

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
WAY-301-2.76
CONGRESS TOWNSHIP
WAYNE COUNTY

WAYNE COUNTY
WAY-301-2.76

OHIO
FHWA
REGION 5
FEDERAL
PROJECT

1
29

BRS-427 (9)

BRS-427 (9)

DESIGN DESIGNATION

Current Year ADT (1989) = 1610
Design Year ADT (2009) = 2420
D.H.V. = 266
D = 55%
T = 3%
Design Speed = 55 MPH *
Legal Speed = 55 MPH
Functional Classification = Collector (Rural)

* Design Exception Approval Date
Graded Shoulder Required = 10' 7/15/88
Graded Shoulder Proposed = 6'

CONVENTIONAL SIGNS

County Line _____ Limited Access (only) **LA**
Township Line _____ Right of Way (only) **RW**
Section Line _____ Limited Access & Right of Way **LA&RW**
Corporation Line _____ or _____ Existing Right of Way _____
Fence Line (existing) $\times$ (proposed) $\times$ Property Line $\equiv$ (in existing fence) $\times$
Center Line _____ Railroad _____ or _____
Trees (to be removed) $\otimes$ Guardrail (existing) $\circ$ (proposed) $\bullet$
Utility Poles: Telephone ϕ , Power ϕ , Light ϕ Signs (existing) $\perp$ (proposed) $\perp$

INDEX OF SHEETS

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LINE DATA

BEGIN PROJECT STA. 145+55.00
END PROJECT STA. 153+90.00
LENGTH OF PROJECT 835.00 LIN. FT. OR 0.158 MILE

BEGIN WORK STA. 144+85.00
END WORK STA. 155+15.00
LENGTH OF WORK 1030.00 LIN. FT. OR 0.195 MILE

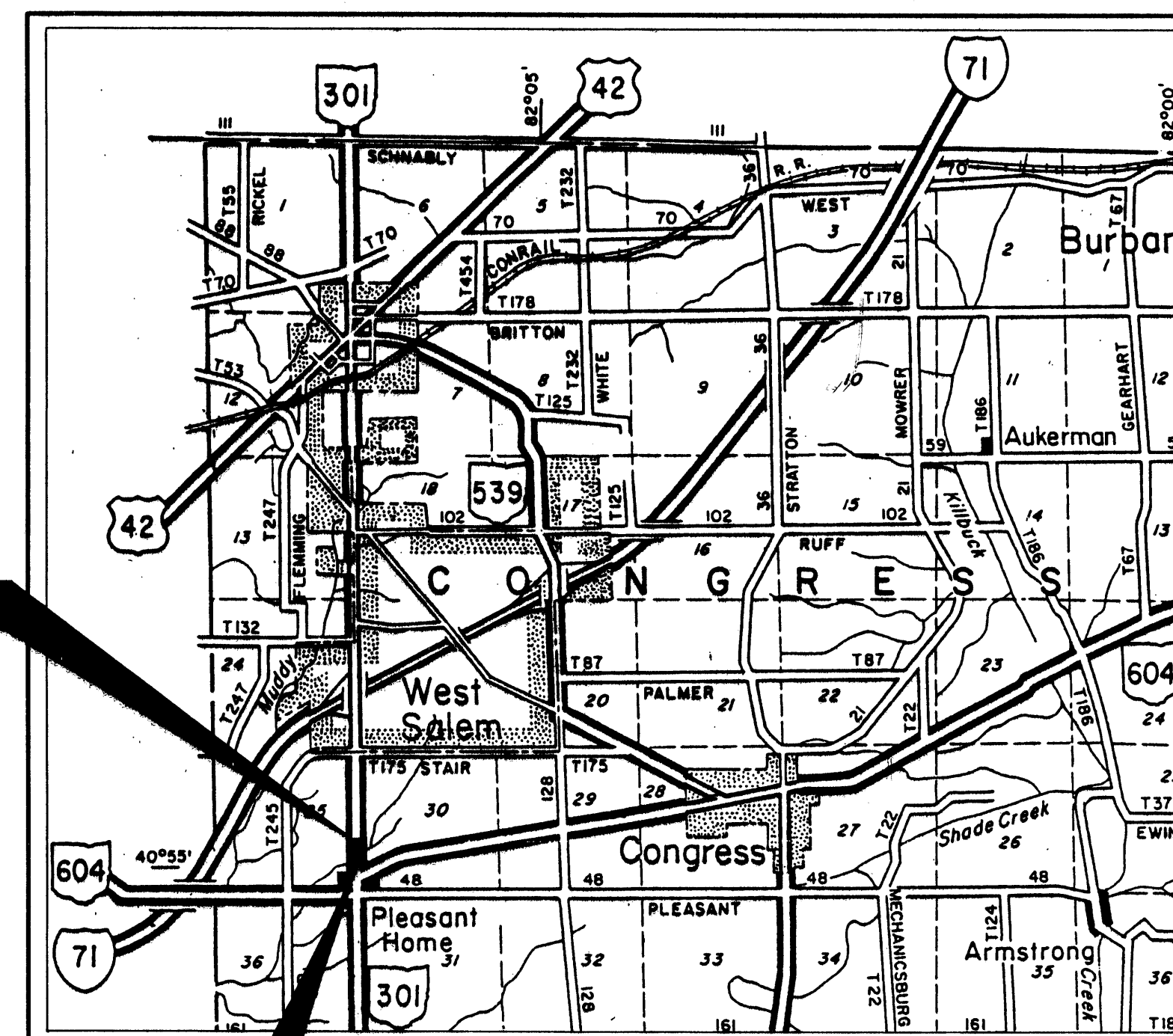
Plan Prepared By:



POGGEMEYER DESIGN GROUP, INC.
ENGINEERS + ARCHITECTS + PLANNERS
BOWLING GREEN, OHIO

STRUCTURE PLANS REVIEWED BY:
bn Burgess & Niple, Limited
Columbus, Ohio

Project WAY-301-2.76 WAYNE CO.
Date of Letting 19 Contract No.



END PROJECT
STA. 153+90.00

BEGIN PROJECT
STA. 145+55.00

LOCATION MAP

SCALE IN MILES
0 1 2 3 4

Portion to be Improved _____
State & Federal Routes _____
Other Roads _____

SCALES

Plan _____
Profile Horizontal _____ Vertical _____
Cross Section Horzt _____ Vertical _____

SUPPLEMENTAL SPECIFICATIONS

802	5-4-88
836	11-12-85
839	12-21-87
840	5-16-84
847	10-17-83
947	10-17-83
841	5-16-84
843	7-29-88

Approved Gary W. Long
Date 8/15/89 District Deputy Director
of Transportation

Approved C.D. Hachulanski / wte
Date 10/14/89 Engineer, Bureau of Bridges and
Structural Design

Approved Charles J. Still
Date 12/1/89 Chief Engineer, Planning & Design

Approved Samuel A. Hunt
Date 12/1/89 Director, Department of Transportation

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED

DIVISION ADMINISTRATOR DATE

SCHEMATIC PLAN

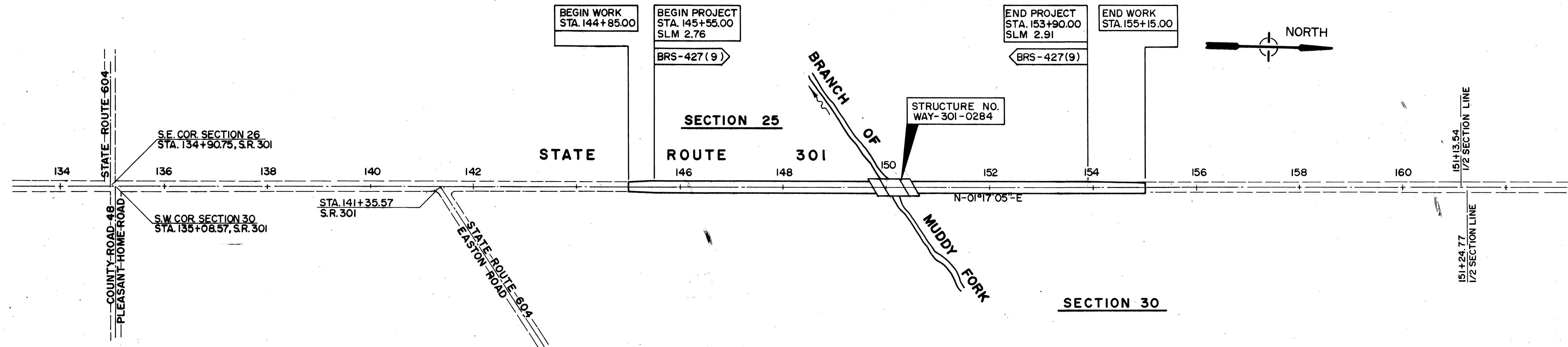
0 50 100 200
SCALE IN FEET

CALC.
BY R.R.H.
DATE 8-88
CHECKED
BY G.A.B.
DATE 8-88

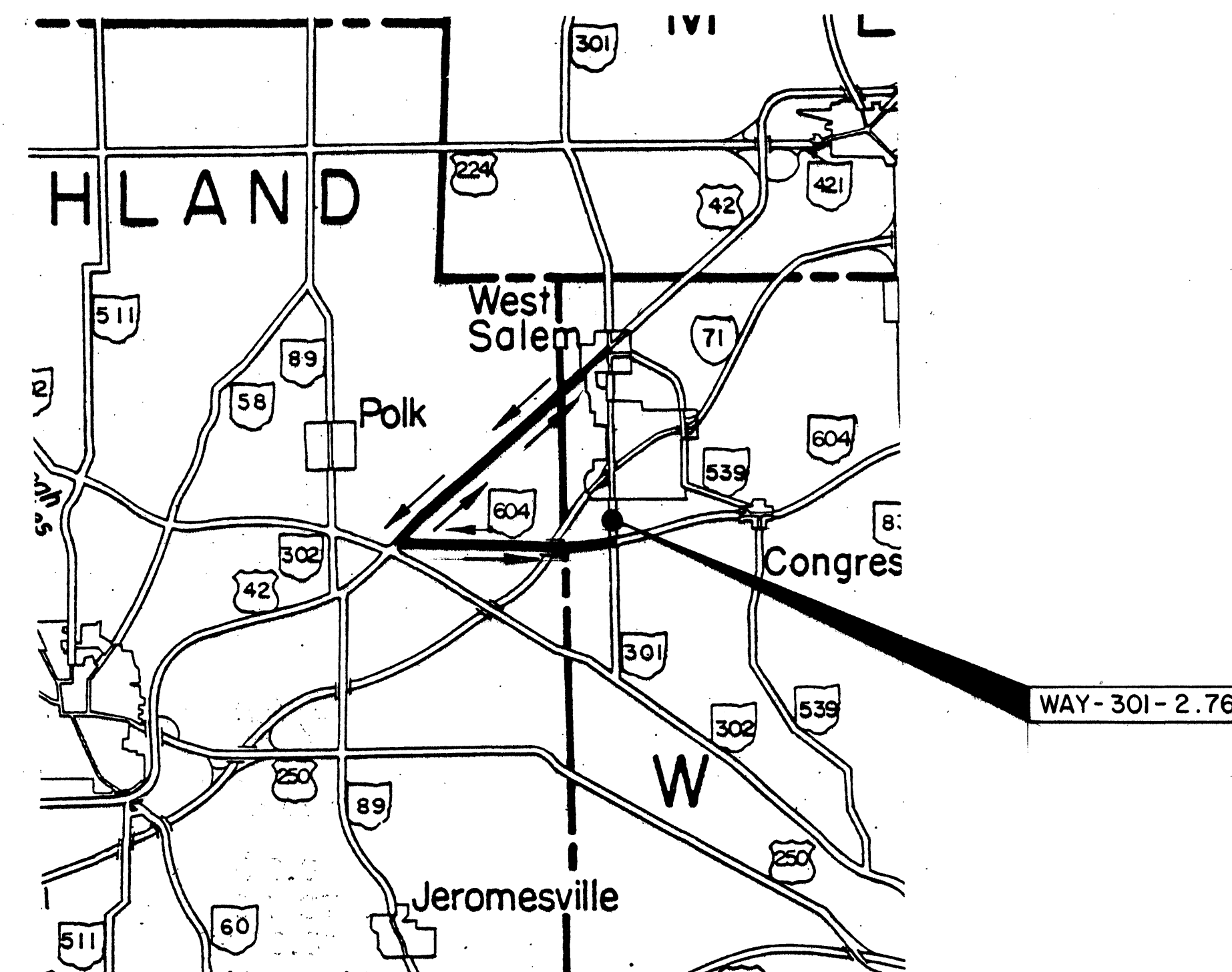
WAYNE COUNTY
WAY-301-2.76

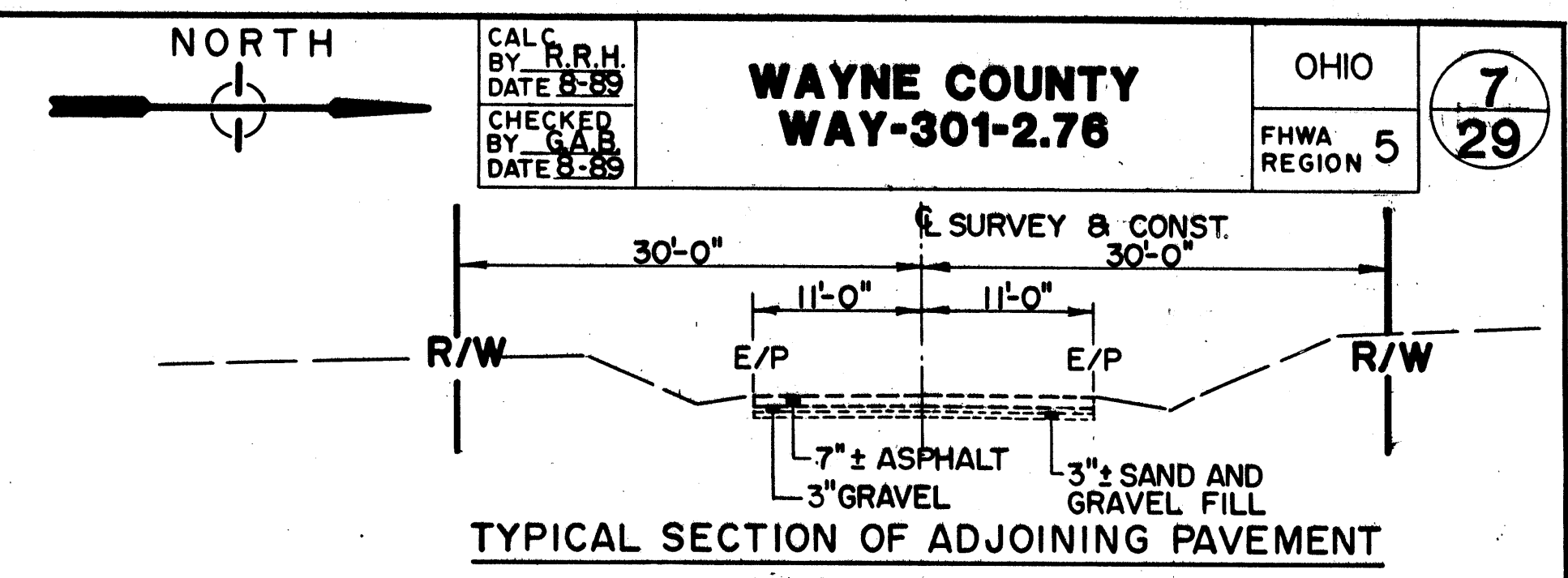
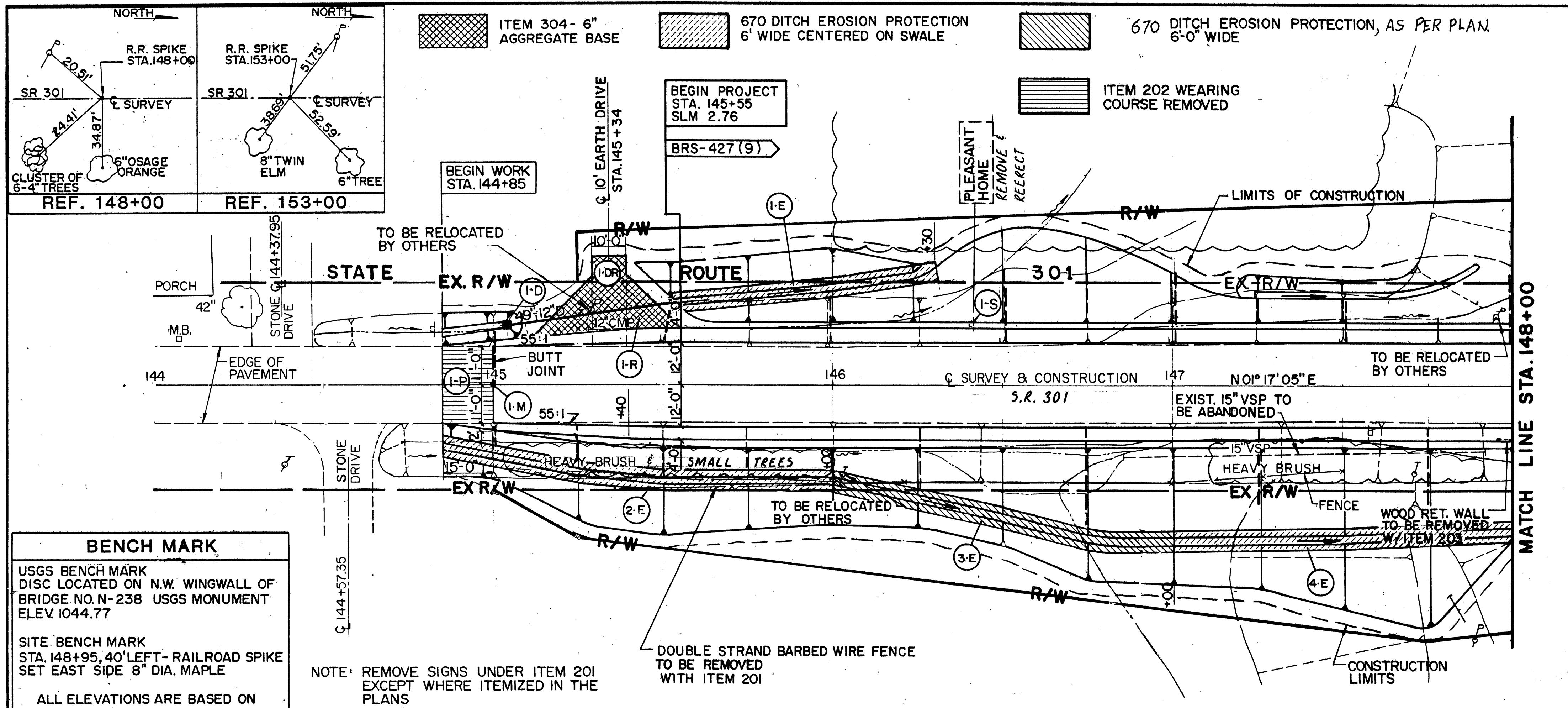
OHIO
FHWA
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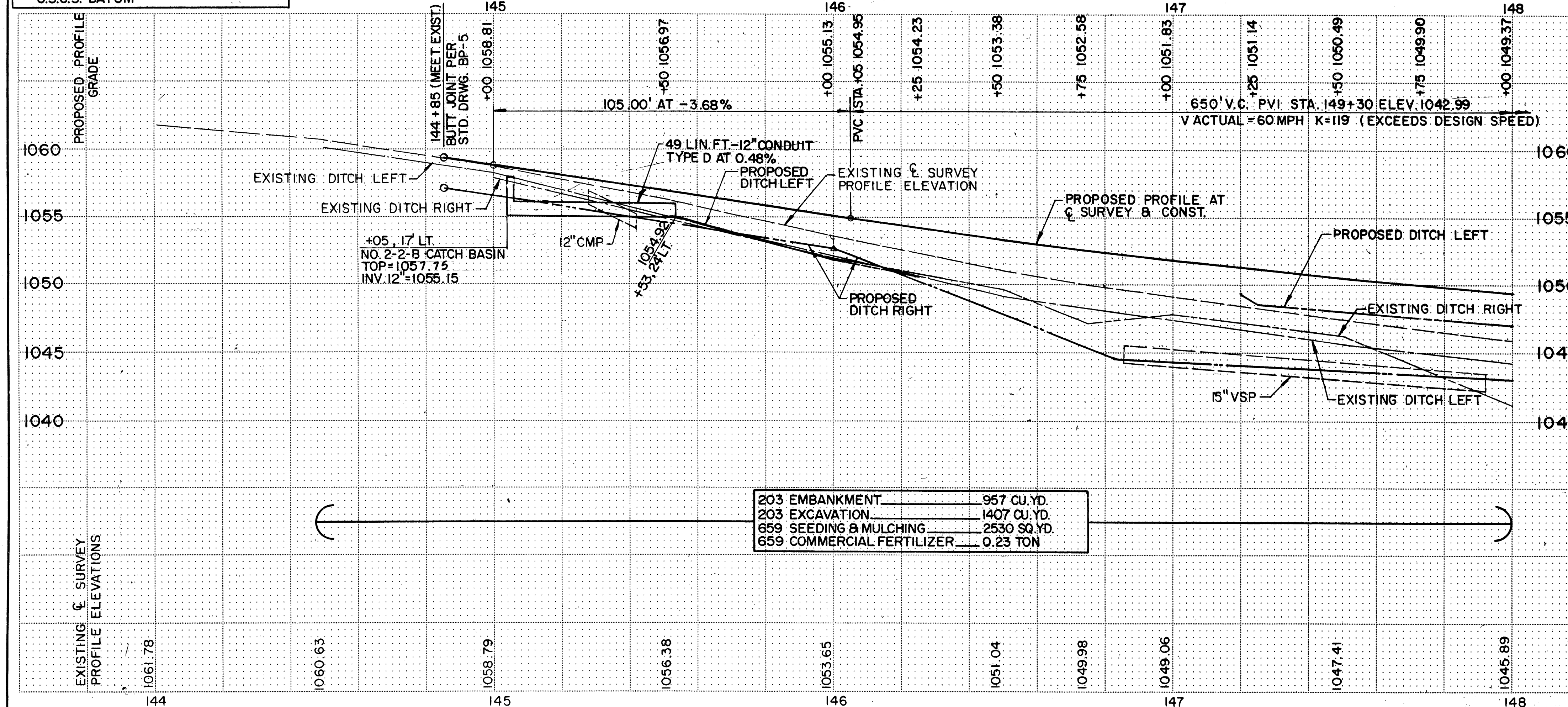


DETOUR PLAN

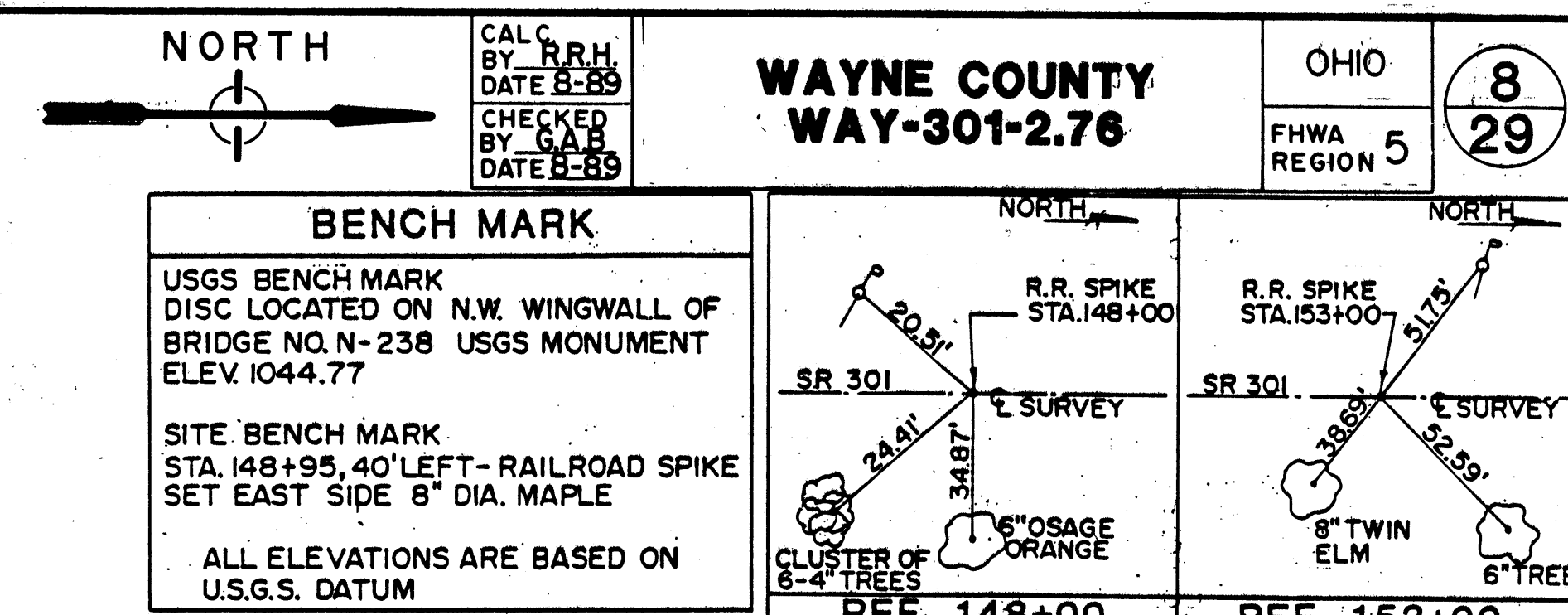
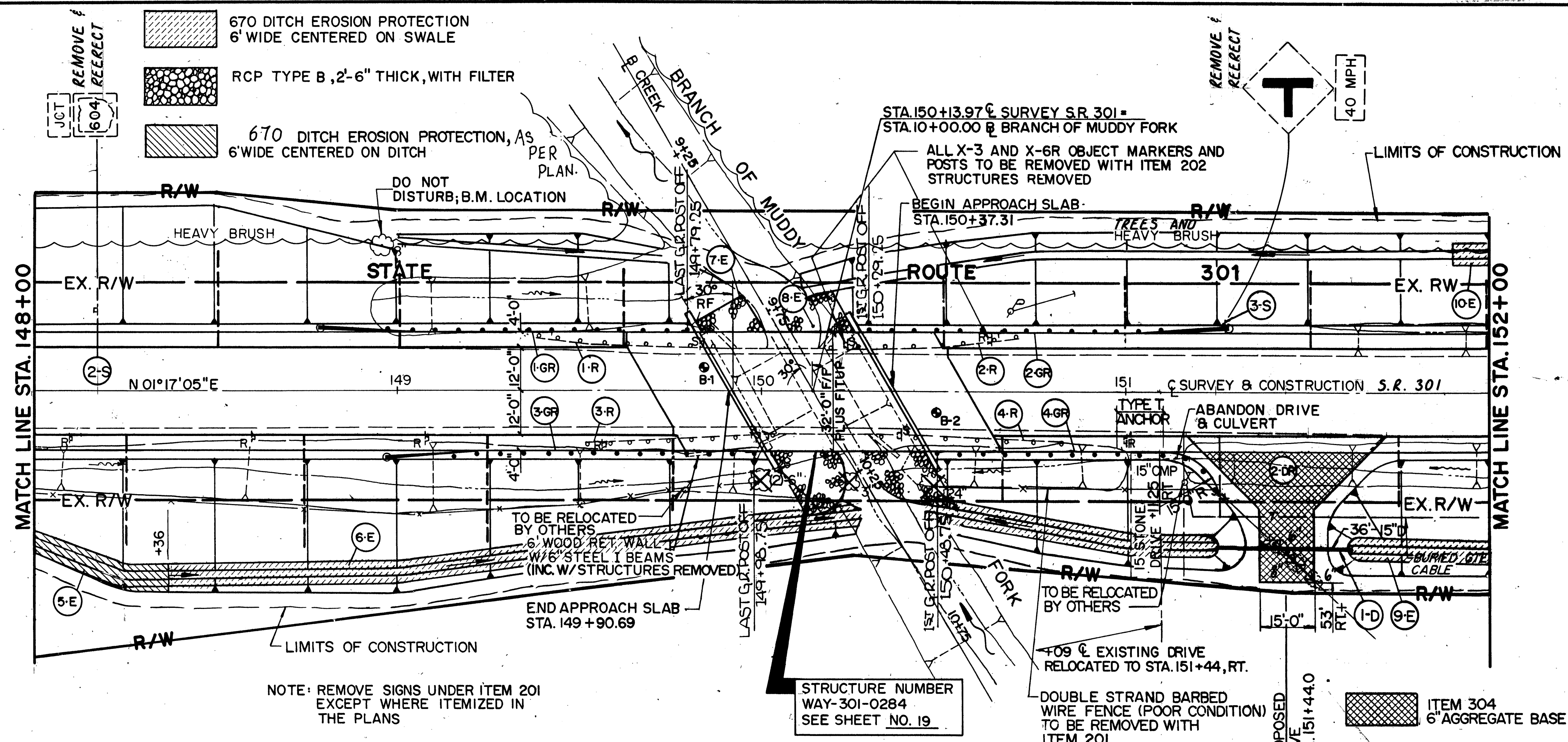




REFERENCE NO.		STATION		202	670	603	604	670	202
		FROM	TO	PIPE REMOVED, 24\"	DITCH EROSION PROTECTION, AS PER PLAN	12\" CONDUIT TYPE D	NO 2-2-B CATCH BASIN	DITCH EROSION PROTECTION	WEARING COURSE REMOVED
	SIDE			LIN. FT.	SQ. YD.	LIN. FT.	EACH	SQ. YD.	SQ. YD.
I-R	LT.	145+28	145+40	12					
I-D	LT.	145+05	145+53			49	1		
I-E	RT.	145+00	146+00					67	
2-E	LT.	145+53	146+30					62	
3-E	RT.	146+00	147+00		69			73	
4-E	RT.	146+90	148+00						
I-P		144+85	145+00						37
TOTAL TO GENERAL SUMMARY				12	69	49	1	202	37

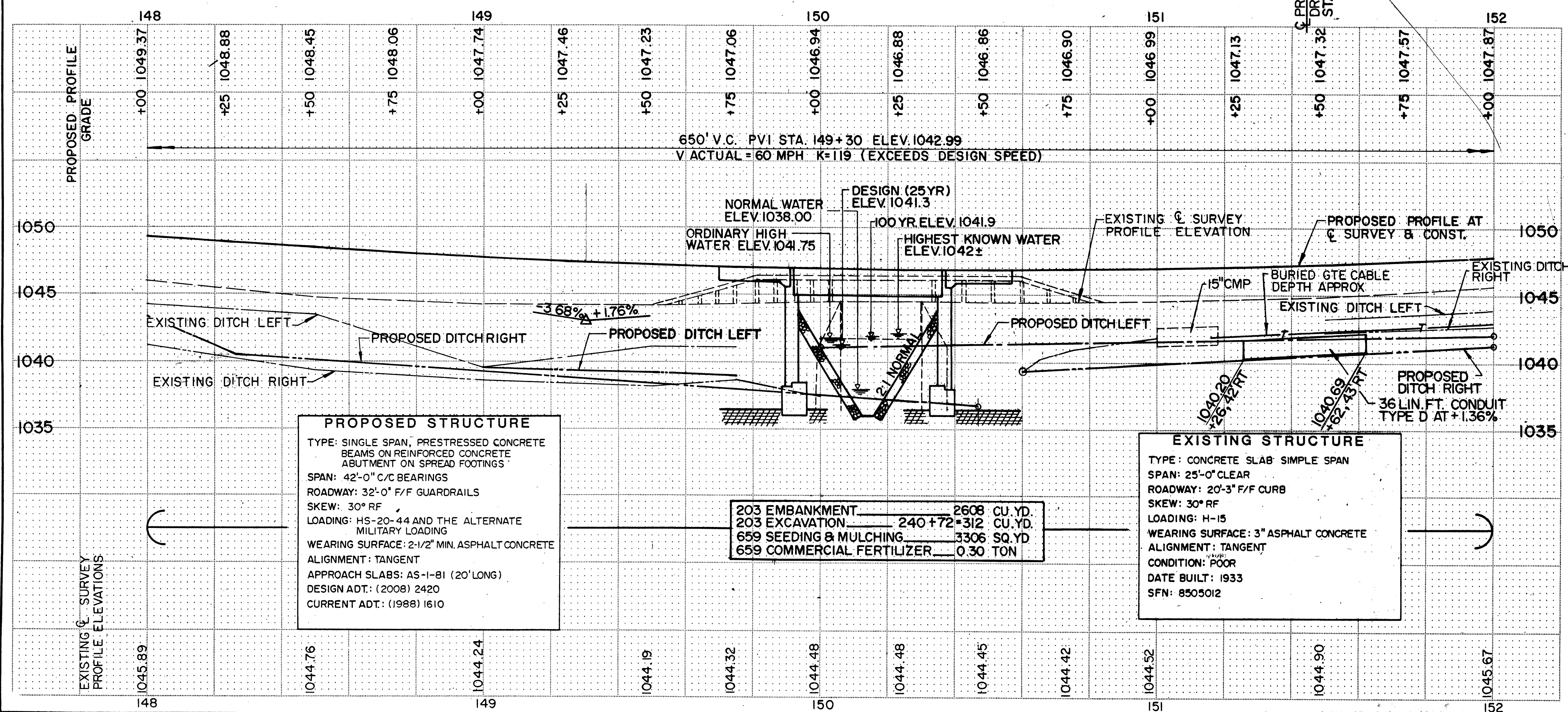


REFERENCE NO.		STATION		304	604
		FROM	TO	AGGREGATE BASE AS PER PLAN	MONUMENT ASSEMBLIES AS PER PLAN (SEE SHEET 6)
	SIDE			CU. YD.	EACH
I-DR	LT.	145+14	145+54	12	
I-M	E		145+00		1
TOTAL TO GENERAL SUMMARY				12	1

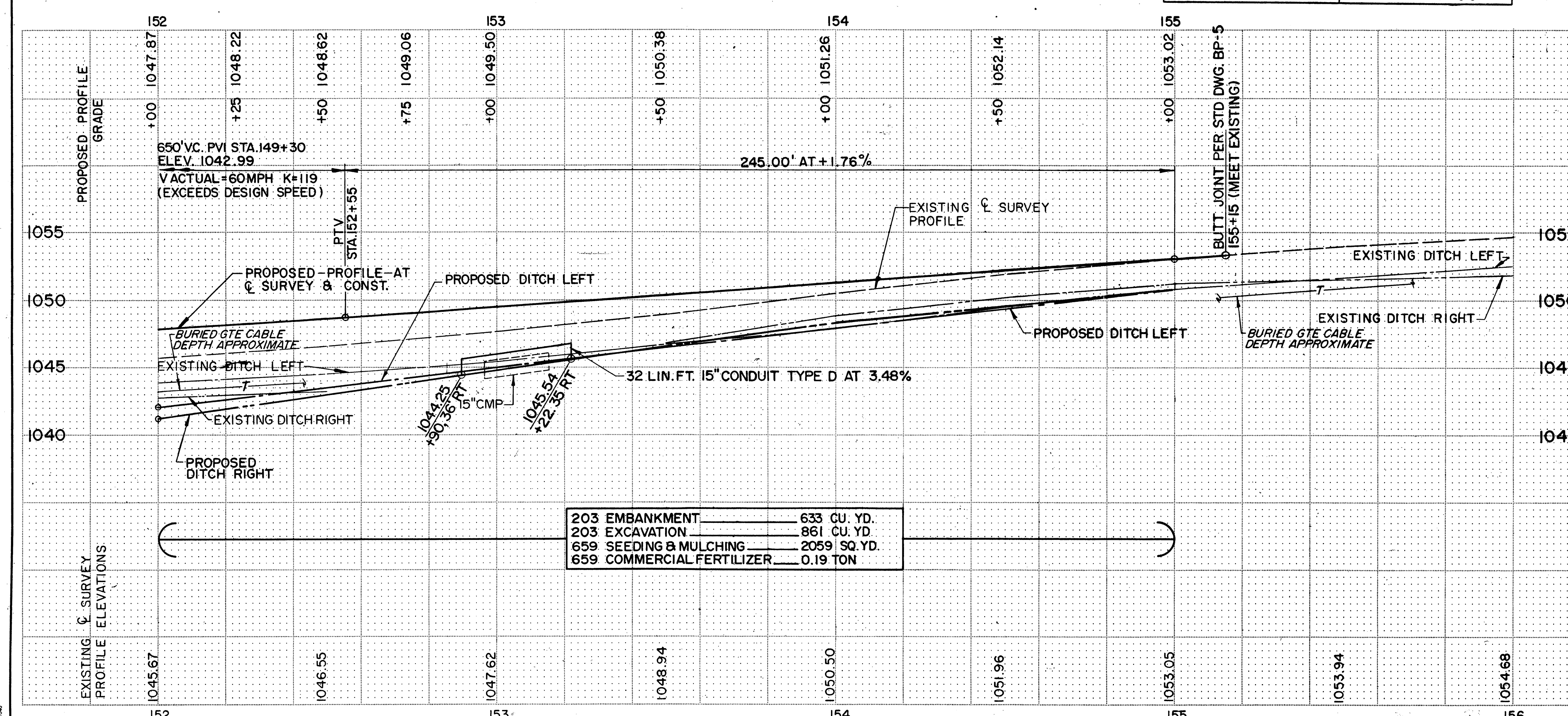
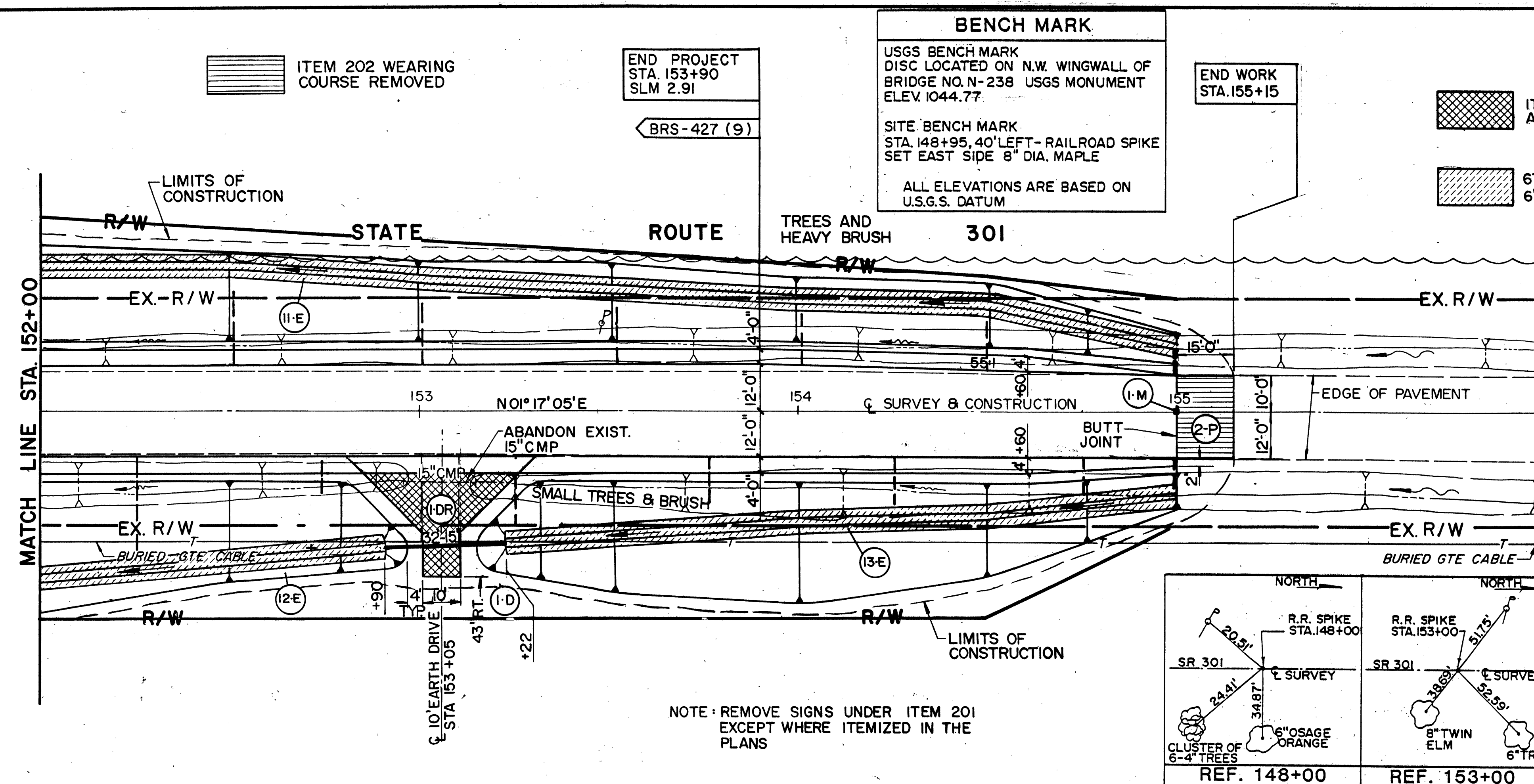


REFERENCE NO.	SIDE	STATION		GUARDRAIL REMOVED	AGGREGATE BASE, AS PER PLAN	DITCH EROSION PROTECTION, AS PER PLAN	ROCK CHANNEL PROTECTION TYPE B, W/ FILTER	15" CONDUIT TYPE D	DITCH EROSION PROTECTION
		FROM	TO						
1-R	LT.	149+39	149+89	50					
2-R	LT.	150+21	150+71	50					
3-R	RT.	149+52	150+02	50					
4-R	RT.	150+33	150+83	50					
5-E	RT.	148+00	148+36			24			
6-E	RT.	148+36	150+28						129
7-E	LT/RT	149+83	150+23				103		
8-E	LT/RT	150+06	150+53				105		
9-E	RT.	150+45	152+00						79
10-E	LT.	151+90	152+00						7
2-DR	RT	151+16	151+76		19				
1-D	RT	151+26	151+62					36	
TOTAL TO GENERAL SUMMARY				200	19	24	208	36	215

SEE SHEET 5 FOR SIGNING QUANTITIES

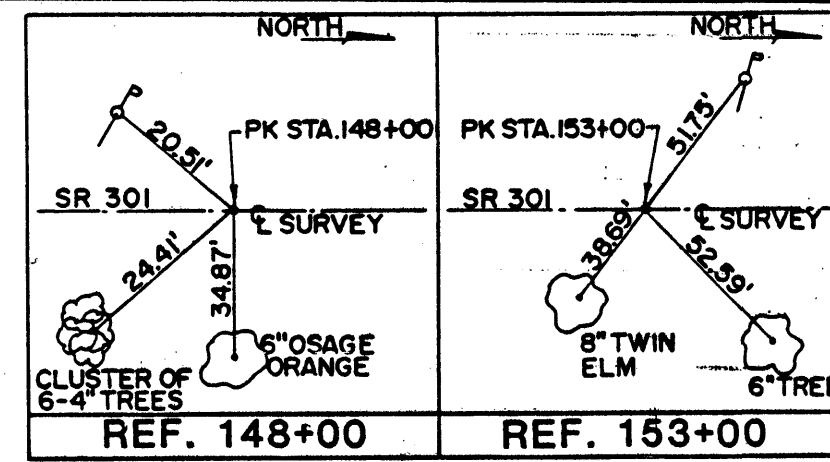


REFERENCE NO.	SIDE	STATION		GUARD RAIL TYPE 5	GUARD RAIL TYPE 5 15' RADIUS	ANCHOR ASSEMBLY TYPE A	BRIDGE TERMINAL ASSEMBLY TYPE B	ANCHOR ASSEMBLY TYPE T	BARRIER REFLECTORS TYPE A
		FROM	TO						
1-GR	LT.	148+79.25	149+79.25	75.00					
2-GR	LT.	150+29.25	151+29.25	75.00					
3-GR	RT.	148+98.75	149+98.75	75.00					
4-GR	RT.	150+48.75	151+25.75	50	18.75				
	LT.		149+04.25						
	LT.		150+04.25						
	LT.		151+04.25						
	RT.		149+23.75						
	RT.		150+23.75						
	RT.		151+23.75						
SUBTOTAL				275	18.75				
TOTAL TO GENERAL SUMMARY				293.75	3	4	1	6	



REFERENCE NO.	SIDE	STATION		603	604	670	202
		FROM	TO	15" CONDUIT, TYPE D LIN. FT.	MONUMENT ASSEMBLIES AS PER PLAN (SEE SHEET 6) EACH	DITCH EROSION PROTECTION SQ. YD.	WEARING COURSE REMOVED SQ. YD.
I-D	RT.	152+87	153+23	32			
II-E	LT.	152+00	155+00			201	
12-E	RT.	152+00	152+00			61	
13-E	RT.	153+22	155+00			119	
I-M			155+00		1		
2-P		155+00	155+15				37
TOTAL TO GENERAL SUMMARY				32	1	381	37

REFERENCE NO.	SIDE	STATION		304
		FROM	TO	AGGREGATE BASE, 75 PER PLAN CU. YD.
I-DR	RT.	152+72.50	153+37.50	12
TOTAL TO GENERAL SUMMARY				12



BENCH MARK

USGS BENCH MARK
DISC LOCATED ON N.W. WINGWALL OF
BRIDGE NO. N-238 USGS MONUMENT
ELEV. 1044.77

SITE BENCH MARK
STA. 148+95.40' LEFT- RAILROAD SPIKE
SET EAST SIDE 8" DIA. MAPLE

ALL ELEVATIONS ARE BASED ON
U.S.G.S. DATUM

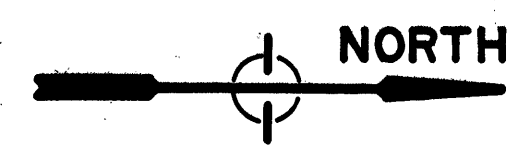
CALC.
BY: RRR
DATE: 4-89

CHECKED
BY: GAB
DATE: 4-89

WAYNE COUNTY
WAY-301-2.76

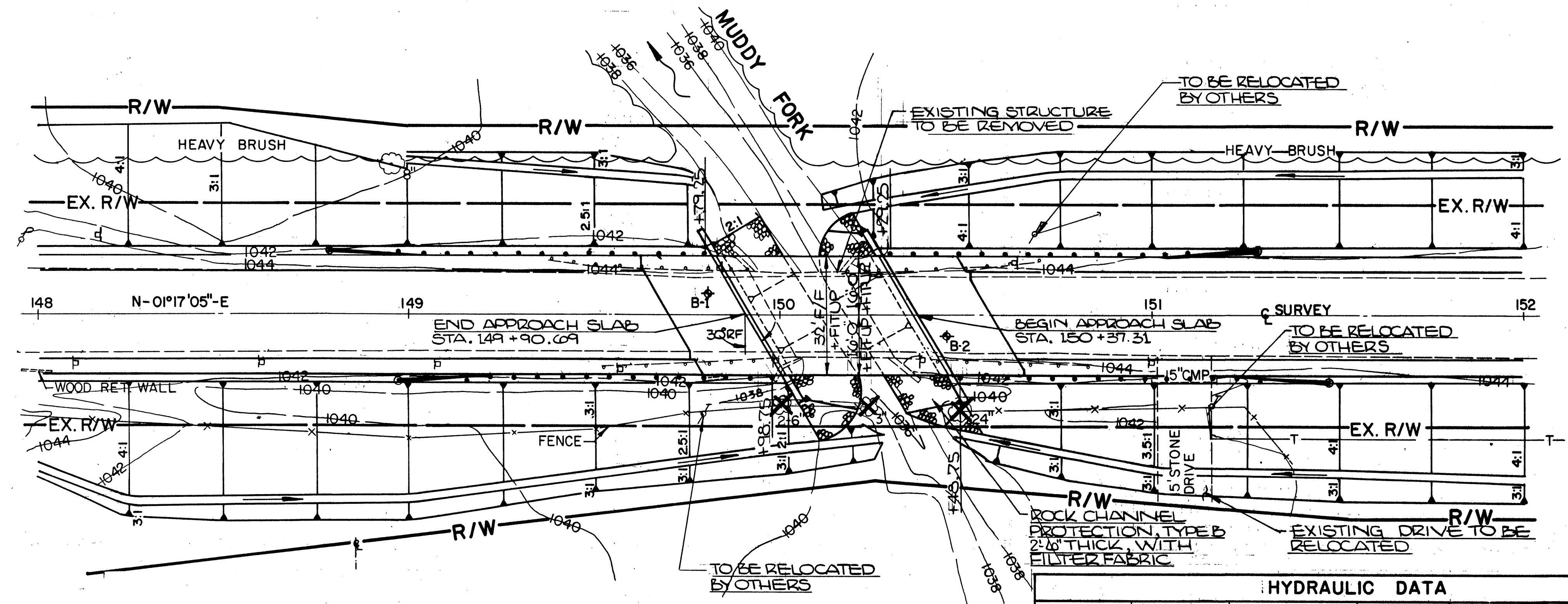
OHIO
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0 10 20 40
SCALE IN FEET

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



PLAN

PVC STA. 146+05.00
ELEV. 1054.95

HYDRAULIC DATA					
FLOOD FREQUENCY	DISCHARGE c.f.s.	NORMAL WATER SURFACE ELEV.	VELOCITY Vn 2	COMPUTED H _i	WATER SURFACE INC. BACKWATER
DESIGN 25 YR.	966	1041.3	9.4ft.p.s.	1.40'	1042.7
100 YR.	1483	1041.9	12.4ft.p.s.	1.75'	1043.6

DRAINAGE AREA = 3.36 SQ. MI.
CHANNEL SLOPE = 41.1 FT/MI.

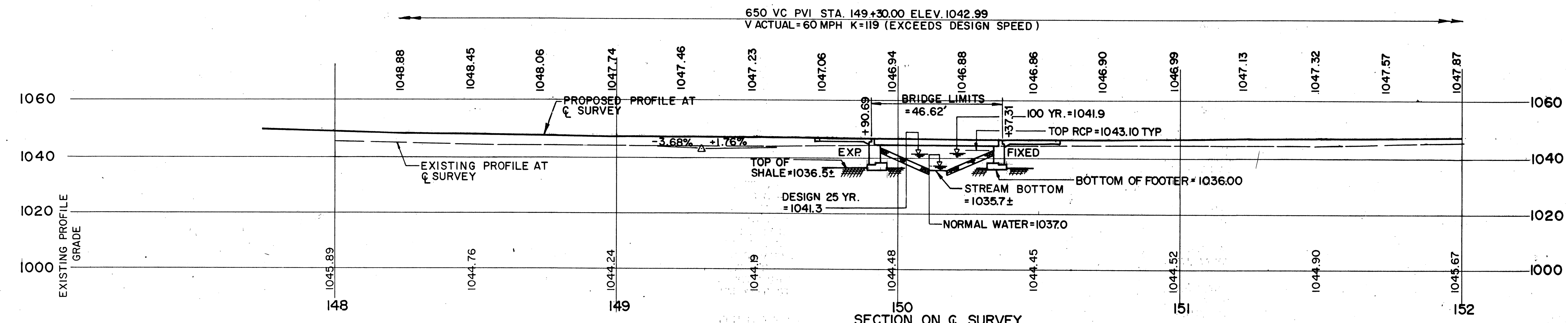
HIGHEST KNOWN WATER = 1042±
ORDINARY HIGH WATER = 1041.75
NORMAL WATER = 1037.00

EXISTING STRUCTURE

TYPE: CONCRETE SLAB SIMPLE SPAN
SPAN: 25'-0" CLEAR
ROADWAY: 20'-3" F/F CURB
SKEW: 30° RF
LOADING: H-15
WEARING SURFACE: ASPHALT CONCRETE
ALIGNMENT: TANGENT
CONDITION: POOR
DATE BUILT: 1933
SFN: 8505012

PROPOSED STRUCTURE

TYPE: SINGLE SPAN, PRESTRESSED CONCRETE
BEAMS ON REINFORCED CONCRETE
ABUTMENT ON SPREAD FOOTINGS
SPAN: 42'-0" C/C BEARINGS
ROADWAY: 32'-0" F/F GUARDRAILS
SKEW: 30° RF
LOADING: HS-20-44 AND THE ALTERNATE
MILITARY LOADING
WEARING SURFACE: 2-1/2" MIN. ASPHALT CONCRETE
ALIGNMENT: TANGENT
APPROACH SLABS: AS-1-81 (20' LONG)
DESIGN ADT.: (2009) 2420
CURRENT ADT.: (1989) 1610
CROWN: 3/16" PER FT.



SECTION ON C SURVEY
(EXISTING STRUCTURE NOT SHOWN)

REVIEWED BY BURGESS & NIPLE, LIMITED
S.A.N. 8/17/89

POGGMMEYER DESIGN GROUP, INC.
ENGINEERS + ARCHITECTS + PLANNERS
BOWLING GREEN, OHIO

SITE PLAN
BRIDGE NO. WAY-301-0284
OVER MUDDY FORK
WAYNE COUNTY STA. 149+90.69
STA. 150+37.31

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
PDG	JU	RRH	RO	GAB	JFM 4-89

* SEE PROPOSAL NOTE

CALC.
BY: R.R.H.
DATE: 8-89
CHECKED
BY: G.A.B.
DATE: 8-89

WAYNE COUNTY
WAY-301-2.76

OHIO
FHWA
REGION 5

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ESTIMATED QUANTITIES

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUT. REAR	ABUT. FWD.	GEN'L.	AS BUILT
202		LUMP		STRUCTURES REMOVED				LUMP	
403	8	CU YD		ASPHALT CONCRETE, AC-20	8				
404	5	CU YD		ASPHALT CONCRETE, AC-20	5				
503	LUMP			COFFERDAMS, CRIBS, AND SHEETING		LUMP	LUMP		
503	188	CU YD		UNCLASSIFIED EXCAVATION INCLUDING ROCK		94	94		
509	5543	LBS		REINFORCING STEEL, GRADE 60		2772	2771		
509	2376	LBS		EPOXY COATED REINFORCING STEEL, GRADE 60		1188	1188		
511	38	CU YD		CLASS C CONCRETE, FOOTINGS AS PER PLAN		19	19		
511	73	CU YD		CLASS C CONCRETE, ABUTMENTS ABOVE FOOTINGS, AS PER PLAN		37	36		
511	3	CU YD		CLASS S CONCRETE, DECK JOINTS, HIGH EARLY STRENGTH	3				
512	144	SQ YD		TYPE D WATERPROOFING	144				
515	8	EA		PRESTRESSED CONCRETE BRIDGE MEMBERS (B21-48) (42' LONG C/C)*	8				
516	32	EA		1" x 7" x 9" LAMINATED ELASTOMERIC BEARINGS		16	16		
516	7	SQ FT		1/8" PREFORMED BEARING PADS, 711.21		3.5	3.5		
516	78	LIN FT		STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC STRIP SEALS		39	39		
517	100.00	LIN FT		RAILING (DEEP BEAM GUARDRAIL WITH STEEL TUBULAR BACKUP, TYPE 2 STEEL POST AND BOLTS)*	100.00				
518	44	CU YD		POROUS BACKFILL, AS PER PLAN		22	22		
518	78	LIN FT		6" PERFORATED, HELICAL CORRUGATED STEEL PIPE, 707.01		39	39		
518	50	LIN FT		6" NON-PERFORATED, HELICAL CORRUGATED STEEL PIPE, INCLUDING SPECIALS, 707.01		25	25		
SPECIAL	63	SQ FT		STEEL DRIP STRIP	63				
SPECIAL	26	SQ YD		SEALING OF CONCRETE SURFACES *	26				
SPECIAL	32	SQ YD		SEALING OF CONCRETE SURFACES (EPOXY)*		16	16		

NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

PSBD-1-81 DATED 6/20/89
DBR-2-73 DATED 4/10/73
AS-1-81 DATED 11/27/81
EXJ-3-82 DATED 8/01/84
EXJ-4-87 DATED 1/5/89

AND TO SUPPLEMENTAL SPECIFICATIONS:
836 DATED 11/12/85

REMOVAL OF EXISTING STRUCTURE - WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED. SUITABLE WASTE MASONRY MAY BE PLACED AS CHANNEL PROTECTION AS DIRECTED BY THE ENGINEER.

FOUNDATION BEARING PRESSURE - ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 1.63 TONS PER SQ. FT.

FOOTINGS - SHALL EXTEND A MINIMUM OF 3" INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

EMBANKMENT CONSTRUCTION - THE EMBANKMENTS SHALL BE CONSTRUCTED TO THE LEVEL OF SUBGRADE. EXCAVATION MAY THEN BE MADE FOR THE ABUTMENTS.

COARSE AGGREGATE - ALL COARSE AGGREGATE FOR CONCRETE SHALL BE LIMESTONE OR SLAG.

UTILITY LINES - EXPENSE INVOLVED IN RELOCATING THE AFFECTED UTILITY LINE SHALL BE BORNE BY THE OWNER. THE CONTRACTOR AND OWNER ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM SPECIAL, SEALING OF CONCRETE SURFACES - CONCRETE SEALERS SHALL BE APPLIED TO THE CONCRETE SURFACES AS SHOWN ON SHEETS [4/6] AND [5/6]. SEE THE PROPOSAL FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES.

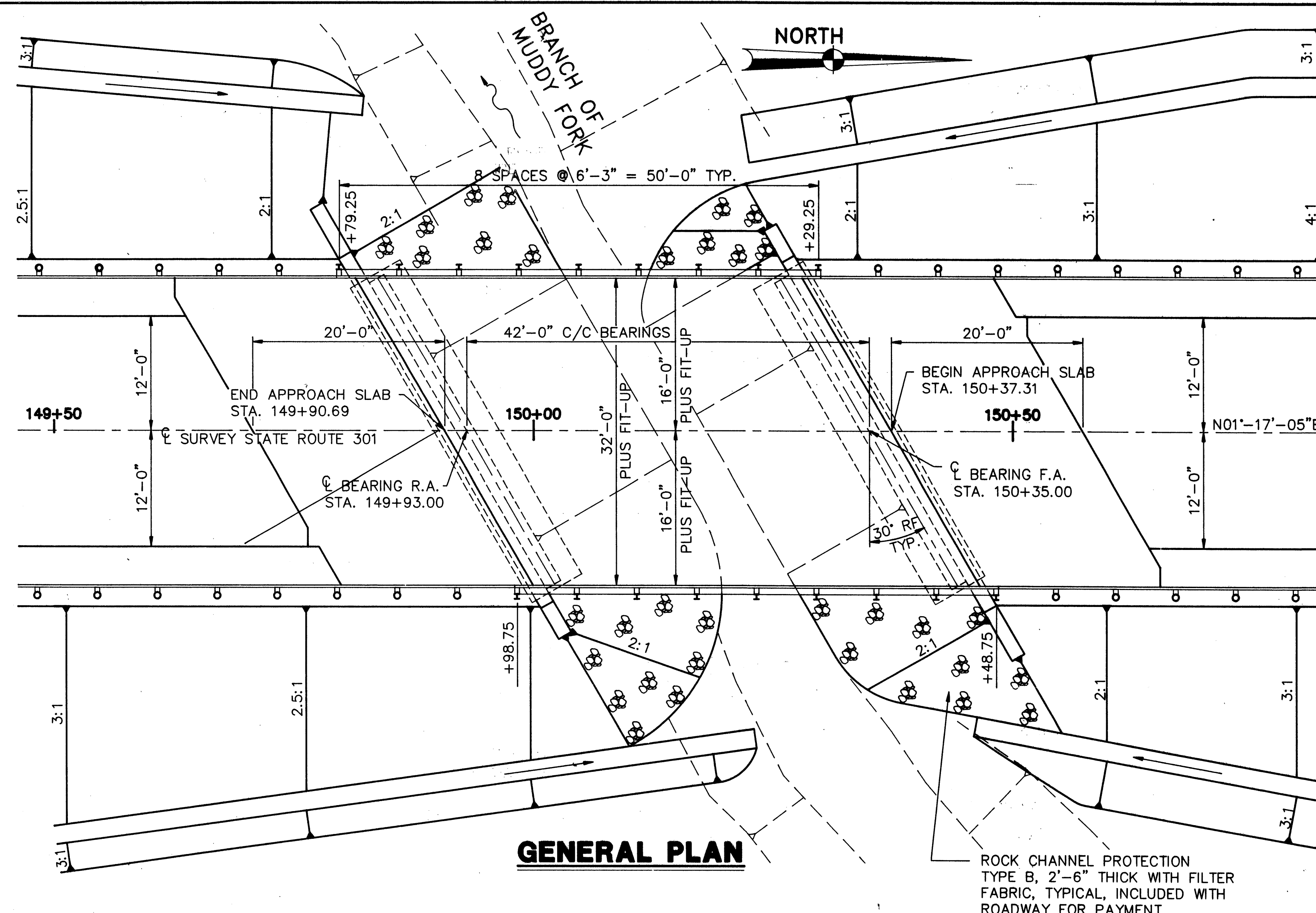
POGGEMEYER DESIGN GROUP 2/6
ENGINEERS-ARCHITECTS-PLANNERS
BOWLING GREEN, OHIO

GENERAL PLAN & ELEVATION, NOTES & ESTIMATED QUANTITIES

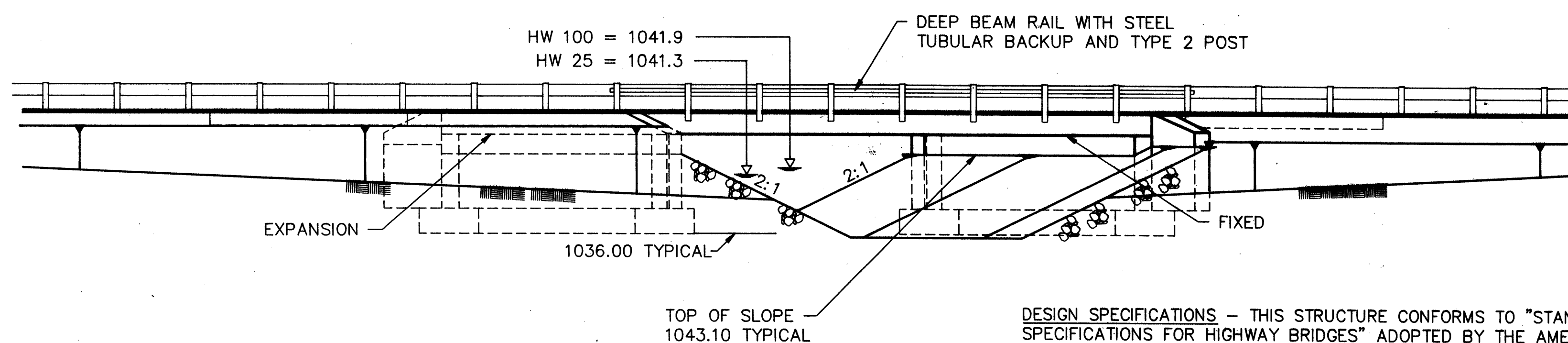
BRIDGE NO. WAY-301-0284
WAYNE COUNTY STA. 149+90.69 TO
STA. 150+37.31

DESIGNED R.R.H. DRAWN J.E.F. CHECKED G.A.B. REVIEWED J.F.M. 8-89 REVISED

GENERAL PLAN & ELEVATION, NOTES & ESTIMATED QUANTITIES



GENERAL PLAN



GENERAL ELEVATION

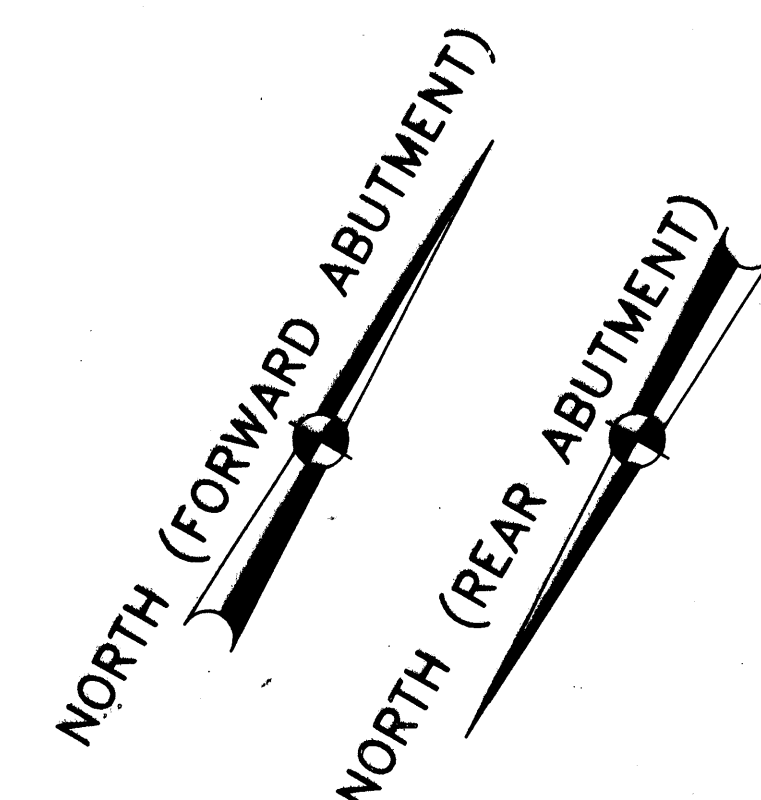
DESIGN SPECIFICATIONS - THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1983, INCLUDING THE 1984 THROUGH 1988 INTERIM SPECIFICATIONS, AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

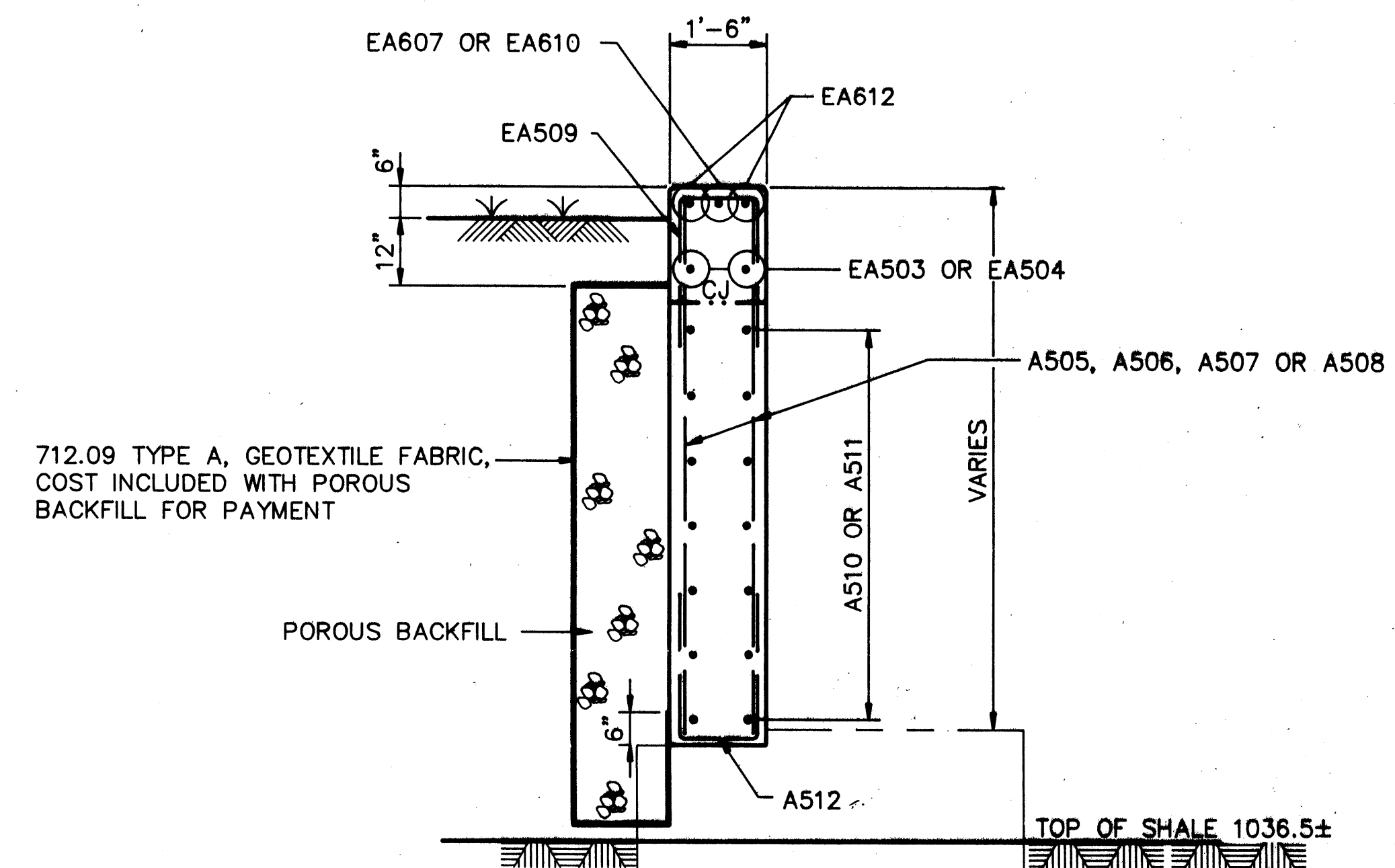
DESIGN LOADING - HS20-44 AND THE ALTERNATE MILITARY LOADING.

DESIGN STRESSES:

- CONCRETE CLASS S - COMPRESSIVE STRENGTH 4,500 P.S.I.
- CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 P.S.I.
- REINFORCING STEEL - ASTM A615, A616, A617 - GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.
- CONCRETE FOR PRESTRESSED BEAMS UNIT STRESS 2,200 P.S.I. COMPRESSION, UNIT STRESS 444 P.S.I. TENSION.
- PRESTRESSING STRAND ASTM A416 F'S = 270,000 P.S.I. INITIAL STRESS = 0.70 F'S.
- BEAM REINFORCING STEEL GRADES 40 OR 60 PER ITEM 515 AND 509, MINIMUM YIELD STRENGTH 40,000 P.S.I.

DECK PROTECTION METHOD - TYPE D WATERPROOFING, ASPHALT CONCRETE OVERLAY AND STEEL DRIP STRIP, SEALING OF CONCRETE SURFACES.



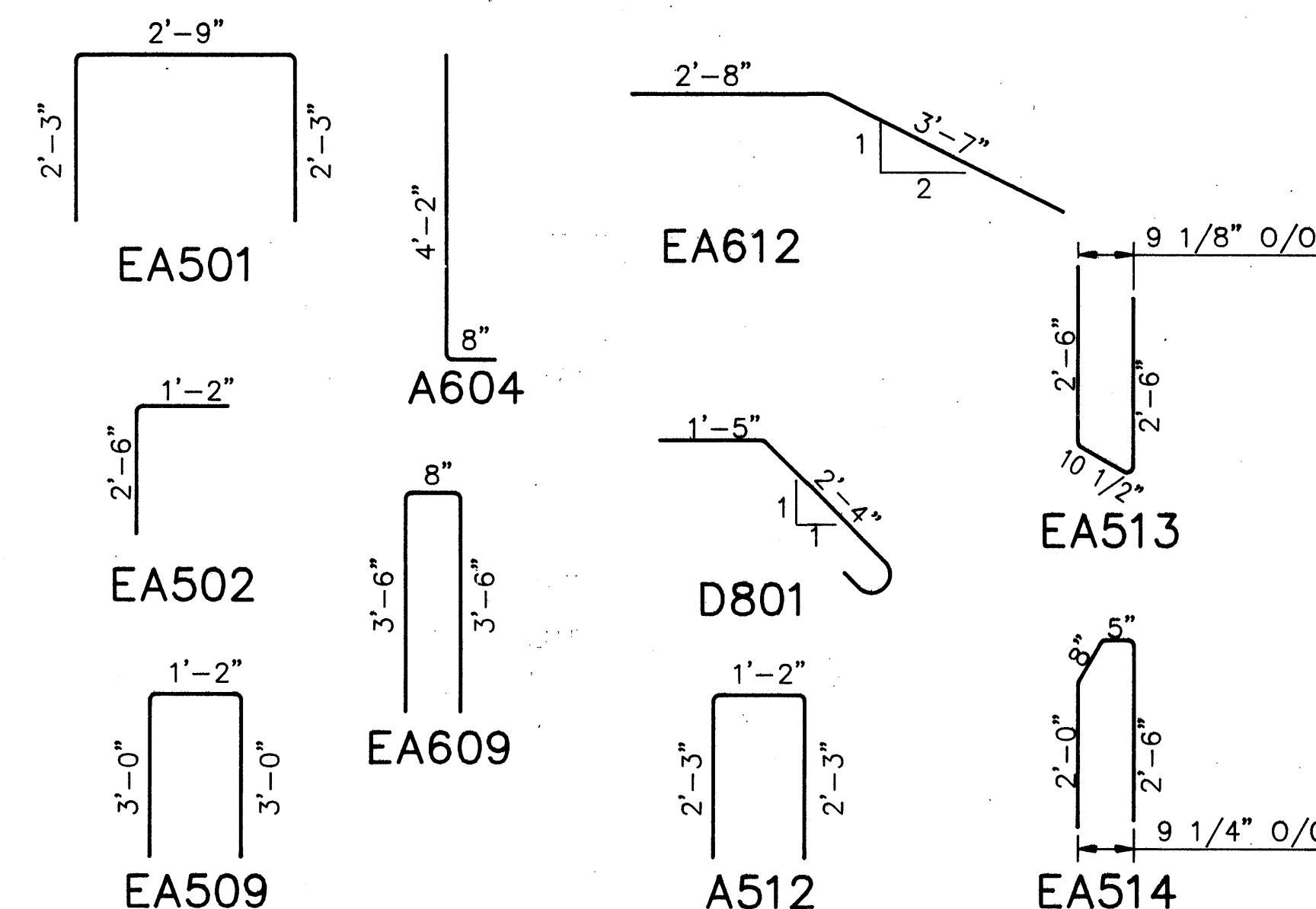


SECTION A-A

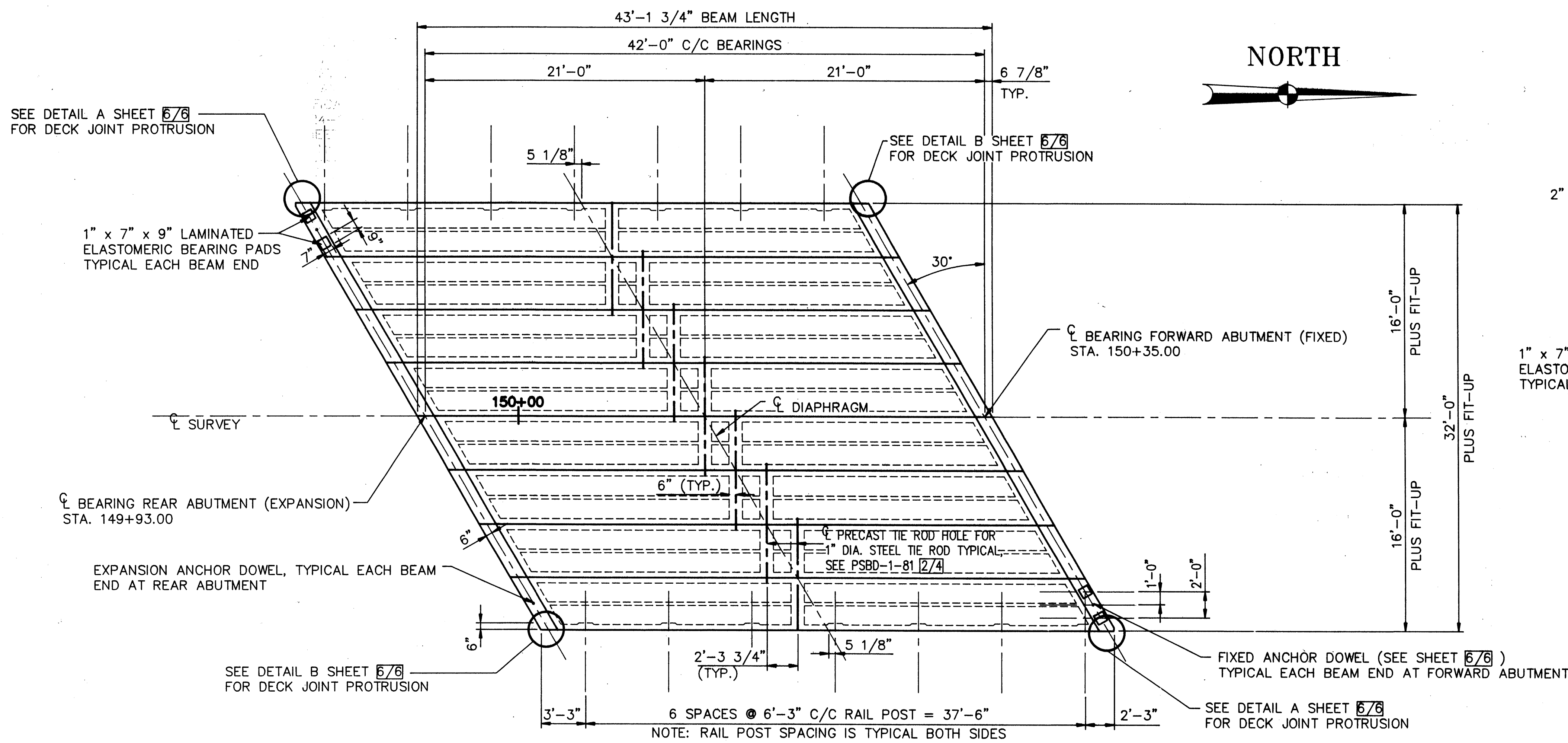
LAP #4 BARS 1'-5"
LAP #5 BARS 1'-10"
LAP #6 BARS 2'-2"
LAP #8 BARS 3'-8"

REINFORCING STEEL LIST						
MARK	NUMBER	LENGTH	WEIGHT (LBS.)	SHAPE	DISTRIBUTION R.A.	DISTRIBUTION F.A.
NON-EPOXY COATED REINFORCING						
D801	44	4'-8"	548	B	22	22
A601	34	30'-0"	1532	S	17	17
A602	10	9'-2"	138	S	5	5
A603	50	5'-6"	413	S	25	25
A604	100	4'-8"	701	B	50	50
A605	100	6'-2"	927	S	50	50
A606	24	8'-3"	297	S	12	12
A505	8	6'-9"	56	S	4	4
A506	8	7'-3"	60	S	4	4
A507	8	7'-9"	65	S	4	4
A508	18	8'-2"	153	S	9	9
A510	28	7'-2"	209	S	14	14
A511	28	10'-2"	297	S	14	14
A512	26	5'-5"	147	B	13	13
NON-EPOXY COATED BARS TOTAL = 5,543 LBS.						

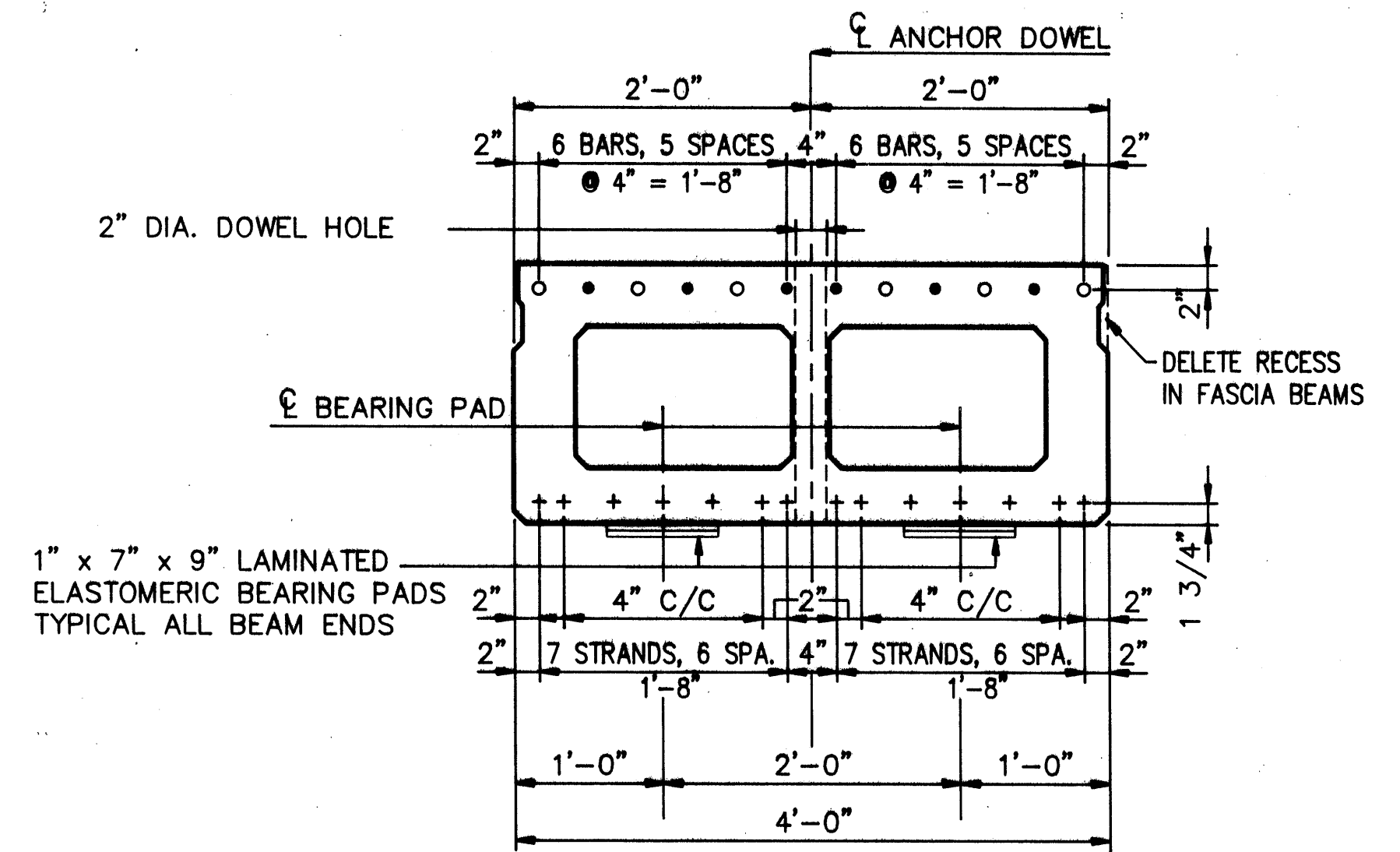
MARK	NUMBER	LENGTH	WEIGHT (LBS.)	SHAPE	DISTRIBUTION R.A.	DISTRIBUTION F.A.
EPOXY COATED REINFORCING						
EA607	10	30'-0"	451	S	5	5
EA608	8	8'-3"	99	S	4	4
EA609	50	7'-5"	557	B	25	25
EA610	2	15'-7"	47	S	1	1
EA612	8	6'-3"	75	B	4	4
EA501	50	7'-0"	365	B	25	25
EA502	50	2'-6"	130	B	25	25
EA503	6	30'-0"	187	S	3	3
EA504	4	19'-11"	83	S	2	2
EA509	26	6'-11"	188	B	13	13
EA510	2	9'-2"	19	S	1	1
ES513	8	5'-7"	47	B	4	4
ES514	8	5'-4"	45	B	4	4
ES401	4	31'-0"	83	S	2	2
EPOXY COATED BARS TOTAL = 2,376 LBS.						



DESIGNED R.R.H.	DRAWN J.E.F.	CHECKED G.A.B.	REVIEWED J.F.M. 8-88	REVISED
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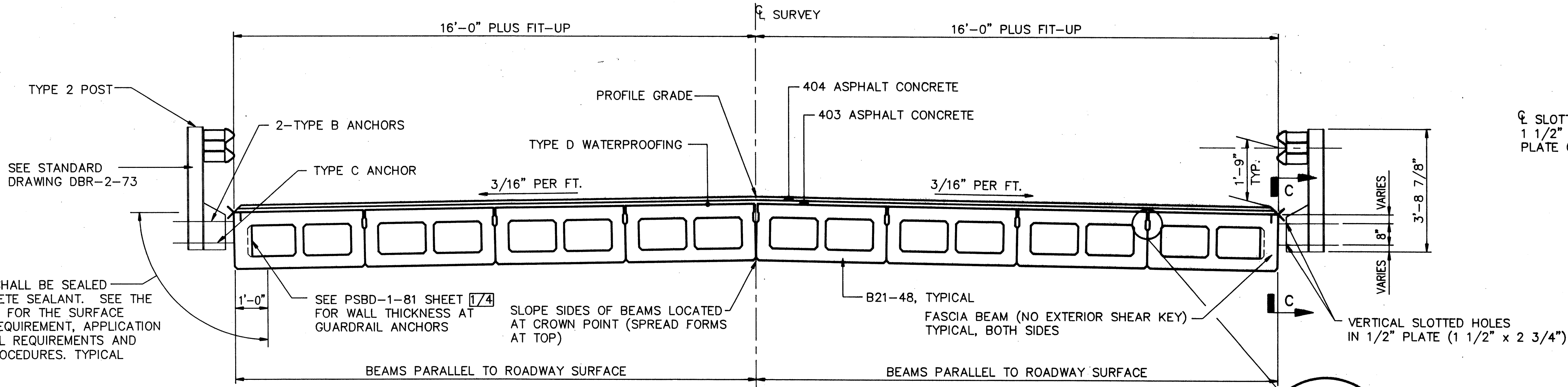
FRAMING PLAN



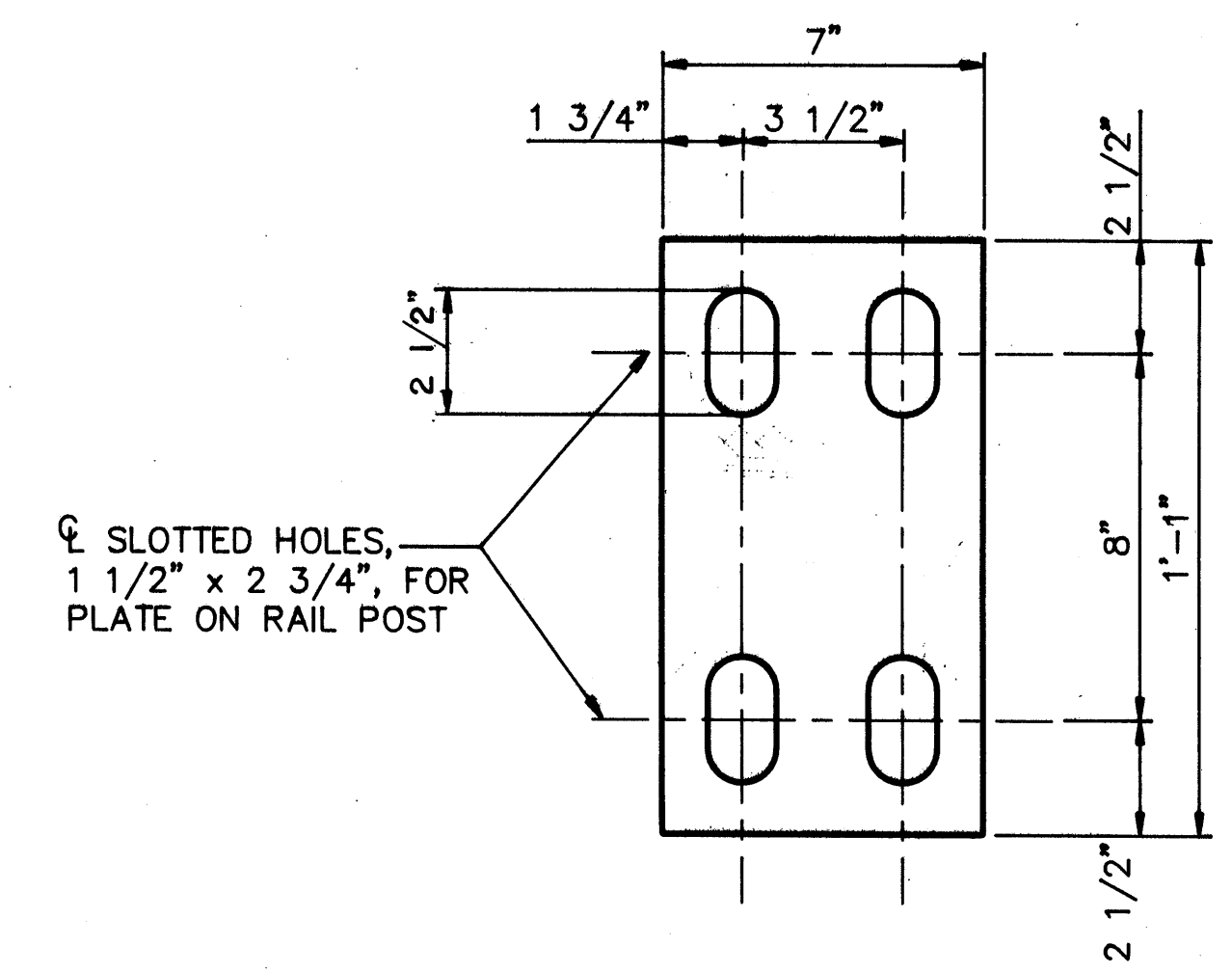
B21 - 48 BEAM 42'- 0' SPAN

NOTE: FABRICATORS SHOP DRAWINGS SHALL SHOW COMPLETE DETAILS OF BEAM REINFORCING.

- + 1/2" DIA. SEVEN WIRE PRESTRESSING STRAND, UNCOATED, STRESS-RELIEVED
- NO. 4 BAR 7'-1" LONG, AT EACH END
- NO. 4 BAR FULL LENGTH



TRANSVERSE SECTION



VIEW C-C

SHEAR KEYS SHALL BE MORTARED ON A FINISHED PLANE BETWEEN THE TOP EDGES OF THE ADJACENT BEAMS WHERE VERTICAL OFFSET (WITHIN TOLERANCE) OCCURS

POGGEMEYER DESIGN GROUP ENGINEERS-ARCHITECTS-PLANNERS BOWLING GREEN, OHIO				
SUPERSTRUCTURE PLAN & SECTION				
BRIDGE NO. WAY-301-0284 WAYNE COUNTY STA. 149+90.69 TO STA. 150+37.31				
DESIGNED R.R.H.	DRAWN J.E.F.	CHECKED G.A.B.	REVIEWED J.F.M. 8-89	REVISED

NOTES

NON-SHRINKING MORTAR - MORTAR OR GROUT FOR KEYWAYS BETWEEN PRESTRESSED CONCRETE BOX BEAMS, FOR TIE ROD RECESSES AND FOR ANCHOR DOWEL HOLES SHALL BE A NON-SHRINKING NON-METALLIC MORTAR HAVING A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 5000 P.S.I. ACCORDING TO THE CORPS OF ENGINEERS SPECIFICATION CDR-C621-83 WHEN PREPARED TO A MODERATE FLUIDITY (124-145% FLOW TABLE FLOW). THE MORTAR OR GROUT SHALL ALSO MEET ALL OTHER REQUIREMENTS OF SPECIFICATION CRD-C621-83. THE MORTAR SHALL BE PREPARED, PLACED AND CURED IN ACORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS, AGAINST SURFACES AS SPECIFIED BELOW.

PREPARATION OF CONCRETE SURFACES IN CONTACT WITH NON-SHRINKING MORTAR - THE KEYWAY SURFACES SHALL BE GIVEN A MEDIUM SANDBLAST AT THE PLANT WITHIN FOUR DAYS BEFORE THE BEAMS LEAVE THE PLANT. BEFORE MORTARING, THE KEYWAYS SHALL BE THOROUGHLY CLEAN OF ALL DIRT, DUST AND OTHER FOREIGN MATTER. THE KEYWAY SURFACES SHALL BE WETTED, BUT NO FREE WATER SHALL BE ALLOWED TO REMAIN IN THE KEYWAYS.

FIXED ANCHOR DOWELS SHALL BE SMOOTH, NOT DEFORMED, AND SHALL BE COATED WITH AN APPROVED BOND BREAKER ABOVE BRIDGE SEAT BEFORE INSTALLATION.

DRIP STRIP - PRIOR TO APPLYING TYPE D WATERPROOFING, A BENT DRIP STRIP SHALL BE INSTALLED ALONG THE EDGES OF THE DECK AS SHOWN. THE STRIPS SHALL BE FASTENED AT 1'-6" C/C MAXIMUM WITH 1-1/4" x 5/32" x 1/4" FLAT HEAD DRIVE PIN AND WASHER. (LENGTH x SHANK DIA. x HEAD DIA.) OR #10 GALVANIZED SCREWS AND EXPANSION ANCHORS, SUBJECT TO THE APPROVAL OF THE ENGINEER. THE STRIPS SHALL BE PLACED THE FULL LENGTH OF THE DECK, ENDING AT THE FACE OF THE ABUTMENT WINGWALL OR STEEL END DAM ANGLE. WHERE SPLICES ARE REQUIRED A 3" (MIN.) LAP SHALL BE USED WITH A FASTENER THROUGH THE LAP. STEEL FOR GALVANIZED STRIPS SHALL BE 8" x .105" AND SHALL MEET THE REQUIREMENTS OF ASTM A568. GALVANIZING SHALL BE IN ACCORDANCE WITH 711.02. STAINLESS STEEL SHALL BE 20 GAUGE ASTM A167, TYPE 304, MILL FINISH. PAYMENT SHALL BE AT THE CONTRACT PRICE BID FOR ITEM SPECIAL, SQ. FT., STEEL DRIP STRIP, WHICH SHALL INCLUDE ALL MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

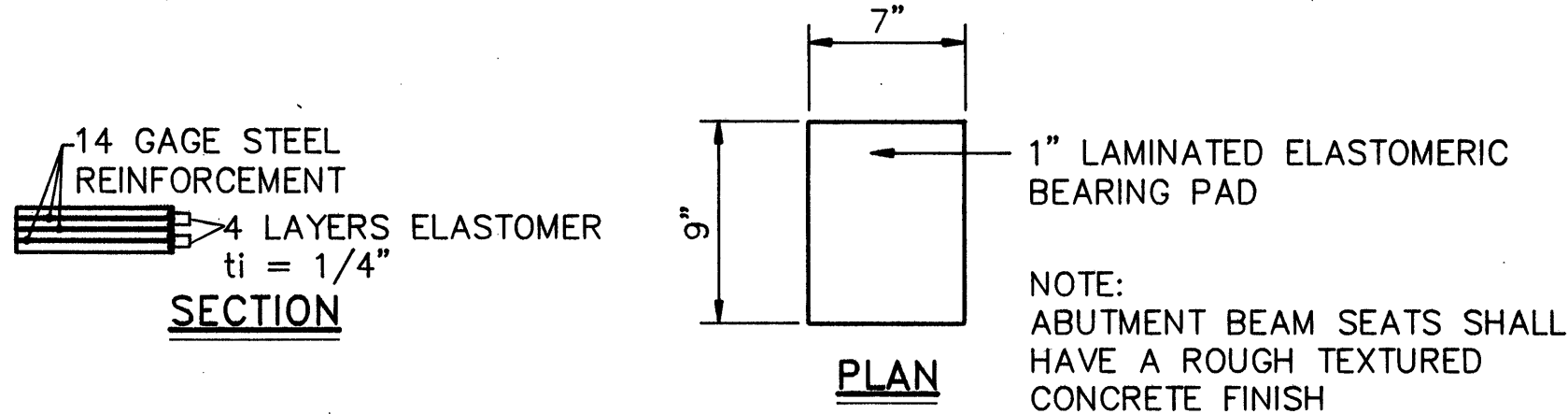
BEARING TOLERANCES - INDIVIDUAL ELASTOMER LAYER THICKNESS: ± 20% OF DESIGN VALUE (NOT TO EXCEED ± 1/8")

PLAN DIMENSIONS: -0 TO +1/4"
DESIGN THICKNESS: -0 TO +1/8"
EDGE COVER OF EMBEDDED LAMINATES: -0 TO +1/8"

BEARING REPOSITIONING - IF THE BEAMS ARE PLACED AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F. OR LOWER THAN 40° F. AND THE BEARING SHEAR DEFLECTION EXCEEDS ONE-SIXTH OF THE BEARING HEIGHT AT 60° F. ±10° F. THE BEAMS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F. ±10° F.

☆ MATERIALS - STEEL PORTIONS OF THE JOINT THAT ARE FULLY ENCASED IN CONCRETE MAY BE UNPAINTED ASTM A36. ALL OTHER PORTIONS SHALL BE ASTM A568, PAINTED AS SPECIFIED. THE ELASTOMERIC EXTRUSIONS AND THE STEEL EXTRUSIONS OR WELDED RETAINERS SHALL BE AS MANUFACTURED BY THE D.S. BROWN COMPANY OF NORTH BALTIMORE, OHIO; THE WATSON BOWMAN AND ACME CORPORATION OF AMHERST, NEW YORK; STRUCTURAL ACCESSORIES OF LENOIR, NORTH CAROLINA, OR AN APPROVED ALTERNATE.

☆ PAINTING - THE UPPER EXPOSED PORTIONS OF THE EXPANSION JOINTS SHALL BE PAINTED IN CONFORMANCE WITH 514 WITH SYSTEM A SHOP PRIME COAT OF PAINT 708.17 AND A SYSTEM A FINISH COAT OF PAINT 708.18.



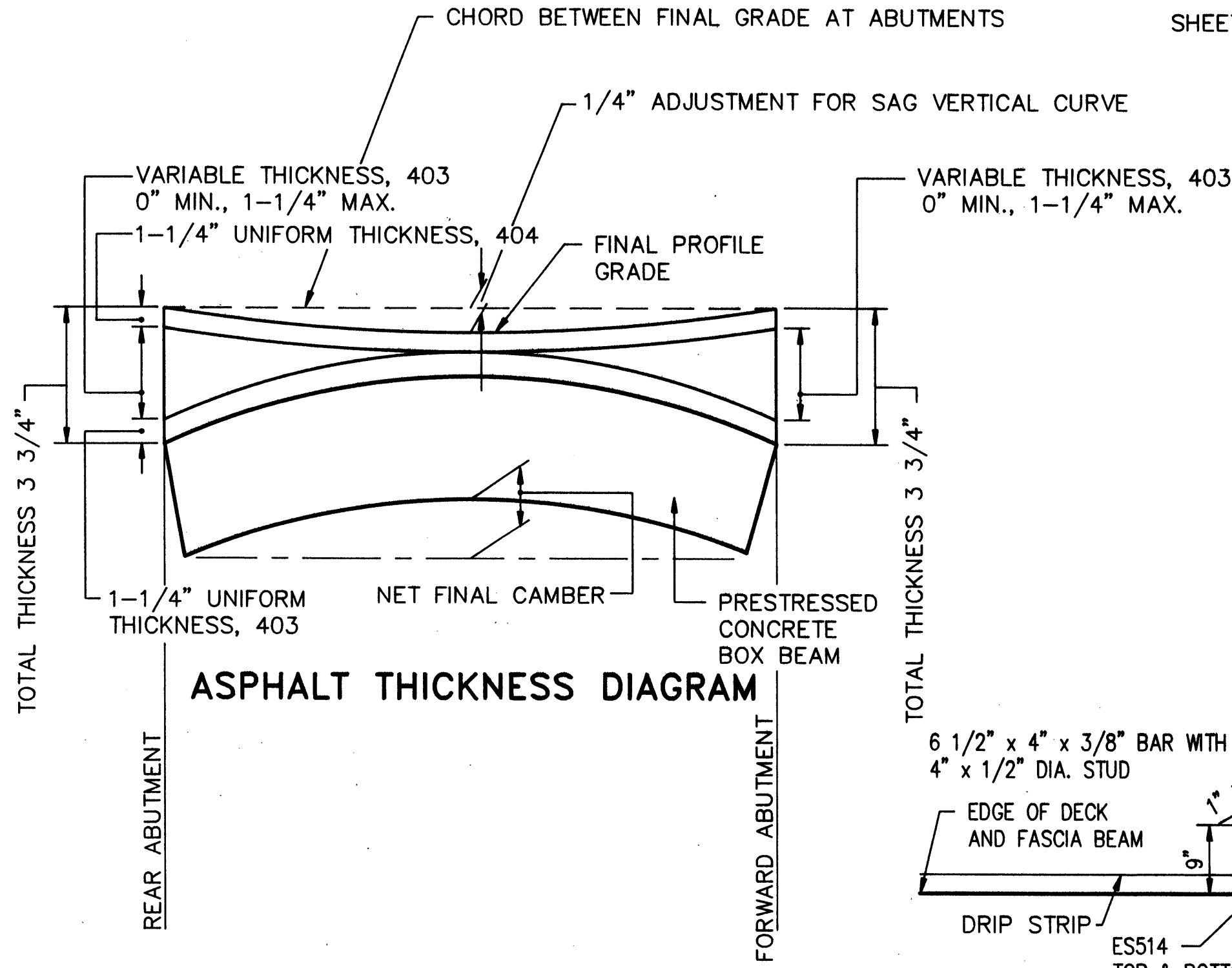
LAMINATED ELASTOMERIC BEARINGS

ELASTOMER					STEEL		COMMENTS
DUROMETER	L	W	T	ti	ns	GAGE	
50	5 1/2"	9"	1"	1/4"	3	14	

MAXIMUM DESIGN LOAD PER PAD = 10 KIPS DL + 9 KIPS LL = 19 KIPS

ASPHALT CONCRETE SURFACE COURSE SHALL CONSIST OF A VARIABLE THICKNESS OF 403 AND 1-1/4" THICKNESS OF 404. THE 403 SHALL BE PLACED IN TWO OPERATIONS. THE FIRST COURSE SHALL BE OF 1-1/4" UNIFORM THICKNESS. THE SECOND COURSE SHALL BE FEATHERED TO PLACE THE SURFACE PARALLEL TO AND 1-1/4" BELOW FINAL PAYMENT SURFACE ELEVATION.

CALCULATED CAMBER AT THE TIME OF PAVING, INCLUDING ALLOWANCE FOR CAMBER GROWTH DUE TO CREEP, IS 1-1/8". CALCULATED DEFLECTION DUE TO WEIGHT OF SURFACE COURSE AND RAILING IS 1/8". NET FINAL CAMBER OF BEAMS IS 1". THIS IS 1" IN EXCESS OF THE AMOUNT REQUIRED TO PLACE THE TOP OF THE BEAM PARALLEL TO PROFILE GRADE. 1/4" IS ADDED TO THIS AMOUNT AT THE ENDS TO COMPENSATE FOR THE SAG VERTICAL CURVE. THIS EXCESS AMOUNT SHALL BE COMPENSATED FOR BY THICKENING THE 403 LEVELING COURSE FROM 1 1/4" AT THE CENTER OF THE SPAN TO 2 1/2" AT THE ENDS OF SPANS.



THE FOLLOWING DETAILS FROM EXJ-3-82 APPLY TO THIS PROJECT:

- SHEET 174 SECTION A-A (ROADWAY GRADIENT OF 2% OR LESS) DETAIL A, DETAIL B JOINT ARMOR ADJUSTMENT DETAIL
- SHEET 374 JOINT PLAN - SUPERSTRUCTURE SITE ARMOR ANCHOR PLATES PLATE C DETAILS

THE FOLLOWING NOTES FROM EXJ-3-82 APPLY TO THIS PROJECT:

- SHEET 174 TRANSVERSE JOINTS
- SHEET 374 MATERIALS PRESTRESSED CONCRETE BOX BEAMS MEASUREMENT

THE FOLLOWING DETAILS FROM EXJ-4-87 APPLY TO THIS PROJECT:

- SHEET 275 SECTION X-X (WITH SUPERSTRUCTURE ARMOR PER EXJ-3-82)
- SHEET 475 SPLIT RETAINER DETAIL SPLIT SEAL GLAND DETAIL JOINT ARMOR ADJUSTMENT DETAIL DETAIL Z

THE FOLLOWING NOTES FROM EXJ-4-87 APPLY TO THIS PROJECT:

- SHEET 275 JOINTS IN END DAM ARMOR JOINTS IN RETAINERS MINIMUM LENGTH OF RETAINER CONCRETE UNDER JOINT ARMOR
- SHEET 575 GENERAL NOTES WITH THE FOLLOWING COMMENTS ☆ CONSTRUCTION PROCEDURE

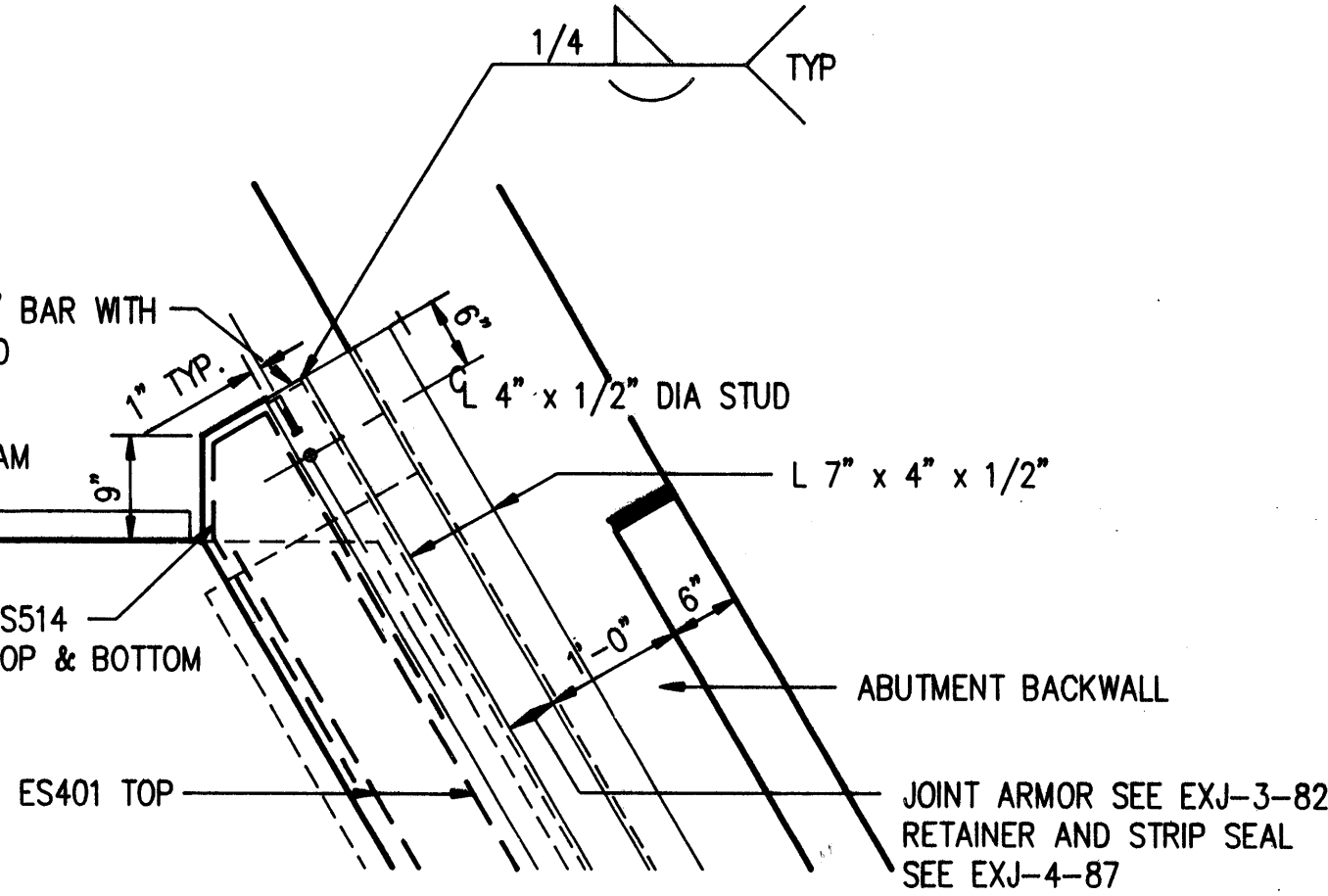
THE FOLLOWING DETAILS FROM PSBD-1-81 APPLY TO THIS PROJECT:

- SHEET 174 BEAM LIFTING INSERTS WALL THICKENING AT GUARDRAIL ANCHORS DETAILS AND REINFORCING OF BEAM ENDS NOTCH DETAILS (EXCEPT FOR FASCIA BEAM WITH NOTCH) EXPANSION DETAILS (FILL HOLE WITH 705.04 JOINT SEALER)
- SHEET 274 OVER 26" SKEW DIAPHRAGM DETAILS FOR 4' WIDE BEAMS TRANSVERSE TIE ROD DETAILS JOINT AT CENTERLINE ROADWAY BEAM DIMENTIONAL TOLERANCES
- SHEET 374 B21-48 NON COMPOSITE BEAM

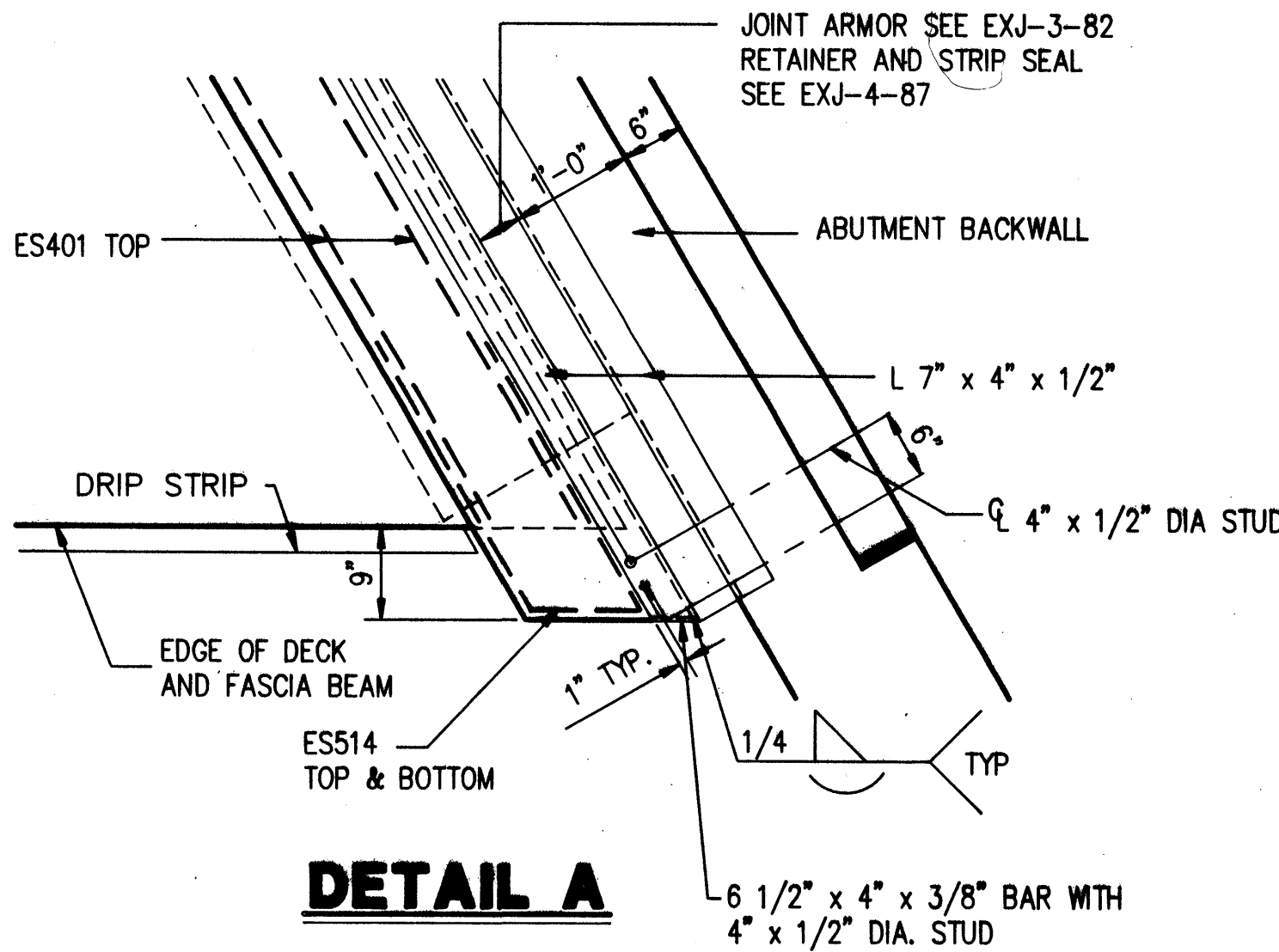
THE FOLLOWING NOTES FROM PSBD-1-81 APPLY TO THIS PROJECT:

- SHEET 174 TRANSVERSE TIE RODS GALVANIZING ANCHOR DOWELS NOTCHES END OF BEAMS

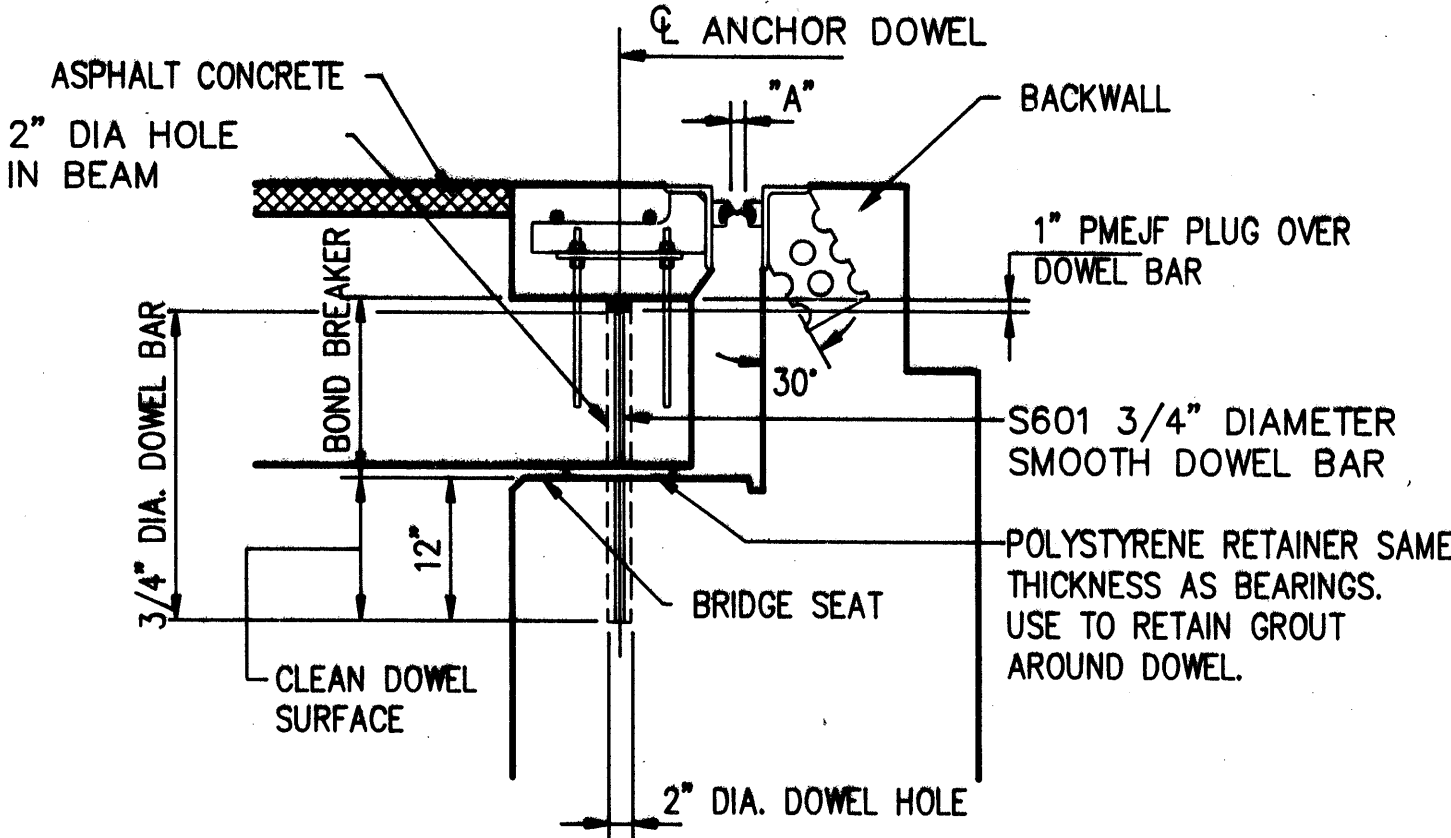
EXJ-4-87 STRIP SEAL		
TEMP. OF	DIMENSION "A" ●	SEAL GLAND SIZE
30°-90°	1 3/4"	3"
● FOR EXPANSION END ONLY		



DETAIL B



DETAIL A



FIXED ANCHOR DOWEL AND STRIP SEAL DETAIL

(EXPANSION END SIMILAR, USE TABLE FOR DIMENSION "A") (COST INCLUDED WITH ITEM 515)

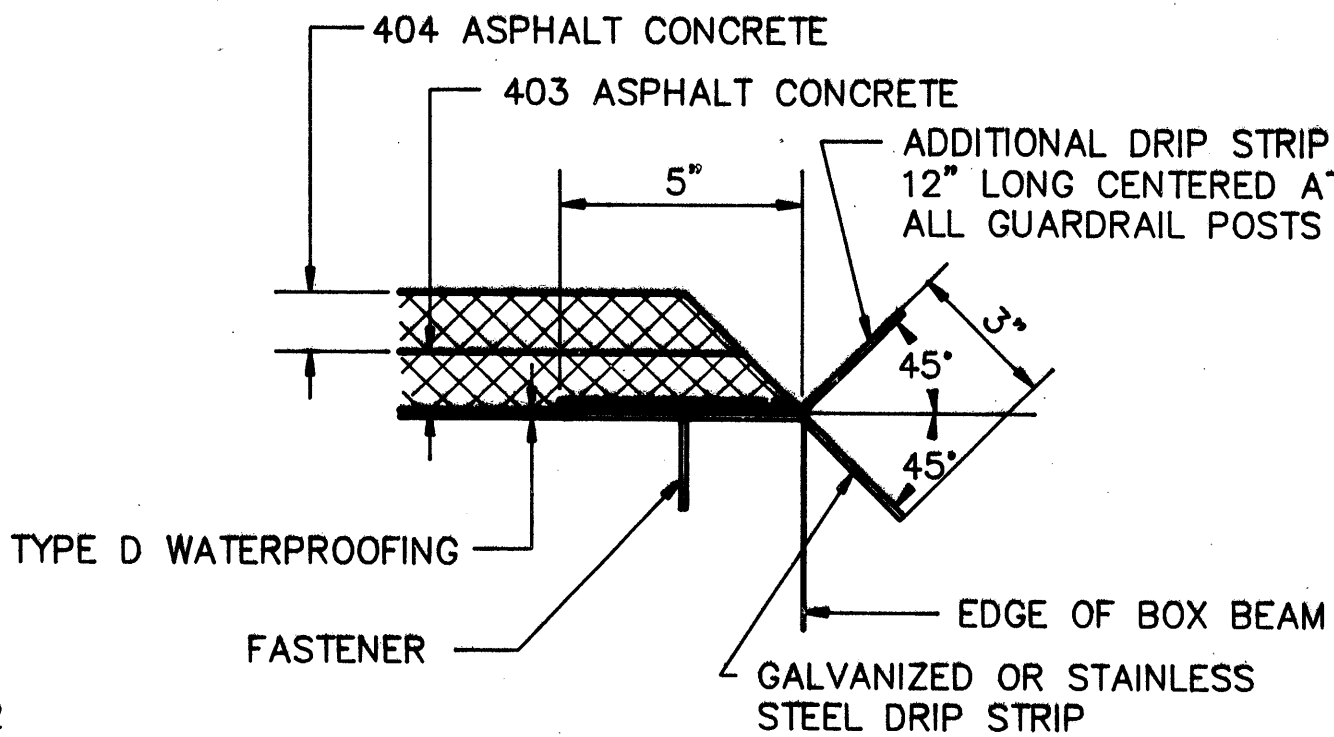
PROCEDURE: PLACE PMEJF GROUT RETAINER. DRILL AND CLEAN DOWEL HOLES. THEN PLACE NON-SHRINKING GROUT DOWEL AND 1 INCH MINIMUM THICKNESS PFEJF PLUG.

PMEJF = PREMOLDED EXPANSION JOINT FILLER

"A" = 2" FOR FIXED EXPANSION JOINT (FORWARD ABUTMENT)

ANCHOR DOWELS * INCLUDED FOR PAYMENT WITH ITEM 515				
MARK	NO.	LENGTH	WEIGHT	SHAPE
S601	16	2'-2"	52	STR.
TOTAL WEIGHT			52 LBS.	

* BARS SHALL BE SMOOTH, NOT DEFORMED



DRIP STRIP DETAIL

STEEL JOINT MEMBERS SHALL BE FURNISHED IN LENGTHS AS LONG AS PRACTICABLE. AT ALL FIELD BUTT JOINTS THEY SHALL BE RIGIDLY FASTENED TOGETHER AS REQUIRED PRIOR TO PLACING CONCRETE.

POGGEMEYER DESIGN GROUP 6/6
ENGINEERS-ARCHITECTS-PLANNERS
BOWLING GREEN, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. WAY-301-0284
WAYNE COUNTY STA. 149+60.69 TO STA. 150+37.31

DESIGNED R.R.H. DRAWN J.E.F. CHECKED G.A.B. REVIEWED J.F.M. 8-89 REVISED

SUPERSTRUCTURE DETAILS