

MICROFILMED  
OCT 7 1985

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION MAH-76-0.91, MAH-80-1.25 MILTON TOWNSHIP JACKSON TOWNSHIP AUSTINTOWN TOWNSHIP MAHONING COUNTY BRIDGE REPAIR

OHIO	1 16
FHWA REGION 5	
FEDERAL PROJECT	

I-IR-76-2(37)49  
I-IR-80-5(33)221

MAH 76-0.91  
MAH 80-1.25

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JAN 4 1988

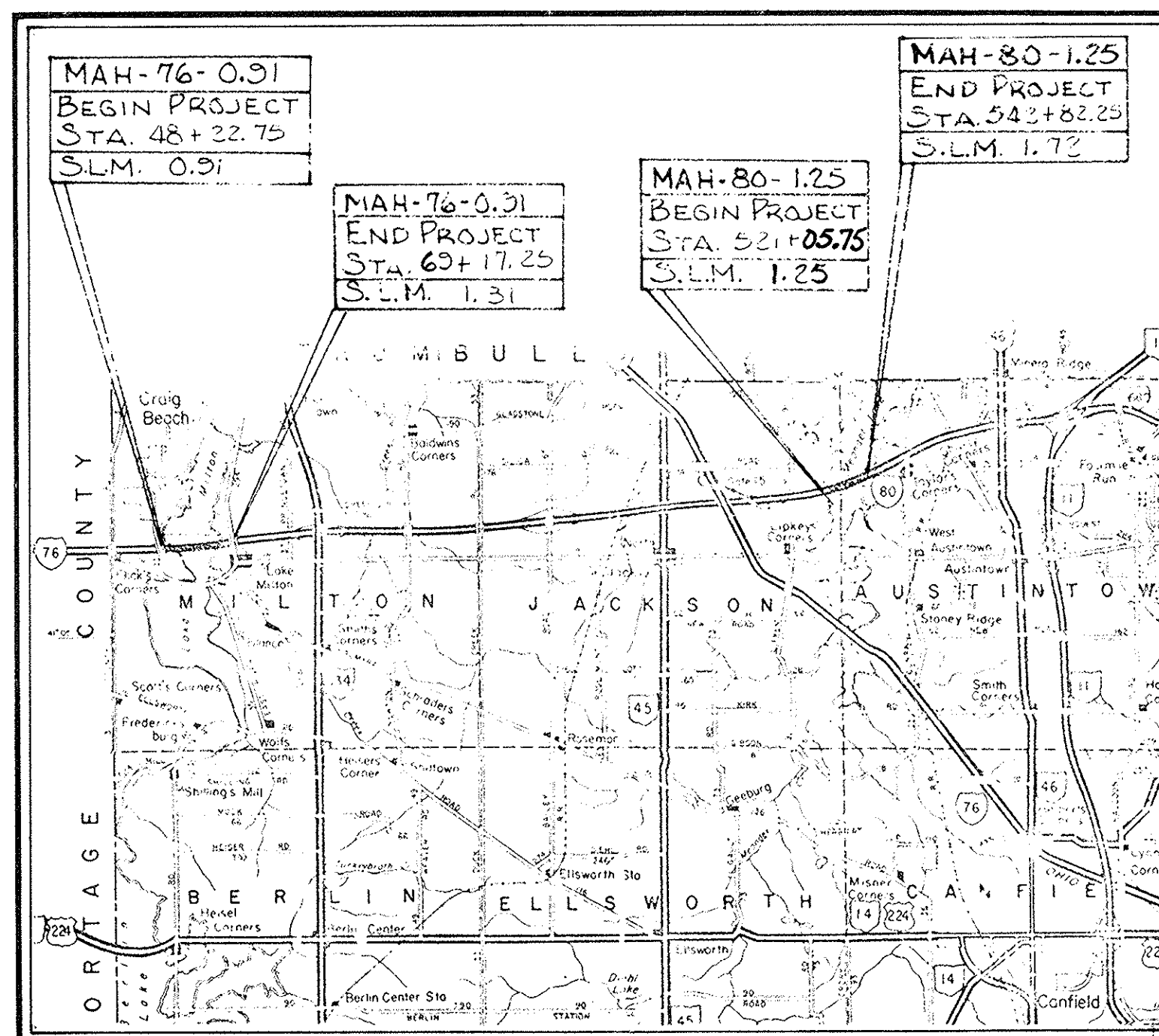
Project #  
743 (81)

### CONVENTIONAL SIGNS

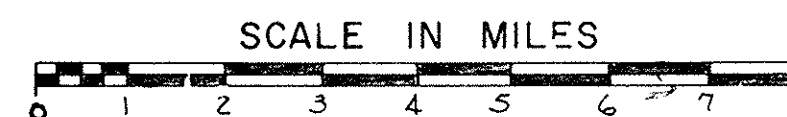
County Line _____	Limited Access (only) _____ LA _____
Township Line _____	Right of Way (only) _____ RW _____
Section Line _____	Limited Access & Right of Way _____ LA & RW _____
Corporation Line _____ or _____	Existing Right of Way _____
Fence Line (existing) -x-x- (proposed) -x-x-	Property Line _____ (in existing fence) -x-x-
Center Line _____ 352 _____ 353 _____	Railroad _____ or _____
Trees (to be removed) (to be removed)	Guardrail (existing) _____ (proposed) _____
Utility Poles: Telephone $\phi$ , Power $\phi$ , Light $\phi$ .	

### INDEX OF SHEETS

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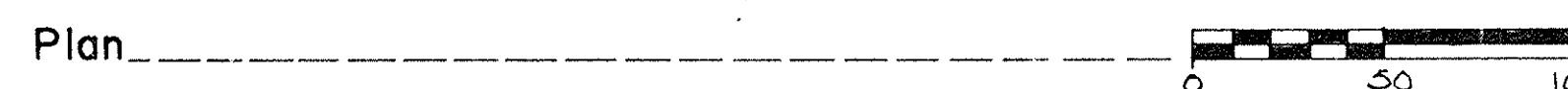


LOCATION MAP



Portion to be improved \_\_\_\_\_  
State & Federal Routes \_\_\_\_\_  
Other Roads \_\_\_\_\_

### SCALE



### LINE DATA

I-76  
BEGIN PROJECT STA. 48+22.75  
END PROJECT STA. 63+17.25

I-80  
BEGIN PROJECT STA. 521+05.75  
END PROJECT STA. 545+82.25

TOTAL LENGTH OF PROJECT 4571.00 L.F.  
OR 0.865 MILE

I-76  
BEGIN WORK STA. 17+00  
END WORK STA. 79+00

I-80  
BEGIN WORK STA. 507+37  
END WORK STA. 558+00

TOTAL LENGTH OF WORK = 11263 L.F.  
OR 2.133 MILES.

Plan Prepared By:  
DISTRICT 4  
DEPARTMENT OF  
TRANSPORTATION

SUPPLEMENTAL SPECIFICATIONS	
845	3-2-81
1001	1-3-77
847	4-3-76
953	8-21-80
921	12-4-72

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS	
BP-5	4-16-79
BP-11	1-3-75
MC-3	6-1-73
MC-5	11-1-77
MC-9A	4-1-80
TC-35.10	10-5-77

### 1981 SPECIFICATIONS

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

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway except as noted on Sheet No. 9, 10 and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved \_\_\_\_\_  
Date \_\_\_\_\_ District Deputy Director of Transportation

Approved *Robert B. Pfeiffer*  
Date 5-19-81 Engineer, Bureau of Bridges and Structural Design

Approved *Howard E. N...*  
Date 8-11-81 Chief Engineer, Operations  
or Chief Engineer, Planning and Design

Approved *David L. Weir*  
Date 8-11-81 Director, Department of Transportation

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR

DATE

BRUNING 44-650 29724

Project: MAH-76-0.91 MAH-80-1.25  
Date of Letting \_\_\_\_\_ 19\_\_\_\_, Contract No. \_\_\_\_\_  
LD0300 Rev. 9-3-75

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FHWA REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

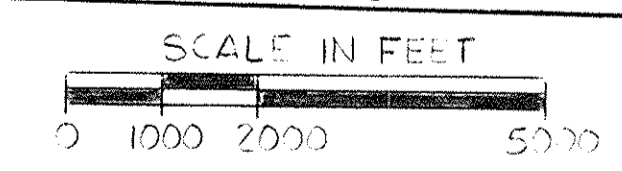
2  
16

MAH-76-0.91  
MAH-80-1.25



**LEGEND**

- CONTINGENCY DETOUR ROUTE FOR STRUCTURE NO. MAH-76-0091 L&R
- CONTINGENCY DETOUR ROUTE FOR STRUCTURE NO. MAH-80-0125 L&R
- STORAGE AREA FOR TRAFFIC CONTROL DEVICES (SIGNS AND BARRICADES)
- CB RADIO SIGNS



SCHEMATIC PLAN

# GENERAL NOTES AND CALCULATIONS

FHWA REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

3  
16

MAH-76-0.91  
MAH-80-1.25

## STATE SAFETY REQUIREMENTS

STATE SAFETY REQUIREMENTS OUTLINED IN THE CONSTRUCTION CODE FOR THIS TYPE OF WORK WILL BE ENFORCED AND THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF BULLETIN IC-3, ISSUED AS A GENERAL ORDER BY THE INDUSTRIAL COMMISSION OF OHIO.

## STEEL BAR STOCK

BAR STOCK UTILIZED FOR VERTICAL EXTENSION OF EXPANSION JOINTS MAY BE ANY WELDABLE GRADE OF LOW OR MILD CARBON STEEL AVAILABLE COMMERCIALY. THIS MATERIAL IS TO BE EXCLUDED FROM THE REQUIREMENTS OF 501.07 FOR TEST REPORTS.

## LONGITUDINAL JOINTS IN THE LATEX MODIFIED CONCRETE OVERLAY

LONGITUDINAL JOINTS IN THE LATEX MODIFIED CONCRETE OVERLAY ARE PERMITTED BUT ONLY TO THE EXTENT NECESSARY TO ACCOMMODATE THE WIDTH OF THE FINISHING MACHINE, TO FACILITATE CHANGES IN ROADWAY CROWN, AND TO PERMIT MAINTENANCE OF VEHICULAR TRAFFIC, EXCEPT AS APPROVED BY THE DIRECTOR. JOINTS SHALL NOT BE USED ADJACENT TO RAISED CURBS, BARRIERS OR EDGES OF DECK.

## FULL DEPTH REPAIRS

A QUANTITY OF 8 CU. YDS. HAS BEEN INCLUDED FOR FULL DEPTH REPAIR ON EVERY BRIDGE THAT REQUIRES CONCRETE OVERLAY WORK. THIS ITEM SHALL BE NON-PERFORMED IF FOUND NOT TO BE REQUIRED.

## ITEM 407 TACK COAT

THE TACK COAT OPERATION SHALL BE DETERMINED AT A PRECONSTRUCTION CONFERENCE AS PER 407.05 AND THE APPLICATION RATE SHALL NOT EXCEED 0.10 GAL. PER SQ. YD.

## ITEM 202 VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS REMOVED

PAYMENT FOR THIS ITEM SHALL INCLUDE THE COST OF REMOVING THE EXISTING VERTICAL EXTENSION BARS, GRINDING THE EXPANSION JOINT SURFACE TO INSURE A PROPER SEAT FOR THE NEW BAR, AND ALL TOOLS AND LABOR NECESSARY TO PERFORM THIS ITEM. SEE DETAIL SHEET NO. 6.

## MOBILIZATION, AS PER PLAN

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 400 SQ. FT. OF FLOOR SPACE WHICH SHALL BE IN ACCORDANCE WITH 619.01 AND 619.02. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 624 MOBILIZATION, AS PER PLAN.

## ORIGINAL CONSTRUCTION PLAN

FOR MORE INFORMATION, THESE ORIGINAL CONSTRUCTION PLANS MAY BE EXAMINED IN THE DISTRICT 4 OFFICE OF THE DEPARTMENT OF TRANSPORTATION, RAVENNA OHIO AND CENTRAL OFFICE, COLUMBUS, OHIO.

POR/MAH-18 - 19.34/0.00  
MAH-80S - 0.91  
MAH-76 - 3.08  
MAH-80 - 3.37

## ESTIMATED QUANTITIES

SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED AS DIRECTED BY THE ENGINEER SHALL BE 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.

## TEMPORARY ROADS AND PAVEMENT

UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL LEAVE THE TEMPORARY CROSS-OVERS IN PLACE AND IN GOOD CONDITION.

## MAINTENANCE OF TRAFFIC

FOR MAINTENANCE OF TRAFFIC NOTES SEE SHEET Nos. 9 & 10.

## ITEM 615 TEMPORARY PAVEMENT, CLASS A (FLEXIBLE)

CROSS OVER 1 & 2  
AREA =  $16(666.5 + 666.5) + (3 \times 4 \times 200) - (2 \times 1718.31) - (2 \times 1711.14) - (16 \times 50) = 16069.1 \text{ S.F.}$   
= 1785.46 S.Y.  
1785 S.Y.

CROSS OVER 3 & 4  
AREA =  $16(605.17 + 604.61) + 4(200 + 366) - 1718.31 - 1481.42 - 1208.82 - 1218.94 - (16 \times 43) = 15304.99 \text{ S.F.}$   
= 1700.55 S.Y.  
1701 S.Y.

CROSS OVER 5 & 6  
AREA =  $16(1171.92 + 1178.75) + 4(391.16 + 194.23) - 1489.69 - 1711.14 - 2(2435.24) - (16 \times 60) = 30920.97 \text{ S.F.}$   
= 3435.66 S.Y.  
3436 S.Y.

CROSS OVER 7 & 8  
AREA =  $16(855.64 + 857.31) + 4(200 + 394) - (2 \times 1711.14) - 1718.31 - 1489.69 - (16 \times 47) = 22160.92 \text{ S.F.}$   
= 2462.32 S.Y.  
2462 S.Y.

## ITEM 304 AGGREGATE BASE

CROSS OVER 1 & 2  
LENGTH =  $4(280) + 4(85) = 1460 \text{ L.F.}$   
VOL =  $0.5 \times 4 \times 1460 \div 27 = 108.15 \text{ C.Y.}$   
108 C.Y.

CROSS OVER 3 & 4  
LENGTH =  $450 + 580 + (4 \times 90) = 1390 \text{ L.F.}$   
VOL =  $0.5 \times 4 \times 1390 \div 27 = 102.96 \text{ C.Y.}$   
103 C.Y.

CROSS OVER 5 & 6  
LENGTH =  $1060 + 1040 + (2 \times 455) = 3010 \text{ L.F.}$   
VOL =  $0.5 \times 4 \times 3010 \div 27 = 222.96 \text{ C.Y.}$   
223 C.Y.

CROSS OVER 7 & 8  
LENGTH =  $760 + 770 + 720 = 2250 \text{ L.F.}$   
VOL =  $0.5 \times 4 \times 2250 \div 27 = 166.67 \text{ C.Y.}$   
167 C.Y.

## ITEM 622 TEMPORARY PRECAST CONCRETE BARRIER TYPE A, AS PER PLAN

LEFT BRIDGE CLOSED:  
STA. 25+63.12 TO STA. 71+00 = 4536.88 L.F.  
STA. 516+08.84 TO STA. 547+50 = 3141.16 L.F.  
CURVE CROSS OVER 2 = 250.00 L.F.  
CURVE CROSS OVER 3 = 180.00 L.F.  
CURVE CROSS OVER 6 = 340.00 L.F.  
CURVE CROSS OVER 7 = 240.00 L.F.  
TOTAL = 8688.04 L.F.

RIGHT BRIDGE CLOSED:  
STA. 25+63.12 TO STA. 71+00 = 4536.88 L.F.  
STA. 519+05.77 TO STA. 547+50 = 2844.23 L.F.  
CURVE CROSS OVER 1 = 240.00 L.F.  
CURVE CROSS OVER 4 = 180.00 L.F.  
CURVE CROSS OVER 5 = 340.00 L.F.  
CURVE CROSS OVER 8 = 240.00 L.F.  
TOTAL = 8381.11 L.F.

## CALCULATIONS

### ITEM 847 TEMPORARY EDGE LINES

CROSS OVER 1 & 2  
 $1460 + 600 + 200 = 2260 \text{ L.F.}$

CROSS OVER 3 & 4  
 $1390 + 566 + 172 = 2128 \text{ L.F.}$

CROSS OVER 5 & 6  
 $3010 + 586 + 240 = 3836 \text{ L.F.}$

CROSS OVER 7 & 8  
 $2250 + 534 + 188 = 2972 \text{ L.F.}$

TOTAL = 11196 L.F.  
OR 2.12 MILES

CALC. BY K.S.  
DATE 4/20/81  
CK'D. BY \_\_\_\_\_  
DATE \_\_\_\_\_

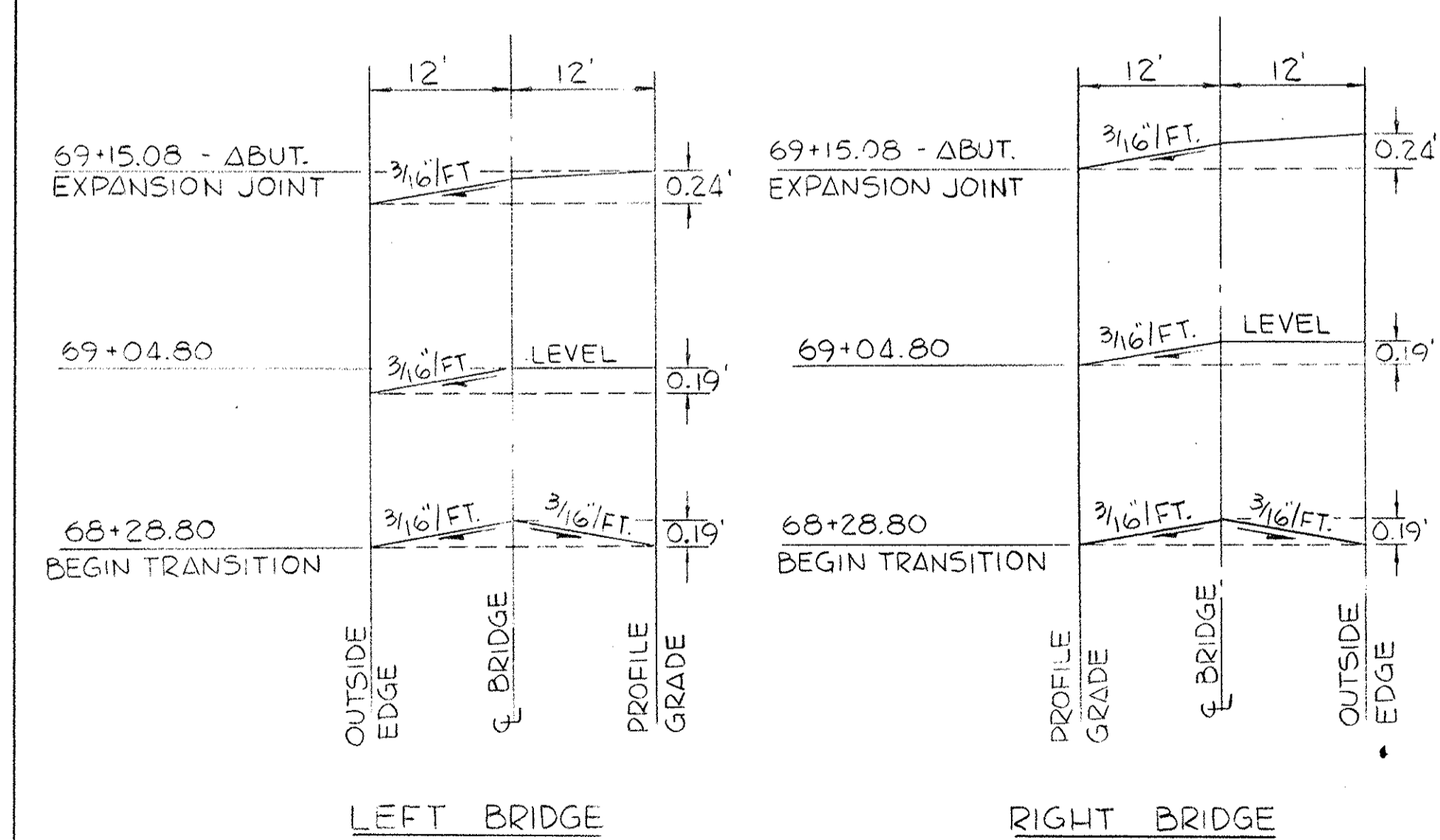
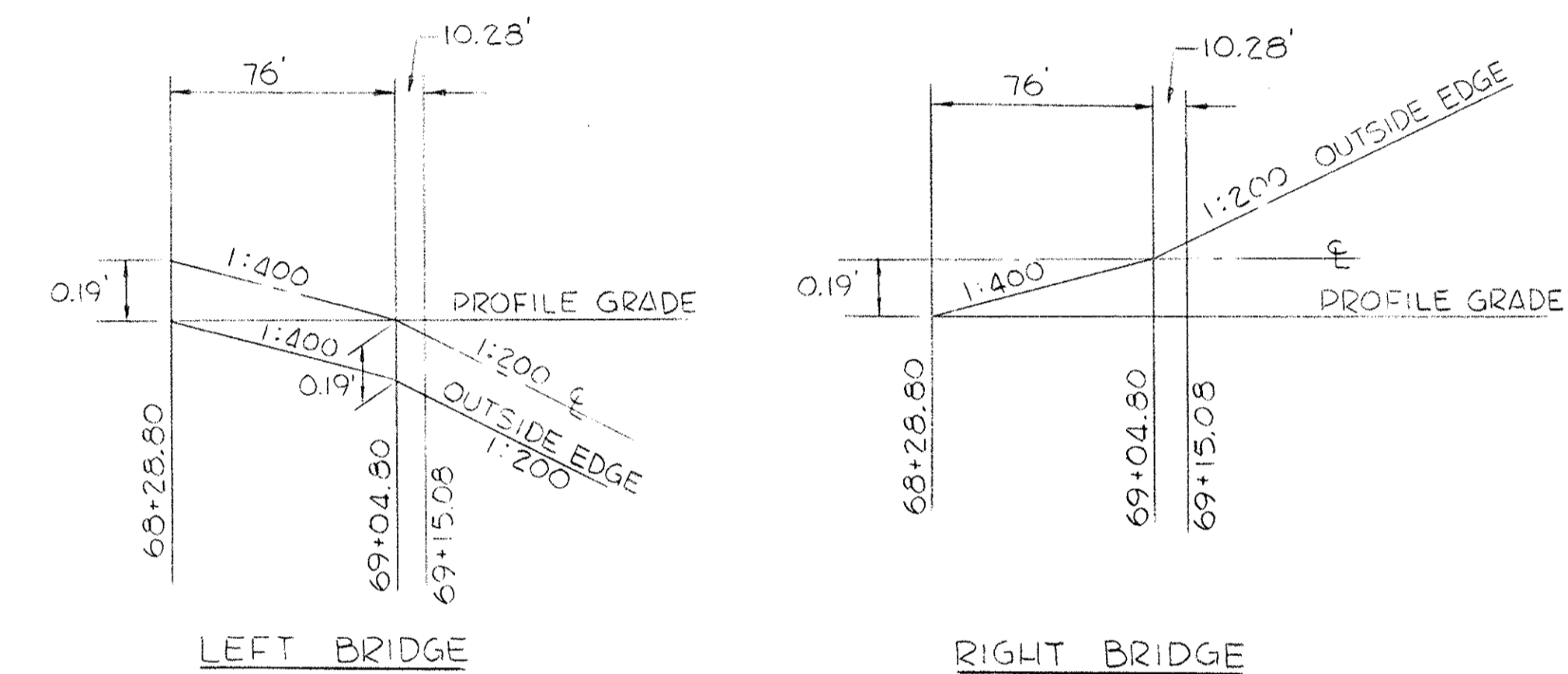
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# GENERAL SUMMARY

ITEM	SHEET NUMBER														FUNDING				ITEM	QUANT.	UNIT	DESCRIPTION
	3	7	8	10	11	12	13	14	I-IR-76-2(37)49		I-IR-80-5(33)221											
									I	IR	I	IR										
<b>ROADWAY</b>																						
202		13947	8247												202	22194	Sq.Yds.	Wearing Course Removed				
202		360													202	360	Lin.Ft.	Vertical Extension Bars Removed				
615						lump	lump	lump	lump						615	Lump	Lump	Temporary Roads, As Per Plan				
615						1785	1701	3436	2462						615	9384	Sq.Yds.	Temporary Pavement, Class A (Flexible), As Per Plan				
404					50										404	50	Cu.Yds.	Bituminous concrete for maintaining traffic				
410					50										410	50	Cu.Yds.	Traffic Compacted Surface, Type A or B				
616					50										616	50	M-Gal.	Water				
616					5										616	5	Tons	Calcium Chloride				
847			2.12												847	2.12	Miles	Temporary Edge Lines				
<b>PAVEMENT</b>																						
404			7	7											404	14	Cu.Yds.	Asphalt Concrete, AC-20				
407			34	34											407	68	Gals.	Tack Coat				
407			4	4											407	8	Tons	Cover Aggregate				
622						17,080									622	17,080	Lin.Ft.	Temporary Precast Concrete Barrier, Standard Type A; Modified as per plan				
304							108	103	223	167					304	601	Cu.Yds.	Aggregate Base				
<b>BRIDGE REPAIR</b>																						
516			120	120											516	240	Lin.Ft.	Vertical Extension of Structural Expansion Joints, Abutment				
516			240	300											516	540	Lin.Ft.	Vertical Extension of Structural Expansion Joints, Intermediate				
845			13906	16443											845	30349	Sq.Yds.	Latex Modified Concrete Overlay (1 1/4" Thickness)				
845			657	776											845	1433	Cu.Yds.	Latex Modified Concrete Overlay (Variable Thickness)				
845			4	4											845	8	Cu.Yds.	Full Depth Repair				
Spec.			96	96											Spec.	192	Lin.Ft.	Pressure Relief Joints, Standard Type C				
605			96	96											605	192	Lin.Ft.	Aggregate Drains				
Special						lump									Special	lump	lump	Traffic Safety Coordinator				
Special						2,000									Special	lump	Hours	Law Enforcement Officer with Patrol Car				
624			lump												624	Lump	Lump	Mobilization, As Per Plan				
614						lump									614	Lump	Lump	Maintaining Traffic				

MAH-76-0.91  
MAH-80-1.25

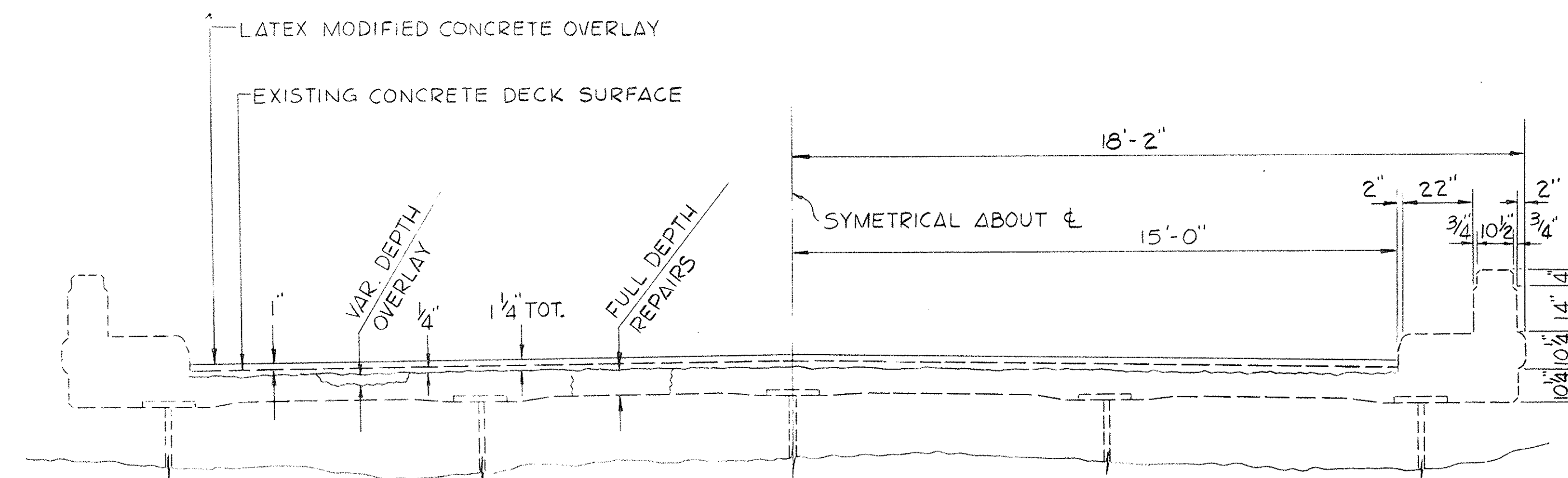
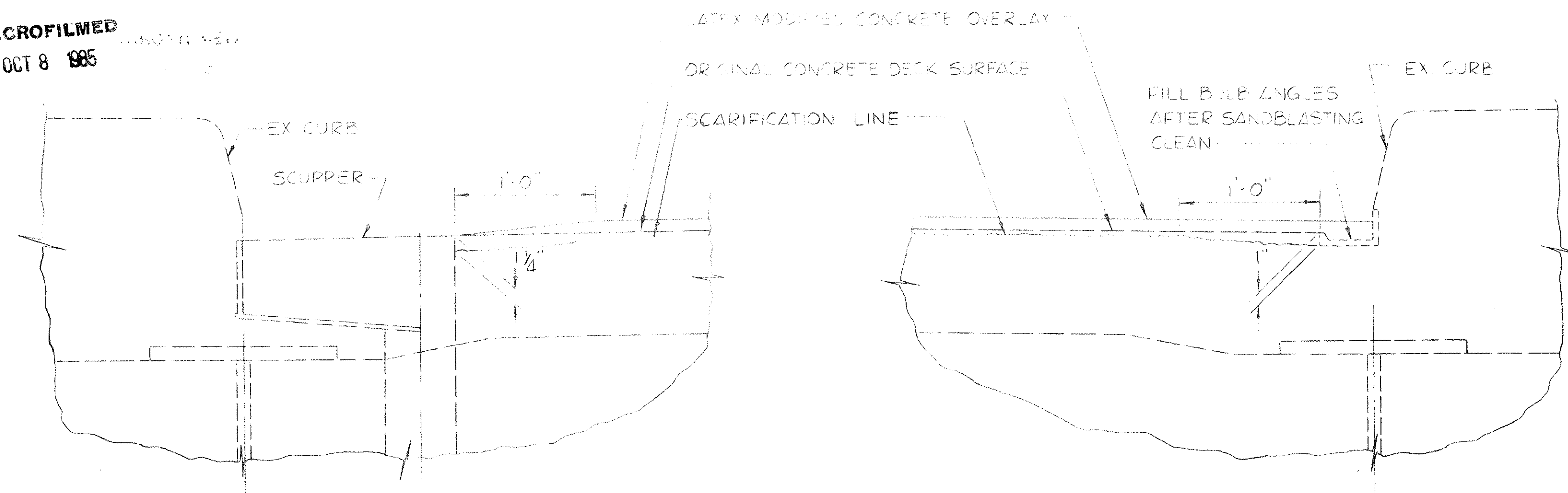
SUPERELEVATION DIAGRAMS - STRUCTURE # MAH-76-0091 L&R



FHWA REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

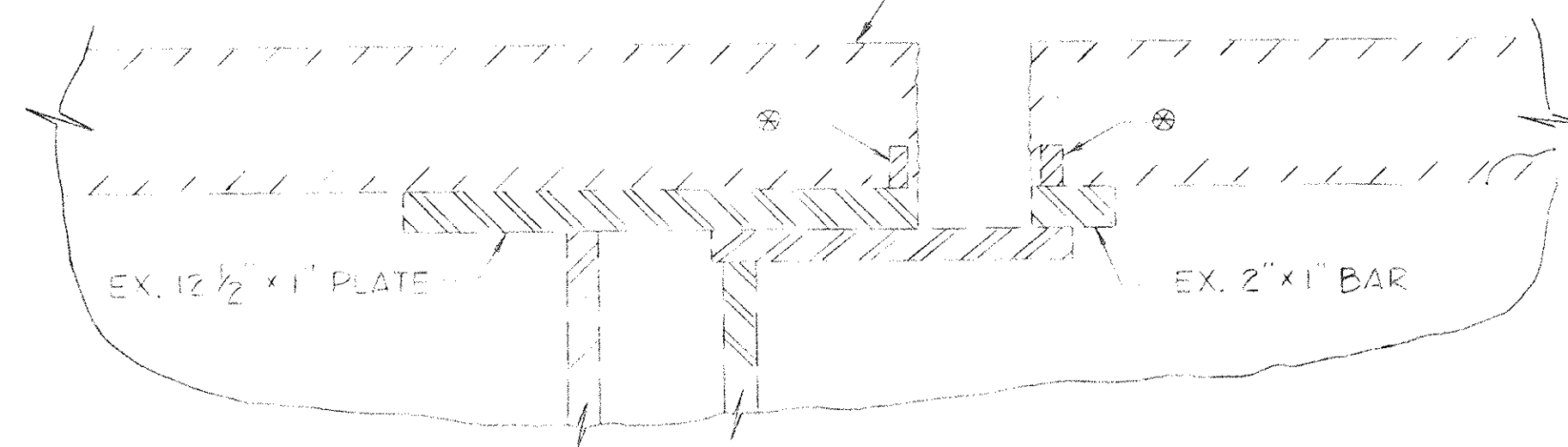
MAH-76-0.91  
MAH-80-1.25

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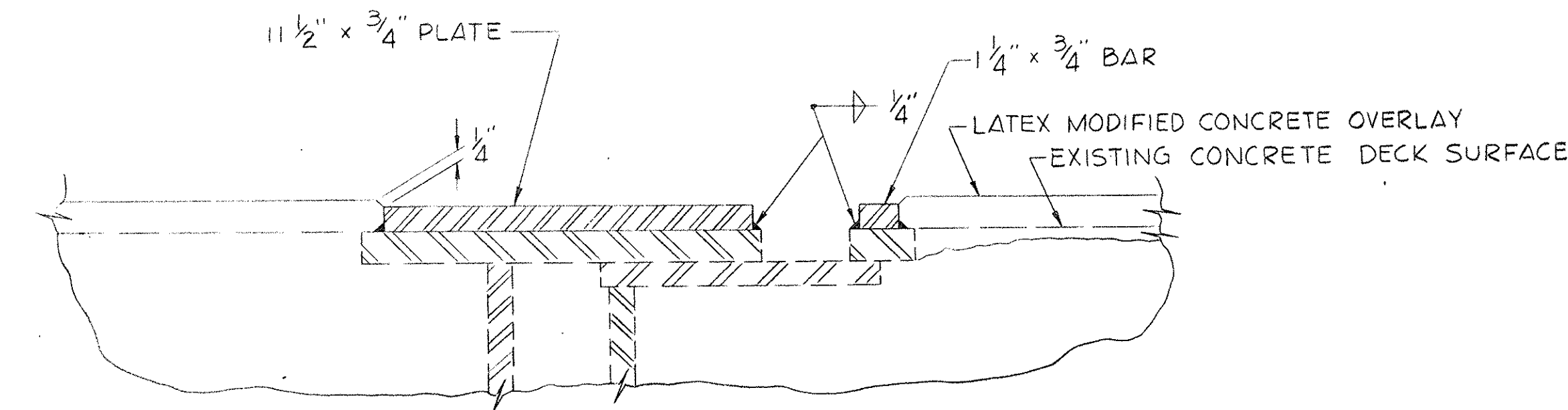


EXISTING 1/2" x 1" VERTICAL EXTENSION BARS ON MAH-76-0091 L&R SHALL BE REMOVED AND THE REMAINING 12 1/2" x 1" PLATE AND 2" x 1" BAR SHALL BE GROUND FLUSH TO PROVIDE A SMOOTH SURFACE FOR INSTALLATION OF PROPOSED VERTICAL EXTENSION BARS AS SHOWN IN SECTION CC. PAYMENT FOR THIS WORK SHALL BE MADE AT THE UNIT PRICE BID PER LIN. FT. OF JOINT FOR ITEM 202, VERTICAL EXTENSION BARS REMOVED.

EXISTING 3 1/2" ± ASPHALT CONCRETE OVERLAY (MAH-76-0091 L&R)  
EXISTING 2 1/2" ± ASPHALT CONCRETE OVERLAY (MAH-80-0125 L)



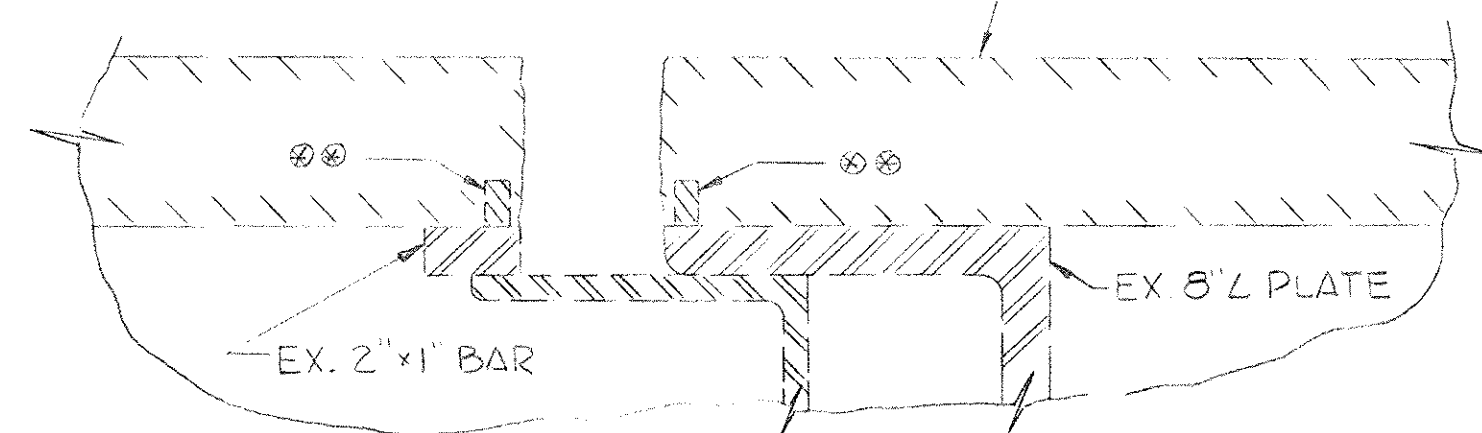
EXISTING INTERMEDIATE EXPANSION JOINTS - MAH-76-0091 L&R & MAH-80-0125 L



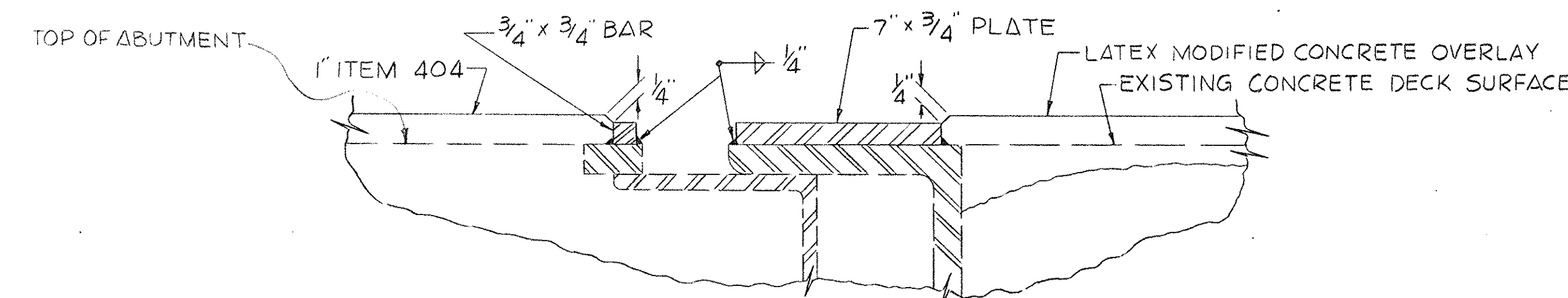
SECTION CC  
VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS (INTERMEDIATE)

EXISTING 1/2" x 1" VERTICAL EXTENSION BARS ON MAH-76-0091 L&R SHALL BE REMOVED AND THE REMAINING 8" ANGLE PLATE AND 2" x 1" BAR SHALL BE GROUND FLUSH TO PROVIDE A SMOOTH SURFACE FOR INSTALLATION OF PROPOSED VERTICAL EXTENSION BARS AS SHOWN IN SECTION DD. PAYMENT FOR THIS WORK SHALL BE MADE AT THE UNIT PRICE BID PER LIN. FT. OF JOINT FOR ITEM 202, VERTICAL EXTENSION BARS REMOVED.

EXISTING 3 1/2" ± ASPHALT CONCRETE OVERLAY (MAH-76-0091 L&R)  
EXISTING 2 1/2" ± ASPHALT CONCRETE OVERLAY (MAH-80-0125 L)



EXISTING ABUTMENT EXPANSION JOINTS - MAH-76-0091 L&R & MAH-80-0125 L



SECTION DD  
VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS (ABUTMENTS)

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☉ SURVEY 1-76 CURVE DATA

$\Delta = 19^{\circ}04'41''$  PI STA. 79+05.60  
 $D_c = 1^{\circ}00'$  PC STA. 69+42.80  
 $T = 962.80'$  PT STA. 88+50.61  
 $R = 5729.53'$   
 $L = 1907.31'$

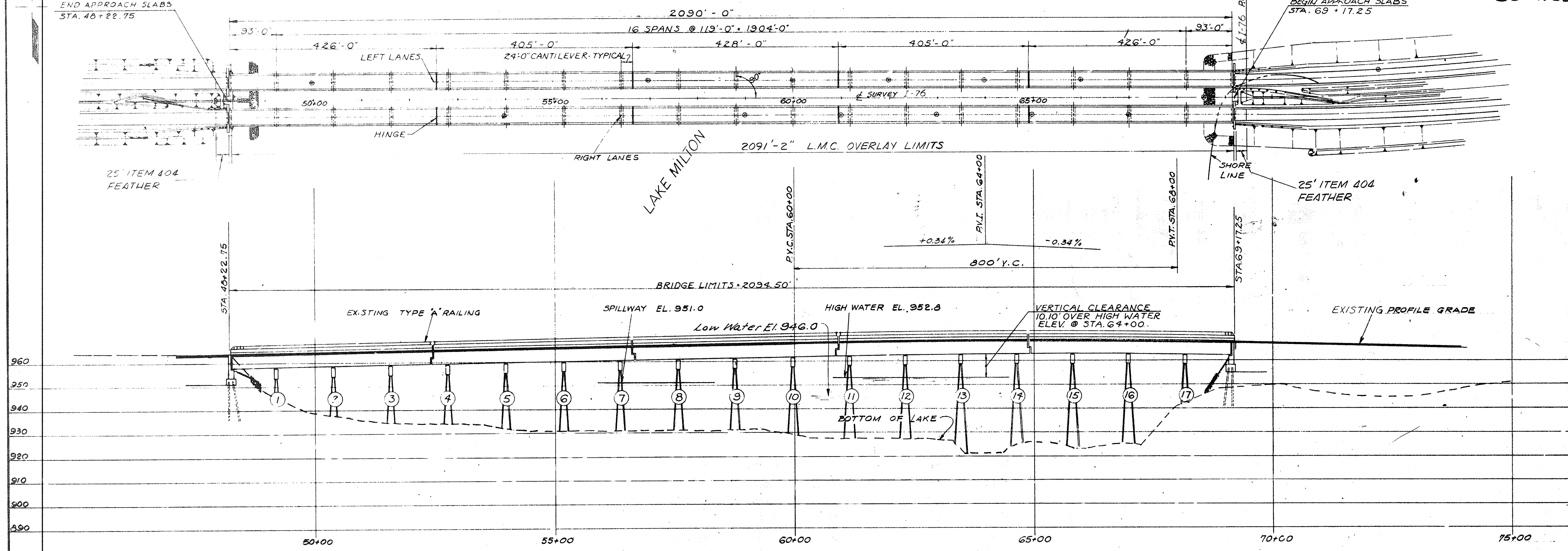
FED. RD.	STATE	PROJECT
2	OHIO	

7  
16

MAH-76-0.91  
MAH-80-1.25

END APPROACH SLABS  
STA. 46+22.75

BEGIN APPROACH SLABS  
STA. 69+17.25



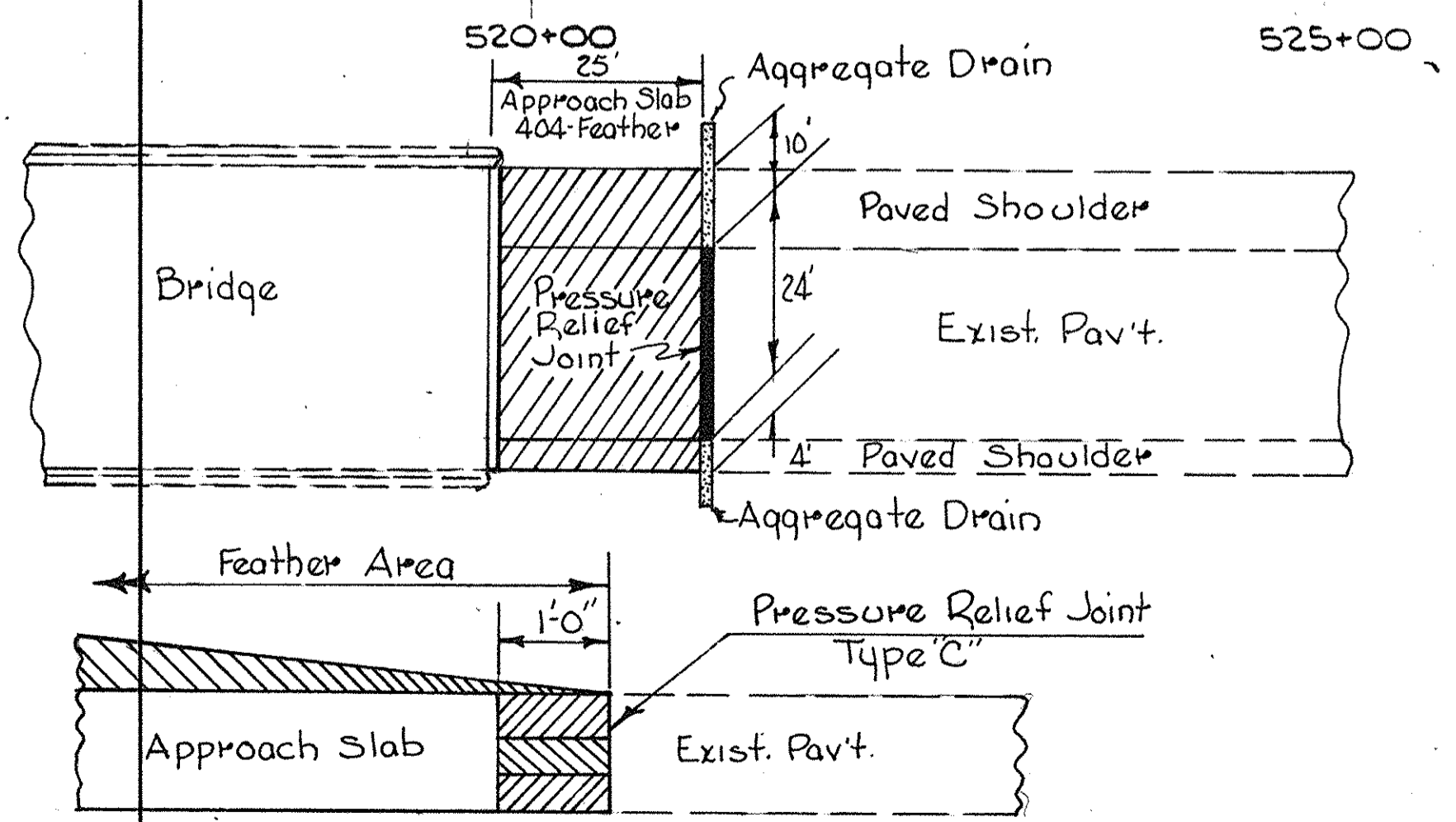
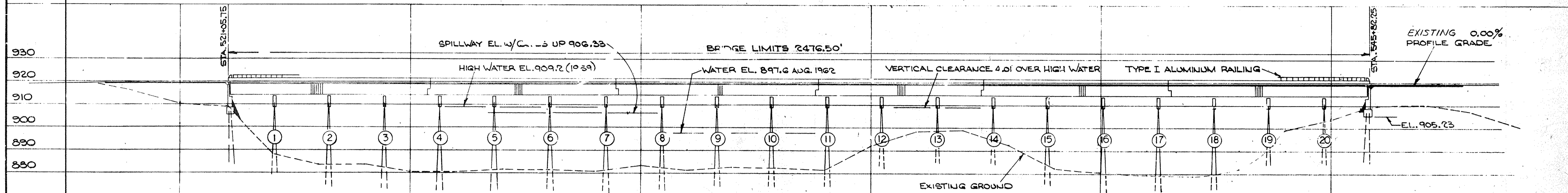
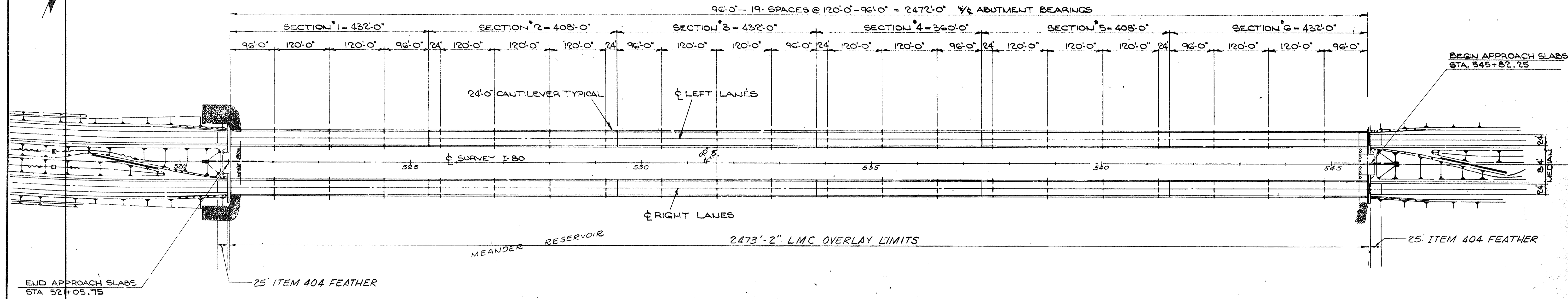
NOTE: For Pressure Relief Joint Details  
See Sheet No. 8

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	13947	SQ. YD.	WEARING COURSE REMOVED
SPECIAL	360	LIN. FT.	VERTICAL EXTENSION BARS REMOVED
404	7	CU. YD.	ASPHALT CONCRETE, AC-20
407	34	GAL.	TACK COAT,
407	4	TON	COVER AGGREGATE
516	120	LIN. FT.	VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS, ABUTMENT
516	240	LIN. FT.	VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS, INTERMEDIATE
SPECIAL	96	LIN. FT.	PRESSURE RELIEF JOINTS, TYPE C
605	96	LIN. FT.	AGGREGATE DRAINS
845	13906	SQ. YD.	LATEX MODIFIED CONCRETE OVERLAY (1/4" THICKNESS)
845	657	CU. YD.	LATEX MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS)
845	4	CU. YD.	FULL-DEPTH REPAIR

**EXISTING STRUCTURE**  
 TYPE: CONTINUOUS STEEL GIRDERS WITH HINGES AND REINFORCED CONCRETE DECK.  
 SUBSTRUCTURE: REINFORCED CONCRETE PIER: CAP ON 14" BPIIT PILES & ABUTMENTS.  
 SPANS: 93'-0" ~ 16 SPANS @ 119'-0" ~ 93'-0" = 2090'-0"  
 SKEW: 0°-00'-00"  
 2 ROADWAYS: 30'-0" F/F OF 2'-0" SAFETY CURBS  
 LOAD FREQUENCY: CF-2000 ADEQUATE FOR A.A.S.H.O. ALTERNATE LOADING.  
 WEARING SURFACE: 3 1/2" ASPHALT CONCRETE  
 APPROACH SLABS: 25' LONG (AS-1-54).  
 ALIGNMENT: TANGENT.  
 SUPERELEVATION: NONE. (TRANSITION START @ Sta. 68+28.80)

**PROPOSED STRUCTURE**  
 SAME AS ABOVE EXCEPT:  
 WEARING SURFACE: 1 1/2" LATEX MODIFIED CONCRETE LEFT AND RIGHT LANES

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ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	8247	SQ. YD.	WEARING COURSE REMOVED
404	7	CU. YD.	ASPHALT CONCRETE, AC-20
407	34	GAL.	TACK COAT
407	4	TON	COVER AGGREGATE
516	120	LIN. FT.	VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS, ABUTMENT
516	300	LIN. FT.	VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS, INTERMEDIATE
SPECIAL	96	LIN. FT.	PRESSURE RELIEF JOINTS, TYPE C
605	96	LIN. FT.	AGGREGATE DRAINS
845	16443	SQ. YD.	LATEX MODIFIED CONCRETE OVERLAY (1/4" THICKNESS)
845	776	CU. YD.	LATEX MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS)
845	4	CU. YD.	FULL DEPTH REPAIR

**EXISTING STRUCTURE**

TYPE: CONTINUOUS STEEL GIRDERS WITH HINGES AND REINFORCED CONCRETE DECK

SPANS: 96'-0" - 19 SPANS @ 120'-0" - 96'-0" = 2472'-0"

SKEW: 0°00'00"

ROADWAY: 30'-0" F.I.F. OF 2'-0" SAFETY CURBS

LOAD FREQUENCY: CF-2000 ADEQUATE FOR AASHO ALTERNATE LOADING

APPROACH SLABS: 25' LONG (AS-I-54)

ALIGNMENT: TANGENT

SUPERELEVATION: NONE

WEARING SURFACE: LEFT LANES; 2 1/2" ASPHALT CONCRETE, RIGHT LANES; 1" MONOLITIC CONCRETE

**PROPOSED STRUCTURE**

SAME AS ABOVE EXCEPT:

WEARING SURFACE: 1 1/4" LATEX MODIFIED CONCRETE LEFT AND RIGHT LANES

**PRESSURE RELIEF JOINT DETAIL**

See Standard Drawing BP-11 Dated 1/3/75

Revised 9-11-81



# MAINTENANCE OF TRAFFIC

FHWA REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

9  
16

MAH 76-0.91  
MAH 80-1.25

## MAINTENANCE OF TRAFFIC

THE SAFETY OF THE TRAVELING PUBLIC AND MINIMIZING THE INCONVENIENCE TO THE HIGHWAY USERS SHALL BE OF THE UTMOST CONCERN TO THE CONTRACTOR WHILE PERFORMING THE NECESSARY WORK. WITH THIS IN MIND, THE FOLLOWING CONDITIONS AND RESTRICTIONS SHALL BE ENFORCED AND WILL BE ADHERED TO DURING THE SCOPE OF THIS PROJECT.

## TRAFFIC SAFETY COORDINATOR

THE CONTRACTOR WILL ASSIGN A TRAFFIC SAFETY COORDINATOR FOR THIS PROJECT. THE TRAFFIC SAFETY COORDINATOR SHALL BE RESPONSIBLE FOR THE CONTRACTOR'S MAINTENANCE OF TRAFFIC OPERATIONS. THE CONTRACTOR SHALL DESIGNATE A QUALIFIED INDIVIDUAL TO THE POSITION, IN WRITING, TO THE DISTRICT CONSTRUCTION ENGINEER PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. THE TRAFFIC SAFETY COORDINATOR WILL WORK WITH THE OHIO DEPARTMENT OF TRANSPORTATION SAFETY INSPECTOR. THE TRAFFIC SAFETY COORDINATOR AND THE OHIO DEPARTMENT OF TRANSPORTATION SAFETY INSPECTOR SHALL COOPERATE IN GETTING ALL DEFICIENCIES RESOLVED IN A TIMELY MANNER. THE RESPONSIBILITIES OF THE TRAFFIC SAFETY COORDINATOR SHALL ALSO INCLUDE THE FOLLOWING:

1. UNDERSTAND AND BE FAMILIAR WITH THE REQUIREMENTS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, LATEST REVISION, THE TRAFFIC MAINTENANCE PLAN AND THE TRAFFIC MAINTENANCE AND SAFETY PROVISIONS OF CONSTRUCTION PLANS AND CONTRACT PROPOSAL.
2. REVIEW AND ANTICIPATE APPROPRIATE TRAFFIC CONTROL DEVICES AND ASSURE THAT SUCH DEVICES AS ARE DETERMINED TO BE NECESSARY FOR SAFE AND EFFICIENT TRAFFIC MOVEMENT ARE OBTAINED AND ERECTED.
3. COORDINATE MAINTENANCE OF TRAFFIC OPERATIONS WITH THE PROJECT ENGINEER.
4. NOTIFY THE STATE HIGHWAY PATROL OF CONSTRUCTION OPERATIONS.
5. MONITOR MAINTENANCE OF TRAFFIC ACTIVITIES ON A DAILY BASIS.
6. DOCUMENT ACCIDENTS AND ACTIONS TAKEN TO RESOLVE MAINTENANCE OF TRAFFIC PROBLEMS.
7. HANDLE PUBLIC INQUIRIES RELATIVE TO CONSTRUCTION ACTIVITIES EFFECTING TRAVEL. PAYMENT FOR THIS INDIVIDUAL TO BE LUMP SUM BID FOR ITEM SPECIAL - TRAFFIC SAFETY COORDINATOR

## PROTECTION OF WORK AREAS

1. OPEN TRENCHES SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS AND BARRICADES AT ALL TIMES. PLACEMENT OF BASE AND PAVEMENT SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATION. THE LENGTH OF OPEN TRENCH SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.
2. A FLASHING ARROW BARRICADE (TC-35.10) SHALL BE USED FOR TRAFFIC CONTROL WHENEVER THERE IS A LANE CROSSOVER OR RESTRICTION. COST OF THIS ITEM TO BE INCLUDED IN PRICE BID OF ITEM 614, MAINTAINING TRAFFIC.
3. ALL TRAFFIC CONTROL DEVICES, WARNING AND INFORMATIONAL SIGNS REQUIRED INSIDE THE WORK LIMITS, EXCEPT REGULATORY SIGNS, SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR. ANY TEMPORARY SIGN COVERS REQUIRED DURING PERIODS OF THE PROJECT CONSTRUCTION SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR. COST OF THIS TO BE INCLUDED IN PRICE BID OF ITEM 614, MAINTAINING TRAFFIC.
4. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL FLAGS, WATCHMEN, BARRICADES, TEMPORARY SIGN SUPPORTS AND INCIDENTALS RELATED THERETO AND SHALL BE UTILIZED IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, LATEST REVISION.
5. THE TRAFFIC SAFETY COORDINATOR SHALL BE PROVIDED BY THE CONTRACTOR WITH THE NECESSARY EQUIPMENT TO CARRY OUT HIS ASSIGNED DUTIES.

## PUBLIC MEDIA

PRIOR TO CONSTRUCTION, THE TRAFFIC SAFETY COORDINATOR WILL NOTIFY ALL MAJOR LOCAL MEDIA, OHIO TURNPIKE COMMISSION, POLICE AND FIRE PROTECTION AGENCIES OF THE PROJECT, INCLUDING THE TYPE OF WORK TO BE PERFORMED, TYPES OF TRAFFIC DELAYS THAT CAN BE EXPECTED, ALTERNATE ROUTES THAT CAN BE USED, CONTINGENCY PLAN AND WHOM THE PUBLIC CAN CONTACT FOR FURTHER INFORMATION. DURING CONSTRUCTION, THE TRAFFIC SAFETY COORDINATOR WILL ADVISE LOCAL RADIO STATIONS RELATIVE TO TYPE OF CONSTRUCTION OPERATIONS AND LANE RESTRICTIONS OR CLOSURES. PRE-TAPED MESSAGES ON THE LATEST HIGHWAY CONDITION MAY BE USED. THE USE OF CB RADIO TO ADVISE ON CURRENT CONDITIONS DURING PERIODS OF TWO-WAY TRAFFIC ON THE WESTBOUND OR EASTBOUND LANES SHALL BE EMPLOYED EVERY HOUR. IF THE CONTINGENCY PLAN IS IN EFFECT, CB RADIO SHALL BE USED EVERY 15 MINUTES.

## ITEM SPECIAL - Law Enforcement Officer (LEO) with Patrol Car

THE CONTRACTOR SHALL PROVIDE THE SERVICES OF A SPECIAL DUTY LEO WITH PATROL CAR FOR THE PURPOSE OF CONTROLLING THROUGH TRAFFIC. THE LEO WITH A PATROL CAR SHALL BE UTILIZED DURING INSTALLATION AND REMOVAL OF TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS, LANE CROSSOVERS AND DURING HOURS OF PEAK TRAFFIC AS AUTHORIZED BY THE PROJECT ENGINEER. THE LEO WITH PATROL CAR MAY BE UTILIZED AT OTHER TIMES AS AUTHORIZED BY THE PROJECT ENGINEER AND TRAFFIC SAFETY COORDINATOR. IF IT IS NECESSARY TO EMPLOY MORE THAN ONE OFFICER TO ADEQUATELY CONTROL TRAFFIC, THE CONTRACTOR'S TRAFFIC SAFETY COORDINATOR, WITH THE PROJECT ENGINEER'S APPROVAL, SHALL DETERMINE WHEN AND HOW MANY OFFICERS SHALL BE REQUIRED. THE OFFICER SHALL CONSTANTLY MOVE WITH THE BACKUP OF TRAFFIC SO THAT HE IS ALWAYS IN POSITION NEAR THE END OF THE STOPPED TRAFFIC TO ASSIST IN CONTROLLING TRAFFIC, WARNING TRAFFIC OF THE RESTRICTION AND INFORMING DRIVERS AS TO THE NATURE OF THE DELAY.

INFORMATION REGARDING ARRANGEMENTS AND PAYMENTS BY THE CONTRACTOR FOR THE SPECIAL DUTY LEO SERVICES MAY BE OBTAINED BY CONTACTING THE OHIO HIGHWAY PATROL, 660 EAST MAIN STREET, COLUMBUS, OHIO. TELEPHONE: 1-614-466-2300.

PAYMENT FOR THE ABOVE SHALL BE ITEM SPECIAL - Law Enforcement Officer with Patrol Car - 2,000 Hours

## SPECIAL TWO-WAY RADIOS

THE CONTRACTOR SHALL INSTALL TWO-WAY RADIOS TO ALLOW DIRECT COMMUNICATION BETWEEN THE FOLLOWING:

TRAFFIC SAFETY COORDINATOR  
PROJECT ENGINEER

COST TO BE INCLUDED WITH ITEM 614, MAINTAINING TRAFFIC.

## STORAGE OF MATERIALS - (EQUIPMENT - VEHICLES)

THE CONTRACTOR'S MATERIALS SHALL BE STORED IN A STAGING AREA OFF THE RIGHT OF WAY. ALL PRIVATE VEHICLES SHALL BE PARKED IN THE STAGING AREA AND WORKMAN PROVIDED TRANSPORTATION TO WORKSITES. TEMPORARY STORAGE OF EQUIPMENT AND MATERIALS MAY BE APPROVED BY THE PROJECT ENGINEER IF IT IS BEHIND GUARD RAIL.

## MODIFICATION TO OVERHEAD SIGNING

DURING CONSTRUCTION OF THIS PROJECT, SOME MODIFICATIONS OF OVERHEAD STRUCTURES MAY BE REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY MODIFICATIONS AND WHEN NO LONGER NECESSARY, RETURN SIGNS TO ORIGINAL LEGENDS. COST OF THE ABOVE TO BE INCLUDED WITH ITEM 614, MAINTAINING TRAFFIC.

## LOCAL ACCESS

THE FOLLOWING ITEMS ARE FOR USE IN MAINTAINING LOCAL ACCESS AND DUST CONTROL: ITEM 616 WATER, ITEM 616 CALCIUM CHLORIDE AND ITEM 410 TRAFFIC COMPACTED SURFACE COURSE, TYPE A OR B.

MAH 76-0.91  
MAH 80-1.25

# MAINTENANCE OF TRAFFIC

## TRAFFIC MAINTENANCE - MILTON AND MEANDER STRUCTURES

DURING WORK ON THE STRUCTURES, TWO-WAY TRAFFIC ON EACH PAIR OF LANES SHALL BE MAINTAINED AS SHOWN IN THE PLANS. PAVEMENT CROSSOVERS SHALL BE CONSTRUCTED AS SHOWN TO MAINTAIN TRAFFIC.

ONCE TEMPORARY TRAFFIC PATTERNS (TWO-WAY TRAFFIC ON EACH PAIR OF PAVEMENT LANES) ARE ESTABLISHED THE CONTRACTOR SHALL VIGOROUSLY PURSUE THE WORK INVOLVED UNTIL THE CLOSED LANES ARE COMPLETE AND OPEN TO TRAFFIC.

## CONTINGENCY PLAN FOR MAINTENANCE OF TRAFFIC

A CONTINGENCY PLAN IS PROVIDED IN CASE OF THE CLOSURE TO TRAFFIC OF EITHER THE MILTON DAM OR MEANDER RESERVOIR STRUCTURES. TRAFFIC SHALL BE MAINTAINED BY MEANS OF THE DETOURS SHOWN ON THE SCHEMATIC PLAN.

THE NECESSARY DETOUR SIGNS WILL BE PLACED AND COVERED BY THE OHIO DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEER. IF EITHER DETOUR IS PLACED IN EFFECT, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO UNCOVER THE DETOUR SIGNS. IT SHALL ALSO BE HIS RESPONSIBILITY TO PLACE THE NECESSARY LIGHTS, SIGNS OR BARRICADES THAT ARE REQUIRED TO DETOUR TRAFFIC OFF OF I-76 OR I-80. WHEN THE DETOUR IS NO LONGER IN EFFECT, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COVER THE DETOUR SIGNS AND REMOVE ANY LIGHTS, SIGNS OR BARRICADES.

COST OF THE ABOVE TO BE INCLUDED WITH ITEM 614 - MAINTAINING TRAFFIC.

## PAVEMENT

PAYMENT FOR ALL THE WORK SHOWN IN THE MAINTENANCE OF TRAFFIC SHALL BE AS PER THE FOLLOWING ITEMS. THE FOLLOWING ITEMS HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614	MAINTAINING TRAFFIC	LUMP SUM
ITEM SPEC.	TRAFFIC SAFETY COORDINATOR	LUMP SUM
ITEM 404	Bitum. CONCRETE FOR MAINTAINING TRAFFIC	50 C.Y.
ITEM SPEC.	Law Enforcement Officer with Patrol Car	2,000 HOURS
ITEM 615	TEMPORARY PAVEMENT, CLASS A (Flexible) 2384	Sq. Yd.
ITEM 616	WATER	50 M. GAL.
ITEM 616	CALCIUM CHLORIDE	5 TONS
ITEM 410	TRAFFIC COMPACTED SURFACE, TYPE A OR B	50 C.Y.

## ITEM 622 TEMPORARY PRECAST CONCRETE BARRIER, STD. TYPE "A" <sup>Modified</sup> AS PER PLAN

PRECAST CONCRETE BARRIER, TYPE "A" SHALL BE USED WITH TEN (10') FOOT SECTIONS OF TEMPORARY END TERMINALS ON BOTH ENDS OF A CONTINUOUS RUN. SEE STD. DRAWING MC-9 AND MC-9-A FOR DETAILS. THE LENGTH OF ALL PRECAST CONCRETE BARRIER SECTIONS SHALL BE TEN (10) FEET.

THE CONTRACTOR SHALL EXERCISE GREAT CARE IN REMOVING AND RESETTING IN NEW LOCATIONS WHEN REQUIRED, SO AS TO AVOID DAMAGE TO ANY PART OF THE CONCRETE BARRIER. UPON COMPLETION OF THE PROJECT, 4000 Lin. Ft. of Temp. Conc. Barrier SHALL BECOME THE PROPERTY OF THE STATE OF OHIO. THE CONTRACTOR SHALL CAREFULLY REMOVE AND STORE 3000 Lin. Ft. IN THE O.D.O.T. MAINTENANCE YARD ON BAILEY ROAD, and 1000 Lin. Ft. in the loop ramp of the easterly I-80 / S.R. 11 interchange (TRU-80-340).

BRIDGE CLOSED	ESTIMATED CONCRETE BARRIER REQUIRED
MAH-76-0.91 R	4960 LIN. FT.
MAH-80-1.25 R	3430 LIN. FT.
MAH-76-0.91 L	4970 LIN. FT.
MAH-80-1.25 L	3720 LIN. FT.

AN ESTIMATED QUANTITY OF 17080 LIN. FT. OF ITEM 622 TEMPORARY PRECAST CONCRETE BARRIER, STANDARD TYPE "A" AS PER PLAN IS PROVIDED AND CARRIED TO THE GENERAL SUMMARY. <sup>Modified</sup> THIS ITEM WILL BE PAID FOR BY THE ACTUAL LIN. FT. OF CONCRETE BARRIER USED.

The contractor has the option of re-using the temporary concrete barrier at other locations as shown on the plans (Shts No. 15 & 16).

YELLOW REFLECTORS SHALL BE MOUNTED ON THE VERTICAL FACE OF THE BARRIER, ON BOTH SIDES FACING TRAFFIC, SUCH THAT THE SPACING WILL BE 100-Ft. ±.

## 614 TEMPORARY PAVEMENT MARKING

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND WHEN NECESSARY, REMOVE TEMPORARY RETRO-REFLECTIVE PAVEMENT MARKINGS ON TEMPORARY PAVEMENT WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS. TEMPORARY MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE LAYOUTS ON SHEET NUMBERS 15 and 16. EDGE LINES SHALL BE 4 INCHES WIDE AND CONTINUOUS. THE MATERIAL FURNISHED SHALL BE FLEXIBLE RETROREFLECTIVE PREFORMED PRESSURE SENSITIVE TAPE FOR PAVEMENT LINES. IT SHALL BE FREE OF CRACKS WITH STRAIGHT EDGES AND CONSIST OF PIGMENT AND FILLERS BUT HAVE SUFFICIENT BINDER AND PLASTICIZER TO RETAIN GLASS BEADS HAVING AN APPROXIMATE REFRACTIVE INDEX TO MEET MINIMUM REFLECTIVE INTENSITY STANDARDS OUTLINED IN MANUFACTURER'S INFORMATION. MATERIAL SHALL BE FLEXOLITE "WET REFLECTIVE, 3-M SCOTCHLANE OR APPROVED EQUAL. GLASS BEADS SHALL BE MIXED UNIFORMLY THROUGHOUT THE MARKING MATERIAL WITH SUFFICIENT SURFACE BEADS TO PROVIDE OPTIMUM REFLECTORIZATION AT ALL TIMES. THE MATERIAL SHALL HAVE A PRECOATED ADHESIVE LAYER FOR PAVEMENT APPLICATION WITHOUT THE USE OF HEAT, SOLVENTS OR ADDITIONAL ADHESIVES. THE ADHESIVE SHALL BE SUFFICIENT TO RETAIN COMPLETE MARKINGS ON THE PAVEMENT SURFACE THROUGHOUT THE USEFUL LIFE OF THE MARKINGS. YELLOW MATERIAL SHALL CONFORM TO COLOR NO. 33538 OF FEDERAL STANDARD 595. IN ADDITION, ALL APPLICABLE MANUFACTURER'S MATERIAL AND APPLICATION INSTRUCTIONS, IN FORCE AT THE TIME OF PLACEMENT, SHALL BE ADHERED TO. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER CERTIFICATION THAT THE MATERIAL SUPPLIED MEETS THE PROPERTIES SPECIFIED HEREIN. MARKINGS SHALL BE ACCURATELY LAYED OUT IN CONFORMANCE WITH 621.051 AND SHALL BE LOCATED IN A TRUE LINE ON THE CENTER LINE AND LANE LINE WHERE NORMAL PAVEMENT MARKING WOULD LIE, UNLESS OTHERWISE SPECIFIED IN THE PLANS. THE TEMPORARY TAPE SHALL BE PLACED BY ROLLING THE MATERIAL INTO THE SURFACE. AS AN ALTERNATIVE MATERIAL TO PAVEMENT MARKING TAPE, THE CONTRACTOR MAY FURNISH AND APPLY PAINTED RETROREFLECTIVE PAVEMENT MARKINGS CONFORMING TO 621. THE WIDTH AND LENGTH OF PAINTED SEGMENT SHALL BE THE SAME AS REQUIRED FOR TEMPORARY TAPE MATERIAL. THE PAINT APPLICATION RATE SHALL BE NOT LESS THAN 16 GALLONS PER MILE FOR A SOLID LINE.

THE CONTRACTOR SHALL PROVIDE COMPLETE PAVEMENT MARKINGS FOR ALL TEMPORARY ROADS CONSTRUCTED FOR THIS PROJECT, IN ACCORDANCE WITH MATERIAL AND PERFORMANCE REQUIREMENTS DESCRIBED HEREIN AND IN THE OHIO MANUAL AS DEFINED IN 614.03.

IN ADDITION TO THE REQUIREMENTS OF 614.03, THE CONTRACTOR SHALL, PRIOR TO PLACING TEMPORARY MARKINGS, REMOVE ALL EXISTING CONFLICTING MARKINGS THAT ARE VISIBLE TO THE TRAVELING PUBLIC DURING DAYLIGHT OR NIGHTTIME HOURS. WHEN TEMPORARY MARKINGS ARE NO LONGER NEEDED, ANY CONFLICTING MARKINGS VISIBLE TO THE TRAVELING PUBLIC SHALL BE REMOVED BY THE CONTRACTOR BEFORE THE FLOW OF TRAFFIC IS DIVERTED TO THE NEXT PHASE. REMOVAL OF EXISTING OR TEMPORARY MARKING SHALL BE PERFORMED IN ACCORDANCE WITH 621.134. THE COST FOR REMOVAL OF CONFLICTING MARKINGS SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS UNLESS SPECIFICALLY BID FOR AS A SEPARATE ITEM. METHOD OF MEASUREMENT AND BASIS OF PAYMENT SHALL BE IN CONFORMANCE WITH 621.15 AND 621.16 RESPECTIVELY FOR:

ITEM 614 TEMPORARY EDGE LINES 2.12 MILES  
ITEM 614 REMOVAL OF TEMPORARY MARKINGS 11196 LIN. FT.

# ESTIMATED QUANTITIES

Item 615- Temporary Pavement, Class 'A' 1785 S.Y.  
 Item 615 Temporary Roads Lump Sum  
 Item 304 Aggregate Base 108 C.Y.  
 108.24

FHWA REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		
MAH-76-0.91			
MAH-80-1.25			

BEGIN SHEET STA. 114+00

MATCH LINE STA. 13+00

MATCH LINE STA. 29+00

MATCH LINE STA. 13+00

MATCH LINE STA. 29+00

PORTAGE COUNTY  
 MAHONING COUNTY  
 STA. 1117+07.91 I-76 (POR.CO.)=  
 STA. 0+00 I-76 (MAH.CO.)

1115 @ I-76 1116

@ I-76 7

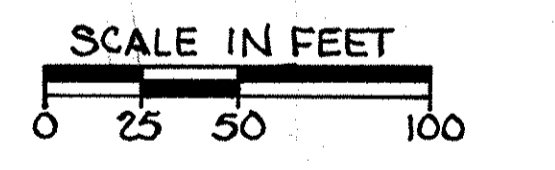
**CURVE DATA**  
**CURVE NOS. ① ② ③ & ④**  
 $\Delta = 09^{\circ}59'51''$   
 $D = 3^{\circ}00'00''$   
 $R = 1909.86'$   
 $T = 167.05'$   
 $L = 333.25'$   
 $E = 7.23'$   
 P.I. CURVE No. ① STA. 20+67.05, 21' RT.  
 P.I. CURVE No. ② STA. 23+26.07, 37' LT.  
 P.I. CURVE No. ③ STA. 20+67.05, 21' LT.  
 P.I. CURVE No. ④ STA. 23+26.07, 37' RT.

P.C. STA. 0+00 B. No. 2 =  
 STA. 19+00, 21' LT. @ I-76

P.C.C. STA. 3+33.25  
 B. No. 2

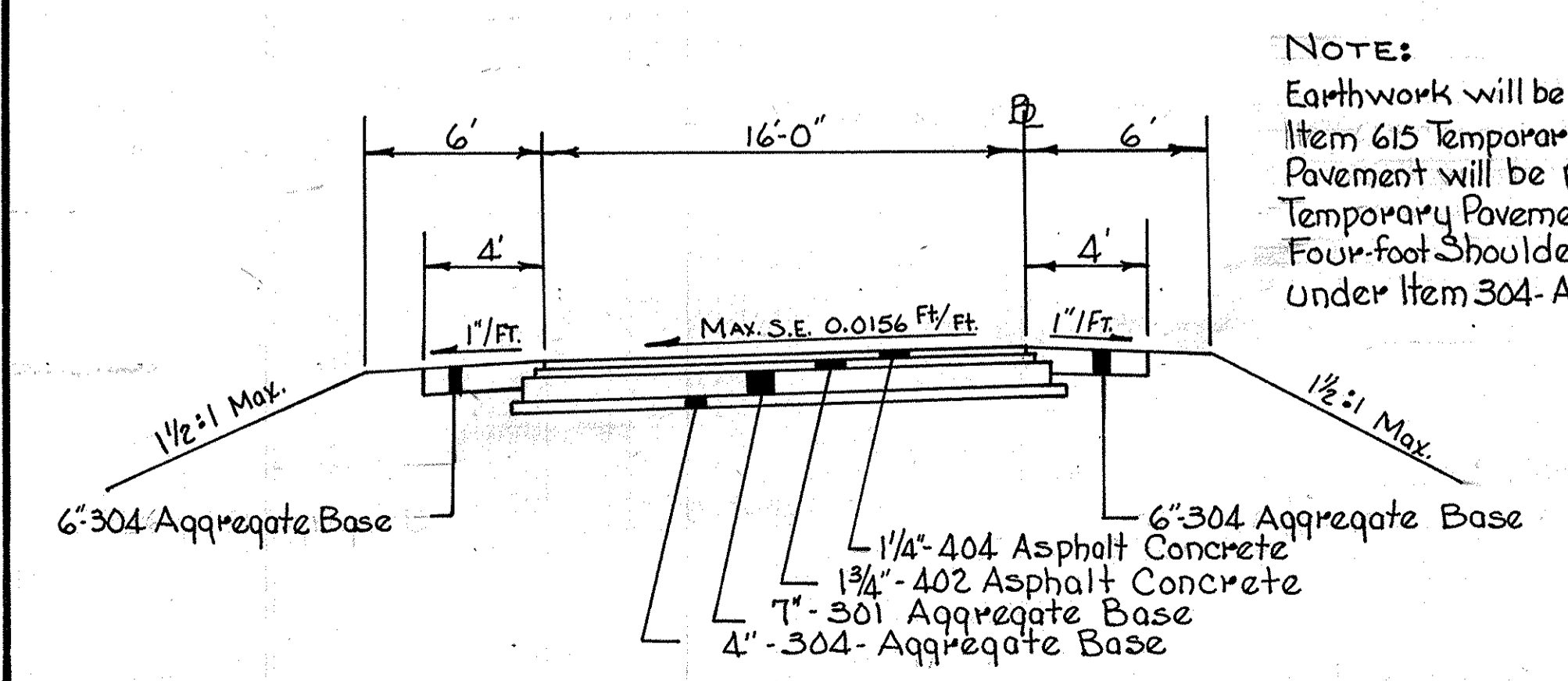
P.T. STA. 6+66.50 B. No. 2 =  
 STA. 25+63.12, 37' RT. @ I-76

STA. 27+63.12, 37' RT.  
 END TEMPORARY RD.



CLASS A, TEMPORARY PAVEMENT

## TYPICAL SECTION OF CROSS-OVER

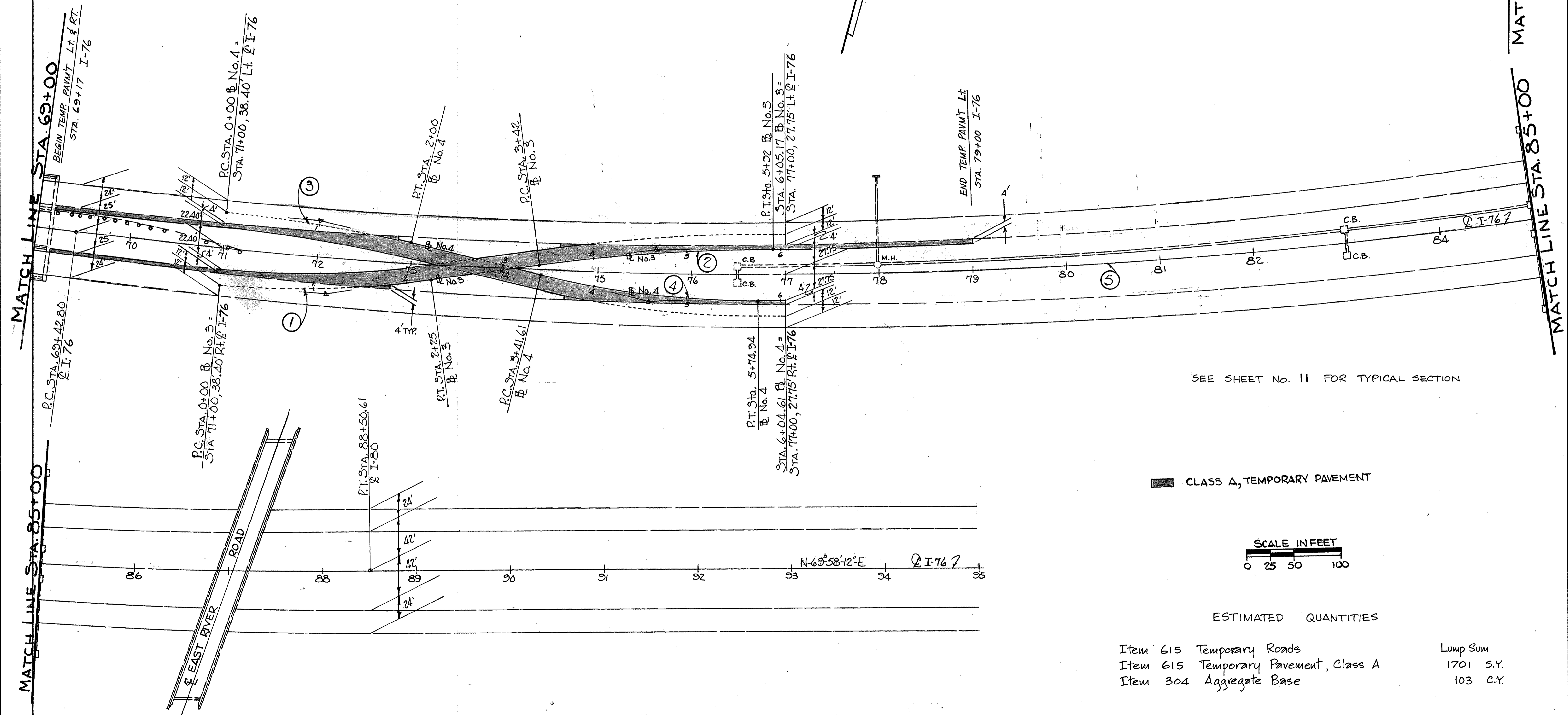
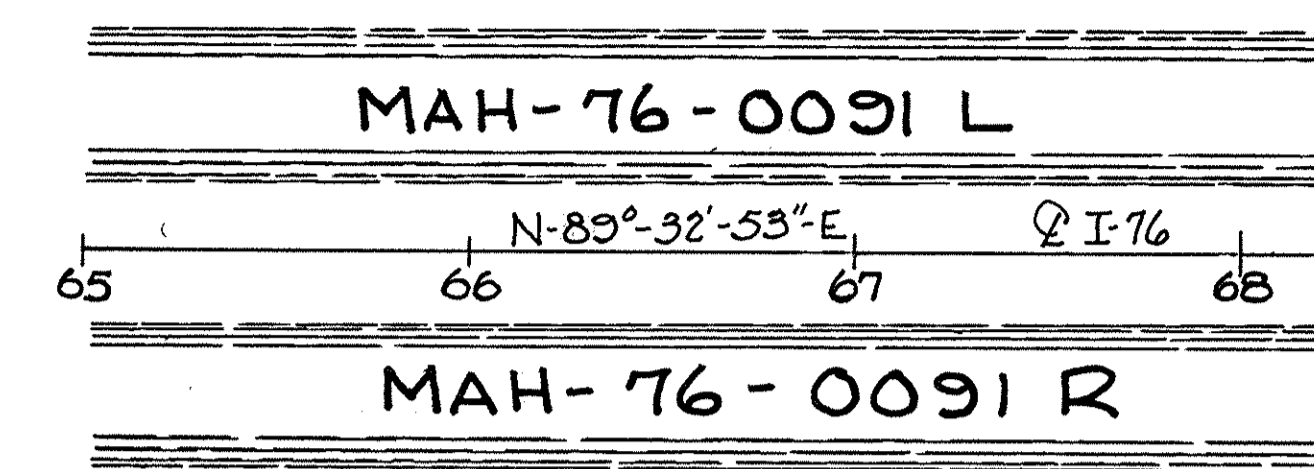


**NOTES:**  
 Earthwork will be paid for under Item 615 Temporary Roads- Lump Sum  
 Pavement will be paid for under Temporary Pavement Class 'A' (flexible) S.Y.  
 Four-foot Shoulders will be paid for under Item 304- Aggregate Base C.Y.

TEMPORARY ROADS 1 & 2

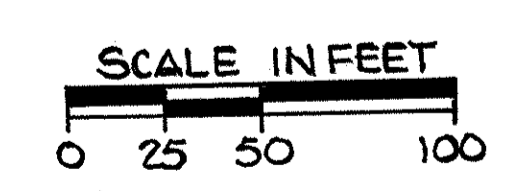
MAH-76-0.91  
MAH-80-1.25

CURVE No. ①	CURVE No. ②	CURVE No. ③	CURVE No. ④	CURVE No. ⑤
P.I. STA. 1+13.02	P.I. STA. 4+67.18	P.I. STA. 1+00.16	P.I. STA. 4+58.86	EXISTING $\varnothing$ I-76
$\Delta = 13^{\circ}-30'-00''$	$\Delta = 07^{\circ}-30'-00''$	$\Delta = 08^{\circ}-00'-00''$	$\Delta = 14^{\circ}-00'-00''$	P.I. STA. 79+05.60
D = 6'-00'-00"	D = 3'-00'-00"	D = 4'-00'-00"	D = 6'-00'-00"	$\Delta = 19^{\circ}-04'-41''$ Lt.
R = 954.93'	R = 1909.86'	R = 1432.39'	R = 954.93'	D = 1'-00'-00"
T = 113.02'	T = 125.18'	T = 100.16'	T = 117.25'	R = 5729.58'
L = 225.00'	L = 250.00'	L = 200.00'	L = 233.33'	T = 962.80'
E = 6.67'	E = 4.10'	E = 3.50'	E = 7.17'	L = 1907.81'
				E = 80.21'



SEE SHEET NO. 11 FOR TYPICAL SECTION

CLASS A, TEMPORARY PAVEMENT

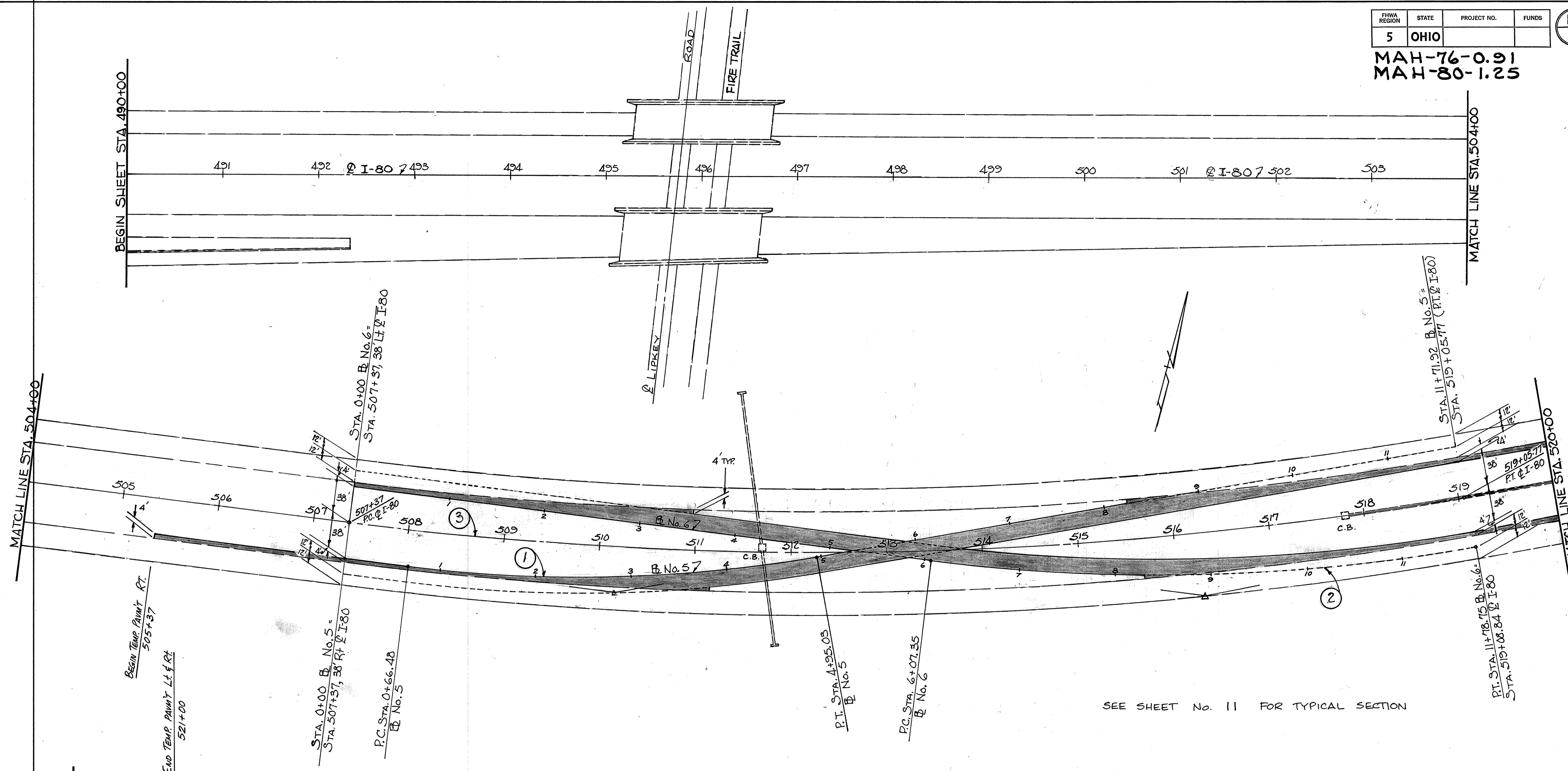


ESTIMATED QUANTITIES

Item	Description	Lump Sum
Item 615	Temporary Roads	
Item 615	Temporary Pavement, Class A	1701 S.Y.
Item 304	Aggregate Base	103 C.Y.

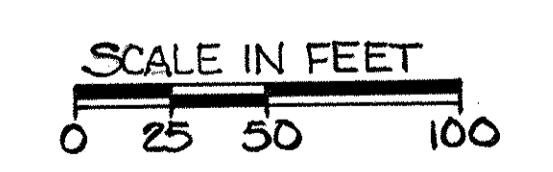
TEMPORARY ROADS 3 & 4

MAH-76-0.91  
MAH-80-1.25



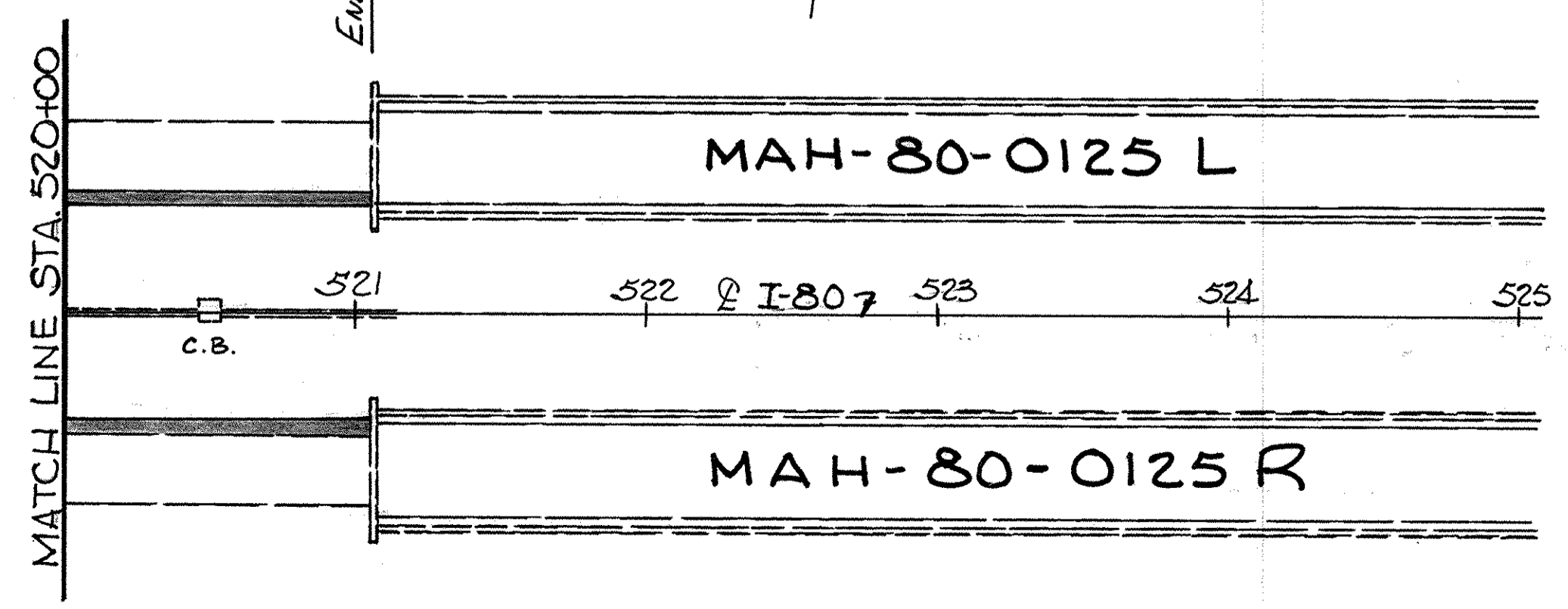
SEE SHEET No. 11 FOR TYPICAL SECTION

CLASS A, TEMPORARY PAVEMENT



ESTIMATED QUANTITIES

Item	Description	Quantity	Notes
Item 615	Temporary Roads	Lump Sum	
Item 615	Temporary Pavement, Class A	3436 S.Y.	
Item 304	Aggregate Base	223 C.Y.	



**CURVE No. ①**  
P.I. STA. 2+82.37  
Δ = 17° 08' 31"  
D = 4° 00' 00"  
R = 1432.33'  
T = 215.83'  
L = 428.55'  
E = 16.18'

**CURVE No. ②**  
P.I. STA. 8+95.20  
Δ = 17° 08' 31"  
D = 3° 00' 00"  
R = 1909.86'  
T = 287.85'  
L = 571.40'  
E = 21.57'

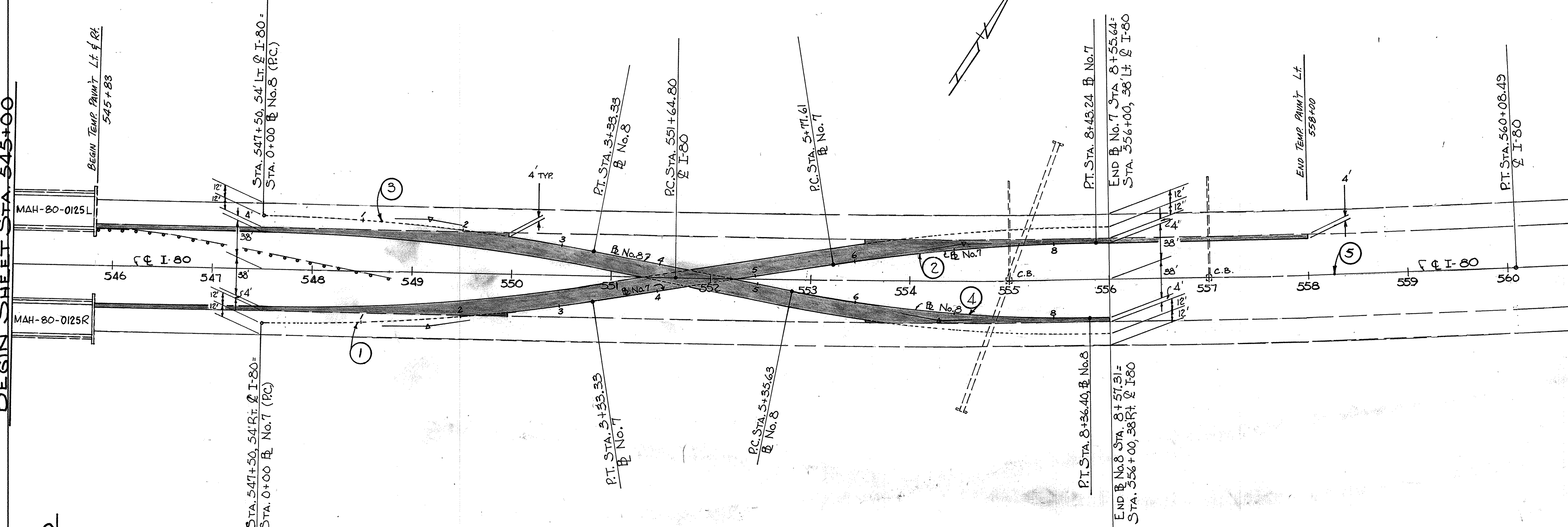
**CURVE No. ③**  
EXIST. I-80  
P.I. STA. 513+25.78  
Δ = 17° 08' 31"  
D = 1° 28' 00"  
R = 3906.53'  
T = 588.78'  
L = 1168.77'  
E = 44.12'

TEMPORARY ROADS 5 & 6

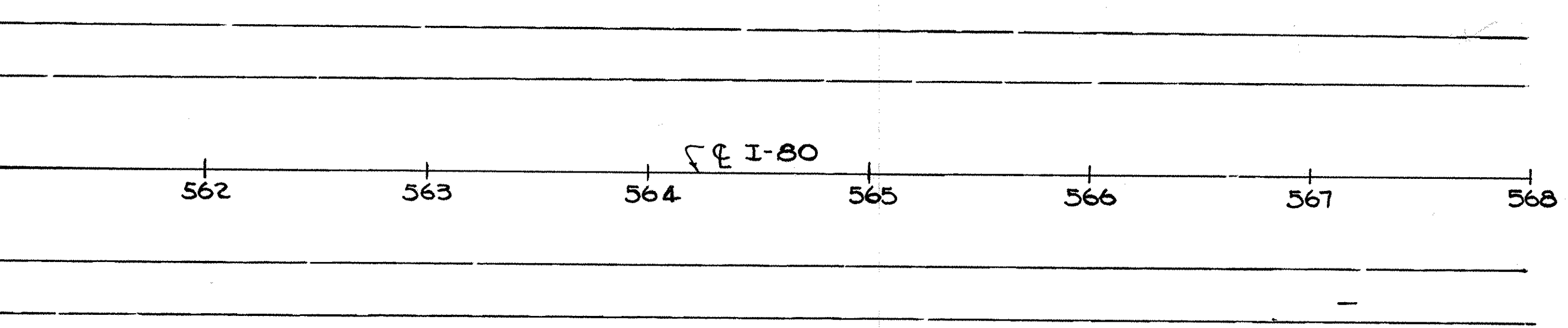
MAH-76-0.91  
MAH-80-1.25

BEGIN SHEET STA. 545+00

MATCH LINE STA. 561+00



MATCH LINE STA. 561+00



**CURVE No. ① & ③**  
P.I. STA. 1+67.09  
 $\Delta = 10^{\circ} 00' 00''$   
 $D = 3^{\circ} 00' 00''$   
 $R = 1909.86'$   
 $T = 167.09'$   
 $L = 333.33'$   
 $E = 7.30'$

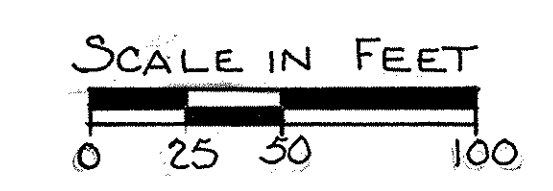
**CURVE No. ②**  
P.I. STA. 7+10.64  
 $\Delta = 07^{\circ} 58' 05''$   
 $D = 3^{\circ} 00' 00''$   
 $R = 1909.86'$   
 $T = 133.03'$   
 $L = 265.64'$   
 $E = 4.63'$

**CURVE No. ④**  
P.I. STA. 6+86.57  
 $\Delta = 12^{\circ} 01' 51''$   
 $D = 4^{\circ} 00' 00''$   
 $R = 1432.39'$   
 $T = 150.94'$   
 $L = 300.77'$   
 $E = 7.93'$

**CURVE No. ⑤**  
& EXIST. I-80  
P.I. STA. 555+86.81  
 $\Delta = 03^{\circ} 56' 14''$  Lt.  
 $D = 0^{\circ} 28' 00''$   
 $R = 12,277.67'$   
 $T = 422.01'$   
 $L = 843.63'$

SEE SHEET No. 11 FOR TYPICAL SECTION

CLASS "A" TEMPORARY PAVEMENT



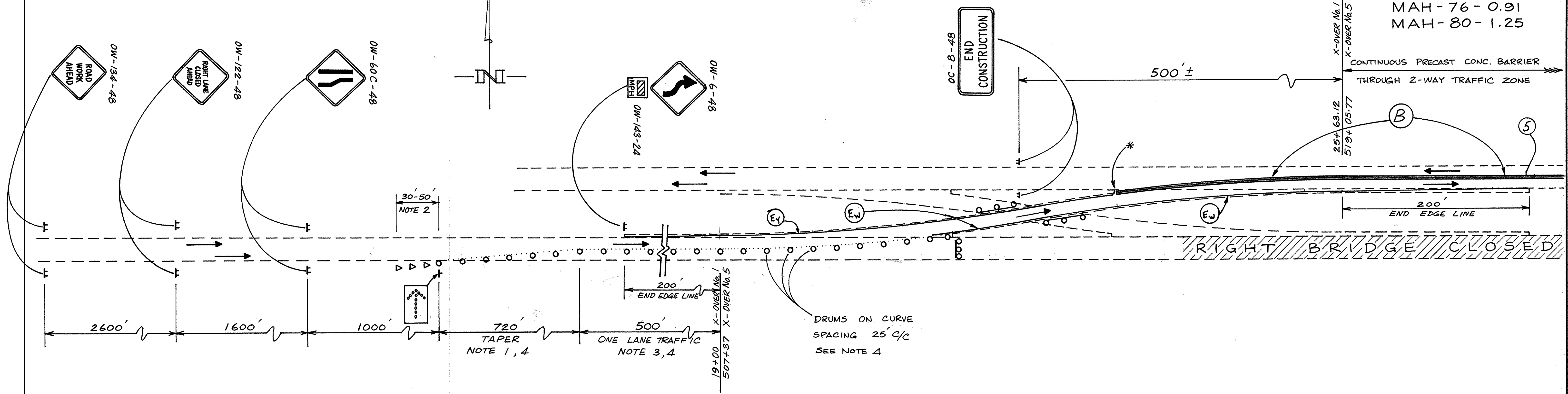
ESTIMATED QUANTITIES

Item	Description	Lump Sum
Item 615	Temporary Roads	
Item 615	Temporary Pavement, Class A	2462 S.Y.
Item 304	Aggregate Base	167 C.Y.

TEMPORARY ROADS 7 & 8

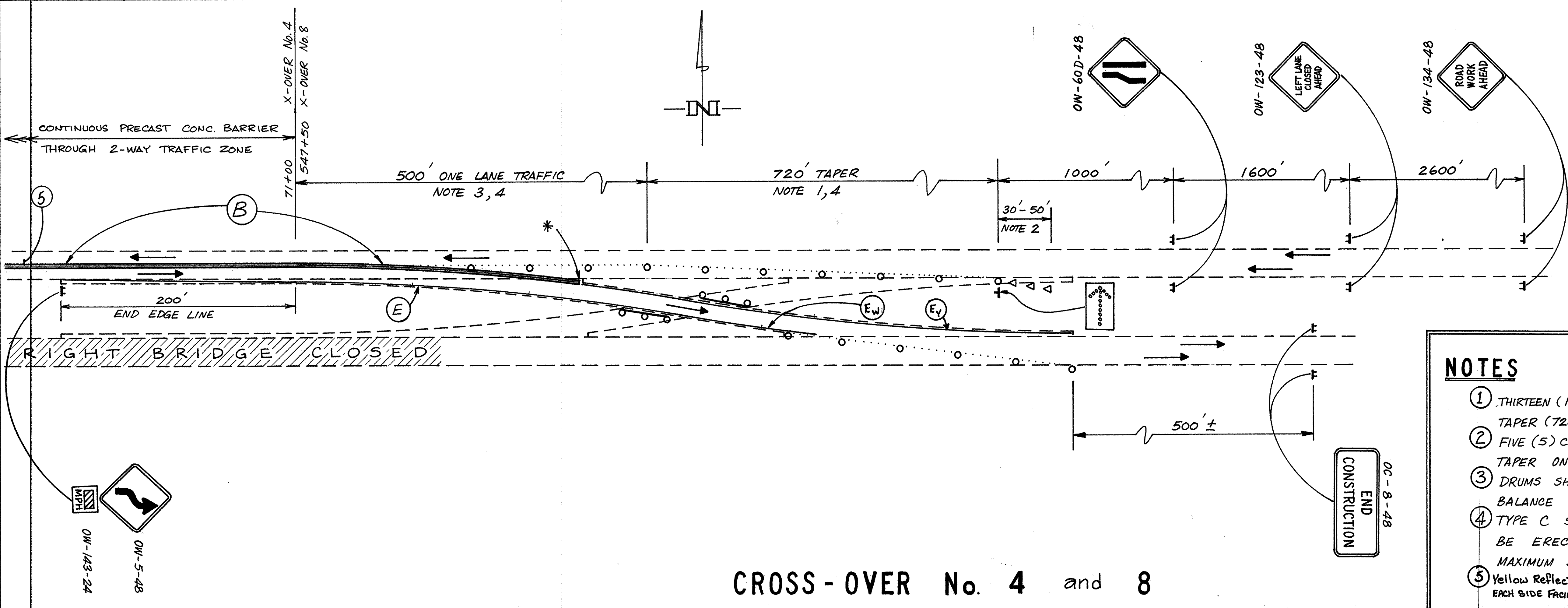
MAH-76-0.91  
MAH-80-1.25

# RIGHT BRIDGE CLOSED



CROSS-OVER No. 1 and 5

\* Beginning or Ending of Temp. Precast Conc. Barrier. See Note sheet No. 10



CROSS-OVER No. 4 and 8

## LEGEND

- ○ ○ DRUMS
- △ △ △ CONES
- ○ — BARRICADE
- ⬢ FLASHING ARROW
- ⊥ TEMPORARY SIGN
- TRAFFIC
- Ⓟ TEMPORARY PRECAST CONC. BARRIER
- Ⓜ EDGE LINE, YELLOW SOLID
- Ⓨ EDGE LINE, WHITE SOLID

## NOTES

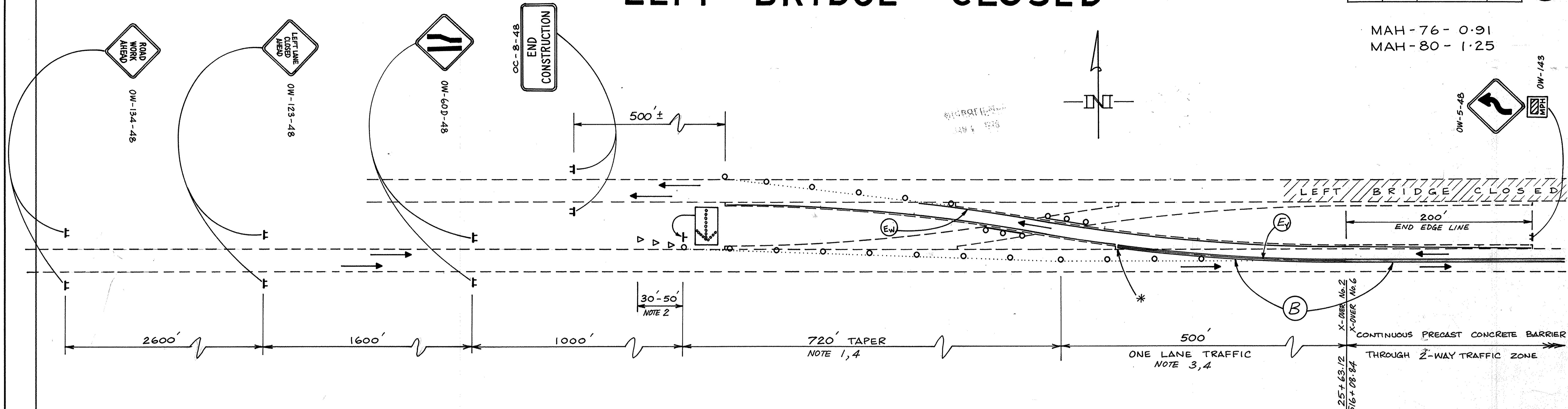
- ① THIRTEEN (13) DRUMS SHALL BE USED TO FORM THE LANE TRANSITION TAPER (720') IN ADVANCE OF THE CROSS-OVER.
- ② FIVE (5) CHANNELIZING DEVICES SHALL BE USED TO FORM THE TAPER ON THE SHOULDER.
- ③ DRUMS SHALL BE SPACED AT 50 FOOT CENTERS FOR THE BALANCE OF THE LANE CLOSURE.
- ④ TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS FOR NIGHT LANE CLOSURE. MAXIMUM SPACING SHALL BE 50' CENTER TO CENTER.
- ⑤ Yellow Reflector, mounted on vertical face of barrier, EACH SIDE FACING TRAFFIC at 100' center to center.

FHWA REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

16  
16

MAH-76-0.91  
MAH-80-1.25

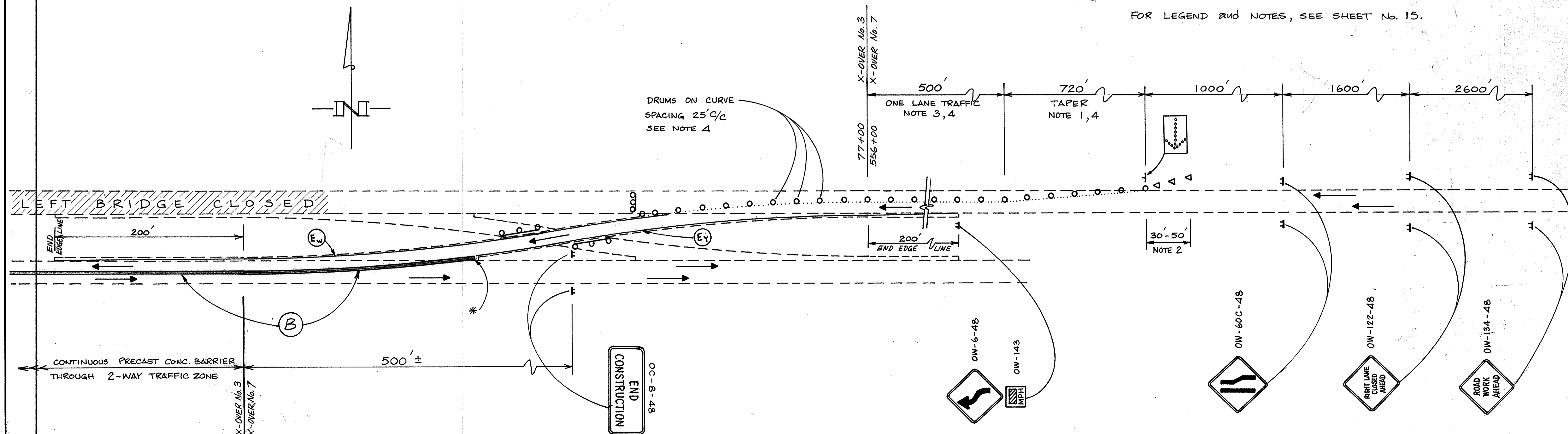
# LEFT BRIDGE CLOSED



## CROSS-OVER No. 2 and 6

\* Beginning or Ending of Temp. Precast Conc. Barrier. See Note sheet No. 10.

FOR LEGEND AND NOTES, SEE SHEET No. 15.



## CROSS-OVER No. 3 and 7