Office

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

NOB-147-13.40

BEAVER TOWNSHIP
NOBLE COUNTY

NOB - 147 - 13.40	OHIO
	FHWA REGION 5

1 / 19

BRF-1252 (1)
PART I

FOR PART II SEE
NOB-313-1.81

WHERE BRS-1252(7) APPEARS ON THESE PLANS SHALL BE CONSIDERED TO READ BRF-1252(1).

DESIGN DESIGNATION

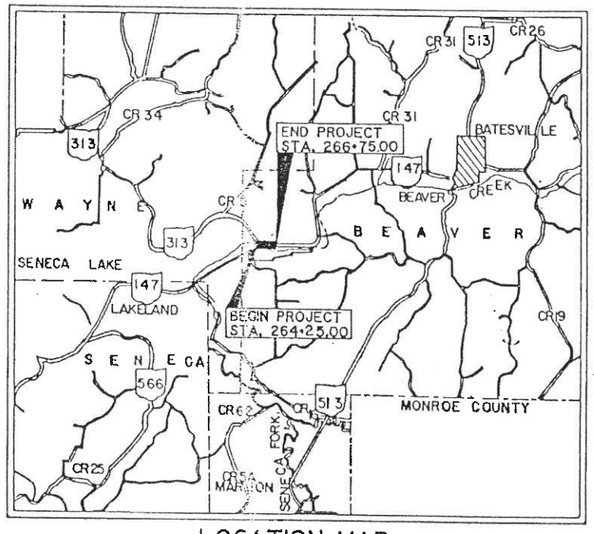
Current A. D. T. (1992)	= 460
Design Year ADT (2012)	= 600
DHV	= 60
D	= 55%
T	= 5%
Design Speed	= 55 M.P.H.
Legal Speed	= 55 M.P.H.
Functional Classification	= Major Collector (Rural)

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 — or
Guard Rail (existing) — (proposed)

INDEX OF SHEETS



LOCATION MAP

SCALE IN MILES
0 2 4 6 8

Portion to be improved
State & Federal Routes
Other Roads

SCALES

Plan 0' 20' 40'
Profile: Horizontal 0' 20' 40' Vertical 0' 5' 10'
Cross Section: Horizontal 0' 5' 10' Vertical 0' 5' 10'

LINE DATA

Begin Project Sta. 264+25.00
End Project Sta. 266+75.00

Length of Project = 250.00 L.F.
or 0.047 Miles

Begin Work Sta. 262+75.00
End Work Sta. 267+85.00

Lenght of Work = 510.00 L.F.
or 0.097 MILES

1991 SPECIFICATIONS

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

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 the traffic will be as set forth on these plans and estimates.

DISTRICT CERTIFIED PLAN

Approved John O Dowler
Date 3/17/92 District Deputy Director of Transportation

PARTS I & II
SUPPLEMENTAL SPECIFICATIONS

802 4-13-90	
836 11-12-85	

Approved B.D. Hashlamani/WCH
Date 5-1-92 Engineer, Bureau of Bridges and Structural Design
B & N REVIEW

Approved
Date 6/15/92 Deputy Director, Planning and Design

Approved
Date 6-15-92 Director, Department of Transportation

UNDERGROUND UTILITIES
2 WORKING DAYS
BEFORE YOU DIG
Call -800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

STRUCTURE PLANS REVIEWED BY:
Burgess & Niple, Limited
Engineers and Architects

Plan Prepared By:
Clyde E. Williams & Assocs.
130 E. Wilson Bridge Rd.
Worthington, Ohio 43085

A. A. Haidar 2-25-92
ENGINEER DATE

SEAL

Project: NOB-147-13.40
Date of Letting ____ 19 Contract No. ____

PARTS I & II		SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS					
GR-2.2	5-6-91	AS-1-81	11-27-81	BP-3.1	2-21-92		
GR-4.2	5-6-91			BP-4.1	2-21-92		
GR-1.1	5-6-91	DBR-2-73	4-20-73				
GR-1.2	5-6-91			PSBD-1-81	6-20-89		
GR-2.1	5-6-91	GR-4.1	5-6-91				
GR-3.4	5-6-91	MC-9.2	5-6-91				
		MC-9A	1-[illegible]-85				
MT-96.11	9-9-88	MC-11	8-[illegible]-78				
MT-99.10	11-14-86						
MT-96.20	9-9-88						
MT-96.25	9-9-88						
MT-101.60	4-1-90						

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

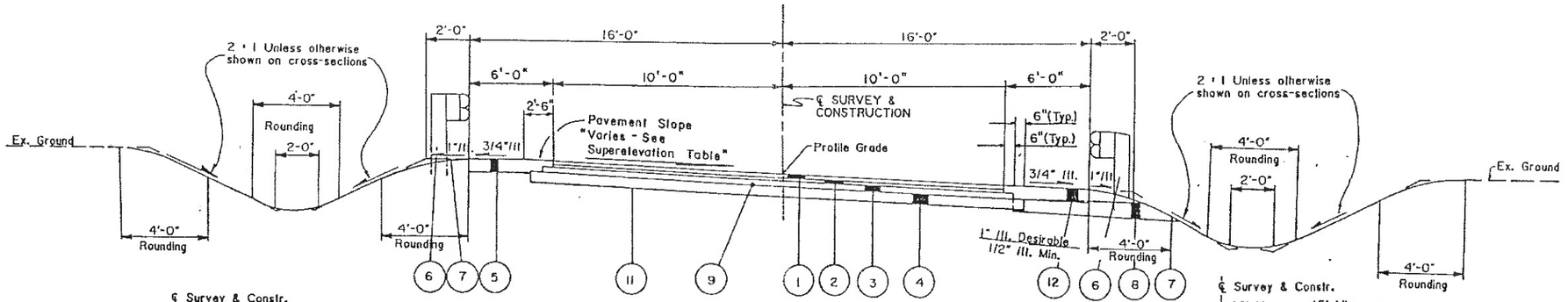
DIVISION ADMINISTRATOR DATE

CALC. BY / DATE	NOB.- 147 - 13.40	OHIO
CHKD. BY / DATE		FHWA REGION 5

2 / 19

TYPICAL SECTIONS

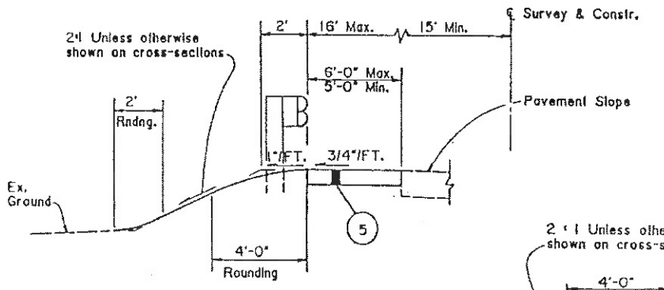
TYPE 404 ON 301



SUPERELEVATED SECTION

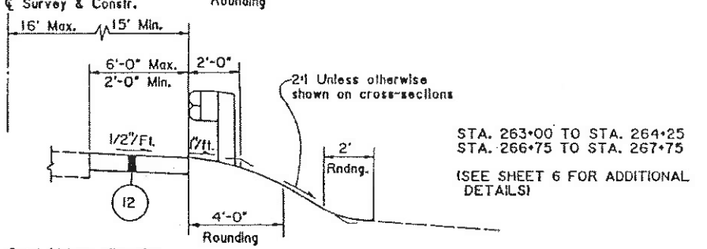
STA. 264+25.00 TO STA. 264+70.00 = 45.00 L.F.
STA. 266+29.26 TO STA. 266+75.00 = 45.74 L.F.

TOTAL = 90.74 L.F.



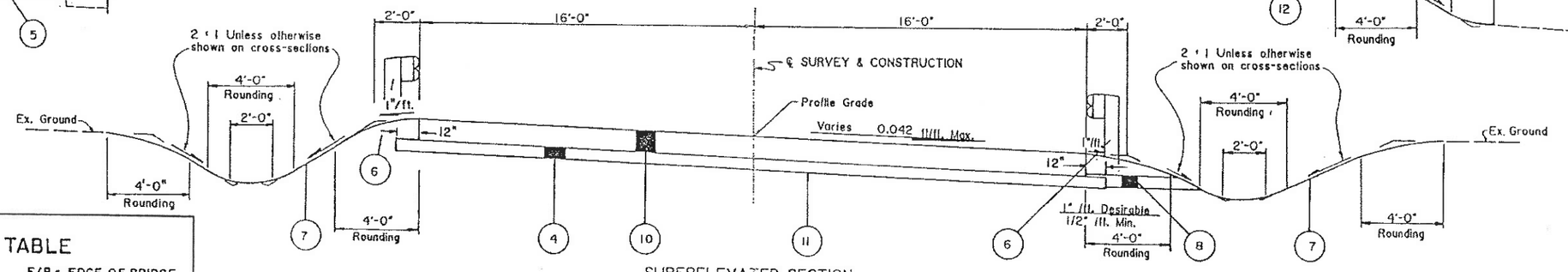
STA. 263+25 TO STA. 264+25
STA. 266+75 TO STA. 267+81

(SEE SHEET 8 FOR ADDITIONAL DETAILS)



STA. 263+00 TO STA. 264+25
STA. 266+75 TO STA. 267+75

(SEE SHEET 6 FOR ADDITIONAL DETAILS)



SUPERELEVATED SECTION
(APPROACH SLAB)

STA. 264+70.00 TO STA. 264+85.00 = 15.00 L.F.
STA. 266+14.26 TO STA. 266+29.26 = 15.00 L.F.

TOTAL = 30.00 L.F.

SUPERELEVATION TABLE

E/P = EDGE OF PAVEMENT
E/B = EDGE OF BRIDGE OR APPROACH SLAB

STATION	E/B 16'LT.	E/P 10'LT.	℄ P.G.	E/P 10'RT.	E/B 16'RT.
264+25	—	839.05	838.71	837.99	—
264+50	—	839.09	838.72	838.12	—
264+70	839.34	839.12	838.72	838.22	837.92
264+75	839.38	839.13	838.72	838.24	837.98
264+85	839.39	839.14	838.72	838.30	838.06
265+00	839.40	839.15	838.73	838.31	838.07
265+50	839.41	839.16	838.74	838.32	838.08
266+00	839.42	839.17	838.75	838.33	838.09
266+14.26	839.43	839.18	838.76	838.34	838.10
266+25	839.37	839.14	838.76	838.35	838.10
266+29.26	839.33	839.13	838.76	838.35	838.11
266+50	—	839.05	838.76	838.37	—
266+75	—	838.96	838.77	838.39	—

LEGEND

1. ITEM 404 1-1/4" ASPHALT CONCRETE, AC-20
2. ITEM 402 1-3/4" ASPHALT CONCRETE, AC-20
3. ITEM 301 3" BITUMINOUS AGGREGATE BASE, AC-20
4. ITEM 304 6" AGGREGATE BASE, AS PER PLAN
5. ITEM 304 8" AGGREGATE BASE, AS PER PLAN
6. ITEM 606 GUARDRAIL TYPE 5
7. ITEM 659 SEEDING MULCHING
8. ITEM 605 AGGREGATE DRAINS
9. ITEM 408 BITUMINOUS PRIME COAT @ 0.40 GAL. PER SQ. YD.
10. ITEM 611 REINFORCED CONCRETE APPROACH SLAB (12')
11. ITEM 203 SUBGRADE COMPACTION
12. ITEM 615 TEMPORARY PAVEMENT, CLASS B, AS PER PLAN.

Scale 1=20
0 10 20 40

WEARING COURSE REMOVED & REPLACED

CURVE DATA - FOR ℄ OF SURVEY -
D= 1° 50'
R= 3125.22
Δ= 12° 23' 03"
L= 675.50
T= 339.07
E= 18.34

REFERENCE POINTS	
STA. 262+24.50	STA. 269+00
Re-Bar Set	P.K. Set at P.C.C.
18.63'	30.31'
15.16'	Re-Bar Set
℄ Survey	℄ Survey
P-K Fnd.	18.13'
13.62'	18.01'
Re-Bar Set	Re-Bar Set

Calc. by JDH Date 5/16/21
Chkd. by AAH Date 11/16/21

FHWA REGION	STATE	PROJECT	
5	OHIO		

8
19

NOB.- 147 - 13.40

BEGIN WORK STA. 262+75

BEGIN AGGREGATE SHOULDER, +25

EX. R/W

Center Line, double yellow, broken & solid

Constr. Limits

EX. RPM.(TYP)

Survey & Construction

N 73° 25' 00" E

BEGIN FULL DEPTH PAVEMENT STA. 264+25

STA. 264+85.00 END APPROACH SLAB

STA. 265+00 113' LT.

STA. 265+00 40' LT.

CONSTRUCTION LIMITS

(WHITE) EDGE LINE

CENTER LINE (DBL. SOLID YELLOW)

N 85° 48' 03" E

STA. 266+74.26 BEGIN APPROACH SLAB

END FULL DEPTH PAVEMENT STA. 266+75

267+63 45' LT.

Type 'A' Anchor Assy.

END AGGREGATE SHOULDER, +81

Signs

Sign

S.R. 313

Field

S.R. 147

N 85° 48' 03"

Sta. 268+35.82

Lake

P.C. STA. 262+24.50

BENCH MARK
P-K in Power Pole at Sta. 263+56.4 21.9' Lt.
Elev., 840.52

REFERENCE POINTS
STA. 254+39.80
Capped P-K Nails Set in top of Guard Rail Posts per O.D.O.T. Field Notes
26.15' 4.48' 21.03'
℄ Survey P-K Fnd

Aggregate Drains Refer to Sht. 3 for quantity.

BEGIN PROJECT
STA. 264+25.00
BRS-1252(7)
S. L. M. 13.40

END PROJECT
STA. 266+75.00
BRS-1252(7)
S. L. M. 13.45

BEAVER CREEK

STA. 265+00 40' RT.

STA. 265+00 110' RT.

NOTE: REFER TO SHT. 11 FOR STATIONS & OFFSETS OF ROCK CHANNEL PROTECTION LIMITS.

Bush

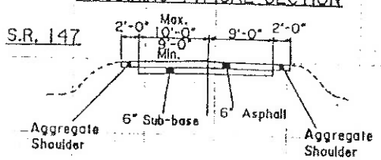
12" TREE

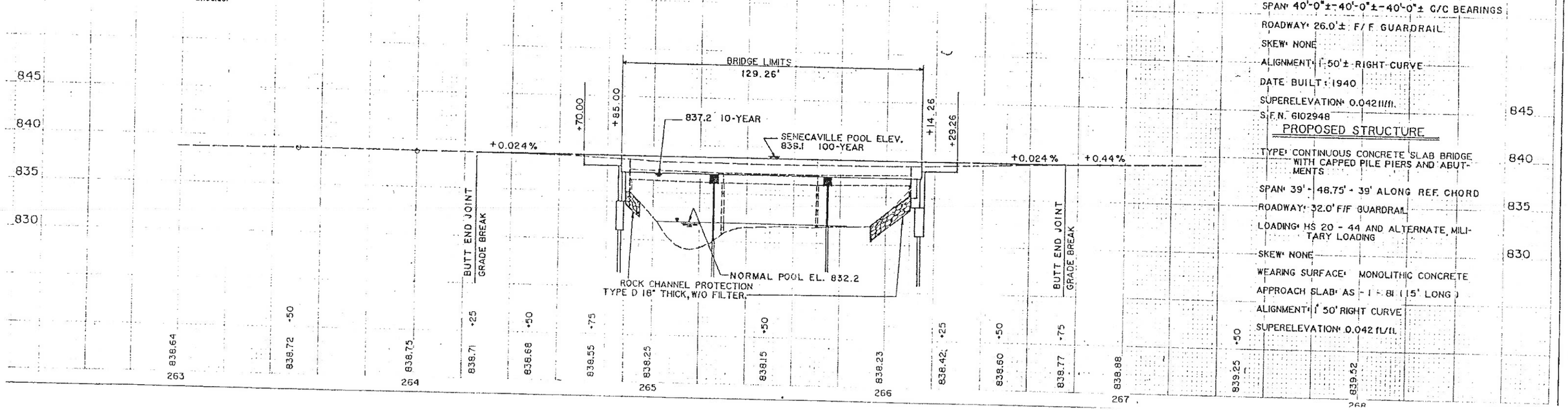
END WORK STA. 267+85

NOTE: PROPOSED PAVEMENT SHALL BE STRIPED TO MATCH EXISTING LANE WIDTHS AT PROJECT BEGIN & END.

P.C.C. STA. 269+00

ADJOINING TYPICAL SECTION





EXISTING STRUCTURE

TYPE: CORRUGATED METAL DECK W/ASPHALT WEARING SURFACE ON STEEL BEAMS W/ TIMBER PILES.

SPAN: 40'-0"±-40'-0"±-40'-0"± C/C BEARINGS

ROADWAY: 26.0'±: F/F GUARDRAIL

SKEW: NONE

ALIGNMENT: 1°50'± RIGHT CURVE

DATE BUILT: 1940

SUPERELEVATION: 0.042 ft/ft.

S.F.N. 6102948

PROPOSED STRUCTURE

TYPE: CONTINUOUS CONCRETE SLAB BRIDGE WITH CAPPED PILE PIERS AND ABUTMENTS

SPAN: 39'-46.75'-39' ALONG REF. CHORD

ROADWAY: 32.0' F/F GUARDRAIL

LOADING: HS 20-44 AND ALTERNATE MILITARY LOADING

SKEW: NONE

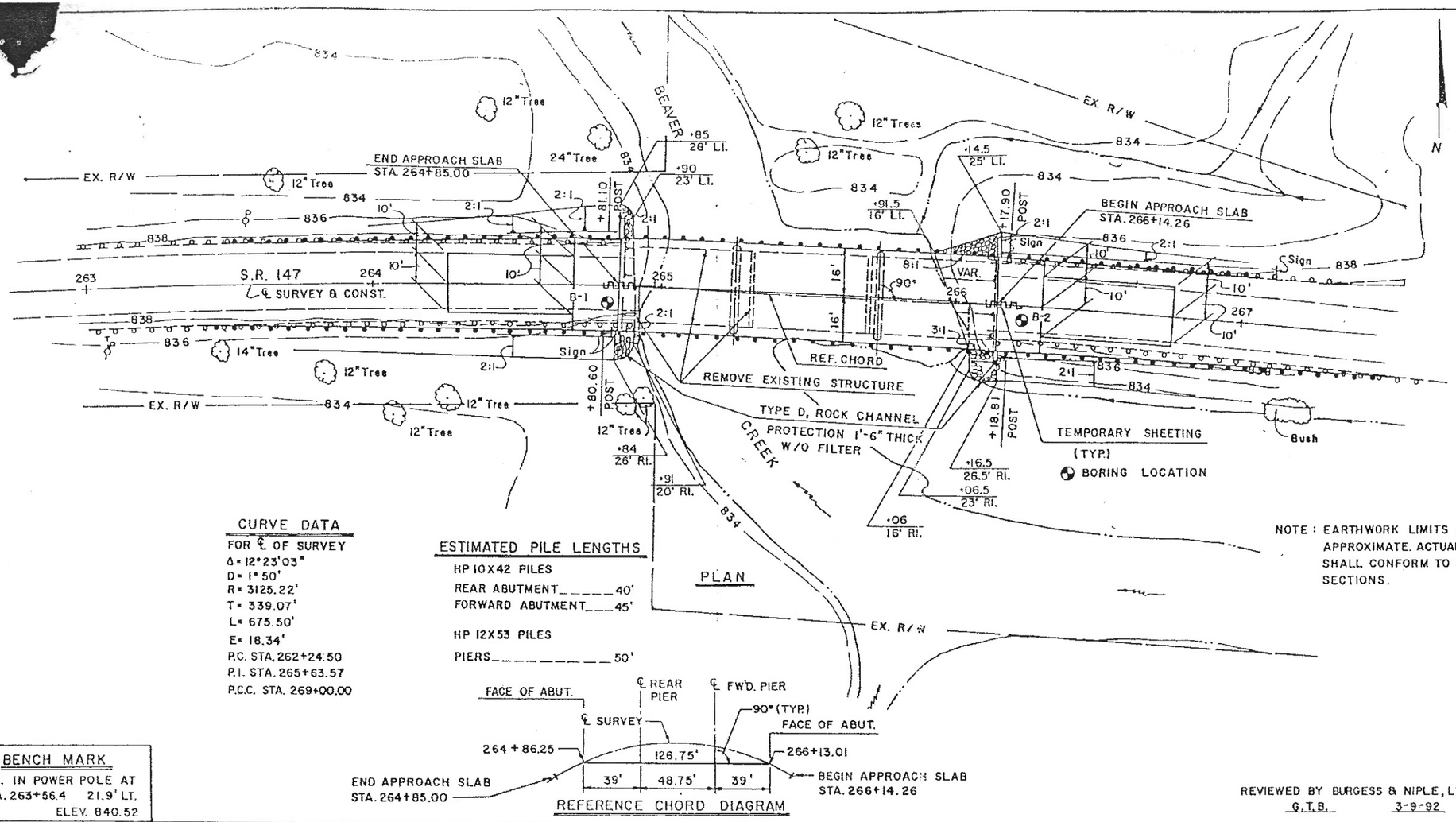
WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLAB: AS-1-81 (15' LONG)

ALIGNMENT: 1°50' RIGHT CURVE

SUPERELEVATION: 0.042 ft/ft

CALC. BY	NOB-147-13.40	OHIO	11
DATE		FHWA REGION 5	19
CHKD. BY			
DATE			



NOTE: EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.

CURVE DATA

FOR ℄ OF SURVEY
Δ = 12°23'03"
D = 1°50'
R = 3125.22'
T = 339.07'
L = 675.50'
E = 18.34'
P.C. STA. 262+24.50
P.I. STA. 265+63.57
P.C.C. STA. 269+00.00

ESTIMATED PILE LENGTHS

HP 10X42 PILES
REAR ABUTMENT _____ 40'
FORWARD ABUTMENT ____ 45'

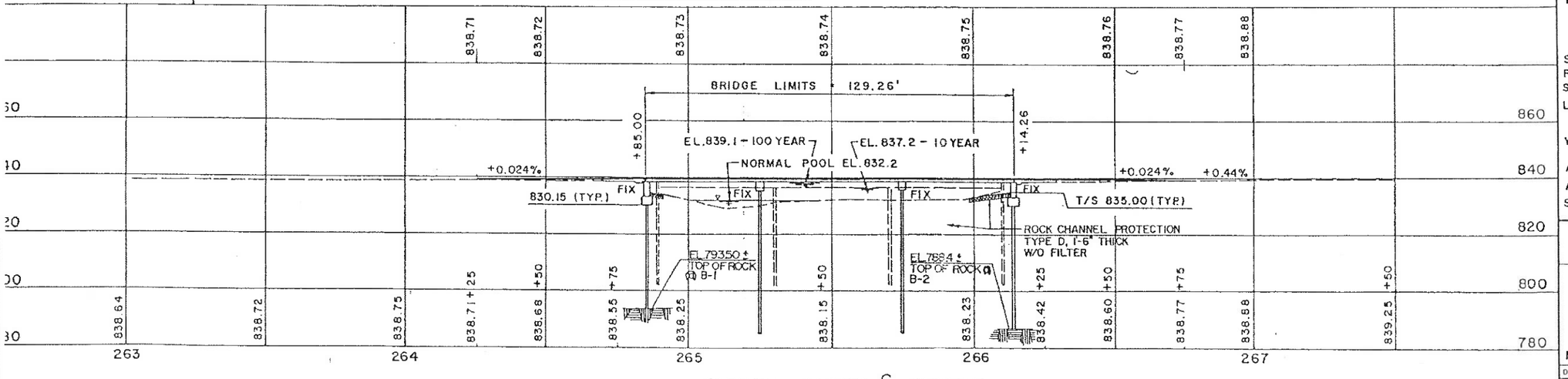
HP 12X53 PILES
PIERS _____ 50'

REFERENCE CHORD DIAGRAM

BENCH MARK

P.K. IN POWER POLE AT
STA. 263+56.4 21.9' LT.
ELEV. 840.52

REVIEWED BY BURGESS & NIPLE, LTD.
G.T.B. 3-9-92



PROFILE ALONG ℄ SURVEY

A.D.T.

1991	=	460
2011	=	600
T	=	5.%

HYDRAULIC DATA

DRAINAGE AREA = 19.1 SQ. MI.

Q10 = 2067 cfs	Q100 = 3668 cfs
HW10 = EL. 837.2	HW100 = EL. 839.1
V10 = 4.6 fps	V100 = 8.0 fps

EXISTING STRUCTURE

TYPE: CORRUGATED METAL DECK W/ASPHALT WEARING SURFACE ON STEEL BEAMS W/ TIMBER PILES.
SPAN: 40'-0"± - 40'-0"± - 40'-0"± C/C BEARINGS
ROADWAY: 26.0'± F/F GUARDRAIL
SKEW: NONE
ALIGNMENT: 1°50'± RIGHT CURVE
DATE BUILT: 1940
SUPERELEVATION: 0.042'/FT.
S.F.N. 6102948

PROPOSED STRUCTURE

TYPE: CONTINUOUS CONCRETE SLAB BRIDGE WITH CAPPED PILE PIERS AND ABUTMENTS

SPAN: 39'-48.75'-39' ALONG REF. CHORD
ROADWAY: 32.0' F/F GUARDRAIL
SKEW: NONE
LOADING: HS 20-44 AND ALTERNATE MILITARY LOADING
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLAB: AS-1-81 (15' LONG)
ALIGNMENT: 1°50' RIGHT CURVE
SUPERELEVATION: 0.042'/FT±

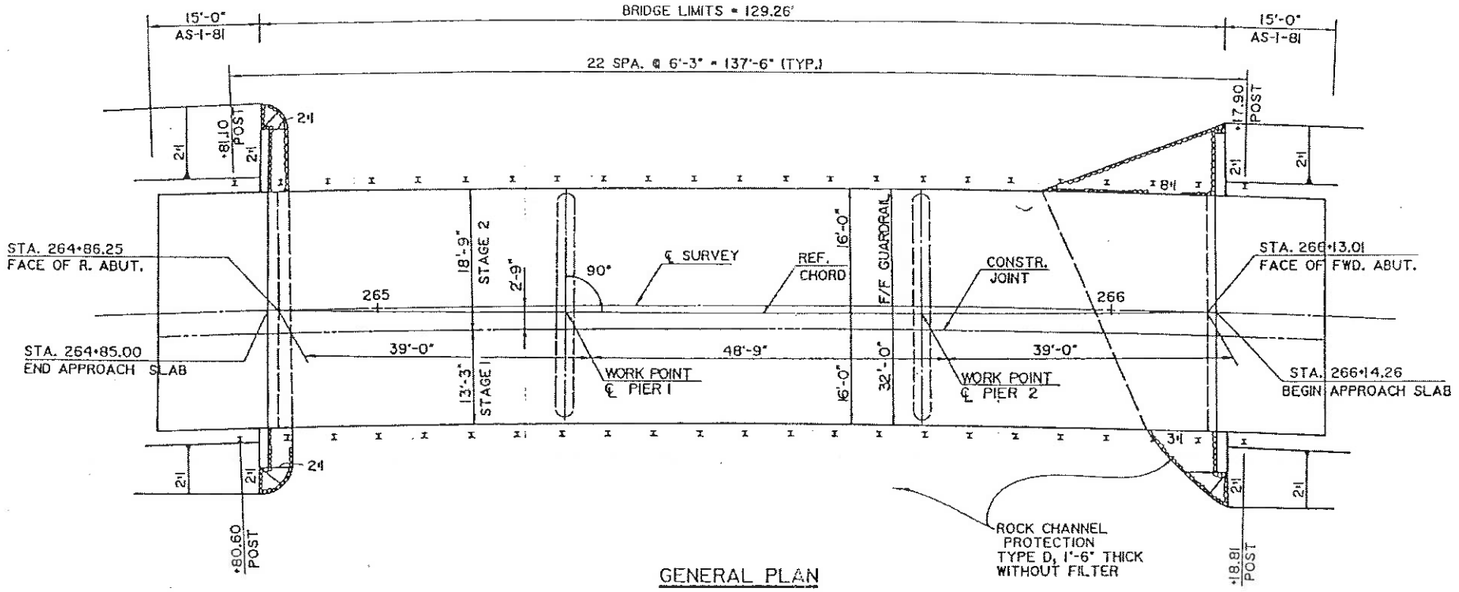
CLYDE E. WILLIAMS & ASSOCIATES, INC. 1 / 9
130 E. WILSON BRIDGE RD.
WORTHINGTON, OHIO

SITE PLAN

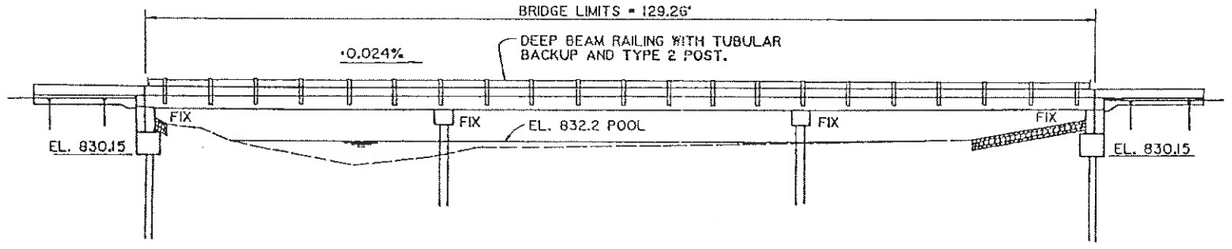
BRIDGE NO. NOB-147-1341
S.R. 147 OVER BEAVER CREEK
NOBLE COUNTY
STA. 264+85.00 TO STA. 266+14.26

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
HM	HM	JD	JDH	AAH 5-8-91	

FHWA REGION	STATE	PROJECT		12
5	OHIO			19



GENERAL PLAN



ELEVATION

CLYDE E. WILLIAMS & ASSOCIATES, INC. 2 / 9
130 E. WILSON BRIDGE RD.
WORTHINGTON, OHIO

GENERAL PLAN & ELEVATION

BRIDGE NO. NOB-147-1341
S.R. 147 OVER BEAVER CREEK

NOBLE COUNTY — STA. 264+85.00 TO STA. 266+14.26

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HM	HM	LOC	JDH	AAH	10-8-91	

GENERAL NOTES

ERENCE SHALL BE MADE TO STANDARD DRAWINGS:

AS-1-81	DATED (11-27-81)
DBR-2-73	DATED (4-10-73)

AND TO SUPPLEMENTAL SPECIFICATIONS:

836	DATED (11-12-85)
942	DATED (11-27-89)
944	DATED (5-13-91)

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1989, INCLUDING THE 1990 AND 1991 INTERIM SPECIFICATIONS AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN DATA:

DESIGN LOADING - HS20-44 AND THE ALTERNATE MILITARY LOADING

CONCRETE CLASS S - UNIT STRESS 1500 PSI (DESIGN BASED ON UNIT STRESS 1200 PSI)

CONCRETE CLASS C - UNIT STRESS 1,333 PSI

REINFORCING STEEL- ASTM A615, A616, A617 - GRADE 60 UNIT STRESS 24,000 PSI

K PROTECTION METHOD: EPOXY COATED NFORCING STEEL, TOP AND BOTTOM MATS AND LING OF CONCRETE SURFACES.

LING OF CONCRETE SURFACES: THE SURFACES WN ON SHEETS 5/9 THROUGH 8/9 SHALL RECEIVE EALING (SEE PROPOSAL NOTE FOR SURFACE PARATION REQUIREMENTS, APPLICATION RATES, ERIALS REQUIREMENTS AND APPLICATION PROCEDURES).

OLITHIC WEARING SURFACE IS ASSUMED FOR IGN PURPOSES TO BE 1" THICK.

ANKMENT CONSTRUCTION: THE EMBANKMENTS EACH SLOPE SHALL BE CONSTRUCTED TO THE LEVEL THE SUBGRADE AFTER WHICH EXCAVATION MAY BE E FOR THE ABUTMENTS AND PILES DRIVEN.

TMENT PILING: ABUTMENT PILING BENDING ESS MAY APPROACH, REACH OR EXCEED YIELD STRESS.

ES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. USAL SHALL BE CONSIDERED AS ATTAINED BY ETRATING SOFT BEDROCK WITH A MINIMUM RESISTANCE 20 BLOWS PER INCH, OR REFUSAL SHALL BE SIDERED AS ATTAINED AFTER THE PILE HAS TACTED HARD BEDROCK AND THEN RECEIVED AT LEAST BLOWS.

DESIGN LOAD IS 30 TONS PER PILE FOR THE TMENT PILES AND 46 TONS PER PILE FOR THE PIER ES.

REMOVAL OF EXISTING STRUCTURE: WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED, IN STAGES AS NOTED.

STAGE CONSTRUCTION (SEE SHEET 4/9)

STAGE 1

1. TEMPORARY CONCRETE BARRIER SHALL BE INSTALLED ADJACENT TO PROPOSED CUT LINE NEAR THE CENTER OF THE EXISTING STRUCTURE.
2. TRANSFER TRAFFIC TO LEFT SIDE OF EXISTING STRUCTURE.
3. PLACE TEMPORARY SHEETING TO PERMIT REMOVALS AND CONSTRUCTION.
4. CUT DECK OF EXISTING STRUCTURE AND REMOVE RIGHT SIDE OF STRUCTURE.
5. CONSTRUCT STAGE 1 COMPLETELY.

STAGE 2

1. INSTALL TEMPORARY CONCRETE BARRIER ON NEWLY CONSTRUCTED PORTION OF BRIDGE AND MAINTAIN TRAFFIC ON NEW DECK.
2. ALTER AND SUPPLEMENT SHEETING AS NECESSARY TO PERMIT STAGE 2 CONSTRUCTION.
3. REMOVE REMAINDER OF EXISTING STRUCTURE.
4. CONSTRUCT STAGE 2.

FOR MAINTENANCE OF TRAFFIC REFER TO SHEETS 4 AND 5

MECHANICAL CONNECTORS: AN APPROVED TYPE OF NONPROTRUDING MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE FURNISHED. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. CONNECTORS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATION. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET SPECIFICATION WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL WHICH MEETS THE SPECIFICATIONS. CONNECTORS SHALL CONFORM WITH 509 AND BE INCLUDED IN THE BID PRICE PER POUND FOR ITEM 509.

Calculated by HM, Date 7/25/91 — ESTIMATED QUANTITIES — Checked by JDH, Date 10-3-91

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER	ABUT.	PIERS	GEN'L
202	11002	LUMP	SUM	STRUCTURE REMOVED, OVER 20 FOOT SPAN				LUMP
503	11100	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING				LUMP
503	21100	96	C.Y.	UNCLASSIFIED EXCAVATION		96		
505	11100	LUMP	SUM	PILE DRIVING EQUIPMENT MOBILIZATION				LUMP
507	12200	595	L.F.	STEEL PILES HP 10 x 42		595		
507	14400	700	L.F.	STEEL PILES HP 12 x 53			700	
SPECIAL	507 71200	88	L.F.	PILE ENCASEMENT			88	
509	15800	64,188	LBS	EPOXY COATED REINFORCING STEEL, GRADE 60	56,763	5,792	1,633	
511	32201	275	C.Y.	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN	275			
511 **	33404	275	C.Y.	CLASS S CONCRETE, SUPERSTRUCTURE, USING SHRINKAGE COMPENSATING CEMENT *	275			
511 **	33410	LUMP	SUM	CLASS S CONCRETE, SUPERSTRUCTURE, USING SHRINKAGE COMPENSATING CEMENT FOR PRE-POUR TESTING*	LUMP			
511	42500	11	C.Y.	CLASS C CONCRETE, PIER CAP			11	
511	44200	24	C.Y.	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING		24		
511	46500	33	C.Y.	CLASS C CONCRETE, FOOTING		33		
512	44400	2	S.Y.	TYPE B WATERPROOFING		2		
SPECIAL	512 67500	95	S.Y.	SEALING OF CONCRETE SURFACES *	86		9	
SPECIAL	512 67502	37	S.Y.	SEALING OF CONCRETE SURFACES, EPOXY *		37		
517	72300	275.00	L.F.	RAILING (DEEP BEAM RAIL w/ STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS AND ANCHOR BOLTS)	275.00			
518	21200	12	C.Y.	POROUS BACKFILL WITH FILTER FABRIC		12		

* SEE PROPOSAL NOTE

** ALTERNATE BID ITEM: THESE TWO ITEMS SHALL CONSTITUTE ONE ALTERNATE BID TO CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN.

ITEM SPECIAL - PILE ENCASEMENT

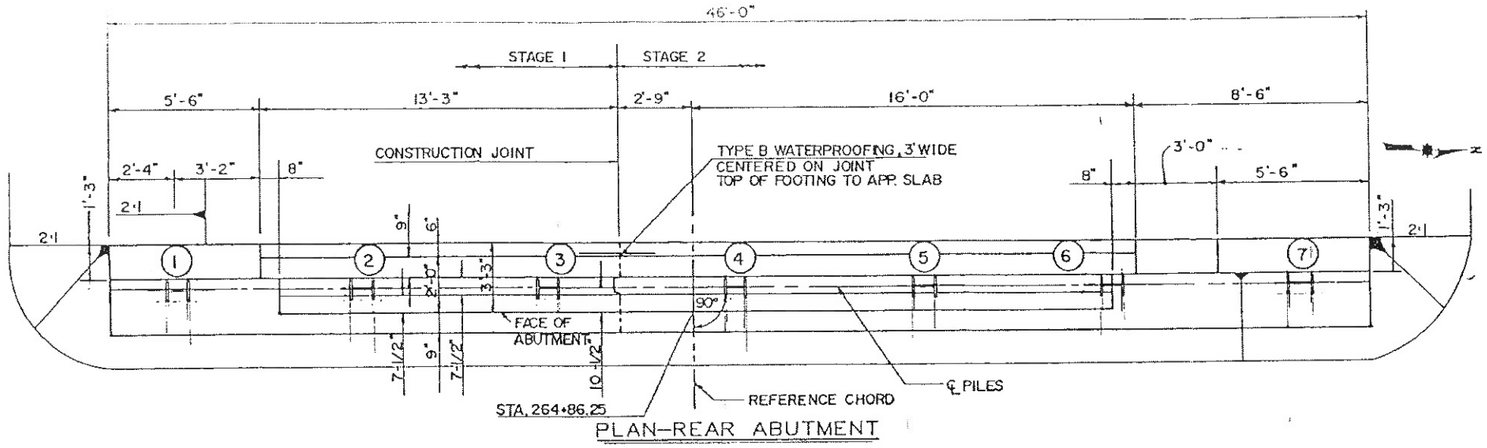
ALL PILES FOR THE CAPPED PILE PIERS SHALL BE ENCASED IN CLASS S CONCRETE (499.03) AND SHALL BE IN ACCORDANCE WITH 511, EXCEPT AS MODIFIED AND SUPPLEMENTED HEREIN. THE REQUIRED SLUMP IS 7 (SEVEN) INCHES, PLUS OR MINUS ONE-HALF INCH. THE MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.50. IF CONCRETE IS PLACED UNDER WATER, THE REQUIREMENTS OF ADDING 10 PERCENT MORE CEMENT TO THE CONCRETE SHALL BE WAIVED. THE CONCRETE SHALL BE PLACED WITHIN A FORM THAT CONSISTS OF POLYETHYLENE PIPE (707.16 OR SS 944), OR PVC PIPE (SS 942). THE ENCASEMENT SHALL EXTEND FROM 3 FEET BELOW THE FINISHED GROUND SURFACE UP TO THE CONCRETE PIER CAP AND SHALL BE POSITIONED SO THAT AT LEAST 2 INCHES OF CONCRETE COVER IS PROVIDED AROUND THE EXTERIOR OF THE PILE.

THE LENGTH OF PILE ENCASEMENT SHALL BE MEASURED IN FEET ALONG THE LENGTH OF THE PILE. THIS ITEM INCLUDES ALL WORK AND MATERIALS NECESSARY TO FURNISH THE REQUIRED ENCASEMENT. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT OF PILE ENCASEMENT APPROVED IN PLACE.

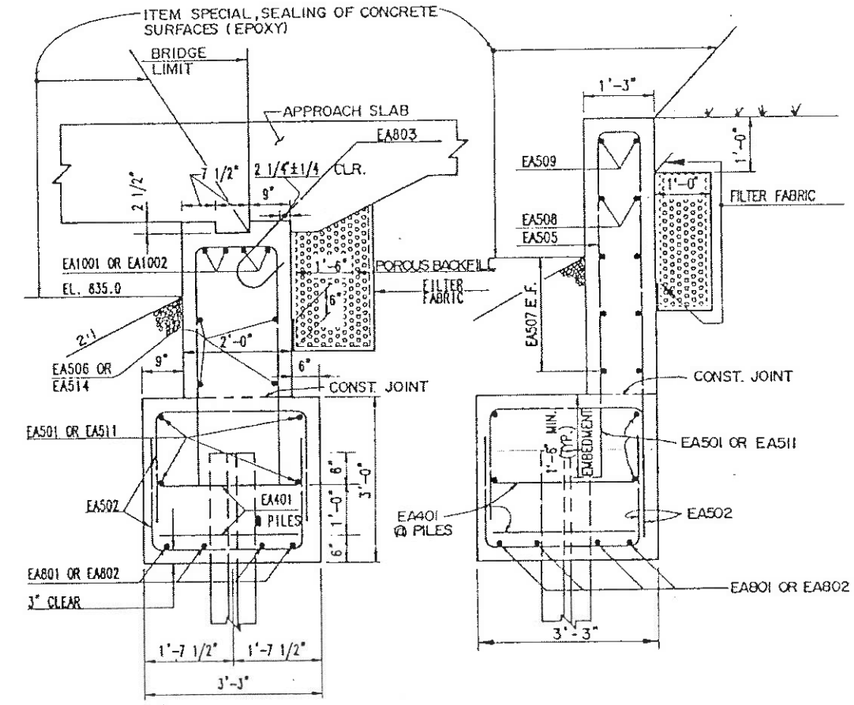
CLYDE E. WILLIAMS & ASSOCIATES INC. 3 / 9
130 E. WILSON BRIDGE RD.
WORTHINGTON, OHIO

GENERAL NOTES & ESTIMATED QUANTITIES
BRIDGE NO. NOB-147-1341
S.R. 147 OVER BEAVER CREEK
NOBLE COUNTY STA. 264+85.00 TO STA. 266+14.26

DESIGNED	DRAWN	C.A.D.D	CHECKED	REVIEWED	DATE	REVISED
HM	HM	SC	JDH	AAH	10-8-91	

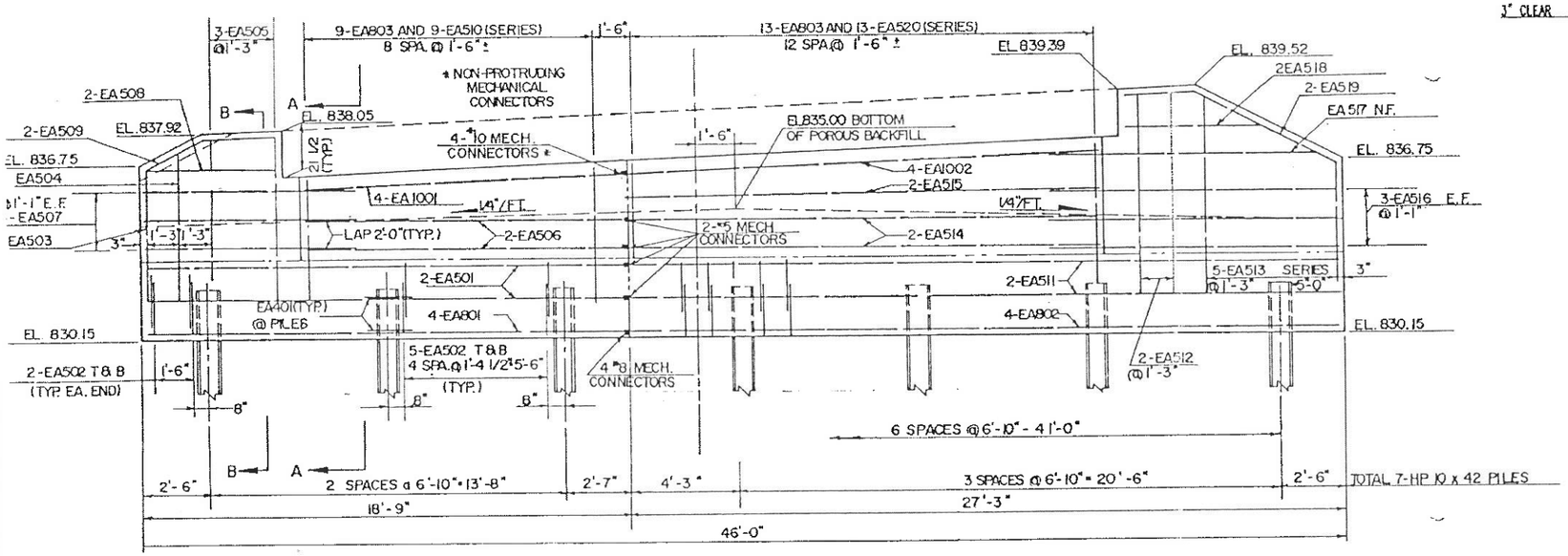


PLAN-REAR ABUTMENT



SECTION A-A

SECTION B-B



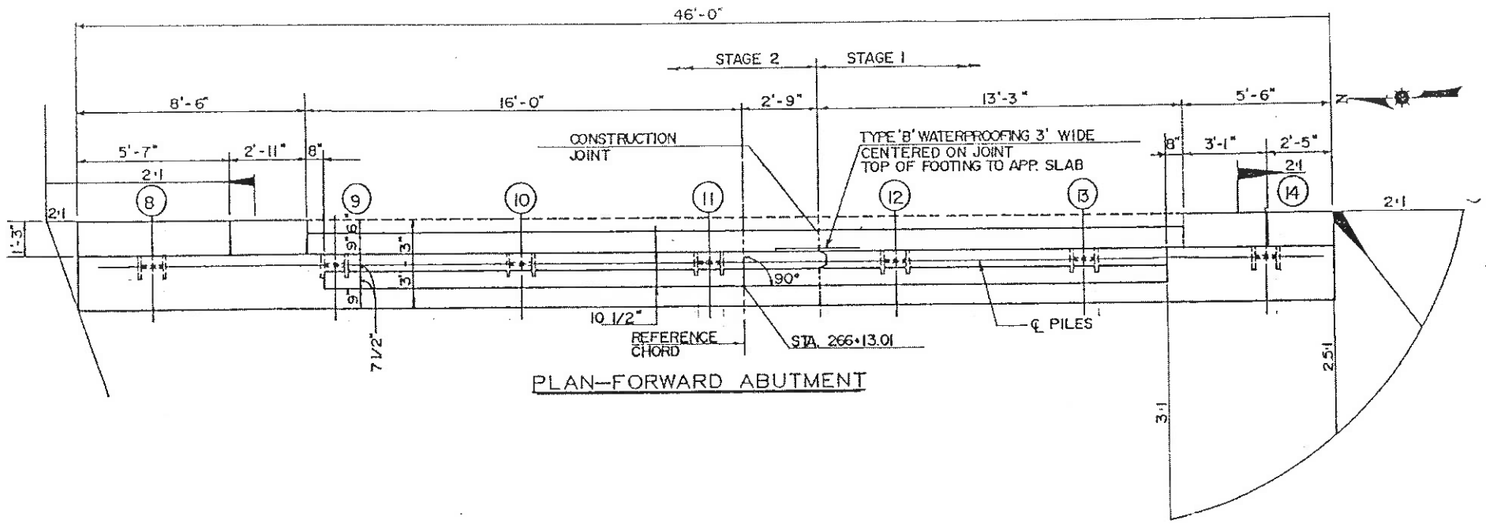
ELEVATION-REAR ABUTMENT

CLYDE E. WILLIAMS & ASSOCIATES INC. 5 / 9
130 E. WILSON BRIDGE RD.
WORTHINGTON, OHIO

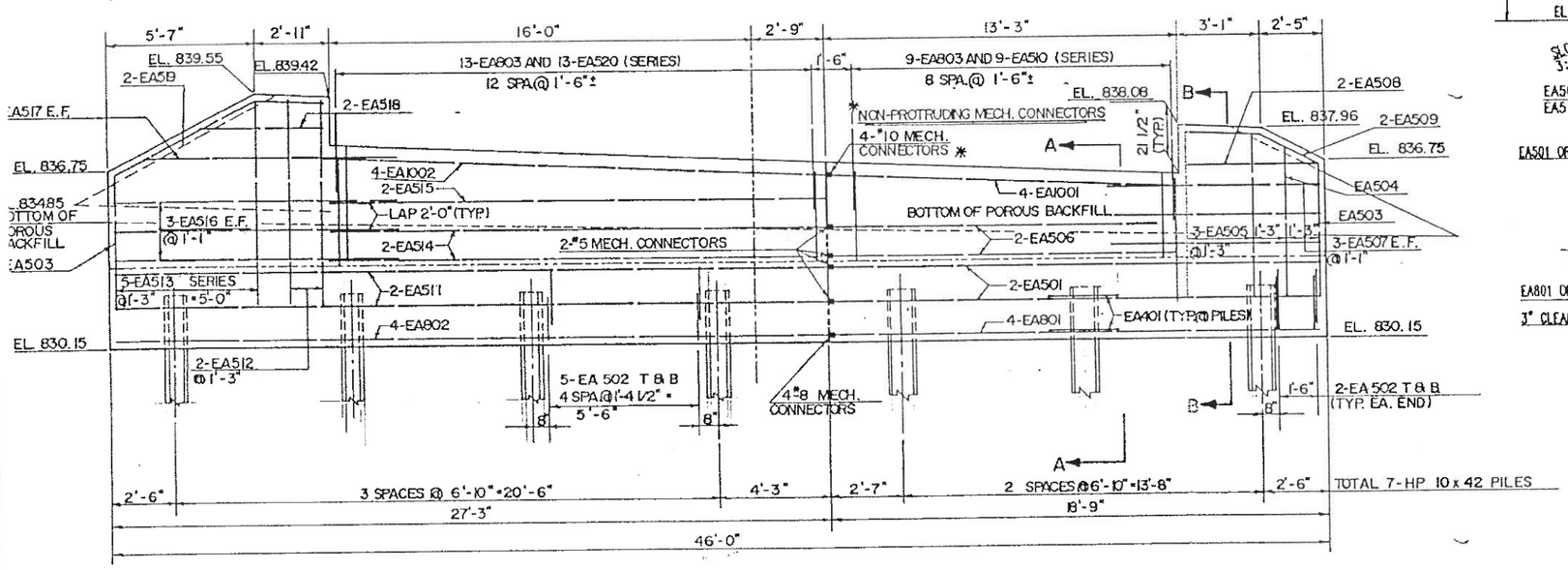
REAR ABUTMENT
BRIDGE NO. NOB-147-1341
S.R. 147 OVER BEAVER CREEK
NOBLE COUNTY
STA. 264+85.00 TO STA. 266+14.26

DESIGNED	DRAWN	C.A.D.D.	CHECKED	REVIEWED	DATE	REVISED
HM	HM	SC	JDH	AAH		

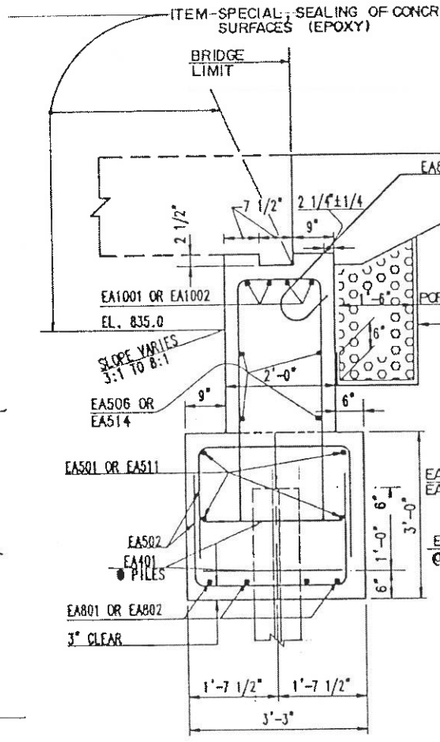
REAR ABUTMENT



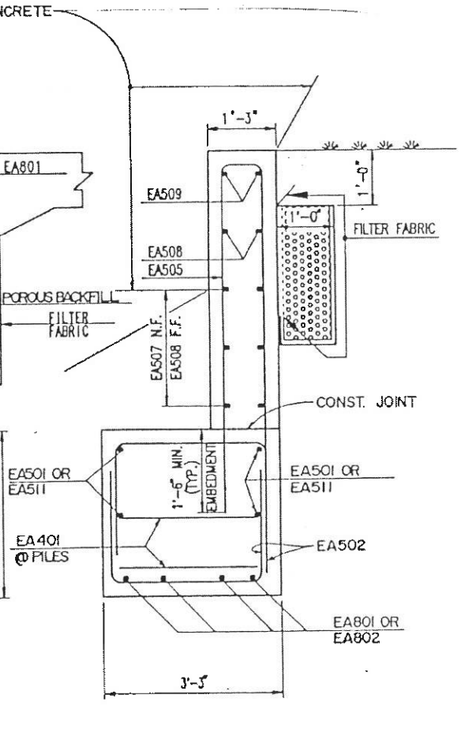
PLAN—FORWARD ABUTMENT



ELEVATION—FORWARD ABUTMENT



SECTION A—A

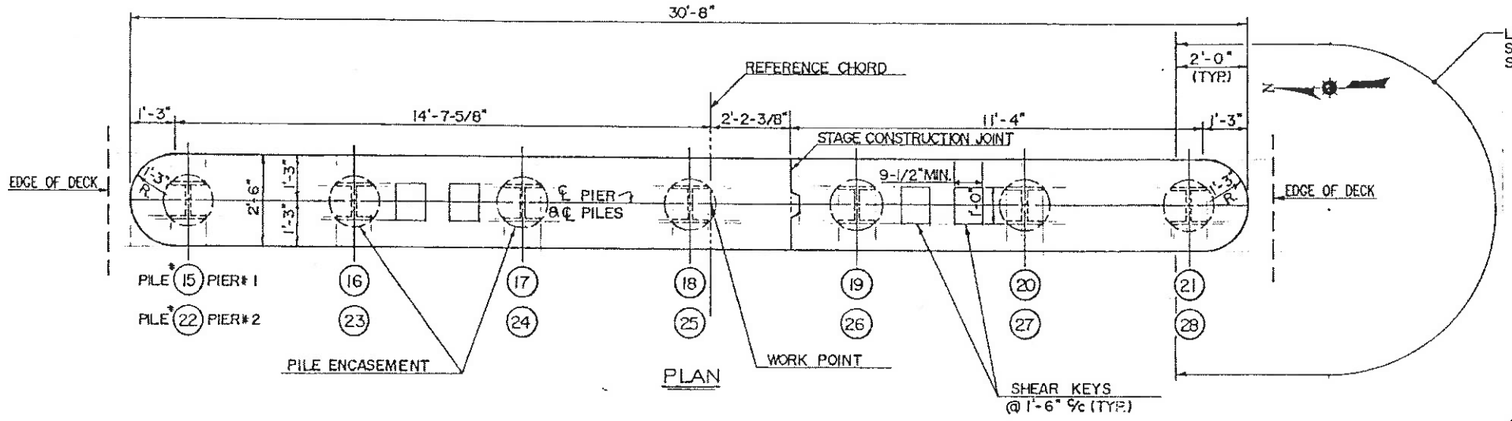


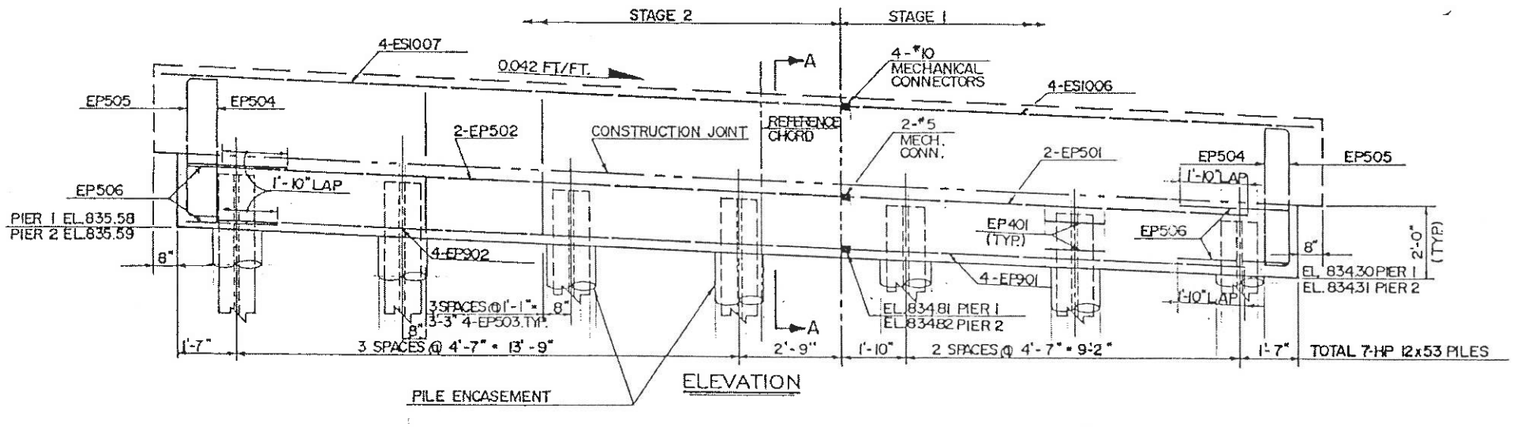
SECTION B—B

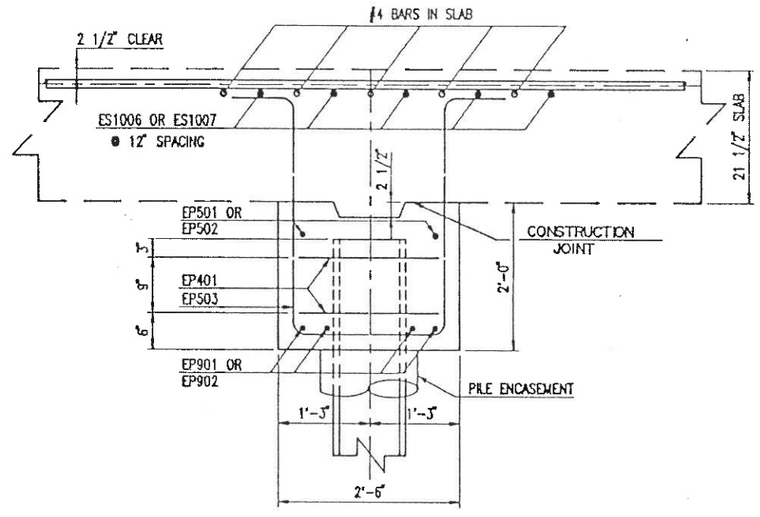
CLYDE E. WILLIAMS & ASSOCIATES INC. 6/9
130 E. WILSON BRIDGE RD.
WORTHINGTON, OHIO

FORWARD ABUTMENT
BRIDGE NO. NOB-147-1341
S.R. 147 OVER BEAVER CREEK
NOBLE COUNTY STA. 264+85.00 TO STA. 266+14.26

DESIGNED	DRAWN	C.A.D.D.	CHECKED	REVIEWED	DATE	REVISED
HM	HM	SC	JDH	AAH		







SECTION A-A

NOTE:
SEE PILE ENCASEMENT NOTE ON SHEET 3/9

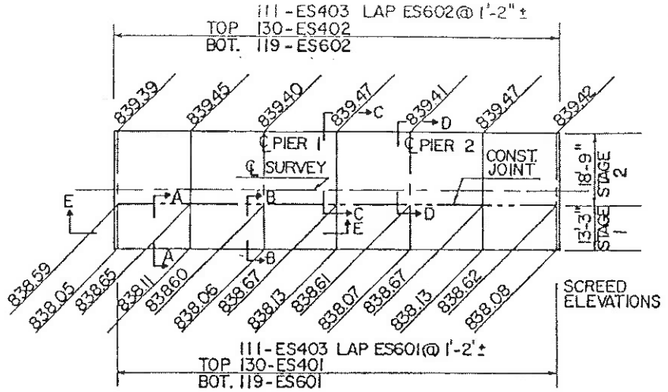
NOTE: ATTACHMENT OF FALSEWORK SUPPORT MEMBERS TO PIER PILES WILL BE PERMITTED, IF THE ATTACHMENT IS MADE TO THAT PORTION OF PILE ENCASED IN THE PIER CAP.

CLYDE E. WILLIAMS & ASSOCIATES INC. 7/9
130 E. WILSON BRIDGE RD.
WORTHINGTON, OHIO

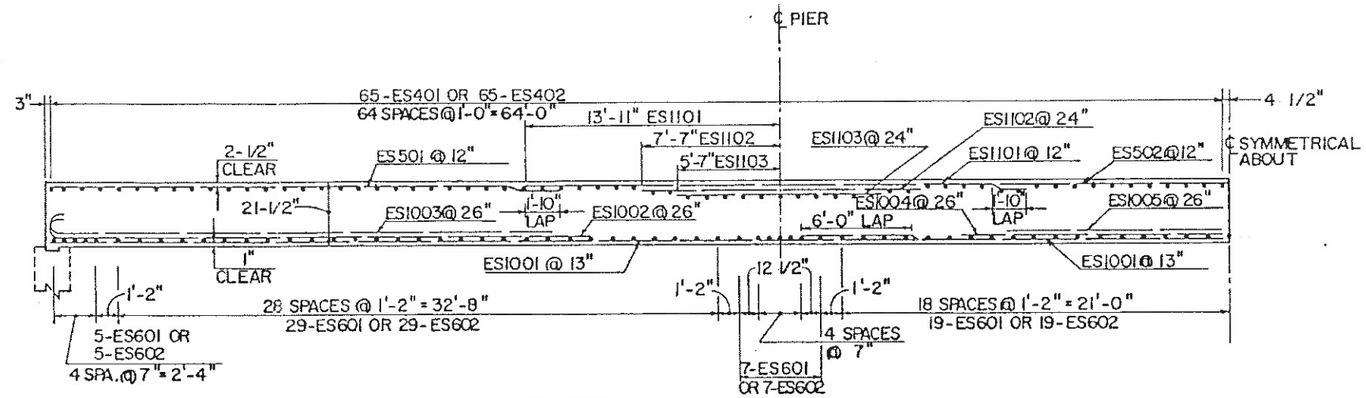
PIER DETAILS
NOB-147-1341
S.R.147 OVER BEAVER CREEK

NOBLE COUNTY STA. 264+85.00 TO STA. 266+14.26

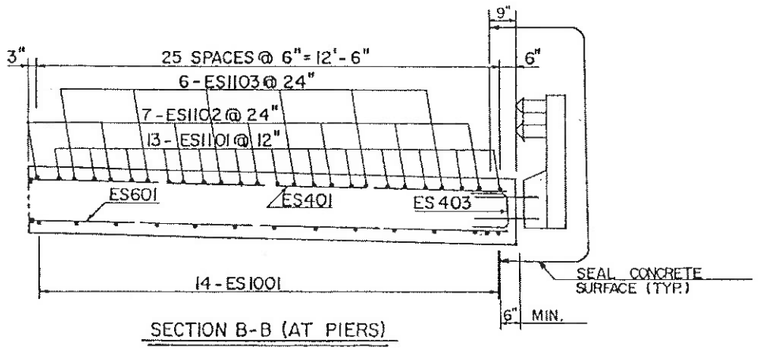
DESIGNED	DRAWN	C.A.D.D.	CHECKED	REVIEWED	DATE	REVISED
HW	HW	SC	JDH	AAH		



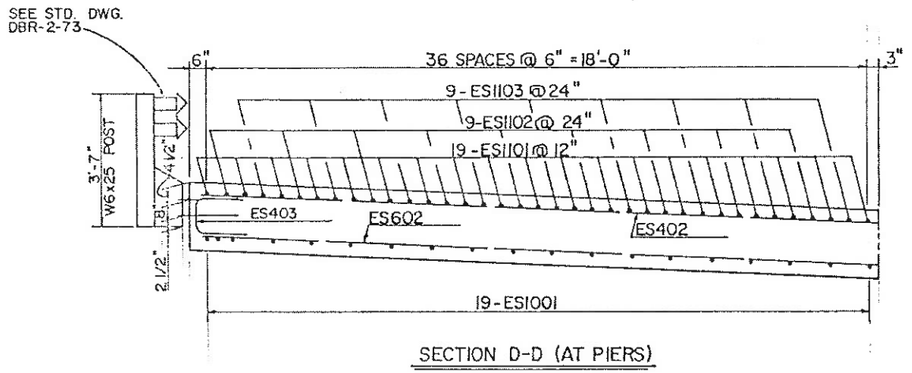
PLAN



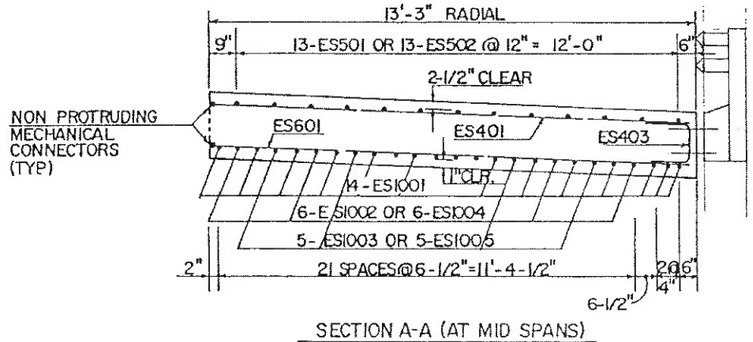
SECTION E-E



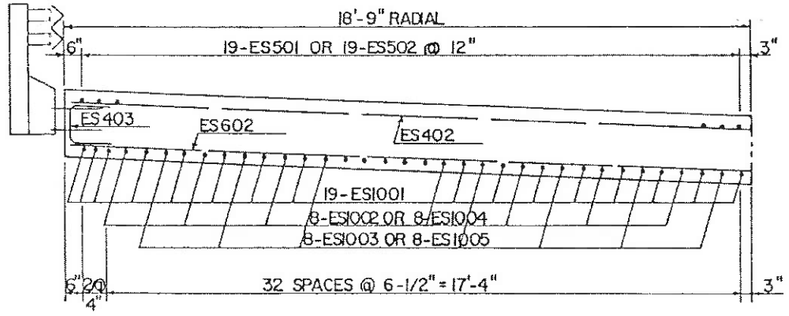
SECTION B-B (AT PIERS)



SECTION D-D (AT PIERS)



SECTION A-A (AT MID SPANS)



SECTION C-C (AT MID SPANS)

CLYDE E. WILLIAMS & ASSOCIATES INC. 8/9
130 E. WILSON BRIDGE RD.
WORTHINGTON, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. NOB-147-1341
S.R. 147 OVER BEAVER CREEK
NOBLE COUNTY STA. 264+85.00 TO STA. 266+14.26

DESIGNED	DRAWN	C.A.D.D.	CHECKED	REVIEWED	DATE	REVISIONS
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