

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

DF-624 (8)

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	DF 624 (8)

1
241

ROSS COUNTY
ROS-50-(12.10-16.08)

ROS-50-(12.10-16.08)

JUN 28 1963
GROUND PHOTOGRAPH

TWIN TOWNSHIP

ROSS COUNTY

CONVENTIONAL SIGNS

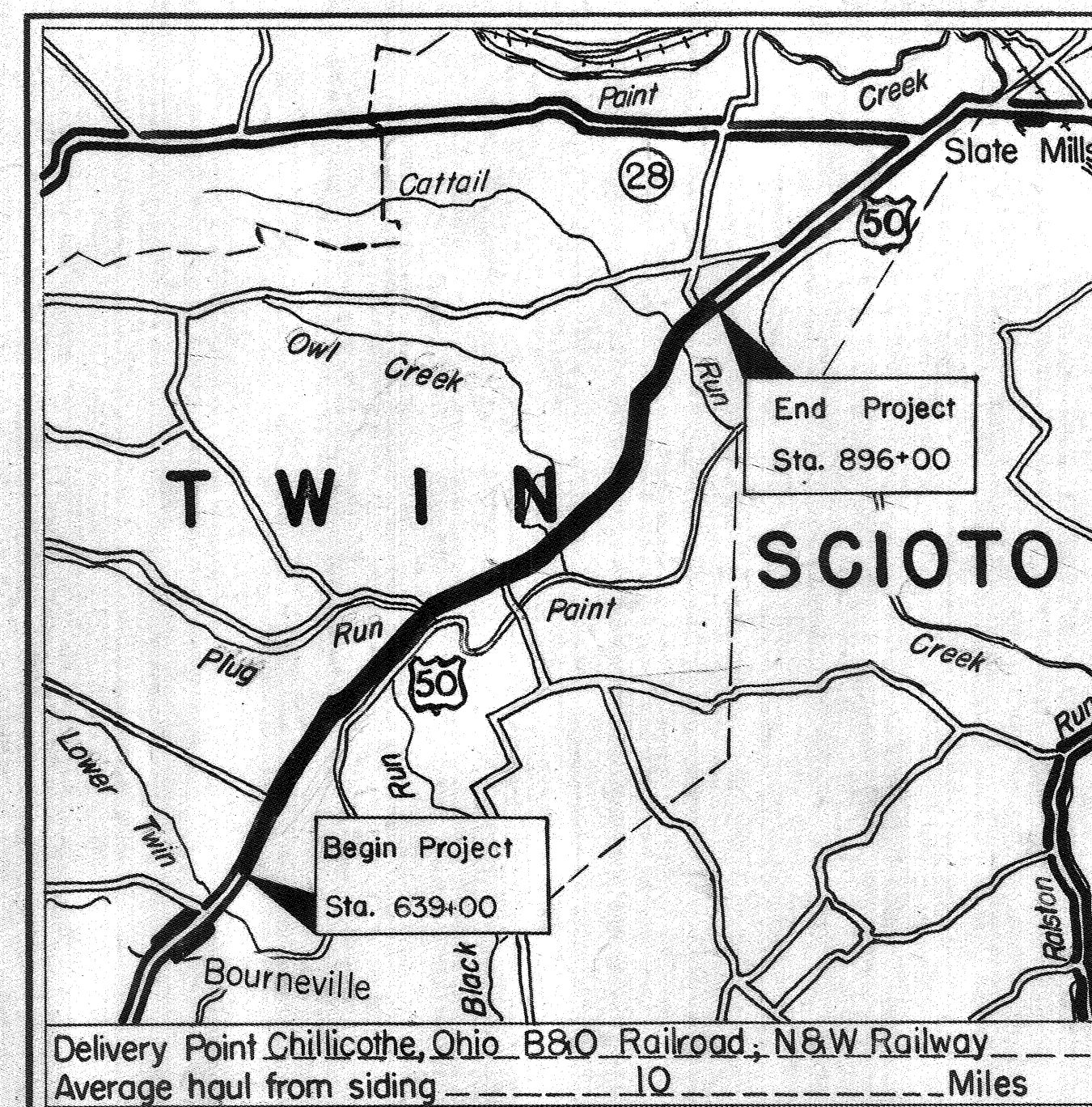
State Line	
County Line	
Township Line	
Section Line	
Center Line	
Corporation Line	
Fence Line	
Guard Rail (existing)	
Guard Rail (proposed)	
Steam Railroad	
Power Poles	
Telephone Poles	
Trees or Stumps (existing)	
Trees or Stumps (to be removed)	

INDEX OF SHEETS

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Right-of-Way	230-241

LINE DATA

Begin Project	Sta. 639+00
End Project	Sta. 896+00
Net Length of Project	25,700 Lin. Ft. or 4.867 Miles
Add for Approaches	
Sta. 638+50 to Sta. 639+00	50 Lin. Ft.
Sta. 896+00 to Sta. 910+00	1400 Lin. Ft.
Net Length of Work	27,150 Lin. Ft. or 5.142 Miles



LOCATION MAP

SCALE OF MILES



Portion to be improved
State Roads
Other Roads

SCALE

Plan: 1" = 50'
Profile: Horizontal: 1" = 50'
Profile: Vertical: 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 for this improvement will be provided by the State of Ohio.

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

Approved: Paul M. Miller PE III
Date: 5-14-57 Division Deputy Director

Approved: Ed H. Mahoney
Date: 7-10-58 Deputy Director of Planning & Programming

Approved: W. H. Overman
Date: 7-7-58 Engineer of Bridges

Approved: P. E. Shultz
Date: 7-8-58 Engineer of Location & Design

Approved: P. E. Mashiter
Date: 7-8-58 Deputy Director of Design & Construction

Approved: George J. Thompson
Date: 7/11/58 First Assistant Director

Approved: W. M. V. Hall
Date: 7/11/58 Director of Highways.

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:

DIVISION ENGINEER

DATE

File No. ROSS COUNTY ROS-50-(12.10-16.08)
Date of Letting _____ 19____
Contract No. _____

Supplemental Prints of Standard Construction Drawings				
G-7.07	6-1-56 I-15 N#1	8-1-55 I-8 C.B. 2-382-4	5-1-52	
L-3	4-1-50 I-15 N#2	6-1-57 L.J.N#1	7-1-55	
L-3-A	4-1-50 I-15 N#2-A	6-1-57 T.J.	5-1-56	
RI-1	1-3-55 I-15 N#4	12-1-54 A-1-54	12-1-54	
DR-1	1-3-55 SP-53	7-21-53 AS-1-54	12-1-54	
T-35	1-2-56 S-27 PC.3	2-20-45 CS-1-54 (2 Sheets)	7-16-56	
B-T-7IR	3-2-53 S-27 PC.4	1-4-54 P-1-54	12-1-54	
B-T-50-70-71EN#1/10-1-47	1-12-3,4&5	4-24-58 S-27 PC.1	5-1-52	
I-146	1-22-52 I-8 C.B. 2-2A8B	8-1-56 I-8 C.B. No. 7	3-1-52	
L-1	4-1-50			

Supplemental Specifications	
E-101	1-1-57
B-119	Rev. 8-11-57
5	6-8-55
9	6-24-58

JUN 28 1963
GROUND PHOTOGRAPH

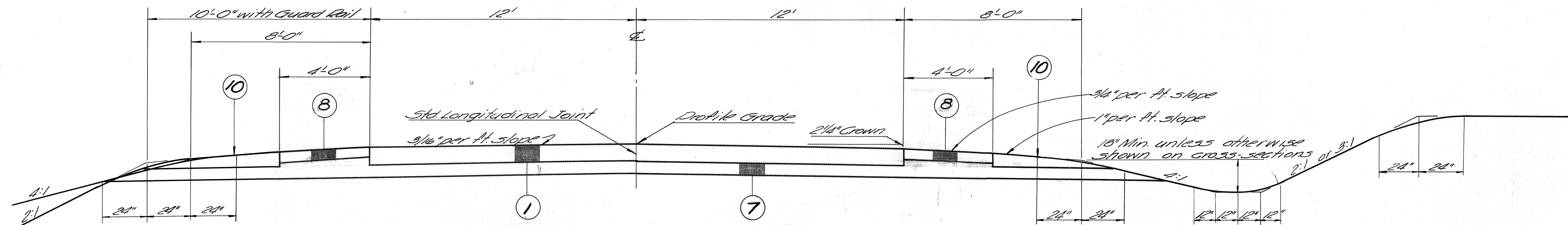
TYPICAL SECTION

TYPE-T-35 & T-71

Scale - 3/8" = 1'-0"

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

ROSS COUNTY
ROS-50-(12.10-16.08)



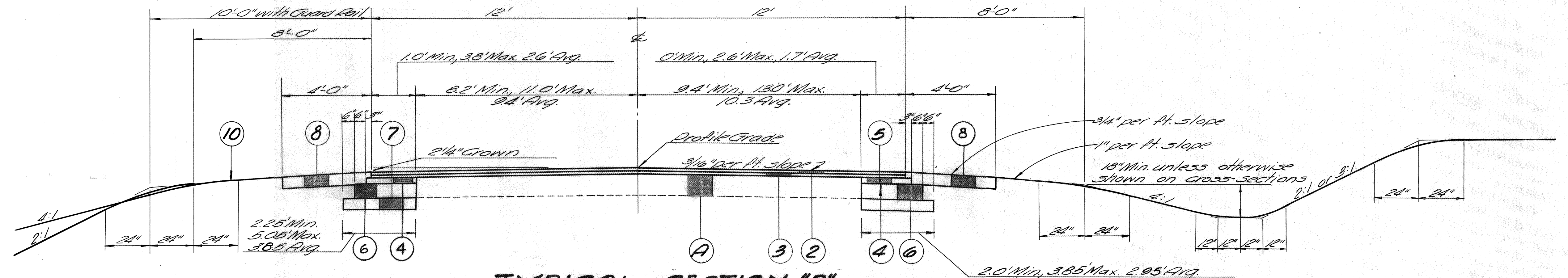
TYPICAL SECTION "A"

The above typical section applies between the following stations
Sta. 668+00 to Sta. 793+62.49 = 12,562.49 Lin. Ft.
Sta. 795+01.51 to Sta. 872+05.35 = 7,703.84 Lin. Ft.
Sta. 873+28.62 to Sta. 896+00 = 2,271.38 Lin. Ft.
Net length of Typical Section "A" = 22,537.71 Lin. Ft.

Note:
Between Sta 762+00 to Sta 774+50
subbase will be 12" thick.

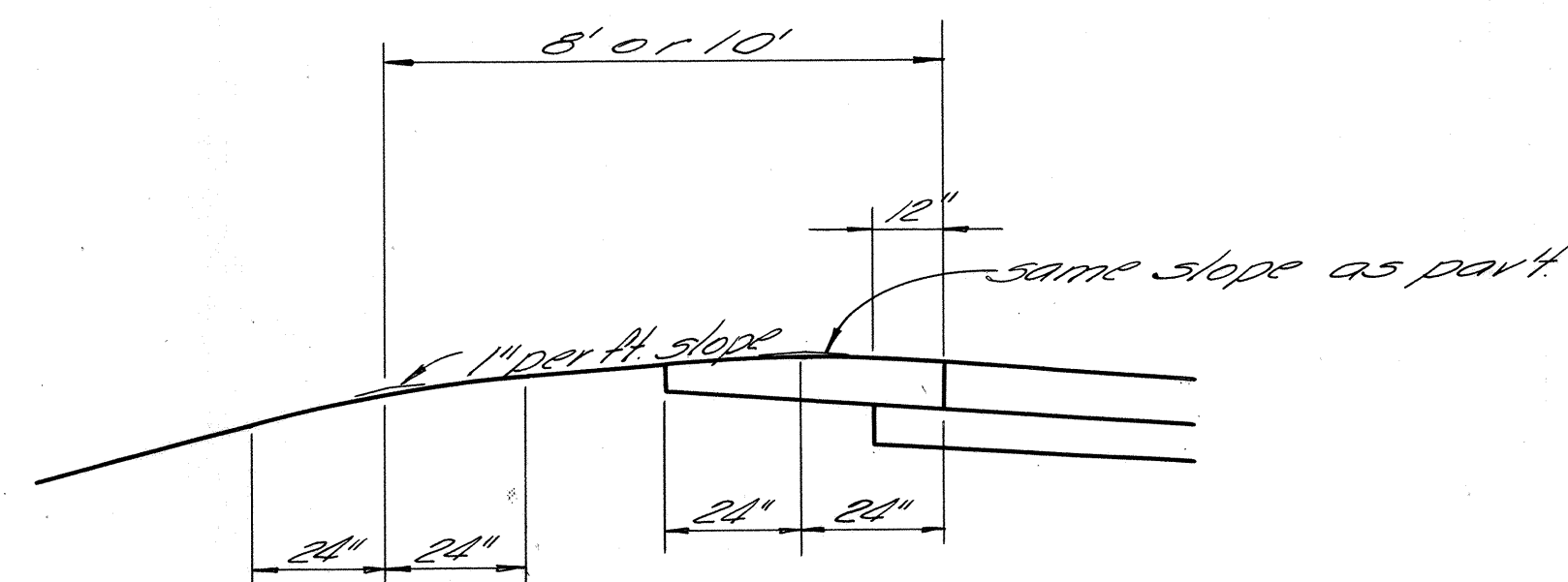
BRIDGE LIMITS & APPROACH SLABS

STA. 793+62.49 TO STA. 795+01.51
STA. 872+05.35 TO STA. 873+28.62



TYPICAL SECTION "B"

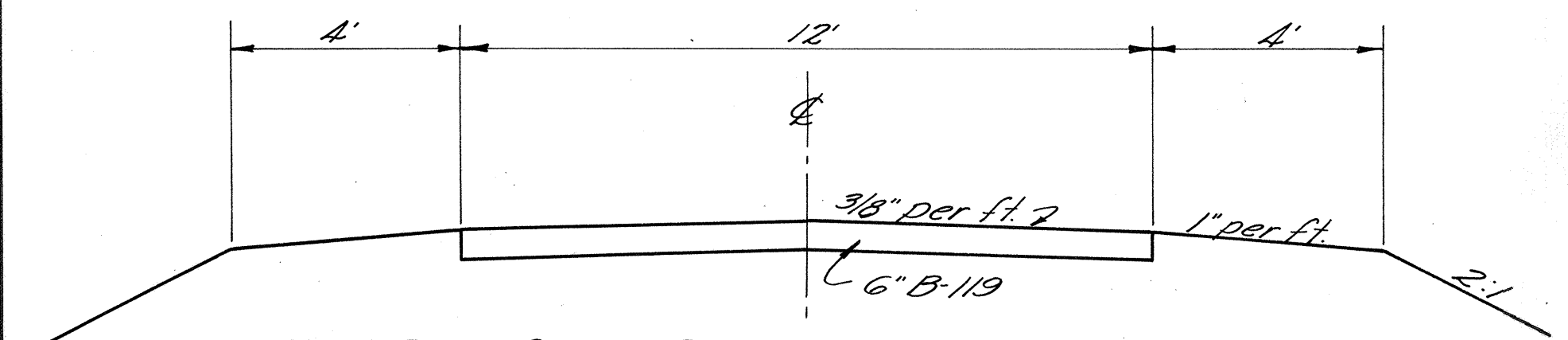
The above typical section applies between the following stations
Sta. 639+00 to Sta. 668+00 = 2,900.00 Lin. Ft.
Net length of Typical Section "B" = 2,900.00 Lin. Ft.



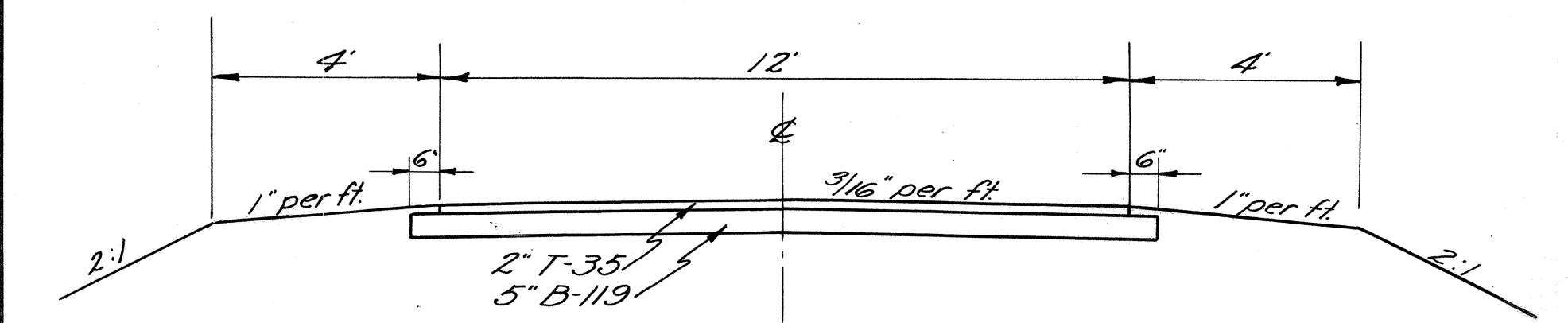
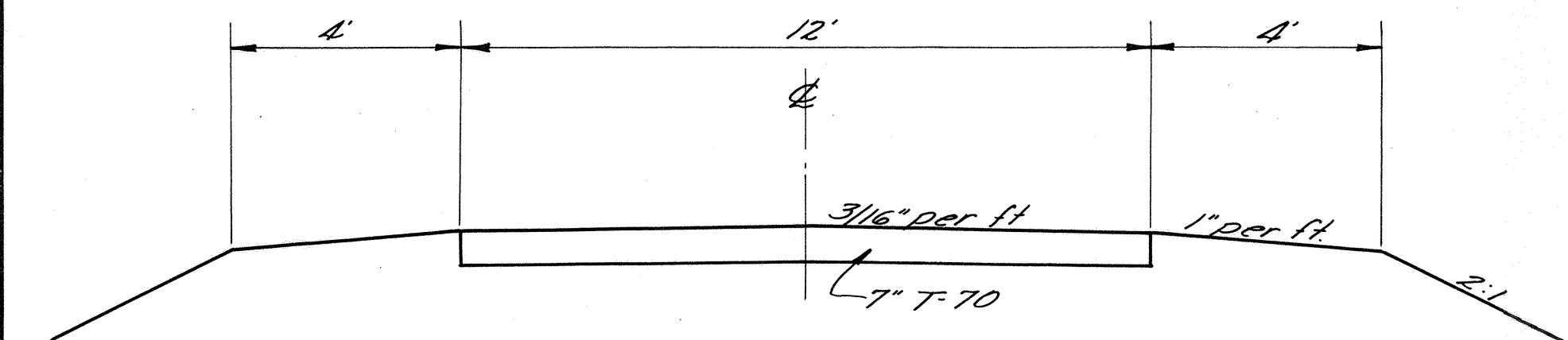
PART SUPERELEVATED SECTION

LEGEND

- ① Item T-71 9" Reinforced Portland Cement Concrete Pavement
- ② Item T-35 1 1/2" Asphaltic Concrete Surface Course, Type "A" (70-85).
- ③ Item B-35 1 1/4" Asphaltic Concrete Leveling Course (70-85).
- ④ Item B-35 2 1/4" Asphaltic Concrete Base Course (70-85).
- ⑤ Item T-30 Bituminous Prime Coat, Sec. M-5.7 RT-2 or RT-3 or Sec. M-5.3 MC-0 or MC-1, applied at the rate of 0.35 gal. per square yard
- ⑥ Item B-10 8" Crushed Aggregate Base
- ⑦ Item I-22 6" Sub-base except between Sta. 762+00 and 774+50 will be 12" thick.
- ⑧ Item I-18 6" Stabilized Crushed Aggregate Shoulders and Approaches (For additional stabilization with Calcium Chloride, see note in proposal)
- ⑩ Item L-9 Seeding and Protecting
- Ⓐ Existing pavement - 3 1/4" T-32 on 9" Traffic Bound



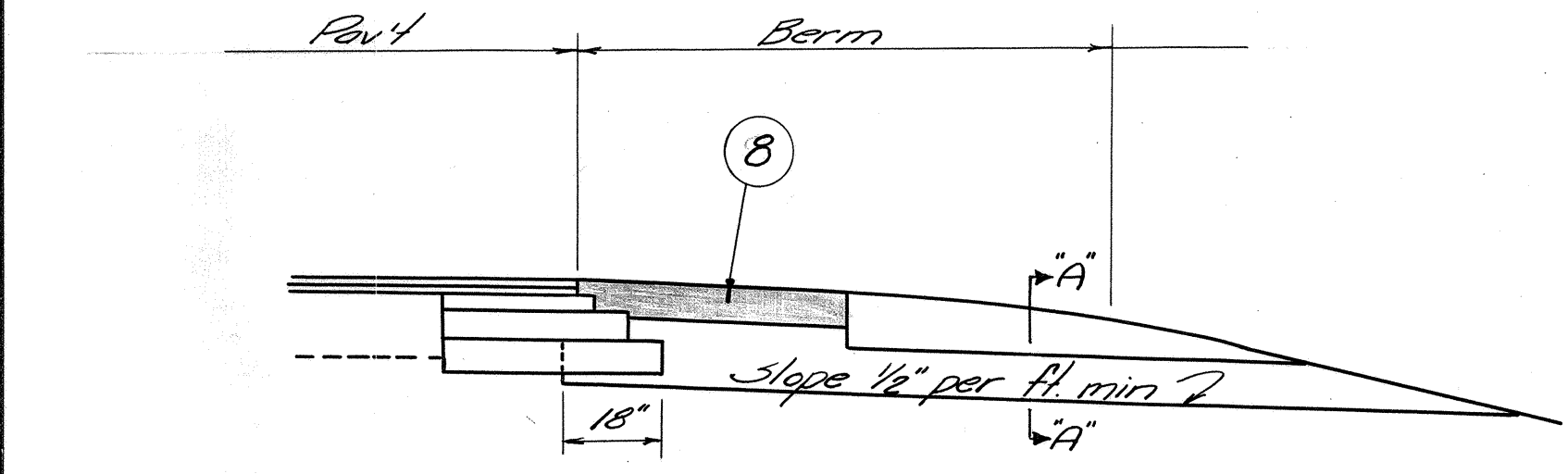
TYPICAL SECTION OF FIELD DRIVE



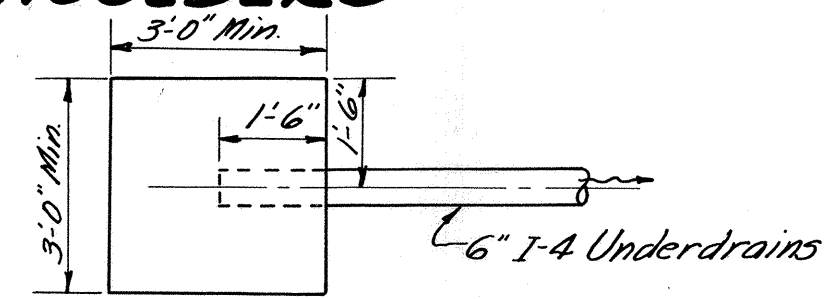
Between Sta 639+00 and Sta 668+00 residence drives shall be paved with 2" T-35 and 5" B-119

TYPICAL SECTIONS OF RESIDENCE DRIVES

Note: Residence drives shall be paved with 7" of F70 Portland Cement Concrete Pavement to the R/W line. Beyond the R/W line, they shall be paved with 8" I-18. The above applies between Sta 668+00 to Sta 896+00.

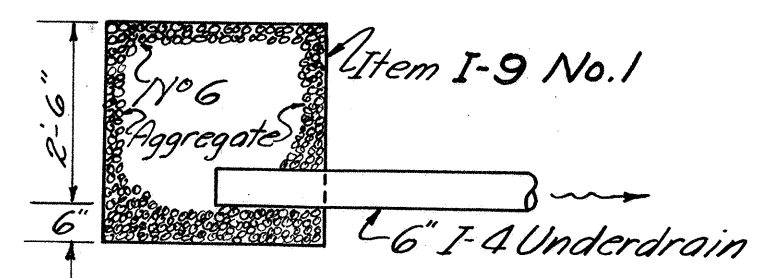


PART SECTION SHOWING I-9 UNDERDRAINS, DRAINING STABILIZED SHOULDERS



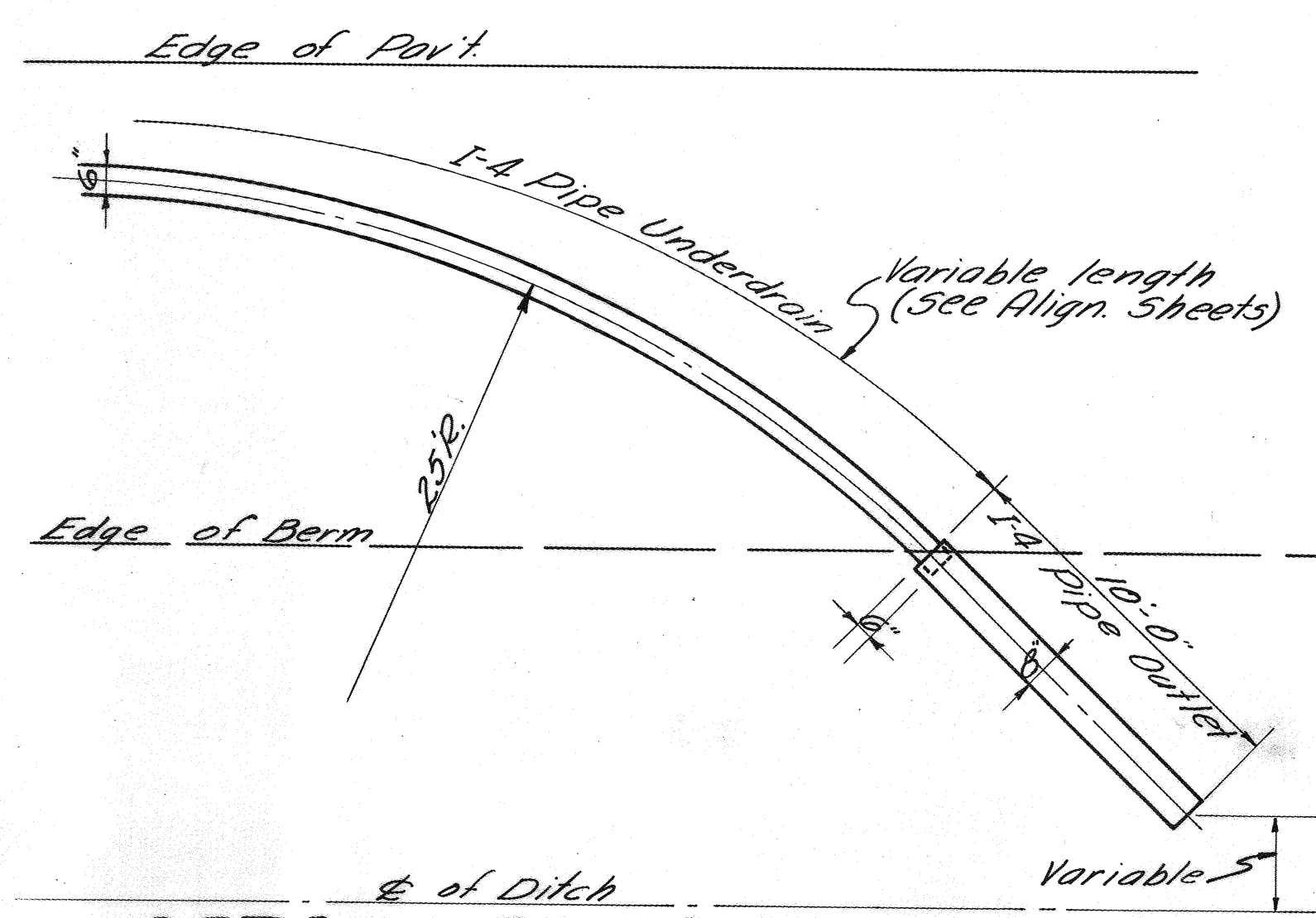
PLAN

Note: This detail is to be used to drain any spring area unless otherwise shown on these plans.

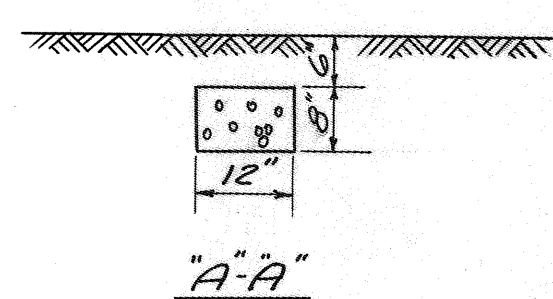


SECTION

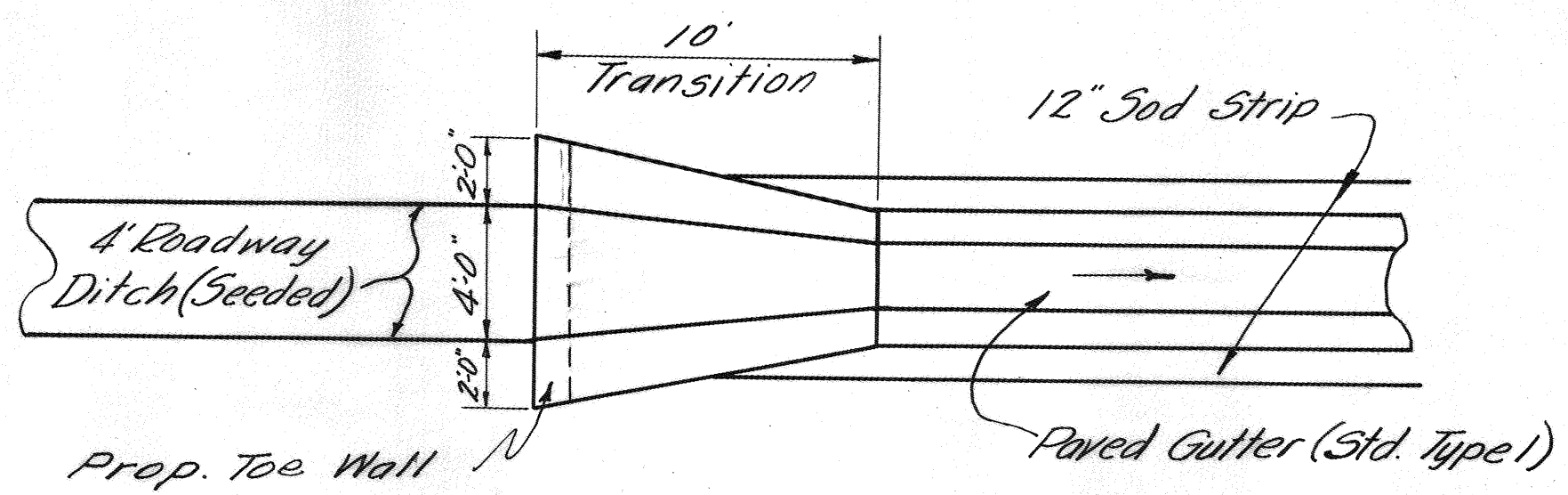
DETAIL OF SPRING DRAIN



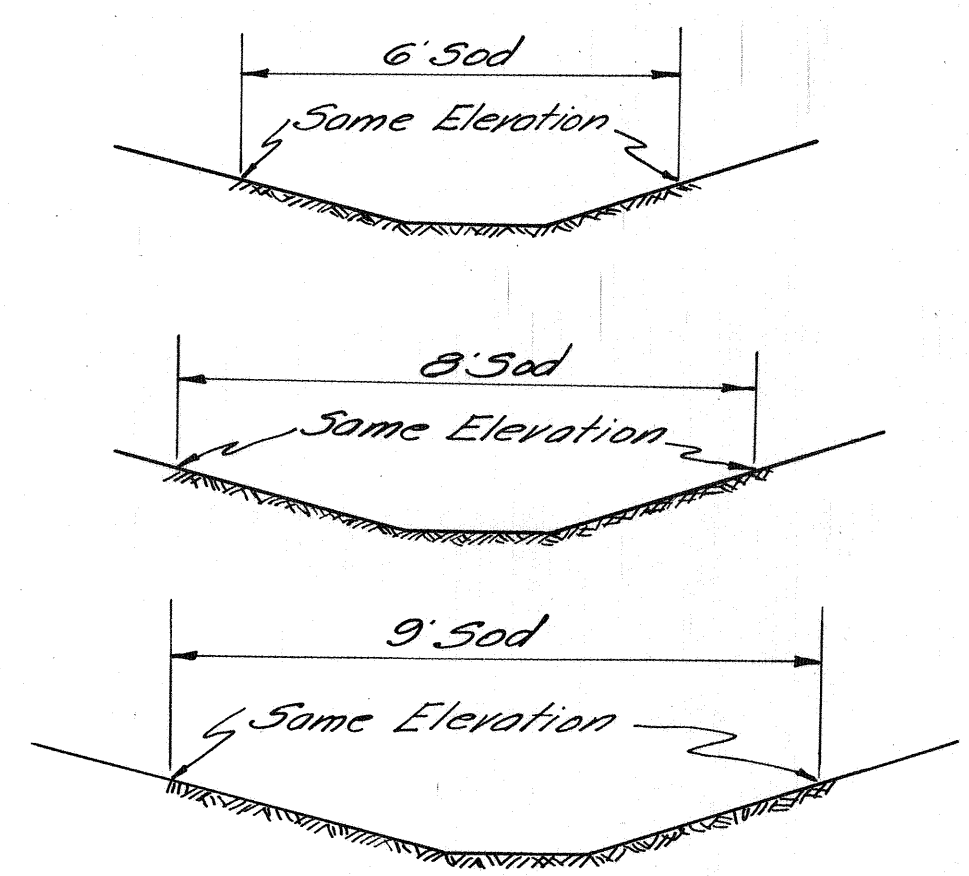
DETAIL OF PIPE OUTLET FOR I-4 UNDERDRAINS



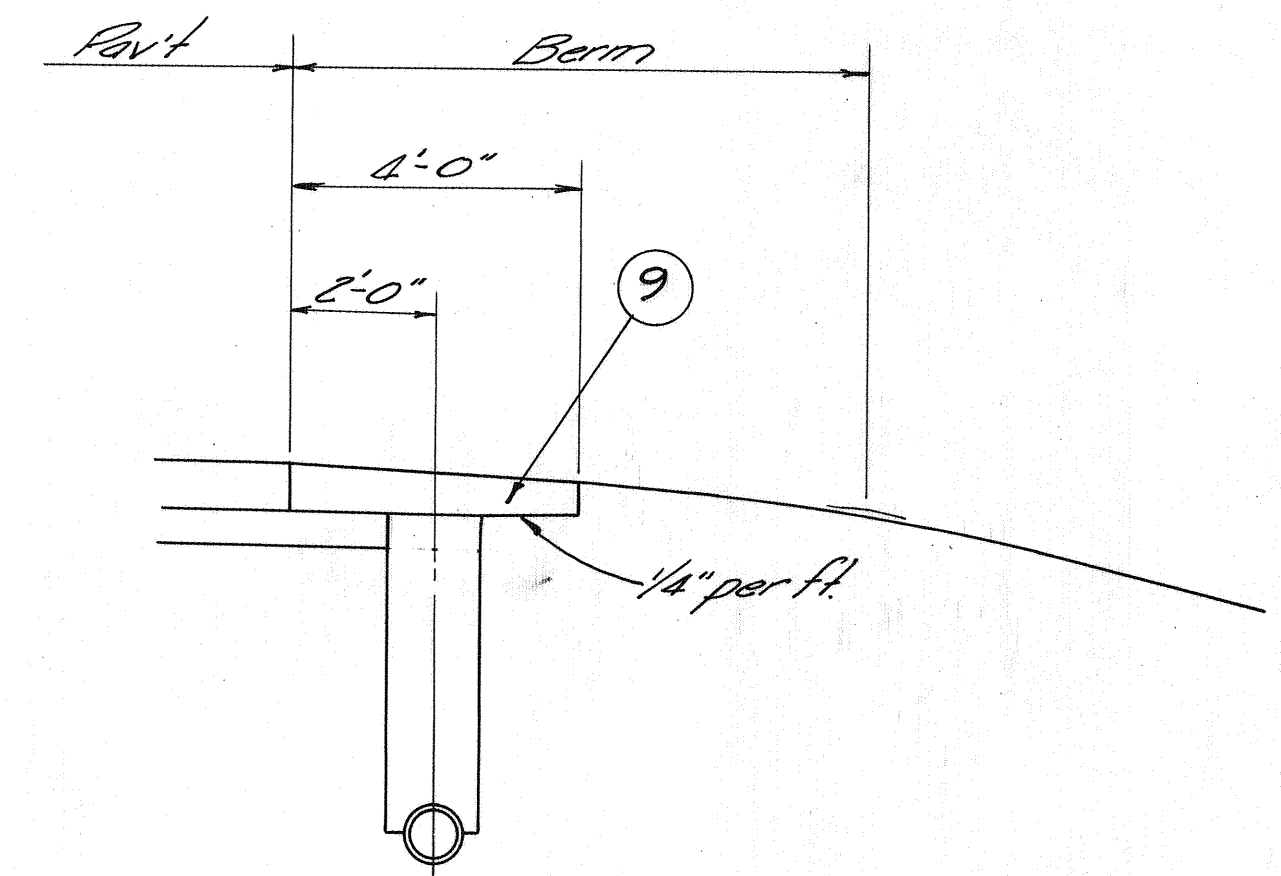
"A-A"



DETAIL OF PAVED GUTTER TRANSITION



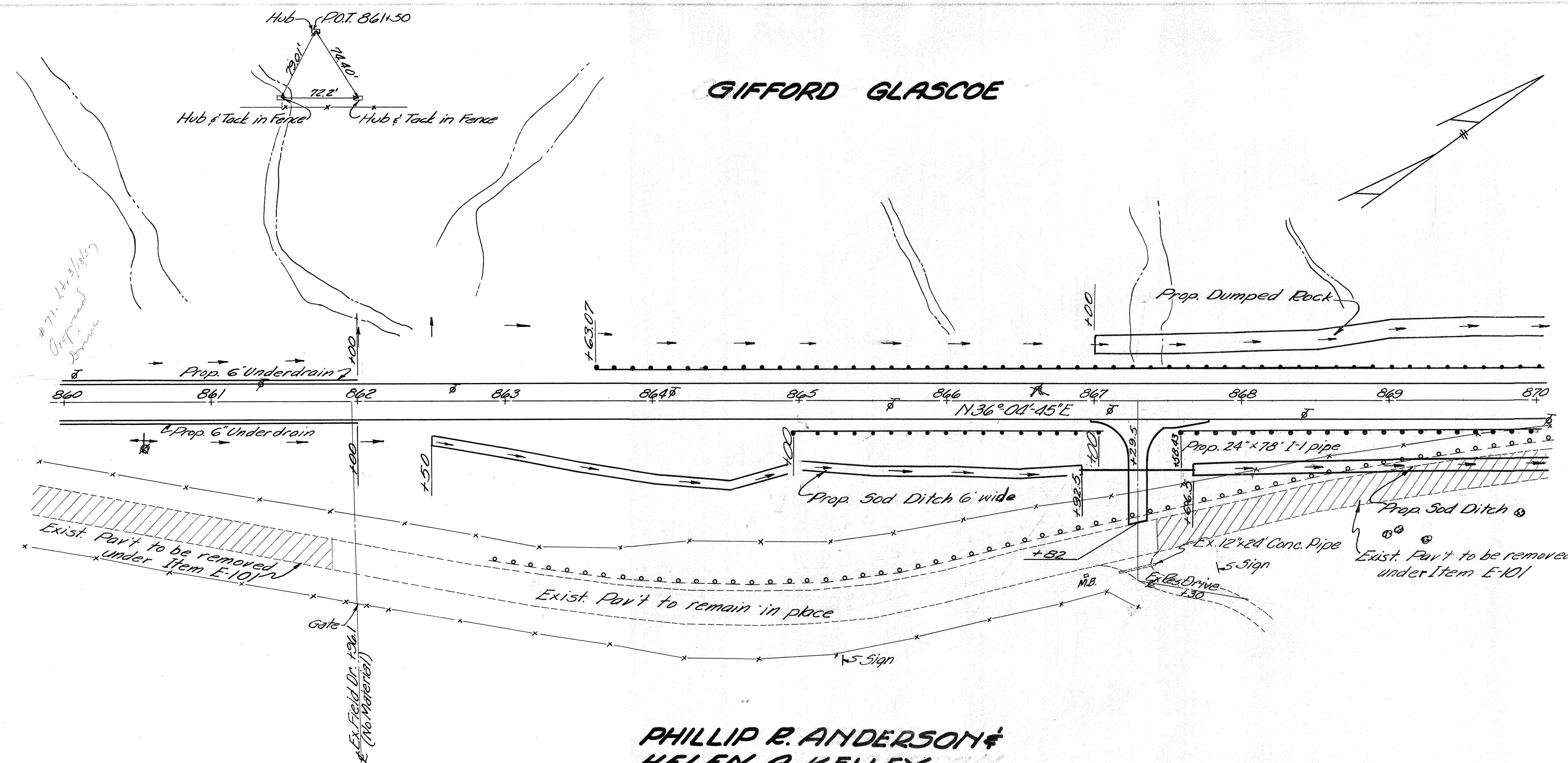
DETAIL OF SOD DITCH



DETAIL OF I-4 UNDERDRAINS

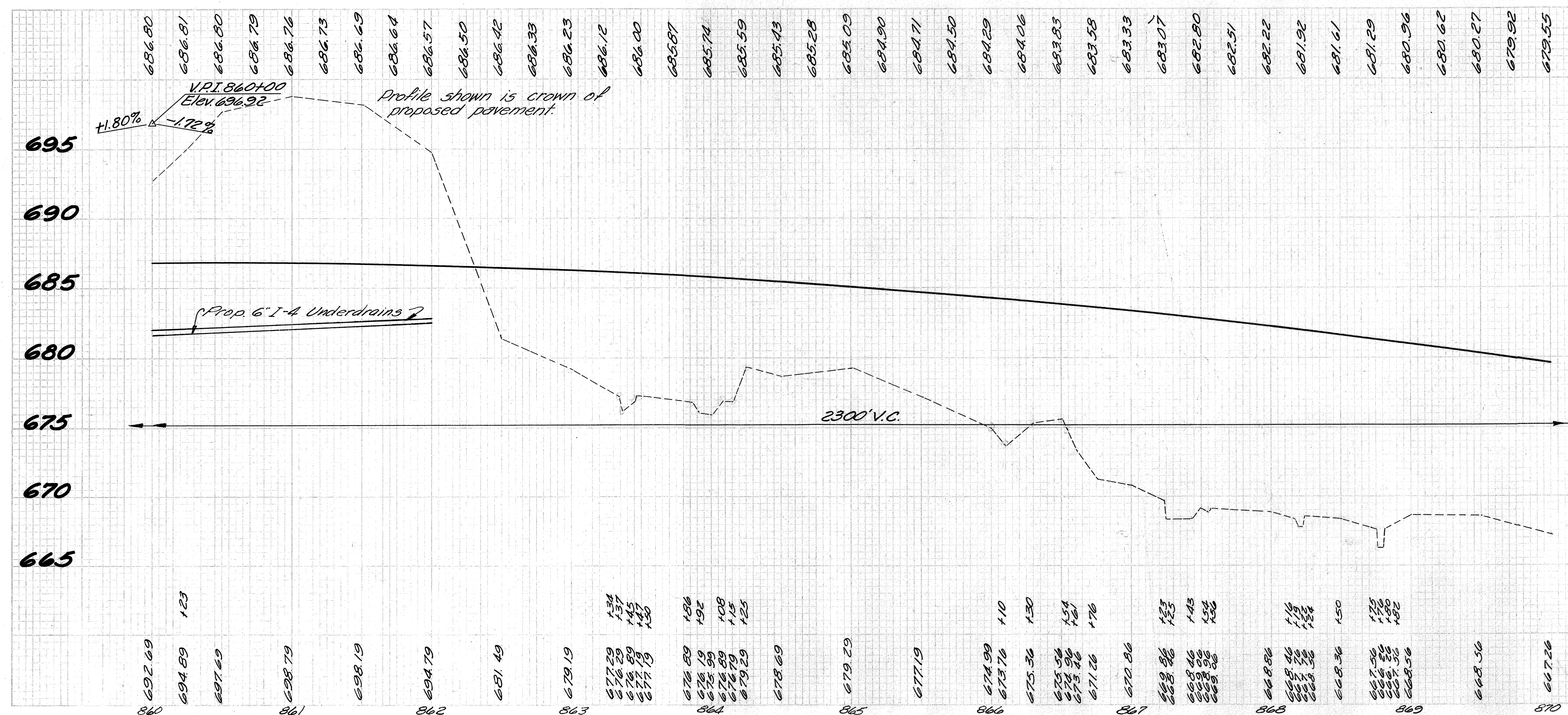
For alignment and depth, see alignment sheets and cross sections.

ROSS COUNTY
ROS-50 (12.10-16.08)



PHILLIP R. ANDERSON &
HELEN A. KELLEY

FOR ESTIMATED QUANTITIES
SEE SHEET N° 8-16



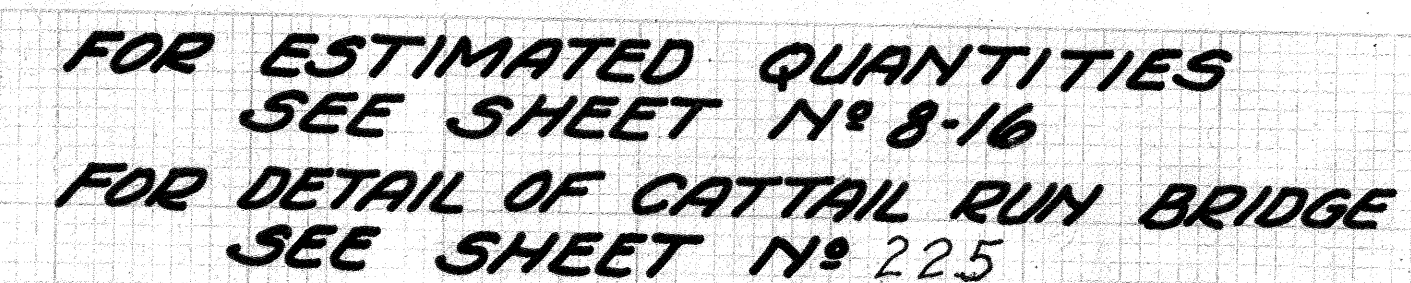
STA. 860+00 TO STA. 870+00

PROPOSED STRUCTURE
Type: Continuous reinforced concrete slab
with capped pile piers and abutments.
Span: 22'-2.75" - 22' 6" b.g.
Roadway: 40'-0" A.P. guard rail/
Load Frequency: CF = 400 (S1)
Skew: 30%
Wearing Surface: 1" Monolithic Conc.
Approach Slab: A5-1.54 (25' long)
Alignment: Tangent.

EXISTING BRIDGE DATA	
Bridge No.	Ros. 50-1656
Type.	Steel Beam
Span.	23.30' ± - 20.80' ±
Roadway.	23'-0"
Skew.	0°00'
Condition.	Fair
Reduction.	None
Supp. Rating.	G4
Abutments.	Stone & Concrete



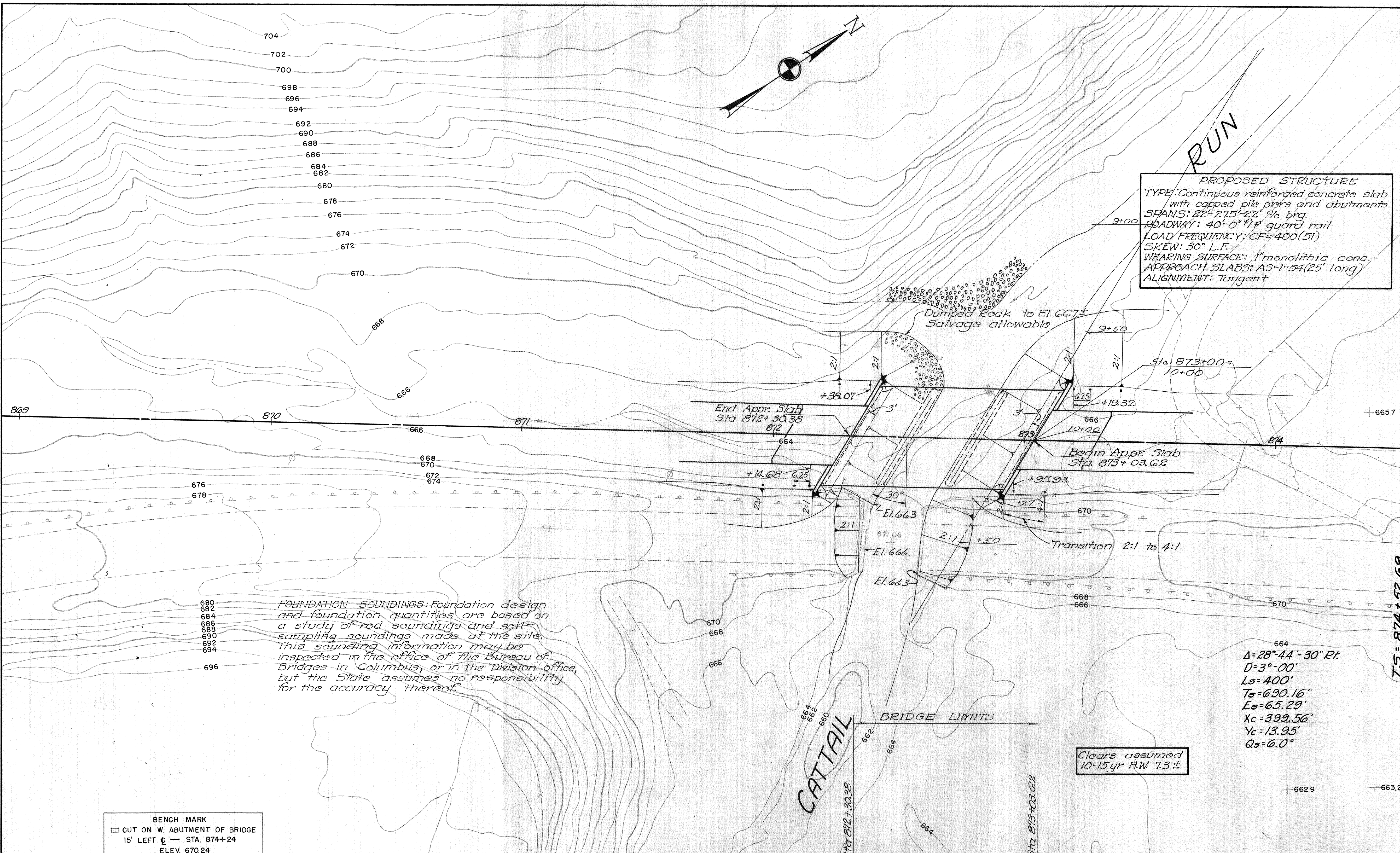
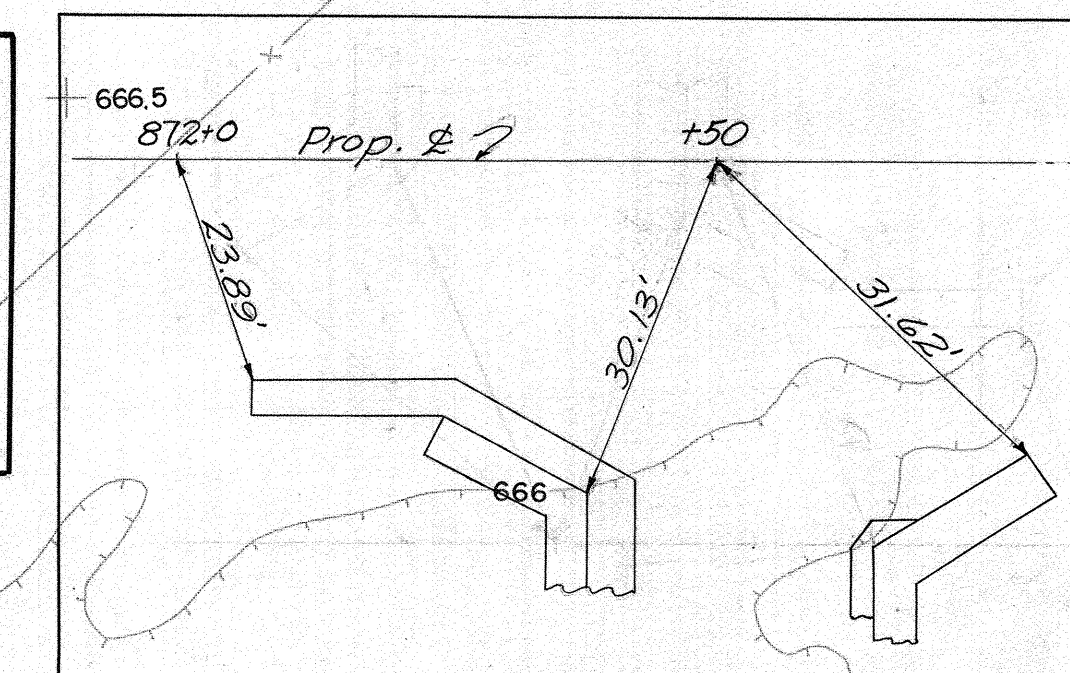
BENCH MARK
 □ Cut on West Abut. of Struct.
 15' Lt. Sta. 874+24 (Traverse)
 Elev. 670.24



ROSS COUNTY
ROS-50-(12/10-16.08)
 6.2 Mi ± W. of Chillicothe

+667.2

PROPOSED STRUCTURE
 TYPE: Continuous reinforced concrete slab with capped pile piers and abutments
 SPANS: 22'-27.5'-22' 9/16" brg.
 ROADWAY: 40'-0" 1/2" guard rail
 LOAD FREQUENCY: CF=400(51)
 SKEW: 30° L.F.
 WEARING SURFACE: 1" monolithic conc.
 APPROACH SLABS: AS-1-54(25' long)
 ALIGNMENT: Tangent



FOUNDATION SOUNDINGS: 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 the Division office, but the State assumes no responsibility for the accuracy thereof.

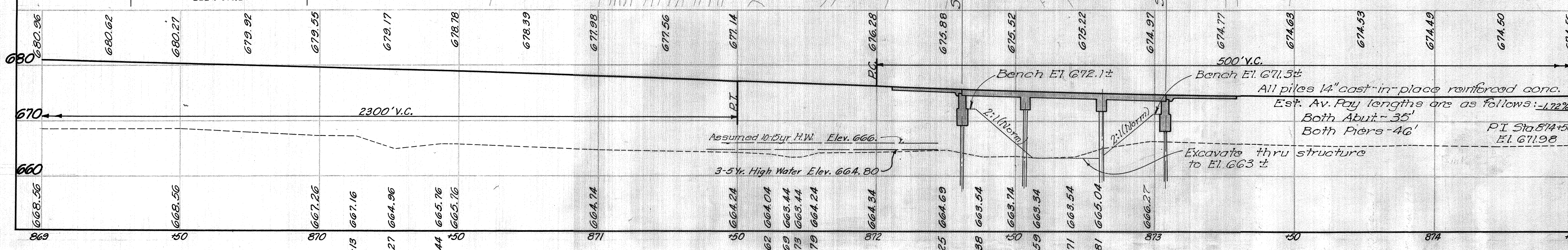
BENCH MARK
 □ CUT ON W. ABUTMENT OF BRIDGE
 15' LEFT C - STA. 874+24
 ELEV. 670.24

Δ=28°-44'-30" Rt.
 D=3°-00'
 Ls=400'
 Ts=690.16'
 Es=65.29'
 Xc=399.56'
 Yc=13.95'
 Qs=6.0°

Clears assumed
 10-15yr H.W. 7.3 ±

EXISTING BRIDGE DATA
 Bridge No. ROS-50-16.56
 Type Steel Beam
 Span 23.30' Rt - 20.80' Lt.
 Roadway 23' 0"
 Skew 0°-00'
 Condition Fair
 Reduction None
 Suff. Rating 64
 Abutments Stone & concrete

DRAINAGE AREA = 2.4 Sq. Mi.



STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
SITE PLAN					
BRIDGE NO. ROS-50-16.56			OVER CAT-TAIL RUN		
ROSS CO.			S.R. 50		
PRESENT TOPOGRAPHY			PROPOSED WORK		
SURVEYED			DESIGNED		
DRAWN			CHECKED		
D.H.S.			P.E.S.		
BFG			6-26-57		

ROSS COUNTY
ROSS-50-(12.10-16.08)

GENERAL NOTES

REFERENCE shall be made to Std. Dwgs. A-1-54,
P-1-54 both revised 12-1-54 and CS-1-54
revised 7-16-56.

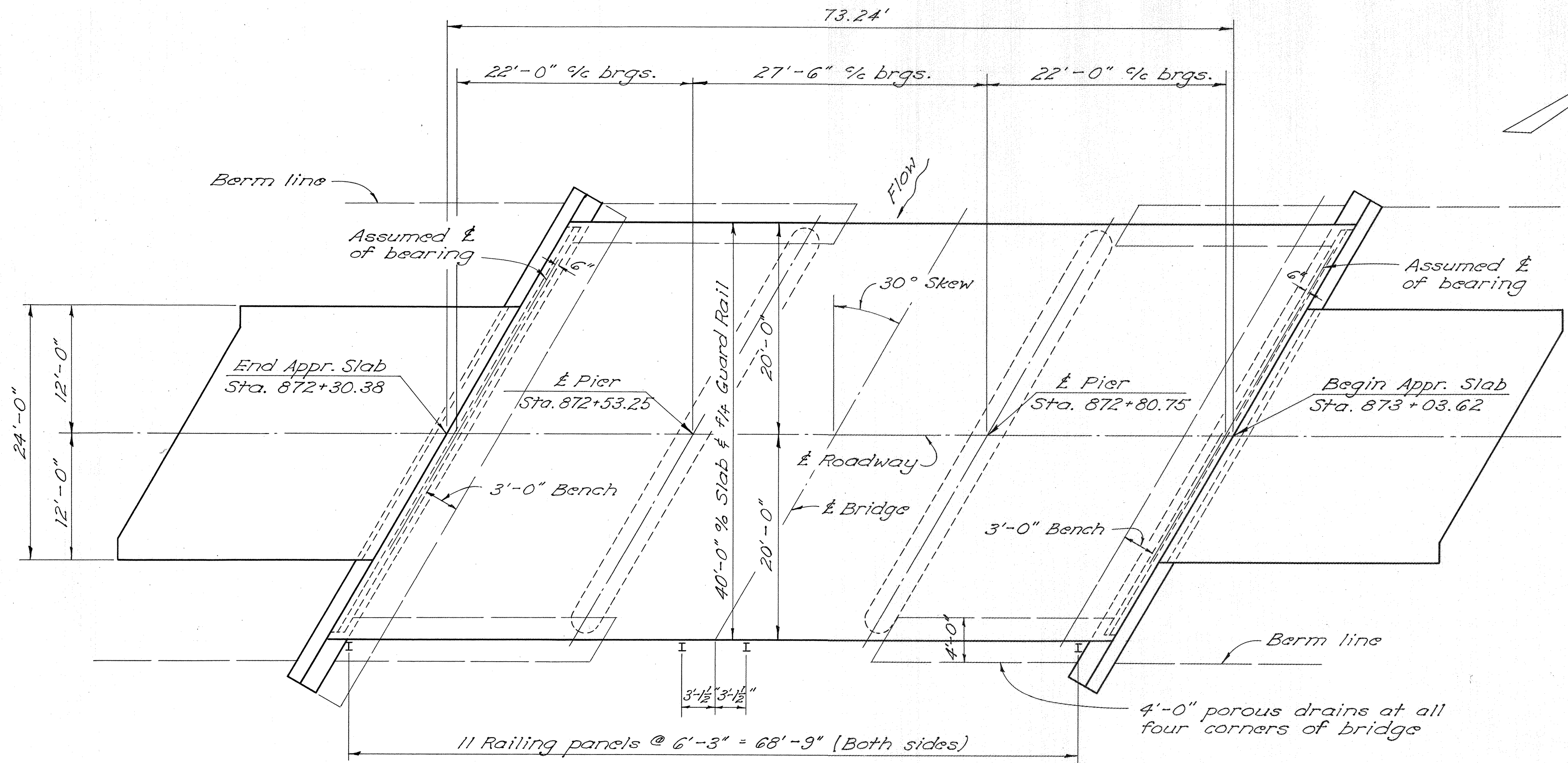
REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure, including the temporary bent at the center of the structure, shall be removed.

The forward abutment and that portion of the rear abutment which is in the proposed spill-thru slope shall be removed as provided in Item S-24. The remainder of the rear abutment shall be removed to Elev. 666 ±.

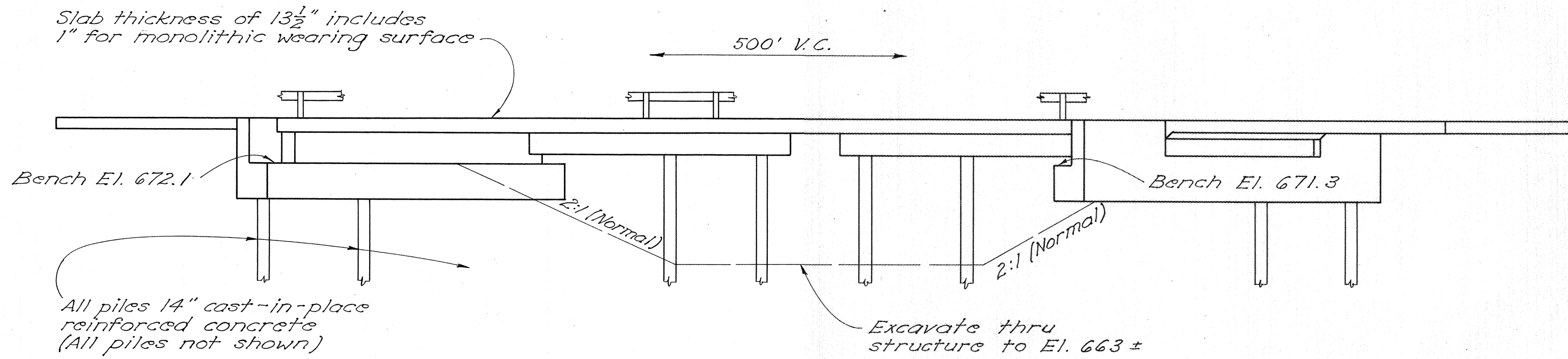
PILES shall be driven to a minimum bearing capacity of 24 tons for the abutments and 31 tons for the piers.

PIER PILE ENCASEMENT as shown on Std. Dwg. No. P-1-54 may be omitted provided that the tapered portion, if any, of all pier piles does not extend above the stream bed or the proposed surface of the ground. If the tapered portion of any pile extends above these limitations, the encasement will be required for all pier piles. If the encasement is omitted the pile casings shall have a thickness of metal not less than No. 7 gauge, and the painting of the piles shall extend to low water elevation or, if the proposed surface of the ground is above low water, the painting shall extend to at least one foot below the proposed surface of the ground.

POROUS DRAINS, extending from face of abutment to Elev. 663.0, shall be provided at all four corners of the bridge. The drains shall be 4 ft. wide and one foot thick.



GENERAL PLAN



ELEVATION

ESTIMATED QUANTITIES

[illegible]

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

**GENERAL PLAN, ELEVATION,
 NOTES & ESTIMATED QUANTITIES**

*Bridge No. ROS-50-1656
 over Cattail Run*

*Sta. 872+30.38
 873+03.62*

Ross County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
<i>John</i>	<i>John</i>	<i>prose</i>	<i>C.W.</i>	<i>BFG</i> <i>J. A. 6-26-57</i>		

REINFORCING STEEL LIST					Bending Diagrams	
Mark	No.	Length	Weight	Ship		
SUPERSTRUCTURE						
A843	117	25'-11"	8096	S		
B843	38	19'-7"	1986	B		
C843	38	17'-1"	1733	B		
D843	19	18'-8"	947	S		
E843	19	14'-10"	752	S		
F943	74	26'-1"	6562	S		
G943	38	14'-3"	1841	S		
H943	36	12'-6"	1530	S		
PIERS						
P1001	8	45'-7"	1569	S		
P901	8	42'-1"	1145	S		
PT01	84	4'-0"	687	S		
P501	4	42'-1"	176	S		
P502	60	9'-0"	563	B		
P503	8	6'-4"	53	B		
P401	56	5'-5"	203	B		
ABUTMENTS						
R1001	16	24'-1"	1658	S		
R801	16	27'-9"	1185	S		
R501	16	27'-2"	453	S		
R502	136	6'-7"	934	B		
R503	8	23'-2"	193	S		
R504	24	5'-4"	134	S		
R505	36	7'-11"	297	B		
R506a	4	12'-2"	51	S		
R506b	4	11'-8"	49	S		
R507	16	5'-8"	94	S		
R508	28	6'-8"	209	B		
R509	28	8'-5"	264	B		
R401	56	5'-5"	203	B		
REPLACEMENT BARS						
RE1001	1	7'-2"	-	S		
RE901	1	6'-10"	-	S		
RE801	2	6'-6"	-	S		
RE701	1	6'-2"	-	S		
RE601	1	5'-11"	-	S		
RE501	1	5'-7"	-	S		
RE401	1	5'-5"	-	S		

B 843

C 843

18'-6" %

16'-0" %

P401

1'-9"

1'-11" ±

P503

R=11 1/2'

2'-0 1/2'

1'-7" %

P502

2'-10" %

2'-2" %

R401

R502

R505

R508

R509

1'-9" %

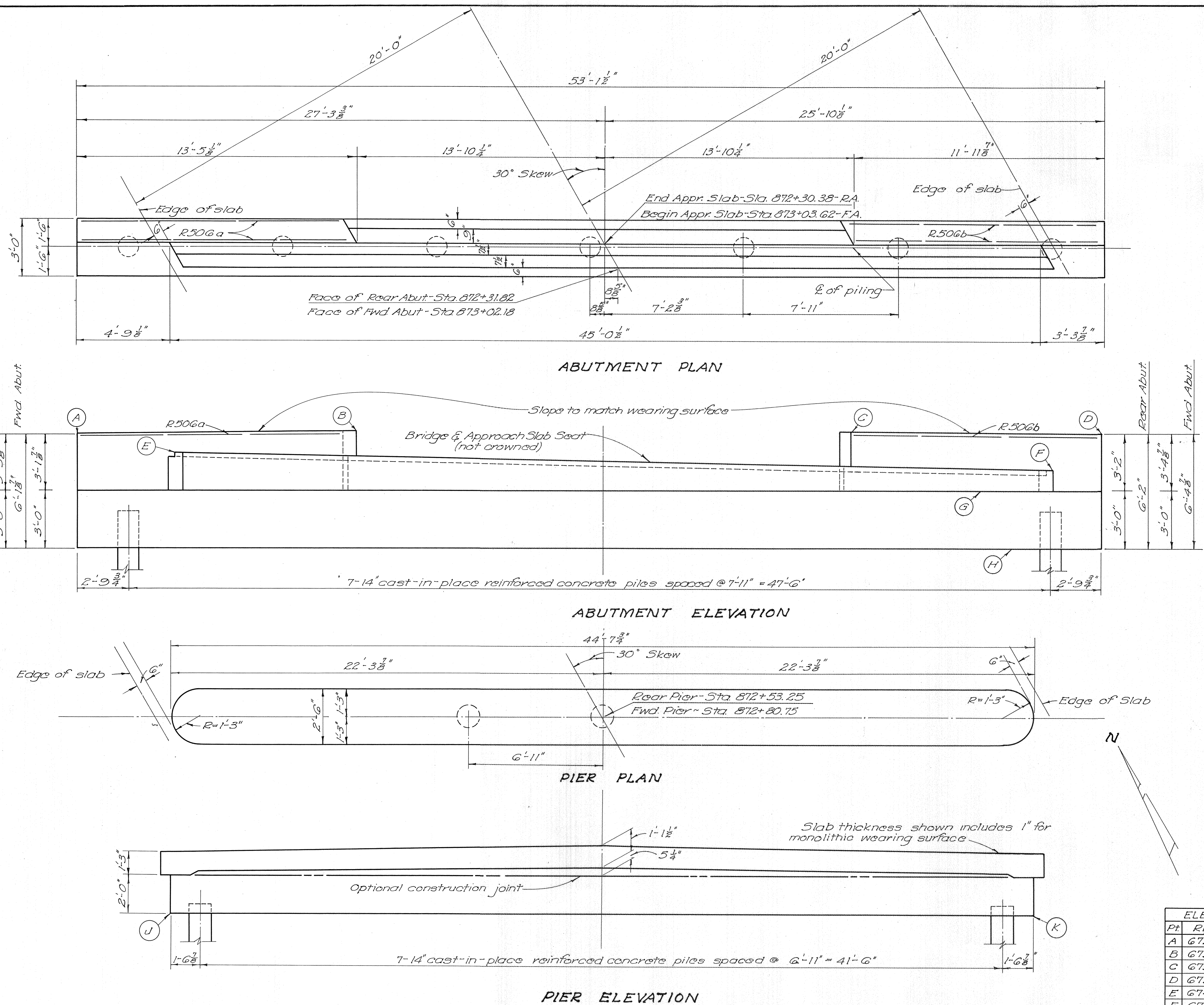
2'-8" %

1'-8" %

11" %

2'-2" %

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has been previously tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 5-4.02 need not be furnished and replacement bars will not be required.



ELEVATIONS		
PT	REAR	FORWARD
A	675.63	674.46
B	675.70	674.70
C	675.52	674.81
D	675.27	674.71
E	674.43	673.30
F	674.09	673.50
G	672.1	671.3
H	669.10	668.30
J	671.79	671.49
K	672.08	671.74

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

PIER & ABUTMENT DETAILS &
REINFORCING STEEL LIST

BRIDGE No. ROS-50-1656
OVER CATTAIL RUN
ROSS COUNTY STA 872+30.38
873+03.62

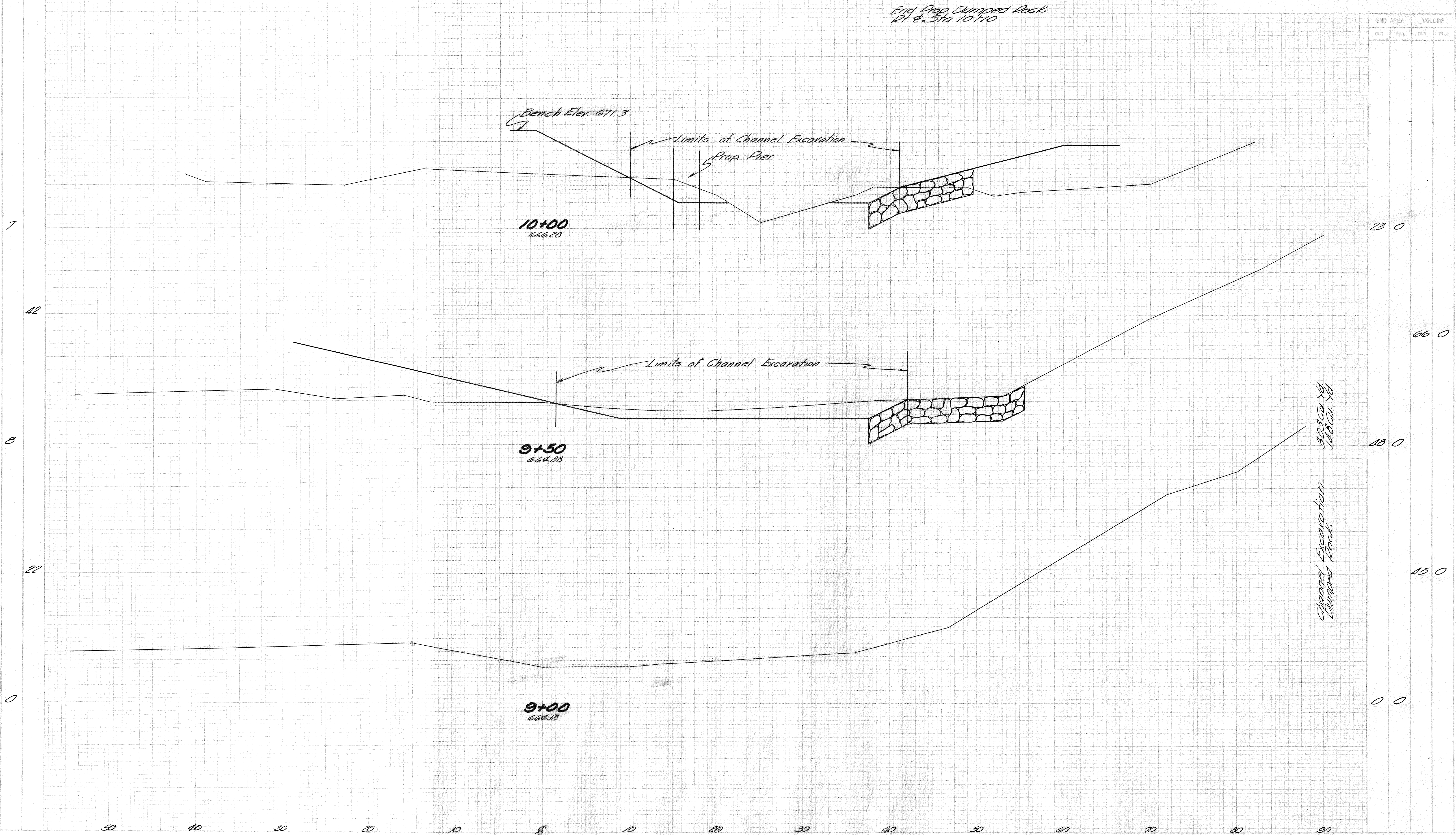
DESIGNED
DRAWN
TRACED
CHECKED
REVIEWED
DATE
REVISED

6-26-57

SECTION
ELEVATION
STATION

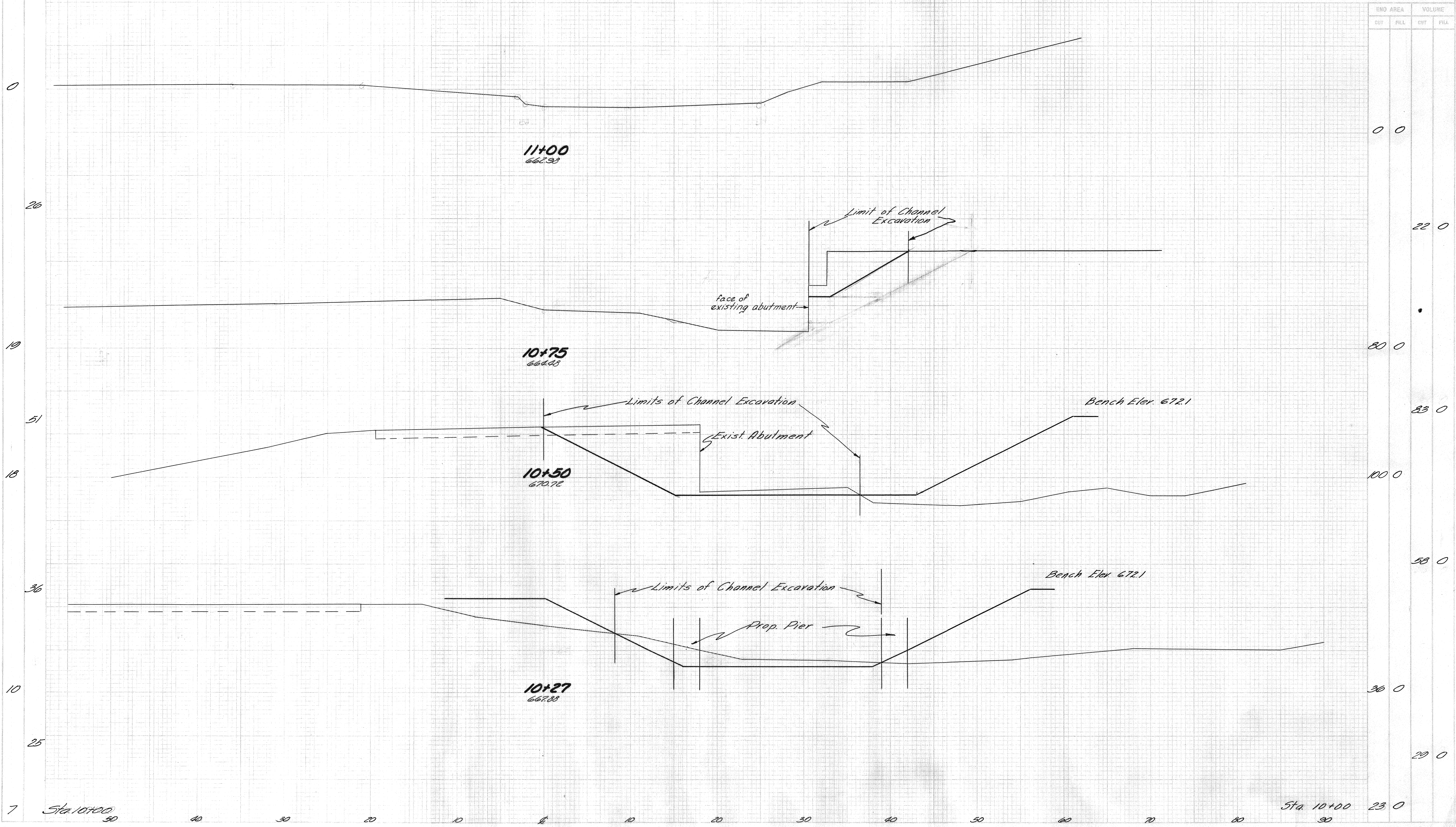
ROSS COUNTY
R05 - 50-(12.10-16.05)

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CHANNEL SECTIONS FOR CATTAIL RUN

SECTIONS
END
WIDTH
30
YDS

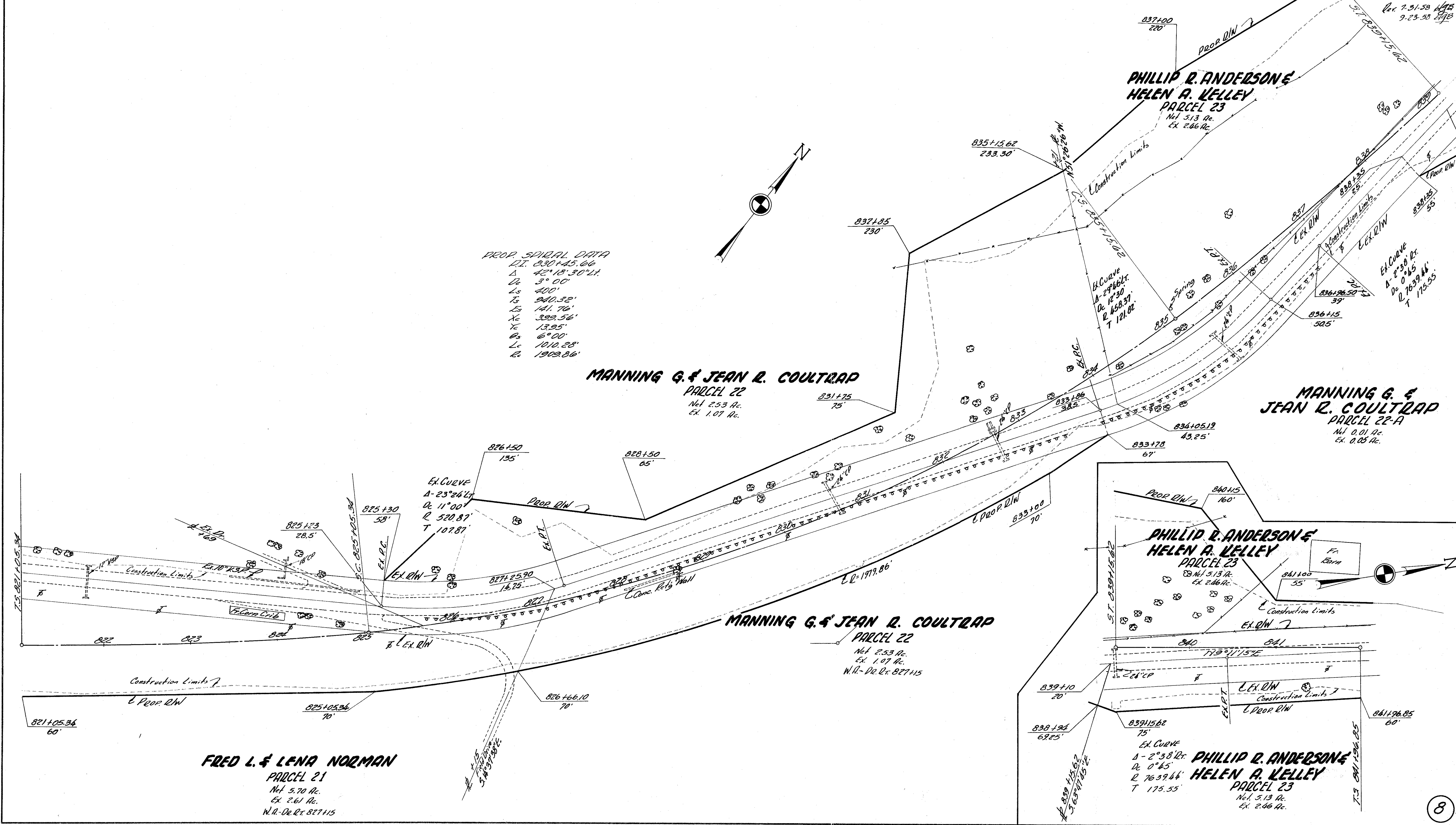


CHANNEL SECTIONS FOR CATTAIL RUN

TWIN TWP.
V.M.S. 2460

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

R/W PLAT
R05-50-(12.10-16.08)
ROSS COUNTY



PROP. SPIRAL DATA
D.T. 830+45.66
Δ 42°18'30" L
Ls 3°00'
Ls 400'
Ts 940.32'
Ls 141.76'
Xc 399.56'
Yc 13.95'
θs 6°00'
Lc 1010.28'
Lc 1909.86'

MANNING G. & JEAN R. COULTRAP
PARCEL 22
Net 2.53 Ac.
Ex. 1.07 Ac.

PHILLIP R. ANDERSON &
HELEN A. KELLEY
PARCEL 23
Net 5.13 Ac.
Ex. 2.66 Ac.

MANNING G. &
JEAN R. COULTRAP
PARCEL 22-A
Net 0.01 Ac.
Ex. 0.05 Ac.

PHILLIP R. ANDERSON &
HELEN A. KELLEY
PARCEL 23
Net 5.13 Ac.
Ex. 2.66 Ac.

MANNING G. & JEAN R. COULTRAP
PARCEL 22
Net 2.53 Ac.
Ex. 1.07 Ac.
W.A.-D.R. 827+15

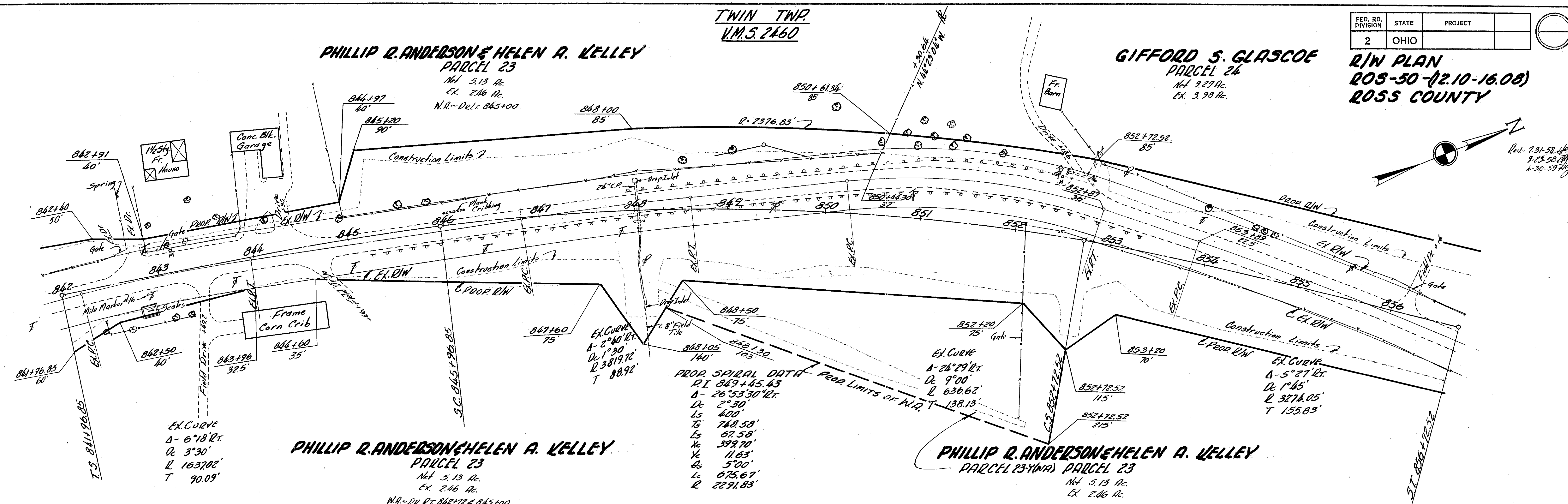
FRED L. & LENA NORMAN
PARCEL 21
Net 5.70 Ac.
Ex. 2.61 Ac.
W.A.-D.R. 827+15

PHILLIP R. ANDERSON &
HELEN A. KELLEY
PARCEL 23
Net 5.13 Ac.
Ex. 2.66 Ac.

TWIN TWP.
V.M.S. 2460

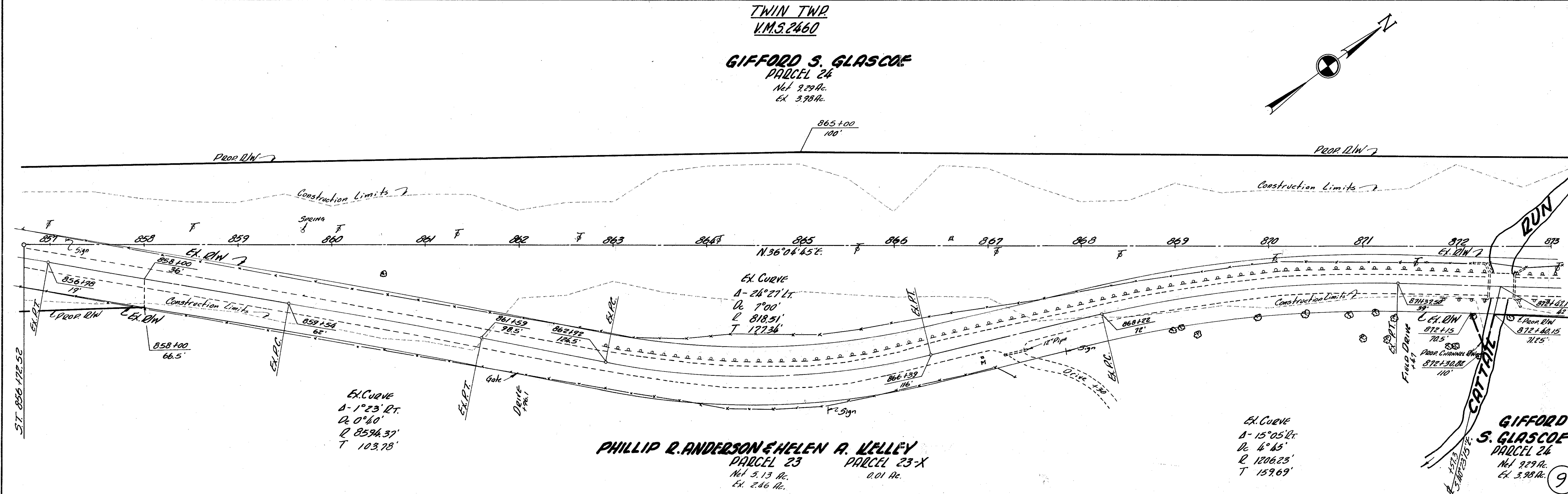
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

R/W PLAN
R03-50-12.10-16.00
ROSS COUNTY

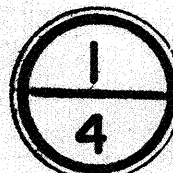


TWIN TWP.
V.M.S. 2460

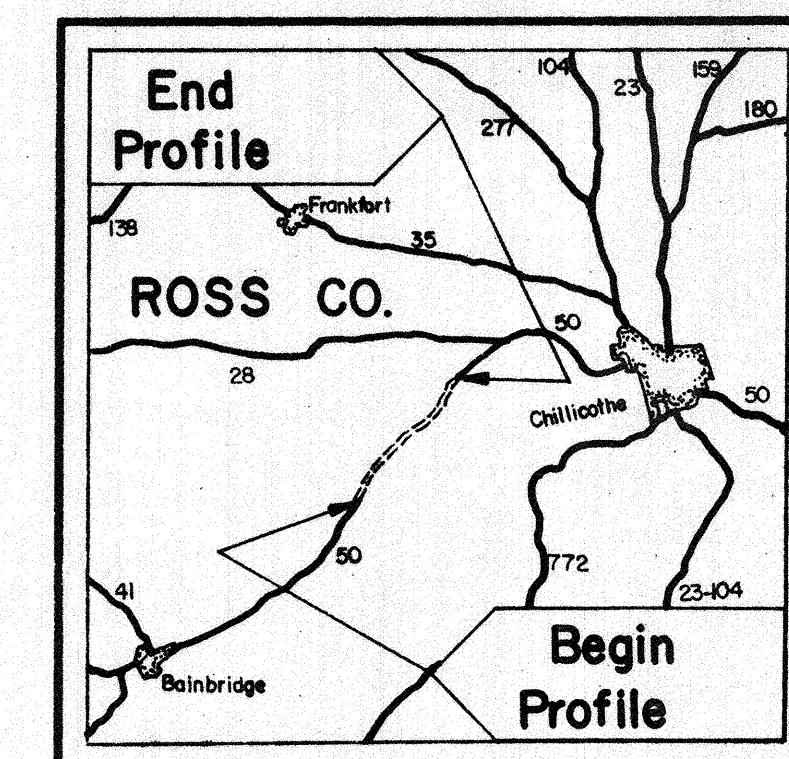
GIFFORD S. GLASCOE
PARCEL 24
Net 9.29 Ac.
Ex. 3.98 Ac.



SOIL PROFILE
ROSS COUNTY
ROS-50-(12.10-16.08)
STATE HIGHWAY TESTING AND
RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO



NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.

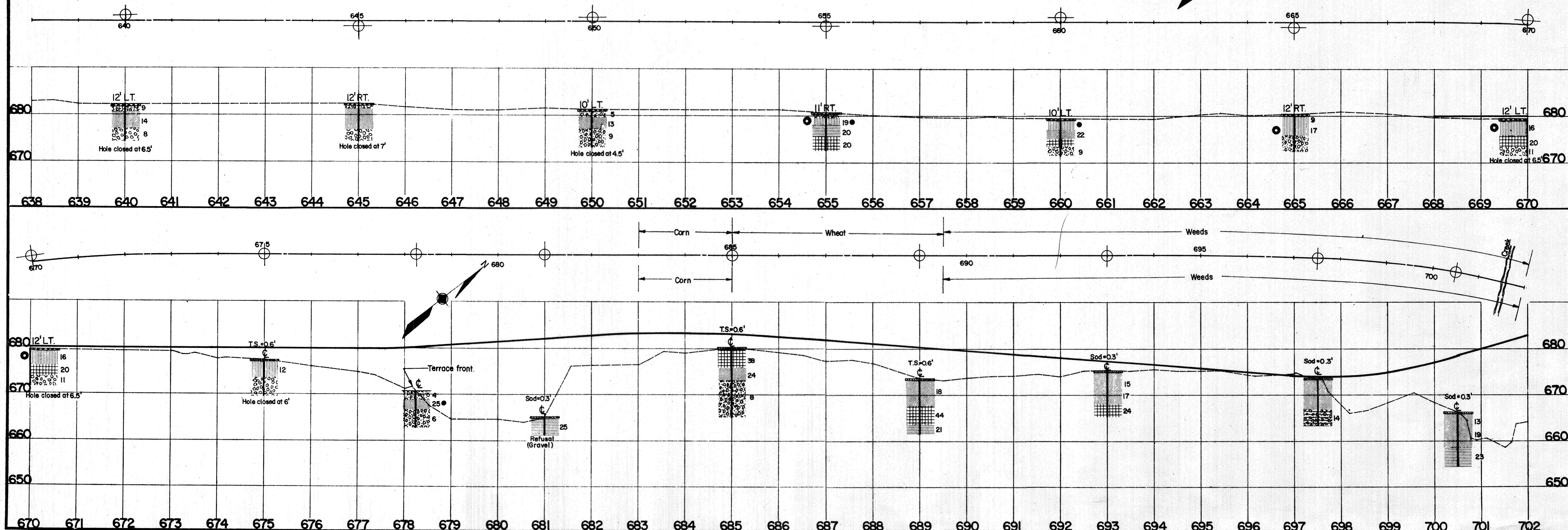


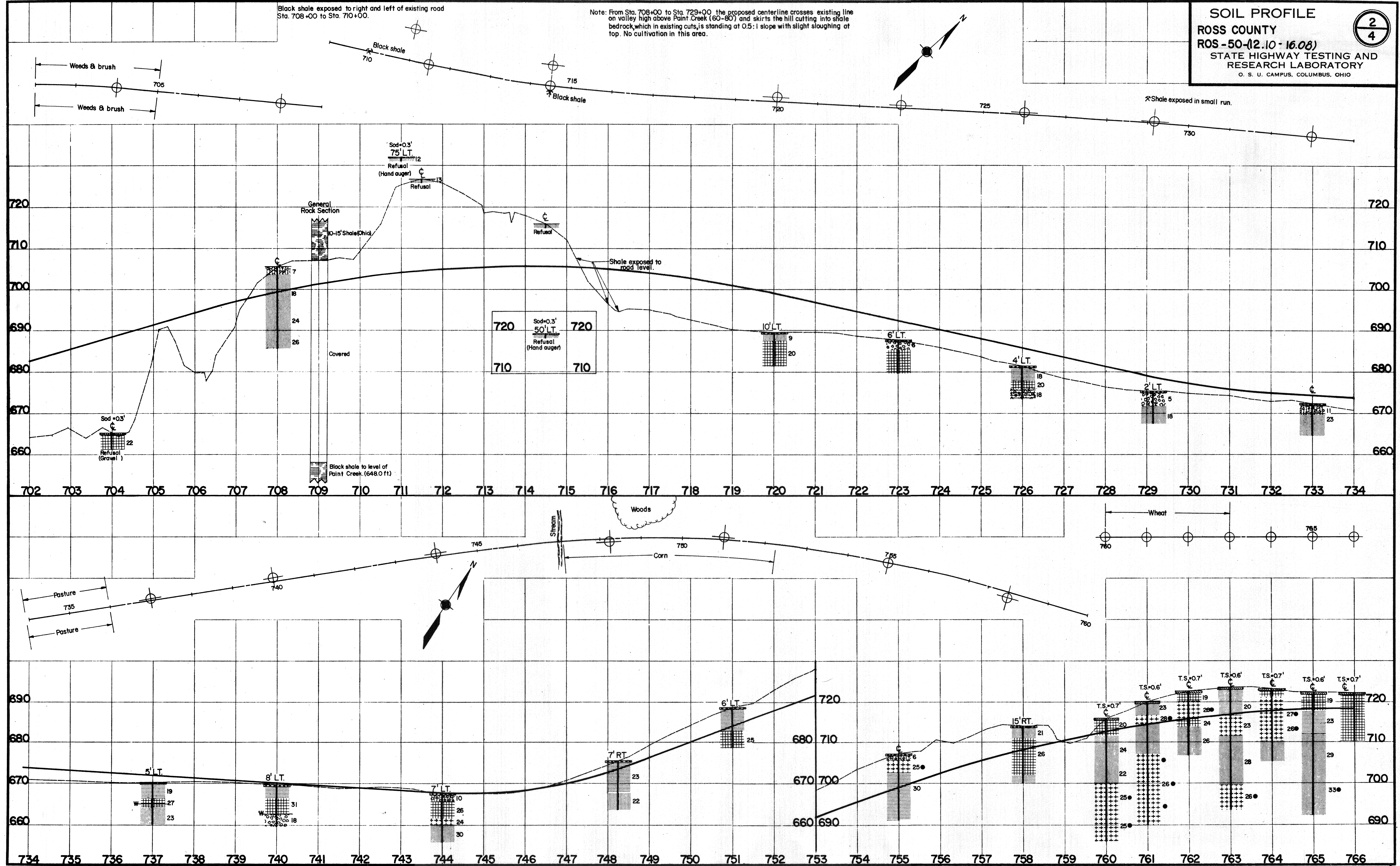
LOCATION MAP

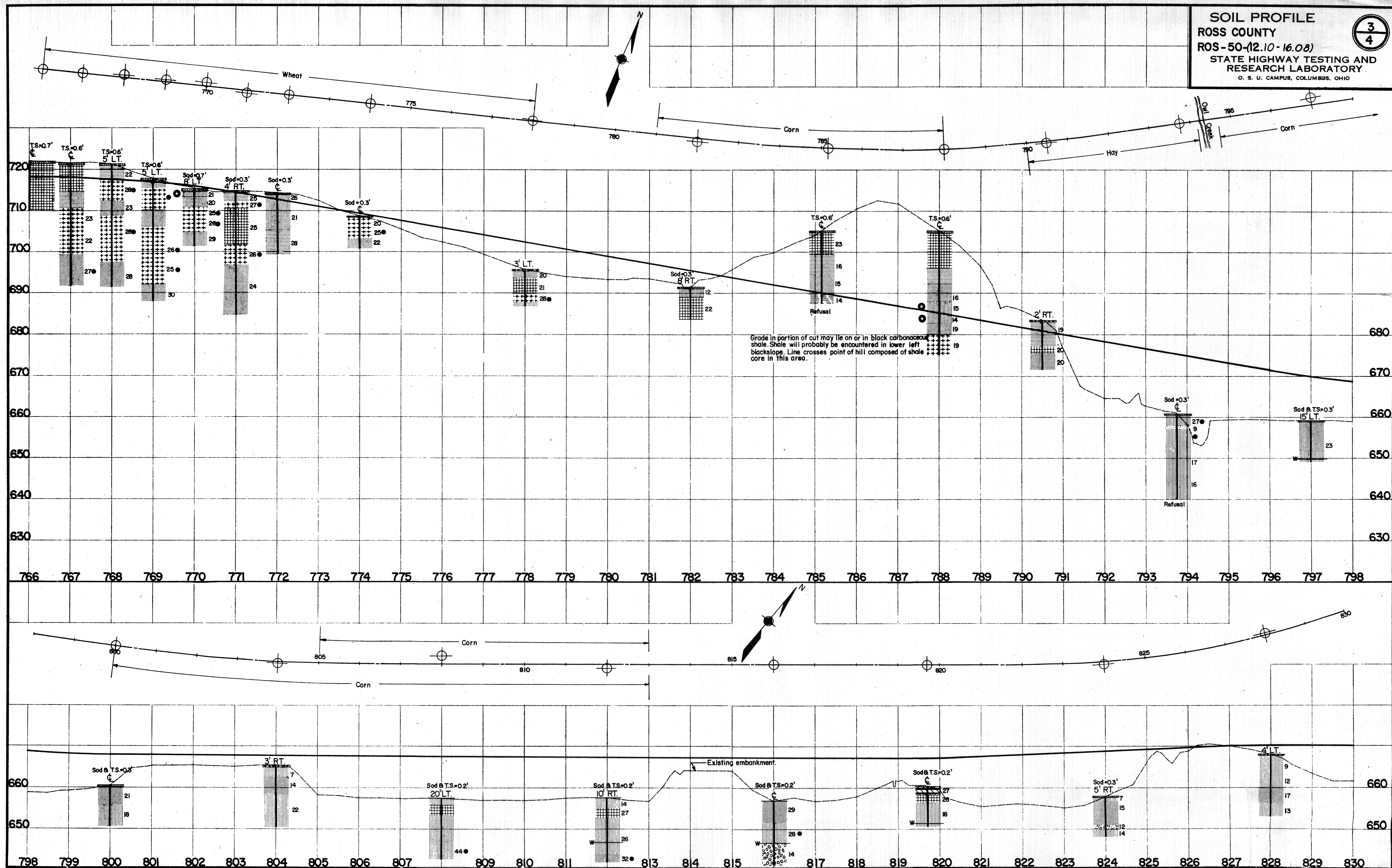
Recon.-J.S.M.-7/5/56.
Drilling-K.D.E.-J.A.G.-8/28/56.
Drafting-G.L.M.-9/13/56.

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 217 SAMPLES TESTED												
DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED	
 Gravel.	A-1-a(a)	A-1-a	66	16	8	5	5	N.P.	N.P.	9	10	
 Gravel with sand.	A-1-b(a)	A-1-b	45	20	16	10	9	N.P.	N.P.	8	10	
 Coarse and fine sand.	—	A-3a	9	30	34	6	21	N.P.	N.P.	9	1	
 Gravel with sand and silt.	A-2-4(a)	A-2-4	44	15	12	16	13	23	3	10	10	
 Gravel with sand, silt and clay.	A-2-6(1)	A-2-6	53	12	5	9	21	38	19	16	2	
 Sandy silt.	A-4(a)	A-4a	13	9	19	32	27	24	5	16	51	
 Silt.	A-4(b)	A-4b	0	0	3	73	24	N.P.	N.P.	25	27	
 Elastic silt and clay.	A-5(a)	A-5	17	11	15	35	22	42	7	27	1	
 Silt and clay.	A-6(a)	A-6a	6	5	9	33	47	34	13	23	57	
 Silty clay.	A-6(11)	A-6b	2	3	6	32	57	37	17	22	20	
 Clay.	A-7-6(a)	A-7-6	5	3	3	26	63	47	23	25	28	
 Shale. (Visual classification.)	w —		Free water.									
	XXXXX		Berm material.									
	XXXXXX		Sod & Topsoil=X'=Approx. depth.									
● This A-4a soil will be rubbery and unstable at water contents which exceed the optimum.	● Water content nearly equal to or greater than the liquid limit.											
Note: Figures beside borings indicate water content in percent.												

General Notes:
Existing bituminous pavement is in good condition. Project lies in valley filling and the line lies in places on the old gravel terrace.







SOIL PROF
ROSS COUNTY
ROS-50-12.10-16.
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RESEARCH L
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