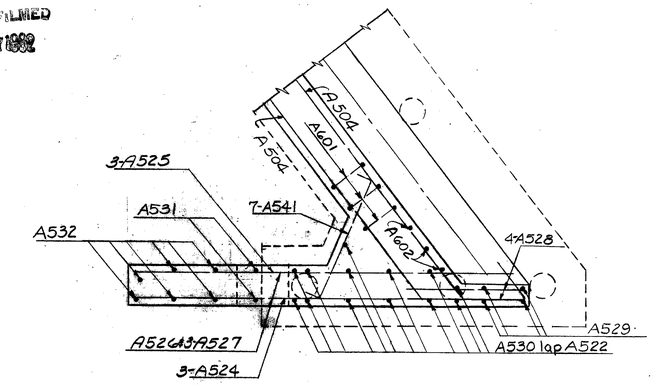
SEE STANDARD DRAWING BR-1-65 for details of aluminum railing and concrete parapet.

ALUMINUM RAILING and concrete parapet Wall are included with 517, Railing for payment.

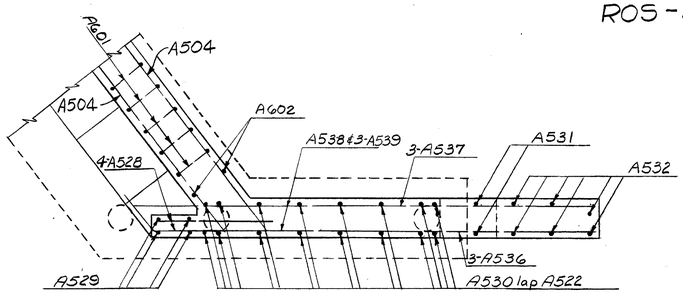
LEGEND

N.S. denotes Near Side

F.S. denotes Far Side



SECTION D-D



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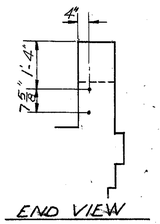
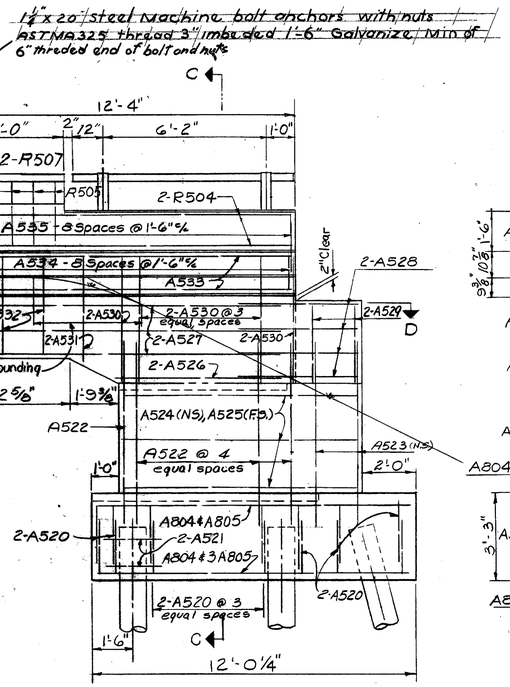
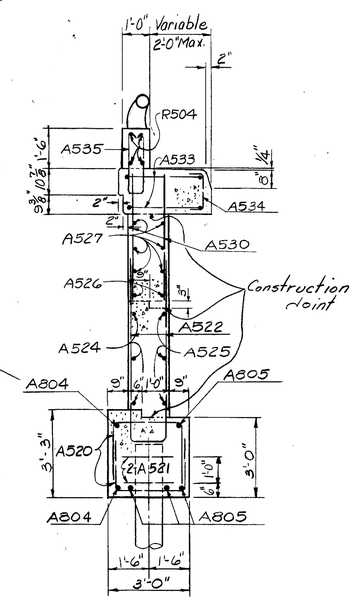


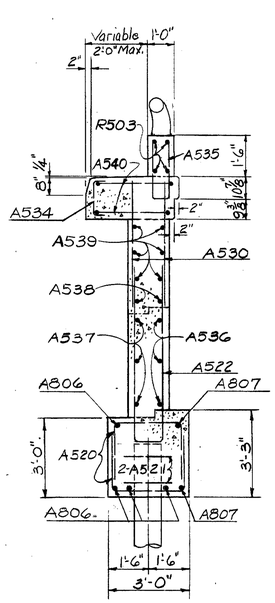
END VIEW



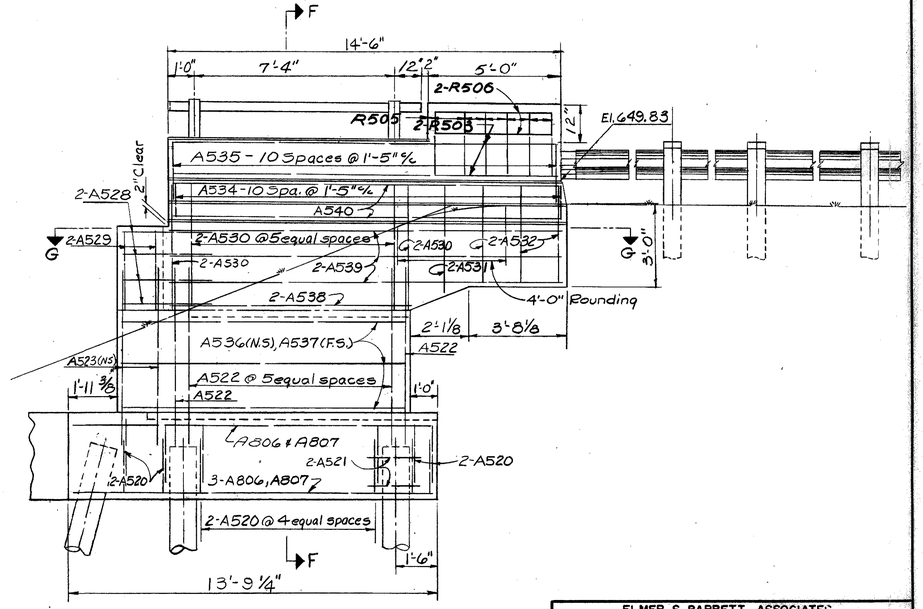
VIEW B-B



SECTION C-C



SECTION F-F



VIEW E-E

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

ABUTMENT DETAILS

BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD
ROSS COUNTY — U.S.R. 35
STA. 1382 + 72.43 (E.B.)

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JWH	WDJ		HLB	WK	10/30/64	

MICROFILMED
MAR 17 1982

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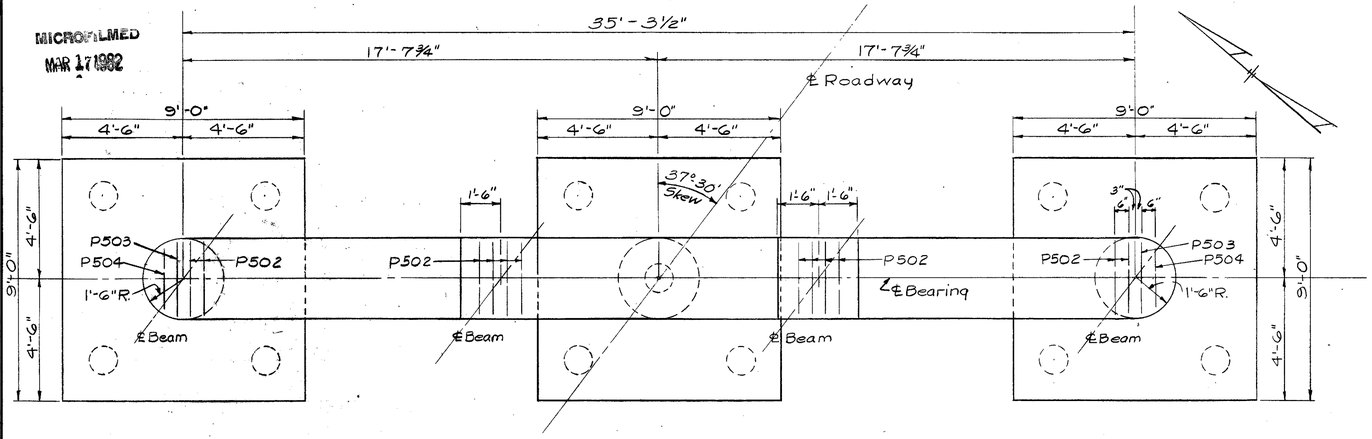
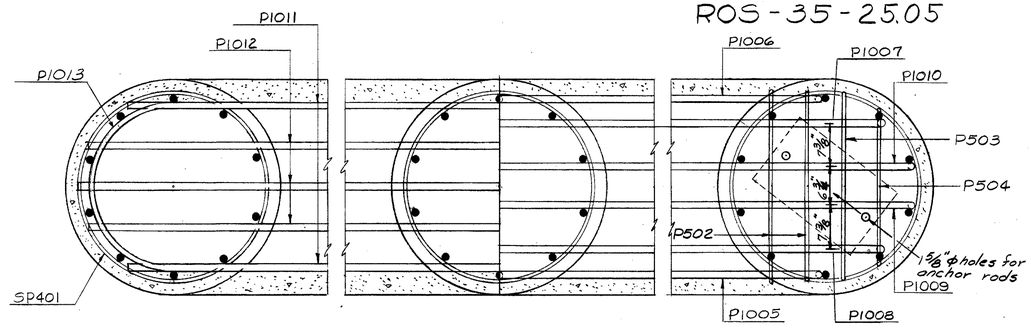
ROSS COUNTY
ROS-35-25.05



PLAN
REAR PIER



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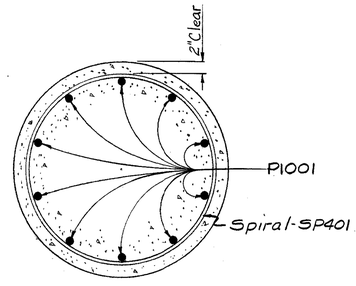

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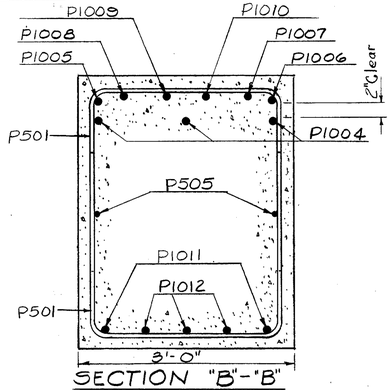

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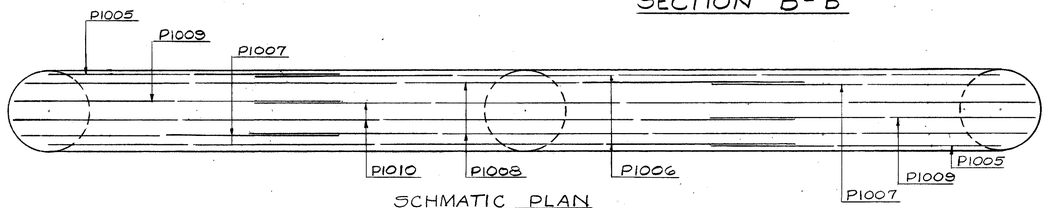
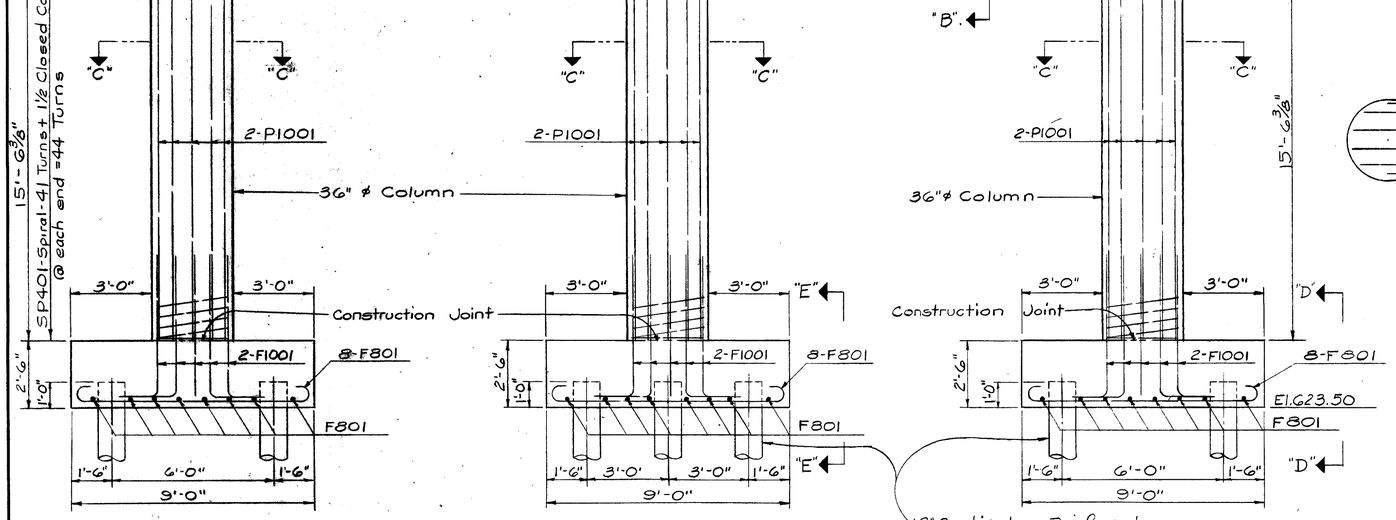
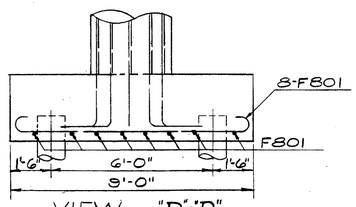


SCHMATIC PLAN
(Showing Stagger of Reinforcing Bars in Top of Pier Cap)

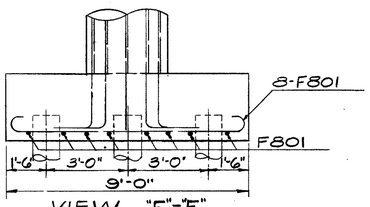


ELEVATION
REAR PIER

12" Cast-in-place Reinforced Concrete Piles (Typical)



VIEW "D"-"D"



VIEW "E"-"E"

NOTES

BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the Bridge Seat so as to avoid interference with the drilling of anchor bar holes.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

PIER DETAILS
BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD
ROSS COUNTY — U.S.R. 35
STA. 1382+72.43 (E.B.)

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.W.H.	W.D.J.		W.B.J.	J.W.H.	10/30/64	

MICROFILMED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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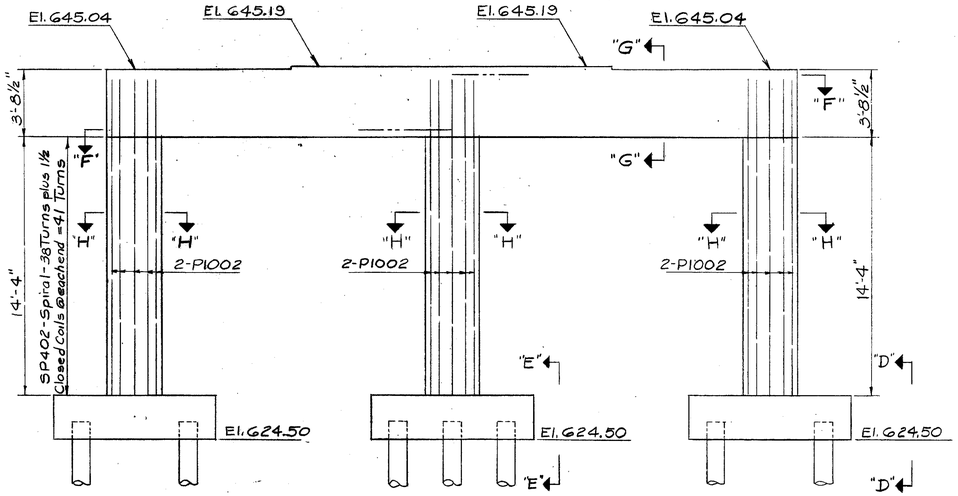
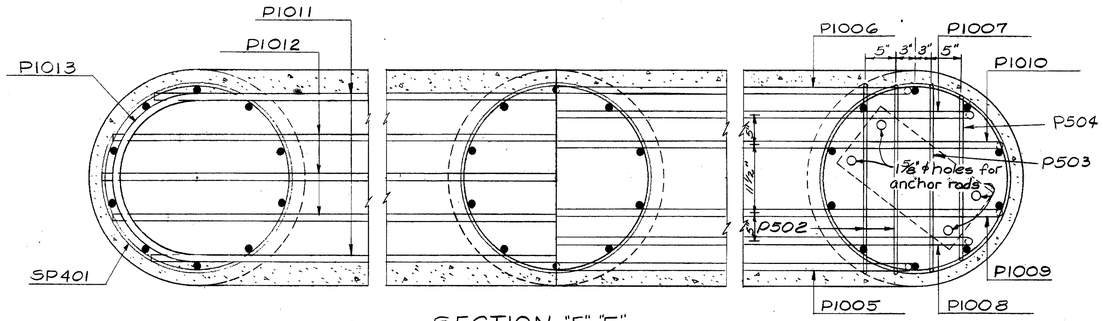
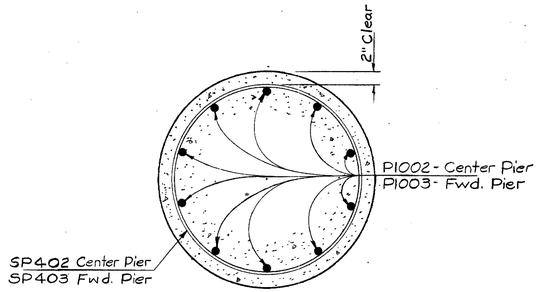
ROSS COUNTY
ROS-35-25.05



ELEVATION
CENTER PIER



SECTION "F"-"F"



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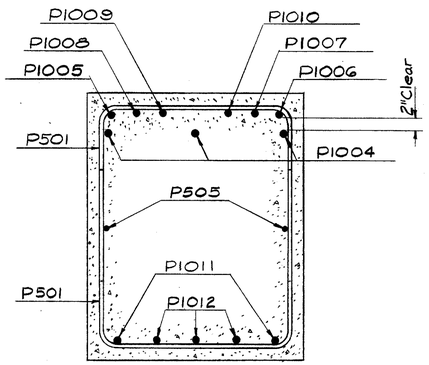
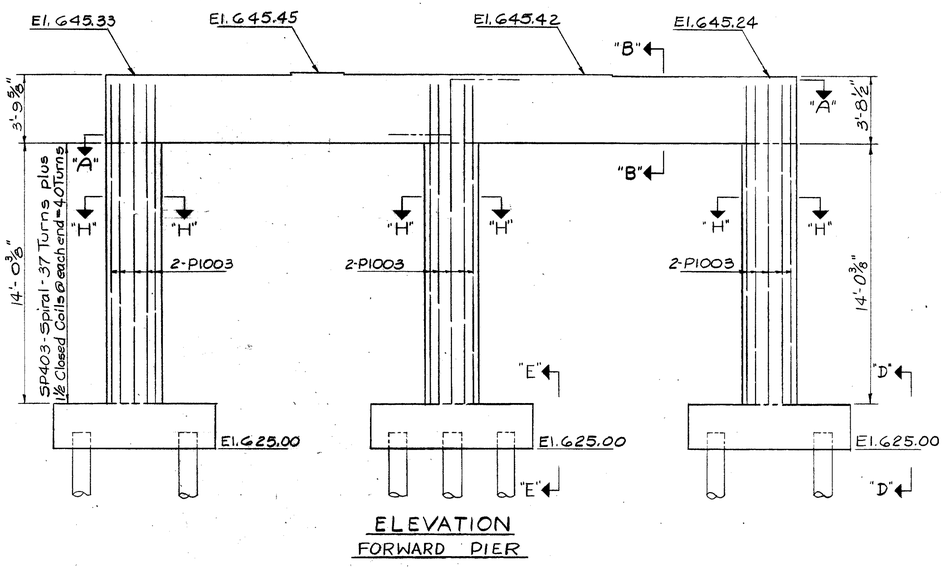


SECTION "G"-"G"



ELEVATION
FORWARD PIER

NOTE:
All details, dimensions and reinforcing steel not shown in Center Pier and Forward Pier are identical to Rear Pier.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

PIER DETAILS

BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD
ROSS COUNTY — U.S.R. 35
STA. 1382 + 72.43 (E.B.)

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JWH	W.D.J.		[illegible]	[illegible]	10/30/64	

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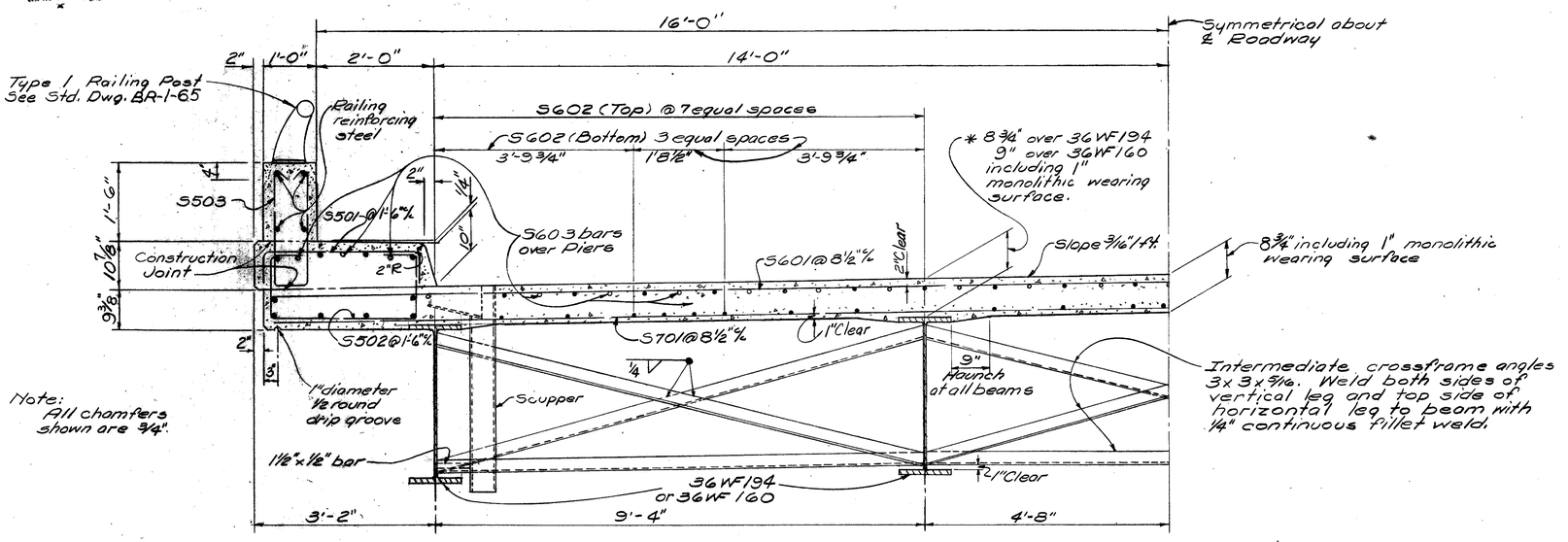
ROSS COUNTY
ROS-35-25.05

Note:
All longitudinal bars S602 except as otherwise shown.
Lap S602 bars 1'-11" minimum.



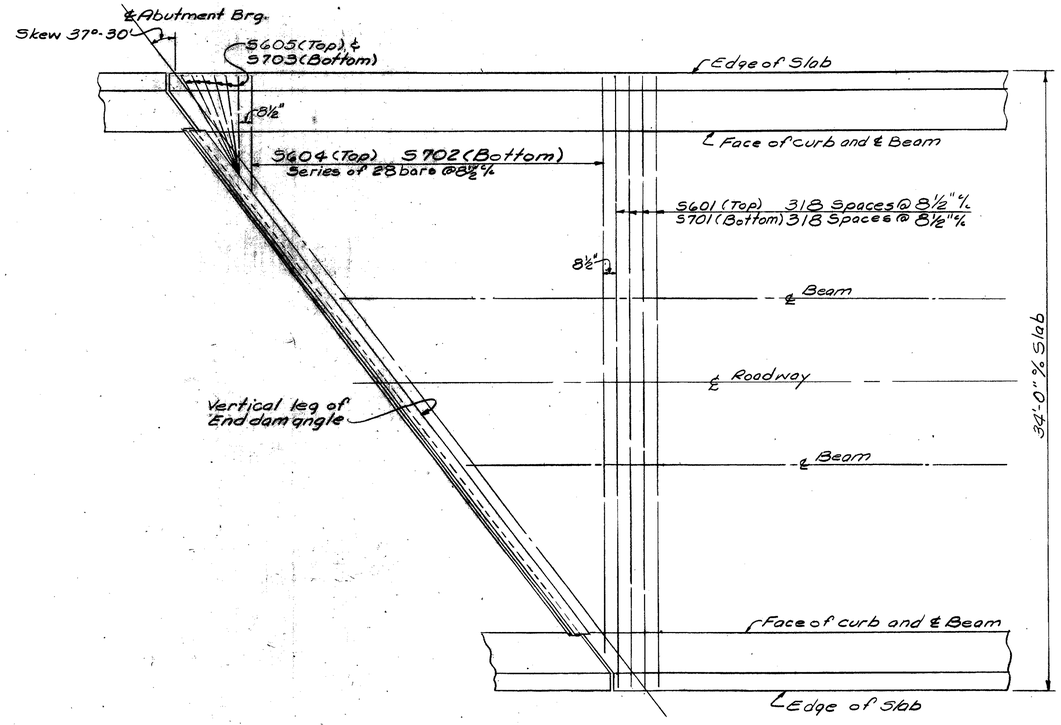
HALF TRANSVERSE SECTION

Note:
All chamfers shown are 3/4".

NOTES

* This is a nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12", except that the maximum slope shall not exceed 3 inches per foot. Payment for deck slab concrete shall be based on the 9" width.



PART PLAN
SLAB REINFORCING

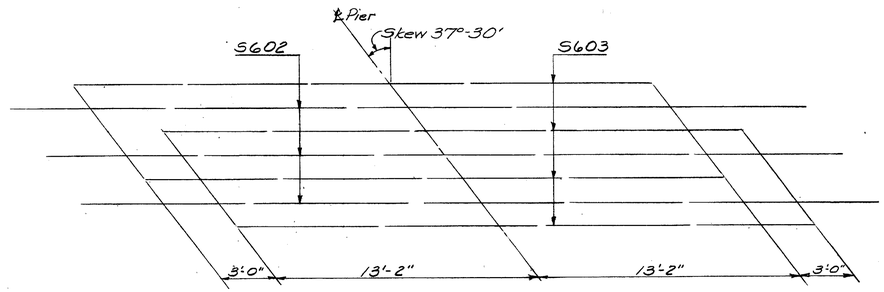
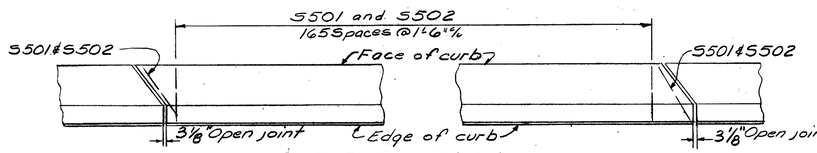


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS



PART PLAN
CURB REINFORCING

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

SLAB REINFORCING DETAILS
BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD
ROSS COUNTY — U.S.R. 35
STA. 1382+72.43 (E.B.)

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.D.D.	W.O.W.		TKZ	WK	10/30/64	

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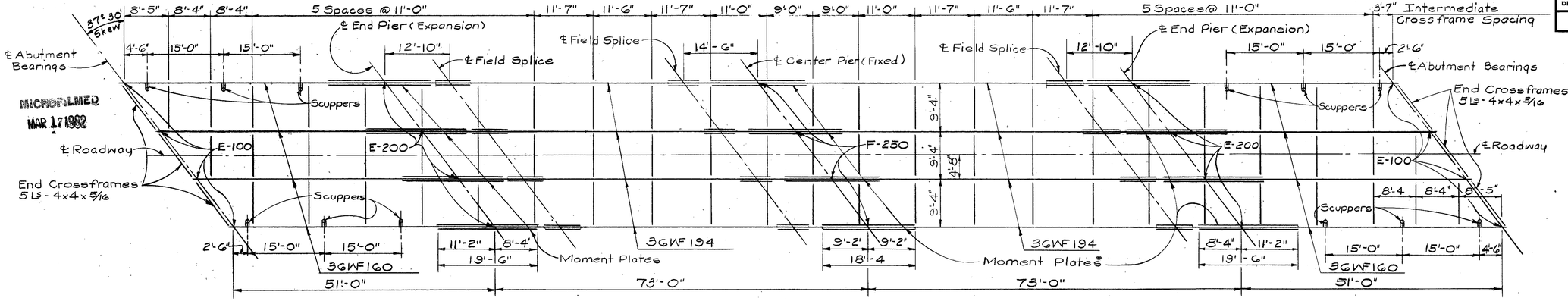
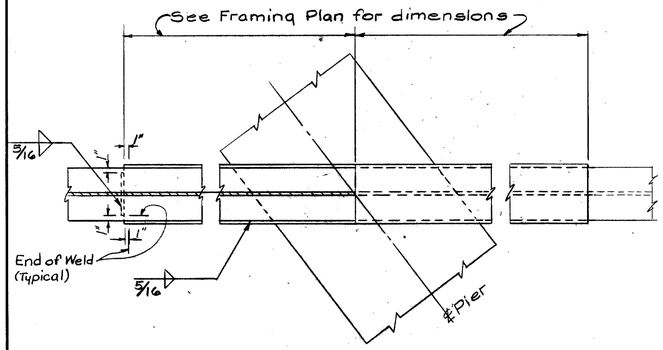
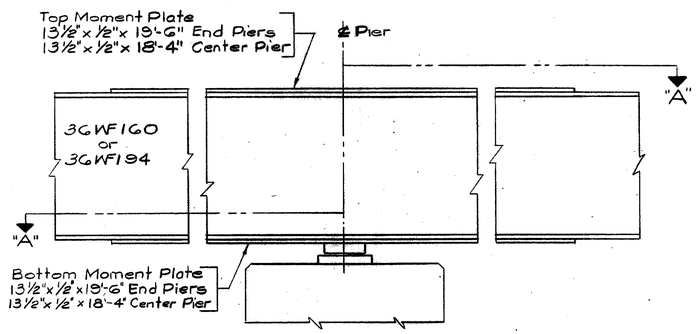


FRAMING PLAN

Note:
See Sheet No 170-A for Field Splice Details



SECTION "A"-"A"



ELEVATION
MOMENT PLATE DETAILS

DEFLECTION AND CAMBER TABLE				
LOCATION	OUTSIDE BEAMS		INSIDE BEAMS	
	END SPAN	MIDDLE SPAN	END SPAN	MIDDLE SPAN
Deflection due to weight of steel	1/32"	1/16"	1/32"	1/16"
Deflection due to remaining dead load	1/8"	3/8"	1/8"	3/8"
Convexity required for vertical curve	7/32"	7/16"	7/32"	7/16"
Sum of convexity and deflection	3/8"	7/8"	3/8"	7/8"
Required Camber	0	7/8"	0	7/8"

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

SUPERSTRUCTURE DETAILS

BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD

ROSS COUNTY U.S.R. 35
STA. 1382 + 72.43 (E.B.)

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KDD THE	W.D.J.		MAC	MK	10/30/64	

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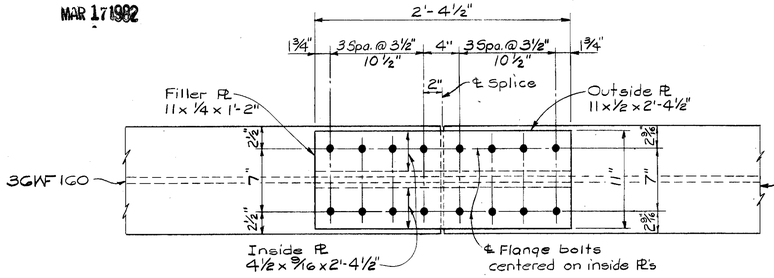
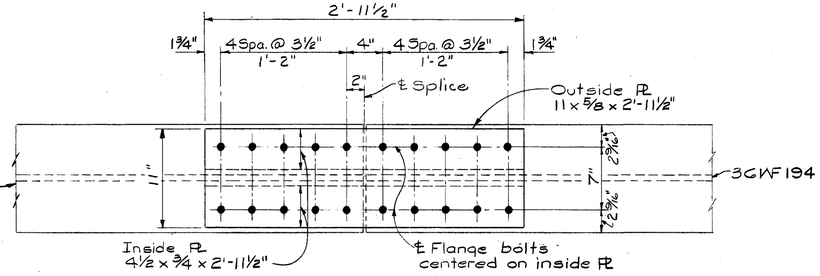
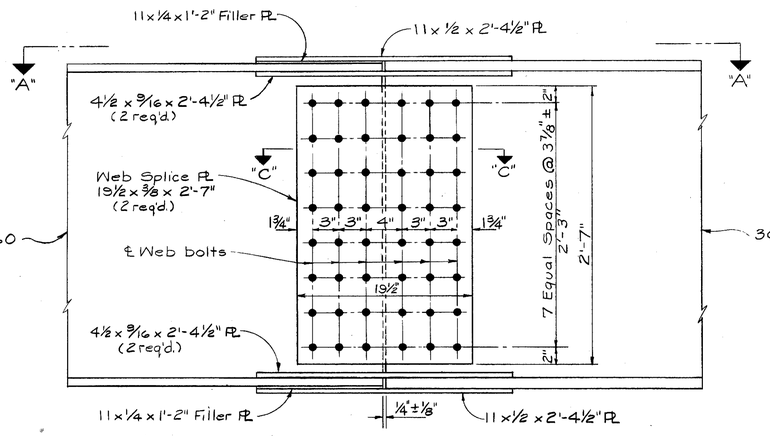


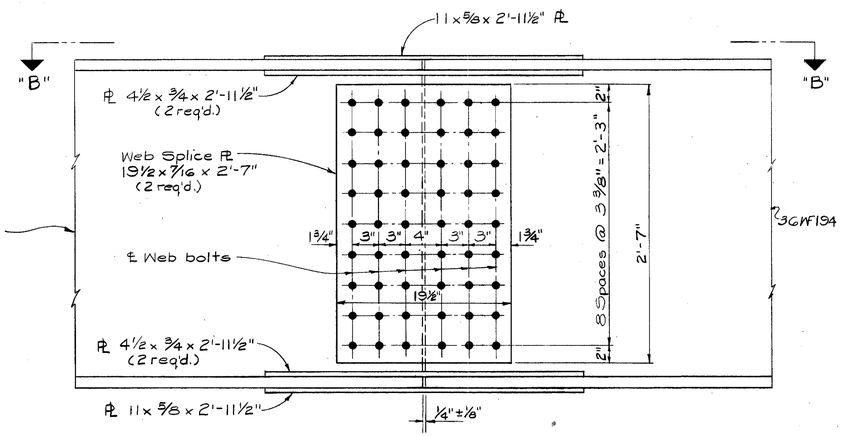
VIEW "A"-"A"
Flange Splice



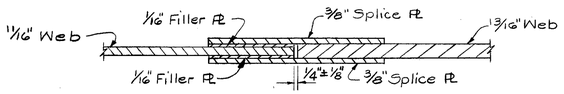
VIEW "B"-"B"
Flange Splice



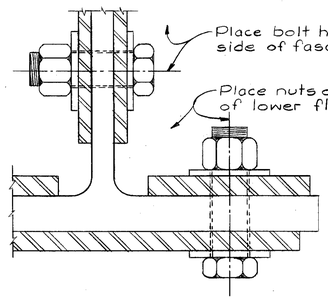
BEAM SPLICE DETAIL (Near End Piers)
Web Splice



BEAM SPLICE DETAIL (Near Center Pier)
Web Splice



SECTION "C"-"C"



Washers may be omitted as allowed in Sec. S-7.10.

TYPICAL SECTION
(at ℄ of beam splice)

NOTES

DESIGN SPECIFICATIONS: Splice details conform to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated September 1, 1957, together with current revisions thereof, except strength of splice is based on Section 1.6.31 of the A.A.S.H.O. "Standard Specifications for Highway Bridges" dated 1961, together with current revisions thereof.

DESIGN UNIT STRESSES:

Structural Steel	ASTM A-36	20,000 p.s.i. bending 12,000 psi. shear
High Strength Bolts	ASTM A-325	13,500 psi. shear 40,000 psi. bearing

MATERIAL: Splice plates, bolts, and fills shall be according to Item S-7. Bolts shall be 1" diameter, High Strength. The splice weight plus the weight of fills shall be included under Item S-7, Structural Steel for payment.

FILLS shown on the project plans are based on the nominal member sizes being spliced, however, in the final shop assembly, fills shall be furnished to the nearest 1/16 inch in thickness based on the actual measured sizes of the members being spliced. Drawing together of splice plates over material that varies by 1/16 inch or more in thickness, at the centerline of the splice, will not be permitted.

FIELD ASSEMBLY: In the final assembly of parts to be bolted, each beam shall be so supported that drift pins may be placed in a sufficient number of holes (not less than 25% for field erection), to provide and maintain accurate alignment of holes and parts. Heavy driving of drift pins will not be permitted. Sufficient bolts shall be installed and brought to a snug tight condition to bring all parts of the splice into complete contact before the member is released. Bolts shall then be installed in any remaining open holes and tightened to a snug tight fit, after which all bolts shall be tightened completely by calibrated wrenches or by the turn-of-nut method. Drift pins shall then be replaced with bolts, tightened in the same manner.

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street Chillicothe, Ohio

BEAM SPLICE DETAILS

BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD

ROSS COUNTY U.S.R. 35
STA. 1382 + 72.43 (E.B.)

SCALE		DATE				
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	W.D.J.		WIC			

MICROFILMED
MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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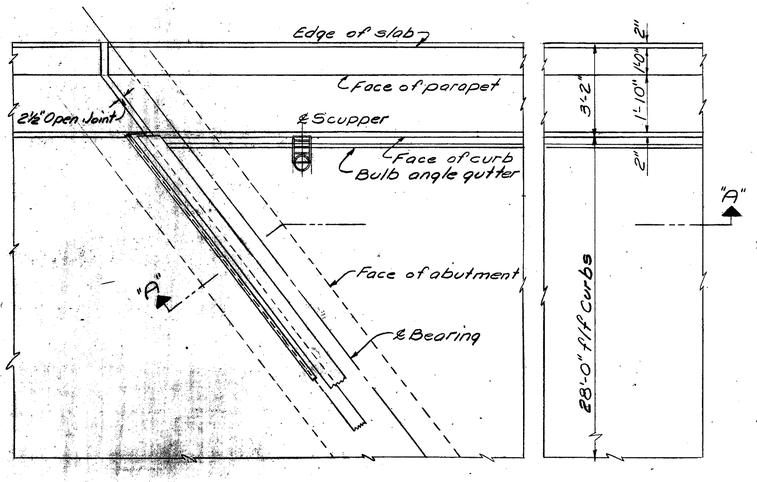
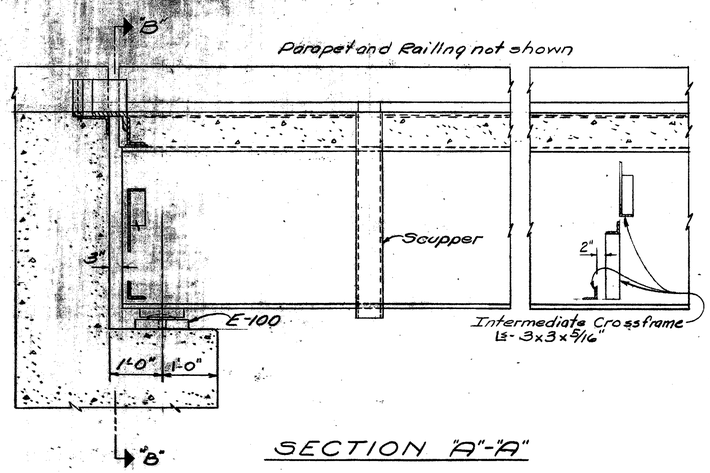
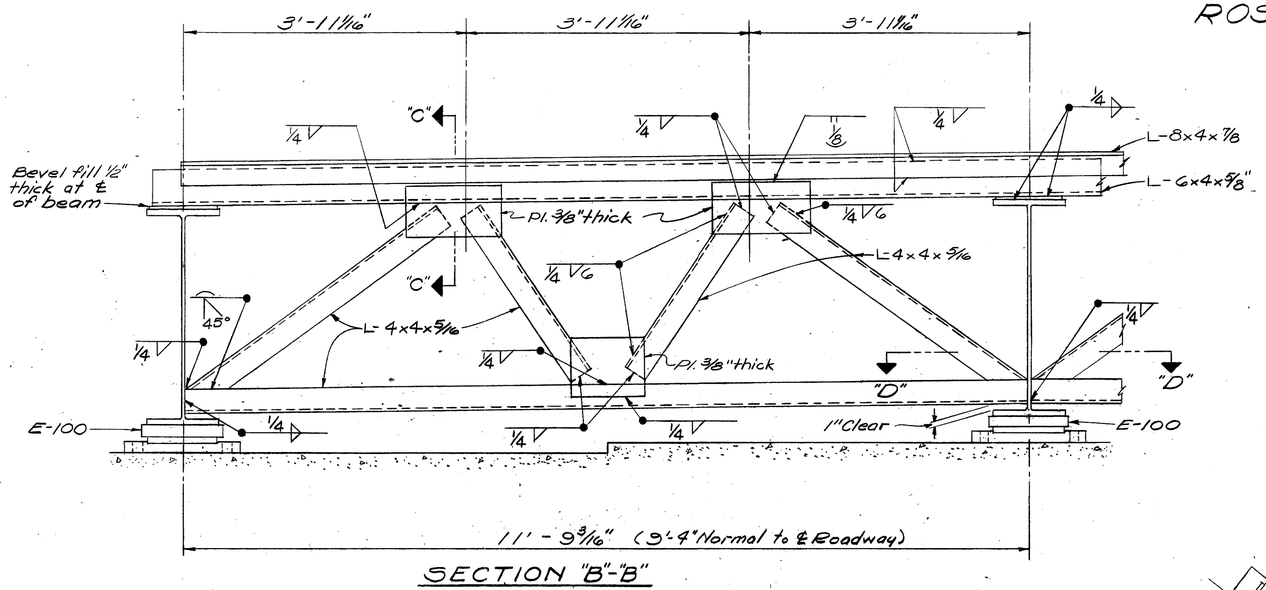
ROSS COUNTY
ROS-35-25.05



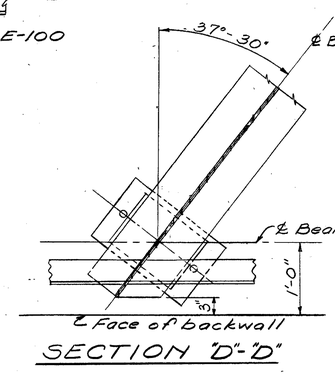
PART PLAN AT ABUTMENT



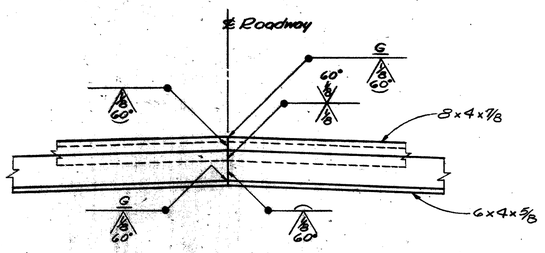
SECTION "A"-"A"



SECTION "B"-"B"

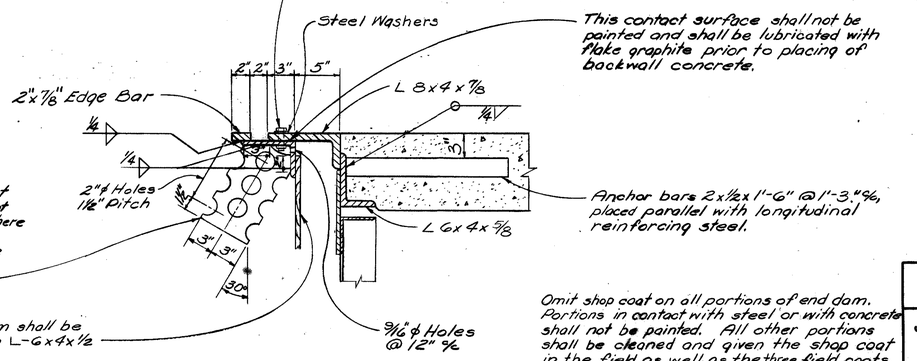


SECTION "D"-"D"



WELDED BUTT JOINT IN SUPERSTRUCTURE END DAM ANGLES AT ℄ OF ROADWAY

A welded butt joint in the end dam along the centerline of roadway, will be required for that portion of the end dam attached to the superstructure. The portion attached to the backwall shall be placed in segments not less than 6'-0" in length, with one of the joints at the apex of the crown. These shall be closely butted but shall not be welded.



7/8" x 2½" bolts at not more than 2'-0" ℄ with nuts tack-welded to under side of lower angle. 1 1/16" holes in upper angle. Center 7/8" bolts in 1 1/16" holes. Apply flake graphite between washers and angle. Turn bolts tight and release one-half turn. Remove bolts as soon as concrete has set, preferably within two hours after placing, to avoid damage due to temperature expansion or contraction of superstructure. Fill holes with bituminous material.

This contact surface shall not be painted and shall be lubricated with flake graphite prior to placing of backwall concrete.

Anchor bars 2 x 1/2 x 1'-6" @ 1'-3" ℄, placed parallel with longitudinal reinforcing steel.

6" x 1/2" x 12" plates, spaced at approximately 13" ℄ except near joints in the angle, where the plates shall be placed within 6" of each side of the joint. The holes may be burned in the plate.

Omit shop coat on all portions of end dam. Portions in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and given the shop coat in the field as well as the three field coats.

SECTION "C"-"C"

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

SUPERSTRUCTURE DETAILS
BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD
ROSS COUNTY — U.S.R. 35
STA. 1382+72.43 (E.B.)

SCALE — DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.D.D	W.O.J.		HJZ	WL	10/30/64	

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MAR 17 1982

FED. RD. DIVISION	STATE	PROJECT	
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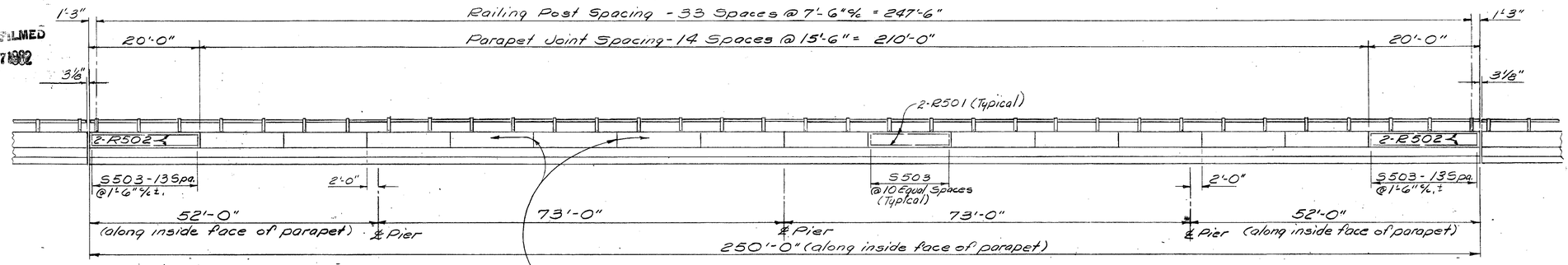
ROSS COUNTY
ROS-35-25.05



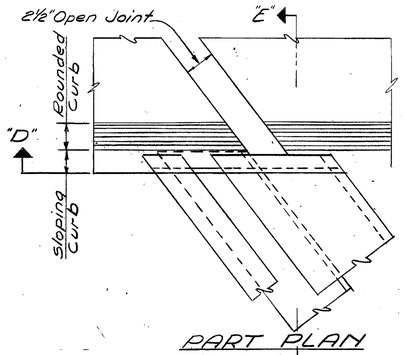
¼" grey sponge rubber preformed expansion joint filler meeting the requirements of Section 705.03 (AASHO M153). Included with Item 517 for payment.)

TREATMENT OF PARAPET AND FASCIA

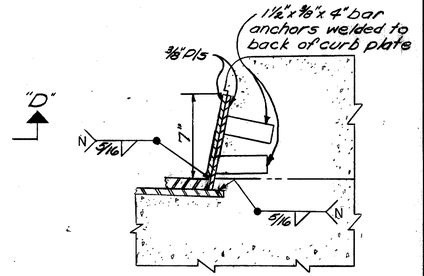
NOTES

DECK DRAINAGE: Scuppers shall be made of steel. Milled joints will be permitted in bulb angles but individual lengths shall be as long as practicable. Gutters shall be accurately adjusted for alignment and grade with allowance for dead load deflection before concrete is placed. Welding for scuppers shall be continuous fillet weld. Steel gutters and supports are included under Item S-7, structural steel.

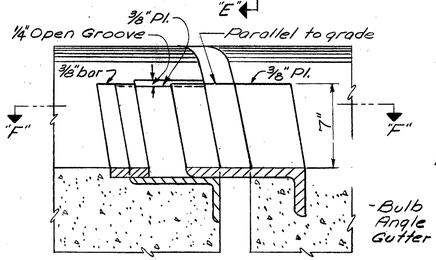
SCUPPERS are paid for under Item S-29, scuppers. The first support angle each side of scupper is included with scupper for payment.



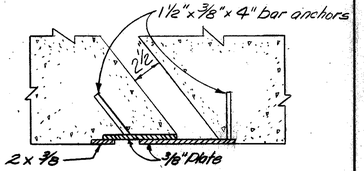
PART PLAN



SECTION "E"-"E"

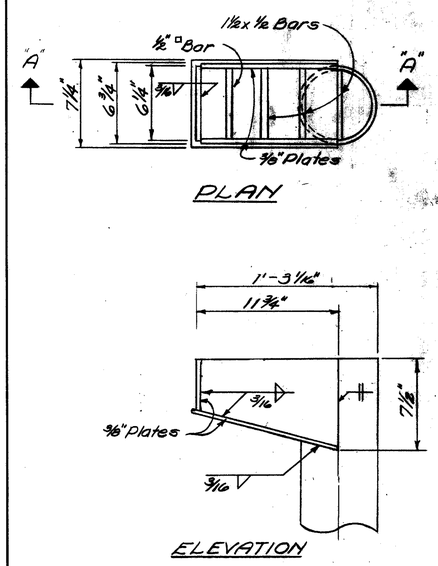


SECTION "D"-"D"



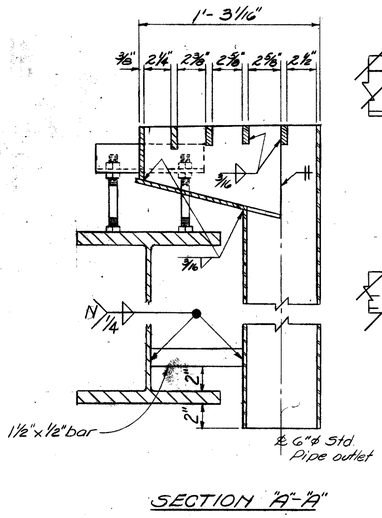
SECTION "F"-"F"

CURB PLATE DETAILS

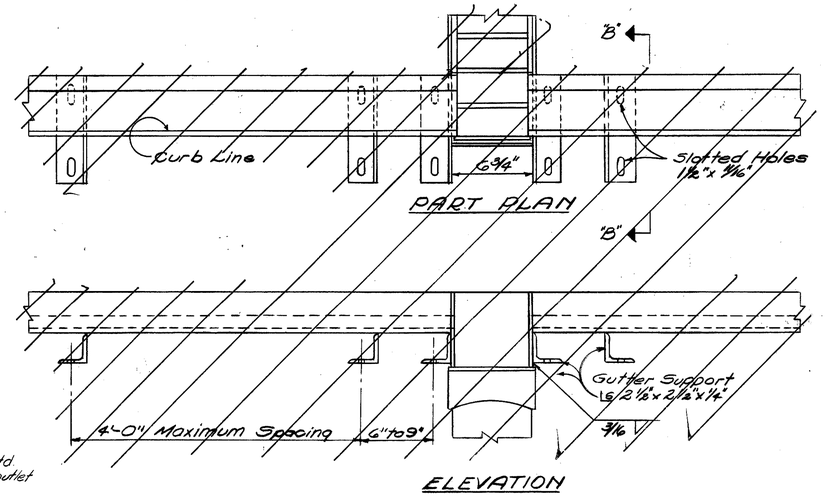


PLAN

ELEVATION

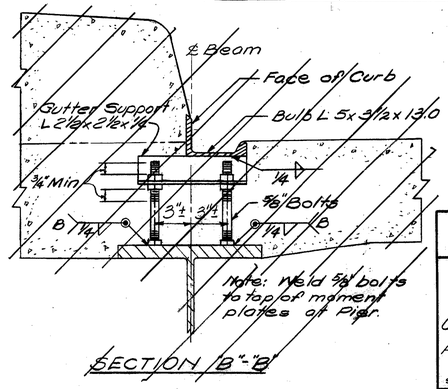


SECTION "A"-"A"



PART PLAN

ELEVATION



SECTION "B"-"B"

GUTTER AND SCUPPER DETAILS

ELMER S. BARRETT ASSOCIATES
Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

SUPERSTRUCTURE DETAILS
BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD
ROSS COUNTY — U.S.R. 35
STA. 1382 + 72.43 (E, B)

SCALE — DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KDD	WDJ		JLG	MW	10/30/64	

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MAR 17 1982

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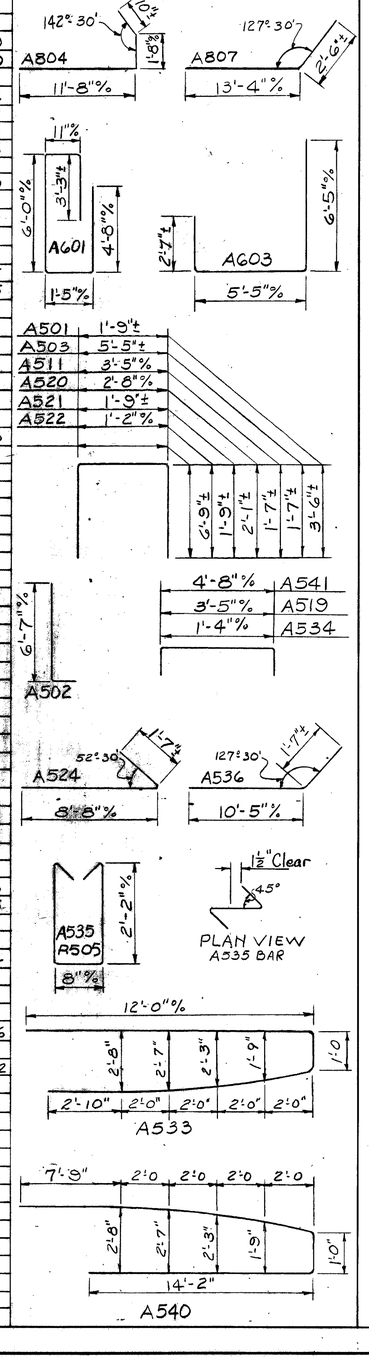
REINFORCING STEEL LIST

ONE ABUTMENT

Bar Number	Number Required	Length	Shape	Weight
A801	7	27'-3"	—	509
A802	7	19'-3	—	360
A803	Deleted			
A804	2	13'-11"	⌒	74
A805	4	11'-2"	—	119
A806	4	13'-10"	—	148
A807	2	15'-8"	⌒	84
A601	36	15'-7"	⊓	843
A602	5	6'-0"	—	45
A603	25	14'-1"	⊔	529
A501	24	8'-5"	⊏	211
A502	25	7'-1"	L	185
A503	25	8'-3"	⊓	215
A504	32	21'-10"	—	729
A505	} Deleted			
A506				
A507				
A508				
A509				
A510				
A511	25	6'-3"	⊓	163
A512	} Deleted			
A513				
A514				
A515				
A516				
A517				
A518				
A519	24	4'-5"	⊓	111
A520	36	6'-7"	⊓	247
A521	8	4'-11"	⊓	41
A522	14	14'-4"	⊔	209
A523	4	6'-9"	—	28
A524	3	10'-1"	⌒	32
A525	3	8'-3	—	26
A526	2	6'-3	—	13
A527	6	11'-8"	—	73
A528	16	4'-5"	—	74
A529	8	2'-8"	—	22
A530	29	4'-6"	—	136
A531	4	3'-10"	—	16
A532	12	3'-6"	—	44
A533	2	23'-6"	⌒	49
A534	20	2'-4"	⊓	49
A535	20	5'-7"	⊠	116
A536	3	12'-0"	—	38
A537	3	11'-3"	—	35
A538	2	9'-0	—	19
A539	6	14'-2"	—	89
A540	2	30'-7"	⊏	64
A541	7	5'-8"	⊓	41
TOTAL	ONE ABUTMENT			5,786
TOTAL	TWO ABUTMENTS			11,572

Bending Diagrams



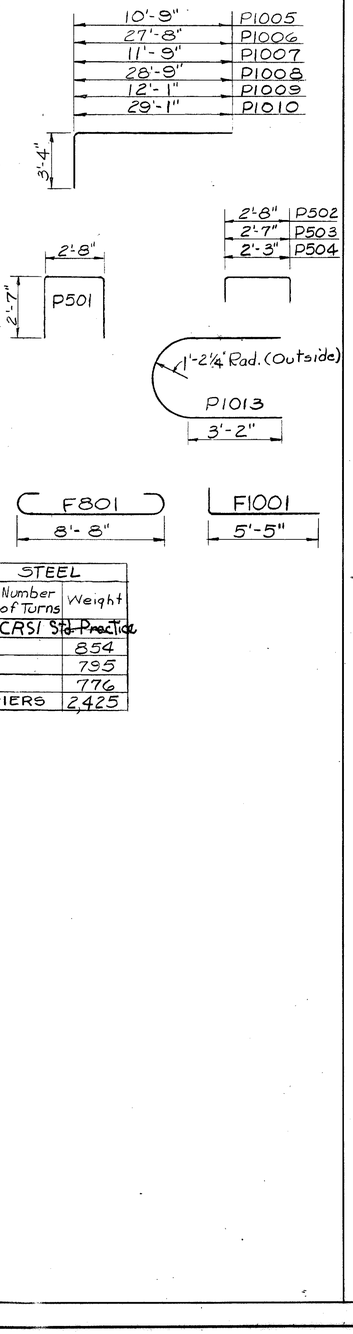
THREE PIERS

Bar Number	Number Required	Length	Shape	Weight
P1001	30	18'-9"	—	2420
P1002	30	17'-7"	—	2270
P1003	30	17'-3"	—	2227
P1004	9	16'-0"	—	620
P1005	6	13'-9"	L	355
P1006	6	30'-8"	L	792
P1007	6	14'-9"	L	381
P1008	6	31'-9"	L	820
P1009	6	15'-1"	L	389
P1010	6	32'-1"	L	828
P1011	12	19'-11"	—	1028
P1012	18	20'-7"	—	1594
P1013	12	10'-0"	⊂	516
P501	132	7'-6"	⊏	1033
P502	36	3'-8"	⊓	138
P503	6	3'-7"	⊓	22
P504	6	3'-3"	⊓	20
P505	12	18'-6"	—	232
F1001	90	6'-6"	L	2517
F801	144	10'-10"	⊂	4165
SUB-TOTAL THREE PIERS				22,367

SPIRAL REINFORCING STEEL

Bar Number	Number Required	Core Dia % Spiral	Length	Pitch	Number of Turns	Weight
Other details in accordance with CRSI Std. Practice						
SP401	3	32"	15'-6 3/8"	4½"		854
SP402	3	32"	14'-4"	4½"		795
SP403	3	32"	14'-0 3/8"	4½"		776
TOTAL SPIRAL - THREE PIERS						2,425
TOTAL THREE PIERS						24,792

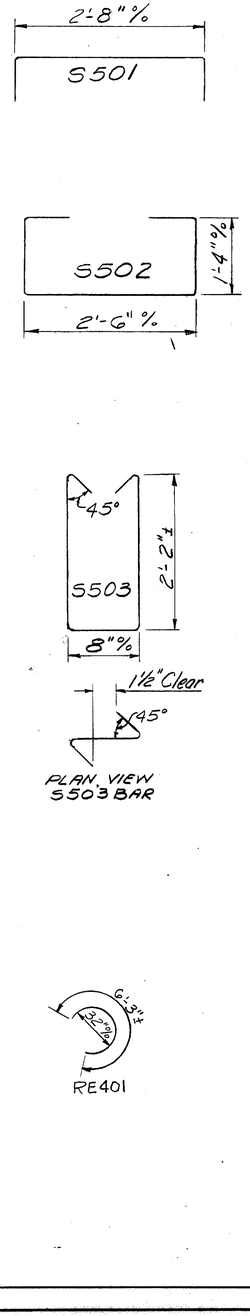
Bending Diagrams



SUPERSTRUCTURE

Bar Number	Number Required	Length	Shape	Weight	
S701	319	33'-8"	—	21,952	
S702	2 Series of 28 bars	31'-8 to 6'-6½	—	2,187	INC. 11⅛"
S703	12	5'-7"	—	137	
S601	319	33'-8"	—	16,131	
S602	576	29'-5	—	25450	
S603	81	29'-4	—	3,569	
S604	2 Series of 28 bars	31'-8" to 6'-6½	—	1,607	INC. 11⅛"
S605	12	5'-7"	—	101	
S501	336	3'-8"	⊓	1,285	
S502	336	5'-11"	⊓	2,073	
S503	364	5'-7"	⊠	2,120	
TOTAL				76,612	

Bending Diagrams



REPLACEMENT STEEL

RE1001	1	8'-2"	—
RE801	1	7'-6"	—
RE701	2	7'-2"	—
RE601	3	6'-11"	—
RE501	1	6'-7"	—
RE401	1	6'-3"	C

RAILING STEEL

R501	112	14'-8"	—
R502	16	19'-8"	—
R503	8	14'-2"	—
R504	8	12'-0"	—
R505	20	5'-7"	— B
R506	8	4'-8"	—
R507	8	3'-8"	—

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~NOTES~

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four digits are used, indicate the bar size. For example, A501 is a number 5 size bar and P1001 is a number 10 size bar.

RAILING STEEL in the parapet wall is included with Item 517 Railing for payment.

SPIRAL REINFORCING BARS: The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "Number of Turns" shown is the "Length" divided by the pitch plus three turns (total number of closed coils) expressed as the nearest whole number.
Spiral reinforcing bars shall not have deformations but shall in all other respects conform to Item 544.
Five closed coils shall be provided at the ends of each spiral unit.
Four steel channel, tee or angle spacers weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers based on 0.68 lb. per lin. ft. will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

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Consulting Engineers
245-249 S. Paint Street — Chillicothe, Ohio

REINFORCING STEEL LIST
BRIDGE NO. ROS-35-2619
U.S.R. 35 UNDER ATHENS ROAD
ROSS COUNTY — U.S.R. 35
STA.

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KDD	WDJ			MK	10/30/64	

FED. RD. DIVISION	STATE	PROJECT	
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NOTES

MATERIALS - GENERAL

Materials to be furnished may be specified in the plans by a given manufacturer's catalog number or type. This is for descriptive purpose only and the contractor may assume that approved equal materials may be furnished.

816 STRUCTRAL SUPPORTS, STEEL BEAM (Type)

The structral steel beam supports including 8 and 6 pound beams, 4 pound drive post and hardware shall be galvanized in accordance with ASTM A-123 and A-153 respectively.

Quantities for item 816 "Structural Supports, Steel Beam (Type)" appearing in the quantity tables are approximate. The contractor shall be responsible for determining exact support lengths prior to fabrication and galvanizing of supports. Payment shall be at the contract unit price bid per lin. ft. which price and payment shall include all costs in connection with the embedment of the supports.

The cost of the concrete used for embedment will be a separate pay item.

STRUCTURAL SIGN SUPPORTS QUANTITIES

Quantities for Item 816 Structural Beam Supports appearing in the summary tables are approximate. The contractor shall be responsible for determining exact support lengths prior to fabrication and galvanizing of supports.

816 OVERHEAD SIGN SUPPORT, BY TYPE

All component parts of the overhead sign supports shall be steel, except for the truss and components for the number 7 series which shall be aluminum. For specific details and materials, see sheet number 210.

Cost of furnishing and installing the sign brackets and the fixture support arm, length "G", with mounting holes and hardware shall be included in the contract unit price bid for Overhead Sign Supports.

Switch enclosure mounting brackets including mounting bolts and drilled holes shall be furnished and installed under payment for 816 Overhead Sign Supports at the contract price per overhead sign support, by type.

Payment for this item shall be made at the contract unit price bid for each overhead sign support, by type, installed in place and accepted, which price shall be full compensation for furnishing all anchor bolts (for installation under 816 concrete for overhead sign support foundation), and for furnishing and installing each overhead sign support structure shown on sheet 202 including fixture support arms, switch enclosure mounting bracket, sign brackets and all component parts necessary to make a complete workable installation ready for sign erection, installation of disconnect switch and enclosure, ground rod and wire connections and sign wiring.

Erection of these supports shall be accomplished in a manner meeting the requirements of Supplemental Specification 816

810 - CONCRETE FOR SIGN SUPPORT FOUNDATION, BY TYPE

Foundations shall be constructed in the manner called for under Supplemental Specifications 816. Concrete shall be Class "C".

Payment for installation only of the 2 inch galvanized steel and the ¾ inch EMT Conduit E/Is will be included in this item. Payment for furnishing this Conduit is included in the unit price bid for Overhead Sign Supports.

Payment for this item shall be based on plan dimensions (or dimensions as modified by the Engineer) in lieu of plan quantities as required in Supplemental Specification 816.

Payment for reinforcing steel shall be included in the cost of concrete foundations.

Basis Of Payment Shall Be As Follows:
1. Concrete foundations for Overhead Sign Supports, Per Cubic Yard.
2. Concrete foundations for Ground Mounted Sign Supports, Per Cubic Yard.

813 SIGN ERECTION, BY TYPE

The contractor shall erect sign panels furnished by others as noted on the Schematic Signing Layout sheet numbers 199 200 201. The panels shall be mounted on the brackets or beam supports provided in the plans.

The contractor shall submit a schedule for sign erection to the Division Traffic Engineer, and the Engineer, Bureau of Traffic, 450 East Town Street, Columbus, Ohio, 120 calendar days prior to the start of any scheduled erection work. The schedule shall include Proposed Dates, Time, Sign Numbers and Delivery Point.

The price bid per square foot for, "Item 813, Sign Erection, by Type", shall include all necessary Equipment, Manpower and Tools to erect the signs noted. All sign material and accessories will be furnished and transported to a designated Delivery Point, on or near the subject project by others.

The contractor shall be responsible for the handling and storage of the sign panels and accesories from the time of arrival at the Delivery Point.

UNDERGROUND UTILITIES

Extreme caution should be exercised in areas with underground electrical conduit or cables, sewers, drains, water lines, or other underground utilities.

The contractor is fully responsible for all damage inflicted on (Underground) utilities in the excavation and placement of sign support foundations, protective guardrail, delineators and the like.

CERTIFICATION AND APPROVAL OF SIGN SUPPORT

The contractor shall submit through proper channels the Drawings, Information, and Samples as required below:

A. 8 Copies of Shop Drawings & Material Lists For Approval:
   1. Overhead Sign Supports
   2. Sign Face Layout Plans
B. 8 Copies of Catalog Cuts, Descriptions of Samples of Fabricators Standard Items as shown in the Plans or their equals for approval of their use.
C. Certification and/or samples for all material which have been approved above under "A" and "B".
D. Approval of Items under "A" and "B" shall be in the hand of the contractor prior to any Purchase or Installation.
E. Certification of samples under "C" must be in hand and approved prior to contract completion.

815 INTERIM COVERING FOR SIGNS

This item shall consist of furnishing and installing an interim cover and attachment materials for signs referred to in the plans as "Bagged" or as directed by the Engineer. This item shall also include the subsequent removal of covers when directed by the Engineer.

Material for covering shall be plastic coated burlap blankets in conformance with 705.09.

The Engineer shall approve the method proposed for attaching interim covers to signs prior to installation of covers.

Work shall include all necessary materials, hardware, labor, and equipment required to preform the required item of work.

Basis of payment shall be Interim Covering for Signs, per square foot.

In addition to the 0 sq.ft. referred to in the Plans, an additional quantity of 100 sq.ft. for Item 815, Interim Covering for Signs, have been included to cover signs as directed by the Engineer.

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NOTES

816 ALTERNATE DESIGNS FOR OVERHEAD SIGN SUPPORTS

If the contractor desires to furnish an alternate design for Overhead Sign Supports, the alternate designs must be submitted to the State at least 21 days prior to opening of bids. The Bidder will be notified as to acceptance or rejection of alternate design at least 7 days before bids are to be opened. Alternate designs must utilize tubular structural members. Submissions shall be made to Ohio Department of Highways, Bureau of Traffic, 450 East Town Street, Columbus, Ohio 43216.

816 INTERIM STEEL DRIVE POST, 4 LBS. PER FOOT, AS PER PLAN

This work shall consist of furnishing and installing 4 pound per linear foot steel drive posts as specified for interim lane width transitions.

This item shall include 4pounds per foot steel drive posts 11'-0" long bolted to the inside of interim barrels furnished under 606 using a minimum of three 5/16" steel bolts spaced on 12" centers

Post flanges shall be 90 degrees to interim edge lines facing approaching traffic. Steel bearing plates 3"×2" shall be used at each bolt outside the barrel to prevent pull through. Mounting of signs on the drive posts with the bottom of the signs 7' above the pavement shall be included in Item 815.

The quantity furnished and installed will be paid for at the price bid per Lin. Ft. which price shall be full compensation for furnishing and installing drive posts including necessary hardware, labor and equipment.

816 STRUCTURAL SUPPORTS, 6LB. BEAM, AS PER PLAN

This item shall consist of the furnishing, assembly, and installation of two (2) 3lb. per foot drive posts (6 lb beam) in combination with a square seamless tubular post extension spliced to the top of the 6lb. beam. Details are shown on Sheet S.O.W.

Square seamless tubular post material shall be mild steel conforming to ASA 1020 steel, minimum yeild strength 35,000 P.S.I, ultimate yeild 55,000 P.S.I.

Work shall include all labor, material, equipment, tools, and hardware necessary to preform the required item of work.

Basis of payment shall be for Structural Supports, 6 lb. Beam, As Per Plan per linear foot measured by total length of combination beam from end to end.

GALVANIZED SUPPORTS

The structural steel beam supports including the 8 and 6 pound beams and the 4 pound drive post shall be galvanized, after punching, in accordance with ASTM-153 except where aluminum or stainless steel is specified.

816 ROCK EXCAVATION

Where solid rock is encountered in excavation for sign support foundations, the depth to be excavated below rock surface may be decreased as directed by the Engineer to a maximum of thirty-five (35) percent of depth specified in the Plans.

620 INTERIM DELINEATORS, AS PER PLAN

This work shall cosist of furnishing and installing interim delineators as specified on plan sheets.

This item shall include 2 pounds per foot steel drive posts 4'-0" long bolted to inside of interim barrels furnished under 606 using a minimum of three 5/16" steel bolts spaced on 12" centers. Post flanges shall be 90° degrees to interim edge lines facing approaching traffic. Type C-2 delineators shall be mounted on the drive post flanges with the top of the delineator 4' above the pavement.

The quantity furnished and installed will be paid for at the price bid per each which price shall be full compensation for furnishing and installing drive posts and delineators including necessary hardware, labor and equipment.

SIGN LOCATIONS

All signs shall be placed normal to the roadway on which they are stationed unless otherwise noted on the plans.

EXISTING SIGNS

The existing traffic control signs are to be removed by others as requested by the Contractor.

621 EXISTING PAVEMENT MARKINGS REMOVED

This item shall consist of the removal or obliteration of painted pavement markings from the pavement.

The markings may be removed either mechanically, or by any other method approved by the engineer except that the method shall not be injurious to the appearance, smoothness or strength of the pavement.

Payment for Item Special Existing Pavement Markings Removed shall be at the contract unit price per Linear Foot and shall constitute full compensation for all work, including materials, equipment, labor, incidentals and disposal of surplus materials. An estimated amount has been provided in the General Summary for use as directed by the Engineer.

ERECTION OF OVERHEAD SPAN TYPE SIGN SUPPORTS (7 SERIES)

In all cases, Span Type Overhead Sign Supports and Signs shall be erected concurrently. At no time shall the box trusses be erected without the sign being in place within eight (8) hours.

816 BREAKAWAY SIGN SUPPORT CONNECTION

This item consists of cutting and drilling the structural support; furnishing and attaching the fuse plate; and furnishing and attaching the base plates for each structural sign support as indicated on the plans.

All materials, labor and equipment required to fabricate and install this item for each sign support (exclusive of the structural sign support) will be measured and paid for at the unit price bid for Item 816 each Breakaway Sign Support Connection.

816 CONSTRUCTION LAYOUT STAKES FOR SIGNS

The contractor shall stake out all sign supports in accordance with Supplemental Specification 816 prior to installation of any foundations or supports.

After stakeout the contractor shall notify the Engineer a minimum of seven (7) days in advance of scheduled work. Support locations for each support will be field checked and approved by the Engineer prior to proceeding with construction work required.

If both major and minor type supports are included within the project it will be permissible to perform the construction stakeout and field inspection in two (2) stages, one for major supports and one for minor supports.

Cost for this item of work will be incidental to the various 816 items of work contained in the project.

TRAFFIC CONTROL QUANTITIES

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SIGNS

See Sheet 17-C	Station	Side	Reference 17-C	815 Sign Erection: Flat Sheet Type (Sq. Ft.)	815 Sign Erection: Extru. Sheet Type (Sq. Ft.)	816 Structural Support: 2# Drive Post (Lin. Ft.)	3# Drive Post (Lin. Ft.)	4# Drive Post (Lin. Ft.)	6# Beam (Lin. Ft.)	6# Beam as per plan (Lin. Ft.)	8# Beam (Lin. Ft.)	Steel Beam (CM1F21) (Lin. Ft.)	4# Interim Drive Post (Lin. Ft.)	816 Concrete for Sign Support Foundations: Ground (Cu. Yd.)	Overhead (Cu. Yd.)	816 Overhead Sign Support 11-C 7.3: Des. 2 Span 64' (Each)	Des. 2 Span 68' (Each)	815 Interim Caging for Signs (Sq. Yd.)	816 Breakaway Sign Support Connection (Each)		
	Eastern Ave.																				
	81+00	Lt.		7.1			15.0							.10							
	83+50	Rt.		6.3			15.0							.10							
	85+25	Rt.		6.3			15.0							.10							
	86+15	Rt.		5.3			14.5							.10							
	89+40	Rt.		10.0						15.0				.10							
	89+87	Lt.		8.0			14.0							.10							
	90+00	Lt.		5.3			14.5							.10							
	Service Rd. "B"																				
	101+50	Rt.		6.3			15.0							.10							
	Ramp "H"																				
	81+50	Rt.	84		45.0								17.0/23.0	2.50							
	Ramp "F"																				
	6+00	Lt.		8.1	40.0			9.0					18.75/21.75	2.50							
	9+50	Lt.		8.5				17.5						.10							
	U.S. 35																				
	1301+00 E.B.	Rt.	38		88.0							23.25/26.25		2.50							
	1310+00 W.B.	Rt.	22		238.0										8.5		1				
	1311+00 E.B.	Rt.		9.0				15.5						.10							
	1327+00 E.B.	Rt.		27.0					36.0					.20							
	1330+00 W.B.	Lt.	40		112.0							23.25/27.75		2.50							
	1332+18 ℄	Lt.		12.0					17.0					.10							
	1332+25 ℄	Lt.		1.5		12.5								.10							
	1332+50 ℄	Rt.		1.5		12.5								.10							
	1332+65 ℄	Rt.		12.0					17.0					.10							
	1335+00 E.B.	Rt.	39		88.0							25.0/28.0		2.50							
	1336+30 ℄	℄		15.0				18.0/18.5						.20							
	1350+30 ℄	℄		15.0				15.0/14.5						.20							
	1352+00 W.B.	Lt.	42		112.0							22.25/27.25		2.50							
	1353+68 E.B.	Rt.	41		242.0										8.5	1					
	1358+00 W.B.	Lt.	43		60.0							20.25/21.25		2.50					2		
	1365+00 W.B.	Lt.		27.0					36.0					.20							
	87+50 Temp.	Lt.		27.0					36.0					.20							
	88+50 Temp.	Lt.		12.0				16.0/16.0						.20							
	92+00 Temp.	Lt.			40.0			16.0/17.5/19.5						.30							
	95+00 Temp.	Rt.		6.0			15.0							.10							
	97+00 Temp.	Lt.		6.0			15.0							.10							
	2+25 Temp. 50	Rt.		6.0			15.0							.10							
	U.S. 50																				
	141+50	Rt.		12.0			27.0							.20							
	145+00	Rt.		12.0			27.0							.20							
	148+00	Rt.		6.0			15.0							.10							
	155+00	Rt.		6.0			15.0							.10							
	160+00	Lt.		8.0	20.0	5.5/6.5/10.0					14.0/14.0			.20							
	160+50	Rt.		8.0	20.0				16.0/16.5					.20							
	161+50	Rt.		12.0			30.0							.20							
	3+00 (50 to 35)	Rt.		6.0			15.0							.10							
	165+00	Lt.		8.0	20.0	5.5/5.5/10.0					14.0/14.0			.20							
	166+00	Rt.		16.0				33.0						.20							
	172+30	Rt.		8.0	12.0	4.5/4.5/6.0		14.0/14.5						.20							
	174+00	Lt.		6.0	12.0	3.6/3.5/7.0		15.5/16.0						.20							
	177+00	Lt.		6.0			15.0							.10							
	170+50	Lt.			40.0						15.5/16.0			.20							
	183+00	Lt.		6.0	12.0	3.5/3.5/7.0		13.5/14.0						.20							
	185+50	Lt.			32.0				16.0/16.0					.20							
	187+00	Rt.		6.0			15.0							.10							
	Sub-total			374.2	1283.0	110.0	307.0	313.5	206.5	15.0	87.5	32.5.00		23.6	17.0	1	1		2		

SIGNING QUANTITIES

TRAFFIC CONTROL QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

(2nd 225)

ROS-35-25.05

SIGNS

See Sheet No.	Station	Side	Reference No.	815 Sign Erection: Flat Sheet Type (Sq. Ft.)	815 Sign Erection: Extru Sheet Type (Sq. Ft.)	816 Structural Support: 2# Drive Post (Lin. Ft.)	3# Drive Post (Lin. Ft.)	4# Drive Post (Lin. Ft.)	6# Beam (Lin. Ft.)	6# Beam as per plan (Lin. Ft.)	8# Beam (Lin. Ft.)	Steel Beam (OM-F2) (Lin. Ft.)	4# Interim Drive Post (Lin. Ft.)	816 Concrete for Sign Support Foundations: Ground (Cu. Yd.)	816 Concrete for Sign Support Foundations: Overhead (Cu. Yd.)	816 Overhead Sign Support No. 7.3: Des. 2 Span (a) Each	816 Overhead Sign Support No. 7.3: Des. 2 Span (b) Each	815 Interim Covering for Signs (Sq. Yd.)	816 Breakaway Sign Support Connection (Each)		
200	U.S. 50													.10							
	188+00	Lt.		6.0			15.0														
	Ramp "C"																				
	72+00	Lt.		15.0			32.0							.20							
	U.S. 35																				
	1359+00 E.B.	R&L		32.0					35.5					.20							
	1364+00 E.B.	R&L		32.0					35.5					.20							
	1368+00 E.B.	R&L		32.0					35.5					.20							
	1372+00 E.B.	R&L		18.0				30.0						.20							
	1377+00 W.B.	Lt.		9.0				15.5						.10							
	1378+00 W.B.	Rt.		5.0			14.5							.10							
	1382+00 W.B.	Rt.		7.5			15.0							.10							
	88+00 Temp.	Rt.		9.0				15.5						.10							
	88+50 Temp.	&		10.5					16.5					.10							
	92+00 Temp.	Rt.		8.0				15.5						.10							
	98+60 Temp.	Rt.		5.0			14.5							.10							
	99+60 Temp.	Lt.		16.0					17.5					.10							
	3+50 Temp. 50	Rt.		5.0			14.5							.10							
	177+00 Ex. 50	R&L		8.0			26.0							.20							
	180+50 Ex. 50	Rt.		9.0				15.5						.10							
201	U.S. 50																				
	138+40	Rt.		10.5					16.5					.10							
	140+00	Rt.		3.0			13.0							.10							
	146+75	Rt.		9.0				15.0						.10							
	146+75	Lt.		5.0			14.5							.10							
	155+00	Lt.		6.3			15.0							.10							
	0+40 (50 to 35)	Lt.		5.3			14.5							.10							
	6+00 (50 to 35)	Lt.		9.0				15.5						.10							
	172+50 (U.S. 50)	Lt.		5.3			14.5							.10							
	72+26 Ramp "C"	Lt.		7.5				15.0						.10							
	Appr. Rt. 185+07	Lt.		5.3			14.5							.10							
	Appr. Rt. 185+67	Rt.		6.3			15.0							.10							
	Lick Run Road													.10							
	15+00	Rt.		6.3			15.0														
	22+50	Lt.		6.3			15.0							.10							
	29+50	Rt.		9.0				15.5						.10							
	U.S. 50 Inter.	R&L		10.6			56.5							.40							
35 + 36	1374+40 E.B.	Lt.	*	6.3									11.0								
	1375+40 E.B.	Lt.	*	6.3									11.0								
	1376+40 E.B.	Lt.	*	6.3									11.0								
	1377+40 E.B.	Lt.	*	6.3									11.0								
	1379+40 E.B.	Lt.	*	6.3									11.0								
	1381+40 E.B.	Lt.	*	6.3									11.0								
	1383+40 E.B.	Lt.	*	6.3									11.0								
	To be used as directed by Engr.																	100			
	Sub-total			374.2	1233.0	110.0	307.0	313.5	206.5	15.0	87.5	325.00		23.6	17.0	1	1		2		
	Total			750.0	1233.0	110.0	626.0	466.5	362.5	15.0	87.5	325.00	77.0	22.7	17.0	1	1	100	2		

*Note: Location may be adjusted to fit barrels.

SIGNING QUANTITIES

TRAFFIC CONTROL QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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ROS-35-25.05

STRIPING

See Sheet N°	Sta. To Sta.	Lane	Side	N° Lines	621 4" Edge Lines White	621 4" Lane Lines White	621 8" Channel-izing Line White	621 12" Stop Line White	621 4" Barrier Lines Yellow	621 24" Broad Transverse Stripes White	621 Curb Marking Yellow	
					Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	
30-36	1323+00 - 1384+34.21	EB	Rt&L	2	12268.42							
30-36	1323+00 - 1384+34.21	EB	℄	1		6134.21						
30-33	1323+00 - 1351+56.99	WB	℄	1		2856.99						
30-33	1323+00 - 1351+56.99	WB	Rt&L	2	5713.98							
33-36	1351+71.43 - 1384+45.38	WB	Rt&L	2	6547.90							
33-36	1351+71.43 - 1384+45.38	WB	℄	1		3273.95						
	Temporary Connection											
55	82+96 - 92+47.10	Rt.	Rt.	1	951.10							
55	84+35 - 89+69	Rt.	Lt.	1	514.00							
55	82+55 - 89+67.5	Lt.	Rt.	1	712.50							
55	83+60 - 94+00	Lt.	Lt.	1	1040.00							
55	89+67.5 - 93+00	℄	℄	1		332.50						
	Athens Road											
64	135+20 - 136+96		Lt.	1		176.00						
64	136+96 - 138+37		Lt.	2			243.00					
64	136+96 - 138+37		Lt.							194.00		
64-65	138+37 - 144+71		Rt&Lt.	2	1268.00							
66-70	157+00 - 191+35.48		Rt&Lt.	2	6870.96							
66-70	157+00 - 191+35.48		℄	1		3435.48						
66	Appr. 160+00		Rt.	1				31.00				
67	Appr. 185+67.0		Rt.	1				17.00				
66-67	157+00 - 169+00		Rt.	1					1200.00			
67-68	167+00 - 179+00		Lt.	1					1200.00			
	Ramp "C"											
34-35	1369+14 - 1372+45		Lt.	1		331.00						
34-35	1369+14 - 1374+50		Lt.	1	536.00							
35	1372+45 - 1374+50		Lt.	1			205.00					
87	60+53.84 - 62+76.84		Lt.	1							223.00	
87	60+53.84 - 61+53.84		Lt.	1	100.00							
87-88	61+53.84 - 74+44		Rt&Lt.	2	2580.32							
88	74+44 - 76+17		Rt.	2			347.00					
88	74+44 - 76+17		Rt.							261.00		
88	72+10 - 72+27		Rt.	1				18.00				
	Lick Run Road											
95	29+50 - 32+50		℄	1		300.00						
95	33+00		Rt.	1				15.00				
95	33+32		Lt&Rt.	1				26.00				
	Existing U.S.R. 50											
36-37	1389+00 to 177+00 (U.S. 50)		Lt.	1			416.00					
36-37	1389+00 to 177+00 (U.S. 50)		Lt.							244.00		
	Sub-total				39103.18	16840.13	1211.00	107	2400.00	699.00	223.00	
	Conv. to Miles				7.41	⊙ 1.12						
	Total (Miles)				7.41	1.12						

DELINEATORS

Station to Station	Lane	Side	620 delineator Type C-1 Post Mounted	620 delineator Type C-2 Post Mounted	620 delineator Type C-2 Interim as per plan		
			Each	Each	Each		
1301+00 - 1311+00	E.B.	Rt.	6				
1301+00 - 1307+00	W.B.	Lt.	4				
80+00 - 83+00	H	Rt.		4			
83+00 - 91+00	H	Lt.		9			
91+00 - 95+00	H	Lt.		5			
95+00 - 1323+00	H&E.B.	Rt.		11			
1324+00 - 1336+00	E.B.	Rt.	7				
2+60 - 1317+00	F&W.B.	Lt.		18			
1318+00 - 1336+00	W.B.	Lt.	10				
1356+50 - 1382+50	E.B.	Rt.	14				
1350+50 - 1363+50	W.B.	Lt.	8				
1377+00 - 1381+00	W.B.	Lt.	3				
133+00 - 139+00	B	Rt.		7			
139+00 - 141+00	B	Lt.		3			
141+00 - 145+00	B	Rt.		5			
1364+50 - 63+50	W.B&C	Lt.		14			
63+50 - 70+50	C	Rt.		7			
70+50 - 78+50	C	Lt.		10			
1374+90 #	E.B.	Lt.			1		
1375+90 #	E.B.	Lt.			1		
1376+90 #	E.B.	Lt.			1		
1378+40 #	E.B.	Lt.			1		
1380+40 #	E.B.	Lt.			1		
1382+40 #	E.B.	Lt.			1		
Total			52	93	6		

Note: Stations may be adjusted to fit barrels.

⊙ Calculation for pay length of lane lines 16,840.13 lin. Ft. x 15/40 x 1/5280 = 1.12 Miles

GENERAL SUMMARY

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
			Type Code 7221
			TRAFFIC CONTROL
620	52	Each	delineators, Type C-1, post mounted
620	93	Each	delineators, Type C-2, post mounted
620	6	Each	Interim delineators, as per plan
621	7.41	Miles	4" Edge Lines,
621	1.12	Miles	4" Lane Lines,
621	0.45	Miles	4" Barrier Lines,
621	1211	Lin. Ft.	8" Channelizing Line,
621	107	Lin. Ft.	12" Stop Lines,
621	699	Lin. Ft.	24" Broad Transverse Stripes,
621	223	Lin. Ft.	Curb Marking,
815	750	Sq. Ft.	Sign Erection Flat Sheet Type
815	1233	Sq. Ft.	Sign Erection Extru-Sheet Type
815	100	Sq. Ft.	Interim Covering for Signs
816	110	Lin. Ft.	Structural Support, 2# Drive Post
816	626	Lin. Ft.	Structural Support, 3# Drive Post
816	461	Lin. Ft.	Structural Support, 4# Drive Post
816	77	Lin. Ft.	Structural Support, 4# Interim Drive Post, as per plan
816	364	Lin. Ft.	Structural Support, 6# Beam
816	15	Lin. Ft.	Structural Support, 6# Beam, as per plan
816	88	Lin. Ft.	Structural Support, 8# Beam
816	325	Lin. Ft.	Structural Support, Steel Beam 10WF21
816	2	Each	Breakaway Sign Support Connection
816	27.7	Cu. Yd.	Concrete Foundation For Ground Mounted Sign Supports
816	17.0	Cu. Yd.	Concrete Foundation for Overhead Sign Supports.
816	1	Each	Overhead Sign Support, No. 7.3, Des. 2, 64' Span
816	1	Each	Overhead Sign Support, No. 7.3 Des. 2, 68' Span
Special	2000	Lin. Ft.	Existing Pavement Markings Removed

FED. RD. DIVISION	STATE	PROJECT	FEDERAL YEAR
2	OHIO		

ROS-35-25.05

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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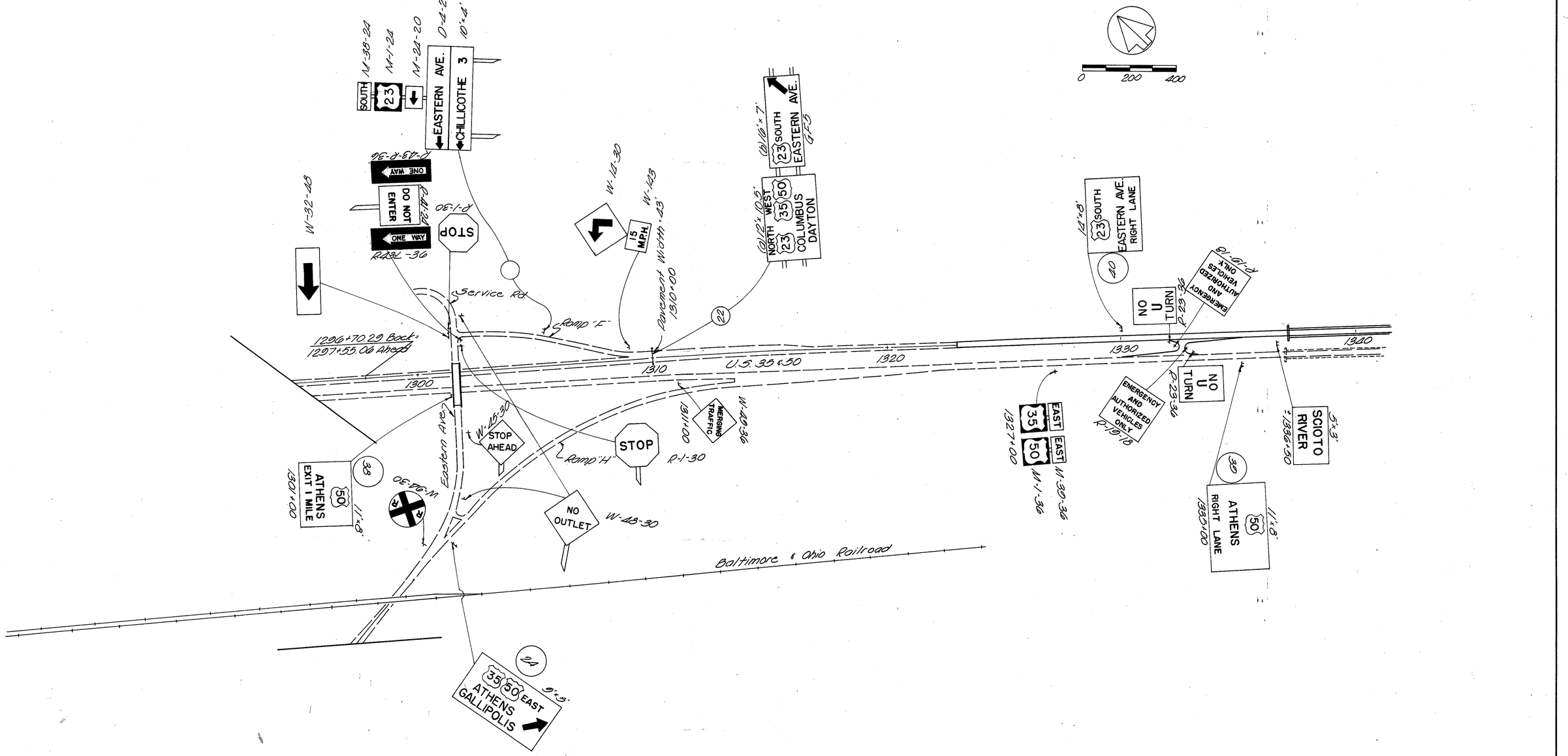
225

ROSS COUNTY
ROS-35-25.05

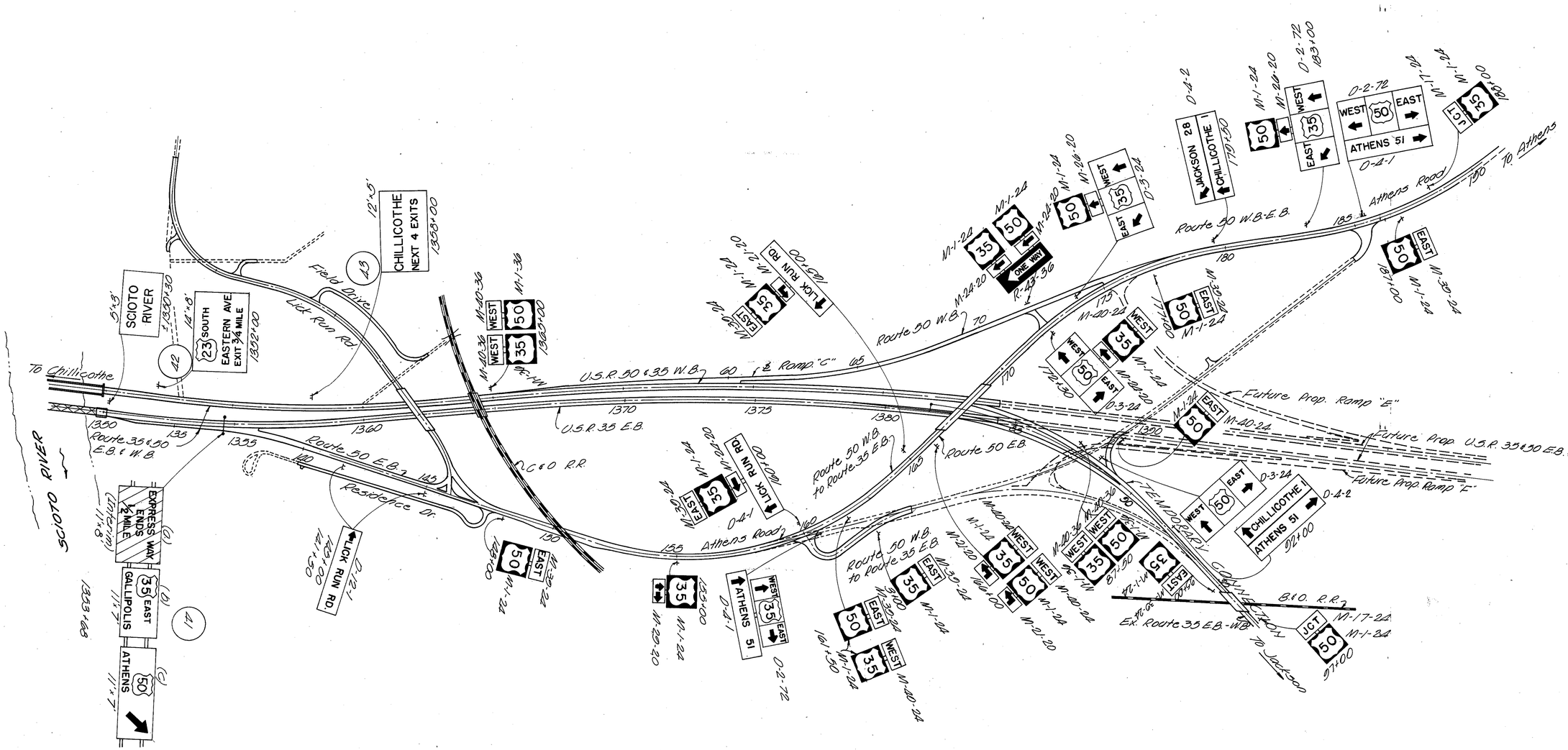


TRAFFIC CONTROL PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

200
225

ROSS COUNTY
ROS-35-25.05



TRAFFIC CONTROL PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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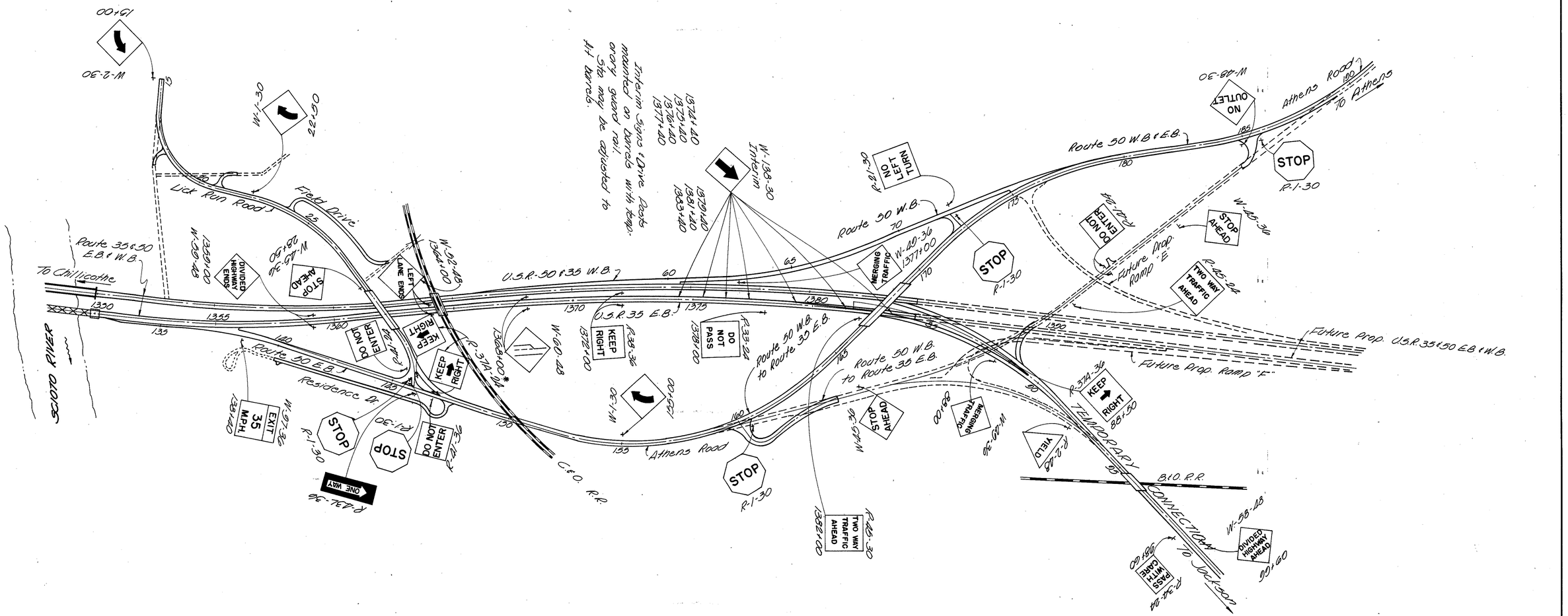
ROSS COUNTY
ROS-35-25.05



* Note:
Location of proposed sign left of Sta. 1368+00 may be adjusted (RH also) so that the sign post may be mounted on a guard rail post in the median.

TRAFFIC CONTROL PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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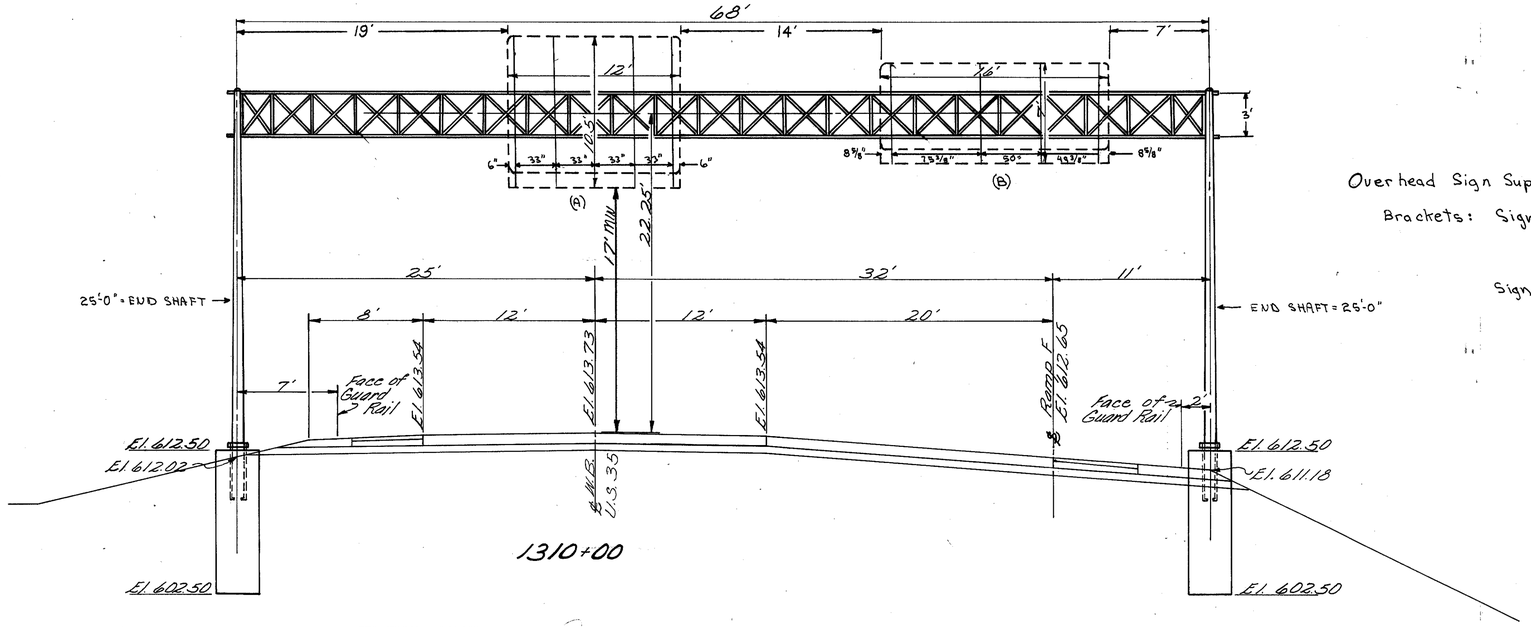
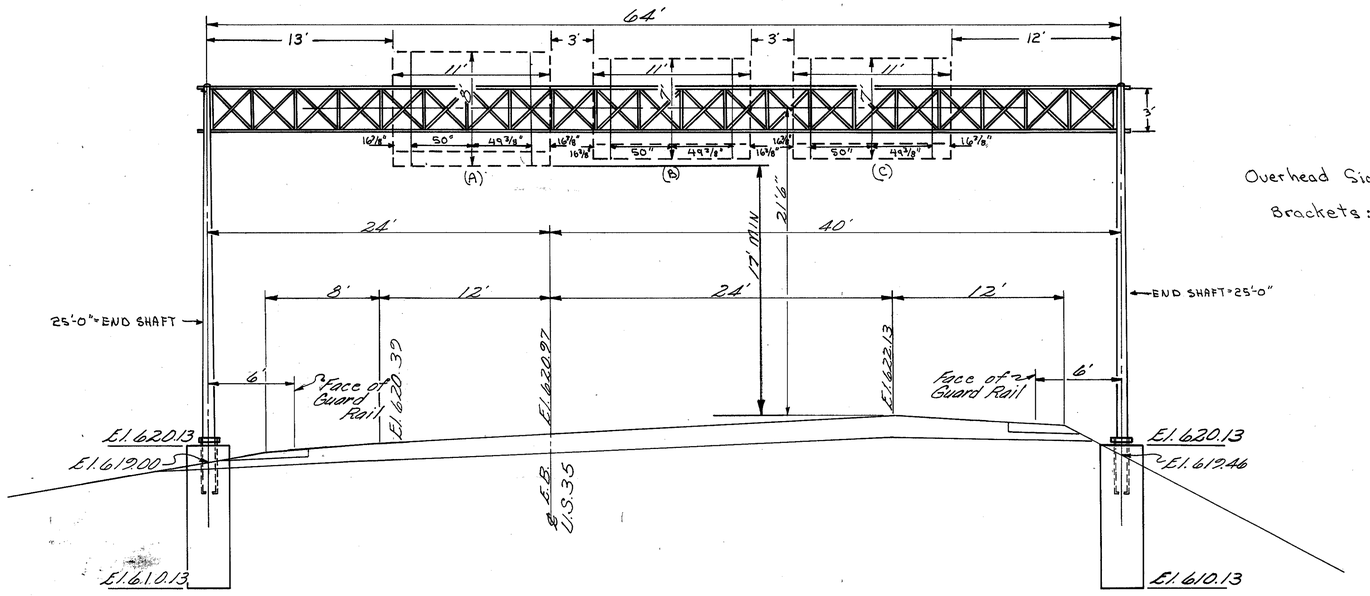
ROS COUNTY
ROS ~35~25.05



Overhead Sign Support, No. 7.3, Design 2, 68' Span

Brackets: Sign (A) Spacing - 6", 4 @ 33", 6"
Number - 5
Type - Y_A

Sign (B) Spacing - 8 5/8", 75 3/8", 50", 49 3/8", 8 5/8"
Number - 4
Type - Y_A



Overhead Sign Support, No. 7.3, Design 2, 64' Span

Brackets: Sign (A) Spacing - 16 3/8", 50", 49 3/8", 16 1/4"
Number - 3
Type - Y_A

Sign (B) Spacing - 16 3/8", 50", 49 3/8", 16 1/4"
Number - 3
Type - Y_A

Sign (C) Spacing - 16 3/8", 50", 49 3/8", 16 1/4"
Number - 3
Type - Y_A

OVERHEAD SIGN SUPPORTS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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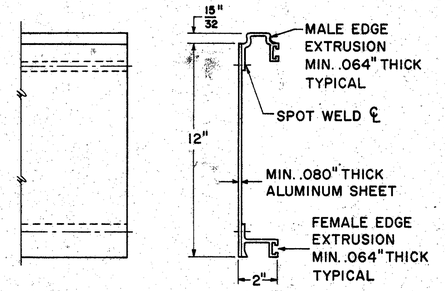
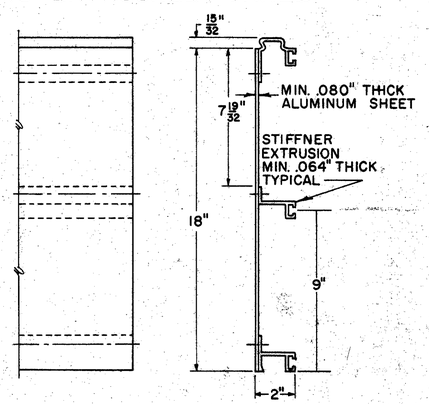
ROS-35-25.05

12" EXTRUSHEET PANEL



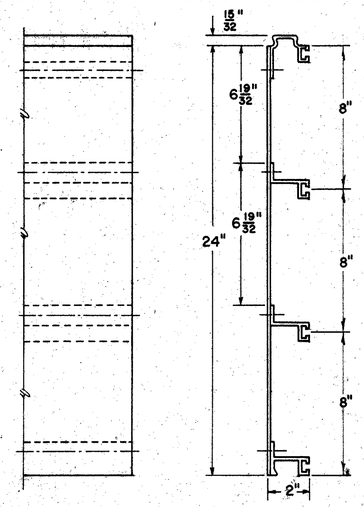
FRONT VIEW SIDE VIEW

18" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

24" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

NOTES:

EXTRUSHEET PANELS SHALL BE ALUMINUM; SPOT WELDING AND ALL MATERIALS SHALL CONFORM WITH SUPPLEMENTAL SPECIFICATION NO. 815

COMBINATIONS OF 12", 18", AND 24" PANELS ARE USED TO ATTAIN REQUIRED SIGN HEIGHT.

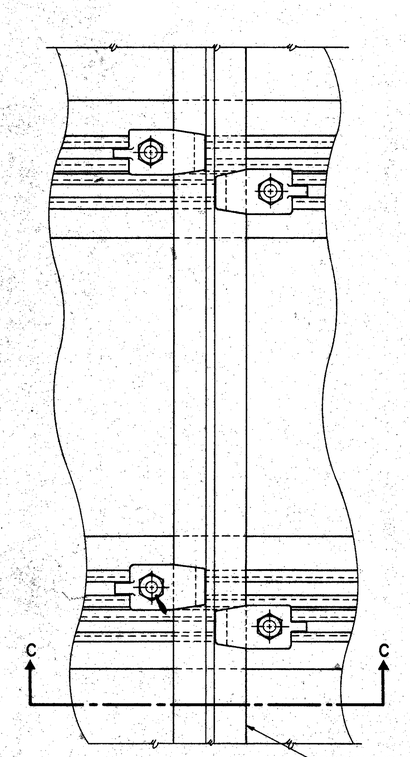
INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN WITH NO SPLICES.

PANELS SHALL BE INTERLOCKED AND ERECTED WITH THE MALE EXTRUSION LOCATED AT THE TOP EDGE OF THE SIGN.

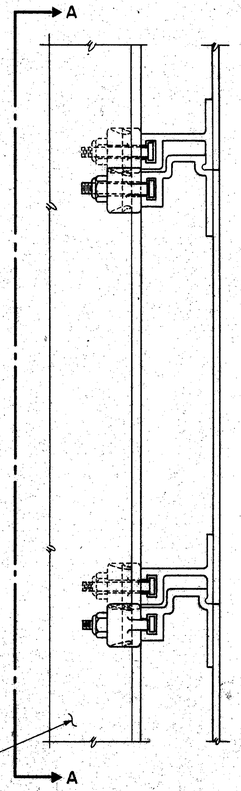
EXTRUSHEET PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND ON BOTH SIDES AT TOP AND BOTTOM EDGE OF SIGN.

THE PANELS SHALL BE DESIGNED TO WITHSTAND A WIND LOAD OF 35 POUNDS PER SQUARE FOOT, IN ACCORDANCE WITH THE A.A.S.H.O. SPECIFICATION FOR DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS.

THE MAXIMUM SIGN LENGTH FOR TWO SUPPORTS IS 19'-0".
THE MAXIMUM SIGN LENGTH FOR THREE SUPPORTS IS 29'-0".

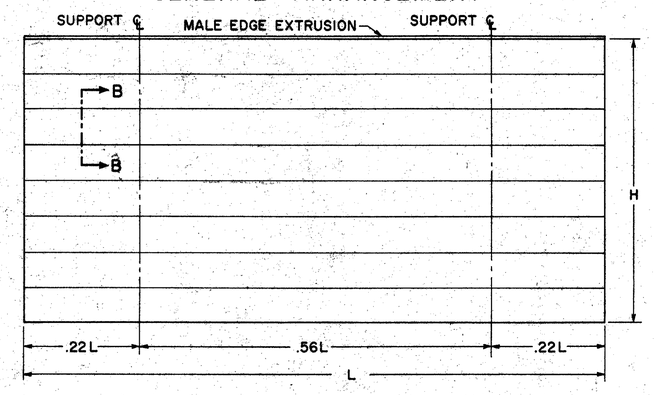


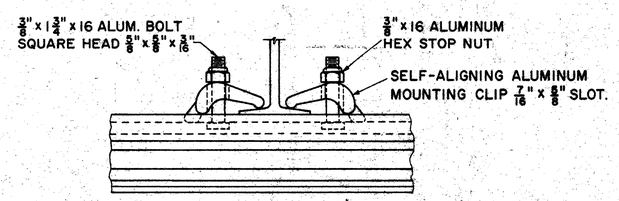
SECTION A-A



SECTION B-B

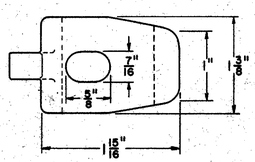
GENERAL ARRANGEMENT

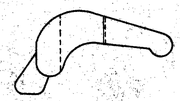




SECTION C-C

CLIP DETAIL





SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING	
	CENTER TO CENTER	BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

ALUMINUM EXTRUSHEET PANEL SIGN

ECD
1

DATE
9-26-63
5-19-64
10-21-65

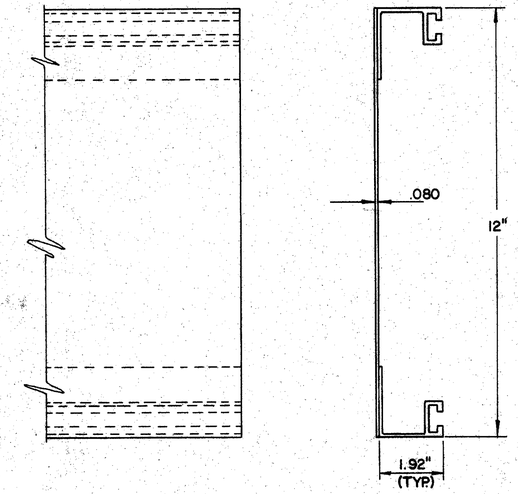
APPROVED Fred C. Gerber
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

204
225

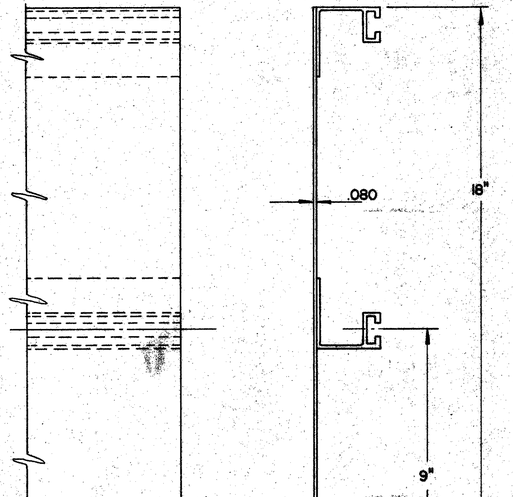
ROS - 35 - 25.05

12" BOLTED-EXTRUSHEET PANEL



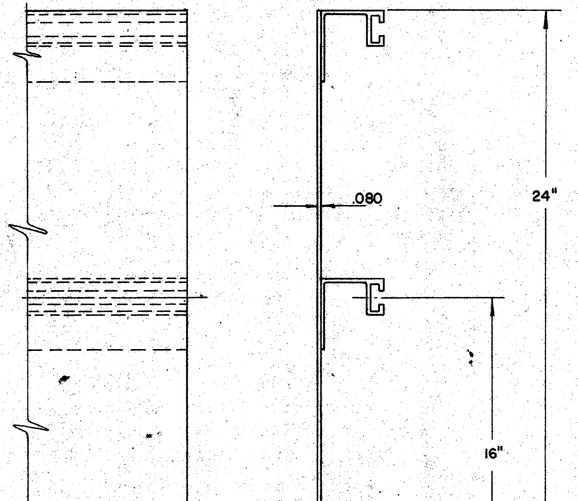
FRONT VIEW SIDE VIEW

18" BOLTED-EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

24" BOLTED-EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

NOTES

EXTRU-SHEET PANELS SHALL BE ALUMINUM; SPOT WELDING, MATERIALS AND HARDWARE SHALL CONFORM WITH SPECIFICATION NO. 815.

COMBINATIONS OF 12", 18" AND 24" PANELS ARE TO BE USED TO ATTAIN REQUIRED SIGN HEIGHT.

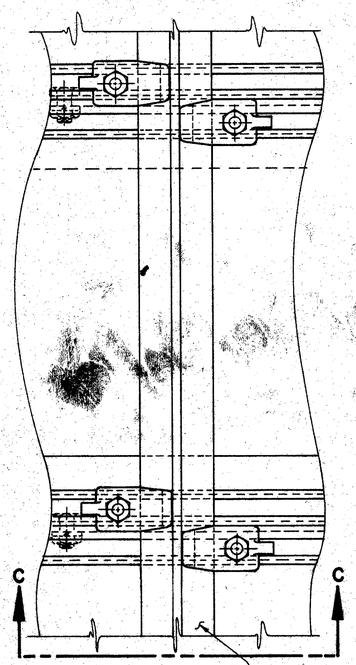
INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN, WITH NO SPLICES.

THE PANELS SHALL BE ERECTED HORIZONTALLY AND BOLTED ON 24" CENTERS.

THE PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND BOTH SIDES AT TOP AND BOTTOM EDGES OF SIGN.

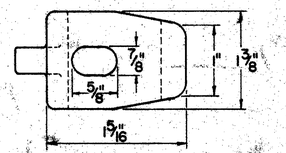
THE PANELS SHALL BE DESIGNED IN ACCORDANCE WITH THE A.A.S.H.O SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, BASE ON A WIND LOAD OF 35#/SQ.FT.

THE MAXIMUM SIGN LENGTH FOR TWO SUPPORTS IS 19'-0". THE MAXIMUM SIGN LENGTH FOR THREE SUPPORTS IS 29'-0".

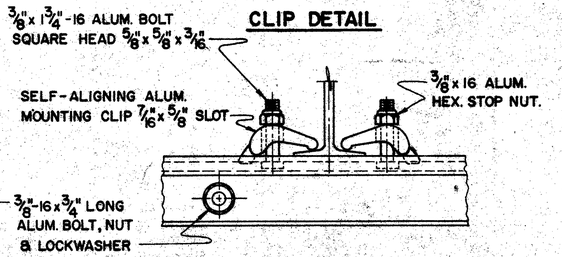


SECTION A-A

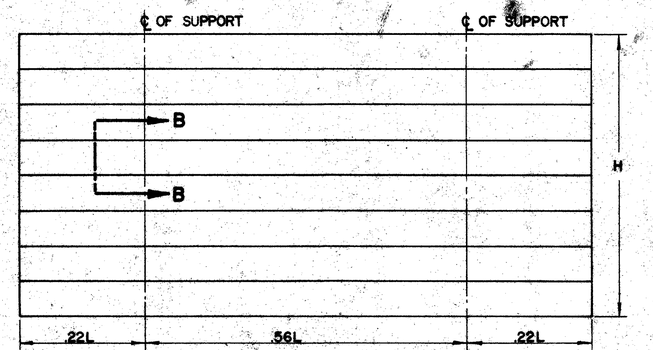
SECTION B-B



CLIP DETAIL



SECTION C-C



GENERAL ARRANGEMENT

SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING	
	CENTER TO CENTER	BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

ALUMINUM BOLTED EXTRUSHEET PANEL SIGN

ECD 2

DATE 10-14-65

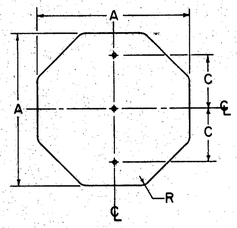
APPROVED Fred C. Taylor
ENGINEER OF TRAFFIC

ALUMINUM BOLTED-EXTRUSHEET PANEL SIGN

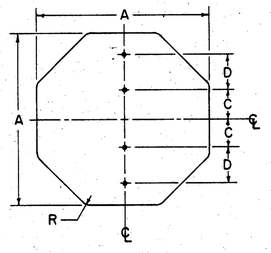
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

205
225

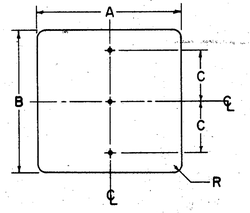
ROS-35-25.05



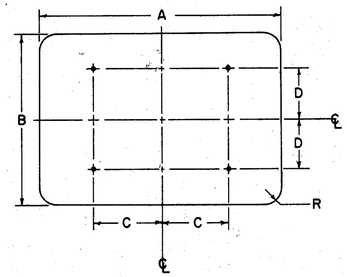
A	C	R	GAUGE
30	8	1 1/2	.080
36	8	1 1/2	.080



A	C	D	R	GAUGE
48	8	10	1 1/2	.100

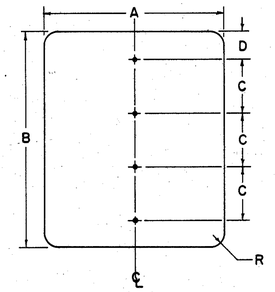


A	B	C	R	GAUGE
30	42	12	1 1/2	.080
36	36	11	1 1/2	.080
36	42	15	1 1/2	.080
36	48	15	1 1/2	.080
48	24	10	3	.100
48	36	13	3	.100



A	B	C	D	R	GAUGE
48	48	22	16	3	.100
48	60	22	22	3	.100

SPEED LIMIT SIGNS ON TWO SUPPORTS



A	B	C	D	R	GAUGE
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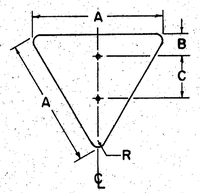
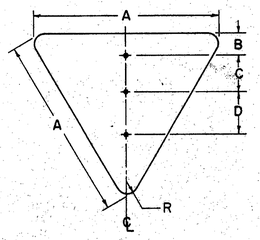
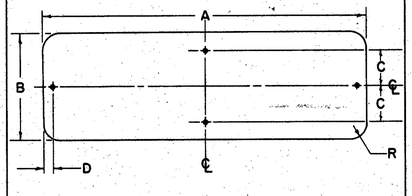
48	60	15	7 1/2	3	.100



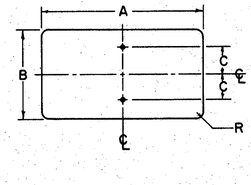
A	B	C	R	GAUGE
36	3	16	2 1/2	.080



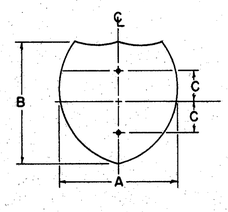
A	B	C	D	R	GAUGE
48	4	10	15	3	.100
60	5	10	15	4	.100



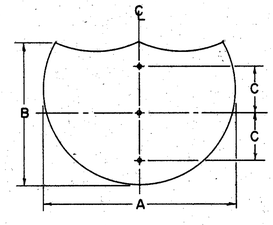
A	B	C	D	R	GAUGE
36	12	4	1	1 1/2	.080



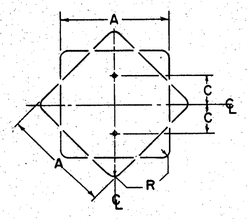
A	B	C	R	GAUGE
12	6	3	1 1/2	.063
20	15	6	1 1/2	.063
24	12	4 1/2	1 1/2	.063
24	18	15	1 1/2	.063
24	30	8	1 1/2	.063
24	48	10	1 1/2	.100
30	36	10 1/2	1 1/2	.080
36	18	7 1/2	1 1/2	.080



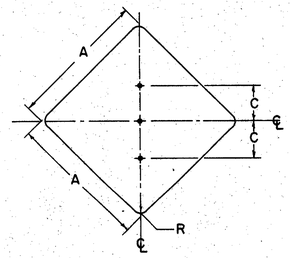
A	B	C	GAUGE
24	24	8	.063
30	24	8	.080



A	B	C	GAUGE
36	36	11	.080
48	36	11	.100

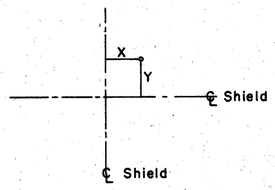


A	C	R	GAUGE
18	7 1/2	1 1/2	.063
24	8	1 1/2	.063
30	8	1 1/2	.080



A	C	R	GAUGE
36	12	3	.080
48	14	3	.100

Location of holes on "Demountable Shields" (attached to guide signs)



SIZE	NO. HOLES	X	Y
(26) 24X24	4	7	7
30X24	4	8	8
(39) 36X36	4	10	10
		0	10
48X36	6	15	10

For notes on fastening see drawing for miscellaneous "Signing Items" sheet.

NOTES:

ALL DEMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

MATERIAL

FLAT SIGN BLANKS SHALL BE FURNISHED IN ALUMINUM ALLOY 6061-T6, (ASTM-B209, GS11A-T6) WITH MILL FINISH.

BOLT HOLES

THE BOLT HOLES SHALL BE 3/8" IN DIAMETER, AND MAY BE DRILLED, BLANKED OR PUNCHED TO FINISHED SIZE.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

SIGN BLANK DETAILS

SBD

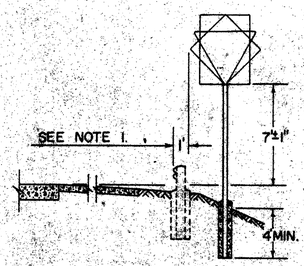
DATE 4-14-67

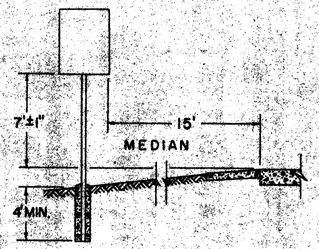
APPROVED_____
ENGINEER OF TRAFFIC

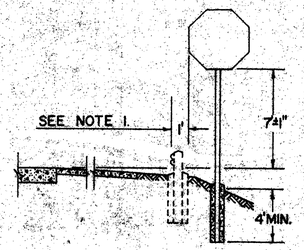
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

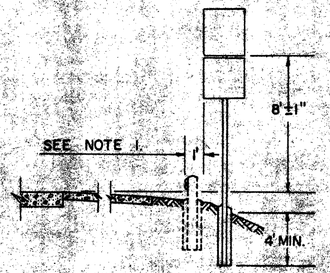
206
225

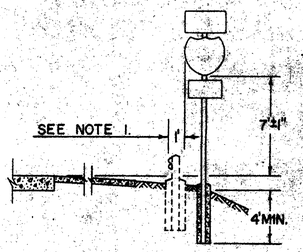
ROS-35-25.05

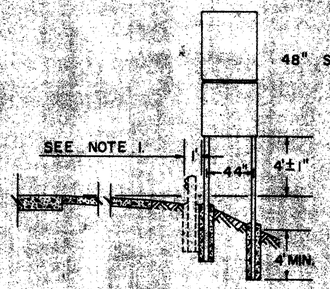


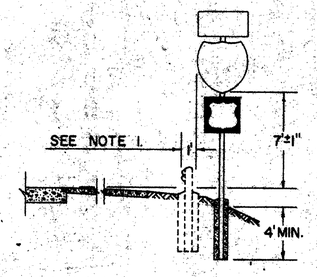


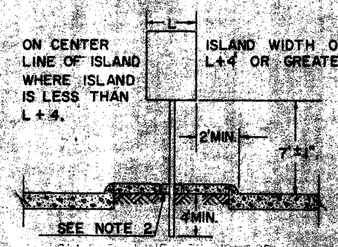


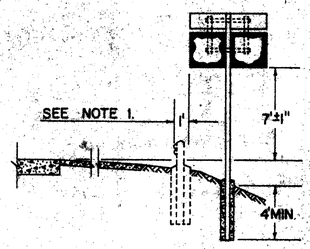


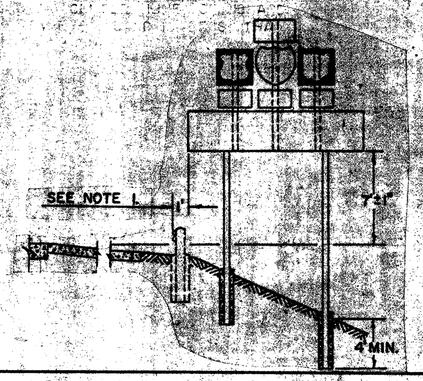


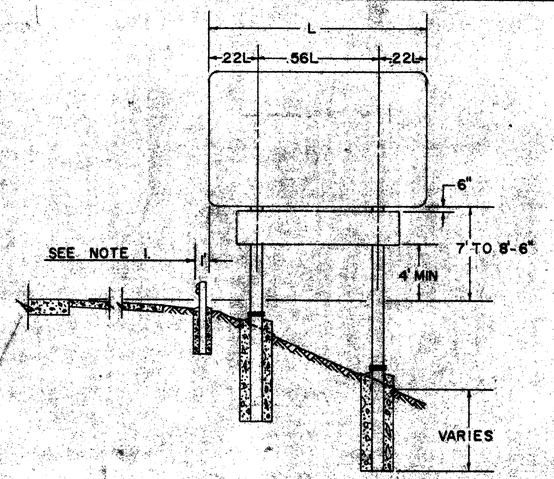


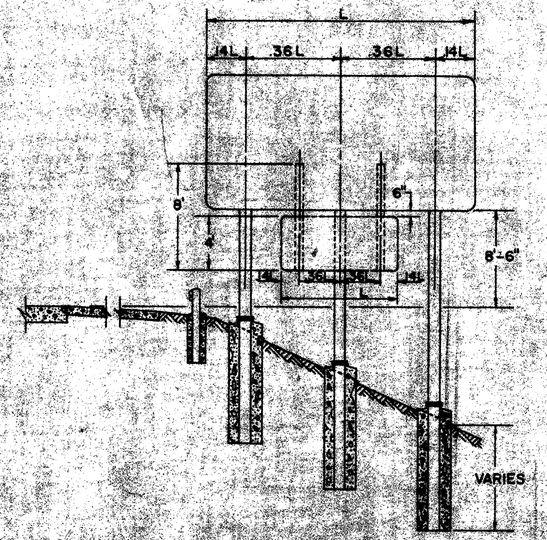


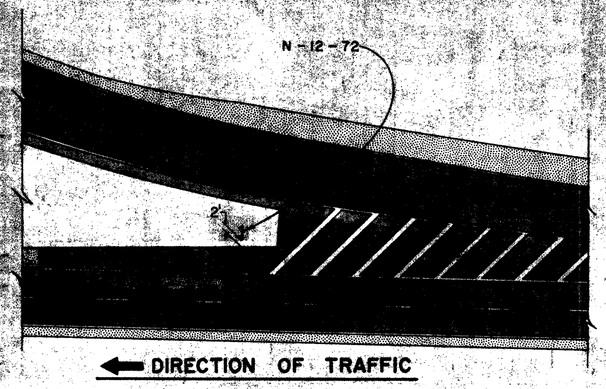


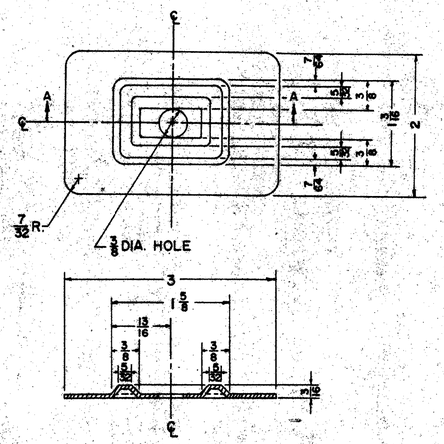








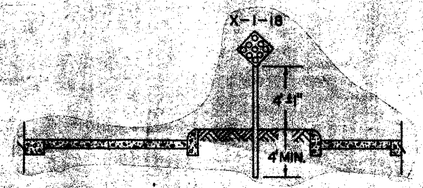




SECTION AA

NOTE:
THE PLATE IS SYMMETRICAL ABOUT EITHER CENTERLINE.
METAL SHALL BE 16 GAUGE STEEL.
ALL DIMENSIONS ARE IN INCHES.

BEARING PLATE DETAIL



SIGN SUPPORT SPACING

L-FT	2 SUPPORTS		3 SUPPORTS		L-FT	2 SUPPORTS		3 SUPPORTS	
	.22	.56	.14	.36		.22	.56	.14	.36
5.0	1.10	2.80	0.70	1.80	17.0	3.74	9.52	2.38	6.12
6.0	1.32	3.36	0.84	2.16	18.0	3.96	10.08	2.52	6.48
7.0	1.54	3.92	0.98	2.52	20.0	4.18	10.64	2.66	6.84
8.0	1.76	4.48	1.12	2.88	22.0			2.80	7.20
9.0	1.98	5.04	1.26	3.24	24.0			2.94	7.56
10.0	2.20	5.60	1.40	3.60	26.0			3.08	7.92
11.0	2.42	6.16	1.54	3.96	27.0			3.22	8.28
12.0	2.64	6.72	1.68	4.32	24.0			3.36	8.64
13.0	2.86	7.28	1.82	4.68	28.0			3.50	9.00
14.0	3.08	7.84	1.96	5.04	26.0			3.64	9.36
15.0	3.30	8.40	2.10	5.40	27.0			3.78	9.72
16.0	3.52	8.96	2.24	5.76	28.0			3.92	10.08

NOTES

1. THE NEAR EDGE OF ALL MAIN LINE SIGNS, EXCEPT GORE INSTALLATIONS, SHALL BE LOCATED ONE FOOT (1') BACK OF GUARD RAIL FACE. THIS DIMENSION SHALL BE DETERMINED BY ROADWAY TYPICAL SECTION & USED WHETHER OR NOT GUARD RAIL IS PRESENT.
   ON RAMPS THE NEAR EDGE OF SIGNS SHALL BE LOCATED ONE FOOT (1') BACK OF GUARD RAIL FACE. THIS DIMENSION WILL BE DETERMINED AND USED AS FOR MAIN LINE ABOVE.
   ON APPROACHES THE NEAR EDGE OF SIGNS SHALL BE
   (A) ONE FOOT (1') BEHIND EXISTING GUARD RAIL
   (B) TWO FEET (2') FROM THE EDGE OF PAVED OR TRAVELED SHOULDER WITH A MINIMUM OF 6' FROM EDGE OF ROADWAY PAVEMENT.

2. POSTS PLACED IN CONCRETE MEDIANS SHALL BE INSTALLED BY DRIVING THROUGH A 6" SLEEVE OR CORE DRILLED HOLE. THE HOLE SHALL BE FILLED WITH ASPHALT OR PORTLAND CONCRETE AFTER THE POST IS IN THE PROPER POSITION.

3. HORIZONTAL BACK BRACING SHALL ALWAYS BE MOUNTED ON THE FRONT FLANGE OF THE SUPPORT EXCEPT WHERE SIGNS ARE MOUNTED BACK TO FACK. BACK BRACING SHALL NEVER EXTEND ABOVE TOP EDGE OF UPPERMOST SIGN PLATE AND SHALL BE ATTACHED TO SUPPORTS USING 5/16" GALVANIZED STEEL BOLTS.

4. SCREWS, NUTS, AND WASHERS FOR SIGN ERECTION SHALL BE ALUMINUM EXCEPT AS NOTED ABOVE. 5/16" TRUSS HEAD SLOTTED MACHINE SCREWS WITH HEX. NUTS PLAIN AND LOCKWASHERS SHALL BE USED. PLAIN WASHERS SHALL BE 5/16" WIDE", USED ON SIGN FACE ONLY.

5. SIGN INSTALLATIONS SHALL BE PLACED SO THAT SUPPORTS ARE NOT PLACED IN DRAINAGE DITCHES.

6. HORIZONTAL CLEARANCES SHOWN PERTAIN TO NON-CURBED SECTIONS. SECTIONS WITH UNMOUNTABLE CURB SHALL HAVE A HORIZONTAL CLEARANCE OF 2'-0" MINIMUM FROM THE CURB FACE TO THE SIGN EDGE.

7. VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SIGNS ON ONE ASSEMBLY SHALL BE A MAXIMUM OF 2" AND A MINIMUM OF 1".

8. GALVANIZED STEEL BEARING PLATES SHALL BE INCLUDED BETWEEN ALL SHEET ALUMINUM SIGNS ATTACHED TO VERTICAL SUPPORTS AT EACH SIGN BOLT LOCATION.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

TYPICAL PLACEMENT OF SIGNS

TPS-1

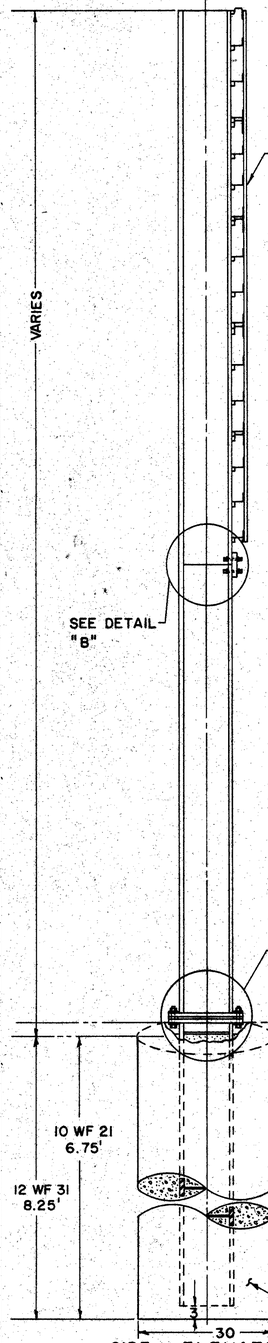
DATE
9-27-67
7-12-68

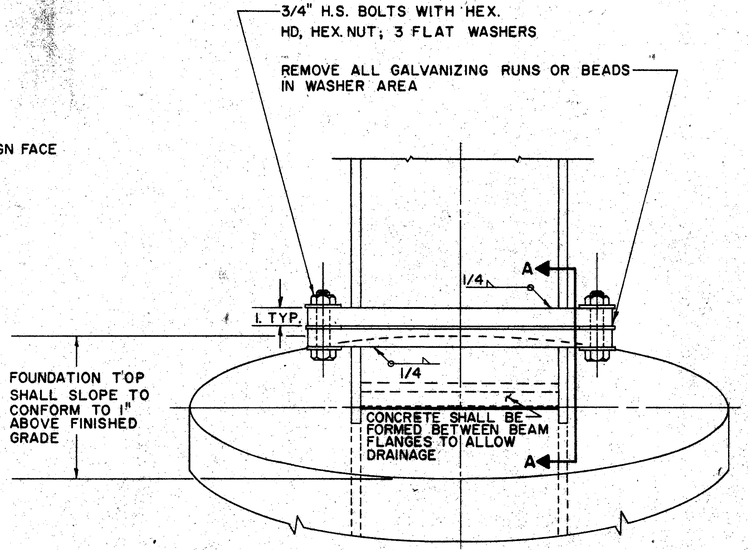
APPROVED _____
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

207
225

ROS-35-25.05



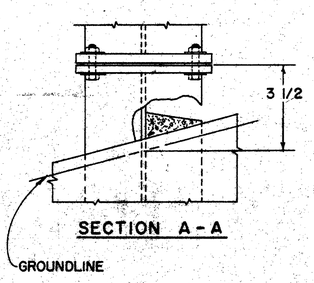


BOLTING PROCEDURE

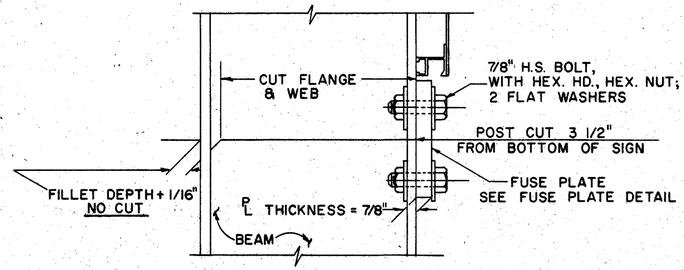
1. ASSEMBLE POST TO STUB W/BOLTS & ONE FLAT WASHER ON EACH BOLT BETWEEN PLATES.
2. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE W/12" TO 15" WRENCH TO BED & TO CLEAN BOLT THREADS. LOOSEN EACH BOLT IN TURN & RETIGHTEN BOLTS IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE OF 750 IN. LBS.
3. BURR THREADS AT JUNCTION W/NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE: TIGHTEN THE H.S. BOLTS IN THE BASE CONNECTION ONLY TO GIVEN TORQUE DO NOT OVER TIGHTEN

VIEW "A" ROTATED 180°



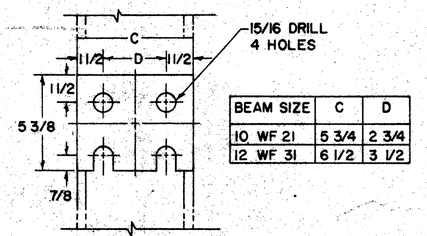
SECTION A-A



FABRICATOR NOTE: ALL FRICTION FUSE BOLTS SHALL BE TIGHTENED IN THE SHOP FOLLOWING A METHOD APPROVED BY THE ENGINEER. TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN MINIMUM RESIDUAL TENSION IN EACH BOLT OF 36,050 LBS.

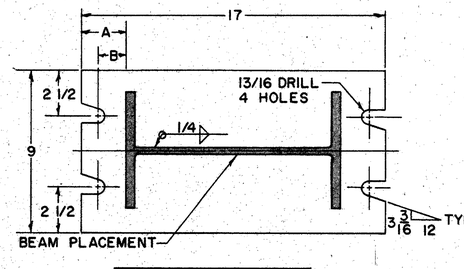
NOTE: INSTALL FUSE PLATE WITH NOTCHES TOWARD BASE

DETAIL "B"



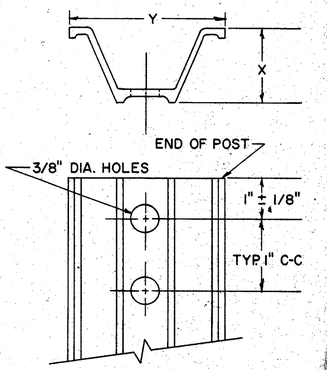
BEAM SIZE	C	D
10 WF 21	5 3/4	2 3/4
12 WF 31	6 1/2	3 1/2

FUSE PLATE DETAIL



BEAM SIZE	A	B
10 WF 21	3 1/2	2 5/8
12 WF 31	2 1/2	1 5/8

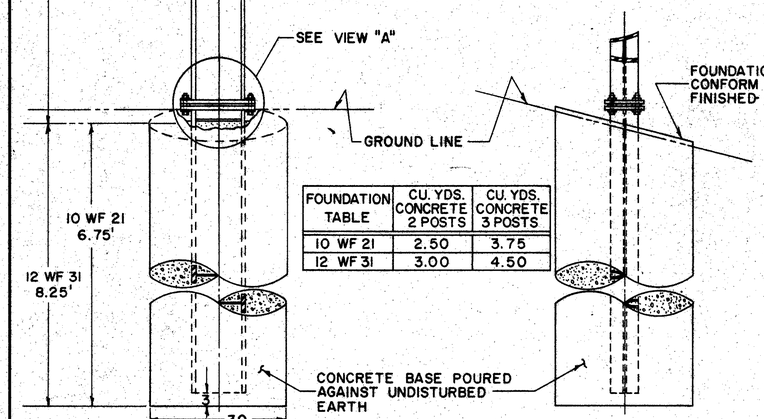
BASE PLATE DETAIL



WEIGHT PER FOOT	X ± 3/32"	Y ± 1/8"
2.00 #	1 15/32"	3 1/16"
3.00 #	1 7/8"	3 1/2"
4.00 #	2"	3 5/8"

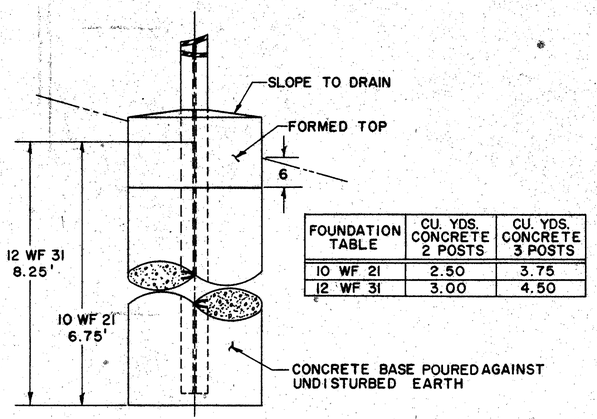
DRIVE POST DETAIL

NOTE: THE FOUNDATION FOR 4# DRIVE POST IS SIMILAR TO THE FOUNDATION SHOWN FOR 6# & 8# BEAM



FOUNDATION TABLE	CU. YDS. CONCRETE 2 POSTS	CU. YDS. CONCRETE 3 POSTS
10 WF 21	2.50	3.75
12 WF 31	3.00	4.50

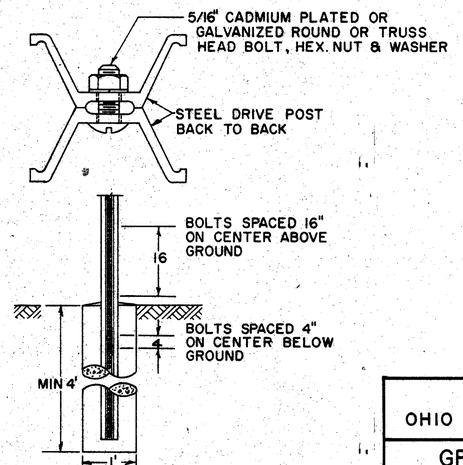
BREAK-AWAY SUPPORT



FOUNDATION TABLE	CU. YDS. CONCRETE 2 POSTS	CU. YDS. CONCRETE 3 POSTS
10 WF 21	2.50	3.75
12 WF 31	3.00	4.50

STANDARD SUPPORT

STRUCTURAL SUPPORTS



#6 & 8# BEAM DETAIL

NOTES: ALL MATERIALS SHALL CONFORM TO THE STATE OF OHIO, CONSTRUCTION & MATERIALS SPECIFICATIONS OR AS OTHERWISE SPECIFIED

1) 511 FOUNDATIONS
2) 711.01 STRUCTURAL STEEL SHAPES & PLATES
3) 711.09 H.S. STEEL BOLTS, NUTS & WASHERS

ALL DIMENSIONS IN INCHES UNLESS OTERWISE SHOWN

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

GROUND MOUNTED SIGN SUPPORTS

GMSS

DATE: 5-10-68, 7-12-68

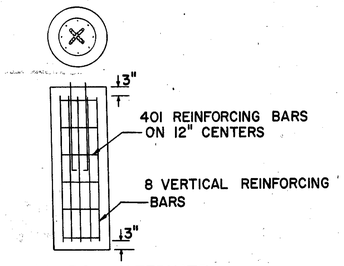
APPROVED _____
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

20
225

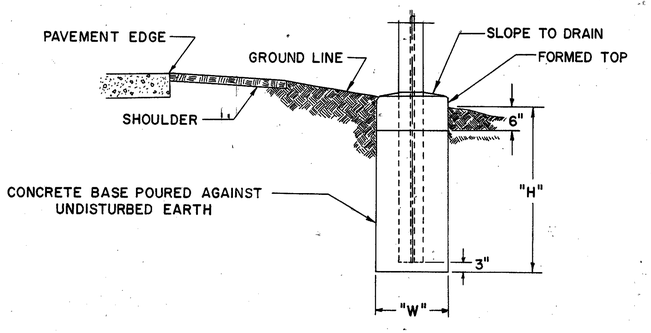
ROS-35-25.05

BEAM SIZE	ANCHOR BOLTS DIA.	ANCHOR BOLTS LENGTH	BASE PLATE	HOLE SIZE	DIM. M	DIM. N	DIM. P	WELD SIZE	DIM. H	DIM. W	CU. YDS. FOR 2 POST	MARK	TYPE	NO.	LENGTH	WEIGHT FOR 1 POST
10B11.5	3/4"	3'-0"	7/8"x6"x18"	7/8"	3 1/2"	14"	3 1/2"	1/4"	5.25'	2'-6"	1.9	401	101	6	7'-6"	45
												402	STR.	8	5'-0"	
10B17	1"	3'-6"	7/8"x6"x18"	1 1/8"	3 3/4"	14"	4 1/4"	1/4"	6.0'	2'-6"	2.2	401	101	7	7'-6"	52
												403	STR.	8	5'-9"	
12B22	1"	4'-0"	1"x9"x19"	1 1/8"	5 1/2"	15"	4 1/4"	1/4"	6.75'	2'-6"	2.5	401	101	8	7'-6"	61
												404	STR.	8	7'-0"	
12WF27	1 1/4"	4'-0"	1"x9"x19"	1 3/8"	5 1/2"	15"	5 1/4"	1/4"	8.0'	2'-6"	2.9	401	101	9	7'-6"	94
												501	STR.	8	8'-0"	
14WF30	1 1/4"	4'-0"	1"x11"x20"	1 3/8"	7 1/2"	16"	5 1/4"	5/16"	8.25'	2'-6"	3.0	401	101	10	7'-6"	101
												502	STR.	8	8'-6"	
14WF34	1 1/4"	4'-0"	1"x12"x22"	1 3/8"	9"	18"	5 1/4"	5/16"	9.0'	2'-6"	3.3	401	101	10	7'-6"	103
												503	STR.	8	8'-9"	
16WF36	1 1/2"	5'-0"	1 1/4"x14"x23"	1 5/8"	10"	19"	6"	5/16"	9.75'	2'-6"	3.5	401	101	11	7'-6"	145
												601	STR.	8	9'-3"	
16WF40	1 1/2"	5'-6"	1 1/4"x14"x24"	1 5/8"	10"	20"	6"	5/16"	10.0'	2'-6"	3.6	401	101	11	7'-6"	148
												602	STR.	8	9'-6"	
16WF45	1 1/2"	6'-0"	1 1/4"x14"x24"	1 5/8"	10"	20"	6"	5/16"	10.5'	2'-6"	3.8	401	101	11	7'-6"	155
												603	STR.	8	10'-0"	
18WF50	1 3/4"	7'-6"	1 1/2"x14"x26"	1 7/8"	10"	22"	6 3/4"	5/16"	11.5'	2'-6"	4.2	401	101	12	7'-6"	164
												604	STR.	8	10'-6"	

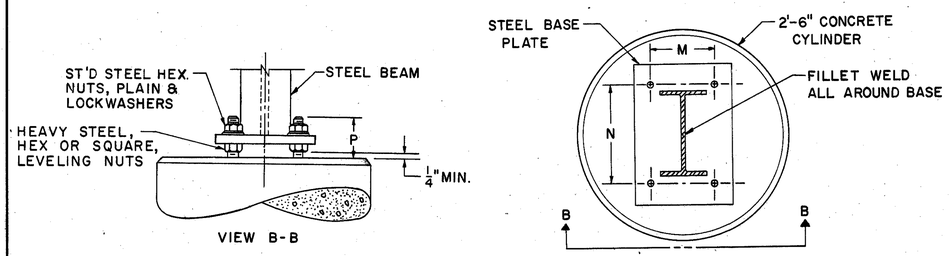


REINFORCING FOR ALTERNATE ANCHOR BASE

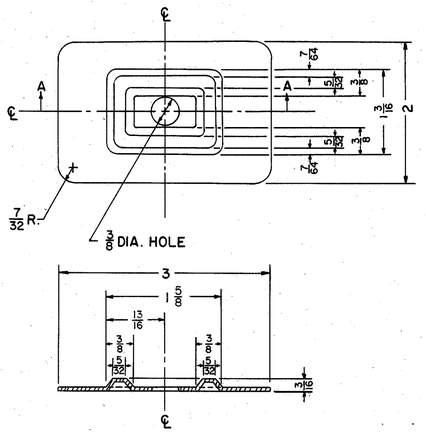
BEAM SIZE	DIM. W	DIM. HO	CU. YDS. CONC. 2 POST
4# POST	1'-0"	4.0'	0.2
6#BEAM	1'-0"	4.0'	0.2
8#BEAM	1'-0"	4.0'	0.2
10B11.5	2'-6"	5.25'	1.9
10B17	2'-6"	6.0'	2.2
12B22	2'-6"	6.75'	2.5
12WF27	2'-6"	8.0'	2.9
14WF30	2'-6"	8.25'	3.0
14WF34	2'-6"	9.0'	3.3
16WF36	2'-6"	9.75'	3.5
16WF40	2'-6"	10.0'	3.6
16WF45	2'-6"	10.5'	3.8
18WF50	2'-6"	11.5'	4.2



FOUNDATION DETAILS FOR EMBEDDED POSTS AND BEAMS

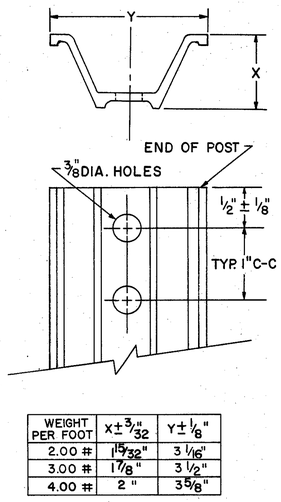


ALTERNATE ANCHOR BASE DETAILS



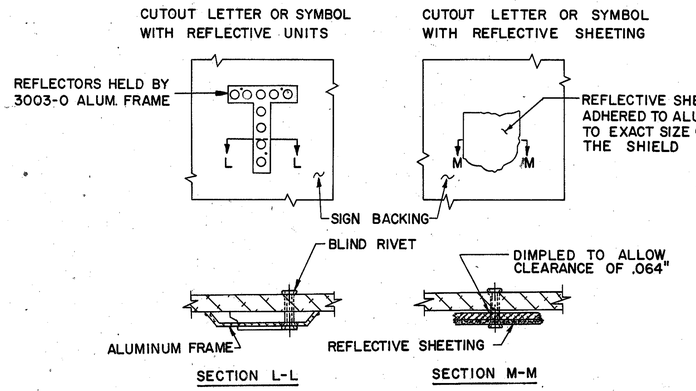
NOTE:
THE PLATE IS SYMMETRICAL ABOUT EITHER CENTERLINE.
METAL SHALL BE 16 GAUGE STEEL.
ALL DIMENSIONS ARE IN INCHES.

BEARING PLATE DETAIL

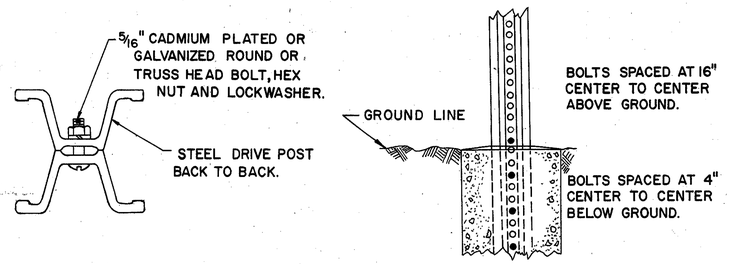


WEIGHT PER FOOT	X ± 3/32"	Y ± 1/8"
2.00 #	1 15/32"	3 1/16"
3.00 #	1 7/8"	3 1/2"
4.00 #	2 "	3 5/8"

DRIVE POST DETAILS



DEMOUNTABLE LETTERS & SYMBOLS



6# & 8# BEAM DETAILS

NOTES

PLAN QUANTITIES FOR POSTS AND STRUCTURAL SUPPORTS ARE BASED UPON THE "FOUNDATION DETAILS FOR EMBEDDED POSTS AND BEAMS".

IF THE CONTRACTOR ELECTS TO USE THE METHOD SHOWN FOR "ALTERNATE ANCHOR BASE DETAILS", THE PLAN QUANTITY OF EMBEDDED BEAM ONLY WILL BE ALLOWED IN EXCHANGE AND FULL PAYMENT FOR THE BASE PLATE, ANCHOR BOLTS AND REINFORCING STEEL.

WHERE ANCHOR BASES ARE USED, THE BEAM SIZE SHALL DETERMINE THE ANCHOR BOLT AND BASE PLATE SIZE.

DEMOUNTABLE UNITS SHALL BE ATTACHED TO THE ALUMINUM PANELS WITH ALUMINUM BLIND RIVETS. CARE SHALL BE TAKEN TO INSURE THAT ALL SEGMENTS OF EACH LETTER OR SYMBOL ARE SECURELY AFFIXED TO THE BACKING. LETTERS CONTAINING REFLECTIVE UNITS SHALL BE FASTENED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

DEMOUNTABLE SHIELDS SHALL BE AFFIXED TO THE BACKING UTILIZING 5/16" TRUSS HEAD BOLTS, PLAIN AND LOCKWASHERS. FOR HOLE LOCATION DETAILS SEE SHEET NO. 205.

IN LIEU OF THE .040" THICK FRAME SPECIFIED IN SUPPLEMENTAL SPECIFICATION 815.08, THE FRAMES FOR THE REFLECTIVE UNITS IN THE SIGN OUTLINES ONLY, MAY BE .032" THICK ALUMINUM. (A.S.T.M. B209GSIIA-T6).

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

MISCELLANEOUS SIGNING ITEMS

MSI

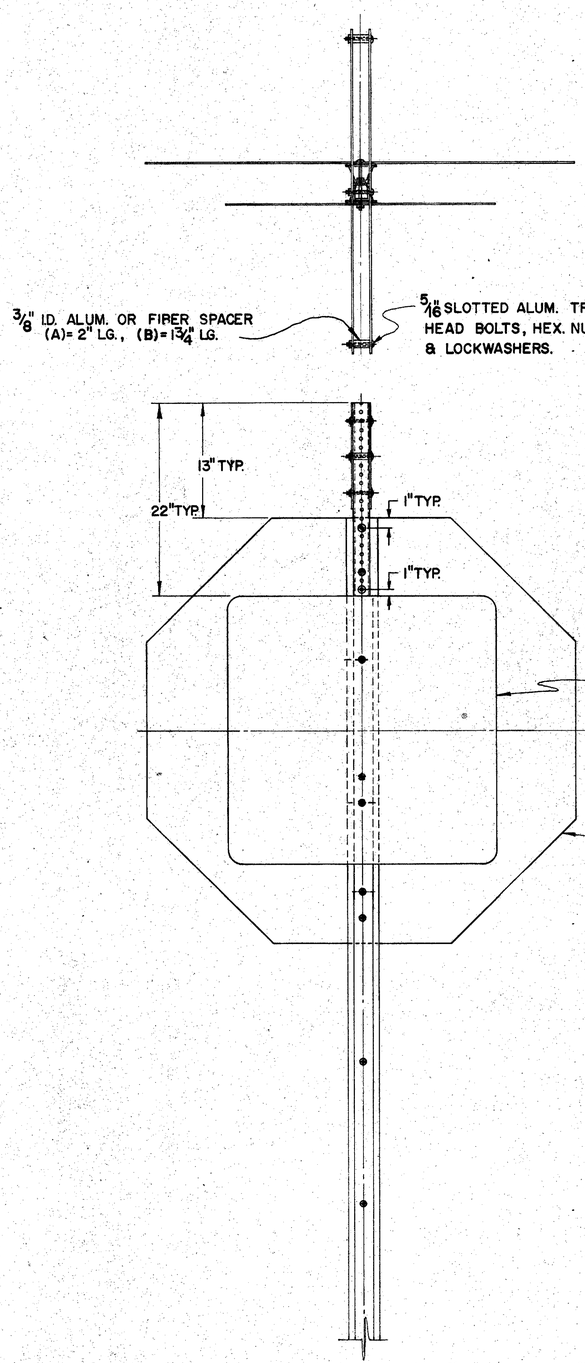
DATE
10-29-63
8-19-64
10-13-65
4-14-67

APPROVED Fred C. Tasker
ENGINEER OF TRAFFIC

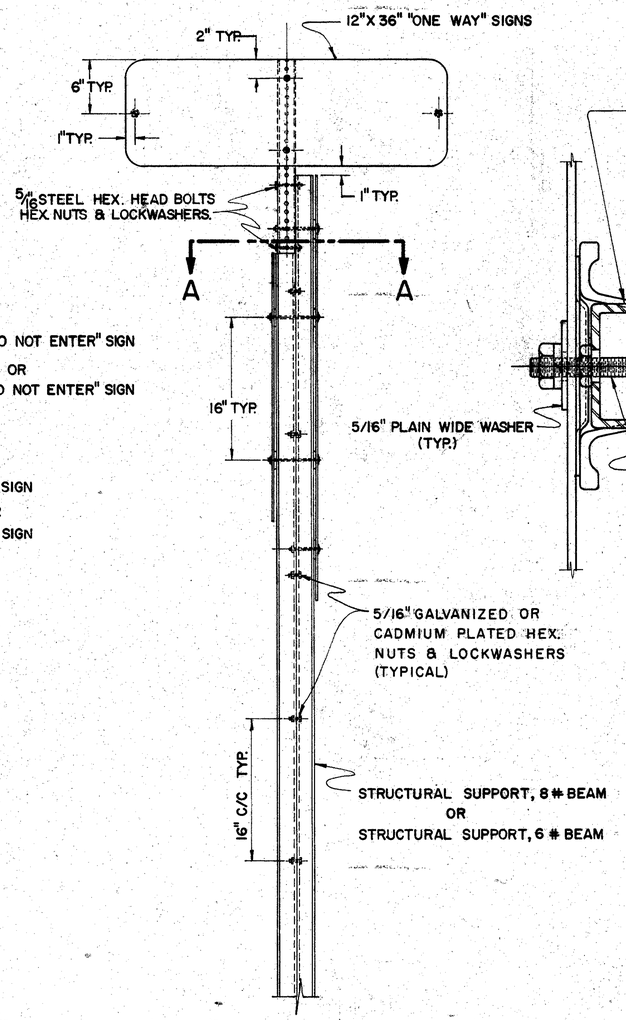
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

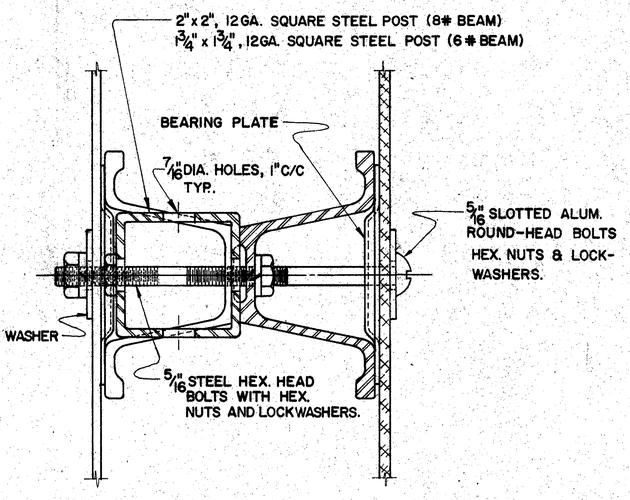
209
22.5

ROS-35-25.05

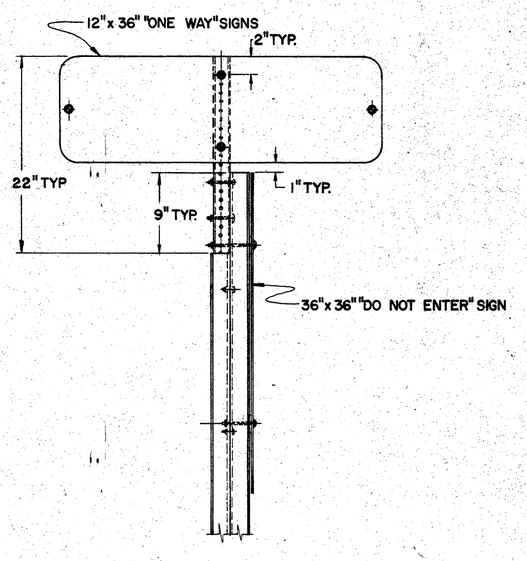


"ONE WAY", "STOP", "DO NOT ENTER",
SIGN INSTALLATION.





SECTION A-A



"ONE WAY", "DO NOT ENTER"
SIGN INSTALLATION

NOTES

MATERIALS

ALL SIGN MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 815.

ALL STRUCTURAL MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 816.

FOR SPECIFICATIONS FOR THE 2" & 1 3/4" SQUARE STEEL POST SEE GENERAL NOTES, SHEET NO. 194.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

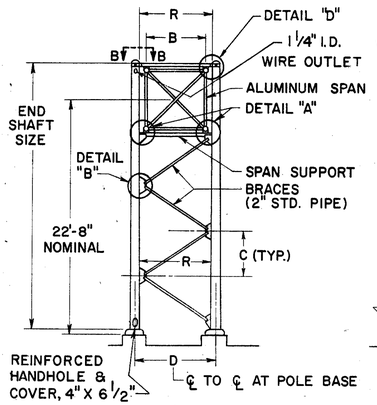
SPECIAL "ONE WAY" SIGN SUPPORT DETAILS	SOW	DATE 2-7-66 4-18-67
APPROVED _____ ENGINEER OF TRAFFIC		

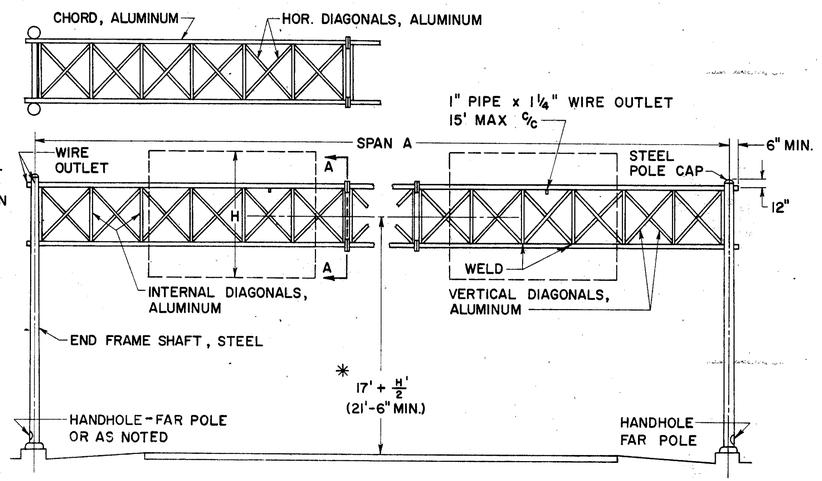
SPECIAL "ONE WAY" SIGN SUPPORT DETAILS

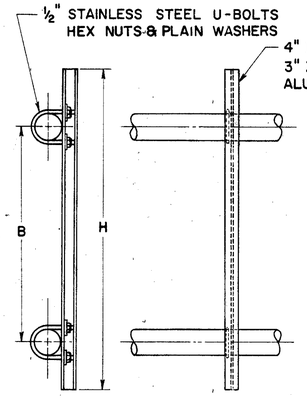
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

210/225

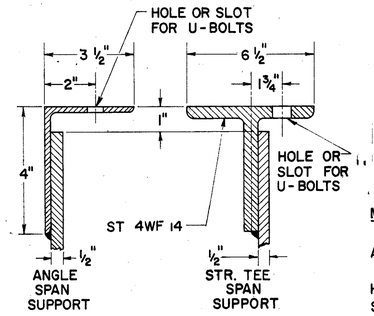
ROS-35-25.05







SIGN BRACKET



SECTION D-D

NOTES

MATERIALS

THE OVERHEAD SPAN TRUSS SHALL BE ALUMINUM AND THE END FRAMES SHALL BE STEEL.

SPAN TRUSS AND END FRAMES, INCLUDING HARDWARE, SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 816 UNLESS OTHERWISE NOTED.

STEEL POLE BASES AND GUSSETS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A-373.

AFTER FABRICATION THE TAPERED POLES SHALL HAVE A MINIMUM YIELD STRENGTH OF 48,000 PSI.

FABRICATION

THE ENTIRE STEEL END FRAME SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH 711.02

MAXIMUM LENGTH OF SPAN SECTIONS IS 30 FT.

ERECTION

USE A MINIMUM OF 1" CAMBER IN SPAN TRUSS MEMBER FOR A 50' SPAN; ADD 1/4" OF CAMBER FOR EACH 5' OF INCREASE IN SPAN OVER 50'.

PAYMENT

PAYMENT FOR THE GALVANIZED CONDUIT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OVERHEAD SIGN SUPPORTS.

SOILS

THE FOUNDATION DETAILS SHOWN ARE FOR AVERAGE SOIL CONDITIONS (MEDIUM CLAY, CEMENTED SAND AND GRAVEL, SANDY CLAY, OR STIFF CLAY).

FOR POOR SOIL CONDITIONS, INCREASE "D" MIN. BY: 50% IN DRY OR WET SAND, 60% IN SILTY CLAY, 100% IN SOFT CLAY, AND FROM 75% TO 150% IN WET SILT, DEPENDING ON QUICKSAND ACTION.

REINFORCING STEEL

COST OF REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 816 CONCRETE FOR SIGN SUPPORT FOUNDATIONS.

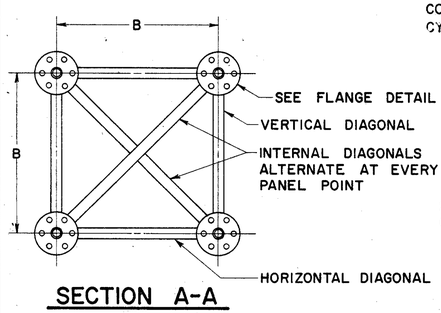
BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.

*FOUNDATION ELEVATION

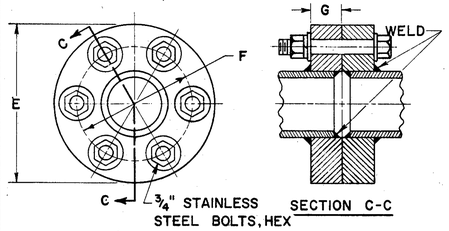
ELEVATION OF TOPS OF FOUNDATIONS SHALL BE BUILT UP SO THAT 17' CLEARANCE IS MAINTAINED OVER THE ENTIRE WIDTH OF THE PAVEMENT AND SHOULDERS.

DESIGN

THE DESIGN OF OVERHEAD SUPPORTS IS IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, ADOPTED JUNE 12, 1961.

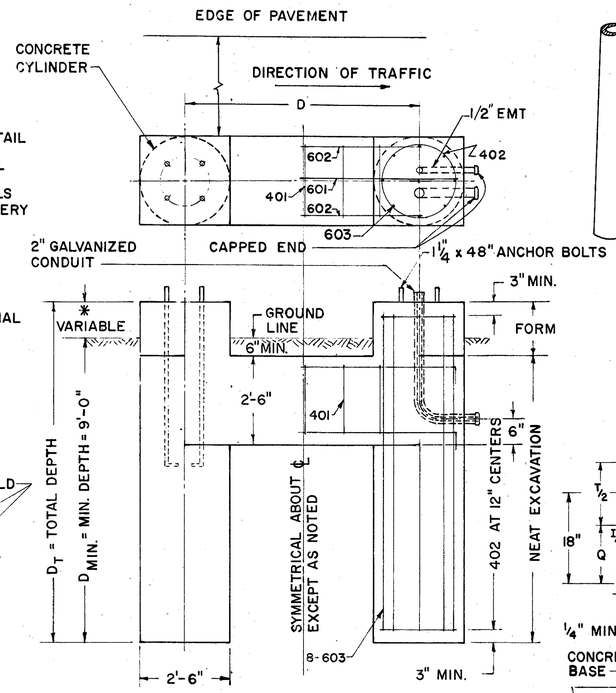


SECTION A-A



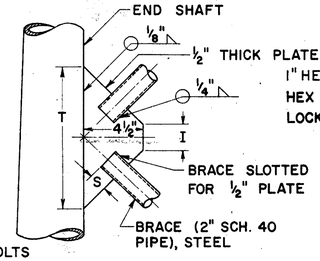
CAST FLANGE, B-26 ALLOY SG 70A-T7 (356-T7)

FLANGE DETAIL

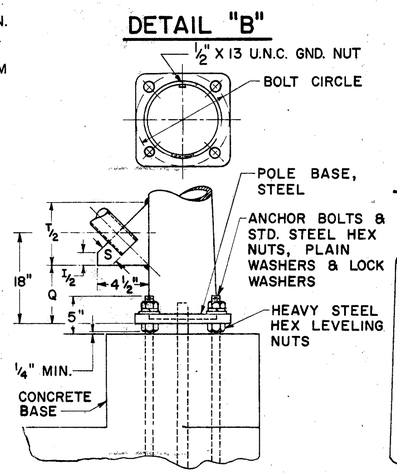


FOUNDATION DETAIL

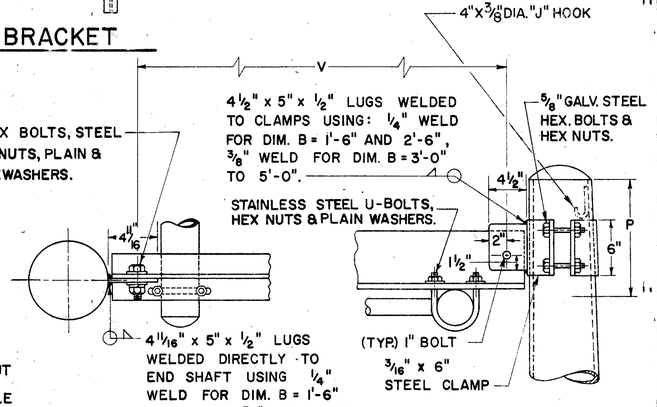
(RIGHT HAND SHOWN - LEFT HAND OPPOSITE)



DETAIL "B"



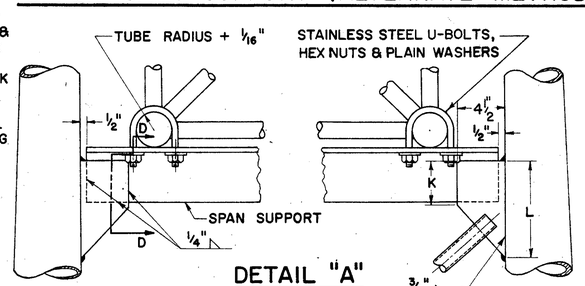
POLE BASE DETAIL



VIEW B-B

DETAIL "D"

UPPER SPAN SUPPORT (ALTERNATE METHODS)

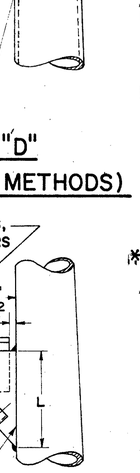


DETAIL "A"

LOWER SPAN SUPPORT

DESIGN NO.	SPAN A	B	C	D	E	END SHAFT	BRACE LENGTH	F	G	I	K	L	P	Q	R	S	T	U BOLTS	V	BOLT CIRCLE	SPAN SUPPORT SECTION D-D	CHORDS	HORIZONTAL AND INTERNAL DIAGONAL	VERTICAL DIAGONAL
1	50'Thru 55'	3'-0"	4'-11 3/4"	4'-5"	7"	8"x4.5"x25'-0",3GA	5'-10 13/16"	5 1/2"	1 1/4"	3 1/2"	4 3/4"	8"	12"	6 5/8"	3'-9"	1 1/2"	10"	5/8"	3'-3 5/8"	11"	SPLIT TEE 3'-8"	3 1/2" x .188"	1.660"x .140"	1.660"x .140"
2	56'Thru 80'	3'-0"	4'-11 3/4"	4'-5"	9 1/4"	8"x4.5"x25'-0",3GA	5'-10 13/16"	7 7/16"	1 3/8"	3 1/2"	4 3/4"	8"	12"	6 5/8"	3'-9"	1 1/2"	10"	5/8"	3'-3 5/8"	11"	SPLIT TEE 3'-8"	4 3/4" x .188"	1.900"x .145"	1.660"x .140"
3	81'Thru 90'	4'-0"	4'-10 1/4"	5'-7"	9 1/4"	8"x6.22"x25'-6",3GA	6'-7 1/8"	7 7/16"	1 3/8"	5/8"	4 3/8"	7 3/4"	12"	6 1/4"	4'-11"	1 1/2"	9 1/2"	5/8"	4'-5 5/8"	11"	SPLIT TEE 4'-10"	4 3/4" x .188"	1.900"x .145"	1.900"x .145"
4	91'Thru 105'	4'-0"	4'-10 1/4"	5'-7"	9 1/4"	8"x6.22"x25'-6",3GA	6'-7 1/8"	7 7/16"	1 3/8"	5/8"	4 3/8"	7 3/4"	12"	6 1/4"	4'-11"	1 1/2"	9 1/2"	5/8"	4'-5 5/8"	11"	SPLIT TEE 4'-10"	4 3/4" x .188"	2"x.188"	1.900"x .145"

REINFORCEMENT SCHEDULE			
MARK	NO.	LENGTH	TYPE
401	12"C/C	8'-6"	102
402	12"C/C	7'-6"	103
601	4	D+ 4'-0"	101
602	8	D+ 2'-0"	101
603	32	D_T - 6"	STR.



BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

OVERHEAD SIGN SUPPORTS | 816 No. 7.3 | DATE 7-25-62 5-5-64

APPROVED Robert P. Lyman
ENGINEER OF TRAFFIC

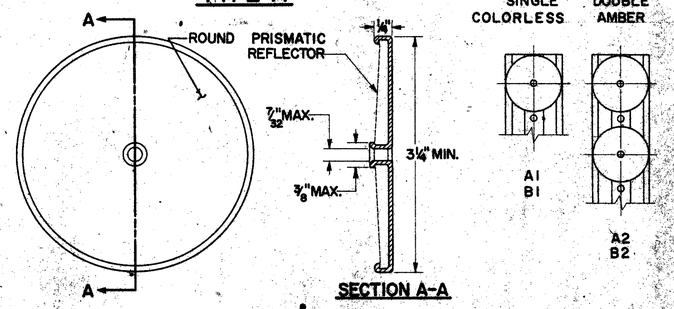
300 SQ. FT. SIGN AREA — OVERHEAD SIGN SUPPORT, 816 NO. 7.3

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

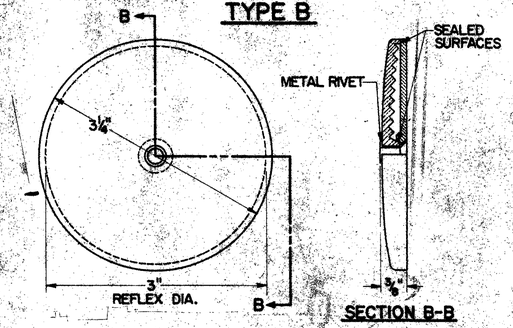
211
225

ROS-35-25.05

TYPE A



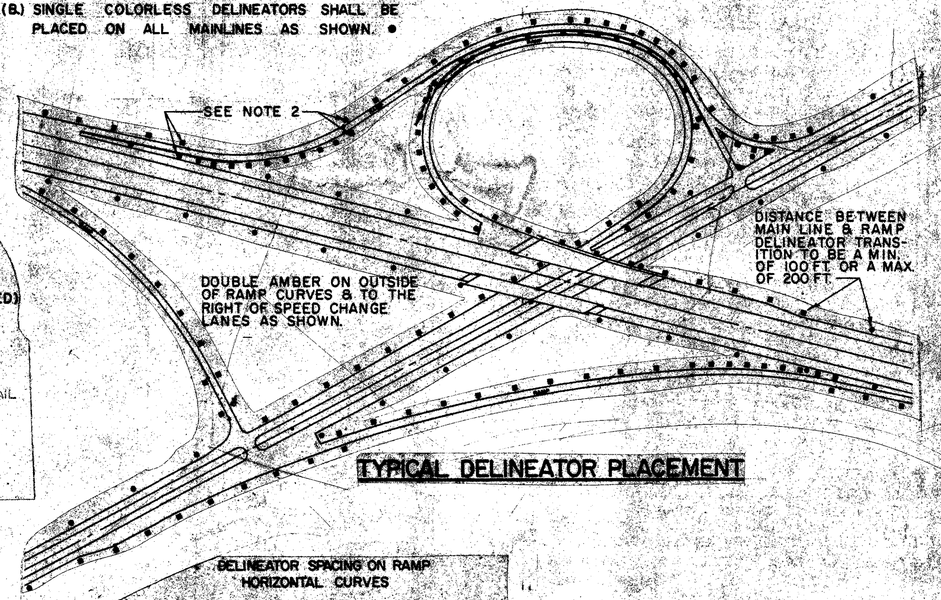
TYPE B



NOTE:

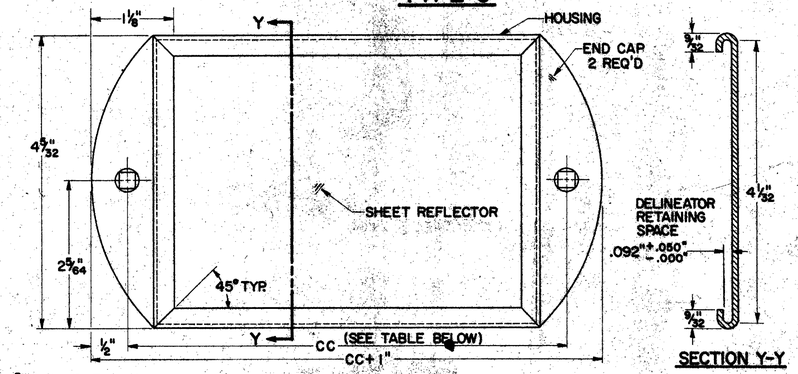
(A.) DOUBLE AMBER DELINEATORS SHALL BE PLACED ON ALL RAMPS AS SHOWN. ■

(B.) SINGLE COLORLESS DELINEATORS SHALL BE PLACED ON ALL MAINLINES AS SHOWN. ●

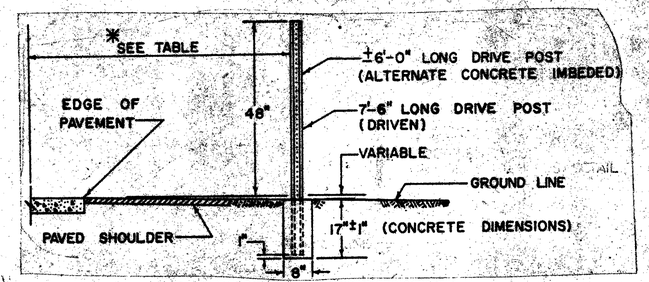


TYPICAL DELINEATOR PLACEMENT

TYPE C



TYPE	DIM. CC
C1 – SINGLE COLORLESS	6"
C2 – DOUBLE AMBER	11"



LATERAL PLACEMENT OF DELINEATORS

* TABLE

TYPE DELINEATOR	NO GUARDRAIL	GUARDRAIL
SINGLE COLORLESS	12'-6"	6" OUTSIDE
DOUBLE AMBER RIGHT SIDE	** 8'-6"	6" OUTSIDE
DOUBLE AMBER LEFT SIDE	4'-6"	6" OUTSIDE

** THIS DIMENSION SHALL VARY ON SPEED CHANGE LANES TO MAINTAIN MINIMUM DISTANCE OF 2'-6" FROM EDGE OF PAVED SHOULDER.

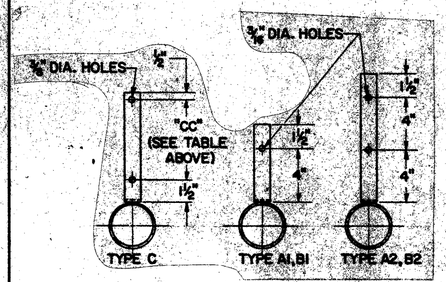
DELINEATOR SPACING ON RAMP HORIZONTAL CURVES

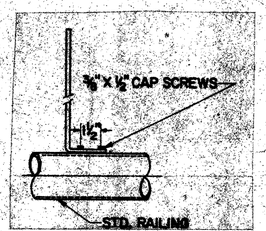
RADII, FT. FROM	RADII, FT. TO	SPACING ON CURVE	* TRANSITION SPACING	
TANGENT	1,801	100'	100'	100'
1,800	1,401	80'	100'	100'
1,400	1,001	70'	100'	100'
1,000	751	60'	100'	100'
750	551	50'	90'	100'
550	326	40'	70'	100'
325	———	30'	60'	100'

* SUCH AS 40' TO 70' TO 100' OR 100' TO 80' TO 50' OR ANY OTHER COMBINATION SHOWN ABOVE.

NOTES

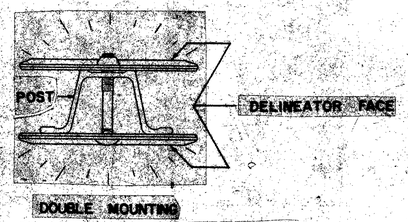
1. TYPE A1 OR B1 DELINEATORS ON THE RIGHT OF THE THROUGH ROADWAY ARE TO BE SPACED AT 200 FT. INTERVALS THROUGHOUT, REGARDLESS OF CURVES.
2. WHEN CROSSING FROM LEFT TO RIGHT OR FROM RIGHT TO LEFT ON THE RAMPS, THE DELINEATORS AT THE POINT OF CROSSOVER ARE TO BE AT THE SAME STATION ON EACH SIDE.
3. NO DELINEATORS ARE TO BE PLACED IN PAVED BERM.
4. WHEN RADII OF CURVE ON RAMPS REQUIRE 100' SPACING THE DELINEATORS SHALL BE PLACED ON THE RIGHT IN RELATION TO THE FLOW OF TRAFFIC.



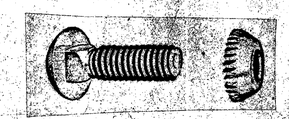


ALL BRACKETS ¼" x 1¼" STAINLESS STEEL

BRIDGE RAIL BRACKET

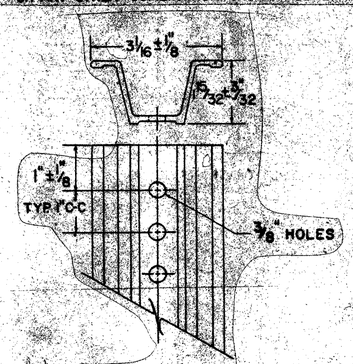


DELINEATOR MOUNTING



TAMPER RESISTANT FASTENERS SHALL BE USED TO FASTEN DELINEATORS TO POST. AS/OR SIMILAR TO ONE SHOWN ABOVE.

TAMPER RESISTANT FASTENERS



2 LB./F.T. DELINEATOR DRIVE POST

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

DELINEATOR DETAILS

620

DATE
9-25-62
5-24-65
9-12-67

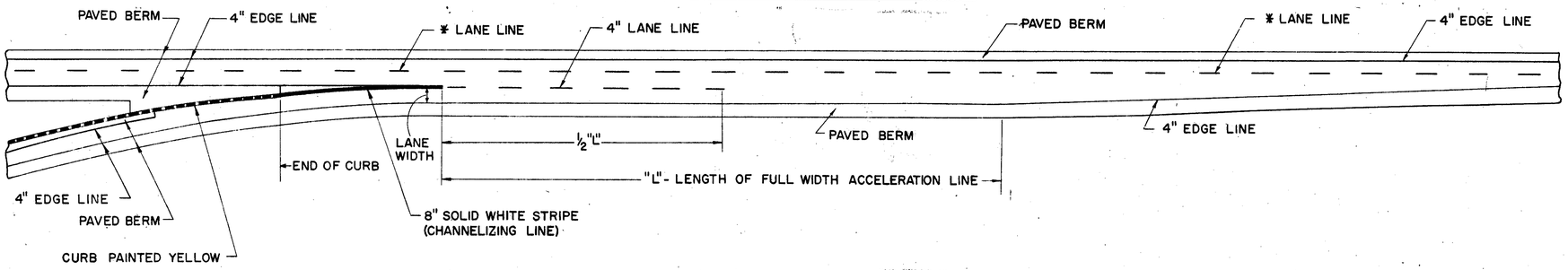
APPROVED Robert L. Bowen
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

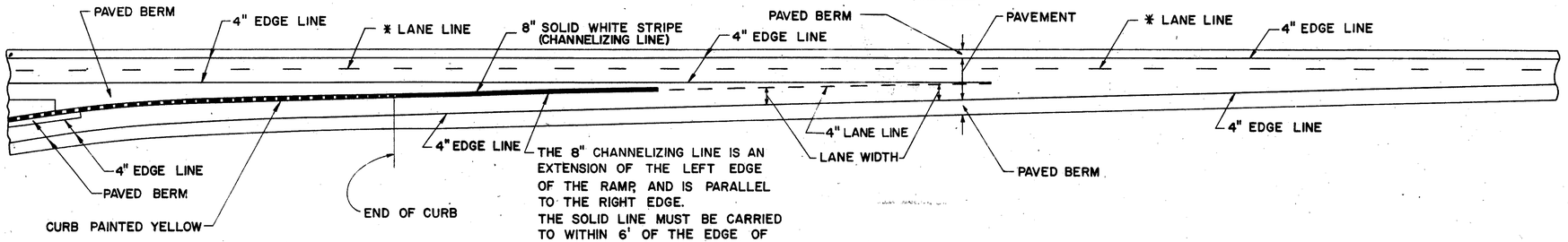
212
225

ROS-35-25.05

ENTRANCE TERMINAL - PARALLEL ACCELERATION LANE

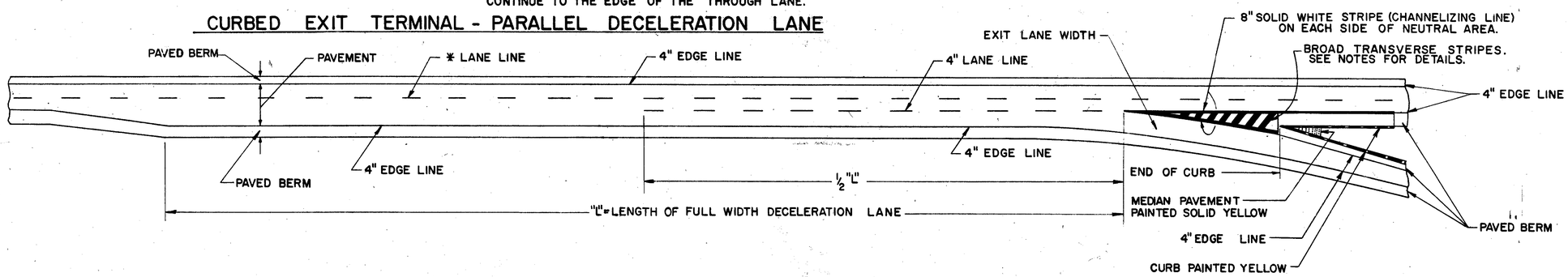


ENTRANCE TERMINAL - TAPERED ACCELERATION LANE

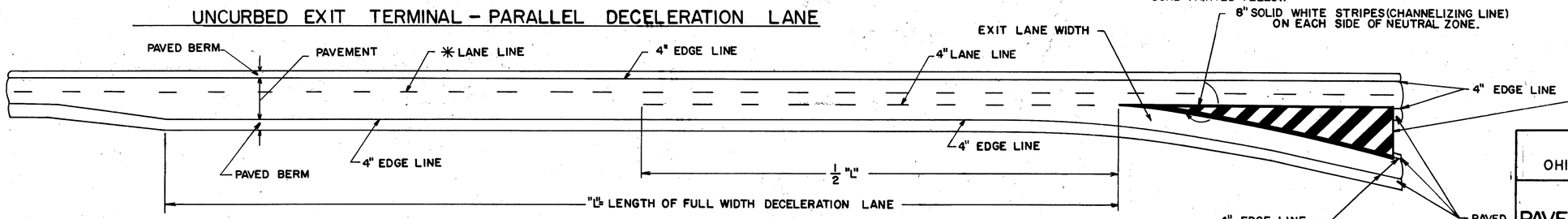


THE 8" CHANNELIZING LINE IS AN EXTENSION OF THE LEFT EDGE OF THE RAMP AND IS PARALLEL TO THE RIGHT EDGE. THE SOLID LINE MUST BE CARRIED TO WITHIN 6' OF THE EDGE OF THE THROUGH LANE, OR TO THE END OF THE RAMP CURVE IF CLOSER. THE 4" DASHED LINE SHOULD CONTINUE TO THE EDGE OF THE THROUGH LANE.

CURBED EXIT TERMINAL - PARALLEL DECELERATION LANE



UNCURBED EXIT TERMINAL - PARALLEL DECELERATION LANE



NOTES

DIAGONAL STRIPES AT EXIT RAMPS SHALL BE 24" BROAD TRANSVERSE STRIPES, 621.11, WITH A 6' SPACE BETWEEN STRIPES.

* 6" LANE LINE ON INTERSTATE HIGHWAYS ONLY.
4" LANE LINE ON ALL OTHER HIGHWAYS.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

PAVEMENT MARKING | 621

DATE
7-17-61
4-6-62
5-24-65
9-2[illegible]-67
4-17-68

APPROVED Robert E. Lowder
ENGINEER OF TRAFFIC