

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

MED-57-3.21 GUILFORD TOWNSHIP MEDINA COUNTY

DESIGN DESIGNATION

Current A.D.T. (1990) _____ 4240
 Design Year A.D.T. (2010) _____ 5520
 D.H.V. _____ 550
 D (Direction Distribution) _____ 55%
 T (Trucks) _____ 5%
 V (Design Speed) _____ 55 MPH
 Legal Speed _____ 55 MPH
 Functional Classification - Rural Collector

CONVENTIONAL SIGNS

County Line _____	Limited Access (only) _____ LA _____
Township Line _____	Right of Way (only) _____ RW _____
Section Line _____	Limited Access & Right of Way _____ LA & RW _____
Corporation Line _____ or _____	Existing Right of Way _____ R/W _____
Fence Line (existing) _____ (proposed) _____	Property Line _____ (in existing fence) _____
Center Line _____	Railroad _____ or _____
Trees (Stumps), (to be removed) _____	Guardrail (existing) _____ (proposed) _____
Utility Poles: Telephone _____, Power _____, Light _____, Cable _____	Storm Sewer _____
Water Line _____	
Gas Line _____	

INDEX OF SHEETS

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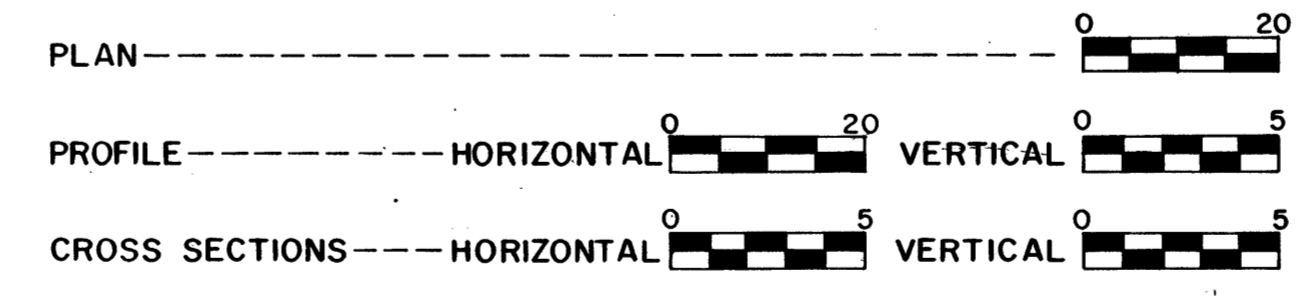
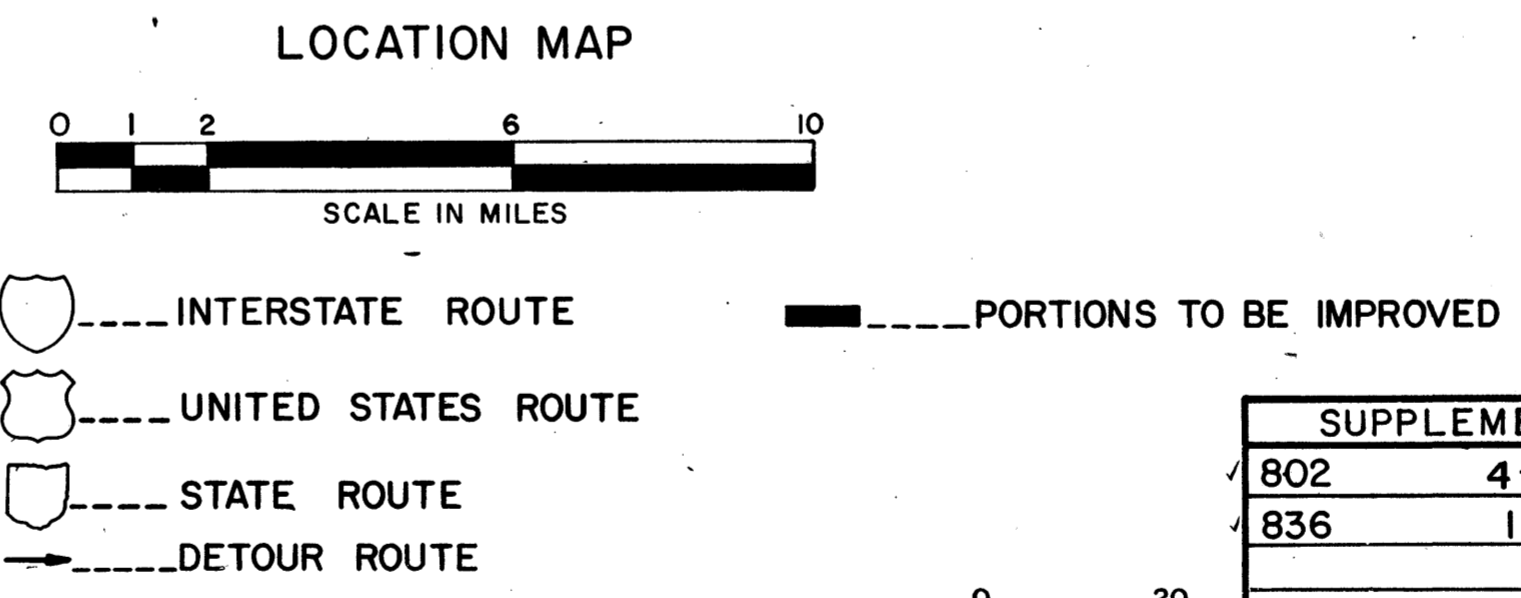
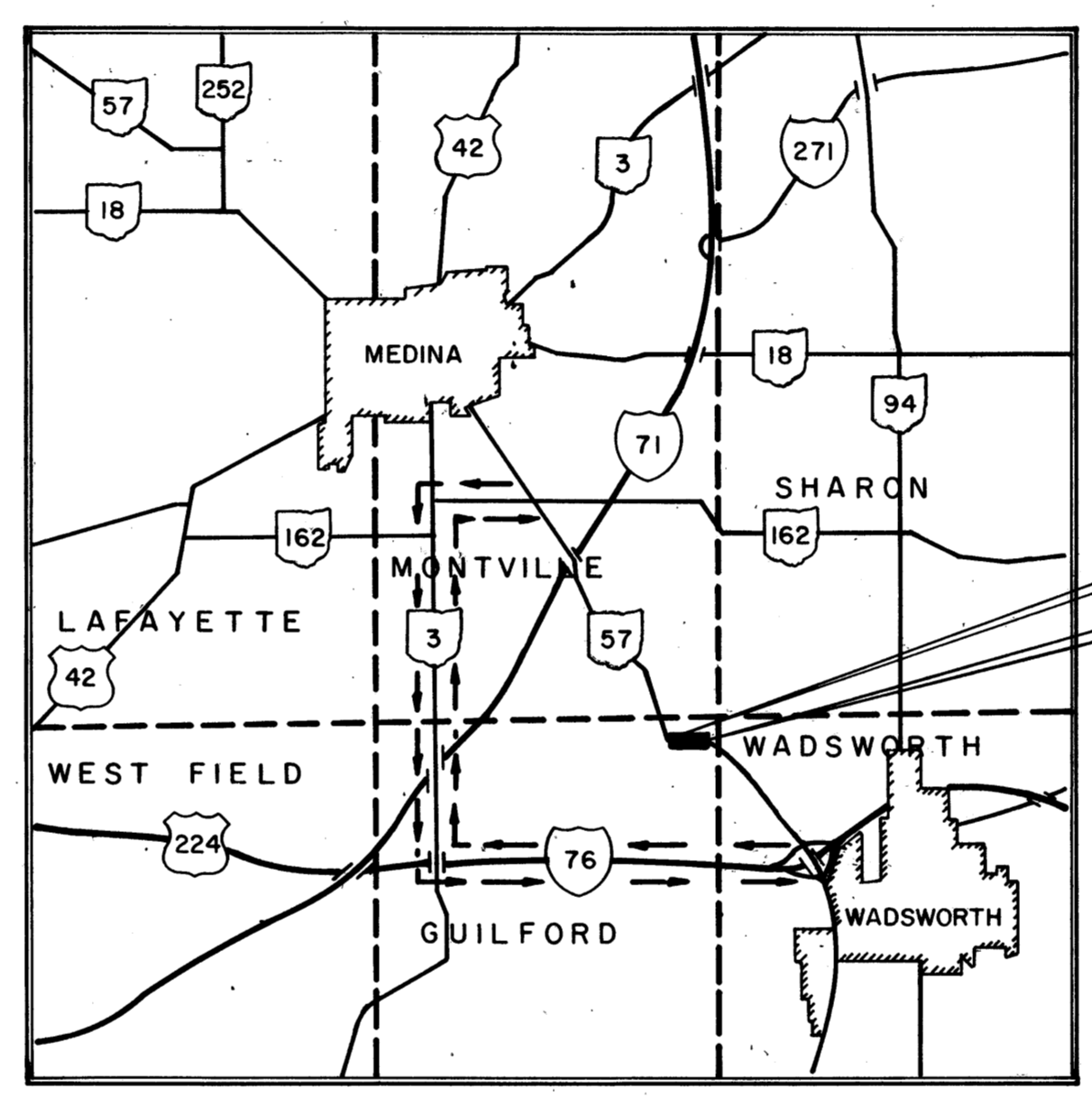
LINE DATA

Begin Project Sta. 169 + 50.00
 End Project Sta. 171 + 35.00
 Length of Project 185.00 l.f. or 0.035 Miles
 Add for Work:
 Sta. 168+00 to Sta. 169+50 150.00 l.f.
 Sta. 171 + 35 to Sta. 172+00.23 65.23 l.f.

Length of Work 400.23 L.F. or 0.076 Miles

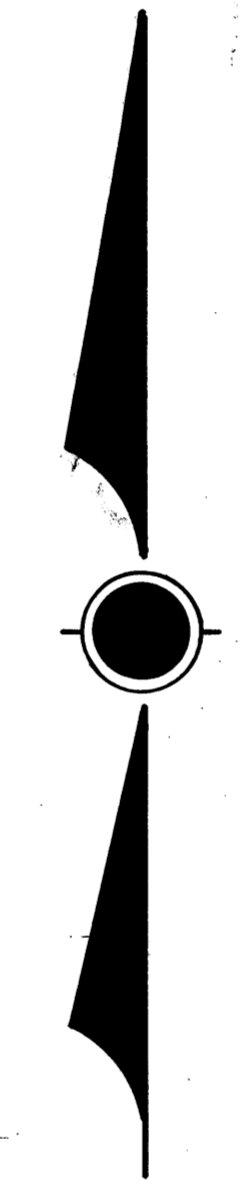
Plan Prepared By:
KARL R. ROHRER ASSOC. INC.
 3810 RIDGEWOOD ROAD
 AKRON, OHIO
 STRUCTURE PLANS REVIEWED BY:
Burgess & Niple, Limited
 Columbus, Ohio

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



END PROJECT
STA. 171 + 35

BEGIN PROJECT
STA. 169 + 50



1989 SPECIFICATIONS

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

I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and that detours will be provided, as indicated on these plans.

Approved _____
 Date 3/13/90 District Deputy Director of Transportation

Approved B.D. Hammel/1072
 Date 4/19/90 Engineer, Bureau of Bridges and Structural Design

Approved _____
 Date 11/26/90 Chief Engineer, Planning and Design

Approved _____
 Date 11/26/90 Director, Department of Transportation

SUPPLEMENTAL SPECIFICATIONS	
802	4-13-90
836	11-12-85
847	10-17-83
947	10-17-83
841	5-16-84
843	7-29-88

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS			
BP-5	10-1-87	AS-1-81	11-27-81
BP-6	10-1-87	DBR-2-73	4-10-73
GR-1	1-11-85	PSBD-1-81	6-20-89
GR-2B	2-5-82		
GR-3	10-25-90	MC-4	7-26-76
GR-4	2-5-82	MC-11	8-1-78
MC-1	6-13-69	MC-10	5-1-76
HW-4 A	4-1-80		
HW-4 B	4-1-80		
MT-99.10	11-14-86		
TC-42.20	3-26-79		

Project: MED-57-3.21 MEDINA COUNTY
 Date of letting 19 Contract No. _____

REVISED 1-22-91

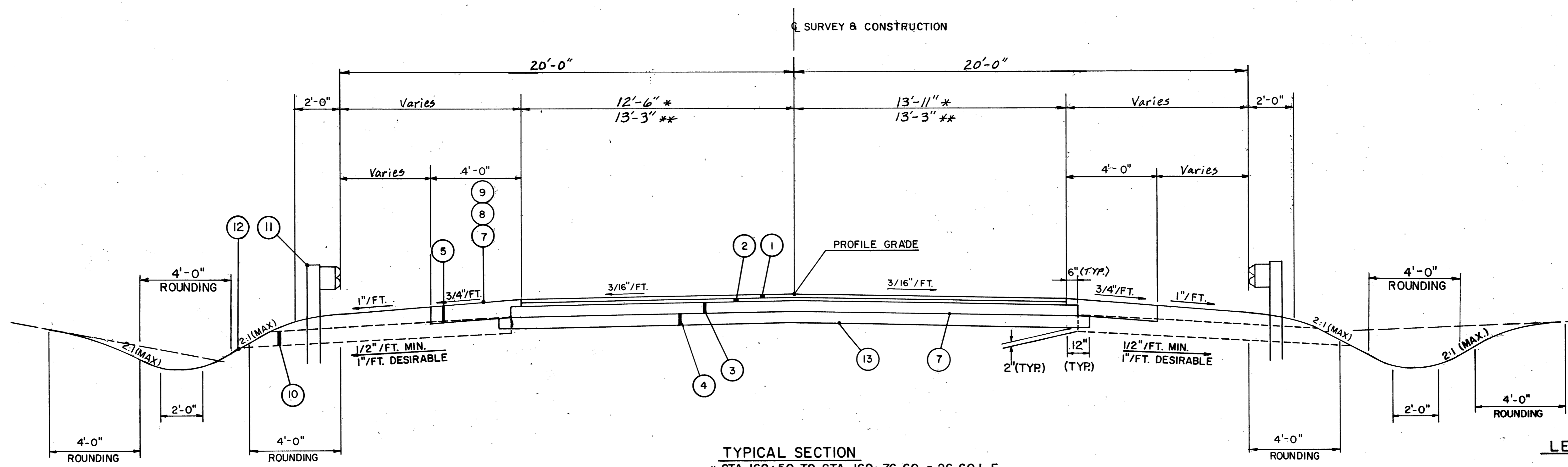
DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
 DIVISION ADMINISTRATOR DATE

TYPICAL SECTION

TYPE 404 ON 301

MED-57-3.21

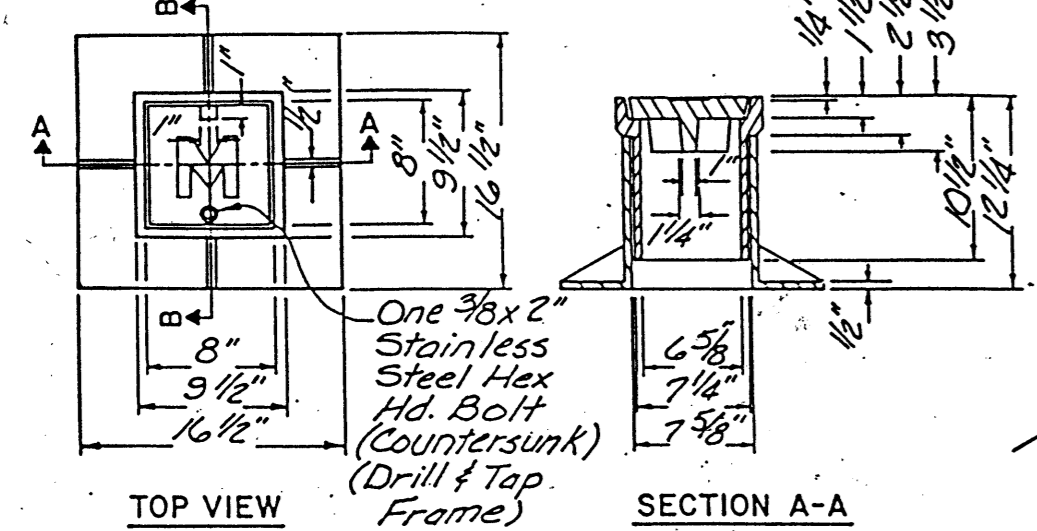


TYPICAL SECTION
 * STA. 169+50 TO STA. 169+76.60 = 26.60 L.F.
 ** STA. 170+64.61 TO STA. 171+35 = 70.39 L.F.
 TOTAL 96.99 L.F.

LEGEND

- ① ITEM 404 1/4" ASPHALT CONCRETE, AC-20.
- ② ITEM 402 3/4" ASPHALT CONCRETE, AC-20.
- ③ ITEM 301 5" BITUMINOUS AGGREGATE BASE, AC-20.
- ④ ITEM 304 6" AGGREGATE BASE, AS PER PLAN.
- ⑤ ITEM 304 8" AGGREGATE BASE, AS PER PLAN.
- ⑥ ITEM 611 REINF. CONC. APPROACH SLAB (T=13").
- ⑦ ITEM 408 BITUMINOUS PRIME COAT, APPLIED AT THE RATE OF 0.4 GAL./SQ.YD.
- ⑧ ITEM 409 SEAL COAT BITUMINOUS MATERIAL APPLIED AT THE RATE OF 0.30 GAL./SQ. YD.
- ⑨ ITEM 409 SEAL COAT COVER AGGREGATE, NO. 8 APPLIED AT THE RATE OF 0.008 CU. YD./SQ. YD.
- ⑩ ITEM 605 AGGREGATE DRAIN (SEE GENERAL NOTE).
- ⑪ ITEM 606 GUARDRAIL, TYPE 5.
- ⑫ ITEM 659 SEEDING AND MULCHING (SEE GENERAL NOTE).
- ⑬ ITEM 203 SUBGRADE COMPACTION.
- ⑭ ITEM 403 VARIABLE DEPTH ASPHALT CONCRETE, AC-20.
- ⑮ ITEM 407 TACK COAT (SEE GENERAL NOTE).

DETAIL OF MONUMENT ASSEMBLY, AS DER PLAN

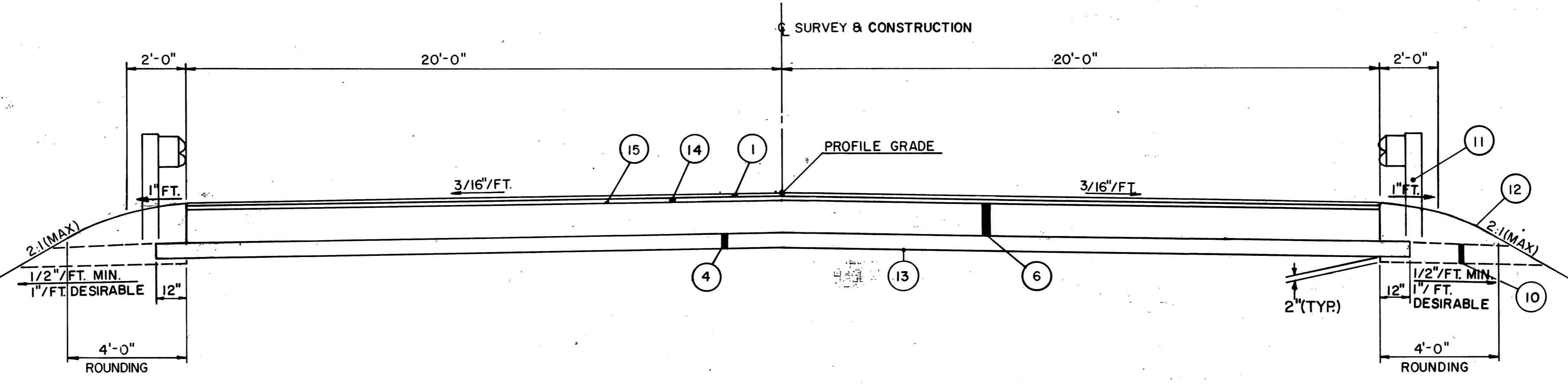


WEIGHTS

Frame	66 lbs.
Sleeve	37 lbs.
Lid	31 lbs.
Total	134 lbs.

MATERIAL
 1. Gray Iron, ASTM A98 Class 30
 2. Paint: One coat black asphalt.

See MC-1 for details not shown. 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, with prior approval of the Engineer, shall be noted and the Engineer shall be notified of the new locations for locations, see sheet 20.



APPROACH SLAB TYPICAL SECTION
 STA. 169+76.60 TO STA. 169+96.60 = 20.00 L.F.
 STA. 170+44.61 TO STA. 170+64.61 = 20.00 L.F.
 TOTAL 40.00 L.F.

BRIDGE LIMITS
 STA. 169+96.60 TO STA. 170+44.61 = 48.01 L.F.

NOTE:
 1. TRANSITION SHOULDER SLOPES TO MEET APPROACH SLAB.

GENERAL NOTES

CALC. BY: J.F. DATE: 7/12/82	OHIO FHWA REGION 2	3 20
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MED-57-3.21

FIELD OFFICE: THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 300 SQ. FT. OF FLOOR SPACE. PAYMENT SHALL BE 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.

UNDERGROUND UTILITIES: THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC.

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

GAS:

THE EAST OHIO GAS CO.
4725 SOUTHWAY ST. S.W.
CANTON, OHIO 44706
PHONE # 216-798-7148

ELECTRIC:

OHIO EDISON CO.
76 S. MAIN STREET
AKRON, OHIO 44308
PHONE # 216-384-4631

TELEPHONE:

GTE TELEPHONE OPERATION NORTH AREA
6223 NORWALK ROAD
MEDINA, OHIO 44256
PHONE # 216-722-9591

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

CLEARING AND GRUBBING:

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

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

LOCATION OF GUARDRAIL:

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

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL:

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

207 STRAW OR HAY BALES 50 EACH

ITEM 407 - TACK COAT

THE RATE OF APPLICATION OF 407 TACK COAT SHALL BE SUBJECT TO THE REQUIREMENTS OF 407.05. PLAN QUANTITIES INDICATE AVERAGE APPLICATION RATES OF 0.10 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

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

ITEM 605 - AGGREGATE DRAINS: AGGREGATE DRAINS SHALL BE PLACED AT FIFTY (50) FOOT INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS AT TWENTY-FIVE (25) FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS.

AN AGGREGATE DRAIN SHALL BE PLACED AT THE LOW POINT OF EACH SAG VERTICAL CURVE.

ITEM - 304 AGGREGATE BASE, AS PER PLAN

MATERIAL FURNISHED FOR THIS ITEM SHALL EXCLUDE ALL SLAG EXCEPT GRANULATED SLAG OR CRUSHED AIR-COOLED BLAST FURNACE SLAG.

WATER PERMANENT SEEDED AREAS: THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR THE PERMANENT SEEDED AREAS, AS PER 659.09:

659 WATER 6 M-GAL.

FARMS DRAINS: ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS UNDER THE DIRECTION OF THE ENGINEER. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF THE ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE, IF POSSIBLE, ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH.

THE LOCATION, TYPE, SIZE AND GRADE OF REQUIRED REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION, AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 603 10" CONDUIT, TYPE B 50 LIN. FT.
ITEM 603 8" CONDUIT, TYPE F 10 LIN. FT.
ITEM 601, ROCK CHANNEL PROTECTION TYPE C WITH
FILTER 2 CU. YDS.

TEMPORARY PAVEMENT MARKINGS: THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

614 - TEMPORARY CENTERLINE, CLASS II 0.04 MI.
SEE MT-99.10 FOR REQUIREMENTS.

THIS ITEM MAY BE NON-PERFORMED IF THE 621 PAVEMENT MARKINGS ARE IN PLACE PRIOR TO OPENING THE ROAD TO TRAFFIC.

DUST CONTROL:

QUANTITIES FOR THE FOLLOWING ITEMS ARE ESTIMATED AND ARE INCLUDED IN THE GENERAL SUMMARY FOR DUST CONTROL, AS DIRECTED BY THE ENGINEER.

ITEM 616 WATER 5 M-GAL.
ITEM 616 CALCIUM CHLORIDE 1 TON

CONDUIT END TREATMENT:

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

CONNECTION TO EXISTING PIPE:

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

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

JOINT SEALERS

ALL REFERENCES TO 705.01 OR 705.02 APPEARING ON STANDARD DRAWINGS OR ON THE PLANS SHALL BE CONSIDERED TO READ 705.04.

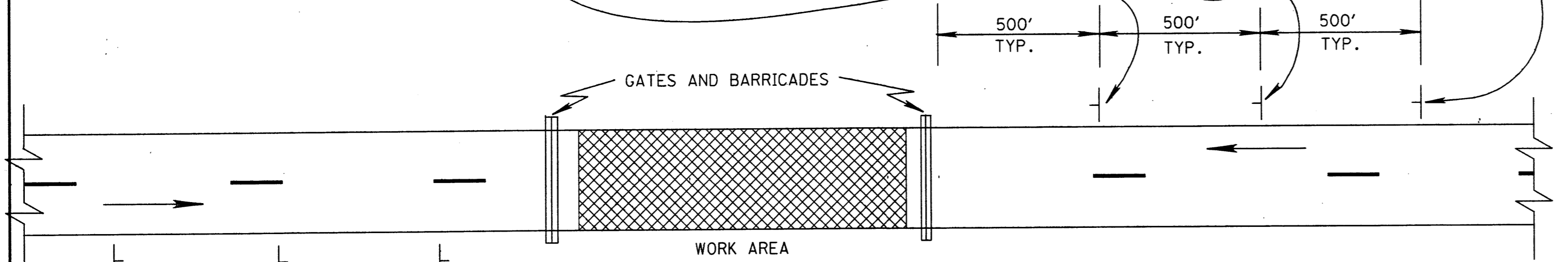
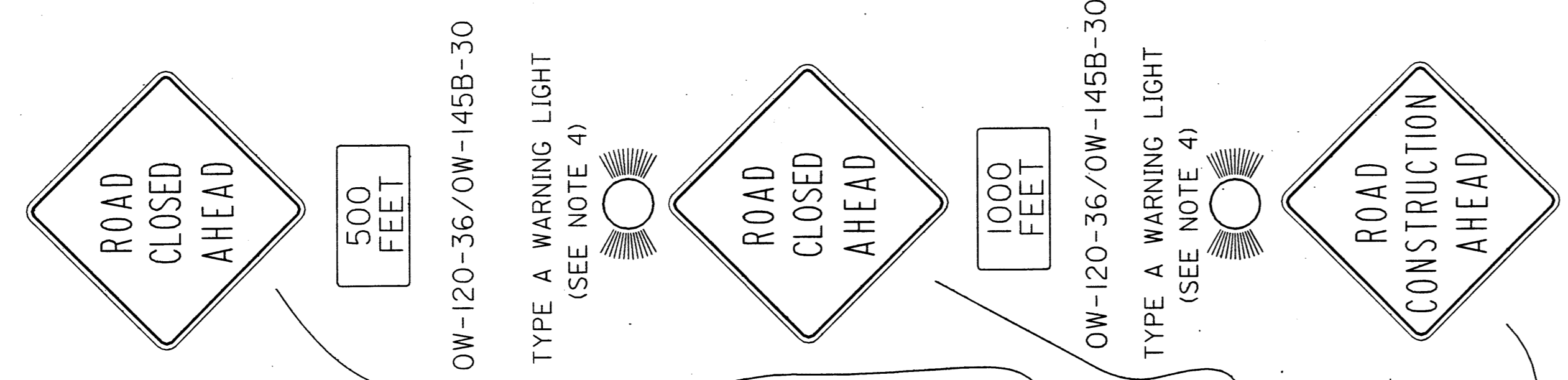
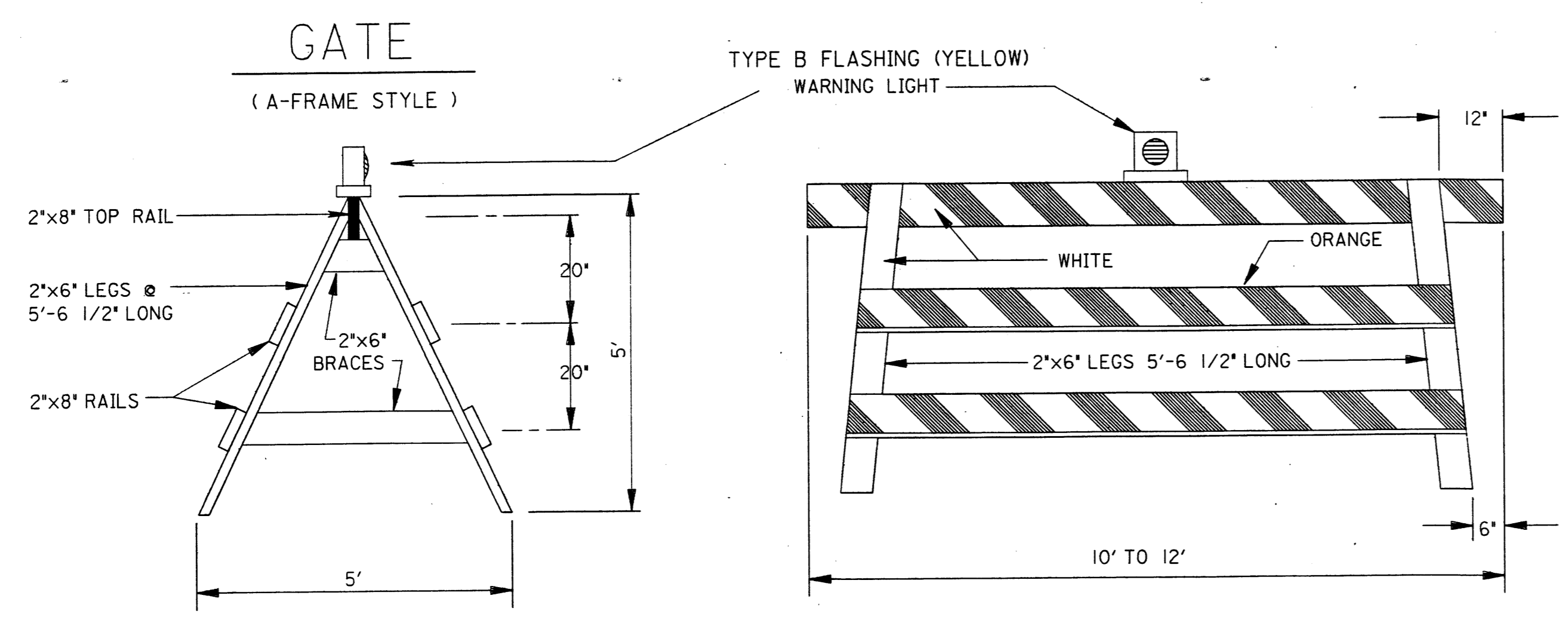
614 MAINTAINING TRAFFIC:

DETOUR LIMITATION AND INTERIM COMPLETION DATE: TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 15 CONSECUTIVE CALENDAR DAYS, THROUGH TRAFFIC WILL BE DETOURED AS SHOWN ON SHEET NO. 1.

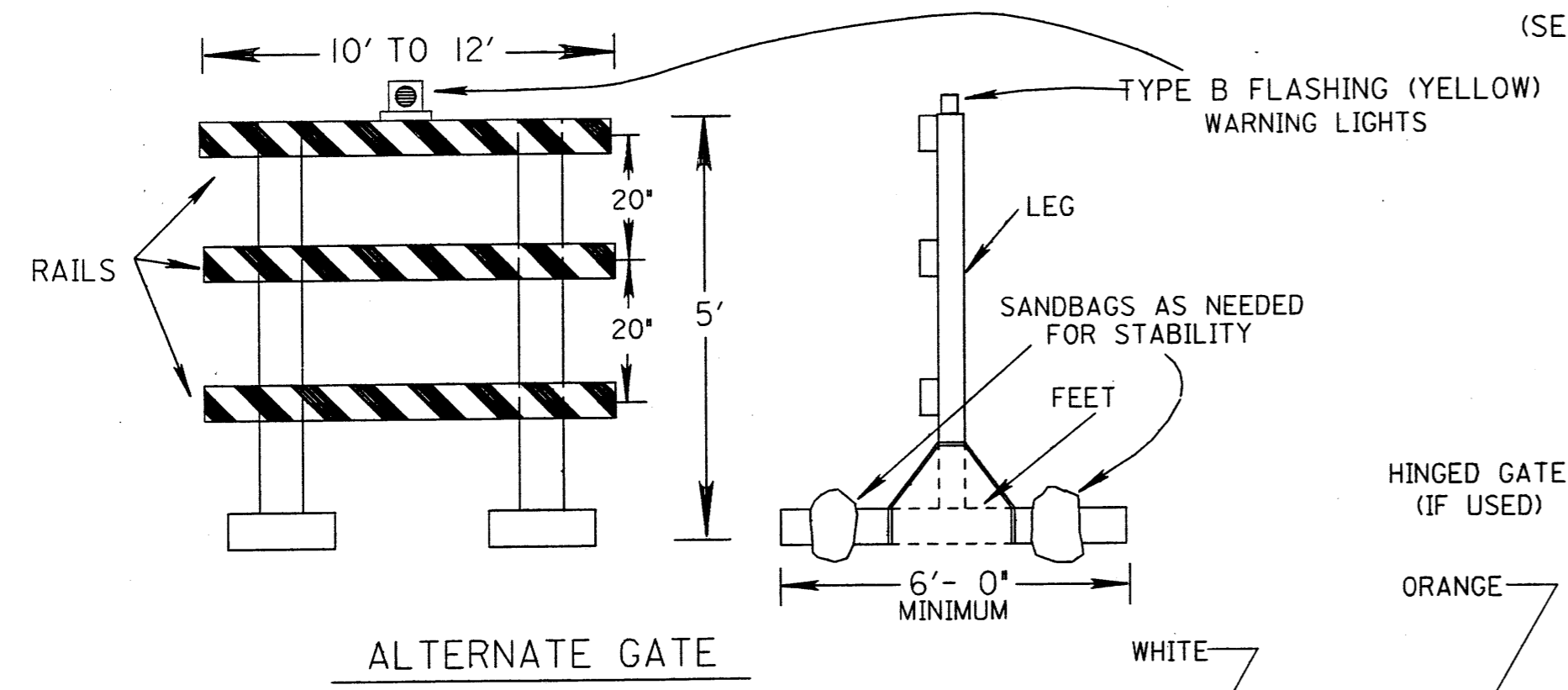
THE CONTRACTOR SHALL NOTIFY THE DISTRICT TRAFFIC ENGINEER IN WRITING A MINIMUM OF SEVEN (7) DAYS IN ADVANCE OF THE DATE THE DETOUR IS NEEDED. THE STATE OF OHIO WILL INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE THE DETOUR SIGNING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE APPROXIMATE WORK LIMITS OF THE PROJECT. SEE MT-101.60

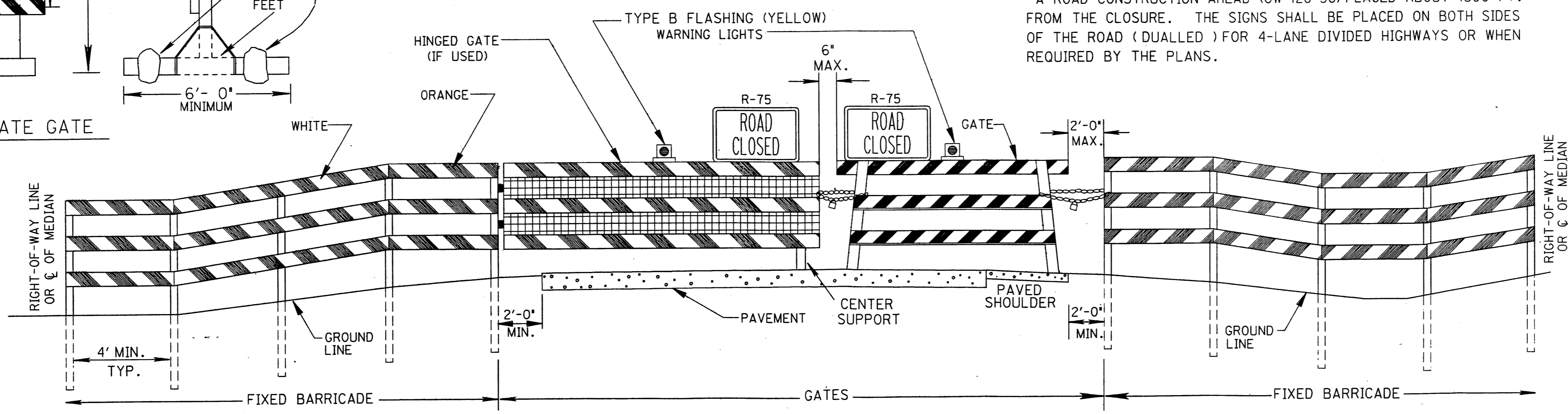
THE 15 CONSECUTIVE CALENDAR DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 15 CONSECUTIVE CALENDAR DAYS THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES, AS PER SECTION 108.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATION.



ADVANCE WARNING SIGNS FOR CLOSURE (SEE NOTE 6)



ALTERNATE GATE



GENERAL NOTES

- BARRICADES:** BARRICADES SHALL BE CONSTRUCTED ACCORDING TO DETAILS SHOWN. WHEN THE ROAD IS CLOSED TO TRAFFIC, BARRICADES AND GATES SHALL BE USED TO EFFECTIVELY CLOSE THE ENTIRE ROADWAY INCLUDING THE MEDIAN OF DIVIDED HIGHWAYS. IN URBAN AREAS AND AT LOCATIONS WHERE IT IS IMPRACTICAL TO EXTEND THE BARRICADE TO THE RIGHT-OF-WAY LINE BECAUSE OF A SIDEWALK WHICH IS TO REMAIN OPEN OR OTHER OBSTRUCTION, THE ENDS OF THE BARRICADE SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO EFFECT THE DESIRED CLOSING OF THE HIGHWAY.
- PAINTING AND REFLECTORIZATION:** IN CONSTRUCTION OR MAINTENANCE AREAS ALL RAILS OF THE BARRICADES AND GATES SHALL BE REFLECTORIZED WITH ORANGE AND WHITE REFLECTORIZED TYPE G SHEETING IN 6" WIDE ALTERNATE STRIPES WHICH SLOPE DOWNWARD TOWARD THE CENTER LINE OF THE ROAD AT AN ANGLE OF 45°. ALL THREE RAILS OF THE FIXED BARRICADE SHALL BE STRIPED ON BOTH SIDES. ALL POSTS, BRACES, GATE LEGS, AND ANY UNSTRIPED RAILS SHALL BE PAINTED WHITE. (GATES AND BARRICADES USED IN PERMANENT OR SEMI PERMANENT APPLICATIONS SHALL DIFFER ONLY IN THAT THEY SHALL USE WHITE AND RED STRIPES).
- GATES:** ONE GATE SHALL BE ERECTED FOR EACH TRAFFIC LANE. GATES SHALL BE CHAINED AND PADLOCKED TO ONE ANOTHER AND TO ADJACENT POST OF THE BARRICADES. CHAINS SHALL BE 1/4" STOCK OR LARGER WITH WELDED LINKS. A HINGED GATE MAY BE USED AND SHALL BE SUPPORTED AT THE CENTER IN AN APPROVED MANNER.
- TYPE A FLASHING WARNING LIGHTS:** TYPE A FLASHING WARNING LIGHTS ARE REQUIRED ON THE ROAD CONSTRUCTION AHEAD (OW-128-36) AND THE FIRST ROAD CLOSED AHEAD (OW-120-36) SIGNS.
- TYPE B FLASHING WARNING LIGHTS:** EACH GATE SHALL BE EQUIPPED WITH A TYPE B FLASHING WARNING LIGHT, CONSPICUOUSLY VISABLE AT ALL DISTANCES UP TO 1000' UNDER NORMAL ATMOSPHERIC CONDITIONS. THE LIGHT SHALL BE IN OPERATION AT ALL TIMES DURING THE PERIOD THE HIGHWAY IS CLOSED.
- SIGNS:** WHERE THE ROAD IS CLOSED TO TRAFFIC BY THE ERECTION OF GATES AND BARRICADES, ROAD CLOSED SIGNS (R-75) SHALL BE MOUNTED ON THE GATES AS SHOWN. SEPARATE ADVANCE WARNING SIGNS WILL NOT BE REQUIRED WHEN ALL TRAFFIC HAS BEEN DIRECTED FROM THE ROADWAY AT OR JUST IN ADVANCE OF THE GATES AND BARRICADES SUCH AS ON A LIMITED ACCESS HIGHWAY OR WHEN A TEMPORARY RUNAROUND SIMILAR TO FIGURE C-24 OF THE OHIO MANUAL IS USED. ADVANCE WARNING SIGNS SHALL BE REQUIRED IN ALL OTHER SITUATIONS AND WHEN REQUIRED IN THE PLANS. ADVANCE WARNING SIGNS ON AN APPROACH SHALL CONSIST OF TWO ROAD CLOSED AHEAD (OW-120-36) SIGNS WITH DISTANCE PLAQUES PLACED ABOUT 500 FT. AND 1000 FT. FROM THE CLOSURE AND A ROAD CONSTRUCTION AHEAD (OW-128-36) PLACED ABOUT 1500 FT. FROM THE CLOSURE. THE SIGNS SHALL BE PLACED ON BOTH SIDES OF THE ROAD (DUALLED) FOR 4-LANE DIVIDED HIGHWAYS OR WHEN REQUIRED BY THE PLANS.

- OPERATION:** ON A 2-LANE 2-WAY ROADWAY THE CONTRACTOR WILL NORMALLY OPEN ONLY THE LEFT HAND GATE AS NECESSARY TO ALLOW VEHICLES TO ENTER AND IMMEDIATELY CLOSE IT. BOTH GATES WILL NOT NORMALLY BE OPENED AT THE SAME TIME. THE CONTRACTOR SHALL ASSIGN AN EMPLOYEE TO ASSURE THAT GATES ARE CLOSED AND CHAINED SHUT AT THE END OF EACH WORKDAY.
- MATERIALS:** GATES OR BARRICADES SHALL BE FABRICATED OF THE FOLLOWING MATERIALS:
FIXED BARRICADE:
 POST: - 4" X 4" SQUARE OR 5" DIA. (MAXIMUM) WOOD (MAY BE TREATED)
 - NO. 3, DRIVE POST (712.20)
 - UP TO 2" SQUARE, 14 GAUGE PUNCHED STEEL TUBING
 RAILS: - 1" X 8" OR 2" X 8" COMMON LUMBER
 - 8" X (5/8" TO 1") THICK EXTERIOR PLYWOOD
 - EXTRUDED PLASTIC OR FORMED SHEET METAL WITH AN 8" WIDE SURFACE AND OF SUFFICIENT STIFFNESS TO RESIST TYPICAL WIND LOADS OF UP TO 30 POUNDS PER SQUARE FOOT, BUT HAVING A WEIGHT OF NOT MORE THAN 5.0 POUNDS PER FOOT.
 FASTENERS: - SPIKES (OF SUFFICIENT LENGTH TO CLINCH)
 - SCREWS/BOLTS (5/16" MIN. DIA.) METAL GUSSETT PLATES AND FORMED OR WELDED METAL JOINTS OF SUFFICIENT SIZE AND QUANTITY TO RESIST THE WIND LOAD SPECIFIED ABOVE. ALL SLIPFIT CONNECTIONS SHALL ALSO BE BOLTED TO PREVENT UNAUTHORIZED DISASSEMBLY
GATES:
 LEGS: - 2" X 6" COMMON LUMBER ('A FRAME' ONLY)
 - 4" X 4" WOOD
 - UP TO 2" SQUARE, 14 GAUGE PUNCHED STEEL TUBING
 - NO. 3 DRIVE POST (712.20)
 RAILS - 2" X 8" COMMON LUMBER
 FASTENERS: (SAME AS BARRICADES ABOVE)
 FEET: - 6" X 6" WOOD
 - NO. 3 DRIVE POST (712.20)
 - UP TO 2-1/4" SQUARE, 12 GAUGE PUNCHED STEEL TUBING
 BRACES: - 2" X 6" (MAXIMUM) COMMON LUMBER
 - 4" WIDE X 3/4" THICK PLYWOOD STRIPS
 - NO. 2 DRIVE POST (712.20)
HINGED GATE:
 GATE: - 12" X 4" STEEL FRAME, FARM GATE
 RAILS: (SAME AS FIXED BARRICADES ABOVE)
 HARDWARE: - HINGED SCREWHOOKS FOR HANGING GATE TO POST
- LUMBER:** LUMBER USED IN THE CONSTRUCTION OF GATES AND BARRICADES SHALL BE COMMON YELLOW PINE OR COMMON DOUGLAS FIR, SURFACED ON FOUR SIDES STANDARD, ALL SIZES ARE NOMINAL.

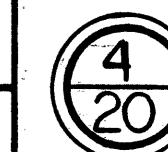
ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE C & M SPECIFICATIONS AS WELL AS IN ACCORDANCE WITH PART 7 OF OMUTCD. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

Revised 1-22-91

REVISED BY:	DATE:
210160	DATE
GATES AND BARRICADES IN POSITION	
PLAN INSERT SHEET	
DATE 04/01/90	

GENERAL SUMMARY

 CALC. BY
 DATE 7/13/22
 CHK'D BY
 DATE 7/13/22

 OHIO
 FHWA 2
 REGION


MED - 57 - 3.21

SHEET NUMBER										PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
<u>ROADWAY</u>																	
LUMP													201	11000	LUMP	CLEARING & GRUBBING	
													202	11200	LUMP	PORTION OF STRUCTURE REMOVED	
													202	38000	402	LIN. FT. GUARDRAIL REMOVED	
													202	23500	147	SQ. YD. WEARING COURSE REMOVED	
													604	38501	2	EACH MONUMENT ASSEMBLY, AS PER PLAN	
													202	35100	117	LIN. FT. PIPE REMOVED, 24" AND UNDER	
													203	20000	965	CU. YD. EMBANKMENT	
													203	12000	958	CU. YD. EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	
													203	50000	454	SQ. YD. SUBGRADE COMPACTION	
													606	13000	375	LIN. FT. GUARDRAIL, TYPE 5	
													606	25000	4	EA. ANCHOR ASSEMBLY, TYPE A	
													606	30500	4	EA. BRIDGE TERMINAL ASSEMBLY, TYPE B	
													616	10000	5	M-GAL. WATER	
													616	20000	1	TON. CALCIUM CHLORIDE	
<u>EROSION CONTROL</u>																	
													207	70000	50	EA. STRAW OR HAY BALES	
													601	32200	4	CU. YD. ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER	
													601	32300	115	CU. YD. ROCK CHANNEL PROTECTION, TYPE D, WITH FILTER	
													659	10000	2959	SQ. YD. SEEDING & MULCHING	
													659	20000	0.27	TON. COMMERCIAL FERTILIZER	
													659	35000	6	M-GAL. WATER	
													670	40000	135	SQ. YD. DITCH EROSION PROTECTION	
<u>DRAINAGE</u>																	
													602	20000	0.9	CU. YD. CONCRETE MASONRY	
													603	06400	50	LIN. FT. 15" CONDUIT, TYPE D	
													603	10900	40	LIN. FT. 24" CONDUIT, TYPE D	
													603	03100	50	LIN. FT. 10" CONDUIT, TYPE B	
													603	02600	10	LIN. FT. 8" CONDUIT, TYPE F	
													605	31100	120	LIN. FT. AGGREGATE DRAIN	
<u>PAVEMENT</u>																	
													301	10002	42	CU. YD. BITUMINOUS AGGREGATE BASE, AC-20	
													304	20001	118	CU. YD. AGGREGATE BASE, AS PER PLAN (SEE SHT. 3)	
													402	20000	14	CU. YD. ASPHALT CONCRETE, AC-20	
													403	20000	10	CU. YD. ASPHALT CONCRETE, AC-20	
													404	20000	21	CU. YD. ASPHALT CONCRETE, AC-20	
													407	10000	33	GAL. TACK COAT	
													408	10000	157	GAL. BITUMINOUS PRIME COAT	
													409	20000	26	GAL. SEAL COAT BITUMINOUS MATERIAL	
													409	12000	1	CU. YD. SEAL COAT OVER AGGREGATE, NO. 8	
													611	15000	178	SQ. YD. REINFORCED CONCRETE APPROACH SLAB (T = 13")	
<u>TRAFFIC CONTROL</u>																	
													621	20100	0.04	MILE. CENTER LINE	
													621	00100	0.09	MILE. EDGE LINE	
													602	00100	8	EA. BARRIER REFLECTOR, TYPE A	
													614	21400	0.04	MILE. TEMPORARY CENTER LINE - CLASS II STRUCTURES OVER 20' SPAN, FOR QUANTITIES MED - 57 - 0322	
																SEE SHEET 13	
LUMP													614	11000	LUMP	MAINTAINING TRAFFIC	
LUMP													619	10000	LUMP	FIELD OFFICE	
													623	10000	LUMP	CONSTRUCTION LAYOUT STAKES	
													624	10000	LUMP	Mobilization	

COMPUTATIONS

ITEM 202 - WEARING COURSE REMOVED
 STA. 169 + 15 TO STA. 169 + 50 (LT. & RT.)
 (35 FT.) (26.5 FT.) = 927.5 S.F.
 ST. 171 + 35 TO STA. 171 + 50 (LT. & RT.)
 (15 FT.) (26.5 FT.) = 397.5 S.F.
 1325 S.F.
 (1325 S.F.) (1/9) = TOTAL 147.2 S.Y.

ITEM 203 - SUBGRADE COMPACTION
ROADWAY
 STA. 169 + 50 TO STA. 169 + 76.60 (LT. & RT.)
 (26.6 FT.) (26.4 FT.) = 702.2 S.F.

APPROACH SLABS
 STA. 169 + 76.60 TO STA. 169 + 96.60 (LT. & RT.)
 (19.02 FT) (40. FT) = 760.80 S.F.

STA. 170 + 44.61 TO STA. 170 + 64.61 (LT. & RT.)
 (19.02 FT.) (40. FT.) = 760.80 S.F.

ROADWAY
 STA. 170 + 64.61 TO STA. 171 + 35 (LT. & RT.)
 (70.39 FT.) (26.5 FT.) = 1865.3 S.F.
 4089.1 S.F.
 (4089.1 S.F.) (1/9) = TOTAL 454 S.F.

ITEM 301 - BITUMINOUS AGGREGATE BASE, AC-20
 STA. 169 + 50 TO STA. 169 + 76.60 (LT. & RT.)
 (26.6 FT.) (27.4 FT.) = 728.8 S.F.

STA. 170 + 64.61 TO STA. 171 + 35 (LT. & RT.)
 (70.4 FT.) (27.5 FT.) = 1936 S.F.
 2664.8 S.F.
 (2664.8 S.F.) (0.42 FT. THK) (1/27) = TOTAL 41.5 C.Y.

ITEM 304 - AGGREGATE BASE
ROADWAY
 STA. 169 + 50 TO STA. 169 + 76.60 (LT. & RT.)
 (26.6 FT) (28.4 FT.) = 755.4 S.F.

APPROACH SLABS
 STA. 169 + 76.60 TO STA. 169 + 96.60 (LT. & RT.)
 (19.02 FT.) (42. FT.) = 798.84 S.F.

STA. 170 + 44.61 TO STA. 170 + 64.61 (LT. & RT.)
 (19.02 FT.) (42. FT.) = 798.84 S.F.

ROADWAY
 STA. 170 + 64.61 TO STA. 171 + 35 (LT. & RT.)
 (70.4 FT.) (28.5 FT.) = 2006.4 S.F.
 4359.5 S.F.
 (4359.5 S.F.) (0.50 FT. THK) (1/27) = SUBTOTAL 80.7 C.Y.

SHOULDERS
 STA. 169 + 50 TO STA. 169 + 72.6 (LT.)
 (22.6 FT.) (4 FT.) = 90.4 S.F.

STA. 169 + 50 TO STA. 169 + 81.15 (RT.)
 (31.15 FT.) (4 FT.) = 124.6 S.F.

STA. 170 + 60.3 TO STA. 171 + 35 (LT.)
 (74.7 FT.) (4 FT.) = 298.8 S.F.

STA. 170 + 68.92 TO STA. 171 + 35 (RT.)
 (66.08 FT) (4 FT.) = 264.32 S.F.
 778.12 S.F.
 (778.12 S.F.) (0.67 FT. THK) (1/27) = 19.31 C.Y.
 19.31 C.Y.
 SUBTOTAL 19.31 C.Y.

ITEM 304 TOTAL 100 C.Y.

ITEM 402 - ASPHALT CONCRETE, AC-20
ROADWAY
 STA. 169 + 50 TO STA. 169 + 76.60 (LT. & RT.)
 (26.6 FT.) (26.4 FT.) = 702.2 S.F.

ROADWAY
 STA. 170 + 64.61 TO STA. 171 + 35 (LT. & RT.)
 (70.39 FT.) (26.5 FT.) = 1865.3 S.F.
 2567.5 S.F.
 (2567.5 S.F.) (0.146 FT.) (1/27) = 13.9 C.Y.

ITEM 402 TOTAL 14 C.Y.

ITEM 403 - ASPHALT CONCRETE, AC-20
APPROACH SLABS
 STA. 169 + 76.60 TO STA. 169 + 96.60
 (20. FT.) (40. FT.) = 800.0 S.F.

STA. 170 + 44.61 TO STA. 170 + 64.61
 (20. FT.) (40. FT.) = 800.0 S.F.
 1600.0 S.F.
 (1600.0 S.F.) (0.17" AVE.) (1/27) = 10.1 C.Y.

ITEM 403 TOTAL 10.1 C.Y.

ITEM 404 - ASPHALT CONCRETE, AC-20
ROADWAY
 STA. 169 + 15 TO STA. 169 + 50 (LT. & RT.)
 (35 FT.) (26.4 FT.) = 924.0 S.F.

STA. 169 + 50 TO STA. 169 + 76.60 (LT. & RT.)
 (26.6 FT) (26.4 FT.) = 702.2 S.F.

APPROACH SLAB
 STA. 169 + 76.60 TO STA. 169 + 96.60 (LT. & RT.)
 (20. FT.) (40. FT.) = 800.0 S.F.

STA. 170 + 44.61 TO STA. 170 + 64.61 (LT. & RT.)
 (20. FT.) (40. FT.) = 800.0 S.F.

ROADWAY
 STA. 170 + 64.61 TO STA. 171 + 35 (LT. & RT.)
 (70.39 FT.) (26.5 FT.) = 1865.34 S.F.

STA. 171 + 35 TO STA. 171 + 50 (LT. & RT.)
 (15 FT.) (26.5 FT.) = 397.50 S.F.
 5489.04 S.F.
 (5489.04 S.F.) (0.104 FT. THK) (1/27) = 21.1 C.Y.

ITEM 404 TOTAL 21 C.Y.

ITEM 407 - TACK COAT
APPROACH SLABS
 STA. 169 + 76.60 TO STA. 169 + 96.60 (LT. & RT.)
 (20. FT.) (40. FT.) = 800.0 S.F.

STA. 170 + 44.61 TO STA. 170 + 64.61 (LT. & RT.)
 (20. FT.) (40. FT.) = 800.0 S.F.

FEATHER AREAS
 STA. 169 + 15 TO STA. 169 + 50 (LT. & RT.)
 (35 FT.) (26.5 FT.) = 927.5 S.F.

STA. 171 + 35 TO STA. 171 + 50 (LT. & RT.)
 (15 FT.) (26.5 FT.) = 397.5 S.F.
 2925.0 S.F.
 (2925.0 S.F.) (1/9) (0.10 GAL) = 32.50 GALS

ITEM 407 TOTAL 32.50 GALS

ITEM 408 - PRIME COAT (BITUMINOUS)
 778.12 S.F. (FROM ITEM 304 SHOULDERS)
 2761.8 S.F. (FROM ITEM 304 ROADWAY)
 3539.92 S.F.
 (3539.92 S.F.) (1/9) (0.40 GAL) = 157.3 GALS

ITEM 408 TOTAL 157 GALS

ITEM 409 - SEAT COAT (BITUMINOUS)
 778.12 S.F. (FROM ITEM 304 SHOULDERS)
 (778.12 S.F.) (1/9) (0.30 GAL) = 25.94 GALS

ITEM 409 TOTAL 26 GALS

ITEM 409 - COVER AGGREGATE NO. 8
 (778.12 S.F.) (1/9) (0.008 C.Y.) = 0.69 C.Y.

ITEM 409 TOTAL 1 C.Y.

ITEM 611 - REINFORCED CONCRETE APPROACH SLABS
 STA. 169 + 76.60 TO STA. 169 + 96.60 (RT. & LT.)
 (20. FT.) (40. FT.) = 800.0 S.F.

STA. 170 + 44.61 TO STA. 170 + 64.61 (LT. & RT.)
 (20. FT) (40. FT.) = 800.0 S.F.
 1600.0 S.F.
 (1600.0 S.F.) (1/9) = 177.78 S.Y.

ITEM 611 TOTAL 177.78 S.Y.

ITEM 659 - SEEDING & MULCHING (FROM SUMMARY) = 2976 S.Y.

ITEM 659 - COMMERCIAL FERTILIZER
 [135 + (2959 S.Y. X 9)] + 1000 = 26.77 X 20 LBS.
 535.32 LBS. + 2000 LBS. = 0.27 TONS

ITEM 659 TOTAL 0.27 TONS

ITEM 659 - WATER
 (2959 S.Y. X 9) + 1000 = 26.63 X 120 GAL =
 3195.7 + 1000 = 4195.7 GAL
 3.19 M GAL X 2 APPLICATIONS = 6.39 M GAL

ITEM 659 TOTAL 6 M GAL (TO GEN.NOTE)

ITEM 605 - AGGREGATE DRAINS
 STA. 169 + 50 TO STA. 169 + 96.60 = 46.60 L.F.
 46.60 L.F. + 50 FT. INTERVALS = 1 SPA. =
 2 DRAINS PER SIDE OF ROAD = 4 DRAINS
 (4 DRAINS) (12 L.F. AVE. EACH) = 48 L.F.

STA. 170 + 44.61 TO STA. 171 + 35 = 90.39 L.F.

90.39 L.F. + 50 FT. INTERVALS = 2 SPA. =
 3 DRAINS PER SIDE OF ROAD = 6 DRAINS
 (6 DRAINS) (12 L.F. AVE. EACH) = 72 L.F.
 120 L.F.

ITEM 605 TOTAL 120 L.F.

ITEM 621 - PAVEMENT MARKING
 PAVEMENT MARKING SHALL BE INSTALLED FROM
 STA. 169 + 15 TO STA. 171 + 50 ON S.R. 57 = 235 L.F.

THE FOLLOWING IS AN ESTIMATED QUANTITY FOR ITEM 621 PAVEMENT MARKING:

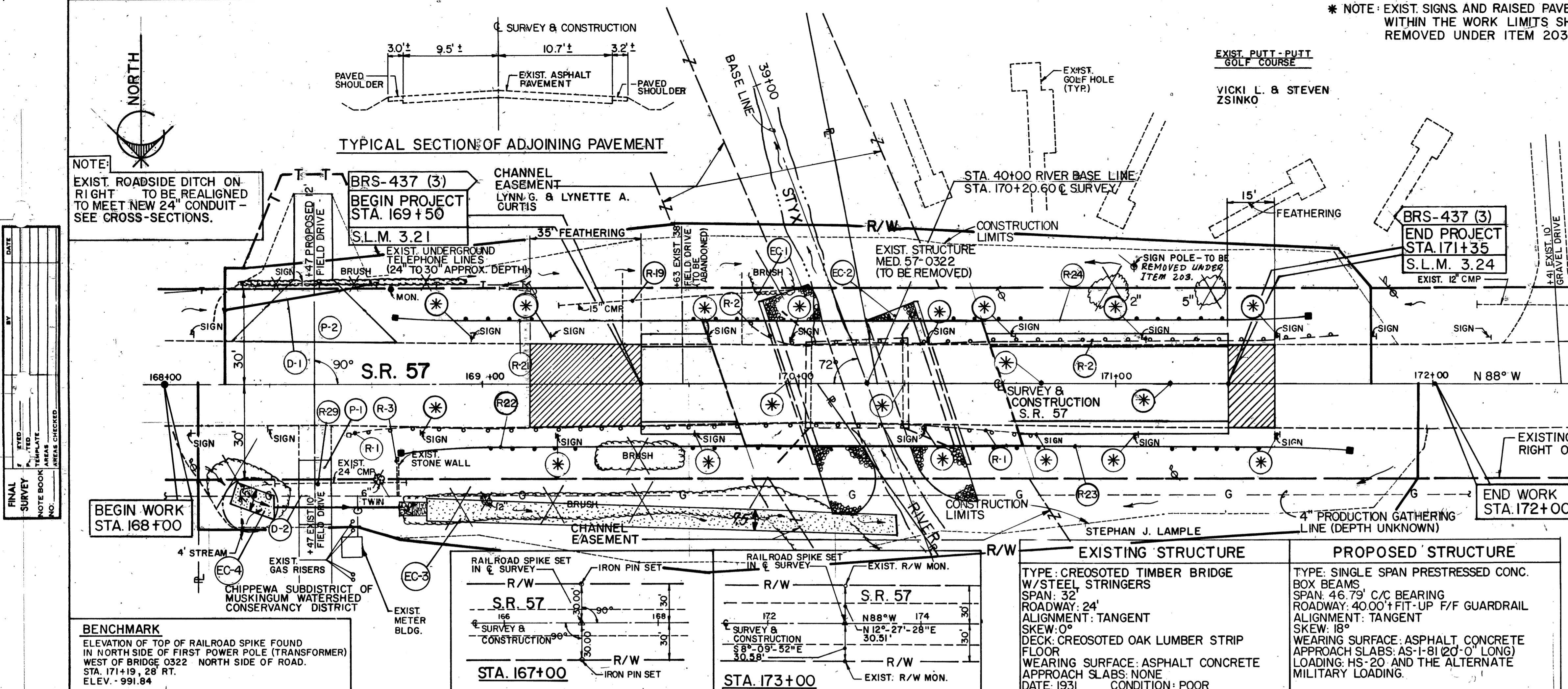
ITEM 621 - EDGE LINES (WHITE) = 0.09 MILES
 ITEM 621 - CENTER LINES (DASHED SINGLE) = 0.04 MILES

QUANTITIES CARRIED TO GENERAL SUMMARY SHT. 4 OF 20, EXCEPT AS NOTED.

CALC. BY: LBD
DATE: 11/21/22
CHKD. BY: TLF
DATE: 11/21/22

MED-57-3.21

* NOTE: EXIST. SIGNS AND RAISED PAVEMENT MARKERS WITHIN THE WORK LIMITS SHALL BE REMOVED UNDER ITEM 203.



NOTE: EXIST. ROADSIDE DITCH ON RIGHT TO BE REALIGNED TO MEET NEW 24" CONDUIT - SEE CROSS-SECTIONS.

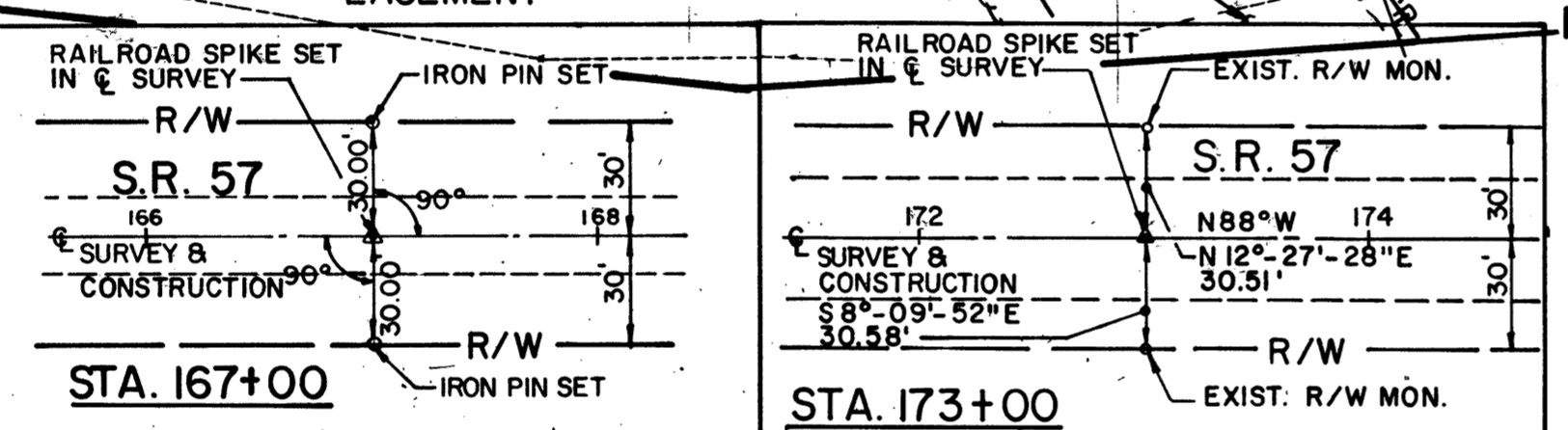
TYPICAL SECTION OF ADJOINING PAVEMENT

TYPICAL SECTION OF ADJOINING PAVEMENT

DATE	
BY	
FINAL SURVEY	
PLOTTED	
TEMPLATE	
NO. AREAS CHECKED	

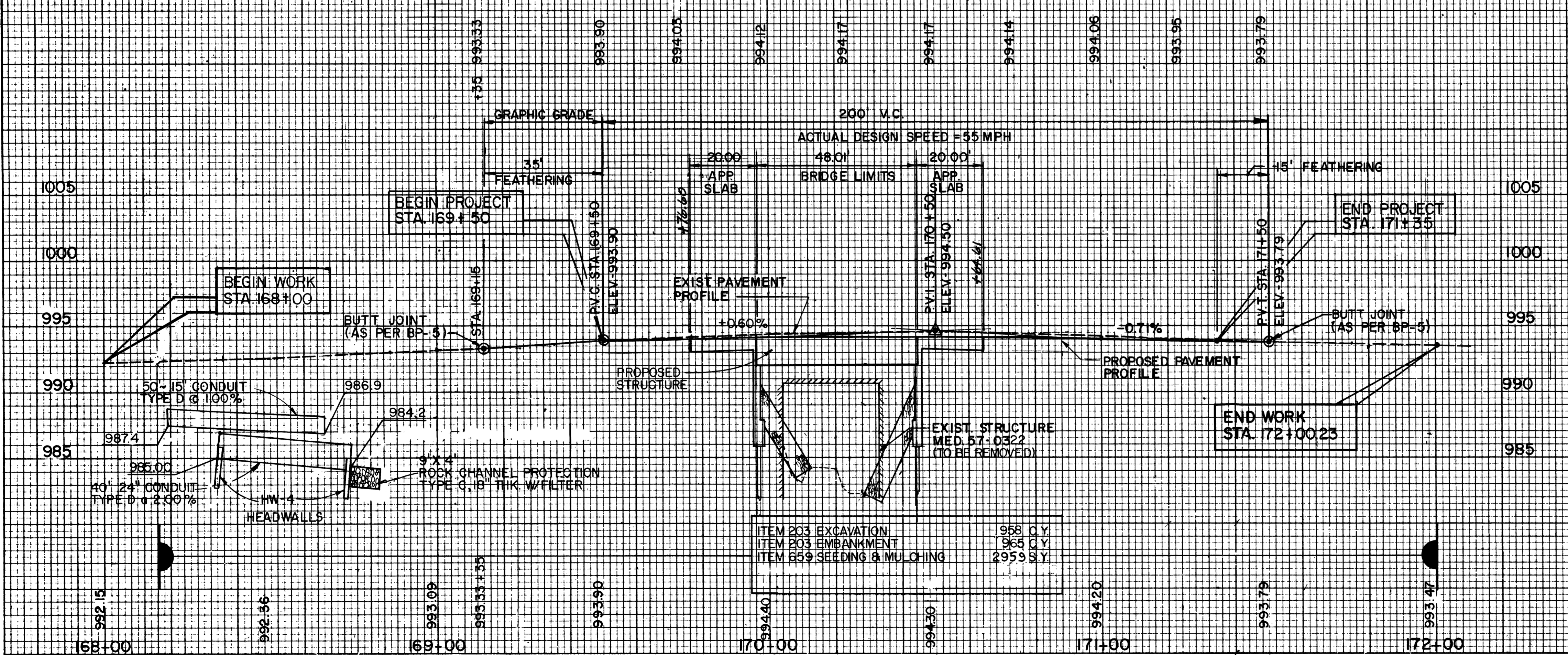
DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
TEMPLATE	
NO. AREAS CHECKED	

BENCHMARK
ELEVATION OF TOP OF RAILROAD SPIKE FOUND IN NORTH SIDE OF FIRST POWER POLE (TRANSFORMER) WEST OF BRIDGE 0322 NORTH SIDE OF ROAD. STA. 171+19.28 RT. ELEV. - 991.84



EXISTING STRUCTURE	PROPOSED STRUCTURE
TYPE: CREOSOTED TIMBER BRIDGE W/STEEL STRINGERS	TYPE: SINGLE SPAN PRESTRESSED CONC. BOX BEAMS
SPAN: 32'	SPAN: 46.79' C/C BEARING
ROADWAY: 24'	ROADWAY: 40.00' FIT-UP F/F GUARDRAIL
ALIGNMENT: TANGENT	ALIGNMENT: TANGENT
SKEW: 0°	SKEW: 18°
DECK: CREOSOTED OAK LUMBER STRIP FLOOR	WEARING SURFACE: ASPHALT CONCRETE
WEARING SURFACE: ASPHALT CONCRETE	APPROACH SLABS: AS-1-81 (20'-0" LONG)
APPROACH SLABS: NONE	LOADING: HS-20 AND THE ALTERNATE MILITARY LOADING.
DATE: 1931	CONDITION: POOR

** NOTE: INCLUDES REFLECTORS ON BRIDGE.



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	QUANTITY	UNIT
R-1	168+73 TO 170+73	RT	216	LF
R-2	169+84 TO 171+70	RT	186	LF
R-3	168+73			
R-19	169+24 TO 170+00	LT		
R-21	168+73 TO 169+84	LT	87.5	LF
R-22	168+73 TO 169+84	RT	100	LF
R-23	168+73 TO 171+35	RT	93.75	LF
R-24	170+42 TO 171+09	RT	93.75	LF
P-1	168+47	RT	4	CY
P-2	168+47	LT	14	CY
D-1	168+19 TO 168+68	LT		
D-2	168+34 TO 168+74	RT	41	LF
R-29	168+35 TO 168+76	RT		
EC-1	170+00	LT		
EC-2	170+142	RT		
EC-3	168+83 TO 170+30	RT	40	LF
EC-4	168+20 TO 168+34	RT	40	LF
TOTALS			402	

ORIGINAL SURVEY SURVEYED BY DATE
 SURVEY PLOTTED BY DATE
 NOTE BOOK NO. AREAS CHECKED

FINAL SURVEY SURVEYED BY DATE
 SURVEY PLOTTED BY DATE
 NOTE BOOK NO. AREAS CHECKED



Totals This Sheet

E.W. S.Y.	SEEDING		END AREA		VOLUME	
	CUT	FILL	CUT	FILL	CUT	FILL
142					8	34
	0	0	0	0		
	35	0	35	0		
	31				3	7
	35	19	48			
	35				4	13
	35	2	30			
	76				1	14
	AH 20					

168+47
 992.51
 DRIVE PROFILE RT.

168+25
 992.43
 PROFILE C OF STREAM RT.

168+00
 992.15
 BEGIN WORK

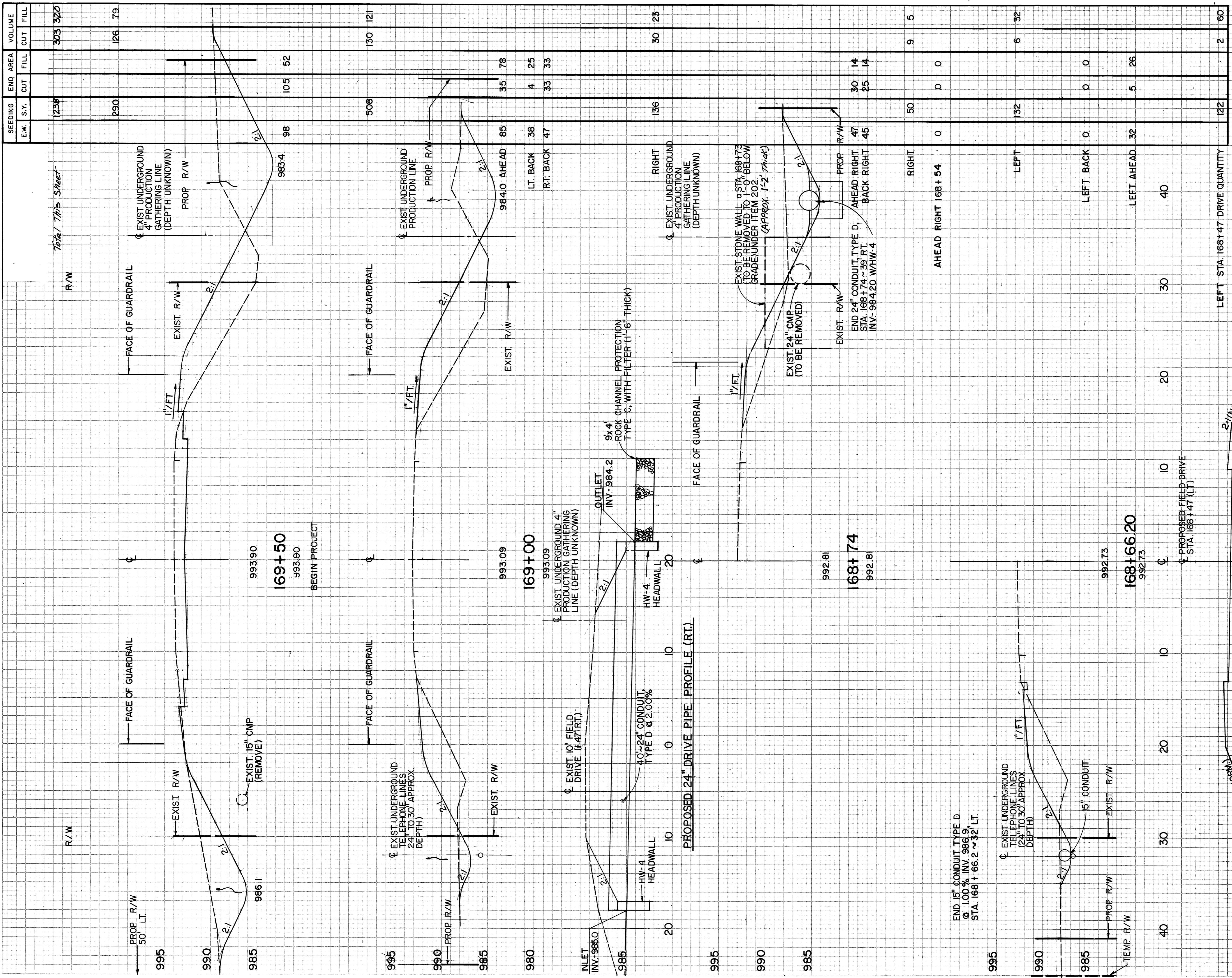
CALC. LBD
 BY DATE 12-13-89
 CHK'D KC
 BY DATE 12-13-89

OHIO
 FHWA REGION 2
 7
 20

MED:57-3.21

FINAL SURVEY SURVEYED BY DATE
 SURVEY PLOTTED BY DATE
 NOTE BOOK NO. TEMPLATE AREAS CHECKED
 NO. AREAS CHECKED

ORIGINAL SURVEY SURVEYED BY DATE
 SURVEY PLOTTED BY DATE
 NOTE BOOK NO. TEMPLATE AREAS CHECKED
 NO. AREAS CHECKED



SEEDING	END AREA		VOLUME	
	E.W. S.Y.	CUT	FILL	CUT
1238			303	320
290		105	126	79
508	98	52	130	121
	35	78		
	4	25		
	33	33		
136			30	23
	50	0	9	5
	0	0	0	0
132			6	32
	0	0		
	5	26		
122			2	60

STATION	DRIVE QUANTITY
LEFT STA. 168+47	47
RIGHT STA. 168+54	54

CALC. BY LBD
 DATE 7/1/72
 CHK'D BY [Signature]
 DATE 7/1/72

OHIO
 FHWA REGION 2
 8
 20

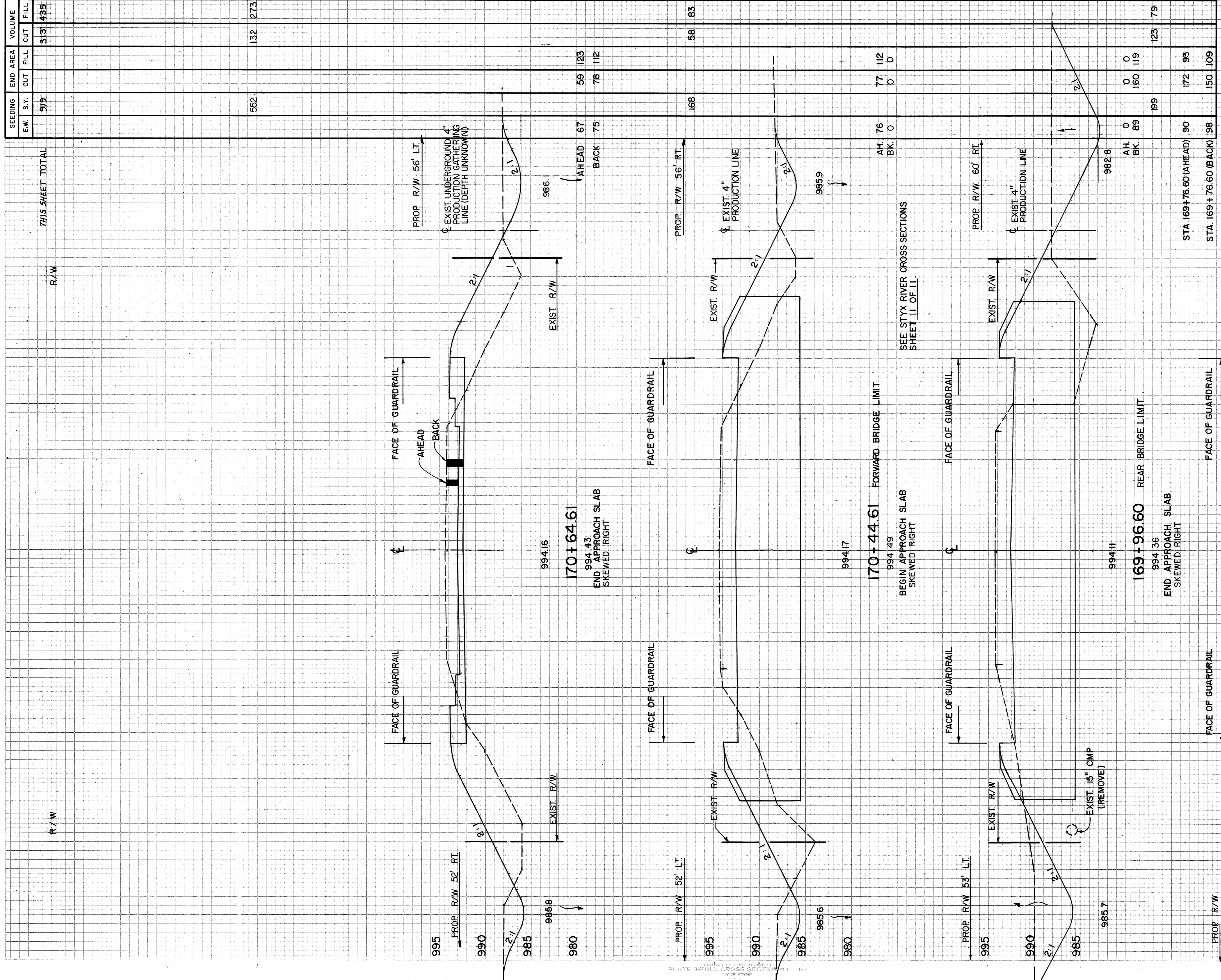
MED-57-3.21

PLATE 3-FULL CROSS SECTION-FULL LINE

STA. 168+47 TO STA. 169+50

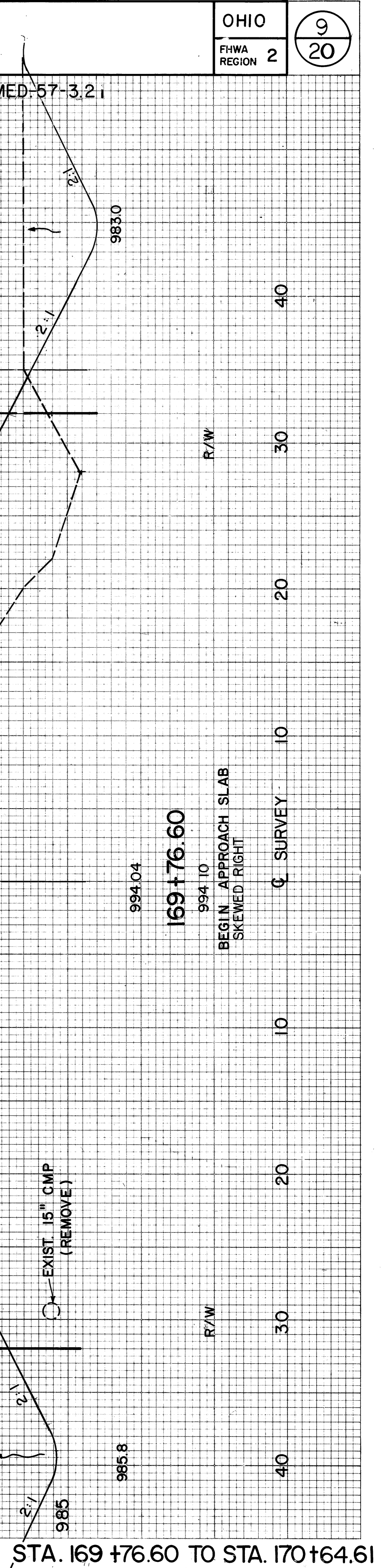
ORIGINAL SURVEYED BY _____ DATE _____
 SURVEY PLOTTED BY _____
 NOTE BOOK NO. _____
 AREAS CHECKED _____

FINAL SURVEYED BY _____ DATE _____
 SURVEY PLOTTED BY _____
 NOTE BOOK NO. _____
 AREAS CHECKED _____



SEEDING	END AREA		VOLUME	
	E.W.	S.Y.	CUT	FILL
919				
552				
THIS SHEET TOTAL			313	435
			132	273

CALC. BY	LSD	DATE	CHK D BY	DATE	OHIO REGION	SHEET NO.	TOTAL SHEETS
					2		



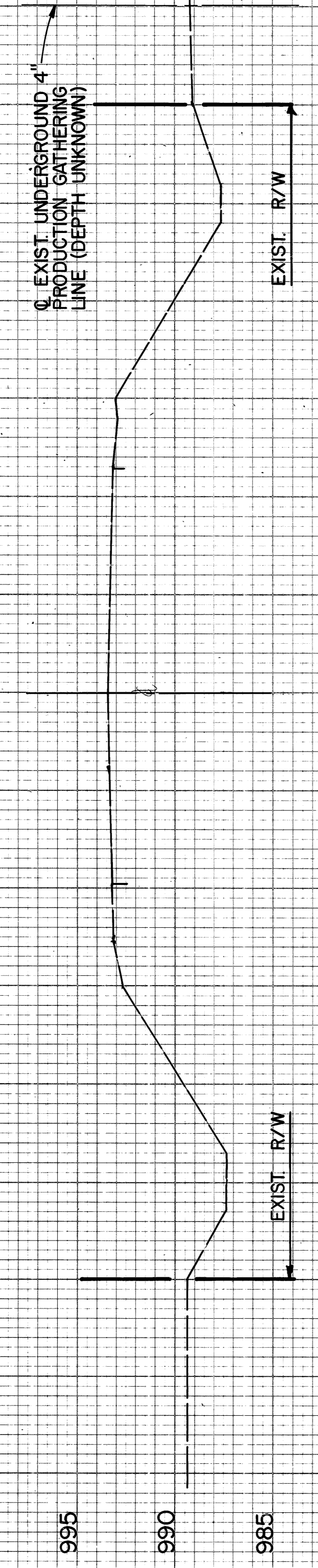
STA. 169+76.60 TO STA. 170+64.61

ORIGINAL SURVEY SURVEYED BY DATE
 PLOTTED BY DATE
 NOTE BOOK NO. AREAS CHECKED

FINAL SURVEY SURVEYED BY DATE
 PLOTTED BY DATE
 NOTE BOOK NO. AREAS CHECKED

QUANTITIES CARRIED TO GENERAL SUMMARY SHT. 6 OF 20

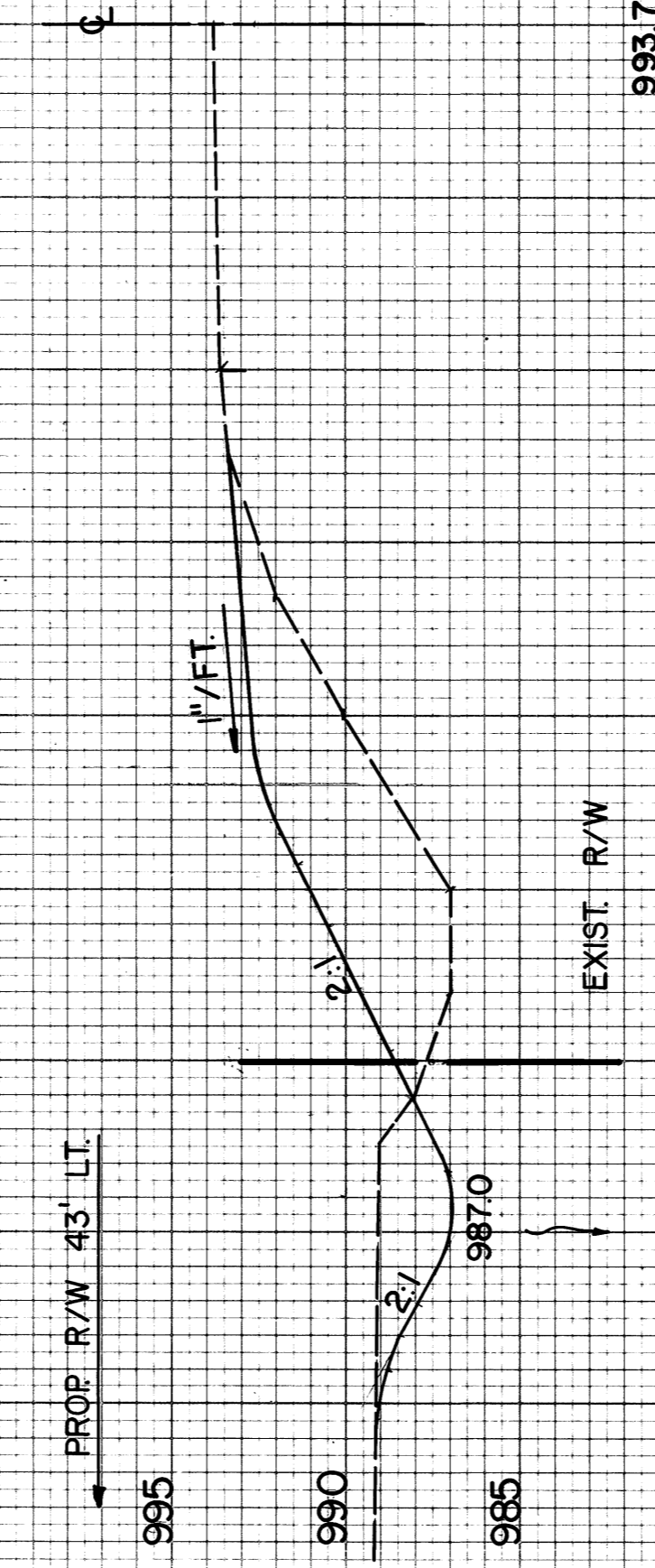
172+00.34 END WORK



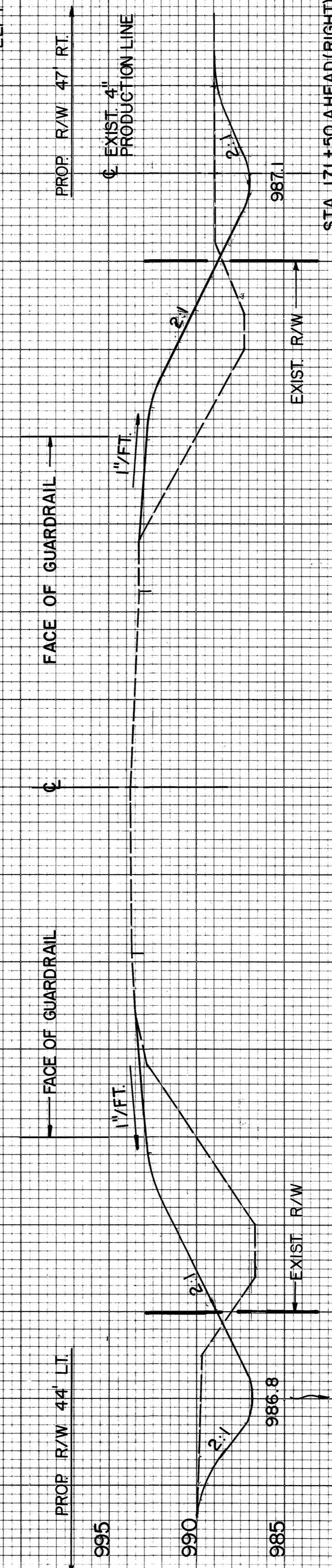
993.47
 172+00



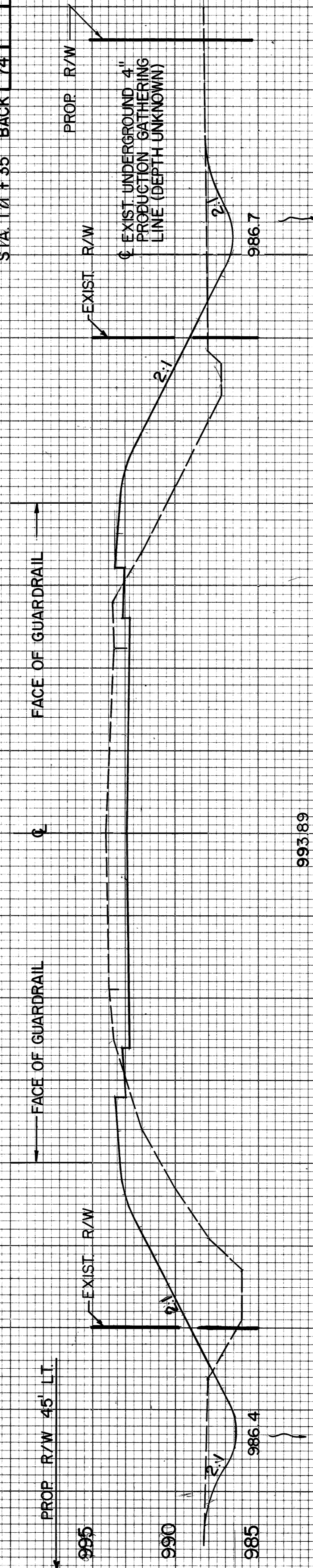
993.70
 171+67.23
 993.70



993.79
 171+50
 993.79
 END FEATHER



993.89
 171+35
 993.91
 END PROJECT



SEEDING	END AREA		VOLUME	
	E.W. S.Y.	CUT	FILL	CUT FILL
2721	0	0	663	927
422	44	3	39	138
	39	8	36	
	135	11	40	
	0	0	0	
	33	4	15	
	30	10	40	
	71	9	24	
	139	12	45	
	82	13	90	
	74	42	86	

CALC. BY: J.F.
 DATE: 7/10/82
 CHKD. BY: E.B.D.
 DATE: 7/10/82

OHIO
 FHWA REGION 2

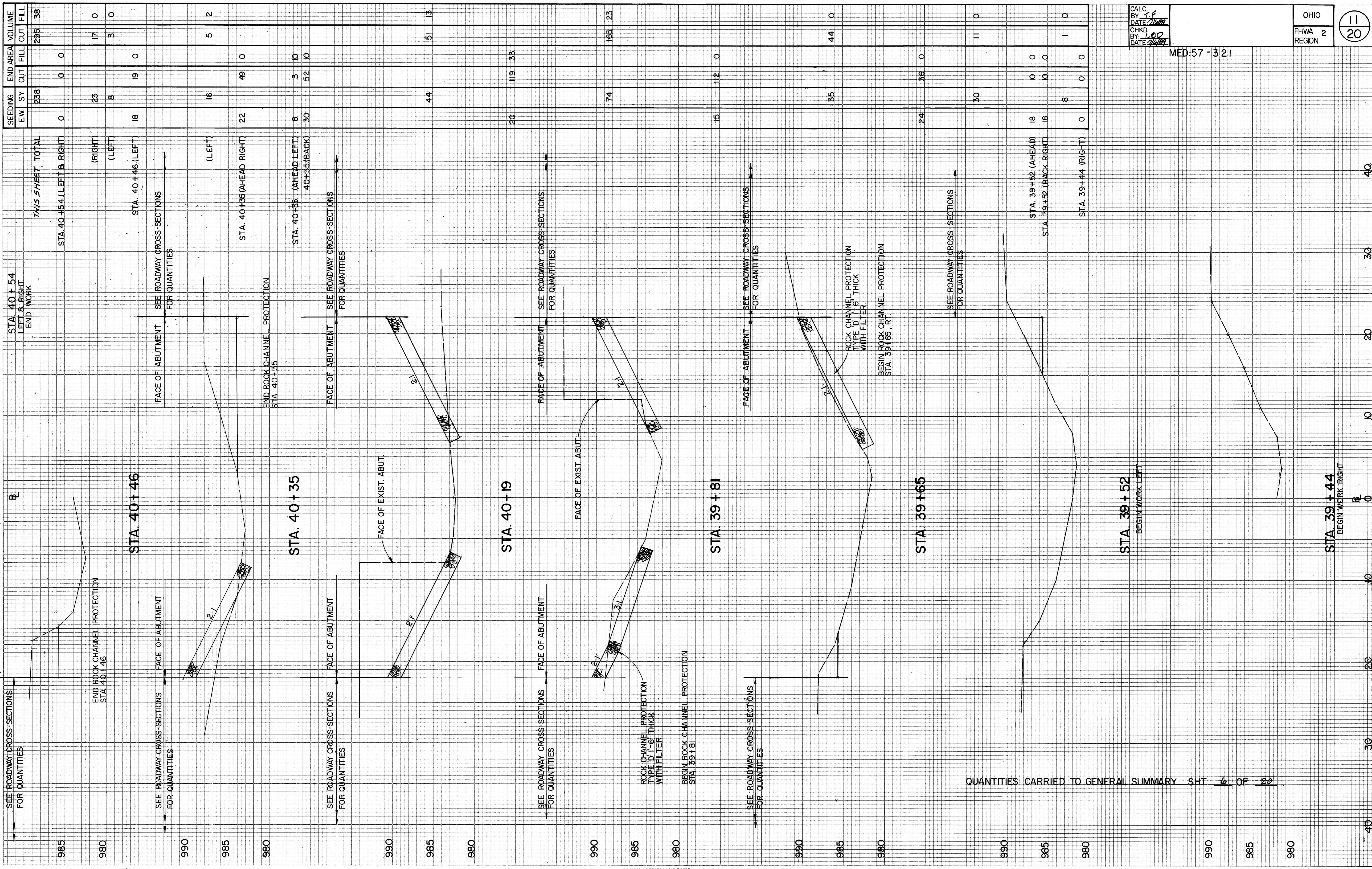
10
 20

MED-57-3.21

FINAL SURVEY DRAWING
 SURVEY PLOTTED
 NOTE BOOK TEMPLATE
 NO. _____ AREAS CHECKED

ORIGINAL SURVEY DRAWING
 SURVEY PLOTTED
 NOTE BOOK TEMPLATE
 NO. _____ AREAS CHECKED

BY _____ DATE _____



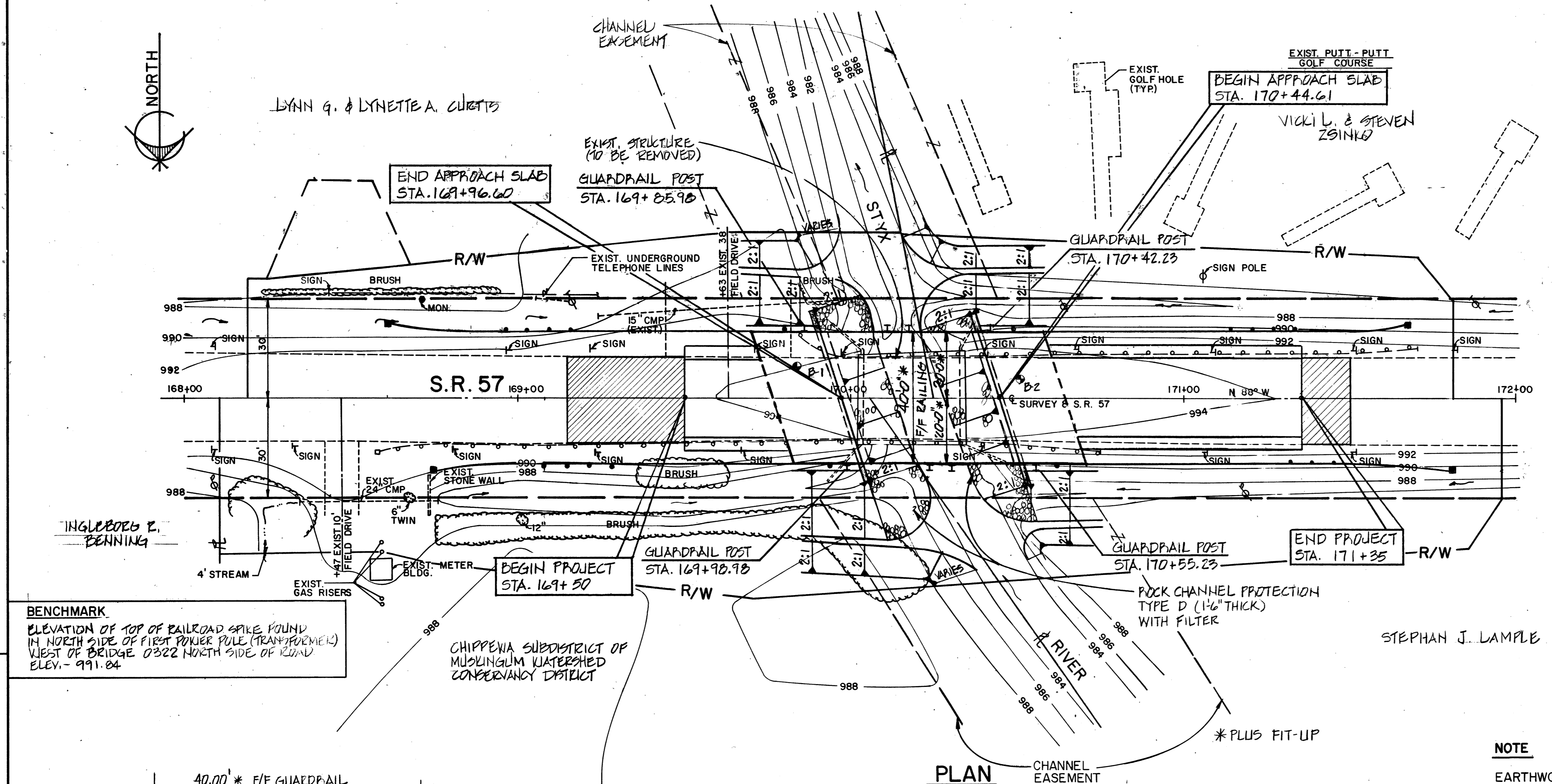
CALC. BY: J.F.
 DATE: 11/10/07
 CHKD. BY: L.D.P.
 DATE: 11/10/07

OHIO
 FHWA REGION 2

11
 20

MED-57-321

QUANTITIES CARRIED TO GENERAL SUMMARY SHT 6 OF 20

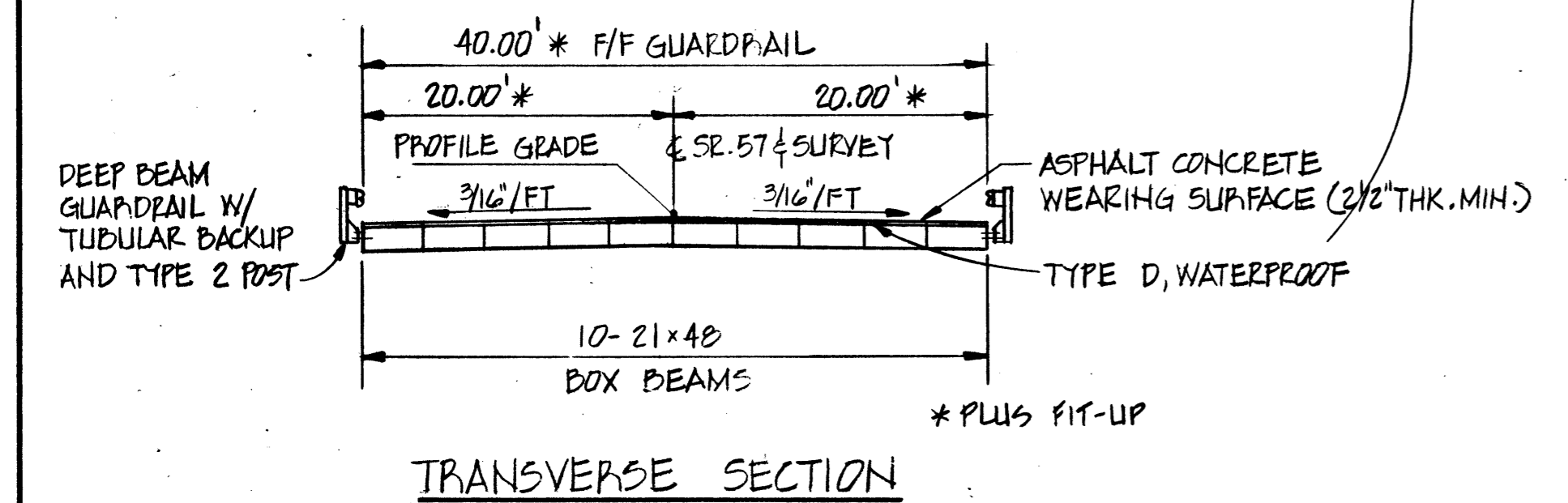


TRAFFIC COUNT	
CURRENT A.D.T.(1990)	4240
DESIGN YEAR A.D.T.(2010)	5520
T (TRUCKS)	5%

DESIGN DISCHARGE			
FREQUENCY	DISCHARGE	HIGH WATER ELEVATION	
	C.F.S.	EXISTING BRIDGE	PROPOSED BRIDGE
25 YR.	510	989.40	989.40
100 YR.	739	990.44	989.69

CLEAR 100 YR. HIGH WATER BY: 2.05'
 DRAINAGE AREA: 3.97 SQ. MILES
 STREAM VELOCITY: (25 YR.) 2.18 F.P.S.
 (100 YR.) 2.54 F.P.S.

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



EXISTING STRUCTURE

TYPE: CREOSOTED TIMBER BRIDGE W/STEEL STRINGERS
 SPAN: 24'
 ROADWAY: 24'
 ALIGNMENT: TANGENT
 SKEW: 0°
 DECK: CREOSOTED OAK LUMBER STRIP FLOOR
 WEARING SURFACE: ASPHALT CONCRETE
 APPROACH SLABS: NONE
 DATE: 1931
 STRUCTURE FILE NO. 5201926

PROPOSED STRUCTURE

TYPE: SINGLE SPAN PRESTRESSED CONC. BOX BEAMS ON CAPED PILE ABUTMENTS
 SPAN: 40.00' + FITUP
 ROADWAY: 40.00' + FITUP F/F GUARDRAIL
 ALIGNMENT: TANGENT
 SKEW: 10° E.P.
 WEARING SURFACE: 2 1/2" MIN. ASPHALT CONCRETE
 APPROACH SLABS: AS-1-21 (20'0" LONG)
 LOADING: HS20-44 AND THE ALTERNATE MILITARY LOADING
 CROWN: 3/16" / FT

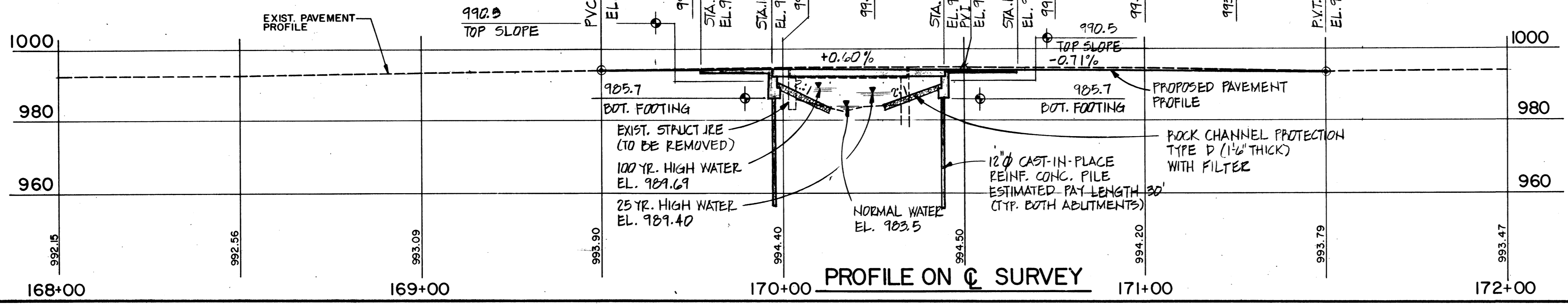
KARL R. ROHRER ASSOC., INC.
 3810 RIDGEWOOD ROAD
 AKRON, OHIO

SITE PLAN

BRIDGE No. MED-57-0322
 OVER
 RIVER STYX

MEDINA COUNTY

DESIGNED: LBD
 DRAWN: TF
 TRACED: —
 CHECKED: E
 REVIEWED: KJC
 DATE: 1/13/89



REVIEWED BY BURGESS & NIPLE, LTD.
 T.D.T. 10-18-89
 I.O.C. 9-19-90

BENCHMARK
 ELEVATION OF TOP OF RAILROAD SPIKE FOUND IN NORTH SIDE OF FIRST POWER POLE (TRANSFORMER) WEST OF BRIDGE 0322 NORTH SIDE OF RIVER ELEV. - 991.84

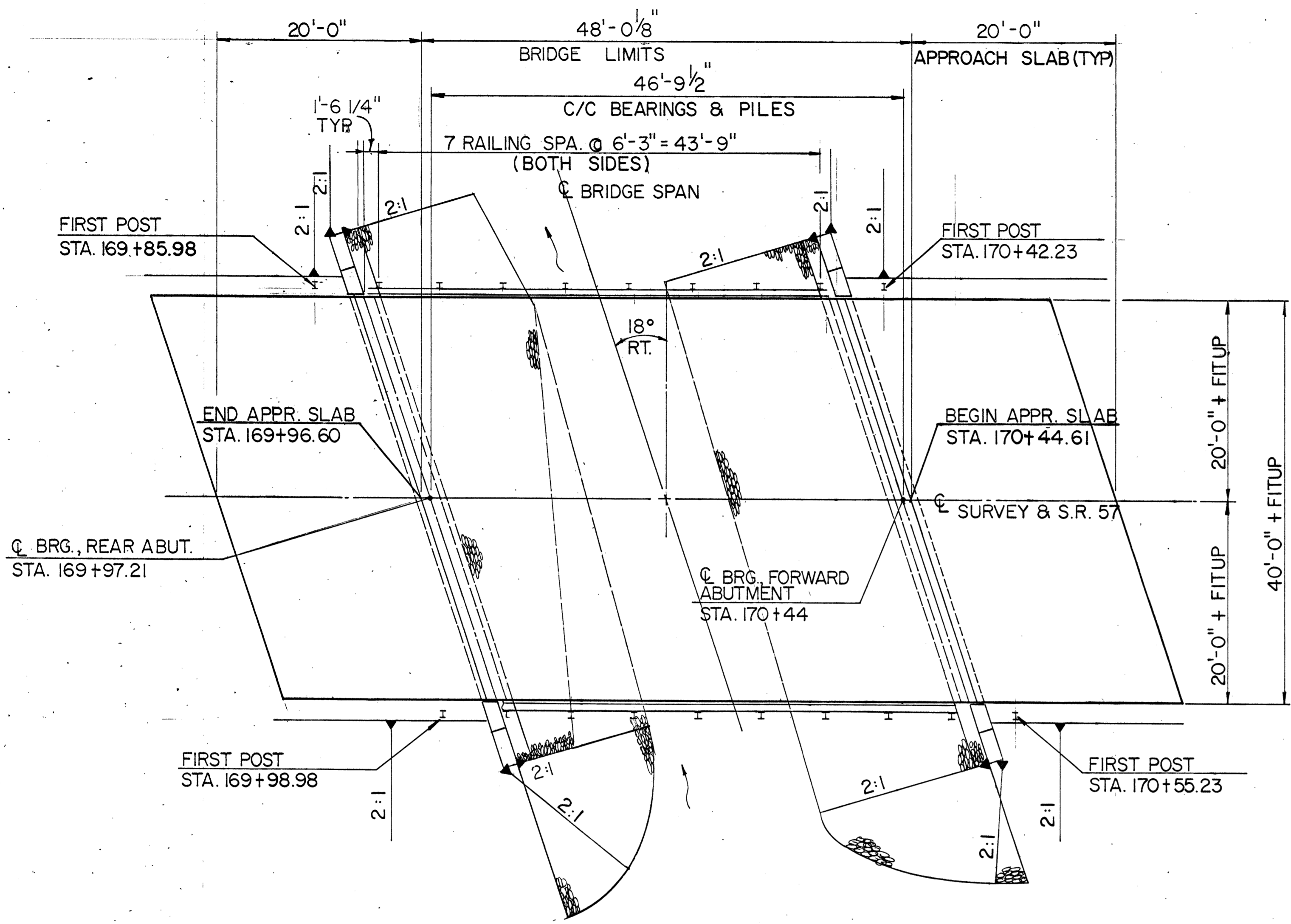
CALC. BY FE DATE 06-00
 CH'KD BY LBD DATE 07-00

F.H.W.A. REGION	STATE	PROJECT
5	OHIO	

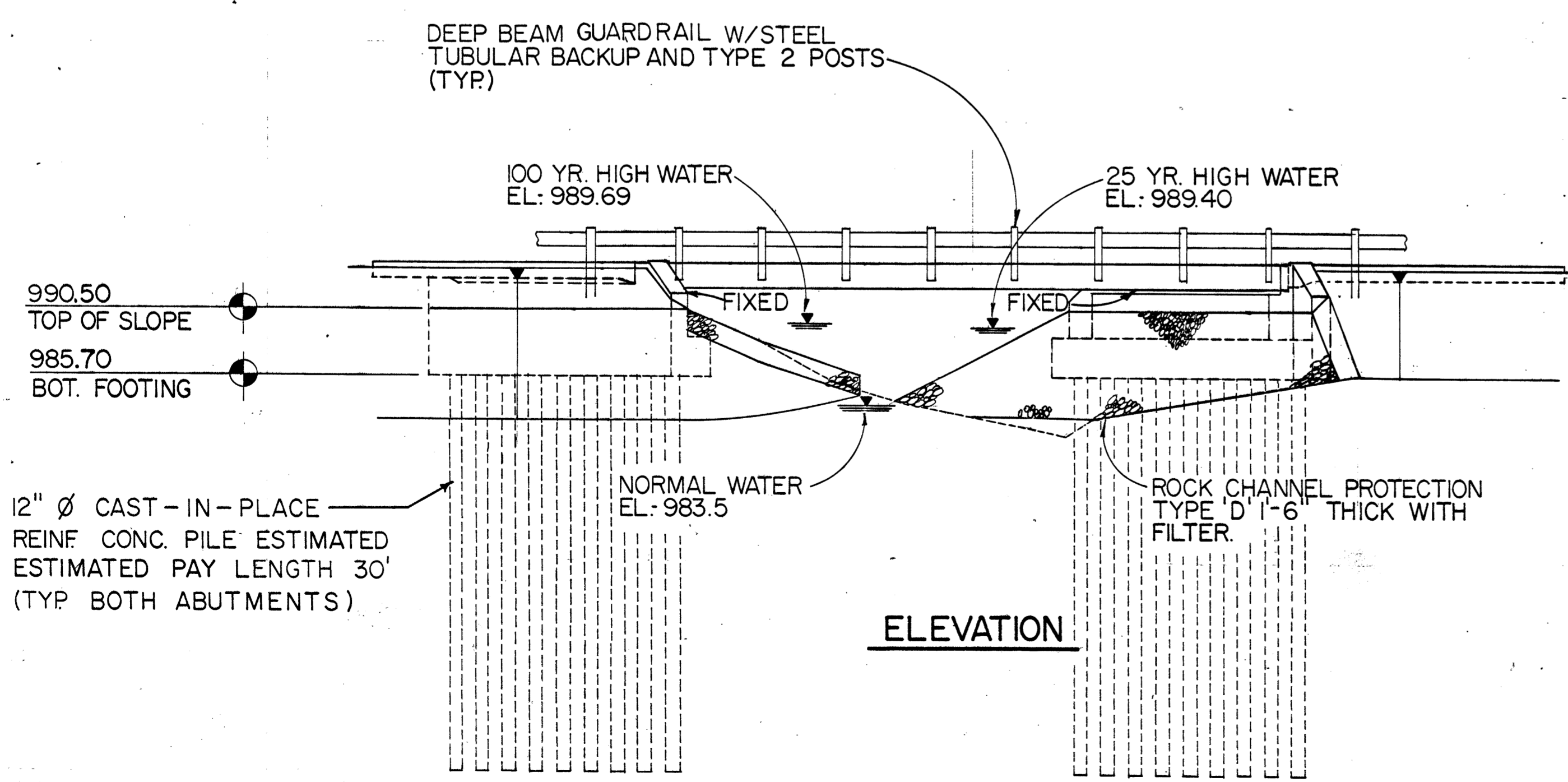
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ESTIMATED QUANTITIES MED-57-3.21

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTS	SUPER	GENL.
202	11000	LUMP		STRUCTURE REMOVED			LUMP
403	20000	12	CU. YD.	ASPHALT CONCRETE (AC-20)		12	
404	20000	8	CU. YD.	ASPHALT CONCRETE (AC-20)		8	
503	21300	LUMP		UNCLASSIFIED EXCAVATION	LUMP		
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION			LUMP
507	21100	540	LIN. FT.	12" & CAST-IN-PLACE REINF. CONCRETE PILES	540		
509	11500	6113	LB.	REINFORCING STEEL, GRADE - 60		6113	
509	15800	1344	LB.	EPOXY COATED REINFORCING STEEL, GRADE - 60		1344	
511	44001	67	CU. YD.	CLASS - C, CONCRETE (ABUTMENTS), AS PER PLAN	67		
512	55800	232	SS. YD.	TYPE D WATERPROOFING		232	
515	53900	10	EACH	PRESTRESSED CONCRETE BRIDGE MEMBER (B21-48) (SEE PROPOSAL NOTE)		10	
516	31011	86	LIN. FT.	2" DEEP JOINT SEALER, AS PER PLAN (SEE SHT. 18)		86	
516	44000	40	EACH	LAMINATED ELASTOMERIC BEARING PAD (NEOPRENE) (5" x 12" x 1") (50 DURO.)	40		
516	41200	8	SS. FT.	1/8" PREFORMED BEARING PADS, 711.21	8		
516	13600	144	SS. FT.	1" PREFORMED EXPANSION JOINT FILLER	144		
517	72300	112.5	LIN. FT.	RAILING (DEEP BEAM WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS AND POLES) (SEE PROPOSAL NOTE)		112.5	
518	21101	27	CU. YD.	POROUS BACKFILL, AS PER PLAN (SEE SHT. 14)	27		
SPECIAL	516-31200	86	LIN. FT.	SAWING AND SEALING OF BITUMINOUS CONCRETE JOINTS	86		
SPECIAL	512-67502	35	SS. YD.	SEALING OF CONCRETE SURFACES (EPOXY) (SEE PROPOSAL NOTE)	35		
SPECIAL	512-67500	24	SS. YD.	SEALING OF CONCRETE SURFACES (SEE PROPOSAL NOTE)	24		
SPECIAL	518-22200	75	SS. FT.	STEEL DRIP STRIP	75		



GENERAL PLAN



ELEVATION

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

- PSBD-1-81 DATED 6-20-89 REV.
- AS-1-81 DATED 11-27-81
- DBR-2-73 DATED 4-10-73

AND TO SUPPLEMENTAL SPECIFICATIONS:

- 836 DATED 11-12-85

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

DESIGN DATA:

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

DESIGN STRESSES: CONCRETE CLASS C - UNIT STRESS 1333 P.S.I. (SUBSTRUCTURE)

CONCRETE FOR PRESTRESSED BOX BEAMS - 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

REINFORCING STEEL - ASTM A615, A616, OR A617 - GRADE 60 - UNIT STRESS 24,000 P.S.I.; GRADE 40 - UNIT STRESS 20,000 P.S.I. (PERMITTED FOR BOX BEAMS ONLY)

PILE DESIGN LOADS:

THE DESIGN LOAD FOR THE ABUTMENT PILES IS 44 TONS (MAX.) PER PILE.

DECK PROTECTION METHOD: TYPE "D" WATERPROOFING AND ASPHALT CONCRETE OVERLAY, DRIP STRIPS, AND SEALING OF PORTIONS OF CONCRETE SURFACES.

REMOVAL OF EXISTING STRUCTURE:

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

UTILITY LINES:

ALL EXPENSES 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 WILL BE HELD TO A MINIMUM.

ITEM 511 CLASS C, CONCRETE, AS PER PLAN

ALL COARSE AGGREGATE FOR THE CLASS C CONCRETE TO BE LIMESTONE OR SLAG.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES

AN EPOXY CONCRETE SEALER SHALL BE APPLIED TO THE ABUTMENT CONCRETE SURFACES SHOWN ON SHEET 3 OF 7. AN EPOXY CONCRETE SEALER OR SILANE WILL BE APPLIED TO THE SUPERSTRUCTURE CONCRETE SURFACES SHOWN ON SHEET 5 OF 7. SEE THE PROPOSAL FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS, AND APPLICATION PROCEDURES.

EMBANKMENT CONSTRUCTION: THE EMBANKMENTS SHALL BE CONSTRUCTED TO THE LEVEL OF THE SUBGRADE FOR THE ABUTMENTS. EXCAVATION MAY THEN BE MADE FOR THE ABUTMENTS AND PILES DRIVEN.

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

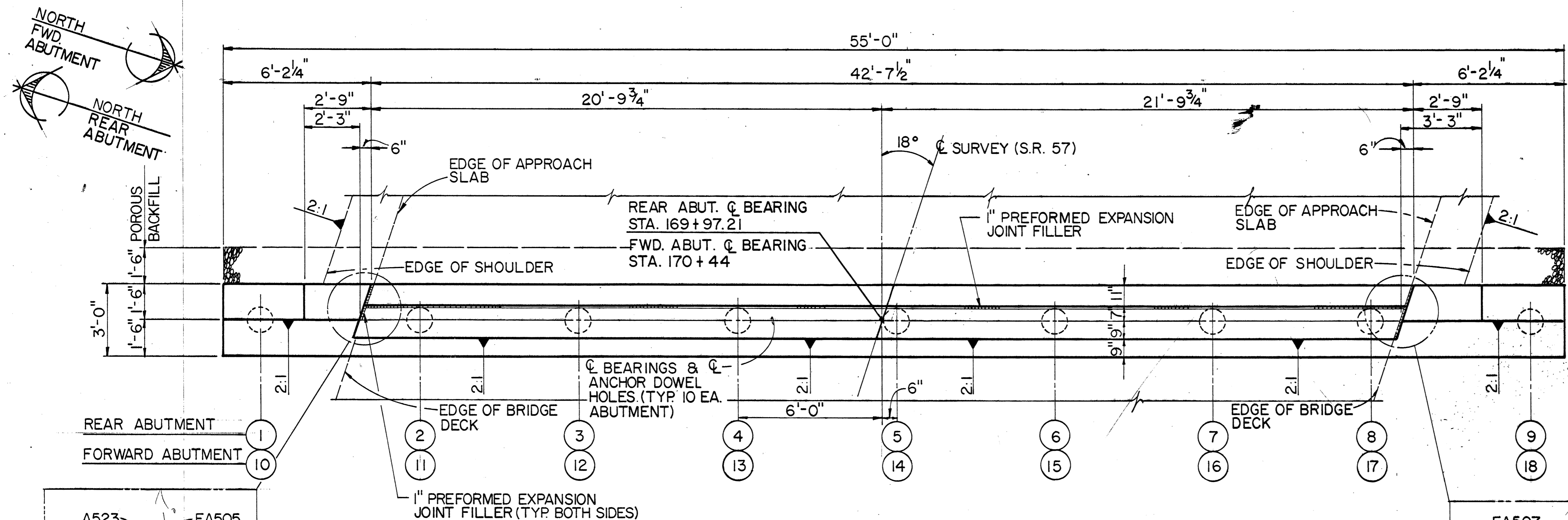
KARL R. ROHRER ASSOC., INC. 2/7
 3810 RIDGEWOOD ROAD
 AKRON, OHIO

GENERAL PLAN & ELEVATION
 BRIDGE No. MED. 57-0322
 OVER
 RIVER STYX

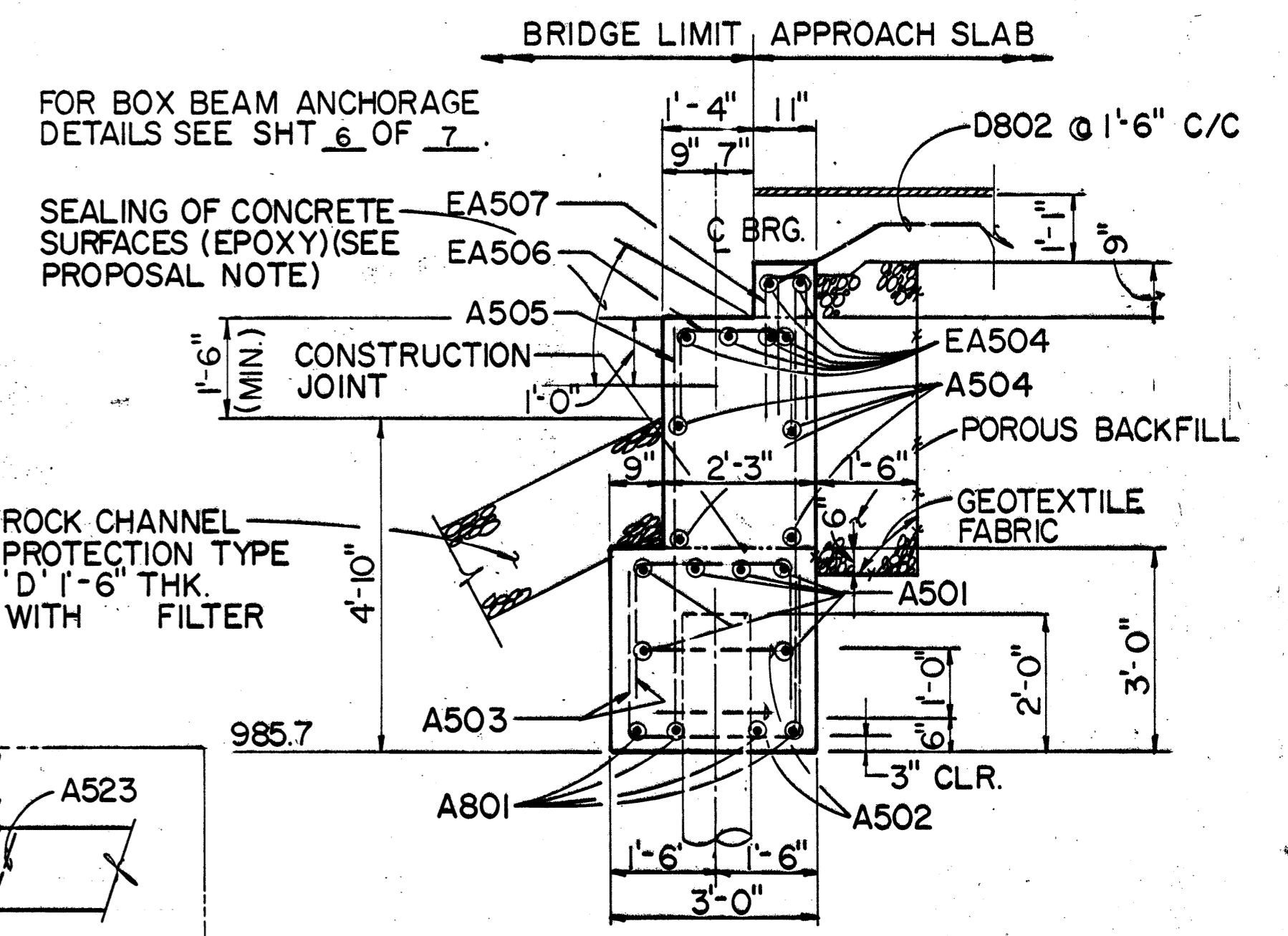
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FE	T.F.		LBD	KJC	8/22/89	

F.H.W.A. REGION	STATE	PROJECT
5	OHIO	MED-57-3.21

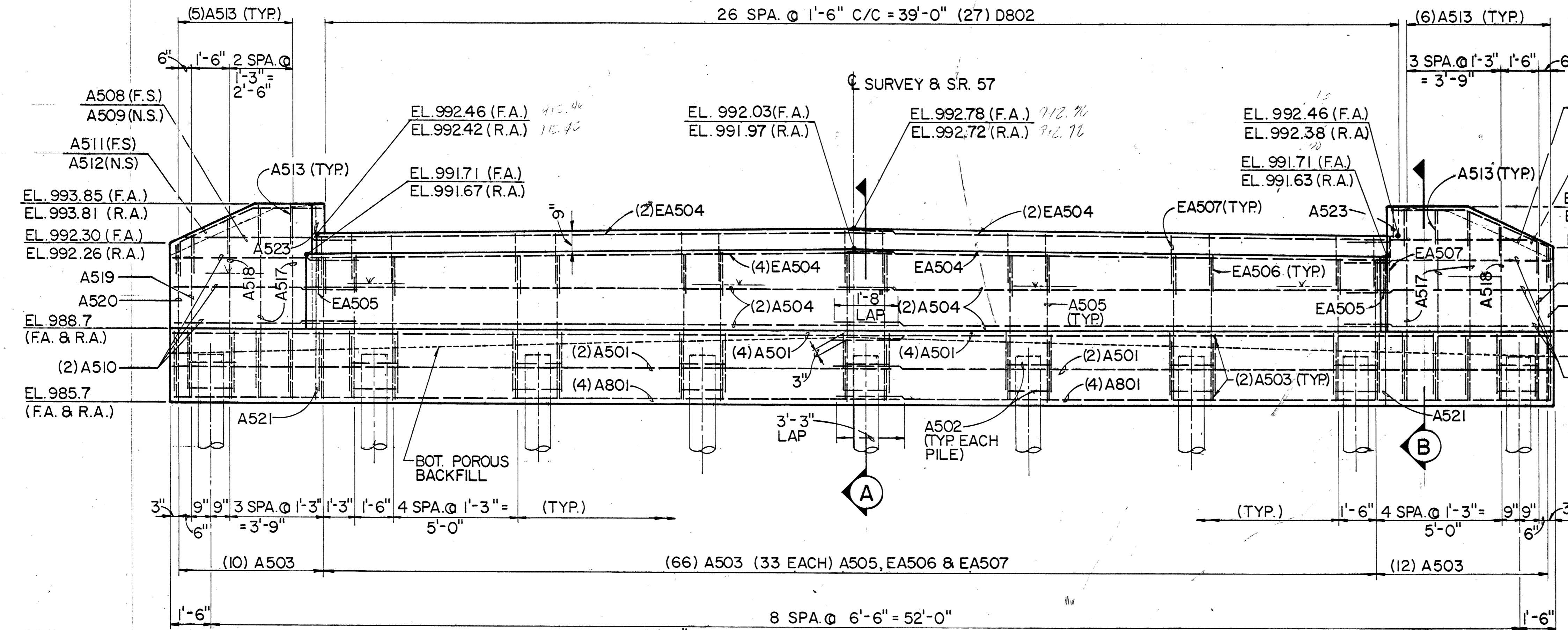
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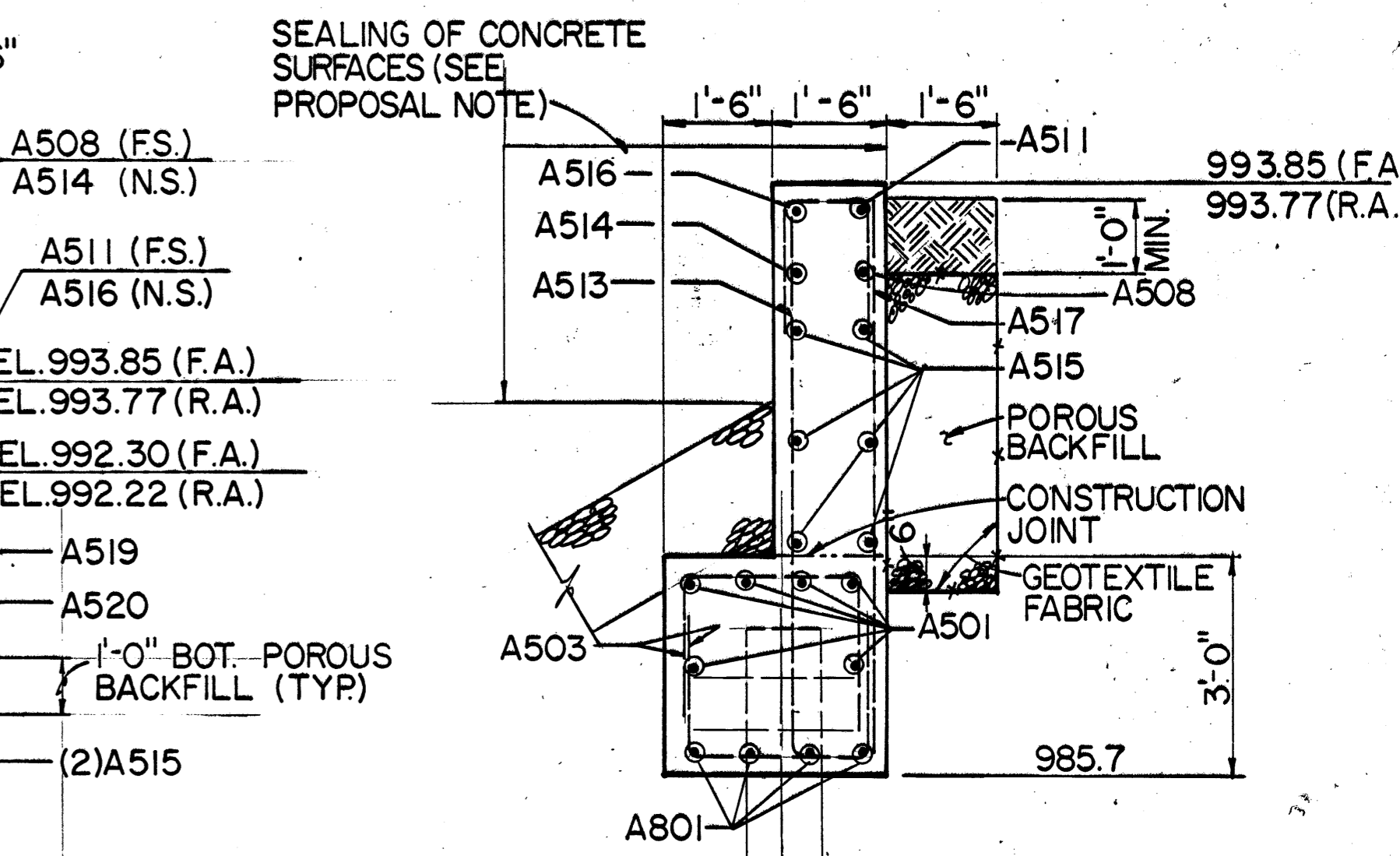
PLAN



SECTION A-3



ELEVATION



SECTION B-3

POROUS BACKFILL: 1'-6" THICK, SHALL EXTEND UPWARD TO THE PLANE OF THE SUBGRADE, TO 1' BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE SURFACE OF THE EMBANKMENT SLOPES. GEOTEXTILE FABRIC CONFORMING TO 712.09, TYPE "A" SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND SOIL BACKFILL. GEOTEXTILE FABRIC SHALL BE INCLUDED WITH POROUS BACKFILL FOR PAYMENT.

(9) 12" Ø CAST-IN-PLACE REINFORCED CONCRETE PILES TYP. BOTH ABUTMENTS

BRIDGE SEAT REINFORCING:
REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF ANCHOR BAR HOLES.

LEGEND

BOT.	BOTTOM
N.S.	NEAR SIDE
F.S.	FAR SIDE
TYP	TYPICAL
EL.	ELEVATION
CL	CENTERLINE
F.A.	FORWARD ABUTMENT
R.A.	REAR ABUTMENT

KARL R. ROHRER ASSOC., INC.
3810 RIDGEWOOD ROAD
AKRON, OHIO

REAR & FORWARD ABUTMENT DETAILS
BRIDGE No. MED. 57-0322
OVER RIVER STYX

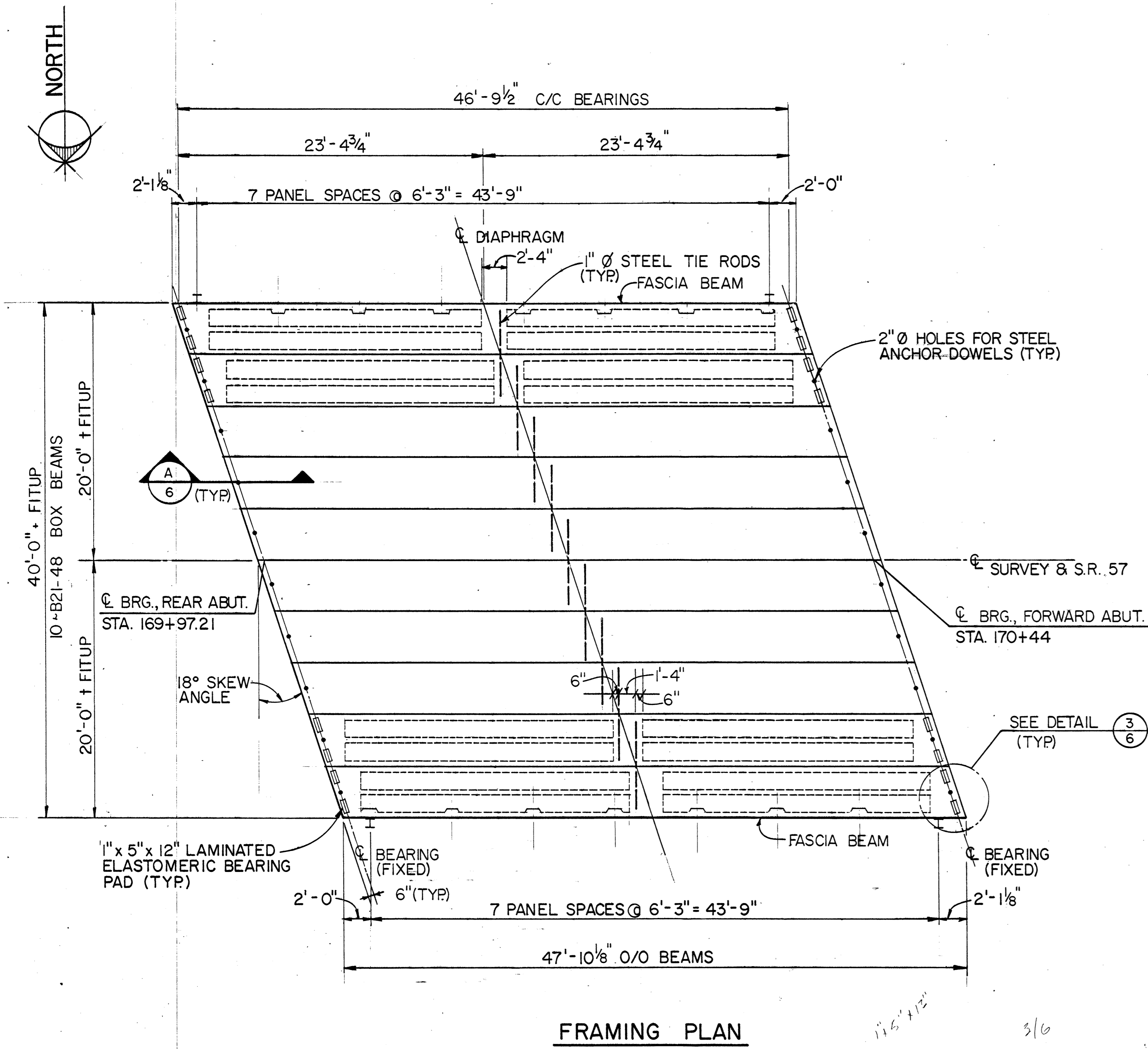
MEDINA COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FE	TF		LDJ	KJC	6/6/89	

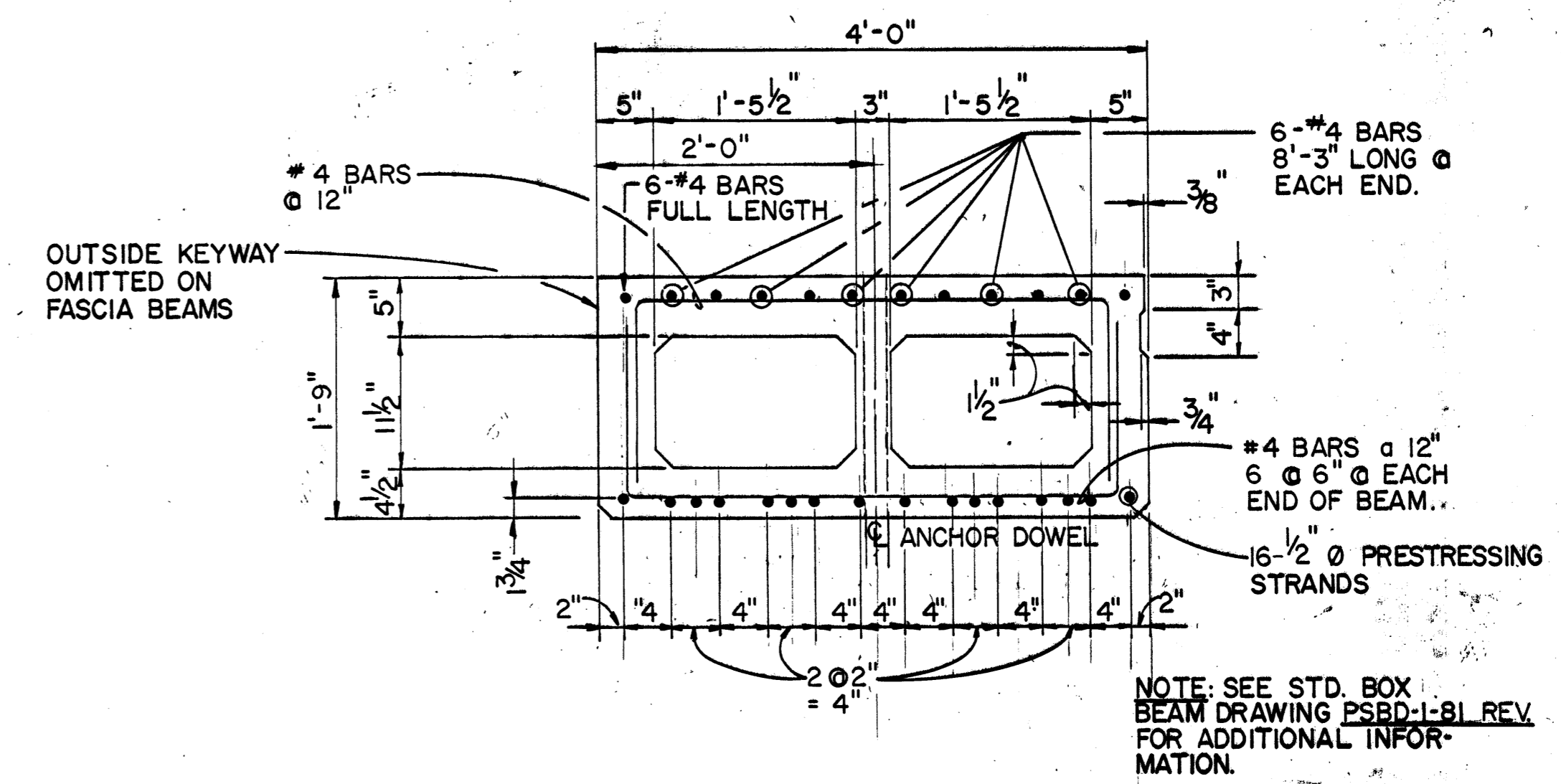
F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

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MED-57-3.21

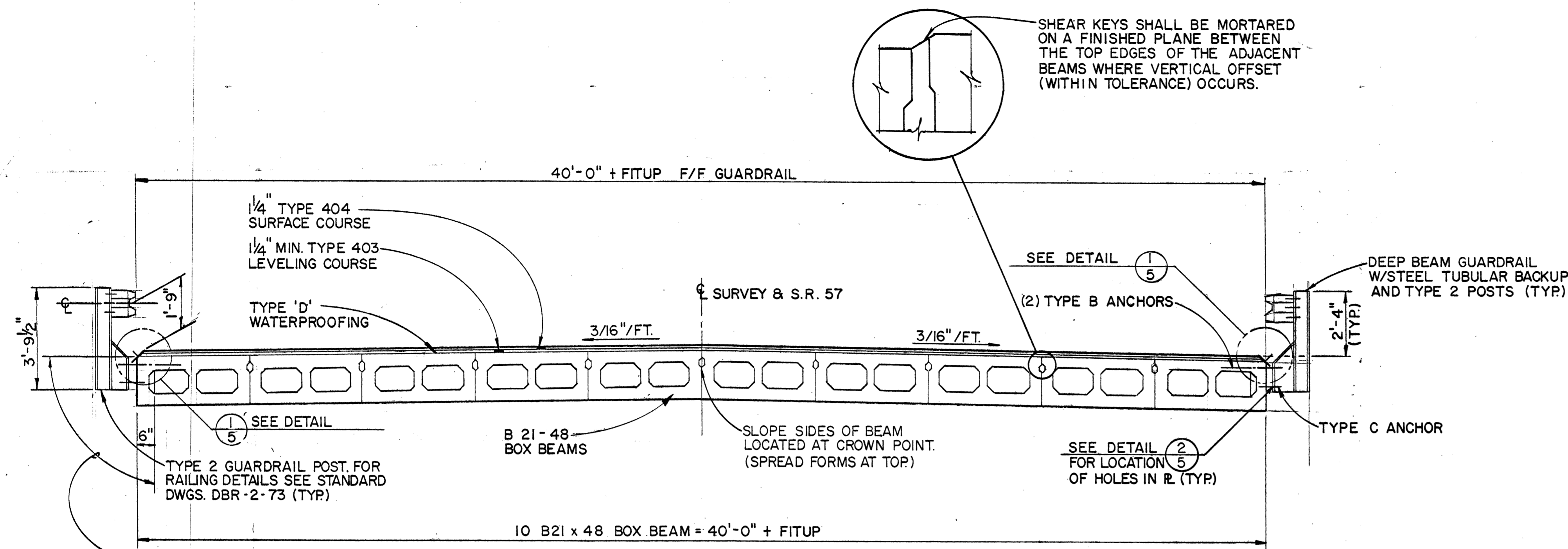


FRAMING PLAN



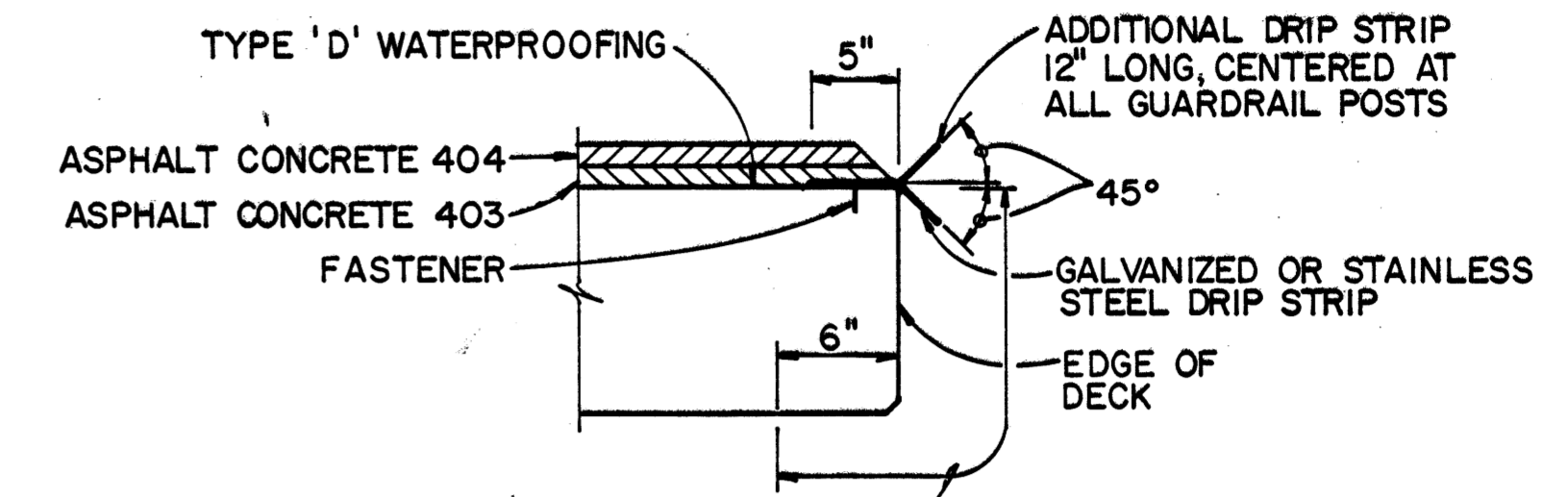
B21-48 BOX BEAM SECTION

KARL R. ROHRER ASSOC., INC. 3810 RIDGEWOOD ROAD AKRON, OHIO						4 / 7
FRAMING PLAN & SUPERSTRUCTURE DETAILS						
BRIDGE No. MED. 57-0322 OVER, RIVER STYX						
MEDINA COUNTY						
DESIGNED FE	DRAWN T.F.	TRACED	CHECKED LAD	REVIEWED KJC	DATE 8/22/89	REVISED



TRANSVERSE SECTION

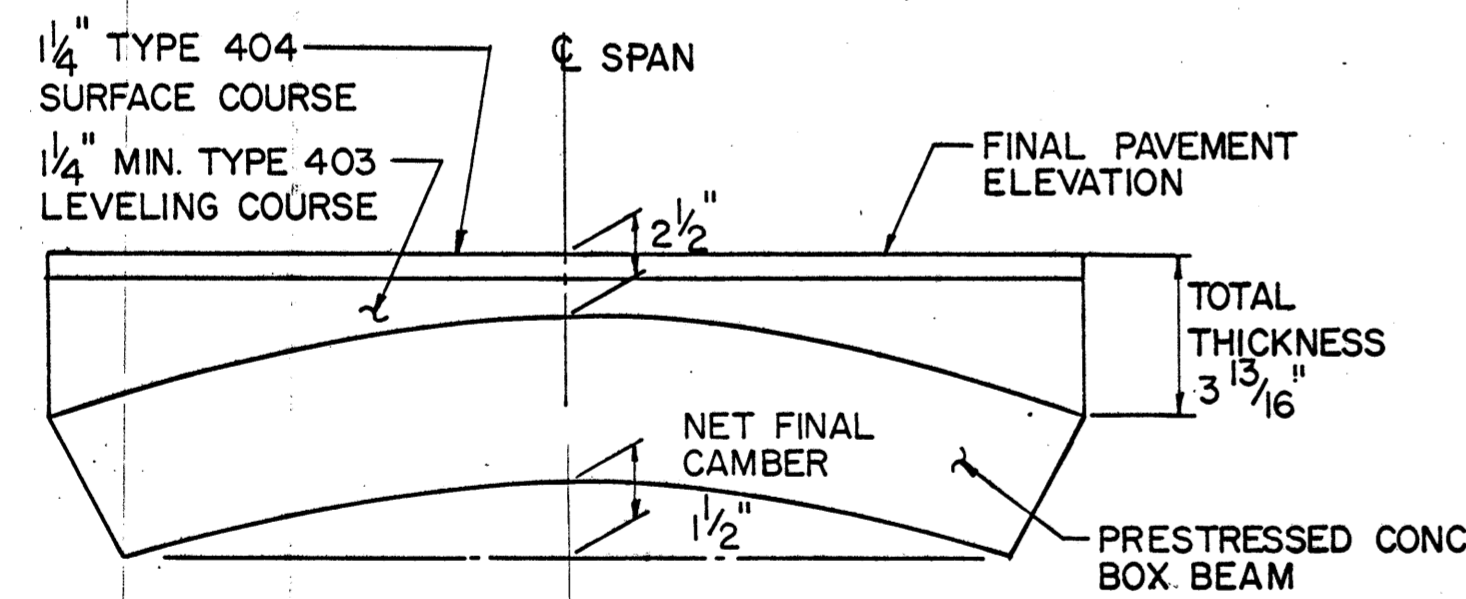
WIDTH OF BEAMS MAY BE CHANGED BY THE BEAM FABRICATOR, IF THERE IS SOME ADVANTAGE IN DOING SO. HOWEVER, THE BRIDGE WIDTH MUST REMAIN THE SAME. THE BEARINGS MUST BE REDESIGNED BY A PROFESSIONAL ENGINEER, AND THERE WILL BE NO ADDITIONAL COST TO THE STATE. THE REVISED PLANS MUST BE SUBMITTED FOR APPROVAL BY THE DIRECTOR.



DRIP STRIP DETAIL

5

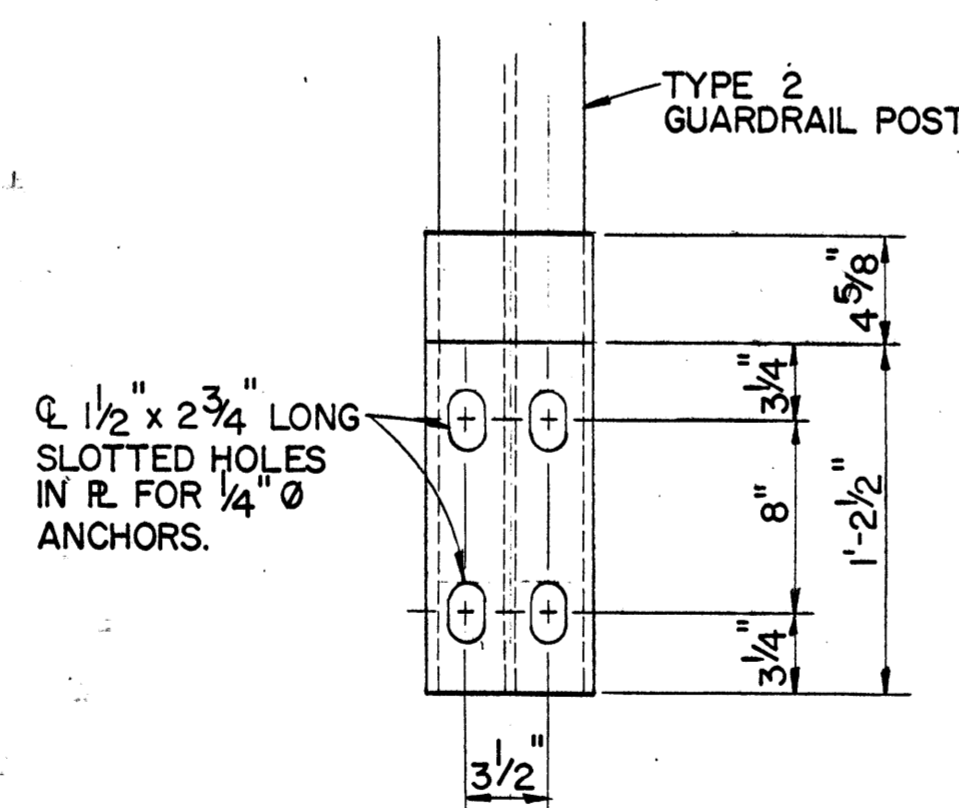
DRIP STRIP: PRIOR TO APPLYING TYPE "D" WATERPROOFING, A BENT DRIP STRIP SHALL BE INSTALLED ALONG THE EDGES OF THE DECK AS SHOWN. THE STRIPS SHALL BE FASTENED AT 1'-6" C/C MAXIMUM WITH 1-1/4" X 5/32" X 1/4" FLAT HEAD DRIVE PIN AND WASHER, (LENGTH X SHANK DIA. X HEAD DIA.) OR #10 GALVANIZED SCREWS AND EXPANSION ANCHORS, SUBJECT TO THE APPROVAL OF THE ENGINEER. THE STRIPS SHALL BE PLACED THE FULL LENGTH OF THE DECK. WHERE SPLICES ARE REQUIRED, 3" (MIN.) LAP SHALL BE USED WITH FASTENER THROUGH THE LAP. STEEL FOR THE GALVANIZED STRIPS SHALL BE 8" X 0.105" AND SHALL MEET THE REQUIREMENTS OF ASTM A568. GALVANIZING SHALL BE IN ACCORDANCE WITH 711.02. STAINLESS STEEL SHALL BE 20 GAUGE ASTM A167, TYPE 304, MILL FINISH. PAYMENT SHALL BE AT THE CONTRACT PRICE BID FOR ITEM SPECIAL, SQ. FT., STEEL DRIP STRIP, WHICH SHALL INCLUDE ALL MATERIAL, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.



CALCULATED CAMBER AT TIME OF PAVING, INCLUDING ALLOWANCE FOR CAMBER GROWTH DUE TO CREEP, IS 1-5/8" FOR B21-48.

CALCULATED DEFLECTION DUE TO WEIGHT OF SURFACE COURSE AND RAILING IS 1/8" FOR B21-48.

NET FINAL CAMBER OF BEAMS IS 1-1/2", THIS IS 1-1/2" IN EXCESS OF THE AMOUNT REQUIRED TO PLACE THE TOP OF THE BEAM PARALLEL TO PROFILE GRADED. 3/16" IS SUBTRACTED FROM THIS AMOUNT AT EACH END OF SPAN TO COMPENSATE FOR THE CREST VERTICAL CURVE. THIS EXCESS AMOUNT SHALL BE COMPENSATED FOR BY THICKENING THE TYPE 403 LEVELING COURSE FROM 1-1/4" AT CENTER OF SPANS TO 2-9/16" AT ENDS OF SPANS.



DETAIL 2

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

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

THE FOLLOWING DETAILS FROM O.D.O.T. STD. DWG. PSBD-1-81 APPLY TO THIS PROJECT:

SHEET 1 OF 4 - BEAM LIFTING INSERTS, WALL THICKENING AT GUARDRAIL ANCHORS, DETAILS AND REINFORCEMENT OF BEAM ENDS.

SHEET 2 OF 4 - TYPICAL PLANS OF DIAPHRAGMS AND TRANSVERSE TIE RODS, NORMAL CROWN TREATMENT AT CENTERLINE OF ROADWAY, BEAM DIMENSION TOLERANCES.

SHEET 3 OF 4 - 48" WIDE BOX BEAMS B21-48.

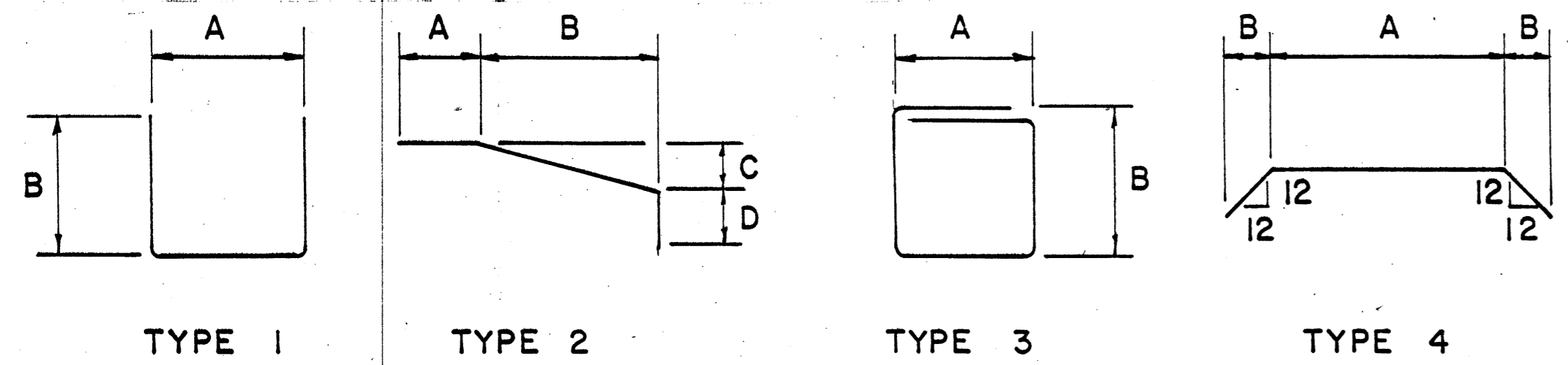
THE FOLLOWING NOTES FROM O.D.O.T. STD. DWG. PSBD-1-81 APPLY TO THIS PROJECT:

SHEET 1 OF 4 - TRANSVERSE TIE RODS, GALVANIZING, ANCHOR DOWELS, END OF BEAMS AND AS REQUIRED TO SUPPLEMENT APPLICABLE DETAILS. CLEANING PRIOR TO PLACEMENT OF WATERPROOFING.

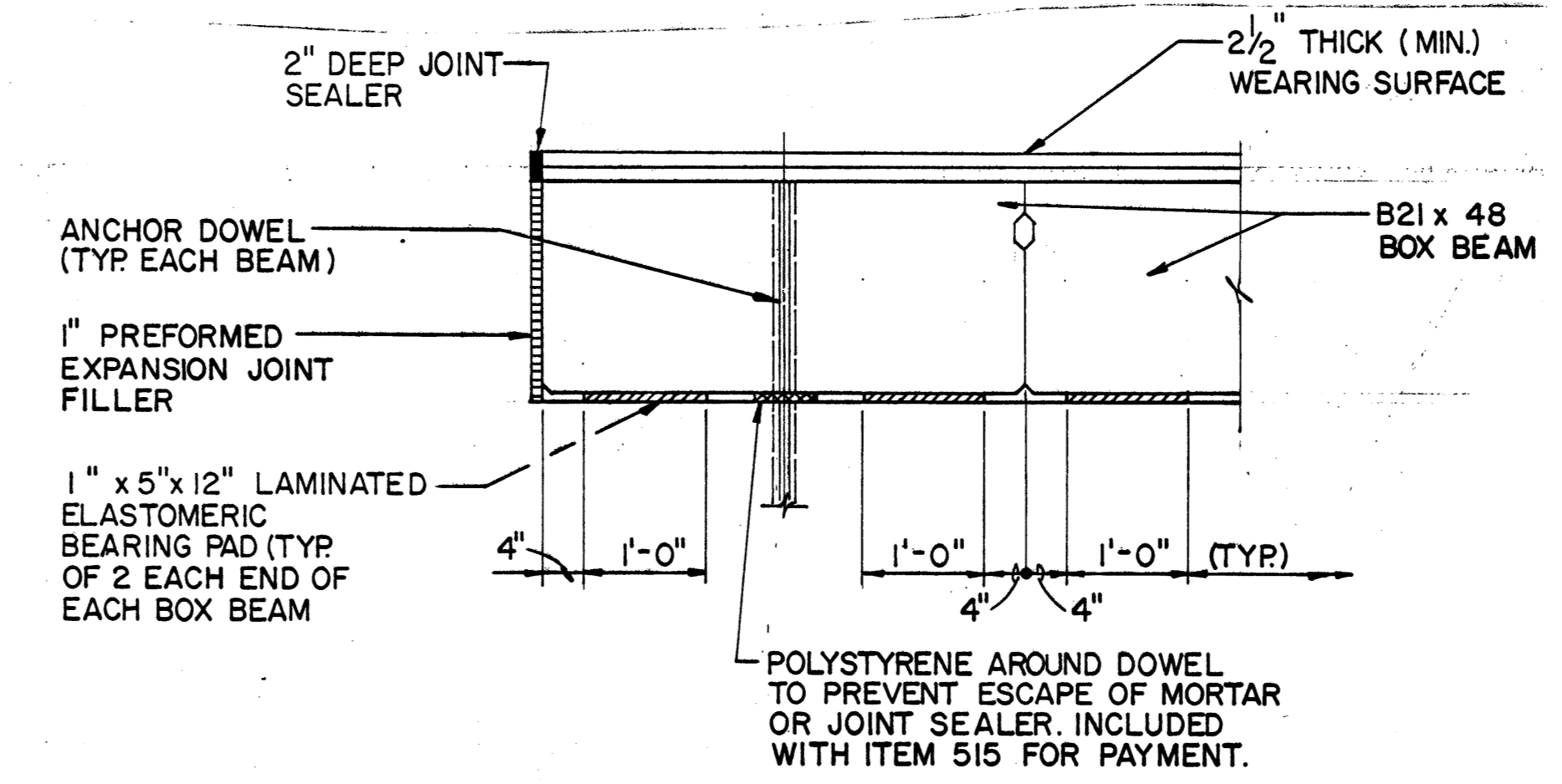
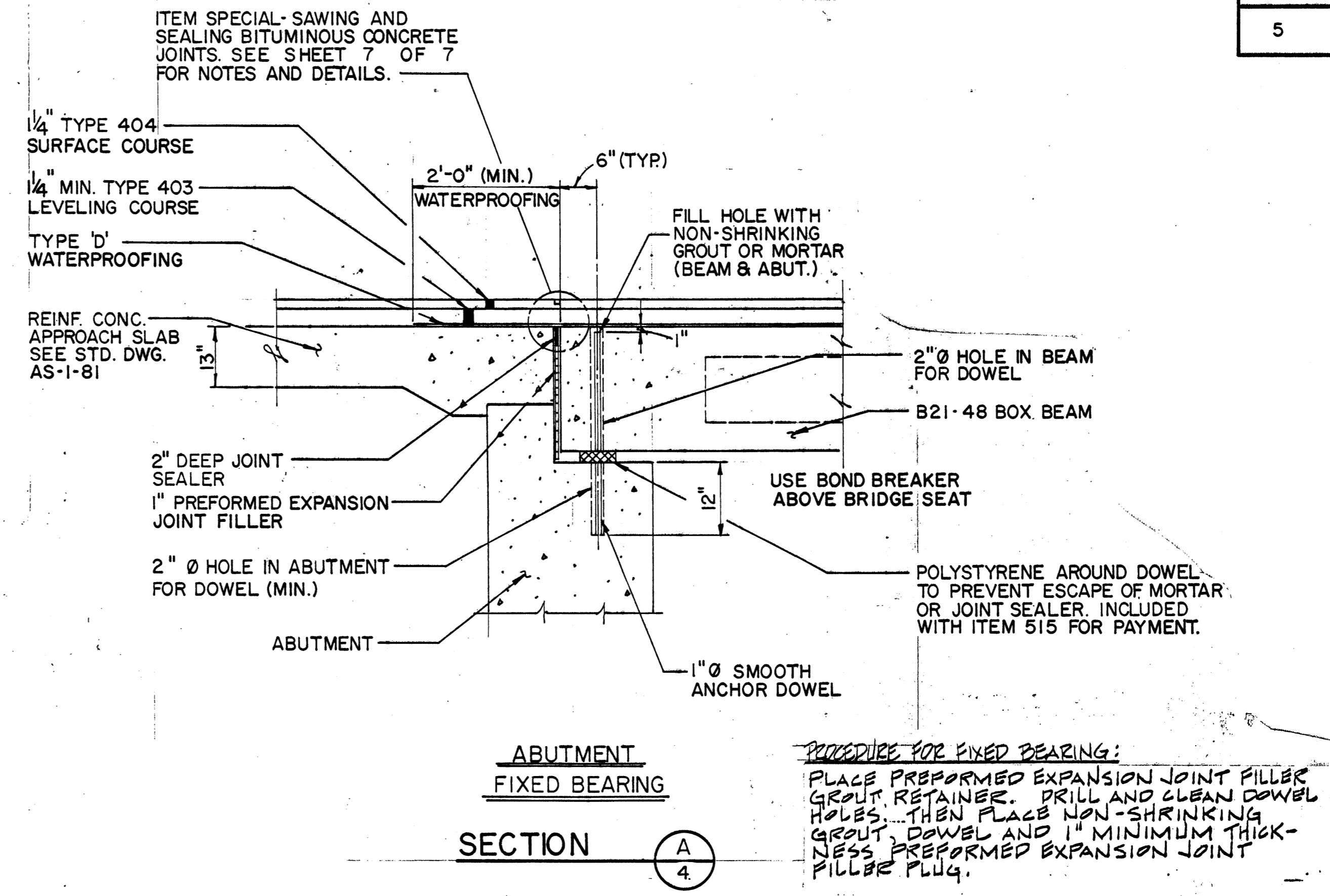
SHEET 2 OF 4 - AS REQUIRED TO SUPPLEMENT APPLICABLE DETAILS.

SHEET 3 OF 4 - AS REQUIRED TO SUPPLEMENT APPLICABLE DETAILS.

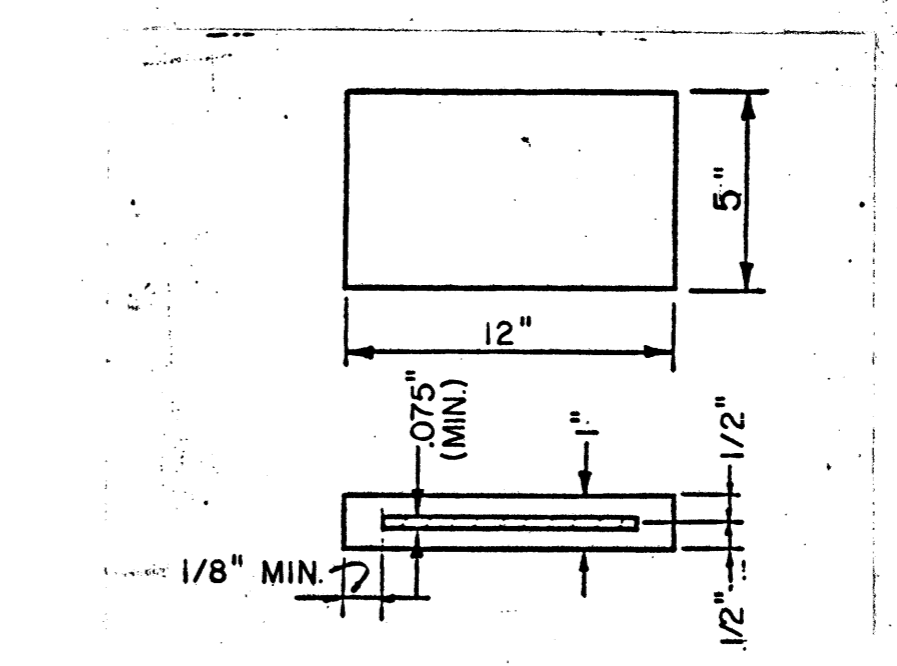
KARL R. ROHRER ASSOC., INC. 3810 RIDGEWOOD ROAD AKRON, OHIO		5 / 7
TRANSVERSE SECTION & SUPERSTRUCTURE DETAILS		
BRIDGE No. MED. 57-0322		
OVER RIVER STYX		
MEDINA COUNTY		
DESIGNED	DRAWN	TRACED
F	T.F.	LBD
CHECKED	REVIEWED	DATE
LBD	KJC	8/22/89
REVISED		



ABUTMENT REINFORCING										
MARK	No.	LENGTH	WEIGHT	TYPE	A	B	C		FWD.	REAR
A502	54	4'-6"	649	4	1'-7 1/2"	1'-0"			27	27
A501	16	28'-11"	1235	5					8	8
A501	24	28'-1"	703	5					12	12
A502	36	9'-6"	357	3	1'-8"	2'-6"			18	18
A503	176	6'-3"	1147	1	2'-6"	2'-0"			88	88
A504	16	21'-11"	906	5					8	8
A505	66	12'-2"	838	1	1'-9"	5'-4"			33	33
A506		NOT USED								
A507		NOT USED								
A508	4	7'-3"	30	5					2	2
A509	2	4'-8"	10	5					1	1
A510	12	7'-10"	98	5					6	6
A511	4	7'-7"	32	2	2'-7"	3'-0"	C 1'-6"	D 1'-8"	2	2
A512	2	7'-1"	15	2	2'-1"	3'-0"	C 1'-6"	D 1'-8"	1	1
A513	22	4'-1"	94	1	1'-0"	1'-8"			11	11
A514	2	6'-4"	13	5					1	1
A515	12	8'-2"	102	5					6	6
A516	2	8'-1"	17	2	3'-1"	3'-0"	C 1'-6"	D 1'-8"	1	1
A517	10	15'-9"	164	1	1'-0"	7'-6"			5	5
A518	4	15'-1"	63	1	1'-0"	7'-2"			2	2
A519	4	13'-7"	57	1	1'-0"	6'-5"			2	2
A520	4	13'-1"	55	1	1'-0"	6'-2"			2	2
A521	4	12'-4"	51	1	1'-9"	5'-5"			2	2
A522		NOT USED								
A523	4	4'-1"	17	1	1'-0"	1'-8"			2	2
		TOTAL	6113							
EA501 TO EA503		NOT USED								
EA504	24	21'-11"	649	5					12	12
EA505	4	4'-10"	20	1	1'-9"	1'-8"			2	2
EA506	66	5'-6"	379	1	1'-9"	2'-0"			33	33
EA507	68	5'-7"	396	1	0'-6"	2'-8"			34	34
		TOTAL	1244							



THE MAXIMUM DESIGN LOAD = 21 KIPS



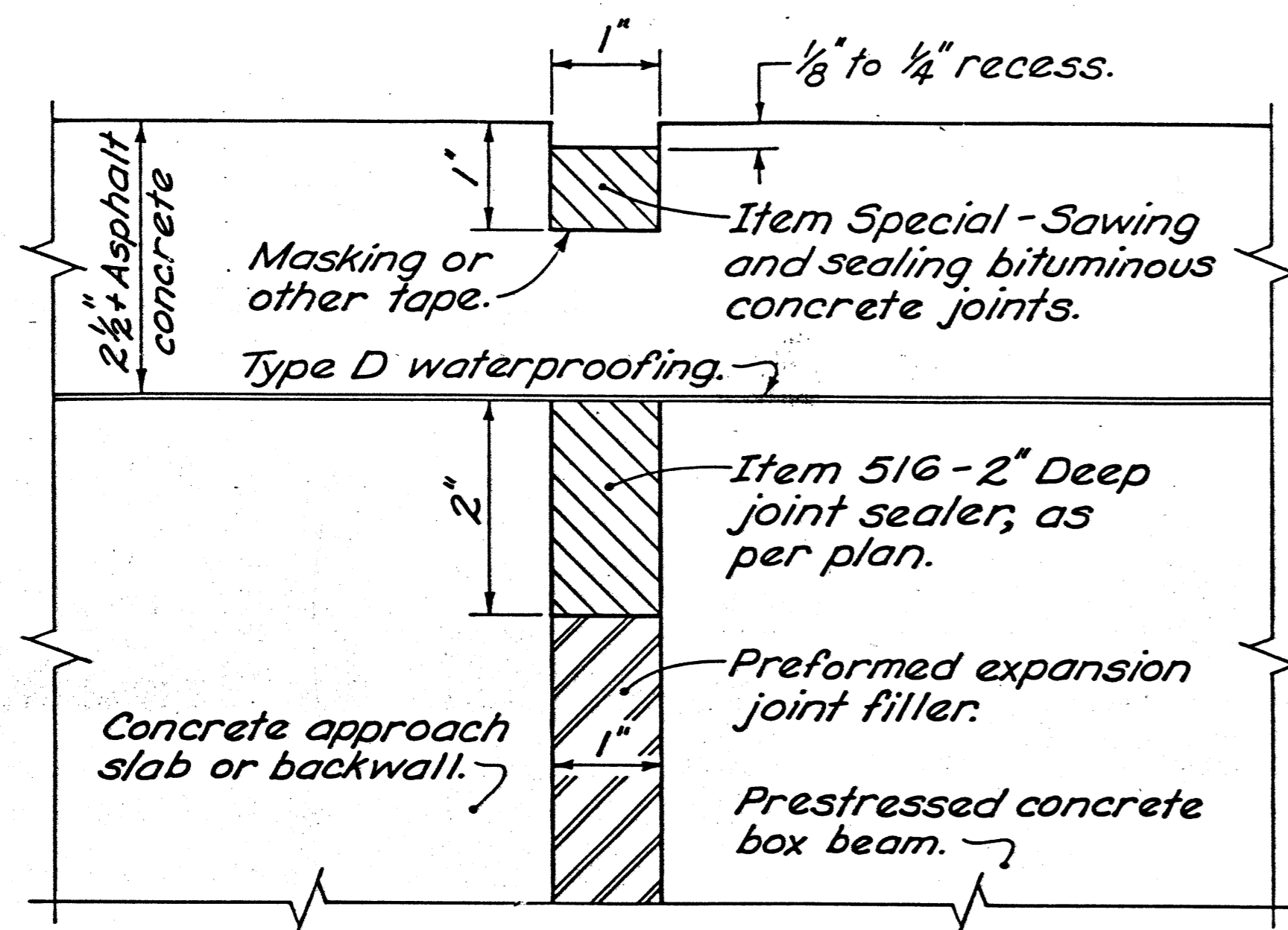
LAMINATED ELASTOMERIC BEARING PAD

NEOPRENE HARDNESS ELASTOMERIC BEARINGS TO BE 50 DURO.

KARL R. ROHRER ASSOC., INC. 3810 RIDGEWOOD ROAD AKRON, OHIO		6/7
ABUTMENT REINFORCING & SUPERSTRUCTURE DETAILS		
BRIDGE No. MED. 57-0322		
OVER RIVER STYX		
DESIGNED	DRAWN	TRACED
CHKD	REV'D	DATE
REVISED		

MEDINA COUNTY

DESIGNED: F
DRAWN: T.F.
TRACED: LBD
CHKD: KJC
REV'D: 8/22/89



SEALING OF JOINTS AT ABUTMENTS

ITEM SPECIAL - SAWING AND SEALING BITUMINOUS CONCRETE JOINTS

1) Description:

This work shall consist of cutting and sealing transverse joints on the new bituminous concrete overlay of box beam bridges. Bituminous concrete joints shall be constructed directly over, and in line with, the existing underlying transverse abutment joint of the box beams.

2) Materials:

The joint sealant shall meet the requirements of ASTM Specification D3405, Joint sealants, Hot-poured, for Concrete and Asphalt Pavements. Acceptable alternate materials are:

Roof-Flex 176, polyurethane, as produced by the Carboline Company, 350 Hanley Industrial Court, St. Louis, Missouri 63144 (Roger Zubal, 614-877-3406); a silicone sealant meeting Federal Specifications TT-S-001543A Class A (one-part silicone sealants) and TT-S-00230C Class A (one-component sealants), such as those manufactured by General Electric, Silicone Products Division, 6155 Rockside Rd., Rockside Square I, Independence, Ohio 44131 (John Fromholtz, 216-447-1750) or Dow Corning, 3737 Park East, Beachwood, Ohio 44122 (Robert Ruppel, 216-464-2330); or Sof-Seal, a cold-applied, low-modulus, two-component polymeric compound horizontal sealant as manufactured by W. R. Meadows, Inc., P.O. Box 543, Elgin, Illinois 60121 (Robert Cameron, 312-683-4500). Sealant will be accepted on the basis of the manufacturer's certification that it conforms to the requirements of these specifications.

3) Construction Details:

A) General: The contractor shall conduct his operation so that the cutting, cleaning and sealing of transverse joints is a continuous operation that will be performed as soon as practical after the paving, but no later than four (4) days after placement of the asphalt concrete surface course. Traffic shall not be allowed to knead together or damage the joint cut prior to sealing.

B) Cutting of Transverse Joints: The contractor shall saw or rout transverse joints to the dimensions shown in the details on this sheet. The cut joints shall lie directly above each box beam abutment joint. The joint location shall be marked on the new asphalt surface with a chalk line, or by some other acceptable method, before cutting. Details of the method for locating and accurately marking the proposed cuts shall be subject to the approval of the Engineer prior to starting any surfacing or paving operations.

The blade or blades shall be of such size that the full width and depth of the cut can be made with one pass. Dry or wet cutting will be allowed. Joints shall extend the full width of the bridge.

C) Cleaning Joints: Dry sawed joints shall be thoroughly cleaned with a sufficient amount of compressed air to remove any dirt, dust, or deleterious matter. Wet sawed joints shall be washed clean of all cuttings by flushing with a jet of water and with other tools as necessary. After flushing, the joint shall be blown out with compressed air. When the surfaces are thoroughly clean and dry, and just prior to placing the joint sealer, compressed air having a pressure of at least 90 p.s.i. shall be used to blow out the joint and remove all traces of dust.

In the event freshly cut joints become contaminated before they are sealed, they shall be recleaned of all foreign material by high pressure water jet.

D) Sealing Joints: The joint shall be thoroughly dried before the sealant is placed. After cleaning and drying, a bond-breaker (tape) shall be applied to the bottom of the groove.

Hot-poured joint sealant material shall be heated in a kettle or melter constructed as a double boiler, with the space between the inner and outer shells filled with oil or other heat transfer medium. Positive temperature control and mechanical agitation shall be provided. Heating must be in strict accordance with the manufacturer's recommendation. Joint sealer material shall never be kept heated at the pouring temperature for more than four (4) hours and shall never be reheated. Sealer left in the applicator at the end of a day's work shall be removed and discarded.

Hot-poured sealant shall be applied immediately through a nozzle, which must project into the sawed joint, filling from the bottom up. The seal shall completely fill the joint in such a manner that, after cooling, the level of the sealer will not be higher than 1/8" below the pavement surface. Any depression in the cooled seal greater than 3/16" shall be brought up to the specified limit by further addition of hot-poured sealant. Care shall be taken in the sealing of the joints so that the final appearance will present a neat fine line.

The cold applied sealant materials (polyurethane, silicone, and polymeric compounds) shall be installed as per manufacturers' recommendations, or as directed by the Engineer. The sealant shall be installed when the ambient temperature is 40 degrees F or higher. Traffic shall not be allowed on the joint for one hour after application of the sealant.

4) Method of Measurement:

The quantity to be paid for under this item will be the number of linear feet of joints sawed and sealed as per the above requirements.

5) Basis of Payment:

The unit price per linear foot for Item Special - "Sawing and sealing bituminous concrete joints" shall include the cost of all labor, materials, and equipment necessary to complete the work, including the furnishing and placing of the joint sealer material.

ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN

This item shall meet the material (para. 2) and sealing (para. 3D) specifications of Item Special - Sawing and sealing bituminous concrete joints.

REVISIONS	STATE OF OHIO				7 / 7
2-8-84	DEPARTMENT OF TRANSPORTATION				
3-10-87	BUREAU OF BRIDGES AND STRUCTURAL DESIGN				
4-14-87	ABUTMENT JOINTS IN BITUMINOUS CONCRETE, BOX BEAM BRIDGES				
6-16-87					
BRIDGE NO. MED-57-0322					
MEDINA COUNTY					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
JEB	MJB		WTF	WJJ	2-2-84

Master

PROPERTY & UTILITY PLAN

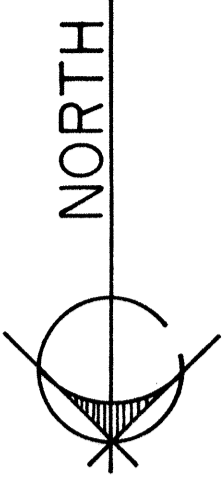
MEDINA COUNTY GUILFORD TOWNSHIP

SECTION 30 TWP. 1N. RANGE 14W.

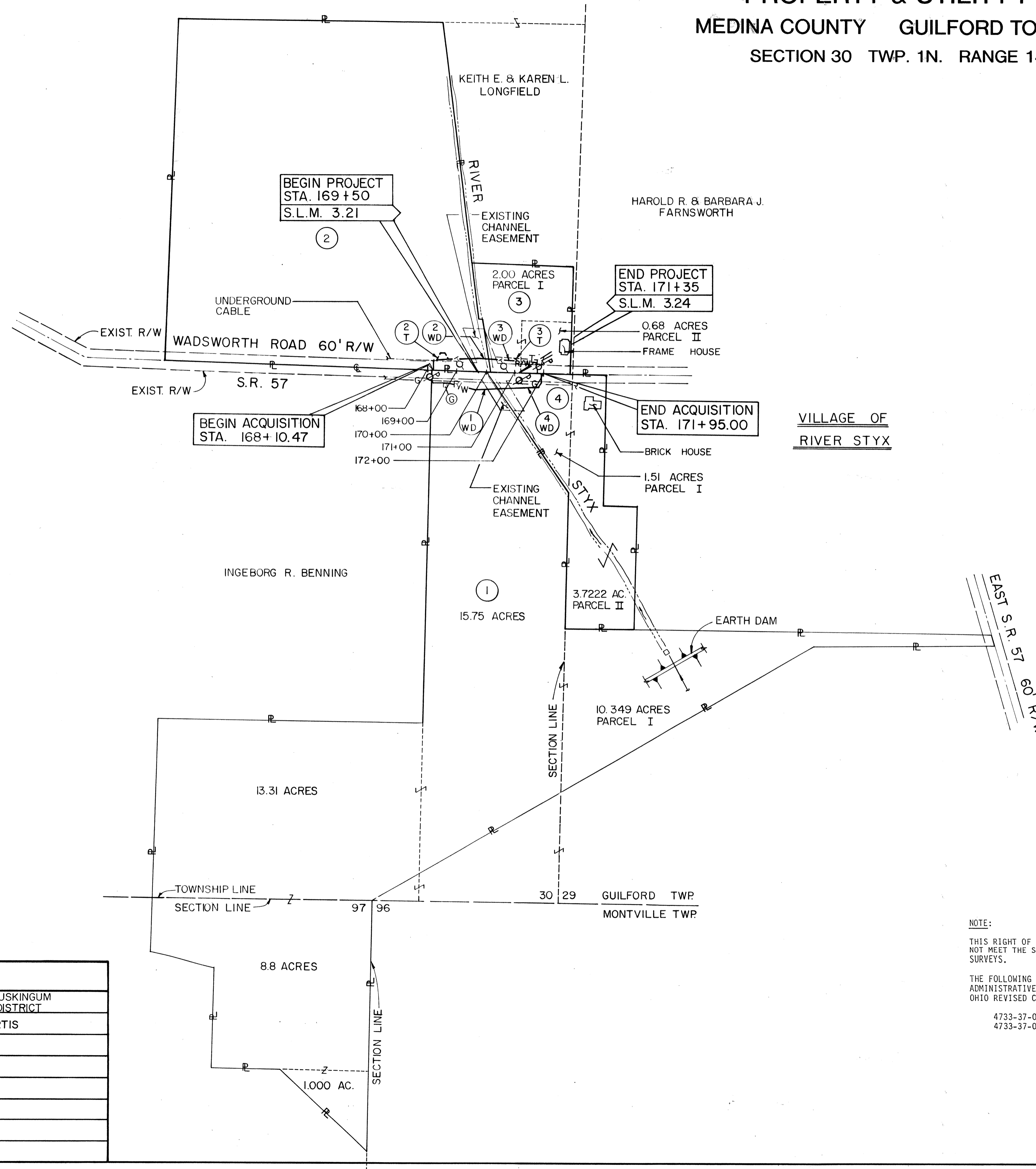
CALC. BY: J.M.	MED-57-3.21	OHIO
DATE: 11/22/12		19 20
CHKD. BY: J.P.D.		FHWA 5
DATE: 11/28/12		REGION

MEDINA COUNTY

RIGHT-OF-WAY PLAN R/W SHEET 1
2



0 100 200 400
SCALE IN FEET
SCALE: 1" = 200'



G - - - - - **AFFECTED UTILITIES**
GAS LINES:
 THE EAST OHIO GAS COMPANY
 7015 FREEDOM AVE., N.W.
 NORTH CANTON, OHIO 44720
 ATTN: RONALD REVLOCK
 PHONE: 216-499-2501

P - - - - - **ELECTRIC:**
 OHIO EDISON COMPANY
 BUILDING ONE
 76 S. MAIN STREET
 AKRON, OHIO 44308
 ATTN: B. P. MCCOY
 PHONE: 216-384-5714

T - - - - - **TELEPHONE:**
 GENERAL TELEPHONE OF OHIO
 6223 NORWALK ROAD
 MEDINA, OHIO 44256
 ATTN: STAN SNIDER
 PHONE: 216-722-9591

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

NOTE:
 THIS RIGHT OF WAY PLAN (PAGES _____ THROUGH _____) DOES NOT MEET THE STATE OF OHIO MINIMUM STANDARDS FOR BOUNDARY SURVEYS.

THE FOLLOWING ITEMS ARE ABRIDGEMENTS WITH REFERENCE TO ADMINISTRATIVE CODE 4733-37-01 AS PURSUANT TO CHAPTER 119, OHIO REVISED CODE:

4733-37-03 ITEMS A, B, D
 4733-37-05 ITEMS C-4, C-5, C-9 & C-10

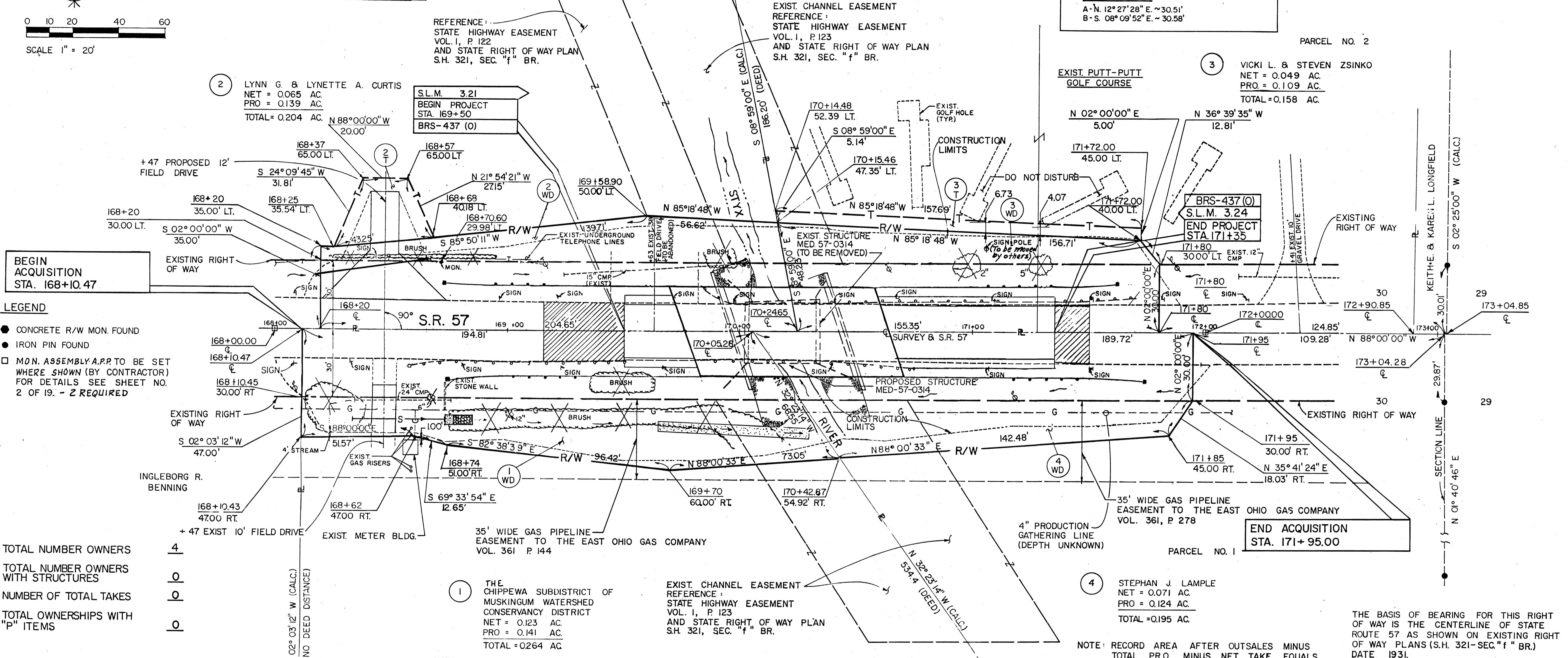
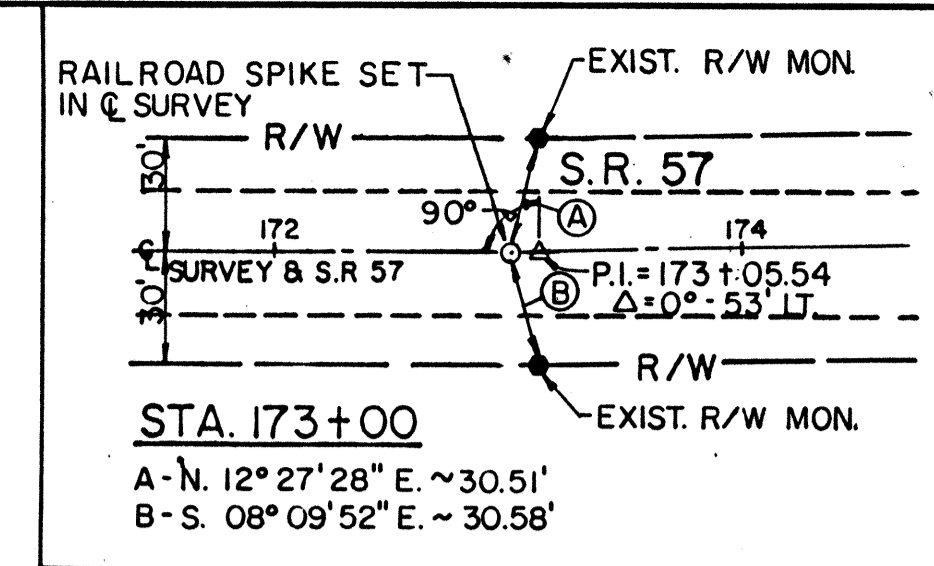
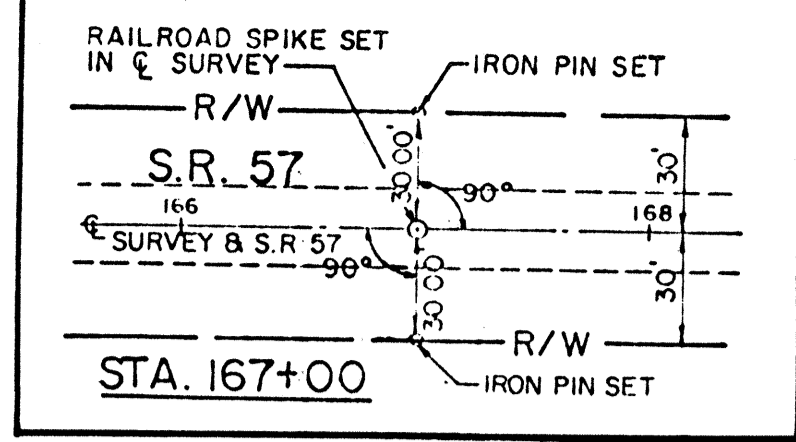
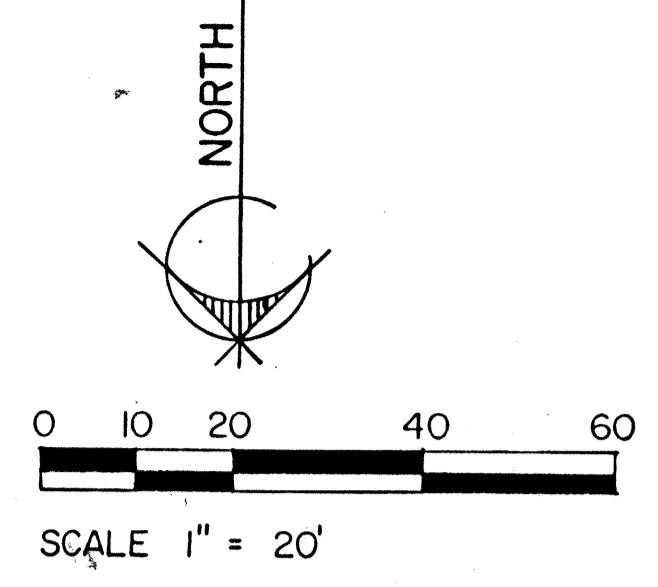
PCL. NO.	THE	OWNER
1	CHIPPEWA SUBDISTRICT OF MUSKINGUM WATERSHED CONSERVANCY DISTRICT	
2	LYNN G. & LYNETTE A CURTIS	
3	VICKI L. & STEVEN ZSINKO	
4	STEPHEN J. LAMPLE	

REV.	DATE	DESCRIPTION

FUNDING : STATE

MEDINA COUNTY GUILFORD TOWNSHIP

SECTION 30 TWP. 1N RANGE 14W



- LEGEND**
- CONCRETE R/W MON. FOUND
 - IRON PIN FOUND
 - MON. ASSEMBLY A.P.P. TO BE SET WHERE SHOWN (BY CONTRACTOR) FOR DETAILS SEE SHEET NO. 2 OF 19. - 2 REQUIRED

TOTAL NUMBER OWNERS	4
TOTAL NUMBER OWNERS WITH STRUCTURES	0
NUMBER OF TOTAL TAKES	0
TOTAL OWNERSHIPS WITH "P" ITEMS	0

NOTE: ALL AREAS IN ACRES UNLESS OTHERWISE NOTED.

SUMMARY OF ADDITIONAL RIGHT OF WAY

PARCEL	OWNER	SHEET NUMBER	OWNERS RECORD		RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCT.	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALITY	AS REQUIRED		PERMANENT PARCEL NUMBER
			BOOK	PAGE							LEFT	RIGHT			BOOK	PAGE	
1-WD	THE CHIPPEWA SUBDISTRICT OF MUSKINGUM WATERSHED CONSERVANCY DISTRICT	2	407	234	15.76	0.141	0.264	0.141	0.123	---	15.496	---	STATE	PARCEL NO. 1	571	309	009-005-00-019-00 009-004-00-065-00 032-019-00-002-01 009-005-00-020-01 032-019-00-005-01
TOTAL					49.219	0.167	0.264	0.141	0.123	---	48.929	---	---	---	594	912	009-005-00-014-00
2-WD	LYNN G. & LYNETTE A. CURTIS	2	OR 224	233	28.914	0.790	0.204	0.139	0.065	---	28.059	---	---	---	594	912	009-005-00-014-00
2-T		2					0.020	---	0.020	---	---	---	---	---	---	---	---
3-WD	VICKI L. & STEVEN ZSINKO	2	OR 507	79	2.68	0.185	0.158	0.109	0.049	---	2.446	---	---	(TEMPORARY ONLY) PROPOSED FIELD DRIVE PARCEL NO. 1 = 2.00 AC PROPERTY OWNER'S PARCEL NO. 2 = 0.68 AC ADVERTISING SIGN (TEMPORARY ONLY) FOR DITCH CONSTRUCTION	574	635	009-005-00-015-01 009-005-00-016-00
3-T		2	OR 423	870						---		---	---	---	574	638	009-005-00-016-00
4-WD	STEPHAN J. LAMPLE	2 & 1	498	392	5.2322	0.282	0.195	0.124	0.071	---	4.8792	---	---	PARCEL NO. 1 = 1.51 AC PARCEL NO. 2 = 3.7222 AC	570	685	009-005-00-018-00 009-027-00-070-07

THE BASIS OF BEARING FOR THIS RIGHT OF WAY IS THE CENTERLINE OF STATE ROUTE 57 AS SHOWN ON EXISTING RIGHT OF WAY PLANS (S.H. 321-SEC. "f" BR.) DATE 1931.

REV.	DATE	DESCRIPTION
		Rev. Vols. & Pgs. Par. 1 & 3
PWS	10-90	Added to name, Par. 1
	1-25-90	PLAN COMPLETED

GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED ON A GLACIATED MODERATELY ROLLING PLAIN AT THE ALLEGHENY ESCARPMENT DIVIDING THE ALLEGHENY PLATEAU REGION FROM THE MISSISSIPPI VALLEY PLAIN REGION, ON THE BROAD FLOODPLAIN OF AND OVER RIVER STYX, IN AN AREA WHERE DEEP GLACIAL-DERIVED MATERIAL AND ALLUVIAL DEPOSITS OVERLIE BEDROCK, OF MISSISSIPPIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE BORINGS MADE BY MEANS OF A MECHANICALLY-POWERED HOLLOW STEM ROTARY AUGER MOUNTED ON A MOBILE PLATFORM, PERFORMED ON FEBRUARY 24, 1987.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

THE TEST BORINGS ENCOUNTERED INTERVALS OF EXTREMELY LOOSE TO EXTREMELY DENSE UNSTRATIFIED BASIC SILTS, CLAYS, SAND, GRAVEL AND PEAT MODIFIED WITH WOOD FRAGMENTS AND VARYING AMOUNTS OF EACH OTHER THAT GRADUALLY INCREASE (ERRATIC AT TIMES) IN DENSITY WITH INCREASE IN DEPTH. TEST BORING NO. B-1 (MADE IN THE GENERAL VICINITY OF THE REAR ABUTMENT) PENETRATED TO A DEPTH OF 46.5 FEET, ELEVATION 947.8 FEET AND WAS TERMINATED AT THAT POINT AFTER PENETRATING IN EXCESS OF 16.5 FEET OF MATERIAL REQUIRING IN EXCESS OF 30 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST IMMEDIATELY PRIOR TO TERMINATION. SEDIMENTARY PEAT AND MATERIAL CONTAINING A TRACE OF ORGANIC WAS ENCOUNTERED IN TEST BORING NO. B-1 AT 10.0 TO 21.5 FOOT DEPTH, ELEVATION 984.3 TO 972.8 FEET. TEST BORING NO. B-2 (MADE IN THE GENERAL VICINITY OF THE FORWARD ABUTMENT) PENETRATED TO A DEPTH OF 46.5 FEET, ELEVATION 948.0 FEET AND WAS TERMINATED AT THAT POINT AFTER PENETRATING IN EXCESS OF 6.5 FEET OF MATERIAL REQUIRING IN EXCESS OF 30 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST IMMEDIATELY PRIOR TO TERMINATION. SEDIMENTARY PEAT, ORGANIC MATERIAL AND MATERIAL CONTAINING A TRACE OF ORGANIC WAS ENCOUNTERED IN TEST BORING NO. B-2 AT 10.0 TO 19.0 FOOT DEPTH, ELEVATION 984.5 TO 975.5 FEET. COBBLE-LADEN MATERIAL WAS ENCOUNTERED IN TEST BORING NO. B-2 AT 0.3 AND 25.0 FOOT DEPTHS, ELEVATIONS 994.2 AND 975.5 FEET, RESPECTIVELY.

BEDROCK SURFACE WAS NOT ENCOUNTERED IN EITHER OF THE TEST BORINGS PERFORMED.

FREE WATER WAS OBSERVED AND MEASURED IN TEST BORING NO. B-1 AT 12.0 FOOT DEPTH, ELEVATION 982.5 FEET AND IN TEST BORING NO. B-2 AT 7.0 FOOT DEPTH, ELEVATION 987.5 FEET DURING DRILLING OPERATIONS.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.

- Capped Pile
- Footing
- Footing on Pile
- TR Top of Rock

- SYMBOLS OF ROCK TYPES**
- Coal
 - Weathered Mudstone or Claystone
 - Mudstone or Claystone
 - Weathered Shale
 - Shale
 - Weathered Siltstone
 - Siltstone

- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
X = Number of Blows for First 6 inches.
Y = Number of Blows for Second 6 inches.
Z = Number of Blows for Third 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z Indicates Final Measurement of Penetration, in Inches.
- W Indicates Free Water Elevation.
- Indicates Static Water Elevation.

- SYMBOLS OF ROCK TYPES**
- Weathered Sandstone
 - Sandstone
 - Leached Dolomite
 - Dolomite
 - Leached Limestone
 - Limestone
 - Boulders or Cobbles

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

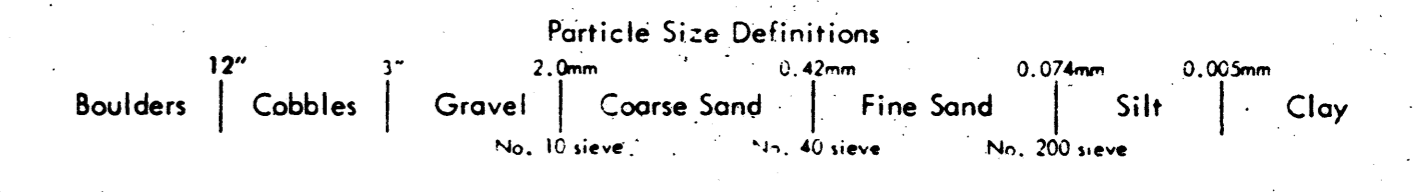
Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 18 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in three 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.



NOTE - ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE STRUCTURE FOUNDATION INVESTIGATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, 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 LOCATION AND DESIGN OR IN THE BRIDGE BUREAU AT 25 SOUTH FRONT STREET.

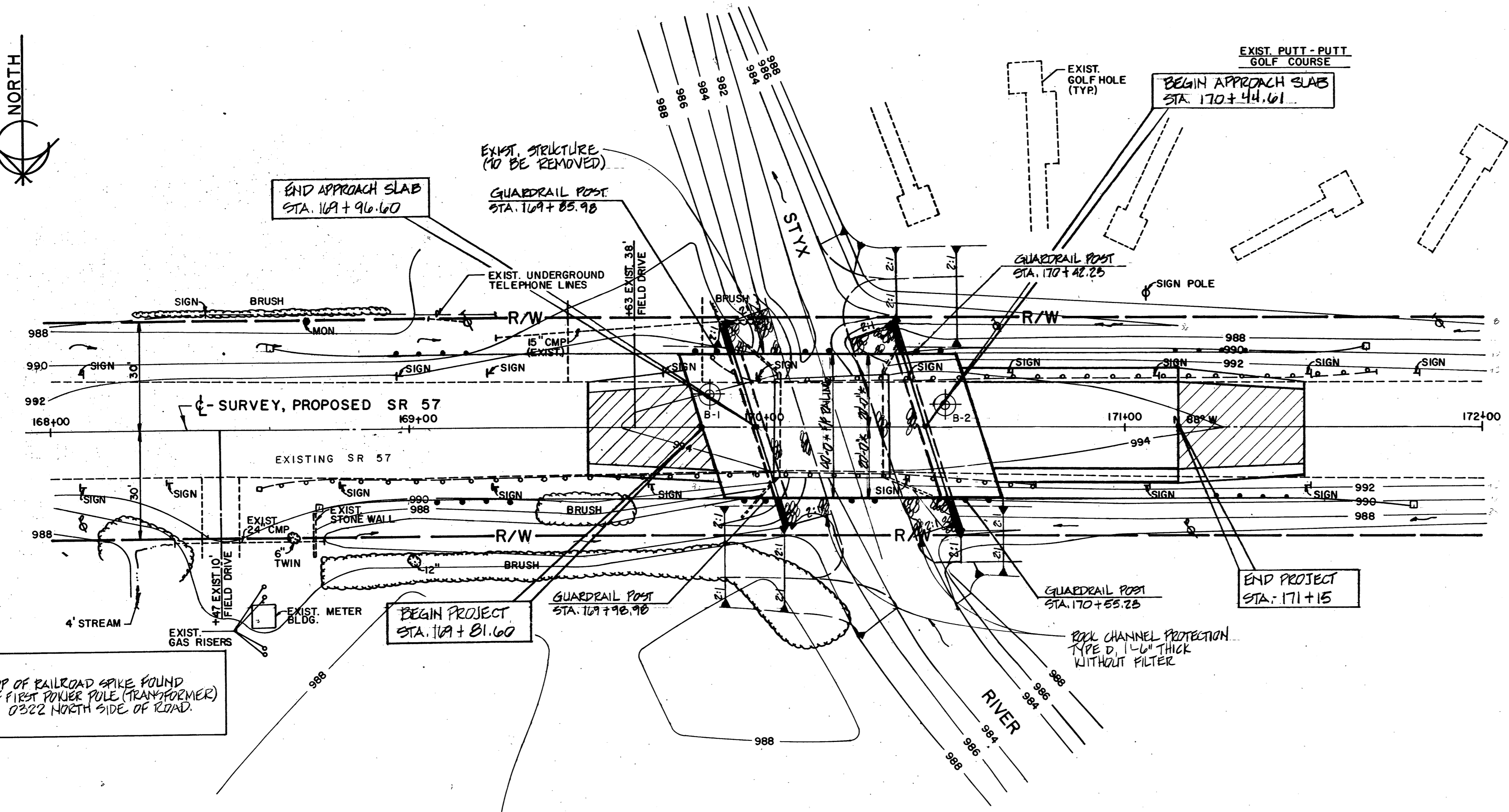
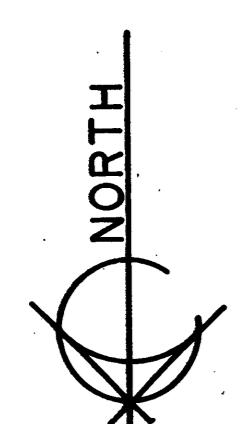
Revised 6/26/89

NOTE: In addition shown by this subsurface investigation was determined solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - TESTING LABORATORY
1600 WEST BROAD STREET, COLUMBUS, OHIO 43223

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. MED-57-0322-0322
OVER STYX RIVER
SEC. MED-57-3.2J-11

CHECKED BY A.F.	REVIEWED BY R. D. R.	DATE 3/25/87
--------------------	-------------------------	-----------------



PLAN

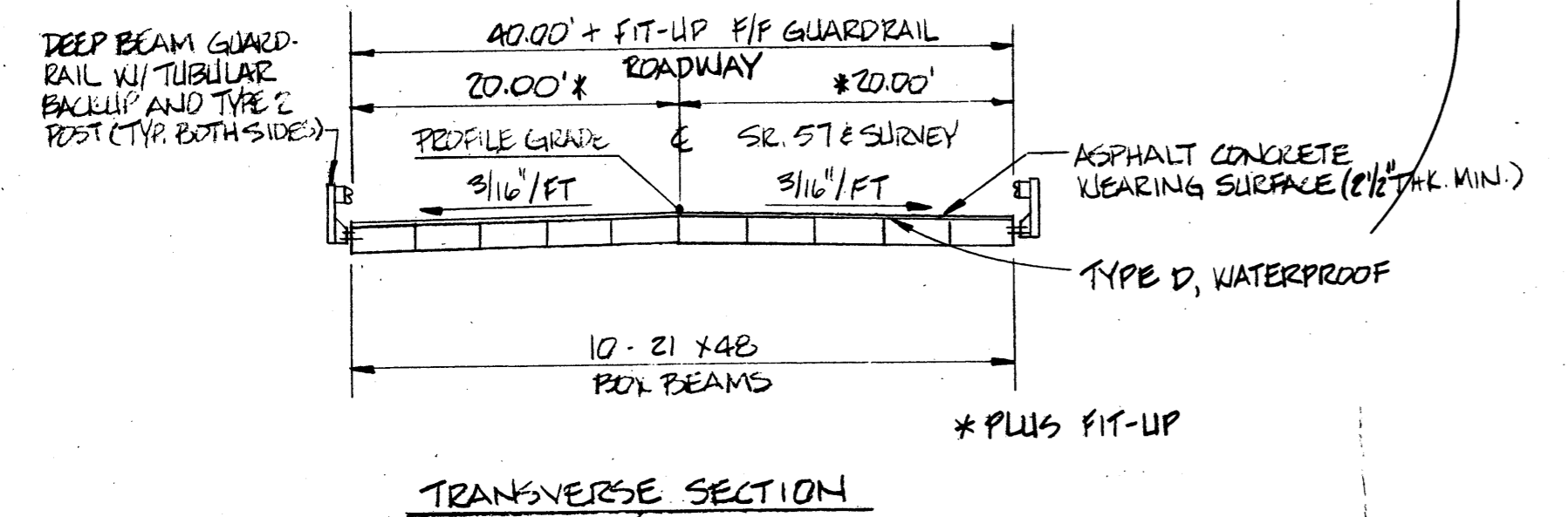
BENCHMARK
ELEVATION OF TOP OF RAILROAD SPIKE FOUND IN NORTH SIDE OF FIRST POWER POLE (TRANSFORMER) WEST OF BRIDGE 0322 NORTH SIDE OF ROAD. ELEV. - 991.84

TRAFFIC COUNT	
CURRENT A.D.T.(1988)-	4240
DESIGN YEAR A.D.T.(2008)-	5520
T(TRUCKS)-	5%

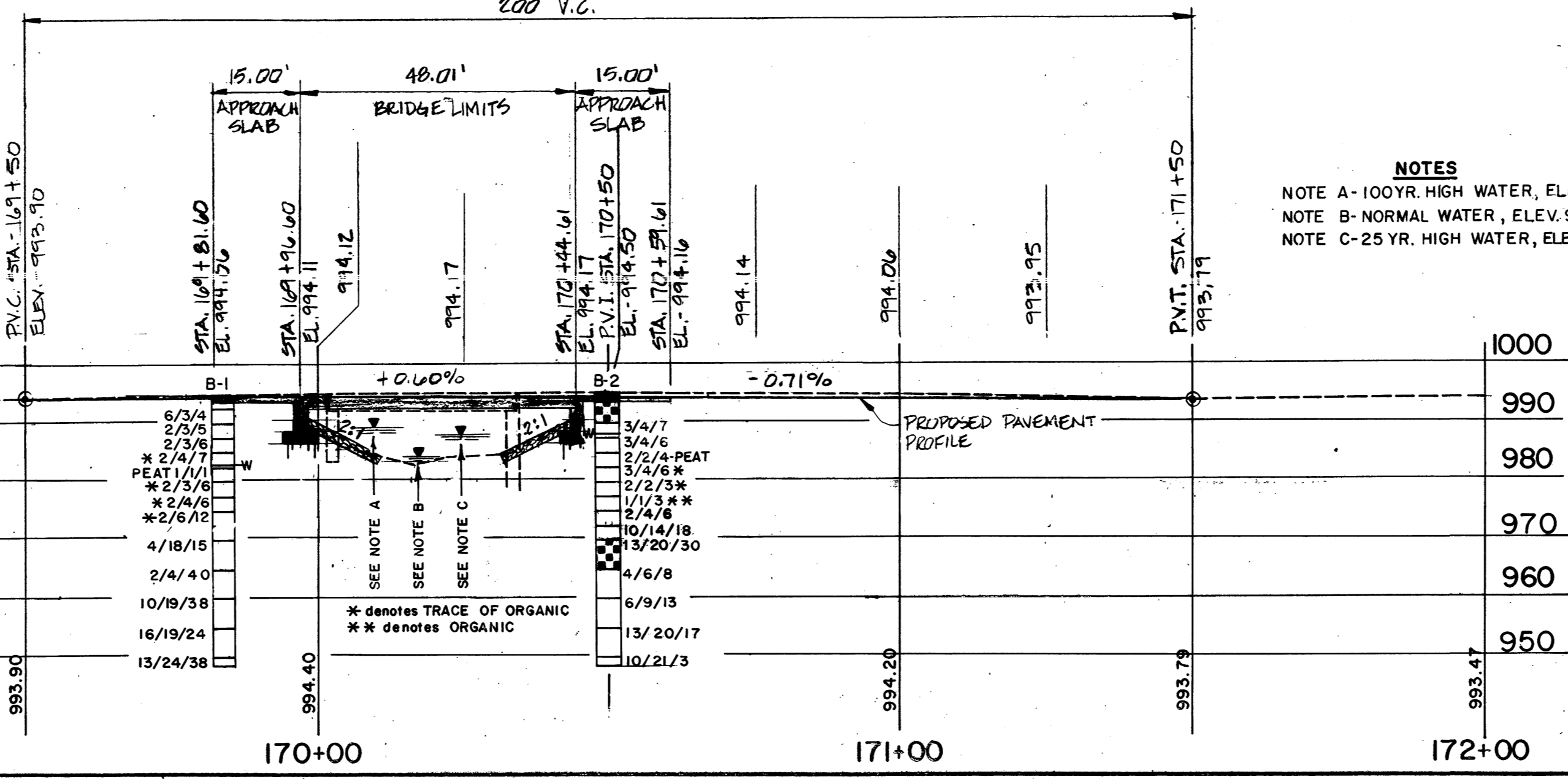
DESIGN DISCHARGE			
FREQUENCY	DISCHARGE	HIGH WATER ELEVATION	
	C.F.S.	EXISTING BRIDGE	PROPOSED BRIDGE
25 YR.	510	989.40	989.40
100 YR.	739	990.44	989.69

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

CLEAR 100 YR. HIGH WATER BY: 2.03
DRAINAGE AREA: 3.97 SQ. MILES
STREAM VELOCITY: (25 YR.) 2.18 F.P.S.
(100 YR.) 2.34 F.P.S.

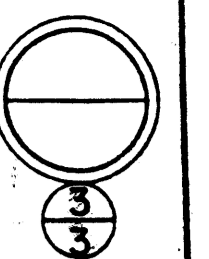


TRANSVERSE SECTION



NOTES
NOTE A - 100YR. HIGH WATER, ELEV. 989.69
NOTE B - NORMAL WATER, ELEV. 983.50
NOTE C - 25 YR. HIGH WATER, ELEV. 989.40

EXISTING STRUCTURE			
TYPE: CREOSOTED TIMBER BRIDGE W/STEEL STRINGERS			
SPAN: 29'			
ROADWAY: 24'			
ALIGNMENT: TANGENT			
SKEW: 0°			
DECK: CREOSOTED OAK LUMBER STRIP FLOOR			
WEARING SURFACE: ASPHALT CONCRETE			
APPROACH SLABS: NONE			
DATE: 1931			
STRUCTURE FILE NO. 520926			
PROPOSED STRUCTURE			
TYPE: SINGLE SPAN PRESTRESSED CONCRETE BOX BEAMS			
SPAN: 46.79' C/C BEARING			
ROADWAY: 40.00' + FIT-UP FIF GUARDRAIL			
ALIGNMENT: TANGENT			
SKEW: 15°			
WEARING SURFACE: 2 1/2" MIN. ASPHALT CONCRETE			
APPROACH SLABS: AS-1-B1 (15.0' LONG)			
LOADING: HS-20 AND THE ALTERNATE MILITARY LOADING			
CEGRUN: 3 1/2" / FT.			
<i>Revised 6/26/89</i>			
OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS- TESTING LABORATORY 1600 WEST BROAD STREET COLUMBUS, OHIO 43223			
STRUCTURE FOUNDATION INVESTIGATION BRIDGE NO. MED-57-0322 OVER STYX RIVER SEC. MED-57-3.21			
PLAN AND PROFILE			
DRAWN BY	CHECKED BY	REVIEWED BY	DATE
A.F.	A.F.	R.D.R.	3/25/78



LOG OF BORING

Date Started 2/24/87 Sampler Type SS Dia. 1 3/8" Water Elev. 982.3'
 Date Completed 2/24/87 Casing Length _____ Dia. _____
 Boring No. B-1 Station & Offset 169+83, 9' LT. (REAR ABUTMENT) Surface Elev. 994.3'

Elev.	Depth	Std. Pen. (N)	Rec. Loss ft.	Description	Sample No.	Physical Characteristics							SHTL Class.		
						% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.		W.C.	
994.3	0			ASPHALT											VISUAL
994.0	0			ASPHALT											VISUAL
991.8	2			ASPHALT											VISUAL
989.3	4	6/3/4		BROWN SILTY SANDY GRAVEL	1	37	9	18	22	14	25	6	18		A-4A
986.8	8	2/3/5		BROWN SANDY SILT	2	12	8	21	37	22	31	9	29		A-4A
984.3	10	2/3/6		BROWN-GRAY GRAVELLY CLAY	3	22	1	8	27	42	45	21	29		A-7-6
981.8	12	2/4/7		BROWN-GRAY GRAVELLY CLAY, TRACE OF ORGANIC	4	50	0	3	19	28	48	24	28		A-7-6
979.3	14	1/1/1		BROWN-GRAY SEDIMENTARY PEAT	5	-	-	-	-	-	59	29	57		VISUAL
976.8	16	2/3/6		GRAY SILT AND CLAY, TRACE OF ORGANIC	6	5	0	5	48	42	33	12	31		A-6A
974.3	18	2/4/6		BROWN SANDY SILT, TRACE OF ORGANIC	7	4	1	21	59	15	NP	NP	22		A-4B
969.3	20	2/6/12		BROWN-GRAY SANDY SILT, TRACE OF ORGANIC	8	0	2	31	51	16	NP	NP	24		A-4B
964.3	24	4/8/15		BROWN SANDY SILT	9	14	1	16	58	11	NP	NP	19		A-4B
959.3	28	2/4/40		GRAY SILTY SANDY GRAVEL	10	41	8	16	27	8	NP	NP	13		A-2-4
954.3	32	10/19/38		GRAY SILT	11	7	0	1	58	34	NP	NP	19		A-4B
949.3	36	16/19/24		GRAY SILTY GRAVELLY SAND	12	20	19	22	21	18	18	4	12		A-4A
947.8	40	13/24/38		BROWN SILTY GRAVELLY SAND	13	25	27	29	12	7	NP	NP	11		A-1-B
	48			BOTTOM OF BORING											

LOG OF BORING

Date Started 2/24/87 Sampler Type SS Dia. 1 3/8" Water Elev. 987.5'
 Date Completed 2/24/87 Casing Length _____ Dia. _____
 Boring No. B-2 Station & Offset 170+30, 6' LT. (FORWARD ABUTMENT) Surface Elev. 994.5'

Elev.	Depth	Std. Pen. (N)	Rec. Loss ft.	Description	Sample No.	Physical Characteristics							SHTL Class.		
						% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.		W.C.	
994.5	0			ASPHALT											VISUAL
994.2	0			ASPHALT											VISUAL
989.5	2			BROWN SANDY SILTY CLAY WITH COBBLES (DRILLER'S DESCRIPTION)											VISUAL
987.0	4	3/4/7		BROWN SANDY GRAVELLY CLAY	1	30	4	12	34	20	39	17	22		A-6B
984.5	8	3/4/6		GRAY SILTY GRAVEL	2	63	1	8	15	13	-	-	29		VISUAL
982.0	10	2/2/4		GRAY SEDIMENTARY PEAT	3	-	-	-	-	-	60	22	69		VISUAL
979.5	12	3/4/6		GRAY SANDY GRAVELLY SILT, TRACE OF ORGANIC	4	29	0	22	40	9	NP	NP	23		A-4A
977.0	14	2/2/3		GRAY SANDY SILT WITH WOOD FRAGMENTS, TRACE OF ORGANIC	5	10	0	20	59	11	NP	NP	24		A-4B
974.5	16	1/1/3		GRAY ORGANIC GRAVELLY SILT	6	26	0	5	54	15	NP	NP	24		A-4B
972.0	18	2/4/6		GRAY SILTY SANDY GRAVEL	7	52	9	11	21	7	NP	NP	16		A-2-4
969.5	20	10/14/18		GRAY SILTY SANDY GRAVEL	8	46	23	14	10	7	NP	NP	14		A-1-B
964.5	22	13/20/30		GRAY SILTY SANDY GRAVEL WITH COBBLES	9	51	21	12	10	6	NP	NP	10		A-1-B
959.5	24	4/6/8		GRAY SILTY SANDY GRAVEL	10	49	11	5	10	25	28	10	25		A-2-4
954.5	26	6/9/13		GRAY SILTY SANDY GRAVEL	11	37	16	10	11	26	23	8	29		A-4A
949.5	28	13/20/17		GRAY SILTY GRAVELLY SAND	12	33	25	12	15	15	18	4	25		A-2-4
948.0	30	10/21/30		GRAY SANDY GRAVELLY SILT	13	37	10	11	23	19	18	4	19		A-4A
	48			BOTTOM OF BORING											

20962

MED-57-3.21

Revised 6/26/89

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - TESTING LABORATORY
1600 WEST BROAD STREET COLUMBUS, OHIO 43223

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. MED-57-0322
OVER STYX RIVER
SEC. MED-57-3.21

BORING DATA
TYPED BY _____ CHECKED BY _____ REVIEWED BY _____ DATE _____
L. A. S. A. F. R. D. R. 3/24/87