

STATE OF OHIO DEPARTMENT OF HIGHWAYS

WAY-250-16.57

WAYNE COUNTY EAST UNION TOWNSHIP

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	STATE	

WAY-250-16.57

1
10

CONVENTIONAL SIGNS

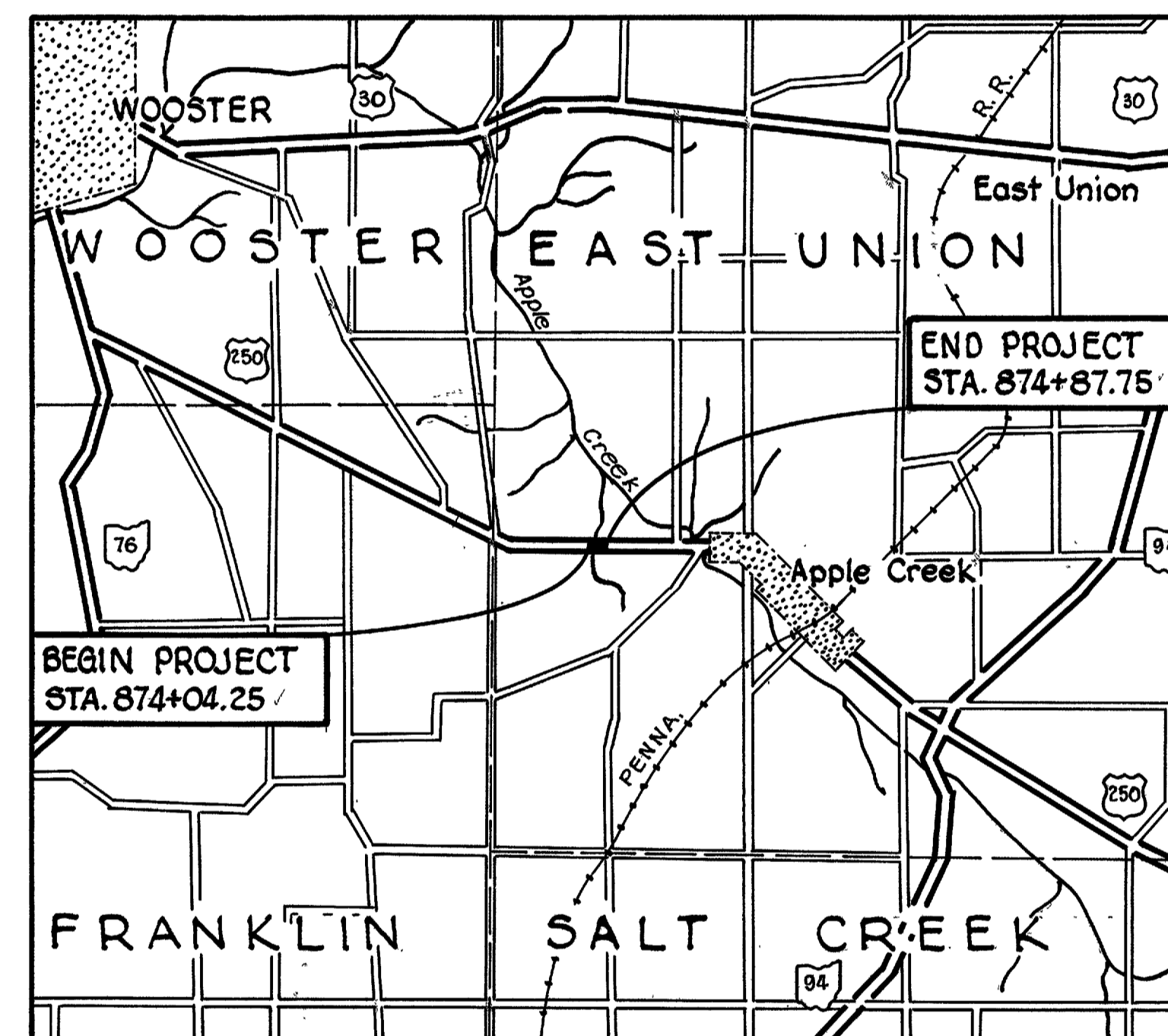
County Line	-----
Township Line	-----
Section Line	-----
Corporation Line	-----
Fence Line	-----
Center Line	-----
Pole Line (Telephone & Power)	⊕ ⊕ ⊕ ⊕
Railroad	-----
Guard Rail (Existing & Proposed)	-----
Property Line	-----

INDEX OF SHEETS

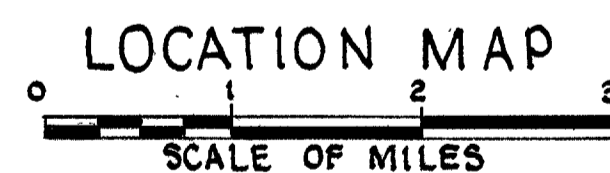
Title Sheet	1
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Cross Sections	4-5
Channel Sections	6-7
Structure Over 20' Span	8-10

LINE DATA

	WORK	PROJECT
Begin	Sta. 873+00.00	Sta. 874+04.25
End	Sta. 876+00.00	Sta. 874+87.75
Gross Length	300.00 Lin. Ft.	83.50 Lin. Ft.
Add. or Deduct.	0.00 Lin. Ft.	0.00 Lin. Ft.
Net Length	300.00 Lin. Ft.	83.50 Lin. Ft.
	or 0.056 Mile	or 0.015 Mile



Delivery Point = Apple Creek Average Haul = 1.7 Miles



Portion to be Improved
State Highways

Other Roads

SCALES

Plan	1" = 25'
Profile Horizontal	1" = 25'
Profile Vertical	1" = 5'
Cross Sections	1" = 5'

The Standard Specifications of the State of Ohio, Department of Highways, including changes and Supplemental Specifications listed in the proposal shall govern this improvement.

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

I hereby approve these plans and declare that the making of this improvement will not require the closing 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 J. A. Pomeroy
Date 1-20-55 Division Deputy Director

Approved John J. Heier
Date 3-21-55 Deputy Director of Planning and Programming

Approved Richard Orth
Date 3-25-55 Engineer of Bridges

Approved K. L. Roth
Date 3-18-55 Engineer of Location and Design

Approved W. F. Arnold
Date 2-18-55 Deputy Director of Design and Construction

Approved P. F. Schaublin
Date 2-24-55 First Assistant Director

Approved S. O. Ruppel
Date 3-21-55 Director of Highways

CONSTRUCTION
BUREAU
FEB 20 1957
GROUND PHOTOLAB

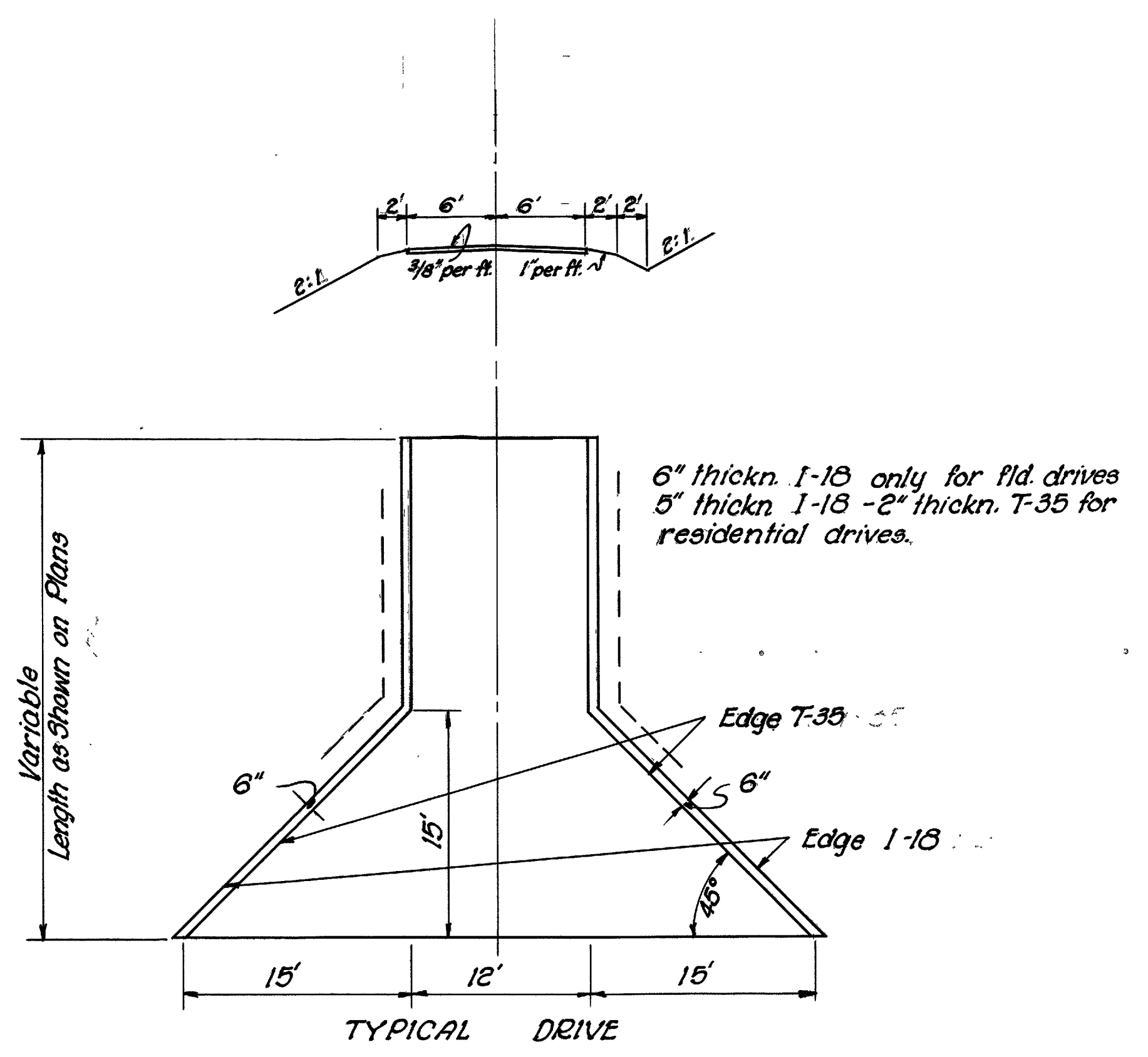
STANDARD CONSTRUCTION DRAWINGS

L-3	4-1-50	T-35	10-1-52
L-3-A	4-1-50	CS-1-54 (Sheets 1&2)	12-1-54
I-1,2,3,4 & 5	2-20-45	P-1-54	12-1-54
RI-1	L-3-55		
G-7.07	1-2-53		
I-15 NO.1	12-1-54		
I-15 NO.2	12-1-54		
AS-1-54	12-1-54		
L-1	4-1-50		

SUPPLEMENTAL SPECIFICATIONS

L-209.12	7-17-54

File No.	WAY-250-16.57
Date of Letting	
Contract No.	



GENERAL NOTES

FIELD OFFICE: The contractor shall provide a suitable field office in accordance with Sec. 3-0.01(b) having a minimum floor area of 150 sq. ft. The contractor shall have a telephone installed and maintained during the construction of this project.

UTILITY ADJUSTMENTS: Any and all work required for the adjustment of public and private utilities shall be done by and at the expense of their respective owners unless otherwise noted on the plans.

CALCULATIONS: All calculations are on file in the Division Office.

TRAFFIC: Two way traffic shall be maintained at all times.

SEEDING & PROTECTING: Seeding and Protecting shall be sown at the rate of 3 pounds per 1000 square feet and shall have a formula of 70% Kentucky 31 Fescue, 15% Kentucky Bluegrass, 10% Domestic Ryegrass, and 5% Alsike Clover. Quantities for seeding are calculated for the soil areas between lines ten feet (10') outside the construction limits as shown on cross sections or to the R/W line if such line is less than 10' from the construction limits. All areas outside these limits where the vegetative growth has been injuriously disturbed or destroyed by the contractor shall be restored and seeded in accordance with the provisions of Item L-9 by the contractor at his own expense. Seeding areas shall be fertilized using a Commercial Fertilizer having a formula of 12-12-12, and applied at the rate of 15 pounds per 1000 square feet. Seeding limits are indicated on the cross sections by the symbol 37.

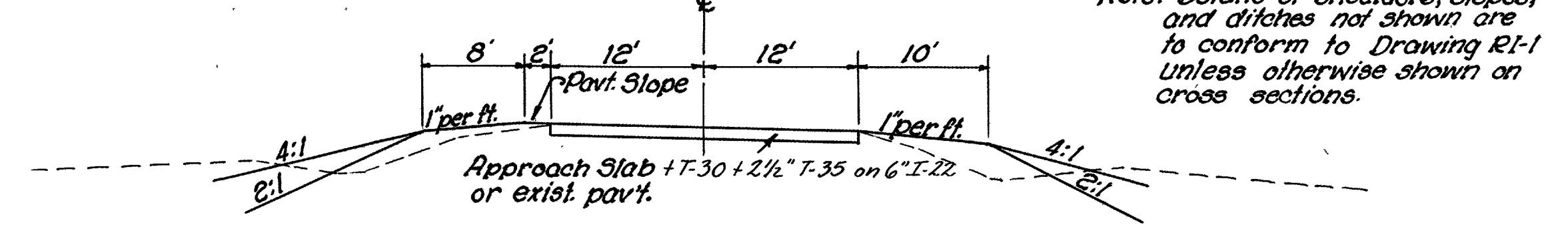
REMOVAL OF TREES AND STUMPS: Payment for the removal and disposal of any trees or stumps 12 inches or more in diameter, measured as described in Section E-9.01, shall be included in the unit price bid for Item E-1, Roadway Excavation.

SCHEDULE OF OPERATIONS: Construction of proposed driveways shall be scheduled in such a manner and at such time as to preclude the need for aggregate and chloride in maintaining ingress and egress for the residents adjacent to this improvement.

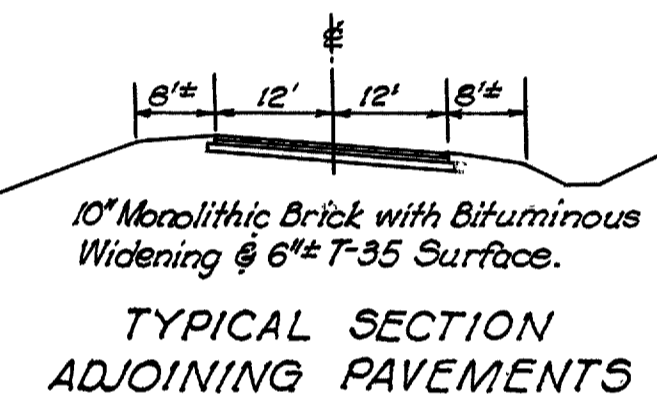
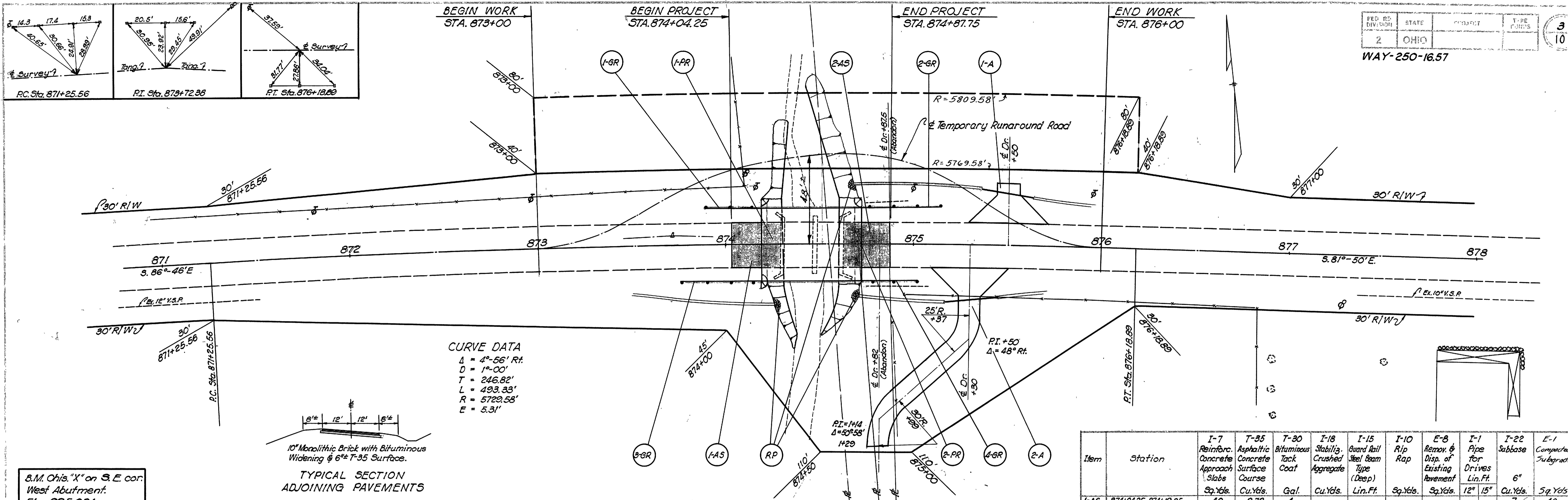
GENERAL SUMMARY

Item	Quant.	Unif.	Description
Roadway			
E-1	143	Cu. Yds.	Roadway Excavation, as per plan
E-8	132	Sq. Yds.	Removal and Disposal of Existing Pavement
E-11	11	M. Gals.	Water
E-1	80	Sq. Yds.	Compacted Subgrade
L-9	1750	Sq. Yds.	Seeding and Protecting, as per plan
L-9	0.12	Ton.	Commercial Fertilizer (12-12-12), as per plan
I-15	143	Lin. Ft.	Guard Rail, Steel Beam Type (Deep)
I-18	37	Cu. Yds.	Stabilized Crushed Aggregate Shoulders and Approaches
Drainage			
I-1	28	Lin. Ft.	12" Pipe For Driveways
I-1	28	Lin. Ft.	15" Pipe For Driveways
I-10	9	Sq. Yds.	Riprap, Type "A", Grout Filled
Pavement			
T-35	16	Cu. Yds.	Aphaltic Concrete Surface Course, Type "A" (70-80)
I-22	14	Cu. Yds.	Subbase
I-7	80	Sq. Yds.	Reinforced Concrete Approach Slabs
T-30	8	Gals.	Bituminous Tack Coat, as per plan
Structure over 20' span			
See Sheet No. 9 for Quantities, Bridge No. WA-250-16.3			

TYPICAL SECTION



Note: Details of shoulders, slopes, and ditches not shown are to conform to Drawing R1-1 unless otherwise shown on cross sections.



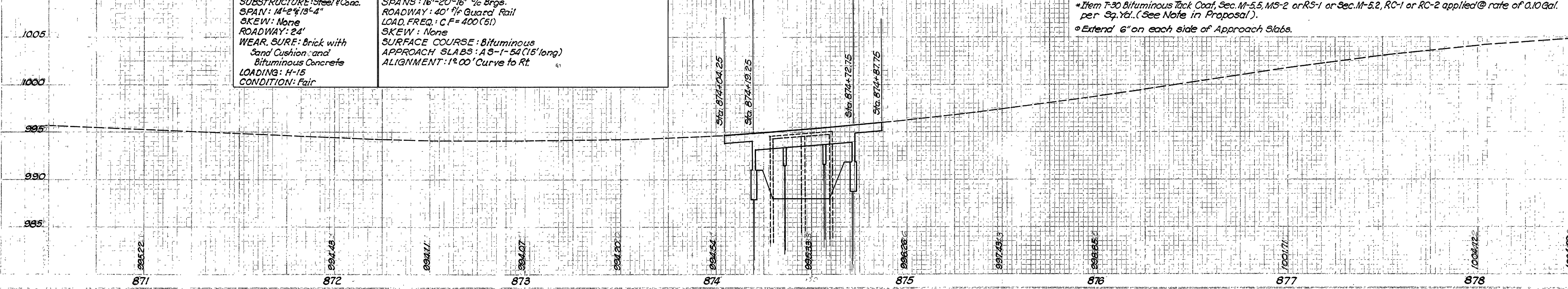
S.M. Chis. "X" on S.E. cor. West Abutment. Elev. 995.031

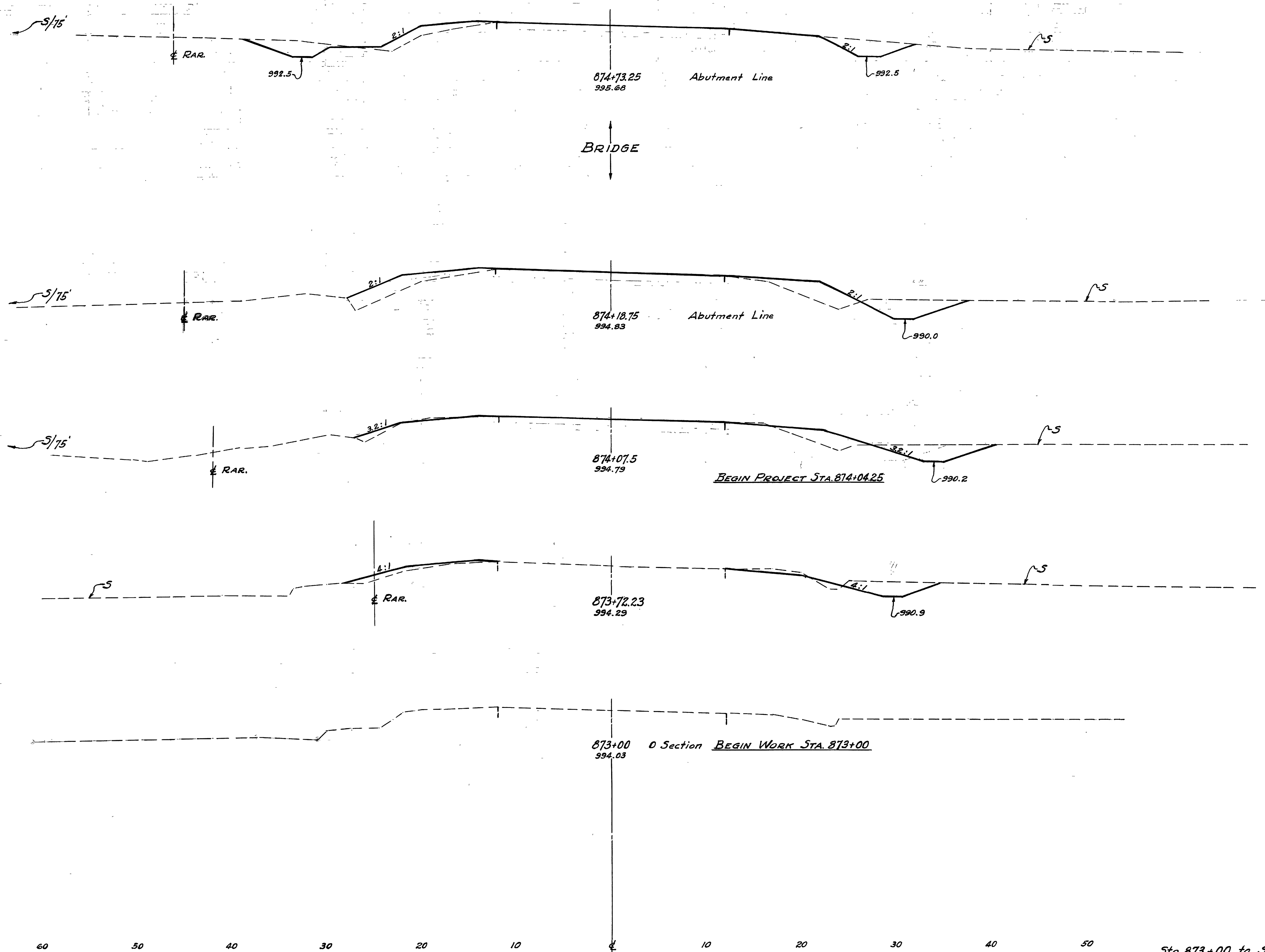
Item	Station	I-7 Reinforc. Concrete Approach Slabs Sq.Yds.	T-35 Asphaltic Concrete Surface Course Cu.Yds.	T-30 Bituminous Tack Coat Gal.	I-18 Stabiliz. Crushed Aggregate Cu.Yds.	I-15 Guard Rail Steel Beam Type (Dep.) Lin.Ft.	I-10 Rip Rap Sq.Yds.	E-8 Remov. & Disp. of Existing Pavement Sq.Yds.	I-1 Pipe for Drives Lin.Ft.	I-22 Subbase 6" Cu.Yds.	E-1 Compacted Subgrade Sq.Yds.	
1-A S	874+04.25-874+19.25	40	2.78	4						7	40	
2-A S	874+72.75-874+87.75	40	2.78	4						7	40	
1-A	875+50 Lt.				9.5				28			
2-A	875+30 Rt.		10.05		27.5				28			
1-PR	874+04.25-874+28.9							65.6				
2-PR	874+62.8-874+87.75							66.4				
1-GR	873+82.75-874+19.25 Lt.					29.5						
2-GR	874+72.75-875+14.75 Lt.					42.0						
3-GR	873+77.25-874+19.25 Rt.					42.0						
4-GR	874+72.75-875+02.25 Rt.					29.5						
RP	Ends of 3 Ditches						9					
Totals		80	15.61	* 8	37.0	143.0	9	132	28	28	14	80

Excavation	143 Cu.Yds.
Embankment	86 Cu.Yds.
Embankment + 25%	108 Cu.Yds.

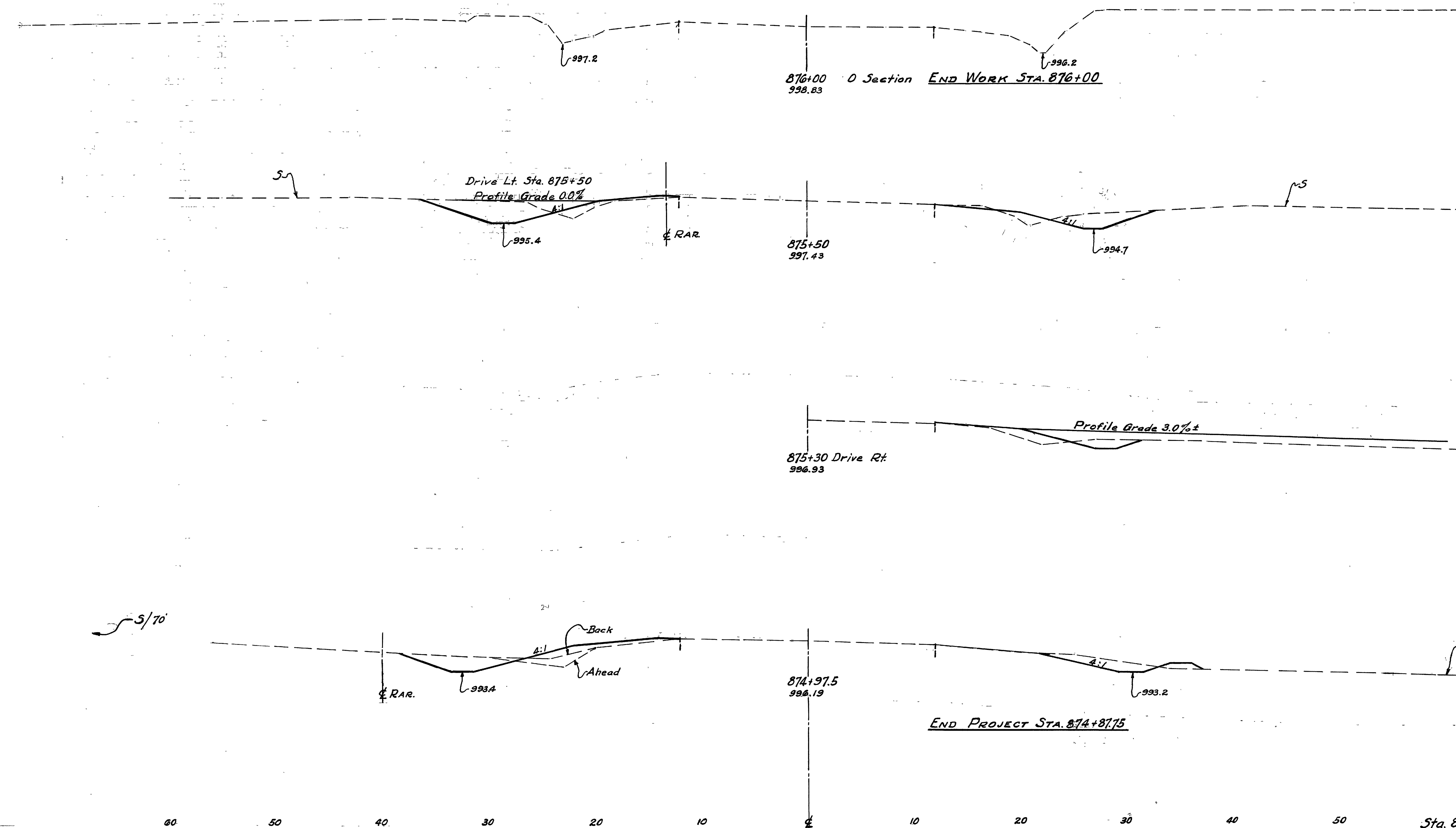
STRUCTURE DATA	
EXISTING	PROPOSED
TYPE: Conc. Slab 12" x 12" thick	TYPE: Cont. Reinf. Conc. Slab with Capped Pile Substructure
SUBSTRUCTURE: Steel & Conc.	SPANS: 16'-20'-16' 1/2 Brgs.
SPAN: 14'-2 1/2' / 13'-4'	ROADWAY: 40' 1/2" Guard Rail
SKEW: None	LOAD. FREQ.: C F = 400(51)
ROADWAY: 24'	SKEW: None
WEAR. SURF: Brick with Sand Cushion and Bituminous Concrete	SURFACE COURSE: Bituminous
LOADING: H-15	APPROACH SLABS: A S-1-54 (15' long)
CONDITION: Fair	ALIGNMENT: 1° 00' Curve to Rt.

NOTE: Approach Slabs to be built to meet the elevation of existing pavement.



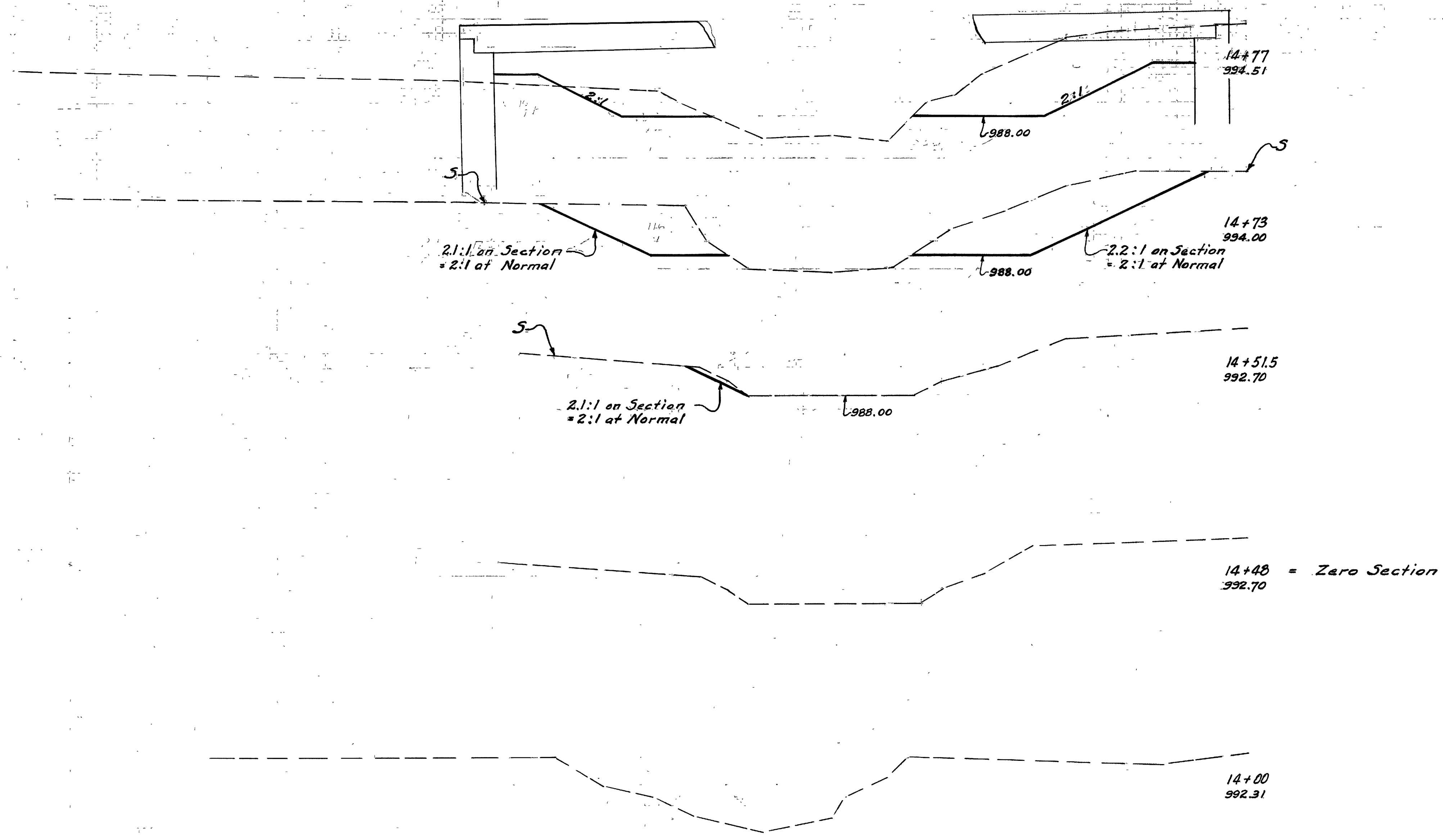
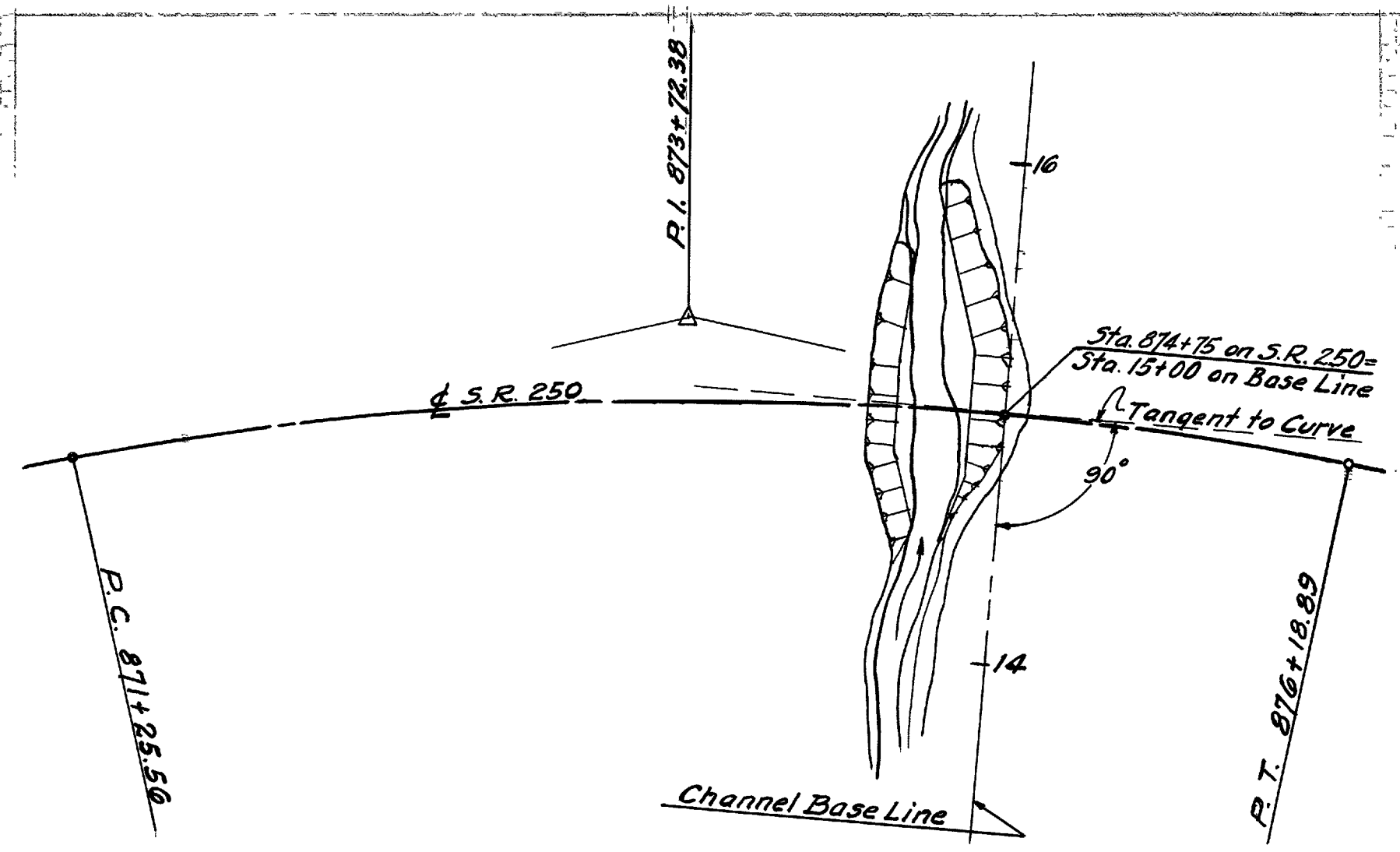


End Area		Cu.Yds.	
Cut	Fill	Cut	Fill
21	9		
14	29		
		6	9
15	14		
		18	14
12	7		
		16	9
0	0		

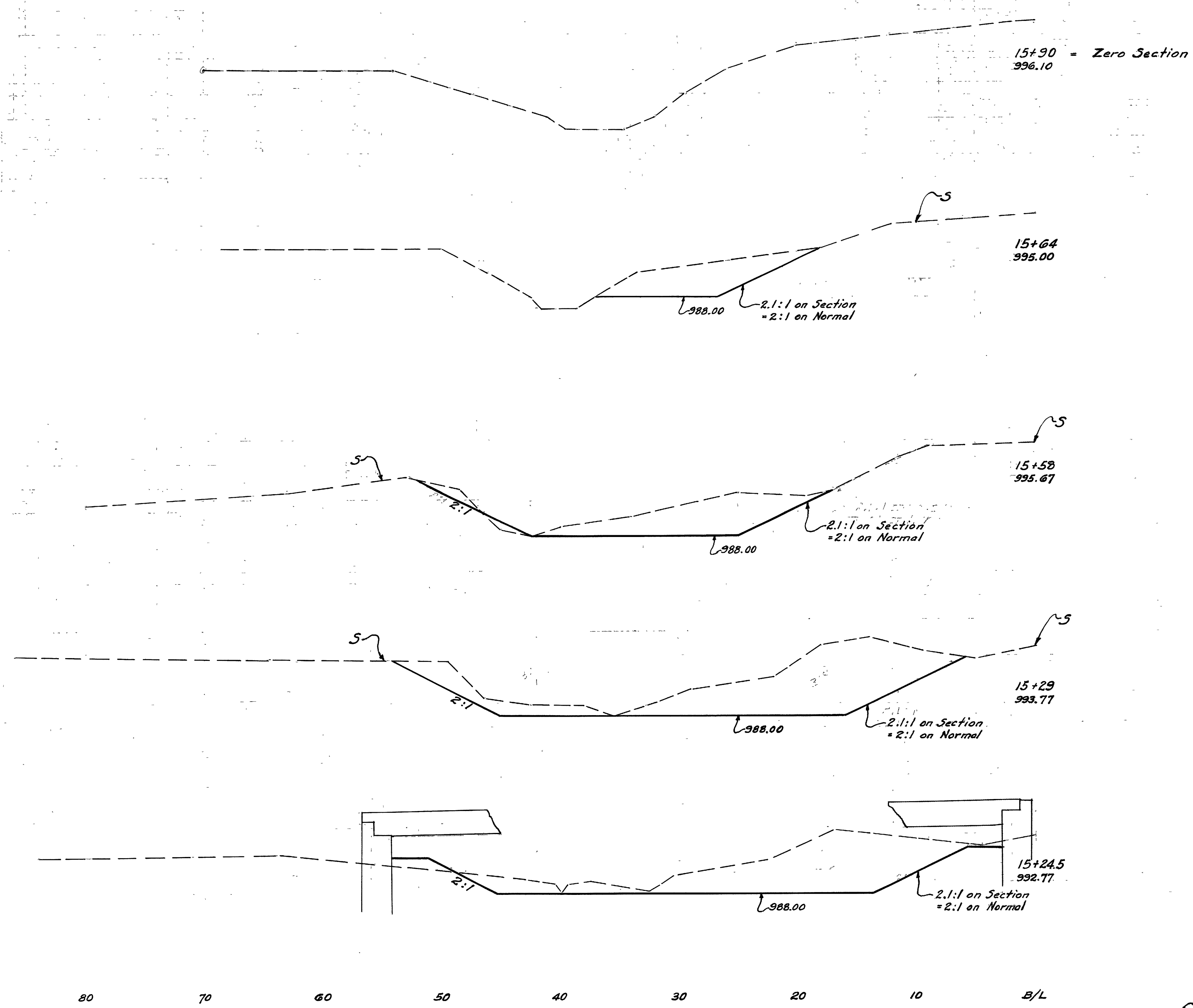


End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
0	0		
		23	8
25	8	0	2
		40	18
		23	18
Ahead	16	11	
Back	11	8	
		17	8
		21	9

Sta. 874+73.25 to Sta. 876+00



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
78	3		
		111	0
81	0		
		33	0
2	0		
		0	0
0	0		



Total for Channel

End Area		Cu. Yds	
Cut	Fill	Cut	Fill
0	0	326	8
		16	0
34	0		
		8	0
49	2		
		87	1
110	0		
		17	1
97	4		
		154	6
78	3		

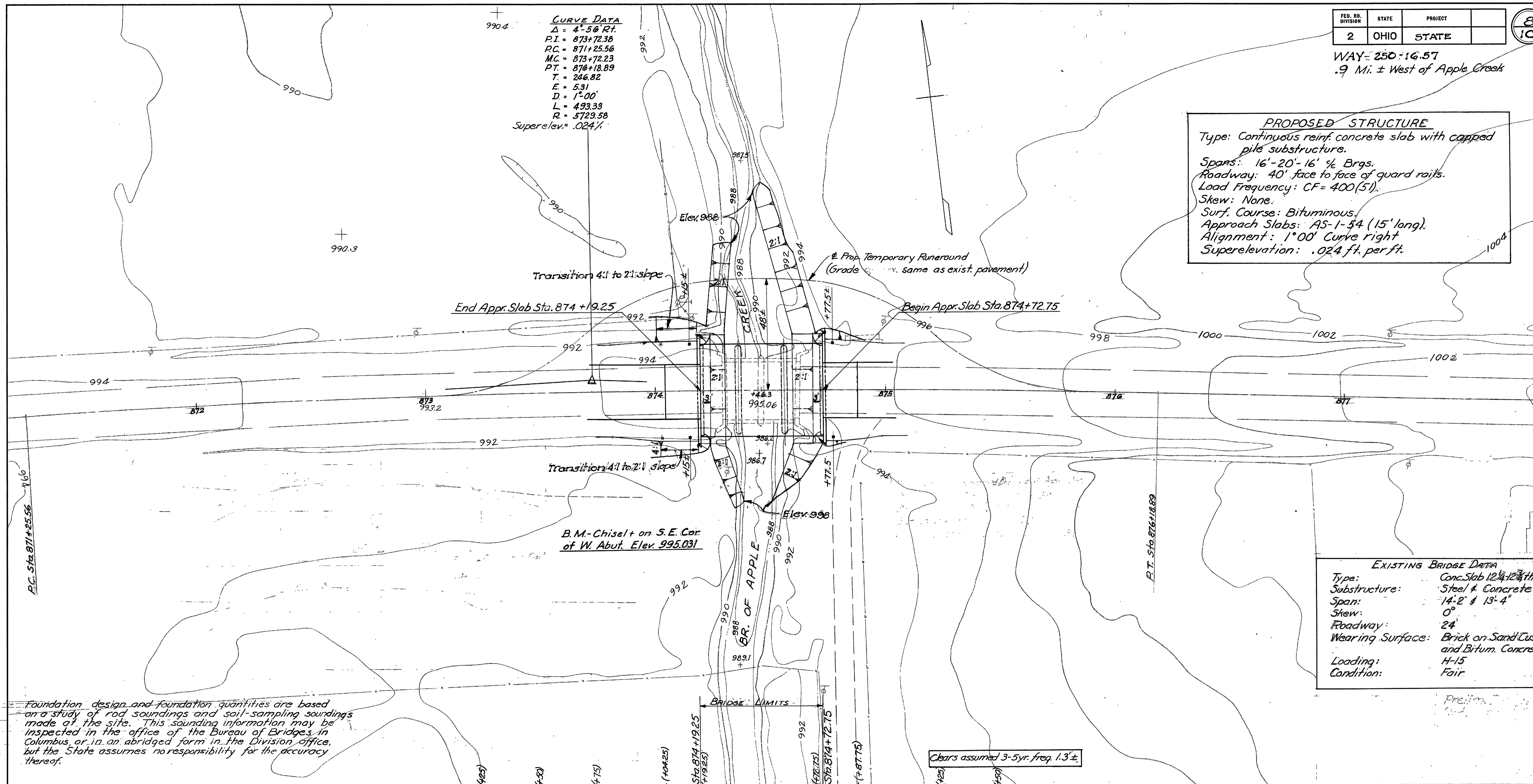
Sta. 14+77

Channel Sections

WAY-250-16.57
.9 Mi. ± West of Apple Creek

CURVE DATA
 $\Delta = 4^{\circ}56' Rt.$
 P.I. = 873+72.38
 P.C. = 871+25.56
 M.C. = 873+72.23
 P.T. = 876+18.89
 T = 246.82
 E = 5.31
 D = 1°00'
 L = 493.33
 R = 5729.58
 Superelev. = .024/ft

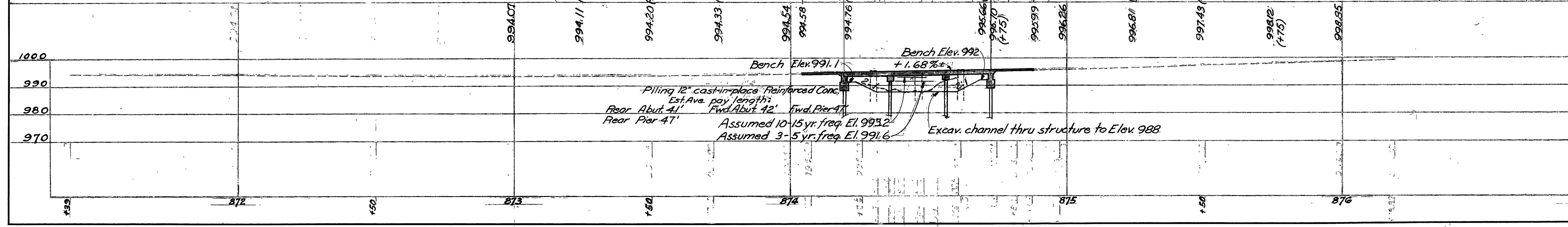
PROPOSED STRUCTURE
 Type: Continuous reinf. concrete slab with capped pile substructure.
 Spans: 16'-20'-16' % Brgs.
 Roadway: 40' face to face of guard rails.
 Load Frequency: CF=400(51).
 Skew: None.
 Surf. Course: Bituminous.
 Approach Slabs: AS-1-34 (15' long).
 Alignment: 1°00' Curve right
 Superelevation: .024 ft. per ft.



EXISTING BRIDGE DATA
 Type: Conc. Slab 12 1/2" thick
 Substructure: Steel & Concrete
 Span: 14'-2" & 13'-4"
 Skew: 0°
 Roadway: 24'
 Wearing Surface: Brick on Sand Cushion and Bitum. Concrete.
 Loading: H-15
 Condition: Fair

Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus, or in an abridged form in the Division office, but the State assumes no responsibility for the accuracy thereof.

Clears assumed 3-5 yr. freq. 1.3' ±



DRAINAGE AREA 6.5 Sq. Mi.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN

BRIDGE NO. WA-250-163
OVER BRANCH OF APPLE CREEK
WAYNE CO. S.R. 250
SEC. WAY-250-16.57 STA. 874+19.2
SCALE 1" = 20' 874+72

PRESENT TOPOGRAPHY		PROPOSED WORK		
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED
Amel. Survey	Amel. Survey	J.P.P.	J.P.P.	J.W.B.

BFG 9.9.57 2-17-58

GENERAL NOTES

REFERENCE shall be made to Standard Drawings CS-1-54 and P-1-54, both revised 12-1-54.

TEMPORARY RUN-AROUND BRIDGE AND APPROACHES (Grade same as existing pavement) Bridge Load Frequency CF=130 (51). Bridge width 24'. Approach width out to out of shoulders 30'. Approach surface course 24' wide, class "B".

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed and become the property of the contractor. Substructure shall be removed to finished ground lines.

PILING shall be driven to a minimum bearing capacity of 31 tons per pile at the Abutments and 34 tons per pile at the piers.

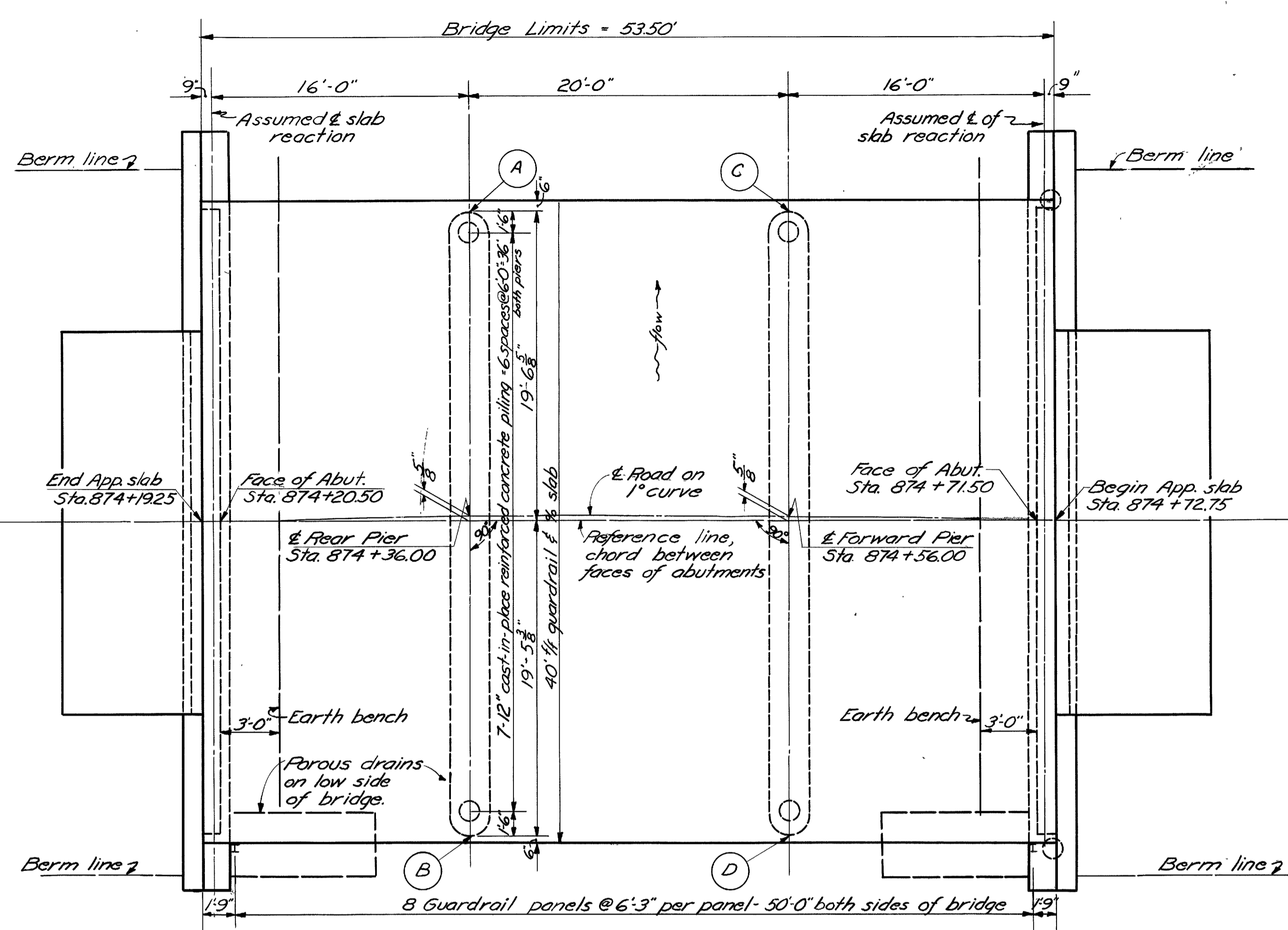
GRAVEL, if used as the coarse aggregate, shall be according to Sec. M-393 instead of M-391 for class "C" concrete, superstructure & pier caps. Gravel meeting the requirements of Sec. M-393 also may be used for other concrete in this structure.

POROUS DRAINS extending from face of abutment to elevation 988, shall be provided at the low side of the bridge. The drains shall be 4" wide and 1" thick.

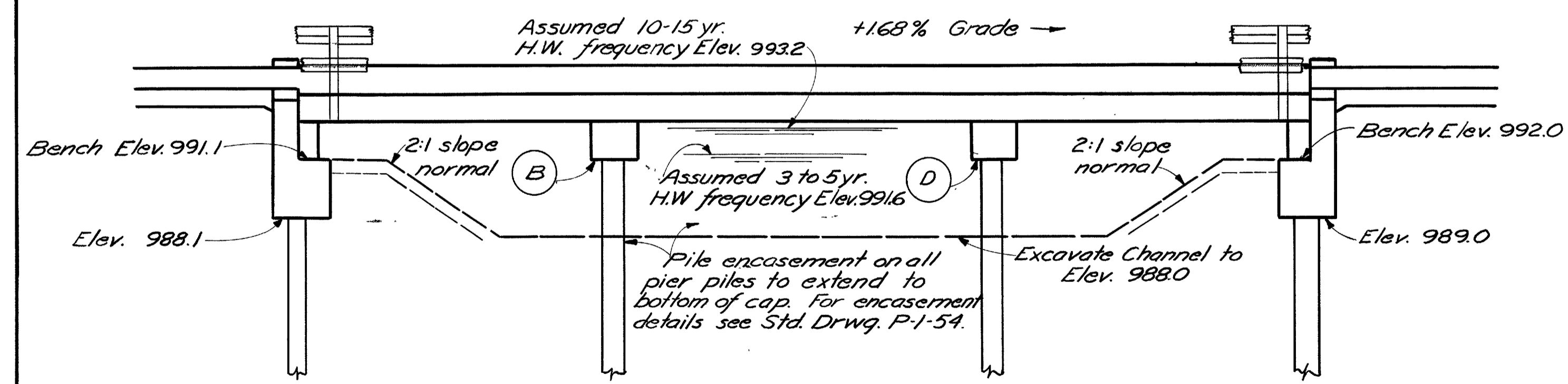
ASPHALTIC CONCRETE SURFACE COURSE, Item T-35, laid in two courses, shall be provided.

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp.	Bending Diagrams	Mark	No.	Length	Weight	Shp.
SUPERSTRUCTURE					ABUTMENTS					
A740	126	19'-3"	4,958	S		R1001	16	20'-11"	1,440	S
B740	40	15'-4"	1,253	B		R801	16	24'-7"	1,050	S
C740	42	13'-8"	1,174	B		R501	16	24'-1"	402	S
D740	20	15'-10"	651	S		R502	140	6'-7"	961	B
E740	21	11'-0"	472	S		R503	8	20'-0"	167	S
F840	72	16'-2"	3,108	S		R504	12	4'-8"	58	S
G840	34	8'-6"	772	S		R505	16	8'-11"	149	B
H840	36	7'-6"	721	S		R506	16	9'-5"	157	B
J601	42	10'-5"	657	S		R507	12	10'-3"	128	B
K601	21	7'-8"	242	S		R508	24	7'-4"	183	B
L601	61	39'-6"	3,619	S	R509	12	8'-9"	110	B	
M601	41	39'-6"	2,432	S	R510	8	4'-9"	40	S	
PIERS					REPLACEMENT BARS					
P1001	8	39'-6"	1,360	S	R401	56	5'-5"	203	S	
P901	8	36'-6"	993	S	R1001	1	7'-2"	31	S	
P701	84	4'-0"	687	S	R901	1	6'-10"	23	S	
P501	4	36'-6"	152	S	R801	1	6'-6"	17	S	
P502	60	9'-0"	563	B	R701	1	6'-2"	13	S	
P503	8	6'-4"	53	B	R601	1	5'-11"	9	S	
P401	56	5'-5"	203	B	R501	1	5'-7"	6	S	
					R401	1	5'-3"	4	S	



GENERAL PLAN



ELEVATION

Point	Elevation on bottom of pier caps.
A	992.23
B	991.29
C	992.57
D	991.63

ESTIMATED QUANTITIES

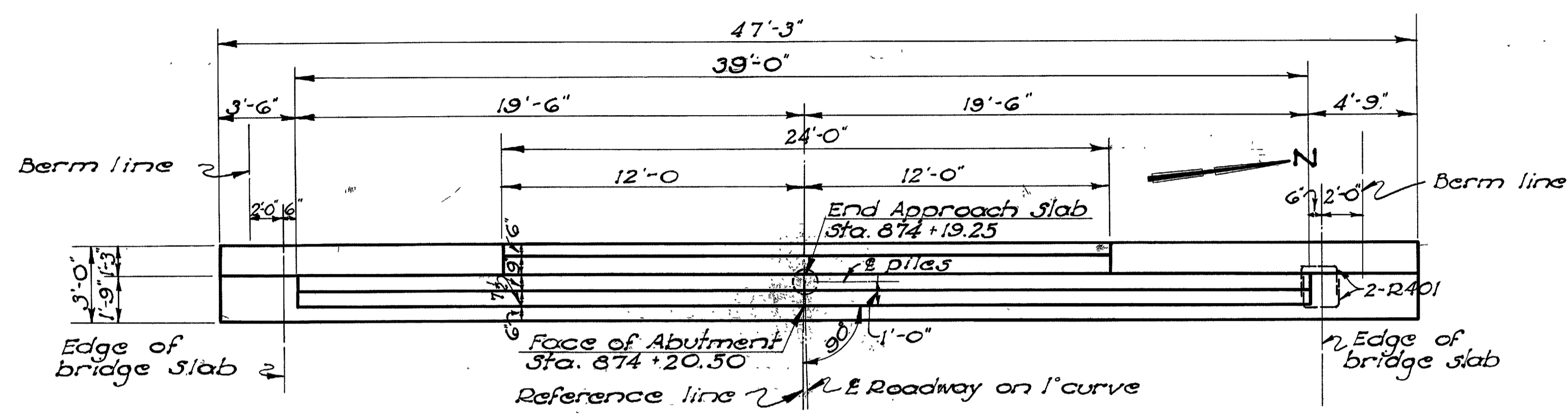
Item	Total	Unit	Description	Superst.	Abut.	Piers	Gen.
E-2	105	cu. yd.	Unclassified excavation		105		
E-3	326	cu. yd.	Channel excavation				326
S-1	87	cu. yd.	Class "C" concrete (superstructure & pier caps)	73		14	
S-1	60	cu. yd.	Class "E" concrete (abutments)		60		
S-3	251	sq. yd.	Type "C" waterproofing	251			
S-4	29,463	lbs.	Reinforcing steel	20,059	5,290	4,011	103
S-14	107	lin. ft.	Railing (Type I-15.13 with galvanized steel posts)	107			
S-15		lump	Temporary run-around bridge & approaches				lump
S-16		lump	First test pile				lump
S-18	1,240	lin. ft.	12" cast-in-place reinforced concrete piling		580	660	
S-24		lump	Removal of existing structure				lump
S-29	23	cu. yd.	Porous Backfill		23		
S-29	3	cu. yd.	Porous drains on embankment slopes				3
T-35	16	cu. yd.	Asphaltic concrete surface course, Type A or C (10-80)	16			

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

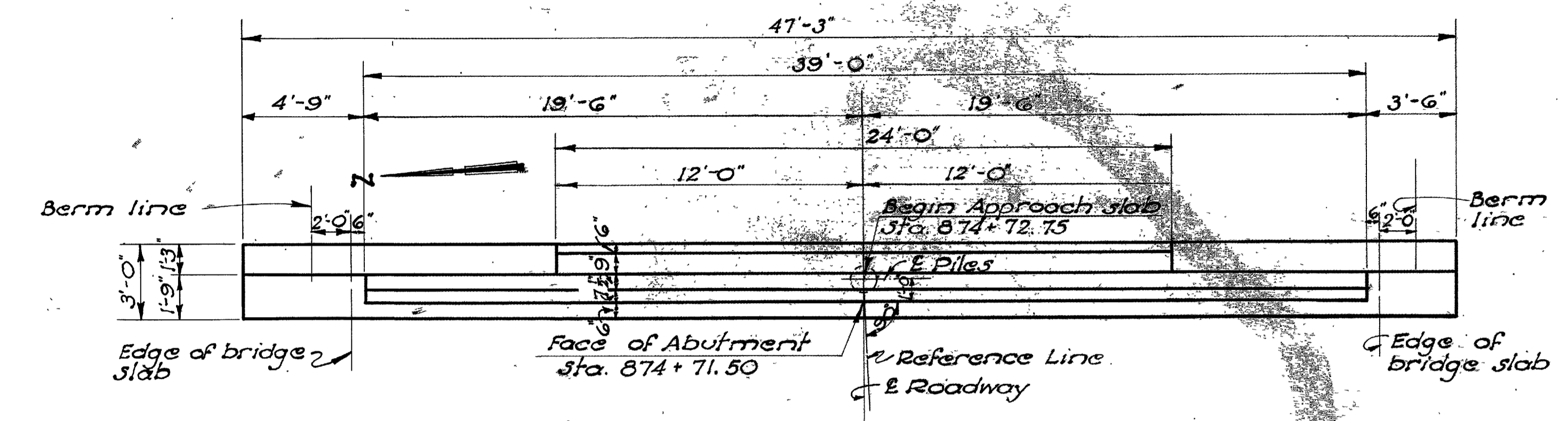
**GENERAL PLANS & ELEVATION
GENERAL NOTES & ESTIMATED
QUANTITIES & REINFORCING STEEL LIST**

BRIDGE No. WA-250-163
over Branch of APPLE CREEK
WAYNE CO. STA. 874+19.25
SEC. WAY-250-16.57

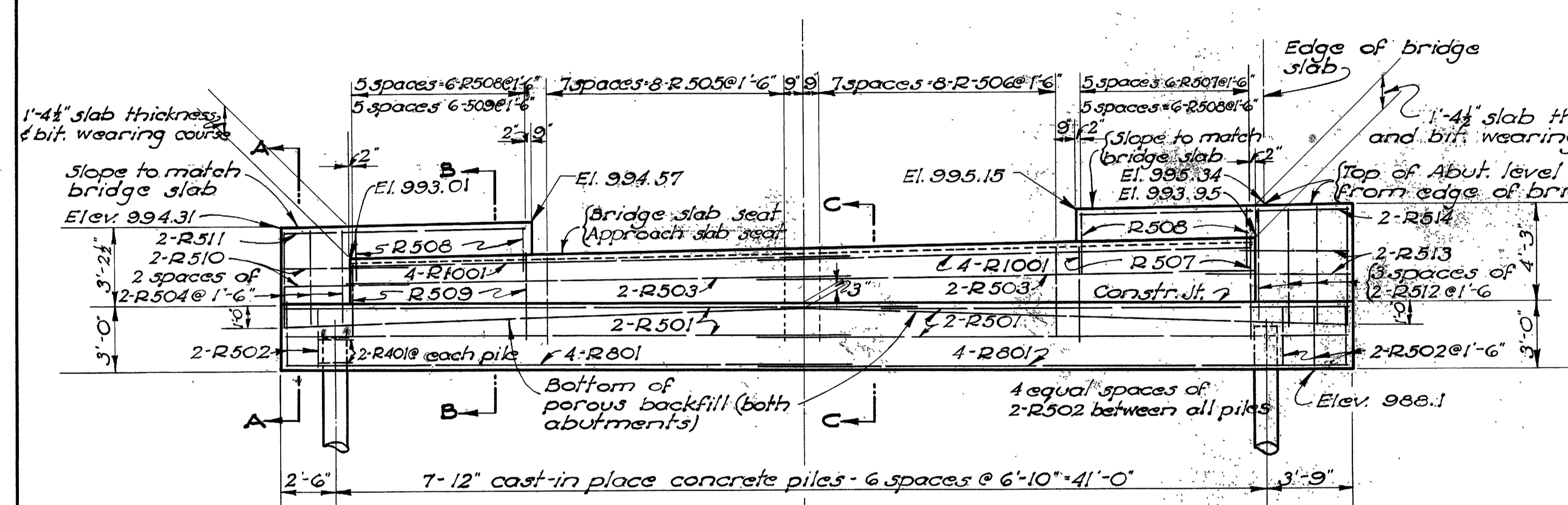
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DD	DD	16M	rh	BFG	2-17-55	



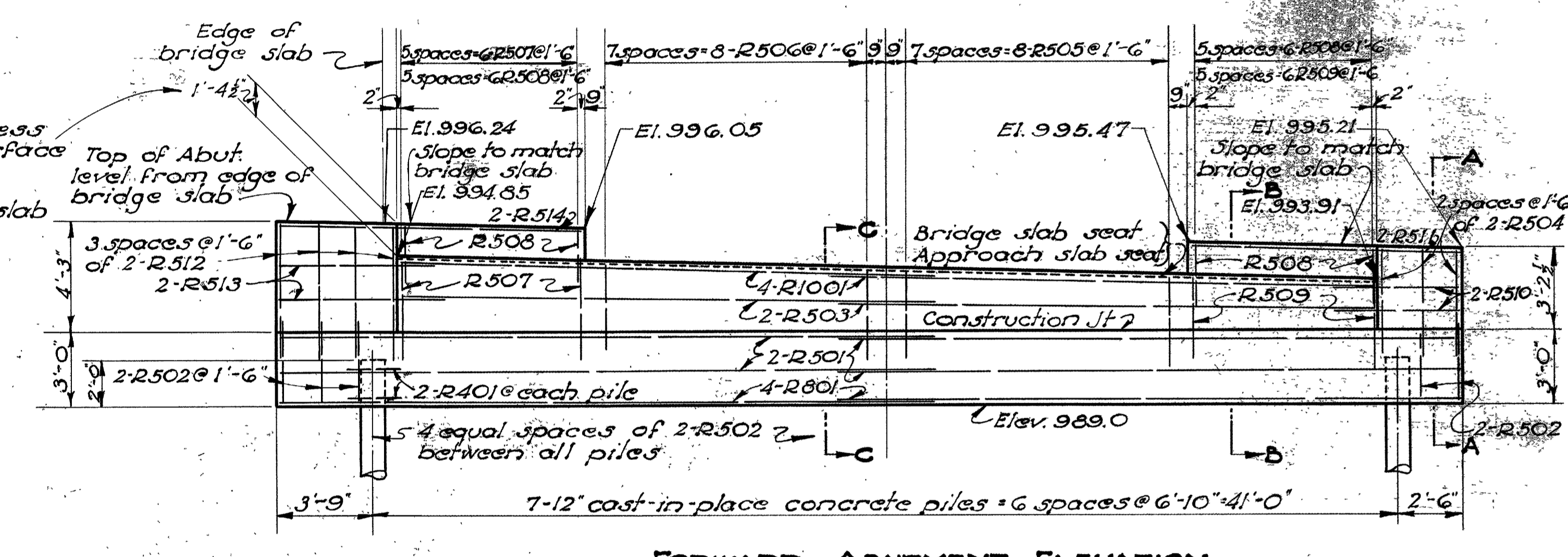
REAR ABUTMENT PLAN



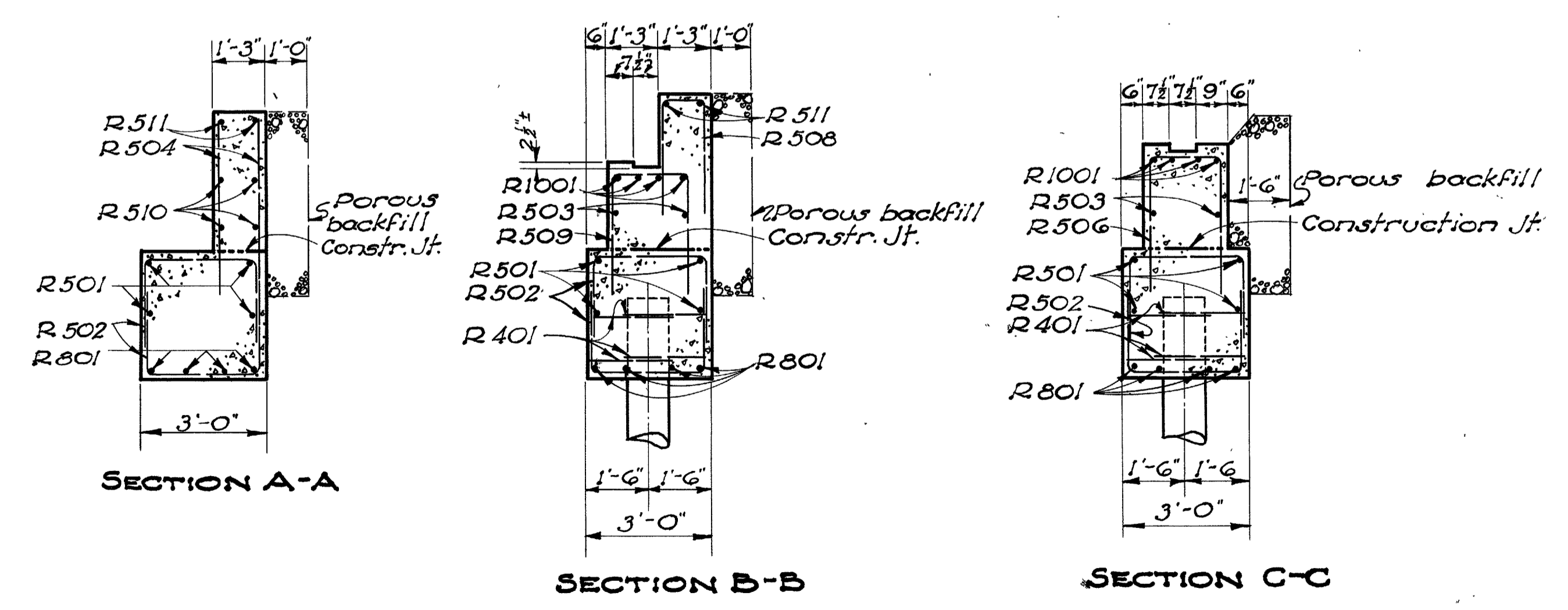
FORWARD ABUTMENT PLAN



REAR ABUTMENT ELEVATION



FORWARD ABUTMENT ELEVATION



DESIGN SPECIFICATIONS: This drawing conforms to the "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated October 1, 1951 together with revisions dated July 15, 1952 and April 1, 1954.

CONCRETE shall be Class E and payment will be made on this basis, but Class C concrete may be used for any or all parts of the abutments.

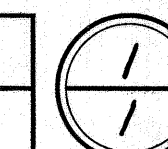
REINFORCING STEEL: The R1001, R801, R501 and R503 bars, at the option of the Contractor, may be furnished in two lengths as indicated hereon with a 30 diameter lap, or as single bars of equal net length. The determination of pay quantity shall be according to the number and length of bars as shown hereon. Clearance of reinforcing steel from face of concrete shall be 2".

POROUS BACKFILL shall extend upward to the approach slab and to the surface of the earth shoulders, and outward to the surface of the embankment slopes. Excavation therefor, in excess of that required for construction of the footing, shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.

EXCAVATION QUANTITY includes the removal of embankment material between the bottom of the abutment footing and the top of the earth bench.

STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES					
ABUTMENT DETAILS					
BRIDGE No. WA-250-163					
OVER BRANCH OF APPLE CREEK					
WAYNE CO.			Sta. 874+19.25		
SEC. WAY-250-16.57			874+72.75		
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
JD	JD	AGE	RHN	BFG	2-17-55

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		



WAY-250-16.57 BR #WA-250-163
RIGHT OF WAY PLANS

Curve Data
 $A = 4^{\circ}56' R$
 $P.I. = 873+72.38$
 $P.C. = 871+25.56$
 $M.C. = 873+72.23$
 $P.T. = 876+18.89$
 $T = 246.82$
 $E = 5.31'$
 $D = 1^{\circ}-00'$
 $L = 493.33'$
 $R = 5729.58'$

STATE OF OHIO
APPLE CREEK HOSPITAL

