MICROFILMED
JAN 10 1992

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

WAY - 226 - (0.44)(1.53)	OHIO FHWA REGION 5	1 / 32
BRS-481(3), BRS-435(3)	FEDERAL PROJECT	

WAY - 226 - (0.44)(1.53)
CLINTON TOWNSHIP
WAYNE COUNTY

BRS-481(3)
BRS-435(3)

DESIGN DESIGNATIONS

		WAY-226-0.44	WAY-226-1.53
1985 ADT	=	1075	2950
2005 ADT	=	1525	3975
DHV	=	165	425
D	=	50%	55%
T	=	7%	7%
V	=	40 MPH	40 MPH

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
Guardrail (existing) (proposed)

INDEX OF SHEETS

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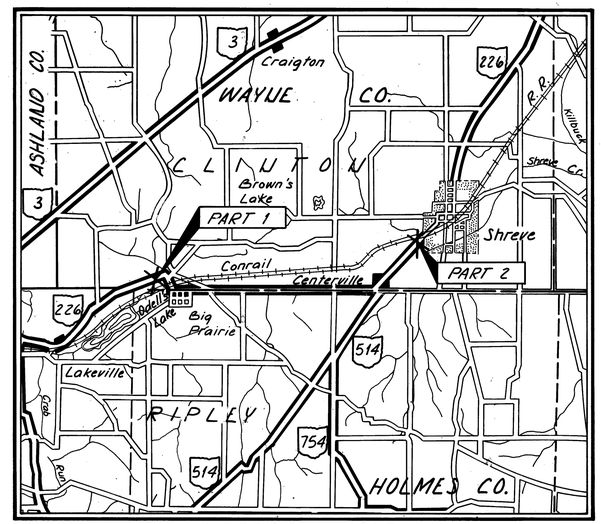
Revised 11-19-86 D.F.T.



LOCATION MAP

SCALE IN MILES
0 1 2 3 4

Portion to be improved
State & Federal Routes
Other Roads

SCALES

Plan 20 0 20
Profile: Horizontal 20 0 20, Vertical 5 0 5
Cross Section: Horizontal 5 0 5, Vertical 5 0 5

MICROFILMED
DEC 5 1991

1985 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 *require the closing to traffic of the highway and that detours will be provided as set forth on these plans.*

Approved *Gary W. Crim*
Date *7/29/85* District Deputy Director of Transportation

FFE Approved *Walter J. Jatinger III*
Date *8-29-85* Engineer, Bureau of Bridges and Structural Design

Approved *Wayne H. Kandle*
Date *1-10-86* Chief Engineer, Planning and Design

Approved *Warren J. Smith*
Date *1-10-86* Director, Department of Transportation

LINE DATA

	PROJECT	WORK
PART 1 (WAY-226-0.44)		
BEGIN	STA. 23+10	STA. 22+30
END	STA. 24+75	STA. 25+50
NET LENGTH	165.00 LIN.FT.	320.00 LIN.FT.
PART 2 (WAY-226-1.53)		
BEGIN	STA. 80+75	STA. 79+80
END	STA. 82+20	STA. 84+00
NET LENGTH	145.00 LIN.FT.	420.00 LIN.FT.
TOTAL PROJECT		
NET LENGTH	310.00 LIN.FT.	740.00 LIN.FT.
	0.059 MILES	0.140 MILES

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

SUPPLEMENTAL SPECIFICATIONS		
824	10-8-82	
836	3-12-75	
847	10-17-83	
947	10-17-83	

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
BP-5	1-11-85	MC-4	7-26-76	AS-1-81	11-27-81		
				DBR-2-73	4-10-73		
		MC-10	5-1-76	PSBD-1-81	9-18-81		
GR-1	1-11-85	MC-11	8-1-78	SB-2-73	4-10-73		
GR-2B	2-5-82						
GR-3	1-21-85	LA-1	6-1-79				
GR-4	2-5-82						
GR-4A	1-30-84						

Plan Prepared By:
DISTRICT 3 DESIGN
(ROADWAY PLANS)
AND
MADISON MADISON INTERNATIONAL
(STRUCTURE PLANS)

SEAL

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED:
DIVISION ADMINISTRATOR DATE

Project: WAY-226-(0.44)(1.53) WAYNE COUNTY
Date of Letting _____ 19__, Contract No. _____

LD0300 Rev. 1-1-81

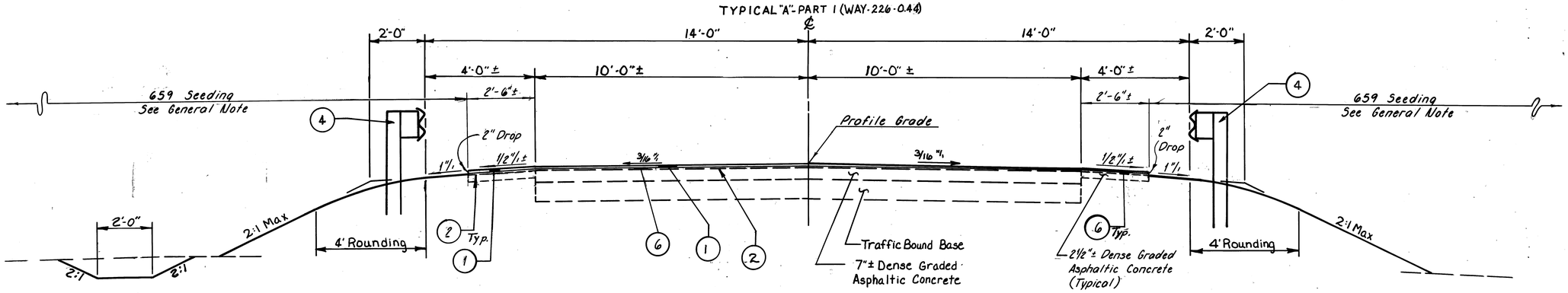
FHWA REGION	STATE	PROJECT	
5	OHIO		

WAY-226-(0.44)(1.53)

2/32

TYPICAL SECTIONS
TYPE 404

TYPICAL "A"-PART 1 (WAY-226-0.44)

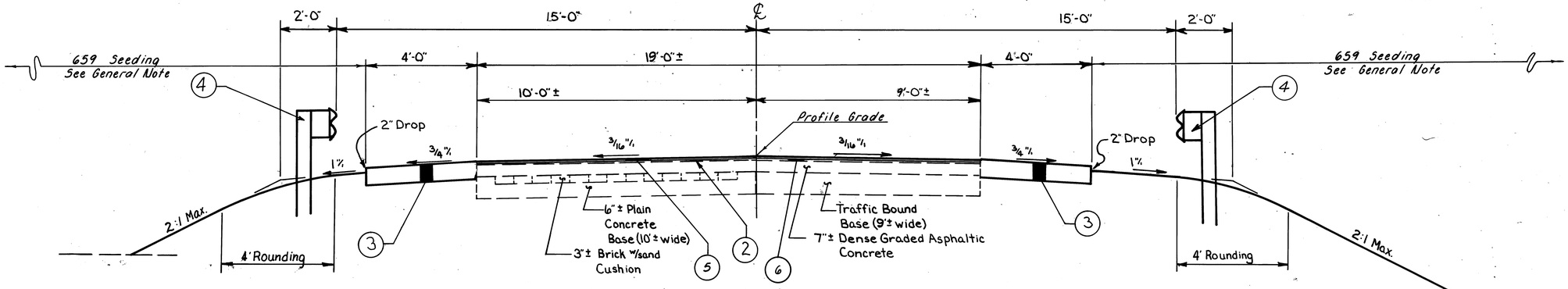


Limits of Bridge & Approach Slabs:
Sta. 23 + 44.42 to Sta. 24+30.59

STA. 23 + 10 TO STA. 23 + 44.42 = 34.42 LIN. FT.
STA. 24 + 30.59 TO STA. 24 + 75 = 44.41 LIN. FT.
TOTAL = 78.83 LIN. FT.

NOTE: All angles at change of slope shall have 2' rounding unless otherwise shown.

TYPICAL "B" PART 2 (WAY-226-1.53)



STA. 80 + 75 TO STA. 80 + 97.23 = 22.23 LIN. FT.
STA. 81 + 84.77 TO STA. 82 + 20 = 35.23 LIN. FT.
TOTAL = 57.46 LIN. FT.

Limits of Bridge & Approach Slabs:
Sta. 80 + 97.23 to Sta. 81 + 84.77

LEGEND

1. 1 1/4" 404 Asphalt Concrete, AC-20
2. 407 Tack Coat — See General Note
3. 8" 304 Aggregate Base
4. 606 Guard Rail, Type S
5. 1" 404 Asphalt Concrete, AC-20
6. 0" Min. 403 Asphalt Concrete, AC-20, Pre-Leveling Course

R.B.P.

CALC. BY DRM 3/05
CHK'D. BY RGS 3/05

FIELD OFFICE:

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 300 SQ. FT. OF FLOOR SPACE. PAYMENT SHALL BE AT THE LUMP SUM PRICE BID FOR ITEM 619, FIELD OFFICE.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS:

THE ROUNDED CORNERS SHOWN ON THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

ELEVATION DATUM:

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

CONTINGENCY QUANTITIES:

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

CONSTRUCTION NOISE:

IN ORDER TO MINIMIZE ADVERSE CONSTRUCTION NOISE IMPACTS, NO POWER-OPERATED, CONSTRUCTION-TYPE DEVICE SHALL BE OPERATED BETWEEN THE HOURS OF 10:00 P.M. TO 6:00 A.M.. IN ADDITION, NO POWER-OPERATED CONSTRUCTION-TYPE DEVICE SHALL BE OPERATED IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL:

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER, FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

207 - STRAW OR HAY BALES 50 EACH

UNDERGROUND UTILITIES:

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 OF THE OHIO REVISED CODE. THERE ARE NO KNOWN UNDERGROUND UTILITIES WITHIN THE LIMITS OF THE PROJECT.

UTILITY OWNERSHIP:

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

TELEPHONE:

UNITED TELEPHONE CO. OF OHIO
215 N. MARKET ST.
WOOSTER, OHIO 44691
PHONE: (216) 264-8611

POWER:

OHIO POWER COMPANY
301 CLEVELAND AVENUE, S.W.
P.O. BOX 400
CANTON, OHIO 44701
PHONE: (216) 456-8173

407 TACK COAT:

THE TACK COAT OPERATION SHALL BE DETERMINED AS PER SPECIFICATION 407.05. PLAN QUANTITIES INDICATE AVERAGE APPLICATION RATE OF 0.10 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

CONDUIT END TREATMENT:

IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, CONCRETE RIPRAP, ROCK CHANNEL PROTECTION, SEEDING, ETC.

CONNECTIONS TO EXISTING PIPE:

WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEMS.

LOCATION OF GUARDRAIL:

THE LOCATIONS OF GUARDRAIL RUNS, AS SHOWN IN THESE PLANS, ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

REMOVAL OF TREES AND STUMPS:

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING, EXCEPT THAT THOSE TREES FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	NO. TREES		NO. STUMPS	
	PART 1	PART 2	PART 1	PART 2
18"	0	3	0	0
30"	0	2	0	0
48"	0	0	0	0
60"	0	0	0	0

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING.

SEEDING AND MULCHING:

QUANTITIES FOR SEEDING, WHERE REQUIRED BY PLAN, ARE CALCULATED FOR THE SOIL AREAS BETWEEN TEN (10) FEET OUTSIDE THE WORK LIMITS, AS SHOWN ON THE CROSS SECTIONS, OR TO THE RIGHT-OF-WAY OR TEMPORARY LINES, IF SUCH LINE IS LESS THAN TEN (10) FEET FROM THE WORK LIMITS.

WATERING PERMANENT SEEDED AREAS:

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH OF THE PERMANENT SEEDED AREAS AS PER 659.09:

ITEM 659 WATER 4 M-GAL.

EROSION CONTROL:

ITEMS 601 AND 670 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS AND TURF OF A STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE 670. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES FOR THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

DUST CONTROL:

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER FOR DUST CONTROL:

ITEM 616 WATER 50 M-GAL.

SANITARY FLOW INTO HIGHWAY DRAINAGE SYSTEMS:

THIS PLAN MAKES NO PROVISION FOR CONNECTING, NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT, ANY EXISTING OR NEW DRAINAGE INTO THE HIGHWAY DRAINAGE SYSTEM WHEN SUCH DRAINS CARRY FLOW FROM ANY PLUMBING FIXTURES INCLUDING FLOOR DRAINS AND SINK DRAINS OR DRAINS FROM LIVESTOCK LOTS OR BARNS.

EXISTING PIPE CARRYING FLOW WHICH COMES WITHIN THE CATEGORY OUTLINED ABOVE SHALL BE PLUGGED WITH CLASS C CONCRETE AT THE RIGHT-OF-WAY LINE. PAYMENT FOR SAID PLUGGING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION OR THE PERTINENT 202 ITEM.

TEMPORARY STREAM CROSSING FORDS:

WHERE STREAM CROSSING FORDS ARE REQUIRED FOR EQUIPMENT CROSSINGS, THE FOLLOWING SHALL APPLY TO THE CONTRACTORS' OPERATIONS:

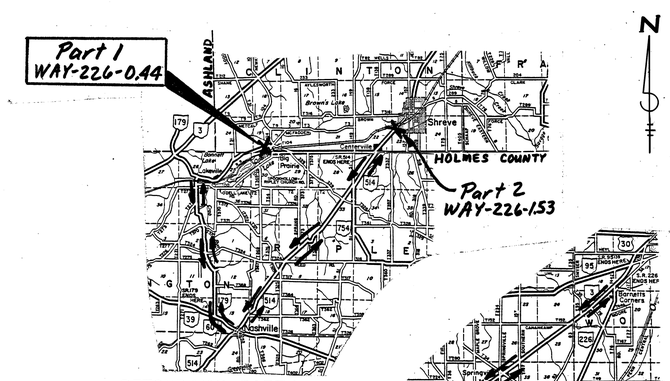
THE CROSSING SHALL CONSIST OF CLEAN NON-TOXIC GRANULAR OR ROCK MATERIAL, PROPERLY MAINTAINED TO PREVENT EROSION WITH PROVISIONS FOR CONVEYANCE OF ANTICIPATED HIGH FLOWS.

FURTHERMORE, IT SHALL FOLLOW PART 330.5 SPECIFIC CATEGORIES OR DISCHARGES-NATIONALLY PERMITTED, PARAGRAPH (A) (14) MINOR ROAD CROSSING FILLS--OF THE FEDERAL REGISTER--CORPS OF ENGINEERS INTERIM FINAL REGULATIONS PUBLISHED JULY 22, 1982.

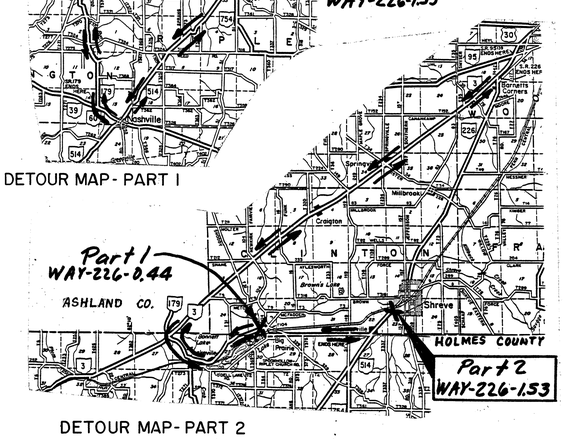
614 MAINTAINING TRAFFIC:

THROUGH TRAFFIC ON S.R. 226 SHALL BE DETOURED AS SHOWN BELOW . THE DETOUR FOR PART 1 (WAY-226-0.44) SHALL BE LIMITED TO A MAXIMUM OF TWO (2) CONSECUTIVE MONTHS DURATION. THE DETOUR FOR PART 2 (WAY-226-1.53) SHALL BE LIMITED TO A MAXIMUM OF THREE (3) CONSECUTIVE MONTHS DURATION. ONLY ONE PART OF THIS PROJECT SHALL BE DETOURED AT A TIME.

ALL DETOUR SIGNING WILL BE PROVIDED BY STATE FORCES. THE CONTRACTOR SHALL NOTIFY THE DISRICT 3 TRAFFIC ENGINEER SEVEN (7) DAYS IN ADVANCE OF THE PLACEMENT OF THE DETOUR SIGNING.



DETOUR MAP- PART 1



DETOUR MAP- PART 2

614 WORK ZONE PAVEMENT MARKINGS

GENERAL

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND WHEN NECESSARY, REMOVE WORK ZONE RETROREFLECTIVE PAVEMENT MARKINGS ON EXISTING, RECONSTRUCTED, RESURFACED OR TEMPORARY ROADS WITHIN THE WORK LIMITS, IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

THE MARKINGS SHALL BE MAINTAINED IN GOOD CONDITION TO PROVIDE DAY AND NIGHT VISIBILITY. THE MARKINGS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER TO MAINTAIN REQUIRED VISUAL EFFECTIVENESS AND NIGHT VISIBILITY AT NO ADDITIONAL COST TO THE STATE.

THE CONTRACTOR SHALL, IN ADVANCE OF ANY SECTION OF ROADWAY LACKING OMUTCD FULL PATTERN STANDARD DIMENSION EDGE LINE OR CENTER LINE MARKINGS, ERECT A "NO EDGE LINES" (OW-167) SIGN OR "UNMARKED NO PASSING ZONES" (OW-168) SIGN OR BOTH AS MAY BE APPROPRIATE. THESE SIGNS SHALL BE IN PLACE PRIOR TO EXPOSING THE ROADWAY TO TRAFFIC. THESE SIGNS SHALL BE REPEATED EVERY 1 TO 2 MILES AND AT OTHER LOCATIONS AS NECESSARY. THESE SIGNS SHALL BE REMOVED WHEN THEY NO LONGER APPLY. THE COST FOR FURNISHING AND ERECTING AND SUBSEQUENTLY REMOVING THESE SIGNS SHALL BE INCLUDED IN 614 MAINTAINING TRAFFIC, UNLESS SPECIFICALLY ITEMIZED.

TEMPORARY PAVEMENT MARKING MATERIALS

UNLESS OTHERWISE INDICATED ON THE PLANS, TEMPORARY PAVEMENT MARKINGS MAY BE EITHER 621.02*PAINT OR 947.03 TYPE B OR C PREFORMED MATERIAL.

*When markings are not liable to be tracked, either conventional or fast drying paint may be used for 621.02

PAINT

PAINTED MARKINGS SHALL BE IN ACCORDANCE WITH 621 EXCEPT THAT THE INCREASE OF 25 PERCENT IN THE APPLICATION RATE FOR NEW BITUMINOUS PAVEMENT AND PARAGRAPH 621.14 SHALL NOT APPLY.

TYPE B AND TYPE C PREFORMED MATERIAL

PREFORMED MATERIAL SHALL COMPLY WITH 947.03 EXCEPT THAT NO PREFORMED MATERIAL CONTAINING METAL SHALL BE PLACED ON ANY SURFACE UNLESS IT WILL BE REMOVED LATER BY THE CONTRACTOR. TEMPORARY PAVEMENT MARKINGS OF 947.03 PREFORMED MATERIAL SHALL BE REMOVED PRIOR TO PLACEMENT OF 621 OR 847 SURFACE COURSE MARKINGS AT THAT LOCATION. PREFORMED MATERIAL SHALL BE APPLIED IN ACCORDANCE WITH 847 EXCEPT AS MODIFIED HEREIN.

PLACEMENT

TEMPORARY MARKINGS SHALL BE COMPLETE AND IN PLACE ON ALL PAVEMENT PRIOR TO EXPOSING IT TO TRAFFIC. WHEN TEMPORARY MARKINGS CONFLICT WITH THE TRAFFIC PATTERN, THEY SHALL BE REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH 621.134.

TEMPORARY MARKING CLASSES

CLASS I MARKINGS

CLASS I MARKINGS SHALL BE APPLIED TO THE FULL DIMENSIONS AS DEFINED IN 621 WITH THE FOLLOWING ADDITIONS OR EXCEPTIONS:

1) LANE LINES SHALL BE 4-INCHES IN WIDTH.
2) TRANSVERSE LINES SHALL BE 8-INCHES IN WIDTH.
3) STOP LINES SHALL BE 12-INCHES IN WIDTH.
4) CROSS WALK LINES SHALL BE 8-INCHES IN WIDTH.

CLASS II MARKINGS

CLASS II MARKINGS (ABBREVIATED) SHALL BE DEFINED AS FOLLOWS:

CENTER LINES SHALL CONSIST OF SINGLE, YELLOW 4-INCH WIDE BY A MINIMUM OF 48-INCH LONG DASHES SPACED AT A MAXIMUM OF 40-FOOT INTERVALS.

LANE LINES SHALL CONSIST OF WHITE 4-INCH WIDE BY A MINIMUM OF 48-INCH LONG DASHES SPACED AT A MAXIMUM OF 40-FOOT INTERVALS.

GORE MARKINGS SHALL BE TWO CONTINUOUS, WHITE 4-INCH LINES PLACED AT THE THEORETICAL GORE OF AN EXIT RAMP OR DIVERGING ROADWAYS.

THE PAINT APPLICATION RATE SHALL BE NOT LESS THAN 1.6 GALLONS PER MILE FOR LANE LINE AND CENTER LINE AND 16 GALLONS PER MILE FOR GORE MARKINGS.

CONFLICTING EXISTING MARKINGS

THE CONTRACTOR SHALL, PRIOR TO PLACING TEMPORARY MARKINGS, REMOVE ALL CONFLICTING EXISTING MARKINGS VISIBLE TO THE TRAVELING PUBLIC DURING DAYLIGHT OR NIGHTTIME HOURS IN ACCORDANCE WITH 621.134. THE COST FOR REMOVAL OF CONFLICTING MARKINGS SHALL BE INCLUDED IN 614 MAINTAINING TRAFFIC UNLESS SPECIFICALLY ITEMIZED.

THE CONTRACTOR SHALL ALSO REMOVE THE PRISMATIC RETRO-REFLECTOR WITHIN ANY RAISED PAVEMENT MARKER (RPM) WHICH IS IN CONFLICT WITH THE TEMPORARY PAVEMENT MARKINGS. WHEN THE TEMPORARY PAVEMENT MARKINGS ARE REMOVED AND THE RPM IS NO LONGER IN CONFLICT, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE RECESSED REFLECTOR ATTACHMENT AREA OF THE CASTING AND INSTALL A NEW PRISMATIC RETRO-REFLECTOR OF THE SAME KIND AND COLOR. THE COST FOR THIS WORK SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS.

INTERIM MARKINGS

WITHIN 21 CALENDAR DAYS AFTER OPENING ANY LENGTH OF PAVEMENT TO TRAFFIC, THE 621 OR 847 PAVEMENT MARKINGS CALLED FOR IN THE PLANS OR EQUIVALENT 614 CLASS I, PAINT MARKINGS SHALL BE APPLIED. THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO PLACE AND MAINTAIN 614 CLASS I PAINT MARKINGS AS PART OF THE LUMP SUM BID FOR 614 MAINTAINING TRAFFIC.

FOR EACH CALENDAR DAY BEYOND 21 DAYS THAT THIS WORK SHALL REMAIN UNCOMPLETED, THE PROVISIONS OF 108.07 WILL BE INVOKED, EXCEPT THAT BETWEEN NOVEMBER 15 AND APRIL 15 WEATHER CONDITIONS SHALL NOT BE AN ACCEPTABLE REASON FOR EXTENSION.

METHOD OF MEASUREMENT

TEMPORARY PAVEMENT MARKINGS WILL BE MEASURED COMPLETE IN PLACE, BY CLASS AND MATERIAL, IN THE UNITS DESIGNATED. LINE QUANTITIES WILL BE THE LENGTH OF THE COMPLETED STRIPE, INCLUDING GAPS, INTERSECTIONS, AND OTHER SECTIONS OF PAVEMENT NOT NORMALLY MARKED, IN ACCORDANCE WITH 621.15.

TEMPORARY PAVEMENT MARKINGS WILL INCLUDE THE LAYOUT, APPLICATION AND REMOVAL OF THE MARKINGS, WHEN REQUIRED.

BASIS OF PAYMENT

PAYMENT FOR ACCEPTED QUANTITIES COMPLETE IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR PLACEMENT, MAINTENANCE AND NECESSARY REMOVAL OF THE MARKINGS.

ITEM	UNIT	DESCRIPTION
614	MILE	TEMPORARY LANE LINES, CLASS _____, ____*
614	MILE	TEMPORARY CENTER LINES, CLASS _____, ____*
614	LIN. FT.	TEMPORARY CHANNELIZING LINES, CLASS I, ____*
614	MILE	TEMPORARY EDGE LINES, CLASS I, ____*
614	LIN. FT.	TEMPORARY GORE MARKINGS, CLASS II, ____*
614	LIN. FT.	TEMPORARY STOP LINES, CLASS I, ____*
614	LIN. FT.	TEMPORARY CROSSWALK LINES, CLASS I, ____*
614	EACH	TEMPORARY LANE ARROWS, CLASS I, ____*
614	EACH	TEMPORARY RAILROAD SYMBOL MARKINGS, CLASS I, ____*
614	EACH	TEMPORARY WORD "ONLY" ON PAVEMENT, 72-INCH, CLASS I, ____*
614	LIN. FT.	TEMPORARY TRANSVERSE LINES, CLASS I, ____*
614	LIN. FT.	TEMPORARY DOTTED LINES, CLASS I, ____*

*621 PAINT, 947.03 TYPE B OR 947.03 TYPE C

THE FOLLOWING QUANTITY IS PROVIDED FOR TEMPORARY PAVEMENT MARKINGS ON THE COMPLETED 404 SURFACE COURSE AND BRIDGE DECKS:

614 TEMPORARY CENTER LINES, CLASS II — 0.03 MILES (PART 1)
0.03 MILES (PART 2)

CALCULATIONS

659 Commercial Fertilizer:

Part 1:

From General Summary: 1194 + 41 = 1235 sq. yd.

$\frac{1235 \text{ sq.yd.} \times 9 \times 20}{1000 \times 2000} = 0.11$ ton

Part 2:

From General Summary: 1832+20 = 1852 sq. yd.

$\frac{1852 \text{ sq. yd.} \times 9 \times 20}{1000 \times 2000} = 0.17$ ton

Permanent Pavement Markings:

621 Edge Lines (white)

Part 1:

Sta. 23+10 to Sta. 24+75 = 165 x 2 = 330 lin. ft.
= 0.06 mile

Part 2:

Sta. 80+75 to Sta. 82+20 = 145 x 2 = 290 lin. ft.
0.06 mile

621 Center Lines

Part 1:

Broken Single:
Sta. 23+10 to Sta. 24+30± = 120 lin. ft.
Broken & Solid Double:
Sta. 24+30± to Sta. 24+75 = 45 lin. ft.
total = 165 lin. ft.
= 0.03 mile

Part 2:

Solid Double:
Sta. 80+75 to 82+20 = 145 lin. ft.
= 0.03 mile

GENERAL SUMMARY

CAL. C. BY: TPM 4/05
CHK'D. BY: R.O.S. 7/05

PART I - BRS-481 (3) FROM SHEET NUMBER								PART II - BRS-435 (3) FROM SHEET NUMBER								ITEM	PLAN TOTAL	UNIT	DESCRIPTION
3	4	5	6	9			SUB TOTAL	3	4	5	11	15	16		SUB TOTAL				
																			ROADWAY
LUMP							LUMP	LUMP							LUMP	201	LUMP		CLEARING AND GRUBBING
			73				73				64				64	202	137	SQ. YD.	WEARING COURSE REMOVED
											68				68	202	68	SQ. YD.	PAVEMENT REMOVED
			227				227				73				73	203	300	CU. YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
			165				165				579				579	203	744	CU. YD.	EMBANKMENT
			337.5				337.5				325				325	606	662.5	LIN. FT.	GUARDRAIL, TYPE 5
			3				3				2				2	606	5	EACH	ANCHOR ASSEMBLY, STANDARD TYPE A
			1				1									606	1	EACH	ANCHOR ASSEMBLY, STANDARD TYPE T
			4				4				4				4	606	8	EACH	BRIDGE TERMINAL ASSEMBLY, STANDARD TYPE B
20							20	30							30	616	50	M-GAL	WATER
																			EROSION CONTROL
			1194				1194				1832				1832	659	3026	SQ. YD.	SEEDING AND MULCHING
		0.11					0.11			0.17					0.17	659	0.28	TON	COMMERCIAL FERTILIZER
2							2	2							2	659	4	M-GAL	WATER
			41				41				20				20	670	61	SQ. YD.	DITCH EROSION PROTECTION
			2	64			66						15		15	601	81	CU. YD.	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
25							25	25							25	207	50	EACH	STRAW OR HAY BALES
																			DRAINAGE
			24				24									603	24	LIN. FT.	12" CONDUIT, TYPE D
											28				28	603	28	LIN. FT.	15" CONDUIT, TYPE D
																			TRAFFIC CONTROL
	0.03						0.03		0.03						0.03	614	0.06	MILE	TEMPORARY CENTERLINES, CLASS II
		0.06					0.06			0.06					0.06	621	0.12	MILE	EDGE LINES
		0.03					0.03			0.03					0.03	621	006	MILE	CENTER LINES
																			PAVEMENT
											9	30			39	304	39	CU. YD.	AGGREGATE BASE
			10				10				2				2	403	12	CU. YD.	ASPHALT CONCRETE, AC-20
			12				12				4				4	404	16	CU. YD.	ASPHALT CONCRETE, AC-20
												12			12	404	12	CU. YD.	ASPHALT CONCRETE, AC-20 (DRIVEWAYS)
			34				34				12				12	407	46	GAL.	TACK COAT
			125				125									611	125	SQ. YD.	REINFORCED CONCRETE APPROACH SLAB (T=13")
											200				200	611	200	SQ. YD.	REINFORCED CONCRETE APPROACH SLAB (T = 17")
																			STRUCTURES OVER 20 FEET
																			WAY-226-0045 SEE SHEET 19
																			WAY-226-0154 SEE SHEET 25
LUMP							LUMP	LUMP							LUMP	619	LUMP		FIELD OFFICE
							LUMP								LUMP	623	LUMP		CONSTRUCTION LAYOUT STAKES
							LUMP								LUMP	624	LUMP		MOBILIZATION
LUMP							LUMP	LUMP							LUMP	614	LUMP		MAINTAINING TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

6
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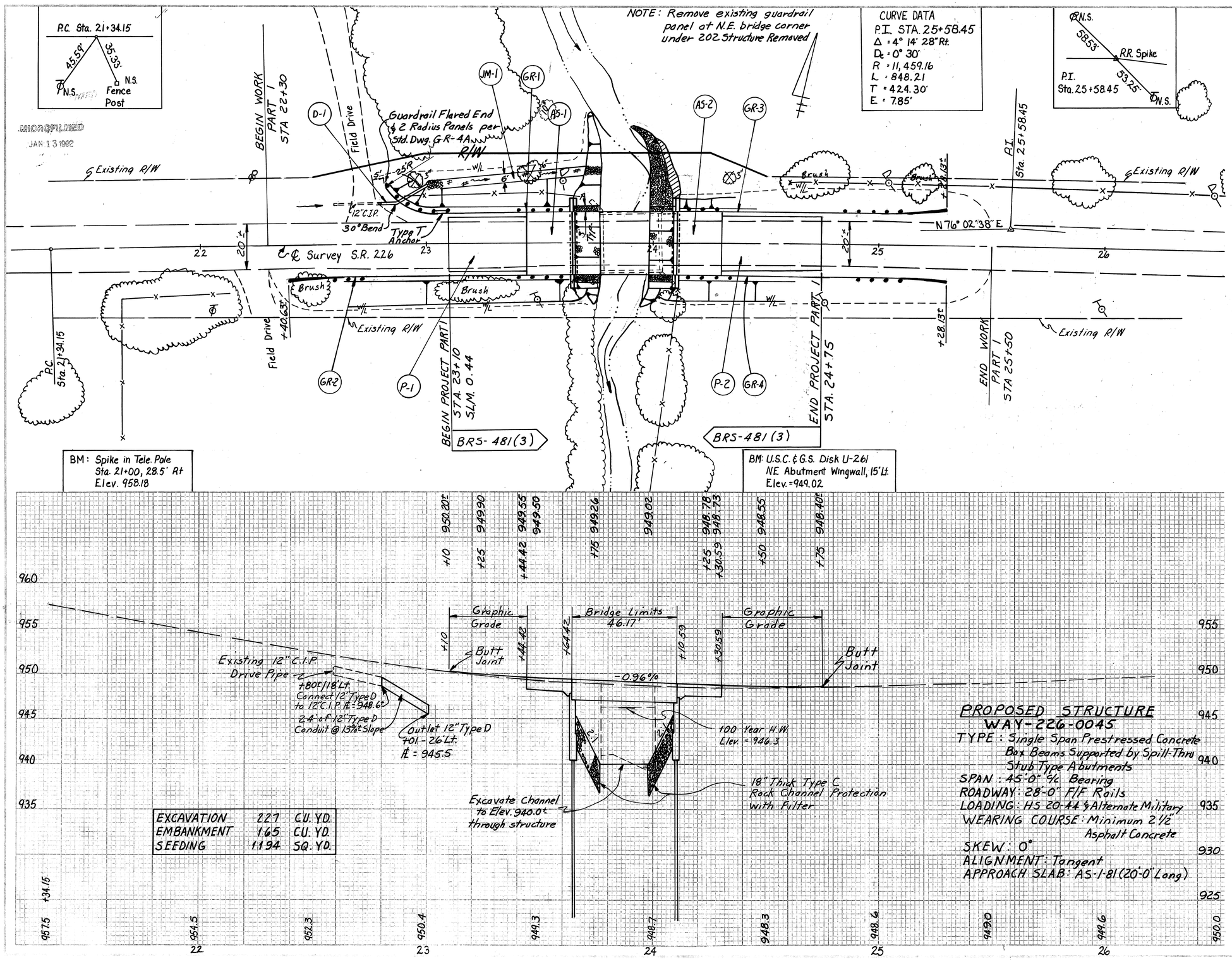
WAY-226-(0.44)(1.53)
PART I

Calc. by R.D.B. 7/65
Chk'd by R.D.S. 4/66



MICROFILMED
JAN 13 1992

EXISTING BRIDGE DATA
WAY-226-0045

TYPE: Concrete Beam
SPAN: 24'0" Clear
ROADWAY: 24'8" ± F/F Concrete Railings
SKEW: 0°
LOADING: H-15
WEARING SURFACE: 10" ± Asphalt
SUB-STRUCTURE: Concrete Gravity
ALIGNMENT: 0° 30' Curve, Rt.
CONDITION: Poor
DATE BUILT: 1931

Ref. No.	Station Limits	SIDE	Type 5 Guardrail (Lin. Ft.)	606 Type "A" Anchor Assembly (Each)	606 Type "T" Anchor Assembly (Each)	606 Type "B" Bridge Terminal Assembly (Each)	603 12" Conduit Type "D" (Lin. Ft.)	601 Rock Channel Protection Type C with Filter (Cu. Yds.)	404 Asphalt Concrete AC-20 1 1/4" (Cu. Yds.)	202 Wearing Course Removed (Sq. Yds.)	407 Tack Coat (Gal.)	611 Reinforced Conc. Approach Slab. T=13" (Sq. Yds.)	403 Asphalt Concrete AC-20 1 1/4" (Cu. Yd.)	403 Asphalt Concrete AC-20 Var. (Cu. Yd.)	670 Ditch Erosion Protection (Sq. Yds.)	Bends and Breeches 12" X 30° Bend (Each)
AS-1	23+44.42 to 23+64.42								2.2		62	62.2	2.2			
AS-2	24+10.59 to 24+30.59								2.2		62	62.2	2.2			
P-1	23+10 to 23+44.42								3.3	42	9.6			1.1		
P-2	24+30.59 to 24+75								4.3	31	12.3			3.9		
GR-1	22+82.5' to 23+59.38	Lt.	68.75		1	1										
GR-2	22+40.63' to 23+59.38	Rt.	93.75	1		1										
GR-3	24+15.63' to 25+28.13	Lt.	87.5	1		1										
GR-4	24+15.63' to 25+28.13	Rt.	87.5	1		1										
D-1	22+80.5' to 23+09'	Lt.					**24'	1.8							41	1
JM-1	23+09' to 23+77'	Lt.														
TOTALS		Lt.	337.5	3	1	4	24	1.8	12.0	73	34.3	124.4	9.4		41	X

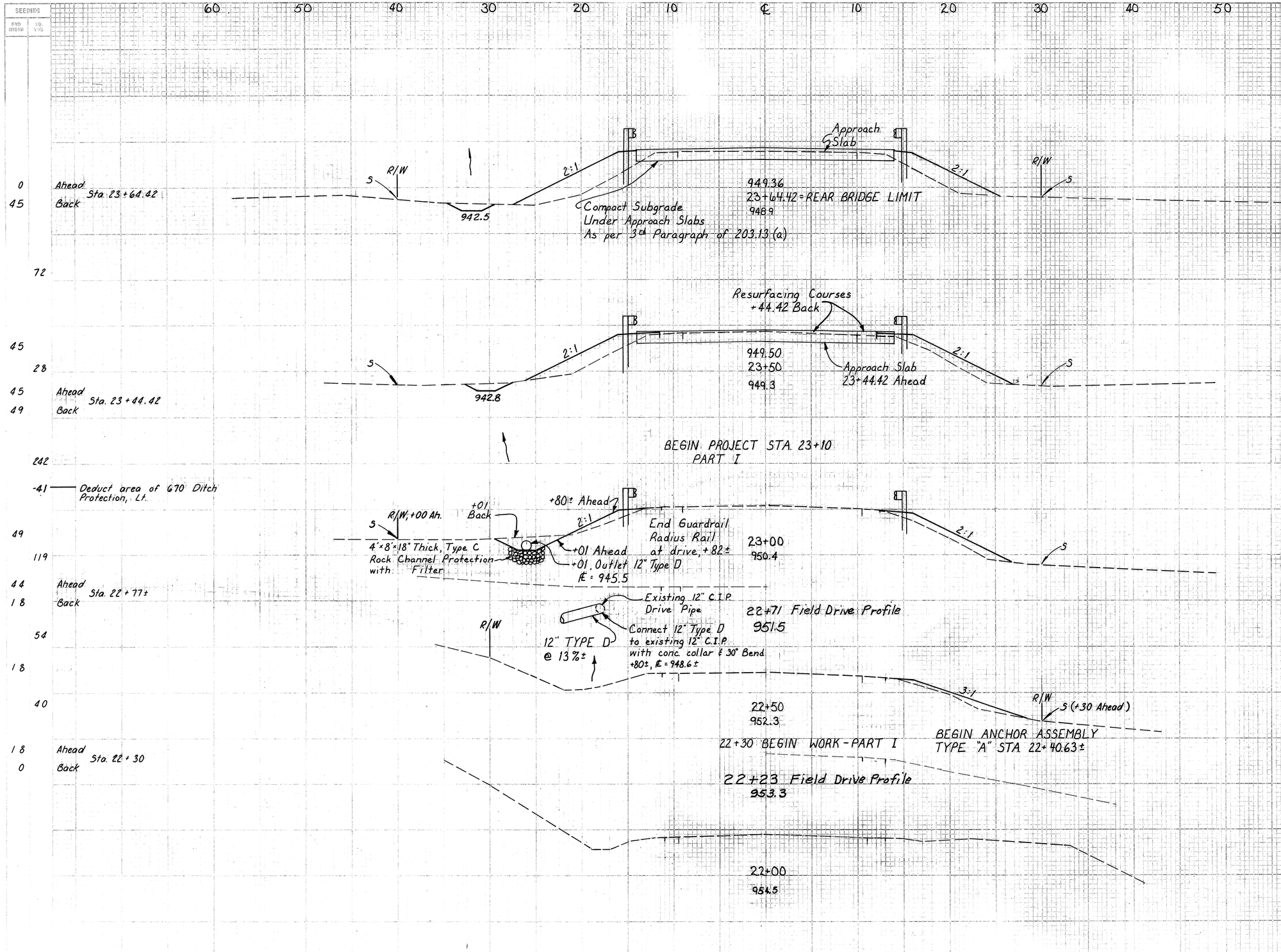
** Includes one 30° Bend

PLAN & PROFILE - PART I

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

WAY-226-(0.44)(1.53)
PART I

Calc. by J.P.F. 2/85
Chk'd. by [illegible] 2/85



		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
STA. 23+64.42	Ahead	0	0		
	Back	25	42		
				15	18
Sta. 23+44.42	Ahead	30	27		
	Back	3	27		
				6	6
Sta. 23+01	Ahead	7	15		
	Back	0	15		
				6	34
				0	1
		0	15		
				0	20
Add at Field Drive, + 77±Lt.					5
		0	7		
				0	3
Sta. 22+30		0	0		

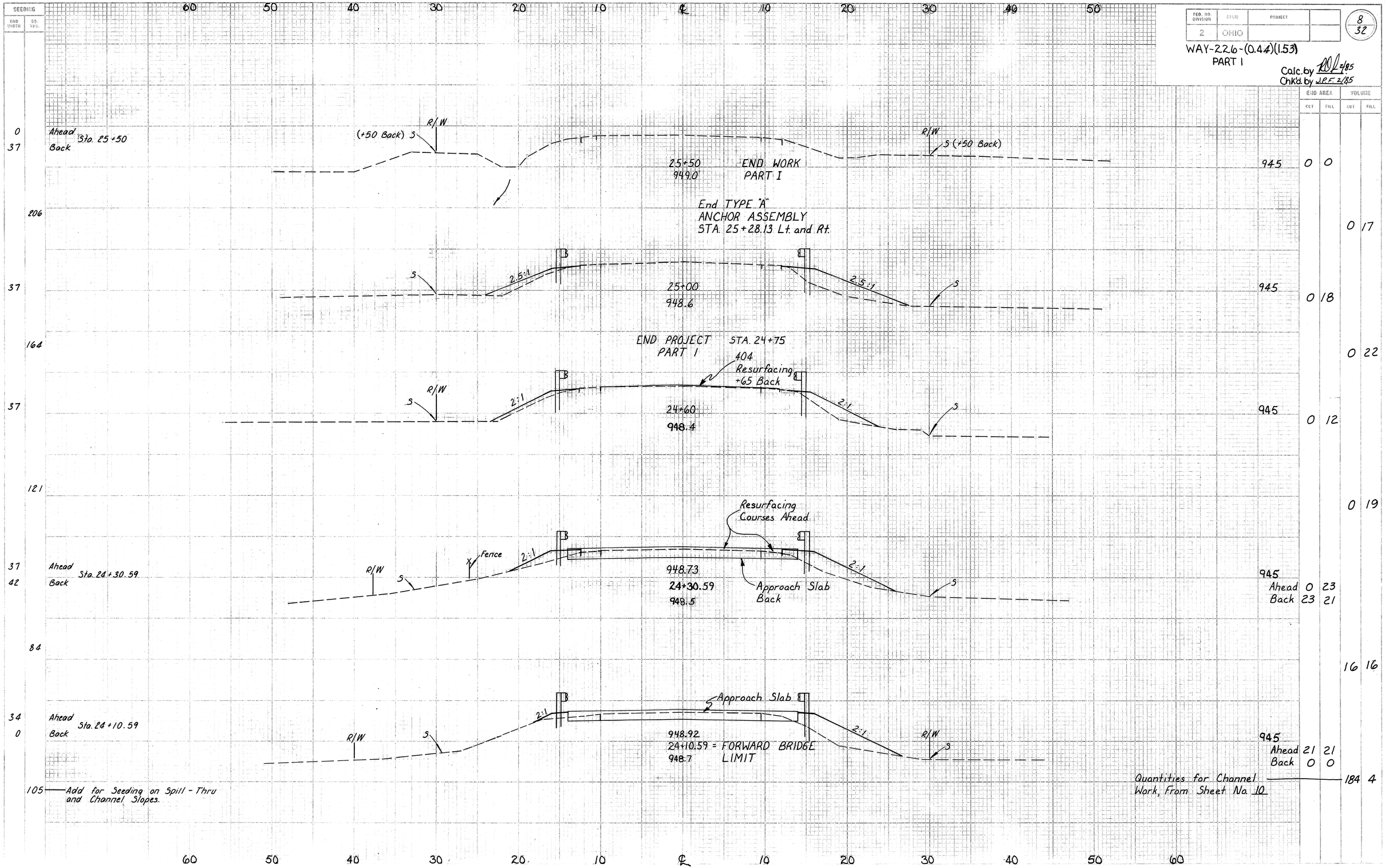
CROSS-SECTIONS-PART I

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

8/32

WAY-226-(0.44)(1.53)
PART I

Calc. by RDL 2/85
Chk'd. by JPF 2/85

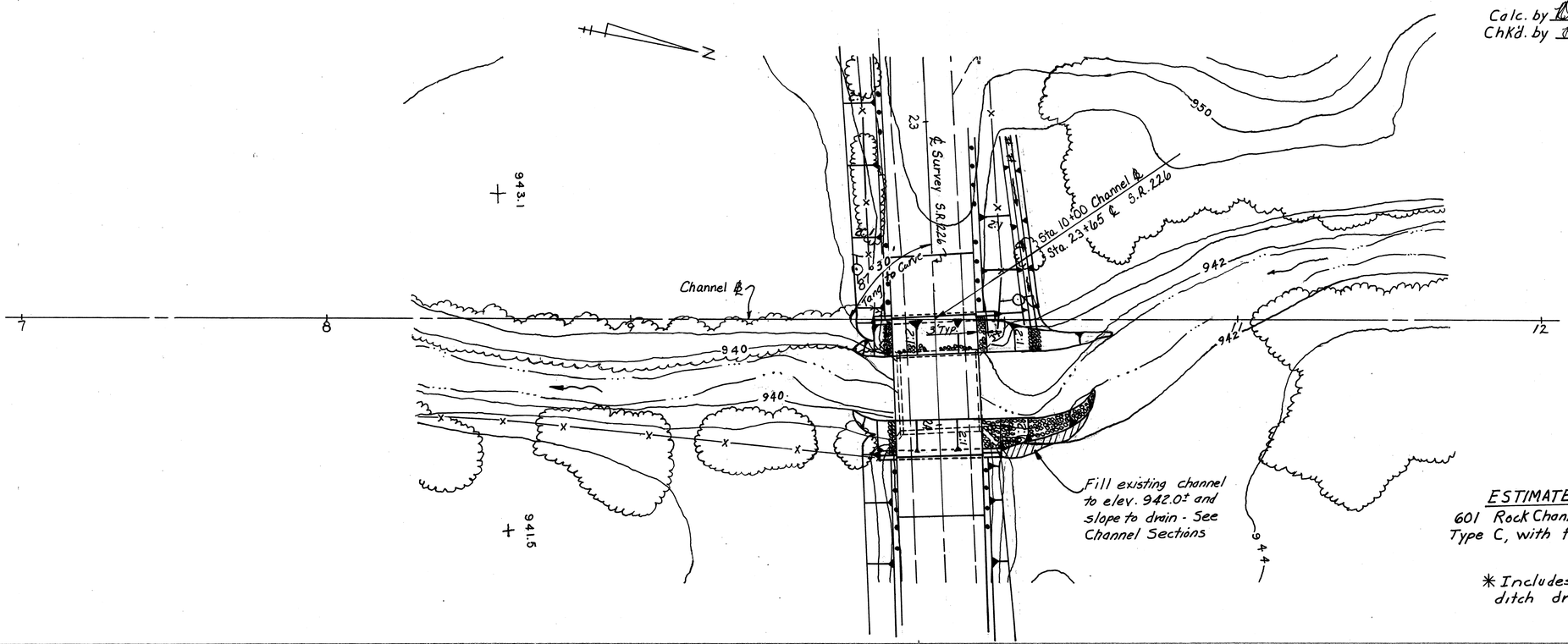


CROSS-SECTIONS - PART I

Calc. by DL 2/85
Chk'd. by RDH 4/85

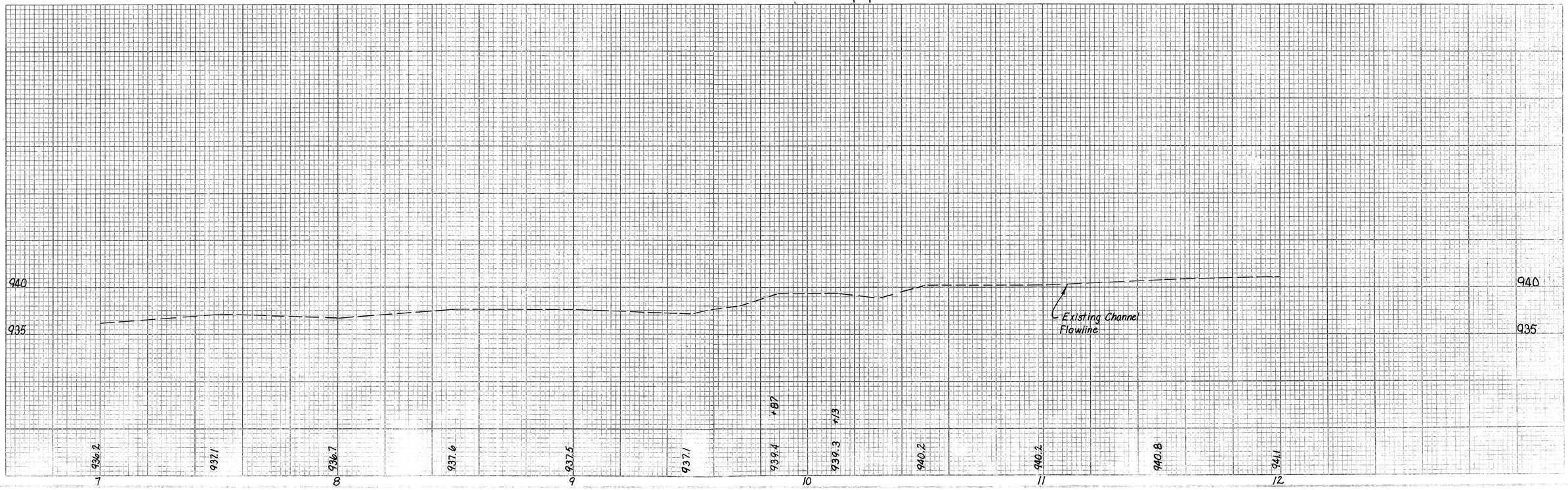
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

WAY-226-(0.44)(1.53)
PART I

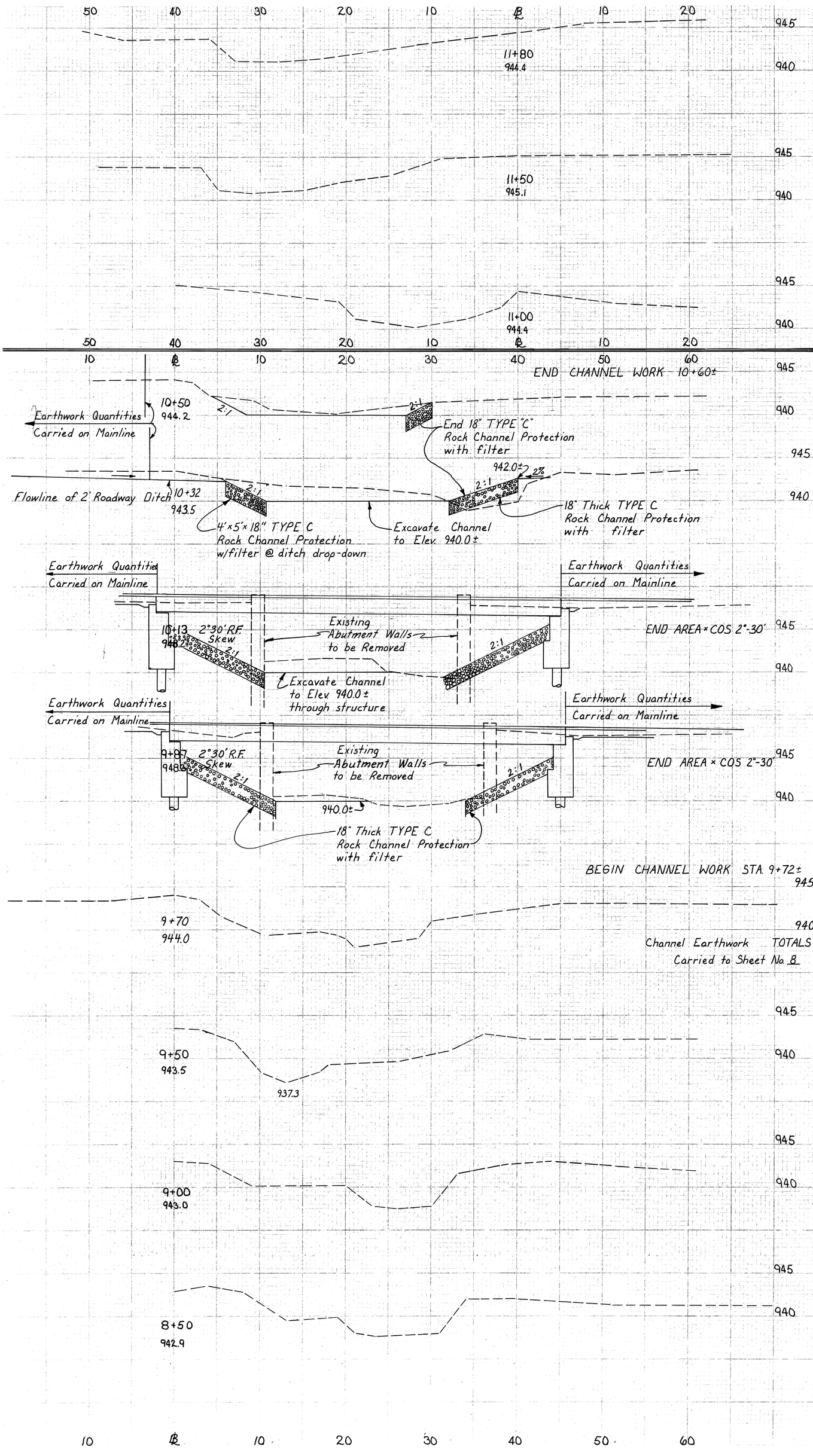


ESTIMATED QUANTITY
601 Rock Channel Protection
Type C, with filter 64 Cu. Yds.*

*Includes left rear ditch drop down



CHANNEL DETAILS - PART I



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	0		
		3	0
17	0		
		17	2
34	6		
		51	2
110	0		
		91	0
79	0		
		22	0
0	0		
Channel Earthwork TOTALS Carried to Sheet No. 8		184	4

CHANNEL X-SECTIONS - PART 1

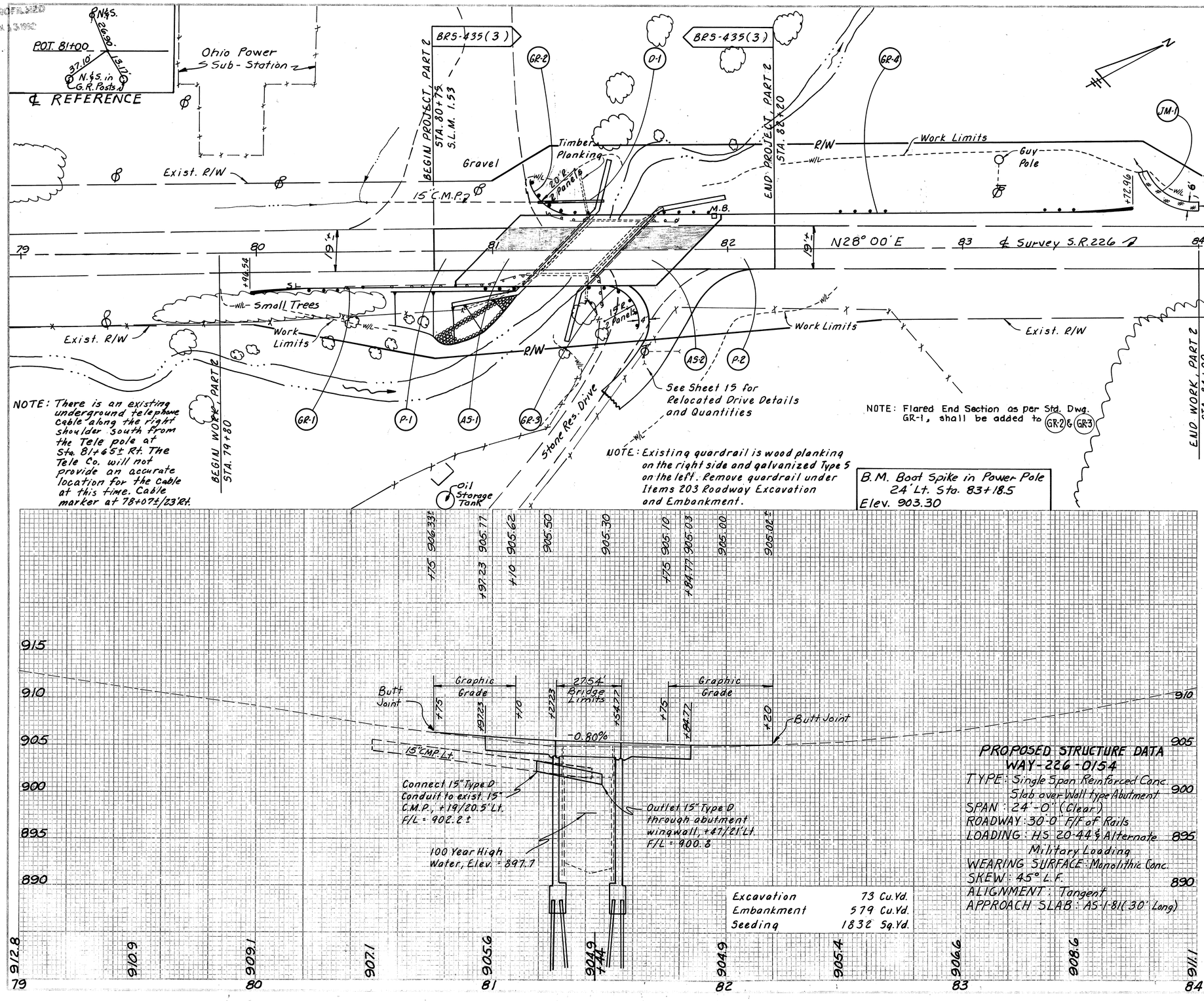
Calc. by J.P.C. 2/05
Chk'd by [illegible]

WAY-226-(0.44)(1.53)
PART 1

FED. RD. DIST. 5 | STATE OHIO | PROJECT

10/32

MICROFILMED
JAN 13 1982



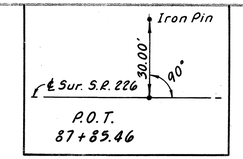
NOTE: There is an existing underground telephone cable along the right shoulder south from the Tele pole at Sta. 81+65± Rt. The Tele Co. will not provide an accurate location for the cable at this time. Cable marker at 78+07±/23' Rt.

NOTE: Existing guardrail is wood planking on the right side and galvanized Type 5 on the left. Remove guardrail under Items 203 Roadway Excavation and Embankment.

NOTE: Flared End Section as per Std. Dwg. GR-1, shall be added to GR-2 & GR-3

B.M. Boat Spike in Power Pole 24' Lt. Sta. 83+18.5 Elev. 903.30

Excavation	73 Cu.Yd.
Embankment	579 Cu.Yd.
Seeding	1832 Sq.Yd.



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

11
32

WAY-226-(0.44)(1.53)
PART 2

Calc. by TBM 4/85
Chk'd. by PWS 4/85

EXISTING BRIDGE DATA
WAY-226-0154

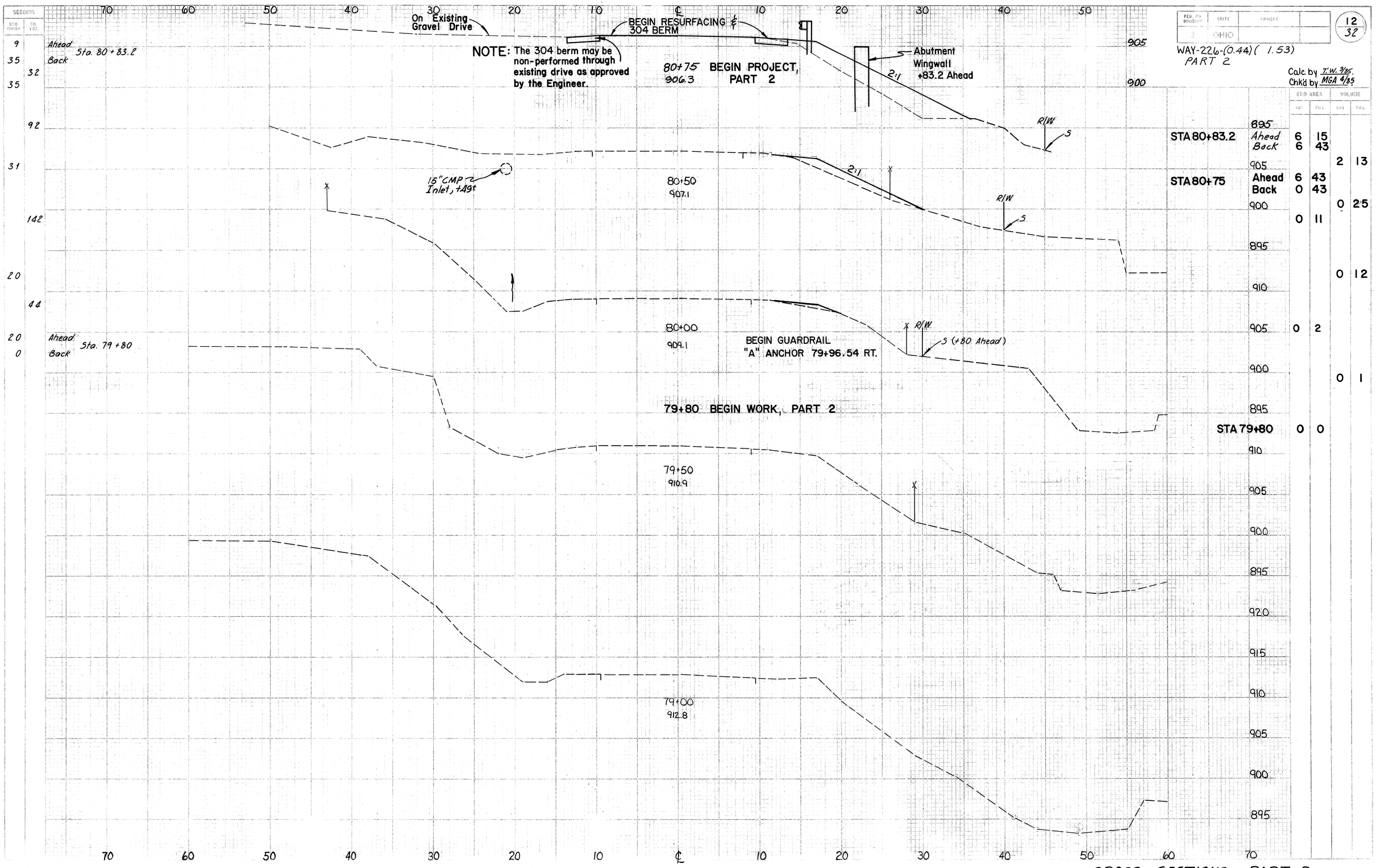
TYPE: Concrete Beam
SPAN: 20'-0" Clear
ROADWAY: 22'-11" out to out
SKEW: 45° L.F.
LOADING: H-15
WEARING SURFACE: 9"± Asphalt Concrete
SUB-STRUCTURE: Concrete Gravity
ALIGNMENT: Tangent
CONDITION: Poor
DATE BUILT: 1931

PROPOSED STRUCTURE DATA
WAY-226-0154

TYPE: Single Span Reinforced Conc. Slab over Wall type Abutment
SPAN: 24'-0" (Clear)
ROADWAY: 30'-0" F/F of Rails
LOADING: HS 20-44 & Alternate Military Loading
WEARING SURFACE: Monolithic Conc.
SKEW: 45° L.F.
ALIGNMENT: Tangent
APPROACH SLAB: AS-1-81 (30' Long)

REF. NO.	STATION LIMITS	SIDE	202 Pavement Removed (Sq. Yd.)	202 Wearing Course Removed (Sq. Yd.)	304 Aggregate Base 8" (Cu. Yd.)	404 Asphalt Concrete, AC-20 1" (Cu. Yd.)	403 Asphalt Concrete, AC-20 Var. (Cu. Yd.)	407 Tack Coat (Gal.)	611 Reinforced Concrete Approach Slab, T=17" (Sq. Yd.)	670 Ditch Erosion Protection (Sq. Yd.)	606 Bridge Terminal Assembly, Type B (Each)	606 Anchor Assembly, Type A (Each)	606 Guardrail, Type 5 (Lin. Ft.)	603 Conduit, Type D 15" (Lin. Ft.)	TOTALS
AS-1	80+97.23 to 81+27.23		34						100	20					20
AS-2	81+54.77 to 81+84.77		34						100						200
D-1	81+19 to 81+47±	Lt.									1	1		28	4
GR-1	79+96.54 to 81+09.04	Rt.									1		87.5		2
GR-2	81+16± to 81+41.71	Lt.									1		31.25		325
GR-3	81+40.29 to 81+66±	Rt.									1		31.25		28
GR-4	81+72.96 to 83+72.96	Lt.										1	175		
JM-1	83+75± to 84+00	Lt.													
P-1	80+75 to 80+97.23			32	4.4	1.3	0.5	5							68
P-2	81+84.77 to 82+20			32	4.3	2.1	1.0	7							64
TOTALS			68	64	8.7	3.4	1.5	12	200	20	4	2	325	28	

PLAN & PROFILE - PART 2



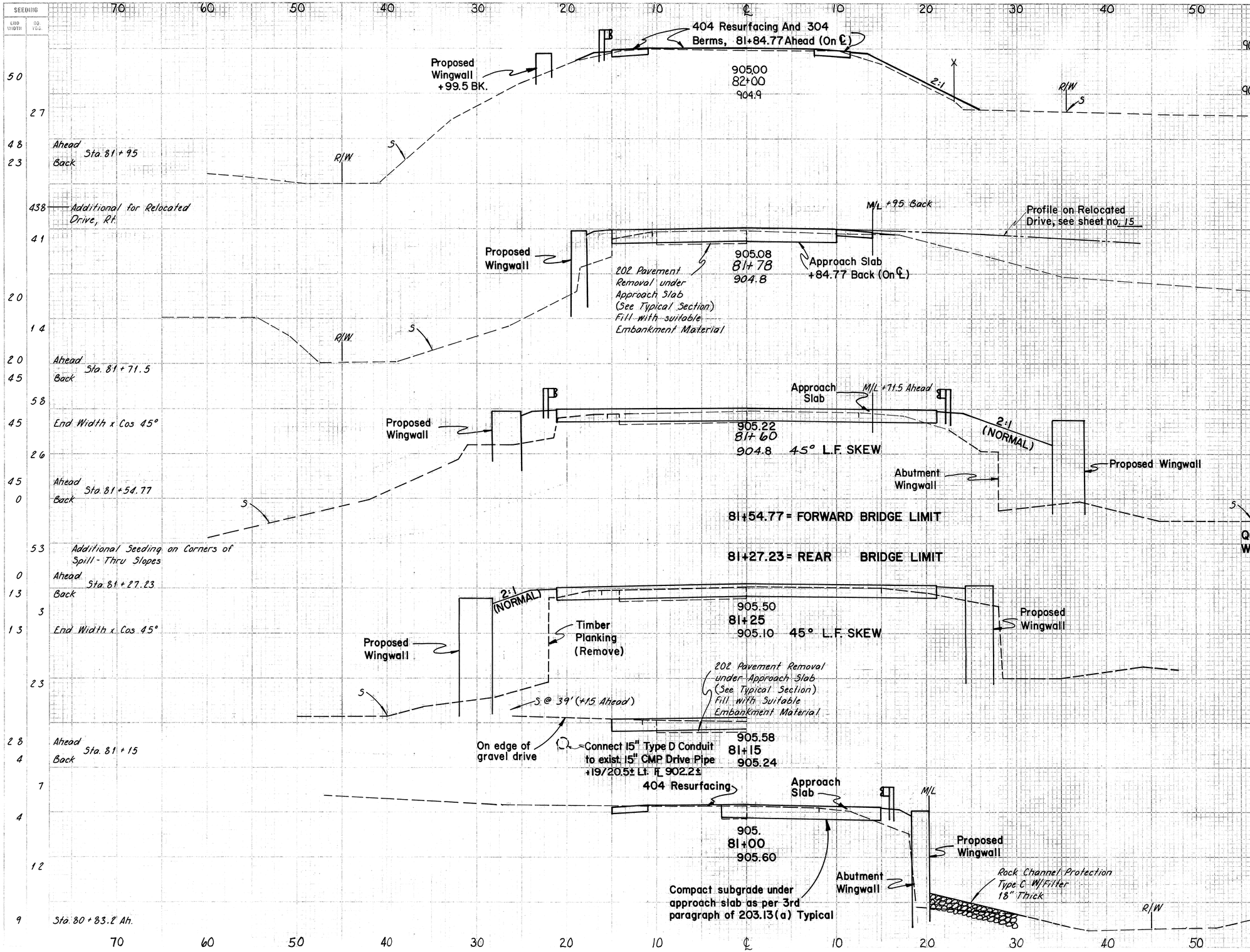
CROSS - SECTIONS - PART 2

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

13
32

WAY-226-(0.44)(1.53)
PART 2

Calc. by I.W. 3/85
Ch'K'd. by MGA 4/85



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
895	4	8		
Add for Relocated Drive Sta. 81+92.73 Rt. (Quantities from sheet 15)			16	221
			2	5
905 Ahead	4	10		
Sta. 81+84.77 Back	1	10		
900			4	3
	17	10		
895			4	2
Sta. 81+71.5 Ahead	14	10		
Back	17	58		
905			7	25
End Areas X Cos 45°	16	57		
900			3	12
895 Sta. 81+54.77 Ahead	16	57		
Back	0	0		
Quantities for Channel Work, From Sheet 17			0	22
Sta. 81+27.23 Ahead	0	0		
Back	18	53		
End Areas X Cos 45°	18	53	2	4
900				
895				
905			19	28
905	22	8		
900			9	7
895 STA 80+83.2 Ahead	6	15		

CROSS-SECTIONS PART 2

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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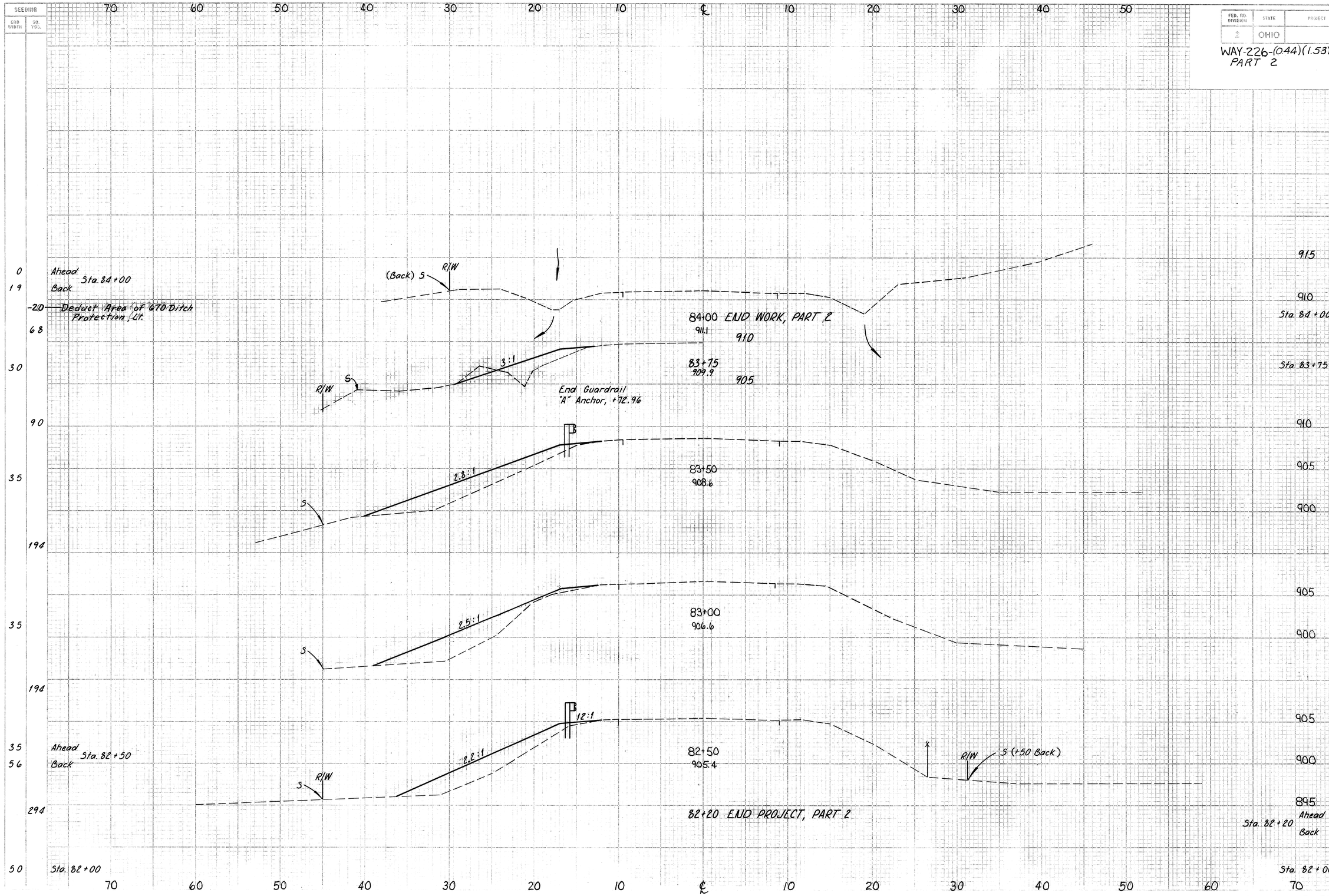
32

WAY-226-(0.44)(1.53)
PART 2

Calc by T.W. 3/85
Chkd by MGA 4/85



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
Sta. 84+00	0	0		
			0	7
Sta. 83+75	0	16		
			0	24
	0	36		
			1	64
	1	33		
			1	62
	0	34		
			0	28
Sta. 82+20 Ahead	0	17		
Back	4	17		
			3	14
Sta. 82+00	4	8		

CROSS-SECTIONS - PART 2

FED. RD. DIVISION	STATE	PROJECT	
.2	OHIO		

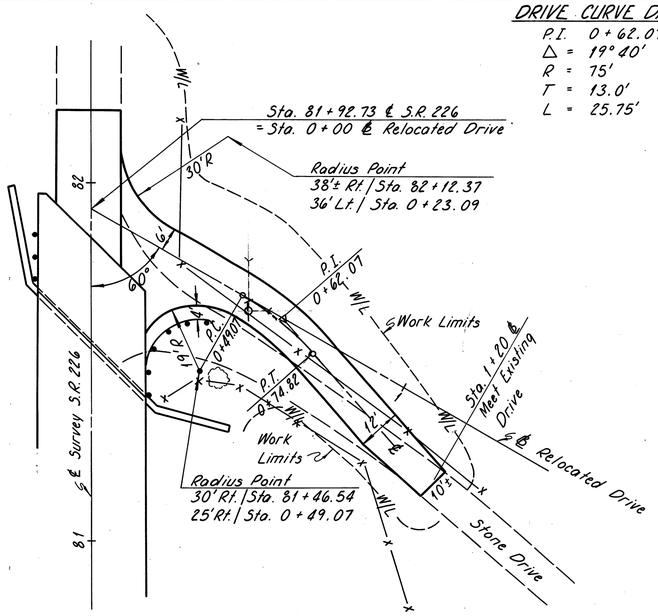
15
32

Calc. By: PDB 4/85
Chk'd. By: MGA 4/85

WAY-226-(0.44)(1.53)
(PART 2)

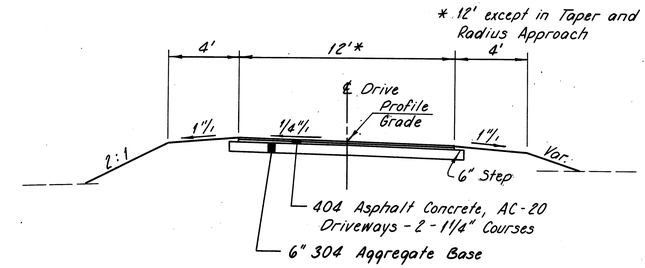
DRIVE CURVE DATA

P.I. 0+62.07
Δ = 19° 40'
R = 75'
T = 13.0'
L = 25.75'

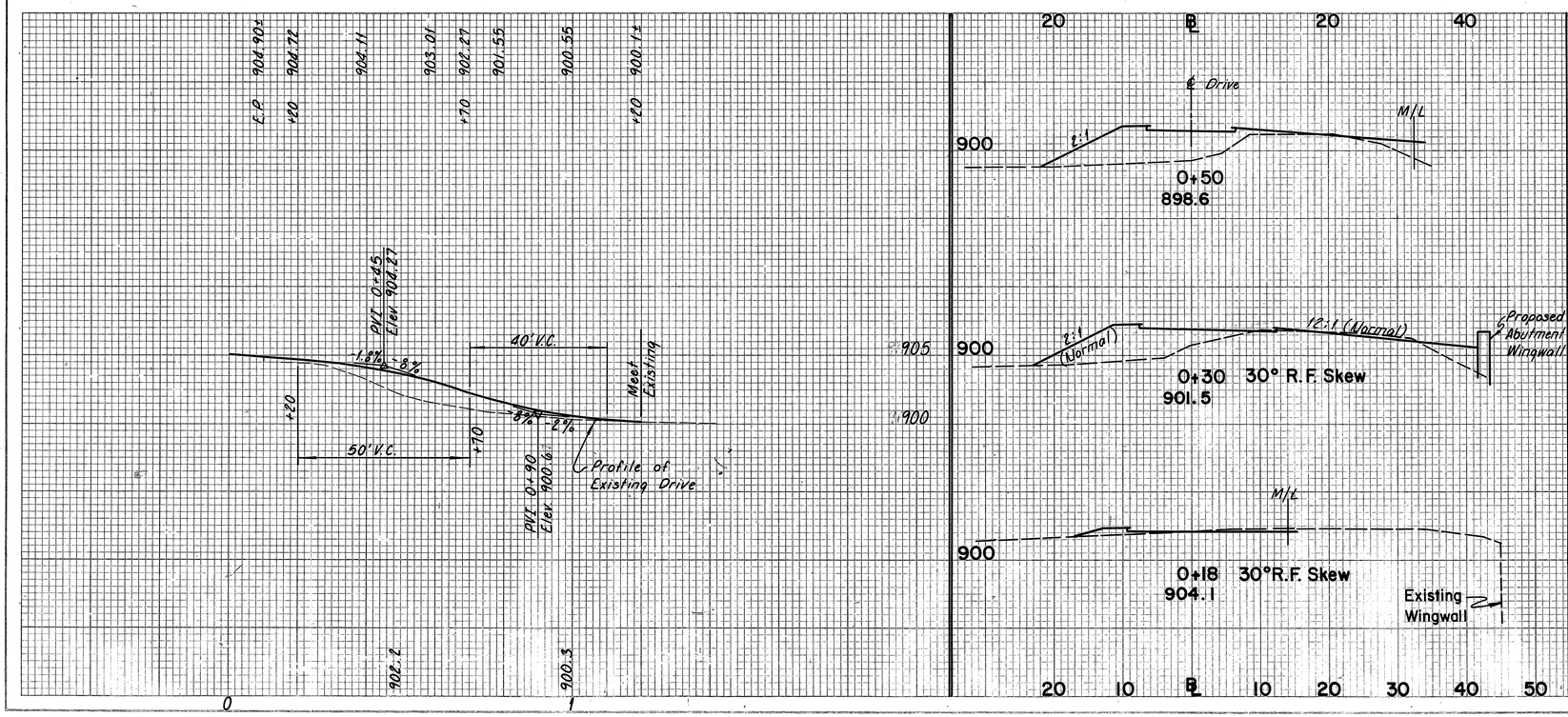


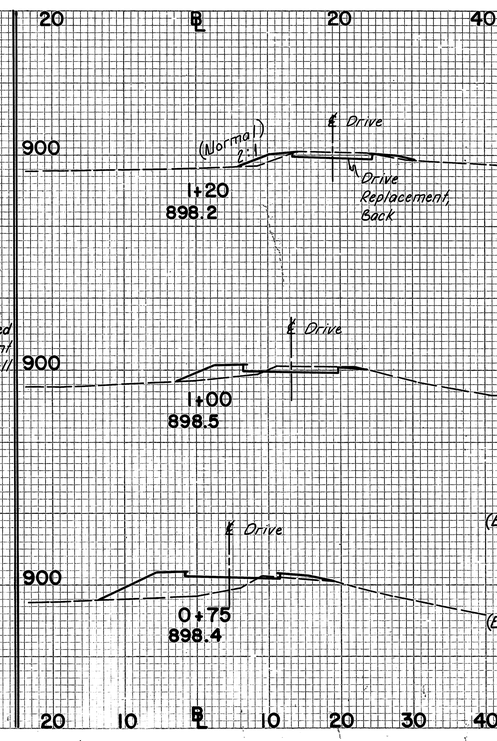
RELOCATED DRIVE QUANTITIES

304	Aggregate Base	30.1 Cu. Yd.
404	Asphalt Concrete, AC-20 (Driveways)	11.7 Cu. Yd.



TYPICAL SECTION OF RELOCATED DRIVE





	END AREA CUT	END AREA FILL	CU. YD. CUT	CU. YD. FILL
Sta. 1+30	0	0		
			0	1
Sta. 1+20 Ah.	0	6		
Bk.	9	6		
			6	7
Sta. 1+00	8	13		
			4	29
Sta. 0+75	1	49		
			1	80
Sta. 0+50	1	124		
			2	81
Sta. 0+30 (End Areas x Cos 30°)	5	95		
			2	22
Sta. 0+18 (End Areas x Cos 30°)	4	6		
			1	1
Sta. 0+14± Ah.	11	0		
TOTALS (To Sheet 13)			16	221

DRIVE DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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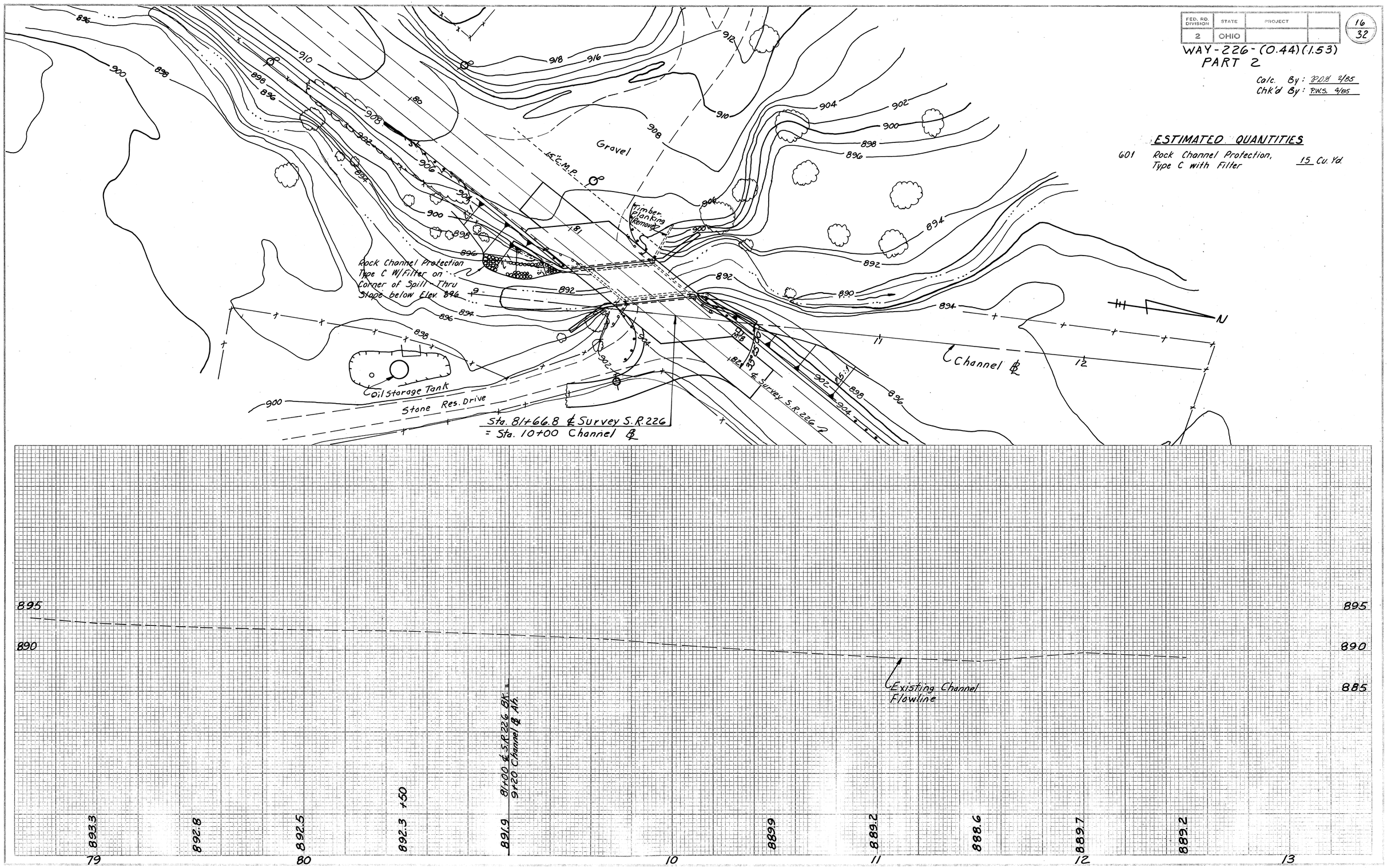
WAY-226-(0.44)(1.53)
PART 2

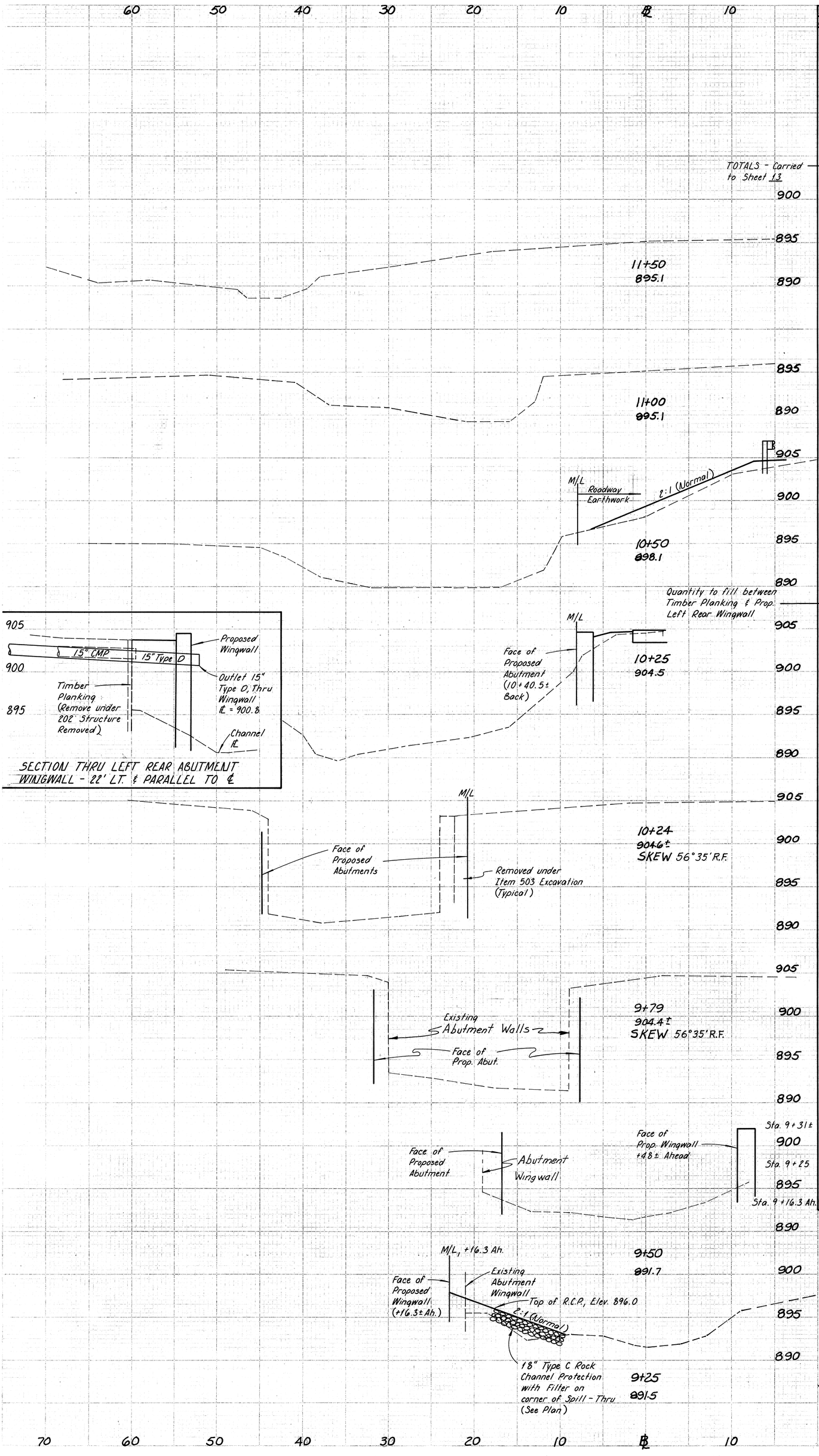
Calc. By: RDB 2/85
Chk'd By: P.W.S. 4/85

ESTIMATED QUANTITIES

601 Rock Channel Protection, Type C with Filter — 15 Cu. Yd.



CHANNEL DETAILS PART 2



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
TOTALS - Carried to Sheet 13			0	22
Quantity to fill between Timber Planking & Prop. Left Rear Wingwall				18
Sta. 9+31±	0	0		
			0	1
Sta. 9+25	0	5		
			0	3
Sta. 9+16.3 Ah.	0	15		

PART 2 CHANNEL CROSS-SECTIONS

WAY-226-(0.44)(1.53)
PART 2

Calc. by MGA 4/85
Chkd. by RBM 4/85

PROJECT DESIGN	STATE	PROJECT
2	OHIO	

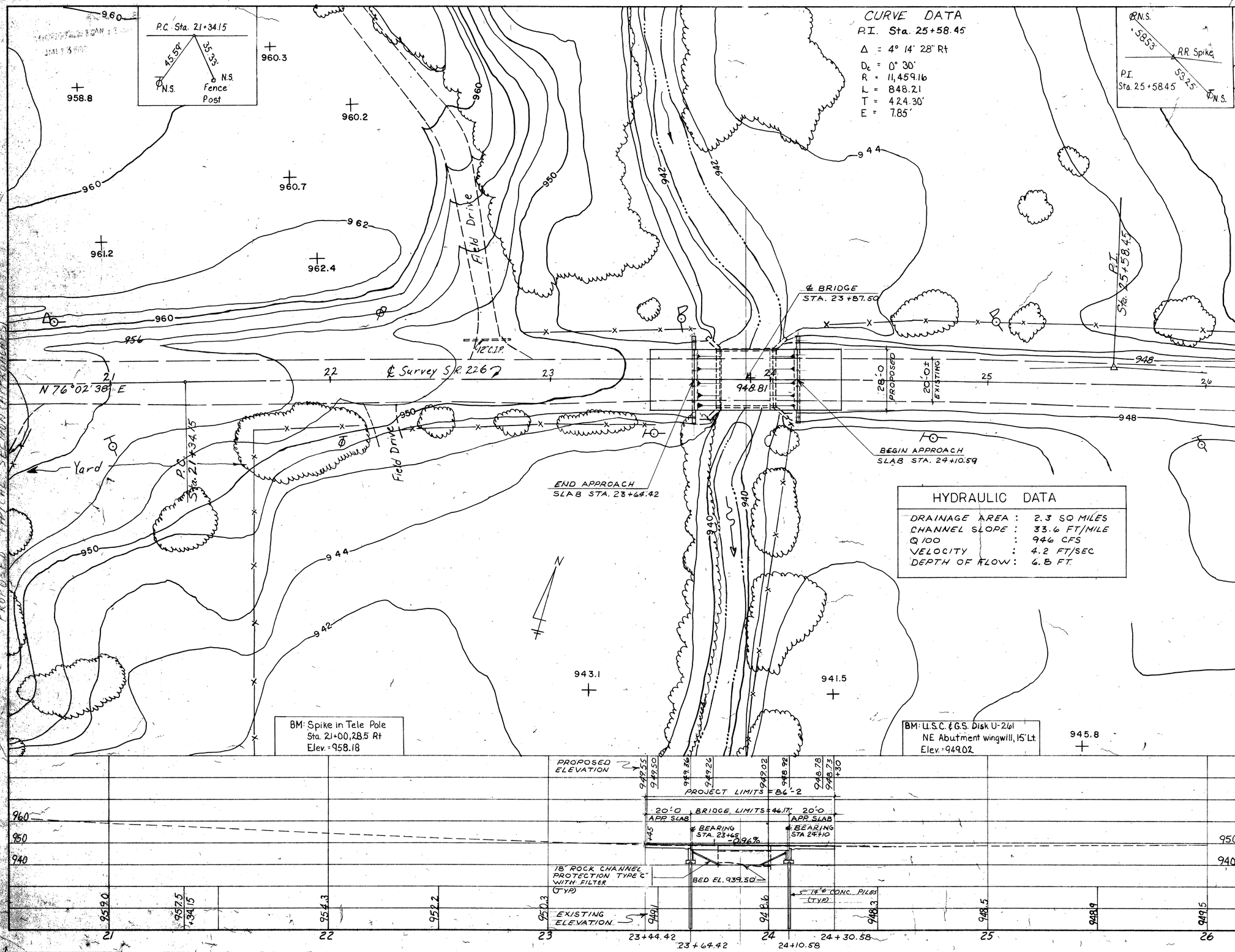
17
32

FHWA REGION	STATE	PROJECT	
5	OHIO		

18
32

WAY-226-(0.44)(1.53)
PART I

Located 0.5± Mile West of Big Prairie



CURVE DATA

P.I. Sta. 25+58.45

Δ = 4° 14' 28" Rt
D_c = 0° 30'
R = 11,459.16
L = 848.21
T = 424.30'
E = 7.85'

DESIGN TRAFFIC

1985 ADT = 1050
2005 ADT = 1500
Percent Trucks = 7%
Traffic will be detoured

948.8

HYDRAULIC DATA

DRAINAGE AREA	:	2.3 SQ MILES
CHANNEL SLOPE	:	33.6 FT/MILE
Q 100	:	946 CFS
VELOCITY	:	4.2 FT/SEC
DEPTH OF FLOW	:	6.8 FT.

EXISTING BRIDGE DATA

WAY-226-0045

TYPE: Concrete Beam
SPAN: 24'0" Clear
Roadway: 24'8" F/F Concrete Railings
SKEW: 0°
LOADING: H-15
WEARING SURFACE: 10"± Asphalt
SUB-STRUCTURE: Concrete Gravity
ALIGNMENT: 0° 30' Curve
CONDITION: Poor

PROPOSED STRUCTURE

TYPE: SINGLE SPAN PRESTRESSED CONC. BOX BEAMS SUPPORTED BY SPILL THRU STUB TYPE ABUTMENTS
SPAN: 45'-0 c/c BEARING
ROADWAY: 28'-0 F/F RAILS
LOADING: HS 20-44 & ALTERNATE MILITARY
WEARING COURSE: MIN. 2½" ASPHALT CONC.
SKEW: NONE
ALIGNMENT: TANGENT
APPROACH SLAB: AS-1-81 (20'-0 LONG)

BM: Spike in Tele Pole
Sta. 21+00, 28.5 Rt
Elev. = 958.18

BM: U.S.C. & G.S. Disk U-261
NE Abutment wingwall, 15' Lt.
Elev. = 949.02

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2930 EUCLID AVE. CLEVELAND, OHIO 44115

1/6

SITE PLAN

BRIDGE NO. WAY — 226 — 00 45
OVER
CREEK

SEC. STA.
SCALE 1" = 20'

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
DISTRICT 3	AERIAL SURVEY	KJ	RAW.	RE	G.M.B.

FHWA REGION	STATE	PROJECT	
5	OHIO		

WAY-226-(0.44)(1.53)
Part I

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GENERAL NOTES

JAN 13 1982

REFERENCE

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

DBR-2-73	DATED 4-10-73
AS-1-81	DATED 11-27-81
PSBD-1-81	DATED 9-18-81

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* INTERIM SPECIFICATIONS AND THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

DESIGN DATA

DESIGN LOADING HS 20-44 AND THE ALTERNATE MILITARY LOADING.

CONCRETE CLASS 'C'	COMPRESSIVE STRENGTH 4000 PSI FOR SUBSTRUCTURE
REINFORCING STEEL	ASTM A615, A616, A617 - GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I. FOR SUBSTRUCTURE

CONCRETE FOR PRESTRESSED CONCRETE BOX BEAMS

UNIT STRESS	2200 PSI COMPRESSION
	444 PSI TENSION

PRESTRESSING STRAND ASTM A416

	f's = 270,000 PSI
INITIAL STRESS =	0.70 f's

DECK PROTECTION METHOD: MEMBRANE WATERPROOFING AND ASPHALT CONCRETE OVERLAY

REMOVAL OF EXISTING STRUCTURE

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED

PILE DESIGN LOADS

"THE PILE HAMMER USED TO INSTALL THE CAST-IN-PLACE REINFORCED CONCRETE PILES SHALL HAVE A STATE'S ENERGY RATING OF NOT LESS THAN 15,000 FOOT-POUNDS. THIS REQUIREMENT DOES NOT RELIEVE THE CONTRACTOR FROM 108.05 WHICH STATES THAT THE CONTRACTOR IS TO PROVIDE SUFFICIENT EQUIPMENT FOR PROSECUTING THE REQUIRED WORK. REFER TO "ODOT'S MANUAL OF PROCEDURES FOR STRUCTURES" TO OBTAIN THE STATE'S ENERGY RATING."

PILE CAPACITY

THE CAST-IN-PLACE CONCRETE PILES ARE DESIGNED FOR 39.5 TONS PER PILE.

"ITEM SPECIAL, SEALING OF CONCRETE SURFACES: A CONCRETE SEALER SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES: SEE SHEET 5/6. SEE THE PROPOSAL FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIALS REQUIREMENTS AND APPLICATION PROCEDURES."

511 CONCRETE, AS PER PLAN

THE CLASS C CONCRETE SHALL USE LIMESTONE OR SLAG FOR THE COARSE AGGREGATE.

ESTIMATED STRUCTURE QUANTITIES - BRS-481(3)

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT-MENTS	SUPER-STRUCT	GENERAL
202	LUMP		STRUCTURES REMOVED	LUMP SUM	LUMP SUM	
403	8	CU YD	ASPHALT CONCRETE, AC-20		8	
404	5	CU YD	ASPHALT CONCRETE, AC-20		5	
503	LUMP		UNCLASSIFIED EXCAVATION	LUMP SUM		
505	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION			
507	780	LIN. FT.	14" DIAMETER CAST-IN-PLACE REINFORCED CONCRETE PILES, AS PER PLAN	780		
509	5822	LB	REINFORCING STEEL, GRADE 60	5822		
511	25	CU YD	CLASS 'C' CONCRETE, ABUTMENT ABOVE FOOTING, *AS PER PLAN*	25		
511	29	CU YD	CLASS 'C' CONCRETE, ABUTMENT FOOTINGS, *AS PER PLAN*	29		
512	158	SQ YD	TYPE 'D' WATERPROOFING		158	
515	7	EACH	PRESTRESSED CONCRETE BRIDGE MEMBERS *(see Proposal note)*		7	
516	28	EACH	1 1/8" X 6" X 0'-10" LAMINATED ELASTOMERIC BEARINGS, *60 Durometer*		28	
516	59	LIN FT	JOINT SEALER 705.01 OR 705.02	59		
516	108	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	108		
516	14	EACH	1/8" X 6" X 0'-10" PERFORMED BEARING PADS, 711.21		14	
517	112.50	LIN FT	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS AND BOLTS.)		112.50	
518	24	CU YD	POROUS BACKFILL	24		
518	82	LIN FT	6" PERFORATED, HELICAL CORRUGATED STEEL PIPE, 707.01	82		
518	32	LIN FT	6" NON-PERFORATED HELICAL CORRUGATED STEEL PIPE, INCLUDING SPECIALS, 707.01	32		
SPECIAL	78	SQ FT	STEEL DRIP STRIP		78	
SPECIAL	24	SQ YD	SEALING OF CONCRETE SURFACES (SEE PROPOSAL NOTE)		24	

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GENERAL NOTES & ESTIMATED QUANTITIES

BRIDGE NO. WAY-226-0045
OVER CREEK
WAYNE COUNTY

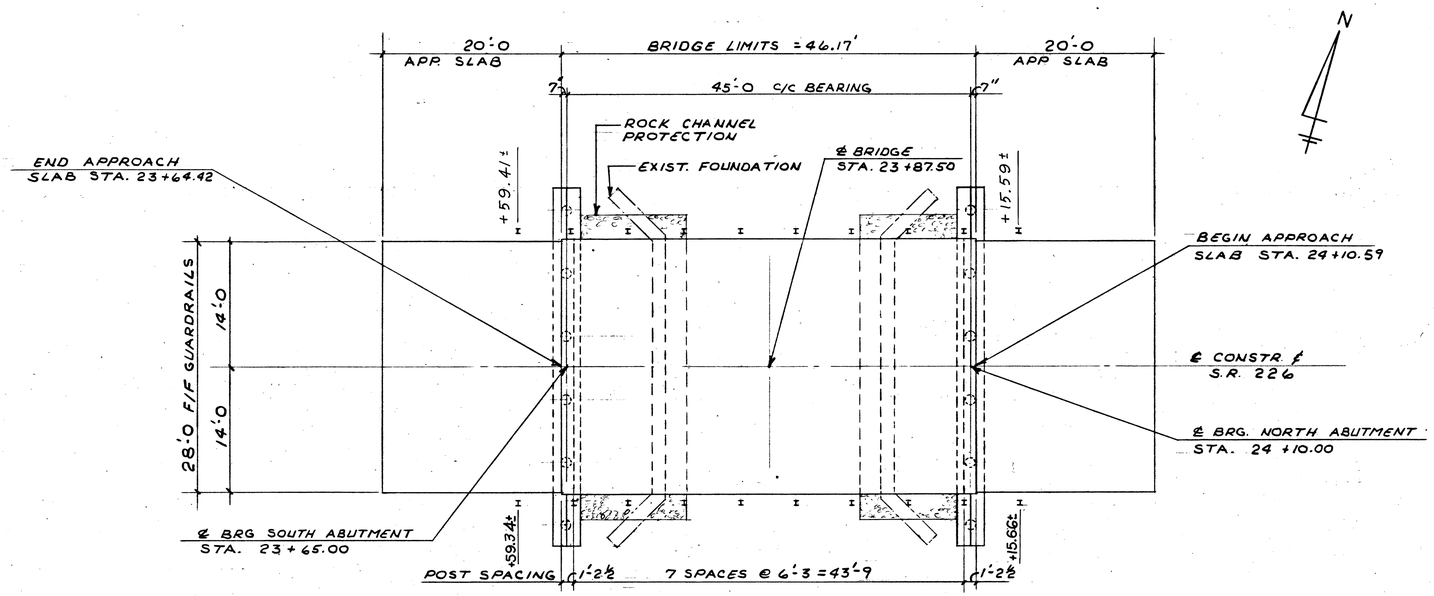
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
GMB	DCP	KP	Parsons	1-8-85	

MICROFILMED
JAN 13 1992

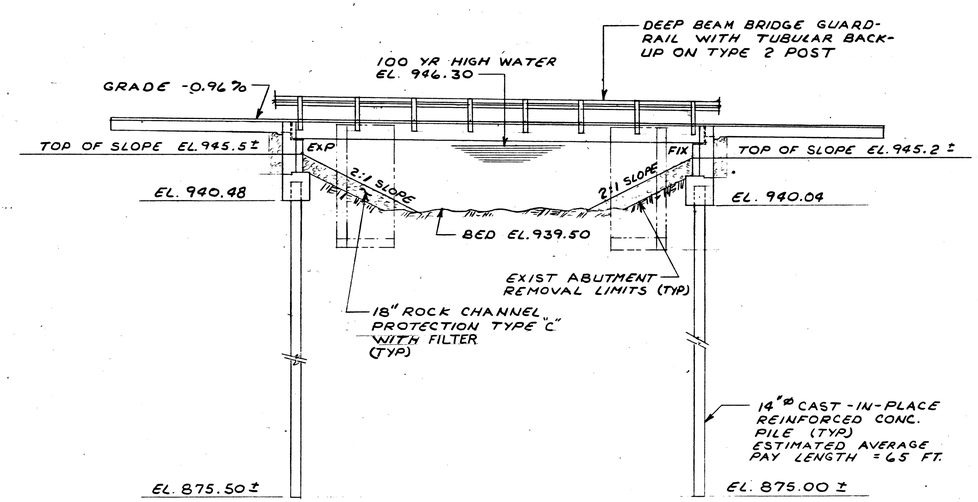
FHWA REGION	STATE	PROJECT	
5	OHIO		

20/32

WAY-226-(0.44)(1.53)
Part 1



PLAN



ELEVATION

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GENERAL PLAN

BRIDGE NO: WAY-226-0045
OVER CREEK

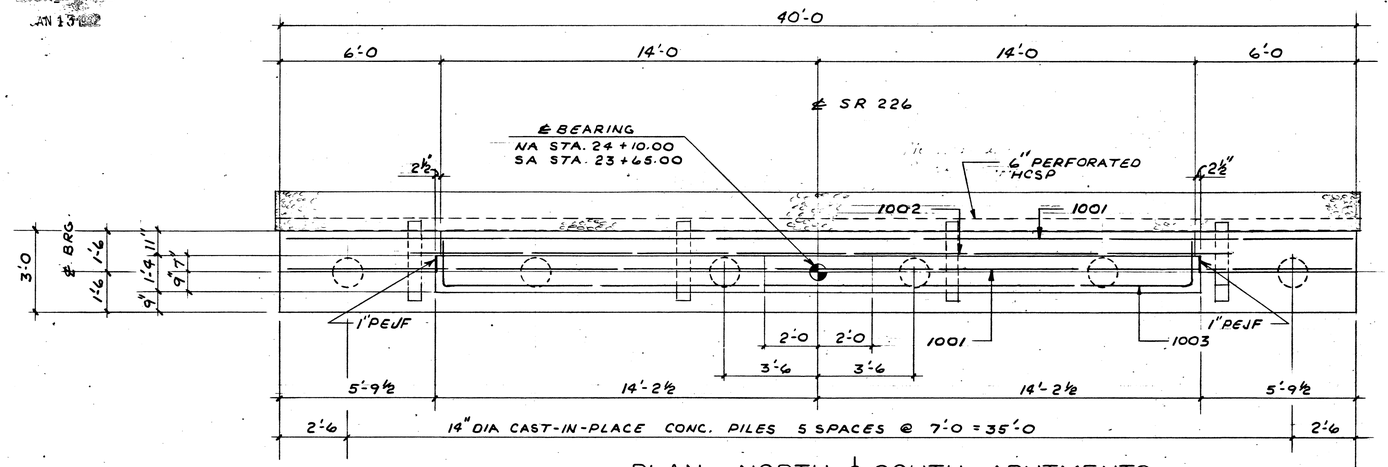
WAYNE COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
G.M.B	R.C.W	KP	KP Bauer		

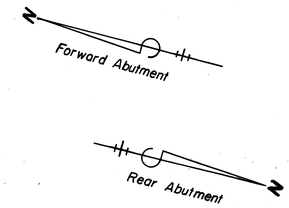
JAN 13 1982

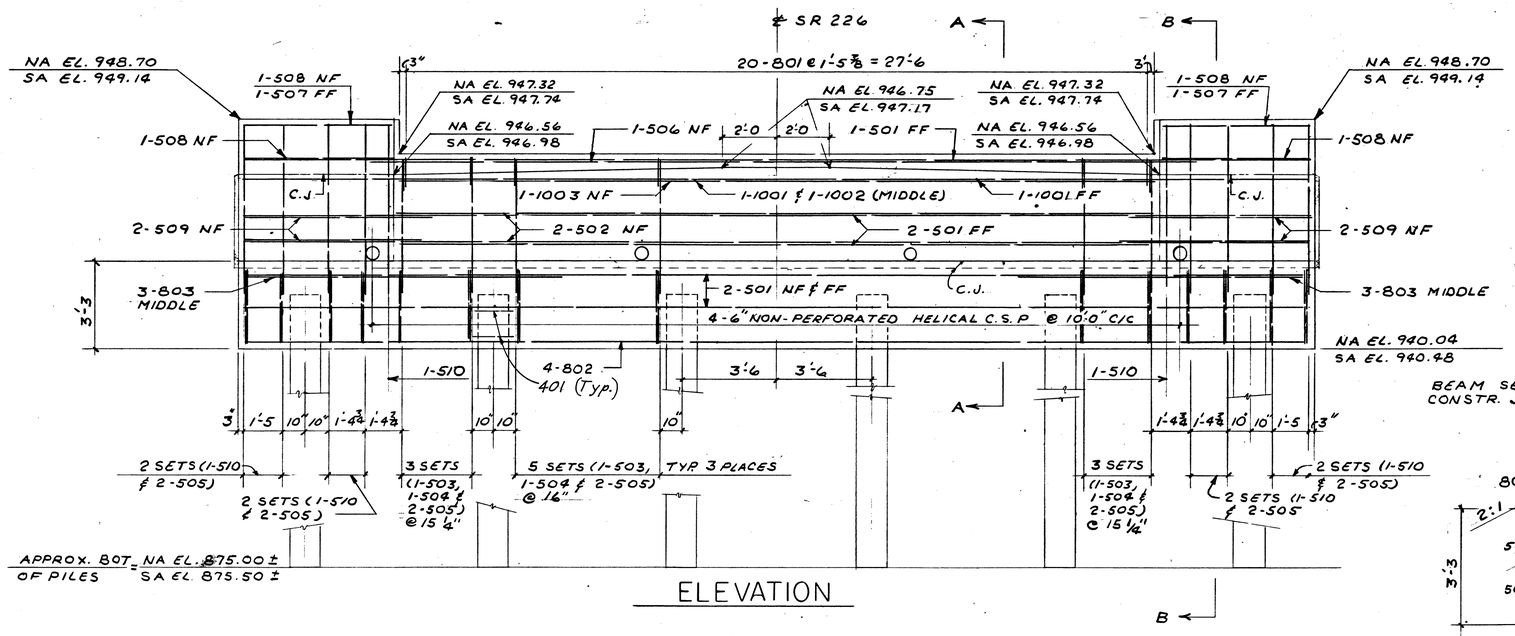
FHWA REGION	STATE	PROJECT	
5	OHIO		

WAY-226-(0.44)(1.53)
Part 1

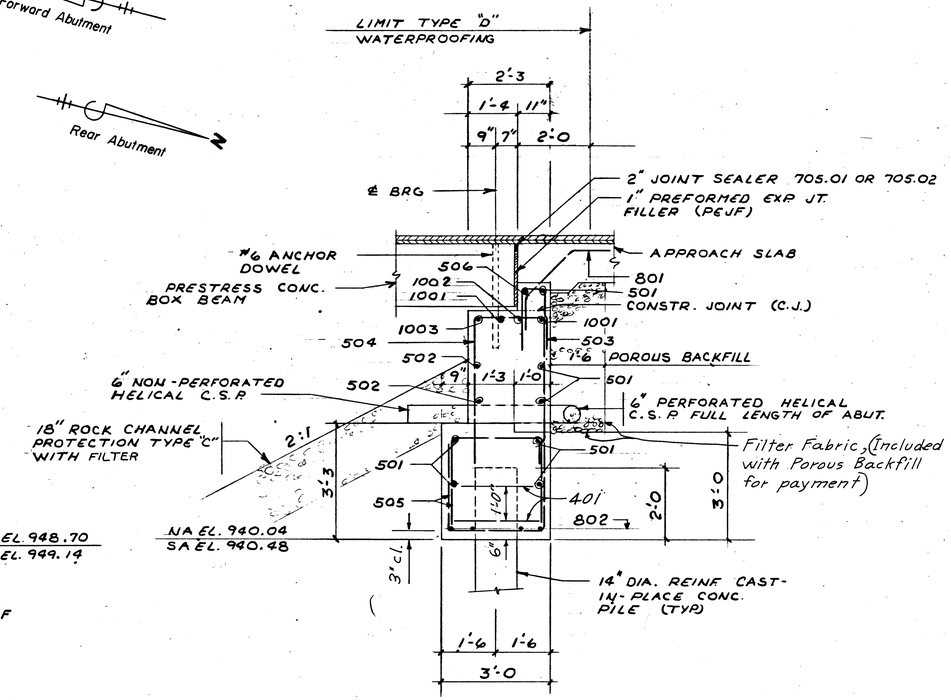


PLAN – NORTH & SOUTH ABUTMENTS
(FORWARD) (REAR)

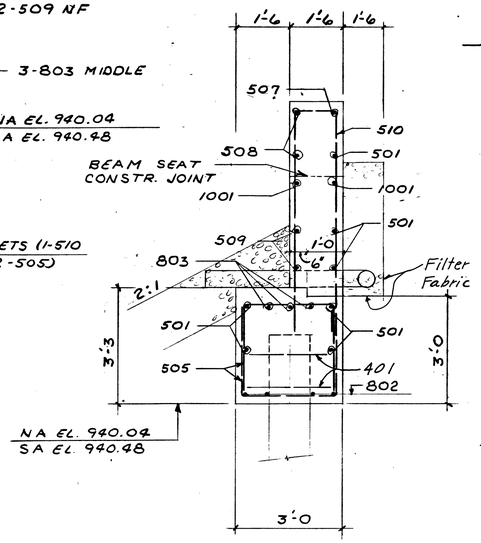




ELEVATION



SECTION A-A



SECTION B-B

NOTES

1. PREFIX NORTH ABUTMENT BAR MARKS WITH NA AND SOUTH ABUTMENT BAR. MARKS WITH SA (NA501, SA501)
2. BRIDGE SEAT REINFORCING STEEL SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF ANCHOR DOWEL HOLES.
3. POROUS BACKFILL SHALL EXTEND UPWARD TO THE PLANE OF SUBGRADE AND LATERALLY TO THE ENDS OF THE WING WALLS.
4. ALL CONCRETE ABOVE THE BEAM SEAT CONSTRUCTION JOINT SHALL BE PLACED AFTER THE TRANSVERSE TIE RODS HAVE BEEN TENSIONED, SHEAR KEYS HAVE BEEN MORTARED AND, THE PLACEMENT OF ANCHOR DOWELS HAS BEEN COMPLETED.
5. FOR PILE CAPACITY SEE GENERAL NOTES.

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ABUTMENTS

BRIDGE NO. WAY-226-0045
OVER CREEK
WAYNE COUNTY

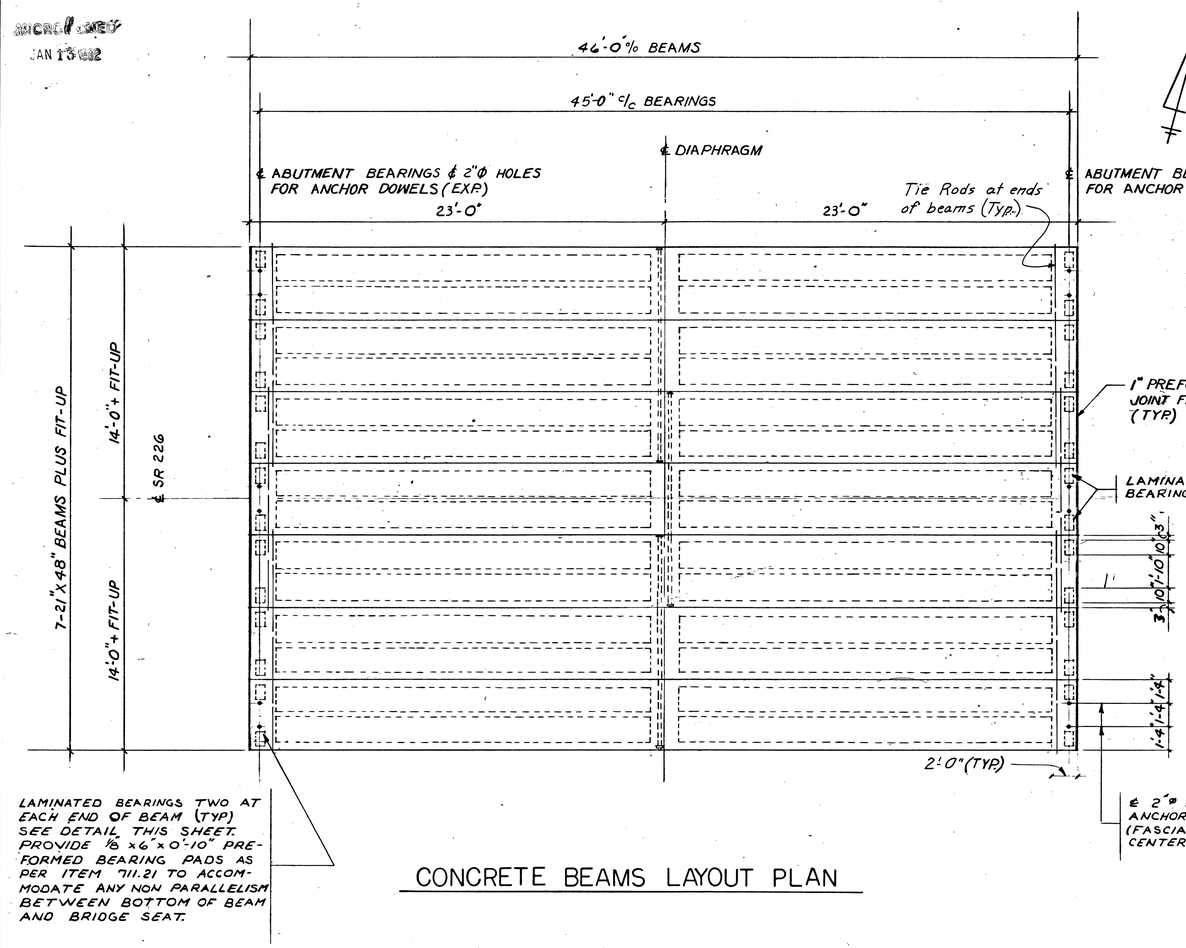
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
G.M.B	R.C.W	KF	KF Jones		

MICROFILMED
JAN 15 1982

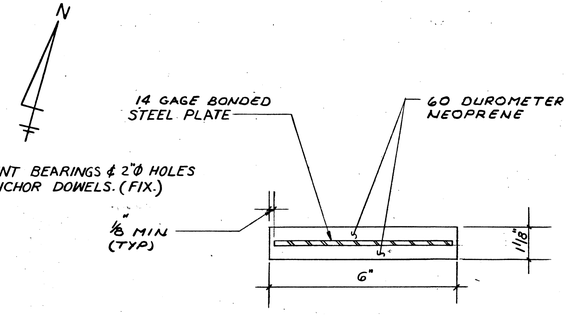
FHWA REGION	STATE	PROJECT	
5	OHIO		

22/32

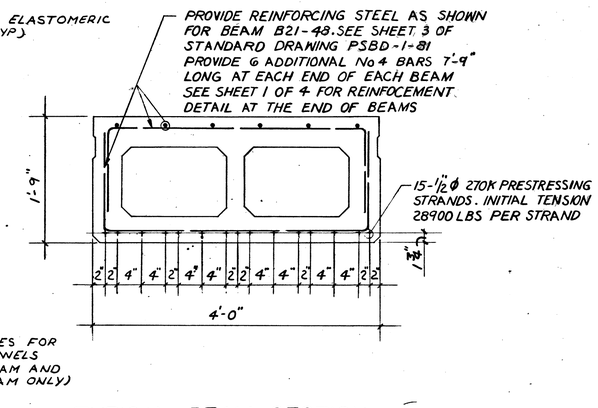
WAY-226-(0.44)(1.53)
Part I



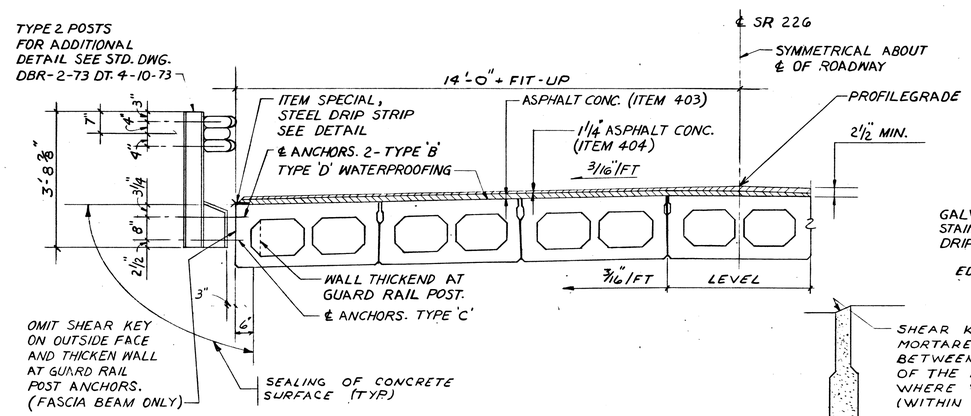
CONCRETE BEAMS LAYOUT PLAN



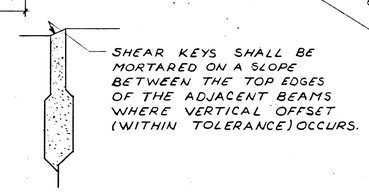
LAMINATED BEARING (6" x 10")
(28 REQUIRED)



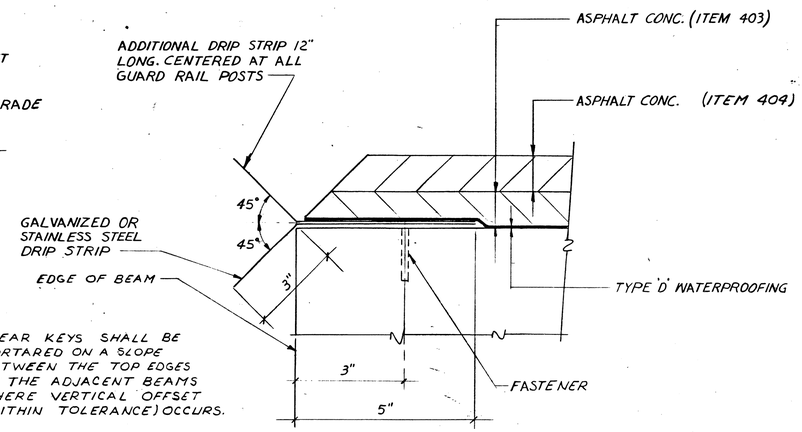
TYPICAL BEAM SECTION



HALF TRANSVERSE SECTION



SHEAR KEY DETAIL



DRIP STRIP DETAIL

STEEL DRIP STRIP

PRIOR TO APPLYING DECK MEMBRANE 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 STRIP SHALL BE PLACED THE FULL LENGTH OF THE DECK, ENDING AT THE FACE OF THE ABUTMENT WINGWALL. 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 0.105" 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.

CAMBER

CALCULATED CAMBER AT TIME OF PAVING, INCLUDING ALLOWANCE FOR CAMBER GROWTH DUE TO CREEP, IS 1 5/16" CALCULATED DEFLECTION DUE TO WEIGHT OF SURFACE COURSE IS 1/8". NET FINAL CAMBER OF BEAMS IS 1 3/16" THIS IS 1 3/16" IN EXCESS OF THE AMOUNT REQUIRED TO PLACE THE TOP OF THE BEAM PARALLEL TO PROFILE GRADE. THIS EXCESS AMOUNT SHALL BE COMPENSATED FOR BY THICKENING THE 403 LEVELING COURSE FROM 1 1/4" AT CENTER OF SPANS TO 2 7/16" AT ENDS OF SPANS.

ASPHALT CONCRETE SURFACE COURSE

SHALL BE 2 1/2" MINIMUM AND SHALL CONSIST OF A VARIABLE THICKNESS OF 403 AND A 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 PAVEMENT SURFACE ELEVATION.

NOTES

1. FABRICATORS SHOP DRAWING SHALL SHOW COMPLETE DETAILS OF THE REINFORCING. THE TOP STIRRUPS SHALL BE DETAILED TO FURNISH 2" CLEARANCE.
2. FOR DETAILS AND NOTES NOT SHOWN SEE STANDARD DRAWING PSBD-1-81.
3. COST OF DOWEL HOLES AND ANCHOR DOWELS, INCLUDING INSTALLATION SHALL BE INCLUDED WITH ITEM 515 FOR PAYMENT.

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SUPERSTRUCTURE DETAILS

BRIDGE NO. WAY-226-0045
OVER CREEK
WAYNE COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
G.M.B	D.C.P	KP	KJ Jones		

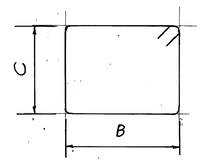
JAN 13 1982

FHWA REGION	STATE	PROJECT	
5	OHIO		

23/32

WAY-226-(0.44)(1.53)
Part 1

MARK	NO. REQUIRED	LENGTH	TYPE	DIMENSIONS A	B	C	D	SERIES INCR.	WEIGHT LBS.
			NORTH ABUTMENT						
NA401	12	8'-8"	11		2'-4"	1'-9"			70
NA 501	7	39'-8"	STR						290
NA 502	2	30'-10"	17		1'-6"	28'-1"	1'-6"		64
NA 503	21	4'-2"	17		1'-11"	0'-7"	1'-11"		91
NA 504	21	10'-8"	17		4'-6"	1'-11"	4'-6"		234
NA 505	58	6'-11"	17		2'-3"	2'-8"	2'-3"		419
NA 506	1	31'-0"	STR						32
NA 507	2	5'-8"	STR						12
NA 508	4	5'-5"	STR						23
NA 509	4	7'-6"	STR						31
NA 510	10	13'-9"	17		6'-5"	1'-2"	6'-5"		143
NA 801	20	5'-7"	14	1'-9"	3'-3"	1'-0"			298
NA 802	4	39'-8"	STR						424
NA 803	6	11'-0"	STR						176
NA1001	2	39'-8"	STR						341
NA1002	1	30'-0"	STR						129
NA1003	1	31'-3"	17		1'-11"	28'-1"	1'-11"		134
								TOTAL =	2911
			SOUTH ABUTMENT						
SA401	12	8'-8"	11		2'-4"	1'-9"			70
SA 501	7	39'-8"	STR						290
SA 502	2	30'-10"	17		1'-6"	28'-1"	1'-6"		64
SA 503	21	4'-2"	17		1'-11"	0'-7"	1'-11"		91
SA 504	21	10'-8"	17		4'-6"	1'-11"	4'-6"		234
SA 505	58	6'-11"	17		2'-3"	2'-8"	2'-3"		419
SA 506	1	31'-0"	STR						32
SA 507	2	5'-8"	STR						12
SA 508	4	5'-5"	STR						23
SA 509	4	7'-6"	STR						31
SA 510	10	13'-9"	17		6'-5"	1'-2"	6'-5"		143
SA 801	20	5'-7"	14	1'-9"	3'-3"	1'-0"			298
SA 802	4	39'-8"	STR						424
SA 803	6	11'-0"	STR						176
SA1001	2	39'-8"	STR						341
SA1002	1	30'-0"	STR						129
SA1003	1	31'-3"	17		1'-11"	28'-1"	1'-11"		134
								TOTAL =	2911
							GRAND	TOTAL =	5822



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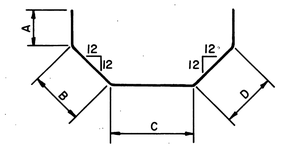

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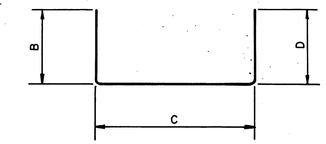

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BENT BAR TYPES

NOTES:

1. REINFORCING STEEL SAMPLES:

   REFER TO CMS SECTIONS 106.03, 700, 709.01 THROUGH 709.05 AND 709.08 SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH 509.08.

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REINFORCING LIST

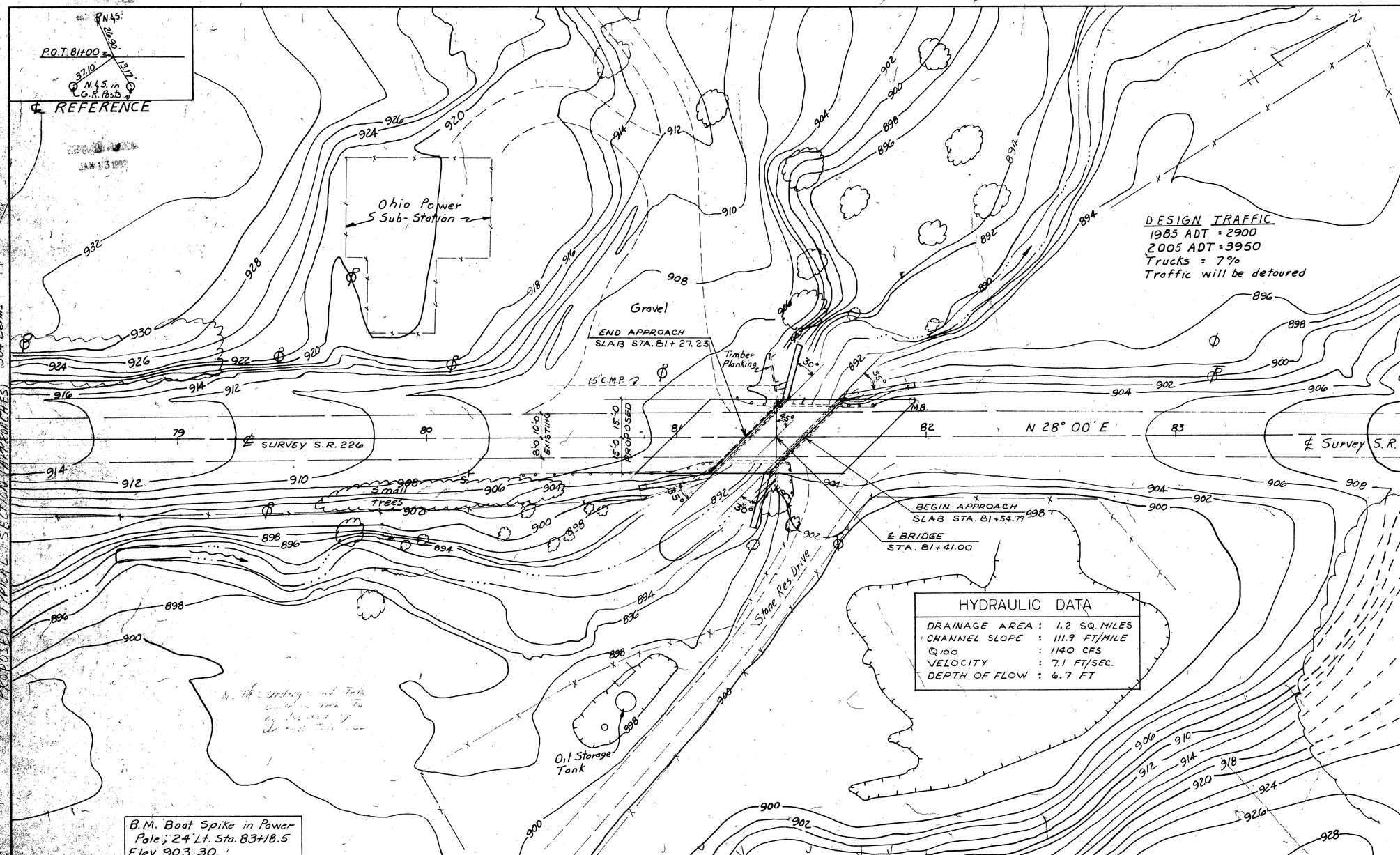
BRIDGE NO. WAY-226-0045
OVER CREEK
WAYNE COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
GMB	D.C.P.	KLP	Parsons	1-8-85	

FHWA REGION	STATE	PROJECT	
5	OHIO		

24/32

WAY-226-(0.44)(1.53)
PART 2
Located 0.1± Mile South of Shreve Corp. Line



DESIGN TRAFFIC

1985 ADT = 2900
2005 ADT = 3950
Trucks = 7%
Traffic will be detoured

HYDRAULIC DATA

DRAINAGE AREA	:	1.2 SQ. MILES
CHANNEL SLOPE	:	111.9 FT/MILE
Q100	:	1140 CFS
VELOCITY	:	7.1 FT/SEC.
DEPTH OF FLOW	:	6.7 FT

EXISTING BRIDGE DATA

WAY-226-0154
TYPE: Concrete Beam
SPAN: 20'-0" Clear
ROADWAY: 22' 11" o/o
SKEW: 45° L.F.
LOADING: H-15
WEARING SURFACE: 9"± Asphaltic Concrete
SUB-STRUCTURE: Concrete Gravity
ALIGNMENT: Tangent
CONDITION: Poor
DATE BUILT: 1931

PROPOSED STRUCTURE

TYPE: SINGLE SPAN REINFORCED CONC. SLAB OVER WALL TYPE ABUTMENT
SPAN: 24'-0
ROADWAY: 30'-0 F/F OF RAILS
LOADING: HS 20-44 & ALTERNATE MILITARY
WEARING SURFACE: MONOLITHIC CONC.
SKEW: 45°
ALIGNMENT: TANGENT
APPROACH SLAB: AS-1-81 (30'-0 LONG)

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SITE PLAN

BRIDGE NO. WAY-226-0154 OVER Stream
SEC. STA.
SCALE 1" = 20'

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
District 3	Aerial Survey	KD	RCW.	RE	G.M.B.

FHWA REGION	STATE	PROJECT	
5	OHIO		

25/32

WAY-226-(0.44)(1.53)
Part 2

GENERAL NOTES

REFERENCE

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

AS-1-81	DATED 11-27-81
SB-2-73	DATED 4-10-73
DBR-2-73	DATED 4-10-73
SUPPLEMENTAL SPECIFICATION	836 DATED 3-12-75
	824 DATED 10-8-82

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES", ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1983 AND THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

DESIGN DATA

DESIGN LOADING HS 20-44 AND ALTERNATE MILITARY LOADING.

CONCRETE CLASS 'S'	COMPRESSIVE STRENGTH 4500 PSI FOR SUPERSTRUCTURE
CONCRETE CLASS 'C'	COMPRESSIVE STRENGTH 4000 PSI FOR ABUTMENTS
REINFORCING STEEL	ASTM A615, A616, A617 - GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, TOP MAT ONLY.
MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

REMOVAL OF EXISTING STRUCTURE

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE* SHALL BE REMOVED. WASTE MASONRY MAY BE PLACED AS SLOPE PROTECTION AS DIRECTED BY THE ENGINEER.

*Including the three(3) 12BP-53 temporary brace piles at the forward abutment.

REINFORCING STEEL

ALL BAR DIMENSIONS ARE GIVEN OUT TO OUT.
ALL BARS OF A SERIES SHALL VARY IN LENGTH BY A CONSTANT INCREMENT.

PILE DESIGN LOADS

"PILE TIP ELEVATION: ALL PILES SHALL BE DRIVEN TO A DESIGN LOAD CAPACITY OF 24 TONS EXCEPT THAT NONE OF THE PILES SHALL PENETRATE BELOW ELEVATION 859.0±. PILES SHOULD NOT BE DRIVEN INTO THE ARTESIAN WATER CONDITION. IF THE PILE DRIVING BLOW COUNT INDICATES THAT A PILE HAS NOT ATTAINED THE REQUIRED DESIGN LOAD CAPACITY PRIOR TO PENETRATING TO ELEVATION 859.0±, THE DIRECTOR SHOULD BE CONSULTED FOR ADDITIONAL INSTRUCTIONS."

"ITEM SPECIAL, SEALING OF CONCRETE SURFACES: A CONCRETE SEALER SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES: SEE SHEET 5/10. SEE THE PROPOSAL FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIALS REQUIREMENTS AND APPLICATION PROCEDURES."

511 CONCRETE, AS PER PLAN

THE CLASS C AND CLASS S CONCRETE SHALL USE LIMESTONE OR SLAG FOR THE COARSE AGGREGATE.

ESTIMATED STRUCTURE QUANTITIES - BRS-435(3)

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	SUPERSTRUCT.	GENERAL
202	LUMP		STRUCTURES REMOVED	LUMP SUM	LUMP SUM	
503	LUMP		COFFERDAMS, CRIBS AND SHEETING	LUMP SUM		
503	LUMP		UNCLASSIFIED EXCAVATION	LUMP SUM		
505	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION	LUMP SUM		
507	1035	LIN. FT.	16" DIAMETER CAST-IN-PLACE REINFORCED CONCRETE PILES	1035		
509	24821 / 25942	LB.	REINFORCING STEEL GRADE 60	7099 / 18220	7722	
511	52	CU. YD.	CLASS 'S' CONCRETE, SUPERSTRUCTURE, AS PER PLAN		52	
511	179	CU. YD.	CLASS 'C' CONCRETE, ABUTMENT ABOVE FOOTING, AS PER PLAN	179		
511	149 / 161	CU. YD.	CLASS 'C' CONCRETE, ABUTMENT FOOTINGS, AS PER PLAN	149 / 161		
516	14	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER	14		
517	62.50	LIN. FT.	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACK UP AND TYPE 2 STEEL POSTS AND BOLTS.)		6250	
518	134	CU. YD.	POROUS BACKFILL	134		
518	200	LIN. FT.	6" DIAMETER PERFORATED HELICAL CORRUGATED STEEL PIPE 707.01	200		
518	20	LIN. FT.	6" DIAMETER NON PERFORATED HELICAL CORRUGATED STEEL PIPE, INCLUDING SPECIALS, 707.01	20		
824	2809	LB.	EPOXY COATED REINFORCING STEEL GRADE 60		2809	
SPECIAL	16	SQ. YD.	SEALING OF CONCRETE SURFACES (SEE PROPOSAL NOTE)		16	

Revised 11-19-86

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2930 EUCLID AVE CLEVELAND, OHIO 44115

2/7

GENERAL NOTES & ESTIMATED QUANTITIES

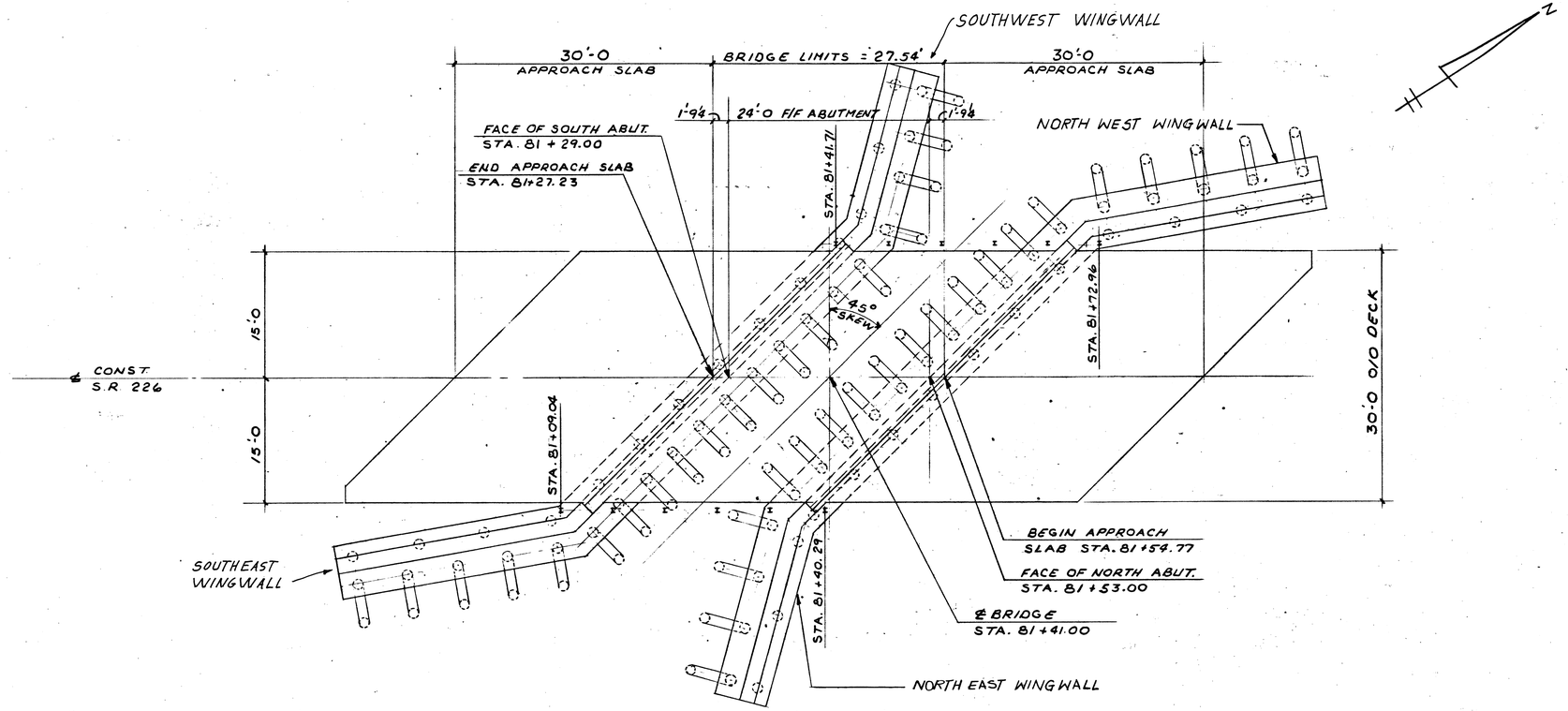
BRIDGE NO. WAY-226-0154
OVER STREAM
WAYNE COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
G.M.B.	D.C.P.	K.P.	K. Pranner	1-30-85	

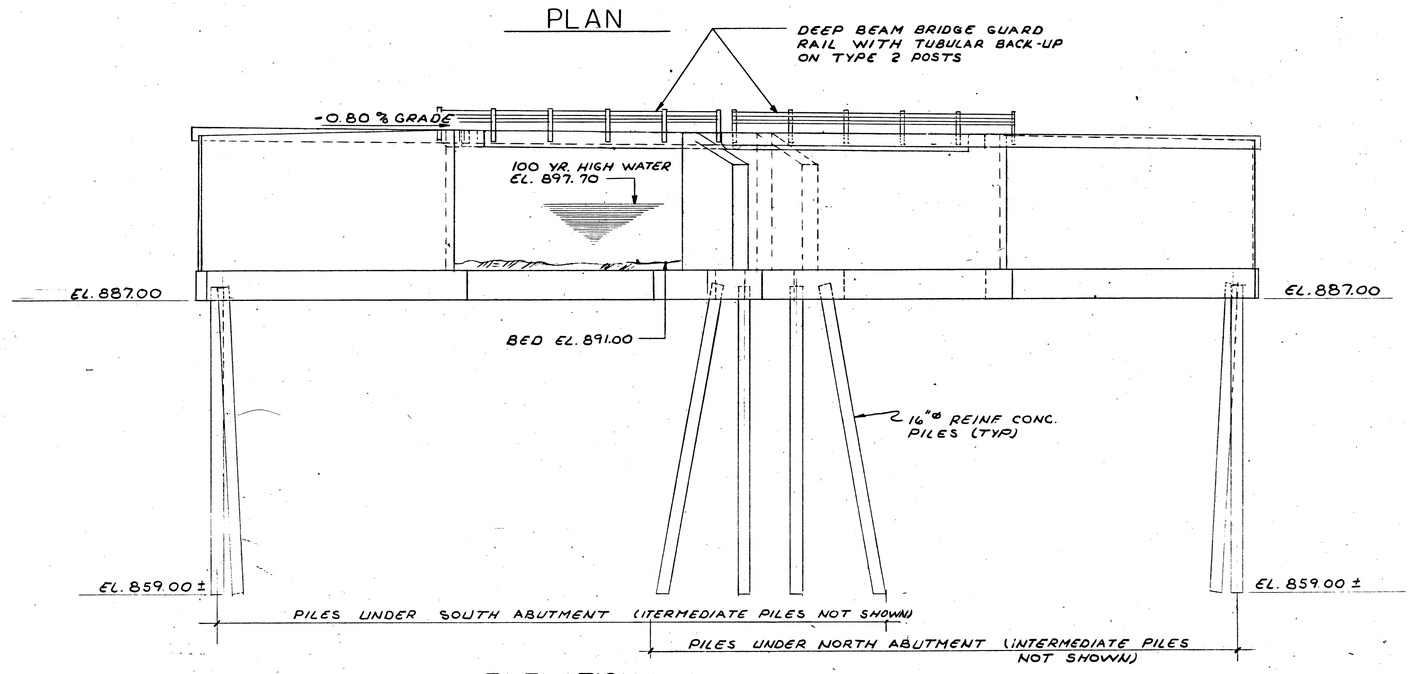
MICROFILMED
JAN 13 1992

FHWA REGION	STATE	PROJECT		26
5	OHIO			32

WAY-226-(0.44)(1.53)
Part 2



PLAN



ELEVATION

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2930 EUCLID AVE, CLEVELAND, OHIO 44115

3 / 7

GENERAL PLAN

BRIDGE NO. WAY-226-0154
OVER STREAM
WAYNE COUNTY

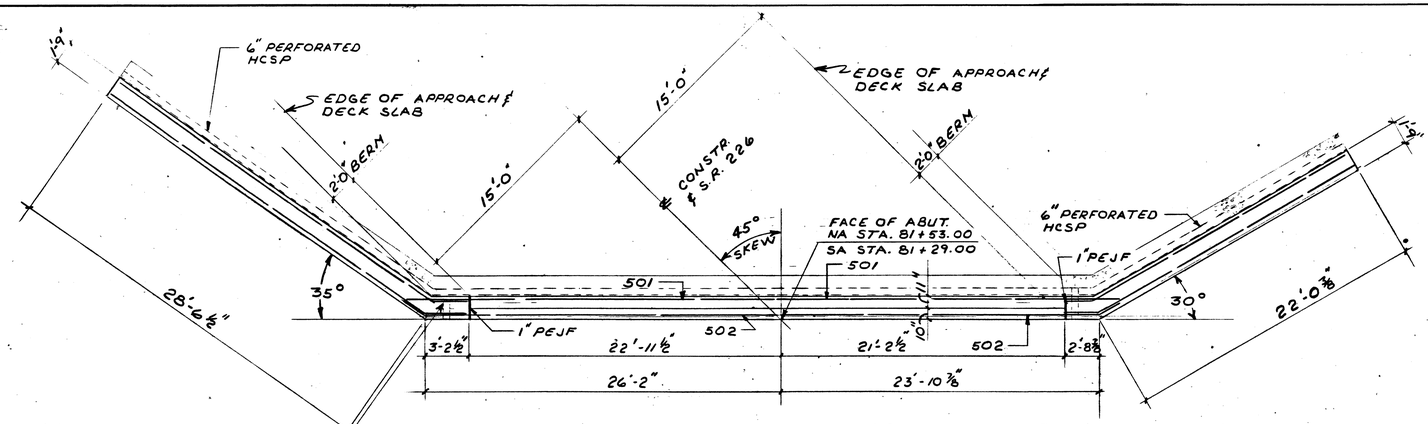
DESIGNED	DRAWN	CHECKED	REVIEWED - DATE	REVISED
G.M.B	D.C.P	KP	KP 1-30-90	

25,27,30.

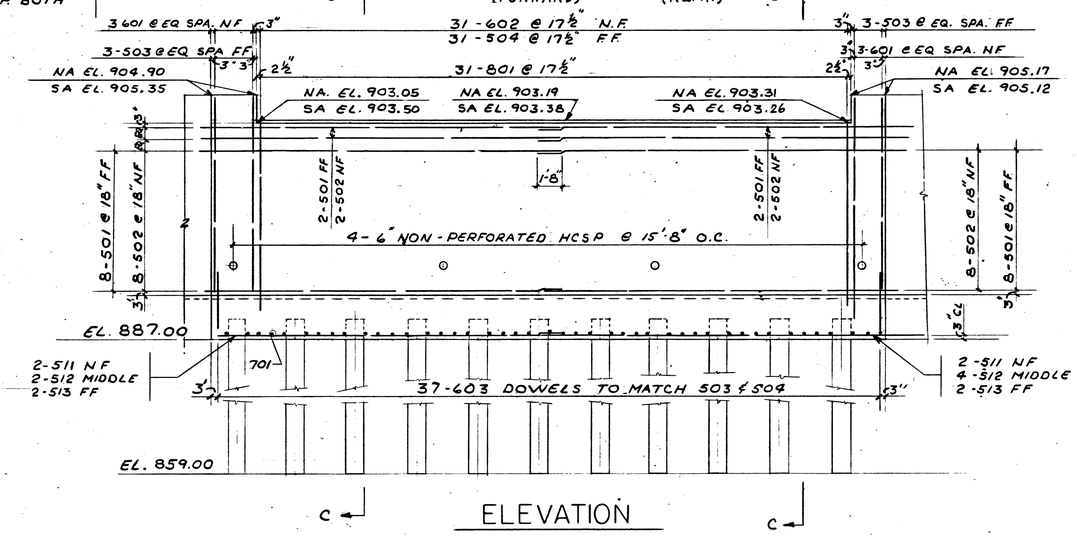
FHWA REGION	STATE	PROJECT	
5	OHIO		

27/32

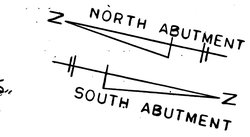
WAY-226-(0.44)(1.53)
Part 2

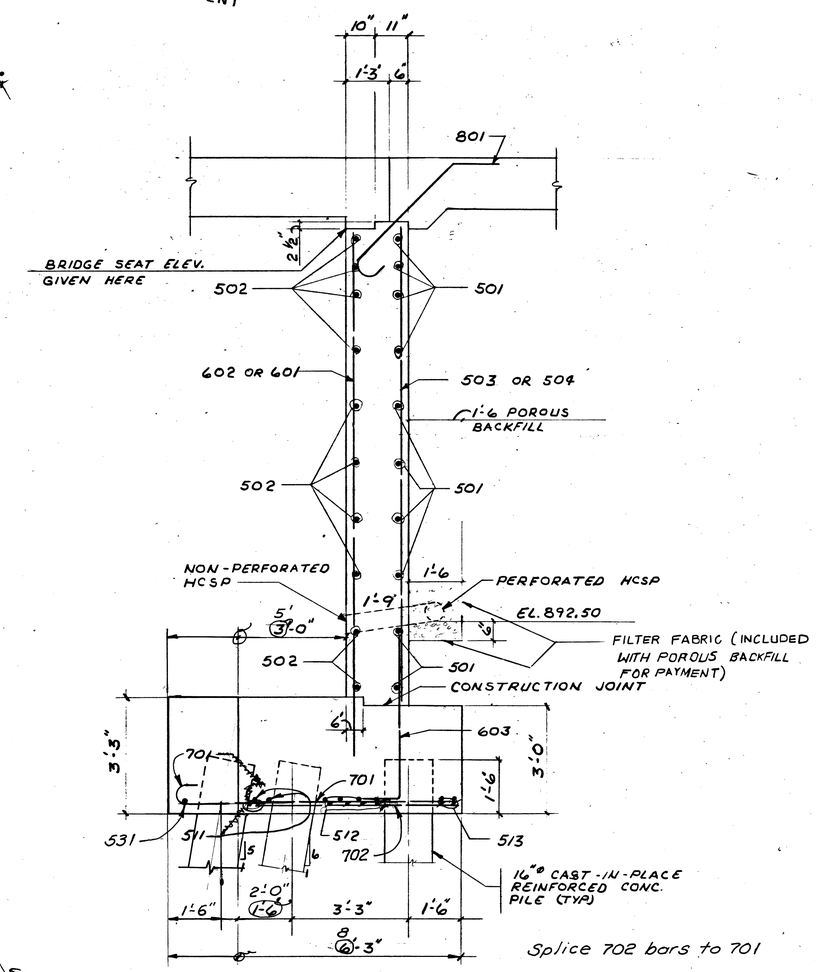


PLAN NORTH AND SOUTH ABUTMENT
(FORWARD) (REAR)

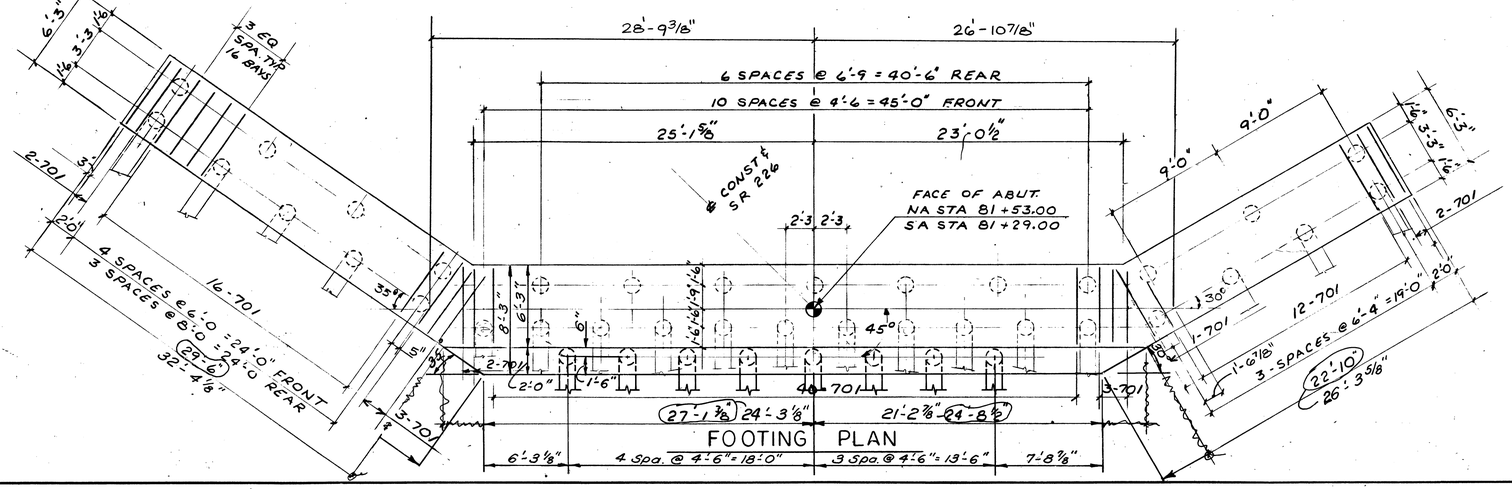


ELEVATION





SECTION C-C



FOOTING PLAN

NOTES

1. FOR DETAILS NOT SHOWN SEE STD DWG SB-2-73
2. ELEVATIONS SHOWN THUS:
   NA EL. = NORTH ABUTMENT ELVE.
   SA EL. = SOUTH ABUTMENT ELVE.
3. FOR WINGWALL DETAILS SEE SHEET 4/10
4. POROUS BACKFILL SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE AND LATERALLY TO THE ENDS OF THE WINGWALLS. BACKFILL SHALL NOT BE PLACED HIGHER THAN ELEV. 893.00 PRIOR TO PLACING THE DECK SLAB.

Revised 11-19-86

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4/7

ABUTMENTS

BRIDGE NO. WAY-226-0154
OVER STREAM

WAYNE COUNTY

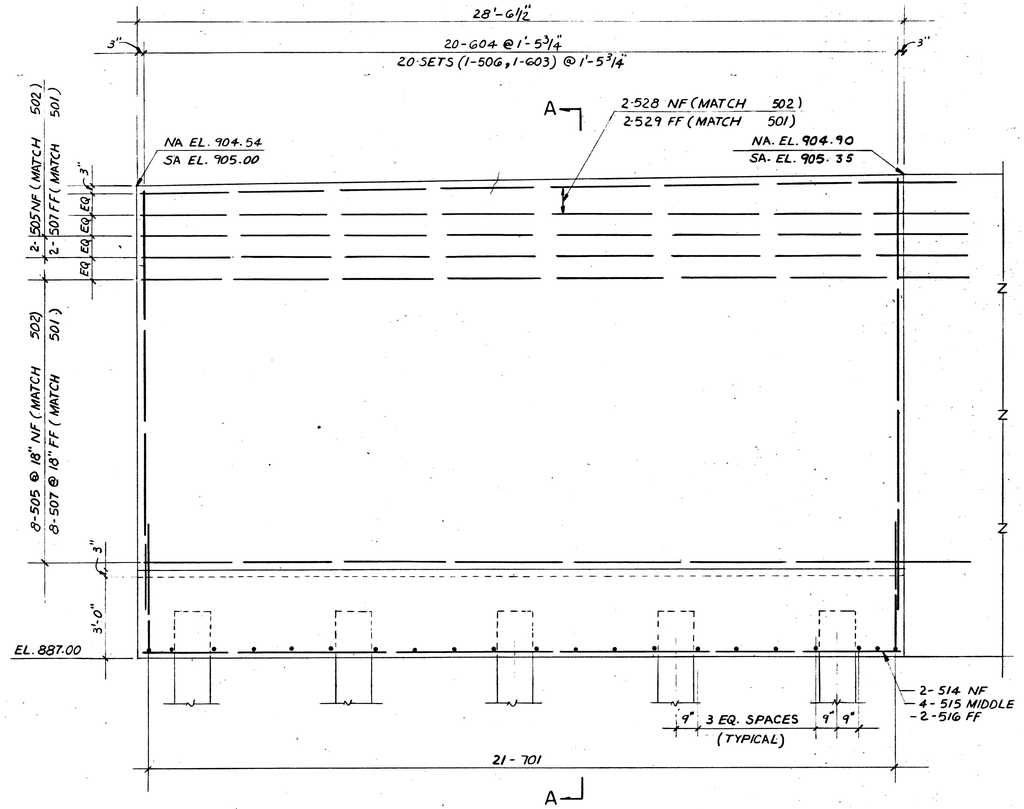
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
G MB	DCP	KJ	KJ Dunne	1-3-86	

JAN 13 '82

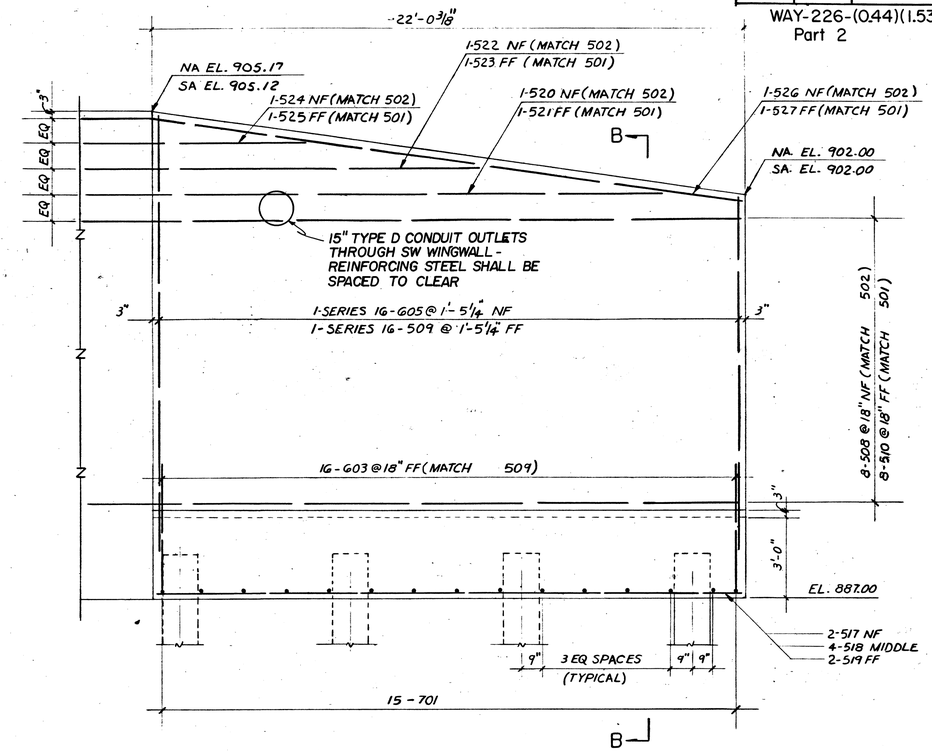
FHWA REGION	STATE	PROJECT	
5	OHIO		

28/32

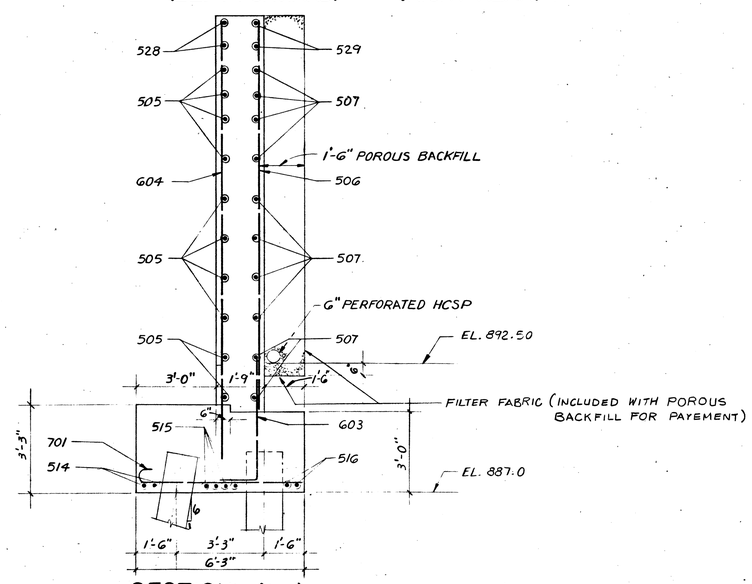
WAY-226-(0.44)(1.53)
Part 2



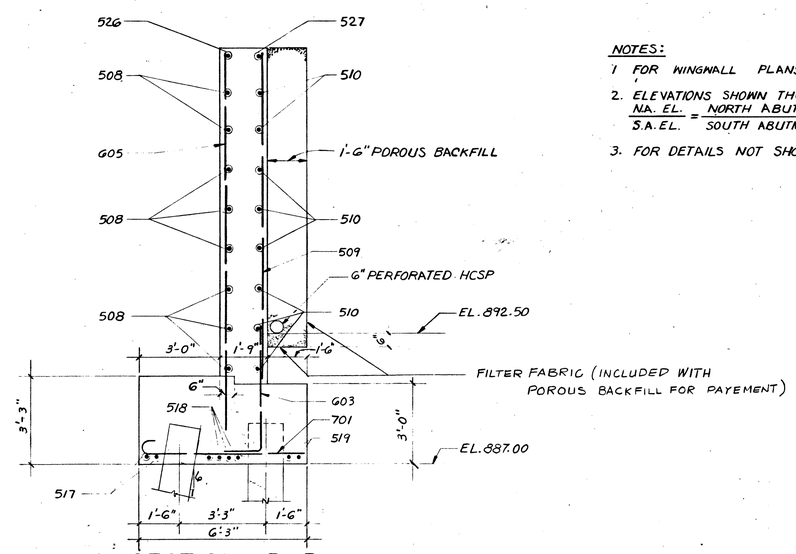
ELEVATION - NORTHWEST AND SOUTHEAST WINGWALL
(LEFT FORWARD) (RIGHT REAR)



ELEVATION - NORTHEAST AND SOUTHWEST WINGWALL
(RIGHT FORWARD) (LEFT REAR)



SECTION A-A



SECTION B-B

NOTES:

1. FOR WINGWALL PLANS AND ABUTMENTS SEE SHEET 3/10
2. ELEVATIONS SHOWN THUS
   N.A. EL. / S.A. EL. = NORTH ABUTMENT WINGWALL ELVE. / SOUTH ABUTMENT WINGWALL ELVE.
3. FOR DETAILS NOT SHOWN SEE STANDARD DRAWING SB-2-73

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5/7

ABUTMENT DETAIL

BRIDGE NO. WAY-226-0154
OVER STREAM

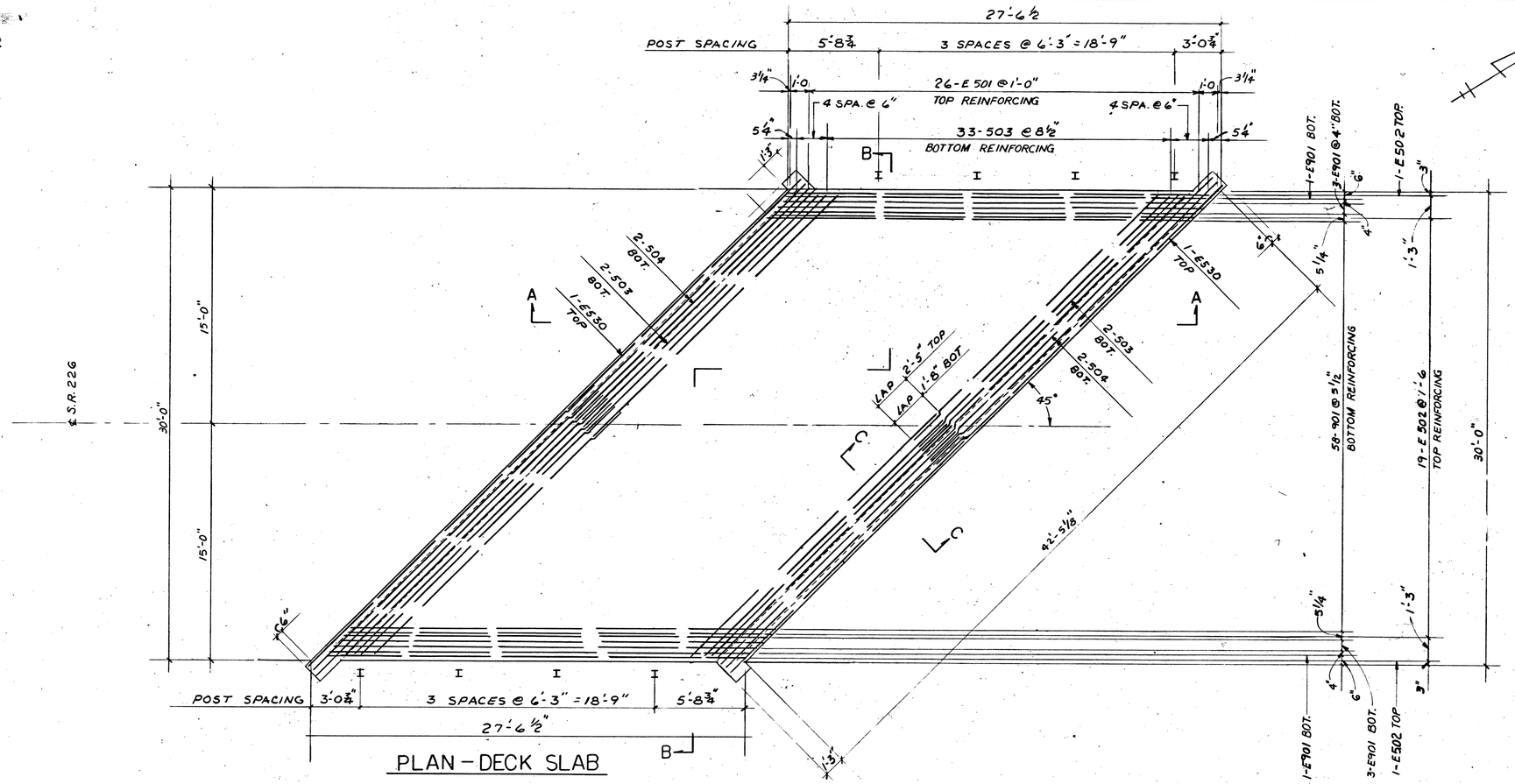
WAYNE COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
G.M.B.	D.C.P.	KJ	KJ	1-30-82	

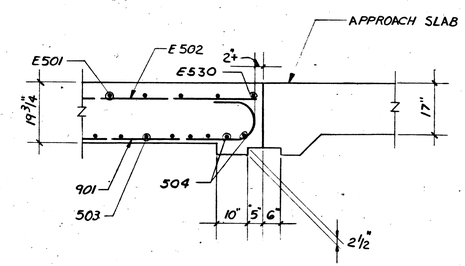
JAN 13 1982

FHWA REGION	STATE	PROJECT	
5	OHIO		

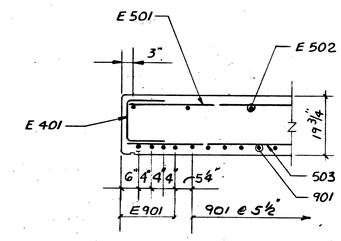
WAY-226-(0.44)(1.53)
Part 2



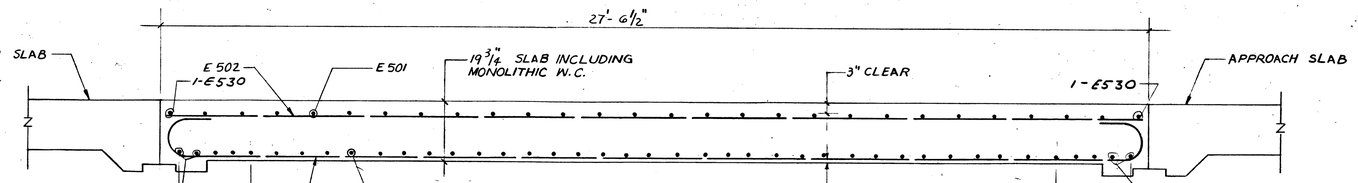
PLAN - DECK SLAB



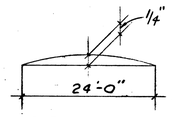
SECTION C-C



EDGE BEAM DETAIL



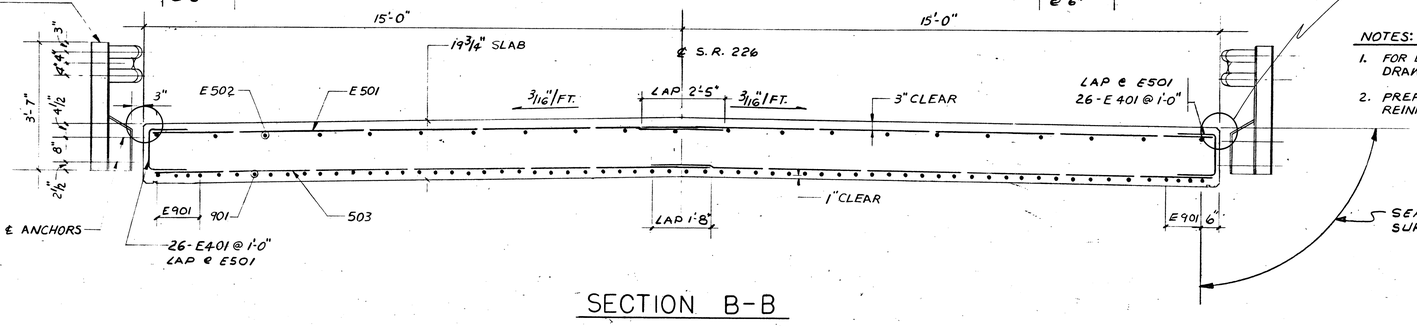
SECTION A-A



CAMBER DIAGRAM

(THIS CAMBER DOES NOT INCLUDE DEFLECTION OF FALSE WORK)

TYPE 2 POSTS (TYP)
DEEP BEAM BRIDGE GUARD RAIL
FOR DETAIL SEE STANDARD
DRAWING DBR-2-73



SECTION B-B

See Detail A, for both sides of bridge, on next sheet.

NOTES:

1. FOR DETAILS NOT SHOWN SEE STANDARD DRAWING SB-2-73
2. PREFIX LETTER "S" TO ALL SUPERSTRUCTURE REINFORCEMENT

SEALING OF CONCRETE SURFACE (TYP)

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2930 EUCLID AVE. CLEVELAND, OHIO 44115

6/7

SUPERSTRUCTURE DETAIL

BRIDGE NO. WAY-226-0154

OVER STREAM

WAYNE COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
G.M.B.	D.C.P.	KP	KJ	1-30-85	

JAN-13 1992

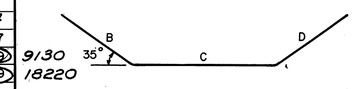
MARK	NO. REQUIRED	LENGTH	TYPE	DIMENSIONS A	B	C	D	SERIES INCR.	WEIGHT LBS.
			NORTH ABUTMENT						
NA501	20	26'-0	STR						542
NA502	20	28'-3	14		2'-6	25'-10			589
NA503	6	14'-9	STR						92
NA504	31	12'-11	STR						418
NA505	10	30'-9	14		2'-6	28'-4			321
NA506	20	14'-4	STR						299
NA507	10	30'-3	14		2'-6	27'-10			316
NA508	8	24'-3	14a		2'-6	21'-10			202
NA509	1 SER 16	14'-10 11'-10	STR					2 3/8"	222
NA510	8	23'-10	14a		2'-6	21'-5			199
NA511	4	29'-2	14		2'-6	26'-9			122
NA512	8	28'-3	14		2'-6	25'-10			236
NA513	4	27'-4	14		2'-6	24'11			114
NA514	2	31'-9	14		2'-6	29'-4			66
NA515	4	30'-0	STR						125
NA516	2	29'-6	STR						62
NA517	2	25'-1	14a		2'-6	22'-8			52
NA518	4	23'-6	STR						98
NA519	2	23'-0	STR						48
NA520	1	21'-11	14a		2'-6	19'-6			23
NA521	1	21'-6	14a		2'-6	19'-1			22
NA522	1	15'-5	14a		2'-6	13'-0			16
NA523	1	15'-0	14a		2'-6	12'-7			16
NA524	1	8'-7	14a		2'-8	6'-0			9
NA525	1	9'-11	14a		4'-5	5'-7			10
NA526	1	24'-7	14b		2'-8	22'-0			26
NA527	1	25'-11	14b		4'-5	21'-7			27
NA528	2	32'-11	14		4'-8	28'-4			69
NA529	2	30'-8	14		2'-11	27'-10			64
NA531	1	45'-0"	STR.						47
NA601	6	16'-5	STR						148
NA602	31	14'-6	STR						675
NA603	73	7'-10	17		1'-6	6'-6			859
NA604	20	15'-11	STR						478
NA605	1 SER 16	16'-1 13-1	STR					2 3/8"	350
NA701	81	6'-9	18	10"	5'-11				1118
NA702	45	5'-7"	STR.						513
NA801	31	6'-0	3	11"	3'-8	1'-6			497
								TOTAL =	8530
									9090
			SOUTH ABUTMENT						
SA501	20	26'-0	STR						542
SA502	20	28'-3	14		2'-6	25'-10			589
SA503	6	14'-11	STR						93
SA504	31	13'-1	STR						423
SA505	10	30'-9	14		2'-6	28'-4			321
SA506	20	14'-9	STR						308
SA507	10	30'-3	14		2'-6	27'-10			316
SA508	8	24'-3	14a		2'-6	21'-10			202
SA509	1 SER 16	14'-10 11-10	STR					2 3/8"	222
SA510	8	23'-10	14a		2'-6	21'-5			199
SA511	4	29'-2	14		2'-6	26'-9			122
SA512	8	28'-3	14		2'-6	25'-10			236
SA513	4	27'-4	14		2'-6	24'-11			114
SA514	2	31'-9	14		2'-6	29'-4			66
SA515	4	30'-0	STR						125
SA516	2	29'-6	STR						62
SA517	2	25'-1	14a		2'-6	22'-8			52
SA518	4	23'-6	STR						98
SA519	2	23'-0	STR						48
SA520	1	21'-11	14a		2'-6	19'-6			23
SA521	1	21'-6	14a		2'-6	19'-1			22
SA522	1	15'-5	14a		2'-6	13'-0			16
SA523	1	15'-0	14a		2'-6	12'-7			16
SA524	1	8'-7	14a		2'-8	6'-0			9
SA525	1	9'-11	14a		4'-5	5'-7			10
SA526	1	24'-7	14b		2'-8	22'-0			26
SA527	1	25'-11	14b		4'-5	21'-7			27
SA528	2	32'-11	14		4'-8	28'-4			69
SA529	2	30'-8	14		2'-11	27'-10			64
SA531	1	45'-0"	STR.						47

MARK	NO. REQUIRED	LENGTH	TYPE	DIMENSIONS A	B	C	D	SERIES INCR.	WEIGHT LBS.
			SOUTH ABUTMENT (CONT)						
SA601	6	16'-7	STR						149
SA602	31	14'-8	STR						683
SA603	73	7'-10	17		1'-6	6'-6			859
SA604	20	16'-5	STR						493
SA605	1 SER 16	16'-1 13-1	STR					2 3/8"	350
SA701	81	6'-9	18	10"	5'-11				1118
SA702	45	5'-7"	STR.						514
SA801	31	6'-0	3	11"	3'-8	1'-6			497
								TOTAL =	8569 9130
								GRAND TOTAL =	17099 18220
			SUPERSTRUCTURE						
S503	74	22'-0	STR						1698
S504	8	22'-10	STR						190
S901	58	29'-7	1		27'-1				5834
								TOTAL =	7722
			EPOXY COATED						
			SUPERSTRUCTURE						
E901	8	29'-7	1		27'-1				805
E401	52	3'-1	17		1'-0	1'-3	1'-0		107
E501	52	22'-3	STR						1207
E502	21	27'-1	STR						593
E530	4	23'-2	STR						97
								TOTAL =	2809

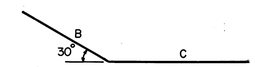
FHWA REGION	STATE	PROJECT	
5	OHIO		

30/32

WAY-226-(0.44)(1.53)
Part 2



14

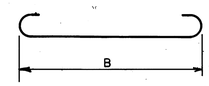


14a

14b PLAN

14b ELEVATION

14b



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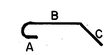

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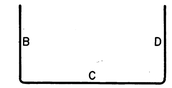

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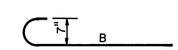
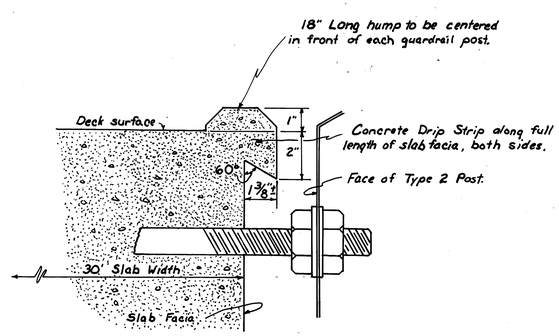


18

BENT BAR TYPES



Detail "A"

NOTES

1. REINFORCING STEEL SAMPLES:

REFER TO CMS SECTIONS 106.03, 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH 509.08.

Revised 11-19-86

MADISON·MADISON·INTERNATIONAL
ARCHITECTS·ENGINEERS·PLANNERS
2930 EUCLID AVE. CLEVELAND, OHIO 44115

7/7

REINFORCING LIST

BRIDGE NO WAY-226-0154
OVER STREAM
WAYNE COUNTY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
G.M.B	D.C.P	KP	KP Downer	1-7-85	

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

NO. OF STRUCTURES 0 NO. OF PROPERTY OWNERS 1 NO. OF TOTAL TAKES 0

PARCEL NO.	TYPE FUNDS	PROPERTY OWNERS	RECORDED VOL.	RECORDED PAGE	DEED AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. INTAKE	NET TAKE	NET RESIDUE LEFT	NET RESIDUE RIGHT	BLDG.	SHEET NO.	REMARKS
1	STATE	FRED C. & ROSEMARY REUTTER	458	109	178.27	2.20	0.04	0	0.04	144.03	32.0	No	1	
1X	"	" " "					0.03							CHANNEL EASEMENT

CURVE DATA

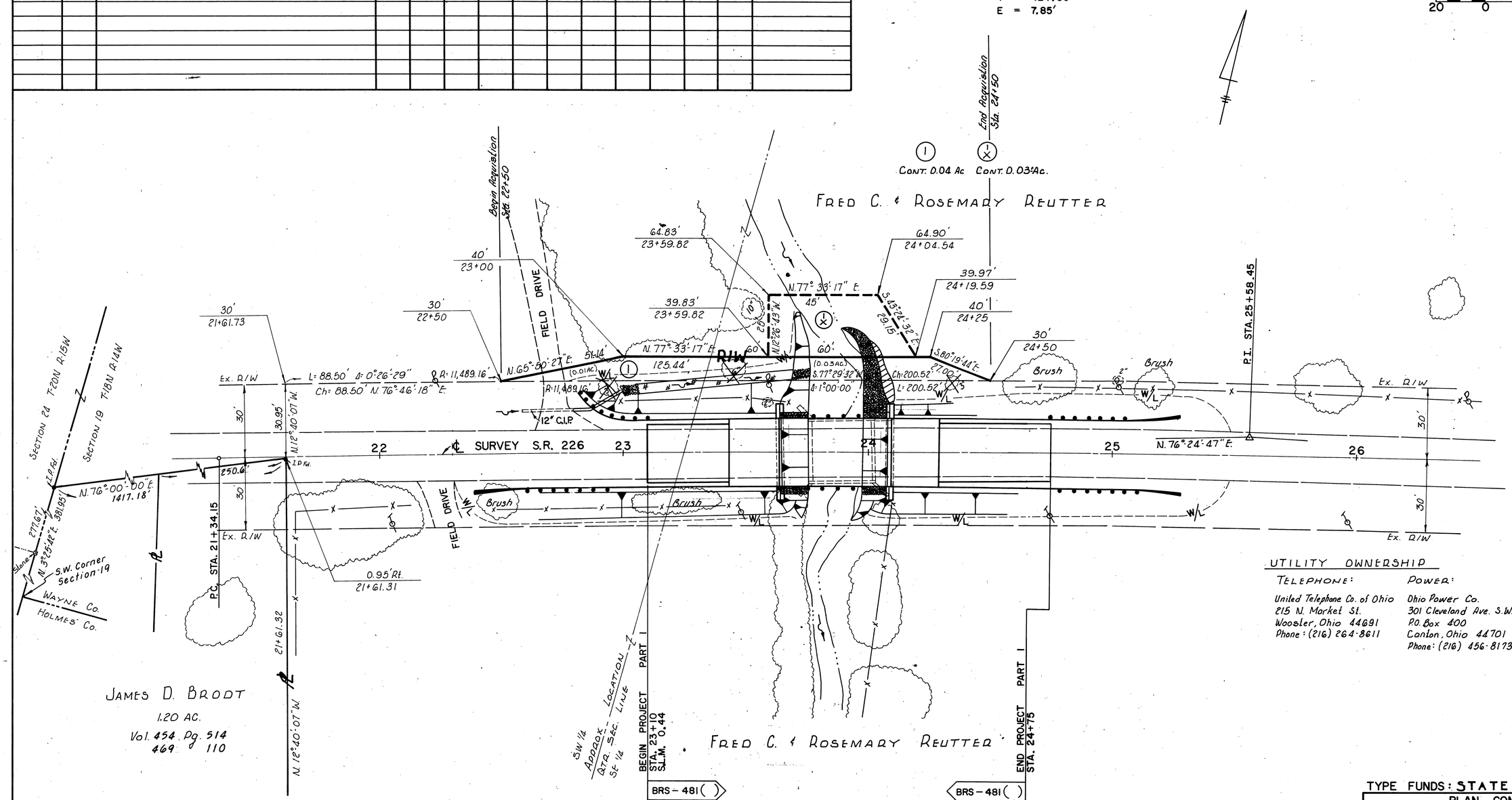
P.I. STA. 25 + 58.45
Δ = 4° – 14′ – 28″ RT.
Dc = 0° – 30′
R = 11,459.16
L = 848.21
T = 424.30′
E = 7.85′

STATE JOB NUMBER	FHWA REGION	STATE	PROJECT	
03927 (0)	5	OHIO		

31/32

1/1

WAY – 226 – (0.44) (1.53)
PART 1
SCALE IN FEET
20 0 20 60



UTILITY OWNERSHIP

TELEPHONE:
United Telephone Co. of Ohio
215 N. Market St.
Wooster, Ohio 44691
Phone: (216) 264-8611

POWER:
Ohio Power Co.
301 Cleveland Ave. S.W.
P.O. Box 400
Canton, Ohio 44701
Phone: (216) 456-8173

TYPE FUNDS: STATE

PLAN COMPLETED 07-29-85

REV. DATE	DESCRIPTION

WAYNE CO. CLINTON TWP. SEC-19 T-18N R-14W

STATE JOB NUMBER	FHWA. REGION	STATE	PROJECT	
03927 (0)	5	OHIO		

32 / 32

WAY – 226 – (0.44) (1.53)

PART 2

1 / 1

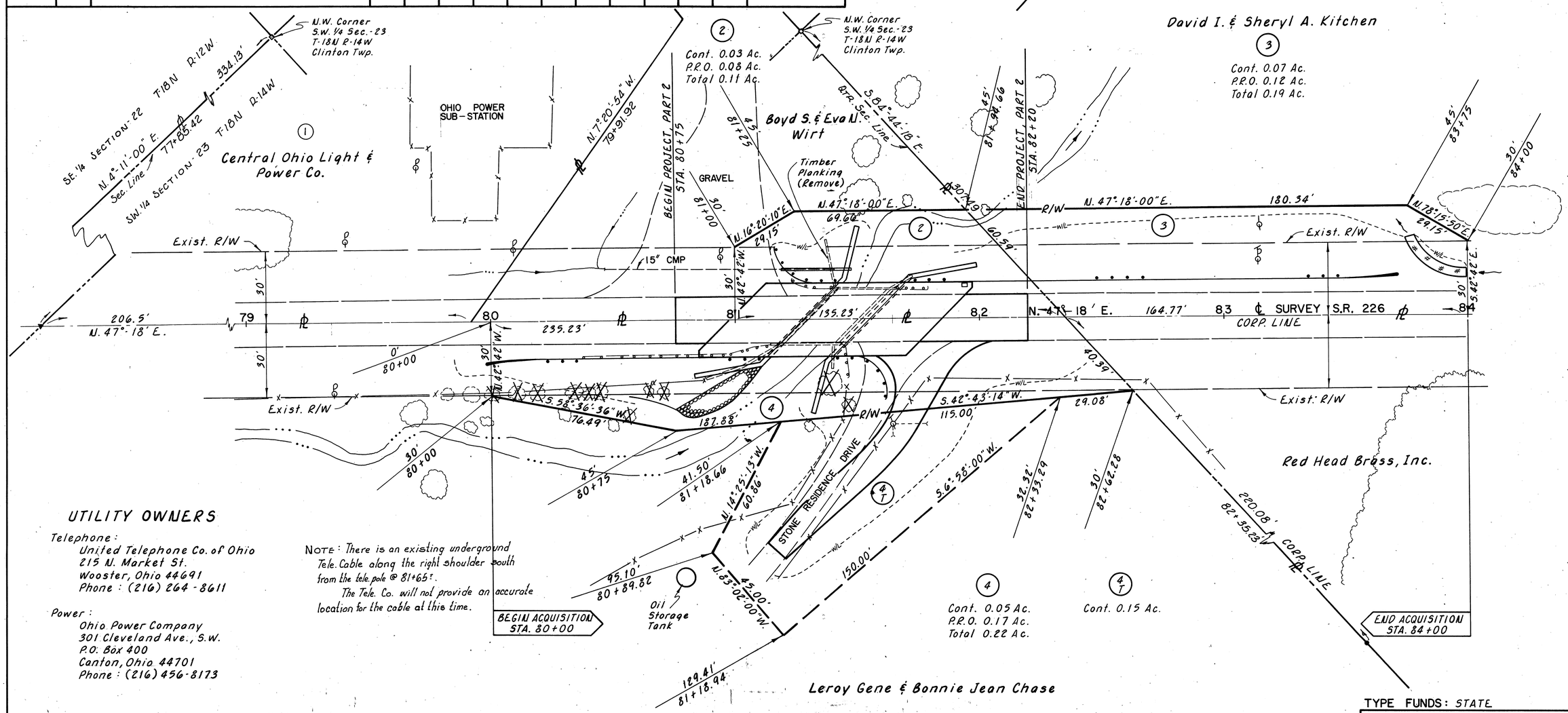
SCALE IN FEET

20 0 20 60

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

NO. OF STRUCTURES 0. NO. OF PROPERTY OWNERS 4. NO. OF TOTAL TAKES 0.

PARCEL NO.	TYPE FUNDS	PROPERTY OWNER	RECORDED VOL.	RECORDED PAGE	DEED AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. INTAKE	NET TAKE	NET RESIDUE LEFT	NET RESIDUE RIGHT	BLDG	SHEET NO.	REMARKS
1	State	Central Ohio Light & Power Co.	264	43	0.68									No R/W Required
2		Boyd S. & Eva N. Wirt	372	130	0.52	0.15	0.11	0.08	0.03	0.34	0	No	2	
3		David I. & Sheryl A. Kitchen	530	189	4.0	0.29	0.19	0.12	0.07	3.64	0	No	2	
4	State	Leroy Gene & Bonnie Jean Chase	388	282	18.44	0.24	0.22	0.17	0.05	0	18.15	No	2	



UTILITY OWNERS

Telephone:
United Telephone Co. of Ohio
215 N. Market St.
Wooster, Ohio 44691
Phone: (216) 264-8611

Power:
Ohio Power Company
301 Cleveland Ave., S.W.
P.O. Box 400
Canton, Ohio 44701
Phone: (216) 456-8173

NOTE: There is an existing underground Tele. Cable along the right shoulder south from the tele. pole @ 81+65±.
The Tele. Co. will not provide an accurate location for the cable at this time.

TYPE FUNDS: STATE

PLAN COMPLETED 07-29-85

REV. DATE	DESCRIPTION

WAYNE CO CLINTON TWP. SEC-23 T-18N R-14W

RECEIVED
JAN 13 1992
JAN 13 1992

CALC. BY:	DATE:
CHK. BY:	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO	WAY-226-0045	

WAYNE COUNTY

INTRODUCTION

THIS REPORT PRESENTS THE RESULTS OF A SOIL INVESTIGATION CONDUCTED AT THE SITE OF THE PROPOSED BRIDGE REPLACEMENT WAY-226-0045.

THE INVESTIGATION WAS MADE FOR DETERMINATION OF THE SUBSURFACE SOIL CONDITIONS AND ITS STRUCTURAL CHARACTERISTICS AND FOR EVALUATION OF HOW THOSE CONDITIONS WOULD INFLUENCE THE RETENTION OF THE BRIDGE ABUTMENT STRUCTURES.

FIELD INVESTIGATION AND LABORATORY TESTING

BETWEEN 9-7-83 & 10-28-83 TWO (2) SUBSURFACE SOIL EXPLORATORY BORINGS WITH SAMPLING WERE CONDUCTED AT THE PROPOSED CONSTRUCTION SITE. THE TEST BORINGS WERE PERFORMED USING A HEAVY TRUCK MOUNTED SOLID STEM CONTINUOUS ROTARY DRILL EQUIPPED WITH SPLIT BARREL SAMPLING EQUIPMENT. THE SAMPLINGS WERE CONDUCTED IN ACCORDANCE WITH ASTM D-1586, AS OUTLINED BELOW:

A. TWO INCH (2") SPLIT BARREL SAMPLES WERE TAKEN EVERY TWO FEET (2') FOR THE FIRST TWENTY FEET (20') AND 1 SAMPLE EVERY FIVE FEET (5') THEREAFTER OR AT CHANGE OF STRATA.

B. HAMMER BLOWS PER SIX INCH PENETRATION INTERVALS (0-6"; 6-12"; 12-18") WERE LOGGED WITH A 140 LB. HAMMER AT 30" DROP. STANDARD PENETRATION TEST RESULTS WERE ENTERED IN A DRILLERS LOG AND IDENTIFIED BY BORING NUMBER AND DEPTH.

C. GROUNDWATER WAS NOTED AT ENCOUNTER AND ELEVATIONS WERE MEASURED AND RECORDED ON COMPLETION OF EACH TEST BORING WHEN APPROPRIATE.

D. IN THE LABORATORY ALL SAMPLES WERE EXAMINED AND VISUALLY CLASSIFIED BY A SOILS ENGINEER AND/OR TECHNICIAN. MOISTURE CONTENT, ATTERBERG LIMITS, AND GRAIN SIZE ANALYSIS WITH HYDROMETER WERE PERFORMED ON REPRESENTATIVE SAMPLES.

GEOLOGY

WAYNE COUNTY LIES IN THE ALLEGHENY PLATEAU PROVINCE. THE AREA IS A ROLLING UPLAND WITH BROAD FLAT VALLEYS AND RANGES IN ELEVATION FROM 837' TO 1320' ABOVE MEAN SEA LEVEL. THE SURFICIAL MATERIALS ARE GLACIAL IN ORIGIN AND CONSIST OF SILTY CLAYS, SAND, AND GRAVEL. THESE GLACIAL MATERIALS RANGE IN THICKNESS FROM ALMOST NOTHING IN THE HIGHER AREAS TO AS MUCH AS 150' IN THE STREAM VALLEYS. THE BEDROCK OF THIS AREA CONSISTS OF SHALES, SANDSTONES, AND COAL BEDS OF MISSISSIPPIAN AND PENNSYLVANIAN AGE.

LEGEND

DRIVE SAMPLE AND/OR CORE BORING - PLAN VIEW

DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY - PROFILE

FREE WATER OR WATER SEEPAGE

Y/Z — FIGURES BESIDE THE BORING LOG IN PROFILE INDICATE THE NUMBER OF BLOWS OF STANDARD PENETRATION TEST

Y = NUMBER OF BLOWS FOR FIRST 6 INCHES.

Z = NUMBER OF BLOWS FOR SECOND 6 INCHES.

WATER ON ENCOUNTER IN BORINGS OR ON WATER SURFACE IN STREAM BED.

WATER ON COMPLETION.

★ REPRESET COMBINED PERCENTAGE OF SILT AND CLAY.

SOLAR TESTING LABORATORIES, INC.

BRIDGE FOUNDATION INVESTIGATION
FAST TRACK III BRIDGE PROGRAM
O.D.O.T. DISTRICT 3
WAY - 226 - 0045
OVER CREEK

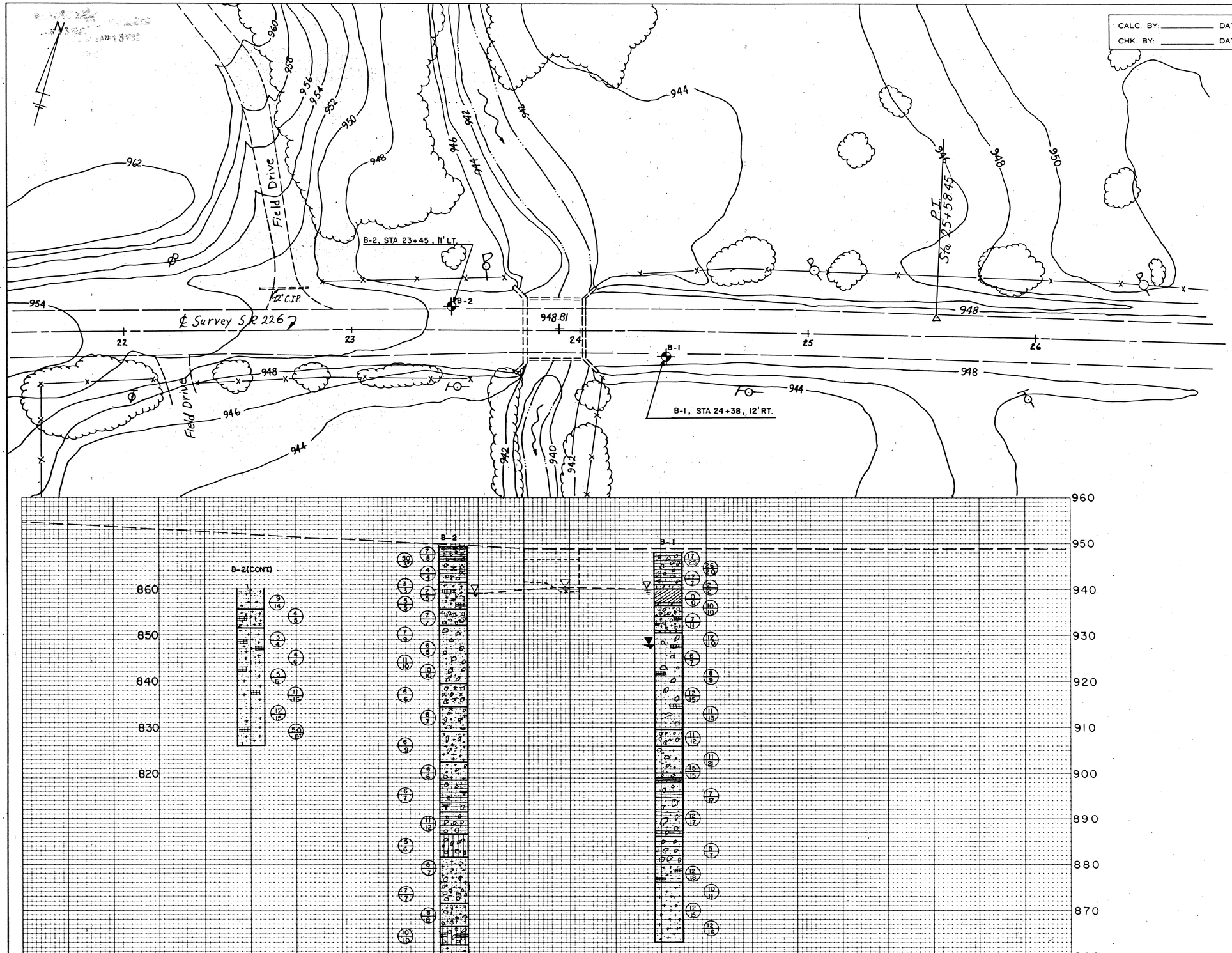
DRAWN BY OAI	CHECKED BY GJA	STL PROJECT NO.
SCALE 1" = 20'	DATE 11-12-83	A83305x10

CALC. BY:	DATE:
CHK. BY:	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO	WAY-226-0045	

WAYNE COUNTY

2/8



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SOLAR TESTING LABORATORIES, INC.

BRIDGE FOUNDATION INVESTIGATION
FAST TRACK III BRIDGE PROGRAM
O.D.O.T. DISTRICT 3
WAY-226-0045
OVER CREEK

DRAWN BY OAZ	CHECKED BY	STL PROJECT NO.
SCALE 1" = 20'	DATE 11-12-83	A83305x10

JAN 13

CALC. BY:	DATE:
CHK. BY:	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO	WAY-226-0045	

3/8

WAYNE COUNTY

SOLAR TESTING LABORATORIES, INC.

LABORATORY LOG OF BORING B-1 BORING DATE 9-8-83
OWNER O.D.O.T. DISTRICT 3 PROJECT WAY-226-0045
LOCATION STATION 24+38 12' RT
DRILLING METHOD SOLID STEM AUGER
SURFACE ELE. 947.98' WATER ELE. 927.98'

DEPTH	SAMPLE	TYPE	SYMBOL	SOIL DESCRIPTION	SPLIT-BARREL PENETRATION blows/6 in.	UNCONFINED COMPRESSIVE STRENGTH (T/sq.ft.)	UNIT DRY WT. lbs./cu.ft.	PLASTIC LIMIT IN PERCENT	WATER CONTENT IN PERCENT	LIQUID LIMIT IN PERCENT	PHYSICAL CHARACTERISTICS % AGG.	% COARSE SAND	% FINE SAND	% SILT	% CLAY	SOIL CLASSIFICATION
	1	SB		4" ASPHALT, 2" BASE UNDER LAIN BY FILL, HARD BROWN SILTY CLAY, SOME SAND, SOME ROCK FRAGMENTS, LITTLE GRAVEL, TRACE BRICK.	8-17-25											
	2	SB			16-26-20											
5	3	SB			17-17-7											
	4	SB		GRAY SILTY SAND AND GRAVEL. (AUGER)	2-2-2			17.6	28.4	26.75	0.0	5.5	25.1	(69	.4)*	A-4 (7)
10	5	SB		GRAY SILT AND CLAY, LITTLE SAND.	0-0-0			17.1	37.9	25.3	6.4	19.7	19.8	(54	.1)*	A-4 (4)
	6	SB		LAYER SAND AND GRAVEL. MEDIUM DENSE BROWN SAND AND ROCK FRAGMENTS AND GRAVEL, LITTLE SILT.	8-10-10				9.5		50.76	13.14	21.01	(15	.09)*	
15	7	SB		VERY STIFF GRAY SILT, LITTLE ORGANIC MATERIAL, LITTLE CLAY, TRACE GRAVEL, SOME SAND. (AUGER)	4-7-11			18.8	26.3	23.22	10.94	1.56	18.49	(69	.01)*	A-4 (7)
	8	SB		GRAY SILT.	17-12-10				11.3		57.44	15.06	13.73	(13	.77)*	
20	9	SB		MEDIUM DENSE BROWNISH GRAY SAND AND GRAVEL, SOME ROCK FRAGMENTS, LITTLE SILTY CLAY.	7-6-7				13.3		50.7	16.8	12.7	(19	.8)*	A-1-b (0)
25	10	SB			9-8-9				21.0							
30	11	SB		MEDIUM DENSE BROWNISH GRAY SAND AND GRAVEL, SOME ROCK FRAGMENTS, LITTLE SILTY CLAY.	10-12-15				13.8		44.7	22.8	19.3	(17	.2)*	
35	12	SB			10-11-13				13.0		55.2	18.6	11.9	(14	.3)*	
40	13	SB		MEDIUM DENSE BROWN AND GRAY SAND, SOME GRAVEL, LITTLE ROCK FRAGMENTS.	9-11-12						56.93	19.27	13.8	(10	.0)*	A-1-a (0)
45	14	SB		MEDIUM DENSE GRAY SAND, TRACE GRAVEL, SILT.	11-11-21						35.8	35.4	23.66	(5	.14)*	A-1-b (0)
50	15	SB		MEDIUM DENSE TO DENSE GRAY SAND, TRACE GRAVEL. OLIVE GRAY SILTY CLAY, LITTLE FINE TO MEDIUM SAND.	12-15-15				16.2		10.03	25.77	30.3	(33	.9)*	A-2-4 (0)

SOLAR TESTING LABORATORIES, INC.

LABORATORY LOG OF BORING B-1 BORING DATE 9-8-83
OWNER O.D.O.T. DISTRICT 3 PROJECT WAY-226-0045
LOCATION STATION 24+38 12' RT
DRILLING METHOD SOLID STEM AUGER
SURFACE ELE. 947.98' WATER ELE. 927.98'

DEPTH	SAMPLE	TYPE	SYMBOL	SOIL DESCRIPTION	SPLIT-BARREL PENETRATION blows/6 in.	UNCONFINED COMPRESSIVE STRENGTH (T/sq.ft.)	UNIT DRY WT. lbs./cu.ft.	PLASTIC LIMIT IN PERCENT	WATER CONTENT IN PERCENT	LIQUID LIMIT IN PERCENT	PHYSICAL CHARACTERISTICS % AGG.	% COARSE SAND	% FINE SAND	% SILT	% CLAY	SOIL CLASSIFICATION
55	16	SB		MEDIUM DENSE OLIVE GRAY SAND, SOME SILTY CLAY, SOME GRAVEL AND ROCK FRAGMENTS. (SOME LARGE)	7-7-17											
60	17	SB			8-12-17											
65	18	SB		STIFF GRAY SILTY CLAY, LITTLE ROCK FRAGMENTS, SOME SAND.	4-5-7			18.9	17.7	28.0	9.54	24.66	28.31	(37	.49)*	A-4 (1)
70	19	SB		MEDIUM DENSE TO DENSE GRAY SILT AND SAND, LITTLE CLAY, LITTLE IRON STAINS.	9-12-18						14.6	23.4	13.72	(48	.28)*	
75	20	SB		MEDIUM DENSE OLIVE GRAY FINE SAND AND SILT.	7-10-11											
80	21	SB		MEDIUM DENSE OLIVE GRAY FINE SAND AND SILT.	8-12-15						0.0	0.02	41.04	(58	.94)*	
85	22	SB			8-12-16											
90																
95																
100																

* REPRESENT COMBINED PERCENTAGE OF SILT AND CLAY.

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SOLAR TESTING LABORATORIES, INC.

BRIDGE FOUNDATION INVESTIGATION
FAST TRACK III BRIDGE PROGRAM
O.D.O.T. DISTRICT 3
WAY-226-0045
OVER CREEK

DRAWN BY OAL	CHECKED BY G.J.A.	STL PROJECT NO.
SCALE 1" = 20'	DATE 11-12-83	A83305x10

JAN 13

CALC. BY:	DATE:
CHK. BY:	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO	WAY-226-0045	

4/8

WAYNE COUNTY

SOLAR TESTING LABORATORIES, INC.

LABORATORY LOG OF BORING B-2 BORING DATE 9-7-83
OWNER O.D.O.T. DISTRICT 3 PROJECT WAY-226-0045
LOCATION STATION 23+45 11' LT.
DRILLING METHOD SOLID STEM AUGER
SURFACE ELE. 949.21' WATER ELE.

DEPTH	SAMPLE	TYPE	SOIL DESCRIPTION	SPLIT-BARREL PENETRATION blows/6 in.	UNCONFINED COMPRESSIVE STRENGTH (T/sq.ft)	UNIT DRY WT. lbs./cu.ft.	PLASTIC LIMIT IN PERCENT	WATER CONTENT IN PERCENT	LIQUID LIMIT IN PERCENT	PHYSICAL CHARACTERISTICS AGG. %	COARSE SAND %	FINE SAND %	SILT %	CLAY %	SOIL CLASSIFICATION
	1	SB	TOPSOIL STIFF BROWN SILTY CLAY, SOME SAND, SOME GRAVEL, SOME ROCK FRAGMENTS.	3-7-8				11.8							
	2	SB	BROWN SANDY SILTY CLAY AND GRAVEL, TRACE SANDSTONE. (POSSIBLE FILL)	50/3"											
5	3	SB	MEDIUM STIFF OLIVE GRAY SILTY CLAY AND SAND, LITTLE GRAVEL, TRACE ORGANICS. (POSSIBLE FILL)	3-4-4			17.3	19.9	31.4	22.3	23.0	33.4	(21	.3)*	A-2-6 (0)
	4	SB	(FILL) SOFT GRAY SILT, SOME CLAY AND SAND, TRACE ORGANICS, FEW ROCK FRAGMENTS, SAND SEAM.	4-3-3			17.6	23.9	25.2	16.5	3.3	47.4	(32	.8)*	A-2-4 (0)
10	5	SB		2-2-5											
	6	SB		4-5-5			20.2	19.3	27.9						A-1-b (0)
15	7	SB	MEDIUM DENSE BROWN SANDY GRAVEL.	5-7-7						62.1	9.8	11.8	(16	.3)*	
										63.2	16.2	10.5	(10	.1)*	
	8	SB		6-7-9											A-1-a (0)
20	9	SB	MEDIUM DENSE FINE TO COARSE GRAIN BROWN SAND AND COARSE GRAVEL, SOME ROCK FRAGMENTS.	9-6-5				8.0		71.8	8.7	8.9	(10	.6)*	
	10	SB		9-11-10				12.2							
25			MEDIUM DENSE FINE TO COARSE GRAIN BROWN SAND AND COARSE GRAVEL, SOME ROCK FRAGMENTS.												
30	11	SB		19-10-10				7.9							
			MEDIUM DENSE BROWN AND GRAY SAND, SOME COARSE GRAVEL, TRACE ORGANICS.												A-1-b (0)
35	12	SB		6-6-6				5.6		41.9	30.6	20.4	(7	.1)*	
			MEDIUM OLIVE-GRAY SAND, LITTLE GRAY GRAVEL, TRACE GRAY SILT, TRACE ORGANICS.												
40	13	SB		6-6-7											
			MEDIUM DENSE DARK GRAY SILT, LITTLE SAND, SOME ROCK FRAGMENTS.												
45	14	SB		5-6-9				15.0		31.1	1.1	12.9	(54	.9)*	
			MEDIUM DENSE, OLIVE GRAY, MEDIUM SIZE GRAINS OF SAND, LITTLE GRAY SILT, SOME OLIVE GRAY GRAVEL.												
50	15	SB		4-6-6											

SOLAR TESTING LABORATORIES, INC.

LABORATORY LOG OF BORING B-2 BORING DATE 9-7-83
OWNER O.D.O.T. DISTRICT 3 PROJECT WAY-226-0045
LOCATION Station 23+45 11' LT.
DRILLING METHOD SOLID STEM AUGER
SURFACE ELE. 949.21' WATER ELE.

DEPTH	SAMPLE	TYPE	SOIL DESCRIPTION	SPLIT-BARREL PENETRATION blows/6 in.	UNCONFINED COMPRESSIVE STRENGTH (T/sq.ft)	UNIT DRY WT. lbs./cu.ft.	PLASTIC LIMIT IN PERCENT	WATER CONTENT IN PERCENT	LIQUID LIMIT IN PERCENT	PHYSICAL CHARACTERISTICS AGG. %	COARSE SAND %	FINE SAND %	SILT %	CLAY %	SOIL CLASSIFICATION
55	16	SB	STIFF DARK GRAY SILTY CLAY, SOME GRAYISH BROWN SAND, TRACE GRAVEL, LITTLE SHALE.	6-6-7			14.5	11.3	22.17						
60	17	SB	VERY STIFF GRAY SILTY CLAY, SOME SAND, SOME GRAVEL, ROCK FRAGMENTS.	10-11-12			14.84	11.5	19.75	28.8	9.2	26.6	(35	.4)*	A-4 (1)
65	18	SB	STIFF GRAY FINE GRAIN SANDY SILT, TRACE ROCK FRAGMENTS, TRACE GRAVEL.	4-5-6				25.5		2.5	1.5	11.8	(84	.2)*	
70	19	SB	MEDIUM DENSE GRAY SAND, SOME GRAVEL, TRACE ROCK FRAGMENTS, SOME SILT.	6-6-7											
75	20	SB		6-7-7				8.2							
			MEDIUM DENSE GRAY SAND, SOME GRAVEL, TRACE ROCK FRAGMENTS, SOME SILT.												
80	21	SB	MEDIUM DENSE GRAY SILT AND SAND, TRACE GRAVEL.	6-8-8				9.0							
85	22	SB	STIFF TO VERY STIFF GRAY SANDY SILT, TRACE ROCK FRAGMENTS, GRAVEL AND CLAY.	9-10-10				14.1							
90	23	SB	VERY STIFF DARK GRAY SAND, SOME SILT.	5-9-14											
95	24	SB	MEDIUM STIFF DARK GRAY SILTY SAND, TRACE ORGANICS, TRACE CLAY.	4-4-5				20.5		0.84	13.96	60.9	(25	.1)*	
100	25	SB	MEDIUM STIFF TO VERY STIFF DARK GRAY FINE SAND, SILT, LITTLE CLAY.	3-3-4				22.9							

SOLAR TESTING LABORATORIES, INC.

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	26	SB		3-4-6						2.5	4.0	60.9	(32	.6)*	
105	27	SB		4-5-6											
110	28	SB	MEDIUM STIFF TO VERY STIFF DARK GRAY FINE SAND, SILT, LITTLE CLAY.	8-11-16				19.9		0.047	0.053	38.1	(61	.8)*	
115	29	SB		12-12-15											
120	30	SB	HIT BOULDER AT 123.5' TO 125.0'. RICK ENGLE AND O.D.O.T. TOLD ME TO STOP HOLE SO NO DEEPER FROM 75'-125' HOLE DRILLED WITH DRILLING MUD.	50/0"											
125	31	SB													

* REPRESENTS COMBINED PERCENTAGE OF SILT AND CLAY.

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SOLAR TESTING LABORATORIES, INC.

BRIDGE FOUNDATION INVESTIGATION
FAST TRACK III BRIDGE PROGRAM
O.D.O.T. DISTRICT 3
WAY - 226 - 0045
OVER CREEK

DRAWN BY OAL	CHECKED BY GJL	STL PROJECT NO.
SCALE 1" = 20'	DATE 11-12-83	A83305x10

CALC. BY:	DATE:
CHK. BY:	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO	WAY-226-0154	

WAYNE COUNTY

5/8

INTRODUCTION

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DRIVE SAMPLE AND/OR CORE BORING - PLAN VIEW.

DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY - PROFILE.

—w FREE WATER OR WATER SEEPAGE.

(Y/Z) FIGURES BESIDE THE BORING LOG IN PROFILE INDICATE THE NUMBER OF BLOWS OF STANDARD PENETRATION TEST.

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Z = NUMBER OF BLOWS FOR SECOND 6 INCHES.

WATER ON ENCOUNTER IN BORINGS OR ON WATER SURFACE IN STREAM BED.

WATER ON COMPLETION.

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SOLAR TESTING LABORATORIES, INC.

BRIDGE FOUNDATION INVESTIGATION
FAST TRACK III BRIDGE PROGRAM
O.D.O.T. DISTRICT 3
WAY - 226 - 0154
OVER CREEK

DRAWN BY OKI	CHECKED BY G.J.A.	STL PROJECT NO.
SCALE 1" = 20'	DATE 11-13-83	A83305x10

CALC. BY:	DATE:
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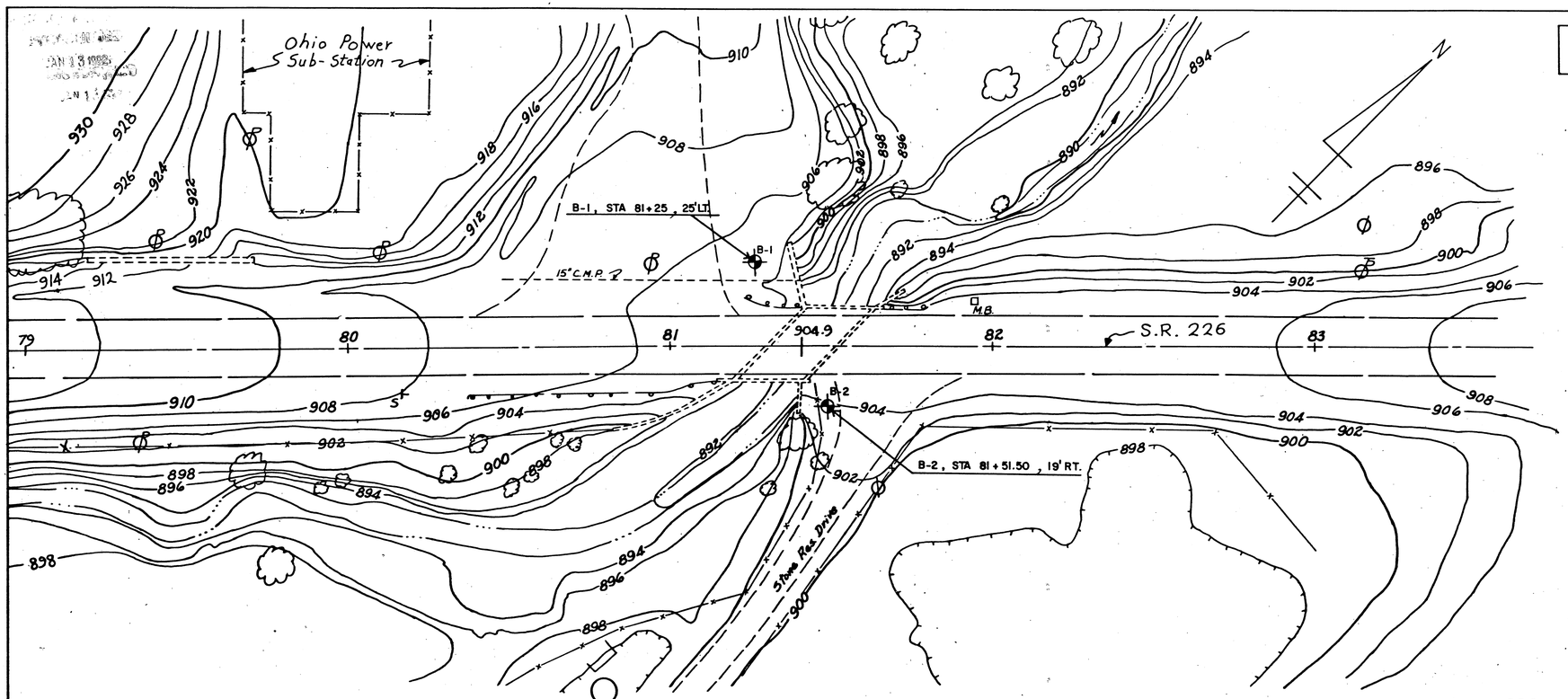
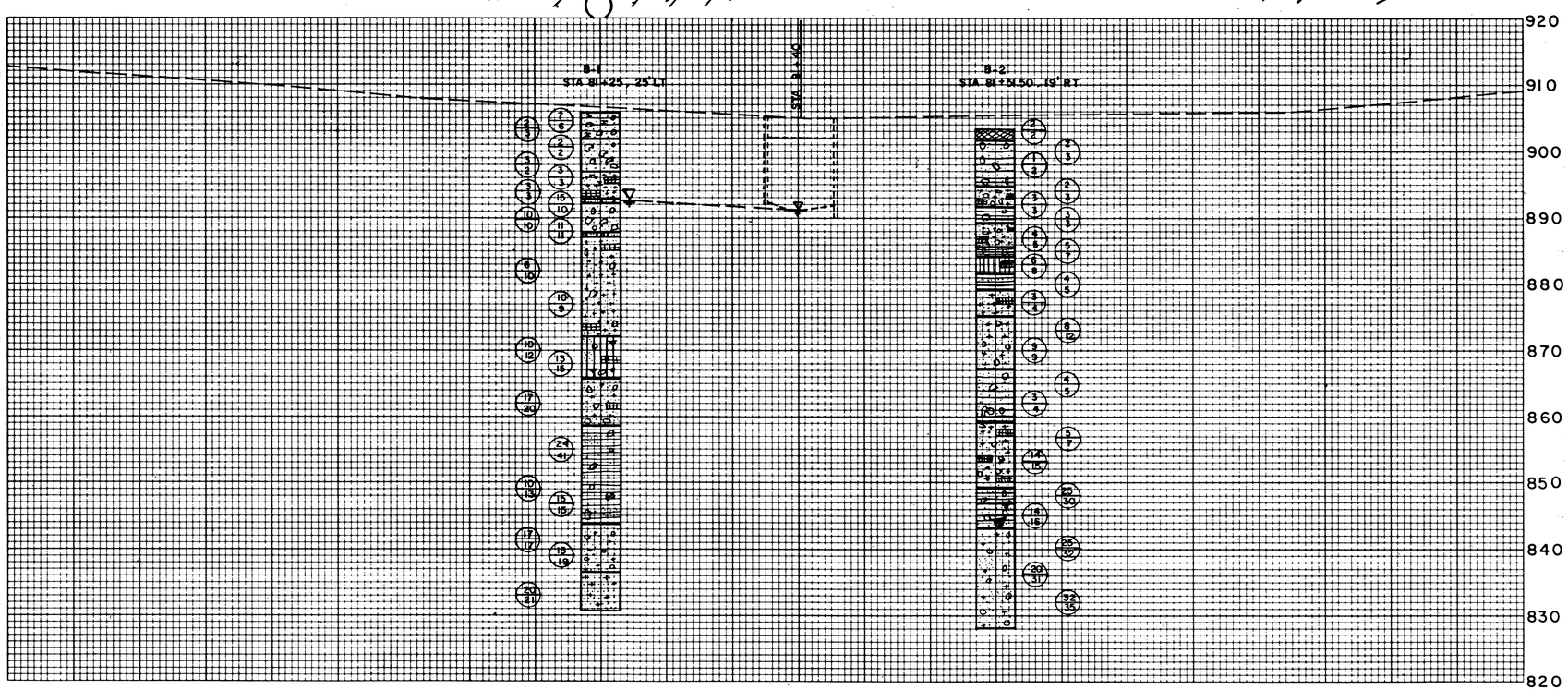
FHWA REGION	STATE	PROJECT	
5	OHIO	WAY-226-0154	

WAYNE COUNTY

6/8





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SOLAR TESTING LABORATORIES, INC.

BRIDGE FOUNDATION INVESTIGATION
FAST TRACK III BRIDGE PROGRAM
O.D.O.T. DISTRICT 3
WAY - 226 - 0154
OVER CREEK

DRAWN BY DKL	CHECKED BY GEH	STL PROJECT NO.
SCALE 1" = 20'	DATE 11-13-83	A83305x10

JAN 13

CALC. BY:	DATE:
CHK. BY:	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO	WAY-226-0154	

WAYNE COUNTY

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SOLAR TESTING LABORATORIES, INC.

LABORATORY LOG OF BORING B-1 BORING DATE 10/20/83
OWNER O.D.O.T. DISTRICT 3 PROJECT WAY-226-0154
LOCATION STATION 81+25 25' LT
DRILLING METHOD SOLID STEM AUGER
SURFACE ELE. 905.70' WATER ELE.

DEPTH	SAMPLE	TYPE	SOIL DESCRIPTION	SPLIT-BARREL PENETRATION blows/6 in.	UNCONFINED COMPRESSIVE STRENGTH (T/sq.ft.)	UNIT DRY WT. lbs./cu.ft.	PLASTIC LIMIT IN PERCENT	WATER CONTENT IN PERCENT	LIQUID LIMIT IN PERCENT	PHYSICAL CHARACTERISTICS % AGG.	% COARSE SAND	% FINE SAND	% SILT	% CLAY	SOIL CLASSIFICATION
	1	SB	6" BROWN SILT CLAY WITH ROOT ZONE, (FILL) STIFF BROWN SILTY CLAY, SOME SAND, SOME ORGANICS, SOME COAL, TRACE BRICK, SOME GRAVEL.	9-7-6											
	2	SB		2-2-3											
5	3	SB	(FILL) LOOSE BLACK FINE TO MEDIUM GRAIN SAND, SOME COAL, LITTLE FILL MATERIAL, SOME ROCK FRAGMENTS, TRACE GLASS, LITTLE GRAVEL, TRACE CINDER.	3-2-2											
	4	SB		3-3-2											
	5	SB		3-3-3				17.1							
10	6	SB	STIFF BROWN SAND AND SILT, SOME CLAY, TRACE ORGANICS, TRACE COAL, LITTLE ROCK FRAGMENTS.	2-3-3				18.9		9.20	18.1	32.6	(40	.1)*	
	7	SB	BROWNISH GRAY SAND AND SILT. (AUGER)	16-15-10				10.1		57.3	17.3	13.9	(11	.5)*	A-1-a (0)
15	8	SB	MEDIUM DENSE BROWN SAND AND GRAVEL, SOME LARGE ROCK FRAGMENTS.	5-10-10				12.3		68.6	12.3	10.9	(8	.20)*	
20	9	SB	GRAY SILTY SAND AND GRAVEL.	10-11-11				18.7		19.8	3.00	21.0	(56	.2)*	
25	10	SB	VERY STIFF GRAY SILT AND SAND, TRACE ROCK FRAGMENTS, GRAVEL, CLAY.	6-6-10				21.4		4.90	2.10	40.2	(52	.8)*	
30	11	SB	VERY STIFF GRAY SILT AND SAND, TRACE ROCK FRAGMENTS GRAVEL, CLAY.	7-10-9				23.6							
35	12	SB	VERY STIFF OLIVE-GRAY SANDY SILT, LITTLE CLAY, FEW SHALE AND SANDSTONE FRAGMENTS, TRACE GRAVEL.	8-10-12				10.9		83.1	5.4	20.0	(61	.5)*	
40	13	SB		12-13-15				11.1							
45	14	SB	DENSE COARSE BROWN-GRAY SAND, SOME GRAVEL, TRACE SILT, CLAY.	11-17-20				14.9		43.3	29.8	16.9	(10	.0)*	
50	15	SB	VERY STIFF-HARD OLIVE-GRAY SILTY CLAY, FEW SANDSTONE AND ROCK FRAGMENTS, TRACE SAND AND GRAVEL (LENSES WELL-GRADED SAND AND GRAVEL)	17-24-41			18.93	13.9	23.2						A-4 (6)

SOLAR TESTING LABORATORIES, INC.

LABORATORY LOG OF BORING B-1 BORING DATE 10/20/83
OWNER O.D.O.T. DISTRICT 3 PROJECT WAY-226-0154
LOCATION STATION 81+25 25' LT
DRILLING METHOD SOLID STEM AUGER
SURFACE ELE. 905.70' WATER ELE.

DEPTH	SAMPLE	TYPE	SOIL DESCRIPTION	SPLIT-BARREL PENETRATION blows/6 in.	UNCONFINED COMPRESSIVE STRENGTH (T/sq.ft.)	UNIT DRY WT. lbs./cu.ft.	PLASTIC LIMIT IN PERCENT	WATER CONTENT IN PERCENT	LIQUID LIMIT IN PERCENT	PHYSICAL CHARACTERISTICS % AGG.	% COARSE SAND	% FINE SAND	% SILT	% CLAY	SOIL CLASSIFICATION
															A-4 (6)
55	16	SB	VERY STIFF-HARD OLIVE-GRAY SILTY CLAY, FEW SANDSTONE AND ROCK FRAGMENTS, TRACE SAND AND GRAVEL (LENSES OF WELL-GRADED SAND AND GRAVEL)	10-10-13			N.P.	14.7	19.3						
60	17	SB		10-15-15			17.06	15.7	24.0	0.770	4.63	28.5	(66	.1)*	
65	18	SB	DENSE BROWN WELL-GRADED SAND, TRACE SILT, GRAVEL.	12-17-17				14.9							
70	19	SB	DENSE BROWN MEDIUM TO FINE SAND, LITTLE SILT. NOTE: HIT ARTESIAN WELL, WATER COMING OUT OF CASING AT LEAST 5' IN AIR.	14-15-19				14.9		7.40	27.5	52.8	(12	.3)*	
75	20	SB		15-20-21				20.0		0.0	2.10	75.4	(22	.5)*	

* REPRESENT COMBINED PERCENTAGE OF SILT AND CLAY.

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SOLAR TESTING LABORATORIES, INC.

BRIDGE FOUNDATION INVESTIGATION
FAST TRACK III BRIDGE PROGRAM
O.D.O.T. DISTRICT 3
WAY-226-0154
OVER CREEK

DRAWN BY OAL	CHECKED BY GSA	STL PROJECT NO.
SCALE 1" = 20'	DATE 11-13-83	A83305x10

CALC. BY:	DATE:
CHK. BY:	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO	WAY - 226 - 0154	

WAYNE COUNTY

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SOLAR TESTING LABORATORIES, INC.

LABORATORY LOG OF BORING B-2 BORING DATE 10/28/83
OWNER O.D.O.T. DISTRICT 3 PROJECT WAY-226-0154
LOCATION STATION 81+51.50 19' RT
DRILLING METHOD SOLID STEM AUGER
SURFACE ELE. 903.18' WATER ELE.

DEPTH	SAMPLE	TYPE	SOIL DESCRIPTION	SPLIT-BARREL PENETRATION blows/6 in.	UNCONFINED COMPRESSIVE STRENGTH (T/sq.ft.)	UNIT DRY WT. lbs./cu.ft.	PLASTIC LIMIT IN PERCENT	WATER CONTENT IN PERCENT	LIQUID LIMIT IN PERCENT	PHYSICAL CHARACTERISTICS AGG. %	COARSE SAND %	FINE SAND %	SILT %	CLAY %	SOIL CLASSIFICATION
	1	SB	6" BLACKTOP, 4" BRICK, 8" CONCRETE - (PAVEMENTS)	1-2-2											
	2	SB	SOFT TO MEDIUM STIFF BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL, TRACE SLAG. (PROBABLE FILL)	2-2-3											
5	3	SB		1-1-2			17.1	17.0	24.9	11.6	14.5	27.9	(46	.0)*	A-4 (2)
	4	SB		2-2-3			19.11	13.7	22.02						
10	5	SB	LOOSE BROWN CLAYEY SAND, SOME GRAVEL, LITTLE SILT. (PROBABLE FILL)	2-3-3				12.9		25.7	29.0	26.5	(18	.8)*	
	6	SB	MEDIUM STIFF GRAY SILTY CLAY, SAND SEAM.	2-3-3			18.27	23.0	31.8	1.90	1.80	47.2	(49	.1)*	A-6 (5)
15	7	SB	LOOSE GRAY FINE SILTY SAND, LITTLE CLAY, LENSES OF COARSE SAND AND GRAVEL.	3-4-5				14.6							
	8	SB	STIFF GRAY SILTY CLAY, SOME ROCK FRAGMENTS, SOME SAND.	4-5-7			16.31	9.50	19.99						
20	9	SB	MEDIUM DENSE OLIVE-GRAY SANDY SILT, TRACE CLAY.	6-6-8				22.8		1.50	2.40	29.8	(66	.3)*	
	10	SB	STIFF GRAY SILTY CLAY, VERY THIN INTERLAYERS OF FINE BROWN SAND.	4-4-5				24.3		1.40	2.90	25.9	(69	.8)*	
25	11	SB		3-3-4				19.7							
			LOOSE GRAY-BROWN SAND, LITTLE SILT AND CLAY.												
30	12	SB		5-8-12				23.6							
			MEDIUM DENSE FINE OLIVE SILTY SAND, LENS OF MEDIUM SAND, LITTLE GRAVEL.												
35	13	SB		6-9-9				16.8		21.1	19.1	33.7	(26	.1)*	
	14	SB		3-4-5				14.4							
40	15	SB	MEDIUM STIFF-STIFF OLIVE SILTY CLAY, SOME SAND, LITTLE GRAVEL, LENS OF GRAVEL.	3-3-4			15.79	14.1	20.85	16.4	6.00	29.2	(48	.4)*	A-4 (3)
45	16	SB	STIFF OLIVE CLAYEY SAND, SOME SILT, LITTLE GRAVEL, FEW SANDSTONE FRAGMENTS.	4-5-7				14.5		-					
50	17	SB		8-14-15				13.2		30.5	24.3	23.5	(21	.7)*	

SOLAR TESTING LABORATORIES, INC.

LABORATORY LOG OF BORING B-2 BORING DATE 10/28/83
OWNER O.D.O.T. DISTRICT 3 PROJECT WAY-226-0154
LOCATION STATION 81+51.50 19' RT
DRILLING METHOD SOLID STEM AUGER
SURFACE ELE. 903.18' WATER ELE.

DEPTH	SAMPLE	TYPE	SOIL DESCRIPTION	SPLIT-BARREL PENETRATION blows/6 in.	UNCONFINED COMPRESSIVE STRENGTH (T/sq.ft.)	UNIT DRY WT. lbs./cu.ft.	PLASTIC LIMIT IN PERCENT	WATER CONTENT IN PERCENT	LIQUID LIMIT IN PERCENT	PHYSICAL CHARACTERISTICS AGG. %	COARSE SAND %	FINE SAND %	SILT %	CLAY %	SOIL CLASSIFICATION
	17		STIFF OLIVE CLAYEY SAND, SOME SILT, LITTLE GRAVEL, FEW SANDSTONE FRAGMENTS.												
55	18	SB	HARD GRAY SILTY CLAY, LITTLE GRAVEL AND SAND, FEW SANDY SHALE FRAGMENTS.	12-25-30				13.3							A-4 (4)
60	19	SB		12-14-16			14.7	12.8	19.5	5.60	6.62	34.08	(53	.7)*	
65	20	SB	VERY DENSE OLIVE BROWN SAND, TRACE SILT, LITTLE GRAVEL, FEW GRAY SANDSTONE FRAGMENTS.	15-25-32				16.6							
70	21	SB	NOTE: HIT ARTESIAN WELL AT 60', STILL BLOWING WATER OUT AFTER TWO HOURS TRYING TO SHUT IT OFF.	15-20-31				12.8		27.5	19.7	44.1	(8	.70)*	
75	22	SB		30-32-35				16.9		0.030	24.87	61.4	(13	.7)*	

* REPRESENT COMBINED PERCENTAGE OF SILT AND CLAY.

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SOLAR TESTING LABORATORIES, INC.

BRIDGE FOUNDATION INVESTIGATION
FASI TRACK III BRIDGE PROGRAM
O.D.O.T. DISTRICT 3
WAY - 226 - 0154
OVER CREEK

DRAWN BY OAL	CHECKED BY	STL PROJECT NO.
SCALE 1" = 20'	DATE 11-13-83	A83305x10'