

**PUBLIC NOTICE**  
**MEDINA COUNTY HIGHWAY ENGINEER**  
**PID:111873 MED-CR 35-1.79**  
**FRIENDSVILLE ROAD BRIDGE 8 REPLACEMENT – SUPERSTRUCTURE DEMOLITION,**  
**SUBSTRUCTURE REHABILITATION, AND CONSTRUCTION INSPECTION**  
**REQUEST FOR STATEMENT OF QUALIFICATIONS (RFQ)**

The Medina County Highway Engineer is soliciting statement of qualifications for inspection services for the superstructure demolition, substructure rehabilitation, and construction of the Friendsville Road Bridge Project (C.H. 35, Bridge No. 8). This project will be administered by the County as an ODOT local-let LPA project. Only consultants on ODOT's current pre-qualified list for the following Engineering Services will be considered;

Construction Management Firm

More Specifically:

- Construction Inspector/Engineer
  - More Specifically, 2.42-Project Inspector and 2.43 Project Structure Inspector as defined on ODOT's website.

For more information, use the url below:

<https://www.transportation.ohio.gov/working/engineering/consultant-services/prequal-info/prequal-manual/part-2/part-2-09-construction-inspection#243PROJECTSTRUCTUREINSPECTOR>

Estimated Construction Cost: \$1,333,296.15

Scope of Services:

The inspection of the bridge demolition and construction shall be in accordance with the "State of Ohio Department of Transportation, Construction and Material Specifications," dated January 1, 2019, except when modified by the contract documents, plans, supplemental specifications or proposal notes.

The existing superstructure to be demolished is a three span, 152' concrete box beam bridge. The existing structure spans an existing CSX Railway. Abutments and Piers will be rehabilitated and reused. The proposed superstructure will be a three span, concrete box beam bridge, 28 feet wide and 150 feet long with a 8" minimum concrete deck.

The contractor's expected start date is June 1<sup>st</sup>, 2022, and will be given 120 days to complete the contract, with a completion date of November 18, 2022.

Selection Procedures:

The County Engineer will rank consultants based on the Statement of Qualifications. Qualifications should include resumes and names of likely primary inspector and their replacement/backup for the above mentioned job. The County Engineer may select a consultant based on the Statement of Qualifications, or select two to three firms to interview. The County will then choose the firm best qualified to be invited to negotiate a contract.

All questions are to be submitted via email to [ehollopeter@medinaco.org](mailto:ehollopeter@medinaco.org).

Additional information on project and submittal RFQ's can be found on the County Engineers website at <http://www.highwayengineer.co.medinah.us/>.

Firms interested in being considered for selection should respond by submitting 2 copies of the Statement of Qualifications to the following address by 4:30 PM on Friday, May 6, 2022.

Medina County Highway Engineer  
791 W. Smith Road  
Medina, OH 44256



## **Requirements for Statement of Qualifications, Programmatic Selection Process**

### **A. Instructions for Preparing and Submitting a Statement of Qualifications**

1. Provide the information requested in the Statement of Qualifications Content (Item B below), in the same order listed, in a letter signed by an officer of the firm. Do not send additional forms, resumes, brochures, or other material.
2. Statement of Qualifications shall be limited to twenty (20) 8½" x 11" single sided pages.
3. Please adhere to the following requirements in preparing and binding Statement of Qualifications:
  - a. Please use a minimum font size of 12-point and maintain margins of 1" on all four sides.
  - b. Page numbers must be centered at the bottom of each page.
  - c. Use 8½" x 11" paper only.
  - d. Bind Statement of Qualifications by stapling at the upper left hand corner only. Do not utilize any other binding system.
  - e. Do not provide tabbed inserts or other features that may interfere with machine copying.

### **B. Statement of Qualifications Content**

1. List all subconsultants, and the type of work to be performed by each subconsultant.
2. List the Project Manager and other key staff members, including key subconsultant staff. Include staff members that will be responsible for the work, and the project responsibility of each.

Address the experience of the key staff members on similar projects, and the staff qualifications relative to the selection subfactors noted.

3. Describe the capacity of your staff and their ability to perform the work in a timely manner, relative to present workload, and the availability of the assigned staff.
4. Provide a description of your Project Approach, not to exceed two pages. Address your firm's: 1) Technical approach; 2) Understanding of the project; 3) Your firm's qualifications for the project; 4) Knowledge and experience concerning relevant ODOT and local standards, procedures and guidance documents; 5) Innovative ideas; 6) Your firm's project specific plan for ensuring increased quality, reduced project delivery time and reduced project costs.

**Items 1 thru 3 must be included within the 20-page body of the RFQ. Remaining space within the twenty (20) pages may be utilized to provide personnel resumes or additional information concerning general qualifications.**



MICROFILMED  
AUG 4 1983

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

RSG - 439 (2)

FHWA REGION	STATE	PROJECT
5	OHIO	RSG - 439(2)

1/27

MEDINA COUNTY  
COUNTY HIGHWAY NO. 35

## CONVENTIONAL SIGNS

COUNTY LINE \_\_\_\_\_  
TOWNSHIP LINE \_\_\_\_\_  
SECTION LINE \_\_\_\_\_  
CORPORATION LINE \_\_\_\_\_  
CENTER LINE \_\_\_\_\_  
FENCE LINE \_\_\_\_\_  
POLE LINE \_\_\_\_\_ TELEPHONE ♂ POWER ♀  
DRAIN PIPE \_\_\_\_\_  
RIGHT OF WAY LINE \_\_\_\_\_ R/W  
GUARD RAIL \_\_\_\_\_  
RAILROAD \_\_\_\_\_  
TREES OR STUMPS TO BE REMOVED ☒ ☒ ☒

## INDEX OF SHEETS

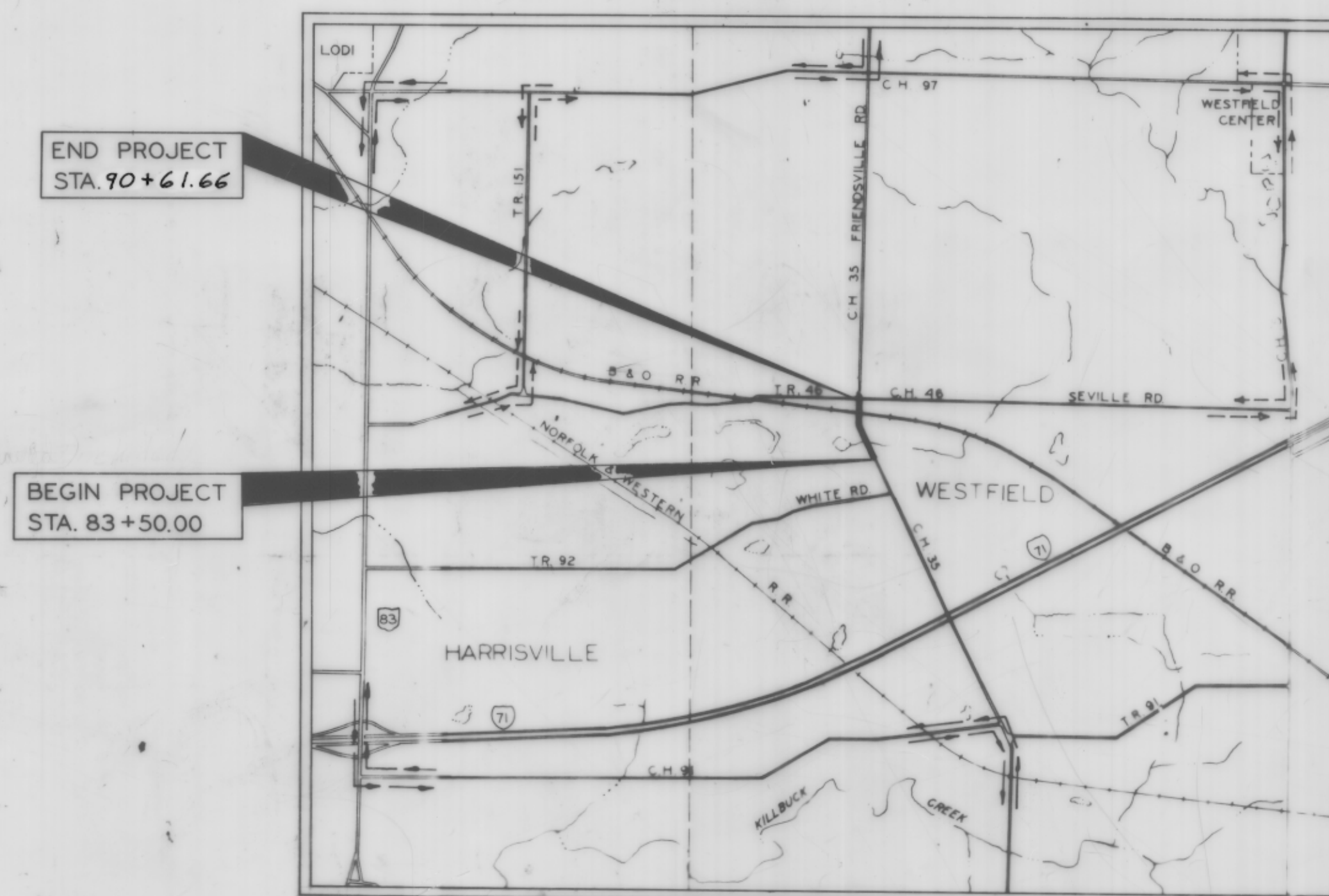
TITLE SHEET	1
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*Sheets 20, 22, 24, & 25 revised 3-8-78 EBL*

## MEDINA COUNTY HIGHWAY NO. 35

GRADE SEPARATION WITH  
THE BALTIMORE AND OHIO  
RAILROAD COMPANY

## WESTFIELD TOWNSHIP MEDINA COUNTY



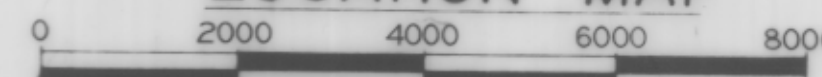
### LINE DATA

BEGIN PROJECT STA. 83+50  
END PROJECT STA. 90+61.66  
PROJECT LENGTH = 71.66 LIN. FT. OR 0.135 MILES  
BEGIN WORK STA. 82+50  
END WORK STA. 90+75  
LENGTH OF WORK = 825.00 LIN. FT. OR 0.156 MILES

### DESIGN DESIGNATION

CURRENT ADT 385 (1975)  
DESIGN YEAR ADT 770 (1997)  
DHV 77  
D (DIRECTIONAL DIST) 60% - 40%  
T (PERCENT B&C TRUCKS) 15%  
V (DESIGN SPEED) 80 MPH

### LOCATION MAP

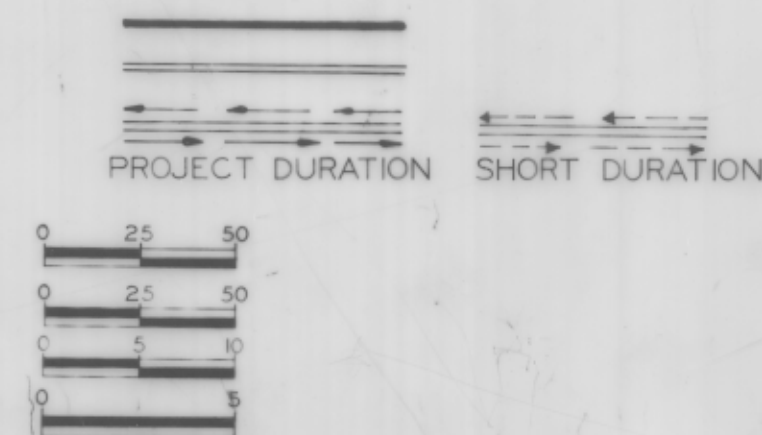


SCALE  
IN FEET

PORTION TO BE IMPROVED  
OTHER ROADS  
DETOURS

### SCALES

PLAN  
PROFILE - HORIZONTAL  
PROFILE - VERTICAL  
CROSS SECTIONS



### STANDARD DRAWINGS

BP-5	8-11-75	L-1	6-1-73			PSBD-1-71 SH.1,2&3	9-1-71		
BP-6	6-1-65	MC-1	6-13-69			DBR-2-73	4-10-73		
GR-1	12-6-76	MC-3	6-1-73					836	3-12-75
GR-2B	12-6-76	MC-4	7-26-76						
GR-3	12-6-76								
GR-4	12-6-76								
GR-4A	7-26-76							1001	1-3-77

### SUPPLE. SPECS

PREPARED AND RECOMMENDED BY  
SHAFFER, JOHNSTON,  
LICHTENWALTER & ASSOCIATES INC.  
CONSULTING ENGINEERS  
MANSFIELD OHIO WOOSTER

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR

DATE  
CH35 BRIDGE 8

TITLE SHEET

WE, THE COMMISSIONERS OF MEDINA COUNTY, IN FORMAL SESSION HEREBY APPROVE THESE PLANS AND CERTIFY THAT THE NECESSARY RIGHT-OF-WAY IS AVAILABLE. WE AGREE TO MAINTAIN THE PROJECT IN A MANNER SATISFACTORY TO THE DIRECTOR OF TRANSP, STATE OF OHIO, OR HIS DULY AUTHORIZED REPRESENTATIVE AND WILL MAKE AMPLE PROVISIONS EACH YEAR FOR SUCH MAINTENANCE AND REPAIR DONE UNDER AUTHORITY OF SECTIONS 723.01, 5557.02, AND 5591.02 ET. SEQ OF THE REVISED CODE OF OHIO

BOARD OF COMMISSIONERS - MEDINA COUNTY

DATE 12-13-76

*Charles F. Clark*  
*James B. Simmons*

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 INDICATED ON THE PLANS.

THE RIGHT OF WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO.

APPROVED  
DATE 12/8/76

*John A. Foreman*  
MEDINA COUNTY ENGINEER

APPROVED  
DATE 2-17-77

*H. H. Reader*  
DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

APPROVED  
DATE 3-2-77

*Robert B. Pfifer*  
ENGINEER, BUREAU OF BRIDGES

APPROVED  
DATE

ENGINEER, BUREAU OF LOCATION & DESIGN

APPROVED  
DATE

ASSISTANT DEPUTY DIRECTOR FOR HIGHWAY DESIGN

APPROVED  
DATE

ASSISTANT DEPUTY DIRECTOR FOR REAL ESTATE

APPROVED  
DATE

ASSISTANT DEPUTY DIRECTOR FOR PROGRAM DEVELOPMENT

APPROVED  
DATE 1-6-78

*R. E. Guthrie*  
CHIEF ENGINEER, DESIGN

APPROVED  
DATE

CHIEF ENGINEER, CONSTRUCTION

APPROVED  
DATE

ASSISTANT DIRECTOR, DEPARTMENT OF TRANSPORTATION

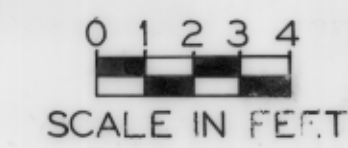
APPROVED  
DATE 1-9-78

*David L. Wain*  
DIRECTOR, DEPARTMENT OF TRANSPORTATION



# TYPICAL SECTION

TYPE 404 ON 301



FHWA REGION	STATE	PROJECT	
5	OHIO	R56 -439(2)	

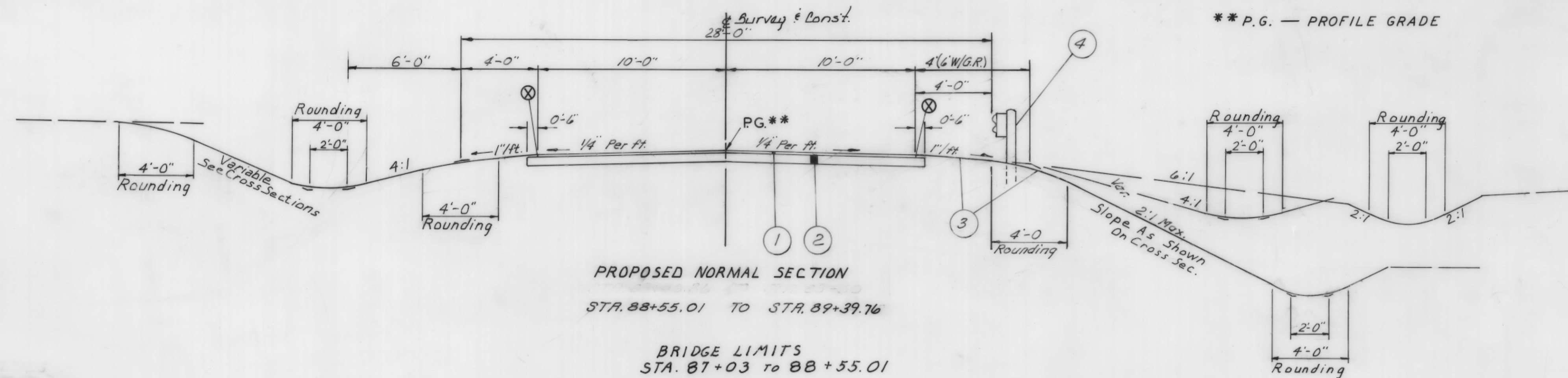
2  
27

MEDINA COUNTY  
C.H. 35

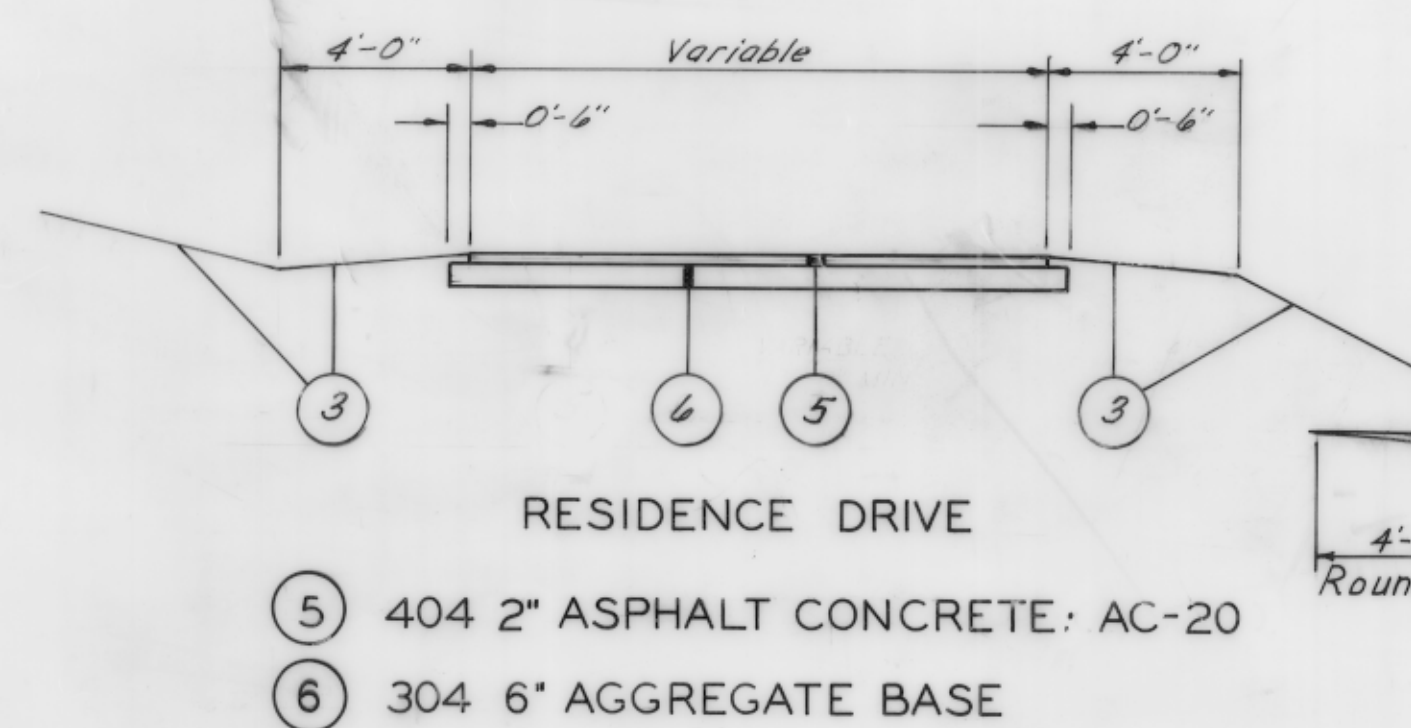
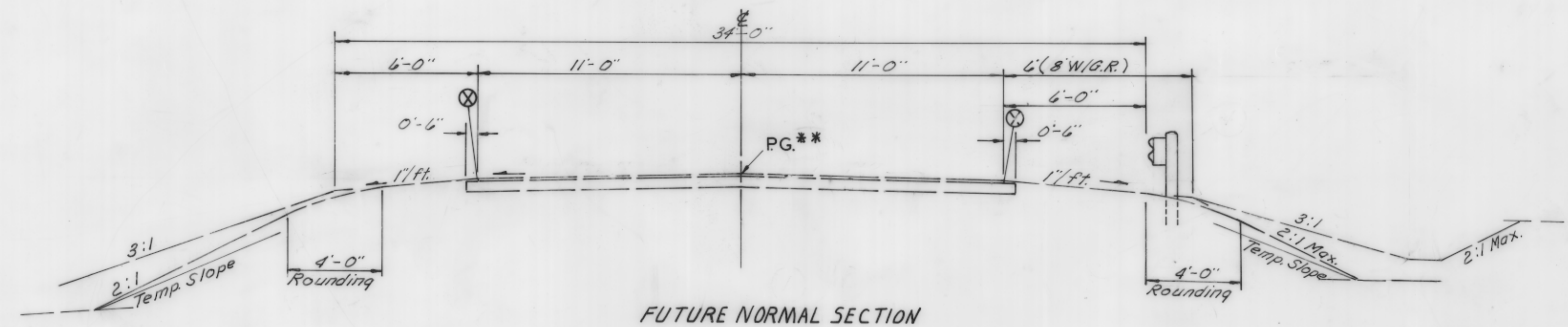
\* See Cross Sections For Ditch Locations and Limits

⊗ NOTE: DROP EARTH SHOULDER 1" BELOW PAVEMENT

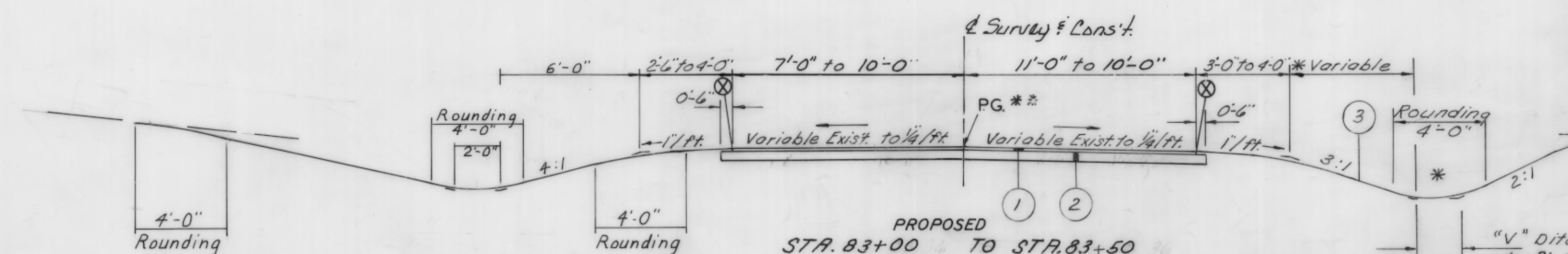
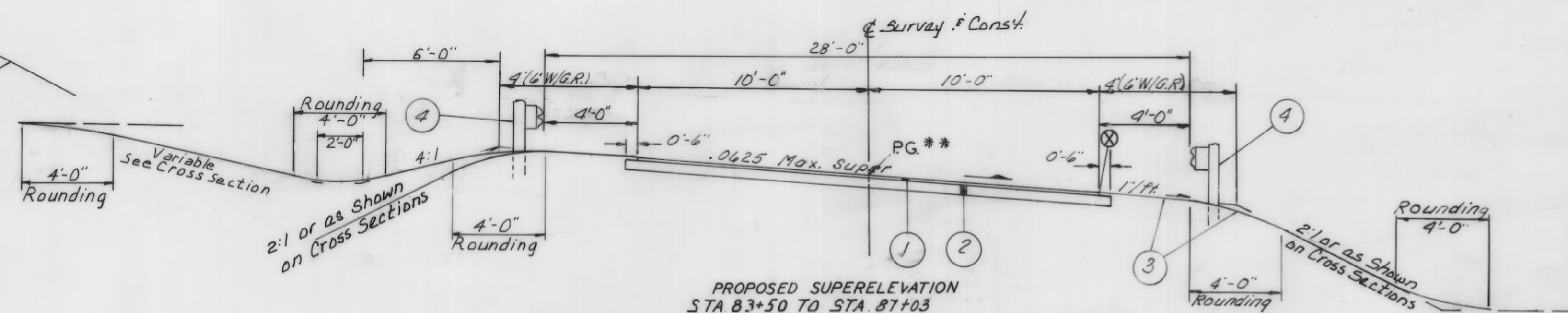
\*\* P.G. — PROFILE GRADE



FOR PAVEMENT DETAIL  
FROM STA. 89+39.76 TO STA. 90+61.66,  
SEE SHEET NO.13. BUILD-UP TO BE  
SAME AS NORMAL SECTION.



- ⑤ 404 2" ASPHALT CONCRETE: AC-20
- ⑥ 304 6" AGGREGATE BASE



## LEGEND

- ① 404 1 1/4" ASPHALT CONCRETE, AC-20
- ② 301 7" BITUMINOUS AGGREGATE BASE: 702.01, AC-20; OR 702.09, RT-II OR RT-12.
- ③ 659 SEEDING AND MULCHING
- ④ 606 GUARD RAIL, TYPE -5



GENERAL NOTES

FIELD OFFICE: THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 150 SQ.FT. OF FLOOR SPACE AND IN ADDITION TO THE REQUIREMENTS OF ITEM 619, HE SHALL PROVIDE AND MAINTAIN SANITARY PROVISIONS AS PER 107.06. ALL THE ABOVE IS INCLUDED IN 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.

UNDERGROUND UTILITIES: THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE UTILITY AS TO LINE AND GRADE PRIOR TO BEGINNING WORK IN THIS AREA.

REMOVAL OF EXISTING PIPE: THE REMOVAL OF ALL EXISTING PIPE DRAINS WHICH WOULD NORMALLY BE REMOVED IN VARIOUS EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS. UNLESS OTHERWISE ITEMIZED IN THE PLANS.

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 TREES AND STUMPS TO BE REMOVED:

SIZES	TREES	STUMPS
18"	1	0
30"	1	0
48"	1	0

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF 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.

LOCATIONS OF GUARDRAIL: THE LOCATIONS OF GUARDRAIL RUNS AS SHOWN IN THESE PLANS ARE SUBJECT TO ADJUSTMENT TO ASSURE THAT THE PLANNED INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

SEEDING: QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN THE WORK LIMITS AS SHOWN ON THE CROSS SECTIONS BY THE SYMBOL "S".

DRIVE LOCATIONS: THE LOCATION OF ALL DRIVES SHOWN ON THESE PLANS MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.

EXCAVATION FOR ITEM 304: EXCAVATION FOR 304 MATERIAL USED ON DRIVES HAS BEEN INCLUDED IN EARTHWORK QUANTITIES WHEN SAME IS IN "CUT". WHERE DRIVES ARE IN "FILL", EXCAVATION FOR 304 MATERIAL SHALL BE MADE BY THE CONTRACTOR AT HIS OWN EXPENSE IF HE BUILDS THE EMBANKMENT UP TO FINISH GRADE BEFORE PLACING THE 304 MATERIAL.

ESTIMATED QUANTITIES: SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT. ESTIMATED QUANTITIES OF MATERIALS SHALL NOT BE ORDERED FOR DELIVERY TO THE PROJECT UNLESS AUTHORIZED BY THE ENGINEER.

DUST CONTROL: THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER FOR DUST CONTROL:

616 CALCIUM CHLORIDE	1 TON
616 WATER	50 M. GAL.

MONUMENTS: MONUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN ON STANDARD DRAWING MC-1. FOR LOCATIONS, SEE SHEET NO. 26.

ITEM 207 TEMPORARY SOIL EROSION AND SILTATION CONTROL: THE FOLLOWING ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER FOR TEMPORARY EROSION AND SILTATION CONTROL MEASURES:

207 TEMPORARY SEEDING & MULCHING	940 SQ.YDS.	207 STRAW AND HAY BALES	10 EACH
659 WATER	2 M.GAL.	207 TEMPORARY BENCHES, DIKES DAMS	
659 MOWING	1 M.SQ.FT.	AND SEDIMENT BASINS	6 CU.YDS.
659 COMMERCIAL FERTILIZER (12-12-12)	0.20 TONS	207 TEMPORARY SLOPE DRAINS	24 LIN.FT.
659 REPAIR SEEDING AND MULCHING	235 SQ.YDS.		

IN ADDITION TO THE APPLICABLE GENERAL REQUIREMENTS DESCRIBED ABOVE, THE CONTRACTOR SHALL REMOVE ANY SILTATION IN THE RAILROAD DITCHES WHICH RESULTS FROM CONSTRUCTION OF THIS PROJECT. PAYMENT FOR SILTATION REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203, ROADWAY EXCAVATION AND EMBANKMENT.

QUANTITIES CALC.	P.M. 9-21-76
QUANTITIES CK'D.	J.H.N. 11-30-76

FHWA REGION	STATE	PROJECT	
5	OHIO	RS6 - 439 (2)	

3  
27

MEDINA COUNTY  
COUNTY HIGHWAY NO. 35

"MAINTENANCE OF TRAFFIC"

ALL TRAFFIC CONTROL DEVICES USED SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE CURRENT EDITION, LATEST REVISION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

LIGHTS AND SIGNS AT ADJACENT INTERSECTIONS: THE CONTRACTOR, SHALL IN ADDITION TO THE GENERAL REQUIREMENTS OF ITEM 614 ON THIS PROJECT, PERFORM THE FOLLOWING:

PROVIDE, ERECT AND MAINTAIN STANDARD 48" X 30" SIZE "ROAD CLOSED" SIGNS, SIGN SUPPORTS, AND LIGHTS AT THE FOLLOWING LOCATIONS DURING THE PERIOD IN WHICH THE AFFECTED HIGHWAY IS CLOSED TO TRAFFIC:

- C.H. 35 AT ITS INTERSECTION WITH C.H. 91
- C.H. 35 AT ITS INTERSECTION WITH C.H. 97

IN ADDITION TO THE ABOVE LOCATIONS, THE STANDARD 48" X 30" "ROAD CLOSED" SIGNS, SIGN SUPPORTS AND LIGHTS SHALL BE PROVIDED, ERECTED AND MAINTAINED AT THE FOLLOWING LOCATIONS. THESE SIGNS SHALL BE ERECTED JUST PRIOR TO AND REMOVED IMMEDIATELY AFTER THE ACTUAL PAVING OPERATIONS ON THE INTERSECTION OF C.H. 35 AND C.H. 46.

- T.R. 46 AT ITS INTERSECTION WITH T.R. 151
- C.H. 46 AT ITS INTERSECTION WITH C.H. 15

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING LIGHTS, SIGNS AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR "ITEM 614 MAINTAINING TRAFFIC."

TRAFFIC DURING CONSTRUCTION: THE CONTRACTOR SHALL MAINTAIN ACCESS FOR LOCAL TRAFFIC TO ABUTTING PROPERTIES AT ALL TIMES DURING CONSTRUCTION EXCEPT IN THE IMMEDIATE AREA OF THE PORTION OF THE HIGHWAY BEING PAVED. THE RES. DRIVEWAY LEFT OF STA. 83+53 SHALL REMAIN OPEN TO TRAFFIC EXCEPT DURING ACUTAL PAVING OPERATIONS TO THE DRIVE AND PORTIONS OF THE HIGHWAY IN THE IMMEDIATE VICINITY. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON C.H. 46 AT ITS INTERSECTION WITH C.H. 35 EXCEPT DURING ACTUAL PAVING OPERATIONS ON C.H. 46 AT IT'S INTERSECTION WITH C.H. 35 AT WHICH TIME IT SHALL BE CLOSED TO TRAFFIC. THE CLOSING OF THROUGH AND NORTH TURNING TRAFFIC ON C.H. 46 SHALL BE KEPT TO A MINIMUM.

LOCATION OF BARRICADES: THE BARRICADES ON THE SOUTH END OF THE PROJECT SHALL PERMIT ACCESS TO THE RESIDENTIAL DRIVE LEFT OF STA. 83 + 53. THE BARRICADES ON THE NORTH END OF THE PROJECT SHALL BE PLACED JUST SOUTH OF C.H. 35 INTERSECTION WITH C.H. 46. TEMPORARY BARRICADES SHALL BE USED ON T.R. 46 AND C.H. 46 AND ON C.H. 35 NORTH OF IT'S INTERSECTION DURING THE ACTUAL PAVING OPERATIONS OF THE INTERSECTION. THE TEMPORARY BARRICADE NORTH OF THE INTERSECTION SHALL BE PLACED AT THE CREST OF THE HILL ON C.H. 35.

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, MOVING AND REMOVING THE TEMPORARY AND PERMANENT BARRICADES SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "ITEM 614 MAINTAINING TRAFFIC."

DETOURS: THROUGH TRAFFIC WILL BE RE-ROUTED AS SHOWN ON THE LOCATION MAP. THE COUNTY WILL ERECT MAINTAIN AND REMOVE THE DETOUR SIGNS. THE CONTRACTOR SHALL NOTIFY THE COUNTY, 48 HOURS (TWO WORKING DAYS), BEFORE CLOSING EITHER COUNTY ROAD 35 OR THE T.R. 46-COUNTY ROAD, 46 INTERSECTION.

SOIL INFORMATION: ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE BUREAU OF TESTS AT 1600 WEST BROAD STREET, THE PAVEMENT AND SOILS SECTION OF THE BUREAU OF ROADWAY DESIGN OR IN THE BRIDGE BUREAU AT 25 SOUTH FRONT STREET.



MEDINA COUNTY  
C. H. 35

## SUMMARY OF TABLES

CARRIED FROM SHEET NO.		202	203		606	304	404	603	606	606	606	659
	DESCRIPTION	Pipe Removed 15" and Under	Excavation Not Including Embank- ment Construction	Embank- ment	ANCHOR ASSEMBLY  TYPE T	Aggregate Base	Asphalt Concrete AC-20 (Driverway)	12" Conduit Type-D	Guard Rail Type-5	Anchor Assembly  Type A	Bridge Terminal Assembly Type-B	Seeding and Mulching
		Lin. Ft.	Cu. Yds.		EACH	Cu. Yds.	Cu. Yds.	Lin. Ft.	Lin. Ft.	Each	Each	Sq. Yds.
5	C.H. 35 Sta. 75+00 to Sta. 85+00		183	617		12	4	44	186.58	2		1236
6	C.H. 35 Sta. 85+00 to Sta. 96+00	33	208	5,133	2				676.90		4	3,457
	Totals	33	391	5,750	2	12	4	44	863.48	2	4	4,693

## CALCULATIONS

LINE	DESCRIPTION	QUANTITY	UNITS
1			
2	404 1 1/4" Asphalt Concrete AC-20		
3	Sta. 83+00 to Sta. 83+50 = 50 Lin. Ft. x (18+20) 1/2 x 1/9 =	105.56 Sq.Yds.	
4	Sta. 83+50 to Sta. 87+03 = 353 Lin. Ft. x 20 x 1/9 =	784.44 Sq.Yds.	
5	Sta. 88+55.01 to Sta. 89+39.76 = 84.75 Lin. Ft. x 20 x 1/9 =	188.33 Sq.Yds.	
6	Sta. 89+39.76 to Sta. 90+05.00 = 65.24 Lin. Ft. x 19.5 x 1/9 =	141.35 Sq.Yds.	
7	Sum of Lines 3, 4, 5 and 6 = 1219.68 Sq.Yds. x 1.25 x 1/36 =	42.35 Cu.Yds.	
8	Sta. 90+05.00 to Sta. 90+61.66 = 56.66 Lin. Ft. x (19.5+19) 1/2 x 1/9 x (1.25+0) 1/2 x 1/36 =	2.10 Cu.Yds.	
9	Additional From Sheet No. 13 For Intersection =	16.34 Cu.Yds.	
10	Total: Sum of Lines 7, 8 and 9 =	60.79 Cu.Yds.	
11		USE	61 CU.YDS.
12			
13	301 7" Bituminous Aggregate Base 702.01 (AC-20) or 702.09 RT-11 or RT-12		
14	Sta. 83+00 to Sta. 83+50 = 50 Lin. Ft. x (18+21) 1/2 x 1/9 =	108.33 Sq.Yds.	
15	Sta. 83+50 to Sta. 87+03 = 353 Lin. Ft. x 21 x 1/9 =	823.67 Sq.Yds.	
16	Sta. 88+55.01 to Sta. 89+39.76 = 84.75 Lin. Ft. x 21 x 1/9 =	197.75 Sq.Yds.	
17	Sta. 89+39.76 to Sta. 89+75.00 = 35.24 Lin. Ft. x 19.5 x 1/9 =	76.35 Sq.Yds.	
18	Sum of Lines 14, 15, 16 and 17 = 1206.10 Sq.Yds. x 7 x 1/36 =	234.52 Cu.Yds.	
19	Sta. 89+75 to Sta. 90+05 = 30 Lin. Ft. x 19.5 x 1/9 x (7+0) 1/2 x 1/36 =	6.32 Cu.Yds.	
20	Additional From Sheet No. 13 For Intersection =	94.93 Cu.Yds.	
21	Total: Sum of Lines 18, 19 and 20	335.77 Cu.Yds.	
22		USE	336 CU.YDS.
23			
24	203 Subgrade Compaction		
25	From Line 18	1,206.10 Sq.Yds.	
26	Additional From Sheet No. 13 For Intersection =	488.22 Sq.Yds.	
27	Total: Sum of Lines 25 and 26	1,694.32 Sq.Yds.	
28		USE	1,695 SQ.YDS.
29	659 Commercial Fertilizer (12-12-12) Applied at The Rate of 20 lbs. Per 1000 Sq. Ft.		
30	From Sheet No.-3, For Seeding and Mulching: 4,693 Sq.Yds. x 9 x 1/1000 x 20 x 1/2000 =	0.42 Tons	
31	Additional From Sheet No.-3 For Temporary Erosion Control =	0.20 Tons	
32	Total: Sum of Lines 30 and 31 =	0.62 Tons	
33		USE	0.62 TONS
34	407 TACK COAT: applied at the rate of 0.1 gal. per Sq. Yd.		
35	Sta. 89+75 to Sta. 90+05 = 30 Lin. Ft. x 19.5 x 1/9 =	65.00 Sq.Yds.	
36	Sta. 90+05 to Sta. 90+61.66 = 56.66 Lin. Ft. x (19.0+19.5) 1/2 x 1/9 =	121.19 Sq.Yds.	
37	SUM OF LINES 35 & 36 = 186.19 Sq. Yds. x 0.1 GAL. / Sq. Yd.	18.62 GAL.	
38		USE	19 GAL.
39			
40	407 COVER AGGREGATE: applied at the rate 20 lbs. per Sq. Yd.		
41	FROM LINE 37 186.19 Sq Yds. x 20 LBS. / Sq Yd. x 1/2000	1.86 TONS	
42		USE	1.9 TONS

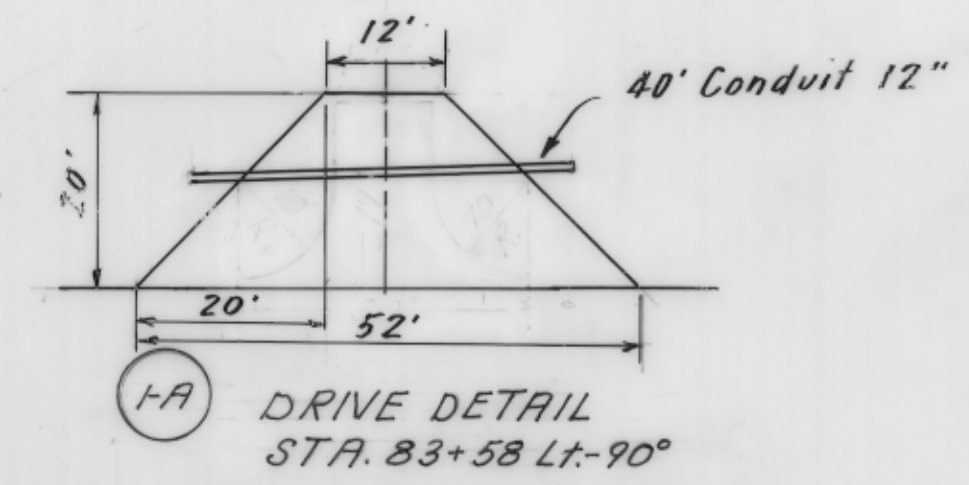
## GENERAL SUMMARY

ITEM NO.	QUANTITY	UNITS	DESCRIPTION	TYPE CODE 6203 UNLESS OTHERWISE SHOWN	SHT
			ROADWAY		
201	Lump		Clearing and Grubbing		4
202	33	Lin.Ft.	Pipe Removed, 15" and Under		4
203	391	Cu.Yds	Excavation, Not Including Embankment Construction		4
203	5,750	Cu.Yds	Embankment		4
203	1,695	Sq.Yds	Subgrade Compaction		4
606	883.48	Lin.Ft.	Guard Rail, Type-5		4
606	2	Each	Anchor Assembly, Type A		4
606	4	Each	Bridge Terminal Assembly, Type-B		4
606	2	Each	ANCHOR ASSEMBLY, Type T		4
616	1	Ton	Calcium Chloride		3
616	50	M.Gal.	Water		3
604	1	Ea.	Monument Assembly		26
604	1	Ea.	Reference Monument		26
			EROSION CONTROL Y-005		
659	235	Sq.Yds	Repair Seeding and Mulching		3
659	4,693	Sq.Yds	Seeding and Mulching		4
659	0.62	Tons	Commercial Fertilizer (12-12-12)		4
207	24	Lin.Ft.	Temporary slope drains		
207	940	Sq.Yds	Temporary Seeding and Mulching		3
659	2	M.Gal.	Water		3
659	1	M.Sq.Ft.	Mowing		3
207	10	Each	Straw or Hay Bales		
207	6	Cu.Yds	Temporary benches, dikes, dams and sediment basins		
			DRAINAGE		
603	44	Lin.Ft.	12" Conduit, Type-D		4
			PAVEMENT		
407	19	Bals.	Tack Coat; 702.04, SS-1, SS-1h, MS-2 or RS-1; or 702.02, RC-250		4
407	1.9	Ton	Cover Aggregate		4
404	61	Cu.Yds.	Asphalt Concrete, AC-20		4
404	4	Cu.Yds.	Asphalt Concrete, AC-20 (Driveways)		4
301	336	Cu.Yds.	Bituminous Aggregate Base: 702.01, AC-20; or 702.09, RT-11 or RT-12		4
304	12	Cu.Yds.	Aggregate Base		4
			STRUCTURES OVER 20 FT., SPAN SEE SHEET NO. 20		
614	Lump		Maintaining Traffic		
619	Lump		Field Office		
623	Lump		Construction Layout Stakes		



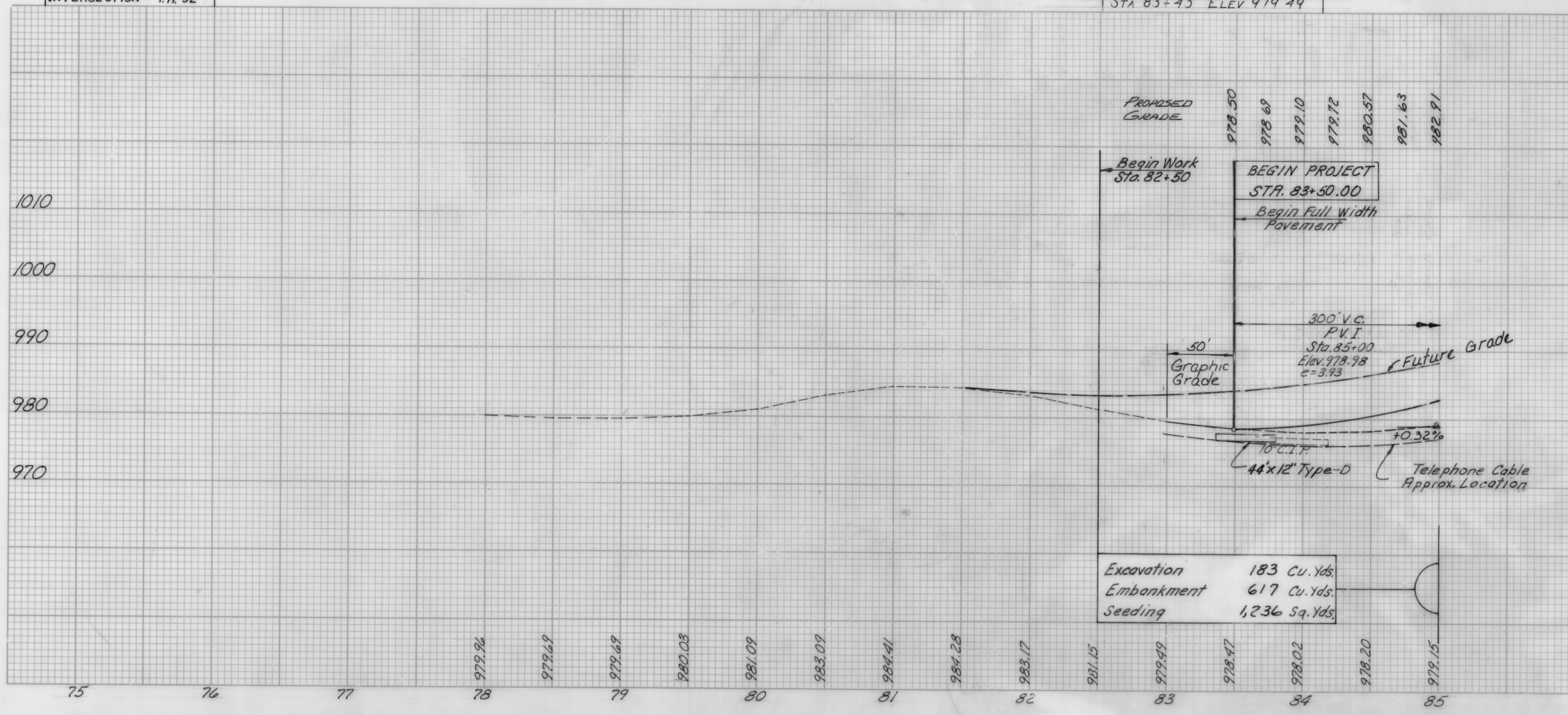
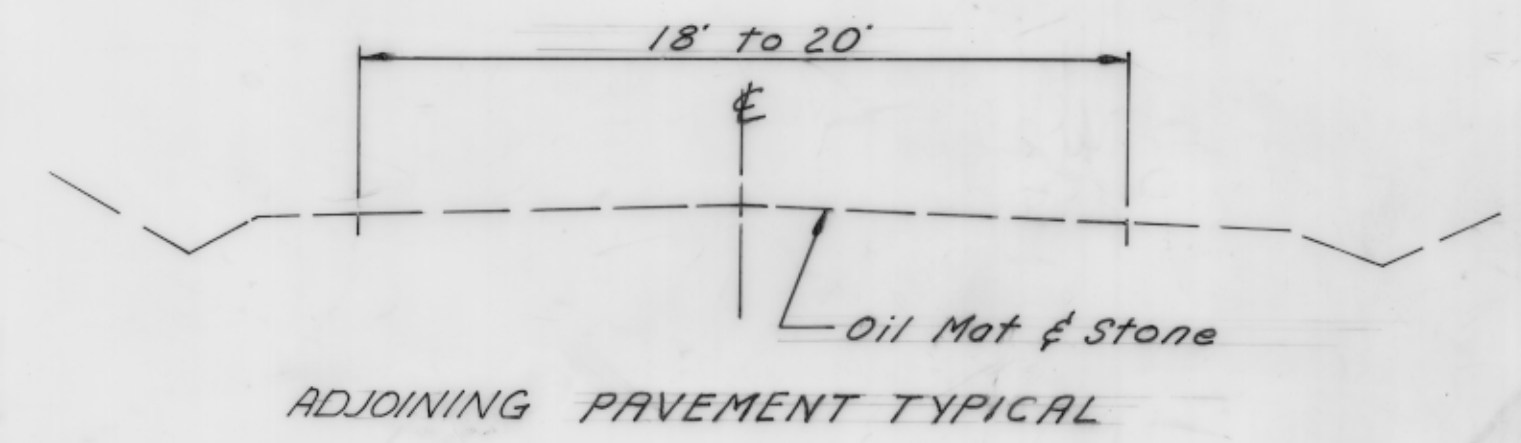
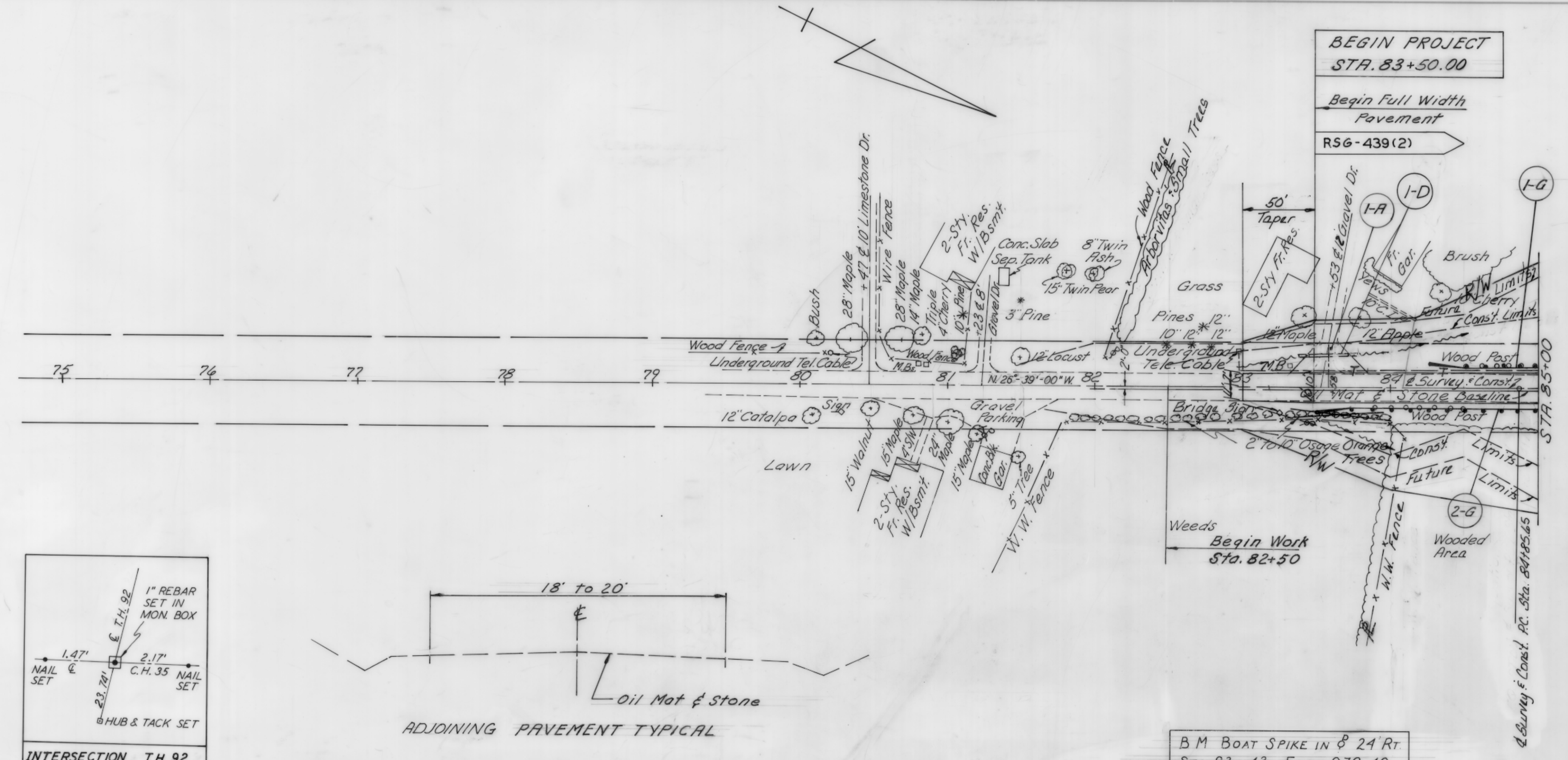
Rev. E.R.J. 11-29-76  
 QUANTITIES CALC. P.M. 5-14-76  
 Rev. J.H.N. 11-30-76  
 QUANTITIES CK'D. J.H.N. 5-26-76

**MEDINA COUNTY**  
**C.H. 35**



Ref. No.	Station		Side	Conduit Type-D	603 12" Type-D	404 Asphalt Concrete AC-20 (Driveway)	304 Aggregate Base	606 Guard Rail Type-5	606 Anchor Assembly Type A
	From	To			Lin. Ft.	Cu. Yd.	Cu. Yd.	Lin. Ft.	Each
I-D	83+44.50	83+71.50	Lt.	44					
I-A	83+58		Lt.			4.0	12.2		
I-G	84+18.27	85+00	Lt.					56.73	1
2-G	83+45.15	85+00	Rt.					129.85	1
	Totals			44		4.0	12.2	186.58	2

**UTILITIES**  
 OHIO EDISON 47 N. MAIN ST. AKRON, OHIO 44308  
 GENERAL TELEPHONE BOX 585 6223 NORWALK RD. MEDINA, OHIO 44256  
 LORAIN MEDINA RURAL ELEC. BOX 158 WELLINGTON, OHIO 44090



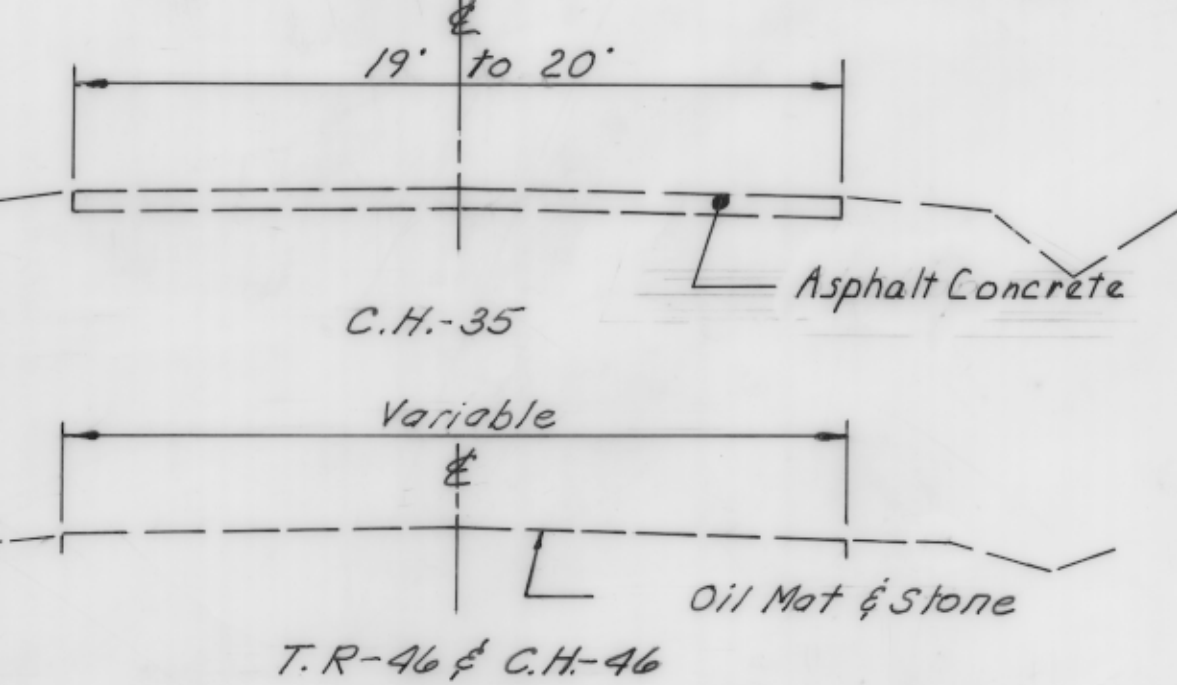


REV. P.M. 9-23-76

QUANTITIES CALC. P.M. 5-14-76

QUANTITIES CK'D. J.H.N. 5-26-76

J.H.N. 11-30-76

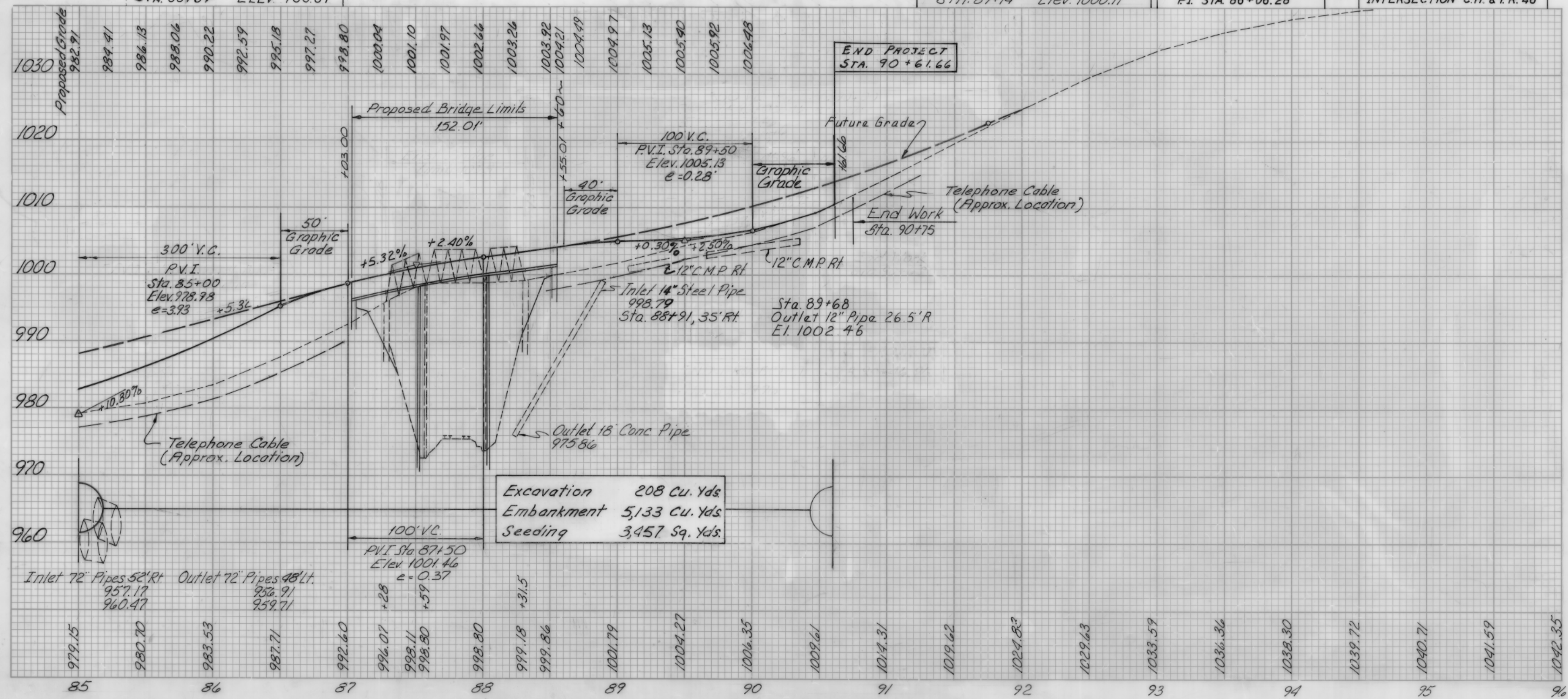


### ADJOINING PAVEMENT TYPICALS

[illegible]

See Sheet No. 14 For T.R. & C.H. 46 Plan and Profile  
See Sheet No. 13 For Intersection Detail

TYPE: Continuous Prestressed Concrete Box Beam  
With Reinforced Concrete Substructure  
SPANS: 3 @ 50' = 150'  
ROADWAY: 28' F/F Guard Rail  
LOADING: HS20-44 With Interstate  
Alternate Loading  
SKEW: 5° 43' L.F.  
WEARING SURFACE: 2 1/2" (Min.) Asphalt Concrete  
APPROACH SLABS: None  
ALIGNMENT: 11° 15' Curve To Right, Tangent  
(Superelevation Run-out)



C.H. 35 STA. 85+00 TO STA. 96+00

Revisions Made PM. 6-22-76

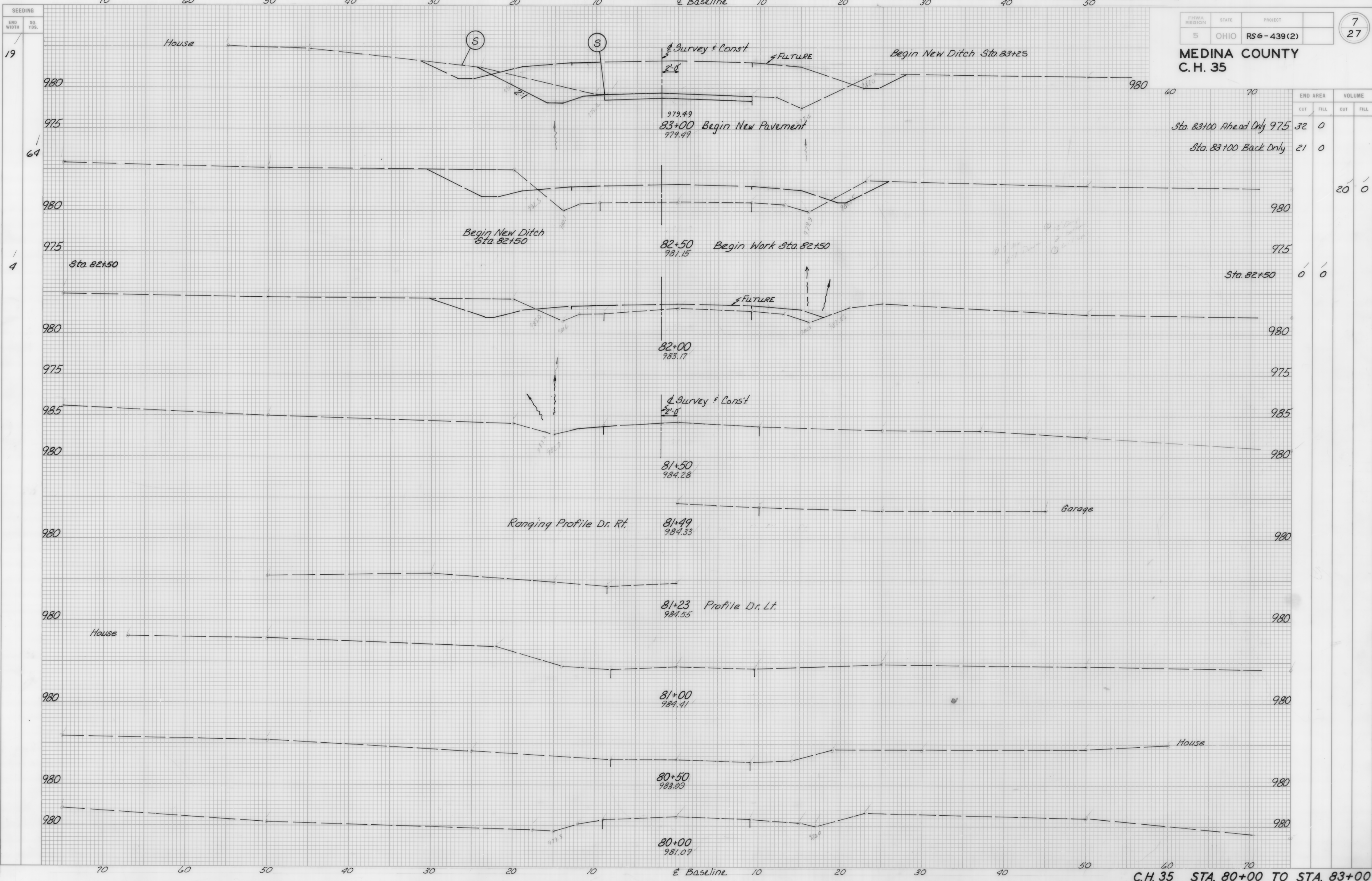
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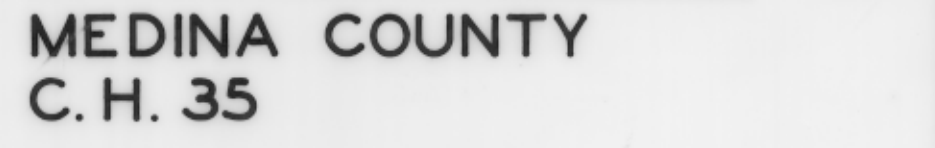
Templates & Revised P.A. 623-76

Ex. Ground  
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Plan  
Earthwork Quant.  
Seeding Quant.

6-18-74  
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P.M. 12-31-74







END AREA		VOLUME	
CUT	FILL	CUT	FILL

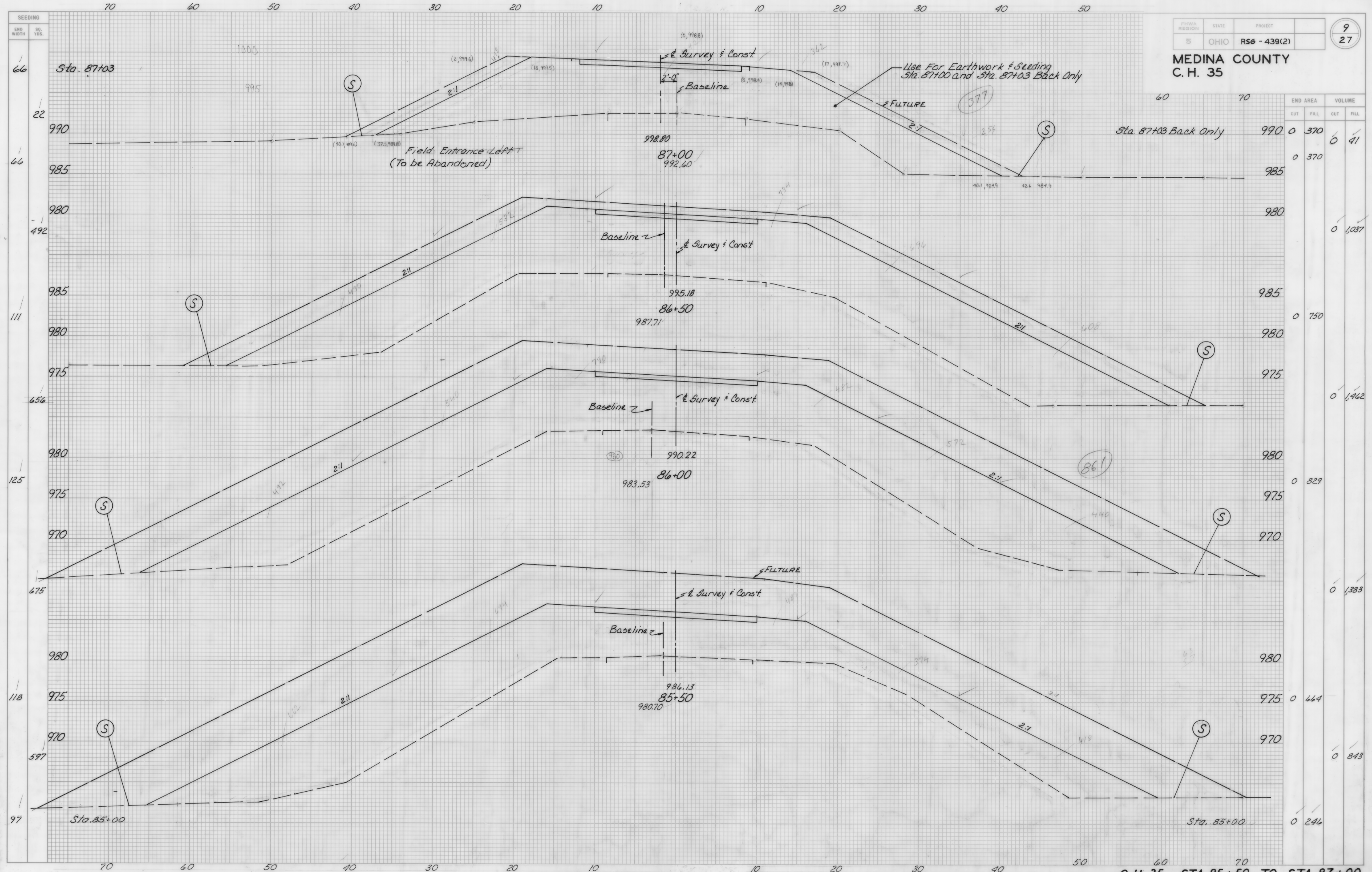
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	STA. 85+00		

Ex. Ground	7-8-74	7-8-74	7-8-74	7-8-74	7-8-74
Template	7-8-74	7-8-74	7-8-74	7-8-74	7-8-74
Plg.	7-8-74	7-8-74	7-8-74	7-8-74	7-8-74
Contract & Quant.	7-8-74	7-8-74	7-8-74	7-8-74	7-8-74
Working Quant.	7-8-74	7-8-74	7-8-74	7-8-74	7-8-74



Revised P.M. 6-23-76

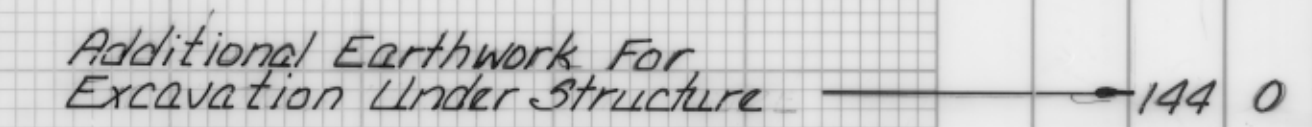
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A circular logo with a horizontal line. The number '10' is in the upper half and the number '27' is in the lower half.

70

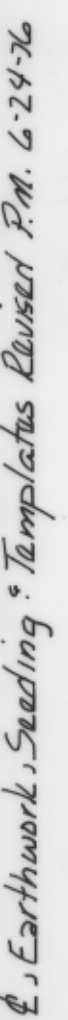
995

C.H. 35 STA. 87+50 TO STA. 88+00

Q: Templates Revised P.M. 6-24-76

6-7-74 C 177	5-28-75 T.U.H.	6-7-74 C 177
APR 5-19-76 P.M. 5-19-76	T.U.H. 6-1-76 P.M. 5-28-76	T.U.H. 6-1-76 P.M. 5-28-76
P.M. 5-19-76	T.U.H. 6-1-76 P.M. 5-28-76	T.U.H. 6-1-76 P.M. 5-28-76
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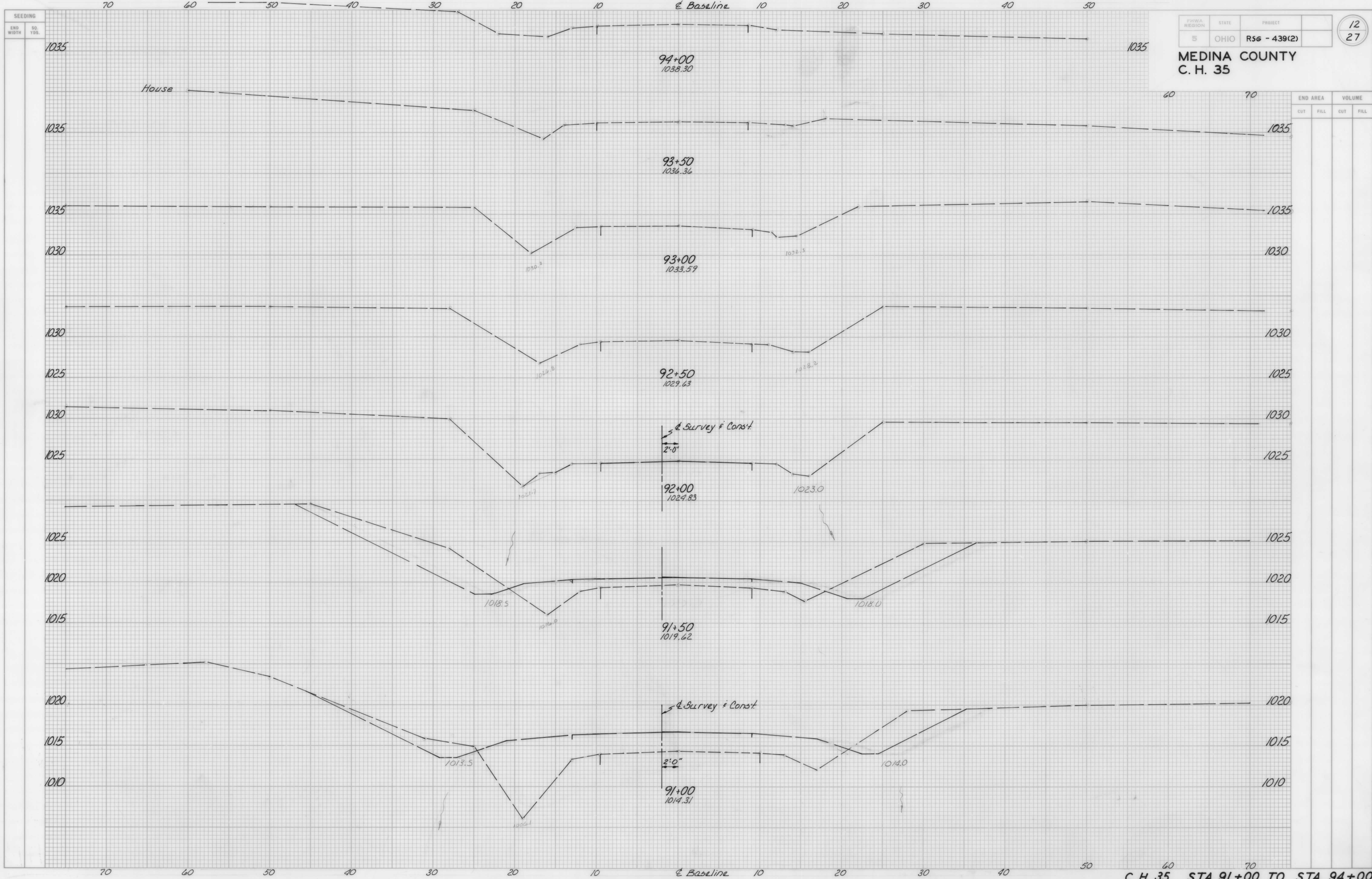




Ex. Ground	Temple	Plan	Ex. Road & Quant.	Seeding Quant.
6-7-74 C 179	5-28-76 T. J. H.	7-11-76 T. J. H. 6-1-76	6-7-74 C 179	6-7-74 C 179
Am 5-17-76	8-2-74 C 204	Am 5-20-76	8-2-74 C 204	8-2-74 C 204
8-2-74 C 204	Am 5-28-76	8-2-74 C 204	8-2-74 C 204	8-2-74 C 204



MEDINA COUNTY  
C. H. 35

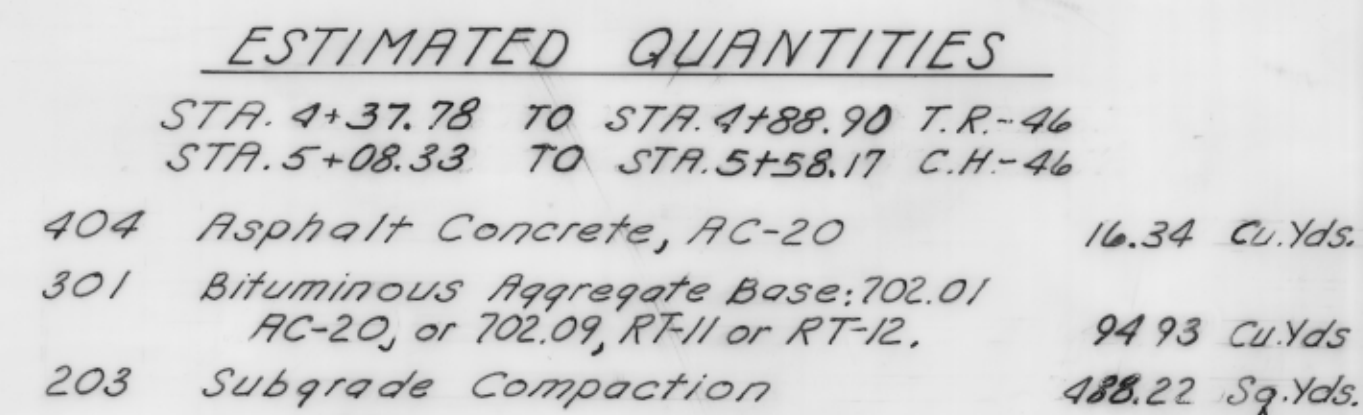


Templates: E & Revised P.M. 6-24-76

Plotted	OK	Interf
6-7-74	5-28-76	6-7-74
C.M.	T. J. H.	C.M.
AMES	PRIME	
4-5-18-76	7-16-76	Aug 5-28-76



Revised P.M. 6-14-76, P.M. 9-23-76  
QUANTITIES CALC. P.M. 5-14-76  
QUANTITIES CK'D. J.H.N. 5-26-76  
Revisions CWD J.H.N. 6-21-76  
J.H.N. 11-30-76



Note: Pavement Buildup To Be Same As Normal Section, Except As Noted.  
See Typical Sections Sheet No. 2.

[illegible]

See Structure

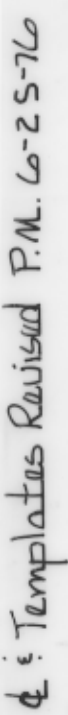






15  
27

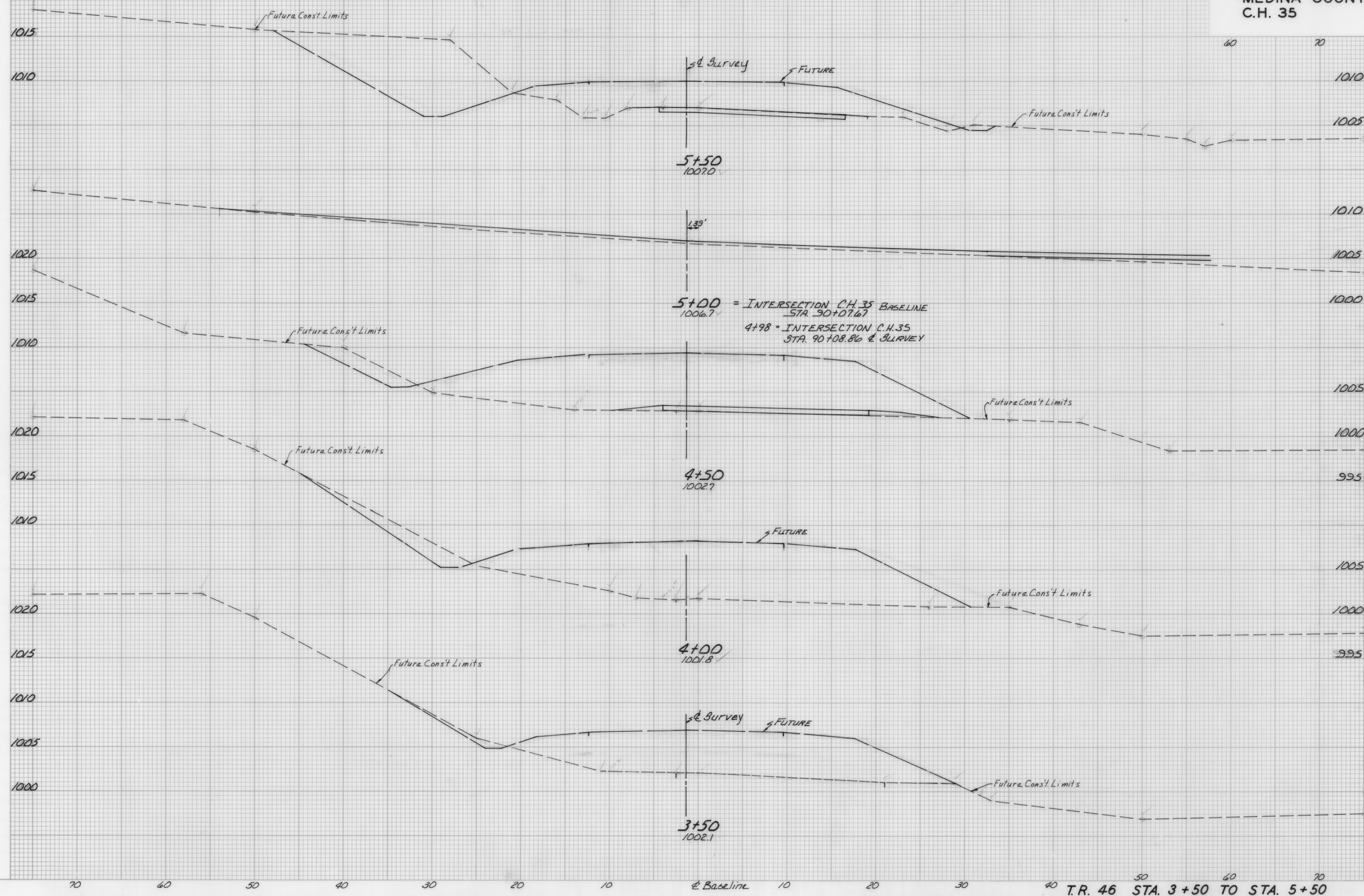
T.R. 46 STA. 2+00 TO STA. 3+00



Plotting	OK	Date
Ex. Ground		6-19-74
Template		6-22
Plan		CM
Earthwork Quant.		
Location Quoted		



MEDINA COUNTY  
C.H. 35

[illegible]

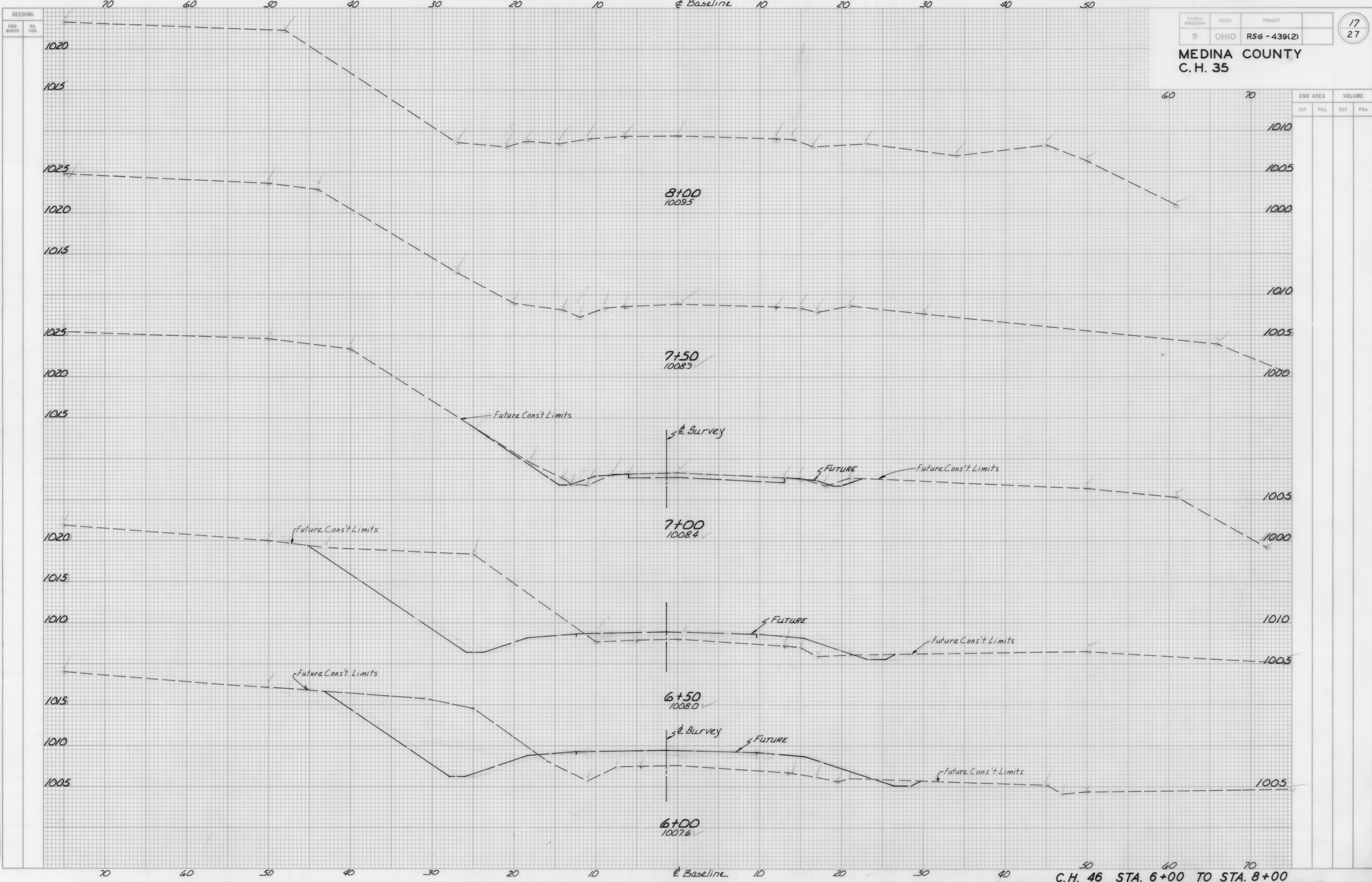
Q & Templates Revised P.M. 6-25-76

Ex. Ground Template	Printed	On	Inked
Earthwork Quant.	PA 6-13-74 5-5-74	6-19-74 C-17	PA 6-13-74 5-5-74
Plat.			
Endwork Quant.			
Endwork Quant.			



of Templates Revised P.M. 6-25-72

Plot	6-18-74	PA 6-15-74	5-22	5-22
Ex. Ground	6-18-74	PA 6-15-74	5-22	5-22
Template	6-18-74	PA 6-15-74	5-22	5-22
Plan	6-18-74	PA 6-15-74	5-22	5-22
Earthwork	6-18-74	PA 6-15-74	5-22	5-22
Seeding Quant.	6-18-74	PA 6-15-74	5-22	5-22



END AREA		VOLUME	
CUT	FILL	CUT	FILL



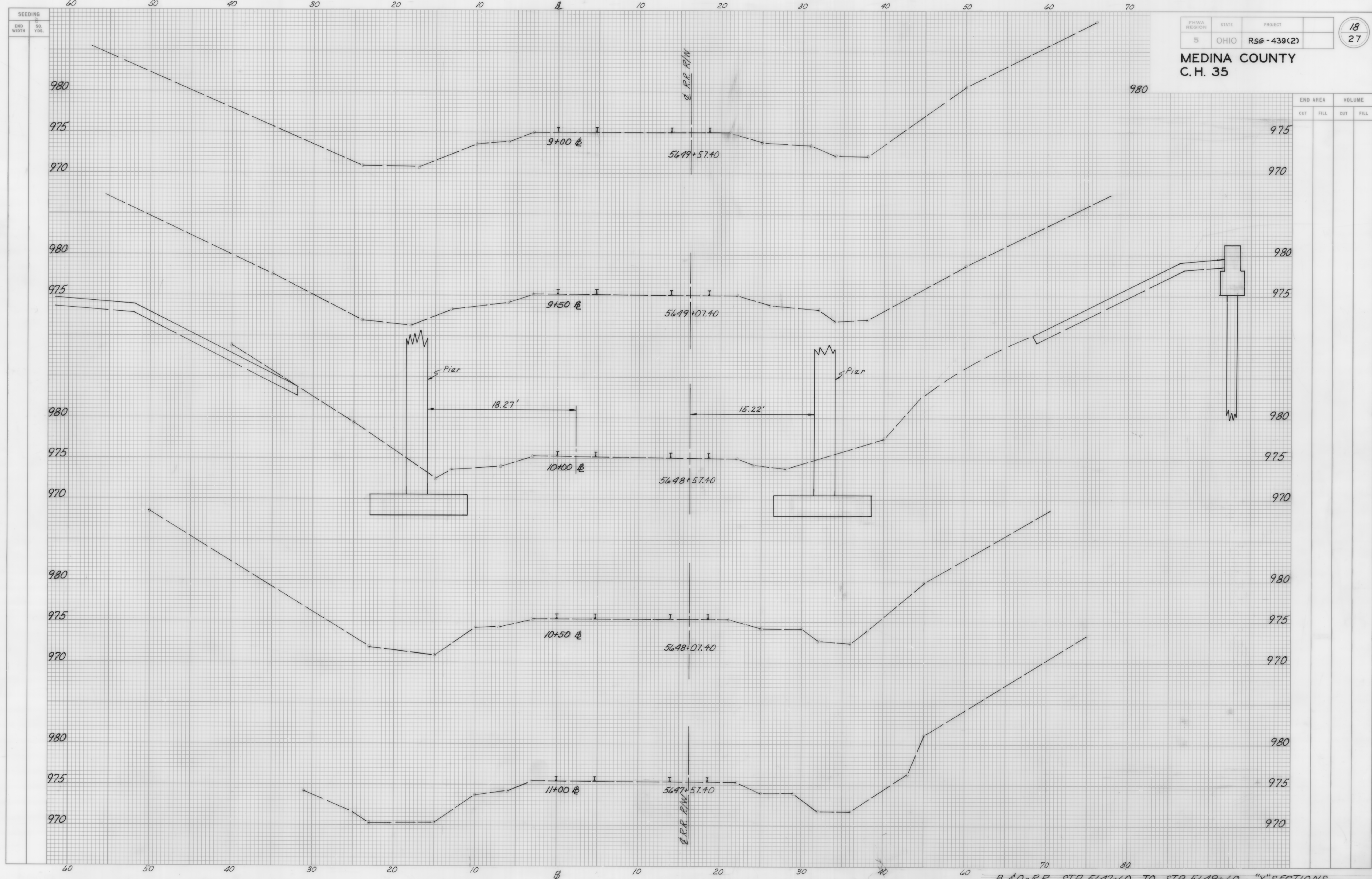
SEEDING  
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FHWA REGION	STATE	PROJECT
5	OHIO	RS& - 439(2)

18  
27

MEDINA COUNTY  
C.H. 35

END AREA		VOLUME	
CUT	FILL	CUT	FILL



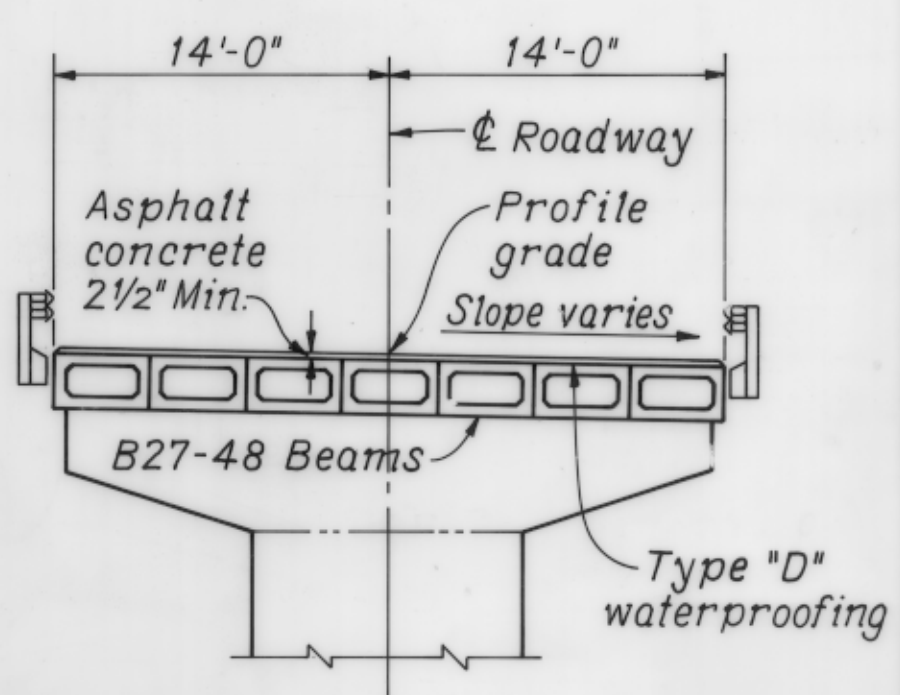
B&O-R.R. STA. 5647+60 TO STA. 5649+60 "X" SECTIONS



B.M. - R.R. Spike in  $\phi$   
34' Lt. Sta. 89+14  
Elev. 1000.11

FHWA REGION	STATE	PROJECT	19
5	OHIO	RS6 - 439(2)	27

MEDINA COUNTY  
C.H. 35



TYPICAL SECTION

EARTHWORK limits shown are schematic. Actual slopes shall conform to plan cross-sections.

⊙ - Indicates core boring location

**EXISTING STRUCTURE**  
TYPE: Half-through steel truss (3) with 3" timber plank deck, steel frame piers and concrete abutments with precast concrete piles  
SPANS: 30'-44'-30' = 104'  $\frac{1}{4}$  Brg.  
ROADWAY: 19'-0"  $\frac{1}{4}$  Trusses; 18'-0" Clear  
LOADING: Load limit posted 5 tons  
SKEW: 5°-01' L.F.  
WEARING SURFACE:  $\frac{1}{2}$ "  $\pm$  Bituminous  
ALIGNMENT: Tangent  
VERTICAL CLEARANCE: 19'-6  $\frac{1}{4}$ " (E.B. Track); 20'-0" (W.B.)  
HORIZONTAL CLEARANCE: 14.5'  $\pm$  to  $\phi$  Track  
DATE BUILT: 1906  
OWNER: Chessie System, Inc. (B & O RR Bridge IIIA)  
CONDITION: Poor

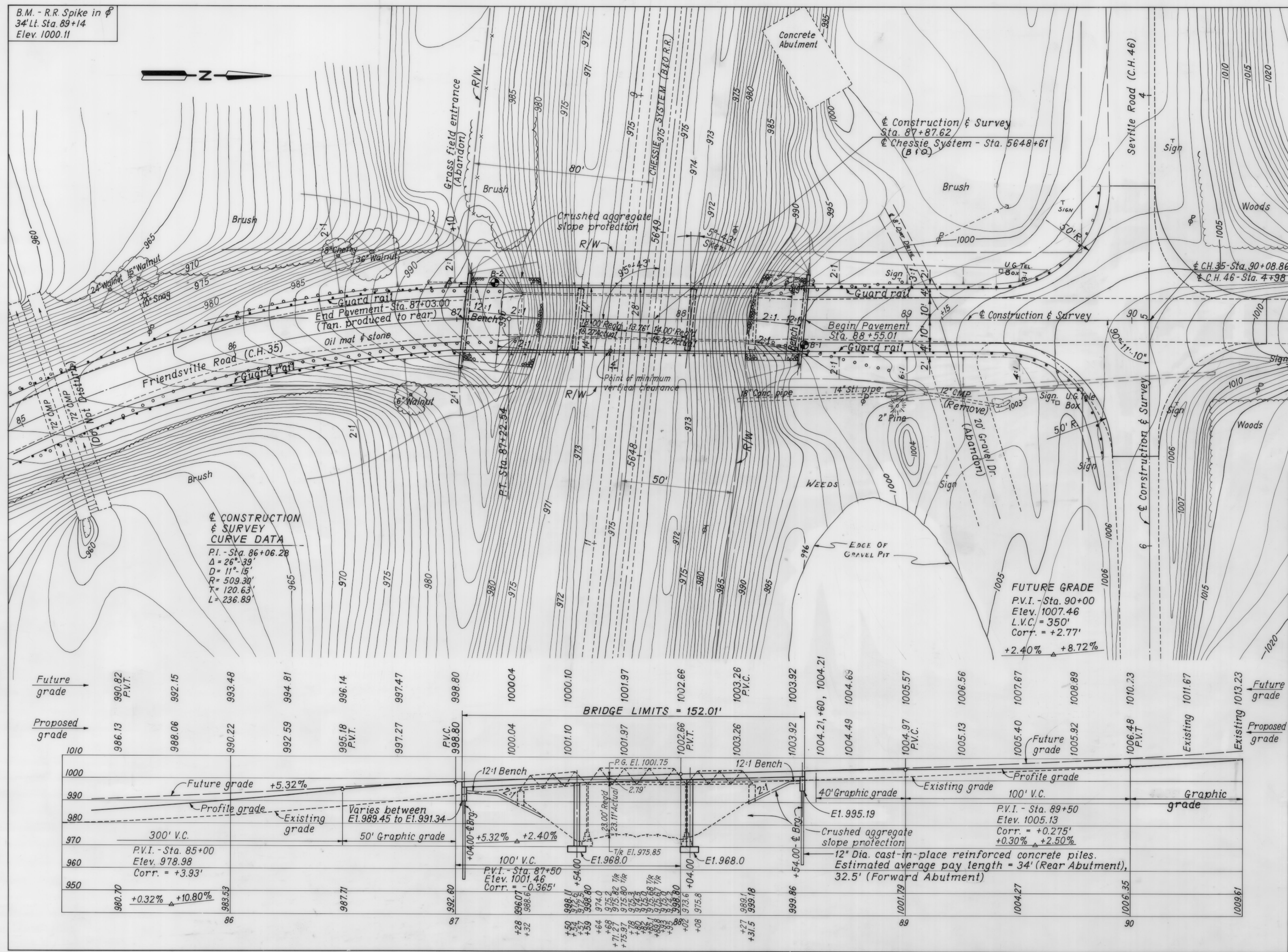
**PROPOSED STRUCTURE**  
TYPE: Continuous prestressed concrete box beam with reinforced conc. substructure  
SPANS: 3 @ 50' = 150'  
ROADWAY: 28' F/F Guard rail  
LOADING: HS 20-44 with Interstate Alternate Loading  
SKEW: 5°-43' L.F.  
WEARING SURFACE: 2 1/2" (Min.) Asphalt conc.  
APPROACH SLABS: None  
ALIGNMENT: 11°-15' Curve to Right, Tangent (Superelevation run-out)  
AVERAGE DAILY TRAFFIC: 500  $\pm$  (1974); 1000-2000 (1994)

SHAFFER, JOHNSTON, LICHENWALTER & ASSOCIATES INC.  
CONSULTING ENGINEERS  
WOOSTER OHIO MAPLEFIELD

**SITE PLAN**  
FRIENDSVILLE ROAD (C.H. 35)  
OVER CHESSE SYSTEM

MEDINA COUNTY WESTFIELD TOWNSHIP  
STA. 87+03.00 TO STA. 88+55.01

DRAWN RAK	CHECKED SWR 11-17-76	SCALE	DATE
JOB NO. EW-843		SHEET OF	





QUANTITIES CALC. R.A.K. 11-17-76  
QUANTITIES CK'D. SWR 11-17-76

FHWA REGION	STATE	PROJECT
5	OHIO	RS6-439(2)

MEDINA COUNTY  
C.H. 35

20  
27

## GENERAL NOTES

REFERENCE shall be made to Standard Drawings  
PSBD-1-71, Sheets 1, 2 and 3 (Dated 9-1-71)

DBR-2-73 (Dated 4-10-73)  
and to Supplemental Specification  
836 (Dated 3-12-75)

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1973, including the Ohio "Supplement" to these specifications and to the 1974 interim to AASHTO.

### DESIGN DATA:

Design Loading - HS 20-44 and the Interstate Alternate Loading

Concrete Class C - unit stress 1200 p.s.i. for superstructure  
- unit stress 1333 p.s.i. for substructure

Reinforcing Steel - ASTM A615, A616 or A617 - unit stress 20,000 p.s.i.

Prestressed Concrete - unit stress 2200 p.s.i. compression, 444 p.s.i. tension

Prestressing Strand - ASTM A416 -  $f'_s = 270,000$  p.s.i.; initial stress = 0.70  $f'_s$

ABUTMENT PILES shall be driven to a minimum bearing capacity of 24 tons per pile.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing superstructure shall be removed and shall become property of the Contractor. Suitable waste masonry from the removal of the substructure may be placed as Slope Protection as directed by the Engineer.

ITEM 836 shall not be applied to top or sides of deck.

UTILITY LINES OTHER THAN RAILROAD AERIAL LINES: All expense involved in relocating the affected utility lines shall be borne by the Owners. The Contractor and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either would be held to a minimum.

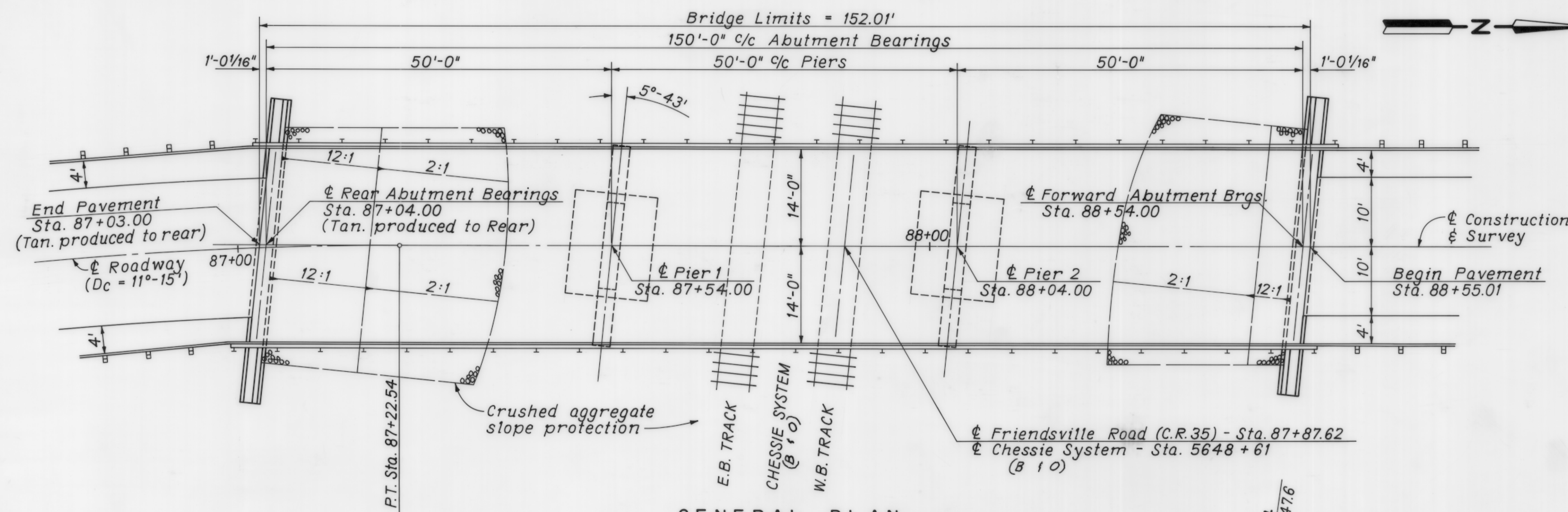
CONSTRUCTION CLEARANCE of 8 feet horizontally from the center of tracks and 21.11 feet vertically from a point level with the top of the higher rail, and 4 feet from the center of tracks, shall be maintained at all times.

RAILROAD AERIAL LINES will be relocated by the Railroad. The Contractor shall use all precautions necessary to see that the lines are not disturbed during the construction stage and shall cooperate with the Railroad in the relocation of these lines. The cost of the relocation shall be included in the railroad force account work.

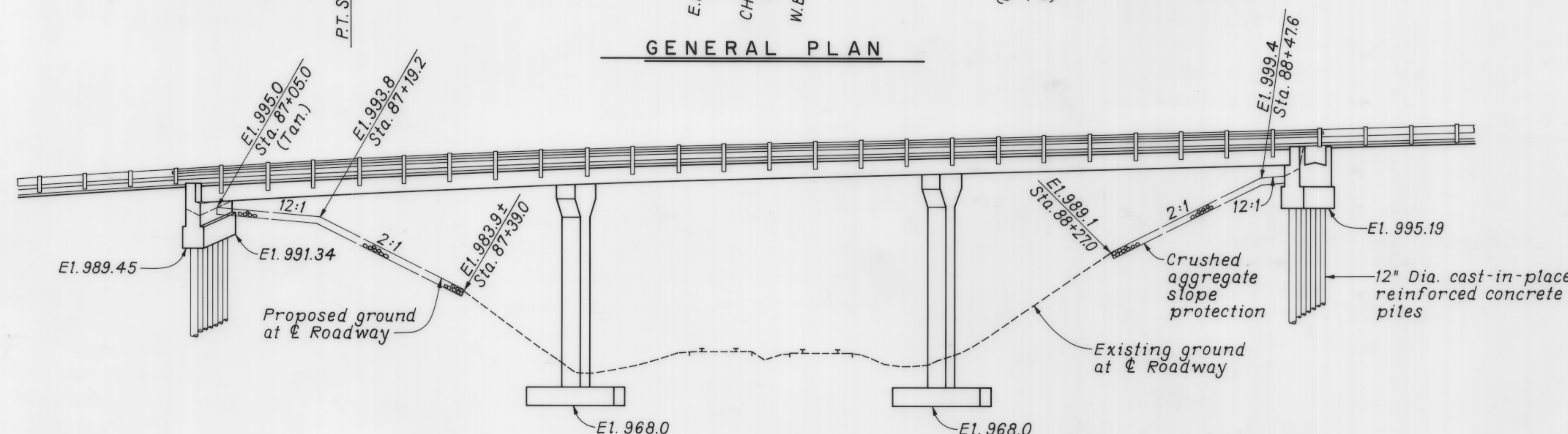
EMBANKMENT CONSTRUCTION: The embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the Rear Abutment and to the intersection with C.H. 46 ahead of the Forward Abutment. Excavation shall then be made for the abutments.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 2.0 tons per sq. ft.

DOWEL HOLES includes filling of holes in beams.



GENERAL PLAN



GENERAL ELEVATION

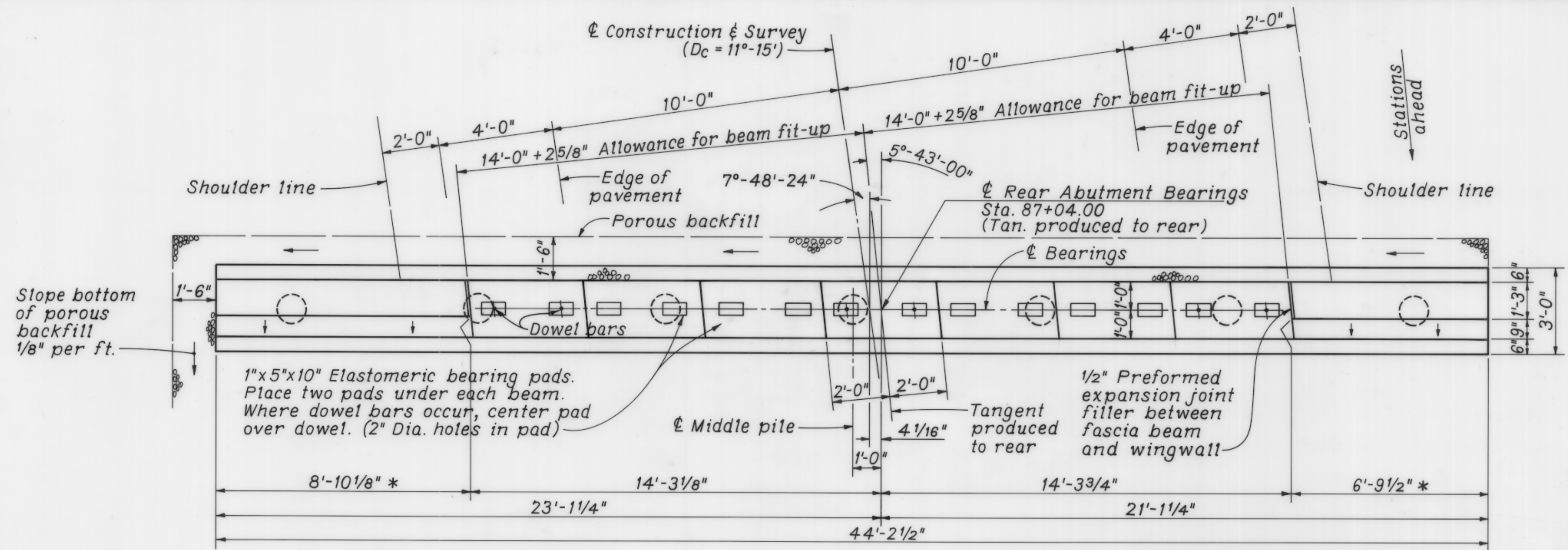
## ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUTS.	PIERS	GEN'L		
202	Lump	Sum	Structure removed				Lump		
403	(17)	Cu.Yds.	Asphalt concrete, AC-20	17.20					
404	17	Cu.Yds.	Asphalt concrete, AC-20	17					
503	182	Cu.Yds.	Unclassified excavation		79	103			
503	Lump	Sum	Cofferdams, cribs and sheeting			Lump			
505	Lump	Sum	Test pile				Lump		
507	470	Lin.Ft.	12" Dia. cast-in-place reinforced concrete piles		470				
509	13,578	Lbs.	Reinforcing steel	383	4939	8256			
510	36	Each	Dowel holes		12	24			
511	5	Cu.Yds.	Class C concrete, superstructure	5					
511	24	Cu.Yds.	Class C concrete, abutments above footings		24				
511	78	Cu.Yds.	Class C concrete, piers above footings			78			
511	62	Cu.Yds.	Class C concrete, footings		29	33			
512	471	Sq.Yds.	Type D waterproofing	471					
515	21	Each	Prestressed concrete bridge members B27-48	21					
516	84	Each	1"x5"x10" Elastomeric bearing pads		28	56			
516	13	Sq.Ft.	1/2" Preformed expansion joint filler		13				
516	78	Sq.Ft.	1" Preformed expansion joint filler		45	33			
517	304.02	Lin.Ft.	Railing (single deep beam rail with steel tubular back-up and steel posts and bolts)	304.02					
518	31	Cu.Yds.	Porous backfill		31				
601	248	Sq.Yds.	Crushed aggregate slope protection				248		
Special	200	Sq.Ft.	Galvanized steel drip strip	200					

SHAFFER, JOHNSTON, LICHTENWALTER & ASSOCIATES INC.		2 / 7
CONSULTING ENGINEERS		
WOOSTER	OHIO	MANSFIELD
GENERAL PLAN, GENERAL NOTES AND ESTIMATED QUANTITIES		
FRIENDSVILLE ROAD (C.H. 35) OVER CHESSIE SYSTEM		
MEDINA COUNTY WESTFIELD TOWNSHIP		
STA. 87+03.00 TO STA. 88+55.01		
DRAWN RAK	CHECKED SWR 11-17-76	SCALE
DATE		DATE
JOB NO. EW-843		SHEET OF

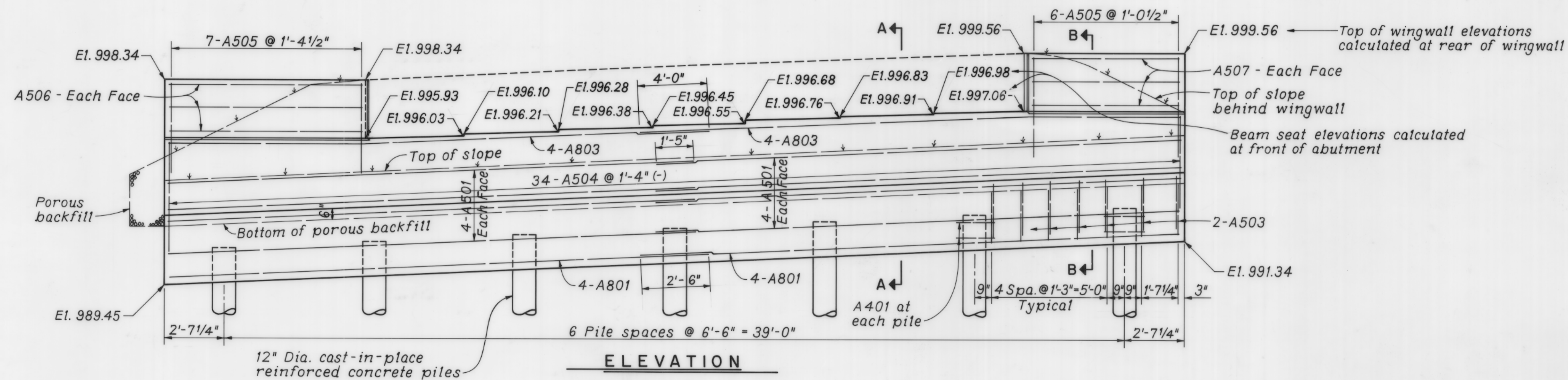
Revised  
3-8-78





PLAN

\* - A nominal dimension. Top of wingwall to be poured up tight to 1/2" Preformed expansion joint filter at edge of fascia beam.



ELEVATION

**NOTES:**

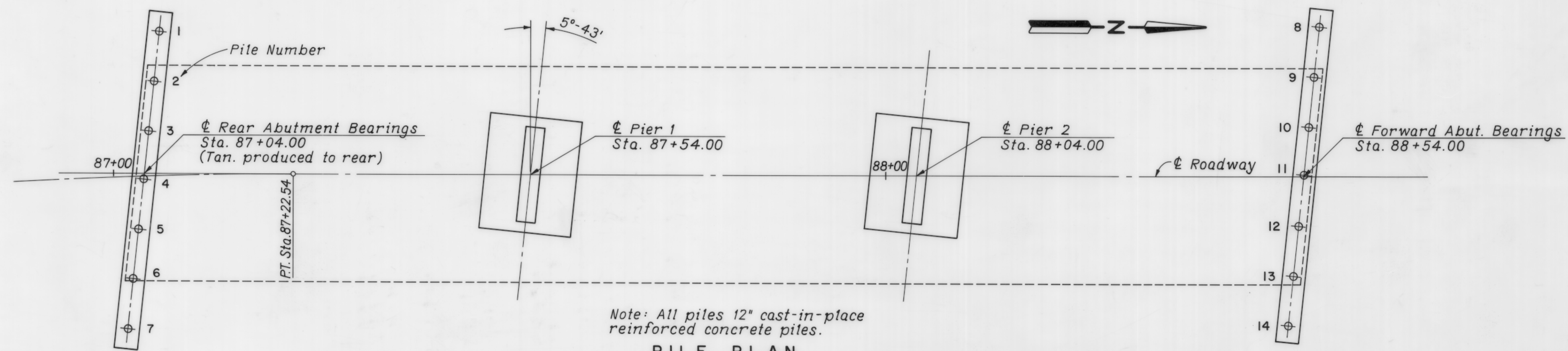
**BRIDGE SEAT REINFORCING:** Reinforcing steel in the vicinity of the bridge seat shall be accurately placed to avoid interference with the drilling of dowel holes.

**POROUS BACKFILL** shall extend upward to the plane of the subgrade, laterally to the surface of the embankment slopes, and around the end of the abutments to surface of benches and front slopes.

**REINFORCING STEEL:** Refer to C.M.S. 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 additional steel, spliced in accordance with 509.08.

**NOTATION:** R.A. - Rear Abutment; F.A. - Forward Abutment.

**SECTIONS A-A AND B-B:** See sheet 4/7



Note: All piles 12" cast-in-place reinforced concrete piles.

PILE PLAN

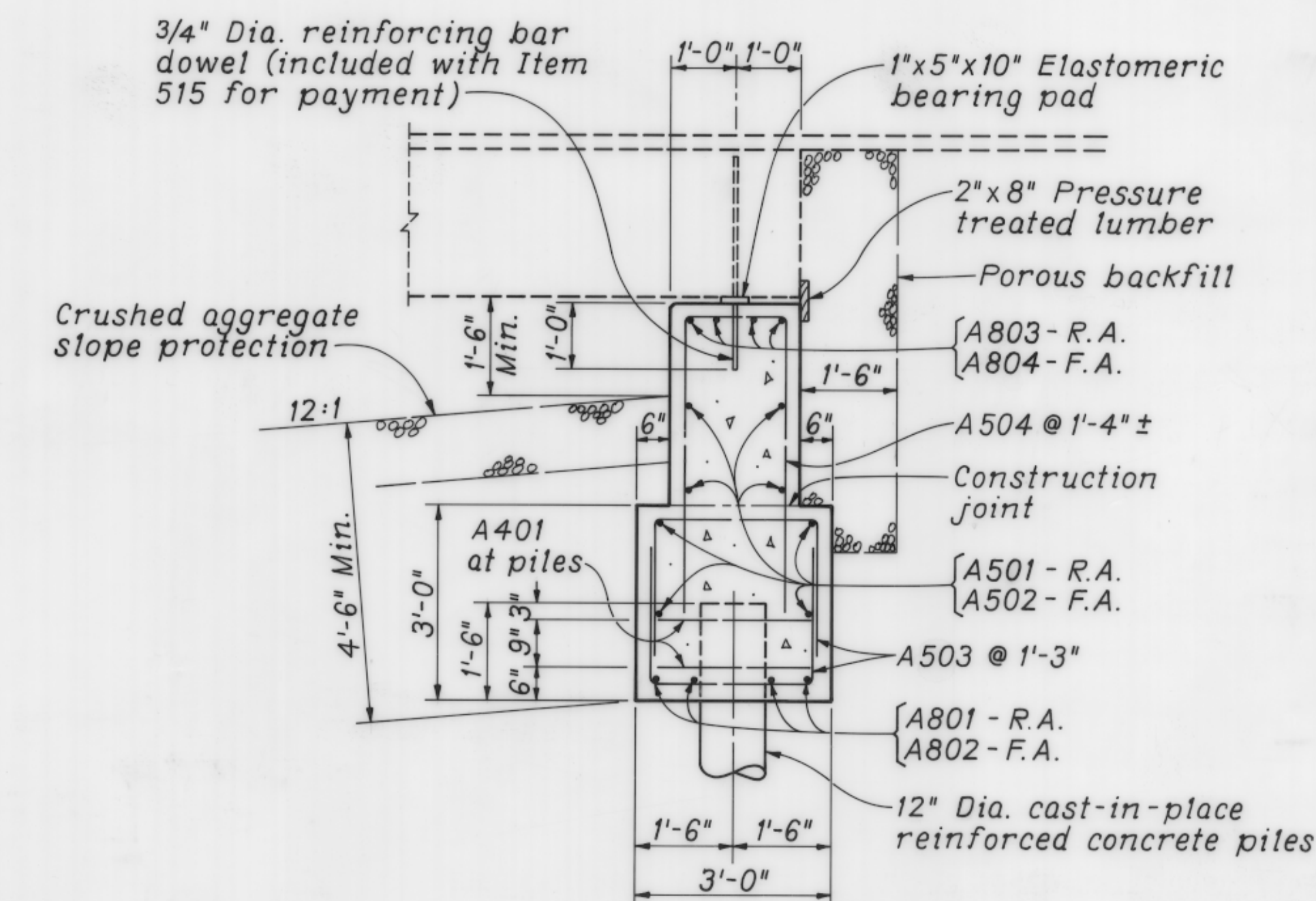


QUANTITIES CALC. R.A.K. 11-17-76  
 QUANTITIES CK'D. SWR 11-17-76

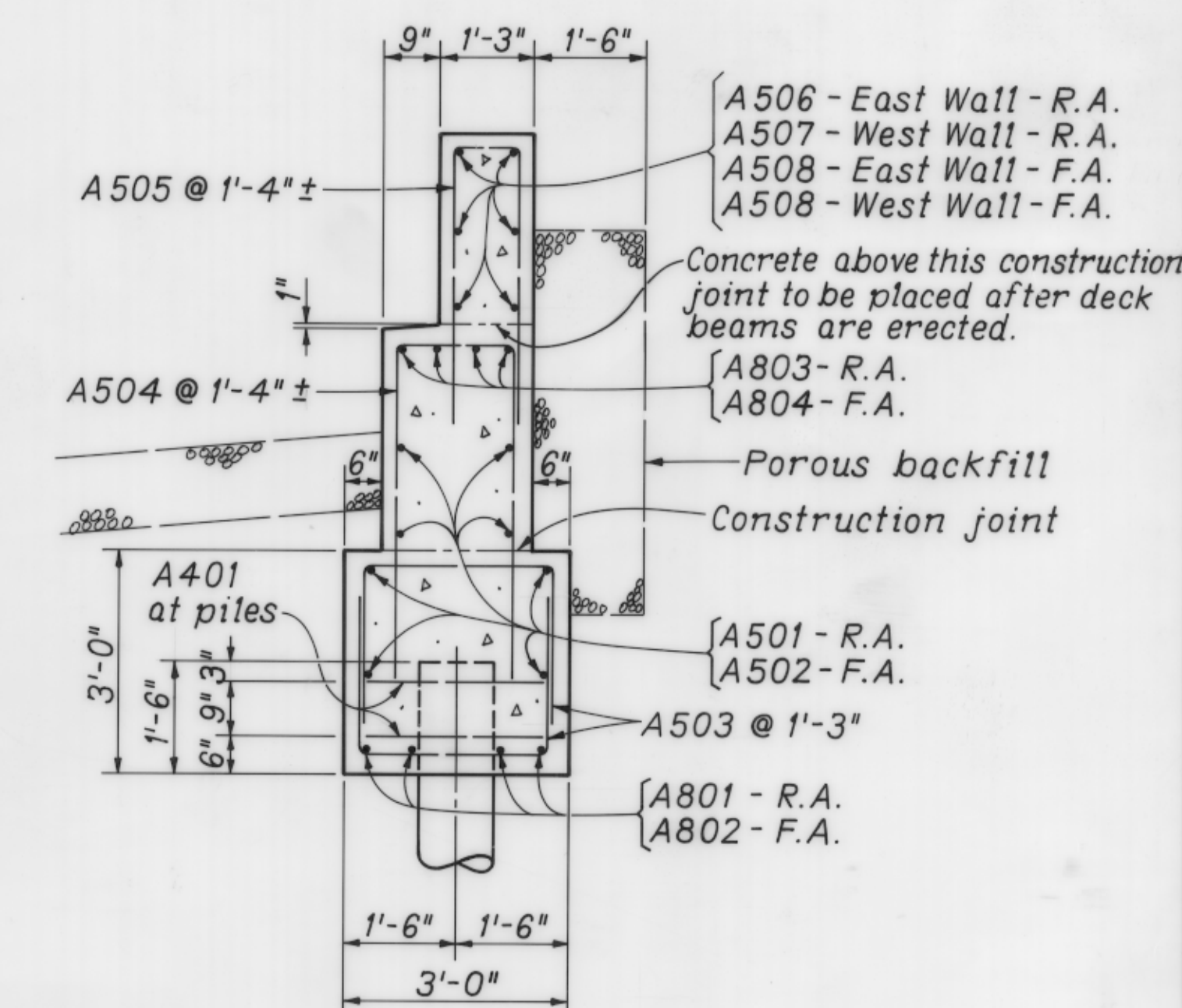
FHWA REGION	STATE	PROJECT
5	OHIO	RS6-439(2)

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MEDINA COUNTY  
C.H. 35



SECTION A-A

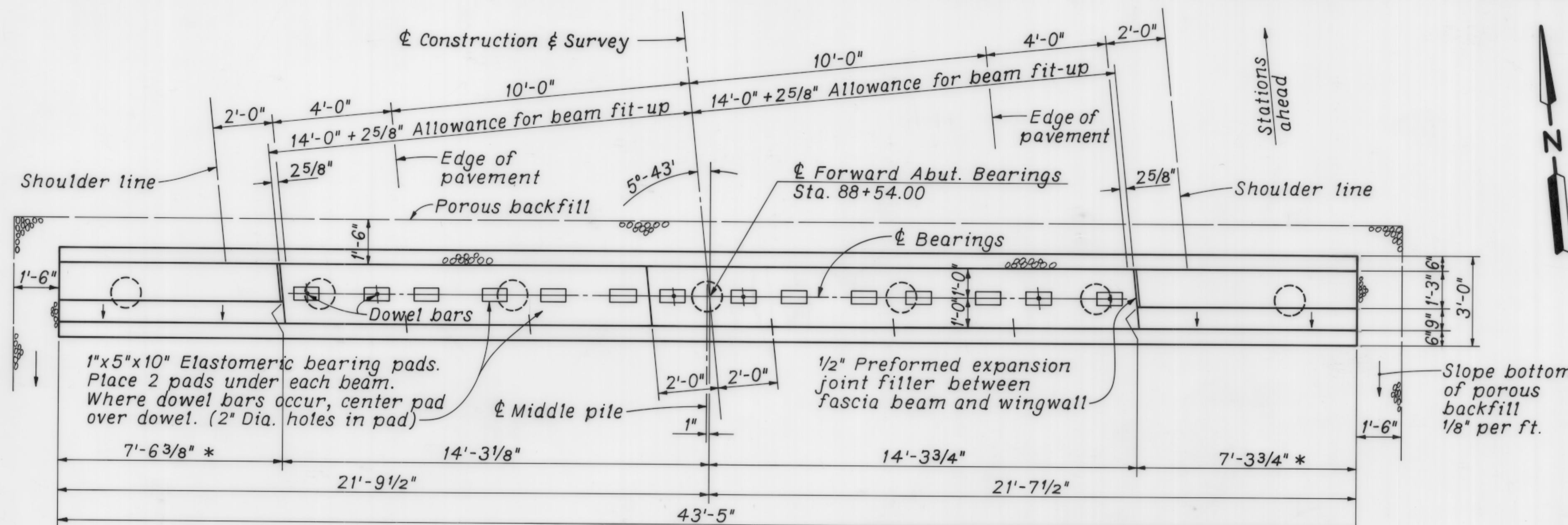


SECTION B-B

ABUTMENT NOTES: See sheet 3/7

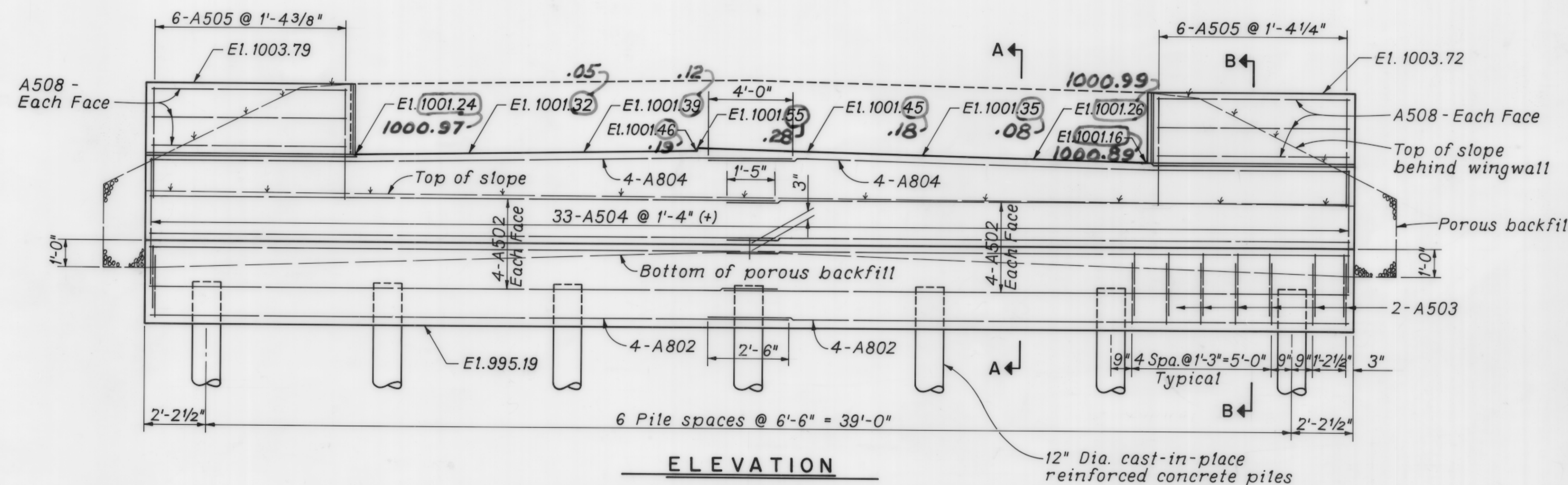
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3-8-78

SHAFFER, JOHNSTON, LICHTENWALTER & ASSOCIATES INC.		4/7
CONSULTING ENGINEERS		
WOOSTER	OHIO	MANSFIELD
<b>FORWARD ABUTMENT</b>		
FRIENDSVILLE ROAD (C.H. 35)		
OVER CHESSIE SYSTEM		
MEDINA COUNTY WESTFIELD TOWNSHIP		
STA. 87+03.00 TO STA. 88+55.01		
DRAWN RAK	CHECKED SWR 11-17-76	SCALE DATE
JOB NO. EW-843	SHEET OF	



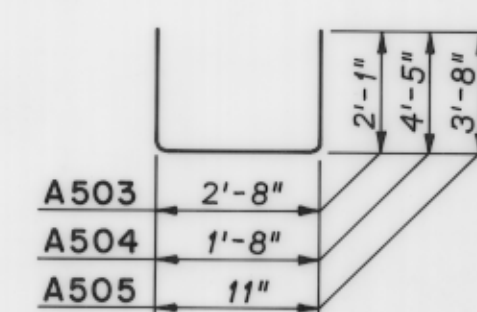
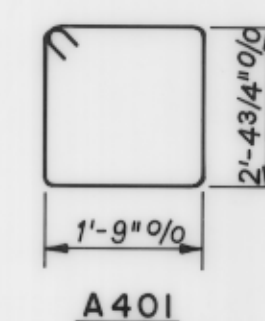
PLAN

\* - A nominal dimension. Top of wingwall to be poured up tight to 1/2" preformed expansion joint filler at edge of fascia beam.

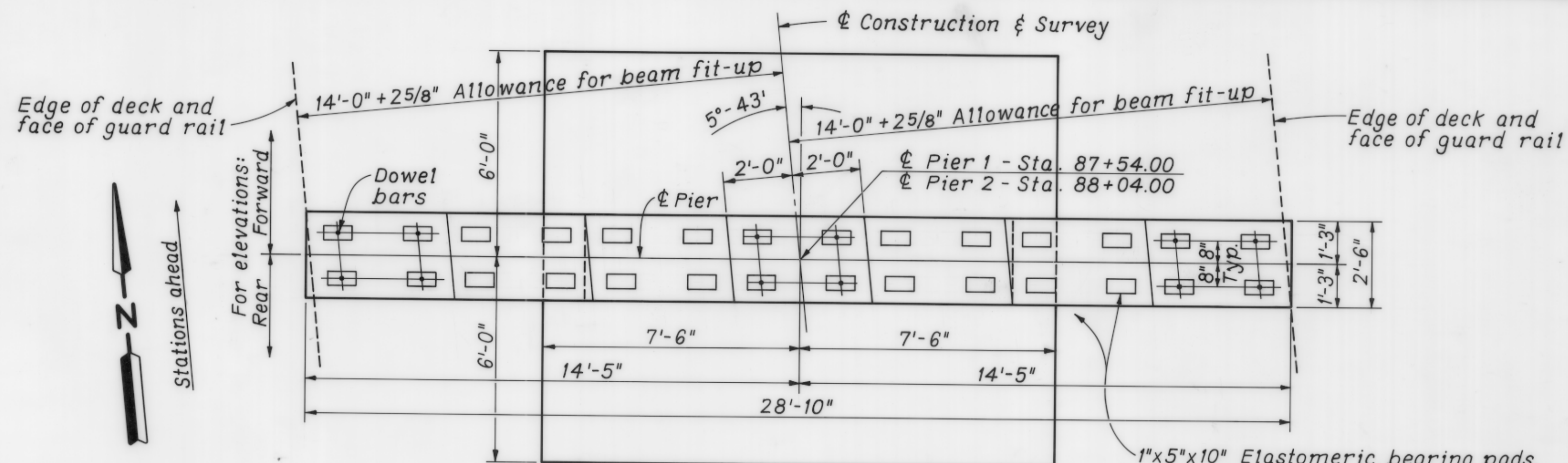


ELEVATION

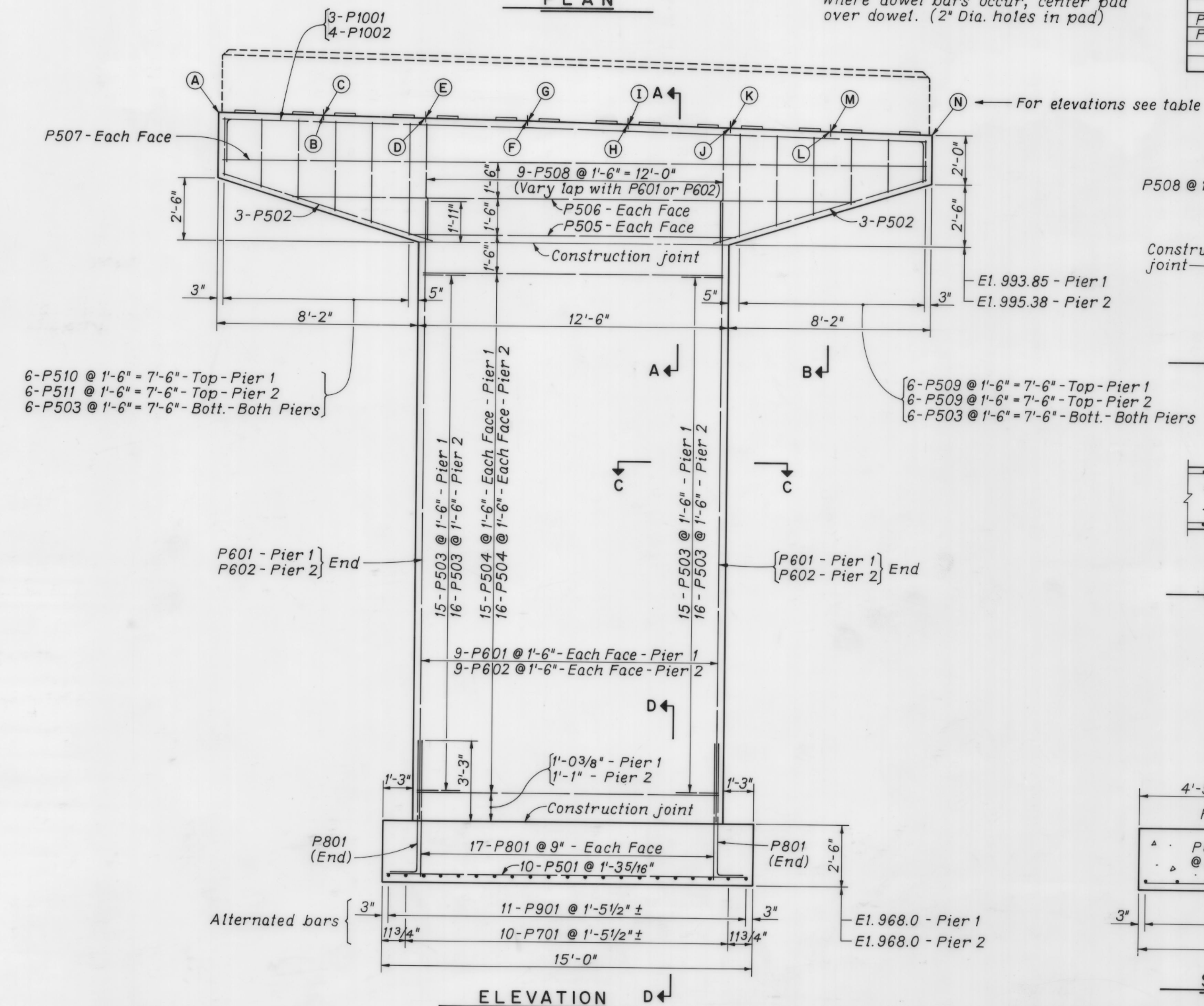
REINFORCING STEEL						
MARK	NO.	LENGTH	WEIGHT	SHAPE	REAR ABUT.	FWD. ABUT.
A401	28	8'-8"	162	B	14	14
A501	16	22'-8"	378	S	16	
A502	16	22'-3"	371	S		16
A503	136	6'-7"	934	B	68	68
A504	67	10'-3"	716	B	34	33
A505	25	8'-0"	209	B	13	12
A506	6	8'-4"	52	S	6	
A507	6	6'-4"	40	S	6	
A508	12	6'-11"	87	S		12
A801	8	23'-1"	493	S	8	
A802	8	22'-9"	486	S		8
A803	8	23'-10"	509	S	8	
A804	8	23'-6"	502	S		8
TOTAL WEIGHT			4939			







PLAN



ELEVATION

REINFORCING STEEL						
MARK	NO.	LENGTH	WEIGHT	SHAPE	PIER 1	PIER
P501	20	14'-6"	302	S	10	10
P502	12	9'-0"	113	S	6	6
P503	86	5'-3"	471	B	42	44
P504	62	12'-2"	787	S	30	32
P505	4	13'-0"	54	S	2	2
P506	4	22'-6"	94	S	2	2
P507	4	28'-6"	119	S	2	2
P508	18	10'-9"	202	B	9	9
P509	2 SETS	②	96	B	1 SET OF 6	1 SET OF 6
P510	1 SET OF 6	④	54	B	1 SET OF 6	1 SET OF 6
P511	1 SET OF 6	⑥	53	B	1 SET OF 6	1 SET OF 6
P601	20	25'-3"	759	S	20	
P602	20	26'-9"	804	S		20
P701	20	11'-6"	470	S	10	10
P801	72	6'-5"	1234	B	36	36
P901	22	11'-6"	860	S	11	11
P1001	6	31'-1"	803	B	3	3
P1002	8	28'-6"	981	S	4	4
TOTAL WEIGHT			8256			

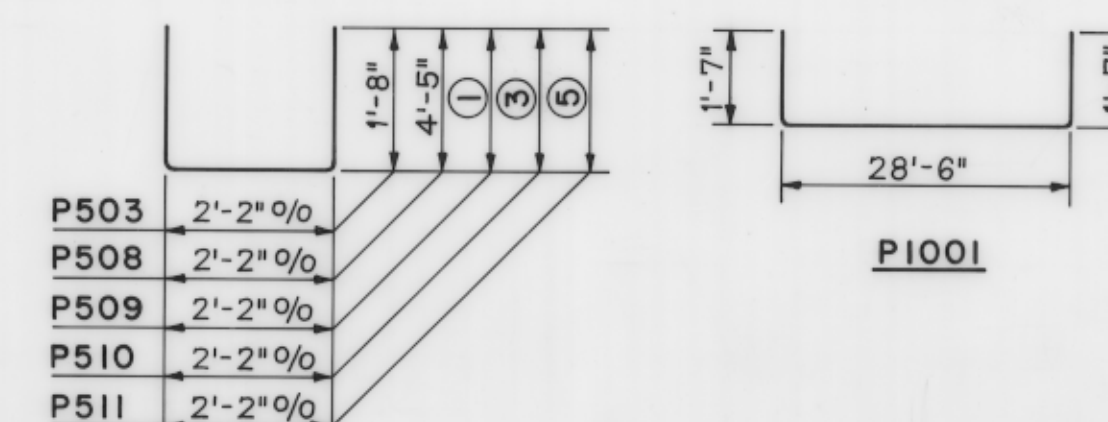
QUANTITIES CALC. R.A.K. 11-17-76

QUANTITIES CK'D. SWR 11-17-76

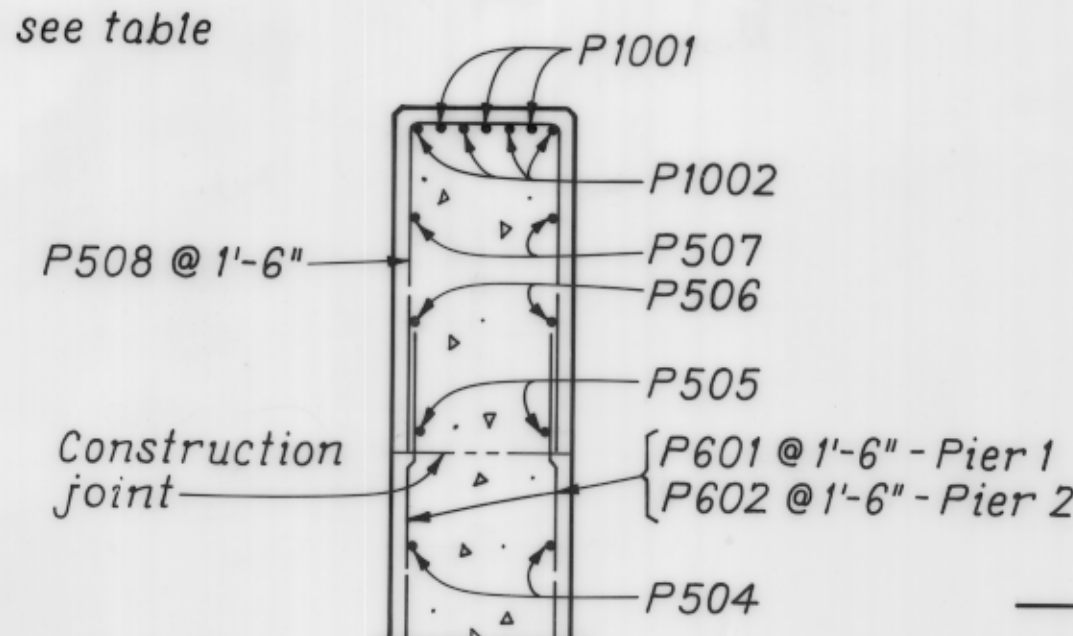
FHWA REGION	STATE	PROJECT
5	OHIO	R56 -439(C2)

23  
27

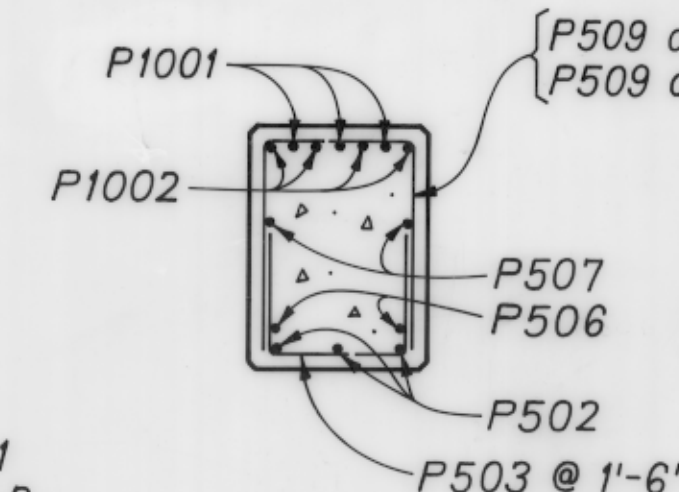
MEDINA COUNTY  
C.H. 35



- ① - Varies from 4'-2" to 1'-7" in increments of 6 1/4"
- ② - Varies from 10'-3" to 5'-1" in increments of 1'-0 1/2"
- ③ - Varies from 4'-5" to 2'-3" in increments of 5 3/16"
- ④ - Varies from 10'-9" to 6'-5" in increments of 10 3/8"
- ⑤ - Varies from 4'-6" to 2'-0" in increments of 6"
- ⑥ - Varies from 10'-11" to 5'-11" in increments of 1'-0"



SECTION A-A



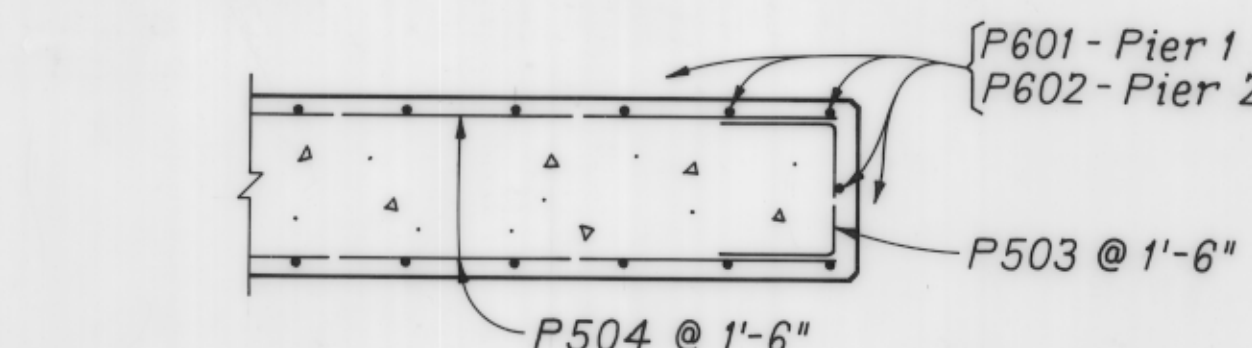
SECTION B-B

TABLE OF ELEVATIONS							
	A	B	C	D	E	F	G
PIER 1 - REAR	998.99	998.91	998.91	998.83	998.83	998.75	998.76
PIER 1 - FORWARD	998.99	998.91	998.91	998.83	998.83	998.75	998.76
PIER 2 - REAR	1000.32	1000.24	1000.30	1000.22	1000.29	1000.20	1000.27
PIER 2 - FORWARD	1000.24	1000.31	1000.23	1000.30	1000.23	1000.30	1000.27
	H	I	J	K	L	M	N
PIER 1 - REAR	998.66	998.66	998.55	998.55	998.45	998.45	998.35
PIER 1 - FORWARD	998.66	998.66	998.55	998.55	998.45	998.45	998.35
PIER 2 - REAR	1000.17	1000.17	1000.07	1000.08	999.98	999.98	999.88
PIER 2 - FORWARD	1000.17	1000.17	1000.07	1000.08	999.98	999.98	999.88

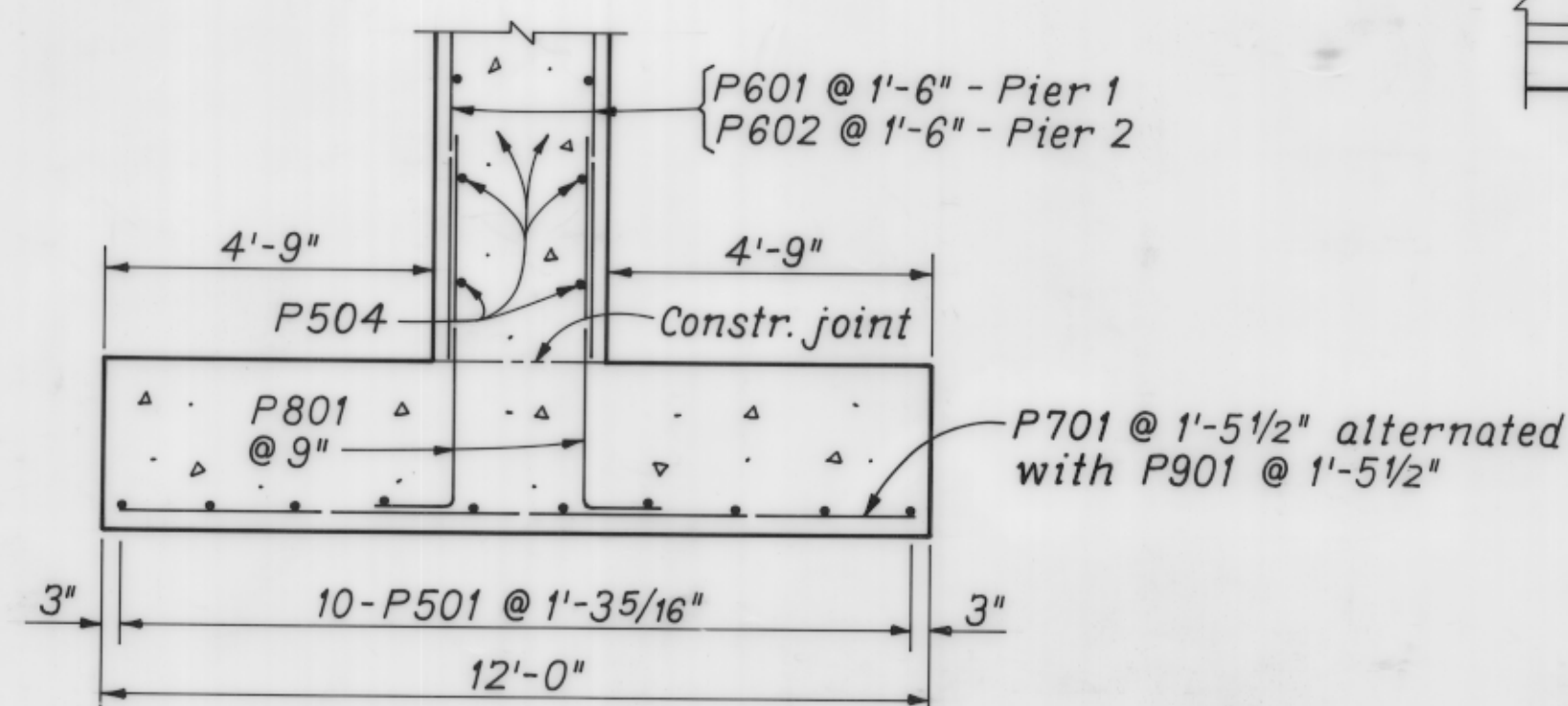
NOTES:

BRIDGE SEAT REINFORCING NOTE: See sheet 3 / 7

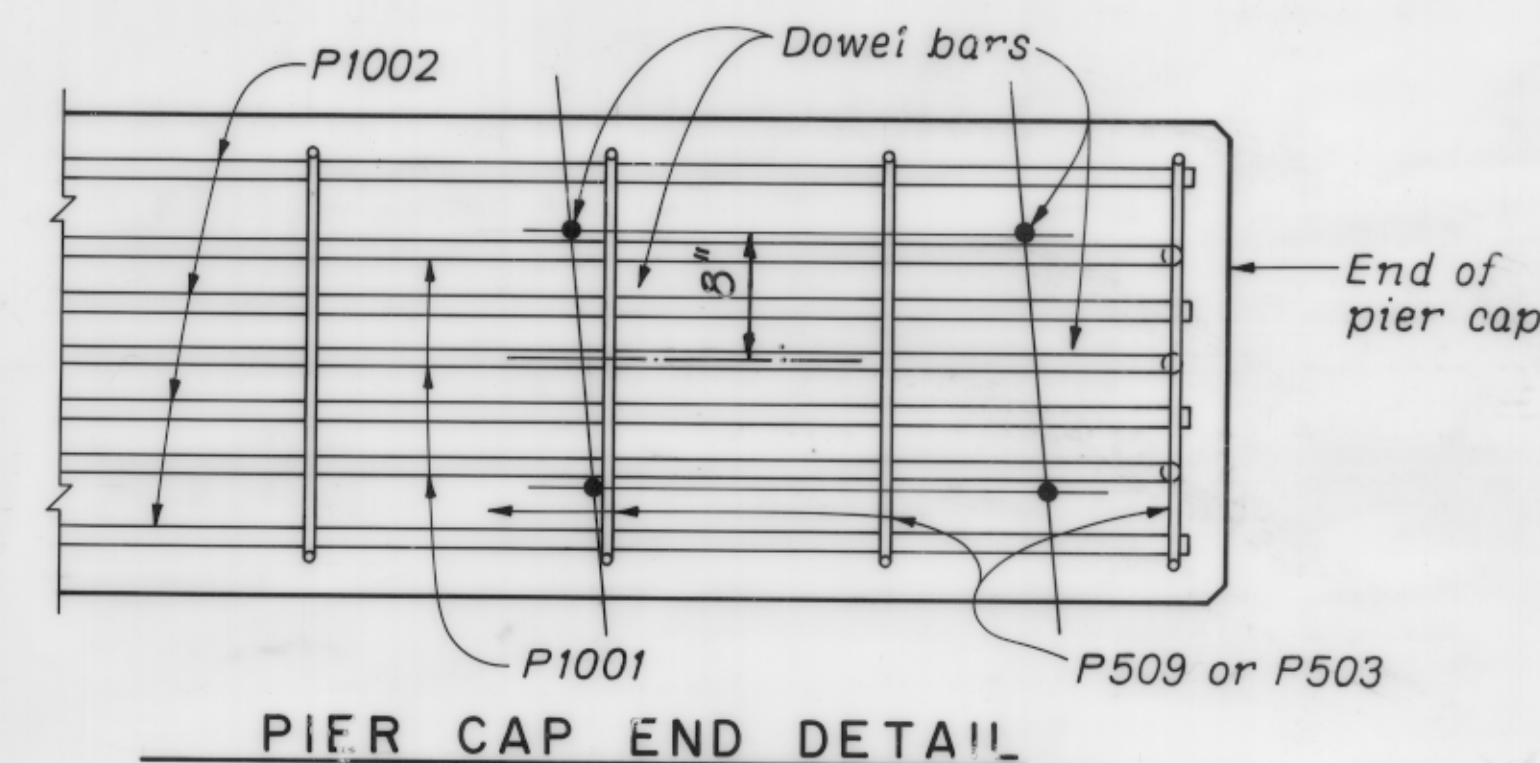
REINFORCING STEEL NOTE: See sheet 3 / 7



SECTION C-C



SECTION D-D



SHAFFER, JOHNSTON, LICHTENWALTER & ASSOCIATES INC.			5 / 7
CONSULTING ENGINEERS			
WOOSTER	OHIO	MANSFIELD	
PIERS			
FRIENDSVILLE ROAD (C.H. 35)			
OVER CHESSIE SYSTEM			
MEDINA COUNTY (B 10) WESTFIELD TOWNSHIP			
STA. 87+03.00 TO STA. 88+55.01			
DRAWN RAK	CHECKED SWR 11-17-76	SCALE	DATE
JOB NO. EW-843	SHEET		OF

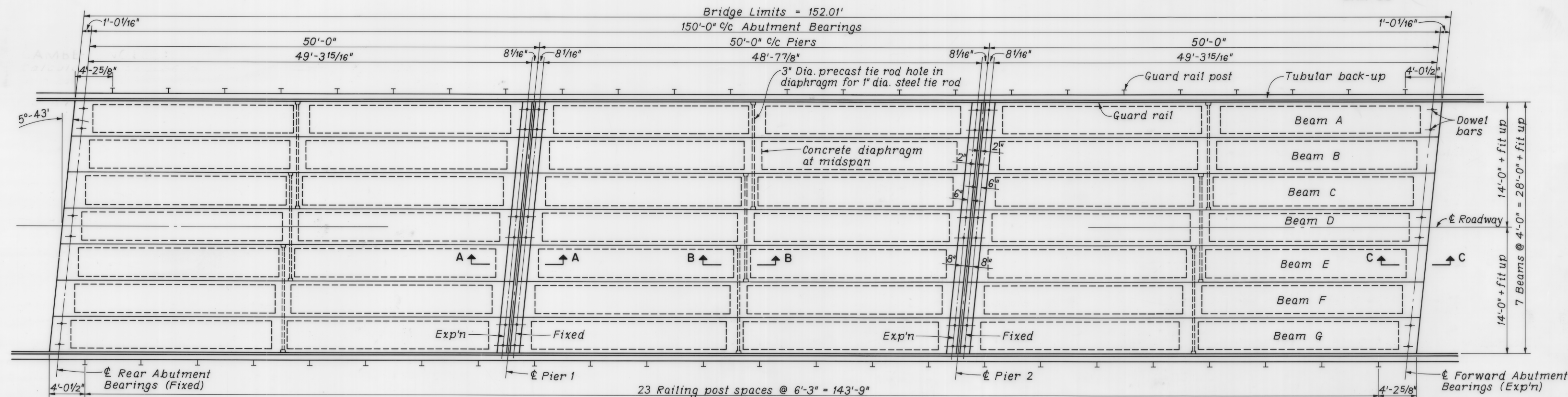


QUANTITIES CALC. R.A.K. 11-17-76  
QUANTITIES CK'D. SWR 11-17-76

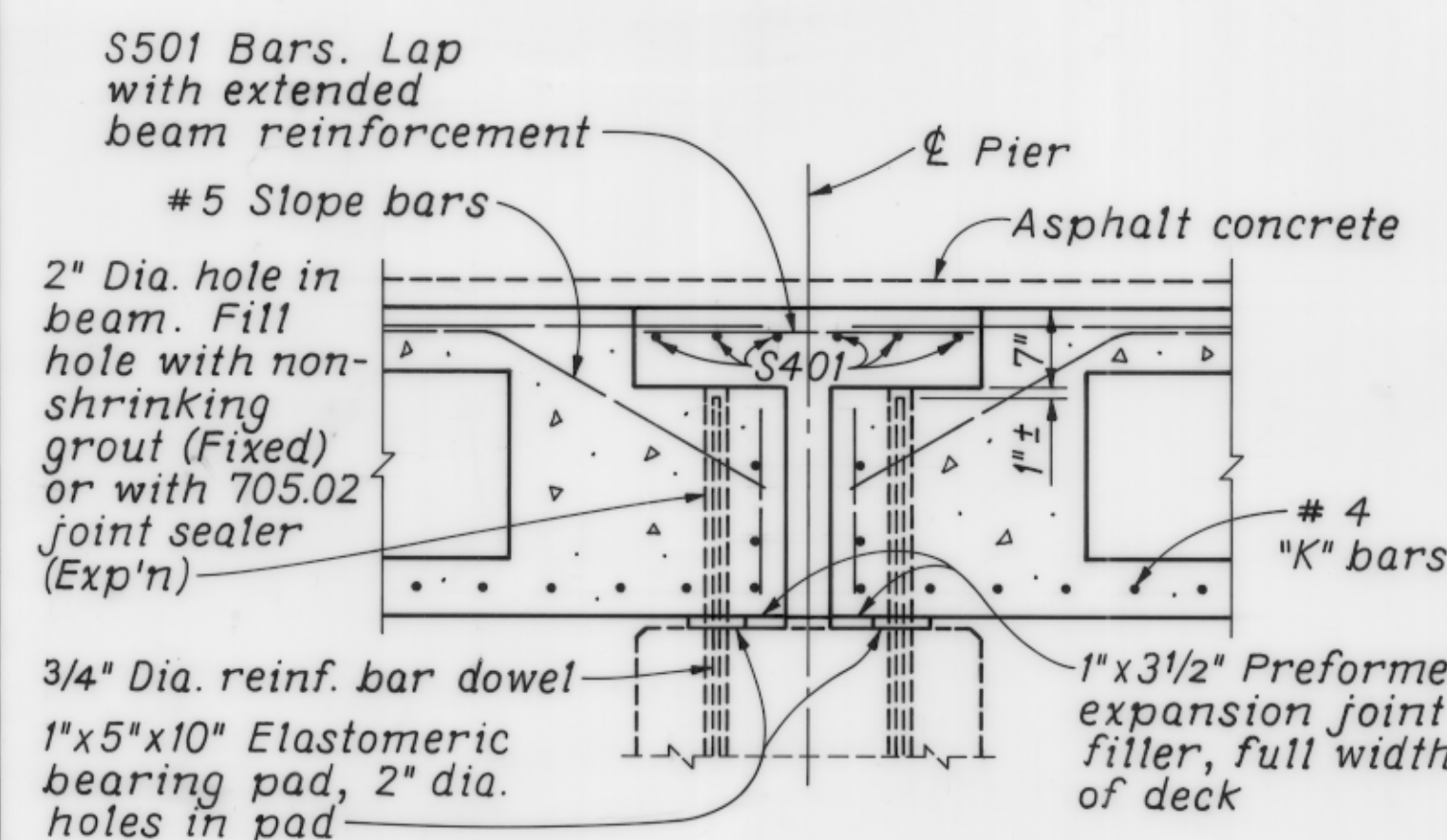
FHWA REGION	STATE	PROJECT
5	OHIO	R56 -439(2)

24  
27

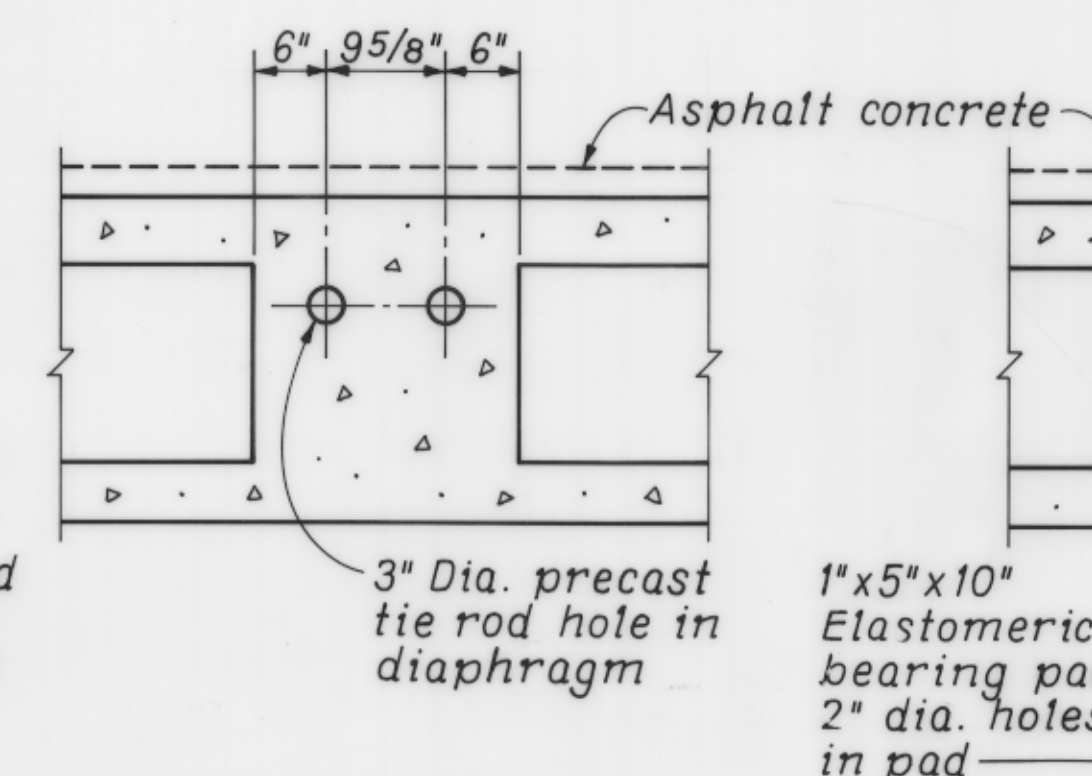
MEDINA COUNTY  
C.H. 35



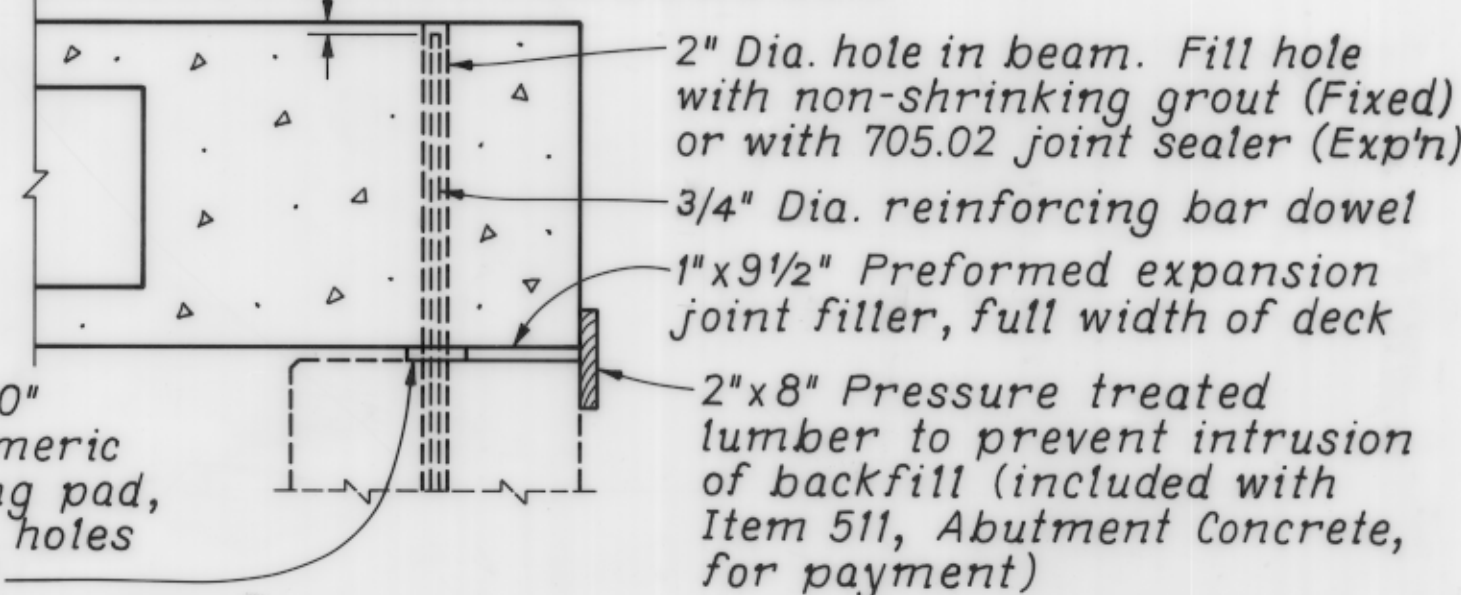
FRAMING PLAN



SECTION A-A

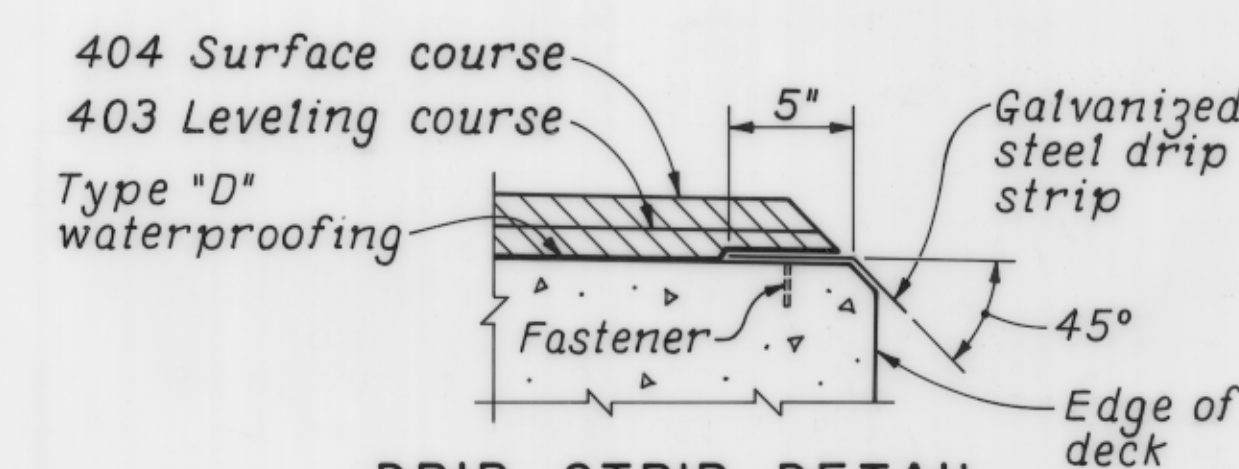


SECTION B-B



SECTION C-C

REINFORCING STEEL				
MARK	NO.	LENGTH	WEIGHT	SHAPE
S401	12	27'-9"	222	S
S501	56	2'-9"	161	S
TOTAL WEIGHT			383	



DRIP STRIP DETAIL

See CAMBER NOTES on sheet 7/7

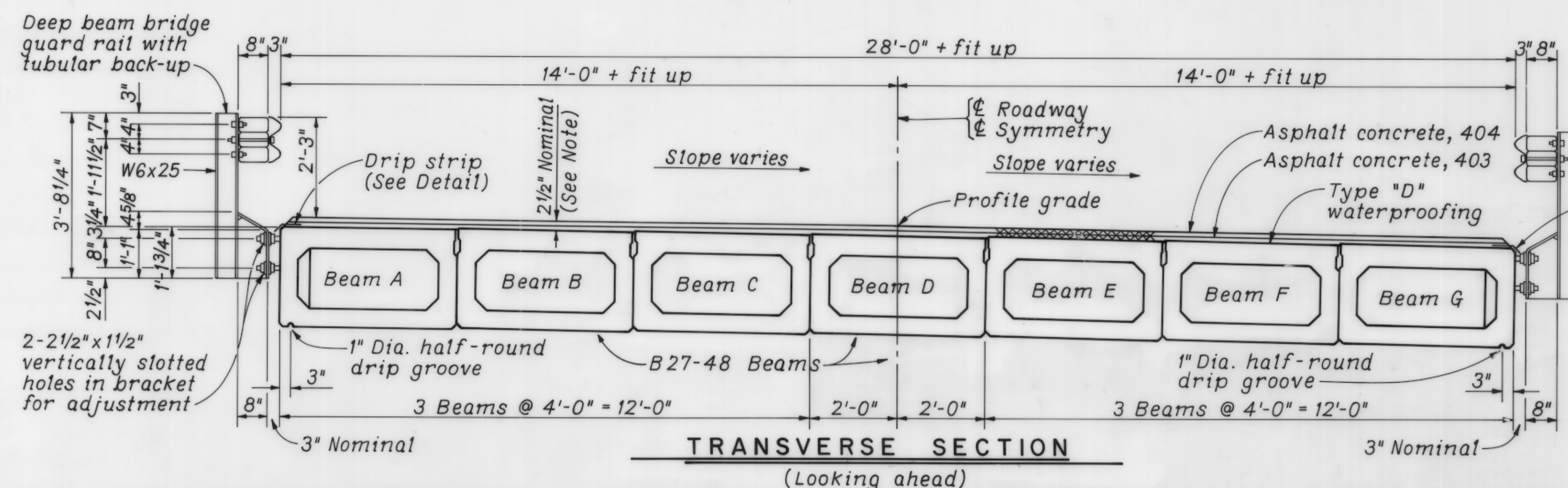
CALCULATED CAMBER at time of paving, including allowance for camber growth due to creep, is 3/8". Beams shall also have an additional midspan camber in accordance with the following table to allow for vertical curve and super-elevation transition:

	SPAN 1	SPAN 2	SPAN 3
BEAM A	13/16"	15/16"	-3/8"
BEAM B	13/16"	15/16"	-3/8"
BEAM C	13/16"	15/16"	-3/8"
BEAM D	13/16"	15/16"	-3/8"
BEAM E	1 1/4"	15/16"	-3/8"
BEAM F	15/16"	15/16"	-3/8"
BEAM G	13/8"	15/16"	-3/8"

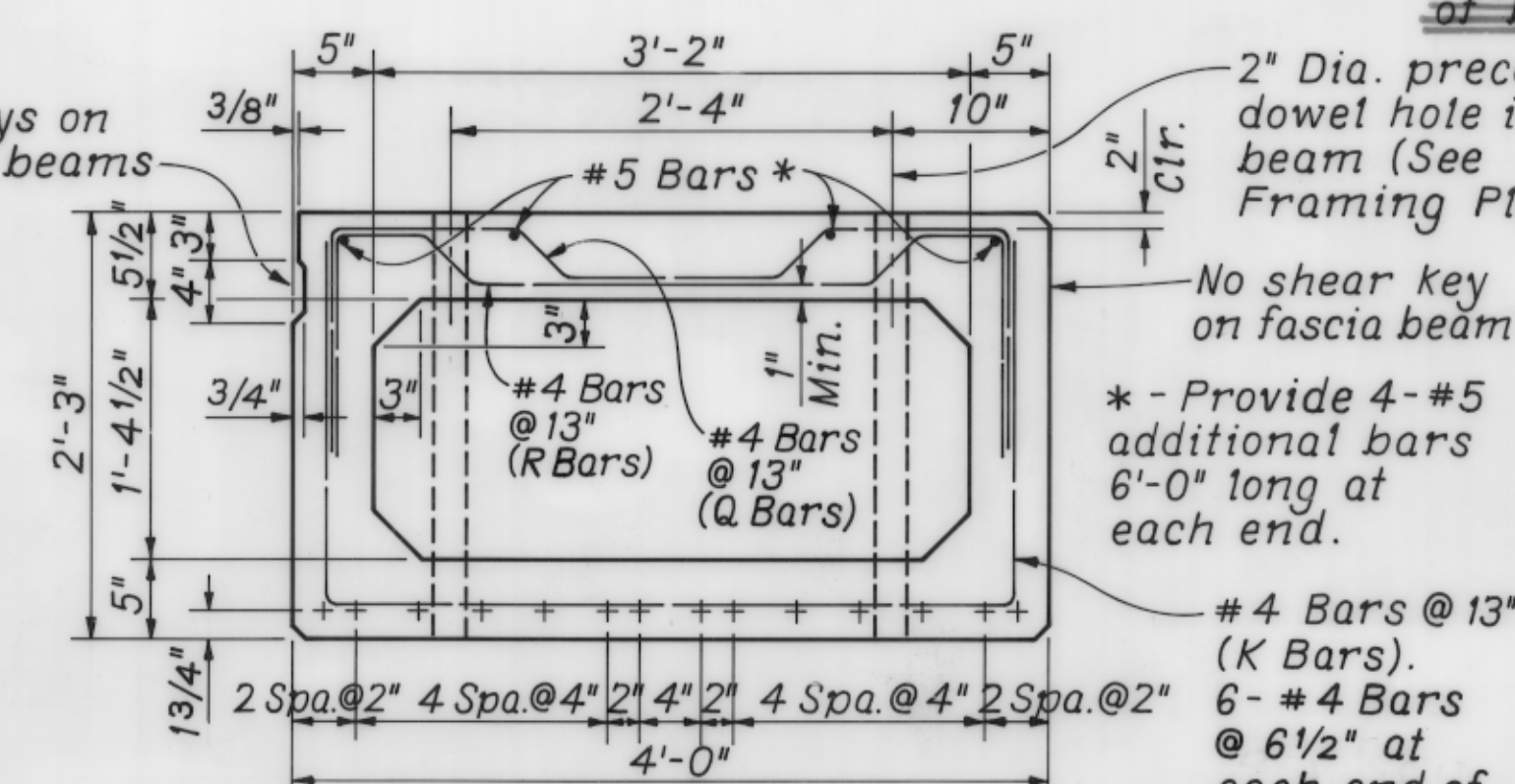
(Positive camber upward, negative downward) Net final camber of beams equals required camber. No variation in thickness of 403 leveling course is required for camber. Minor variations are required, however, for transverse "stepping of beams."

Note: For bending diagrams of K, Q and R bars, see sheet 7/7

Revised  
3-8-78



TRANSVERSE SECTION  
(Looking ahead)



B27-48 BEAM DETAIL

SHAFER, JOHNSTON, LICHENWALTER & ASSOCIATES INC.		6/7	
CONSULTING ENGINEERS			
WOOSTER	OHIO	MANSFIELD	
SUPERSTRUCTURE - 1			
FRIENDSVILLE ROAD (C.H. 35)			
OVER CHESSE SYSTEM			
MEDINA COUNTY (B 10) WESTFIELD TOWNSHIP			
STA. 87+03.00 TO STA. 88+55.01			
DRAWN RAK	CHECKED SWR 11-17-76	SCALE	DATE
JOB NO. EW-843		SHEET OF	



NOTES:

**GALVANIZED STEEL DRIP STRIP:** Prior to applying deck waterproofing, a bent galvanized steel drip strip 8"x0.105" shall be installed along the edges of the deck as shown. The strips shall be fastened at 3'-0" o/c maximum with power driven pins or #10 galvanized expansion screws, subject to the approval of the Engineer. The strips shall be placed the full length of the deck. Where splices are required a 3" (min.) lap shall be used, with a fastener through the lap. Steel shall meet the requirements of ASTM A568 and galvanizing shall be in accordance with 711.02. Payment shall be at the contract price bid for Item Special, Sq. Ft., Galvanized steel drip strip, which shall include all materials, labor, tools and incidentals necessary to complete the item.

**ELASTOMERIC BEARING PADS** shall conform to 711.23, Grade 50. 42 Extra bearing pads per 711.21, 1/8"x5"x10", shall be provided as shims to accomodate any non-parallelism between bottom of beam and bridge seat. The cost of shims shall be included with Item 516, Elastomeric bearing pads, for payment. Bridge seat elevations have not been corrected for shims.

**REINFORCING STEEL:** Prestressed Fabricator's shop drawings shop drawings shall show complete details of the box beam reinforcing.

**PRESTRESSING STRANDS:** 1/2" Dia. 270 K seven-wire uncoated stress - relieved strand, ASTM A416,  $A_s = 0.154$  sq. in.  
Initial tension = 28,900 lbs. per strand  
Tension at release = 26,600 lbs. per strand (assumed)  
Final tension = 21,700 lbs. per strand after all losses (assumed)

**BOX BEAM DETAILS AND REINFORCING:** See Std. Dwg. PSBD-1-71, Sheet 3.

**DEEP BEAM BRIDGE GUARD RAIL WITH TUBULAR BACKUP:** See Std. Dwg. DBR-2-73, Type 2 Posts. Use 2 1/2"x1 1/2" slotted holes in 1/2x7 Bracket P1. for vertical adjustment.

**BEAM LIFTING INSERTS, ANCHOR DOWELS, WALL THICKENING AT GUARD RAIL ANCHORS, DETAILS OF BEAM ENDS, FASCIA BEAM WITH NOTCH, SUPERSTRUCTURE NOTES:** See Std. Dwg. PSBD -1-71, Sheet 1.

**DIAPHRAGMS, TRANSVERSE TIE RODS, BEAM TOLERANCES:** See Std. Dwg. PSBD-1-71, sheet 2.

**ANCHOR INSERTS** of a type different from that shown will be permitted if approved by the Director.

**ASPHALT CONCRETE SURFACE COURSE** shall consist of a variable thickness of 403 and 1/4" thickness of 404. The 403 shall be placed in two operations. The first course shall be of 1/4" uniform thickness. The second course shall be feathered to place the surface parallel to and 1/4" below the final pavement surface elevation.

CAMBER NOTES:

Calculated camber at time of paving, including 1" allowance for camber growth due to creep, is 1 1/4".

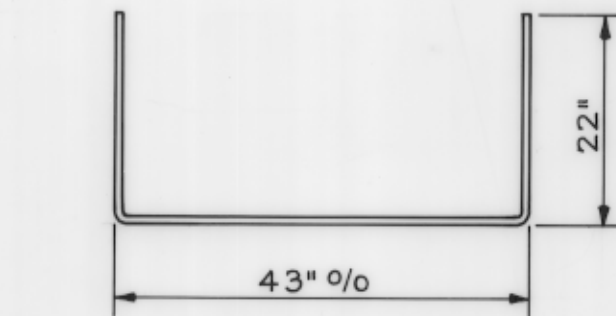
Camber of 1 1/4" at center of spans 1 and 2 is required for crest vertical curve.

Camber of -3/8" at center of span 3 is required for sag vertical curve.

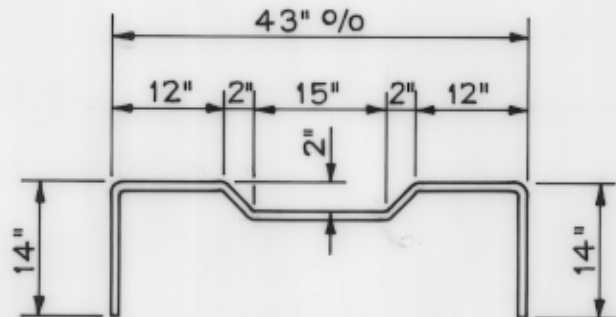
Net final calculated camber of beams is 1 1/4" which equals the required camber in spans 1 and 2. No variation in thickness of 403 leveling course is required.

Net final calculated camber of beams is 1 1/4". This positive camber plus -3/8" camber required for the sag vertical curve in span 3, is 1 5/8" 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 mid-span of span 3 to 4 1/2" at the Forward Abutment.

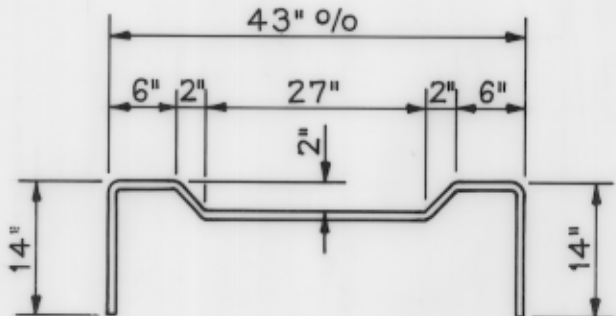
Minor variations are required in the first course of 403 to compensate for the transverse "stepping" of beams.



K BARS



Q BARS



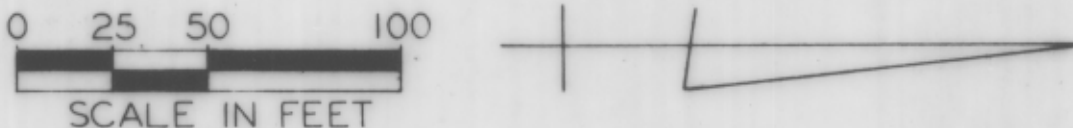
R BARS

Revised  
3-8-78



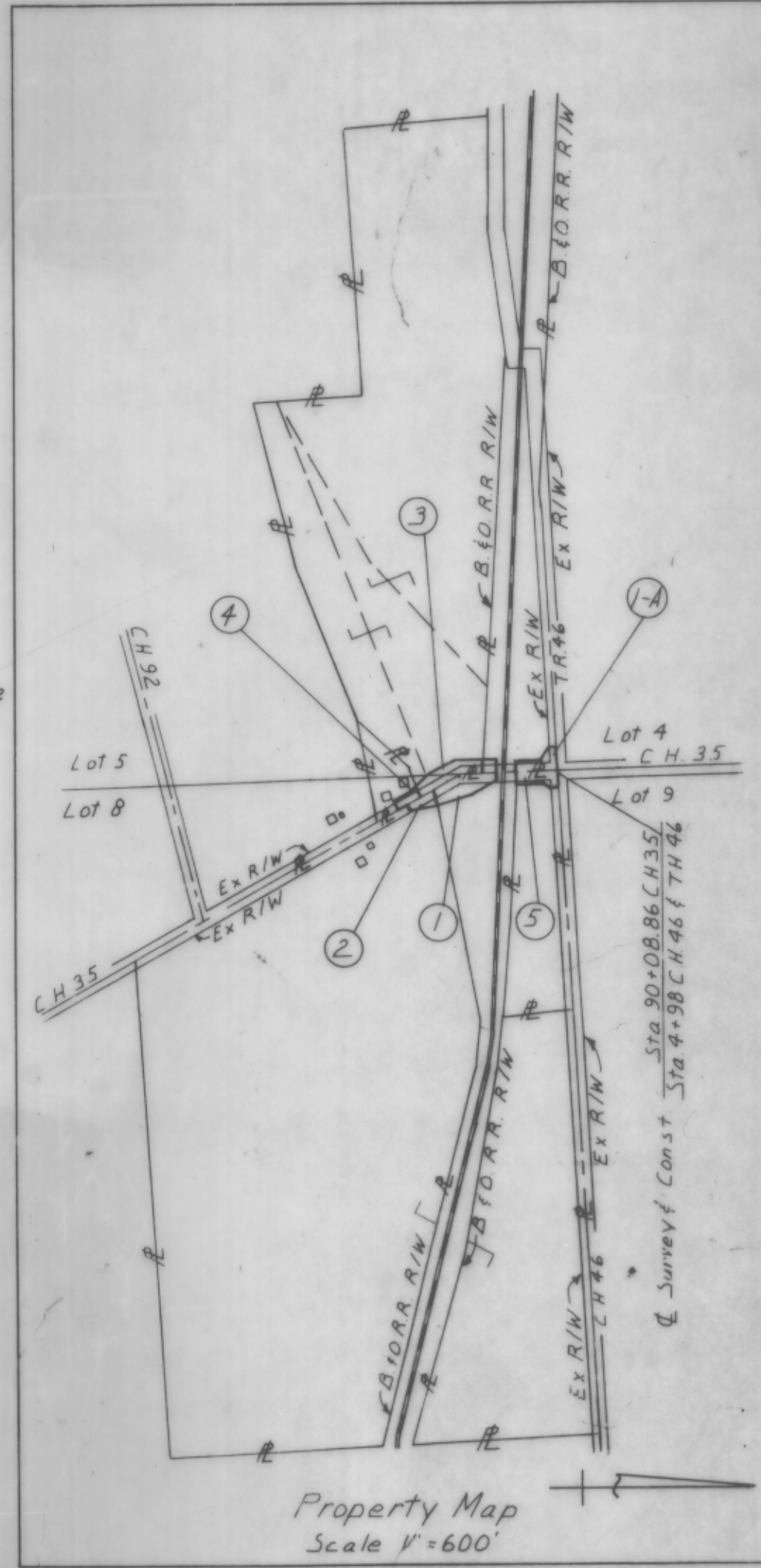
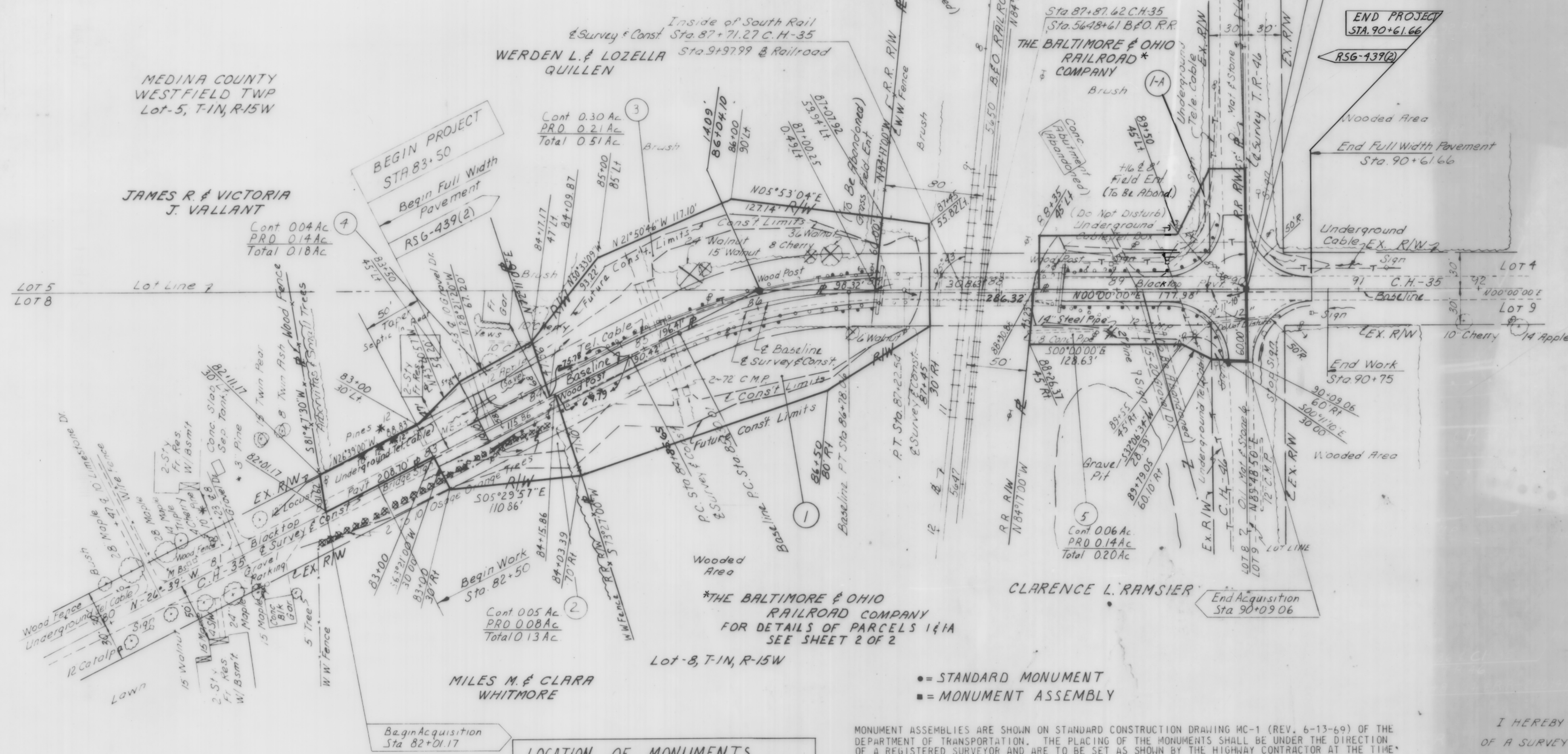
MEDINA COUNTY C.H. 35 RIGHT OF WAY PLAN SCALE: 1" = 50'

CENTER LINE SURVEY PLAT RIGHT OF WAY PLAN MEDINA CO. HIGHWAY 35 COUNTY OF MEDINA TWP. OF WESTFIELD LOTS 4, 5, 8 & 9, T-1N, R-15 W



BASELINE CURVE DATA  
P.I. Sta. 86+05.40  
Δ = 26°-39'  
D = 18°-00'  
R = 318.31'  
T = 75.39'  
L = 148.05'

SURVEY & CONST. CURVE DATA  
P.I. Sta. 86+06.28  
Δ = 26°-39'  
D = 11°-15'  
R = 509.30'  
T = 130.43'  
L = 236.89'  
E = 14.09'



UTILITIES

OHIO EDISON — 47 N. MAIN ST. AKRON, OHIO 44308  
GENERAL TELEPHONE — BOX 585 6223 NORWALK RD. MEDINA, OHIO 44256  
LDRAIN MEDINA RURAL ELLC — BOX 158 WELLINGTON, OHIO 44090

LOCATION OF MONUMENTS			
SURVEY LINE STA.	REMARKS	REFERENCE MONUMENT	MONUMENT ASSEMBLIES
STA. 86+06.28	POINT OF INTERSECTION	1	
POT STA. 90+08.86	INTERSECTION C.H. 35 & TR. 46 REPLACE EXIST. MONUMENT		1
TOTAL		1	1

MONUMENT ASSEMBLIES ARE SHOWN ON STANDARD CONSTRUCTION DRAWING MC-1 (REV. 6-13-69) OF THE DEPARTMENT OF TRANSPORTATION. THE PLACING OF THE MONUMENTS SHALL BE UNDER THE DIRECTION OF A REGISTERED SURVEYOR AND ARE TO BE SET AS SHOWN BY THE HIGHWAY CONTRACTOR AT THE TIME OF CONSTRUCTION. ANY ALTERATIONS SHALL BE NOTED AND THE COUNTY ENGINEER SHALL BE NOTIFIED OF THE NEW LOCATIONS.

I HEREBY CERTIFY THIS PLAT TO BE A TRUE DELINEATION OF A SURVEY MADE BY SHAFFER, JOHNSTON, LICHTENWALTER, AND ASSOCIATES INC. MANSFIELD, AND WOOSTER, OHIO  
DATE \_\_\_\_\_ BY \_\_\_\_\_

\* CHESSE SYSTEM

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

PARCEL NUMBER	OWNER	RECORDED BOOK	RECORDED PAGE	DEED ACRES	TOTAL P.R.O.	NET TAKE	NET RESIDUE LT.	NET RESIDUE RT.	P.R.O. IN TAKE	GROSS TAKE	REMARKS
1	THE BALTIMORE & OHIO RAILROAD COMPANY*			—	—	16183SF	—	—	11093	27276SF	Highway Easement
1-A	THE BALTIMORE & OHIO RAILROAD COMPANY*			—	—	2909SF	—	—	7250	10159SF	Highway Easement
2	MILES M. & CLARA WHITMORE	373	324	91.04	2.13Ac	0.05Ac	88.86	0.08Ac	0.13Ac	0.13Ac	Highway Easement
3	WERDEN L. & LOZELLA QUILLEN	220	180	46.148	0.21Ac	0.30Ac	45.638	0.21Ac	0.51Ac	0.51Ac	Highway Easement
4	JAMES R. & VICTORIA J. VALLANT	440	578	1.21	0.14Ac	0.04Ac	1.03	0.14Ac	0.18Ac	0.18Ac	Highway Easement
5	CLARENCE L. RAMSIER	418	232	6.02	0.83Ac	0.06Ac	5.13	0.14Ac	0.20Ac	0.20Ac	Highway Easement

RECEIVED \_\_\_\_\_ 19\_\_\_\_  
RECORDED \_\_\_\_\_ 19\_\_\_\_  
PLAT BOOK \_\_\_\_\_ PAGE \_\_\_\_\_  
SIGNED \_\_\_\_\_  
FEE \_\_\_\_\_ COUNTY RECORDER

TYPE FUNDS - RS	
DATE COMPLETED 2-7-77	
REV. DATE	REMARKS



HIGHWAY OVERPASS

JOB NO.	FWA REGION	STATE	PROJECT
03314(0)	5	OHIO	RS6 -439(2)

27  
27

MEDINA COUNTY  
C. H. 35  
R/W PLAN

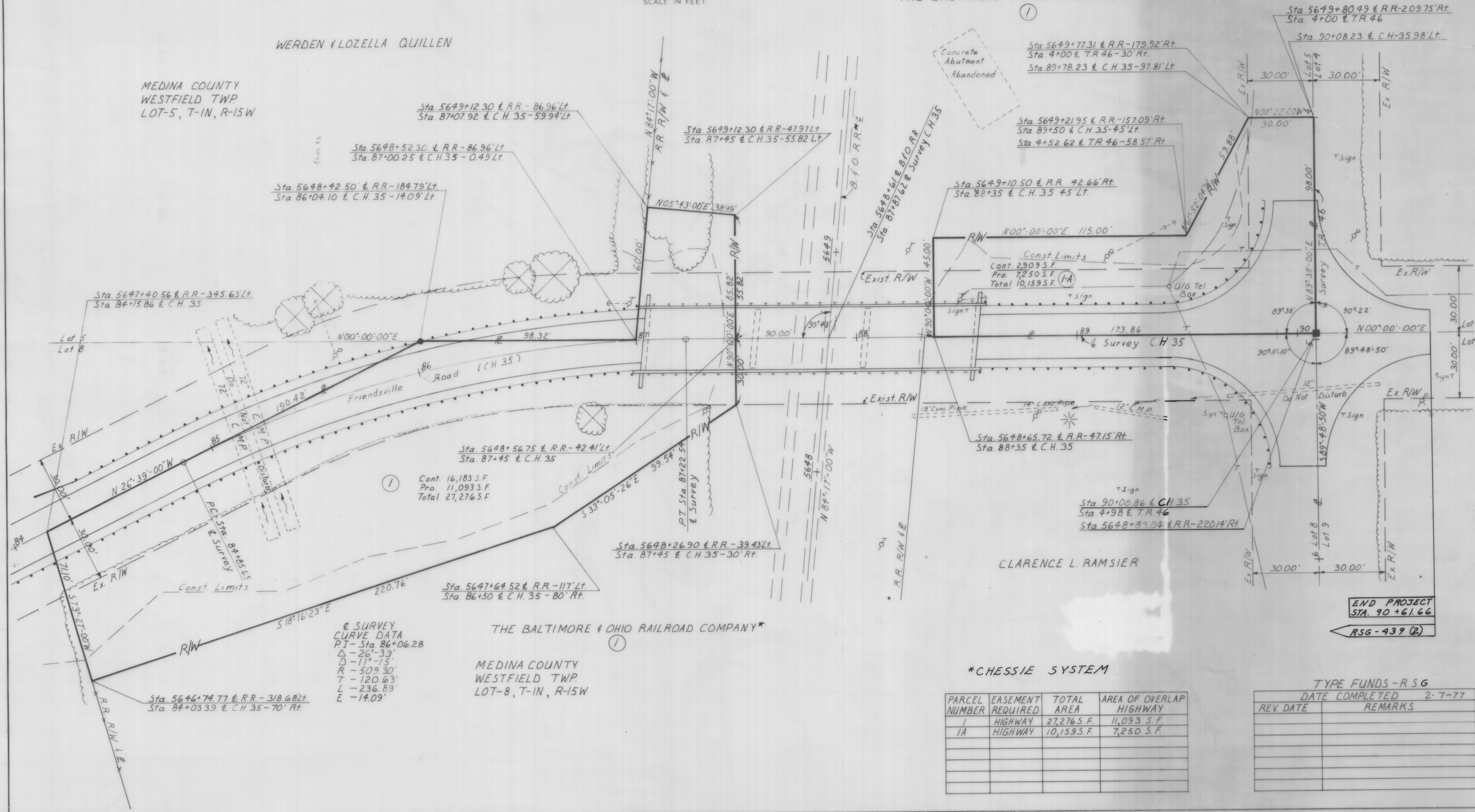
2  
2

\*THE BALTIMORE & OHIO  
RAILROAD PLAT  
SCALE 1" = 20'  
0 10 20 40  
SCALE IN FEET

THE BALTIMORE & OHIO RAILROAD COMPANY\*

MEDINA COUNTY  
WESTFIELD TWP  
LOT-5, T-IN, R-15W

WERDEN & LOZELLA QUILLEN



THE BALTIMORE & OHIO RAILROAD COMPANY\*

MEDINA COUNTY  
WESTFIELD TWP  
LOT-8, T-IN, R-15W

CLARENCE L. RAMSIER

\*CHESSIE SYSTEM

PARCEL NUMBER	EASEMENT REQUIRED	TOTAL AREA	AREA OF OVERLAP HIGHWAY
1	HIGHWAY	27,276 S.F.	11,093 S.F.
1A	HIGHWAY	10,159 S.F.	7,250 S.F.

TYPE FUNDS - R.S.G.	
DATE COMPLETED 2-7-77	
REV DATE	REMARKS

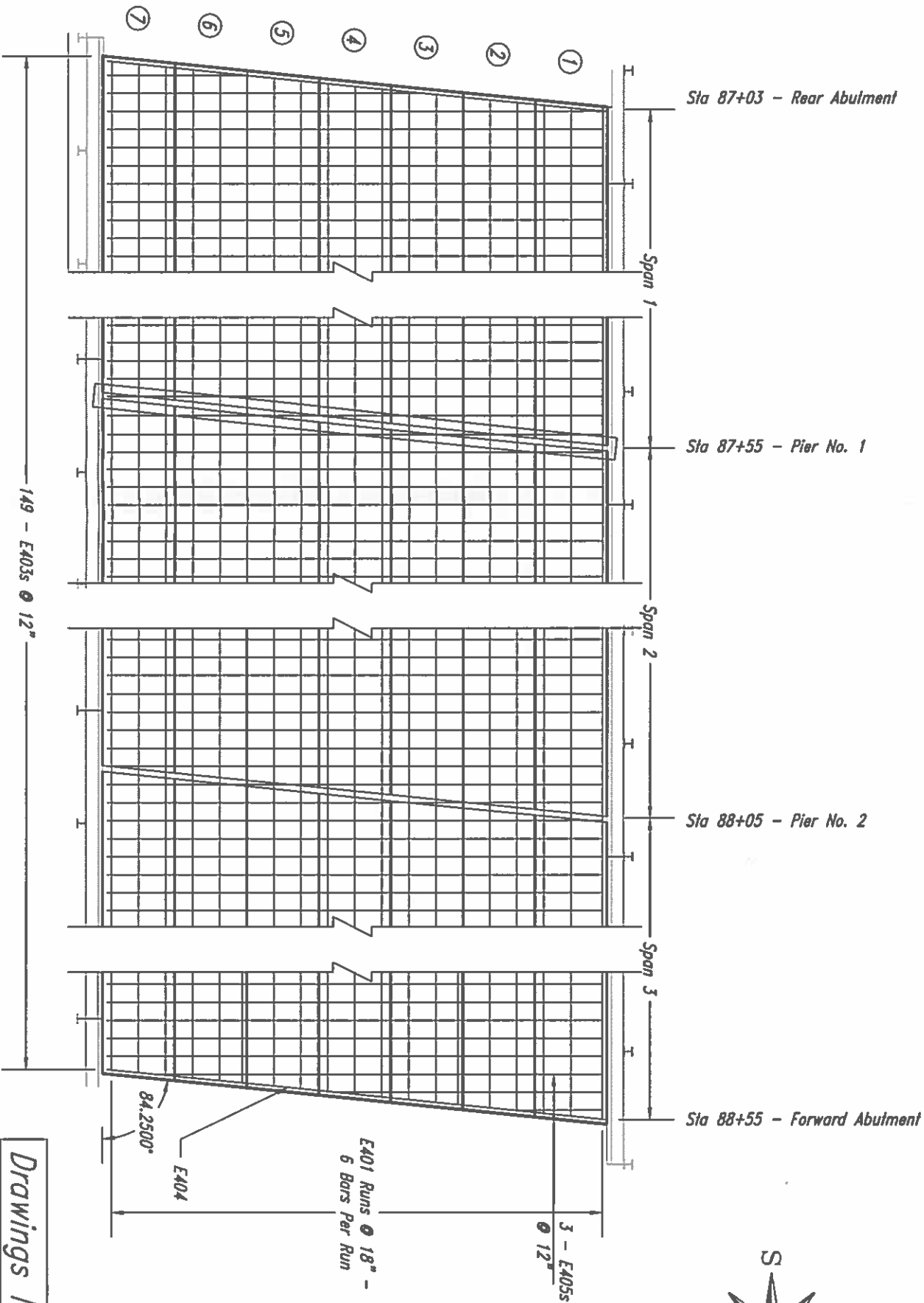
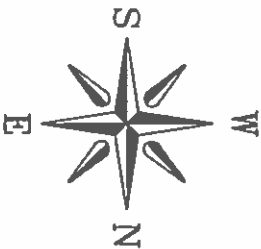
\*THE BALTIMORE & OHIO RAILROAD CO. R/W PLAN



All Reinforcing Steel Epoxy Coated							
REINFORCING STEEL SCHEDULE (Grade 60 steel)							
MARK	QUANTITY	LENGTH/DESCRIPTION	SPACING	TYPE	A	B	WEIGHT
E401	95	30' length longitudinal Steel, 27" Lap Length, 151.5' Bar runs	18"	S/c.	-	-	1904
E402	19	12'-9" length longitudinal Steel - To complete 151.5' longitudinal Bar Run	18"	S/c.	-	-	162
E403	149	Transverse Steel - 27'-6" length	12"	S/c.	-	-	2737
E404	2	Transverse Steel Running Along Skew, 27'-10" length	-	S/c.	-	-	37
E405	5	Transverse Steel Place in Skewed Areas at Bridge Limits, 7'-7" and 17'-6" (South), 4'-10", 14'-10" and 24'-10" (North)	12"	S/c.	-	-	46
E506	15	Additional Transverse Steel - 12'-1" length - Bent Bar	12"	Bent	See Bar Detail Page 2 of 3	-	189
E407	15	Additional Transverse Steel - 11'-9" length	12"	S/c.	-	-	118
E408	4	Additional longitudinal Steel - 11'-0" length	12"	S/c.	-	-	55
E409	4	Additional longitudinal Steel - 27'-6" length	12"	S/c.	-	-	74
Total Weight Epoxy Coated Reinforcing Steel = 5322 Lbs.							

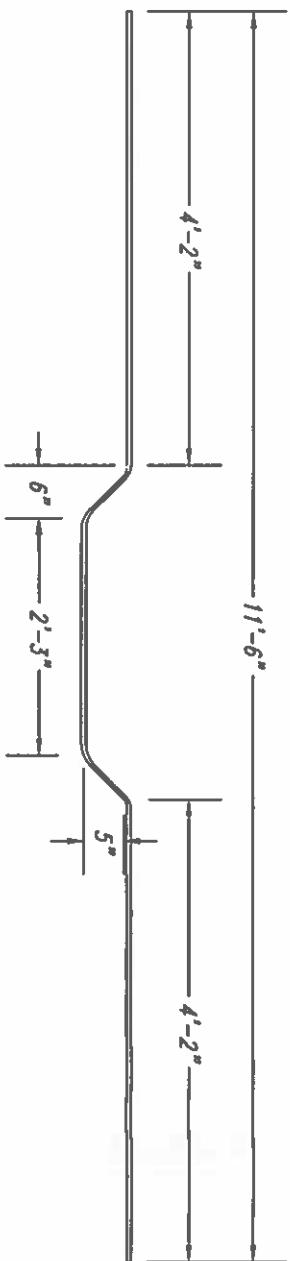
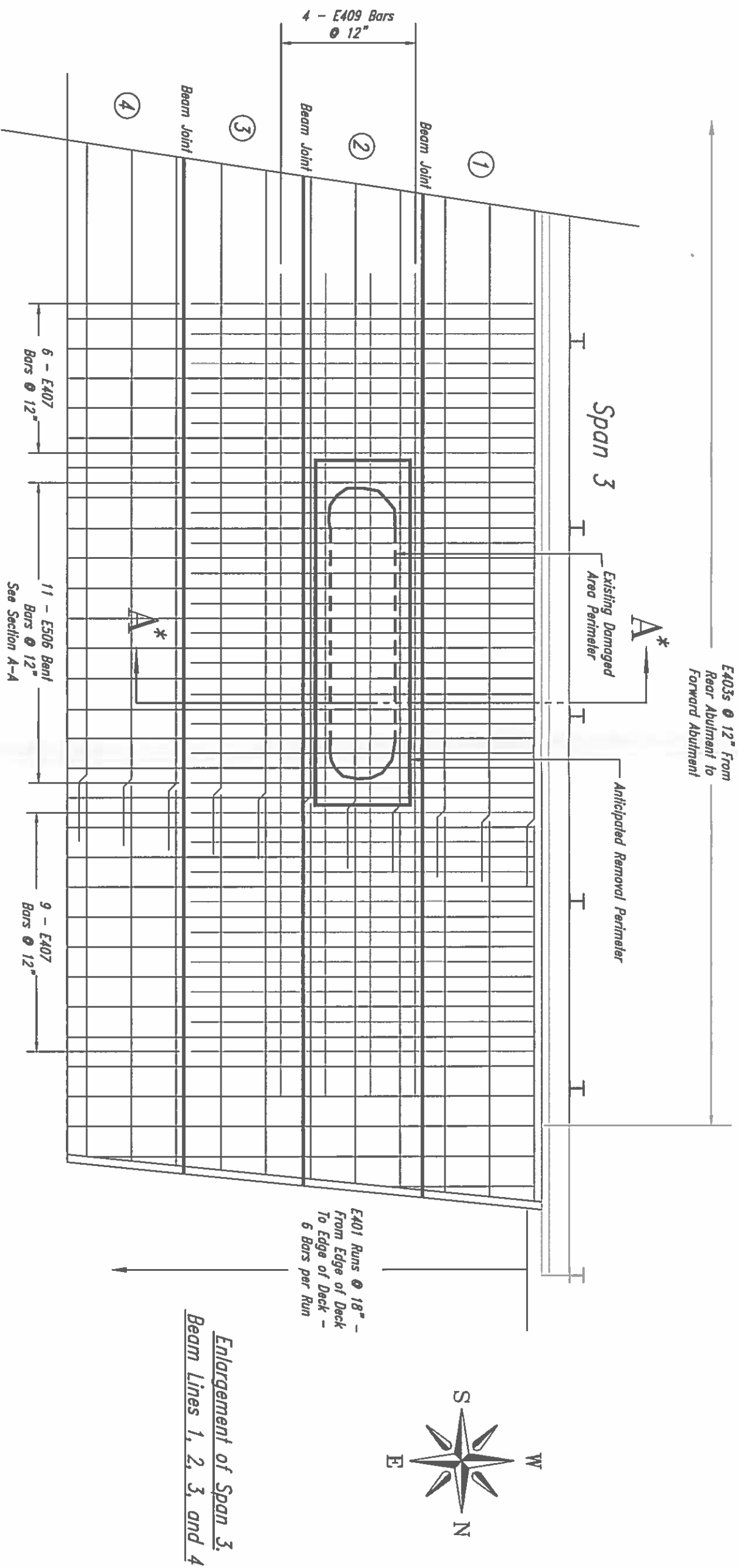
Proposed Surface Elevations					Existing Surface Elevations								
Location	Slope	West Edge Of Deck	$\Delta^*$ of Deck	Centerline Of Deck	$\Delta^*$ of Deck	East Edge Of Deck	Slope	Concrete $\nabla^*$	West Edge Of Deck	Concrete $\nabla^*$	Centerline Of Deck	Concrete $\nabla^*$	East Edge Of Deck
88+55 - Forward Abutment	0.020	1003.67	0.00	1003.95	0.38	1003.59	0.026	0.39	1003.28	0.41	1003.54	0.39	1003.20
88+42.5 - 3/4 Span 3	0.015	1003.51	0.21	1003.72	0.38	1003.36	0.026		1003.11		1003.31		1002.94
88+30 - Center Span 3	0.010	1003.34	0.14	1003.48	0.37	1003.11	0.026	0.39	1002.95	0.41	1003.07	0.43	1002.68
88+17.5 - 1/4 Span 3	0.005	1003.14	0.07	1003.21	0.38	1002.85	0.026		1002.76		1002.80		1002.44
88+05 - Pier 2	0.000	1002.95	0.00	1002.95	0.38	1002.59	0.026	0.37	1002.58	0.41	1002.54	0.44	1002.15
87+59.5 - 3/4 Span 2	-0.005	1002.67	-0.07	1002.60	0.38	1002.24	0.026		1002.27		1002.19		1001.81
87+48 - Center Span 2	-0.010	1002.40	-0.14	1002.26	0.37	1001.89	0.026	0.43	1001.97	0.41	1001.85	0.40	1001.48
87+36.5 - 1/4 Span 2	-0.015	1002.05	-0.21	1001.84	0.38	1001.48	0.026		1001.61		1001.43		1001.08
87+55 - Pier 1	-0.020	1001.71	-0.28	1001.43	0.38	1001.07	0.026	0.45	1001.28	0.41	1001.02	0.39	1000.68
87+42 - 3/4 Span 1	-0.025	1001.47	-0.35	1000.92	0.38	1000.56	0.026		1000.79		1000.51		1000.11
87+29 - Center Span 1	-0.030	1000.82	-0.42	1000.40	0.42	999.98	0.030	0.41	1000.41	0.41	999.99	0.45	999.53
87+16 - 1/4 Span 1	-0.035	1000.30	-0.48	999.81	0.49	999.32	0.035		999.84		999.40		998.90
87+03 - Rear Abutment	-0.040	999.77	-0.58	999.21	0.58	998.65	0.040	0.39	999.38	0.41	998.80	0.58	998.27

\*  $\Delta = C/L$  (elev.) - Edge (elev.)



**Drawings Not To Scale**

**Existing Structure**  
 Type: 827-48 Pre-stressed Concrete Box-Beams  
 On C.I.P. Piers and Abutments  
 Spans: Three Spans, Each 50' Clear Span  
 Skew: 5.75° Left Forward  
 Wearing Surface: Proposed 5" Concrete  
 Non-Integral Slab - Rear Abutment  
 Alignment: Super-elevated Horizontal and Vertical Curve  
 Year Built: 1979  
 SRN: 5233917

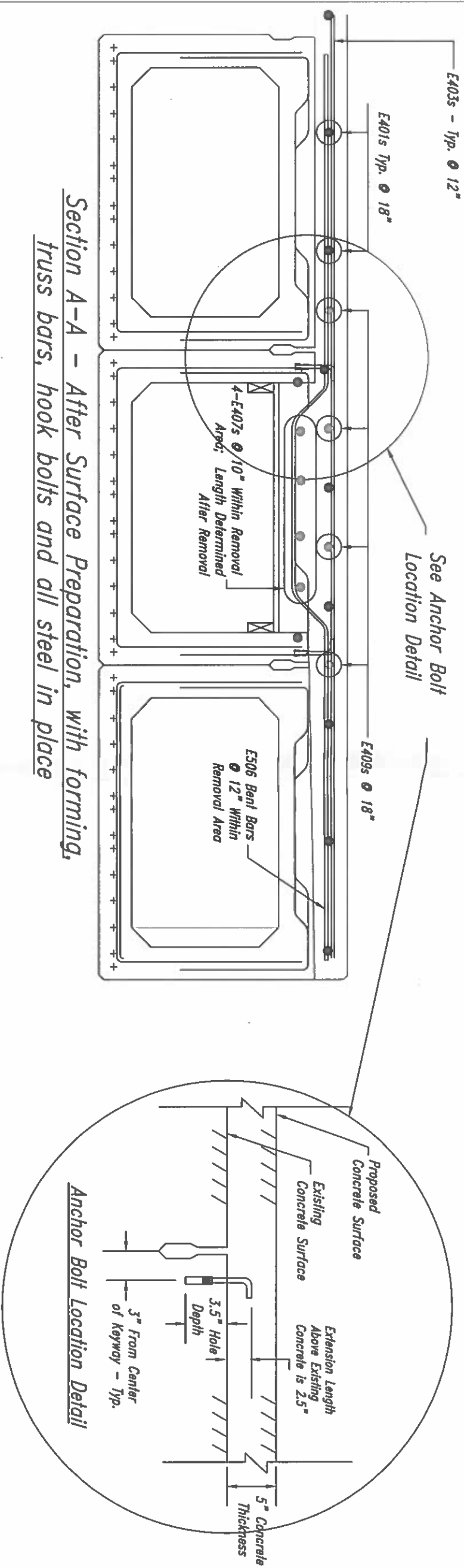


E506 - Bent Bar Detail - See Page 3 of 3

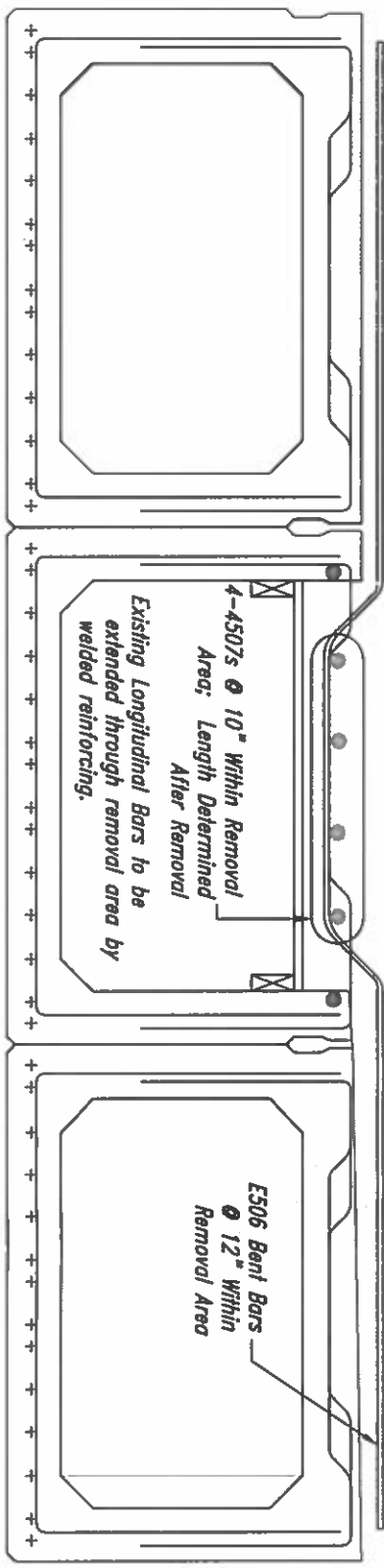
Drawings Not To Scale

\* See Section A-A Page 3 of 3

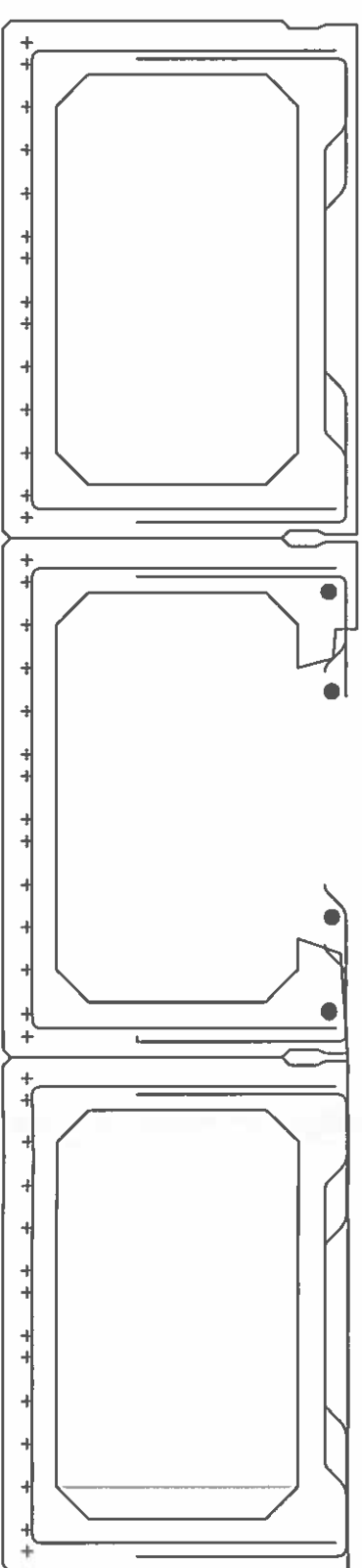
All Reinforcing Steel Epoxy Coated							
REINFORCING STEEL SCHEDULE (Grade 60 steel)							
MARK	QUANTITY	LENGTH/DESCRIPTION	SPACING	TYPE	A	B	WEIGHT
E401	95	30' Length Longitudinal Steel, 27" Lap Length, 151.5' Bar runs	18"	Slc.	-	-	1904
E402	19	12'-9" Length Longitudinal Steel - To complete 151.5' Longitudinal Bar Run	18"	Slc.	-	-	162
E403	149	Transverse Steel - 27'-6" Length	12"	Slc.	-	-	2337
E404	2	Transverse Steel Running Along Slew, 27'-10" Length	-	Slc.	-	-	37
E405	5	Transverse Steel, Piece in Slew at Bridge Limits, 7'-7" and 17'-6" (South), 4'-10", 14'-10" and 24'-10" (North)	12"	Slc.	-	-	46
E506	15	Additional Transverse Steel - 12'-1" Length - Bent Bar	12"	Bent	See Bar Detail Page 2 of 3	-	189
E407	15	Additional Transverse Steel - 11'-9" Length	12"	Slc.	-	-	118
E408	4	Additional Longitudinal Steel - 11'-0" Length	12"	Slc.	-	-	55
E409	4	Additional Longitudinal Steel - 27'-6" Length	12"	Slc.	-	-	74
Total Weight Epoxy Coated Reinforcing Steel = 5322 Lbs.							



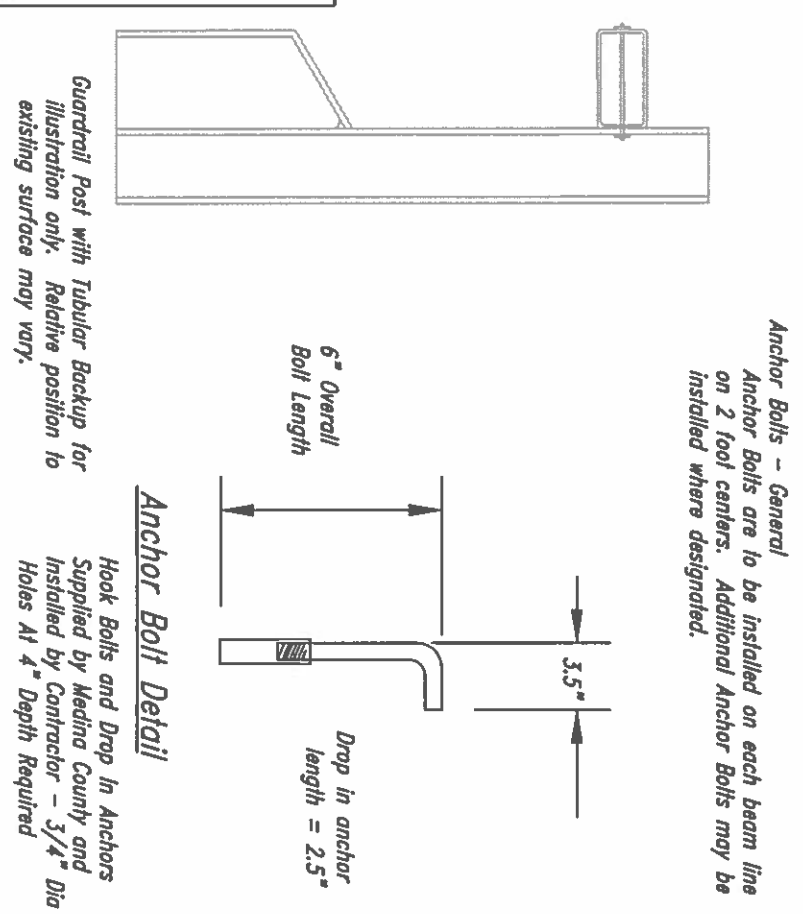
Section A-A - After Surface Preparation, with forming, truss bars, hook bolts and all steel in place



Section A-A - After Surface Preparation, with forming and stirrup bars in place



Section A-A - Current Condition



Anchor Bolt Detail

Hook Bolts and Drop in Anchors Supplied by Medina County and Installed by Contractor - 3/4" Dia Holes At 4" Depth Required

Drawings Not To Scale

*If revisions below appear correct, please fax a quotation for 600 bolts (4.5" length) and 600 anchors.*

**Thank you**

quotation for 600 bolts (4.5" length) and 600 anchors.

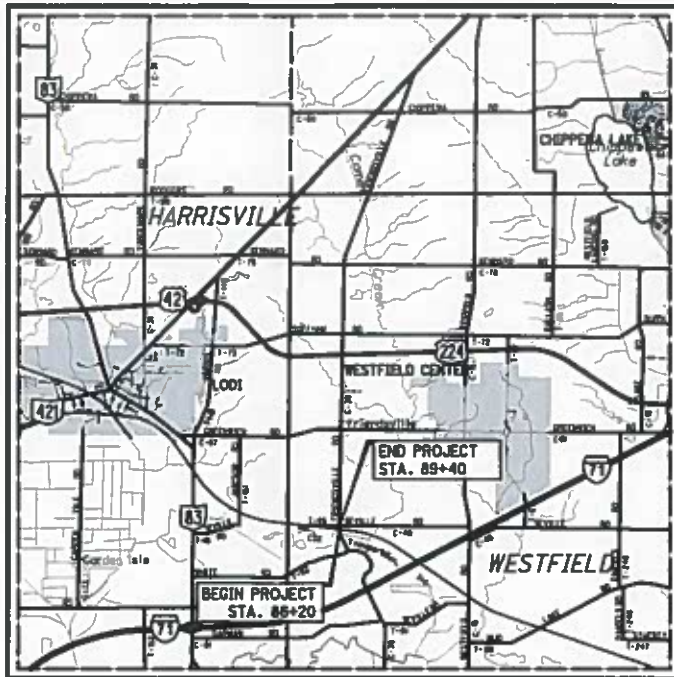
quotation for 600 bolts (4.5" length) and 600 anchors.



quotation for 600 bolts (4.5" length) and 600 anchors.

quotation for 600 bolts (4.5" length) and 600 anchors.





LOCATION MAP

LATITUDE: 41°00'44" LONGITUDE: 81°58'01"

SCALE IN MILES



PORTION TO BE IMPROVED -----  
INTERSTATE HIGHWAY -----  
FEDERAL ROUTES -----  
STATE ROUTES -----  
COUNTY & TOWNSHIP ROADS -----  
OTHER ROADS -----

### DESIGN DESIGNATION

CURRENT ADT (2020) ----- 1160  
DESIGN YEAR ADT (2040) ----- 1560  
DIRECTIONAL DISTRIBUTION ----- 55%  
TRUCKS (24 HOUR B&C) -----  
DESIGN SPEED ----- 55 MPH  
LEGAL SPEED ----- 55 MPH  
DESIGN FUNCTIONAL CLASSIFICATION: ----- RURAL MAJOR COLLECTOR

### DESIGN EXCEPTIONS

NONE REQUIRED

### UNDERGROUND UTILITIES

Contact Two Working Days  
Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764  
(Non-members must be called directly)

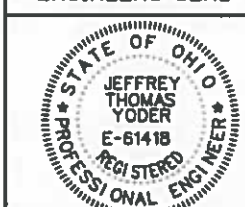
PLAN PREPARED BY:



**POGGE MEYER**  
DESIGN GROUP  
A Kleinfelder Company

1168 N. Main Street  
Bowling Green, OH 43402  
419.352.7537

### ENGINEERS SEAL:



SIGNED: *Jeffrey Thomas Yoder*  
DATE: 10/06/21

# MED-CR35-1.79

## FRIENDSVILLE ROAD BRIDGE REHABILITATION

### BRIDGE No. 8

### WESTFIELD TOWNSHIP

### MEDINA COUNTY

### INDEX OF SHEETS:

TITLE SHEET	1
TYPICAL SECTIONS	2-3
GENERAL NOTES	4, 4A
DETOUR PLAN	5
GENERAL SUMMARY	6
PLAN AND PROFILE	7
CROSS SECTIONS	8-10
STRUCTURES OVER 20 FOOT SPAN	11-25

### PROJECT DESCRIPTION

SUPERSTRUCTURE REPLACEMENT FOR A THREE SPAN BRIDGE. EXISTING CONCRETE BOX BEAMS BEING REPLACED WITH NEW COMPOSITE BOX BEAMS, WITH MINIMAL APPROACH WORK.

PROJECT EARTH DISTURBED AREA: 0.4 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.3 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A  
(NOTICE OF INTENT NOT REQUIRED)

### 2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES 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 INDICATED ON SHEET 5.

APPROVED *Andrew J. Conrad*  
DATE 2-2-2022 MEDINA COUNTY ENGINEER

APPROVED *Debra V. Hanbly*  
DATE 2-8-2022 MEDINA COUNTY COMMISSIONER

APPROVED *[Signature]*  
DATE 2-8-2022 MEDINA COUNTY COMMISSIONER

APPROVED *[Signature]*  
DATE 2-8-2022 MEDINA COUNTY COMMISSIONER

EXISTING SFN 5233917  
PROPOSED SFN 5233618

### STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/17/20					800 7-16-21	
		MT-101.60	1/17/20			832 10-19-18	
		MT-105.10	1/17/20				
MGS-1.1	1/19/18			DS-I-92	7/18/03		
MGS-2.1	1/19/18			PSBD-2-07	7/20/18		
MGS-3.1	1/19/18			SICD-I-96	7/18/14		
				TST-I-99	1/15/21		
DM-4.4	1/15/16			VPF-I-90	7/20/18		

FEDERAL PROJECT NO.  
E200565

PID NO.  
111873

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
CSX RAILROAD

MED-CR35-1.79

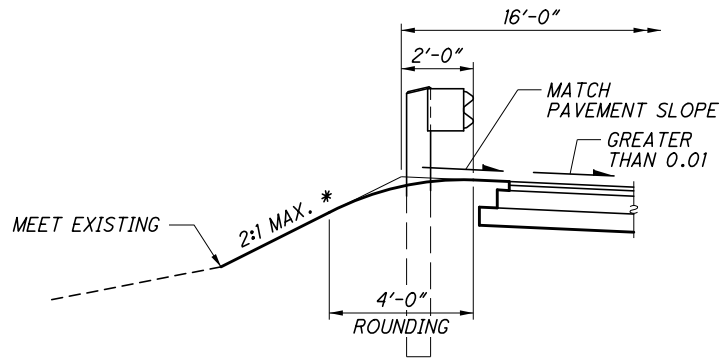
1  
25



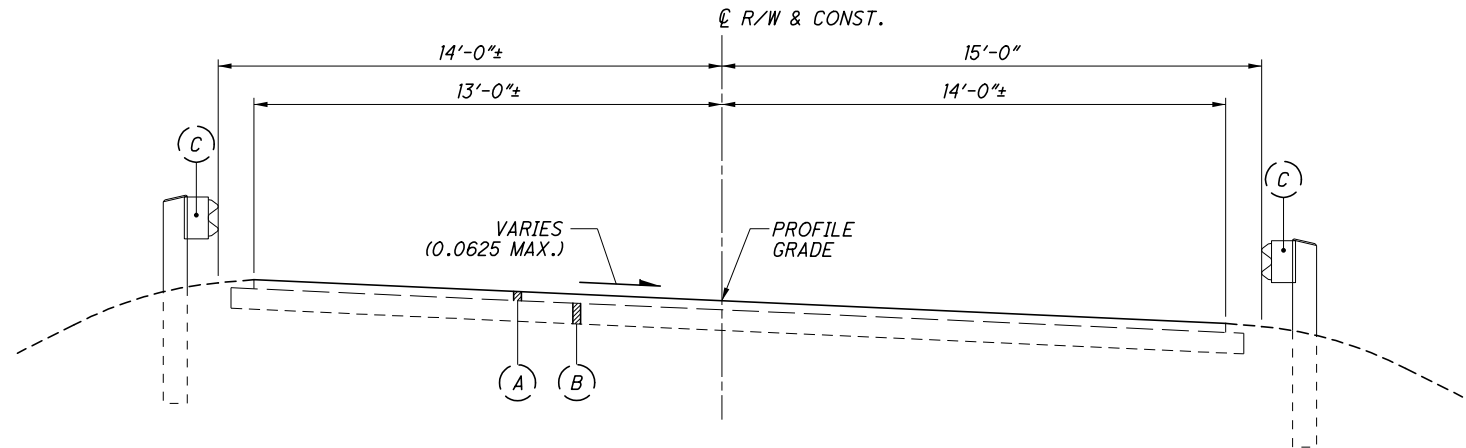
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SUPERELEVATION TABLE								
NOTES	STATION	LEFT			PROFILE GRADE	RIGHT		
		OUT	E / P	RATE		RATE	E / P	OUT
	86+20.00	12.10	995.74	0.0625	994.98	-0.0625	994.11	14.00
EFS	86+21.30	12.13	995.80	0.0625	995.04	-0.0625	994.17	14.00
	86+25.00	12.21	995.96	0.0613	995.22	-0.0613	994.36	14.00
	86+50.00	12.73	997.06	0.0530	996.39	-0.0530	995.65	14.00
	86+75.00	13.26	998.16	0.0446	997.57	-0.0446	996.94	14.00
	87+00.00	13.79	999.24	0.0363	998.74	-0.0363	998.23	14.00
REAR ABUT.	87+04.01	14.00	999.42	0.0350	998.93	-0.0350	998.44	14.00
PT	87+22.54	14.00	1000.20	0.0288	999.80	-0.0288	999.40	14.00
	87+25.00	14.00	1000.30	0.0280	999.91	-0.0280	999.52	14.00
CR	87+49.10	14.00	1001.22	0.0200	1000.94	-0.0200	1000.66	14.00
	87+50.00	14.00	1001.25	0.0197	1000.97	-0.0200	1000.69	14.00
PIER 1	87+54.00	14.00	1001.38	0.0184	1001.12	-0.0200	1000.84	14.00
	87+75.00	14.00	1002.02	0.0114	1001.86	-0.0200	1001.58	14.00
	88+00.00	14.00	1002.63	0.0031	1002.59	-0.0200	1002.31	14.00
PIER 2	88+04.00	14.00	1002.71	0.0017	1002.69	-0.0200	1002.41	14.00
1/2 FLAT	88+09.25	14.00	1002.81	0.0000	1002.81	-0.0200	1002.53	14.00
	88+25.00	14.00	1003.08	-0.0052	1003.15	-0.0200	1002.87	14.00
	88+50.00	14.00	1003.37	-0.0135	1003.56	-0.0200	1003.28	14.00
FWD. ABUT.	88+54.00	14.00	1003.41	-0.0149	1003.62	-0.0200	1003.34	14.00
BNC/ES	88+69.40	13.00	1003.59	-0.0200	1003.85	-0.0200	1003.59	13.00

CR - CROWN REMOVAL  
ES - END SUPERELEVATION  
BS - BEGIN SUPERELEVATION  
ENC - END NORMAL CROWN  
BNC - BEGIN NORMAL CROWN  
BFS - BEGIN FULL SUPERELEVATION  
EFS - END FULL SUPERELEVATION



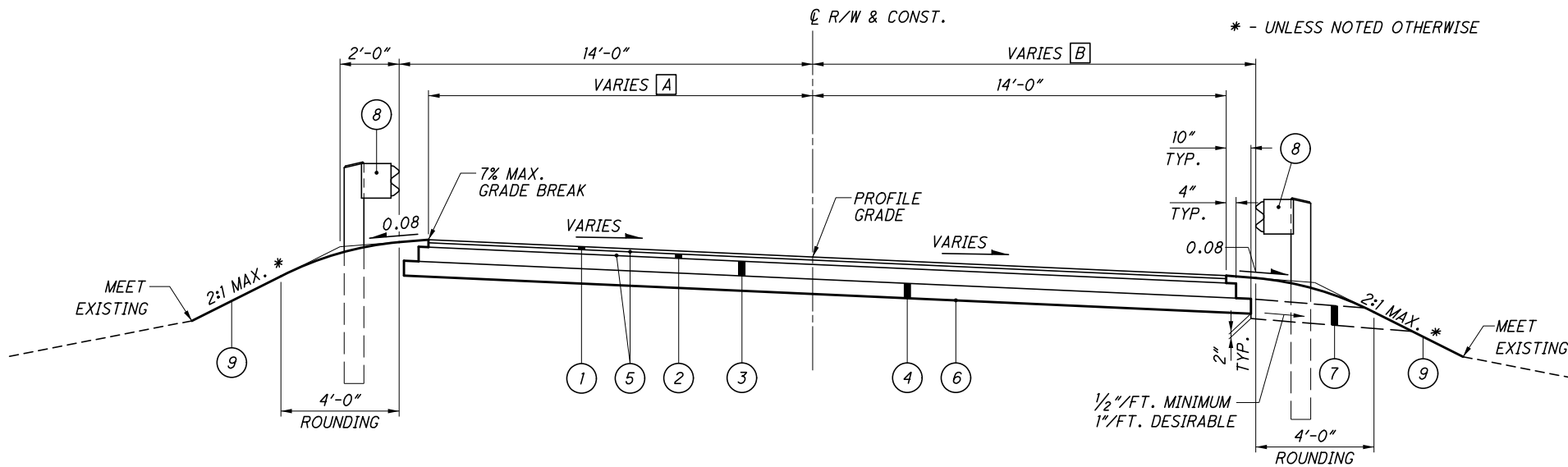
HIGH SIDE SHOULDER



EXISTING SUPERELEVATED SECTION - CH 35 (FRIENDSVILLE ROAD)

[A] - 12.1'± @ STA. 86+20.00 TO 14.0' @ STA. 87+04.40

[B] - 15.3'± @ STA. 86+08.7± TO 14.0' @ STA. 87+00.50



PROPOSED SUPERELEVATED SECTION - CH 35 (FRIENDSVILLE ROAD)

APPLIES: STA. 86+20.00 TO STA. 87+02.48 = 82.48 LIN. FT

LEGEND

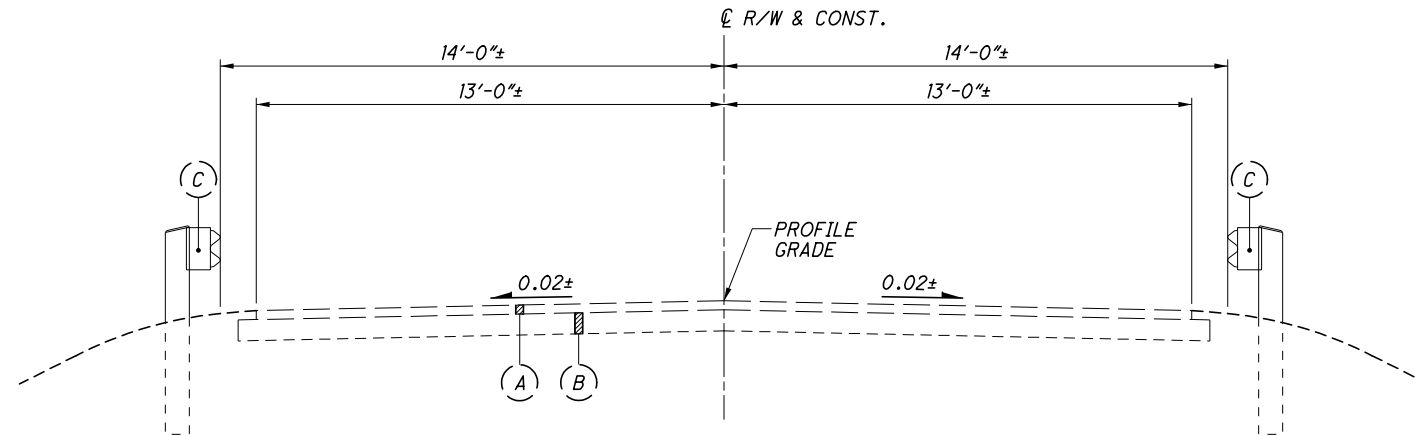
- (A) 3"± EXISTING ASPHALT CONCRETE  
(B) 7"± EXISTING BITUMINOUS AGGREGATE BASE  
(C) EXISTING GUARDRAIL, TYPE 5

- (1) ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) PG64-22  
(2) ITEM 441 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)  
(3) ITEM 301 - 6" ASPHALT CONCRETE BASE, PG64-22  
(4) ITEM 304 - 6" AGGREGATE BASE  
(5) ITEM 407 - TACK COAT

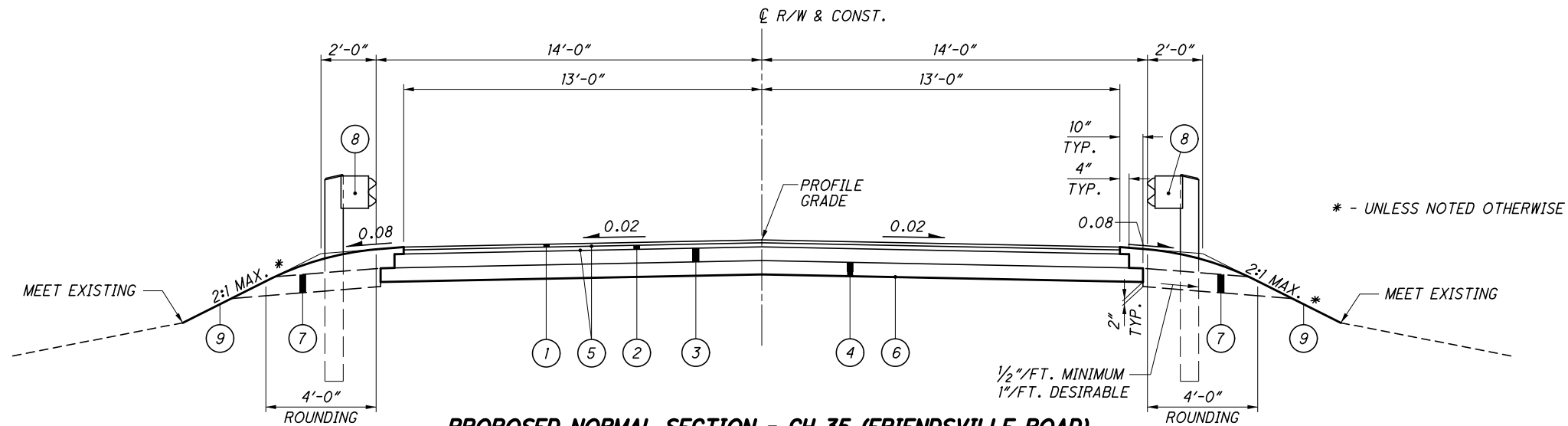
- (6) ITEM 204 - SUBGRADE COMPACTION  
(7) ITEM 605 - AGGREGATE DRAINS  
(8) ITEM 606 - GUARDRAIL, TYPE MGS, LONG POSTS  
(9) ITEM 659 - SEEDING AND MULCHING, AS PER PLAN (SEE GENERAL NOTE)



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EXISTING NORMAL SECTION - CH 35 (FRIENDSVILLE ROAD)



PROPOSED NORMAL SECTION - CH 35 (FRIENDSVILLE ROAD)

APPLIES: STA. 88+55.75 TO STA. 89+40.00 = 84.43 LIN. FT

AGGREGATE DRAIN  
LOCATIONS

STATION	SIDE	LENGTH
86+50	RIGHT	5'
86+75	RIGHT	5'
88+75	RIGHT	10'
89+00	LEFT	8'
89+25	RIGHT	10'
TOTAL =		38'

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GENERAL SPECIFICATIONS

ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH MEDINA COUNTY AND THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS.

REFERENCES

TO THE DEPARTMENT, DCE, DDD, DET, ENGINEER, OR INSPECTOR IN THE STANDARD SPECIFICATIONS SHALL BE CONSIDERED REFERENCES TO THE DESIGNATED REPRESENTATIVE OF THE MEDINA COUNTY ENGINEERS OFFICE.

REGULATIONS

ALL WORK MUST COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS IN ALL RESPECTS, INCLUDING COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHER- WISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

COMMUNICATION:	MCI METRO 1150 WEST 3RD ST. CLEVELAND, OH 44256 JEFF (THOMAS) KADUSKY 330-819-1444
	FRONTIER 6223 NORWALK ROAD MEDINA, OH 44256 RANDY HOWARD 330-722-9586
ELECTRIC:	LORAIN MEDINA RURAL ELECTRIC 22898 WEST ROAD WELLINGTON, OH 44090 SCOTT NORTHEIM 440-647-2133
	FIRST ENERGY TRANSMISSION 76 SOUTH MAIN STREET AKRON, OH 44308 ALAN SCHEMPP 330-384-5489

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 7 OF THE PLANS FOR PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD:	GPS
MONUMENT TYPE:	O.D.OT. V.R.S. NETWORK

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM:	NAVD 88
GEOID:	12A

HORIZONTAL POSITIONING

REFERENCE FRAME:	NAD 83 (2011)
ELLIPSOID:	GRS 80
MAP PROJECTION:	LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM:	OHIO NORTH ZONE
COMBINED SCALE FACTOR:	1.0001038223
ORIGIN OF COORDINATE SYSTEM:	OHIO CORS "OHWY"

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

ACCESS

THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION PHASES AND OPERATIONS IN A MANNER THAT PROVIDES ACCESS TO PROPERTY OWNERS/TENANTS AS PER 614.02(A).

EXISTING SIGNS

EXISTING SIGNS REMOVED SHALL BE SALVAGED AND LEFT ON SITE FOR THE MEDINA COUNTY ENGINEERS OFFICE TO PICK-UP PER ITEM 630. IF THE COUNTY ENGINEER DOES NOT WANT THE SIGNS THEN THEY SHALL BE DISPOSED OF BY THE CONTRACTOR. EXISTING POSTS SHALL BE DISPOSED OF BY THE CONTRACTOR.

ITEM 614 - MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 90 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$2500 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48"x30" "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES, GATES, AND LIGHTS, AS DETAILED ON SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROAD IS CLOSED TO TRAFFIC:

AT EACH END OF THE PROJECT AS DIRECTED BY THE ENGINEER

NOTICE OF CLOSURE SIGNS, (W20-H13), SHALL BE ERECTED BY THE CONTRACTOR AT LEAST 14 DAYS IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTION OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

DETOUR NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE PROJECT ENGINEER AND MEDINA COUNTY ENGINEER'S OFFICE A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE BEGINNING OF WORK AND/OR INTENDED ROAD CLOSURE.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING 1 HOUR.

SEEDING AND MULCHING, AS PER PLAN

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. TOP SOIL AND COMMERCIAL FERTILIZER SHALL BE APPLIED PER 659 AS NEEDED AND AS DIRECTED BY THE ENGINEER. THE COST OF COMMERCIAL FERTILIZER SHALL BE INCLUDED WITH THE COST OF SEEDING AND MULCHING.

PAVEMENT MARKINGS

WHITE EDGE LINES, ITEM 642, TYPE 1 SHALL BE PLACED AT BOTH EDGES OF THE PROPOSED PAVEMENT AT THE FOLLOWING LOCATIONS:

- STA. 86+20 TO STA. 89+40

A YELLOW CENTERLINE, ITEM 642, TYPE 1 (DOUBLE-SOLID) SHALL BE PLACED AT THE CENTERLINE OF THE ROAD AT THE FOLLOWING LOCATIONS

- STA. 86+20 TO STA. 89+40 (DOUBLE-SOLID)

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE COUNTY, REPRESENTATIVES OF THE COUNTY AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE COUNTY.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE COUNTY.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

ENVIRONMENTAL COMMITMENTS

ASBESTOS NOTIFICATION

AN ASBESTOS SURVEY , WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGE STRUCTURES.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORMS, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO THE OHIO EPA.

AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR REHABILITATION, THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER.

INFORMATION REQUIRED ON THE FORM WILL INCLUDE: 1) THE CONTRACTORS NAME AND ADDRESS, 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED.

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM.



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FIRST ENERGY TRANSMISSION LINE

FIRST ENERGY HAS A 69,000 VOLTS NOMINAL (72,450 VOLTS MAXIMUM) FIRSTENERGY TRANSMISSION FACILITIES LOCATED WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

NO STOCKPILING WITHIN FIRSTENERGY/OHIO EDISON EASEMENT.

DO NOT STAGE VEHICLES OVERNIGHT WITHIN FIRSTENERGY/OHIO EDISON EASEMENT.

STRONGLY RECOMMEND USE OF HIGH VOLTAGE SIGNAGE TO WARN WORKERS OF THE PRESENCE OF OVERHEAD CONDUCTORS.

AS A REMINDER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KNOW AND MAINTAIN ALL OSHA REQUIRED CLEARANCES WHEN WORKING NEAR OVERHEAD WIRES. THE OVERHEAD WIRES SHOULD BE CONSIDERED ENERGIZED AT ALL TIMES.

CSX RAILRAIL REQUIREMENTS

ALL WASTE MATERIALS GENERATED BY THIS PROJECT, INCLUDING WASHING WITH WATER, CLEANING SOLVENTS, BLASTING, SCRAPING, BRUSHING AND PAINTING OPERATIONS, SHALL BE THE RESPONSIBILITY OF THE STATE OR ITS CONTRACTOR AND SHALL BE CONTAINED, COLLECTED AND PROPERLY DISPOSED OF BY THE STATE OR ITS CONTRACTOR. THE STATE AND ITS CONTRACTOR AGREE TO FULLY COMPLY WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL LAWS, REGULATIONS, STATUTES AND ORDINANCES AT ALL TIMES.

A 'MEANS & METHODS' WORK PLAN, DEVELOPED IN ACCORDANCE WITH THE CSX CONSTRUCTION SUBMISSION CRITERIA, SHALL BE SUBMITTED TO THE DESIGNATED CSXT CONSTRUCTION ENGINEERING REPRESENTATIVE FOR ALL WORK ON/OVER/UNDER CSX TRACKS OR RIGHT-OF-WAY OR OTHER WORK WHICH PRESENTS THE POTENTIAL TO AFFECT CSXT PROPERTY OR OPERATIONS.

A WORK SITE SAFETY PLAN THAT INCLUDES A RECOGNITION TO KEEP ALL PERSONNEL FROM FOULING CSXT RAIL OPERATIONS, A FALL PROTECTION PLAN DESCRIBING THE MEASURES TO BE TAKEN WHEN REQUIRED AND A FIRE PREVENTION PLAN SHALL BE PRESENTED AND ACCEPTED BY CSXT FOR WORK ON OR OVER CSXT PROPERTY.

ALL PROCEDURES TO BE SUBMITTED TO MR. DAVID CLARK, CSXT DIRECTOR CONSTRUCTION ENGINEERING, DAVID.CLARK@CSX.COM, OR THE DESIGNATED CSXT CONSTRUCTION ENGINEERING REPRESENTATIVE. SUBMITTALS MAY REQUIRE UP TO 30 DAYS FOR REVIEW AND COMMENT/APPROVAL. RESUBMITTALS MAY ALSO REQUIRE UP TO 30 DAYS FOR REVIEW AND COMMENT/APPROVAL.

THE MATERIALS REMOVED DURING THE SURFACE PREPARATION MUST NOT IMPACT THE SURROUNDING AREA INCLUDING GROUND, WATER, OR AIR. MATERIALS MUST NOT BE STORED ON CSXT PROPERTY.

THE CONTRACTOR MAY BE REQUIRED TO INSTALL A GEOTEXTILE FABRIC BALLAST PROTECTION SYSTEM TO PREVENT REMOVAL DEBRIS AND FINES FROM FOULING TRACK BALLAST. THE GEOTEXTILE BALLAST PROTECTION SYSTEM SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR TO THE SATISFACTION OF THE DESIGNATED CSXT CONSTRUCTION ENGINEERING REPRESENTATIVE."

WASTE MANAGEMENT

IT IS THE POLICY OF CSXT THAT ALL MATERIALS DISCARDED BY OR ON BEHALF OF CSXT WILL BE MANAGED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS AS WELL AS CSXT S BEST MANAGEMENT PRACTICES AND SUSTAINABILITY GOALS. TO ENSURE THAT THESE GOALS ARE ACHIEVED, CSXT HAS MECHANISMS IN PLACE TO MONITOR WASTE MANAGEMENT ACTIVITIES, CAPTURE THE INFORMATION NECESSARY TO ENSURE 100% COMPLIANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS 100% OF THE TIME, AND TRACK PROGRESS IN THE CSXT SUSTAINABILITY PROGRAM. THESE MECHANISMS ALSO ALLOW CSXT TO COMPLETE REPORTING REQUIREMENTS TO FEDERAL AND STATE REGULATORY AGENCIES AND DOCUMENT CSXT'S PROGRESS TOWARD ITS SUSTAINABILITY GOALS. WASTE MATERIAL REMOVAL SHALL BE IN ACCORDANCE WITH CSXT SOIL AND WATER MANAGEMENT POLICY.

CSX SIGNAL PROTECTION

THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF THE EXISTING RAILROAD SIGNALS LOCATED EAST OF THE BRIDGE. THIS INCLUDES ANY SUPPORTING INFRASTRUCTURE FOR THE SIGNALS. ANY COST INCURRED DUE TO DAMAGE TO THE SIGNALS AND SUPPORTED INFRASTRUCTURE CAUSED BY THE CONTRACTOR OR ANY OF THE CONTRACTOR'S SUBCONTRACTORS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THESE COSTS INCLUDE THE LOSS OF REVENUE INCURRED DUE TO DELAYS TO THE RAILROAD.

FLAGGING SERVICES

PRIOR TO BIDDING, THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE CSX TRANSPORTATION, INC. REQUIREMENTS AS TO WHEN FLAGGING SERVICES WILL BE REQUIRED FOR THE DURATION OF THIS PROJECT. THE MEANS AND METHODS OF THE CONTRACTOR WILL SIGNIFICANTLY IMPACT THE NUMBER OF DAYS THAT FLAGGING SERVICES WILL BE REQUIRED BY CSX TRANSPORTATION, INC. FOR THIS PROJECT.

THE MEDINA COUNTY ENGINEER HAS PAID A DEPOSIT TO CSX TRANSPORTATION, INC. FOR FIFTY (50) DAYS OF FLAGGING SERVICES FOR THIS PROJECT. FOR THIS PROJECT, THERE IS A DISINCENTIVE TO THE CONTRACTOR OF ONE THOUSAND TWO HUNDRED AND FIFTY DOLLARS (\$1250.00) PER DAY THAT ADDITIONAL FLAGGING SERVICES ARE REQUIRED PURSUANT CSX TRANSPORTATION, INC. REQUIREMENTS. THEREFORE, THE CONTRACTOR SHALL BE RESPONSIBLE TO PAY TO THE MEDINA COUNTY ENGINEER \$1250.00 PER DAY FOR EACH DAY IN EXCESS OF FIFTY DAYS THAT REQUIRE FLAGGING SERVICES BY CSX TRANSPORTATION, INC. TO COMPLETE THE PROJECT.

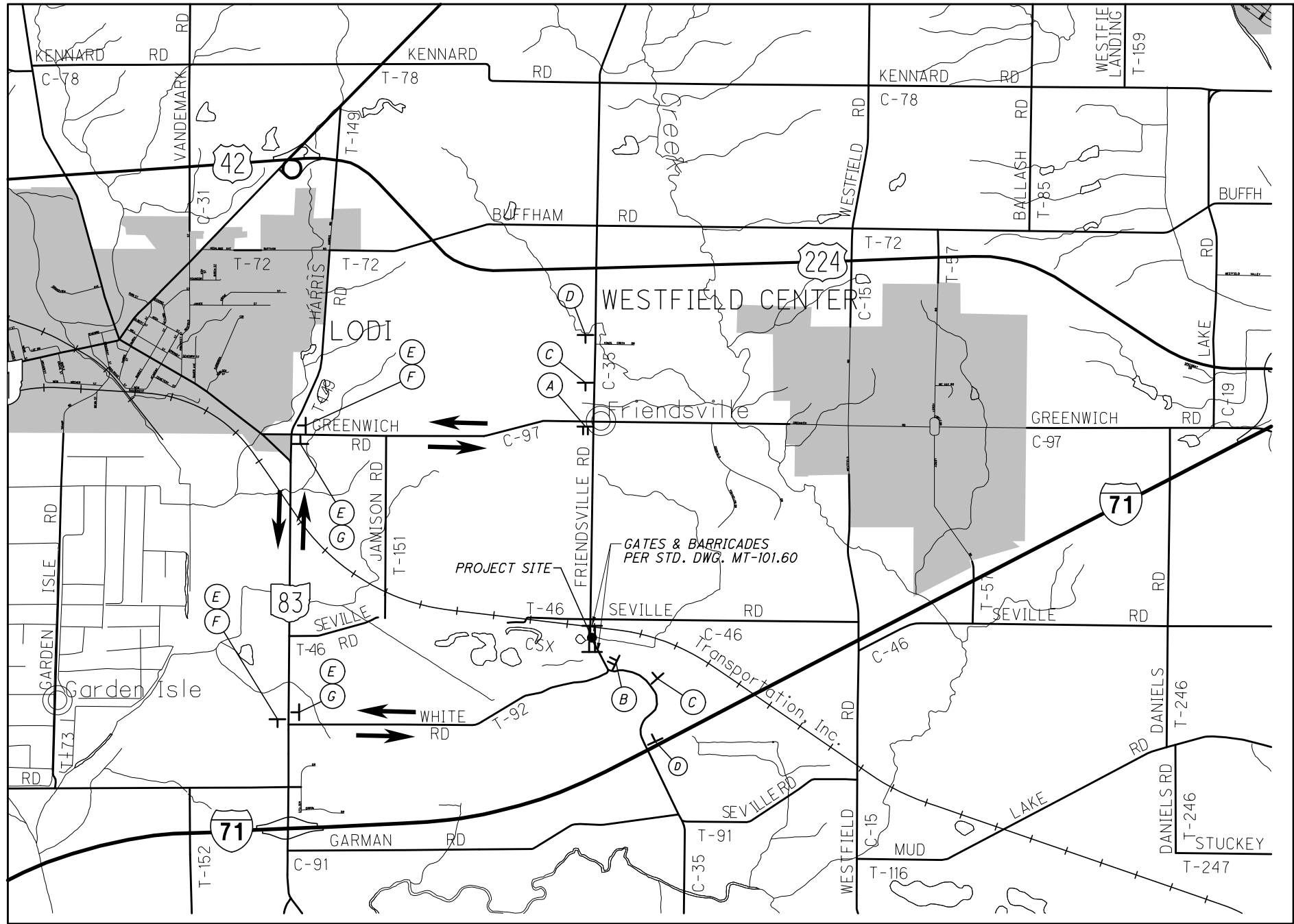
THERE IS AN INCENTIVE TO THE CONTRACTOR TO COMPLETE THEIR WORK IN A TIMELY FASHION THAT REQUIRES FLAGGING SERVICES PURSUANT CSX TRANSPORTATION, INC. REQUIREMENTS. THE INCENTIVE WILL BE ONE THOUSAND DOLLARS (\$1000.00) PER DAY FOR EACH DAY LESS THAN THE ALLOTTED FIFTY DAYS THAT FLAGGING SERVICES HAVE ALREADY BEEN PAID FOR BY THE MEDINA COUNTY ENGINEER.

ANY DISINCENTIVE OR INCENTIVE PAYMENTS WILL BE BASED ON THE NUMBER OF FLAGGING SERVICE DAYS THAT CSX TRANSPORTATION, INC. CHARGES MEDINA COUNTY FOR THIS PROJECT.

GENERAL NOTES

MED-CR35-1.79

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**NOTICE OF CLOSURE SIGNS**

NOTICE OF CLOSURE SIGNS, (W20-H13), SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE.

**NOTICE OF CLOSURE SIGN TIME TABLE**

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP &	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
ROAD	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

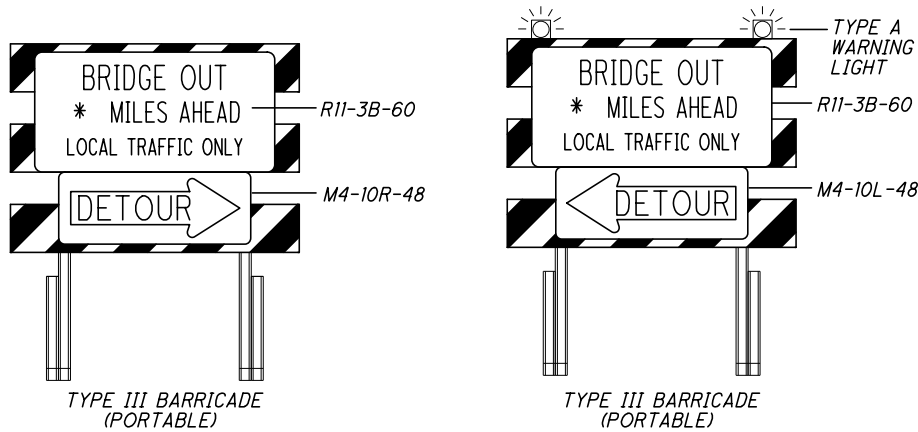
**NOTIFICATION TIME TABLE**

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP &	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
ROAD	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE

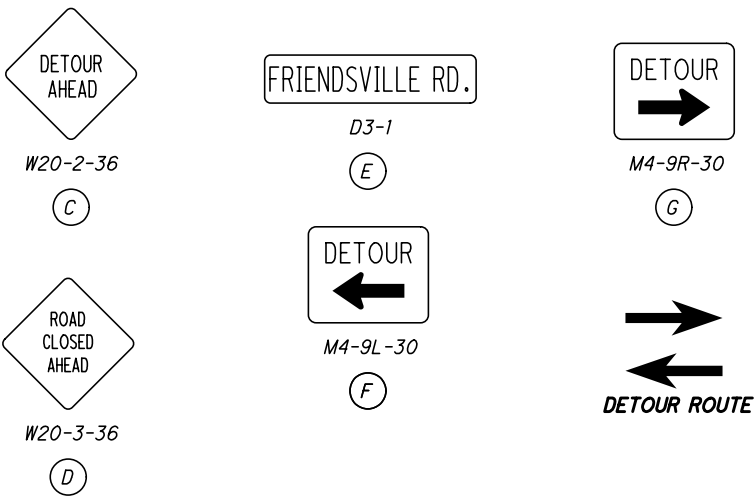
LANE	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES & RESTRICTIONS	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE

START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TABLE.



\* - PROVIDE DISTANCE TO BRIDGE





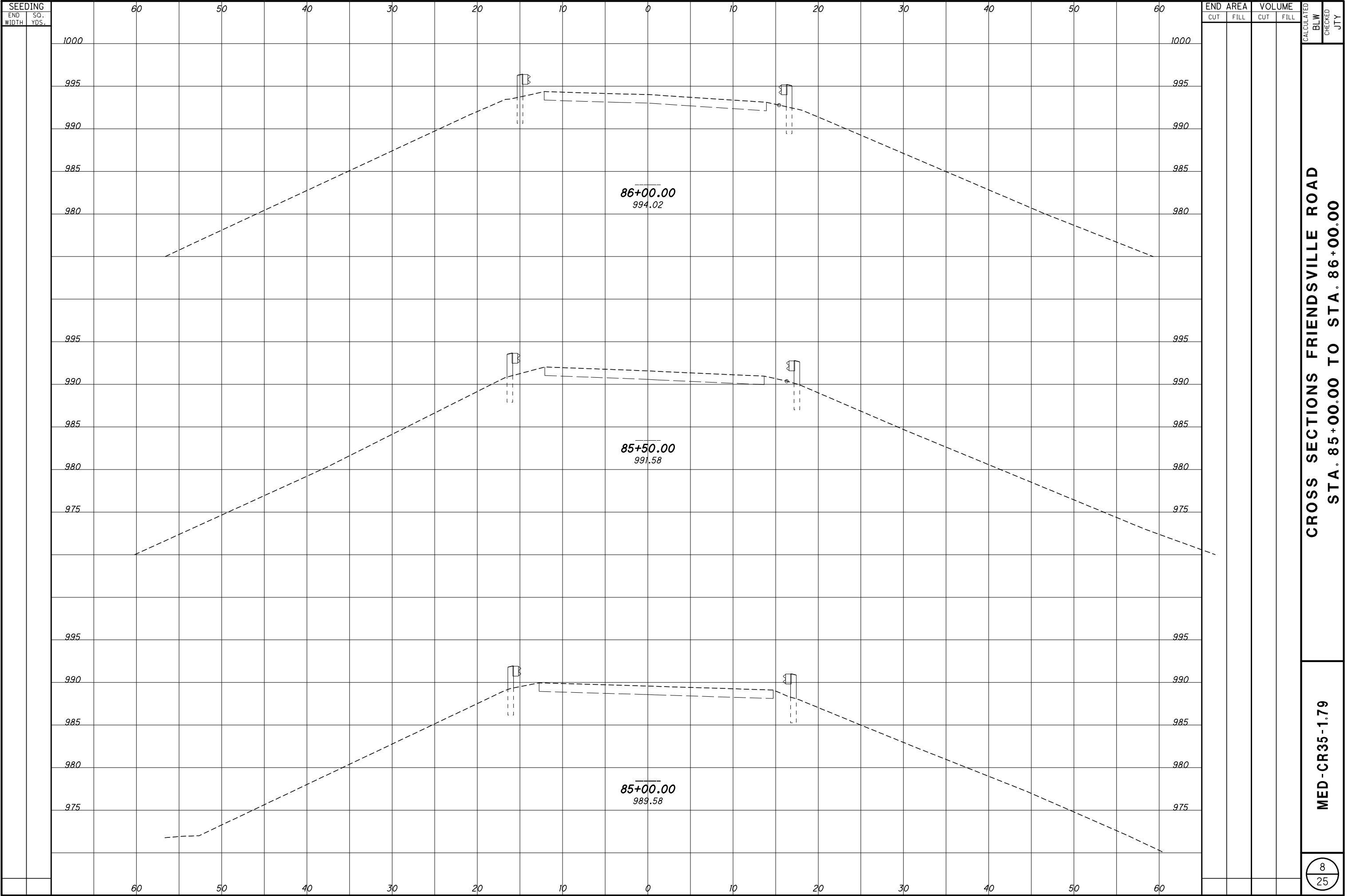
GENERAL SUMMARY

ITEM	EXT	TOTAL	UNIT	DESCRIPTION
				ROADWAY
201	11000	LUMP	SUM	CLEARING AND GRUBBING
202	23000	495	SY	PAVEMENT REMOVED
202	38000	361	FT	GUARDRAIL REMOVED
203	10000	188	CY	EXCAVATION
203	20000	17	CY	EMBANKMENT
204	10000	547	SY	SUBGRADE COMPACTION
204	45000	1	HOURL	PROOF ROLLING
606	15050	250	FT	GUARDRAIL, TYPE MGS
606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
				EROSION CONTROL
659		LUMP	SUM	SEEDING AND MULCHING, AS PER PLAN
832	30000	2500	EACH	EROSION CONTROL
				DRAINAGE
605	31100	38	FT	AGGREGATE DRAINS
				PAVEMENT
301	46000	84	CY	ASPHALT CONCRETE BASE, PG64-22
304	20000	87	CY	AGGREGATE BASE
407	10000	59	GAL	TACK COAT
441	50000	17	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
441	50300	24	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
				TRAFFIC CONTROL
642	00100	0.12	MILE	EDGE LINE, 4", TYPE 1
642	00300	0.06	MILE	CENTER LINE, TYPE 1
				GENERAL
614	11000	LUMP	SUM	MAINTAINING TRAFFIC
614	12420	LUMP	SUM	DETOUR SIGNING
623	10000	LUMP	SUM	CONSTRUCTION LAYOUT STAKES AND SURVEYING
624	10000	LUMP	SUM	MOBILIZATION





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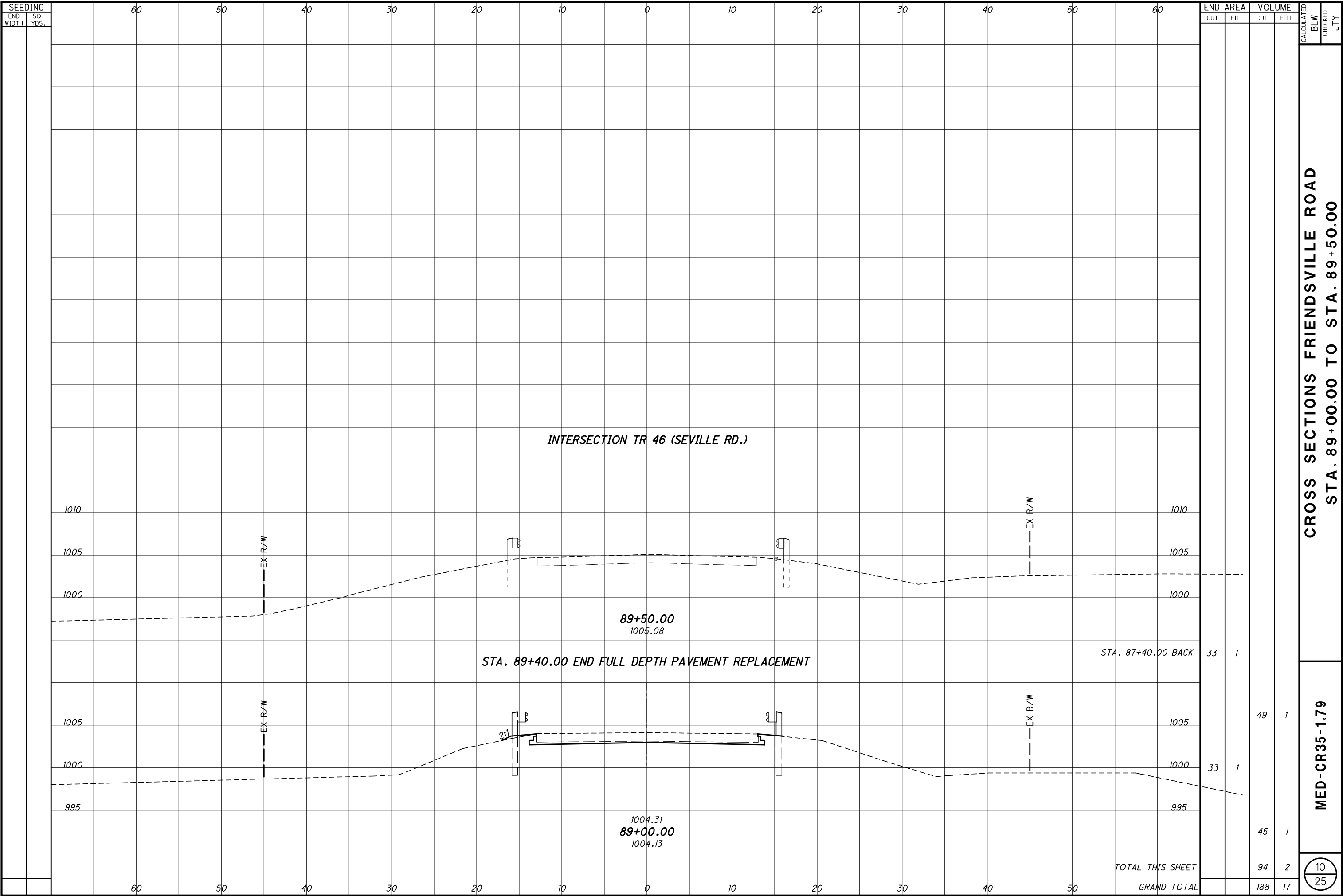






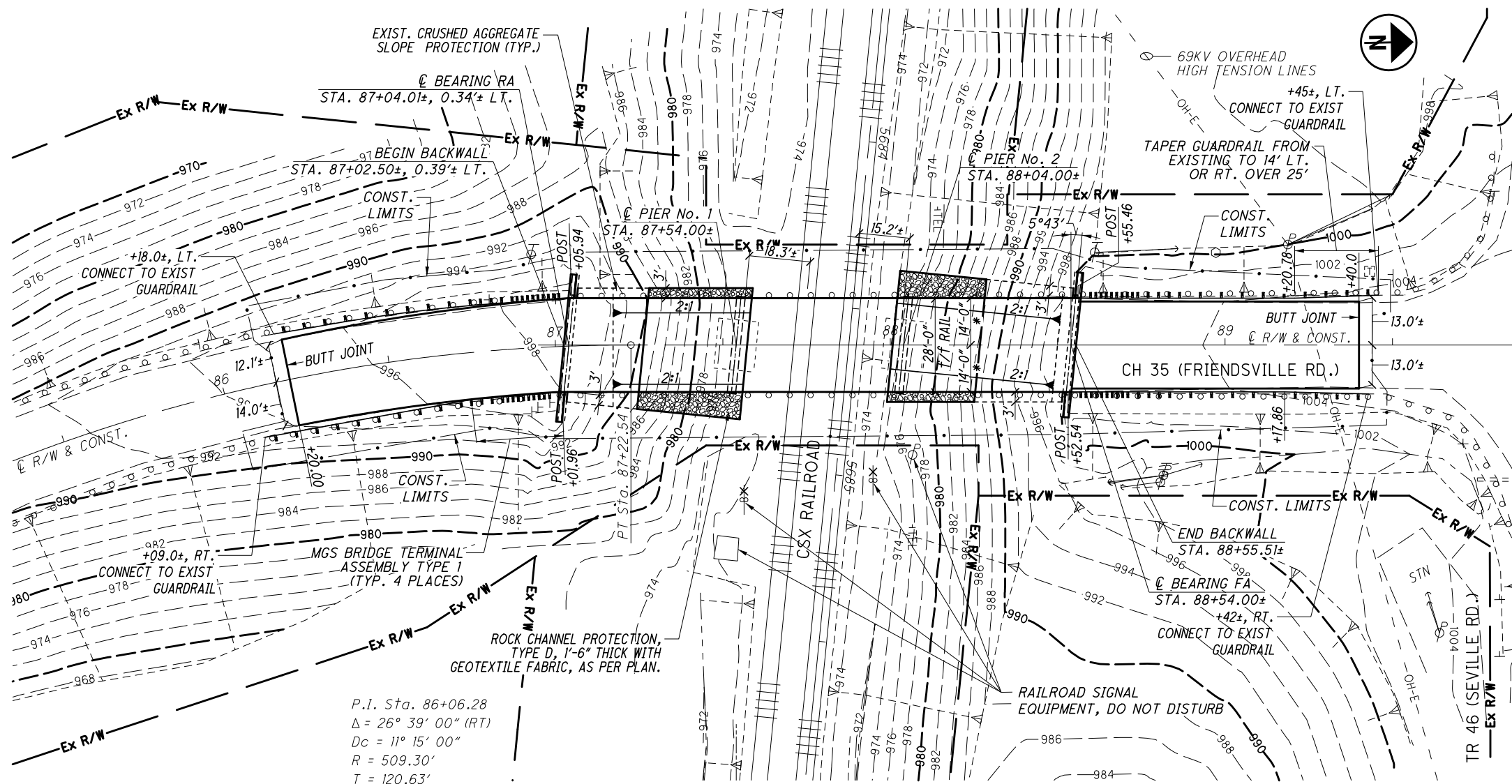


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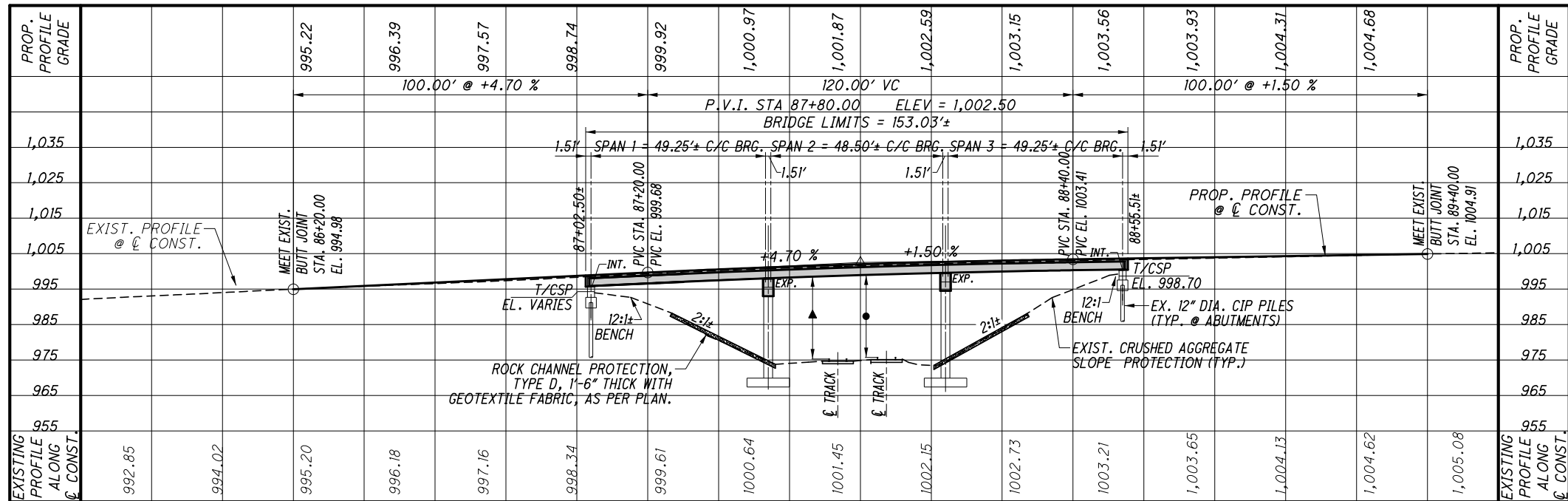




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PLAN



PROFILE ALONG CENTERLINE CONSTRUCTION

### BENCHMARK DATA

BM No. 1 STA. 86+03.96 ELEV. 979.6650 OFFSET 14.12' LT.  
BM No. 2 STA. 90+08.66 ELEV. 1006.5890 OFFSET 0.08', LT.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 25

### NOTES

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

DESIGN TRAFFIC:  
2020 ADT = 1,160  
2040 ADT = 1,560  
DIRECTIONAL DISTRIBUTION = 55%

### LEGEND

- \* - PLUS FIT-UP
- ▲ 23'-0" REQUIRED MINIMUM VERTICAL CLEARANCE
- 23'-3" ACTUAL MINIMUM VERTICAL CLEARANCE
- 23'-0" REQUIRED MINIMUM VERTICAL CLEARANCE
- 23'-4" ACTUAL MINIMUM VERTICAL CLEARANCE

### EXISTING STRUCTURE

TYPE: THREE SPAN NON-COMPOSITE PRESTRESSED CONCRETE BOX BEAM ON STUB ABUTMENTS AND HAMMERHEAD PIERS  
SPANS: 50'-0"±, 50'-0"±, 50'-0"± C/C SUBSTRUCTURE  
ROADWAY: 28'-0"± F/F GUARDRAIL  
ORIGINAL DESIGN: HS20-44  
SKEW: 5°43' L.F.  
APPROACH SLABS: NONE  
WEARING SURFACE: CONCRETE  
ALIGNMENT: 11°15' CURVE TO RIGHT, TANGENT

CROWN: VARIES  
STRUCTURAL FILE NUMBER: 5233917  
DATE BUILT: 1978  
DISPOSITION: RE-USE SUBSTRUCTURE  
COORDINATES: LATITUDE: 41°00'44.01" N  
LONGITUDE: 81°58'01.01" W

### PROPOSED STRUCTURE REHABILITATION

- PROPOSED WORK:
- EXISTING CONCRETE WEARING SURFACE AND BOX BEAM SUPERSTRUCTURE TO BE REMOVED
  - PERFORM CONCRETE PATCHING OF ABUTMENT AND PIER FACES
  - ABUTMENT BACKWALLS TO BE REMOVED AND ABUTMENTS TO BE CONVERTED INTO INTEGRAL ABUTMENTS
  - REMOVE & REPLACE PIER CAP
  - PLACE NEW BOX BEAMS AND ELASTOMERIC BEARINGS
  - CONSTRUCT COMPOSITE CONCRETE DECK
  - CONCRETE SURFACES TO BE SEALED
- TYPE: THREE SPAN COMPOSITE CONCRETE BOX BEAM SUPERSTRUCTURE ON INTEGRAL ABUTMENTS  
SPANS: 50'-0", 50'-0", 50'-0" C/C SUBSTRUCTURE  
ROADWAY: 28'-0" F/F RAIL  
LOADING: HL93, FWS = 60 PSF (NEW SUPERSTRUCTURE)  
SKEW: 5°43' L.F.  
APPROACH SLABS: NONE  
ALIGNMENT: 11°15' CURVE TO RIGHT, TANGENT  
CROWN: VARIES  
WEARING SURFACE: 1" MONOLITHIC CONCRETE  
DECK AREA: 4284 SF



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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

DS-1-92	REVISED	7/18/03
PSBD-2-07	REVISED	7/20/18
SICD-1-96	REVISED	7/18/14
TST-1-99	REVISED	1/15/21
VPF-1-90	REVISED	7/20/18

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

832 10-19-18

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL 2020.

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 9th EDITION OF "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADING

DESIGN LOADING: HL-93  
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

DESIGN DATA

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)  
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

DESIGN DATA CONTINUED

CONCRETE FOR PRESTRESSED BOX BEAMS:

COMPRESSIVE STRENGTH (FINAL) - 7.0 KSI  
COMPRESSIVE STRENGTH (RELEASE) - 5.0 KSI  
PRESTRESSING STRANDS:

AREA = 0.167 SQ. IN.

ULTIMATE STRENGTH = 270 KSI

INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL  
2½" CONCRETE COVER  
STAINLESS STEEL DRIP STRIP

ITEM 511 - CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN: FURNISH MATERIAL MEETING THE REQUIREMENTS OF SPONGE RUBBER ASTM D1725, TYPE I OR POLYSTYRENE, ASTM C578 TYPE IV. NEATLY CUT MATERIAL AS NECESSARY TO ALLOW FOR PROPER INSTALLATION. ALLOWABLE TOLERANCE FOR THE TOTAL THICKNESS OF THE MATERIAL SHALL BE -0", +½". SEAL ALL REMAINING GAPS BETWEEN BEAMS WITH CAULKING BEFORE PLACING CONCRETE AT BEAM ENDS.

ITEM 601 - ROCK CHANNEL PROTECTION, TYPE D WITH GEOTEXTILE FABRIC, AS PER PLAN  
ROCK CHANNEL PROTECTION SHALL BE PLACED AS DIRECTED BY THE ENGINEER IN AREAS THAT REQUIRE ADDITIONAL PROTECTION. THESE AREA ARE PRIMARILY ALONG THE BOTTOM HALF OF THE EMBANKMENT SLOPE. A CONTINGENCY QUANTITY 115 CU. YD. IS INCLUDED FOR THIS ITEM TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION:  
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

SUBSTRUCTURE CONCRETE REMOVAL:  
REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE NGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05 AND 105.02. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN: REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ESTIMATED QUANTITIES										CALC. CHKC.	MPS JTY
ITEM	EXT	TOTAL	UNIT	DESCRIPTION	ABUTMENTS		PIERS		SUPER	GENERAL	SEE SHT.
					REAR	FWD.	NO. 1	NO. 2			
202	11202	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN						LUMP	
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING						LUMP	
503	21300	LUMP		UNCLASSIFIED EXCAVATION						LUMP	
509	10000	21260	POUNDS	EPOXY COATED REINFORCING STEEL						21,260	
509	20000	200	POUNDS	REINFORCING STEEL, REPLACEMENT OF REINFORCING STEEL						200	
510	10000	50	EA	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	26	24					
511	31610	119	CU. YD.	CLASS QC2 CONCRETE, SUPERSTRUCTURE					119		
511	42010	26	CU. YD.	CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS			13	13			
511	44111	9	CU. YD.	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	5	4					2 OF 15
512	10100	165	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	23	23	3	3	113		
515	12070	7	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB27-48 (48'-6" SPAN)					7		
515	12070	14	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB27-48 (49-3" SPAN)					14		
516	13600	32	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER	16	16					
516	14020	56	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	28	28					
516	41200	42	EACH	1/8" PREFORMED BEARING PADS	7	7	14	14			
516	44000	84	EACH	ELASTOMERIC BEARING PADS WITH INTERNAL LAMINATES AND LOAD PLATE(NEOPRENE) (1" x 5" x 12")	14	14	28	28			
517	70001	309.84	FT	RAILING, TWIN STEEL TUBE, AS PER PLAN					309.84		9 OF 15
SPECIAL	51822300	368	FT	STEEL DRIP STRIP					368		
518	21230	LUMP		POROUS BACKFILL WITH GEOTEXTILE FABRIC						LUMP	
518	40000	90	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	45	45					
518	40010	40	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	20	20					
519	10000	180	SQ. FT.	PATCHING CONCRETE STRUCTURE			81	99			
601	32305	115	CU. YD.	ROCK CHANNEL PROTECTION, TYPE D WITH GEOTEXTILE FABRIC, AS PER PLAN						115	2 OF 15
607	39911	225	FT	VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC, AS PER PLAN					225		9 OF 15

GENERAL NOTES AND ESTIMATED QUANTITIES

BRIDGE MED-FRIENDSVILLE ROAD (CH 35)  
OVER CSX RAILROAD

MED - CR35 - 1.79  
PID No. 111873

2 / 15

12  
15

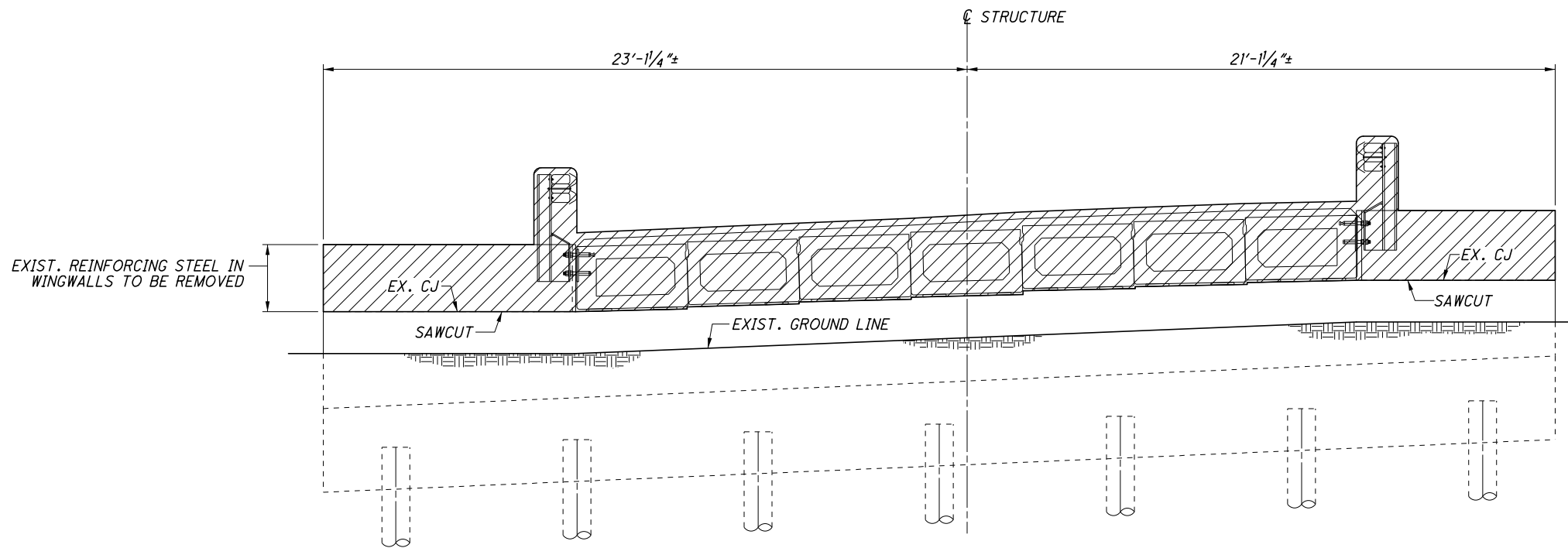
DESIGN AGENCY  
**POGGEMEYER**  
DESIGN GROUP  
A Kleinfelder Company



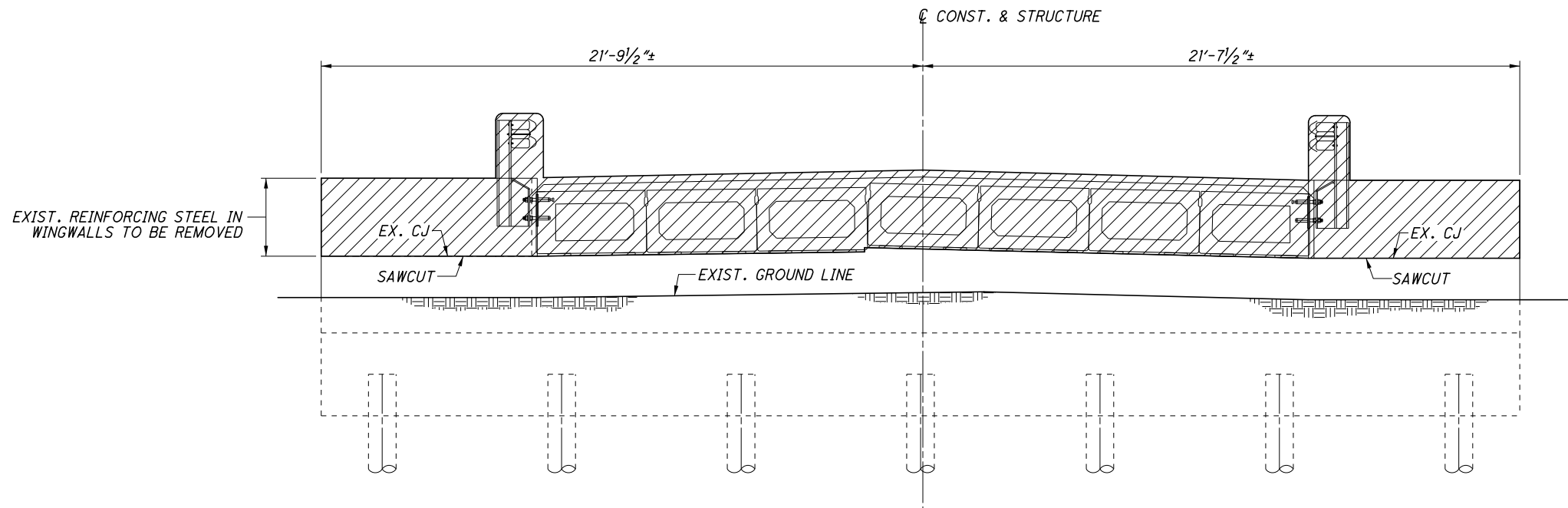
DESIGNED	DATE	REVIEWED	DATE
MPS	09/21	JTY	09/21
CHECKED	FILE NUMBER	STRUCTURE	FILE NUMBER
JTY	5233917		5233917



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REAR ABUTMENT ELEVATION




FORWARD ABUTMENT ELEVATION

**LEGEND**

CJ = CONSTRUCTION JOINT

PORTION OF EXISTING STRUCTURE TO BE REMOVED

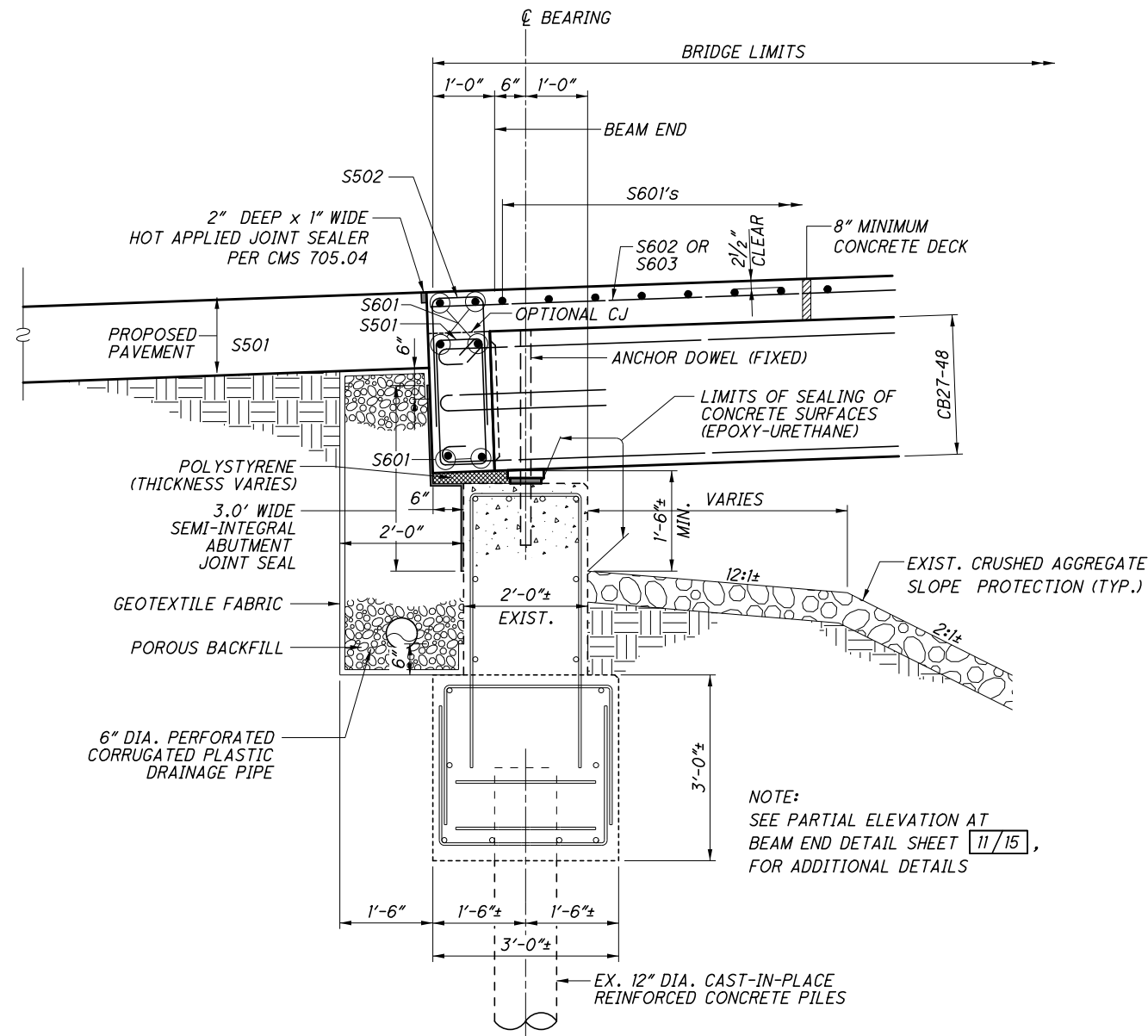
 POGGEMEYER DESIGN GROUP A Kleinfelder Company	DESIGN AGENCY	DATE	REVIEWED	DRAWN	DESIGNED
	JTY	09/21	JTY	JEF	MPS
		STRUCTURE FILE NUMBER	REVISED	CHECKED	
		5233917	JTY	JTY	
ABUTMENT REMOVAL DETAILS					
BRIDGE MED-FRIENDSVILLE ROAD (CH 35)					
OVER CSX RAILROAD					
MED - CR35 - 1.79		PID No. 111873			
3 / 15		13 / 25			





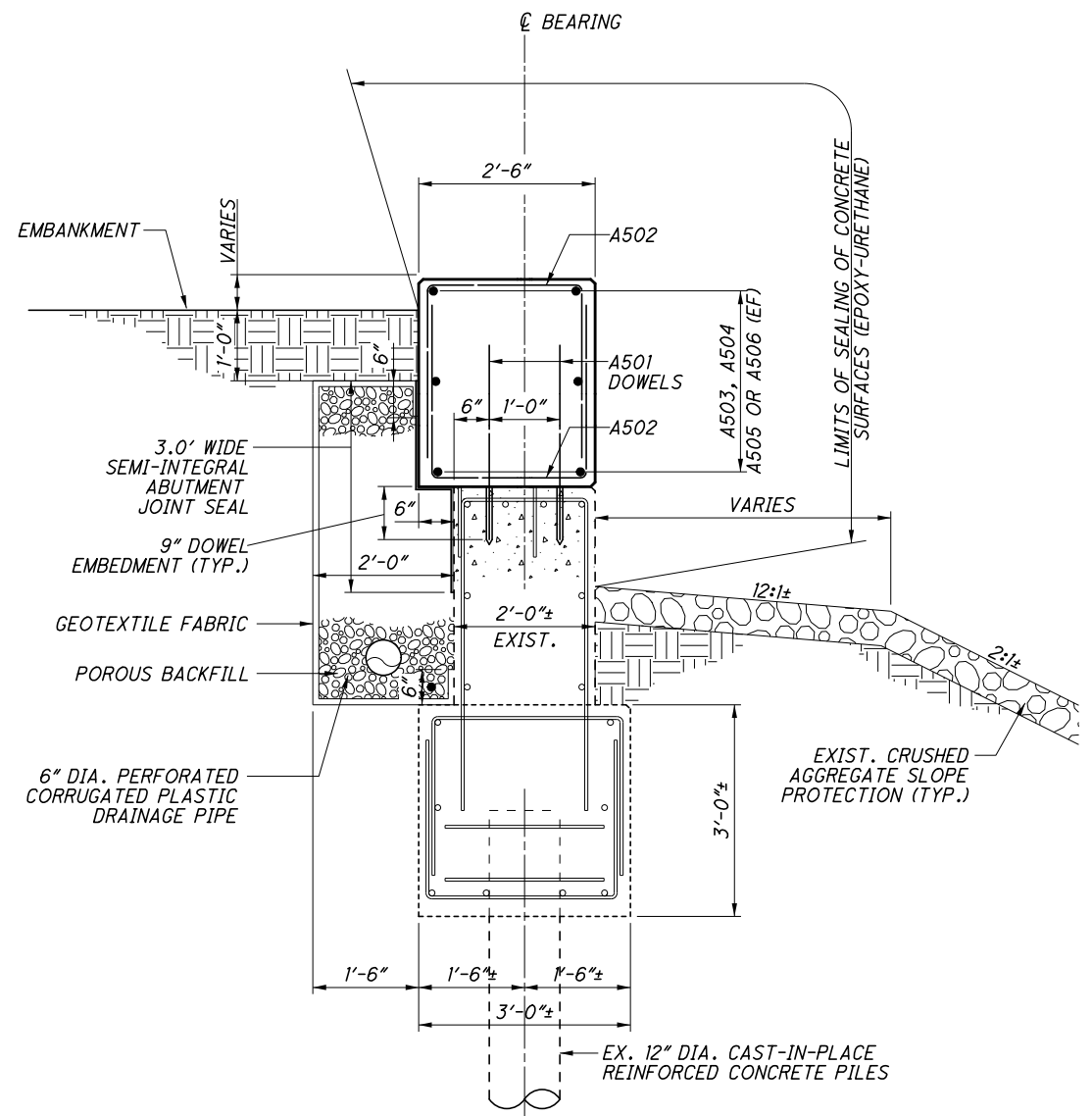
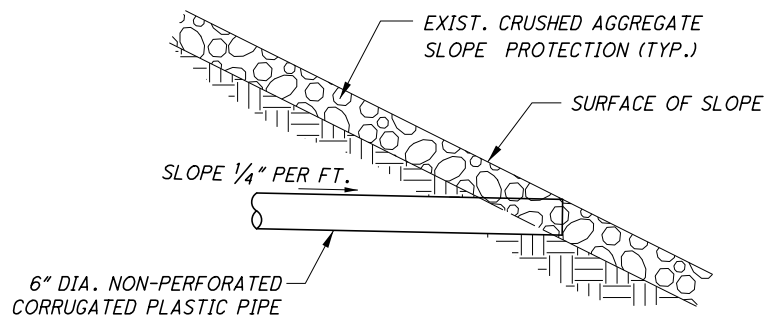


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NOTES

ABUTMENT CONCRETE ABOVE THE BRIDGE SEAT CONSTRUCTION JOINT SHALL NOT BE PLACED UNTIL THE PRESTRESSED CONCRETE BOX BEAMS HAVE BEEN ERECTED.



LEGEND

RA = REAR ABUTMENT  
FA = FORWARD ABUTMENT  
FF = FAR FACE  
EF = EACH FACE  
CJ = CONSTRUCTION JOINT  
RCP = ROCK CHANNEL PROTECTION  
PEJF = PREFORMED EXPANSION JOINT FILLER

ALL BARS TO BE EPOXY COATED



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(NI) - EXISTING VERTICAL REINFORCING STEEL IN THE PIER CAP TO BE SALVAGED. SEE SHEET 8/15 FOR APPROXIMATE REINFORCING STEEL LOCATION AND REINFORCING STEEL TO BE REMOVED.

NOTES:

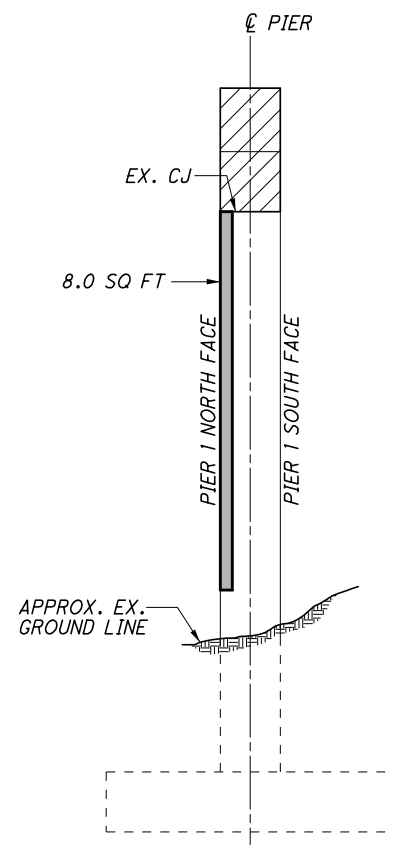
- 1 - ENGINEER WILL DETERMINE THE ACTUAL QUANTITY OF CONCRETE PATCHING TO BE PERFORMED
- 2 - ACTUAL MEASURED PATCHING = 54 SF. QUANTITY CARRIED TO GENERAL SUMMARY INCREASED BY 50%  
 $1.5 \times 54 \text{ SF} = 81 \text{ SF}$

LEGEND

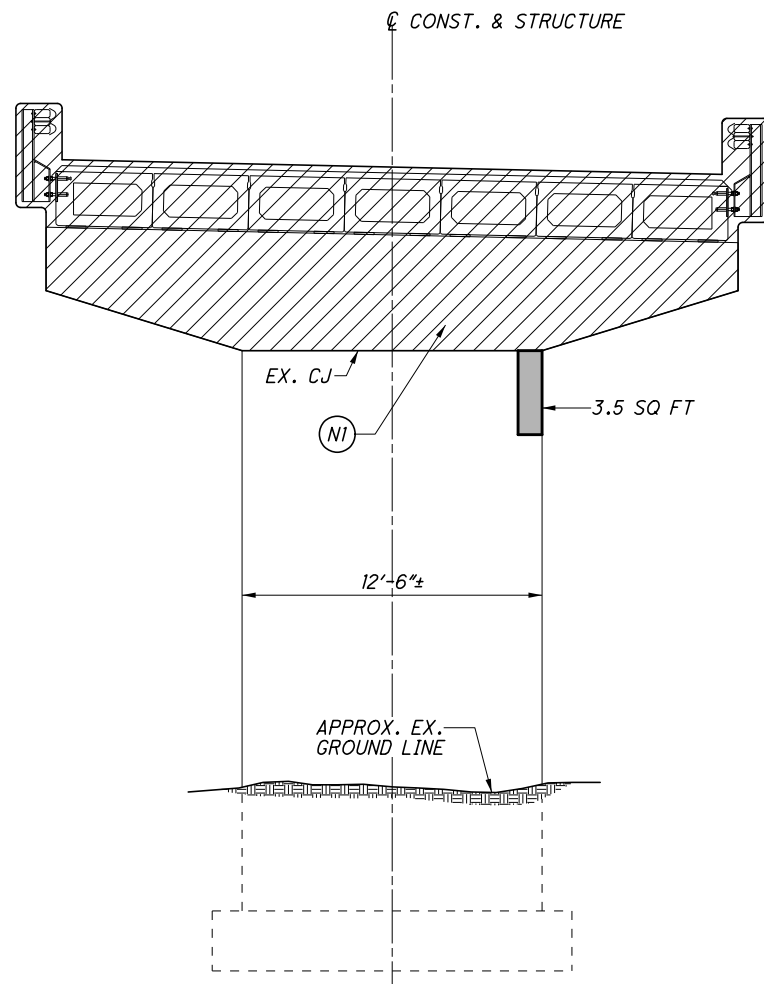
CJ = CONSTRUCTION JOINT

 PORTION OF EXISTING STRUCTURE TO BE REMOVED

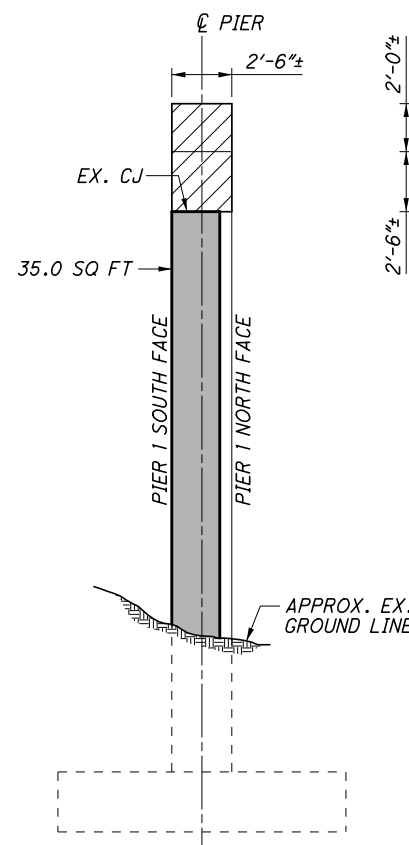
 INDICATES DELAMINATED AREA REPAIR USING ITEM 519



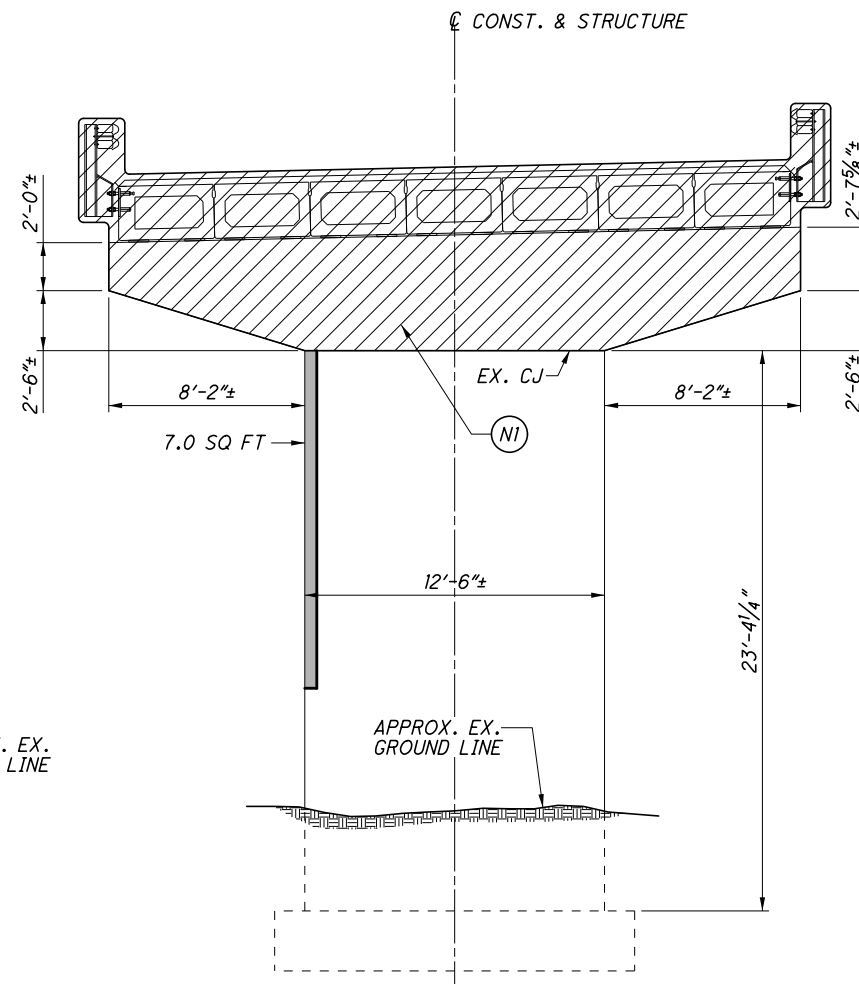
PIER 1 WEST SIDE



PIER 1 South Face Looking North



PIER 1 EAST SIDE





PIER 1 North Face Looking South

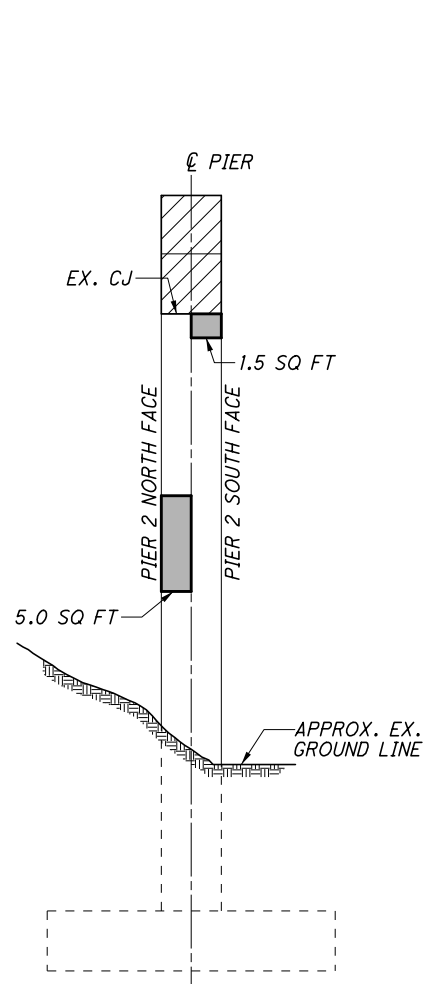


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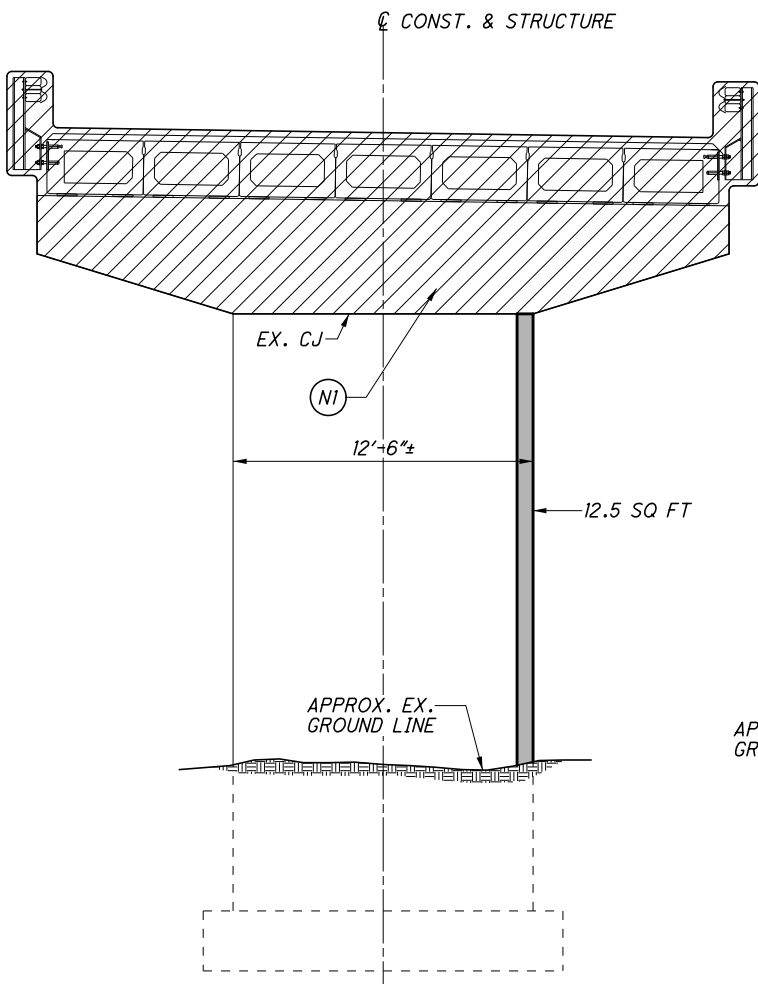
(NI) — EXISTING VERTICAL REINFORCING STEEL IN THE PIER CAP TO BE SALVAGED. SEE SHEET 8/15 FOR APPROXIMATE REINFORCING STEEL LOCATION AND REINFORCING STEEL TO BE REMOVED.

NOTES:  
1 - ENGINEER WILL DETERMINE THE ACTUAL QUANTITY OF CONCRETE PATCHING TO BE PERFORMED  
2 - ACTUAL MEASURED PATCHING = 66 SF. QUANTITY CARRIED TO GENERAL SUMMARY INCREASED BY 50%  
1.5 x 66 SF = 99 SF

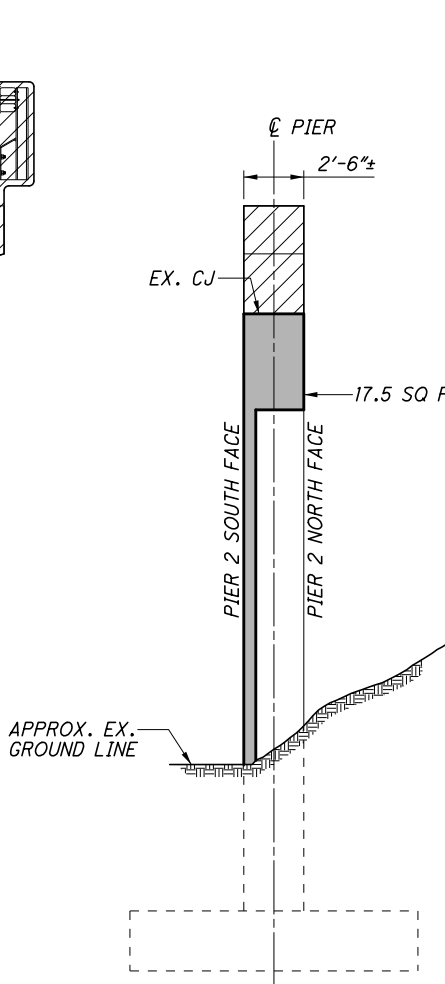
**LEGEND**  
CJ = CONSTRUCTION JOINT  
 PORTION OF EXISTING STRUCTURE TO BE REMOVED  
 INDICATES DELAMINATED AREA REPAIR USING ITEM 519



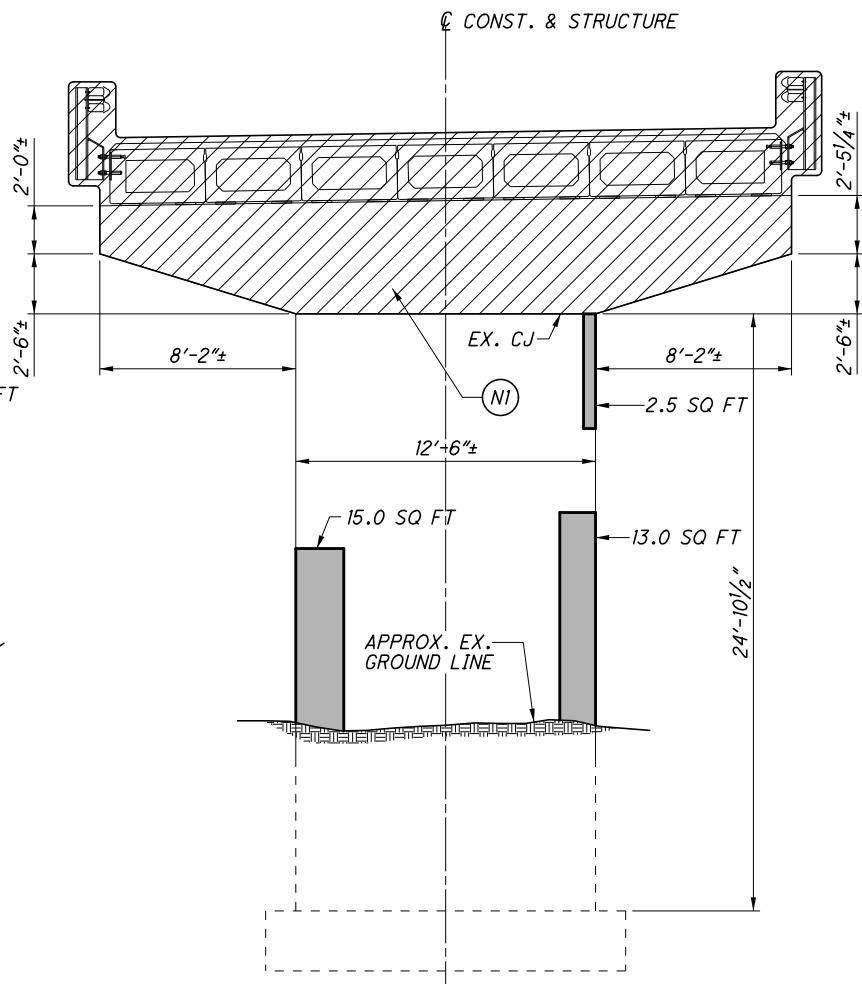
PIER 2 WEST SIDE



PIER 2 South Face Looking North

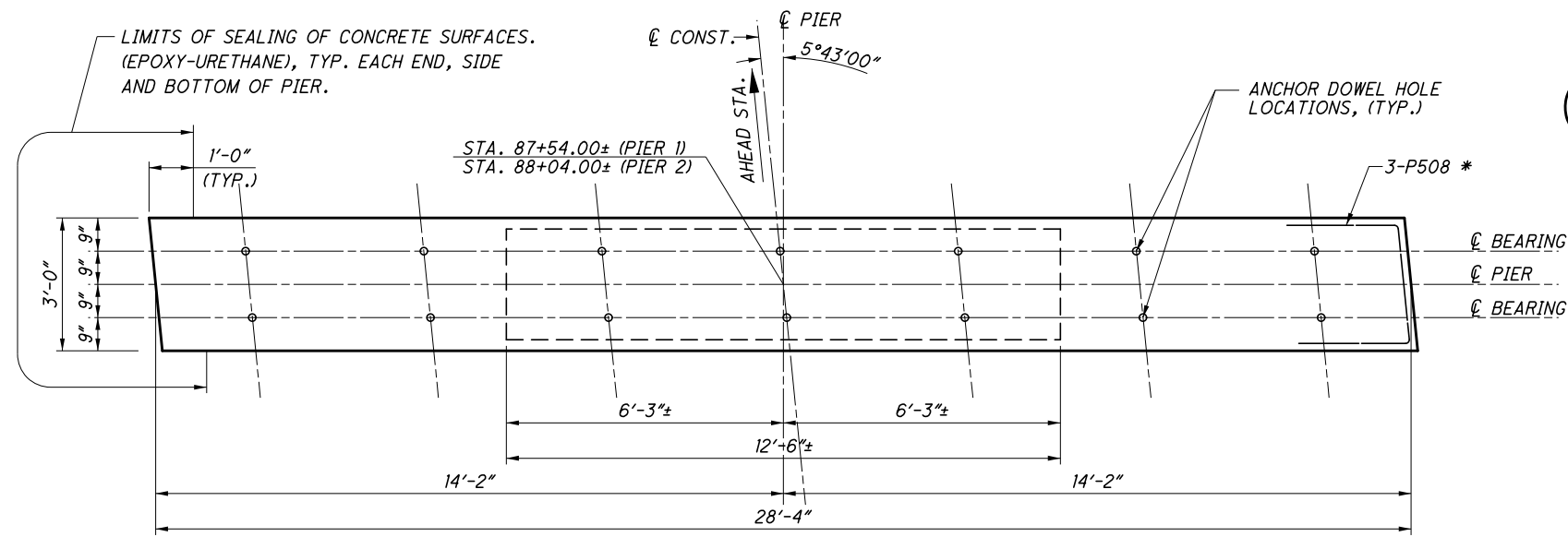


PIER 2 EAST SIDE



PIER 2 North Face Looking South





**PIER PLAN**

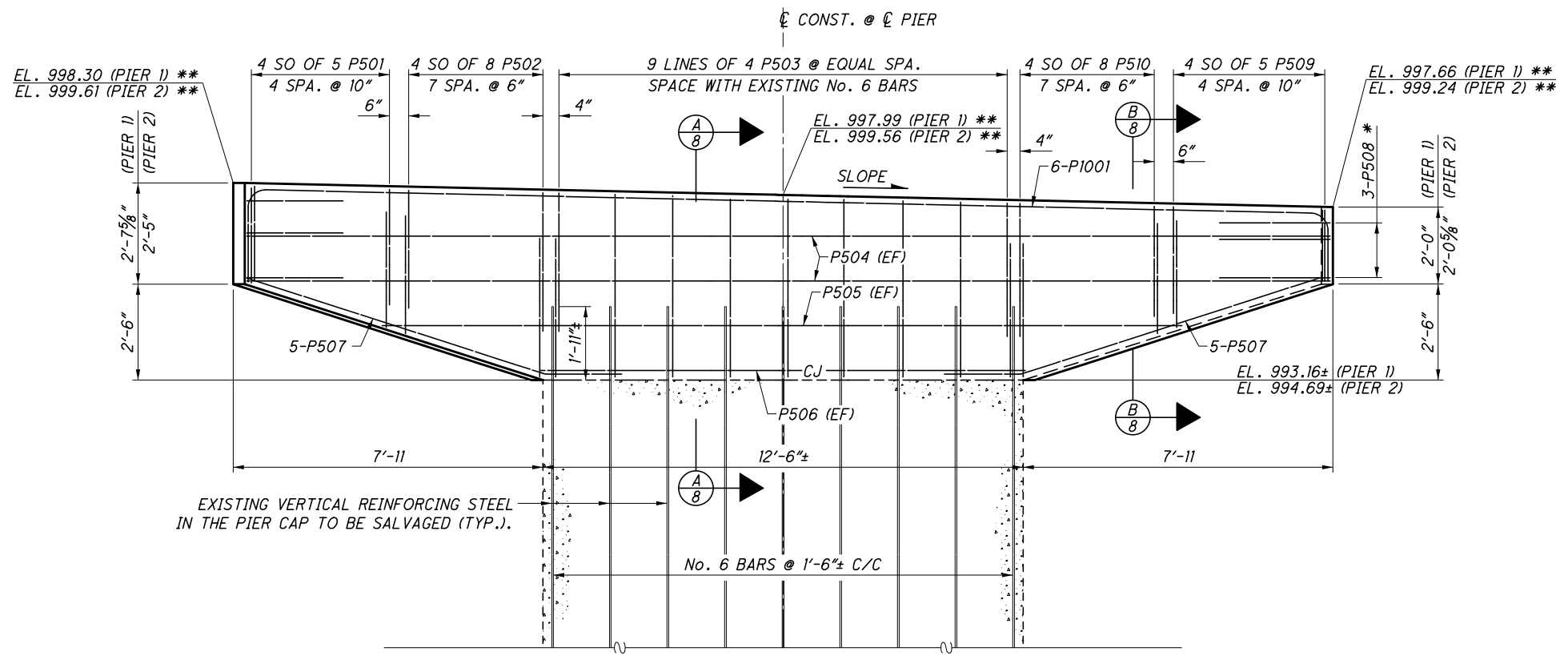
**NOTES**

LAP No. 5 BARS 2'-5"  
LAP No. 10 BARS 7'-10"  
UNLESS NOTED OTHERWISE

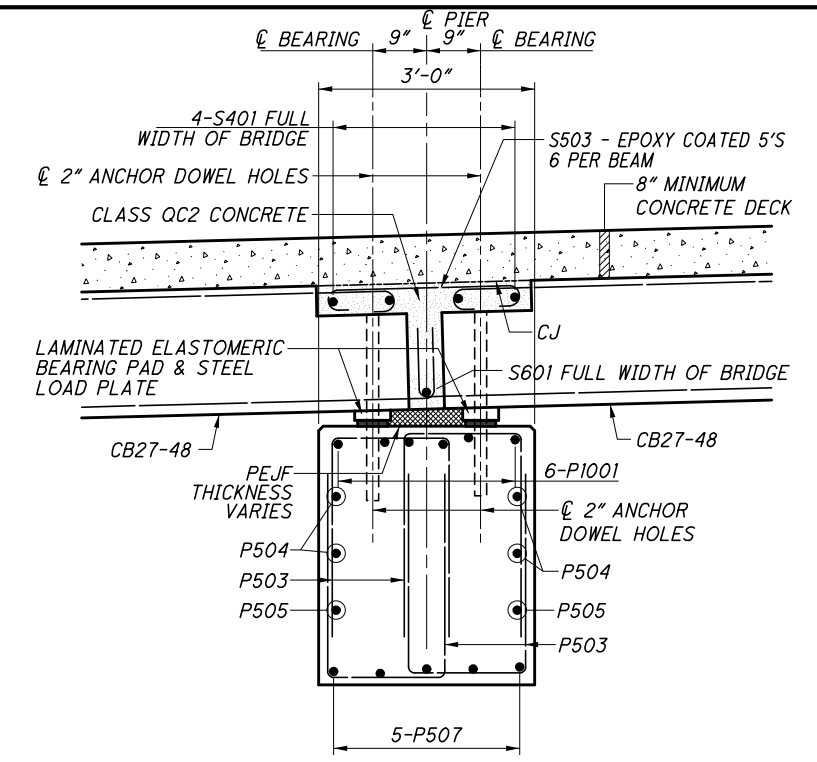
PIER SEAT REINFORCING, SETTING ANCHORS:  
ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE  
PIER SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF THE  
ANCHOR BAR HOLES.

**LEGEND**

EL. = ELEVATION  
EF = EACH FACE  
CJ = CONSTRUCTION JOINT  
EQ = EQUAL  
SO = SERIES OF  
\* - TYPICAL EACH END  
\*\* - AT CL PIER

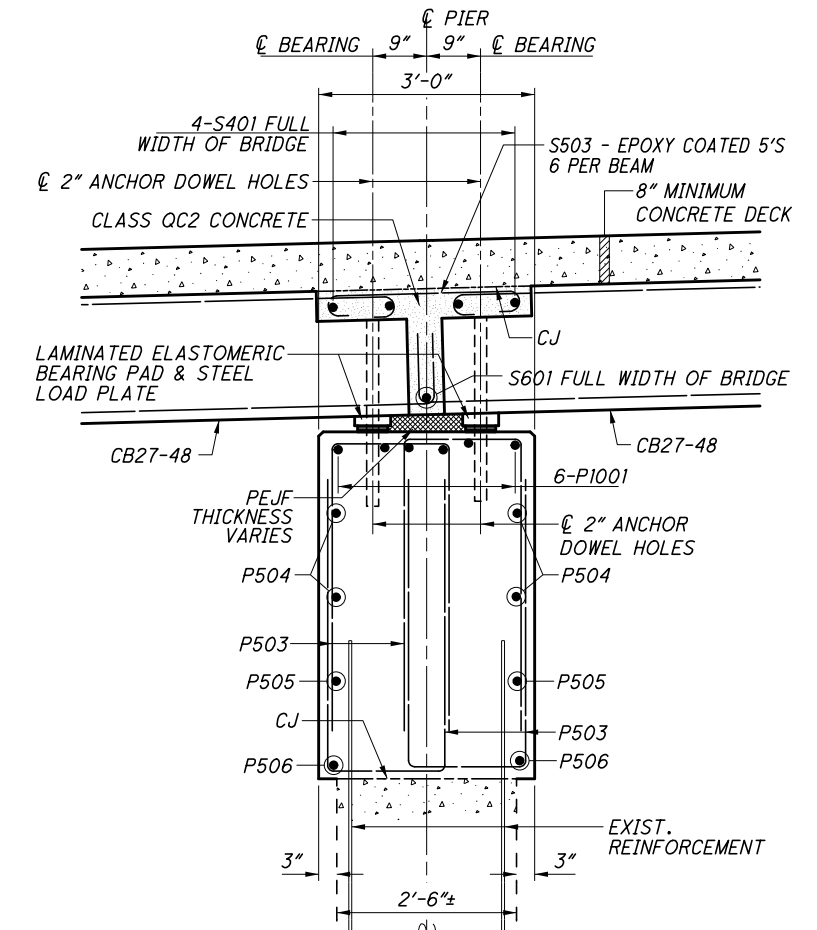


**PIER ELEVATION**



**SECTION B-B**  
(THIS SHEET)

SEE STD. DWG. PSBD-2-07  
FOR ADDITIONAL DETAILS

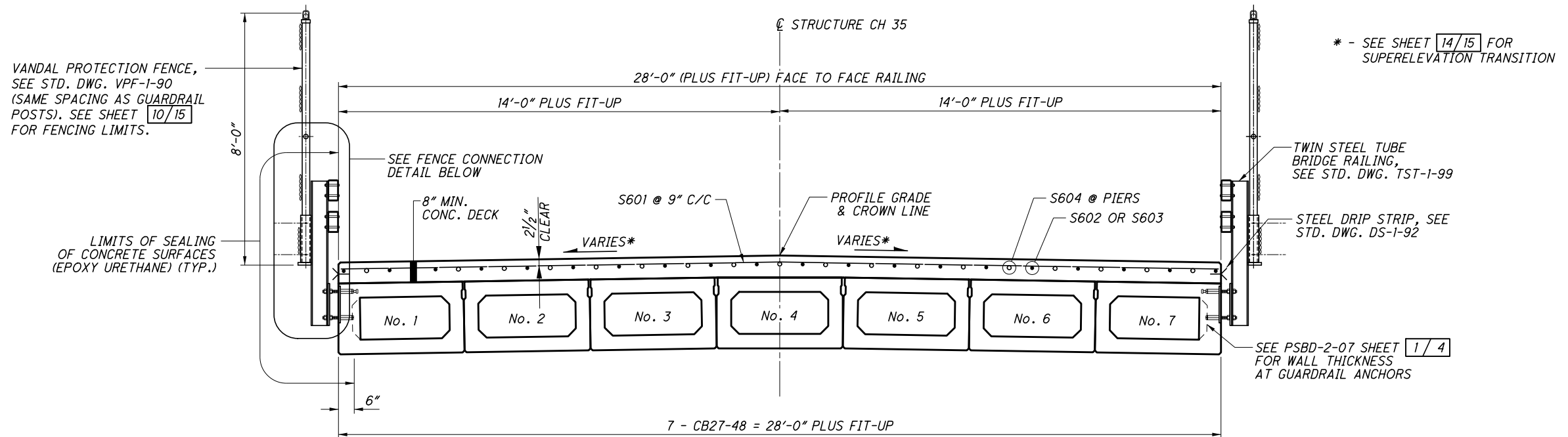


**SECTION A-A**  
(THIS SHEET)

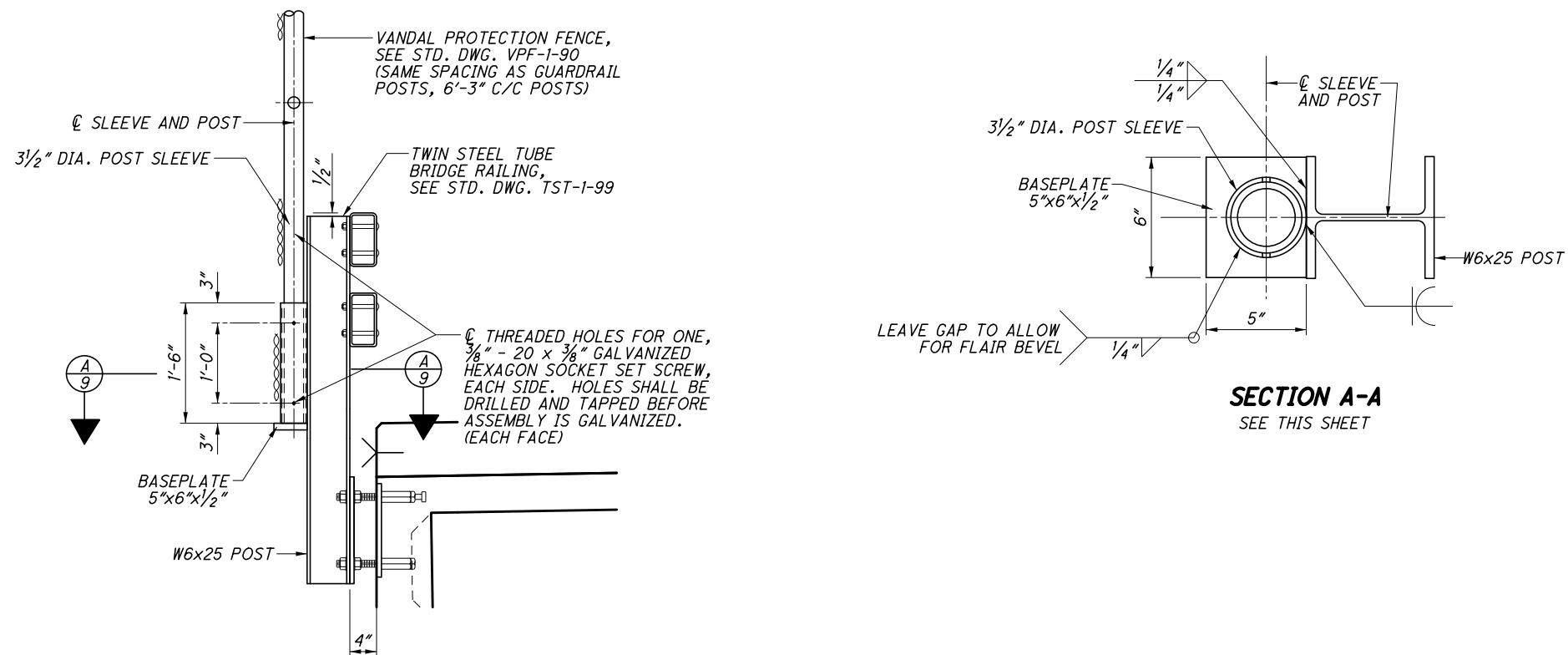
SEE STD. DWG. PSBD-2-07  
FOR ADDITIONAL DETAILS

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TRANSVERSE SECTION

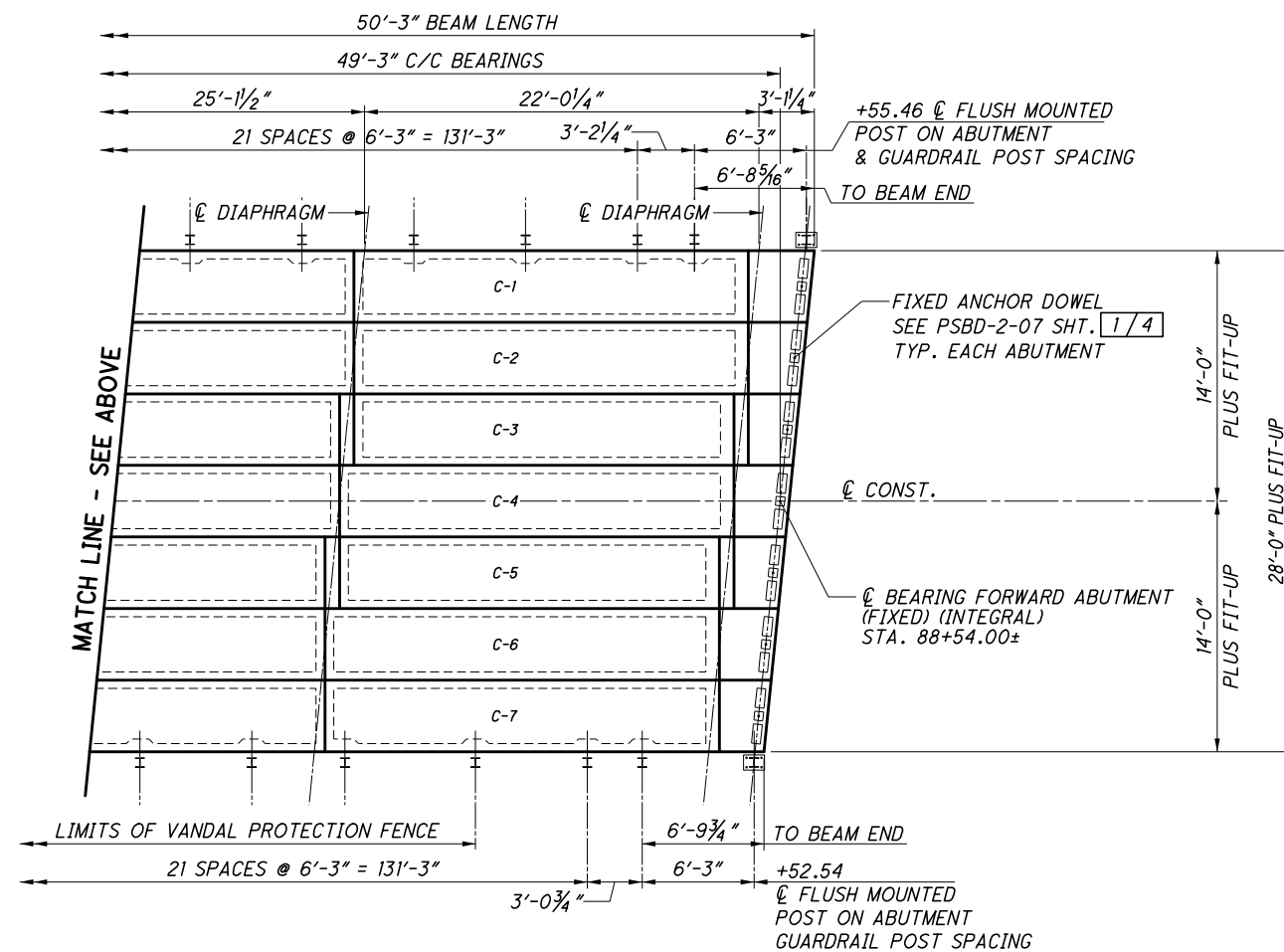


FENCE CONNECTION DETAL



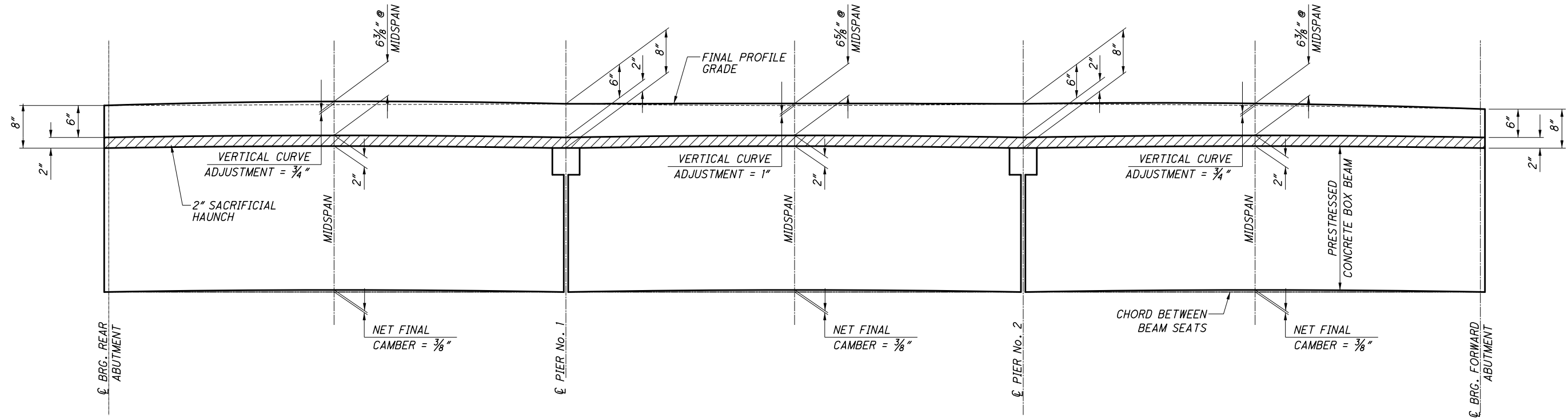


## FRAMING PLAN





NOTE:  
SEE SHEET 14/15 FOR SCREED ELEVATIONS



**CAMBER - END SPANS**

**CAMBER DIAGRAM**

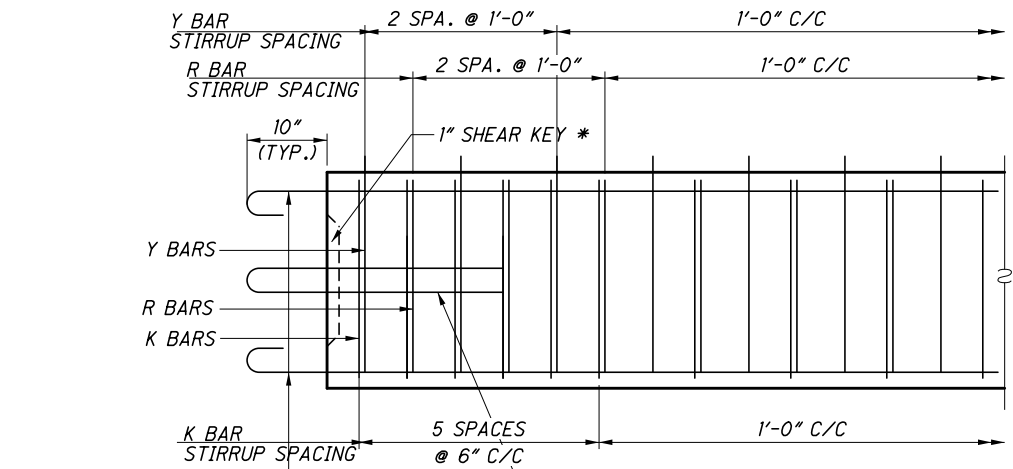
**CAMBER - MID-SPAN**

ESTIMATED CAMBER @ DAY 0 ( $D_0$ ) =  $\frac{5}{16}$ "  
ESTIMATED CAMBER @ DAY 30 ( $D_{30}$ ) =  $\frac{9}{16}$ "

DEFLECTION DUE TO REMAINING DEAD LOAD  
(E.G. CONCRETE DECK, BARRIERS, ETC.) IS  $\frac{3}{16}$ "  
THE BEAM SEAT ELEVATIONS ASSUME ESTIMATED  
CAMBER  $D_{30}$  WITH A SACRIFICIAL HAUNCH THICKNESS  
OF 2".

ESTIMATED CAMBER @ DAY 0 ( $D_0$ ) =  $\frac{5}{16}$ "  
ESTIMATED CAMBER @ DAY 30 ( $D_{30}$ ) =  $\frac{9}{16}$ "

DEFLECTION DUE TO REMAINING DEAD LOAD  
(E.G. CONCRETE DECK, BARRIERS, ETC.) IS  $\frac{3}{16}$ "  
THE BEAM SEAT ELEVATIONS ASSUME ESTIMATED  
CAMBER  $D_{30}$  WITH A SACRIFICIAL HAUNCH THICKNESS  
OF 2".



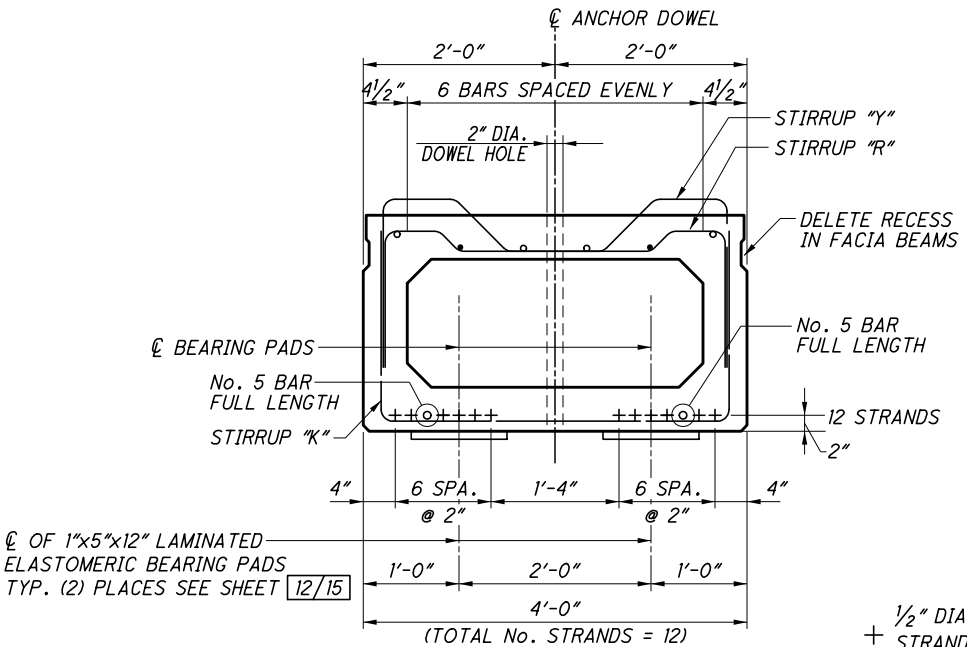
EXTEND TOP AND BOTTOM  
No. 5 BARS WITH 180° BEND  
(8 TOTAL) (EPOXY COATED)

\* - 1" DEEP SHEAR KEY CENTERED ON  
THE BEAM END. SHEAR KEY HEIGHT  
= 13 1/2" & WIDTH = 38"

**PARTIAL ELEVATION AT BEAM END (CB27-48)**

SEE STD. DWG. PSBD-2-07,  
SHEET 4/4 FOR STIRRUP BAR SHAPES

PLACE No. 5 BAR  
@ MID-HEIGHT OF  
EACH WEB (EPOXY COATED)



CL OF 1"x5"x12" LAMINATED  
ELASTOMERIC BEARING PADS  
TYP. (2) PLACES SEE SHEET 12/15

**CB27-48 BEAM 49'-3" END SPANS  
CB27-48 BEAM 48'-6" MIDSPAN**

NOTE: FABRICATORS SHOP DRAWINGS SHALL SHOW  
COMPLETE DETAILS OF BEAM REINFORCING.  
SEE STD. PSBD-2-07 FOR ADDITIONAL DETAILS

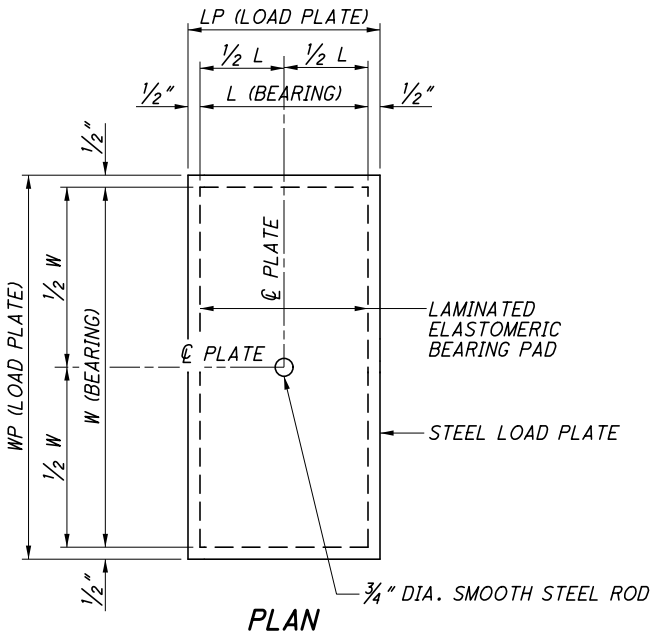
- + 1/2" DIA. SEVEN WIRE PRESTRESSING  
STRAND, UNCOATED, LOW RELAXATION  
( $A_s = 0.167 \text{ IN}^2$ )
- o No. 5 BAR FULL LENGTH
- No. 4 BAR 5'-9" LONG, AT EACH END



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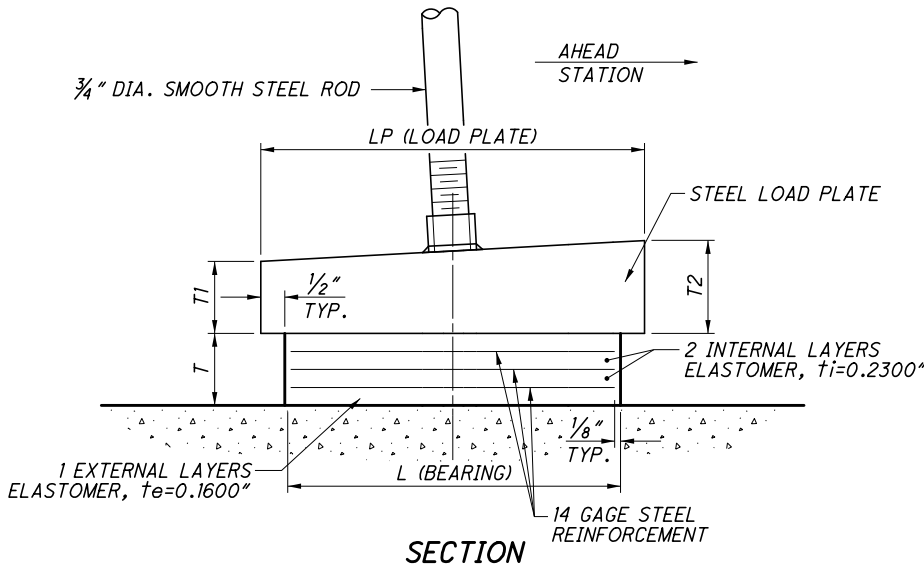
LAMINATED ELASTOMERIC BEARINGS AND LOAD PLATES

	ELASTOMER						STEEL		LOADS (KIPS)			LOAD PLATE			
LOCATION	DUROMETER	L	W	T	$t_i$	$t_e$	ns	GAGE	DEAD LOAD	LIVE LOAD	TOTAL LOAD	LP	WP	T1	T2
REAR ABT.	50	5"	12"	1"	0.230	0.1600	3	14	20.2	23.3	43.5	6"	13"	1½"	1¾"
PIER 1 "A"	50	5"	12"	1"	0.230	0.1600	3	14	18.9	23.3	42.2	6"	13"	1½"	1¾"
PIER 1 "B"	50	5"	12"	1"	0.230	0.1600	3	14	18.8	23.1	41.9	6"	13"	1½"	1¾"
PIER 2 "A"	50	5"	12"	1"	0.230	0.1600	3	14	18.8	23.1	41.9	6"	13"	1½"	1⅝"
PIER 2 "B"	50	5"	12"	1"	0.230	0.1600	3	14	18.9	23.3	42.2	6"	13"	1½"	1⅝"
FWD. ABT.	50	5"	12"	1"	0.230	0.1600	3	14	20.2	23.3	43.5	6"	13"	1½"	1⅞"



BEARING DETAILS

SEE STD. DWG. BD-1-11  
FOR ADDITIONAL BEARING DETAILS



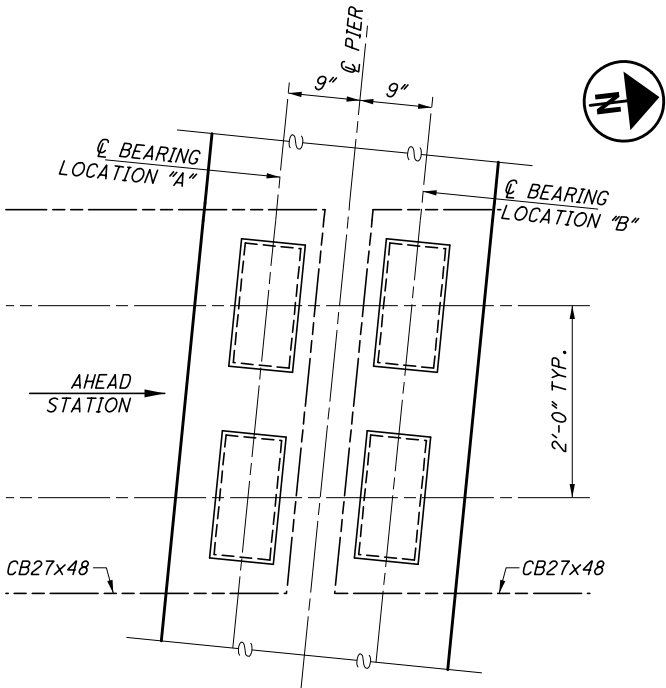
SECTION

**NOTES**

LOAD PLATE THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.

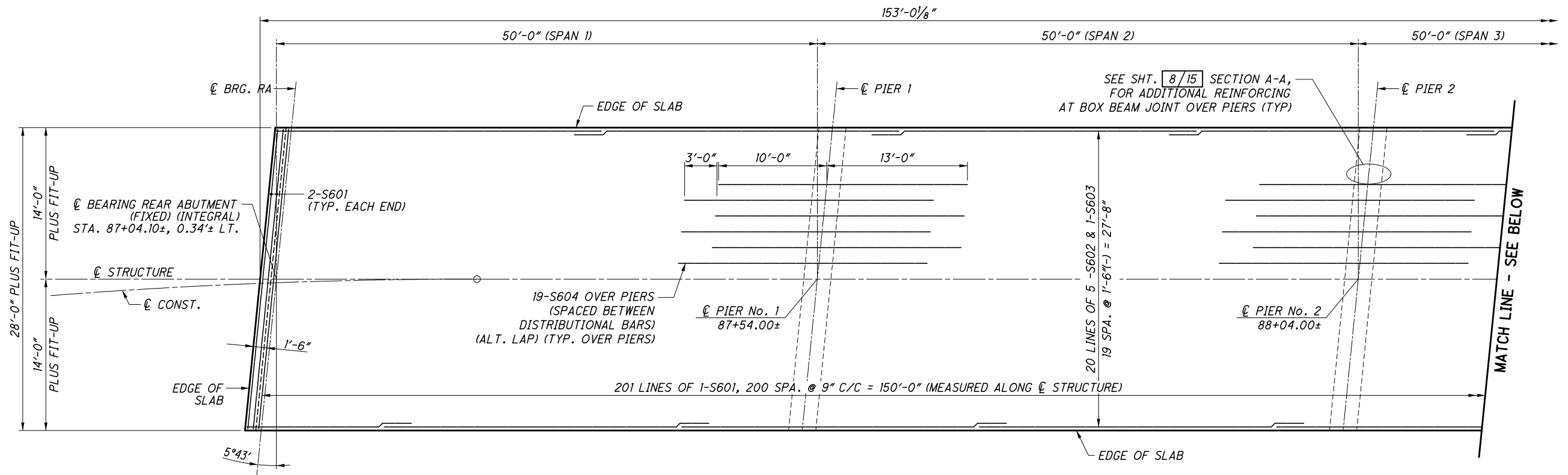
ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.



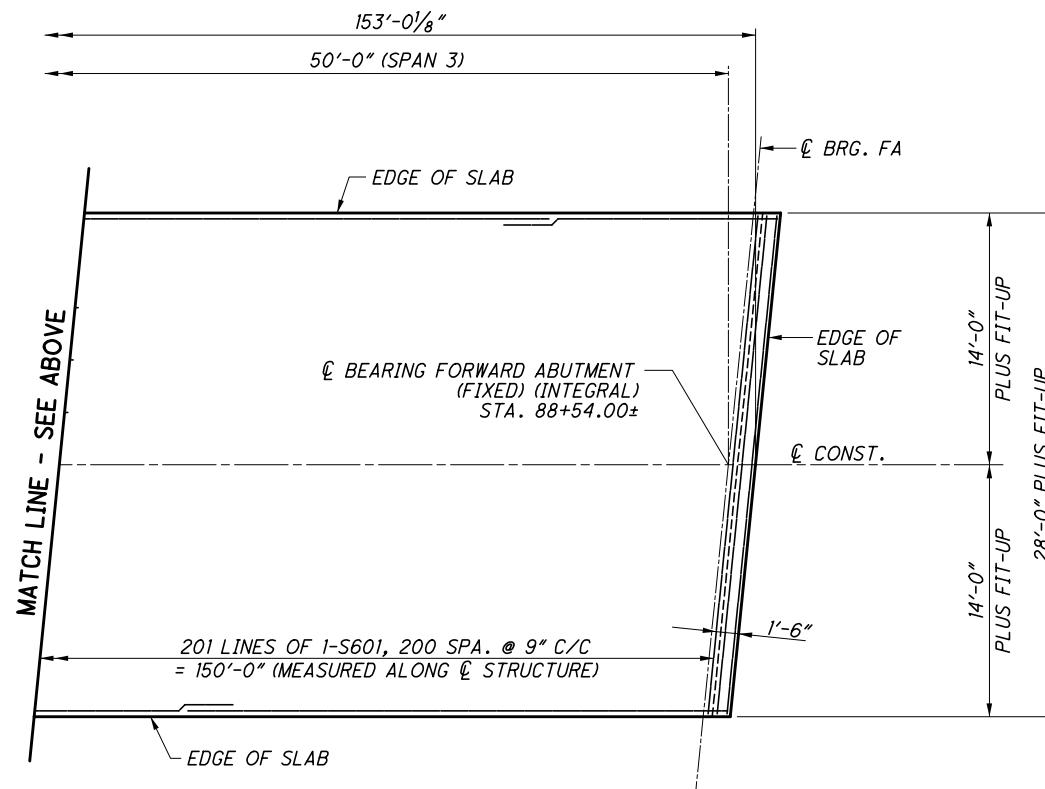
BEARING ORIENTATION  
PLAN VIEW



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DECK REINFORCING PLAN



DECK REINFORCING PLAN



LEGEND

RA = REAR ABUTMENT  
FA = FORWARD ABUTMENT  
ALT. = ALTERNATE  
CJ = CONSTRUCTION JOINT

NOTES

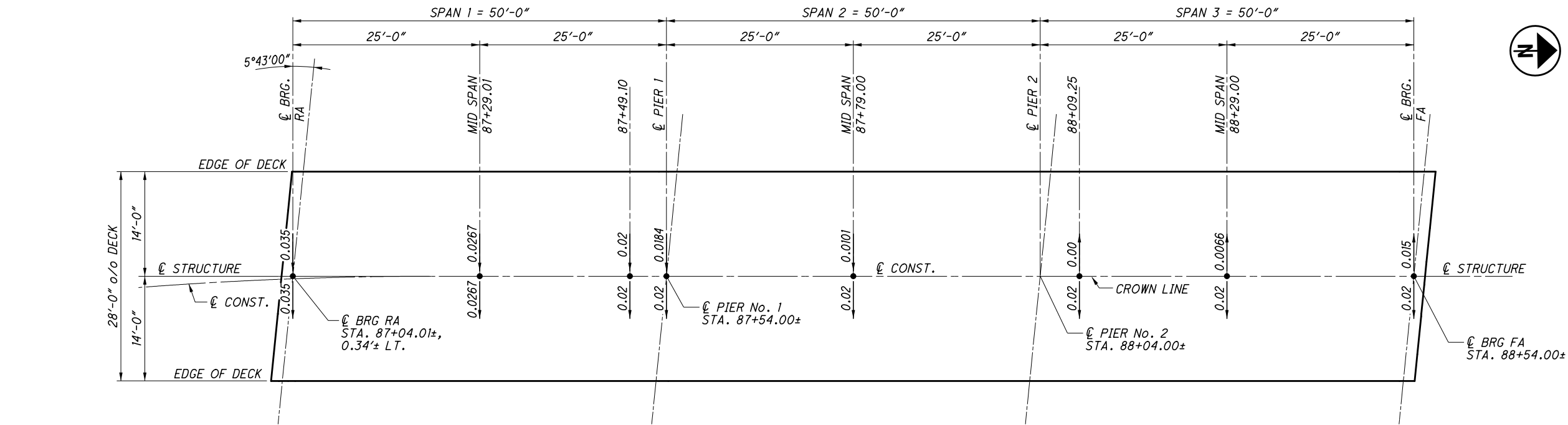
REINFORCING SPLICE LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:

LAP #6 BARS - 2'-11"

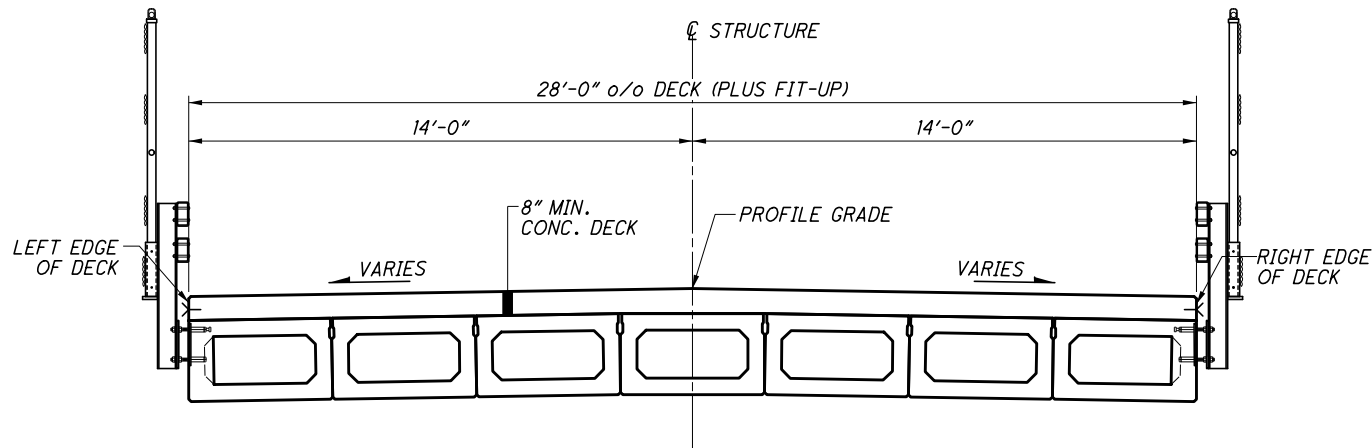
SEE SHEET 14/15 FOR SCREED ELEVATIONS



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DECK PLAN



TRANSVERSE SECTION

LEGEND

RA = REAR ABUTMENT  
FA = FORWARD ABUTMENT  
BRG. = BEARING

NOTES:

- SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
- FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURED.

DECK SCREED ELEVATIONS

		R. ABUT. CL BRG.	MID SPAN	Pier 1 CL BRG.	MID SPAN	Pier 2 CL BRG.	MID SPAN	F. ABUT. CL BRG.
LEFT DECK EDGE 14.00' LT	STATION	87+05.41	87+30.41	87+55.40	87+80.40	88+05.40	88+30.40	88+55.40
	FINAL DECK SURFACE ELEV.	999.48	1000.53	1001.43	1002.16	1002.74	1003.14	1003.43
	DL DEFLECTION (FT)	0.0000	0.0142	0.0000	0.0133	0.0000	0.0142	0.0000
	SCREED ELEVATION	999.48	1000.54	1001.43	1002.17	1002.74	1003.15	1003.43
CENTERLINE CONSTRUCTION	STATION	87+04.01	87+29.01	87+54.00	87+79.00	88+04.00	88+29.00	88+54.00
	FINAL DECK SURFACE ELEV.	998.93	1000.09	1001.12	1001.99	1002.69	1003.22	1003.62
	DL DEFLECTION (FT)	0.0000	0.0142	0.0000	0.0133	0.0000	0.0142	0.0000
	SCREED ELEVATION	998.93	1000.10	1001.12	1002.00	1002.69	1003.23	1003.62
RIGHT DECK EDGE 14.00' RT	STATION	87+02.61	87+27.60	87+52.60	87+77.60	88+02.60	88+27.60	88+52.60
	FINAL DECK SURFACE ELEV.	998.37	999.65	1000.79	1001.67	1002.37	1002.91	1003.32
	DL DEFLECTION (FT)	0.0000	0.0142	0.0000	0.0133	0.0000	0.0142	0.0000
	SCREED ELEVATION	998.37	999.66	1000.79	1001.68	1002.37	1002.92	1003.32



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LENGTHS SHOWN IN FEET AND INCHES

REINFORCING STEEL LIST										
MARK	TOTAL	ABUTMENTS		LENGTH	WEIGHT	TYPE	A	B	C	INCR
		REAR	FWD.							
ABUTMENTS										
A501	50	26	24	2-9	143	S	2-9			
A502	50	26	24	7-1	369	2	2-7	2-2	2-7	
A503	6	6	0	8-2	51	S	8-2			
A504	6	0	6	6-11	43	S	6-11			
A505	6	6	0	6-5	40	S	6-5			
A506	6	0	6	6-11	43	S	6-11			
					689	ABUTMENT TOTAL				

LENGTHS SHOWN IN FEET AND INCHES

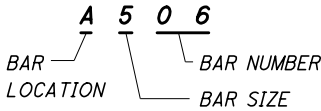
REINFORCING STEEL LIST										
MARK	TOTAL	LENGTH	WEIGHT	TYPE	A	B	C	D	E	INCR
		(POUNDS)								
SUPERSTRUCTURE										
S401	8	28-0	234	S	28-0					
S501	40	5-9	240	3	0-8	1-11				
S502	40	4-5	184	2	2-0	0-8	2-0			
S503	84	3-10	336	17	2-8					
S601	215	27-9	8961	S	27-9					
S602	100	30-0	4506	S	30-0					
S603	20	17-4	521	S	17-4					
S604	38	23-0	1313	S	23-0					
			16,295	SUPERSTRUCTURE TOTAL						

LENGTHS SHOWN IN FEET AND INCHES

REINFORCING STEEL LIST											
MARK	TOTAL	PIER		LENGTH	WEIGHT	TYPE	A	B	C	D	INCR
		NO. 1	NO. 2	(POUNDS)							
PIERS											
P501	8	4	4	6-0	278	2	2-2	1-11	2-2		0-2
	SO	SO	SO	TO			TO		TO		
	5	5	5	7-4			2-10		2-10		
P502	8	4	4	7-6	540	2	2-11	1-11	2-11		0-1
	SO	SO	SO	TO			TO		TO		
	8	8	8	8-8			3-6		3-6		
P503	72	36	36	8-8	651	2	3-6	1-11	3-6		
P504	8	4	4	28-0	234	5	28-0				
P505	4	2	2	20-0	83	5	20-0				
P506	4	2	2	12-6	52	5	12-6				
P507	20	10	10	10-7	221	19	7-9	2-6	2-5		
P508	12	6	6	7-5	93	28	2-8	2-6	0-3		
P509	8	4	4	5-0	250	2	1-8	1-11	1-8		0-3
	SO	SO	SO	TO			TO		TO		
	5	5	5	7-0			2-8		2-8		
P510	8	4	4	7-4	551	2	2-10	1-11	2-10		0-1
	SO	SO	SO	TO			TO		TO		
	8	8	8	9-2			3-9		3-9		
P1001	12	6	6	31-0	1601	2	2-1	1-8	27-11		
					4,276	PIER TOTAL					

NOTE:  
BAR DIMENSIONS SHOWN ARE OUT TO OUT  
UNLESS OTHERWISE INDICATED. "R" INDICATES  
INSIDE RADIUS, UNLESS OTHERWISE NOTED.  
"STD." WRITTEN IN PLACE OF A DIMENSION  
INDICATES A STANDARD BEND AT THE END  
OF THE BAR.  
ALL REINFORCING STEEL TO BE EPOXY COATED.

BAR LEGEND



- A - ABUTMENT
- S - SUPERSTRUCTURE
- P - PIER

