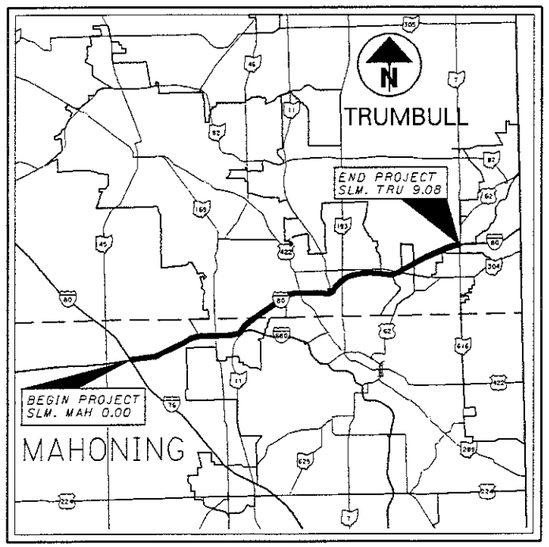
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MAH/ TRU-80-0.00/ 0.00



LOCATION MAP

PORTION TO BE IMPROVED_ _ _ _ _ _ _ _ _ ▬▬▬

INDEX OF SHEETS:

PROJECT DESCRIPTION

THIS PROJECT WILL CONSIST OF MILLING, PAVEMENT REPAIR, AND RESURFACING THE EXISTING PAVEMENT AS NOTED HEREIN.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

1997 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 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

DESIGN DESIGNATION

CURRENT ADT (2002)	50430
DESIGN YEAR ADT (2022)	70830
DESIGN HOURLY VOLUME (2022)	6751
DIRECTIONAL DISTRIBUTION	0.54
TRUCKS (24 HOUR B&C)	0.30
DESIGN SPEED	70
LEGAL SPEED	65

DESIGN FUNCTIONAL CLASSIFICATION - URBAN INTERSTATE

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:
District Four Production

STATE OF OHIO
DOUGLAS A. YARD
E-58044
REGISTERED PROFESSIONAL ENGINEER

SIGNED: [signature]
DATE: 5/9/01

STANDARD CONSTRUCTION DRAWINGS

BP-3.1	7-28-00	TC-41.10M	3-31-94				
		TC-41.20M	7-1-94				
		TC-52.10M	7-29-94				
MT-35.10M	1-30-95	TC-52.20M	7-29-94				
MT-35.11M	1-30-95	TC-65.10M	11-1-95				
MT-95.30M	4-25-94	TC-65.11M	11-1-95				
MT-98.12M	6-24-93	TC-65.12M	11-1-95				
MT-98.13M	6-24-93						
MT-98.14M	6-24-93	GR-1.1M	10-21-97				
MT-98.15M	6-24-93	GR-1.2M	1-3-96				
MT-98.16M	6-24-93	GR-1.3M	11-30-94				
MT-98.17M	1-30-95	GR-2.1M	4-14-98				
MT-98.18M	4-25-94	GR-2.2M	10-21-97				
MT-99.20M	1-30-95	GR-2.4M	10-21-97				
MT-105.10M	4-25-94						
MT-105.11M	4-25-94						

SUPPLEMENTAL SPECIFICATIONS

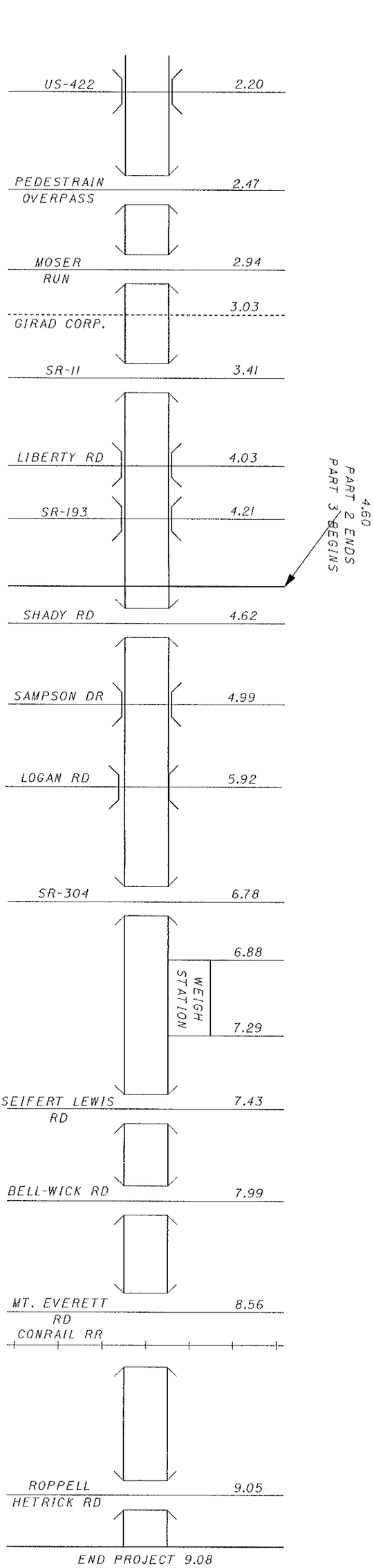
806	9-9-97
814	6-02-98
842	1-06-99
858	11-07-00
863	10-12-99
870	8-10-99
877	4-13-99
899	10-21-98
905	4-01-98
906	5-05-98
907	10-21-98
908	11-7-00

APPROVED [signature]
DATE 5/9/01 DISTRICT DEPUTY DIRECTOR

APPROVED Gordon Proctor
DATE 6-4-01 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL JOB NO. NOM-FEDERAL
PID NO. 22134
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
MAH/TRU-80-0.00/0.00
1/51

MAH - IR 80 - 0.00/0.00
010396 PID - 22134
Dist 4 8/22/01



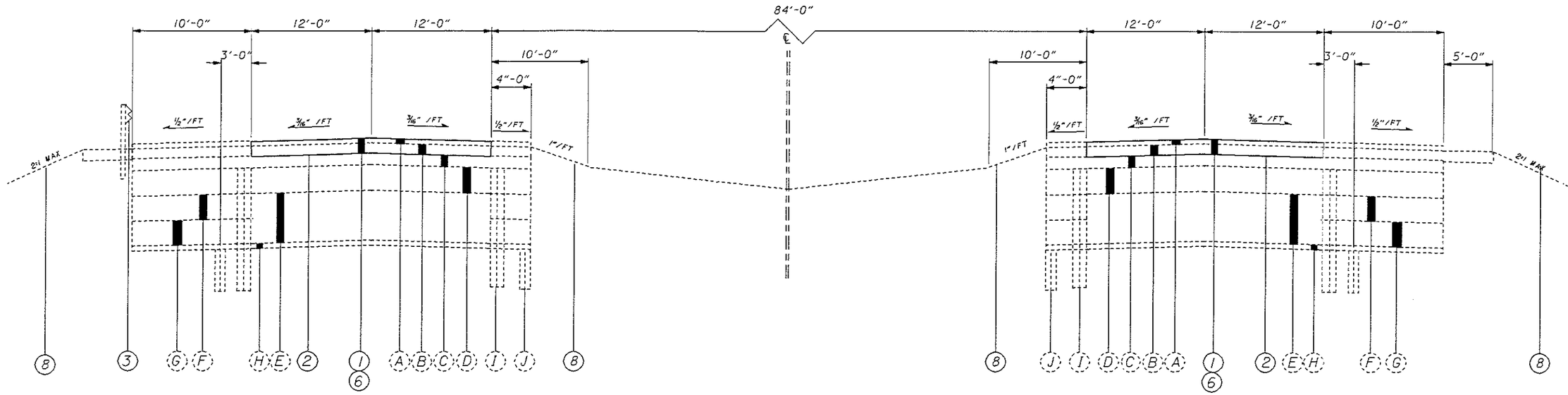
NOTE: BUTT JOINT PER BP 3.1 TO BE PROVIDED AT ALL BRIDGES EXEPT FOR BRIDGES TRU-80-0353R, TRU-80-0355L, TRU-80-0421L, TRU-80-0499L, TRU-80-0592L, TRU-80-0856L.

MAH\TRU-80-0.00\0.00

SCHEMATIC

TYPICAL SECTION

#1



MAH I-80 SLM 0.00-3.48 (EB AND WB)
TRU I-80 SLM 4.60-9.08 (EB AND WB)

PROPOSED PAVEMENT LEGEND

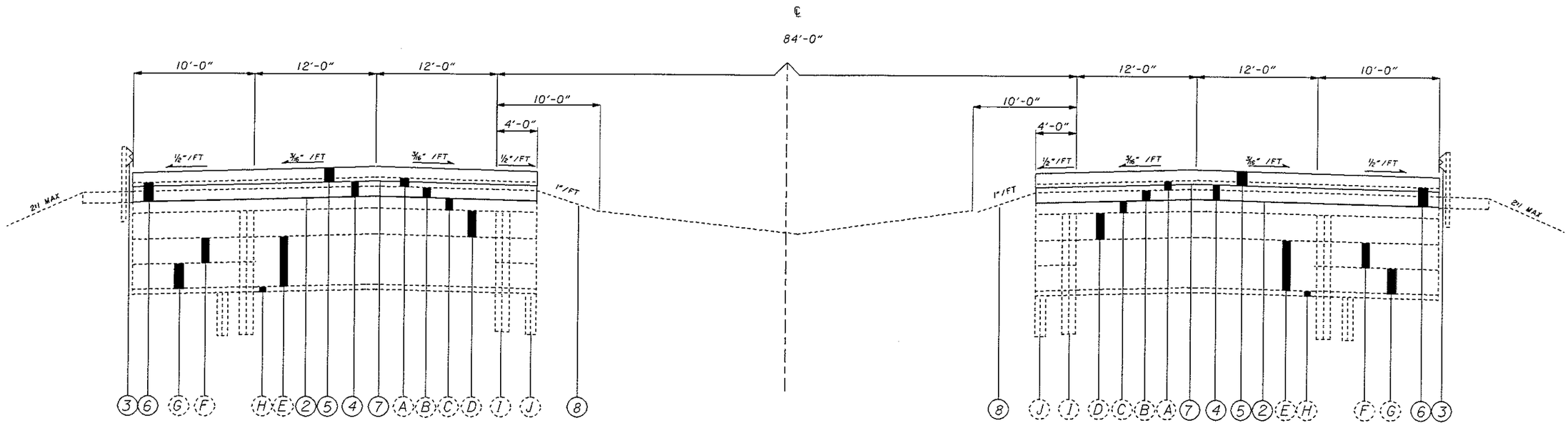
1. 2" 858 ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE B(446) AS PER PLAN
2. 407 TACK COAT
3. 606 GUARDRAIL REBUILD T, TYPE 5 (REPAIR DAMAGED PANELS AS NEEDED)
4. 1.75" 858 ASPHALT CONCRETE INTERMEDIATE COURSE, 19mm, TYPE B(446)
5. 1.5" 858 ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE B(446) AS PER PLAN
6. 2" 254 PAVEMENT PLAINING, BITUMIOUS
7. 407 TACK COAT FOR INTERMEDIATE COURSE
8. 203 LINEAR GRADING METHOD D (FOR DETAILS SEE SHEET #12)

EXISTING PAVEMENT LEGEND

- (A) 0.75" RUBBERIZED OPEN GRADE ASPHALT CONCRETE
- (B) 1.25" ASPHALT CONCRETE SURFACE COURSE
- (C) 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE
- (D) 1.25" ASPHALT CONCRETE PAVEMENT
- (E) 10" REINFORCED CONCRETE PAVEMENT
- (F) VARIABLE DEPTH WATERPROOF AGGREGATE BASE
- (G) VARIABLE DEPTH AGGREGATE BASE
- (H) 6" SUBBASE
- (I) SHALLOW UNDERDRAINS
- (J) 6" PIPE UNDERDRAIN
- (K) 8" REINFORCED CONCRETE

TYPICAL SECTION

#2



LIMITING STATIONS

MAH I-80 EB SLM 3.48-3.89
MAH I-80 EB SLM 4.80-5.00
MAH I-80 EB SLM 5.67-TRU I-80 EB 4.60
MAH I-80 WB SLM 3.48-3.74
MAH I-80 WB SLM 5.00-TRU I-80 WB 4.60

FOR LEGEND SEE SHEET 3

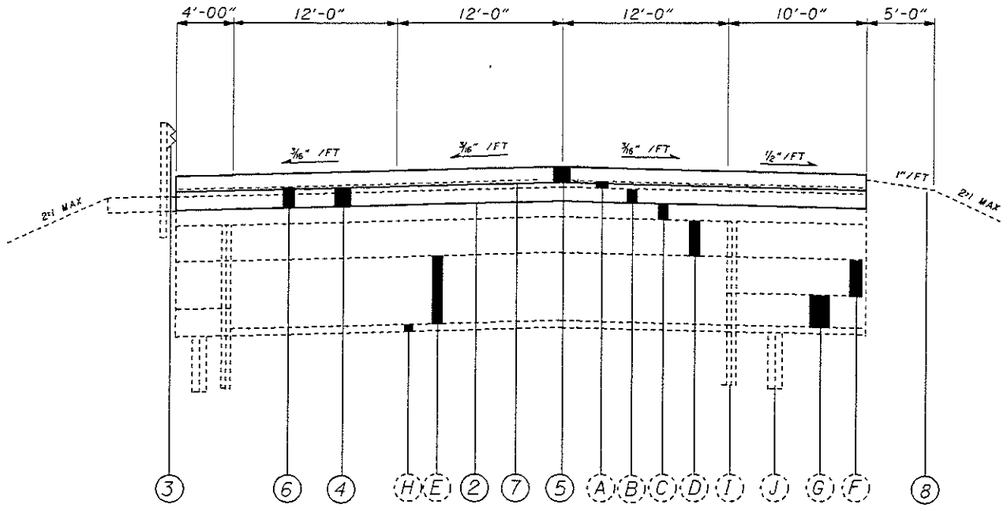
TYPICAL SECTIONS

MAH/TRU-
80-0.00/0.00

TYPICAL SECTIONS

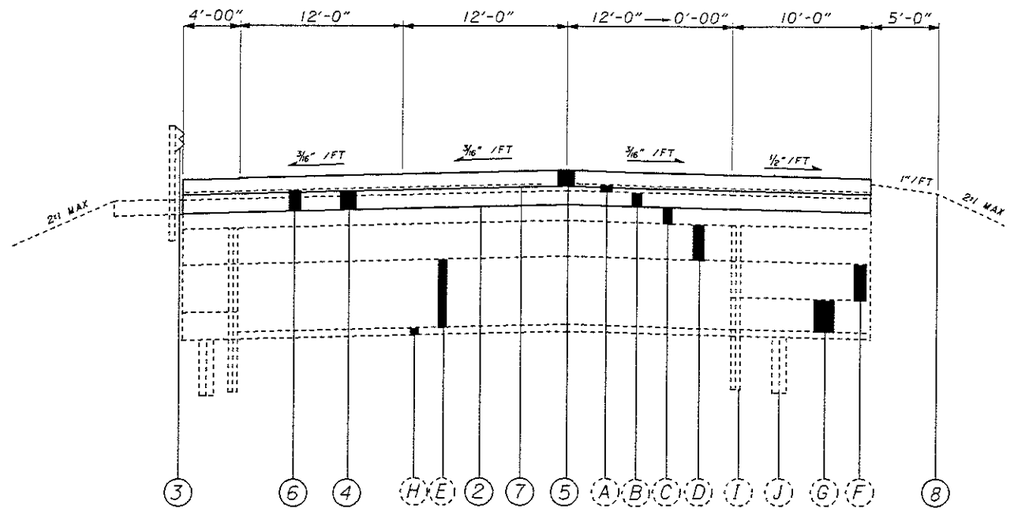
PART 2

#3



MAH I-80 EB SLM 3.89-4.09
MAH I-80 EB SLM 4.43-4.80
MAH I-80 EB SLM 5.00-5.45
MAH I-80 WB SLM 3.74-4.57

#4



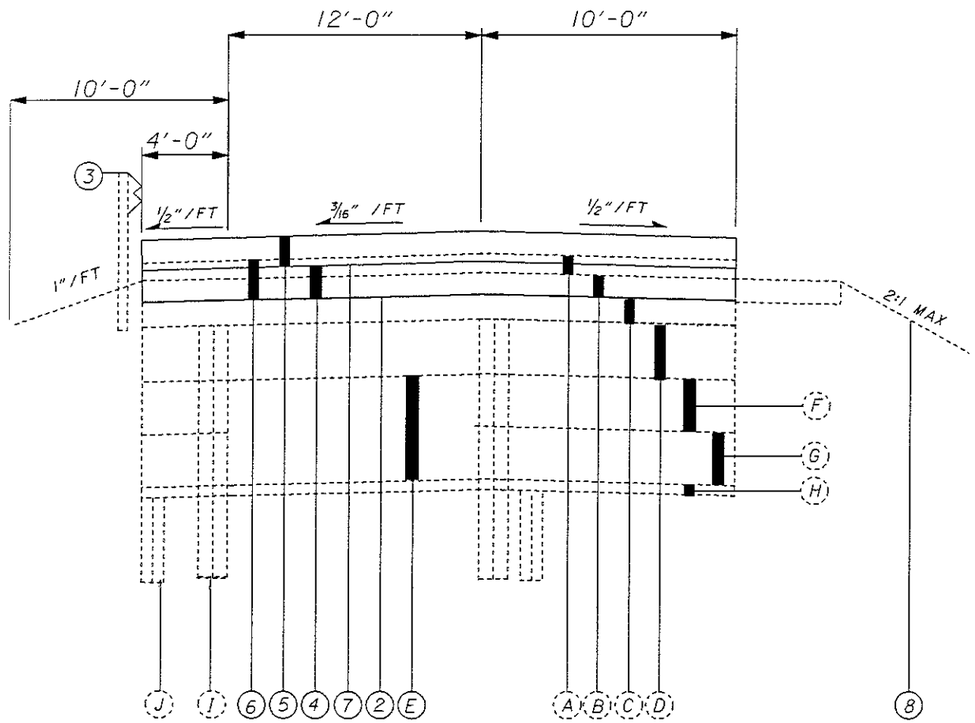
MAH I-80 EB SLM 5.45-5.67

FOR LEGEND SEE SHEET 3

MAH/TRU-
80-0.00/0.00

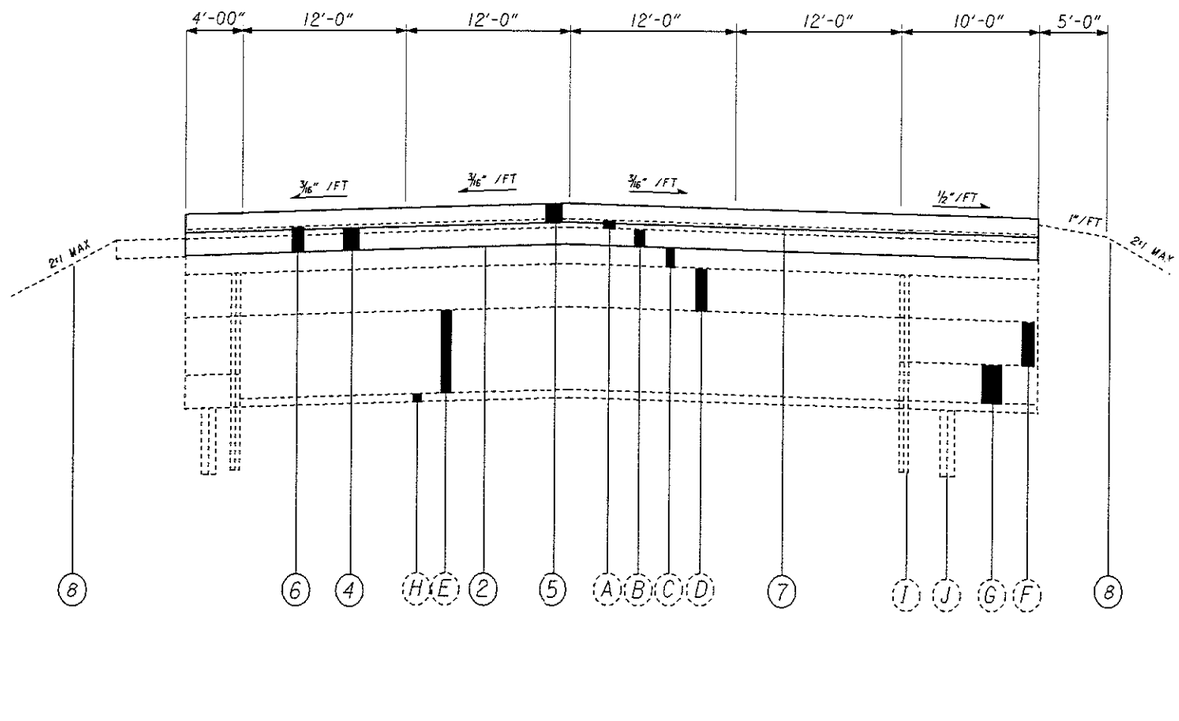
TYPICAL SECTIONS

#5



MAH I-80 WB SLM 4.57-5.00

#6



MAH I-80 EB SLM 4.09-4.43

FOR LEGEND SEE SHEET 3

TYPICAL SECTIONS

MAH/TRU-80-0.00/0.00

SCOPE OF WORK

THE MILL AND FILL PROJECT CONSISTS OF THREE PARTS. PART 1, I.R. 80 FROM NEW PAVEMENT AT THE TURNPIKE TO JUST EAST OF THE SR 46 INTERCHANGE RAMPS (SEE PAGE 2 FOR DETAILS). MILL ALL LANES AND RAMPS 2" IN DEPTH NO SHOULDERS WILL BE MILLED IN PART 1. REPLACE WITH 2" OF ITEM 858 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B(446) AS PER PLAN MATERIAL THROUGHOUT THE ENTIRE LENGTH OF PART 1. PART 2, I.R. 80 FROM THE END OF PART 1 TO TRU SLM 4.60 (EAST OF SR 193) MILL ALL LANES, SHOULDERS AND ALL RAMPS TO A 2" DEPTH. REPLACE WITH 1.75" OF ITEM 858 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B(446). PLACE 1.5" OF ITEM 858 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B(446) AS, PER PLAN ON TOP OF THE INTERMEDIATE COURSE. THE SALT SPRINGS INTERCHANGE RAMPS ARE NOT TO BE MILLED OR RESURFACED. USE PARTIAL DEPTH REPAIR AT LOCATIONS DIRECTED BY THE ENGINEER IN PART 2. PART 3 I.R. 80 FROM THE END OF PART 2 TO TRU SLM 9.08 (NEW PAVEMENT WEST OF USR 62). MILL ALL LANES AND RAMPS, NO SHOULDERS, TO A DEPTH OF 2" AND REPLACE WITH 2" OF ITEM 858 ASPHALT CONCRETE SURFACE COURSE 12.5MM, TYPE B(446) AS PER PLAN. DAMAGED GUARDRAIL SHOULD BE REPLACED THROUGH OUT THE PROJECT AS DIRECTED BY THE ENGINEER. THE ONLY BRIDGES TO BE MILLED ARE TRU-80-0353L, TRU-80-0355L, TRU-80-0421L, TRU-80-0499L, TRU-80-0592L, TRU-80-0856L. SUSPEND WORK AT ALL OTHER BRIDGES. THE DETAILS FOR THESE BRIDGES START ON PAGE 45. ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PROVIDE DRAINAGE OF PLANED SURFACES SHALL BE CONSIDERED INCIDENTAL TO ITEM 254, PAVEMENT PLANING, BITUMINOUS.

407 TACK COAT:

THE RATE OF APPLICATION OF THE TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.15 GALLONS PER SQUARE YARD. FOR ANY INTERMEDIATE COURSE TACK COAT WILL BE APPLIED AT A RATE OF 0.04 GALLONS PER SQUARE YARD.

PROFILE AND ALIGNMENT FOR RESURFACING PROJECTS

THE PROFILE AND ALIGNMENT WILL FOLLOW THE EXISTING PROFILE AND ALIGNMENT FOR PARTS 1 AND 3. THE PROFILE IN PART 2 WILL BE RAISED 1.25". IN PARTS 1 AND 3 THE THICKNESS OF THE SURFACE COURSE OVERLAY WILL BE 2.0". PART 2 WILL HAVE AN INTERMEDIATE COURSE THICKNESS OF 1.75" AND A SURFACE COURSE THICKNESS OF 1.5". CONSTRUCTION PLANS SHOWING THE ORIGINAL PROFILE AND ALIGNMENT ARE AVAILABLE IN THE DISTRICT 4 OFFICE UNDER PROJECT NUMBER 643.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ADVANCE NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, AND HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

WORK LIMITS

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

CONVERSION OF METRIC STANDARD DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPREATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

ITEM 858 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPEB(446) AS PER PLAN

THE REQUIREMENTS OF 441, 446 AND SUPPLEMENTAL SPECIFICATIONS 1055 SHALL APPLY; DEVIATIONS FROM THESE ARE AS FOLLOWS:

THE COMBINATION OF NEW AGGREGATES, NEW ASPHALT BINDER, AND RECLAIMED MATERIAL SHALL BE AS REQUIRED TO PRODUCE A COMPOSITION CONTAINING A MINIMUM OF 6.2% NEW ASPHALT BINDER RESULTING IN A MINIMUM TOTAL BINDER OF 6.9%.

MATERIALS: THE MATERIALS SHALL BE:
AGGREGATES 703.05*
ASPHALT BINDER SS-1055

*THE VIRGIN COARSE AGGREGATE PORTION OF THE MIXTURE SHALL BE AIR COOLED BLAST FURNACE SLAG AND MEET THE REQUIREMENTS OF 703.05.

ONLY RECLAIMED PAVEMENT FROM THIS PROJECT WILL BE PERMITTED FOR USE IN THIS ITEM.

ITEM 606 GUARDRAIL REBUILT, TYPE 5

THIS ITEM IS TO BE USED TO REPAIR DAMAGED PANELS WITHIN THE PROJECT AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE BASED ON ACTUAL NUMBER OF LINEAR FEET REPAIRED. THIS QUANTITY IS CARRIED TO THE GENERAL SUMMARY.

ITEM 606 GUARDRAIL REBUILD, TYPE 5 - 125 LIN FT

ITEM 606 RAISING TYPE 5 GUARDRAIL

THIS ITEM OF WORK SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL THAT IS REQUIRED TO RAISE THE GUARDRAIL AS DIRECTED BY THE ENGINEER IN PART 2. PAYMENT FOR THIS ITEM SHALL BE IN ACTUAL LIN. FT. OF ITEM 606 RAISING TYPE 5 GUARDRAIL. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 606 RAISING TYPE 5 GUARDRAIL - 500 LIN. FT.

CALCULATED | CHECKED

GENERAL NOTES

MAH/TRU-
80-0.00/0.00

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.06 AND 107.17 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (UOPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)

OGPUPS 1-800-925-0988

ODOT 330-297-0801 KEN GREENE EXT. 305

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES

ITEM 202 ANCHOR ASSEMBLY REMOVED FOR REUSE, AS PER PLAN
ITEM 606 GUARDRAIL, TYPE 5

THIS ITEM SHALL CONSIST OF ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO REMOVE AN ANCHOR ASSEMBLY AND REINSTALL THE ANCHOR ASSEMBLY AFTER THE GUARDRAIL RUN IS EXTENDED BY 150 FEET. THE LOCATION OF THIS ANCHOR ASSEMBLY IS TRU I-80 AT SLM 8.75 LT. THIS ANCHOR ASSEMBLY IS AN ET-2000 (1997) MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SS265	MET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98

THE CONTRACTOR SHALL REPLACE ALL MATERIAL THAT IS DAMAGED OR IS DEEMED UNSUITABLE BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK:

ITEM 202 ANCHOR ASSEMBLY REMOVED FOR REUSE, AS PER PLAN = 1 EACH

ITEM 606 GUARDRAIL, TYPE 5 = 150 LIN FT

ITEM 202 CONCRETE BARRIER REMOVED FOR STORAGE

THE LOCATION OF THE CONCRETE BARRIER IS IN TRUMBELL COUNTY ON IR 80 WB 3.55 SLM. THE BRIDGE NUMBER IS 0355L.

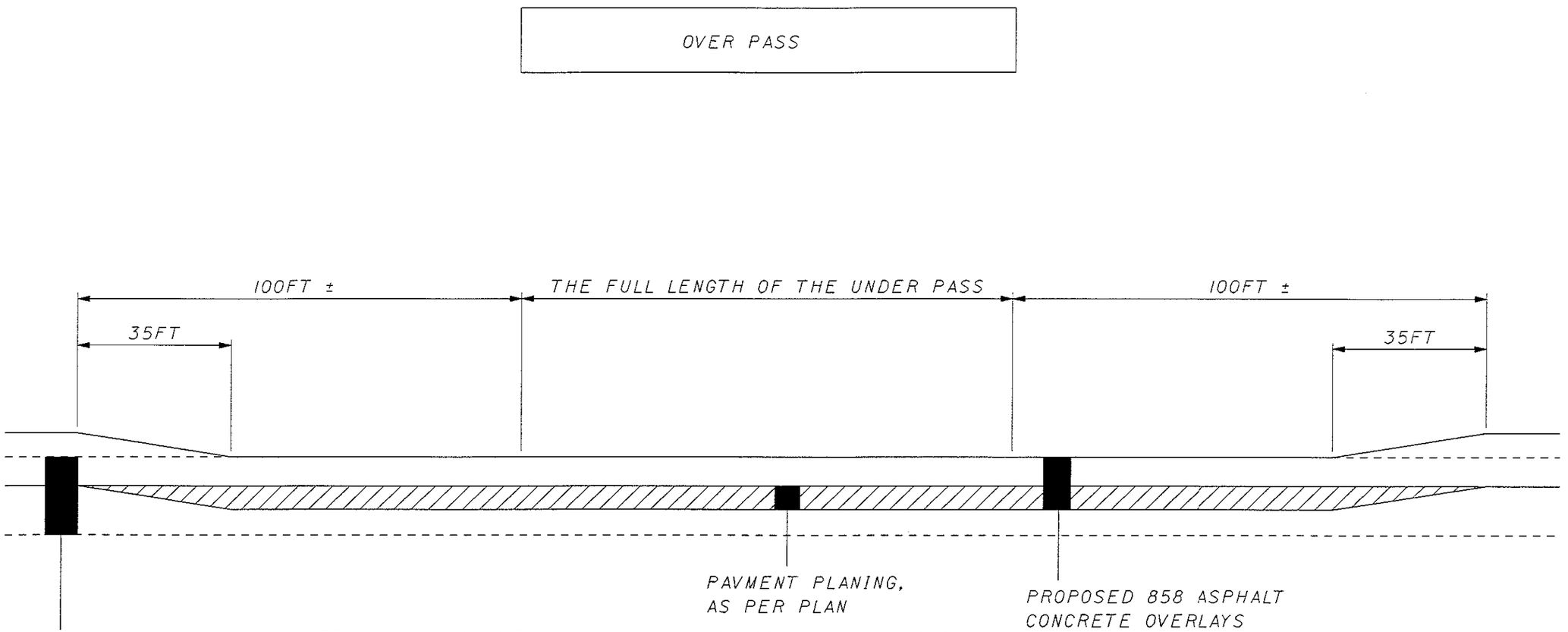
240 LIN. FT

ITEM 622 CONCRETE BARRIER, 32", AS PER PLAN

32 INCH CONCRETE BARRIER WILL BE PLACED AT TRU-IR 80 WB-3.55 SLM. START PLACING 32 INCH BARRIER WHERE EXISTING CONCRETE BARRIER WAS AND EXTEND ALONG GUARDRAIL UNTIL OUT OF THE CLEAR ZONE.

500 LIN. FT

ITEM 254 - PAVEMENT PLANING, BITUMINOUS, AS PER PLAN



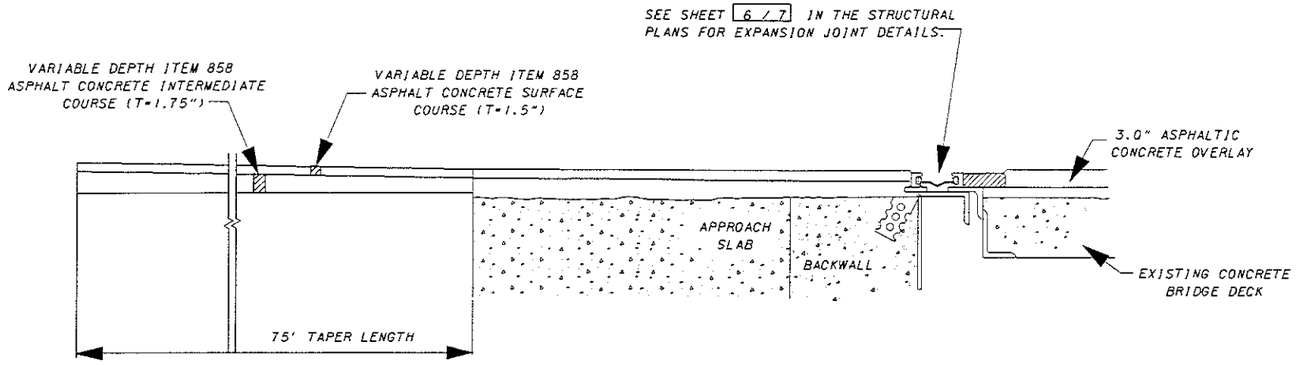
ITEM 254 - PAVEMENT PLANING, BITUMINOUS, AS PER PLAN

AFTER MILLING 2" OFF THE ROAD AS ITEM 254 - PAVEMENT PLANING, BITUMINOUS, MILL AN EXTRA DEPTH OF 1.25". THIS QUANTITY IS TO BE USED TO PRESERVE THE ORIGINAL VERTICAL CLEARANCE OF STATED UNDERPASSES AFTER THE PROPOSED 858 ASPHALT CONCRETE OVERLAYS ARE INSTALLED.

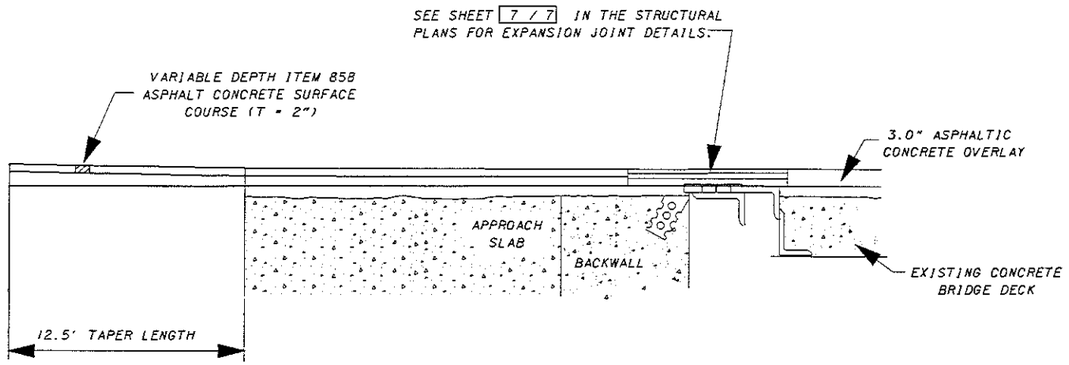
LOCATIONS	ITEM 254 PAVEMENT PLANING BITUMINOUS, A.P.P. SQ YD
5001803 MAH 80 0381 WB	13350
5000807 MAH 80 0470R EB	12750
5006279 MAH 80 0505R EB	12800
7803303 TRU 80 0102 EB	10602
7803516 TRU 80 0247 WB	9044
7803699 TRU 80 0341L WB	12200
TOTAL	70746

GENERAL NOTES

MAH/TRU-
80-0.00/0.00

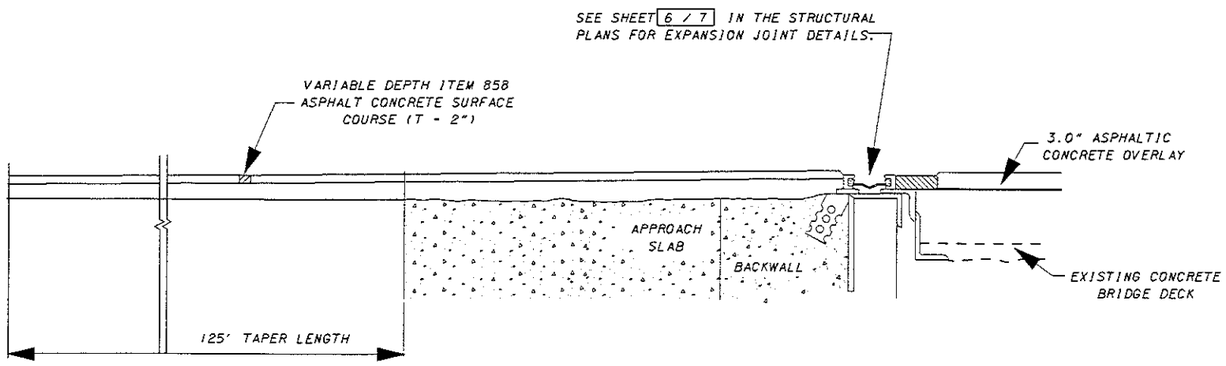


TRU-80-0353R, 0355L, & 0421L



TRU-80-0499L & 0592L

THE REASON FOR THIS TAPER IS DUE TO THE THICKNESS OF THE ASPHALT CONCRETE OVERLAY IS DECREASED BY ¾ OF AN INCH



TRU-80-0856L

THE REASON FOR THE TAPER IS DUE TO THE THREE INCH ASPHALT CONCRETE OVERLAY THAT WILL BE PLACED ON THE BRIDGE DECK.

NOTE: THE TAPER DISTANCES DO NOT INCLUDE THE 25 FOOT LENGTH OF THE APPROACH SLABS.

DESIGN AGENCY
OH10 DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR PRODUCTION
705 OAKWOOD STREET, RAVENNA, OH10

DESIGNED DAA | DRAWN DAA | REVIEWED | DATE
CHECKED | REVISED | STRUCTURE FILE NUMBER

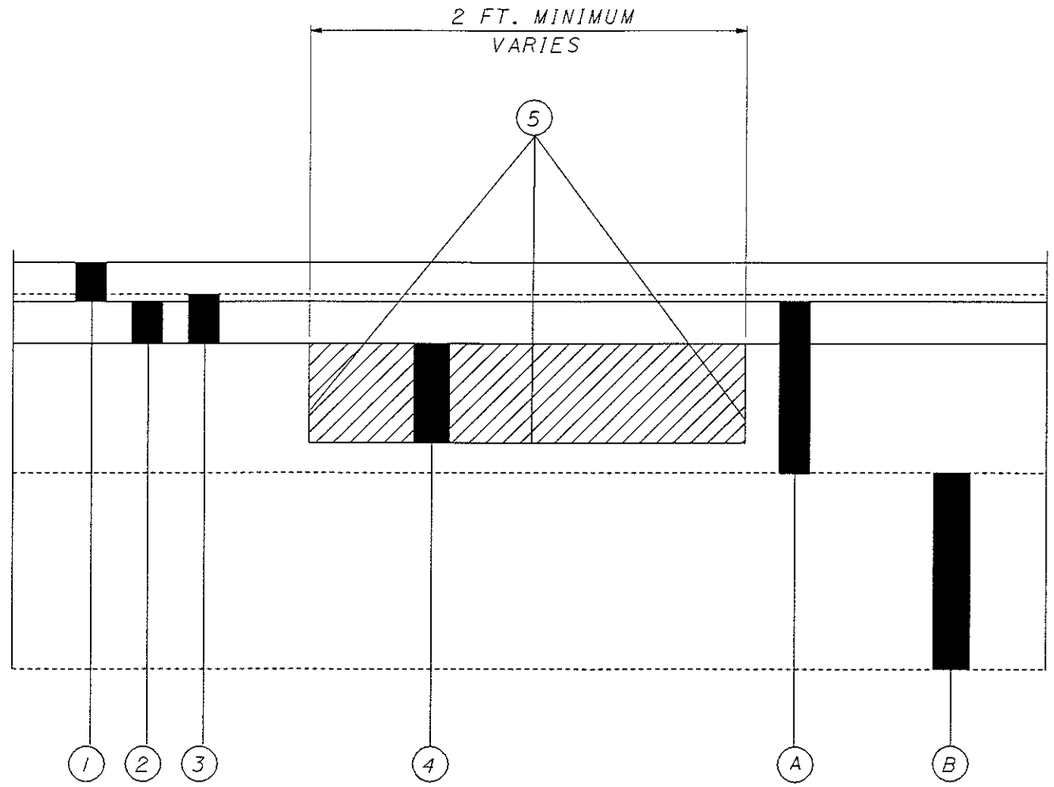
PAVEMENT TAPER DETAILS

BR. NO. TRU-80-0353L, TRU-80-0355L, TRU-80-0421L, TRU-80-0499L, TRU-80-0592L, TRU-80-0856L

MAH/TRU-80-
0.00/0.00

251 PARTIAL DEPTH PAVEMENT REPAIR

A QUANTITIY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL BE USED TO REPAIR SURFACE DETERIORATIONS AND TRANSVERSE AND LONGITUDINAL JOINT SPALLING IN THE EXISTING ASPHALT OVERLAYS. THE REPAIR DEPTH SHALL BE 3.75" MIN. INTO THE EXISTING ASPHALT CONCRETE PAVEMENT AND THE REPLACEMENT MATERIAL SHALL MEET THE REQUIREMENTS OF ITEM 858 ASPHALT CONCRETE, 12MM TYPE B(446). THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.11. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR TO THE LIMITS DESIGNED BY THE ENGINEER. ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR APPROX. 500 SY.



(1) 858 1.5"-2.0" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B(446) AS PER PLAN
(2) 858 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B(446)
(3) 254 2" PAVEMENT PLAINING, BITUMIOUS
(4) 251 PARTIAL DEPTH PAVEMENT REPAIR
(5) 407 TACK COAT
(A) 8.0" EXISTING ASHPALT OVERLAYS
(B) 10.0" EXISTING REINFORCED CONCRETE

ITEM 203 LINEAR GRADING METHOD D

UPON COMPLETION OF THE PAVING OPERATION, OR NO LONGER THAN 48 HOURS IN AREAS OF LOW BERM EXCEEDING 2" FROM PLAN TYPICAL, THE CONTRACTOR SHALL PLACE ITEM 617 COMPACTED AGGREGATE ADJACENT TO THE PAVED BERM. THE REMAINING SHOULDER WIDTH BEYOND THE PAVED SHOULDER SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE INTO THE DITCH AND SHALL BE PREFORMED ONLY IN THE AREAS NECESSARY. RE-GRADING SHALL BE ACCOMPLISHED BY THE REMOVAL OF, OR ADDITION OF MATERIAL BETWEEN THE PAVED SHOULDER AND THE DITCH LINE, GRADED USING A 1"/FT SLOPE TO THE DITCH BREAK POINT. THE RE-GRADED AREAS SHALL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING AND PLACEMENT OF 617 COMPACTED AGGREGATE IS PREFORMED. ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE BERMS AND NOT ALLOWED TO ENTER THE DITCH LINE, TO BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

THE METHOD OF MEASURMENT OF ITEM 203 LINEAR GRADING METHOD D, SHALL BE STATIONS, WITH ONE STATION EQUAL TO 100 LIN. FT. STATIONS SHALL BE MEASURED ALONG EACH EDGE OF PAVEMENT.

ALL MATERIALS, LABOR EQUIPMENT, TOOLS, AND ENCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 203 LINEAR GRADING METHOD D EXCLUDING ITEM 659 SEEDING AND MULCHING AND ITEM 617 COMPACTED AGGREGATE, WHICH SHALL BE PAID FOR SEPARATELY.

ITEM 203 LINEAR GRADING METHOD D = 3128 STATIONS

ITEM 617 COMPACTED AGGREGATE, TYPE A, AS PER PLAN

MATERIAL SHALL BE 90% LIMESTONE WITH NO SHALE EXCEEDING 5%. CRUSHED LIMESTONE SHALL MEET THE GRADATION AND OTHER MATERIAL REQUIREMENTS OF CMS 411.02. METHOD OF MEASUREMENT SHALL BE AS PER 411.04. PLACEMENT AND COMPACTION SHALL MEET REQUIREMENTS OF ITEM 617.

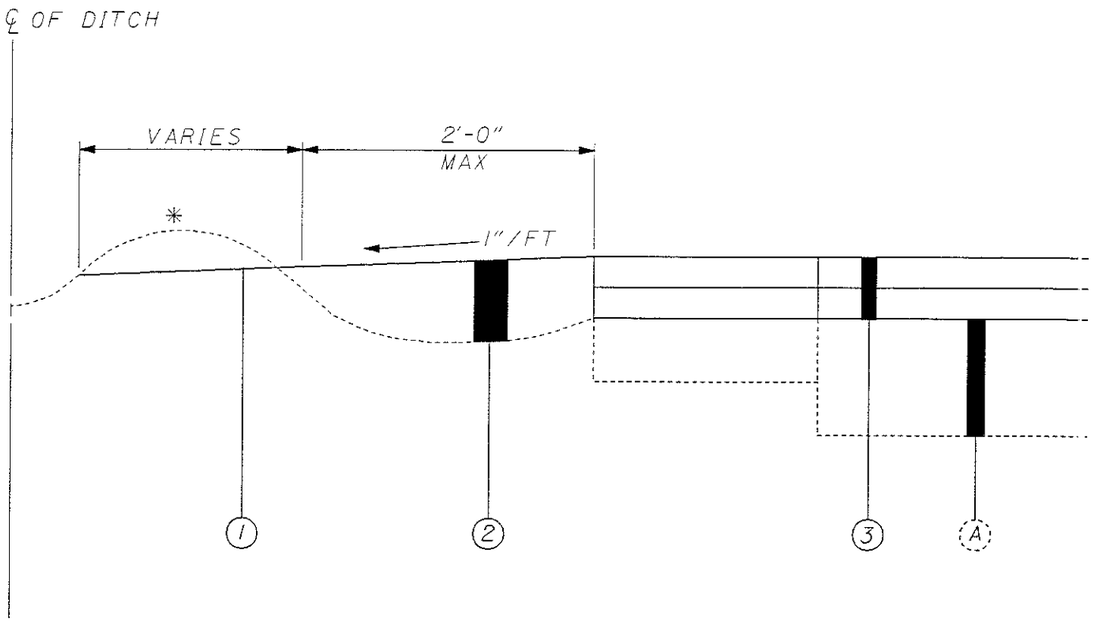
ITEM 617 COMPACTED AGGREGATE, TYPE A, AS PER PLAN = 4344 CU YD

ITEM 870 SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

870, SEEDING AND MULCHING	10427 SQ. YD.
870, COMMERCIAL FERTILIZER	0.938 TON
870, AGRICULTURAL LIME	4.69 TON
870, WATER	22.4 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING, ARE BASED ON THESE LIMITS.



(1) 203 LINEAR GRADING, METHOD D
(2) 617 1.00" AVG COMPACTED AGGREGATE, AS PER PLAN
(3) PROPOSED ASPHALT OVERLAY
(A) EXISTING ASPHALT OVERLAY

* AREAS TO BE GRADED AND SEEDED

ROUTE	FROM	TO	DIRECTION	SIDE	STATIONS
I-80	MAH 0.00	TRU 9.08	EB	RIGHT	782
I-80	MAH 0.00	TRU 9.08	EB	LEFT	782
I-80	MAH 0.00	TRU 9.08	WB	RIGHT	782
I-80	MAH 0.00	TRU 9.08	WB	LEFT	782
TOTAL					3128

LINEAR GRADING

MAH/TRU-
80-0.00/0.00

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. TWO ELEVEN [11] FOOT LANES IN EACH DIRECTION SHALL BE MAINTAINED FROM 6:00AM TO 7:00PM EACH DAY MONDAY THRU FRIDAY THROUGHOUT THE DURATION OF THE PROJECT FOR ALL WORK. FOR EVERY HOUR OR PORTION THEREOF BEYOND THE GIVEN LIMITATIONS, IF TWO LANES IN EACH DIRECTION ARE NOT MAINTAINED, LIQUIDATED DAMAGES OF $10000 PER ONE-HALF HOUR WILL BE ASSESSED. A MINIMUM OF ONE ELEVEN [11] FOOT LANE SHALL BE MAINTAINED AT ALL OTHER TIMES.

2. RAMP TRAFFIC SHALL BE MAINTAINED FROM 6:00AM TO 7:00PM EACH DAY MONDAY THRU FRIDAY THROUGHOUT THE DURATION OF THE PROJECT FOR ALL WORK. FOR EVERY ONE-HALF HOUR A PORTION THEREOF BEYOND THE GIVEN LIMITS, IF RAMP TRAFFIC IS NOT MAINTAINED, LIQUIDATED DAMAGES OF $10,000 PER ONE-HALF HOUR WILL BE ASSESSED.

3. THE MILLING OPERATION WILL BE LIMITED TO AN AMOUNT THE CONTRACTOR CAN MILL, REPAIR AND REOPEN IN ONE NIGHT.

4. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 297-0801 EXT 209, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

5. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET.

6. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO. THE ABOVE ITEMS SHALL BE UTILIZED IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, LATEST REVISION.

7. THE USE OF SHOULDERS TO MAINTAIN TRAFFIC IS PROHIBITED. SHOULD ANY EXISTING OR NEW SHOULDER AREAS BECOME DAMAGED OR DESTROYED DUE TO THE CONTRACTOR'S NEGLIGENCE OR FAILURE TO PROVIDE ADEQUATE SIGNS, BARRICADES, CONES, FLAGGERS OR OTHER TRAFFIC CONTROL DEVICES, THE RESTORATION OF THE SHOULDERS WILL BE AT THE CONTRACTORS EXPENSE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

8. SIGNS FURNISHED SHALL BE IN NEW OR LIKE NEW CONDITIONS. LIKE NEW SIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PROVIDING AND MAINTAINING LIGHTS, SIGNS, AND BARRICADES FOR THE MAINTENANCE OF TRAFFIC AND SAFETY OF HIS/HER WORK AT THE LOCATIONS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER.

9. THE LIGHTING OF THE WORK AREA AT NIGHT SHALL BE APPROVED BY THE PROJECT ENGINEER ON A NIGHTLY BASIS. ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTAL ITEMS NEEDED TO PERFORM THE LIGHTING OF THE WORK AREA SHALL BE INCIDENTAL TO THE COST OF THE PROJECT.

10. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE WORK ZONES THAT ALTERNATELY CLOSE BOTH THE PASSING LANE AND THE DRIVING LANE UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES.

11. IN ADDITION TO THE REQUIREMENTS OF 614 WORK ZONE PAVEMENT MARKINGS (614.10), AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH TEMPORARY MARKINGS) ALL LANE AND CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH REPLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 TEMPORARY PAVEMENT MARKINGS.

12. A QUANTITY OF 1000 CU. YDS. OF 614 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS PRIOR TO RESURFACING, AS DIRECTED BY THE ENGINEER. (SS 921 OR HPM MAY BE USED AS ALTERNATE MATERIAL WHEN 448 IS NOT AVAILABLE).

13. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

14. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGN HAS BEEN INCLUDED IN THE PLAN. THIS QUANTITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING SIGNS: OW-62 [BUMP], OW-167 [NO EDGE LINES], OW-171 [UNEVEN LANES SYMBOL]

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

ITEM 614 TEMPORARY CHANNELIZING LINE, CLASS I	9200 LIN.FT.
ITEM 614 TEMPORARY LANE LINE, CLASS I	20 MILE
ITEM 614 WORK ZONE MARKING SIGN	44 EACH

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT OTHER PROJECTS MAY BE ONGOING IN AREAS IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECT OR PROJECTS. IN ACCORDANCE WITH 105.07 THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS, A MUTUALLY ACCEPTABLE WORK SCHEDULE, SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECEIVE DAILY APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY: OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE L/A, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. NO EQUIPMENT SHALL BE PARKED IN THE MEDIAN OF THE HIGHWAY. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER/SUPERVISOR HAS BEEN GRANTED.

CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC GENERAL NOTES

MAH/TRU-80-0.00/0.00

INTERIM COMPLETION DATES

ALL WORK IN PART 1 WILL BE COMPLETED BY NOVEMBER 1, 2001. PARTS 2 AND 3 SHALL NOT BEGIN PRIOR TO APRIL 15, 2002. ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 1, 2001 AND APRIL 15, 2002. OCTOBER 31 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES OF $5000.00 PER DAY SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT ALL LANES ARE NOT OPEN AND AVAILABLE TO TRAFFIC.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF 614 AND THE CURRENT EDITION, LATEST REVISION OF THE OHIO MANUAL OF UNIFORM TRAFFIC DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) WITH AN OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS, SHALL BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

INFORMATION REGARDING ARRANGEMENTS AND PAYMENTS BY THE CONTRACTOR FOR THE LEO MAY BE OBTAINED BY CONTACTING THE OHIO HIGHWAY STATE PATROL WARREN PATROL POST 3424 SR-422, SOUTHINGTON, OH 4447, TELEPHONE: 330-898-2311. IF AFTER CONTACTING THE OHIO HIGHWAY PATROL, IT IS DETERMINED THAT THEY CANNOT SUPPLY THE LEO, THEN AN AUTHORIZED MUNICIPAL OR COUNTY POLICE OFFICER EQUIPPED WITH A MARKED AND FLASHER-LIGHT EQUIPPED OFFICIAL POLICE OR PATROL CAR SHALL BE PROVIDED.

LEO'S WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614-LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR 540 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT HIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, FIVE(5) DIESEL POWERED CHANGEABLE MESSAGE SIGN, ON SITE, FOR THE DURATION OF THE PROJECT. EACH SIGN SHALL BE EITHER A WINK-O-MATIC GENERATION 3, 4, 6, 10 OR 12, AMERICAN SIGNAL CO. CMS-T3000 OR AN ADDCO DIGI-DOT SIGN OR A TELE-SPOT SENTINAL SIGN OR AN APPROVED EQUAL.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. THE PCMS SHOULD BE LOCATED BEHIND GUARDRAIL WHEREVER POSSIBLE.THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE THE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE CONTRACTOR. A LIST OF ALL REQUIRED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER FOR APPROVAL CONFERENCE. THE SIGN SHALL HAVE TWO DIFFERENT MEMORIES [PROM AND RAM] AND CAPABILITY TO STORE UP TO 99 MESSAGES IN EACH MEMORY. SIGN MESSAGES SHALL BE LEGIBLE FROM 650 FT MINIMUM. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. IN ORDER TO CONVEY A MAXIMUM OF INFORMATION AT A SINGLE GLANCE, ONLY THREE LINE PRESENTATION FORMATS WITH A MAXIMUM OF SIX MESSAGE PHASES WILL BE PERMITTED. NORMALLY, ONLY A MAXIMUM OF THREE MESSAGE PHASES SHOULD BE EMPLOYED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.03(C). THE CONTRACTOR SHALL PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC GENERAL NOTES

MAH/TRU-80-0.00/0.00

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN (CON'T)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 104.04.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE BID FOR EACH SIGN MONTH OF ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
23 SIGN MONTH

ITEM 614 - MAINTAINING TRAFFIC

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	NEW YEARS
MEMORIAL DAY	FOURTH OF JULY
LABOR DAY	THANKSGIVING
(OTHER HOLIDAY OR EVENT)	

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 12:00N MONDAY
MONDAY	12:00N FRIDAY THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 12:00N MONDAY
FRIDAY	12:00N THURSDAY THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY THROUGH 12:00N MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN (THE AMOUNT OF $ PER DAY)(ACCORDANCE WITH 108.07).

DETECTOR LOOP, AS PER PLAN

THE CONTRACTOR SHALL CONTACT THE DISTRICT OFFICE (330-297-0801 EXT 386) THREE WORKING DAYS PRIOR TO ANY PLANING OR TRENCHING AT THE FOLLOWING INTERSECTIONS; I-80 EB RAMP AND SR-46, I-80 EB RAMP AND US-422, I-80 WB RAMP AND US-422, I-80 EB RAMP AND LIBERTY ST., I-80 WB RAMP AND SR-193. LOOP DETECTORS DISTURBED BY PAVEMENT PLANING OR TRENCHING SHALL BE ABANDONED IN PLACE. THE LOOP DETECTOR WIRE WILL BE CUT INTO THE PAVEMENT AFTER THE PROPOSED SURFACE COURSE HAS BEEN PLACED. EACH DETECTOF SHALL BE REPLACED IN KIND, AT THE SAME LOCATION AS EXISTING. THE QUANTITIES LISTED BELOW HAVE BEEN CARRIED TO THE GENERAL SUMMARY. THE NEW LOOP DETECTOR WIRES SHALL BE RUN INTO THE EXISTING CONTROL BOX OR THE EXISTING PULLBOX. INCLUDED IN THIS ITEM IS THE POURED EPOXY TYPE CABLE SPLICE KIT (CONFORMING TO 713.15) THAT MUST BE USED IN MAKING THESE CONNECTIONS.

ALL NECESSARY MATERIAL, LABOR, SPLICE KITS AND EQUIPMENT SHALL BE INCIDENTAL TO PAYMENT OF THESE ITEMS.

ITEM 632 DETECTOR LOOP, AS PER PLAN — 7 EACH
1 EACH 7'X7'
1 EACH 7'X40'X18'
1 EACH 8,X30'
1 EACH 10'X6'
1 EACH 20'X6'
1 EACH 20'X10'
1 EACH 20'X18'

METHOD OF PAYMENT

PAYMENT FOR THE MAINTENANCE OF TPAFFIC ITEMS, UNLESS SPECIFIED SEPARATELY, SHALL BE AT THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT AND INCIDENTALS TO COMPLETE THE WORK AS DETAILED IN THE PLANS.

CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC GENERAL NOTES

MAH/TRU-80-0.00/0.00

GENERAL NOTES

1. It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified herein, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.

2. While the need for certain advisory signing is noted herein, it is not intended that this be indicative of all signing that may be required to advise or warn motorist, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.

3. In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown herein may be required.

4. The drop-off treatment selected for use at any given location shall be appropriate for the prevailing conditions at the site.

5. Where concrete barrier is specified, it shall be in accordance with Item 622.

6. When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.

7. When OW-151 (Low Shoulder) signs or OW-171 (Uneven Lanes symbol), OWP-171 (uneven lane plaque), and OC-53 (Maintain Present Lane) signs are required, they shall be placed 750' in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the drop-off condition extends more than one-half mile, additional signs shall be erected at intervals of a maximum of one mile.

8. For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any difference in elevation between pavements, a 8:1 min. slope treatment similar to the Optional Wedge Treatment shall be provided.

9. Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10', drums may be placed on the opposite level from that of traffic provided the drop-off depth does not exceed 5" and approval is granted by the Project Engineer.

10. Pavement Repairs (or similar work):

   a. Lengths greater than 60 feet - utilize appropriate treatment from Condition 1.

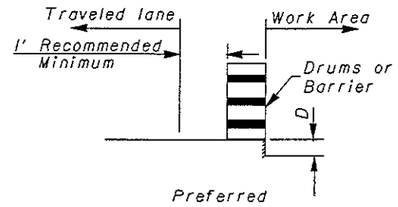
   b. Lengths of 60 feet or less - repairs shall be affected in accordance with Item 255.08. Drums may be used as a separator adjacent to the traveled lane.

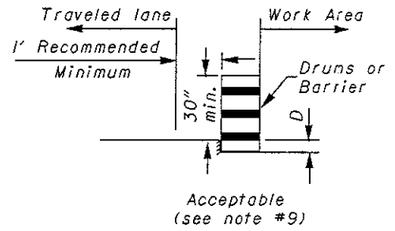
CONDITION I

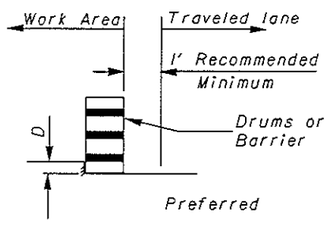
1. These treatments are to be used for resurfacing, pavement planing excavation, etc., between, beside or within traveled lanes.

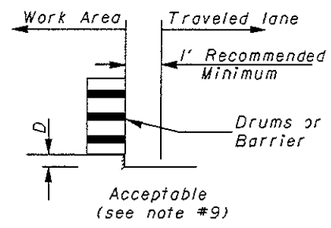
D (in)	Treatment
< 1½	Erect OW-171, AND OWP-171.
1½-3	1. Lane closure utilizing drums* as shown below. (use only on 3 or more lanes) - or - 2. Optional Wedge Treatment.
3 - 5	Lane closure utilizing drums as shown below.
> 5	Lane closure utilizing portable concrete barrier as shown below.

*Cones may be used for daytime only conditions.







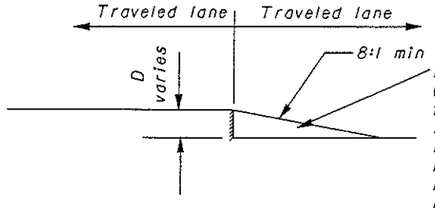


OPTIONAL WEDGE TREATMENT

(MILLING OR RESURFACING)

1. This treatment may be used when permitted for Condition 1 only.

2. OW-171, OWP-171, and OC-53 signs required.



Firm and unyielding material (to be removed prior to placing the abutting pavement course) All labor, equipment, materials, and incidentals to provide and subsequently remove the pavement wedge shall be included and paid under the lump sum bid for Item 614- Maintaining Traffic

CONDITION II

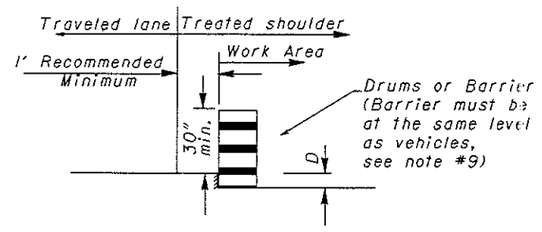
DROPOFFS WITHIN GRADED SHOULDER AREA

1. The treatments indicated below are for use in conjunction with resurfacing, planing, or excavation within the graded shoulder area.

2. The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials, or concrete). For the purposes herein, its maximum width shall be considered to be twelve (12) feet.

D (in)	Treatment
< 1½	1.) If edgelines are present, no treatment necessary. or 2.) Erect OW-171, OWP-171, and OC-53 signs
1½- 5	1) If min. lane widths* requirements can be met, maintain lanes utilizing drums as shown below. - or - 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums. (use only on 3 or more lanes) - or - 3) Optional shoulder treatment

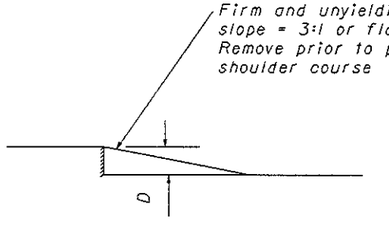
*Minimum lane widths shall be 10' unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

1. This treatment shall not be used within a bituminous shoulder where a hot longitudinal joint per 401.15 is required.

2. OW-151 signs required.



DROPOFFS IN WORK ZONES

MAH/TRU-80-0.00/0.00

SHEET NUMBER												ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	8	9	11	12	13	14	15	18	19	20	21						
																ROADWAY	
	1											202	42807	1	EACH	ANCHOR ASSEMBLY REMOVED FOR REUSE, AS PER PLAN	8
										2650		202	54100	2650	EACH	RAISED PAVMENT MARKER REMOVED FOR STORAGE	
				3128								203	60400	3128	STATION	LINEAR GRADING METHOD D	
	150											606	13000	150	LIN FT	GUARDRAIL, TYPE 5	
125												606	16500	125	LIN FT	GUARDRAIL REBUILT, TYPE 5	
500												606	17000	500	LIN FT	RAISING TYPE 5 GUARDRAIL	
	240											202	30704	240	LIN FT	CONCRETE BARRIER REMOVED FOR STORAGE	
	500											622	40021	500	LIN FT	PORTABLE CONCRETE BARRIER, 32", AS PER PLAN	8
																EROSION CONTROL	
				10427								870	10000	10427	SQ YD	SEEDING AND MULCHING	
				0.938								870	20000	0.938	TON	COMMERCIAL FERTILIZER	
				4.67								870	30000	4.67	TON	AGRICULTURAL LIME	
				22.40								870	35000	22.40	M GAL	WATER	
																PAVEMENT	
			500									251	01000	500	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR	
								507164	103437			254	01000	610601	SQ YD	PAVEMENT PLANING, BITUMINOUS	
		70746										254	01001	70746	SQ YD	PAVEMENT PLANING, BITUMINOUS, AS PER PLAN	9
								76078	15529			407	10000	91607	GALLONS	TACK COAT	
								12109	3780			407	14000	15889	GALLONS	TACK COAT FOR INTERMEDIATE COURSE	
				4344								617	10101	4344	CU YD	COMPACTED AGGREGATE, TYPE A, AS PER PLAN	12
									4378			858	10050	4378	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B(446)	
								23990				858	10051	23990	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B(446), AS PER PLAN	7
								14714	4590			858	10150	19304	CU YD	ASPHALT CONCRETE ITERMEDIATE COURSE, 19MM, TYPE B(446)	
																TRAFFIC CONTROL	
										1954		621	00200	1954	EACH	RAISED PAVEMENT MARKER, INSTALLATION ONLY.	
											70.33	644	00100	70.33	MILE	EDGE LINE	
											30.52	644	00200	30.52	MILE	LANE LINE	
											1.04	644	00300	1.04	MILE	CENTER LINE	
											10008	644	00400	10008	LIN FT	CHANNELIZING LINE	
											238	644	00500	238	LIN FT	STOP LINE	
											4375	644	00700	4375	LIN FT	TRANSVERSE LINE	
											13	644	01300	13	EACH	LANE ARROW	
											6	644	01410	6	EACH	WORD ON PAVEMENT, 96"	
											70	644	01500	70	LIN FT	DOTTED LINE, 4"	
																TRAFIC SIGNALS	
						7						632	26501	7	EACH	DETECTOR LOOP, AS PER PLAN	15
																MAINTENANCE OF TRAFIC	
							540					614	11100	540	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
				44								614	12460	44	EACH	WORK ZONE MARKING SIGN	
				1000								614	13000	1000	CU YD	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	
					23							614	18601	23	SIGN MNTH	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	15
				20								614	20000	20	MILE	TEMPORARY LANE LINE, CLASS I	
				9200								614	23000	9200	LIN FT	TEMPORARY CHANNELIZING LINE, CLASS I	
												614	11000	LUMP		MAINTAINING TRAFFIC	
												623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
												624	10000	LUMP		MOBILIZATION	
												806	16010	3	MONTH	FIELD OFFICE, TYPE B	

CALCULATED | CHECKED

GENERAL SUMMARY

MAH/TRU-
80-0.00/0.00

17
51

PAVEMENT CALCULATIONS

(NOT INCLUDING RAMPS)

							ITEM 254	ITEM 407	ITEM 407	ITEM 858	ITEM 858
SLM TO SLM	TYPICAL SECTION #	SIDE	LENGTH FT	WIDTH FT	PAVEMENT AREA SQ YD	MILL DEPTH IN	PAVEMENT PLANING BITUMINOUS SQ YD	TACK COAT FOR INTERMEDIATE COURSE AT 0.04 GAL\SY GAL	TACK COAT AT 0.15 GAL/SY GAL	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B(446) CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B(446) AS PER PLAN CU YD
PART 1											
MAH 0.00-3.48	1	EB	15375	24	41000	2	41000		6150		2278
MAH 0.00-3.48	1	WB	15375	24	41000	2	41000		6150		2278
PART 2											
MAH 3.48-3.89	2	EB	2164	38	9137	2	9137	366	1371	444	381
MAH 3.89-4.09	3	EB	1056	50	5867	2	5867	235	881	285	245
MAH 4.09-4.43	6	EB	1795	62	12366	2	12366	495	1855	601	516
MAH 4.43-4.80	3	EB	1954	50	10856	2	10856	434	1629	528	453
MAH 4.80-5.00	2	EB	1056	38	4459	2	4459	178	669	217	186
MAH 5.00-5.45	3	EB	2307	50	12817	2	12817	513	1923	623	534
MAH 5.45-5.67	4	EB	1162	50→38	5681	2	5681	227	853	276	237
MAH 5.67-TRU 4.60	2	EB	22556	38	95237	2	95237	3810	14285	4629	3969
MAH 3.48-3.74	2	WB	1373	38	5797	2	5797	232	869	282	242
MAH 3.74-4.57	3	WB	4383	50	24350	2	24350	974	3653	1184	1027
MAH 4.57-5.00	5	WB	2270	26	6558	2	6558	262	983	319	274
MAH 5.00-TRU 4.60	2	WB	25951	38	109571	2	109571	4383	16435	5326	4566
PART 3											
TRU 4.60-9.08	1	EB	22963	24	61234	2	61234		9186		3402
TRU 4.60-9.08	1	WB	22963	24	61234	2	61234		9186		3402
	TOTALS CARRIED TO GENERAL SUMMARY						507164	12109	76078	14714	23990

CALCULATED | CHECKED

PAVEMENT CALCULATIONS

MAH/TRU-
80-0.00/0.00

RAMP	ITEM 254 PAVEMENT PLANING BITUMINOUS SQ YD	ITEM 407 TACK COAT AT 0.15 GAL PER SQ YD GAL	ITEM 407 TACK COAT FOR INTERMEDIATE COURSE AT 0.04 GAL PER SQ YD GAL	ITEM 858 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B(446) CU YD	ITEM 858 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B(446) CU YD
RAMP A	2421	363	0	0	135
RAMP B	2421	363	0	0	135
RAMP C	8625	1294	345	419	359
RAMP D	3889	584	156	189	162
RAMP E	4889	734	196	238	204
RAMP F	3532	530	141	172	147
RAMP G	3993	599	160	194	166
RAMP H	6834	1026	273	332	285
RAMP I	1592	239	64	78	66
RAMP J					
RAMP K					
RAMP L	7086	1064	283	345	295
RAMP M					
RAMP N	1950	293	78	95	81
RAMP O	1819	273	73	89	76
RAMP P	1714	258	69	83	71
RAMP Q	1829	275	73	89	76
RAMP R	5079	762	203	247	212
RAMP S	2641	397	106	128	110
RAMP T	5968	896	239	290	249
RAMP U	1528	230	61	74	64
RAMP V	1930	290	77	93	80
RAMP W	2964	445	119	144	124
RAMP X	2164	325	87	105	90
RAMP Y	2267	341	91	110	95
RAMP Z	5314	798	213	258	221
RAMP AA	5426	814	217	264	226
RAMP BB	5422	814	217	264	226
RAMP CC	5966	895	239	290	249
RAMP DD	1386	208	0	0	58
RAMP EE	2788	419	0	0	116
TOTALS*	103437	15529	3780	4590	4378

* TOTALS CARRIED TO GENERAL SUMMARY

NO WORK ON RAMPS J, K, M

SEE RAMP DETAIL SHEETS
22 TO 29

RAMP SUB-SUMMARY

MAH/TRU-
80-0.00/0.00

RAISED PAVEMENT MARKER, INSTALLATION ONLY

THE DEPARTMENT WILL SUPPLY THE RPM CASTINGS WITH THE YELLOW/YELLOW, ONE-WAY WHITE, WHITE/RED AND YELLOW/RED RETROREFLECTORS INSTALLED IN THE CASTINGS FOR ITEM 621, RAISED PAVEMENT MARKER, INSTALLATION ONLY. THE CONTRACTOR SHALL FURNISH ALL OTHER MATERIAL REQUIRED TO COMPLETE THIS ITEM.

THE CONTRACTOR SHALL CONTACT MR. CARTY AT 614-752-9695 TO OBTAIN THE LOCATION OF THE DEPARTMENT SUPPLIED MATERIALS. WHEN SPECIFIED, ADDITIONAL RPM MATERIAL WILL BE STORED WITHIN THE DISTRICT FOR USE ON THIS PROJECT. THE CONTRACTOR SHALL PICKUP DEPARTMENT SUPPLIED MATERIALS AT THE SPECIFIED LOCATION[S] FOR TRANSPORT TO THE WORK SITE OR TO THE CONTRACTOR'S STORAGE FACILITY. AN AUTHORIZATION FOR PICK UP FORM IS FURNISHED IN SUPPLEMENTAL SPECIFICATION 1082. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND/OR THE PARTIES LISTED ON THE AUTHORIZATION FORM [DEPENDENT ON THE STORAGE LOCATIONS OF THE MATERIALS] IN WRITING AT LEAST FIVE [5] CALENDER DAYS PRIOR TO PICK UP OF THE DEPARTMENT SUPPLIED MATERIALS. THE CONTRACTOR SHALL STORE THE RPMS WITHOUT DAMAGE OR CONTAMINATION WITH FOREIGN MATTER.

A DEDUCTION IN THE AMOUNT OF THE ACTUAL COST TO THE DEPARTMENT SHALL BE MADE FOR MATERIALS DAMAGED BY THE CONTRACTOR OR FOR CASTINGS RECEIVED BY THE CONTRACTOR WHICH WERE NOT INSTALLED AND WERE NOT RETURNED TO THE DEPARTMENT.

LOADING OF MATERIALS SUPPLIED BY THE DEPARTMENT AT THE RECYCLER'S WAREHOUSE SHALL BE DONE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 1082.

ALL CASTINGS SHALL BE PLACED THE SAME WORKING DAY THAT THE RPM SLOTS ARE CUT INTO THE PAVEMENT.

NOTE:
RAISED PAVEMENT MARKERS SUPPLIED BY THE DEPARTMENT SHALL BE THE HIGH PROFILE TYPE.

RPM REPLACEMENT / REMOVAL

STANDARD CONSTRUCTION DWG.	
TC-65.10M 11-1-95	TC-65.12M 11-1-95
TC-65.11M 11-1-95	

LOCATION				ITEM 202	ITEM 621				REMARKS
					INSTALLATION ONLY				
COUNTY	ROUTE	CENTER LINE LOG MILES FROM	CENTER LINE LOG MILES TO	RPM REMOVED FOR STORAGE	RPM WITH YELLOW/ YELLOW REFLECTOR	RPM WITH WHITE/ RED REFLECTOR	RPM WITH ONE-WAY WHITE REFLECTOR	RPM WITH YELLOW/ RED REFLECTOR	
MAH	I-80	0.54	5.73				580		I-80 E.B. TO TRUMBULL CO. LINE (LANE LINE @ 120' SPACING)
MAH	I-80	-	-			66		85	ENTERANCE AND EXIT RAMPS @ I-80 AND SR 46
MAH	I-80	-	-			120		52	ENTERANCE AND EXIT RAMPS @ I-80 & I-680/SR 11 WB MERGE .
MAH	I-80	-	-			11			ENTERANCE RAMP @ I-80 AND I-680
TRU	I-80	0.00	9.08				800		I-80 E.B. FROM TRUMBULL CO. LINE (LANE LINE @ 120' SPACING)
TRU	I-80	-	-			48		50	ENTERANCE AND EXIT RAMPS @ I-80 AND US 422
TRU	I-80	-	-			44			ENTERANCE AND EXIT RAMPS @ I-80 AND SR 11
						30		48	ENTERANCE AND EXIT RAMPS @ I-80 AND SR 193
						20			ENTERANCE AND EXIT RAMPS @ I-80 AND WEIGH STATION
TOTAL				2650		339	1380	235	**TOTALS CARRIED TO GENERAL SUMMARY**

CALCULATED KAG CHECKED

PLAN NO.

RAISED PAVEMENT MARKER SUB-SUMMARY

MAH/TRU-80-0.00

CENTER LINE

GENERAL SPEC. 640
MATERIAL TYPE 644, THERMOPLASTIC PAVEMENT MARKING

COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
MAH	80	1.212	BRIDGE OVER MEANDER RESERVOIR	1.732	BRIDGE OVER MEANDER RESERVOIR	1.04		CENTER LINE STRIPING IS WHITE
TOTAL						1.04		

LANE LINE

COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO	TOTAL MILES	4" LANE LINE DASHED	4" LANE LINE SOLID	COMMENTS
MAH	80	0.54	0.54 MILES EAST OF JCT. I-76	5.73	TRUMBULL COUNTY LINE	11.484			*INCLUDES RAMPS
TRU	80	0.00	MAHONING COUNTY LINE	9.08	0.5 MILE WEST OF US62	19.04			*INCLUDES RAMPS
TOTAL						30.524			

EDGE LINE

COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO	WHITE EDGE LINE TOTAL MILES	WHITE EDGE LINE HIGHWAY	WHITE EDGE LINE RAMP	YELLOW EDGE LINE TOTAL MILES	YELLOW EDGE LINE HIGHWAY	YELLOW EDGE LINE RAMP	COMMENTS
MAH	80	0.54	0.54 MILES EAST OF JCT. I-76	5.73	TRUMBULL COUNTY LINE	13.834	10.384	3.45	12.544	10.384	2.16	
TRU	80	0.00	MAHONING COUNTY LINE	9.08	0.5 MILE WEST OF US62	22.91	18.16	4.75	21.04	18.16	2.88	
TOTAL						36.744	28.544	8.2	33.584	28.544	5.04	

AUXILIARY

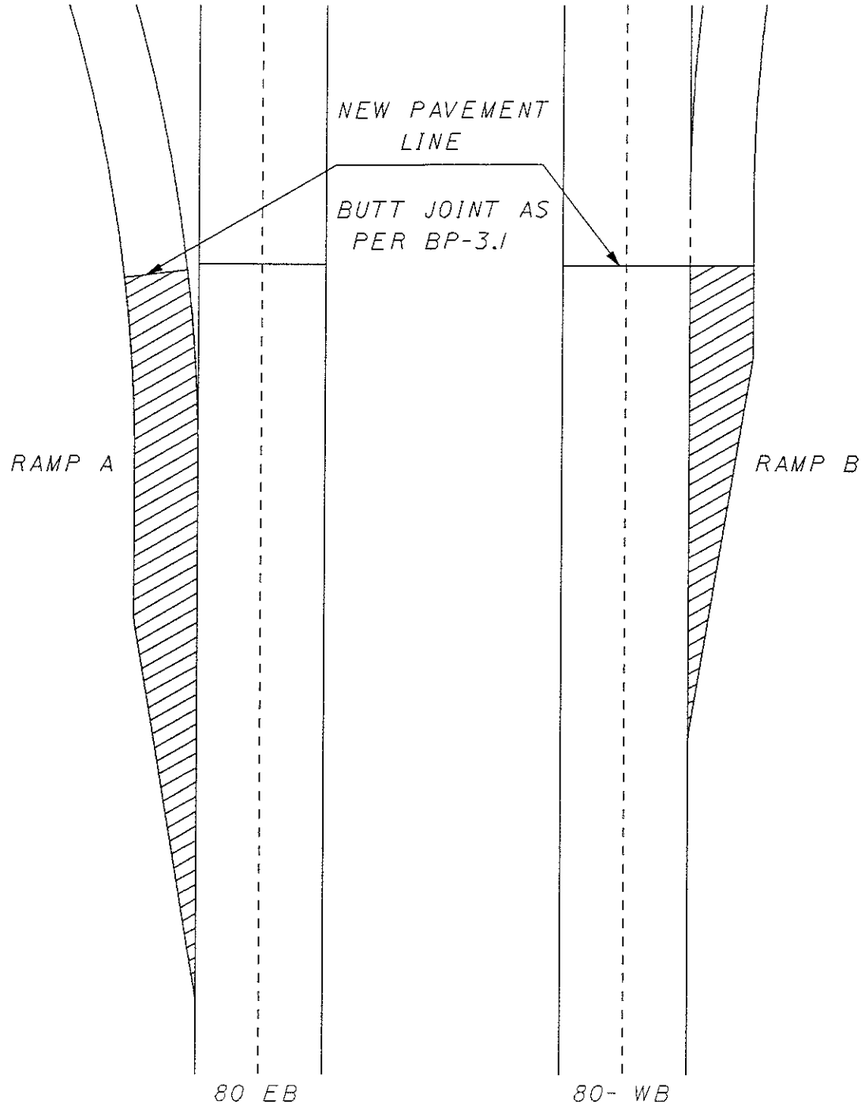
COUNTY	ROUTE LOCATION	TRU LOG	8" CHANNEL LINE	24" STOP LINE	24" TRANSVERSE LINES WHITE	24" TRANSVERSE LINES YELLOW	12" CROSS-WALK LINES	WORD ON PAVEMENT ONLY 72"	WORD ON PAVEMENT ONLY 96"	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	SYMBOL MARKINGS RxR	SYMBOL MARKINGS SCHOOL 72"	SYMBOL MARKINGS SCHOOL 96"	ISLAND MARKINGS	DOTTED LINES	COMMENTS
			LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SQ FT	LIN FT	
MAH	I-80 WB ON RAMP FROM SR 46	3.468	278																
MAH	I-80 EB OFF RAMP TO SR 46	3.628	826	70	301				1	2									
MAH	I-80 WB OFF RAMP TO SB SR 46	3.747	604		366														
MAH	I-80 WB OFF RAMP TO NB SR 46	3.966	508		255														
MAH	I-80 EB ON RAMP FROM SR 46	4.094	408																
MAH	I-80 EB TO SB SR 11	4.437	570		340														
MAH	I-80 WB @ I-680 @ SR 11 MERGE	4.572			450														
MAH	I-80 EB TO EB I-680	4.801	376		90														
MAH	I-80 WB TO SB SR 11	4.965	934		489														
MAH	I-80 EB @ SR 11 NB	4.965	130																
TRU	I-80 EB OFF RAMP TO US 422	1.957	606	47	335														
TRU	I-80 WB ON RAMP FROM US 422	2.036	244																
TRU	I-80 EB ON RAMP FROM US 422	2.564	145																
TRU	I-80 WB OFF RAMP TO US 422	2.568	607	48	305				4	3	3								
TRU	I-80 WB FROM SB SR 11	3.100	323																
TRU	I-80 EB TO NB SR 11	3.211	580		353														
TRU	I-80 WB TO NB SR 11	3.428	600		360														
TRU	I-80 EB OFF RAMP TO LIBERTY ST.	3.710	640	38	172				1	2	3							70	
TRU	I-80 WB ON RAMP FROM NB SR 193	4.036	205																
TRU	I-80 EB ON RAMP FROM SR 193	4.520	215																
TRU	I-80 WB OFF RAMP TO SR 193	4.702	454	35	252														
TRU	I-80 WB ON RAMP FROM WEIGH STATION	6.846	235																
TRU	I-80 WB OFF RAMP TO WEIGH STATION	7.437	520		307														
TOTAL			10008	238	4375				6	7	6							70	

CALCULATED
CHECKED
PLAN NO.

PAVEMENT MARKING SUB-SUMMARY

PAVEMENT

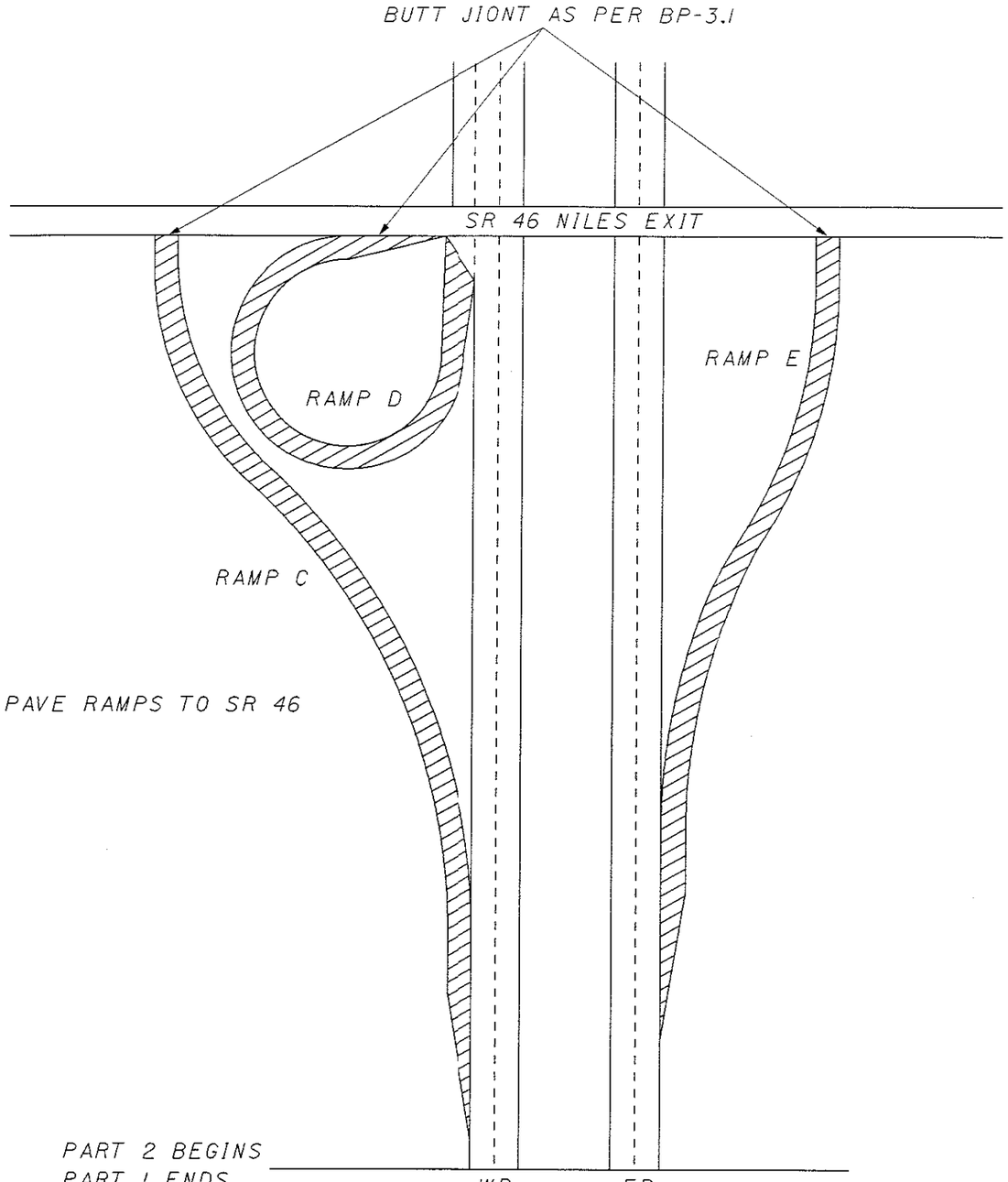
MAH/TRU-80-0.00/0.00



OHIO TURNPIKE INTERCHANGE

PART 1 WORK IS STARTED AT NEW PAVEMENT LINES

N →



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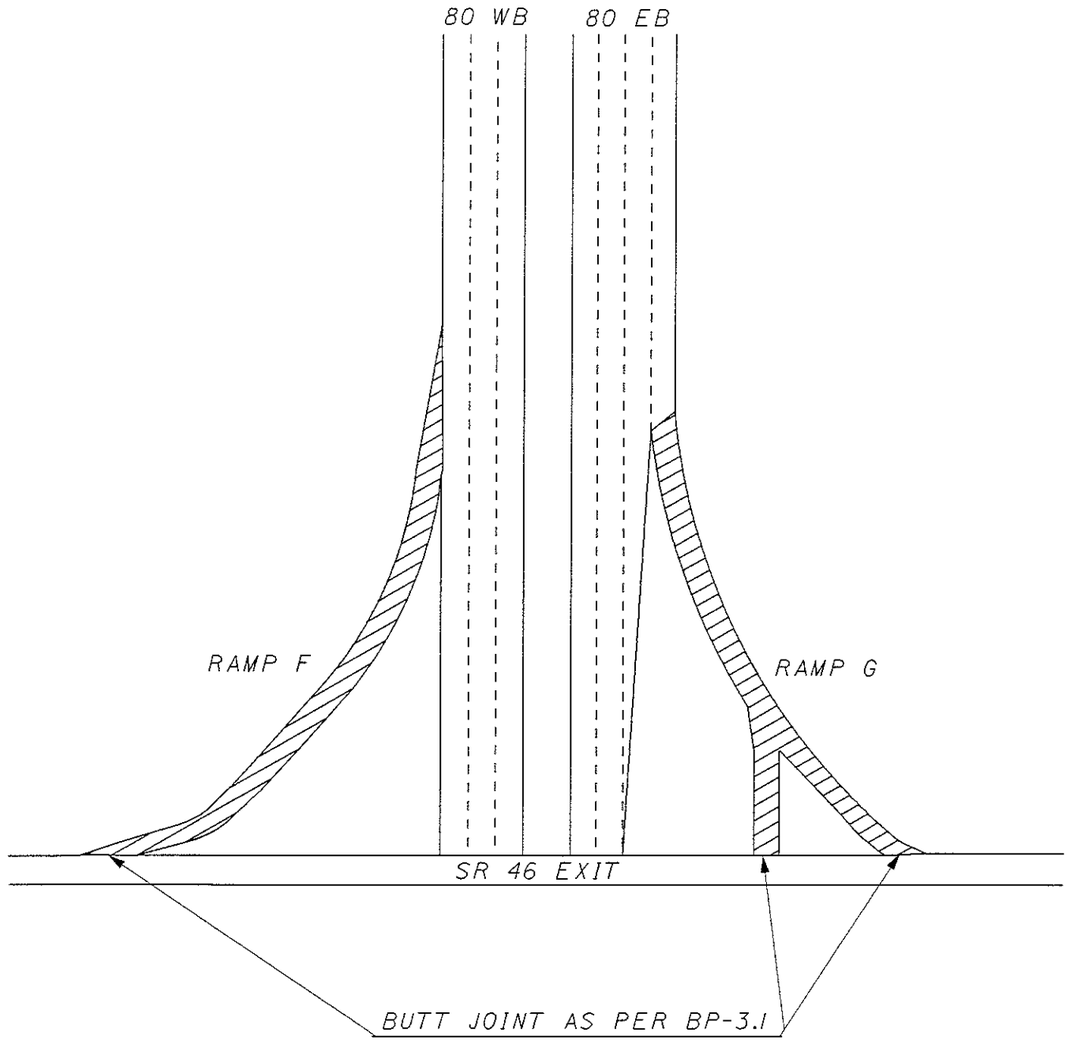
RAMP DETAILS

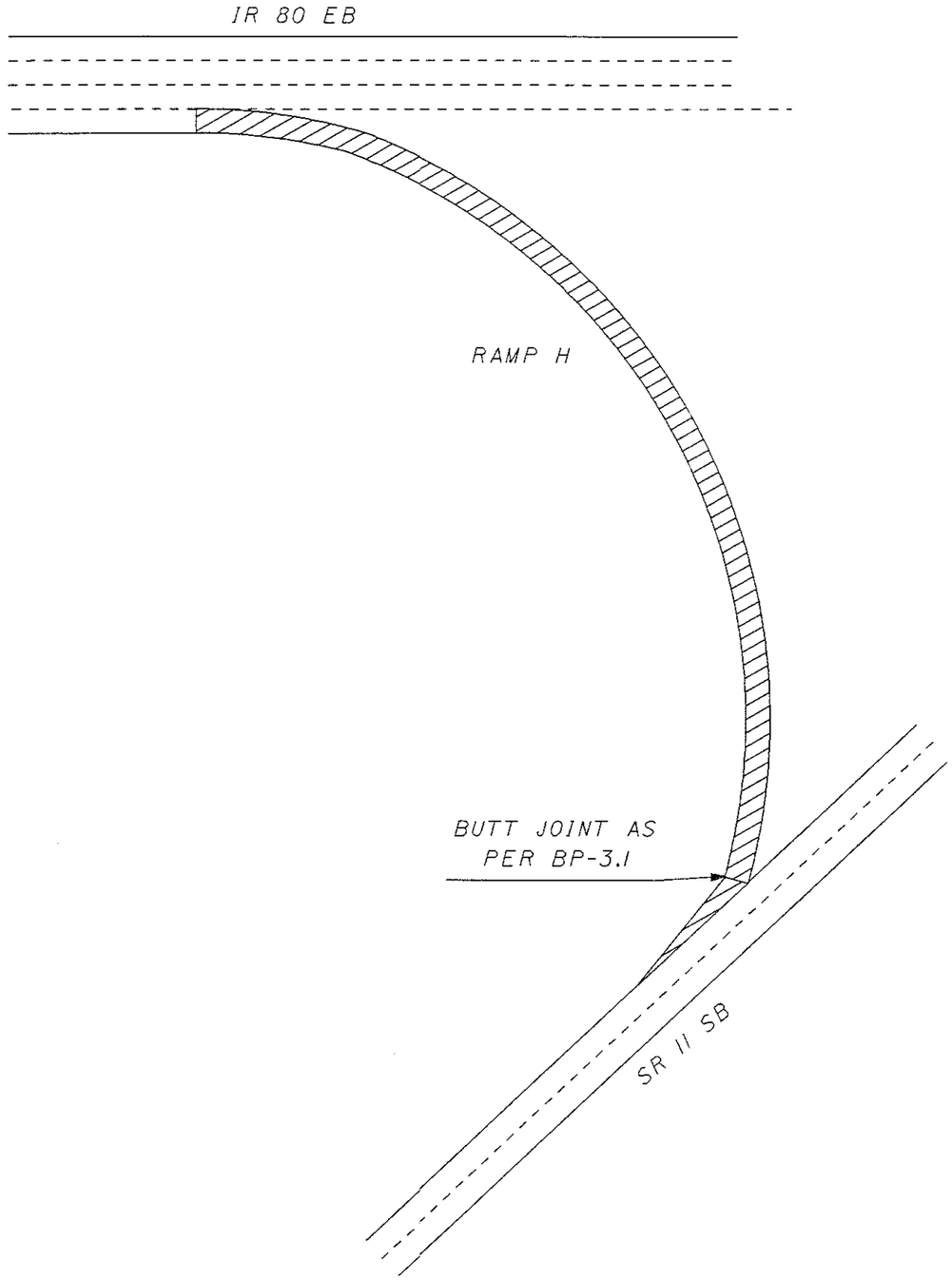
MAH/TRU-
80-0.00/ 0.00

22
51



PAVE RAMPS UP TO SR 46

N

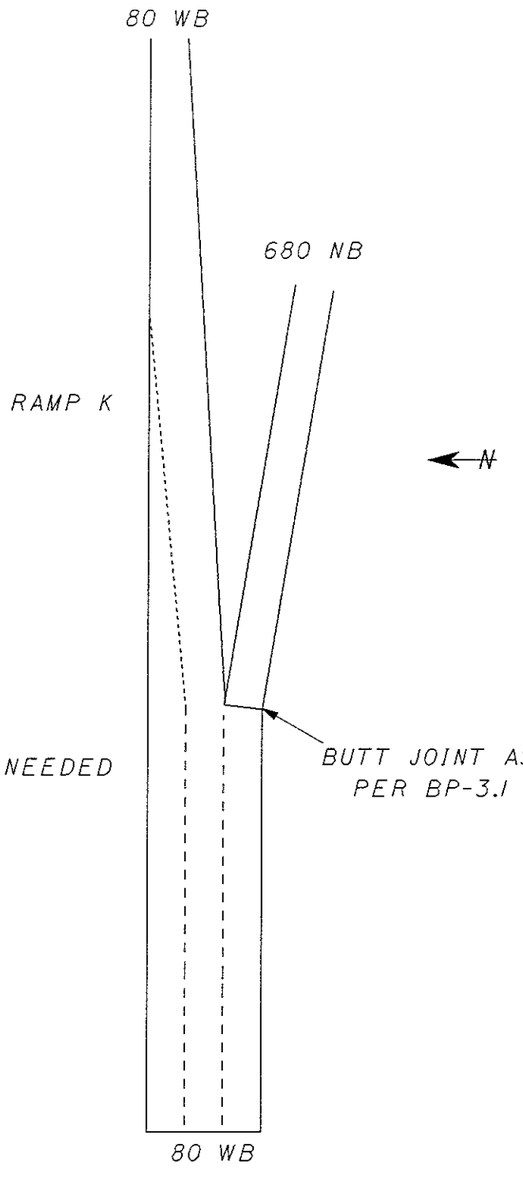


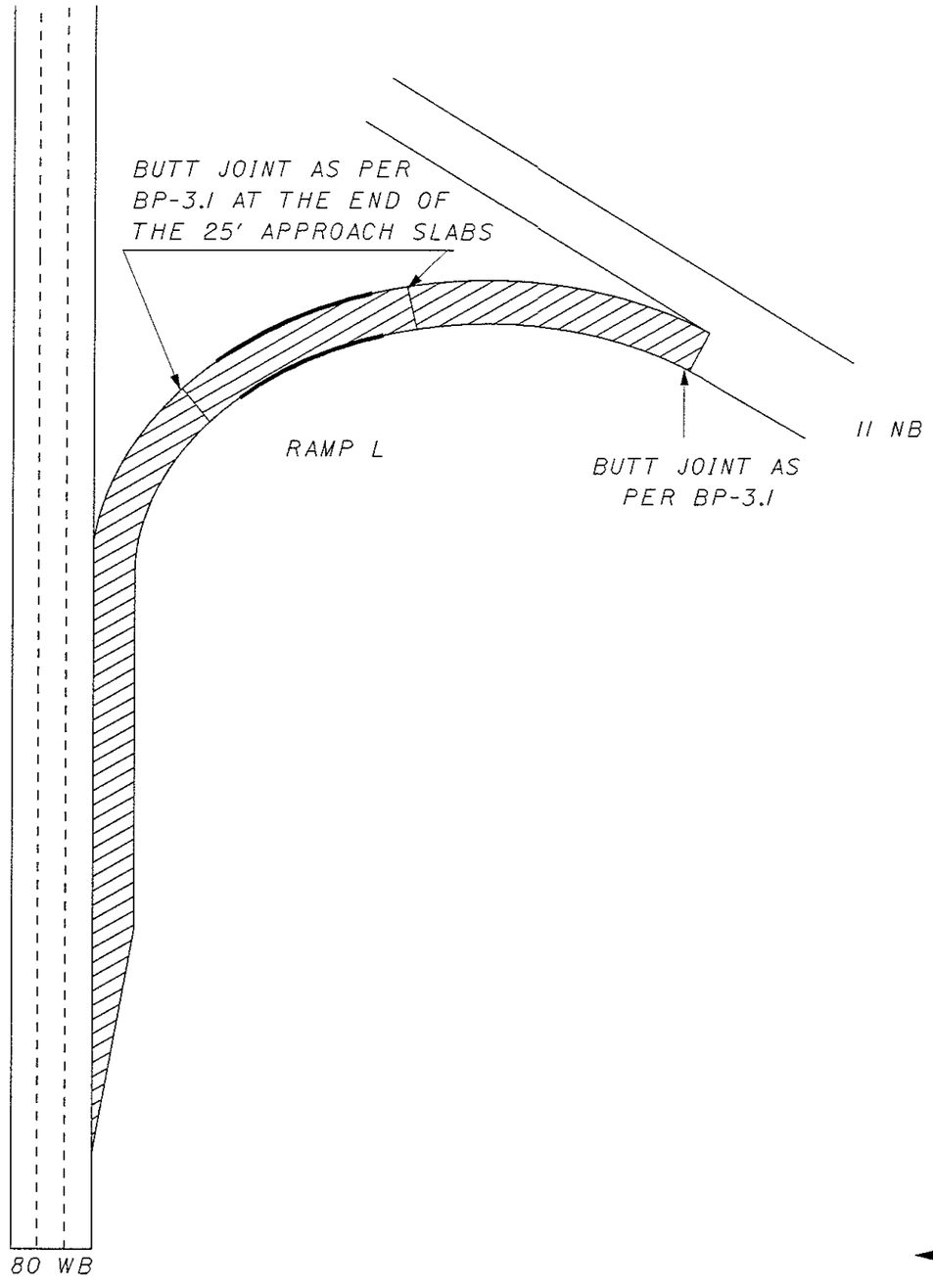
RAMP DETAILS

MAH/TRU-
80-0.00/0.00

RAMP DETAILS

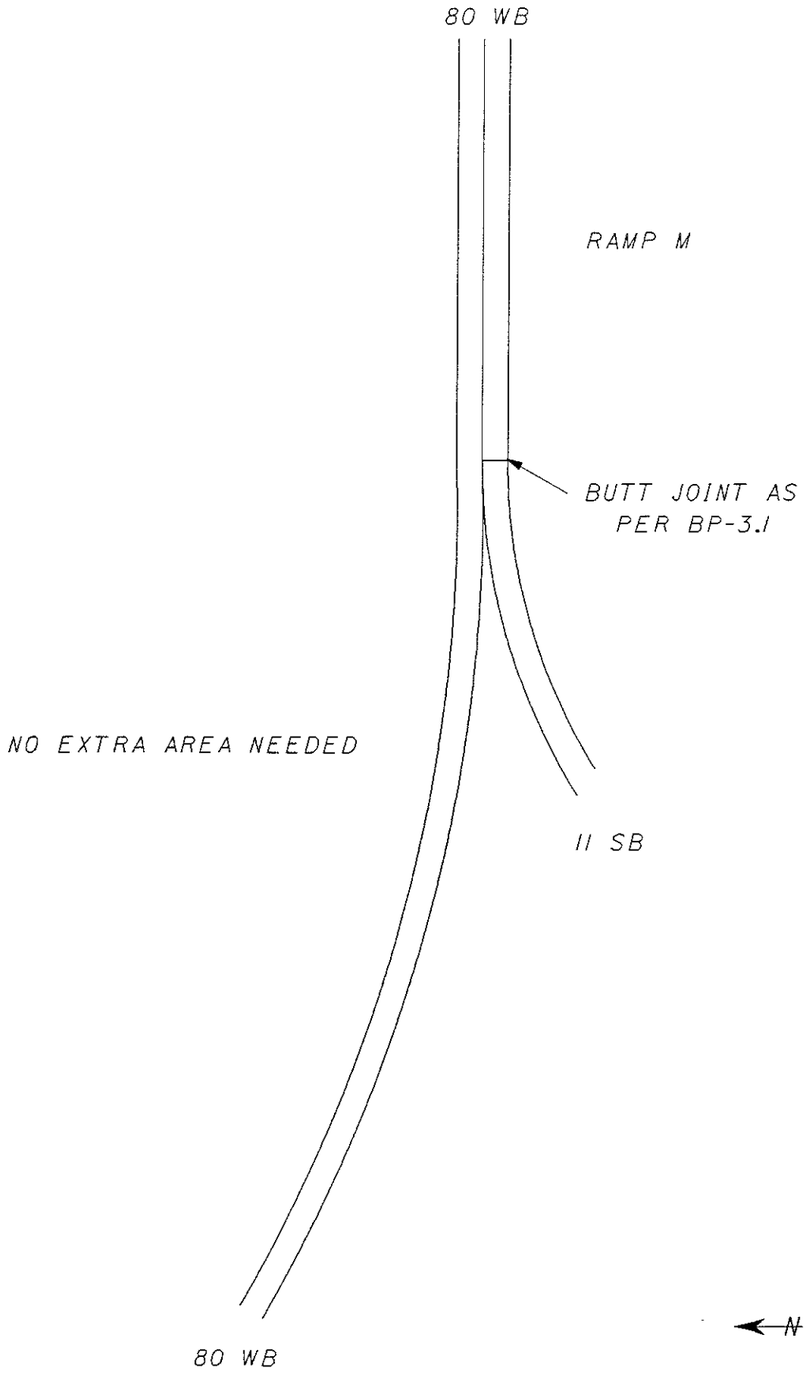
MAH/TRU-
80-0.00/0.00

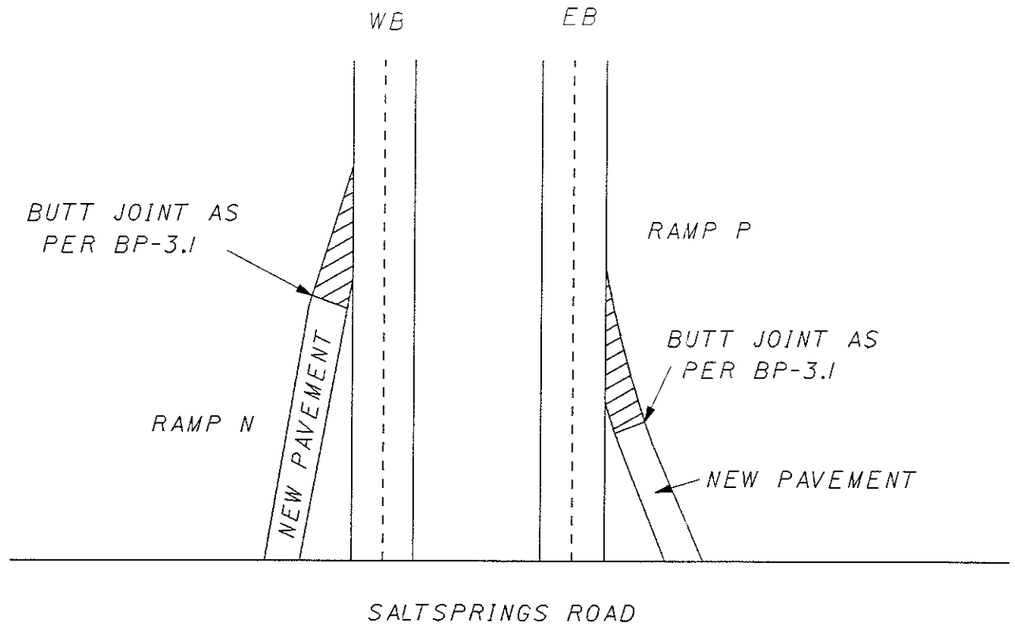


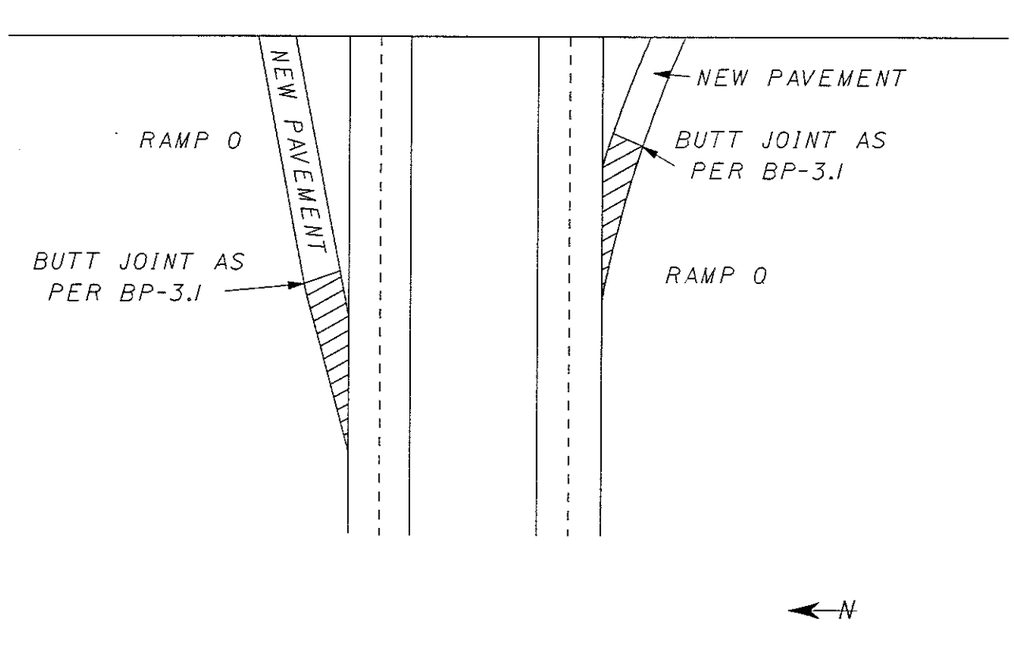


RAMP DETAILS

MAH/TRU-
80-0.00/ 0.00

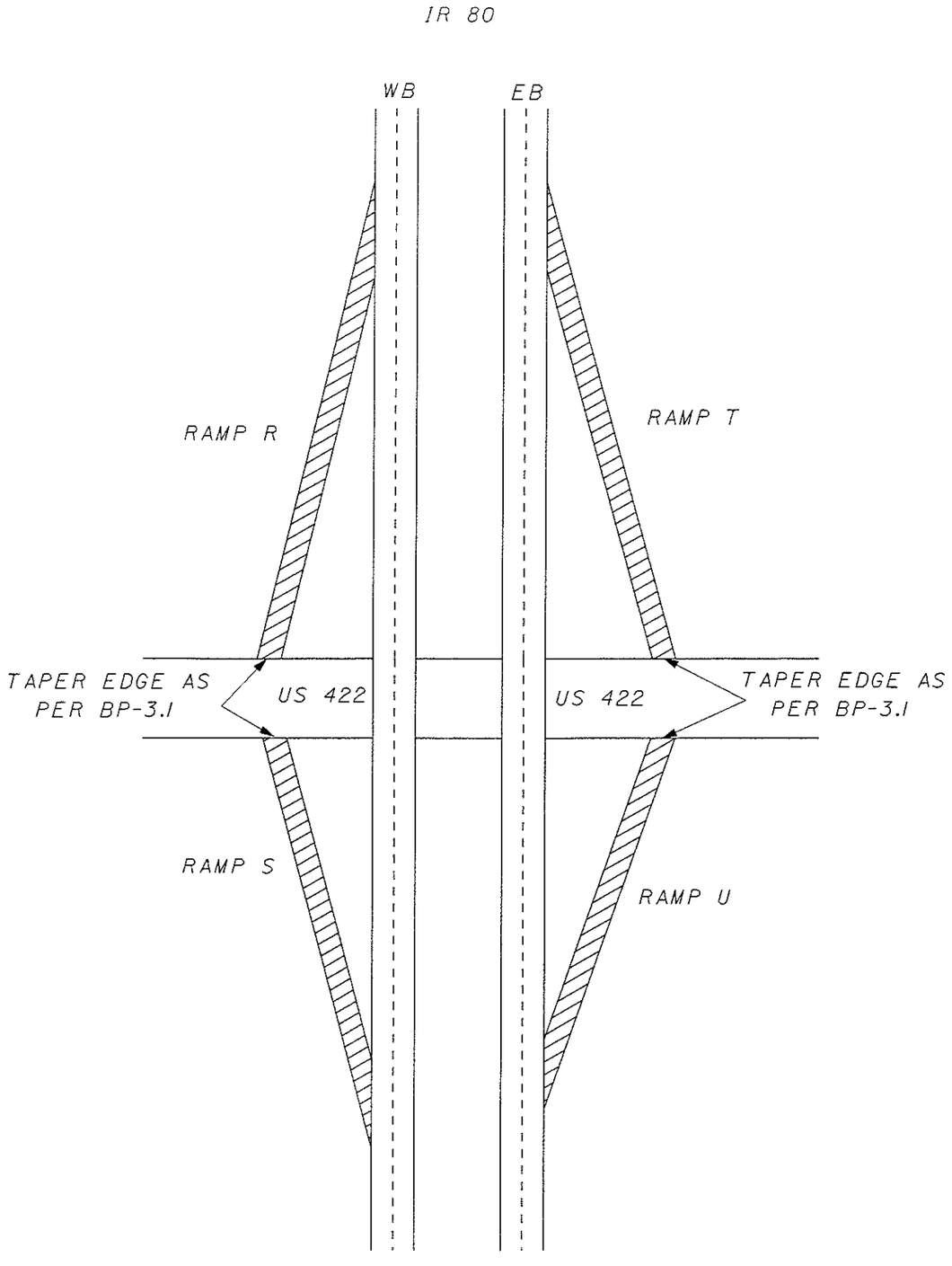


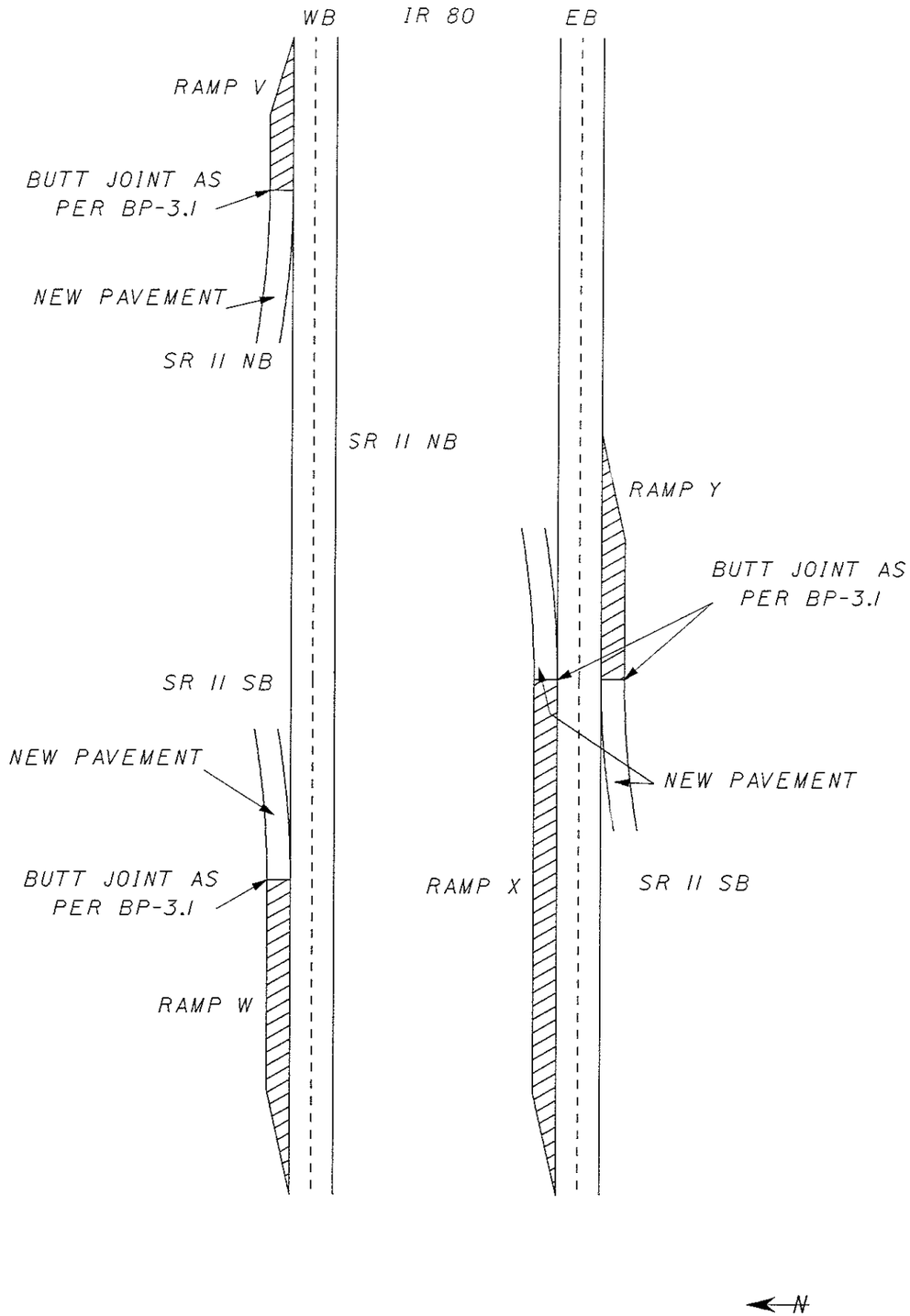




RAMP DETAILS

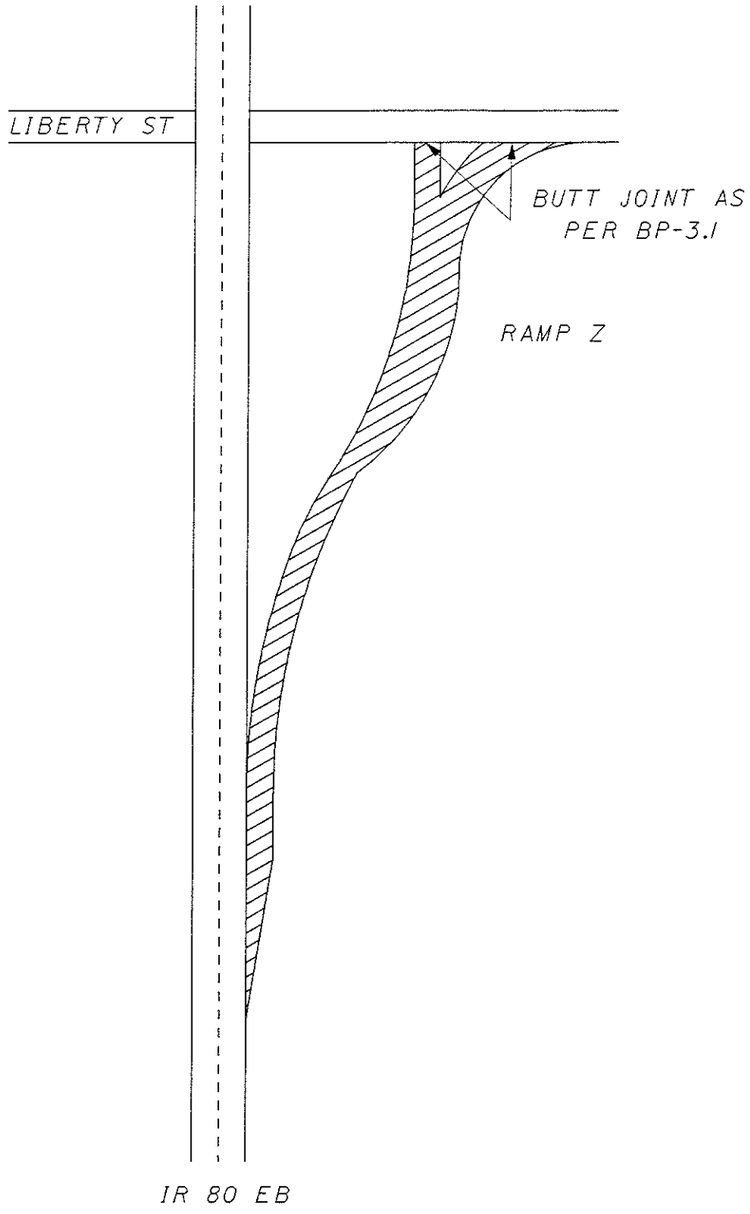
MAH/TRU-80-0.00/0.00

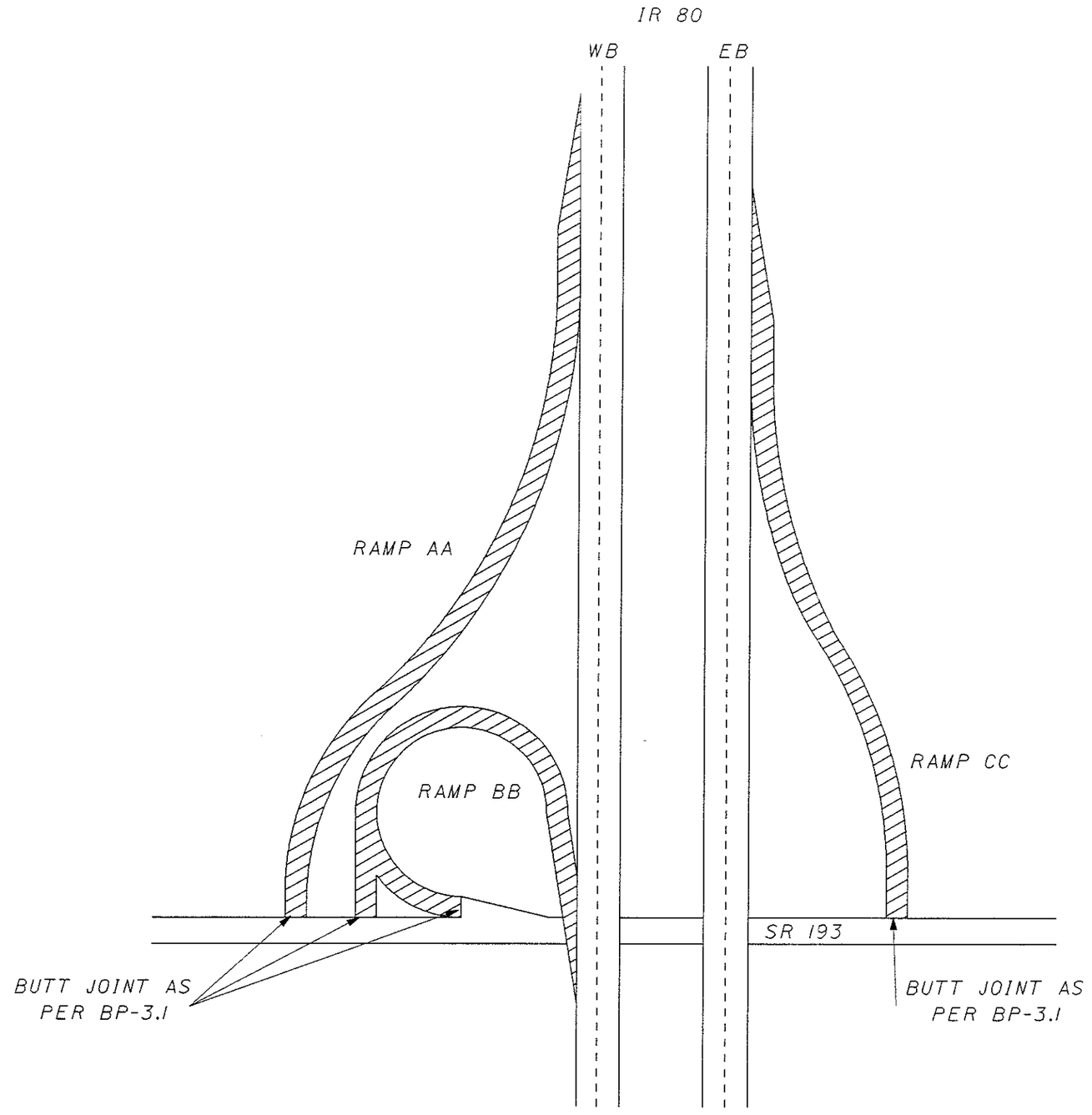




RAMP DETAILS

MAH/TRU-80-0.00/0.00





RAMP DETAILS

MAH/TRU-
80-0.00/0.00

RAMP DETAILS

MAH/TRU-
80-0.00/0.00

TS 54
DISTRICT 4

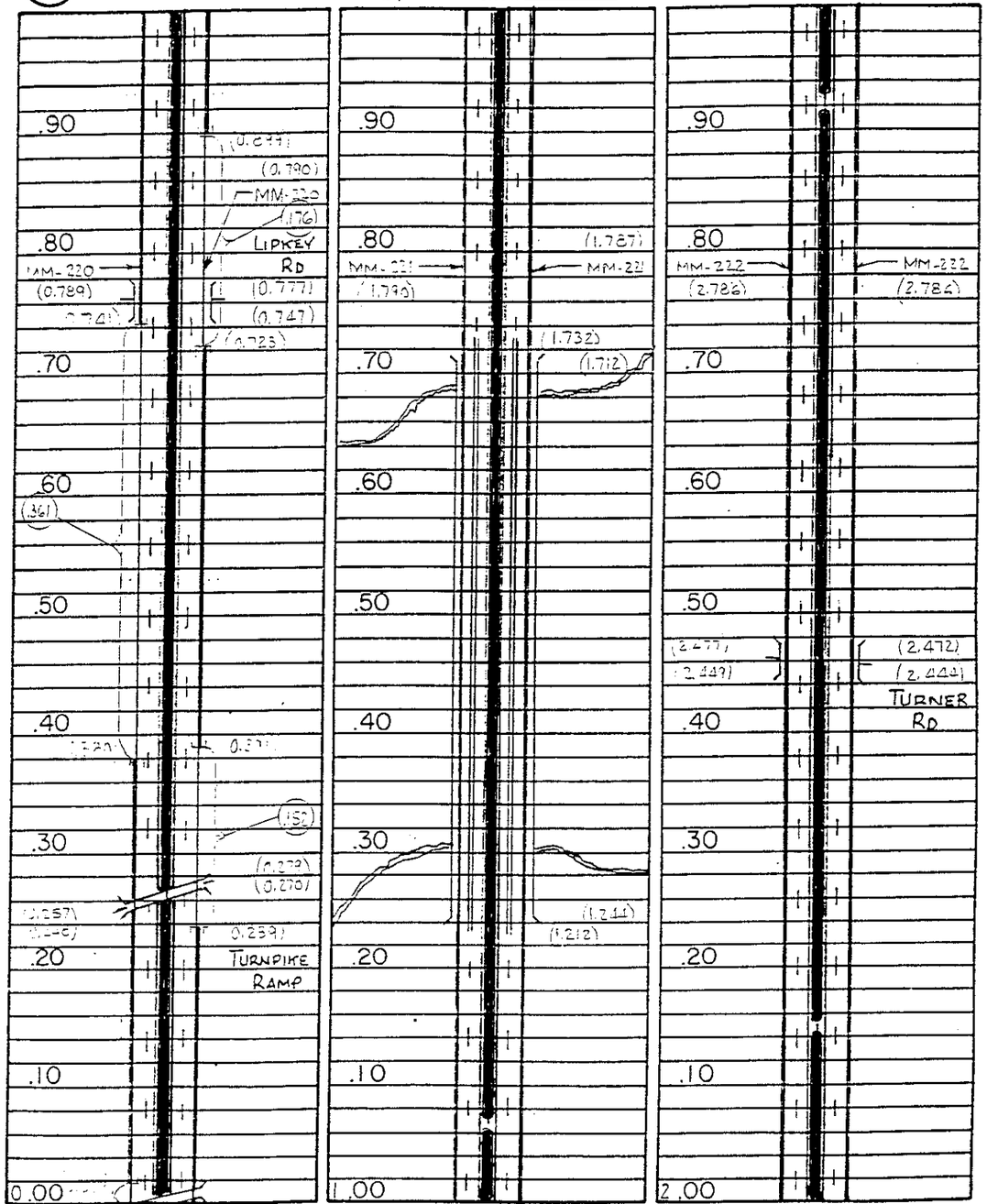
N

Center Line Log Record and Field Sheet

SHEET 1 OF 2

COUNTY MAHONING ROUTE 80

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____
Equivalent Yellow _____



Yellow: Solid _____ Dash _____ | Yellow: Solid _____ Dash _____ | Yellow: Solid _____ Dash _____

TOTAL YELLOW THIS PAGE: SOLID _____, DASH _____, EQUIVALENT LINE _____

TS 54
DISTRICT 4

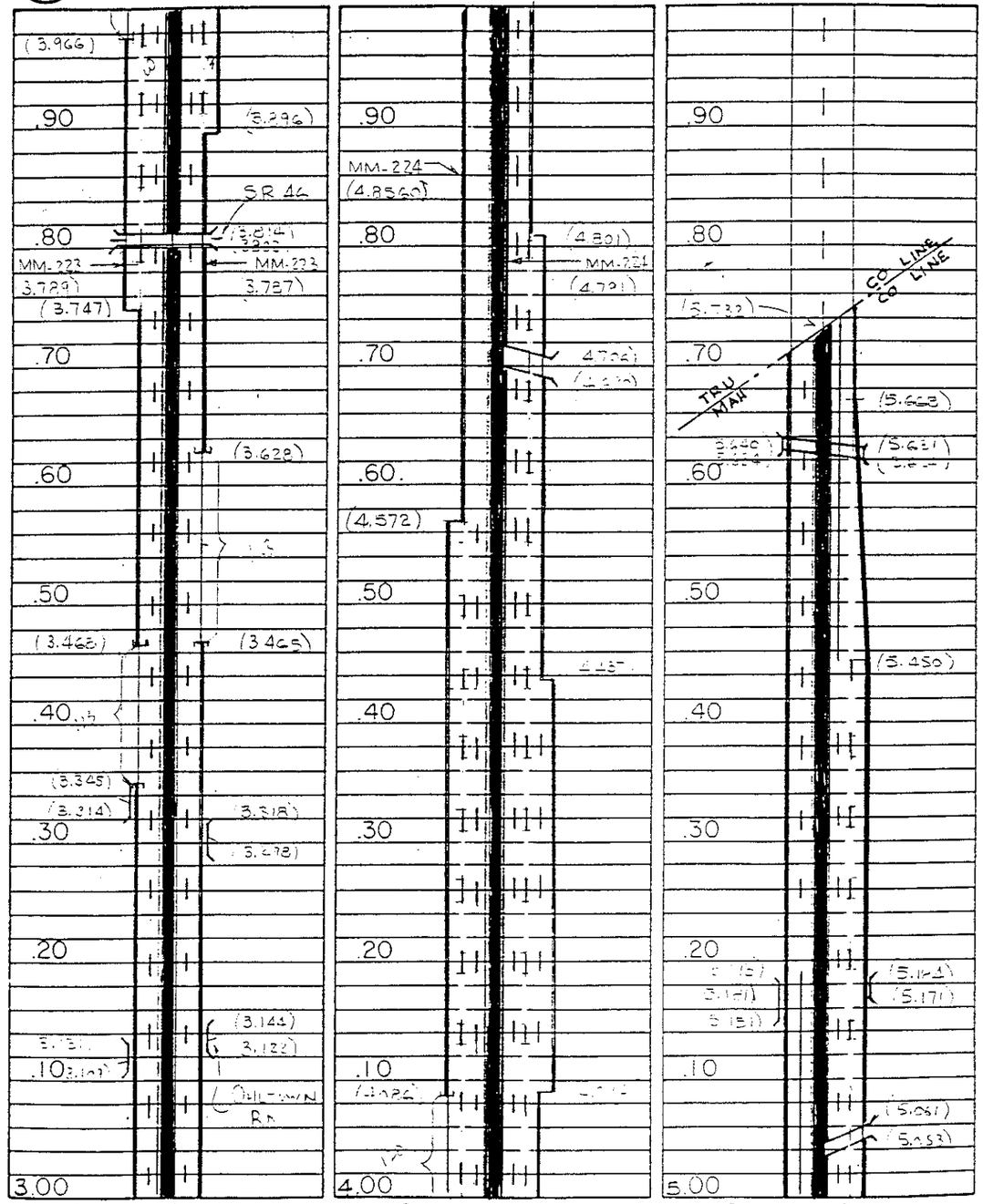
N

Center Line Log Record and Field Sheet

SHEET 2 OF 2

COUNTY MAHONING ROUTE 80

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____
Equivalent Yellow _____



Yellow: Solid _____ Dash _____ | Yellow: Solid _____ Dash _____ | Yellow: Solid _____ Dash _____

TOTAL YELLOW THIS PAGE: SOLID _____, DASH _____, EQUIVALENT LINE _____

PAVEMENT MARKINGS

MAH/TRU-
80-0.00/0.00

TS 54
DISTRICT 4

N

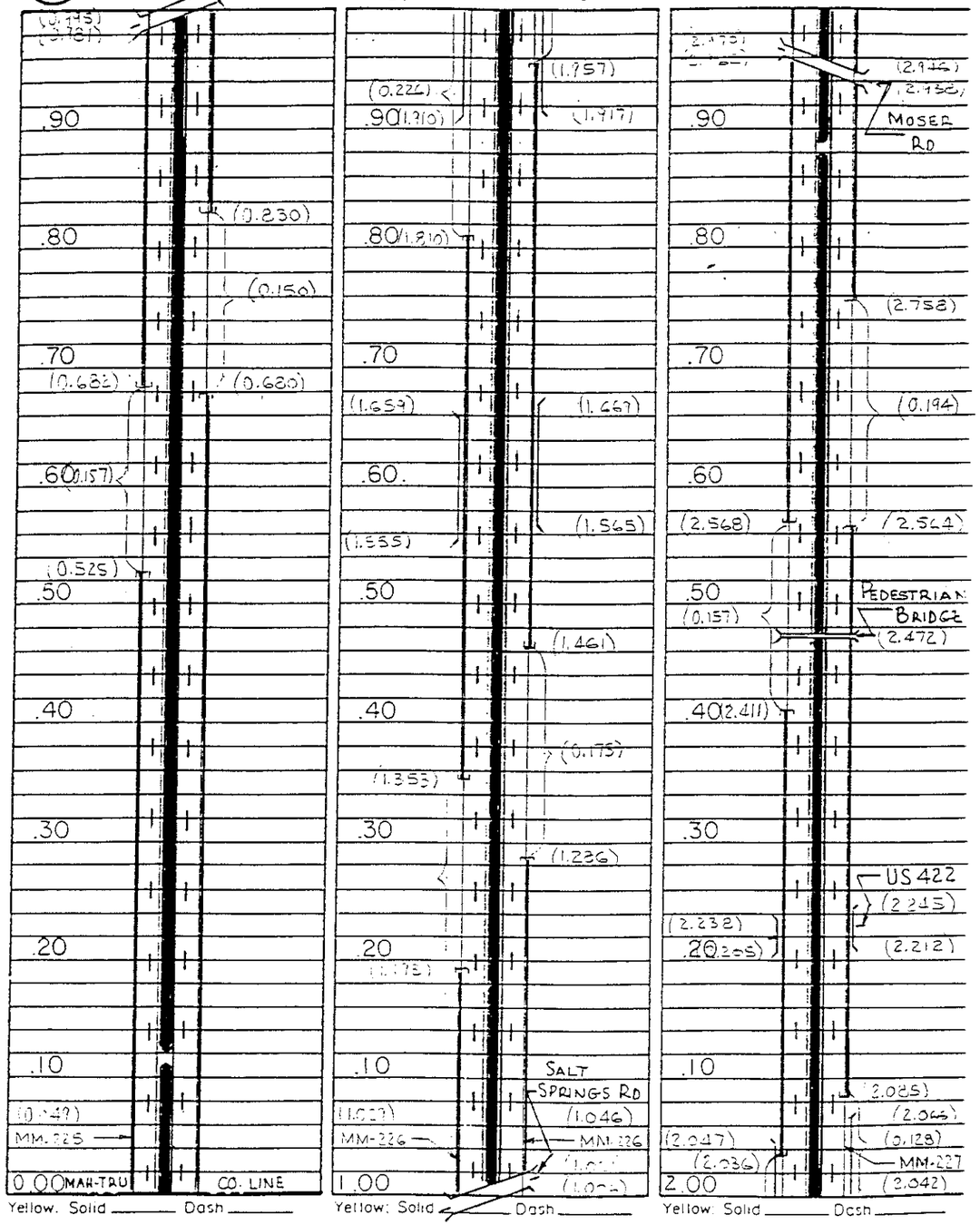
Center Line Log Record and Field Sheet

SHEET 1 OF 5

COUNTY TRUMBULL ROUTE 80

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____

Equivalent Yellow _____



Yellow: Solid _____ Dash _____ Yellow: Solid _____ Dash _____ Yellow: Solid _____ Dash _____

TOTAL YELLOW THIS PAGE: SOLID _____, DASH _____, EQUIVALENT LINE _____

TS 54
DISTRICT 4

N

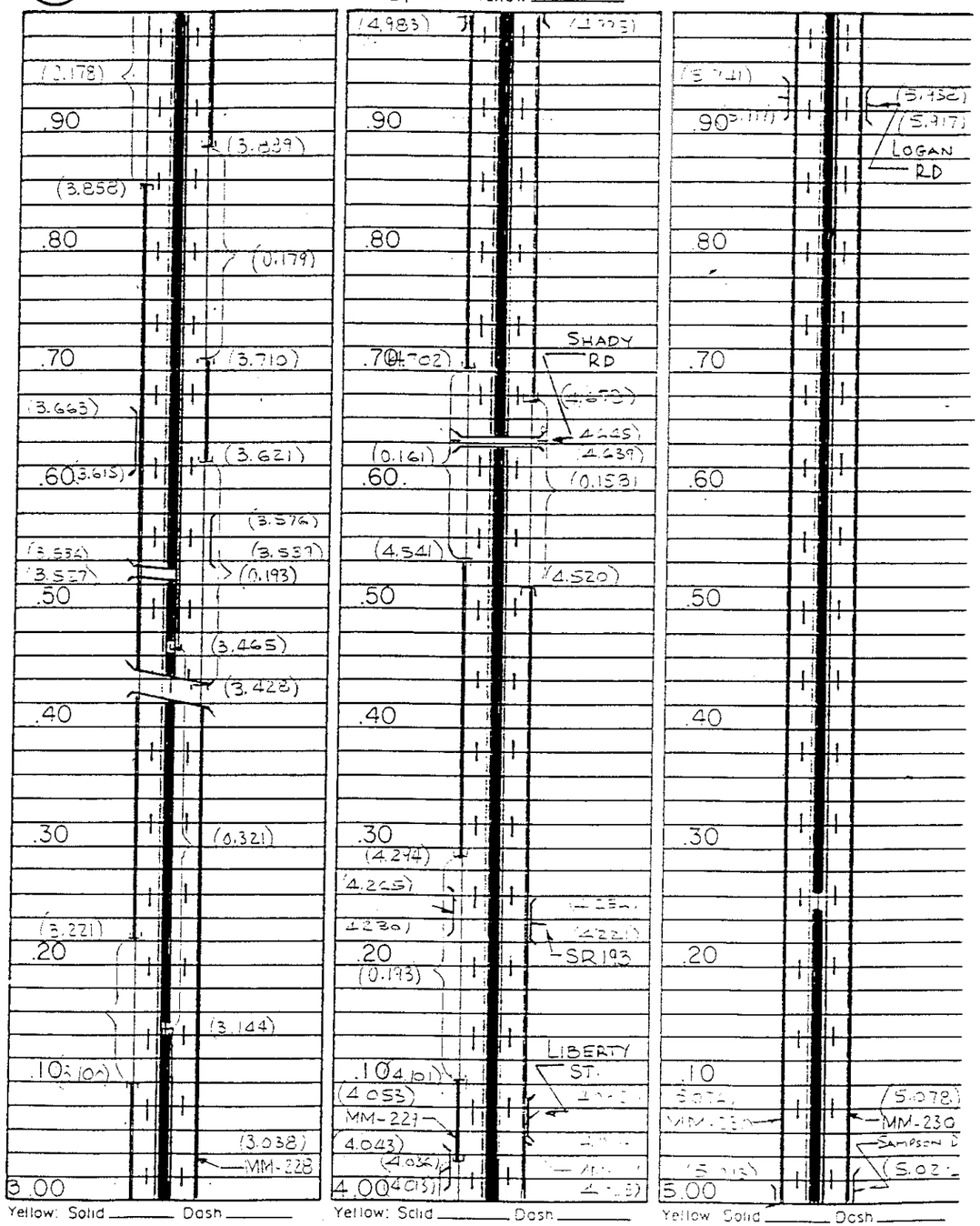
Center Line Log Record and Field Sheet

SHEET 2 OF 5

COUNTY TRUMBULL ROUTE 80

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____

Equivalent Yellow _____



Yellow: Solid _____ Dash _____ Yellow: Solid _____ Dash _____ Yellow Solid _____ Dash _____

TOTAL YELLOW THIS PAGE: SOLID _____, DASH _____, EQUIVALENT LINE _____

PAVEMENT MARKINGS

MAH/TRU-
80-0.00/0.00

TS 54
DISTRICT 4

N

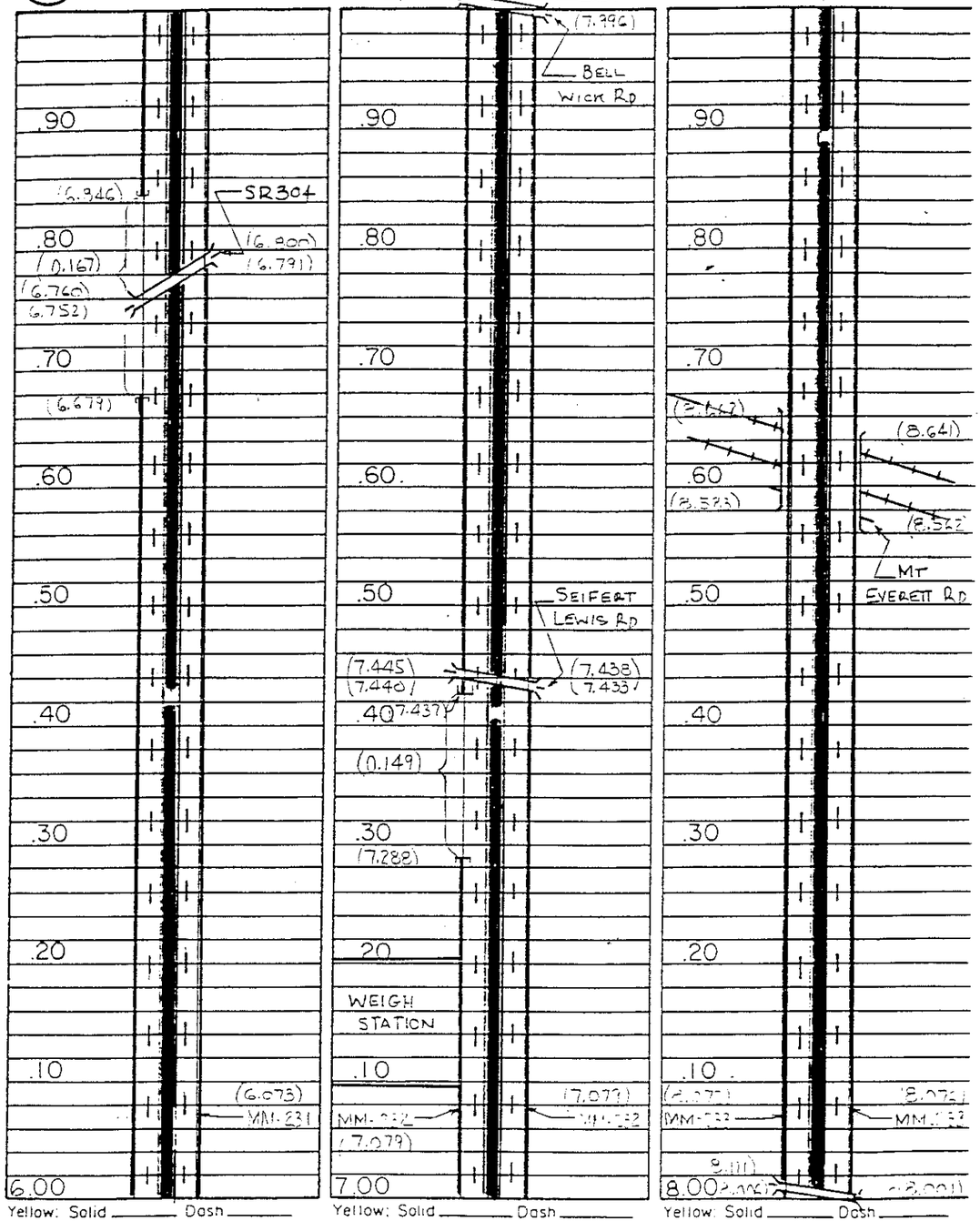
Center Line Log Record and Field Sheet

SHEET 3 OF 5

COUNTY TRUMBULL ROUTE 80

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____

Equivalent Yellow _____



Yellow: Solid _____ Dash _____ | Yellow: Solid _____ Dash _____ | Yellow: Solid _____ Dash _____

TOTAL YELLOW THIS PAGE: SOLID _____, DASH _____, EQUIVALENT LINE _____

TS 54
DISTRICT 4

N

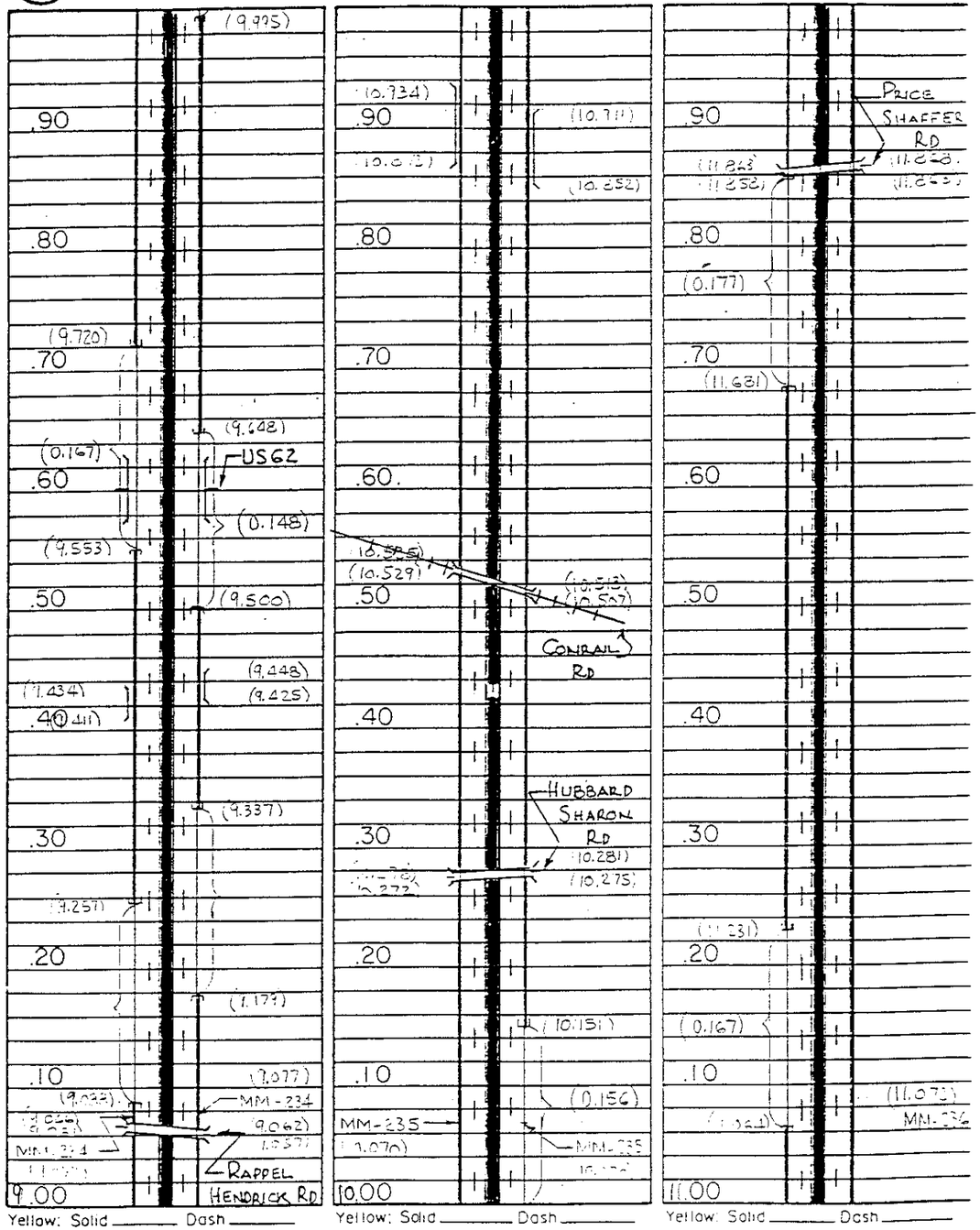
Center Line Log Record and Field Sheet

SHEET 4 OF 5

COUNTY TRUMBULL ROUTE 80

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____

Equivalent Yellow _____



Yellow: Solid _____ Dash _____ | Yellow: Solid _____ Dash _____

TOTAL YELLOW THIS PAGE: SOLID _____, DASH _____, EQUIVALENT LINE _____

PAVEMENT MARKINGS

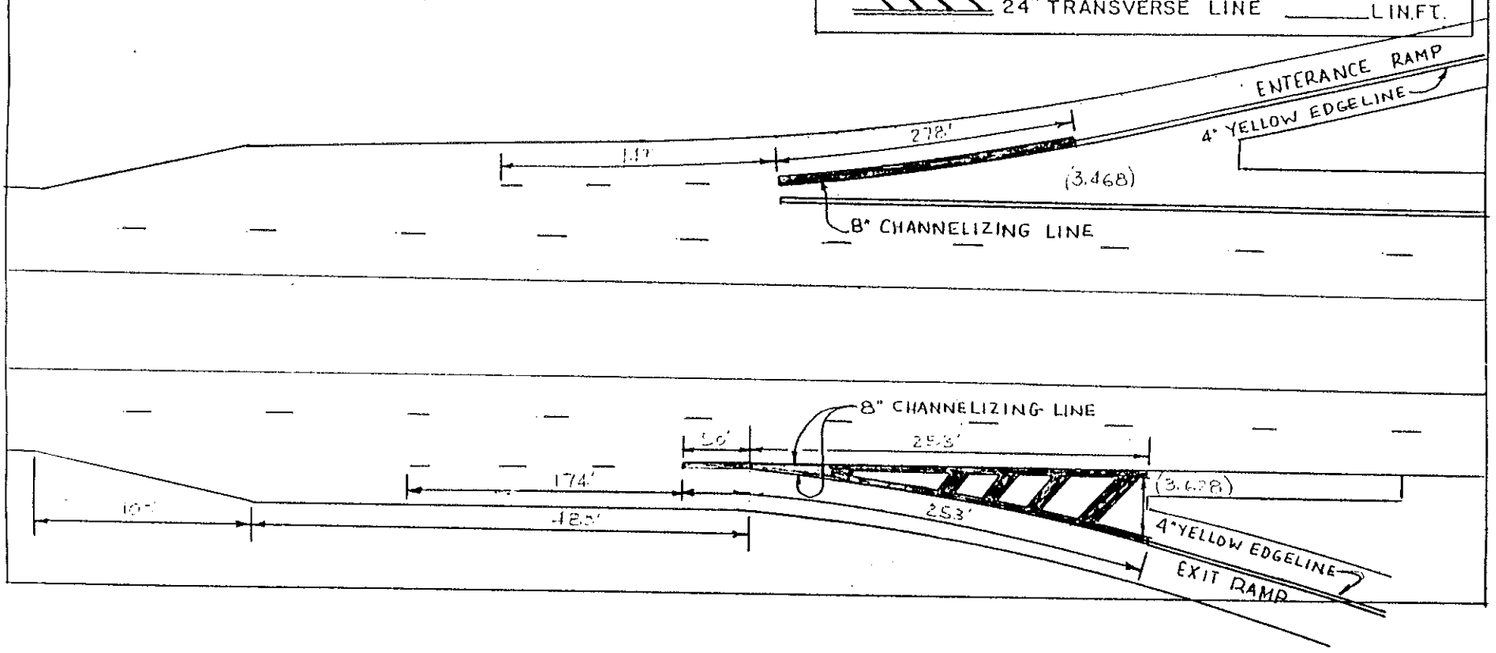
MAH/TRU-
80-0.00/0.00

AUXILIARY PAVEMENT MARKING
TAPERED

COUNTY MAHONING
LOCATION I-80 & SR 46 (EXIT 223)
PAVEMENT SURFACE TYPE

INTERSECTION TOTALS

24" STOP LINE	____ LIN. FT.
12" CROSSWALK LINE	____ LIN. FT.
8" CHANNELIZING LINE	____ LIN. FT.
SYMBOLS and LEGENDS	
24" TRANSVERSE LINE	____ LIN.FT.

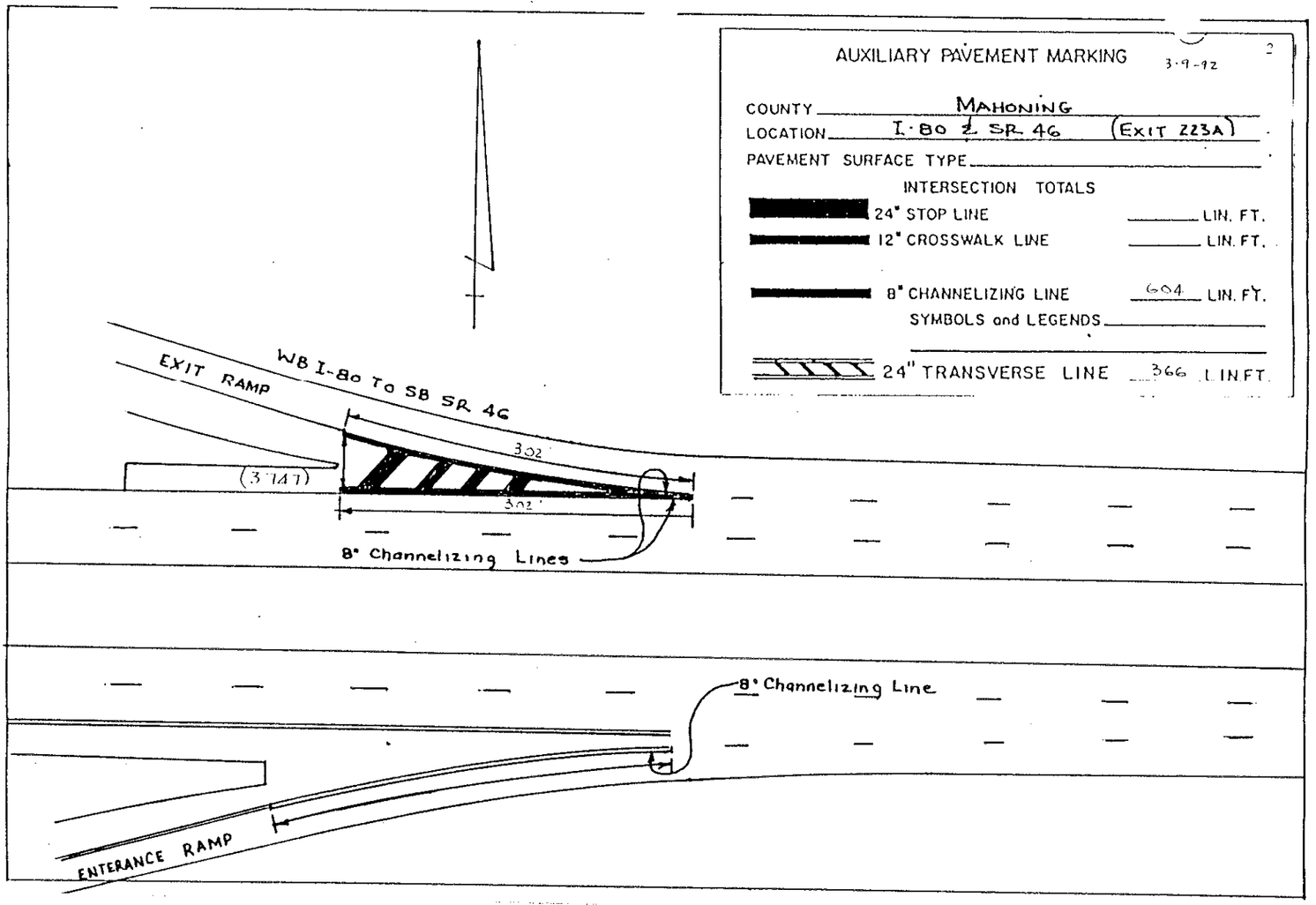


AUXILIARY PAVEMENT MARKING 3-9-92

COUNTY MAHONING
LOCATION I-80 & SR 46 (EXIT 223A)
PAVEMENT SURFACE TYPE

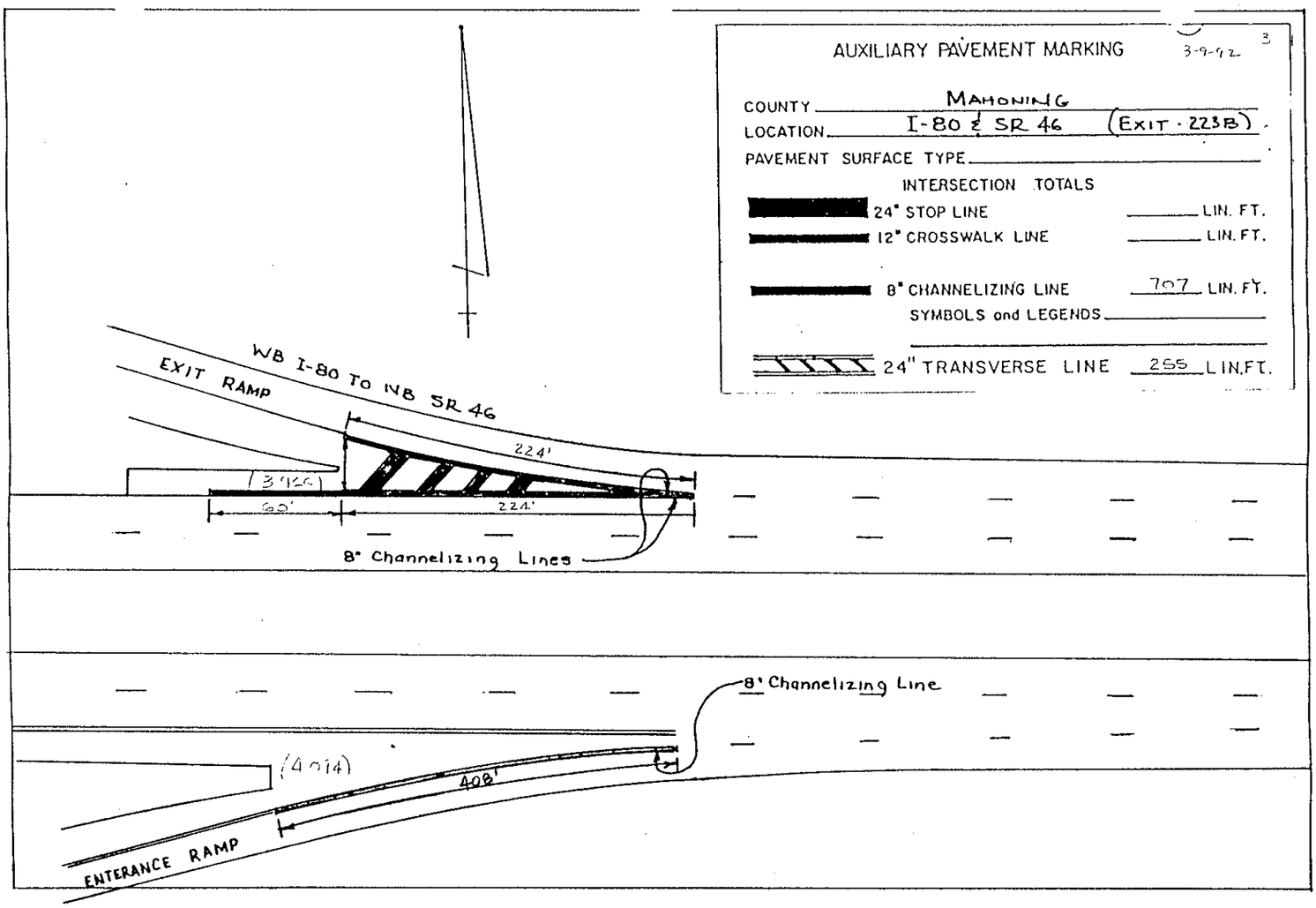
INTERSECTION TOTALS

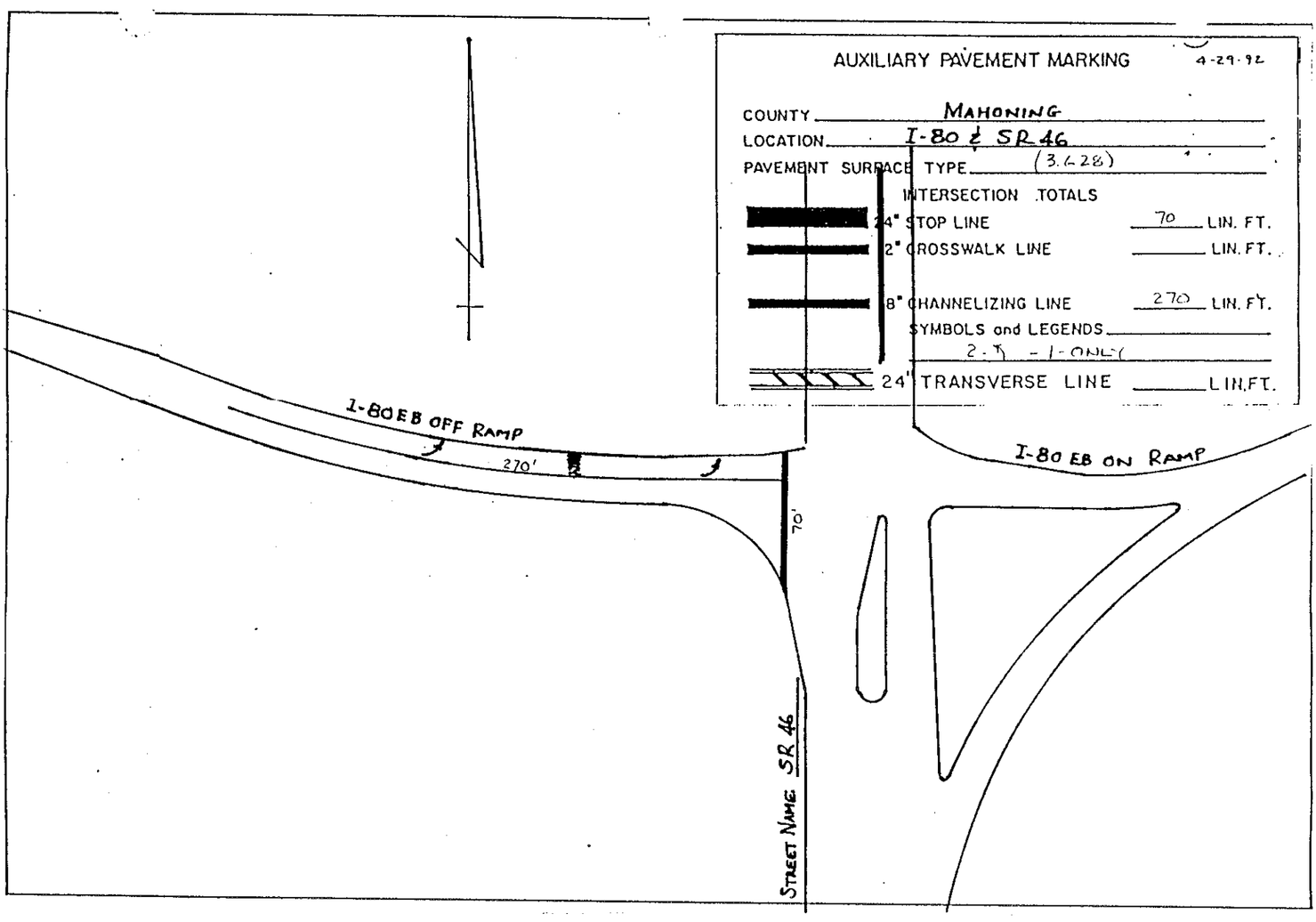
24" STOP LINE	____ LIN. FT.
12" CROSSWALK LINE	____ LIN. FT.
8" CHANNELIZING LINE	604 LIN. FT.
SYMBOLS and LEGENDS	
24" TRANSVERSE LINE	366 LIN.FT.



MAH/TRU-
80-0.00/0.00

PAVEMENT MARKINGS





AUXILIARY PAVEMENT MARKING

3-9-92

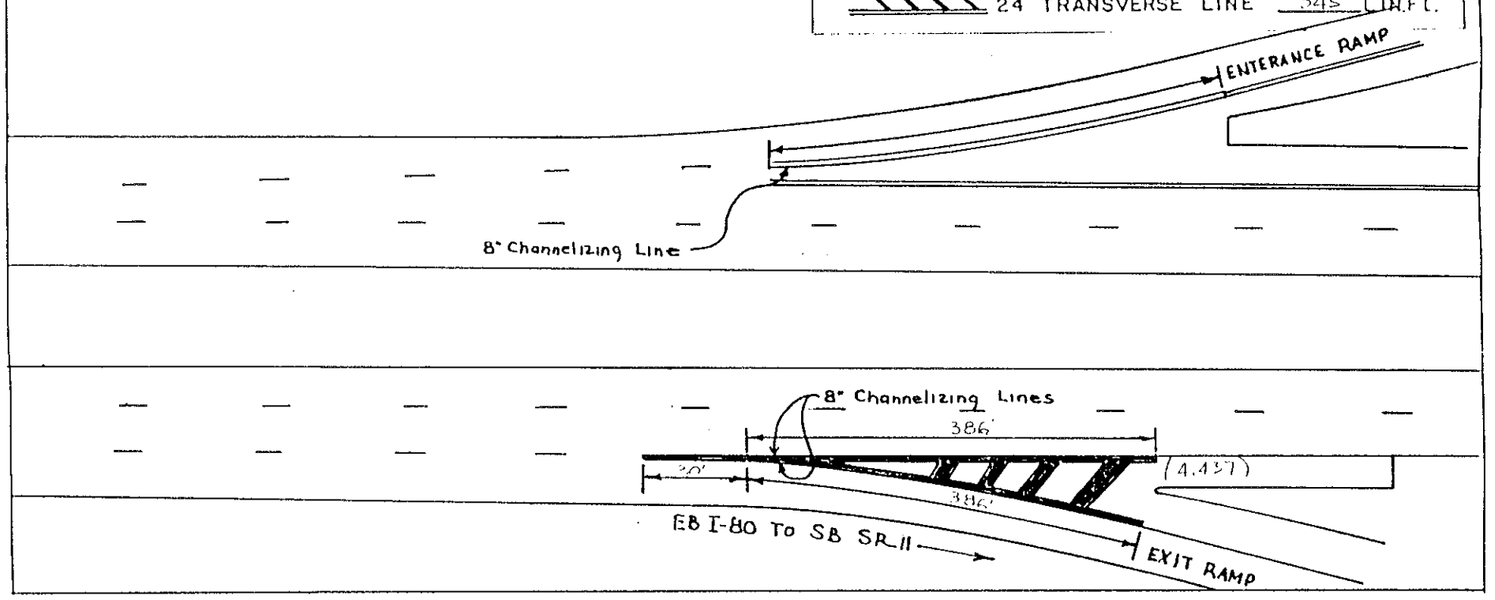
COUNTY MAHONING

LOCATION I-80 & SR 11 (EXIT 224A)

PAVEMENT SURFACE TYPE (4,437)

INTERSECTION TOTALS

24" STOP LINE		LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE	570	LIN. FT.
SYMBOLS and LEGENDS		
24" TRANSVERSE LINE	345	LIN.FT.



AUXILIARY PAVEMENT MARKING

3-9-92

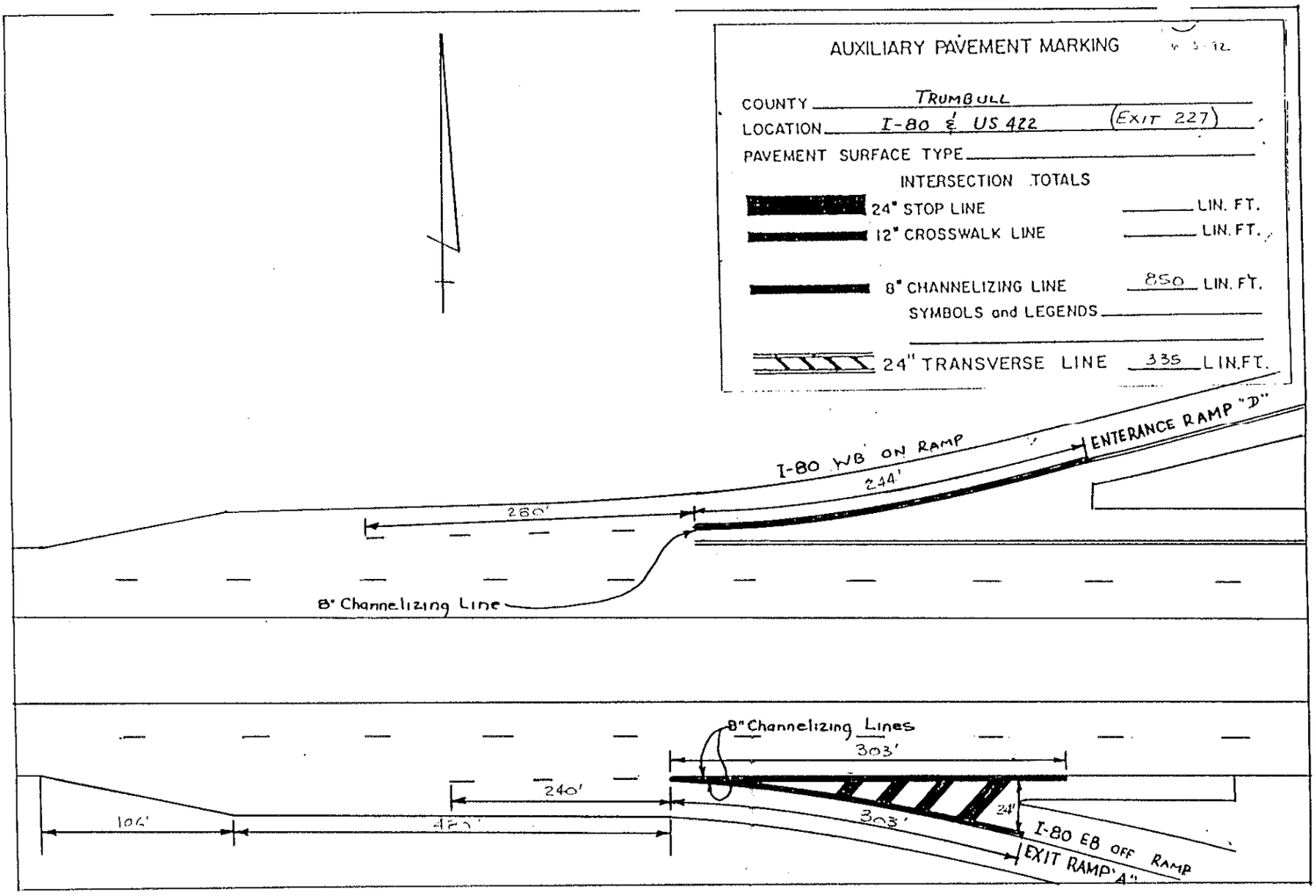
COUNTY TRUMBULL

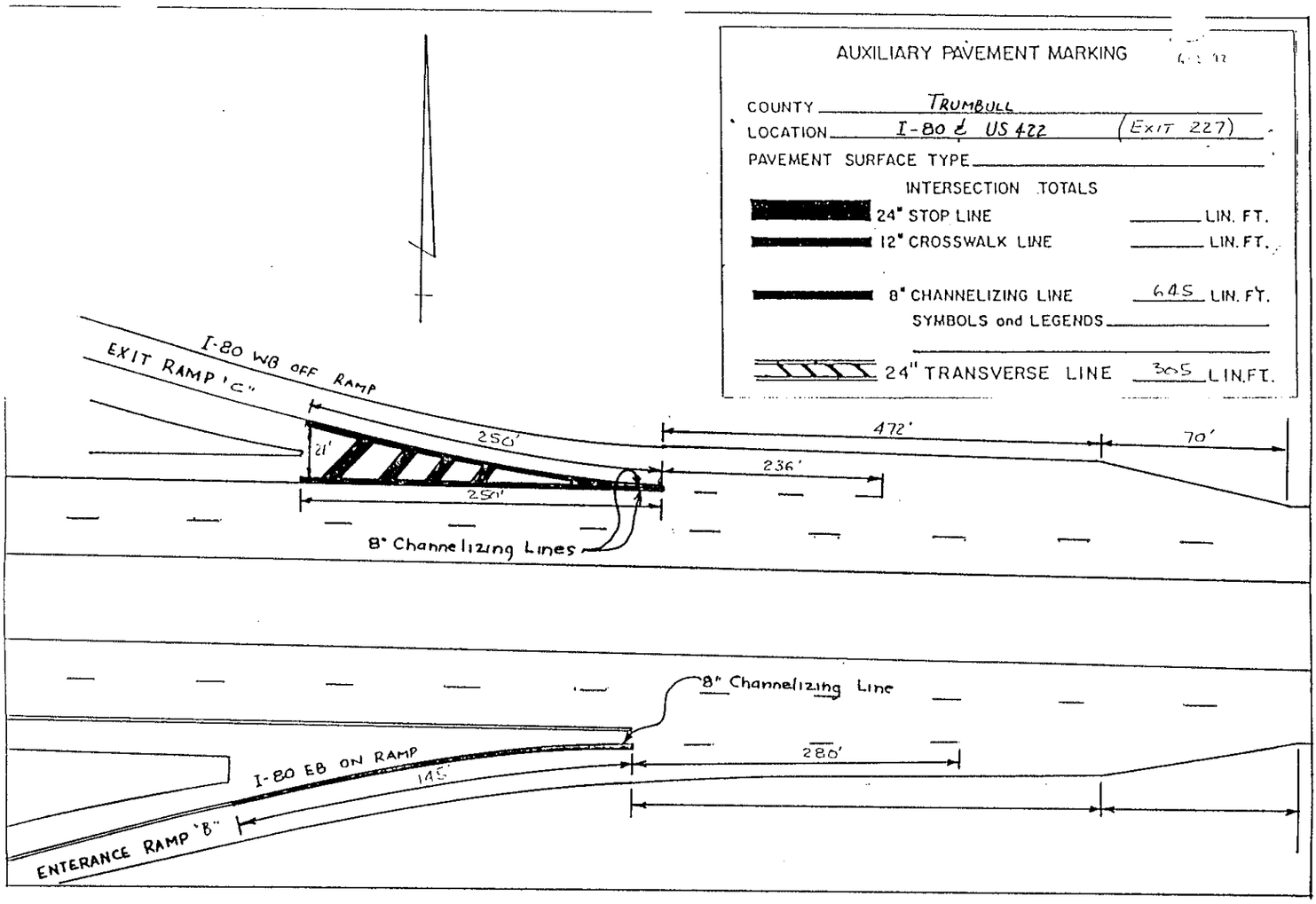
LOCATION I-80 & US 422 (EXIT 227)

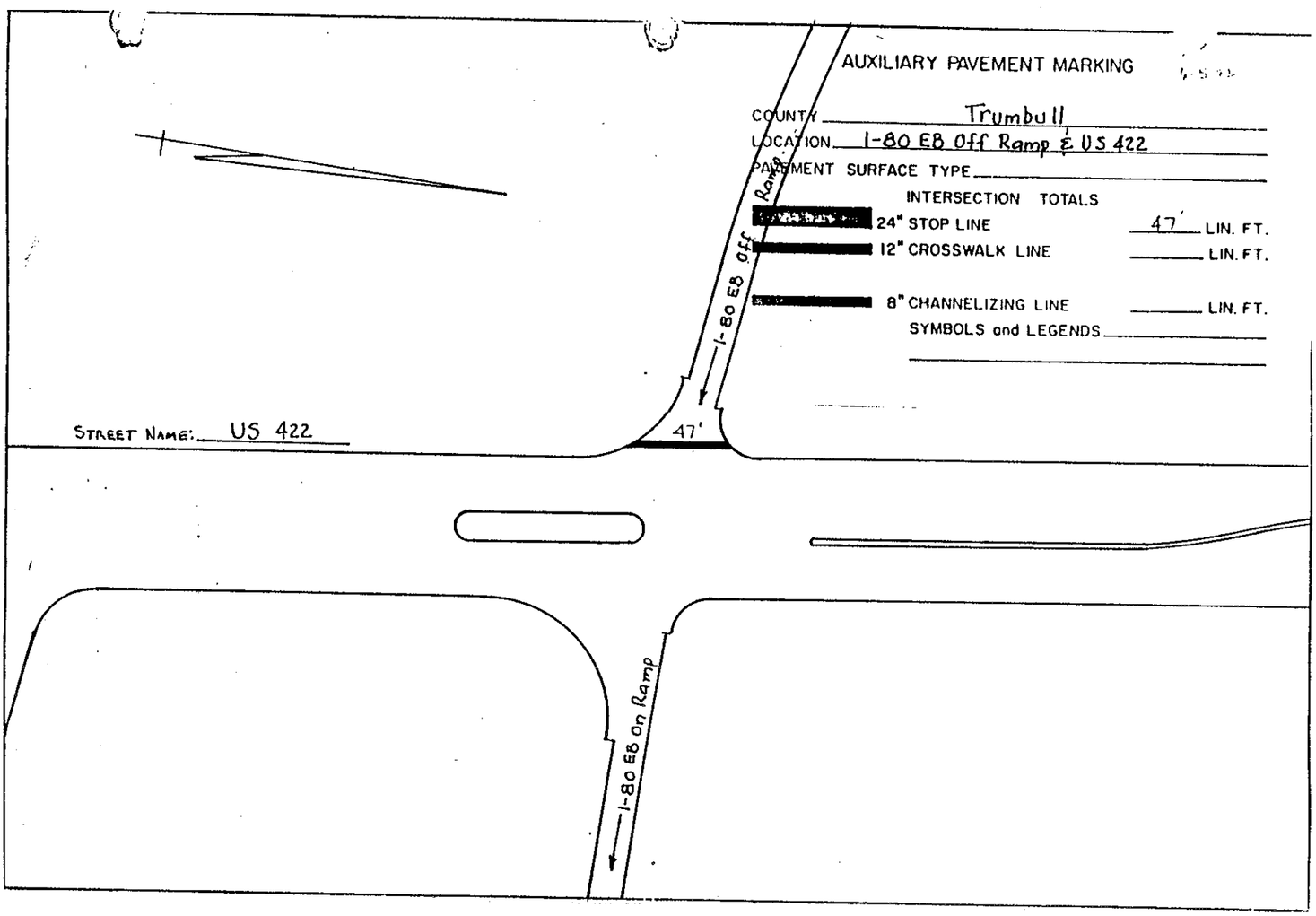
PAVEMENT SURFACE TYPE

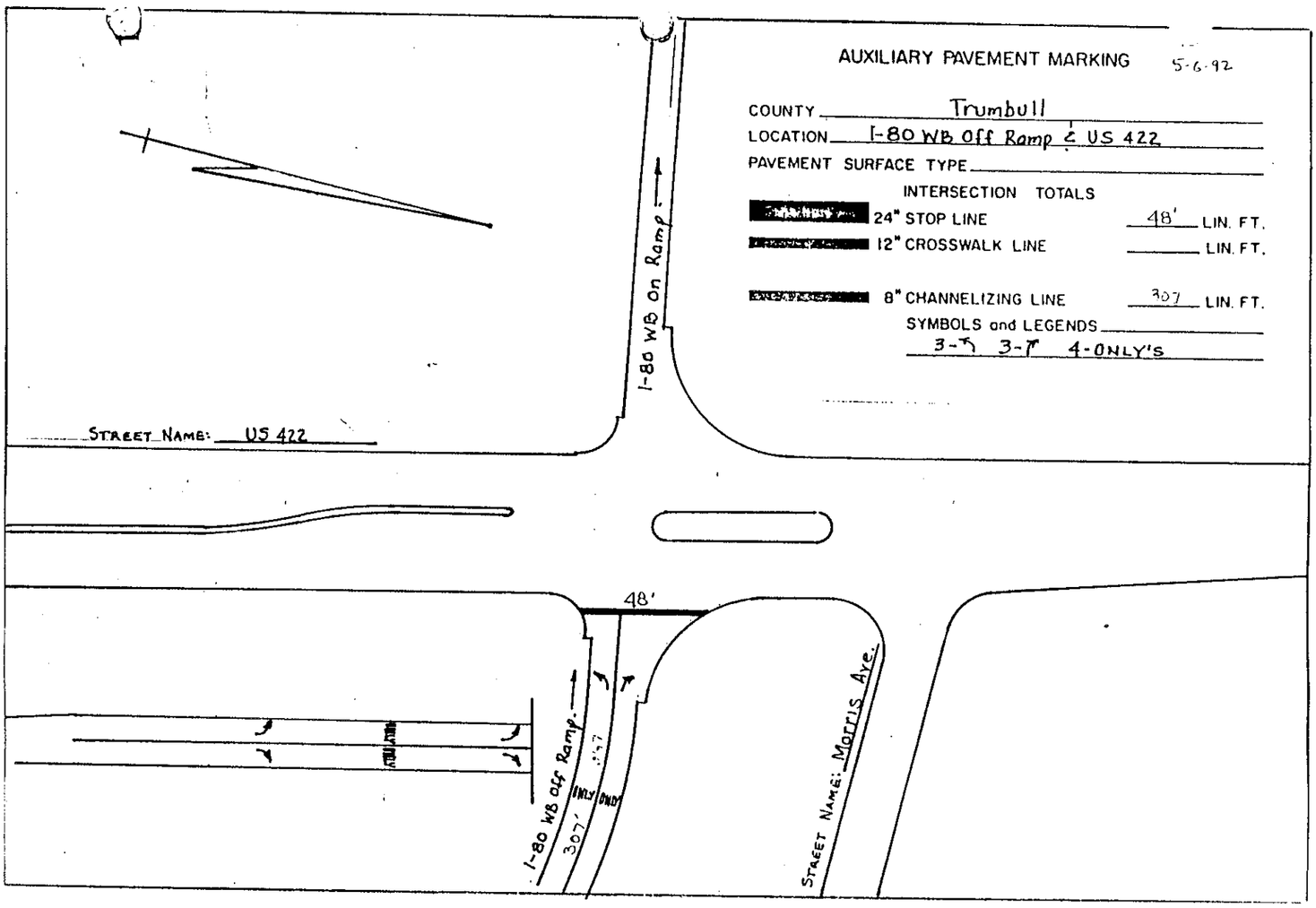
INTERSECTION TOTALS

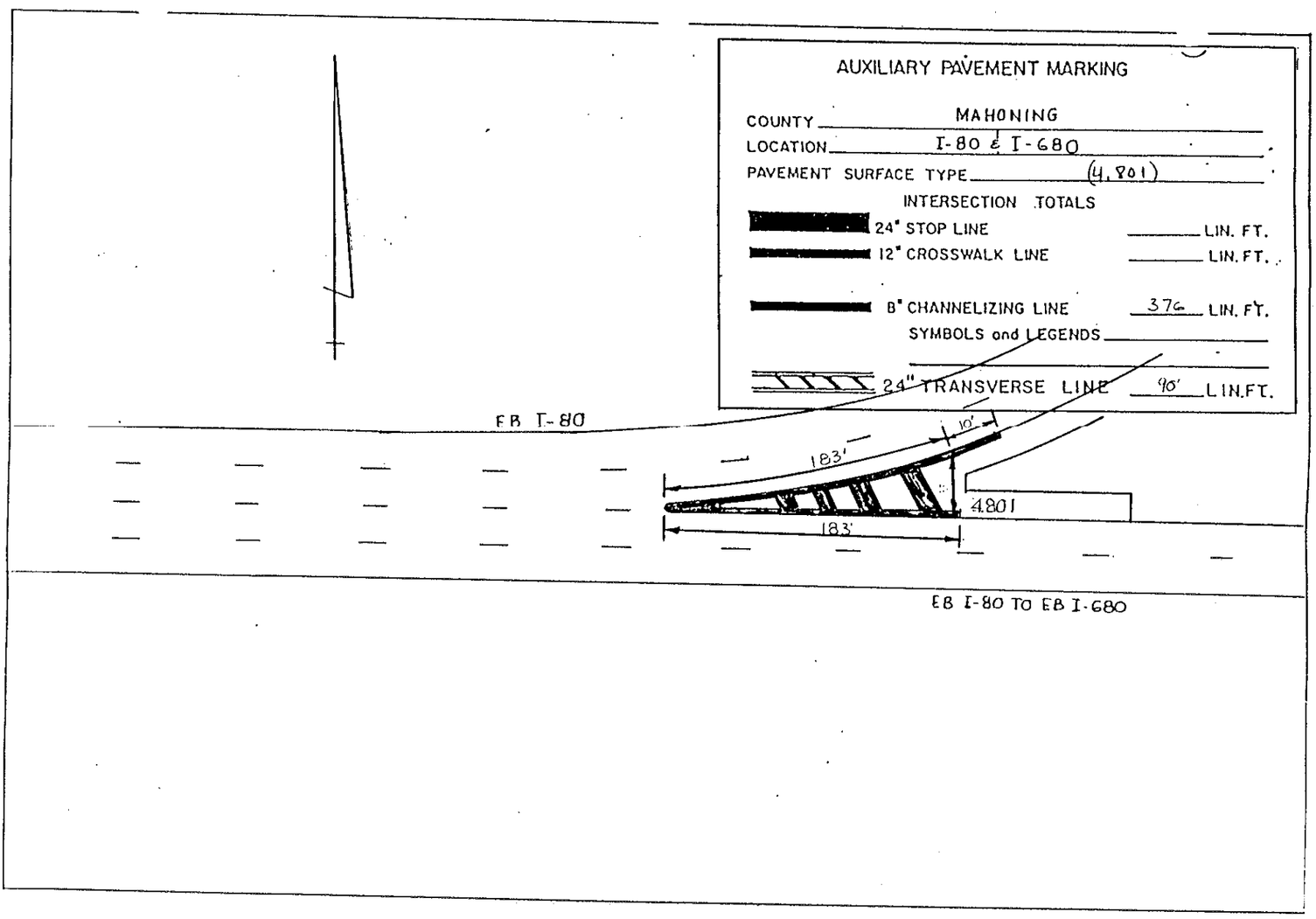
24" STOP LINE		LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE	850	LIN. FT.
SYMBOLS and LEGENDS		
24" TRANSVERSE LINE	335	LIN.FT.











AUXILIARY PAVEMENT MARKING

3-9-92

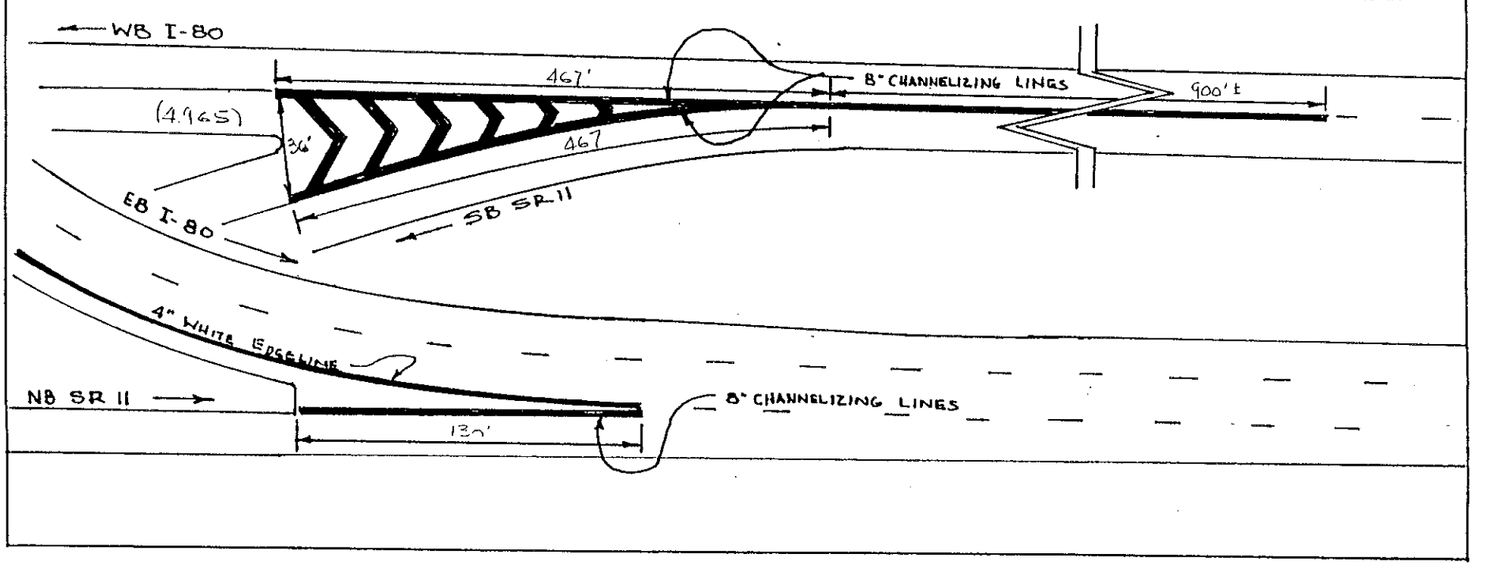
COUNTY MAHONING

LOCATION I-80 & SR 11

PAVEMENT SURFACE TYPE (4.965)

INTERSECTION TOTALS

24" STOP LINE		LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE	1640	LIN. FT.
SYMBOLS and LEGENDS		
24" TRANSVERSE LINE	489	LIN.FT.



AUXILIARY PAVEMENT MARKING

1 OF 5

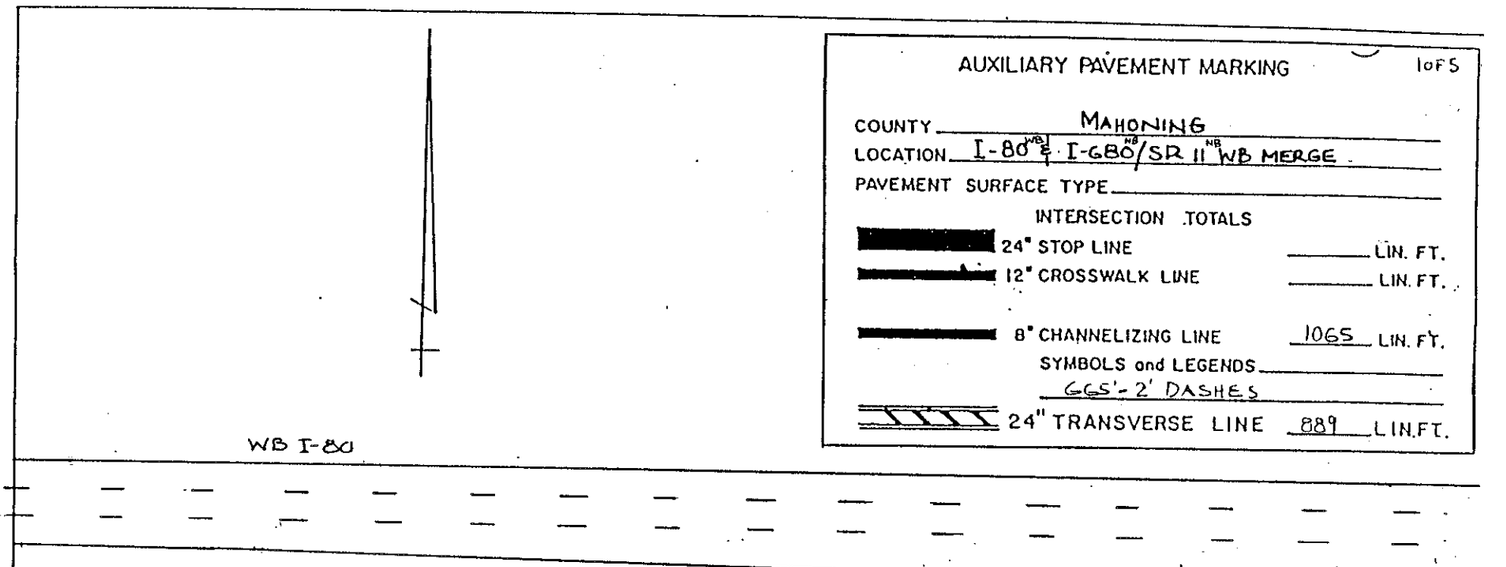
COUNTY MAHONING

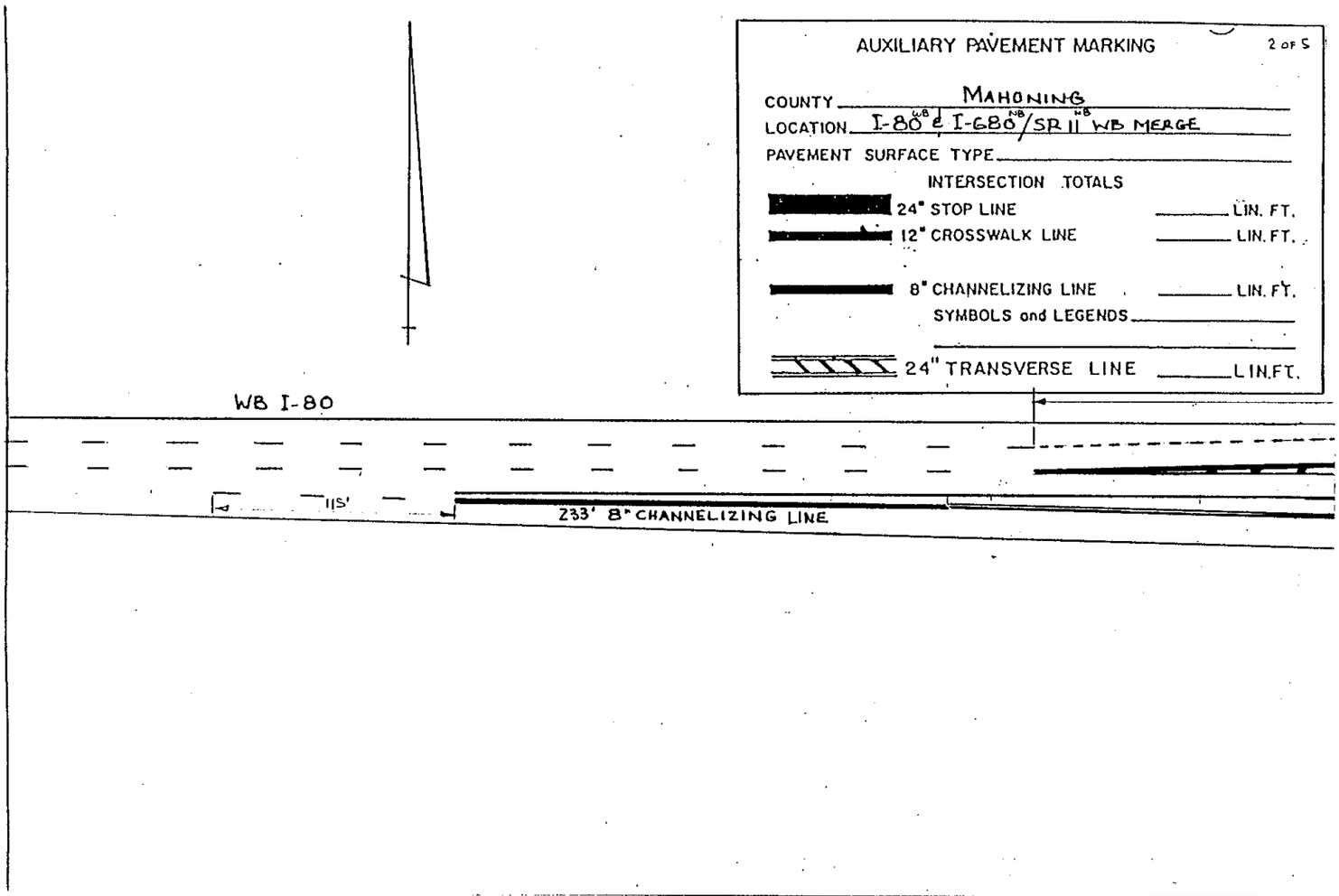
LOCATION I-80 WB & I-680 NB / SR 11 NB WB MERGE

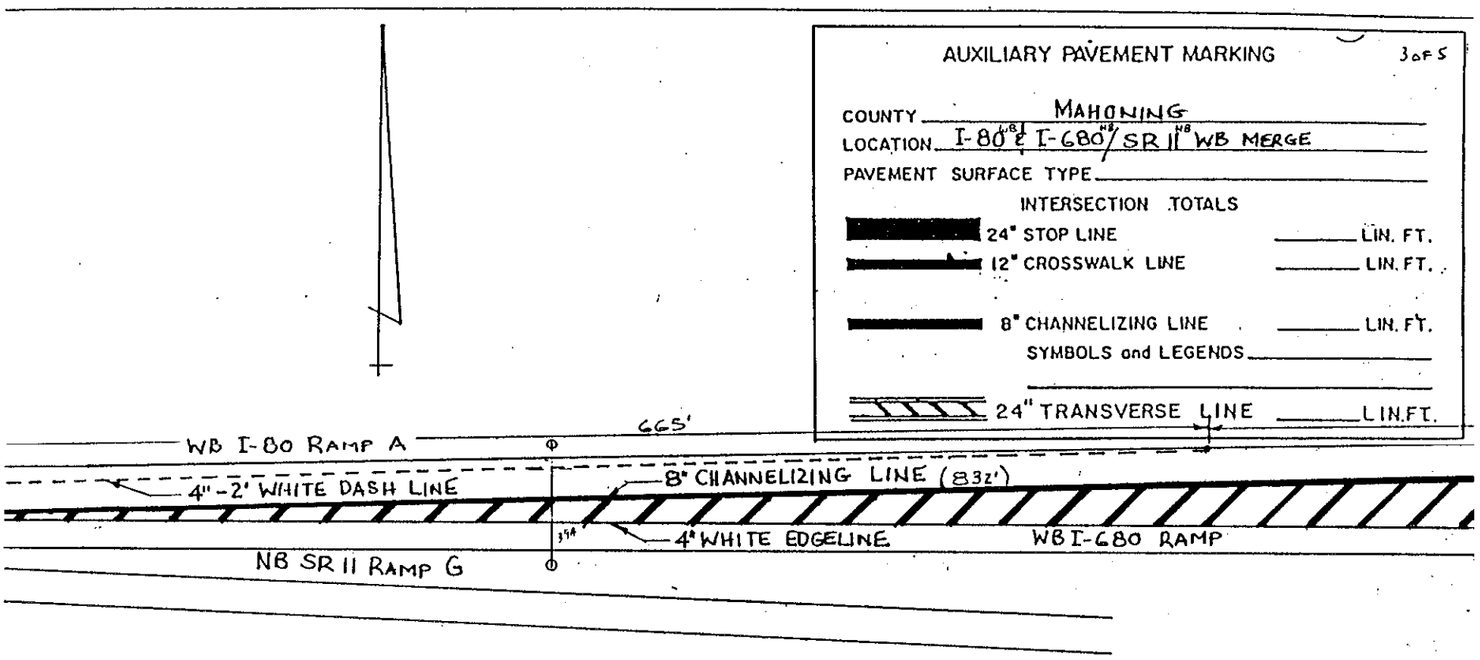
PAVEMENT SURFACE TYPE

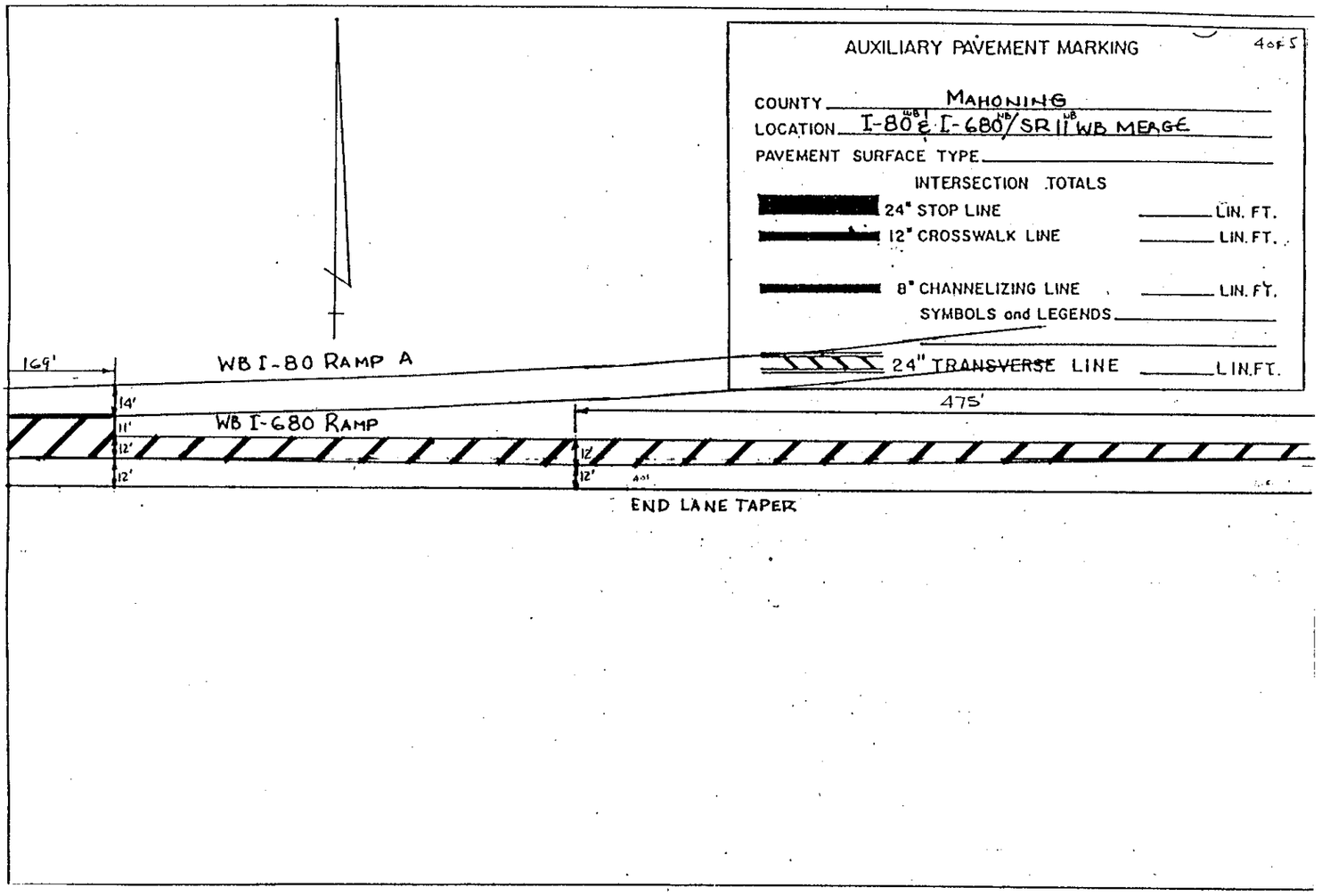
INTERSECTION TOTALS

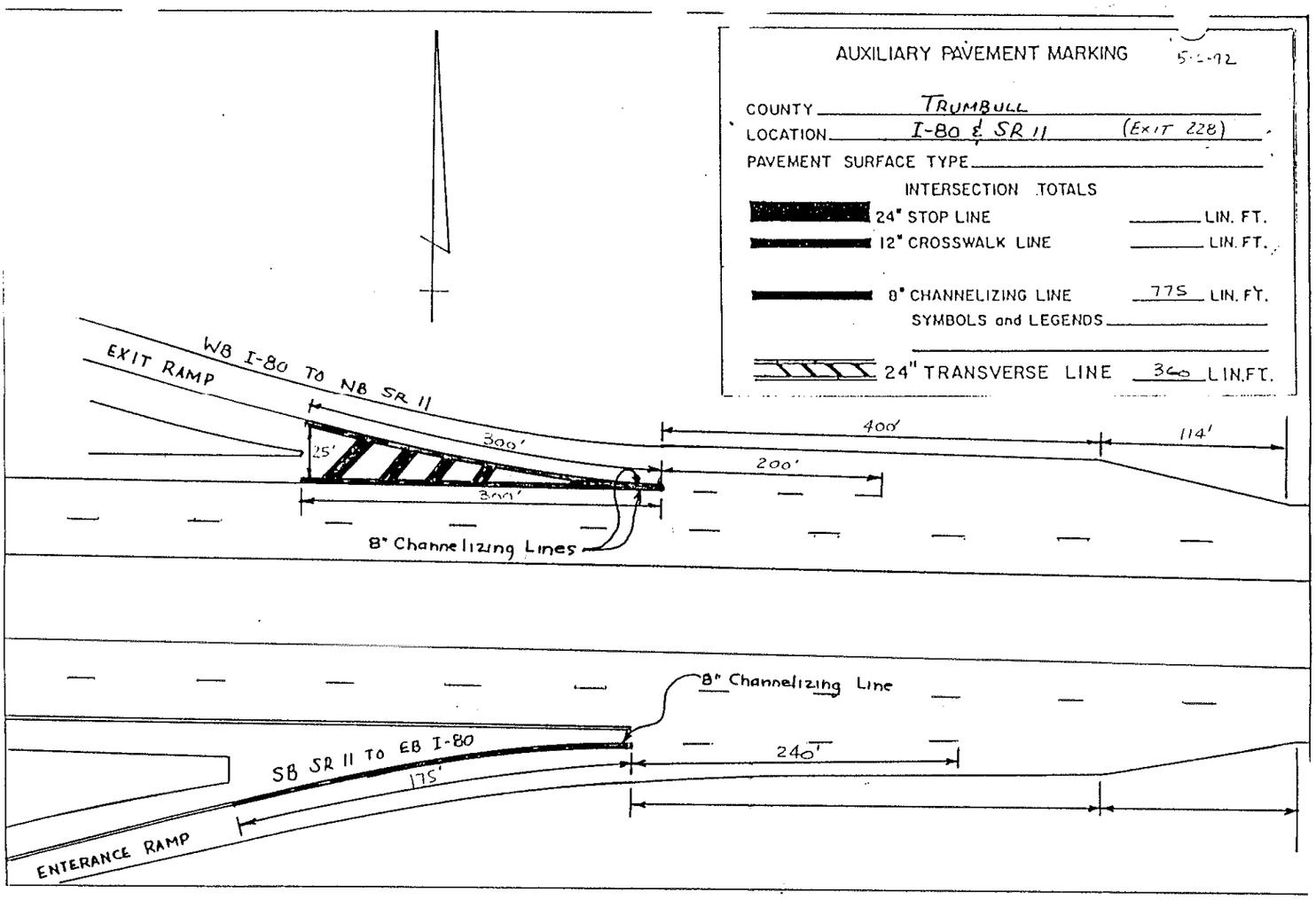
24" STOP LINE		LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE	1065	LIN. FT.
SYMBOLS and LEGENDS	665'-2' DASHES	
24" TRANSVERSE LINE	889	LIN.FT.





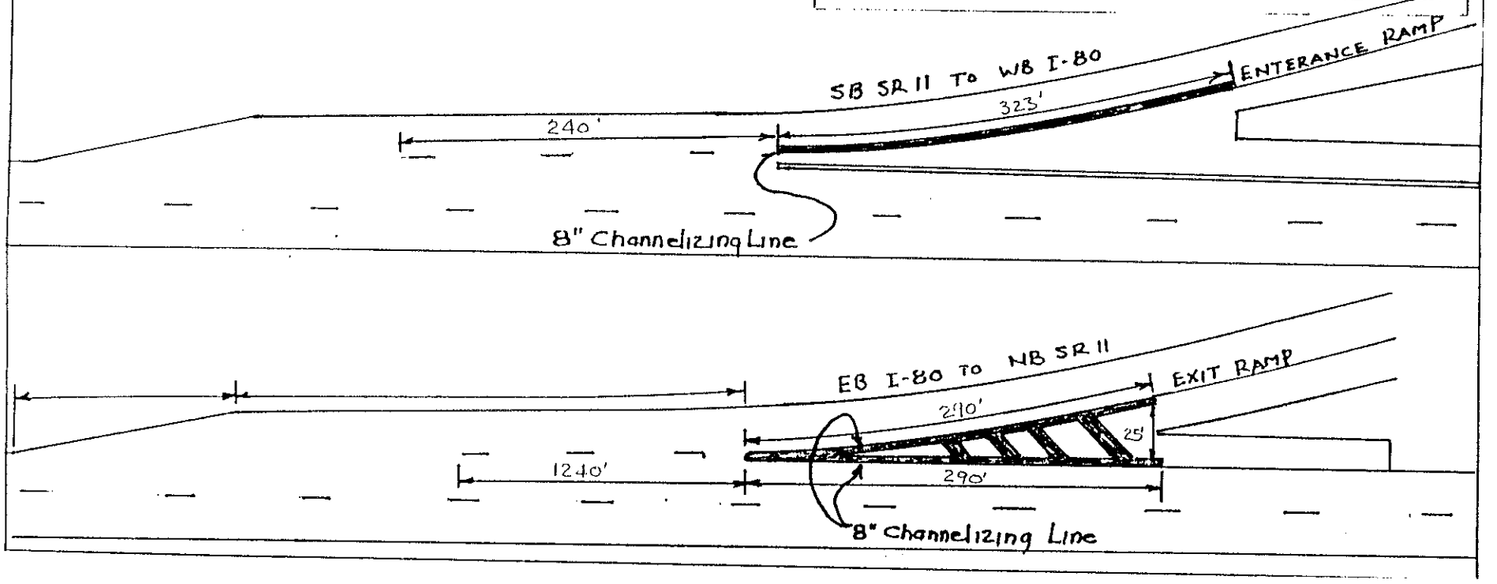






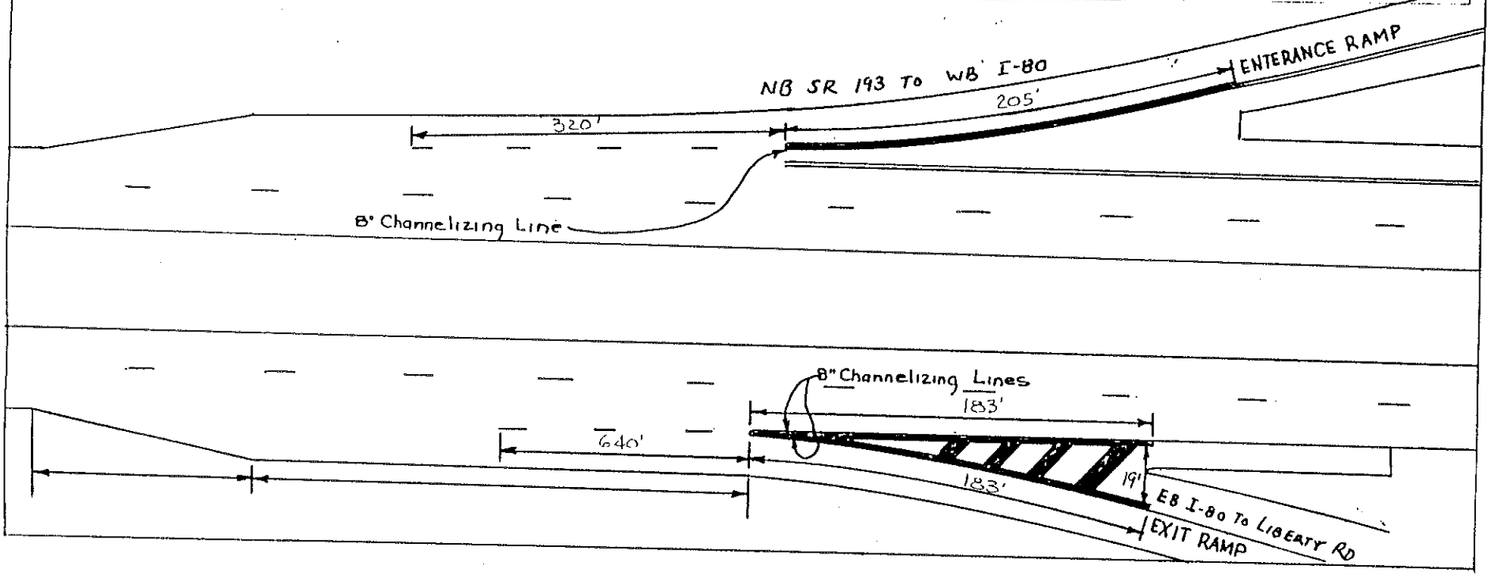
AUXILIARY PAVEMENT MARKING

COUNTY TRUMBULL
LOCATION I-80 & SR 11 (EXIT 228)
PAVEMENT SURFACE TYPE
INTERSECTION TOTALS
24" STOP LINE ____ LIN. FT.
12" CROSSWALK LINE ____ LIN. FT.
8" CHANNELIZING LINE 902 LIN. FT.
SYMBOLS and LEGENDS
24" TRANSVERSE LINE 353 LIN.FT.



AUXILIARY PAVEMENT MARKING 5-92

COUNTY TRUMBULL
LOCATION I-80 & LIBERTY RD (EXIT 227)
PAVEMENT SURFACE TYPE
INTERSECTION TOTALS
24" STOP LINE ____ LIN. FT.
12" CROSSWALK LINE ____ LIN. FT.
8" CHANNELIZING LINE 571 LIN. FT.
SYMBOLS and LEGENDS
24" TRANSVERSE LINE 172 LIN.FT.



MAH/TRU-80-0.00/0.00

PAVEMENT MARKINGS

AUXILIARY PAVEMENT MARKING

5-6-92

COUNTY TRUMBULL

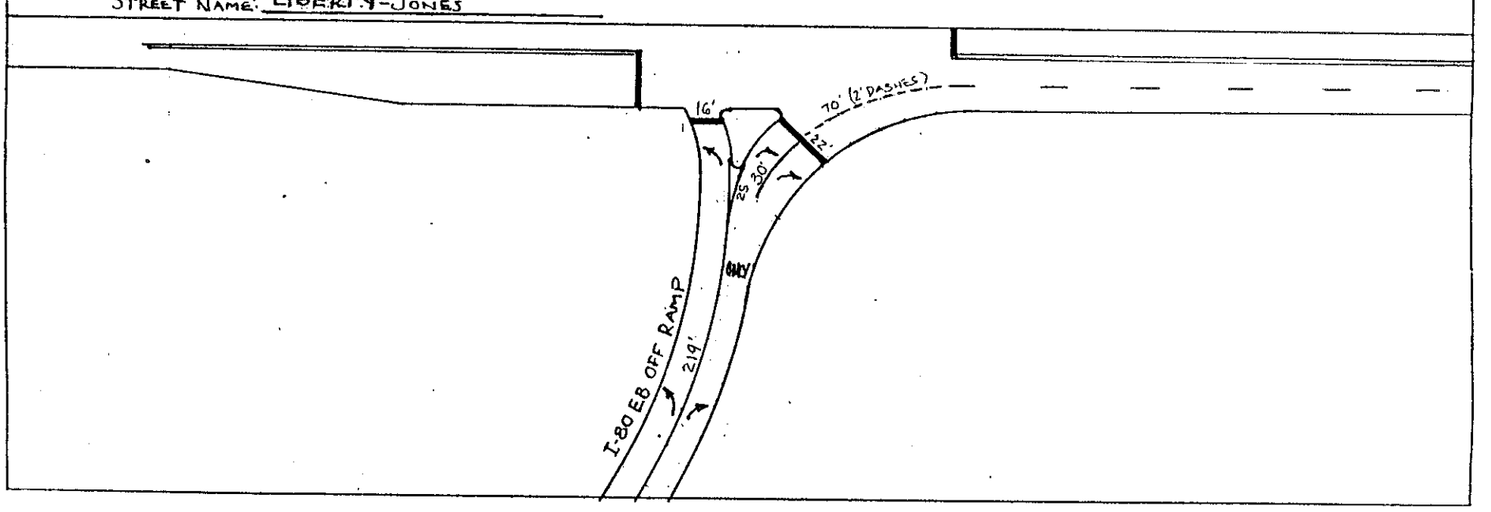
LOCATION I-80 EB OFF RAMP & LIBERTY-JONES RD

PAVEMENT SURFACE TYPE

INTERSECTION TOTALS

24" STOP LINE	38	LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE	274	LIN. FT.
SYMBOLS and LEGENDS		
2-↰ 3-↑ 1-ONLY 70'-2' DASHES		
24" TRANSVERSE LINE		LIN.FT.

STREET NAME: LIBERTY-JONES



AUXILIARY PAVEMENT MARKING

5-6-92

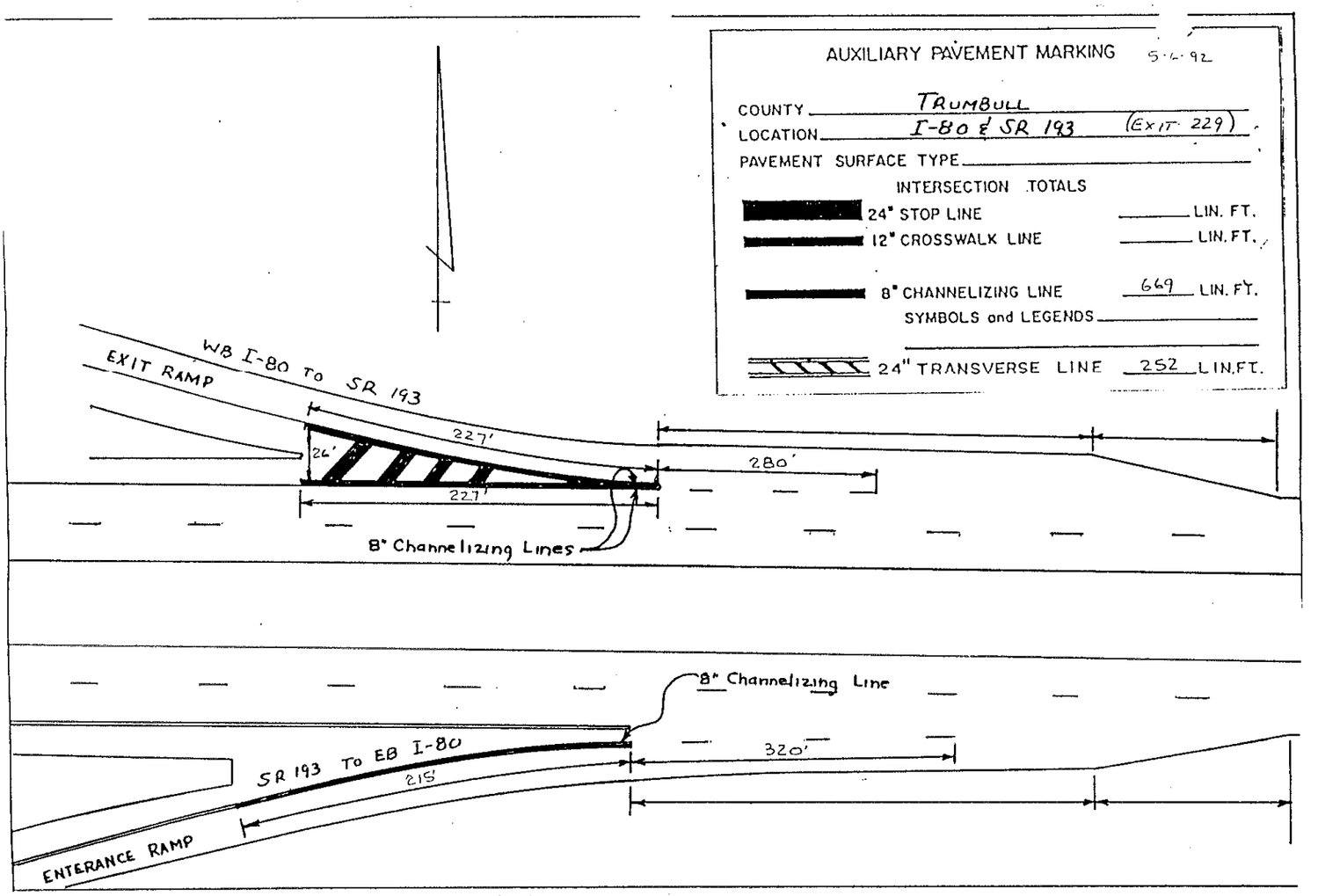
COUNTY TRUMBULL

LOCATION I-80 & SR 193 (EXIT 229)

PAVEMENT SURFACE TYPE

INTERSECTION TOTALS

24" STOP LINE		LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE	669	LIN. FT.
SYMBOLS and LEGENDS		
24" TRANSVERSE LINE	252	LIN.FT.



MAH/TRU-80-0.00/0.00

PAVEMENT MARKINGS

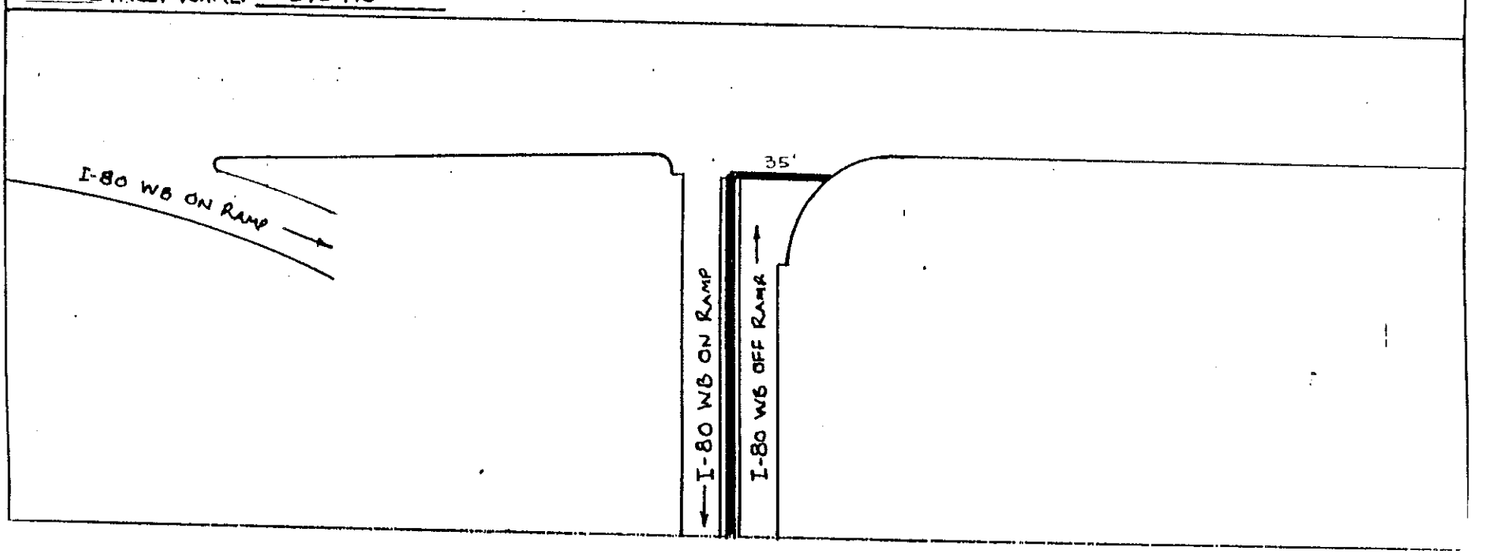
AUXILIARY PAVEMENT MARKING 5-4-92

COUNTY TRUMBULL
LOCATION I-80 WB OFF RAMP & SR 193
PAVEMENT SURFACE TYPE

INTERSECTION TOTALS

24" STOP LINE	35'	LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE		LIN. FT.
SYMBOLS and LEGENDS		
24" TRANSVERSE LINE		LIN FT.

STREET NAME: SR 193

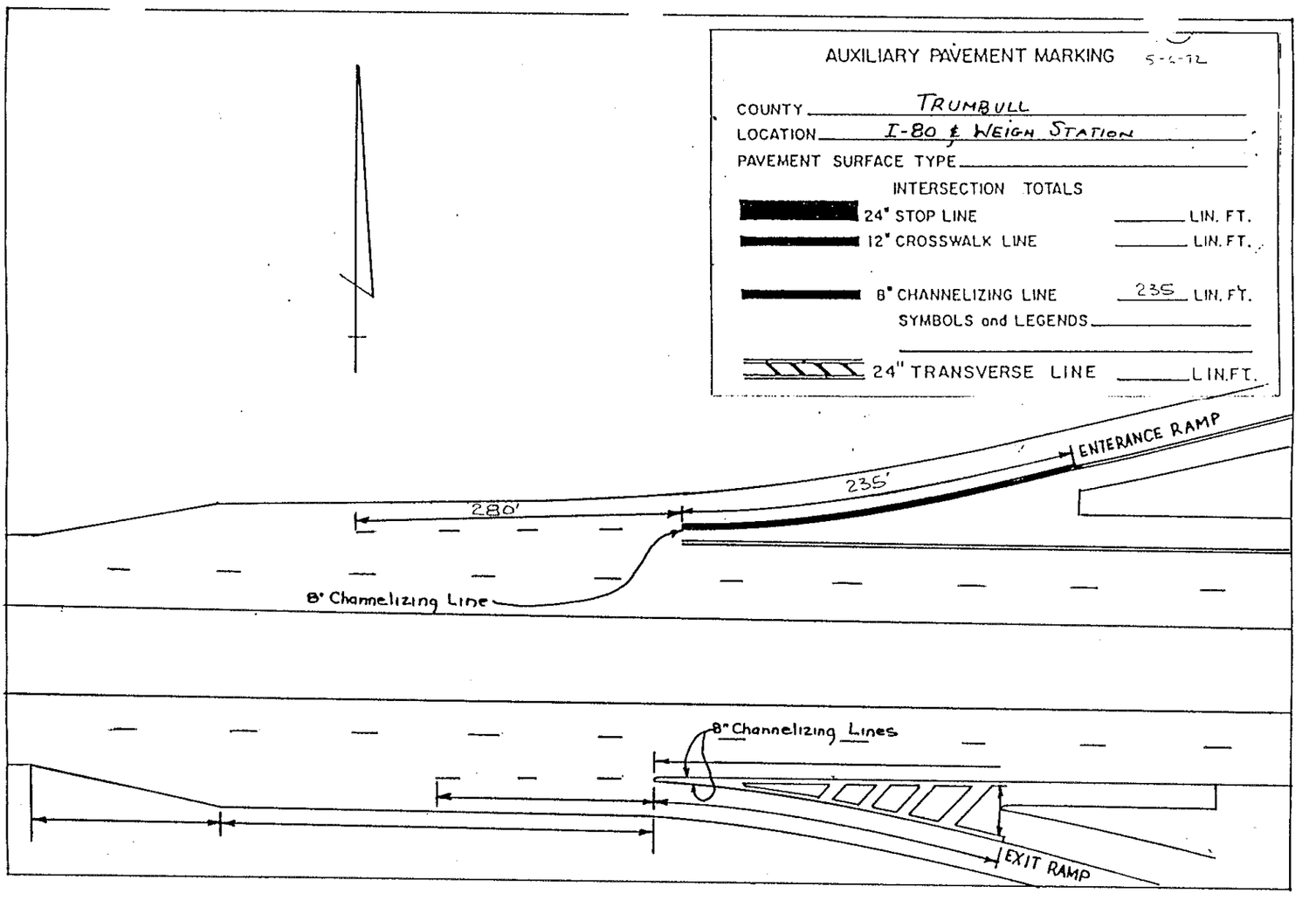


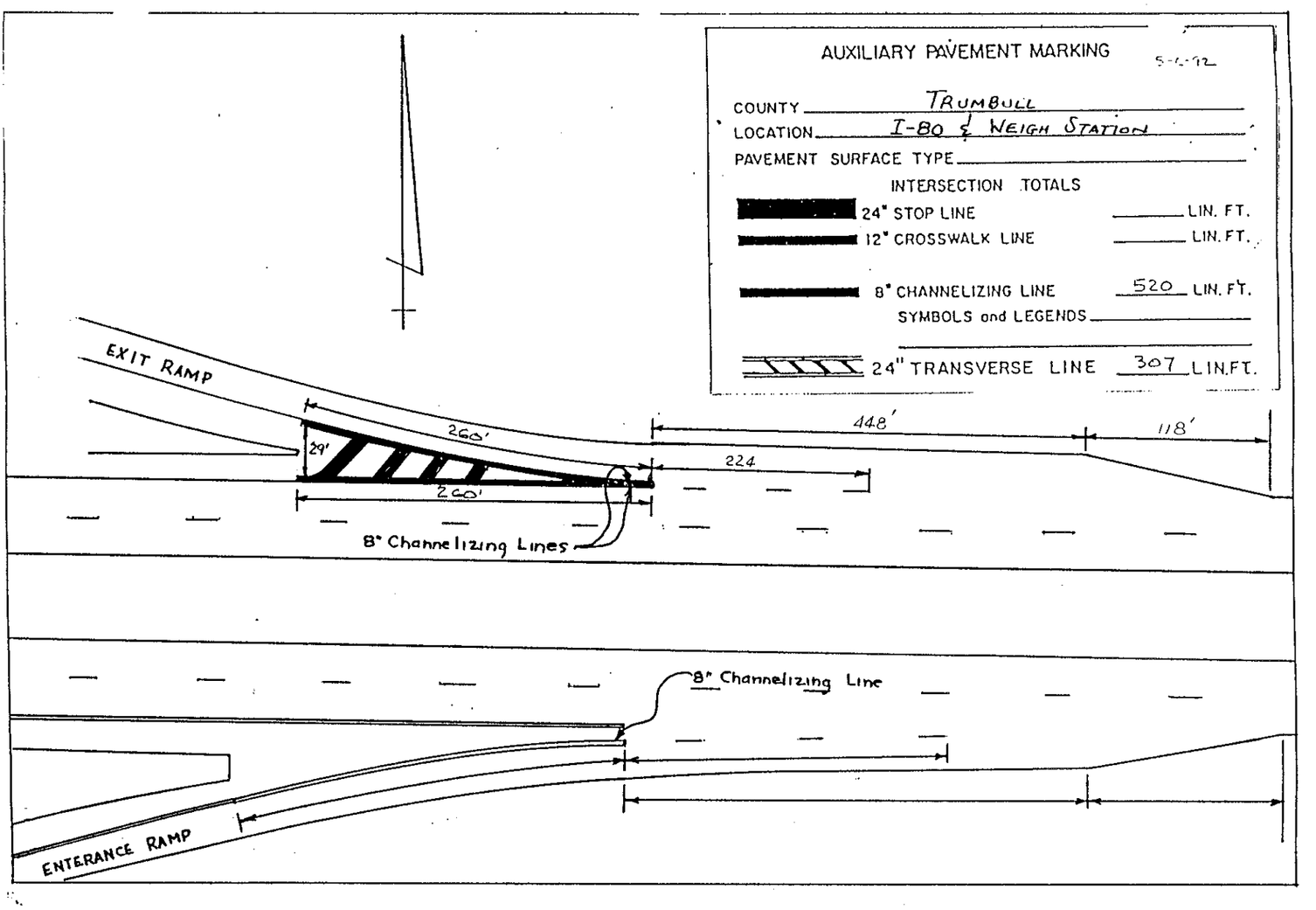
AUXILIARY PAVEMENT MARKING 5-4-92

COUNTY TRUMBULL
LOCATION I-80 & WEIGH STATION
PAVEMENT SURFACE TYPE

INTERSECTION TOTALS

24" STOP LINE		LIN. FT.
12" CROSSWALK LINE		LIN. FT.
8" CHANNELIZING LINE	235	LIN. FT.
SYMBOLS and LEGENDS		
24" TRANSVERSE LINE		LIN FT.





THESE GENERAL NOTES APPLY TO ALL STRUCTURES UNLESS OTHERWISE NOTED.

BRIDGE NUMBER	FEATURE INTERSECTED	S.F.N.
TRU-80-0353R	I-80 EB OVER 711J NB	7803729
TRU-80-0355L	I-80 WB OVER 11 NB - 711F	7803753
TRU-80-0421L	OVER 193	7803842
TRU-80-0499L	OVER SAMPSON ROAD	7803931
TRU-80-0592L	OVER LOGAN ROAD	7803990
TRU-80-0856L	OVER MT. EVERETT ROAD	7804148

REFERENCE SHALL BE MADE TO SUPPLEMENTAL SPECIFICATION:

858 DATED 11/7/00

REFERENCE SHALL ALSO BE MADE TO STANDARD DRAWINGS:

EXJ - 4 - 87 REVISED 2 - 14 - 97
SD - 1 - 69 DATED 6 - 12 - 69

DESIGN SPECIFICATIONS

THE STRUCTURES CONFORM TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998, AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

ORIGINAL LOAD

CF = 2000 (57)

PROTECTION OF TRAFFIC

PRIOR TO THE DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURES, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURES TO THE DIRECTOR FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE.

BRIDGE DECK OVERLAY LIMITATIONS

NO ASPHALT CONCRETE PLANING SHALL BE PERFORMED AFTER OCTOBER 1. BRIDGE DECKS THAT ARE PLANED PRIOR TO OCTOBER 1 SHALL BE PLACED NO LATER THAN OCTOBER 15. NO 24 HOUR LANE CLOSURES SHALL BE PERMITTED BETWEEN NOVEMBER 15 AND MARCH 1. IF THE CONTRACTOR FAILS TO HAVE THE BRIDGE DECKS OPEN BY NOVEMBER 15, THE COMPANY SHALL BE RESPONSIBLE TO PLACE ITEM 404 - ASPHALT CONCRETE, AC - 20, ON THE DECKS TO ALLOW THE SAFE TRAVEL OF THE PUBLIC.

FINISHED OVERLAY SURFACE

ORIGINAL CONSTRUCTION PLANS AND SUBSEQUENT PLANS ARE ON FILE AT THE DISTRICT FOUR OFFICE OF ODOT. THEY ARE TO BE USED IN ASSISTING THE CONTRACTOR AND ENGINEER IN DETERMINING RELATIVE CHANGES IN ELEVATION AMONG DIFFERENT POINTS ON THE BRIDGE DECK SURFACE.

THE FINISHED SURFACE OF THE CONCRETE OVERLAY SHALL BE CONSTRUCTED PARALLEL TO THE ORIGINALLY DESIGNED DECK SURFACE.

THE NET PARALLEL DECREASE IN HEIGHT (WITH THE EXCEPTION OF TRU-80-0856L) MEASURED AT THE END DAMS FROM THE PROPOSED ASPHALT CONCRETE OVERLAY TO THE TOP OF THE EXISTING DECK SLAB (T=.75"). THIS NET DECREASE HAS BEEN CALCULATED BY ACCOUNTING FOR ALL PREVIOUSLY PLACED OVERLAYS (IF ANY) AND MAY BE ASSUMED TO PROVIDE A PARALLEL SURFACE WITHOUT ELEVATION CONTROL ONLY AT THE END DAMS. TRU-80-0856L HAS AN INCREASE OF 3" DUE TO THE ASPHALT OVERLAY.

TO DETERMINE THE FINISHED ASPHALT OVERLAY SURFACE, THE CONTRACTOR SHALL FIELD VERIFY ELEVATIONS OF ALL CROWNS, BREAK POINT LINES, AND GUTTER LINES AT EACH CENTERLINE OF BEARING ON THE BRIDGE STRUCTURE. THESE FIELD MEASURED ELEVATIONS MAY THEN BE COMPARED TO THE ORIGINAL PLANS BY THE PROJECT ENGINEER TO ADJUST, IF NECESSARY, FOR AS-BUILT CONDITIONS OR PREVIOUSLY CONSTRUCTED OVERLAYS. THESE FIELD MEASURED ELEVATIONS SHALL BE PROVIDED TO THE PROJECT ENGINEER AT LEAST 5 DAYS BEFORE THE INTENDED WORK. THE PROJECT ENGINEER WILL THEN PROVIDE AN ACCEPTABLE SET OF ELEVATIONS BASED ON THE COMBINED INFORMATION OF THE ORIGINAL PLANS, THE FIELD VERIFIED ELEVATIONS AND THE PROPOSED OVERLAY THICKNESS.

TAPERING OF APPROACH PAVEMENTS SHALL BE CONSTRUCTED AS SHOWN ON TAPER DETAILS AND TERMINATE AT THE APPROACH SLABS/BACKWALLS.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR PRODUCTION
705 OAKWOOD STREET, RAVENNA, OHIO

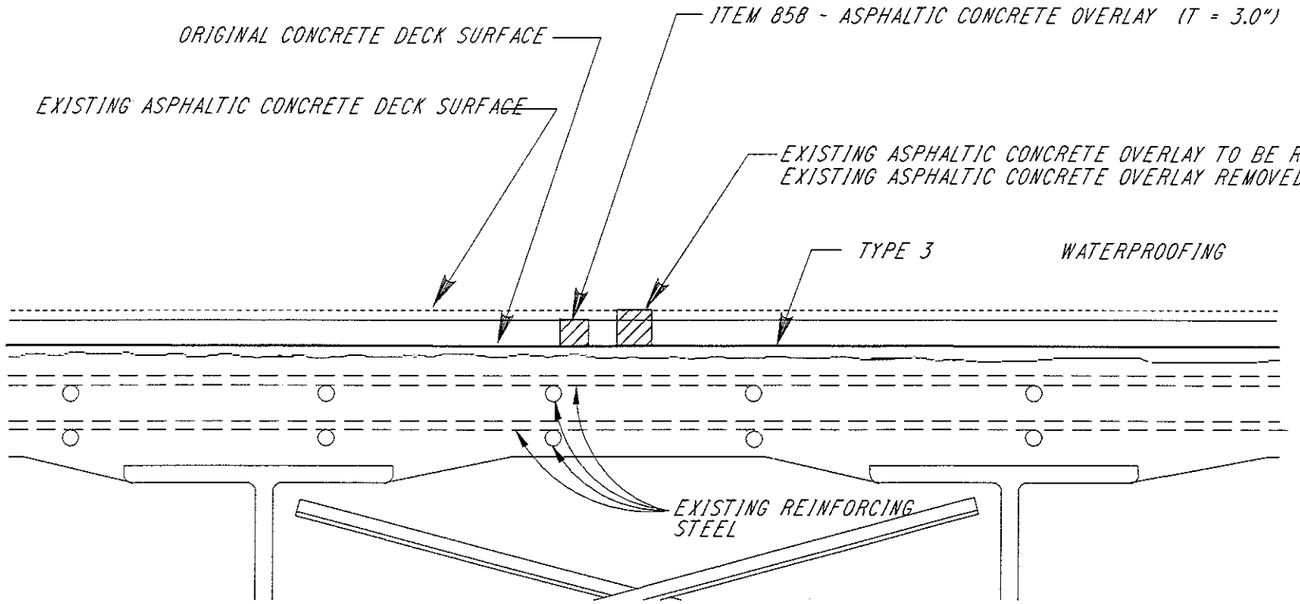
DESIGNED D.A.A.
DRAWN D.A.A.
CHECKED
REVIEWED
DATE
REVISED
STRUCTURE FILE NUMBER

GENERAL NOTES - STRUCTURE

MAH/TRU-80-0.00/0.00

1/7

45/50



TYPICAL OVERLAY DETAIL

BRIDGE NO. TRU-80-0353R, 0355L, 0421L, 0499L, 0592L.

ESTIMATED QUANTITIES					SEE SHEET
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	
				STRUCTURE: TRU-80-0353R (SFN: 7803729)	
254	01001	853	SQ YD	PAVEMENT PLANING (3.75"), BITUMINOUS, AS PER PLAN	
512	33010	853	SQ YD	TYPE 3 MEMBRANE WATERPROOFING	
516	11211	130.40	LIN FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN*	6
518	12701	10	EACH	SCUPPER VERTICAL EXTENSION, AS PER PLAN	5
858	10050	71.08	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm TYPE B (446), (T-3")	
				STRUCTURE: TRU-80-0355L (SFN: 7803753)	
254	01001	1081	SQ YD	PAVEMENT PLANING (3.75"), BITUMINOUS, AS PER PLAN	
512	33010	1081	SQ YD	TYPE 3 WATERPROOFING	
516	11211	72.42	LIN FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN *	6
518	12701	17	EACH	SCUPPER VERTICAL EXTENSION, AS PER PLAN	5
858	10050	90.08	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm TYPE B (446), (T-3")	
				STRUCTURE: TRU-80-0421L (SFN: 7803842)	
254	01001	781	SQ YD	PAVEMENT PLANING (3.75"), BITUMINOUS, AS PER PLAN	
512	33010	781	SQ YD	TYPE 3 MEMBRANE WATERPROOFING	
516	11211	200.49	LIN FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL (4 TOTAL JOINTS), AS PER PLAN *	6
518	12701	9	EACH	SCUPPER VERTICAL EXTENSION, AS PER PLAN	5
858	10050	65.08	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm TYPE B (446), (T-3")	

* - SEE PROPOSAL NOTE

PROPOSED WORK: 1.) PLANE OFF EXISTING ASPHALT CONCRETE OVERLAY (EXCEPT FOR TRU-80--0856L, WHICH REQUIRES NO PLANING).

2.) REPLACE OLD WATERPROOFING WITH SHEET TYPE 3 WATERPROOFING.

3) APPLY TWO COURSES OF ASPHALT CONRETE (1.5" MINIMUM EACH COURSE)

EXISTING STRUCTURES

TRU-80-0353R

TYPE: CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPAN: 60'-0", 75'-0", 60'-0" c/c BEARINGS

ROADWAY: VARIABLE; APPROACH ROADWAY PLUS 6' (LEFT) AND 8' (RIGHT) f/f PARAPETS INCLUDING 1" CURBS

SKEW: 45° 47' 41.7" LEFT FORWARD

LOADING: CF - 2000 (57)

STRUCTURAL FILE NO.: 7803729

WEARING SURFACE: ASPHALTIC CONCRETE

APPROACH SLABS: AS-1-67 (25' LONG)

ALIGNMENT: 3* CURVE LEFT

SUPERELEVATION: .083 1/1

TRU-80-0355L

TYPE: CONTINUOUS WELDED PLATE GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPAN: 70'-6", 108'-6", 70'-6" c/c BEARINGS

ROADWAY: VARIABLE; f/f 6" SAFETY CURBS

SKEW: 38° 05' 04" LEFT FORWARD

LOADING: CF - 2000 (57)

STRUCTURAL FILE NO.: 7803753

WEARING SURFACE: ASPHALTIC CONCRETE

APPROACH SLABS: SPECIAL (25' LONG)

ALIGNMENT: SPIRAL AND TANGENT

SUPERELEVATION: VARIES

TRU-80-0421L

TYPE: 3 SPAN HINGED WELDED GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPAN: 40'-0", 99'-0", 40'-0" c/c BEARINGS

ROADWAY: VARIABLE; f/f PARAPETS

SKEW: 40° 42' 04" LEFT FORWARD

LOADING: CF = 2000 (57)

STRUCTURAL FILE NO.: 7803753

WEARING SURFACE: ASPHALTIC CONCRETE

APPROACH SLABS: AS-1-67 (25' LONG)

ALIGNMENT: TANGENT AND @ 45' CURVE RIGHT

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR PRODUCTION
705 OAKWOOD STREET, RAVENNA, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
DAA	DAA	---	--
CHECKED	REVISED	STRUCTURE FILE NUMBER	

SUPERSTRUCTURE DETAILS

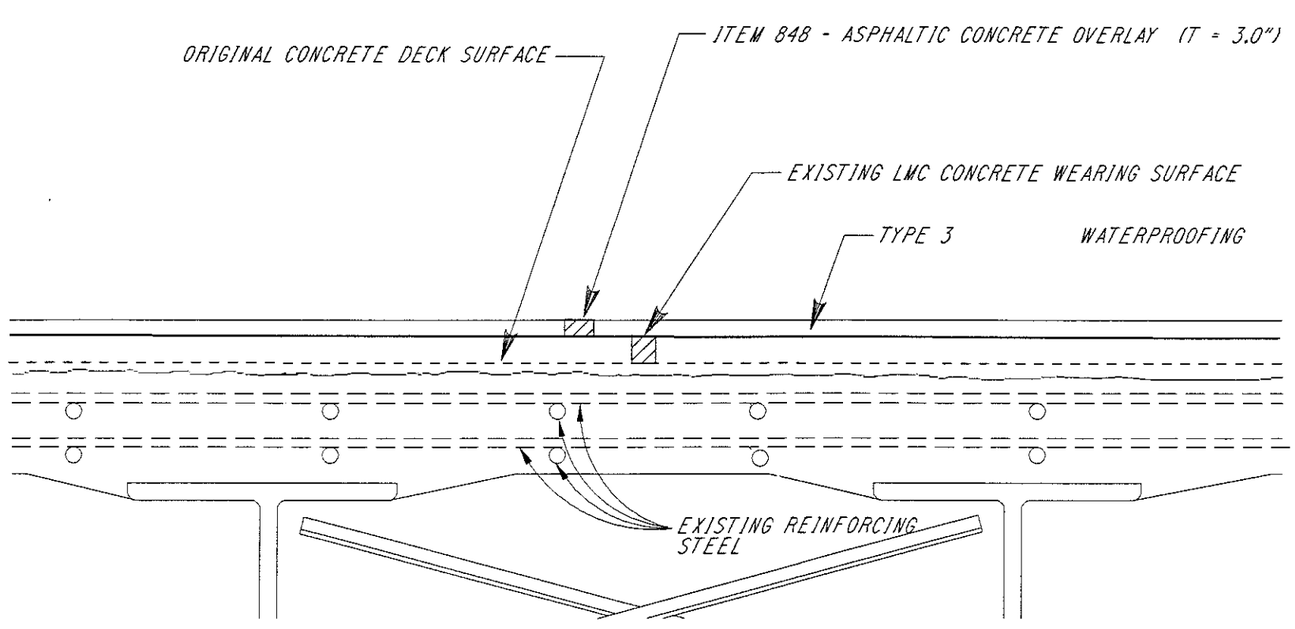
MAH/TRU-80-
0.00/0.00

2/7

46/51

ESTIMATED QUANTITIES					SEE SHEET
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	
				STRUCTURE: TRU-80-0499L (SFN: 7803931)	
254	01001	648	SQ YD	PAVEMENT PLANING (3.75"), BITUMINOUS, AS PER PLAN	
512	33010	648	SQ YD	TYPE 3 MEMBRANE WATERPROOFING	
516	31300	78.64	LIN FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM *	7
518	12701	10	EACH	SCUPPER VERTICAL EXTENSION, AS PER PLAN	5
858	10050	54.00	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE B (446), (T-3")	
				STRUCTURE: TRU-80-0592L (SFN: 7803990)	
254	01001	499	SQ YD	PAVEMENT PLANING (3.75"), BITUMINOUS, AS PER PLAN	
512	33010	499	SQ YD	TYPE 3 MEMBRANE WATERPROOFING	
516	31300	77.62	LIN FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM *	7
518	12701	12	EACH	SCUPPER VERTICAL EXTENSION, AS PER PLAN	5
858	10050	41.58	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE B (446), (T-3")	
				STRUCTURE: TRU-80-0856L (SFN: 7804148)	
512	33010	1913	SQ YD	TYPE 3 WATERPROOFING	
516	11211	76.75	LIN FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN *	6
518	12701	16	EACH	SCUPPER VERTICAL EXTENSION, AS PER PLAN	5
858	10050	159.42	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE B (446), (T-3")	

* - SEE PROPOSAL NOTE



TYPICAL OVERLAY DETAIL
BRIDGE NO. TRU-80-0856L

EXISTING STRUCTURES (CONT.)

TRU-80-0499L

TYPE: CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPAN: 46'-0", 65'-6", 46'-0" c/c BEARINGS

ROADWAY: 40'-0" f/f PARAPETS WITH 1" CURBS

SKEW: NONE

LOADING: CF = 2000 (57)

STRUCTURAL FILE NO.: 7803931

WEARING SURFACE: ASPHALTIC CONCRETE

APPROACH SLABS: AS-1-64 (25' LONG)

ALIGNMENT: TANGENT

TRU-80-0592L

TYPE: CONTINUOUS ROLLED STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPAN: 33'-0", 47'-6", 33'-0" c/c BEARINGS

ROADWAY: 40'-0" f/f PARAPETS WITH 1" CURBS

SKEW: 8° 17' 45"

LOADING: CF = 2000 (57)

STRUCTURAL FILE NO.: 7803990

WEARING SURFACE: ASPHALTIC CONCRETE

APPROACH SLABS: AS-1-54 (25' LONG)

ALIGNMENT: TANGENT

TRU-80-0856L

TYPE: 6 SPAN CONTINUOUS ROLLED STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPAN: 58'-0", 83'-0", 83'-0", 83'-0", 83'-0", 58'-0" c/c BEARINGS

ROADWAY: 33'-0" f/f CURBS WITH 6" CURBS

SKEW: 33° 30'

LOADING: CF = 2000 (57)

STRUCTURAL FILE NO.: 7804148

WEARING SURFACE: LATEX MODIFIED CONCRETE

APPROACH SLABS: AS-1-54 (25' LONG)

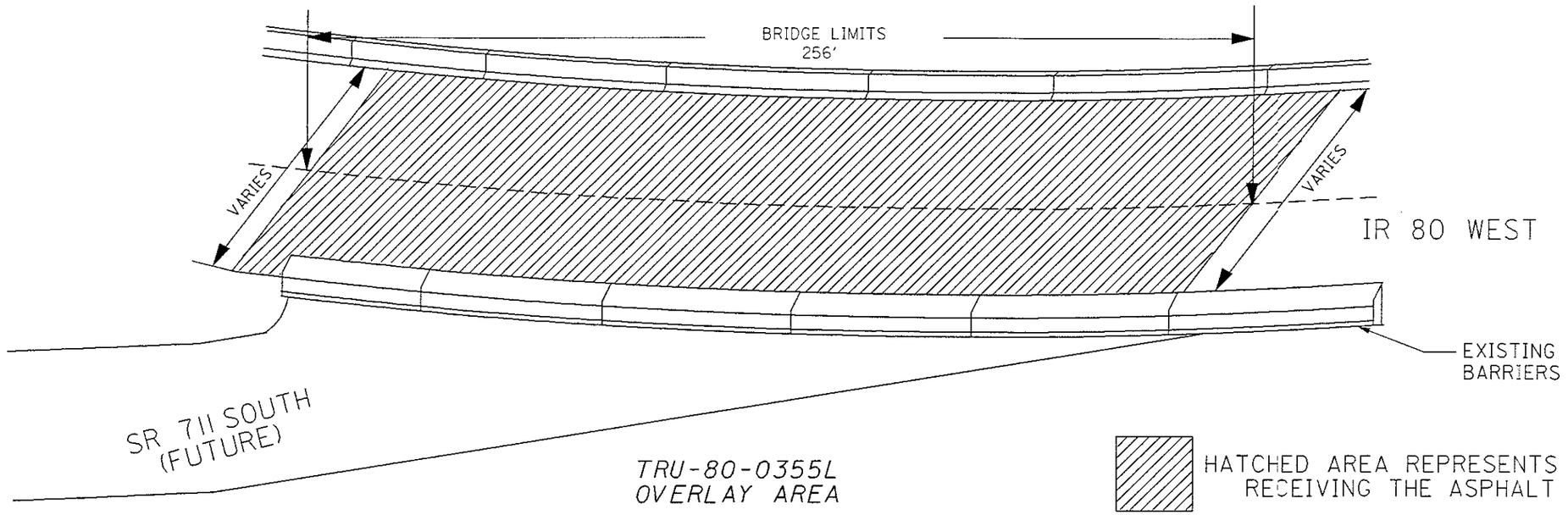
ALIGNMENT: TANGENT

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR PRODUCTION
705 OAKWOOD STREET, RAVENNA, OHIO

DESIGNED DAA | DRAWN DAA | CHECKED | REVIEWED | DATE | REVISED | STRUCTURE FILE NUMBER 5004713 & 9004772

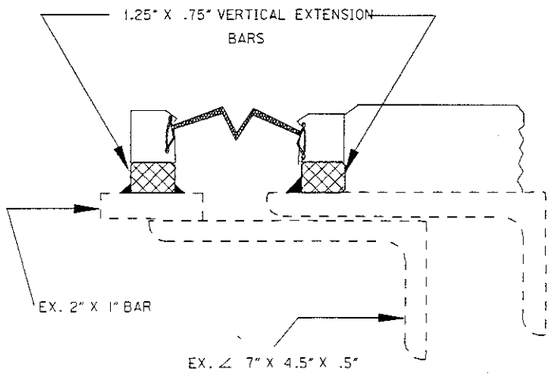
SUPERSTRUCTURE DETAILS

MAH/TRU-80-0.00/0.00

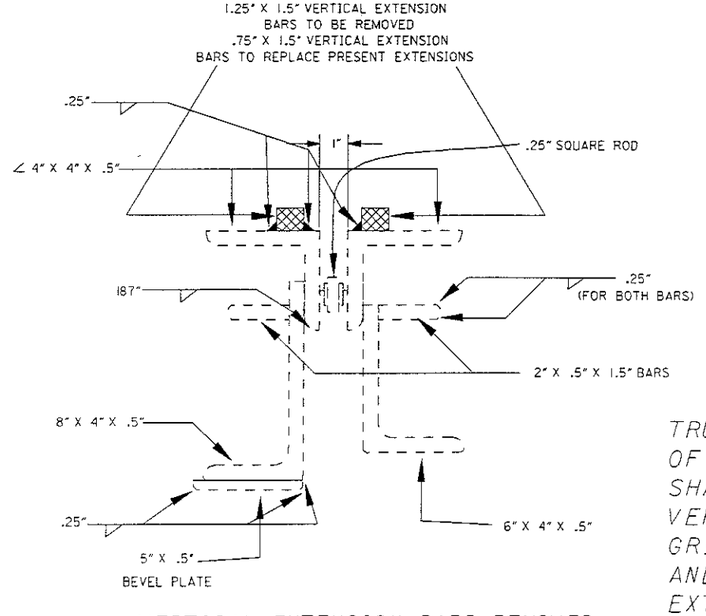


TRU-80-0355L
OVERLAY AREA

HATCHED AREA REPRESENTS THE PART RECEIVING THE ASPHALT OVERLAY



TRU-80-0856L VERTICAL EXTENSION BARS
TRU-80-0353R, 0355L, & 0421L
*VERTICAL EXTENSION BARS REMOVED**



VERTICAL EXTENSION BARS REMOVED FROM HINGES ON TRU-80-0421L

** -NOTE: 1.25" X 1.5" VERTICAL EXTENSION BARS ARE TO BE REMOVED ON BRIDGES TRU-80-0353R, 0355L, & 0421L*

TRU-80-0421L SHALL INCLUDE ITEM 516 - VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINT, AS PER PLAN. THIS ITEM SHALL INCLUDE ALL WORK REQUIRED TO REMOVE THE EXISTING VERTICAL EXTENSIONS, REMOVE EXISTING JOINT MATERIAL AND GRIND EXISTING STEEL PLATES FLUSH TO AN ASTM SA-1 FINISH, AND INCIDENTALS AT THE HINGE LOCATION. THE STEEL EXTENSIONS SHALL BE WELDED TO FORM A WATERTIGHT SEAL. THE VERTICAL EXTENSIONS ON THE HINGES ARE TO BE LOWERED IN ORDER TO ACCOMODATE THE .75" DIFFERENCE BETWEEN THE EXISTING ASPHALT SURFACE AND THE PROPOSED ASPHALT OVERLAY. PAYMENT SHALL BE AT THE UNIT BID PRICE OF ITEM 516 VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINT, AS PER PLAN.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR PRODUCTION
705 OAKWOOD STREET, RAVENNA, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
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CHECKED	REVISED	STRUCTURE FILE NUMBER	

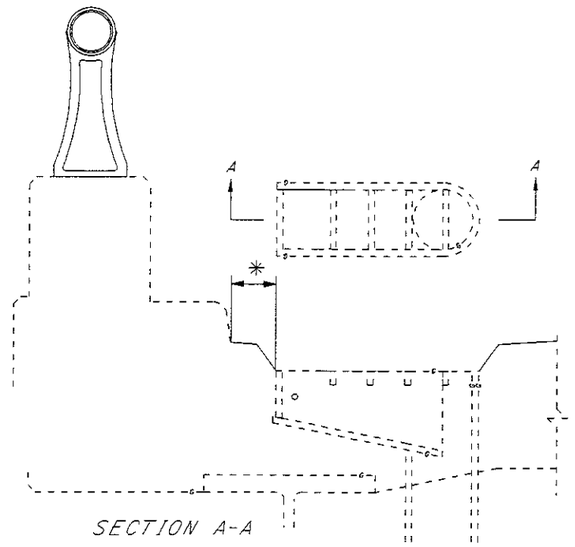
OVERLAY AND EXPANSION JOINT DETAILS

BR. NO. TRU-80-0353R, TRU-80-0355L,
TRU-80-0421L, TRU-80-0856L

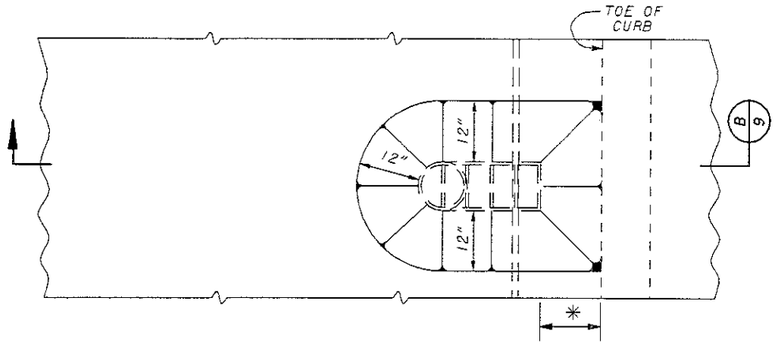
MAH/TRU-80-0.00/0.00

4/7

48/51



TYPICAL EXISTING SCUPPER TO BE MODIFIED

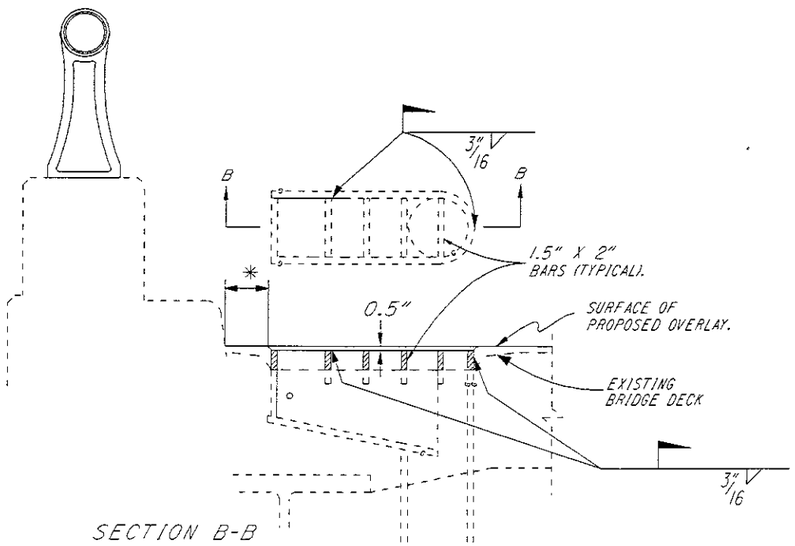


DETAIL AT SCUPPERS

PRIOR TO PLACEMENT OF THE ASPHALTIC CONCRETE OVERLAY THE CONTRACTOR SHALL ADD BY WELDING, THE PROTECTIVE SCUPPER CAPS. THE EXISTING SURFACE WHICH WILL TAKE THE WELD SHALL BE SANDBLASTED TO AN ASTM SA-1 FINISH. THE EXPOSED SURFACES SHALL BE PAINTED WITH ITEM 815. IF ANY SCUPPER OUTLET PIPE SECTION IS DEEMED UNACCEPTABLE BY THE ENGINEER, IT SHALL BE CUT DOWN TO THE SECTION THAT WILL ADHERE A WELD. ALL COSTS, INCLUDING INCIDENTALS AND REMOVAL OF BAD SECTIONS SHALL BE INCLUDED IN THE UNIT BID COST OF ITEM 518 SCUPPER LENGTHENING, AS PER PLAN.

NOTE:

THE OVERLAY HEIGHT WILL BE LESS THAN THE PRESENT HEIGHT ON ALL THE BRIDGES WITH THE EXCEPTION OF TRU-80-0856L. THE PRESENT SLOPE INTO THE SCUPPERS IS PRESENTLY FINE AND SHALL BE MAINTAINED FOR THE FUTURE OVERLAY. TRU-80-0856L SHALL RELY SOLELY ON THE DETAIL SHOWN. ADDITIONALLY, ALL SCUPPERS NEED TO BE CLEANED OF ALL DEBRIS THAT MAY IMPEDE DRAINAGE.



NOTE:

PRIOR TO PLACEMENT OF THE CONCRETE OVERLAY, THE CONTRACTOR SHALL ADD, BY WELDING, VERTICAL EXTENSIONS TO ALL EXISTING SCUPPERS ON THE STRUCTURE. SANDBLAST ALL EXPOSED STEEL. ALL EXPOSED STEEL TO BE PAINTED WITH 2 COATS OF ZINC RICH PAINT. ALL DESCRIBED WORK IS INCLUDED FOR PAYMENT UNDER ITEM 518 SCUPPER, VERTICAL EXTENSION, AS PER PLAN.

TYPICAL VERTICAL EXTENTION OF SCUPPERS

*- DISTANCE FROM THE PARAPET BASE TO THE SCUPPERS VARIES (MINIMUM = 0").

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR PRODUCTION
705 OAKWOOD STREET, RAVENNA, OHIO

DESIGNED	DRAWN	REVIEWED	DATE
DAA	DAA		
CHECKED	REVISED	STRUCTURE FILE NUMBER	

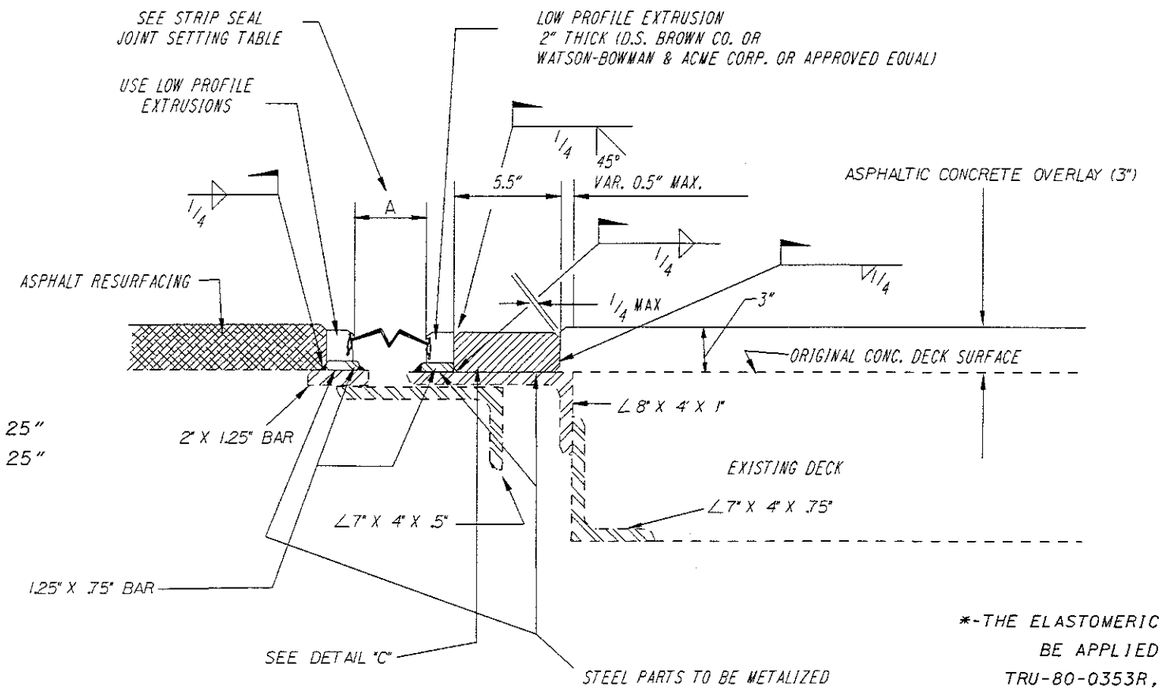
SCUPPER DETAILS
BRIDGE NO. TRU-80-0353R, TRU-80-0355L, TRU-80-0499L, TRU-80-0592L, TRU-80-0856L

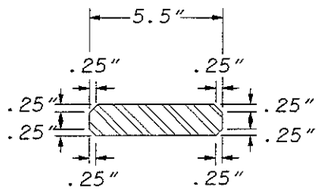
MAH/TRU-80-0.00/0.00

5/7

4/9
5/7

STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL





DETAIL "C"

STRIP SEAL JOINT SETTING TABLE

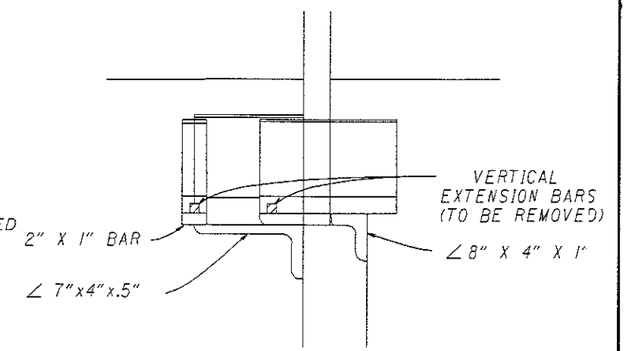
3" STRIP SEAL (TRU - 80 - 0353R) DIMENSION A			
30 F	1.875"	70 F	1.625"
40 F	1.75"	80 F	1.50"
50 F	1.75"	90 F	1.50"
60 F	1.625"		

3" STRIP SEAL (TRU - 80 - 0421L) DIMENSION A			
30 F	1.875"	70 F	1.625"
40 F	1.75"	80 F	1.50"
50 F	1.75"	90 F	1.50"
60 F	1.625"		

3" STRIP SEAL (TRU - 80 - 0355L) DIMENSION A			
30 F	1.875"	70 F	1.625"
40 F	1.75"	80 F	1.50"
50 F	1.75"	90 F	1.50"
60 F	1.625"		

4" STRIP SEAL (TRU - 80 - 0856L) DIMENSION A			
30 F	2.00"	70 F	1.50"
40 F	1.875"	80 F	1.375"
50 F	1.625"	90 F	1.125"
60 F	1.50"		

*-THE ELASTOMERIC STRIP SEAL IS TO BE APPLIED TO BRIDGES TRU-80-0353R, TRU-80-0355L, TRU-80-0421L, TRU-80-0856L.



EXISTING SECTION K-K

NOTES:

1. ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN

   THIS ITEM SHALL INCLUDE ALL WORK REQUIRED TO REMOVE THE EXISTING VERTICAL EXTENSIONS, WHICH INCLUDES REMOVAL OF THE EXISTING JOINT MATERIAL, STEEL BARS AND INCIDENTALS. IT SHALL ALSO INCLUDE REMOVAL OF THE EXISTING WELDS. REMOVAL SHALL BE PER ITEM 202.

   THIS ITEM SHALL ALSO INCLUDE ALL WORK REQUIRED TO TRIM EXISTING STEEL WHERE NECESSARY, REMOVE EXISTING JOINT MATERIAL AND STEEL PLATES OR BARS, PROVIDE NEW STEEL PLATES AND EXTRUSIONS, CLASS S CONCRETE, REINFORCING, DOWELS, AND CONTINUOUS NEOPRENE STRIP SEAL, AS INDICATED IN THE PLANS. THIS ITEM SHALL CONFORM TO ITEM 516 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS AND STANDARD DRAWING EXJ-4-87 EXEPT AS NOTED HEREIN. THE STEEL EXTRUSIONS SHALL BE LOW PROFILE EXTRUSIONS 1½" THICK (D.S. BROWN CO. OR WATSON-BOWMAN & ACME OR APPROVED EQUAL.)

   THE STEEL EXTRUSION SHALL BE PROVIDED IN MAXIMUM LENGTH POSSIBLE TO ALLOW FOR TRAFFIC MAINTENANCE AND SHALL BE WELDED TOGETHER TO FORM A WATERTIGHT JOINT. THE NEOPRENE STRIP SEAL SHALL BE ONE PIECE. NO FIELD VULCANIZATION SHALL BE ALLOWED. THE SEAL SHALL NOT BE INSTALLED UNTIL ALL OTHER WORK IS COMPLETE UPON THE STRUCTURE.

   THE PROPOSED STEEL EXTRUSIONS AND DECK PLATES SHALL BE METALIZED AS SPECIFIED IN STANDARD DRAWING EXJ - 4 - 87. AREAS THAT ARE DAMAGED BY WELDING SHALL BE REPAIRED WITH ZINC RICH PAINT.

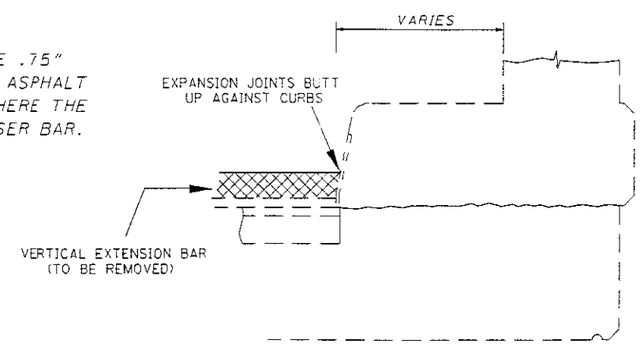
   THE APPROVAL OF AN ALTERNATIVE SEAL DESIGN AND THE ISSUANCE OF REVISED PROJECT PLANS SHALL BE BASED ON THE UNDERSTANDING THAT SUCH PROJECT MODIFICATIONS WILL BE DONE WITHOUT COST TO THE STATE.

   PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN, AND SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED HEREIN.

2. REINFORCEMENT IS NOT SHOWN.

3. THE EXPANSION JOINT IS TO BE LOWERED IN ORDER TO ACCOMODATE THE .75" DIFFERENCE BETWEEN THE EXISTING ASPHALT LAYER AND THE PROPOSED ASPHALT OVERLAY. THE EXCEPTION IS TO BE BRIDGE NUMBER TRU-80-0856L, WHERE THE EXPANSION JOINT IS TO BE RAISED THREE INCHES BY INSERTING A RISER BAR.

4. THE ABOVE STRIP SEAL SETTINGS ARE THE MINIMUM JOINT OPENING DISTANCES (DIMENSION "A") AT THE TIME OF INSTALLATION OF THE STRIP SEAL GLANDS AS NOTED ABOVE. FOR ADDITIONAL INFORMATION, REFER TO STANDARD DRAWING EXJ-4-87. ALL DIMENSIONS OF EXISTING EXPANSION DEVICES SHALL BE FIELD VERIFIED PRIOR TO ORDERING ANY MATERIALS.



EXPANSION JOINT EXTENSION DETAIL

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR PRODUCTION
709 OAKWOOD STREET, RAVENNA, OHIO

DESIGNED DAA
DRAWN DAA
CHECKED CET
REVISED

ELASTOMERIC STRIP SEAL
BR.TRU-80-0353R,TRU-80-0355L,TRU-80-0421L,TRU-80-0856L

MAH/TRU-80-0.00/0.00

6/7
50/51

GENERAL NOTES AND DETAILS FOR POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

ITEM SPECIAL - POLYMER-MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THIS ITEM WILL BE USED TO SEAL THE EXPANSION/CONTRACTION JOINTS AS PER THESE DETAILS AND THE MANUFACTURER'S REQUIREMENTS USING A POLYMER-MODIFIED ASPHALT SYSTEM. THE PRIME CONTRACTOR WILL OBTAIN THE SERVICES OF ONE OF THE FOLLOWING APPROVED APPLICATORS WHO WILL FURNISH AND INSTALL THE NEW BRIDGE EXPANSION JOINT SYSTEM AFTER ALL PAVING ON THE AFFECTED BRIDGE(S) HAS BEEN COMPLETED.

D.S. BROWN COMPANY
P.O. BOX 158
300 E. CHERRY STREET
N. BALTIMORE, OH 45872-0158
TEL: (419) 257-3561

LINEAR DYNAMICS, INC.
RD #2 BOX 311
MUNCY, PA 17756
TEL: (717) 546-6041

INFASTRUCTURE SYSTEMS, INC.
830 E. HIGGINS ROAD
SUITE 111M
CHICAGO, IL 60173-4792
TEL: (708) 706-9230

HARRIS SPECIALTY CHEMICALS, INC.
10245 CENTURION PARKWAY, N.
JACKSONVILLE, FL 32256
TEL: (904) 996-6000

MATERIALS:

BRIDGING PLATE:

MILD STEEL 1/8" OR 1/4" THICK PLATE, 8" WIDE OR 18 GAUGE ALUMINUM, 8" WIDE.

BINDER:

TYPE:	POLYMER MODIFIED ASPHALT
SOFTENING POINT:	180 DEGREES F. MIN.
FLOW:	3 mm. MAX. AT 140 DEGREES F.
PENETRATION:	9 mm. MAX. AT 77 DEGREES F. 1 mm. MIN AT 0 DEGREES F. ASTM D 3407
DUCTILITY:	40 cm. MIN. ASTM D 113
RESILIENCE:	60% MIN. AT 77 DEGREES F.
TENSILE ADHESION:	700% MIN.
SPECIFIC GRAVITY:	1.10 * 0.05
POURING TEMP:	350 - 390 DEGREES F.

AGGREGATE:

TYPE:	CRUSHED, DOUBLE WASHED, AND DRIED GRANITE OR BASALT
GRADATION	THE GRADATION OF THE AGGREGATE VARIES BY MANUFACTURER AND WILL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS FOR THE SYSTEM BEING USED ON THIS PROJECT.

NOTE: PRIOR TO PLACEMENT OF ANY PORTION OF THE JOINT SYSTEM, THE PROJECT ENGINEER MUST HAVE CERTIFIED TEST DATA MEETING ALL THE MINIMUM REQUIREMENTS OF ALL THE MATERIALS OF THE JOINT SYSTEM.

INSTALLATION PROCEDURES:

SAWING AND SURFACE PREPARATION:

AFTER ALL PAVING OPERATIONS ARE COMPLETE, THE OVERLAY IS TO BE TRANSVERSELY SAW CUT FULL DEPTH NO LESS THAN TWO INCHES DEEP (20" CENTERED OVER JOINT OPENING, UNLESS OTHERWISE NOTED). REMOVE ALL MATERIAL, INCLUDING WATER-PROOFING MATERIAL, BETWEEN SAW CUTS. THOROUGHLY CLEAN AND DRY EXPOSED CONCRETE, STEEL, AND CUT SURFACES USING COMPRESSED AIR AND A HOT COMPRESSED AIR (HCA) LANCE. THE LANCE MUST PRODUCE A FLAME RETARDED AIR STREAM TEMPERATURE OF 3000 DEGREES F. AT A VELOCITY OF 3,000 FEET PER SECOND WITH 15 PSIG CHAMBER PRESSURE. IF THERE IS AN INTERRUPTION DUE TO WEATHER OR OTHER CAUSES, THE OPERATION WILL BE REPEATED WITH THE HCA LANCE IMMEDIATELY BEFORE THE BINDER COAT OPERATION. ALSO, 6 INCHES OF THE ROAD SURFACE ON EITHER SIDE OF THE JOINT WILL BE DRIED SO THAT A SUITABLE SURFACE FOR BITUMEN ADHESION IS OBTAINED.

BUILD-UP OF JOINT LAYERS:

AGGREGATE PREPARATION:

HEAT THE AGGREGATE TO A TEMPERATURE OF 275 TO 325 DEGREES F., WITH A SUITABLE ROTATING DRUM WITH ATTACHED HEAT SOURCE OR A HOT COMPRESSED AIR LANCE, TO REMOVE DUST AND MOISTURE.

AGGREGATE PROPORTION AND LAYER THICKNESS:

MIX THE AGGREGATE WITH THE BINDER SUCH THAT THE MINIMUM AGGREGATE CONTENT BY WEIGHT WILL BE 68%. THE HEATED AGGREGATE AND BINDER WILL BE COMBINED IN LAYERS, UNLESS PATENTED INSTALLATION REQUIRES DIFFERENTLY, NOT LESS THAN 3/4 OF AN INCH NOR EXCEEDING 2-1/2 INCHES. THE THICKNESS OF EACH LAYER CAN BE VARIED WITHIN THESE LIMITS, TO ACHIEVE THE REQUIRED JOINT THICKNESS (MIN. 2 INCHES). THE OBJECTIVE IS TO COAT EACH STONE AND FILL THE VOIDS WHILE AVOIDING AN EXCESS OF BINDER. THIS WILL ACHIEVE THE MAXIMUM CONTENT OF STONE CONSISTENT WITH ALL STONES BEING COATED WITH BINDER. RAKE THE MIXTURE TO MIX AND LEVEL.

THE TOP LAYER THICKNESS WILL VARY BETWEEN 1/2 INCH AND ONE (1) INCH. IN PREPARING THE TOP LAYER, THE RATIO OF AGGREGATE TO BINDER WILL BE APPROXIMATELY 6:1 BY WEIGHT. OVERFILL THE TOP LAYER AND COMPACT TO THE LEVEL OF THE ADJACENT SURFACES USING A ROLLER OR VIBRATORY PLATE COMPACTOR. IMMEDIATELY AFTER COMPLETION OF THE COMPACTION, POUR SUFFICIENT BINDER OVER THE JOINT TO FILL THE SURFACE VOIDS AND COAT THE SURFACE STONE. DUST THE FINISHED JOINT WITH A FINE, DRY AGGREGATE TO PREVENT TACKINESS.

MAINTENANCE OF TRAFFIC:

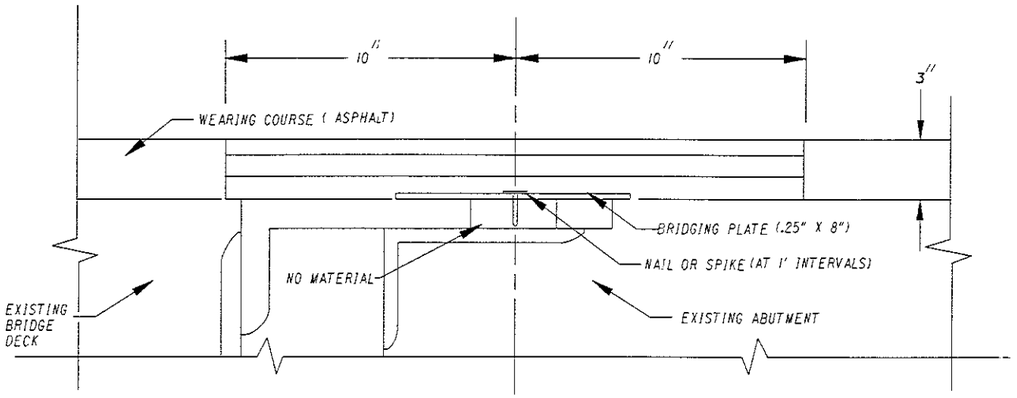
IF NECESSARY TO FACILITATE TRAFFIC MAINTENANCE, THE JOINT WILL BE INSTALLED IN TWO (2) HALF-WIDTH PHASES. DURING PHASE 1 APPROXIMATELY HALF OF THE TOTAL JOINT WILL BE INSTALLED. DURING PHASE 2, A MINIMUM OF TWO (2) INCHES OF THE PHASE 1 JOINT WILL BE REMOVED, AT OR NEAR THE CENTERLINE, WITH THE REMAINDER OF THE JOINT INSTALLED. IN ALL CASES, OPERATIONS WILL BE SCHEDULED SO THAT ALL LANES CAN BE OPEN TO TRAFFIC DURING ALL NON-WORKING HOURS.

TESTING:

CERTIFICATION WILL BE SUPPLIED FOR EACH PROJECT SHOWING BINDER COMPLIANCE WITH REQUIRED PROPERTIES. A ONE QUART SAMPLE OF BINDER WILL BE RETRIEVED FROM EACH BRIDGE FOR FURTHER TESTING BY THE O.D.O.T TESTING LABORATORY.

PAYMENT:

PAYMENT FOR ALL THE ABOVE WILL BE AT THE UNIT PRICE BID PER LINEAR FOOT OF SEALED JOINT IN PLACE FOR ITEM SPECIAL 516 31300, POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM (3 INCHES THICK). THIS WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.



TYPICAL STEEL BEAM EXPANSION JOINT

DESIGNED	DRAWN	DATE REVISED	CHECKED
		10-28-96	

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
BR. NO. TRU-82-0499L; TRU-80-0592L

MAH/TRU-80-0.00/0.00

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