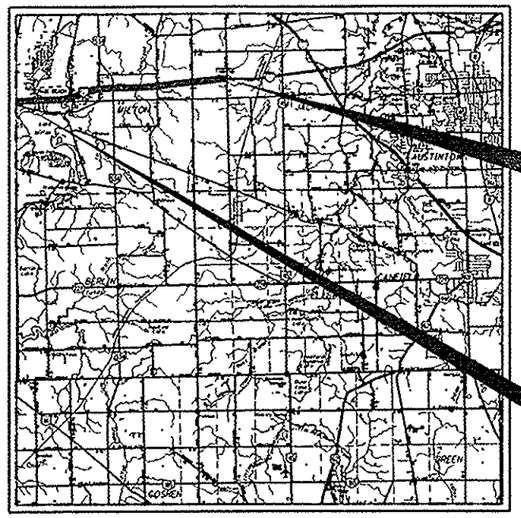
MAH - IR 76/IR 80-00.00/VAR
160498 PID - 81637
Dist 4 9/8/2016

Contract Proposal Available @ www.
Contracts.dot.state.oh.us/home



LOCATION MAP

LATITUDE: 41°6'15" LONGITUDE: 80°56'42"

SCALE IN MILES
0 1 2 3 4

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

DESIGN DESIGNATION

DESIGN FUNCTIONAL CLASSIFICATION: INTERSTATE

NHS PROJECT ..... YES

DESIGN EXCEPTIONS

NONE

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

MAH-76/80-0.00/VAR

AUSTINTOWN, JACKSON, AND AND MILTON TOWNSHIP

MAHONING COUNTY

INDEX OF SHEETS:

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PROJECT DESCRIPTION

IMPROVEMENTS OF 6.04 MILES OF I-76 IN MAHONING COUNTY BY PLANING AND RESURFACING INCLUDING PARTIAL DEPTH, FULL DEPTH PAVEMENT REPAIRS AND RESURFACING OF I-76 RAMPS. MINOR WORK TO VARIOUS STRUCTURES ON I-76 AND I-80.

PROJECT EDA:	4.68 ACRES
ESTIMATED CONTRACTOR EDA:	.25 ACRES
NOTICE OF INTENT EDA:	N/A (NOT REQUIRED)

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.

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEET 16, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED _____
DATE 3-4-16 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE 3-21-16 DIRECTOR, DEPARTMENT OF TRANSPORTATION

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

OHIO Utilities Protection SERVICE — Call Before You Dig 1-800-362-2764
(Non-members must be called directly)

OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE
1-800-925-0988

PLAN PREPARED BY:
ODOT -- DISTRICT 4 PLANNING & ENGINEERING
2088 SOUTH ARLINGTON ROAD
AKRON, OHIO 44306

ENGINEERS SEAL:

STATE OF OHIO — MATTHEW A. CHANEY — E-78423 — REGISTERED PROFESSIONAL ENGINEER

SIGNED: _____
DATE: 03/02/16

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-2.3	7/18/14	MT-95.30	7/18/14					800-2013	7/15/16	
BP-3.1	7/18/14	MT-95.50	10/16/15					808	1/29/16	
BP-9.1	7/19/13	MT-95.82	7/19/13					832	1/17/14	
		MT-98.10	7/18/14					843	4/18/03	
DM-4.3	1/15/16	MT-98.20	7/18/14					848	7/17/15	
DM-4.4	1/15/16	MT-101.90	7/17/15					908	1/29/16	
		MT-102.20	7/18/14							
TC-65.10	1/17/14	MT-104.10	10/16/15							
TC-65.11	7/18/14	MT-105.10	7/19/13							
		MGS-1.1	7/19/13							
		MGS-2.1	7/19/13							

FEDERAL PROJECT NO. E130 (385)
PID NO. 81637
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NORFOLK SOUTHERN
MAH-76/80-0.00/VAR
1-29

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TYPICAL SECTION 1

WESTBOUND LANES			
SLM		WP WB (FT)	LENGTH (MILES)
FROM	TO		
0.00	0.77	38	0.77
0.77	0.84	47	0.07
0.84	0.91	53	0.07
1.32	1.36	53	0.04
1.36	1.42	51	0.06
1.42	2.47	40	1.05
2.47	2.59	58	0.12
2.59	2.66	70	0.07
2.66	2.75	38	0.09
NOTE: RAMP LANES AND GORES ACROSS I-76 STRAIGHT LINE MILEAGE ARE INCLUDED IN THE PAVEMENT WIDTHS			

EASTBOUND LANES			
SLM		WP EB	LENGTH (MILES)
FROM	TO		
0.00	0.77	38	0.77
0.77	0.84	56	0.07
0.84	0.88	60	0.04
0.88	0.91	54	0.03
1.32	1.36	53	0.04
1.36	1.42	49	0.06
1.42	2.47	40	1.05
2.47	2.59	50	0.12
2.59	2.66	72	0.07
2.66	2.75	41	0.09
NOTE: RAMP LANES AND GORES ACROSS I-76 STRAIGHT LINE MILEAGE ARE INCLUDED IN THE PAVEMENT WIDTHS			

TYPICAL SECTION 2

WESTBOUND LANES			
SLM		WP WB (FT)	LENGTH (MILES)
FROM	TO		
2.75	2.92	28	0.17

EASTBOUND LANES			
SLM		WP EB	LENGTH (MILES)
FROM	TO		
2.75	2.94	28	0.19

(1) ITEM 254, PAVEMENT PLANING ASPHALT CONCRETE (T= 1½")
(2) ITEM 254, PAVEMENT PLANING ASPHALT CONCRETE AS PER PLAN (T= 3¼")
(3) ITEM 407, SPECIAL TACK COAT, TRACKLESS TACK @ 0.10 GAL/SY
(4) ITEM 407, SPECIAL TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.04 GAL/SY
(5) ITEM 408, PRIME COAT
(6) ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (448), (UNDER GUARDRAIL), AS PER PLAN
(7) ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448) (T = 1¾")
(8) ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5MM TYPE B (448) AS PER PLAN (T = 1½")
(9) ITEM 617, COMPACTED AGGREGATE AS PER PLAN
(10) ITEM 618, RUMBLE STRIPS, (ASPHALT CONCRETE)

(A) EXISTING ASPHALT CONCRETE SURFACE
(B) EXISTING 9" REINFORCED CONCRETE BASE
(C) EXISTING TREATED SHOULDER (ASPHALT (3") OVER AGRREGATE BASE (3"))
(D) EXISTING CONCRETE SHOULDER

CALCULATED PD
CHECKED

TYPICAL SECTIONS

MAH-76/80-0.00/VAR

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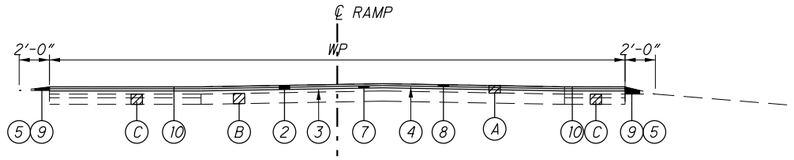
TYPICAL SECTION 3

WESTBOUND LANES			
SLM		WP WB (FT)	LENGTH (MILES)
FROM	TO		
2.92	3.02	24	0.10
3.02	3.08	60	0.06
NOTE: RAMP LANES AND GORES ACROSS I-76 STRAIGHT LINE MILEAGE ARE INCLUDED IN THE PAVEMENT WIDTHS			

EASTBOUND LANES			
SLM		WP EB	LENGTH (MILES)
FROM	TO		
2.94	3.00	24	0.06
3.00	3.08	55	0.08
NOTE: RAMP LANES AND GORES ACROSS I-76 STRAIGHT LINE MILEAGE ARE INCLUDED IN THE PAVEMENT WIDTHS			



RAMPS AT SR 534		
NAME	LENGTH (FT)	WP (FT)
A	936	25
B	989	27
C	1005	22
D	868	28

NOTE: THE CONTRACTOR SHALL NOT PAVE OVER AND OR MILL ANY OF THE EXISTING EXPOSED CONCRETE SHOULDERS ON THE RAMPS

SEE SHEET 2 FOR LEGEND

CALCULATED PD CHECKED

TYPICAL SECTIONS

MAH-76/ 80-0.00/ VAR

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UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), 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 IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)
OGPUPS 1-800-925-0988
ODOT 330-786-3145 KEN GREENE

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

ACCESS COUNCIL
ATTN: LISA SMITH
100 DEBARTOLO PLACE
SUITE 222
BOARDMAN, OH 44512
330-965-2832

ASPIRE ENERGY
(FORMERLY GATHERCO)
300 TRACY BRIDGE ROAD
ORVILLE, OH 44667
330-682-7726

AT&T
THE OHIO BELL TELEPHONE COMPANY
ATTN: HAROLD MAYNARD
50 W. BOWERY ST.
6TH FLOOR
AKRON, OH 44308
330-384-8974

DOMINION EAST OHIO
ATTN: BRYAN D. DAYTON
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OH 44333
OFFICE: 330-664-2409

MAHONING COUNTY SANITARY ENGINEER
ATTN: JOE MUCCIO
761 INDUSTRIAL ROAD
YOUNGSTOWN, OH 44509
330-793-5514 EXT: 8209

TIME WARNER CABLE
ATTN: DOUG LAWRENTZ
4352 YOUNGSTOWN ROAD SE
WARREN, OH 44484
330-369-7107 EXT 330-555-7179

ARMSTRONG CABLE
ATTN: GENO SHONCE
9328 WOODWORTH ROAD
NORTH LIMA, OH 44452
330-726-0115 EXT. 224

BUCKEYE PARTNERS, L.P.
ATTN DAVID MCKEE
4911 EAST HIGH STREET
P.O. BOX 542
MANTUA, OH 44255

CENTURYLINK
ATTN: BOBBY WALTERS
3801 ELM ROAD
WARREN, OH 44502
440-244-8415

COBRA PIPELINE CO., LTD
ATTN: ERIC JACKSON
3511 LOST NATION ROAD
WILLOUGHBY, OH 44094
440-255-1945

OHIO EDISON
ATTN: MIKE BECK
730 SOUTH AVENUE
YOUNGSTOWN, OH 44502
330-740-7704 EXT. 7704

WINDSTREAM
ATTN: BRENT HIVELY
100 OWEN BROWN ROAD
HUDSON, OH 44236
330-650-8212

WORK LIMITS

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

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS [AT LEAST 3 DAYS PRIOR TO PERFORMING THE WORK CONTACT THE TRAFFIC OFFICE AT 330-786-3147 TO CONFIRM THE WIDTHS]:

ROUTE	S.L.M TO S.L.M	LANE WIDTH
I-76	0.00 TO 6.04	12′
I-80	VARIES	12′

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING 209, LINEAR GRADING AS PER PLAN, AND PAVING UNDER THE GUARDRAIL USING 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING AS PER PLAN, SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:
1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

METHOD B:
1. PLACE ITEM 441
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, (448), UNDER GUARDRAIL, AS PER PLAN.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE ON I-76 FROM SLM 0.00 TO SLM 3.08.

ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, (448) UNDER GUARDRAIL, AS PER PLAN, 402 CU. YD.

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

PAVEMENT MARKINGS

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS DIRECTED BY THE PROJECT ENGINEER TO MATCH EXISTING PAVEMENT MARKINGS. THE QUANITIES BELOW SHALL BE USED ON I-76 SLM 3.08 TO SLM 6.04.

THE UNIT BID PRICES ON THESE PAY ITEMS WILL NOT BE ADJUSTED AS PER CMS 104.02.D.

ITEM 646- EDGE LINE, 6″	0.5 MILE
ITEM 646- LANE LINE, 6″	0.25 MILE
ITEM 646- CHANNELIZING LINE, 12″	100 FEET

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS DIRECTED BY THE PROJECT ENGINEER TO MATCH EXISTING PAVEMENT MARKINGS OF THE FOLLOWING I-80 BRIDGES. WORK WILL BE DONE AFTER THE BRIDGES ARE SEALED.

MAH-80-0076L	MAH-80-0246L	MAH-80-0313L
MAH-80-0076R	MAH-80-0246R	MAH-80-0313R

ITEM 646- EDGE LINE, 4″	0.5 MILE
ITEM 646- LANE LINE, 4″	0.5 MILE

LINEAR GRADING

SHOULDER WIDTH BEYOND THE LIMITS OF THE COMPACTED AGGREGATE WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE AND WILL BE PERFORMED ONLY IN THE AREAS NECESSARY. THIS WORK WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. THE AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. THESE ITEMS OF WORK WILL BE PERFORMED AFTER THE PLACEMENT OF ITEM 617 COMPACTED AGGREGATE. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF, OR ADDITION OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. EXCESS MATERIAL WILL BE WINDROWED ON THE SHOULDER. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

SEEDING AND MUCHING, FERTILIZER AND LIME WILL BE PERFORMED WITHIN A PERIOD NOT TO EXCEED 10 DAYS AFTER THE LINEAR GRADING.

THE QUANTITY OF ITEM 209 IS NOT PERMITED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

209, LINEAR GRADING, 405 STA.
659, SEEDING AND MULCHING, 22500 SQ YD
659, COMMERCIAL FERTILIZER, 3.04 TON
659, LIME, 4.65 ACRES
659, WATER, 122 M. GAL.

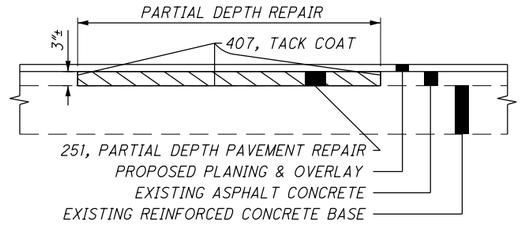
ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

THIS ITEM OF WORK SHALL BE PERFORMED IN CONFORMANCE WITH ITEM 254 IN THE CMS EXCEPT THE DEPTH SHALL VARY FROM 3 ¼″ OR TO THE TOP OF THE CONCRETE WHICHEVER IS FIRST. THIS WORK SHALL BE PERFORMED SO THAT THE CONCRETE BASE IS NOT DISTURBED. ALL EQUIPMENT, LABOR, TOOLS, AND OTHER INCIDENTALS REQUIRED TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (I-76 SLM 0.00 TO SLM 3.08)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE ON I-76 FROM SLM 0.00 TO SLM 3.08 AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 448 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

251, PARTIAL DEPTH PAVEMENT REPAIR, 400 SQ. YD.



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GENERAL NOTES

MAH-76/80-0.00-VAR

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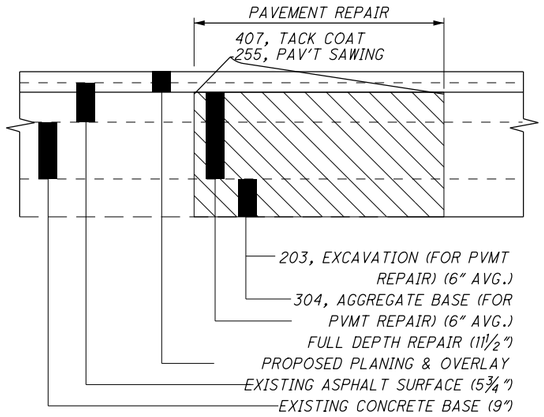
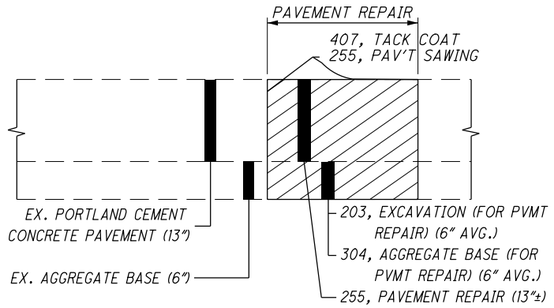
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM, AS PER PLAN (I-76 SLM 0.00 TO SLM 3.08)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 11½"± CONCRETE, CLASS RRCM. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED.
PAVEMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. REPAIR LOCATIONS SHOULD BE DOCUMENTED FOR FUTURE REFERENCE.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
SLM 0.00 TO SLM 3.08:
255, PAVEMENT REPAIR, 800 SQ YD
255, FULL DEPTH PAVEMENT SAWING, 1200 FT



ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM, AS PER PLAN (I-76 SLM 3.08 TO SLM 6.04)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 13"± CONCRETE, CLASS RRCM. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED.
PAVEMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. REPAIR LOCATIONS SHOULD BE DOCUMENTED FOR FUTURE REFERENCE.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
SLM 3.08 TO SLM 6.04:
255, PAVEMENT REPAIR, 200 SQ YD
255, FULL DEPTH PAVEMENT SAWING, 300 FT



ITEM 203 - EXCAVATION (FOR PAVEMENT REPAIR)

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
203, EXCAVATION (FOR PAVEMENT REPAIR) 167 CU YD

ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATEDQUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
304, AGGREGATE BASE (FOR PAVEMENT REPAIR) 167 CU YD

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM TYPE B (448), AS PER PLAN

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

ITEM 611 - CATCH BASIN ADJUSTED TO GRADE

THERE IS ONE (1) EXISTING CTCH BASIN THAT SHALL BE ADJUSTED TO GRADE. THE CATCH BASIN IS LOCATED IN THE GORE OF RAMP B AT I-76.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

611, CATCH BASIN ADJUSTED TO GRADE, 1 EACH

ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 611 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

SPECIAL, MISCELLANEOUS METAL 245 POUNDS

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1-½"	100
¾"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

ITEM 408 - PRIME COAT, AS PER PLAN

APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

ITEM 618 - RUMBLE STRIPS, (ASPHALT CONCRETE)

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE ALONG I-76 WITHIN THE PROJECT LIMITS, FROM SLM 0.00 TO SLM 3.08. OFFSET "A" AND "B" SHALL FOLLOW THE OFFSET DIMENSION TABLE AS SHOWN ON STANDARD CONSTRUCTION DRAWING B.P-9.1 FOR THIS ITEM OF WORK.

ITEM 618, RUMBLE STIPS, (ASPHALT CONCRETE) 12.32 MILES

BARRIER REFLECTORS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS DIRECTED BY THE ENGINEER FOR INSTALLING/REPLACING BARRIER REFLECTORS ON ALL EXISTING BARRIER RUNS WITHIN THE PROJECT LIMITS.

202, REMOVAL MISC.: BARRIER REFLECTOR, 33 EACH
626, BARRIER REFLECTOR, 130 EACH

ITEM SPECIAL - MISC.: VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LECENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT THE FOLLOWING STRUCTURES:

MAH-76-0068
MAH-76-0165
MAH-534-1409

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
SPECIAL - MISC.: VERTICAL CLEARANCE, 3 EACH

CALCULATED PD CHECKED

GENERAL NOTES

MAH-76/80-0.00-VAR

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ITEM SPECIAL - TACK COAT, TRACKLESS TACK
ITEM SPECIAL - TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE

DESCRIPTION
THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH A TRACKLESS TACK ASPHALT EMULSION.

FURNISH MATERIALS ACCORDING TO THE DEPARTMENT'S APPROVED LIST.

MEET ALL REQUIREMENTS OF ITEM 407 TACK COAT IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS REQUIRED BY THE CONTRACT, EXCEPT AS NOTED BELOW.

MATERIAL
MEET ALL PROPERTIES OF THE APPROVED MANUFACTURER'S TRACKLESS TACK SPECIFICATION REQUIREMENTS ON FILE WITH THE LABORATORY AT TIME OF PLACEMENT.

ACCEPTANCE AND SAMPLING OF MATERIALS:
SUPPLY CERTIFIED TEST DATA TO THE ENGINEER AND TO THE DISTRICT LABORATORY DEMONSTRATING THE TRACKLESS TACK SUPPLIED WAS TESTED FOR AND MEETS ALL MATERIAL PROPERTIES SHOWN ON THE DEPARTMENT'S APPROVED LIST.

DURING CONSTRUCTION, ODOT PERSONNEL WILL SAMPLE FROM THE DISTRIBUTOR AND SUPPLY TO THE DISTRICT TEST LAB A MINIMUM OF ONE QUART OF TRACKLESS TACK FOR EVERY 25,000 GALLONS USED ON THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE PROPER PLASTIC QUART SAMPLING CONTAINER. CLEARLY MARK ON THE SAMPLE WITH THE MANUFACTURER'S NAME, PROJECT NUMBER, AND THE WORDS "TRACKLESS TACK".

EQUIPMENT
FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF PREVIOUSLY USED MATERIAL CHARGE IS DIFFERENT THAN THE PROPOSED MATERIAL.

APPLICATION OF ASPHALT MATERIAL
UNIFORMLY APPLY THE TRACKLESS TACK WITH A DISTRIBUTOR ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. IF TRACKLESS TACK IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL.

ENSURE ALL NOZZLES AND SPRAY PATTERNS ARE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. PLACE THE ANGLE OF THE NOZZLE AT A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR REQUIRED SPRAY NOZZLE SIZE AND DISTRIBUTOR AND NOZZLE SETTINGS.

APPLY AT A RATE OF 0.04 TO 0.1 GALLONS PER SQUARE YARD. DO NOT DILUTE TRACKLESS TACK. RECOMMENDED APPLICATION TEMPERATURE IS 160°F. DO NOT EXCEED 180°F. THE ENGINEER WILL APPROVE THE QUANTITY, RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION FO THE TRACKLESS TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

PERFORMANCE OF TRACKLESS TACK
DETERMINE THE TIME TO SET FOR THE MATERIAL TO BECOME TRACKLESS. THE ENGINEER WILL REPORT ANY ISSUES WITH EXCESSIVE TIME TO SET, OR AFTER SET ISSUES WITH STICKINESS, OR PICKUP OF THE TACK TO THE DISTRICT TESTING ENGINEER AND NEW PRODUCT ENGINEER, BRAD YOUNG 614-351-2882.

IF THE CERTIFIED TEST DATA FAILS TO MEET THE LAB TESTING CRITERIA, OR FIELD SAMPLES FAIL TO MEET THE LAB TEST CRITERIA, OR THE TRACKLESS TACK FAILS TO PERFORM SATISFACTORILY IN THE FIELD, AS NOTED ABOVE, THE CONTRACTOR WILL BE REQUIRED TO REPLACE AND SUPPLY ANOTHER APPROVED TRACKLESS TACK PRODUCT FOR THE REMAINDER OF THE PROJECT AT NO ADDITIONAL COST TO THE DEPARTMENT.

ANY FAILING TRACKLESS TACK PRODUCT WILL BE REMOVED FROM THE DEPARTMENT'S APPROVED LIST.

ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE A

THIS ITEM OF WORK SHALL CONSIST OF REPAIRING EXISTING PRESSURE RELIEF JOINTS WITHIN THE LIMITS OF THE PROJECT BY REMOVAL OF THE EXISTING ASPHALT AND REPLACING WITH ITEM 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22. SEE STANDARD CONSTRUCTION DRAWING BP-2.3 FOR ADDITIONAL DETAILS.

PAYMENT: MEASUREMENT OF THE PRESSURE RELIEF JOINT FOR PAYMENT PURPOSES SHALL BE ALONG THE CENTERLINE OF THE SLEEPER SLAB 1) BETWEEN THE OUTSIDE EDGES OF CONCRETE SHOULDERS, 2) BETWEEN THE BACKS OF CURB, AND 3) BETWEEN THE EDGES OF PAVEMENT WHEN ASPHALT SHOULDERS ARE USED, PAYMENT SHALL BE PER FOOT OF ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE A AND SHALL INCLUDE SAW CUTTING AND REMOVAL OF EXISTING PAVEMENT, ITEM 448, AND ALL LABOR, MATERIALS AND INCIDENTALS NEEDED TO CONSTRUCT THE JOINT AS NOTED ABOVE.

MAH-76-0701L	MAH-80-0245R
MAH-76-0701R	MAH-80-0245L
MAH-80-0076R	MAH-80-0312R
MAH-80-0076L	MAH-80-0312L

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
SPECIAL, PRESSURE RELIEF JOINT, TYPE A 1014 FT

BRIDGE TERMINAL ASSEMBLY REPLACEMENT

THE FOLLOWING QUANITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO REPLACE THE FOLLOWING BRIDGE TERMINAL ASSEMBLIES

MAH-76-0701R (ALL FOUR QUAD.)
MAH-76-80-0076R (FWD & REAR RT)

606, GUARDRAIL, TYPE 5	182 FEET
606, BRIDGE TERMINAL ASSEMBLY, TYPE 1	5 EACH
606, BRIDGE TERMINAL ASSEMBLY, TYPE 2	1 EACH

COMMUNITY NOTIFICATION:

THE CONTRACTOR WILL ADVISE THE ODOT PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST ALSO PROVIDE NOTIFICATION TO THE ODOT PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO ANY LANE RESTRICTIONS. THE ODOT PROJECT ENGINEER WILL FORWARD THE INFORMATION TO THE ODOT, DISTRICT 4 OFFICE OF PUBLIC INFORMATION FOR USE TO NOTIFY EMERGENCY SERVICES AND THE COMMUNITY A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE START OF PROJECT CONSTRUCTION. INCLUDED IN THIS NOTIFICATION WILL BE THE PROPOSED LANE RESTRICTIONS.

ITEM 606 - ANCHOR ASSEMBLY, TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27.75 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

TYPE A ANCHOR ASSEMBLY REPLACEMENT

THERE ARE 4 LOCATIONS BETWEEN SLM 2.55 AND SLM 3.10 WHERE TYPE A ANCHOR ASSEMBLIES CURRENTLY EXIST AT THE ENDS OF THE WESTBOUND & EASTBOUND ON RAMPS FROM SR 534 TO IR 76. THE FOLLOWING ITEMS WILL BE USED TO REMOVE THE EXISTING ANCHOR ASSEMBLY, A PORTION OF THE EXISTING GUARDRAIL AND INSTALL A NEW ANCHOR ASSEMBLY AND GUARDRAIL FOR EACH LOCATION:
GUARDRAIL REMOVED, 75 FT
BORROW, 2.5 CU YD
GUARDRAIL, TYPE MGS WITH LONG POSTS, 25 FT
ANCHOR ASSEMBLY, TYPE E, 1 EACH
BARRIER REFLECTOR, TYPE A, 2 EACH
SEEDING AND MULCHING, 33 SQ YD

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:
202, GUARDRAIL REMOVED, 300 FEET
203, BORROW, 10 CU YD
606, GUARDRAIL, TYPE MGS WITH LONG POSTS, 100 FEET
606, ANCHOR ASSEMBLY, TYPE E, 4 EACH
626, BARRIER REFLECTOR, TYPE A, 8 EACH
659, SEEDING AND MULCHING, 132 SQ YD
659, COMMERCIAL FERTILIZER, 0.02 TON
659, LIME, 0.03 ACRES
659, WATER, 0.36 M. GAL.

LAKE MILTON AVOIDANCE:

NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED IN LAKE MILTON RESERVOIR. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS WITHIN THE WINTER POOL LIMITS OF THE RESERVOIR.

STREAM/WETLAND AVOIDANCE:

NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED IN ANY STREAMS AND WETLANDS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN ANY STREAMS AND/OR WETLANDS. TO PROTECT AND DELINEATE THE BOUNDARY OF ANY STREAMS AND WETLANDS, A FILTER FABRIC FENCE AND TEMPORARY CONSTRUCTION FENCE, PER SUPPLEMENTAL SPECIFICATION 832, SHALL BE INSTALLED AT THE PROPOSED CONSTRUCTION LIMITS BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES, AND MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION.

TREE CLEARING:

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR CUT/REMOVE ANY TREES PRIOR TO OR DURING CONSTRUCTION OF THE PROJECT.

CONSTRUCTION EQUIPMENT AND MATERIALS STAGING AREAS:

CONSTRUCTION EQUIPMENT AND MATERIAL STAGING AREAS SHALL BE KEPT AWAY FROM STREAMS AND WETLANDS TO THE MAXIMUM EXTENT PRACTICABLE. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS/WETLANDS.

CONSTRUCTION AND DEMOLITION DEBRIS:

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT CONSTRUCTION AND DEMOLITION DEBRIS FROM ENTERING WETLANDS AND STREAM(S). ANY DEBRIS THAT DOES FALL INTO WETLANDS AND/OR STREAM(S) SHALL BE REMOVED AS SOON AS POSSIBLE WITHIN 72 HOURS.

STRUCTURE PAINTING/CONCRETE SEALING OPERATIONS:

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT OR OTHER MATERIALS USED TO REPAIR, CLEAN, PAINT, SEAL OR TREAT ANY STRUCTURE FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

MIGRATORY BIRD/CLIFF SWALLOW:

THE MAH-76-0.91L/R BRIDGES OVER LAKE MILTON ARE KNOWN TO PROVIDE NESTING HABITAT FOR THE CLIFF SWALLOW (HIRUNDO PYRRHONOTA), A BIRD PROTECTED BY LAW UNDER THE MIGRATORY BIRD TREATY ACT. CLIFF SWALLOWS CONSTUCT GOURD-SHAPED NESTS MADE OF MUD PELLETS WITH A SMALL ENTRANCE TUNNEL ON ONE SIDE. NESTS ARE TYPICALLY FOUND ON A VERTICAL SURFACE UNDER AN OVERHANG. TO AVOID IMPACTING THE SPECIES AT THIS LOCATION, ANY WORK THAT WOULD RESULT IN THE DISTURBANCE OR REMOVAL OF A CLIFF SWALLOW NEST MUST BE CONDUCTED AFTER AUGUST 15 OR BEFORE APRIL 30, WHEN THE BIRDS ARE NOT USING THE NESTS FOR EGG LAYING OR BROOD REARING.

CALCULATED PD | CHECKED

GENERAL NOTES

MAH-76/80-0.00-VAR

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NOTES

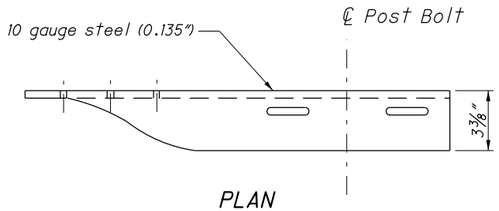
GENERAL: Components shown on this drawing are used in a variety of guardrail systems. See individual guardrail drawing for specific applications.

See CMS 606 for guardrail specifications not covered on these drawings.

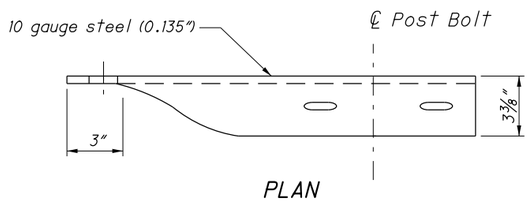
Refer to AASHTO M 180 for dimensional details of W-Beam and Thrie-Beam rail elements, related buffer and end sections, beam splices, post and splice bolts, nuts, and Type 1 W-Beam to Thrie-Beam Transition sections.

RAIL ELEMENTS: W-Beam Rail has an effective length of 12'-6" unless otherwise specified, with ¾" x 2½" post bolt slots on 6'-3" centers regardless of post spacing. Field punch or drill bolt holes or slots for irregularly spaced posts as specified in CMS 606.04.

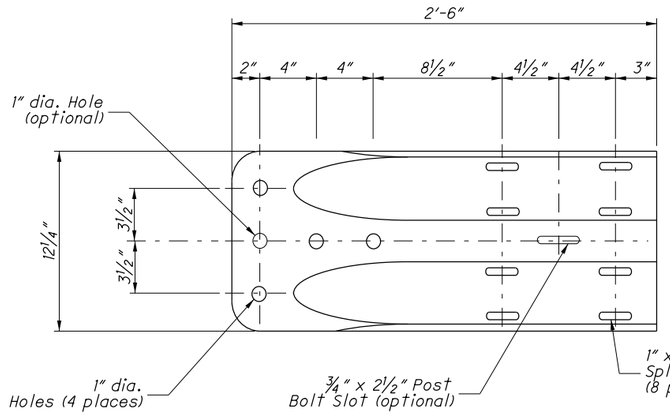
RAIL SPLICES: Lap splices between two rail elements or between a rail and terminal connector in the direction of traffic. Lap the buffer or flared end sections in the direction of traffic.



PLAN

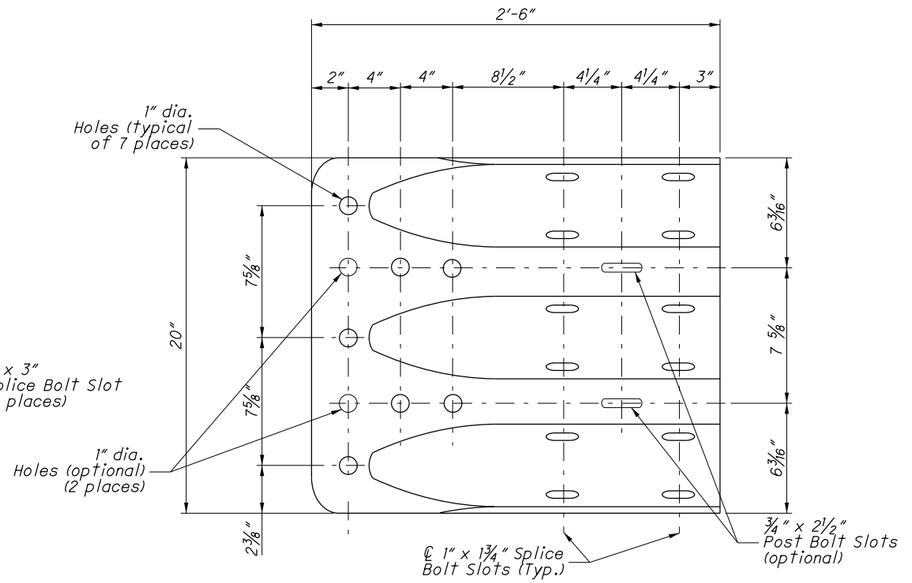


PLAN



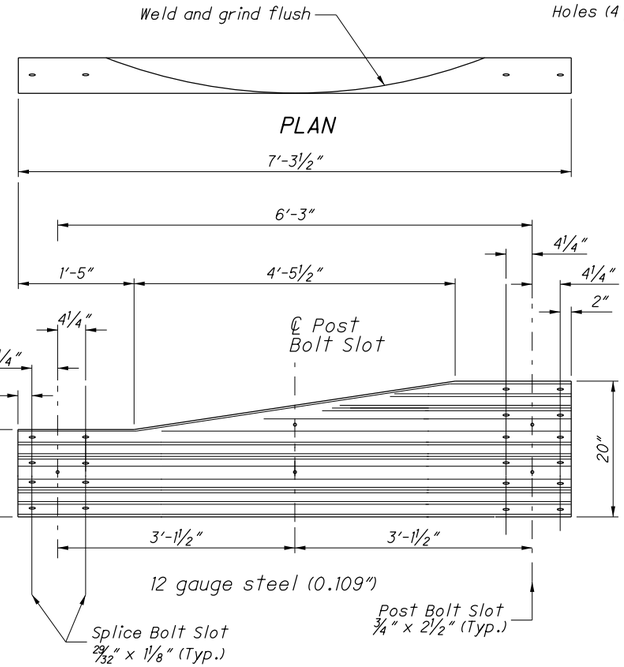
ELEVATION

W-BEAM TERMINAL CONNECTOR



ELEVATION

THRIE-BEAM TERMINAL CONNECTOR

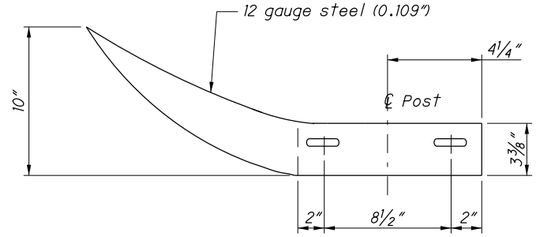


ELEVATION

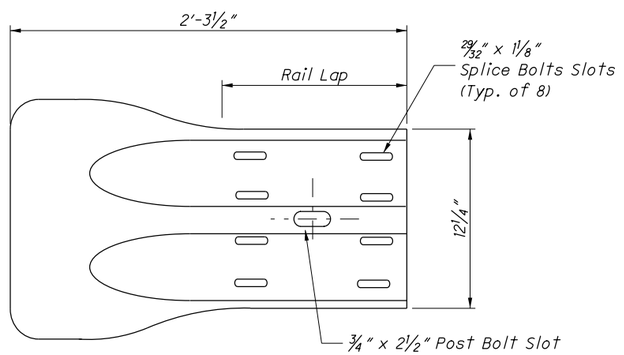
TYPE 2 TRANSITION SECTION

(Asymmetric W to Thrie-Beam)

For details of Type 1 Transition Section (Symmetric), refer to AASHTO M 180, Figure 4.

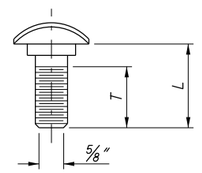


PLAN



ELEVATION

W-BEAM FLARED END SECTION



GUARDRAIL BOLT (For Post and Splice Bolts)		
L	**T min.**	**Bolt Use**
18" (Standard Rail)	4"	Type 5: WP/WB, PB
26" (Barrier Rail)		
10"	4"	Type 5: SP/WB, PB
1¼	1⅛	Splice Bolt

WP = Wood Post WB = Wood Blockout
SP = Steel Post PB = Plastic Blockout

Longer Bolt may be needed for round Wood Post larger than 8" dia.

OFFICE OF ROADWAY ENGINEERING

DESIGNED | REVIEWED

REVISION DATE | CHECKED

PIS NUMBER

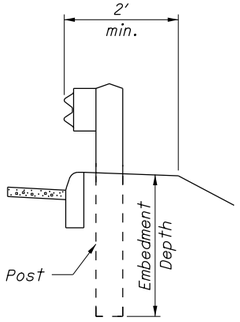
PLAN INSERT SHEET

GUARDRAIL DETAILS (Rail Components)

PIS GR-1.1

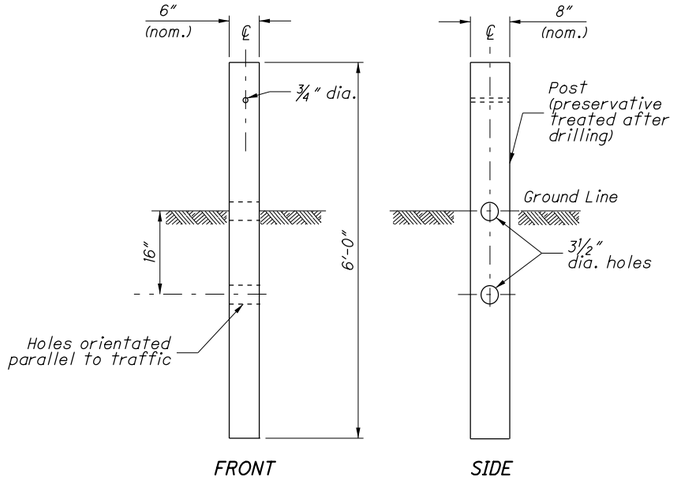
1 / 3

7 / 29

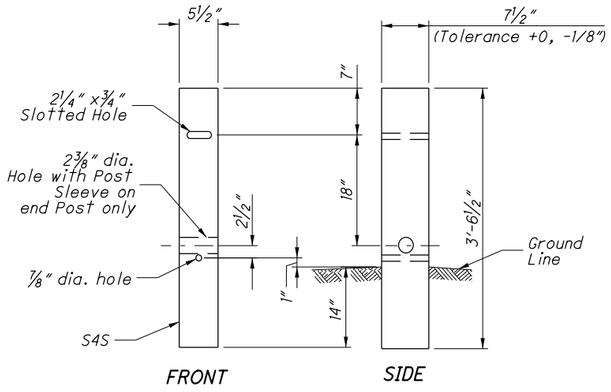


DETAIL A

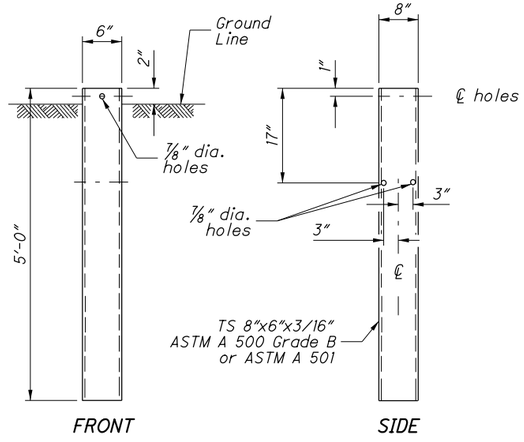
See POST EMBEDMENT DEPTH Note



TYPE 1 BREAKAWAY CRT POST



TYPE 2 BREAKAWAY CRT POST



STEEL GROUND TUBE

NOTES

GUARDRAIL HEIGHT: *For initial installation, construct the guardrail within ± 1″ of the standard height, h, or* ***29″*** *to the top of W-Beam rail. (See MEASURING GUARDRAIL HEIGHT Detail.)*
When subsequent projects, such as resurfacings, affect the height of existing guardrail, the finished height is to be within ±2.5″ of the standard height.

POST EMBEDMENT DEPTH: *Standard embedment is 3′-5″ min. Where less than 2′ of graded shoulder width (10:1 or flatter) exists, measured from the face of the guardrail (see DETAIL "A"), use longer posts so that a minimum of 5′-5″ embedment depth is provided. Payment for the longer posts will be made at the unit price bid for* ***ITEM 606 - GUARDRAIL POST, 9′, Each.***

SPECIAL POST MOUNTINGS: *Install posts located over a drainage inlet or structure as shown in the FOOTING ANCHOR Detail, or anchor per the details shown on* ***SCD GR-2.2.***

Install posts located over a footing with a cover of less than 2′-6″ with a footing anchor as detailed here. (A plate, as detailed on SECTION B-B of ***SCD GR-2.2****, may be used as an alternative attachment method.) Where the cover is between 2′-6″ and 3′-5″,the footing anchor may be omitted and the post encased instead with 4″ (min.) of concrete.*

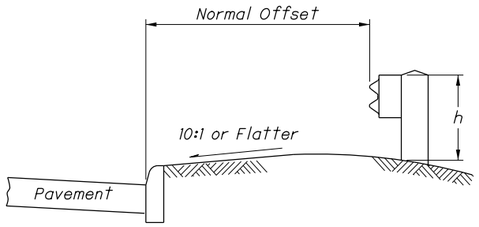
Do not drive posts located over a culvert with less than 4′-3″ of cover; instead set in drilled or dug holes. Where the available post embedment depth is less than 3′-5″, encase the post with a minimum of 4″ concrete.

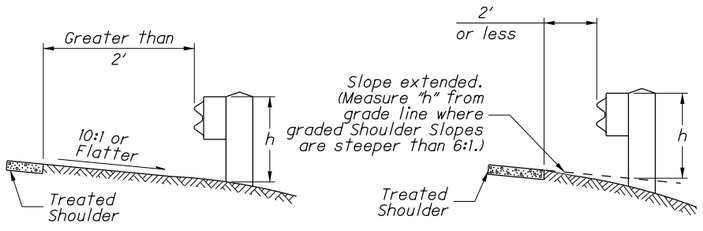
All costs associated with special post mountings are included in the unit price bid of Item 606 Guardrail of the type specified in the plans.

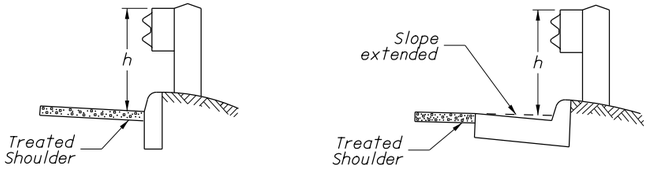
ANCHORS: *Holes and grouting shall comply with CMS 510. Use either cement or non-shrink, nonmetallic grout.*

Expansion shield anchors as specified in CMS 712.01 may be substituted except where concrete deterioration has occurred, as determined by the Engineer. Where self-drilling anchors are used, drill the holes with the expansion shield (not by a drill bit) and install the shield flush with the concrete surface.

PROTECTIVE COATING: *In lieu of the complying with CMS 710.06, coat expansion shields, anchors and concrete insert anchor assemblies embedded in concrete in accordance with ASTM A 153 or be of stainless steel. Any bolts screwed into these devices shall meet CMS 710.06. (See sheet 3 for Concrete Insert Anchor Assembly Detail.)*

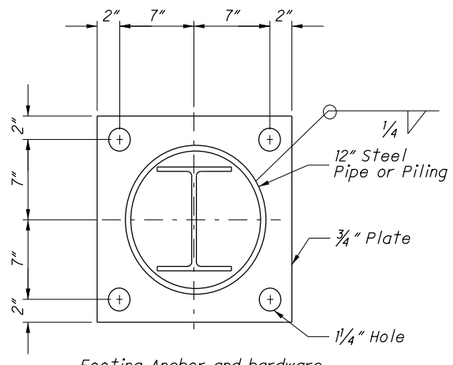






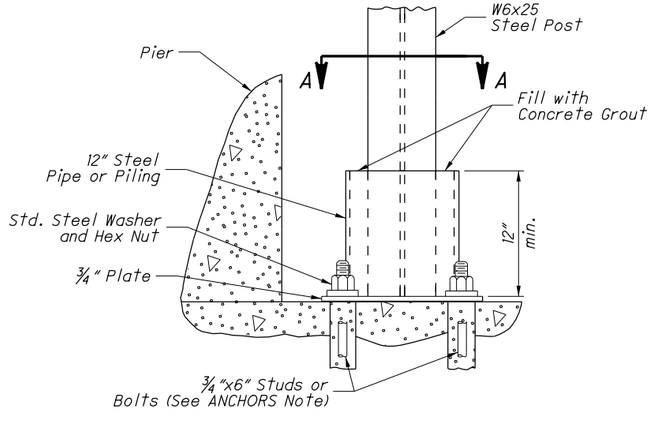
h = Standard Height (See GUARDRAIL HEIGHT Note)

MEASURING GUARDRAIL HEIGHT



Footing Anchor and hardware need not be galvanized

SECTION A-A



ELEVATION
FOOTING ANCHOR

See SPECIAL POST MOUNTINGS Note.

OFFICE OF ROADWAY ENGINEERING

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PLAN INSERT SHEET

GUARDRAIL DETAILS (Rail Components)

PIS GR-1.1

2 / 3

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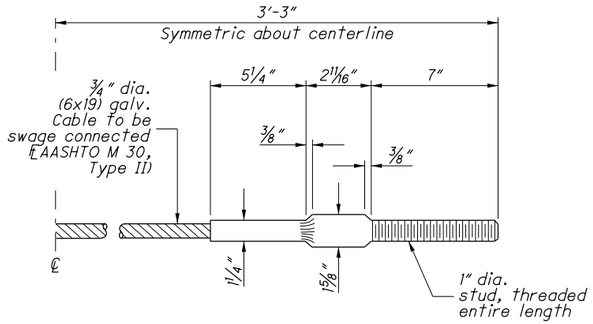
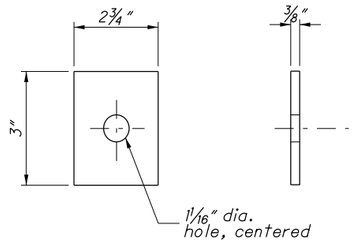
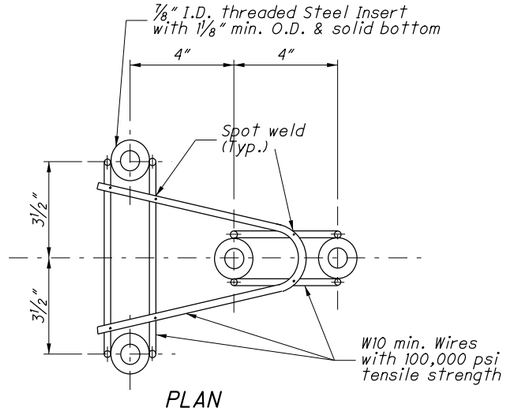


STANDARD SWAGED FITTING AND STUD

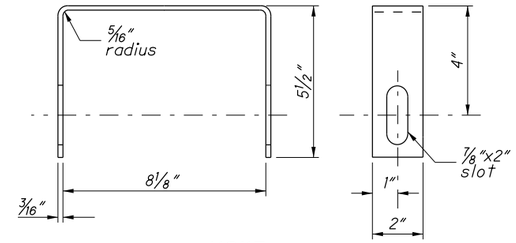
CABLE ANCHOR



END PLATE

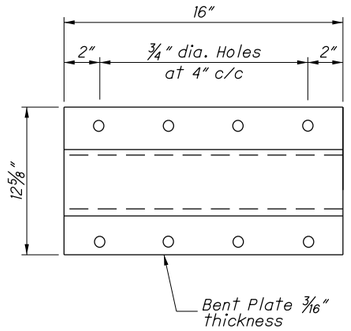


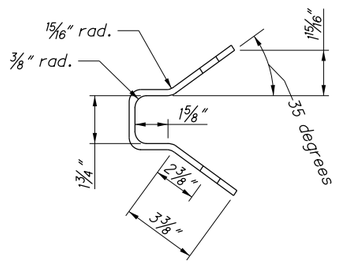
PLAN



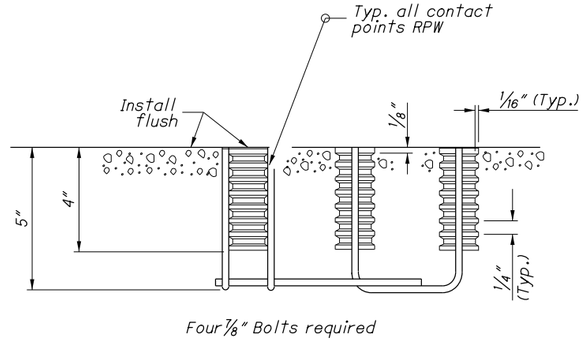
YOKE

Two required in Assembly





ANCHOR BRACKET

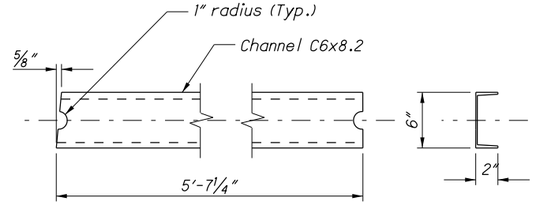


Four ⅞" Bolts required

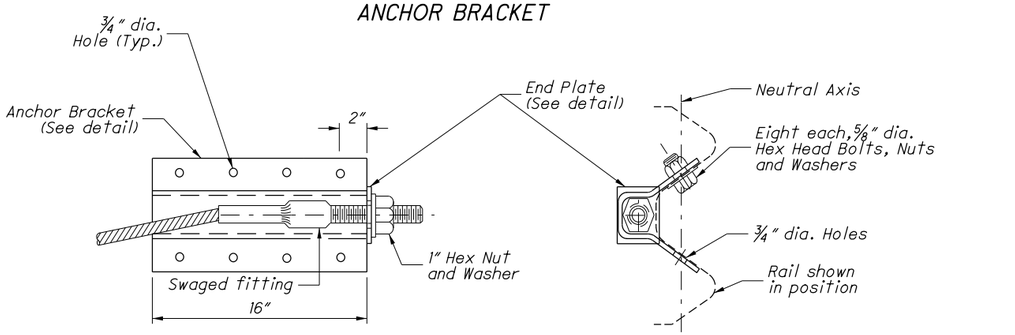
ELEVATION

CONCRETE INSERT ANCHOR ASSEMBLY (W-BEAM ONLY)

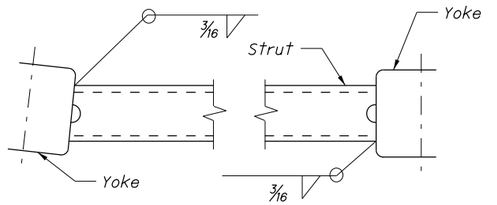
See ANCHORS and PROTECTIVE COATINGS Notes on Sheet 2



STRUT

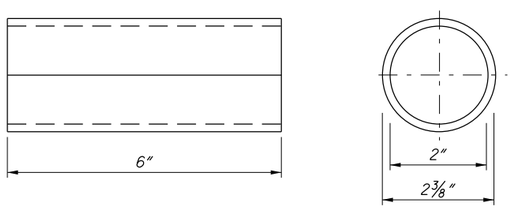


ANCHOR BRACKET ASSEMBLY DETAILS

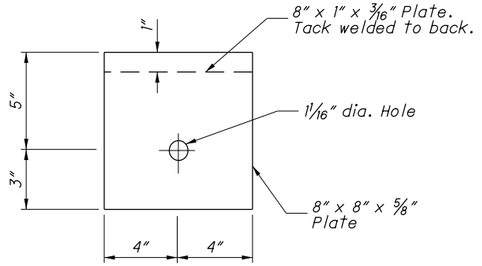


Channel legs shown down. For opposite hand, install Channel legs up.

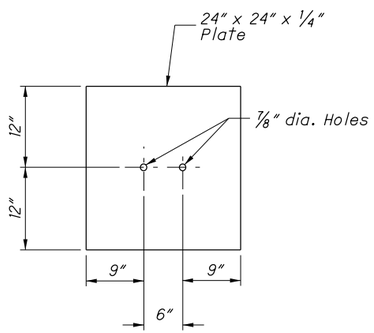
STRUT AND YOKE ASSEMBLY



POST SLEEVE



BEARING PLATE



SOIL PLATE

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PLAN INSERT SHEET

GUARDRAIL DETAILS (Rail Components)

PIS GR-1.1

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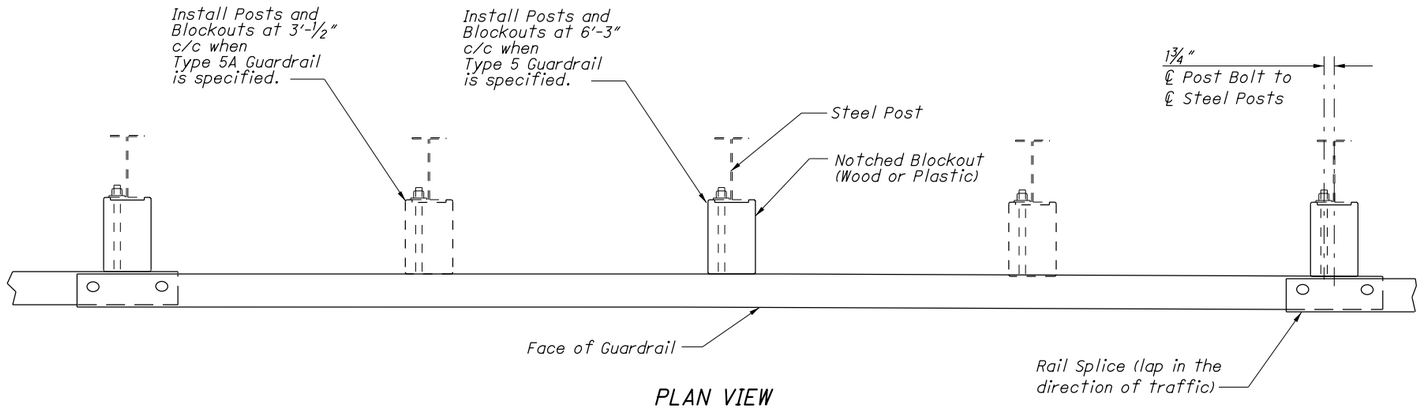
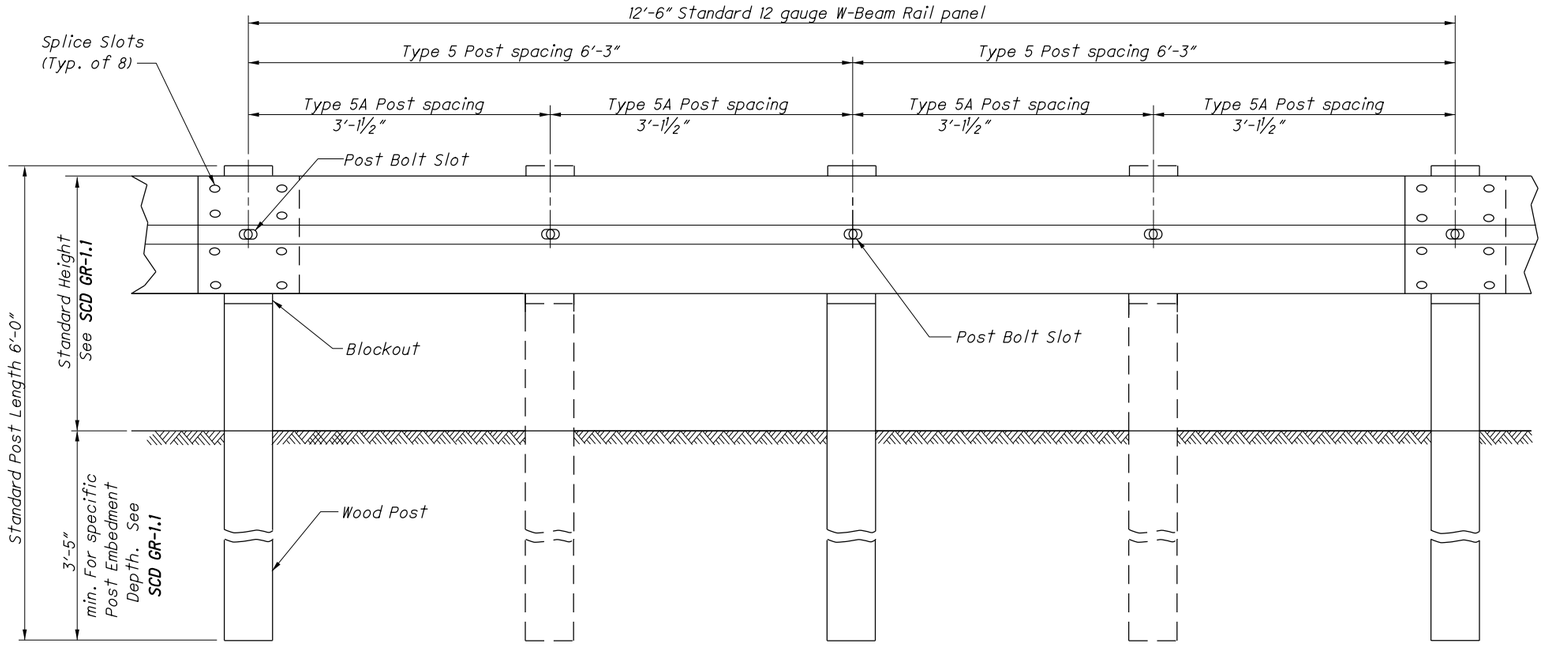


PLAN VIEW
(Steel Posts shown)



ELEVATION
(Wood Posts shown)

NOTES

RAIL: Use W-Beam rail meeting AASHTO M 180 Type II Class A, as specified in CMS 606.

POSTS: Posts may be constructed of wood or steel. Wood posts may be round or 6"x8" square-sawed.

Use round wood posts on runs of single-sided rail. The round posts shall be 8"±1 in diameter at the top and not more than 3" larger at the butt with a uniform taper.

Fabricated wood posts with square ends. Posts shall be pressure-treated as per CMS 710.14. Bore bolt holes and, if required, trim the tops of posts after the posts are set.

Steel posts are to be W6x9 or W6x8.5 galvanized steel. Use the same type of post throughout the length of the project unless otherwise specified in the plans or permitted by the Engineer.

All posts are 6'-0" long unless specified otherwise in the Contract Document. Posts may be set in drilled holes or may be driven to grade.

WELDED BEAM POSTS: Welded beam guardrail posts may be used for Item 606, Guardrail, provided the web and flange sizes are as shown here. Welding of the web to the flanges must comply with ASTM A 769, Class 1, using Grade 36 steel [250 MPa yield point] with the following exceptions:

Sec. 7.2 Test reports of tensile properties for each lot shall accompany each shipment.

Sec. 12 Beams that have imperfections repaired by welding shall not be accepted for use in Item 606.

Sec. 13 Random samples shall be tested by the Department from materials delivered to the project site, or other locations designated by the Laboratory.

ALTERNATE POSTS: Engineered guardrail posts having met NCHRP 350 criteria, and listed on the ***Office of Materials Management's*** Approved List are permitted as an equal alternate when installed according to the Manufacturer's instructions and within the limitations shown on the Approved List.

BLOCKOUTS: Blockout dimensions are dependent on post used. Wood Blockouts are to be pressure treated as specified in CMS 710.14. Bore bolt holes. Approved alternate blockouts may be used in lieu of the wood blockouts shown. The approved list is maintained by the ***Office of Roadway Engineering.***

WASHERS: Install appropriate sized standard galvanized steel washers on the nut side of bolts installed on wood posts.

DELINEATION: For barrier reflectors, see CMS 626.

MISCELLANEOUS: For other guardrail details, see **SCD GR-1.1.**

STEEL BEAM POSTS (English)				
Size	Beam depth	Flange width	Flange thickness	Web thickness
Rolled W6x8.5	5.8"	3.94"	0.193"	0.170"
Rolled W6x9	5.9"	3.94"	0.215"	0.170"
Welded 6x8.5	6.0"	3.94"	0.193"	0.170"
Welded 6x9	6.0"	3.94"	0.215"	0.170"

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PLAN INSERT SHEET

GUARDRAIL TYPE 5 & 5A

PIS GR-2.1

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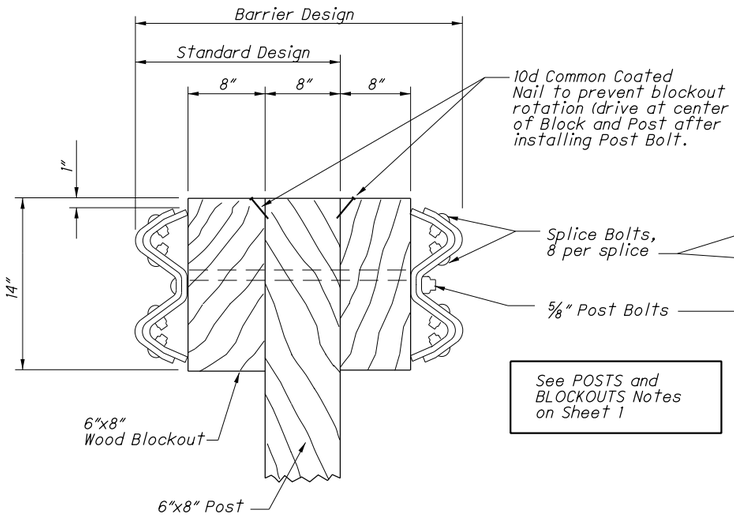
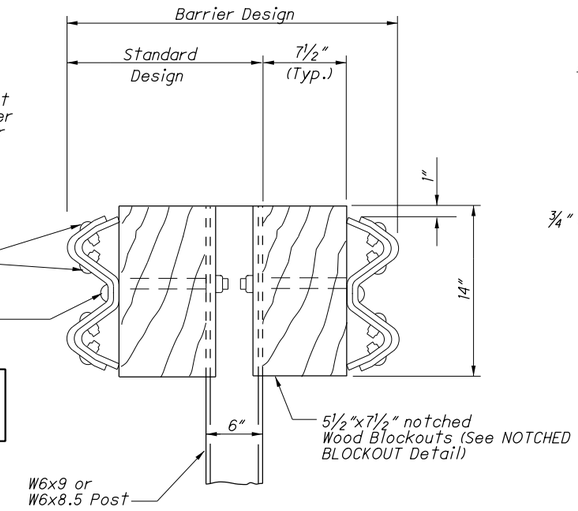
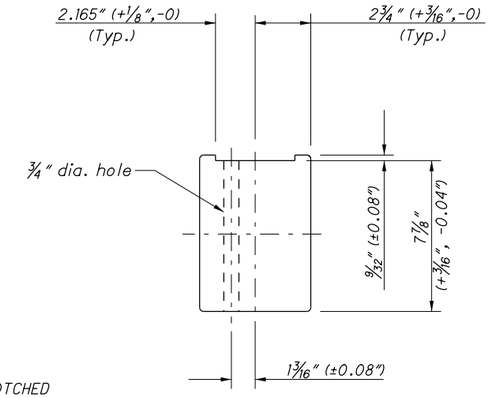


SQUARE WOOD POST

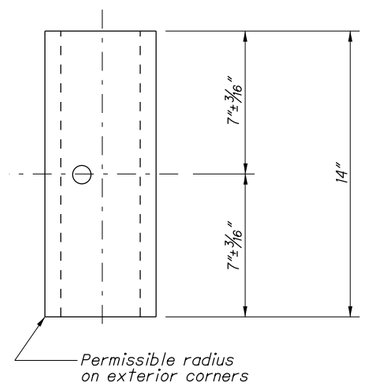


STEEL POST

See POSTS Note, Sheet 1



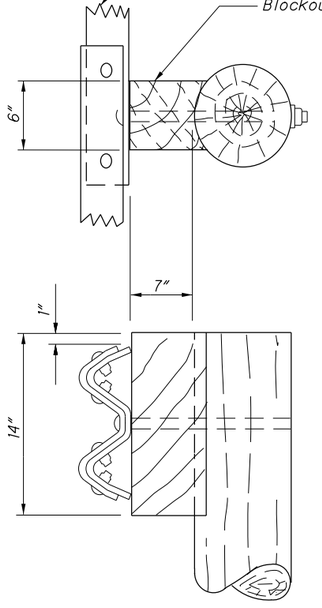
PLAN



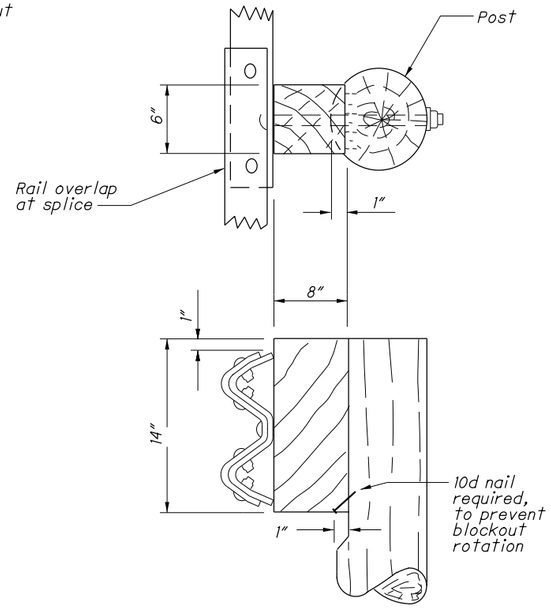
ELEVATION

NOTCHED BLOCKOUTS FOR STEEL POSTS

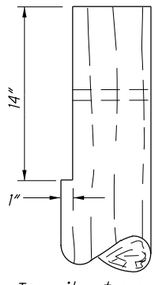
See BLOCKOUTS Note on Sheet 1



Method 1
Routed Blockout



Method 2
Notched Post

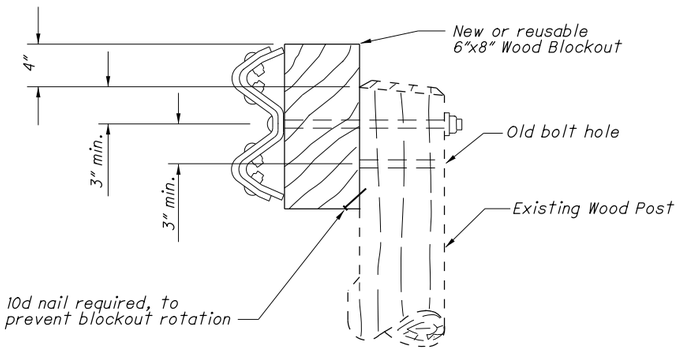


Toenail not required if post is cut as shown

Alternate methods of placing the Blockouts on round Posts may be submitted for consideration and approved by the Engineer.

ROUND WOOD POSTS

Single Sided runs only (Standard Design)



WOOD POSTS WITH WOOD BLOCK RAISING EXISTING GUARDRAIL HEIGHT

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GUARDRAIL TYPE 5 & 5A

PIS GR-2.1

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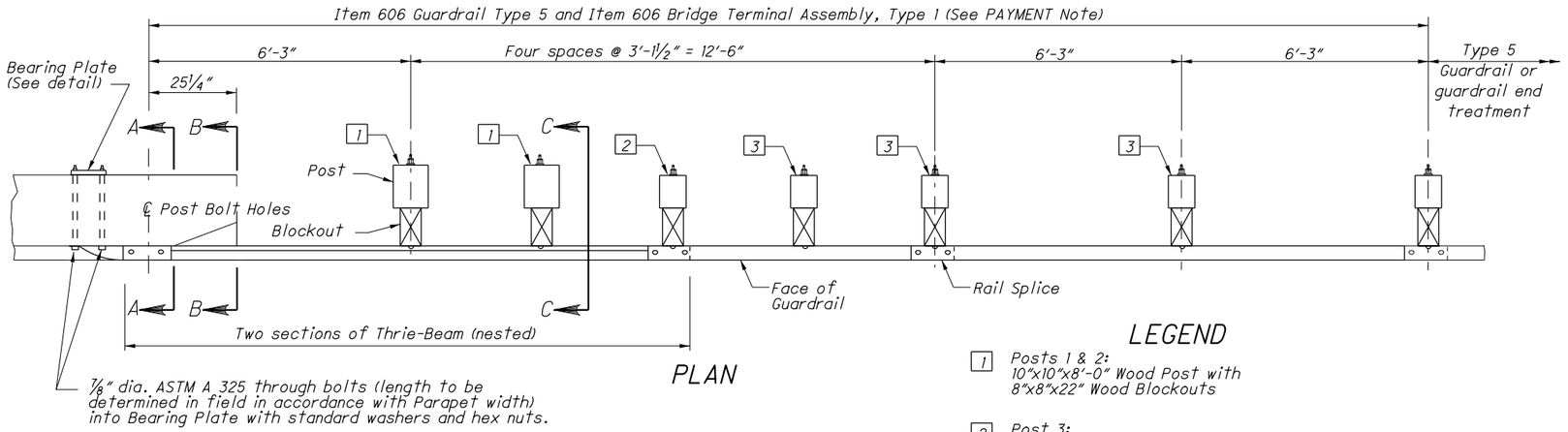


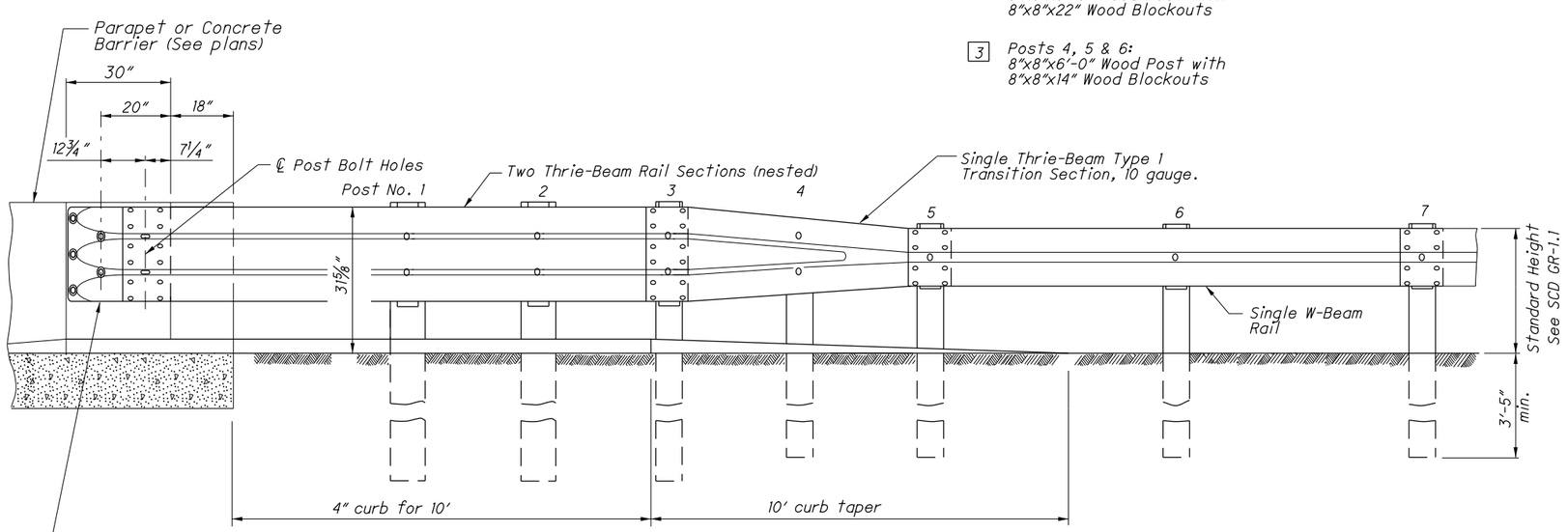
PLAN

LEGEND

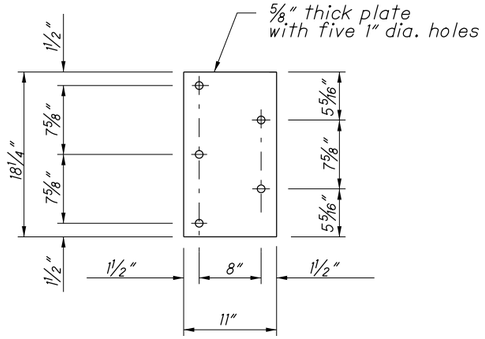
[1] Posts 1 & 2:
10"x10"x8'-0" Wood Post with
8"x8"x22" Wood Blockouts

[2] Post 3:
8"x8"x8'-0" Wood Post with
8"x8"x22" Wood Blockouts

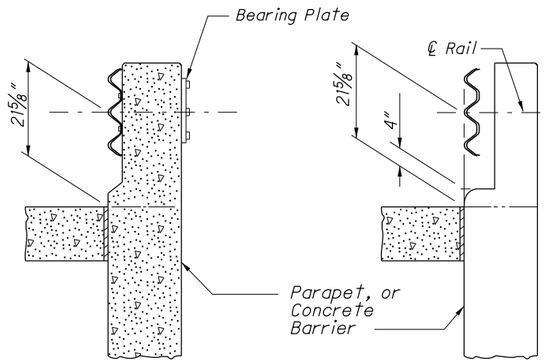
[3] Posts 4, 5 & 6:
8"x8"x6'-0" Wood Post with
8"x8"x14" Wood Blockouts



ELEVATION

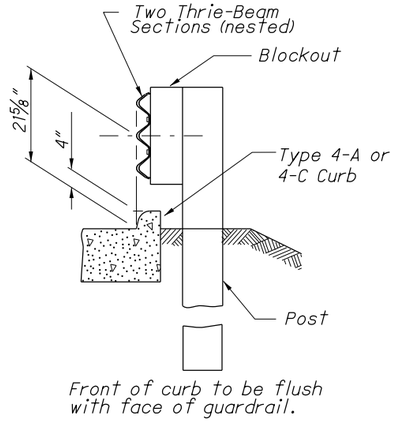


BEARING PLATE



SECTION A-A

SECTION B-B



SECTION C-C

NOTES

GENERAL: For additional details, see **SCD GR-1.1.**

APPLICATION: Use Type 1 Bridge Terminal Assembly to connect guardrail runs to bridges having deflector Parapet Type Bridge Railing (see **Structural Engineering's SCD BR-1).** It may also be used to connect guardrail runs to the approach ends of Concrete Barrier (see **SCD RM-4.6).**

On undivided, bi-directional roadways, Type 1's may be used to anchor guardrail runs to the trailing end of Deflector Parapets or Concrete Barrier installations.

THRIE BEAM TRANSITION: Symmetrical W-Beam to Thrie Beam transition panel shall be 10 gauge.

POSTS: Posts may be set in drilled holes or driven to grade. See **SCD GR-1.1** for additional Post embedment details.

WOOD POSTS - Use square sawed pressure treated wood as per CMS 710.14 and fabricate with square ends. Bore bolt holes and trim the tops of posts, if required, after the posts are set.

STEEL POSTS - are allowed as an alternate. Use W8x24 for 10"x10" wood posts and use W6x25 for 8"x8" posts. Use same post material throughout assembly.

BLOCKOUTS: Use wood blockouts only, steel or plastic blockouts are not permitted. Use notched blockouts with steel posts.

CURB: Provide a Type 4A or 4C concrete curb minimum of 20', or longer as shown on plans, including a 10' taper (from curb height to flush). Front of curb to be flush with face of guardrail.

FLARED GUARDRAIL: Begin Standard Guardrail Flares as shown on **SCD GR-5.1** preferably at or beyond Post No. 7; however, the flare may begin at Post No. 5.

PAYMENT: Item 606 - Bridge Terminal Assembly, Type 1, Each, includes the cost of extra components, in excess of normal guardrail, for additional and different size of posts and blockouts, nested Thrie-Beam, transition and connector sections, Bearing Plate, bolts, washers, nuts, and other hardware.

The curb is required in this design, and is paid separately under **Item 609 - Curb, Type 4A (or 4C), per Foot,** for the curb and taper sections, including materials, forming and labor needed to construct as shown.

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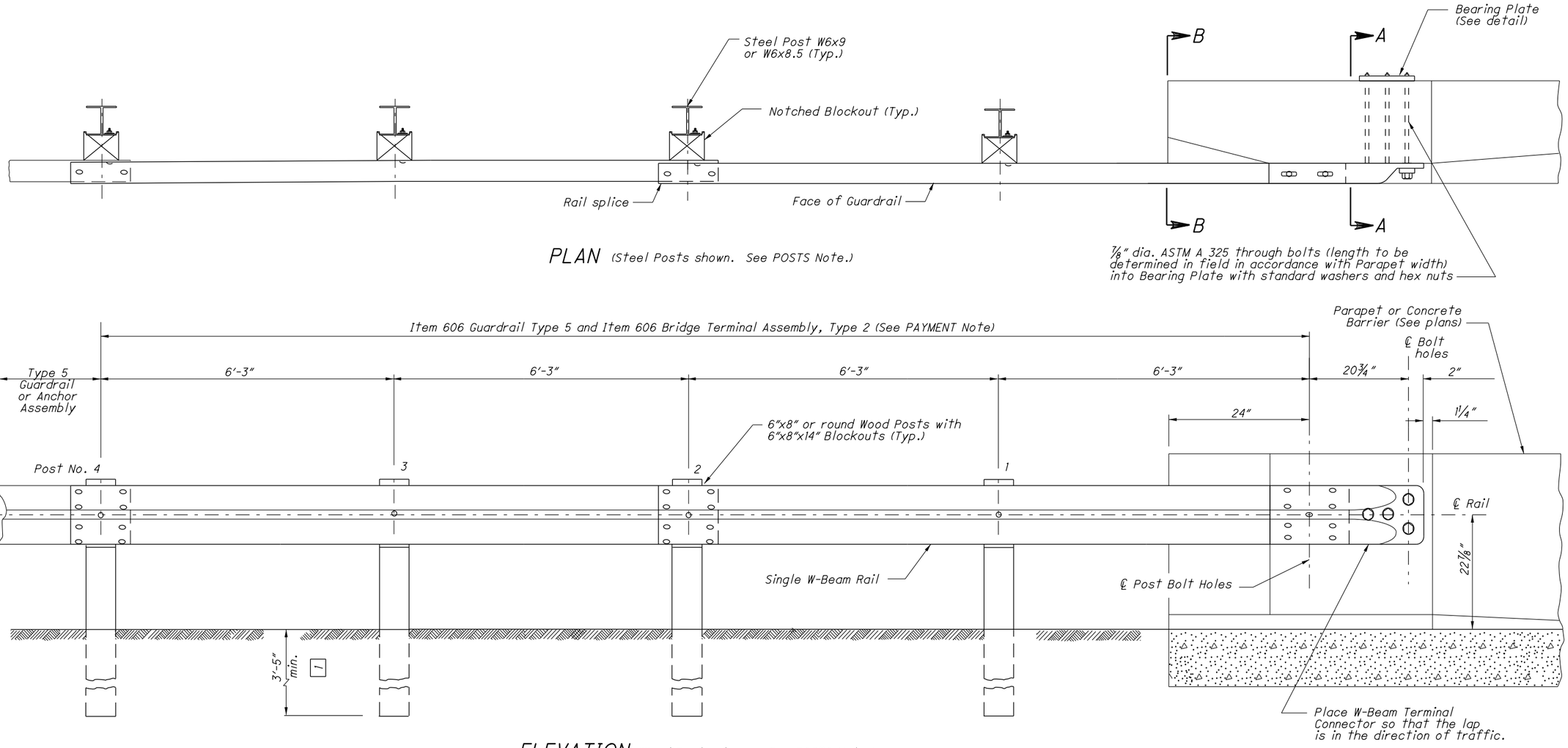
BRIDGE TERMINAL ASSEMBLY, TYPE 1

PIS GR-3.1

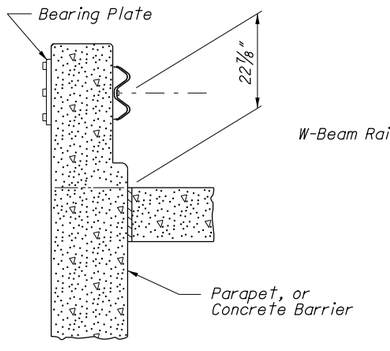
1 / 1

12
29

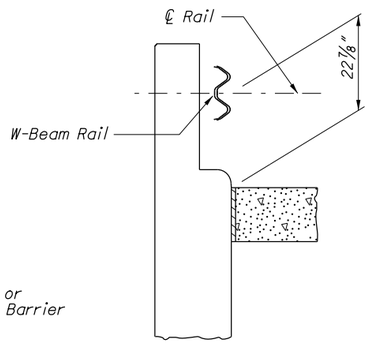


PLAN (Steel Posts shown. See POSTS Note.)

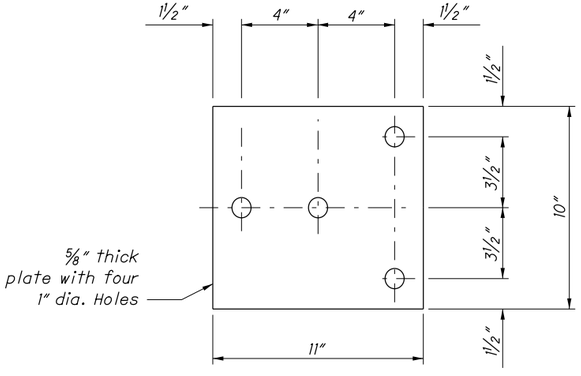
ELEVATION (Wood Posts shown. See POSTS Note.)



SECTION A-A



SECTION B-B



BEARING PLATE

NOTES

GENERAL: For additional rail and post details, see **SCD GR-1.1.**

APPLICATION: Use Type 2 Bridge Terminal Assembly to connect guardrail runs to the trailing end of Parapets or Concrete Barriers (see **SCD RM-4.6** for barrier) on one-directional roadways. Do not use if located within clear zone of opposing traffic.

POSTS: Posts shall be of standard size and material specified for the appropriate type of guardrail to be installed leaving the bridge or barrier. For Type 5 guardrail, see **SCD GR-2.1.**

BLOCKOUTS: Wood or plastic blockouts are permitted.

FLARED GUARDRAIL: Begin Standard Guardrail Flares as shown on **SCD GR-5.1,** preferably at or beyond Post No. 4, however, the flare may begin at Post No. 2.

PAYMENT: **Item 606 - Bridge Terminal Assembly, Type 2, Each.** includes the cost of extra components, in excess of normal guardrail for the Terminal connector, Bearing Plates, bolts, washers, nuts, and other hardware.

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BRIDGE TERMINAL ASSEMBLY, TYPE 2

PIS GR-3.2

1 / 1

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29

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. A MINIMUM OF ONE ELEVEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT AND COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.

4. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.

5. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

6. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES.

7. ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

8. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

9. A QUANTITY OF 10 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

10. 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 EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

11. 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: W8-1 [BUMP], W6-3 [TWO-WAY TRAFFIC], W8-H13 [NO EDGE LINES], R4-1 [DO NOT PASS], R4-2 [PASS WITH CARE], W8-11 [UNEVEN LANES], W8-15 [GROOVED PAVEMENT]. THESE QUANTITIES SHALL BE AS PER 614.04.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:
614, WORK ZONE MARKING SIGN, (ALL PHASES) 40 EACH

PHASE I- PLANED SURFACE
614, WORK ZONE LANE LINE, CLASS II, 4.68 MILE
614, WORK ZONE CHANNELIZING LINE, CLASS 1, 1828 FT

PHASE II- INTERMEDIATE COURSE
614, WORK ZONE LANE LINE, CLASS II, 1.48 MILE
614, WORK ZONE STOP LINE, CLASS 1, 97 FT
614, WORK ZONE CHANNELIZING LINE, CLASS 1, 1958 FT

PHASE III- SURFACE COURSE
614, WORK ZONE LANE LINE, CLASS III, 642 PAINT 6.16 MILE
614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 97 FT
614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT 3786 FT

TO BE USED AS DIRECTED BY THE ENGINEER
614, WORK ZONE EDGE LINE, CLASS III, 6.80 MILE

ADVANCED 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, ON 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.

WINTER TRAFFIC LIMITATIONS

ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 15 AND APRIL 1. NOVEMBER 14 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND DISINCENTIVES OF $1500 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE CONTRACTOR MAY CLOSE LANES PRIOR TO APRIL 1 WITH WRITTEN APPROVAL FROM THE DISTRICT CONSTRUCTION ENGINEER.

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.

LANE CLOSURES

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:
http://plcm.dot.state.oh.us

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF $2500 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE, I-76 FROM SLM 0.00 TO SLM 2.70

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSSESSED A DISINCENTIVE IN THE AMOUNT OF $3000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMT.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE, I-76 FROM SLM 2.70 TO SLM 3.08

FROM SLM 2.70 TO SLM 3.08 TRAFFIC SHALL NOT BE PLACED ON A MILLED SURFACE. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSSESSED A DISINCENTIVE IN THE AMOUNT OF $3000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMT.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

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

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

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 HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $3000 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

BRIDGE PAINTING EQUIPMENT ON SHOULDERS

IF BRIDGE PAINTING EQUIPMENT IS TO REMAIN ON THE SHOULDERS WHEN THE CONTRACTOR IS NOT WORKING, IT SHALL BE PLACED BEHIND PORTABLE CONCRETE BARRIER (PCB) AND A WORK ZONE IMPACT ATTENUATOR (WZIA) SHALL PROTECT THE LEADING BLUNT END OF THE PCB (SEE OMUTCD, FIGURE 6H-5 "SHOULDER CLOSURE ON FREEWAY" (TYPICAL APPLICATION 5)). IF THE CONTRACTOR CHOOSES TO PROTECT PAINTING EQUIPMENT WITH PCB AND A WZIA, THE COST SHALL BE CONSIDERED INCIDENTAL TO THE LUMP SUM BID FOR MAINTAINING TRAFFIC.

CALCULATED CNC CHECKED

MAINTENANCE OF TRAFFIC GENERAL NOTES

MAH-76/80-0.00/VAR

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ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- 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 FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (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) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 1000 HOURS

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

DETOUR NOTIFICATION [ODOT/ MAHONING COUNTY ENGINEER]

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148) AND MAHONING COUNTY ENGINEER (330-799-1518) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (CONCRETE OVERLAY MAH-76-0166) RIVER ROAD

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED ONE WEEKEND (7PM FRIDAY TO 6AM MONDAY), WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 16. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $2000 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

W20-H14-60

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECT MAH/TRU-80-4.50/0.00 (PID 77260, PROJECT NUMBER 126-15) MAY BE ONGOING IN AN AREA 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 PROJECTS. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECIEVE DAILY APPROVALS FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. PROJECT MAH/TRU-80-4.05/0.00 SHALL HAVE PRECIDENCE OVER THIS PROJECT'S SCHEDULE. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA, OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. CONPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

BOAT TRAFFIC UNDER STRUCTURES MAH-76-0092L/R

ALL BOAT TRAFFIC SHALL BE MAINTAINED UNDER STRUCTURES MAH-76-0092L AND MAH-76-0092R DURING CONSTRUCTION OF THE WORK.

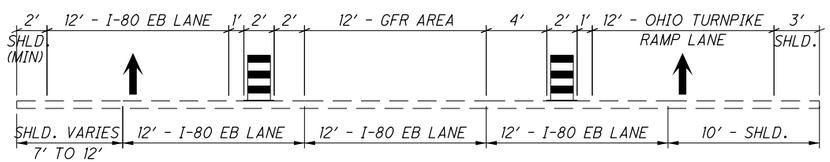
LANE CLOSURE BACKWALL REPAIRS AT MAH-76-0606

ONE LANE OF TRAFFIC MAY BE CLOSED FOR A PERIOD NOT TO EXCEED 1 WEEKEND (6PM FRIDAY TO 6AM MONDAY) TO CONSTRUCT THE BACKWALL REPAIRS FOR MAH-76-0606.

SHOULD THE CONTRACTOR FAIL TO MEET THE ABOVE REQUIREMENT THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF $2000 PER DAY OR PORTION THEROF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

MAH-80-0076 GRAVITY FED RESIN TREATMENT IN THE CENTER LANE

THE CONTRACTOR SHALL USE THE FOLLOWING TYPICAL TO MAINTAIN TRAFFIC DURING THE CENTER LANE GRAVITY FED RESIN TREATMENT OF STRUCTURE MAH-80-0076R.



DRUMS SHALL BE SPACED 10FT CENTER TO CENTER FROM THE GORE AREA TO THE FOWARD APPROACH SLAB ALONG THE OHIO TURNPIKE RAMP LANE.

MAH-80-0246L/R AND MAH-80-0313L/R GRAVITY FED RESIN WORK ZONE

THE CONTRACTOR SHALL COMBINE THE WORK ZONE FOR MAH-80-0246L WITH MAH-80-0313L AND MAH-80-0246R WITH MAH-80-0313R IN ORDER TO COMPLETE THE GRAVITY FED RESIN TREATMENT OF THE BRIDGE DECKS.

CALCULATED
CNC
CHECKED

MAINTENANCE OF TRAFFIC GENERAL NOTES

MAH-76/80-0.00/VAR

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ITEM 614, WORK ZONE SPEED LIMIT SIGN, AS PER PLAN

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF =55 MPH, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDIED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ. THE PRIMARY SIGNING STRATEGY USES DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLIES. THE SECONDARY STRATEGY USES TEMPORARY FLATSHEET SPEED LIMIT SIGNS (R2-1) FOR WHEN THERE ARE NO DSL SIGN ASSEMBLIES ON THE APPROVED LIST, OR DSL SIGN ASSEMBLIES ARE NOT AVAILABLE.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, SUPPLEMENTAL SPECIFICATION (SS) 808, AND TRAFFIC SCD MT-104.10. WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS SHALL BE IN ACCORDANCE WITH THIS NOTE AND SCD MT-104.10. ADDITIONALLY PAYMENT MAY BE REMOVED, OR A DISINCENTIVE APPLIED, FOR WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS THE SAME AS DESCRIBED IN THE MOST RECENT PUBLICATION OF SS 808 IN REGARDS TO WZSZS USING DSL SIGN ASSEMBLIES (SEE SS 808.06 PARAGRAPHS 4 THROUGH 7, INCLUDING TABLE 1).

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRECONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: *WARRANTED WORK ZONE (MPH) FOR WORK ZONES ON HIGH-SPEED (≥55 MPH)*

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUTH POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FORM BELOW IS TO BE FILLED OUT BY THE CONTRACTOR AND SUBMITTED TO THE PROJECT ENGINEER BEGINNING SEVEN [7] CALENDAR DAYS AFTER THE INITIAL INSTALLATION OF THE FIRST TEMPORARY FLATSHEET SPEED LIMIT SIGN OR DSL ASSEMBLY, AND WEEKLY [EVERY SEVEN CALENDAR DAYS] THEREAFTER UNTIL ALL SPEED LIMIT CHANGES HAVE BEEN SUBMITTED. THE PROJECT ENGINEER WILL FORWARD A COPY OF THE FORM TO THE DWZTM AND DSZC. THE PROJECT ENGINEER WILL NOTIFY THE DSZC WHEN THE TEMPORARY FLATSHEET SPEED LIMIT SIGN OR DSL ASSEMBLY HAVE BEEN REMOVED AT THE END OF THE PROJECT SO THE SPEED LIMIT REVISION CAN BE WITHDRAWN.

THE FOLLOWING HAS BEEN APPROVED TO BE USED ON THIS PROJECT:

WZSZ REVISION NUMBER	WORK BEING COMPLETED	COUNTY & ROUTE	SLM	
			FROM	TO
	RESURFACING	MAH 76	SLM 21.04 (POR county)	SLM 6.22 (MAH county)
	GRAVITY FED RESIN BRIDGE DECK TREATMENT ON MAH-80-0246L/R (TURNER RD) AND MAH-80-0313L/R (OHLTOWN RD)	MAH 80		
	GRAVITY FED RESIN BRIDGE DECK TREATMENT ON MAH-80-0076L/R (LIPKEY RD)	MAH 80		

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE SPEED LIMIT SIGN 34 EACH

Ohio Department of Transportation
Work Zone Speed Zone (WZSZ) Tracking Report

District:		Project Number:		Project ID (PID):		WZ Speed Limit Revision No:	WZ-
Location (County, Route & Section):					Original Posted Speed Limit (MPH):		
Contractor:				Project Engineer/County Mgr:			
Reporting From Date:		Reporting To Date:		Type of Signs Used (Choose One):	DSL Sign Assemblies or Temp. Flatsheet SL Signs		

Warranting Condition	Workers Present? Y/N	Location of Each Posted Speed Limit Sign			Begin (Install)		Work Zone Speed Limit Posted (MPH)	Work Zone Speed Limit Beacon Status* (On/Off; N/A)	End (Remove)		Person Reporting (Printed Name and Signature)
		Route	Log Point/ Mile Marker	Direction of Traffic	DATE (MM/DD/YY)	TIME (Example: 10:55 PM)			DATE (MM/DD/ YY)	TIME (Example: 5:20 AM)	

*Only applicable when DSL Sign Assemblies are used. When temporary flatsheet speed limit signs are used enter "N/A".

DWZTM = District Work Zone Traffic Manager; DSZC = District Speed Zoning Coordinator

This report is to be filled out by the Contractor (or County Mgr, or designee, for operations/maintenance work) and submitted to the Project Engineer (or DWZTM and DSZC for operations/maintenance work) beginning 7 calendar days after initial installation of the first temporary flatsheet speed limit sign or DSL Sign Assembly, and weekly (every 7 calendar days) thereafter until all speed limit changes have been submitted. The Project Engineer forwards a copy of the form to the DWZTM and DSZC.

TEM Form 1296-18; Rev. 10/16/15

CALCULATED CNC CHECKED LAB

GENERAL NOTES OF TRAFFIC MAINTENANCE

MAH-76/80-0.00/VAR

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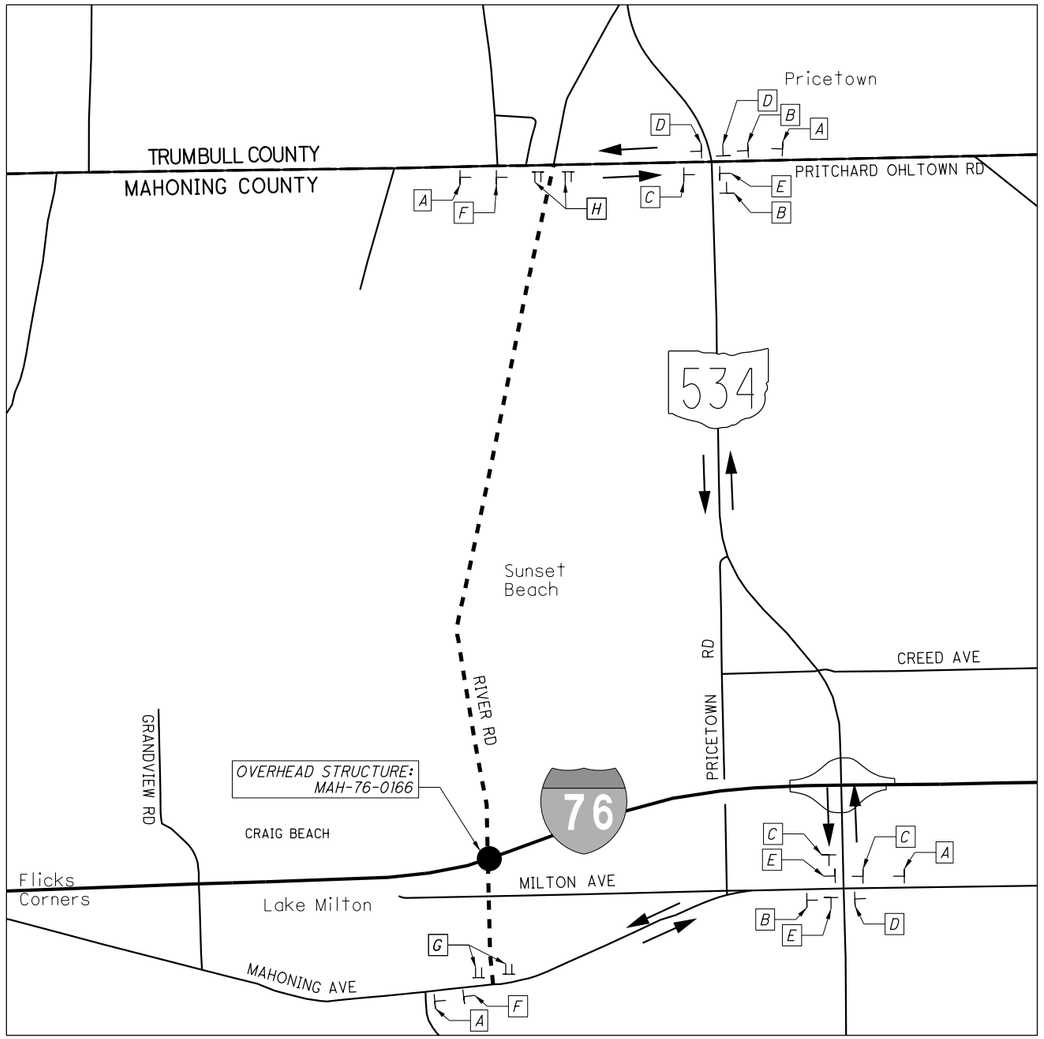

DETOUR ROUTE FOR: RIVER RD

LOCAL DETOUR ROUTE: MAHONING AVE / SR 534 / PRITCHARD OHLTOWN RD

CLOSE RIVER RD AS PER SCD MT 101.60

** DETOUR FOR MAH-76-0166 CANNOT BE CONCURRENT WITH MAH-76-0068*

N

NOT TO SCALE

REFER TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 6H-8 (TYPICAL APPLICATION 8), FOR SIGN SPACING.

 # ON TYPE III BARRICADE WITH TYPE B FLASHER MOUNTED PER MT 101.60

A

River Rd
D3-1-VAR

ROAD CLOSED AHEAD
W20-3-36

B

River Rd
D3-1-VAR

DETOUR
M4-H9BL-30

C

River Rd
D3-1-VAR

DETOUR
M4-H9BR-30

D

River Rd
D3-1-VAR

DETOUR
M4-9L-30

E

River Rd
D3-1-VAR

DETOUR
M4-9R-30

G

ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60

DETOUR
M4-10R-48

H

ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60

DETOUR
M4-10L-48

F

River Rd
D3-1-VAR

DETOUR
M4-9C-30

CALCULATED HKS
CHECKED ---

MAINTENANCE OF TRAFFIC- DETOUR PLAN MAH-76-0166

MAH-76/80-0.00/VAR

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SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	4	5	6	14	15	15A	19	20	21	22		01/IMS/PV	02/IMS/BR						
																		ROADWAY	
			300									300		202	38000	300	FT	GUARDRAIL REMOVED	
		167										167		203	10000	167	CY	EXCAVATION	
			10									10		203	40000	10	CY	BORROW	
	405											405		209	60200	405	STA	LINEAR GRADING	
			182									182		606	13000	182	FT	GUARDRAIL, TYPE 5	
			100									100		606	15100	100	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
			4									4		606	26100	4	EACH	ANCHOR ASSEMBLY, TYPE E	
			5									5		606	35000	5	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
			1									1		606	35100	1	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
		3										3		SPECIAL	69098000	3	EACH	MISC.:VERTICAL CLEARANCE	5
																		EROSION CONTROL	
	22500		132									22632		659	10000	22,632	SY	SEEDING AND MULCHING	
	3.04		0.02									3.06		659	20000	3.06	TON	COMMERCIAL FERTILIZER	
	4.65		0.03									4.68		659	31000	4.68	ACRE	LIME	
	122		0.36									122.36		659	35000	122.36	MGAL	WATER	
												1000		832	30000	1,000	EACH	EROSION CONTROL	
																		DRAINAGE	
		1										1		611	98630	1	EACH	CATCH BASIN ADJUSTED TO GRADE	
		245										245		SPECIAL	61199820	245	LB	MISCELLANEOUS METAL	5
																		PAVEMENT	
	400											400		251	01000	400	SY	PARTIAL DEPTH PAVEMENT REPAIR	
							59350	57916				117266		254	01000	117,266	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
							6548	18293				24841		254	01001	24,841	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN	4
		1000										1000		255	10501	1,000	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM, AS PER PLAN	5
		1500										1500		255	20000	1,500	FT	FULL DEPTH PAVEMENT SAWING	
		167										167		304	20000	167	CY	AGGREGATE BASE	
							6655	7621				14276		SPECIAL	40720500	14,276	GAL	TACK COAT, TRACKLESS TACK	6
							2662	3049				5711		SPECIAL	40720510	5,711	GAL	TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE	6
							5013	6363				11376		408	10000	11,376	GAL	PRIME COAT @ 0.4 GAL/SY	
	402											402		441	50701	402	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), (UNDER GUARDRAIL), AS PER PLAN	4
							2773	3176				5949		442	20051	5,949	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE B (448), AS PER PLAN	5
							3235	3705				6940		442	20250	6,940	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448)	
			1014									1014		SPECIAL	45130000	1,014	FT	PRESSURE RELIEF JOINT, TYPE A	6
							349	442				791		617	10101	791	CY	COMPACTED AGGREGATE, AS PER PLAN	5
		12.32										12.32		618	40600	12.32	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)	
																		TRAFFIC CONTROL	
		33										33		202	98100	33	EACH	REMOVAL MISC.:BARRIER REFLECTOR	5
										513		513		621	00100	513	EACH	RPM	
										438		438		621	54000	438	EACH	RAISED PAVEMENT MARKER REMOVED	
		130										130		626	00100	130	EACH	BARRIER REFLECTOR	
			8									8		626	00100	8	EACH	BARRIER REFLECTOR, TYPE A	
	0.5												0.5	646	10000	0.5	MILE	EDGE LINE, 4"	
	0.5								13.93			14.43		646	10010	14.43	MILE	EDGE LINE, 6"	
	0.5												0.5	646	10100	0.5	MILE	LANE LINE, 4"	
	0.25								6.16			6.41		646	10110	6.41	MILE	LANE LINE, 6"	
	100								3500			3600		646	10310	3,600	FT	CHANNELIZING LINE, 12"	
									160			160		646	10400	160	FT	STOP LINE	
									2245			2245		646	20500	2,245	FT	DOTTED LINE	
																		STRUCTURE REPAIRS	
																		FOR MAH-76-0067 ESTIMATED QUANTITIES	26
																		FOR MAH-76-0092L ESTIMATED QUANTITIES	26
																		FOR MAH-76-0092R ESTIMATED QUANTITIES	26
																		FOR MAH-76-0165 ESTIMATED QUANTITIES	26
																		FOR MAH-76-0604 ESTIMATED QUANTITIES	26
																		FOR MAH-76-0606 ESTIMATED QUANTITIES	26
																		FOR MAH-76-0701L ESTIMATED QUANTITIES	26
																		FOR MAH-76-0701R ESTIMATED QUANTITIES	26
																		FOR MAH-80-0076L ESTIMATED QUANTITIES	27

CALCULATED PD | CHECKED

GENERAL SUMMARY

MAH-76/80-0.00/VAR

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SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	4	5	6	14	15	15A	19	20	21	22		01/IMS/PV	02/IMS/BR						
																		FOR MAH-80-0076R ESTIMATED QUANTITIES	27
																		FOR MAH-80-0246L ESTIMATED QUANTITIES	27
																		FOR MAH-80-0246R ESTIMATED QUANTITIES	27
																		FOR MAH-80-0313L ESTIMATED QUANTITIES	27
																		FOR MAH-80-0313R ESTIMATED QUANTITIES	27
																		MAINTENANCE OF TRAFFIC	
					1000							1000		614	11110	1,000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
					LS							LS		614	12420	LS		DETOUR SIGNING	
				40								40		614	12460	40	EACH	WORK ZONE MARKING SIGN	
						34						34		614	12470	34	EACH	WORK ZONE SPEED LIMIT SIGN	
				10								10		614	13000	10	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
				6.16								6.16		614	20400	6.16	MILE	WORK ZONE LANE LINE, CLASS II	
				6.16								6.16		614	20550	6.16	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
				6.8								6.8		614	22350	6.8	MILE	WORK ZONE EDGE LINE, CLASS III, 642 PAINT	
				3786								3786		614	23000	3,786	FT	WORK ZONE CHANNELIZING LINE, CLASS I	
				3786								3786		614	23680	3,786	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
				97								97		614	26000	97	FT	WORK ZONE STOP LINE, CLASS I	
				97								97		614	26610	97	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
																		INCIDENTALS	
												LS		614	11000	LS		MAINTAINING TRAFFIC	
												6		619	16010	6	MNTH	FIELD OFFICE, TYPE B	
												LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS		624	10000	LS		MOBILIZATION	

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GENERAL SUMMARY

MAH-76/80-0.00/VAR

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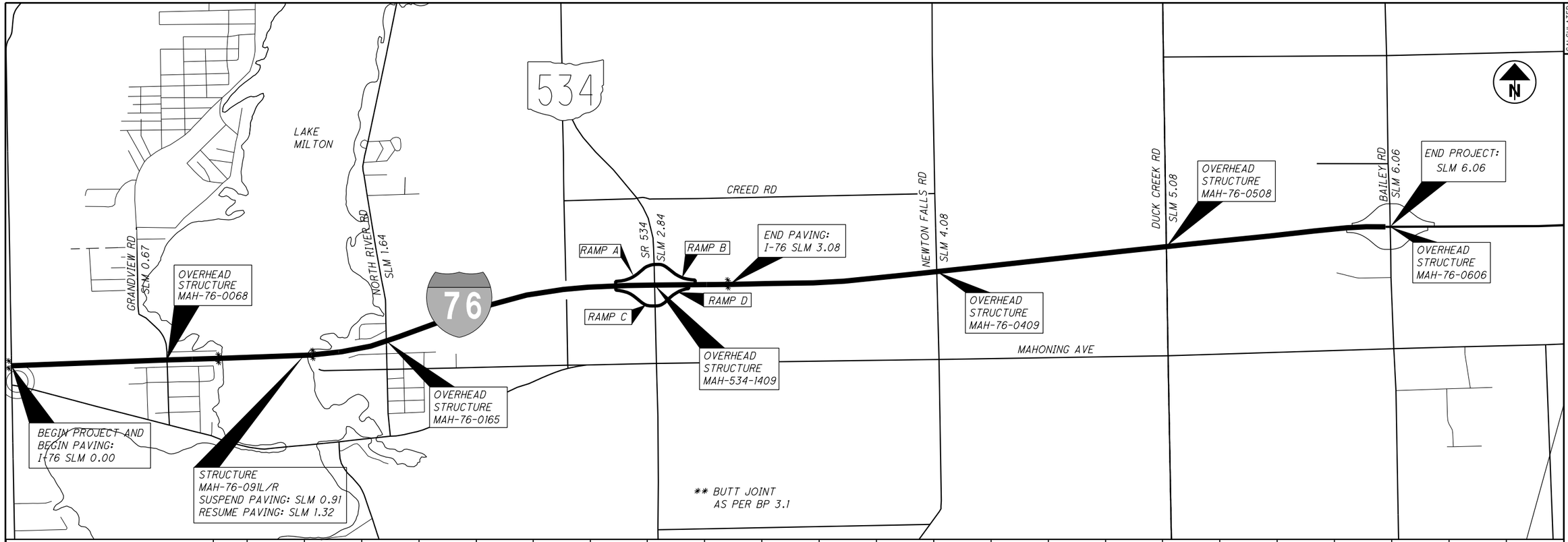

SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA		254 PAVEMENT PLANING, ASPHALT CONCRETE (T = 1 1/2")	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T= 3 1/4")	SPEC TACK COAT, TRACKLESS TACK @ 0.1 GAL / SY	SPEC TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.04 GAL/SY	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448) (T = 1 3/4")	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE B (448), AS PER PLAN (T= 1 1/2")	617 COMPACTED AGGREGATE, AS PER PLAN	408 PRIME COAT @ 0.4 GAL/SY									
					FT	FT	SQ YD	SQ YD		SY	SY	GAL	GAL	CY	CY	CY	GAL									
0.00	TO	0.77	1	EB	4065.60	38.00	17165.87			17165.87		1716.59	686.63	834.45	715.24	100.39	1445.55									
0.77	TO	0.84	1	EB	369.60	56.00	2299.73			2299.73		229.97	91.99	111.79	95.82	9.13	131.41									
0.84	TO	0.88	1	EB	211.20	60.00	1408.00			1408.00		140.80	56.32	68.44	58.67	5.21	75.09									
0.88	TO	0.91	1	EB	158.40	54.00	950.40			950.40		95.04	38.02	46.20	39.60	3.91	56.32									
1.32	TO	1.36	1	EB	211.20	53.00	1243.73			1243.73		124.37	49.75	60.46	51.82	5.21	75.09									
1.36	TO	1.42	1	EB	316.80	49.00	1724.80			1724.80		172.48	68.99	83.84	71.87	7.82	112.64									
1.42	TO	2.47	1	EB	5544.00	40.00	24640.00			24640.00		2464.00	985.60	1197.78	1026.67	136.89	1971.20									
2.47	TO	2.59	1	EB	633.60	50.00	3520.00			3520.00		352.00	140.80	171.11	146.67	15.64	225.28									
2.59	TO	2.66	1	EB	369.60	72.00	2956.80			2956.80		295.68	118.27	143.73	123.20	9.13	131.41									
2.66	TO	2.75	1	EB	475.20	41.00	2164.80			2164.80		216.48	86.59	105.23	90.20	11.73	168.96									
2.75	TO	2.94	2	EB	1003.20	28.00	3121.07				3121.07	312.11	124.84	151.72	130.04	24.77	356.69									
2.94	TO	3.00	3	EB	316.80	24.00	844.80				844.80	84.48	33.79	41.07	35.20	7.82	112.64									
3.00	TO	3.08	3	EB	422.40	55.00	2581.33				2581.33	258.13	103.25	125.48	107.56	10.43	150.19									
MEDIAN U-TURN (SLM 0.21 & 2.18)								1275.78		1275.78		127.58	51.03	62.02	53.16											
MEDIAN U-TURN (SLM 1.42)								650.00				65.00	26.00	31.60	27.08											
SUBTOTALS									0.00	59349.91	6547.20	6654.71	2661.88	3234.93	2772.80	348.09	5012.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS CARRIED TO GENERAL SUMMARY									0	59350	6548	6655	2662	3235	2773	349	5013	0	0	0	0	0	0	0	0	0

CALCULATED PD
CHECKED

PAVEMENT CALCULATIONS (EASTBOUND)

MAH-76/80-0.00/VAR

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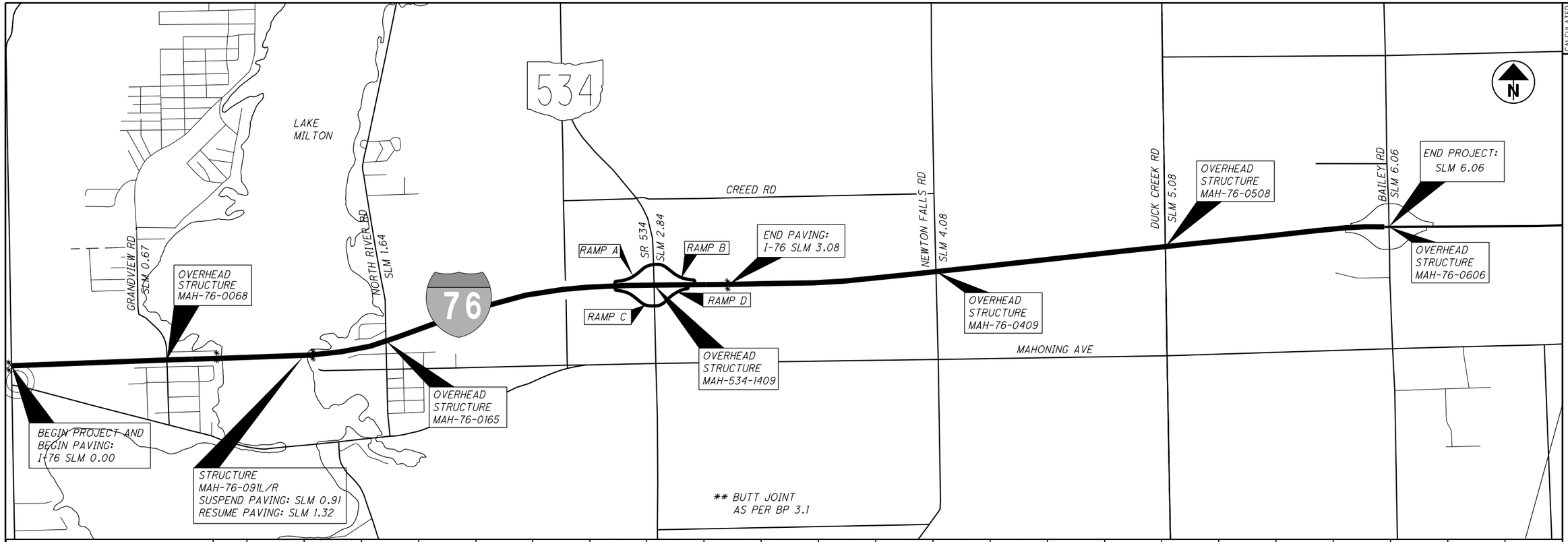

SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA		254 PAVEMENT PLANING, ASPHALT CONCRETE (T = 1 1/2")	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T= 3 1/4")	SPEC TACK COAT, TRACKLESS TACK @ 0.1 GAL / SY	SPEC TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.04 GAL/SY	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448) (T = 1 3/4")	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE B (448), AS PER PLAN (T= 1 1/2")	617 COMPACTED AGGREGATE, AS PER PLAN	408 PRIME COAT @ 0.4 GAL/SY									
					FT	FT	SQ YD	SQ YD		SY	SY	GAL	GAL	CY	CY	CY	GAL									
0.00	TO	0.77	1	WB	4065.60	38.00	17165.87			17165.87		1716.59	686.63	834.45	715.24	100.39	1445.55									
0.77	TO	0.84	1	WB	369.60	47.00	1930.13			1930.13		193.01	77.21	93.83	80.42	9.13	131.41									
0.84	TO	0.91	1	WB	369.60	53.00	2176.53			2176.53		217.65	87.06	105.80	90.69	9.13	131.41									
1.32	TO	1.36	1	WB	211.20	53.00	1243.73			1243.73		124.37	49.75	60.46	51.82	5.21	75.09									
1.36	TO	1.42	1	WB	316.80	51.00	1795.20			1795.20		179.52	71.81	87.27	74.80	7.82	112.64									
1.42	TO	2.47	1	WB	5544.00	40.00	24640.00			24640.00		2464.00	985.60	1197.78	1026.67	136.89	1971.20									
2.47	TO	2.59	1	WB	633.60	58.00	4083.20			4083.20		408.32	163.33	198.49	170.13	15.64	225.28									
2.59	TO	2.66	1	WB	369.60	70.00	2874.67			2874.67		287.47	114.99	139.74	119.78	9.13	131.41									
2.66	TO	2.75	1	WB	475.20	38.00	2006.40			2006.40		200.64	80.26	97.53	83.60	11.73	168.96									
2.75	TO	2.92	2	WB	897.60	28.00	2792.53				2792.53	279.25	111.70	135.75	116.36	22.16	319.15									
2.92	TO	3.02	3	WB	528.00	24.00	1408.00				1408.00	140.80	56.32	68.44	58.67	13.04	187.73									
3.02	TO	3.08	3	WB	316.80	60.00	2112.00				2112.00	211.20	84.48	102.67	88.00	7.82	112.64									
RAMP A					936.00			2780.00			2780.00	278.00	111.20	135.14	115.83	23.11	332.80									
RAMP B					989.00			3040.61			3040.61	304.06	121.62	147.81	126.69	24.42	351.64									
RAMP C					1005.00			2953.00			2953.00	295.30	118.12	143.55	123.04	24.81	357.33									
RAMP D					868.00			3206.78			3206.78	320.68	128.27	155.89	133.62	21.43	308.62									
								SUBTOTALS	0.00	57915.73	18292.92	7620.87	3048.35	3704.59	3175.36	441.87	6362.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
								TOTALS CARRIED TO GENERAL SUMMARY	0	57916	18293	7621	3049	3705	3176	442	6363	0	0	0	0	0	0	0	0	0

CALCULATED PD
CHECKED

PAVEMENT CALCULATIONS (WESTBOUND)

MAH-76/80-0.00/VAR

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GENERAL SPEC: 640
MATERIAL TYPE: 646

CALCULATED PD
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EDGE LINE

CTY	ROUTE	FROM TRUE LOG	FROM	TO TRUE LOG	TO	WHITE EDGE LINE TOTAL	WHITE EDGE LINE HIGHWAY	WHITE EDGE LINE RAMP	YELLOW EDGE LINE TOTAL	YELLOW EDGE LINE HIGHWAY	YELLOW EDGE LINE RAMP	COMMENTS
MAH	76 EB	0.00	MAHONING COUNTY LINE	3.08	RAMP B TO SR 534	3.43	3.08	0.40	3.48	3.08	0.43	
MAH	76 WB	0.00	MAHONING COUNTY LINE	3.08	RAMP D FROM SR 534	3.54	3.08	0.40	3.48	3.08	0.41	
TOTAL						6.97	6.16	0.80	6.96	6.16	0.84	

LANE LINE

CTY	ROUTE	FROM TRUE LOG	FROM	TO TRUE LOG	TO	TOTAL MILES	6" LANE LINE DASHED	6" LANE LINE SOLID	COMMENTS
MAH	76 EB	0.00	MAHONING COUNTY LINE	3.08	RAMP B TO SR 534	3.08	3.08		
MAH	76 WB	0.00	MAHONING COUNTY LINE	3.08	RAMP D FROM SR 534	3.08	3.08		
TOTAL						6.16	6.16		

CENTER LINE

CTY	ROUTE	FROM TRUE LOG	FROM	TO TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
TOTAL								

AUXILIARY

CTY	ROUTE LOCATION	TRUE LOG	CHANNEL LINE 12"	STOP LINE	CROSS WALK LINES	TRANSVERSE DIAGONAL LINES WHITE	TRANSVERSE DIAGONAL LINES YELLOW	ISLAND MARKING	SYMBOL MARKINGS RxR	SYMBOL MARKINGS SCHOOL 72"	SYMBOL MARKINGS SCHOOL 96"	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	WORD ON PVMT ONLY 72"	WORD ON PVMT ONLY 96"	DOTTED LINES	COMMENTS
			FT	FT	FT	FT	FT	SQ FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	
MAH	I-76 @ SR 534 RAMP C	2.660	700	80														550	
MAH	I-76 @ SR 534 RAMP A	2.700	900															450	
MAH	I-76 @ SR 534 RAMP D	2.980	1200															770	
MAH	I-76 @ SR 534 RAMP B	3.030	700	80														475	
TOTAL			3500	160														2245	

PAVEMENT MARKING SUBSUMMARY

MAH-76/80-0.00/VAR

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LOCATION								621	621	621	621		621	REMARKS
COUNTY	ROUTE	SECTION (S.L.M.)						RPM, LOW PROFILE, YELLOW/YELLOW	RPM, LOW PROFILE WHITE/RED	RPM, LOW PROFILE, WHITE	RPM, LOW PROFILE YELLOW/RED		RAISED PAVEMENT MARKER REMOVED	
		FROM	TO					EACH	EACH	EACH	EACH		EACH	
MAH	76	0.00	3.08						353				301	
MAH	76	RAMP A AT SR 534							12		12		21	
MAH	76	RAMP B AT SR 534							18	16	13		40	
MAH	76	RAMP C AT SR 534							18	16	13		40	
MAH	76	RAMP D AT SR 534							30		12		36	
SUBTOTALS				0	0	0	0	0	431	32	50	0	438	
TOTALS CARRIED TO GENERAL SUMMARY				0	0	0	0	513				0	438	

CALCULATED PD
CHECKED

RAISED PAVEMENT MARKERS

MAH-76/80-
0.00/VAR

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

843 DATED 4/18/03
848 DATED 7/17/15

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUC- TURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASURE- MENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXIST- ING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAM- INATION OF THE EXISTING STRUCTURE. HOWEVER, THE DE- PARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK

MAH-76-0067 (UNDER GRANDVIEW DR)
- -REMOVE AND REPLACE EXISTING WEARING SURFACE OF GRANDVIEW DR AT FORWARD AND REAR APPROACH OF STRUCTURE
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN SEALING TREATMENT
- -CLEAN STRUCTUAL STEEL, BEAM SEATS AND PIER CAPS
- -REPAIR EXISTING STRUCTURAL OZEU PAINT ON BOTTOM FLANGES FROM NORTH TO SOUTH ABUTMENTS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS WITH EXPOXY-URETHANE
- -REPAIR EROSION AT THE FORWARD AND REAR LEFT EMBANKMENT
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-76-0092L (OVER LAKE MILTON)
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING THE PARAPETS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-76-0092R (OVER LAKE MILTON)
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING THE PARAPETS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-76-0165 (UNDER NE RIVER RD)
- -REMOVE AND REPLACE EXISTING WEARING SURAFACE OF NE RIVER RD AT FORWARD AND REAR APPROACH OF STRUCTURE
- -REMOVE EXISTING CONCRETE WEARING SURFACE AND REPLACE WITH NEW CONCRETE OVERLAY ON THE BRIDGE DECK AND APPROACH SLABS
- -CLEAN STRUCTURAL STEEL, BEAM SEATS AND PIER CAPS
- -REPAIR EXISTING OZEU PAINT ON BOTTOM FLANGES
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING THE PARAPETS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, ABUTMENTS, WING WALS, PIER CAPS, AND PIER COLUMNS WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-76-0604 (UNDER BAILEY RD)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN
- -REHABILITATE AND RESET EXISTING FASCIA BEAM BEARINGS AT FOWARD AND REAR APPROACH
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING THE PARAPETS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, ABUTMENTS, WING WALS, PIER CAPS, AND PIER COLUMNS WITH EPOXY-URETHANE
- -REPAIR EROSION AT FORWARD AND REAR LEFT EMBANKMENT
- -INSTALL PRESSURIZED ELASTOMER SEAL JOINT BETWEEN FORWARD LEFT APPROACH SLAB AND PARAPET
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-76-0606 (UNDER BAILEY RD)
- -SEAL EXISTING WEARING SURFACE AND APPORACH SLABS WITH GRAVITY FED RESIN
- -REHABILITATE AND RESET EXISTING BEARINGS AT FORWARD AND REAR ABUTMENTS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING THE PARAPETS AND BACKWALL
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, ABUTMENTS, WING WALS, PIER CAPS, AND PIER COLUMNS WITH EPOXY-URETHANE
- -REPAIR EROSION AT ALL CORNERS OF STRUCTURE
- -INSTALL PRESSURIZED ELASTOMER JOINT SEAL AT REAR RIGHT, REAR LEFT, AND FORWARD RIGHT BETWEEN APPROACH SLAB AND PARAPET
- -REPAIR BACKWALL AT FOWARD AND REAR APPROACH
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-76-0701L (NS RAILROAD AND MORRISON RUN)
- -SEAL EXISTING WEARING SURFACE AND APPORACH SLABS WITH GRAVITY FED RESIN
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING THE PARAPETS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-76-0701R (NS RAILROAD AND MORRISON RUN)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING THE PARAPETS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-80-0076L (OVER LIPKEY RD)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING PARAPETS AND SEAL WITH EPOXY URETHANE AFTER PATCHING
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-80-0076R (OVER LIPKEY RD)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN
- -REPAIR EROSION AT REAR RIGHT AND LEFT EMBANKMENT
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY URETHANE AFTER PATCHING
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-80-0246L (OVER TURNER RD)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY URETHANE AFTER PATCHING
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-80-0246R (OVER TURNER RD)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY URETHANE AFTER PATCHING
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-80-0313L (OVER OHLTOWN RD)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY URETHANE AFTER PATCHING
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

MAH-80-0313R (OVER OHLTOWN RD)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY FED RESIN
- -REPAIR EROSION AT FOWARD RIGHT AND REAR RIGHT EMBANKMENT
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY URETHANE AFTER PATCHING
- -CLEARING AND GRUBBING 15' OF STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW STRUCTURE IDENTIFICATION SIGN

CLEARING AND GRUBBING

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

EROSION REPAIR

THIS WORK WILL CONSIST OF REPAIRING THE EROSION AT THE REAR AND FOWARD LEFT OF MAH-76-0067, AT THE REAR RIGHT AND LEFT OF MAH-80-0076R, AND AT THE FOWARD AND REAR RIGHT OF MAH-80-0312R.

STRUCTURE MAH-76-0067
ITEM 601 - DUMPED ROCK, TYPE B, 2 CY

STRUCTURE MAH-76-0604
ITEM 203- BORROW, 12 CY
ITEM 601 - DUMPED ROCK, TYPE B, 12 CY

STRUCTURE MAH-76-0606
ITEM 203- BORROW 29 CY
ITEM 601- DUMPED ROCK TYPE B, 15 CY

STRUCTURE MAH-80-0076R
ITEM 601- DUMPED ROCK, TYPE B, 2 CY

STRUCTURE MAH-80-0313R
ITEM 203- BORROW, 2 CY

ITEM 441- ASPHALT CONCRETE SURFACE COURSE, TYPE 1(448), AS PER PLAN (PG70-22)

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
CNC	CNC	NRC	1-26-16
CHECKED	REVISED	STRUCTURE FILE NUMBER	

STRUCTURE GENERAL NOTES
MAH-76-0067, MAH-76-0092L, MAH-76-0092R, MAH-76-0165, MAH-76-0604, MAH-76-0606, MAH-76-0701L, MAH-76-0701R, MAH-80-0076L, MAH-80-0076R, MAH-80-0246L, MAH-80-0246R, MAH-80-0313L, MAH-80-0313R

MAH-76/80-
0.00/VAR
PID No. 81637

1 / 7

23
29

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PAVEMENT PLANING MAH-76-0067 APPROACHES

THE FOLLOWING QUANTITES HAVE BEEN PROVIDED TO RESURFACE APPROXIMATELY 110FT OF PAVEMENT AT THE NORTH APPROACH AND 136FT OF PAVEMENT AT THE SOUTH APPROACH. PAVEMENT PLANING SHALL EXTEND TO EXISTING JOINTS ON NE RIVER RD AND INTERSECTIONS.

THE FOLLOWING QUANTITES HAVE BEEN CARRIED TO STRUCTURE ESTIMATED QUANTITES.

ITEM 254, PAVEMENT PLANING (T=1 1/2") 1036 SQ. YD.
ITEM 407, TRACKLESS TACK COAT (@ 0.15 GAL/SY) 155 GAL.
ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448)
AS PER PLAN (PG70-22) (T= 1 1/2"), 43 CU. YD.

PAVEMENT PLANING MAH-76-0165 APPROACHES

THE FOLLOWING QUANTITES HAVE BEEN PROVIDED TO RESURFACE APPROXIMATELY 107FT OF PAVEMENT AT THE NORTH APPROACH AND 70FT OF PAVEMENT AT THE SOUTH APPROACH. PAVEMENT PLANING SHALL EXTEND TO EXISTING JOINTS ON NE RIVER RD AND INTERSECTIONS.

THE FOLLOWING QUANTITES HAVE BEEN CARRIED TO STRUCTURE ESTIMATED QUANTITES.

ITEM 254, PAVEMENT PLANING (T=1 1/2") 908 SQ. YD.
ITEM 407, TRACKLESS TACK COAT (@ 0.15 GAL/SY) 136 GAL.
ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448)
AS PER PLAN (PG70-22) (T= 1 1/2"), (T= 1 1/2"), 38 CU. YD.

ITEM 514 - FIELD PAINTING, MISC.; REPAIR PAINTING

PAINTED AREAS THAT ARE DAMAGED OR RUSTED WILL BE DESIGNATED BY THE PROJECT ENGINEER. THE CMS 514.22 PROCESS WILL BE USED TO REPAIR THESE AREAS.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ALL NECESSARY EQUIPMENT TO INSPECT THIS WORK.

THE MAJORITY OF THE AREAS TO BE REPAIR PAINTED ARE:
MAH-76-0068: BOTTOM FLANGES
MAH-76-0166: BOTTOM FLANGES

AREAS TO BE REPAIR PAINTED ARE NOT LIMITED TO THESE AREAS. THE AREAS DESIGNATED BY THE PROJECT ENGINEER WILL BE PAINTED.

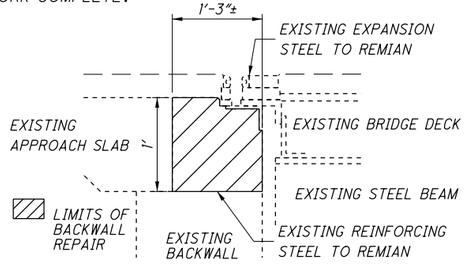
MATCH PAINT COLOR WITH COLOR WHEEL
(FEDERAL PAINT COLOR: 15526 (BLUE)

ITEM 511 - CONCRETE MISC.: BACKWALL REPAIR

THIS ITEM OF WORK CONSISTS OF THE REMOVAL OF ALL UNSOUND CONCRETE AT THE REAR ABUTMENT BACKWALL OF STRUCTURE MAH-76-0606 TO THE LIMITS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER. THE PREPARATION OF THE SURFACE, FORMS, TEMPORARY SUPPORTS OF THE EXPANSION JOINT, AND PLACING CLASS QC MS CONCRETE, SUBSTRUCTURE.

TEMPORARY SUPPORTS OF THE EXPANSION JOINT WILL BE USED TO MAINTAIN THE PROPER ALIGNMENT AND GRADE OF THE JOINT DURING REMOVAL AND REPLACEMENT OF BACKWALL CONCRETE. THE COST OF THIS TEMPORARY SUPPORT WILL BE INCIDENTAL TO THIS ITEM.

PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER CU. YD. FOR ITEM 511 - CONCRETE MISC.: BACKWALL REPAIR WHICH WILL INCLUDE ALL MATERIALS AND LABOR INCLUDING REMOVAL AND DISPOSAL OF THE EXISTING CONCRETE REQUIRED TO MAKE THIS WORK COMPLETE.



ITEM 516 - REFURBISHING BEARING DEVICES, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60 DEGREES F, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEAR- ING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DE- SCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CON- TRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICES, AS PER PLAN.

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPER-STRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUB- MIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CON- TACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

CONTINUOUS PRESSURIZED ELASTOMER SEAL JOINT

THIS WORK SHALL INCLUDE ALL THE NECCESSARY LABOR, TOOLS, EQUIPMENT, AND INCIDENTALS NECESSARY TO INSTALL A CONTINUOUS PRESSURIZED ELASTOMER SEAL BETWEEN THE APPROACH SLAB AND THE PARAPET AT THE FOLLOWING LOCATIONS:

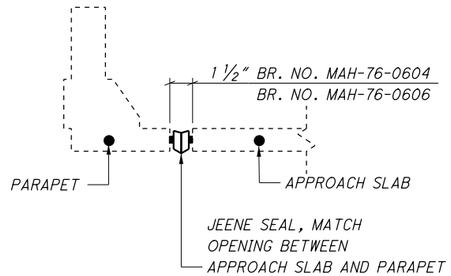
MAH-76-0604: FORWARD LEFT

MAH-76-0606: REAR RIGHT AND LEFT, AND FOWARD RIGHT

THE CONTRACTOR SHALL USE THE FOLLOWING SEAL OR AN APPROVED EQUAL SEAL.

JEENE BRIDGE SERIES "FW PROFILE"
WATSON BOWMAN ACME
WBACORP.COM/PRODUCTS/BRIDGE-HIGHWAYJOINT-SEALS
/JEENE-BRIDGE
95 PINEVIEW DRIVE
AMHERST, NY 14228

ALL MANUFACTOR REQUIREMENTS AND SPECIFICATIONS SHALL BE MET OR EXCEEDED. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 516, SPECIAL CONTINUOUS SEAL IN POLYMER CONCRETE JOINT.



ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

SPECIAL - STRUCTURE MISC.: STRUCTURE CLEANING

THIS WORK WILL CONSIST OF CLEANING THE BEAMS/GIRDERS AND BEARINGS OF STRUCTURE(S) MAH-76-0068 AND MAH-76-0166 AS PER CMS 514.14. ALSO, ALL DIRT AND DEBRIS FROM THE ABUTMENTS, BEAM SEATS, AND PIER CAPS WILL BE REMOVED AND WASHED WITH POTABLE WATER. THIS WORK WILL BE COMPLETED PRIOR TO THE REPAIR PAINTING OPERATIONS.

STRUCTURE CLEANING WILL BE PAID FOR AT THE LUMP SUM BID FOR SPECIAL, STRUCTURE MISC.: STRUCTURE CLEANING. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM 613 - LOW STRENGTH MORTAR BACKFILL

THIS WORK SHALL CONSIST OF FILLING THE VOID UNDER THE APPROACH SLABS OF STRUCTURES MAH-76-0604 AND MAH-76-0606 WITH LOW STRENGTH MORTAR.

STRUCTURE MAH-76-0604
ITEM 516, LOW STRENGTH MORTAR BACKFILL, 3 CY

STRUCTURE MAH-76-0606
ITEM 516, LOW STRENGTH MORTAR BACKFILL, 5 CY

STRUCTURE IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:
MAH-76-0067
MAH-76-0164
MAH-76-0604

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:
ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
CNC	CNC	NRC	1-26-16
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STRUCTURE GENERAL NOTES
MAH-76-0067, MAH-76-0092L, MAH-76-0092R, MAH-76-0165, MAH-76-0604, MAH-76-0606, MAH-76-0701L, MAH-76-0701R, MAH-80-0076L, MAH-80-0076R, MAH-80-0246L, MAH-80-0246R, MAH-80-0313L, MAH-80-0313R

MAH-76/80-0.00/VAR
PID No. 81637

CORRECTING BRIDGE IDENTIFICATION SIGN NUMBERS:

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATIONS SIGNS.

STRUCTURE MAH-76-0092L (SFN:5002702) THE EXISTING SIGN SHOWS 0091L. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0092L.

STRUCTURE MAH-76-0092R (SFN:5002737) THE EXISTING SIGN SHOWS 0091R. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0092R.

STRUCTURE MAH-76-0165 (SFN:5002761) THE EXISTING SIGN SHOWS 0164. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0165.

STRUCTURE MAH-80-0076R (SFN:5002222) THE EXISTING SIGN SHOWS 0076L. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0076R.

STRUCTURE MAH-80-0246R (SFN:5002346) THE EXISTING SIGN SHOWS 00245R. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0246R.

OBJECT MARKERS AND STRUCTURE IDENTIFICATION SIGNS

OBJECT MARKERS WILL BE PLACED ON EACH APPROACH OFF THE LEFT AND RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. ONE OM-3L AND ONE OM-3R WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND SHALL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 10.5 FT IN LENGTH.

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE INSTALLED ON THE SAME POST AND DIRECTLY BELOW THE OBJECT MARKER OFF THE RIGHT SHOULDER ON EACH APPROACH. A QUANTITY OF ONE SIGN WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:

MAH-76-0092L
MAH-76-0092R
MAH-76-0702L
MAH-76-0702R
MAH-80-0246L
MAH-80-0246R
MAH-80-0312L
MAH-80-0313R

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - SIGN, FLAT SHEET, 6 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 21 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 3 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 2 EACH

ITEM 848 - MICRO-SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN
ITEM 848 - SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN
ITEM 848 - MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
ITEM 848 - FULL DEPTH REPAIR, AS PER PLAN
ITEM 848 - WEARING COURSE REMOVED, ASPHALT, AS PER PLAN
ITEM 848 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRO DEMOLITION" WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE CONCRETE OVERLAY REMOVED, ASPHALT WEARING COURSE REMOVED, PROPOSED OVERLAY, AND THE DEPTH OF HYDRODEMOLITION SHALL BE AS SPECIFIED IN THE PLANS.

CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE.

(SEE 848.12) THE COMPONENTS OF THE MICRO-SILICA MODIFIED CONCRETE SHALL BE PROPORTIONED AS FOLLOWS.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

AGG TYPE	FINE AGG (LD)	#8 COARSE AGG (LD) *	AGG TOTAL (LB) *	CEMENT CONTENT (LD)	MICRO SILICA (LD)	WATER TO CEMENT-ITIOUS RATIO	AIR CONTENT +/- 2%	FIBER (1 1/4" POLYPROPY-LENE) (LD) **
GRAVEL	1410	1430	2840	600	50	0.4	8	1
LIME-STONE	1410	1450	2860	600	50	0.4	8	1
SLAG	1300	1350	2650	600	50	0.4	8	1

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127

** FIBER MESH SHALL BE 100% VIRGIN POLYPROPYLENE IN A FIBRILLATED-NETWORK FORM AND SHALL BE 1 ¼" IN LENGTH.

THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, MICRO-SILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED. FIBER MESH WEIGHTS NOT INCLUDED IN MIX DESIGN.

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C127

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

(SEE 848.21) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 848.23) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE DECK ORIGINAL CONCRETE THICKNESS IS SOUND.

(SEE 848.29) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, THE FINISHED OVERLAY SURFACE SHALL BE CURED BY SPRAYING A UNIFORM APPLICATION OF CURING MATERIAL OF 705.07, TYPE 1 OR 1D, AS PER CMS 511.14 METHOD (B) MEMBRANE CURING. IF THE CURING COMPOUND CAN NOT BE PLACED WITHIN THE SAME SHORT TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL, AT THE NEXT AVAILABLE SHORT TERM CLOSURE PERIOD, APPLY THE MEMBRANE CURING COMPOUND.

(SEE 848.29) TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PST (4.2 Mpa).

(SEE 848.30) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 11:00 AM.

(SEE 848.31) FOR EACH PHASE, THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI (4.5 MPa). TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI (4.5 Mpa).

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

DESIGNED CNC | DRAWN CNC | REVIEWED NRC | DATE 1-26-16
CHECKED | REVISED | STRUCTURE FILE NUMBER

STRUCTURE GENERAL NOTES
MAH-76-0067, MAH-76-0092L, MAH-76-0092R, MAH-76-0165, MAH-76-0604, MAH-76-0606, MAH-76-0701L, MAH-76-0701R, MAH-80-0076L, MAH-80-0076R, MAH-80-0246L, MAH-80-0246R, MAH-80-0313L, MAH-80-0313R

MAH-76/80-0.00/VAR
PID No. 81637

CALC:	CNC	DATE: 12/22/2015
CHECKED:	NRC	DATE: 1/26/2016

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
MAH-76-0067 5002672 02/IMS/BR	MAH-76-0092L 5002702 02/IMS/BR	MAH-76-0092R 5002737 02/IMS/BR	MAH-76-0165 5002761 02/IMS/BR	MAH-76-0604 5002974 02/IMS/BR	MAH-76-0606 5002915 02/IMS/BR	MAH-76-0701L 5003008 02/IMS/BR	MAH-76-0701R 5003032 02/IMS/BR					
LS	LS	LS	LS	LS	LS	LS	LS	201	11000		CLEARING AND GRUBBING	
				12	29			203	40000	CY	BORROW	
1036			908					254	01000	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
155			136					SPEC	40720500	GAL	TACK COAT, TRACKLESS TACK	6 / 26
43			38					442	20001	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN	1 / 7
					3			511	81500	CF	CONCRETE, MISC.:BACKWALL REPAIR	2 / 7
843	5087	5087	1242	1058	1058	852	852	512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)(EPOXY URETHANE)	
1052				1384	1384	1205	1205	512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
443	4362	4362	678	1058	1058	452	452	512	74000	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
1128			1768					514	27700	SF	FIELD PAINTING, MISC.:REPAIR PAINTING	
				7	14			SPEC	51614100	FT	CONTINUOUS SEAL IN POLYMER CONCRETE JOINT (1 1/2")	2 / 7
				2	10			516	46801	EACH	REFURBISH AND RESET BEARING, AS PER PLAN	2 / 7
				LS	LS			516	47001		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	2 / 7
250	475	475	250	300	300	250	250	519	11101	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	2 / 7
LS			LS					SPEC	53000200		STRUCTURE, MISC.: STRUCTURE STEEL CLEANING	2 / 7
2				12	15			601	26000	CY	DUMPED ROCK FILL, TYPE B	
				3	5			613	41200	CY	LOW STRENGTH MORTAR BACKFILL	
15	21	21	15	15	15	21	21	630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2	1	1	2	2	2	1	1	630	80100	SF	SIGN, FLAT SHEET, 730.20	
	6	6				6	6	630	80100	SF	SIGN, FLAT SHEET	
1	3	3	1			3	3	630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
1	2	2	1			2	2	630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
150	250	250	150	200	200	150	150	843	50000	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	
			1457					848	10001	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T= 1 1/2")	3 / 7
			1457					848	20001	SY	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN	
			122					848	30001	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	3 / 7
			45					848	50000	SY	HAND CHIPPING	
			LS					848	50100		TEST SLAB	
			1					848	50201	CY	FULL DEPTH REPAIR, AS PER PLAN	

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

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STRUCTURE GENERAL NOTES
MAH-76-0067, MAH-76-0092L, MAH-76-0092R, MAH-76-0165, MAH-76-0604, MAH-76-0606, MAH-76-0701L, MAH-76-0701R

MAH-76/80-
0.00/VAR
PID No. 81637

CALC:	CNC	DATE:	12/22/2015
CHECKED:	NRC	DATE:	1/26/2016

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
MAH-80-0076L 5002192 02/IMS/BR	MAH-80-0076R 5002222 02/IMS/BR	MAH-80-0246L 5002311 02/IMS/BR	MAH-80-0246R 5002346 02/IMS/BR	MAH-80-0313L 5002370 02/IMS/BR	MAH-80-0313R 5002400 02/IMS/BR							
LS	LS	LS	LS	LS	LS			201	11000		CLEARING AND GRUBBING	
					2			203	40000	CY	BORROW	
250	250	250	250	250	250			512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)(EPOXY URETHANE)	
1333	1699	1333	1334	1341	1131			512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
150	150	150	150	150	150			519	11101	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	2 / 7
	2							601	26000	CY	DUMPED ROCK FILL, TYPE B	
21	21	21	21	21	21			630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
1	1	1	1	1	1			630	80100	SF	SIGN, FLAT SHEET, 730.20	
6	6	6	6	6	6			630	80100	SF	SIGN, FLAT SHEET	
2	3	2	3	3	2			630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2	2	2	2	2			630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
100	100	100	100	100	100			843	50000	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

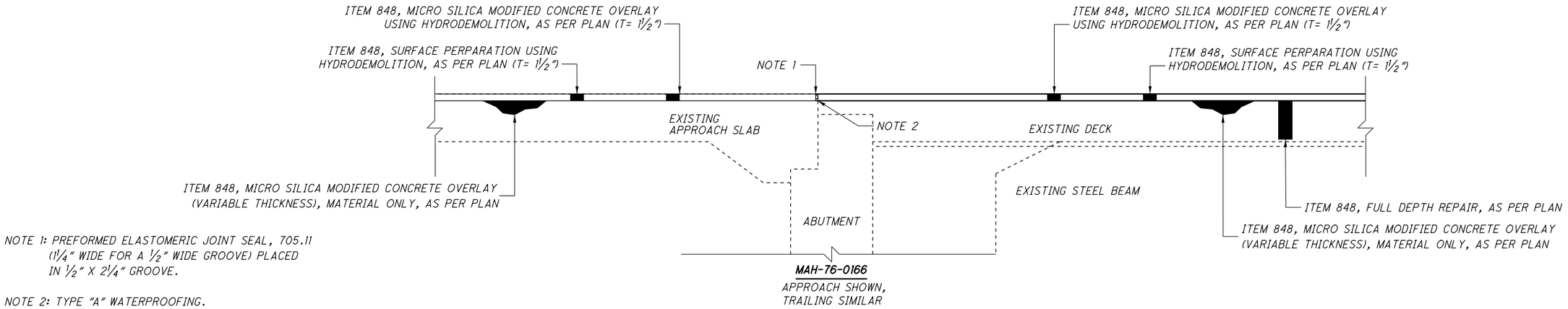
DATE 1-26-16
REVIEWED NRC
STRUCTURE FILE NUMBER

DRAWN CNC
REVISED

DESIGNED CNC
CHECKED

STRUCTURE GENERAL NOTES
MAH-80-0076L, MAH-80-0076R, MAH-80-0246L, MAH-80-0246R, MAH-80-0313L, MAH-80-0313R

MAH-76/80-0.00/VAR
PID No. 81637



NOTE 1: PREFORMED ELASTOMERIC JOINT SEAL, 705.11 (1¼" WIDE FOR A ½" WIDE GROOVE) PLACED IN ½" X 2¼" GROOVE.

NOTE 2: TYPE "A" WATERPROOFING.

	BRIDGE DECK												APPROACH SLABS												
					512	848	848	848	848	848	848							512	848	848	848	848			
BRIDGE NUMBER	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA		TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 1 1/2')	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN (T = 1 1/2")	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	HAND CHIPPING	TEST SLAB	FULL DEPTH REPAIR, AS PER PLAN		LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)		TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 1 1/2')	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN (T = 1 1/2")	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	HAND CHIPPING			
	FT	FT	SQ YD		SQ YD	SQ YD	SQ YD	CU YD	SQ YD	LUMP	CU YD		FT	FT	SQ YD			SQ YD	SQ YD	SQ YD	CU YD	SQ YD			
MAH-76-0067	226.50	35.50	893.42		893.42								20.00	35.50	78.89	FWD		78.89							
													20.00	35.50	78.89	REAR		78.89							
MAH-76-0165	294.74	38.00	1244.46			1244.46	1244.46	103.70	37.33	LUMP	1.00		25.00	38.00	105.56	FWD			105.56	105.56	8.80	3.17			
													25.00	38.00	105.56	REAR			105.56	105.56	8.80	3.17			
MAH-76-0604	281.24	40.00	1249.96		1249.96								15.00	40.00	66.67	FWD		66.67							
													15.00	40.00	66.67	REAR		66.67							
MAH-76-0606	281.24	40.00	1249.96		1249.96								15.00	40.00	66.67	FWD		66.67							
													15.00	40.00	66.67	REAR		66.67							
MAH-76-0701L	221.08	40.00	982.58		982.58								25.00	40.00	111.11	FWD		111.11							
													25.00	40.00	111.11	REAR		111.11							
MAH-76-0701R	221.08	40.00	982.58		982.58								25.00	40.00	111.11	FWD		111.11							
													25.00	40.00	111.11	REAR		111.11							
MAH-80-0076L	143.43	62.00	988.07		988.07								25.00	62.00	172.22	FWD		172.22							
													25.00	62.00	172.22	REAR		172.22							
MAH-80-0076R	143.45	79.00	1259.17		1259.17								25.00	79.00	219.44	FWD		219.44							
													25.00	79.00	219.44	REAR		219.44							
MAH-80-0246L	143.48	62.00	988.42		988.42								25.00	62.00	172.22	FWD		172.22							
													25.00	62.00	172.22	REAR		172.22							
MAH-80-0246R	143.61	62.00	989.31		989.31								25.00	62.00	172.22	FWD		172.22							
													25.00	62.00	172.22	REAR		172.22							
MAH-80-0313L	113.09	74.00	929.85		929.85								25.00	74.00	205.56	FWD		205.56							
													25.00	74.00	205.56	REAR		205.56							
MAH-80-0313R	114.16	62.00	786.44		786.44								25.00	62.00	172.22	FWD		172.22							
													25.00	62.00	172.22	REAR		172.22							
			TOTALS	0	11300	1245	1245	104	38	0	1	0				TOTALS	0	3097	212	212	18	7	0	0	0

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ODOT --- DISTRICT 4
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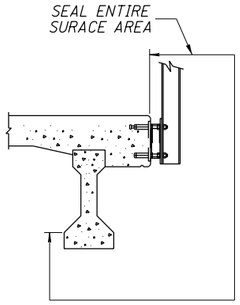
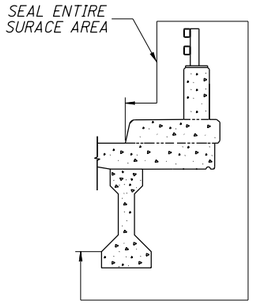
STRUCTURE GENERAL NOTES

MAH-76-0067, MAH-76-0092L, MAH-76-0092R, MAH-76-0165, MAH-76-0604, MAH-76-0606, MAH-76-0701L, MAH-76-0701R, MAH-80-0076L, MAH-80-0076R, MAH-80-0246L, MAH-80-0246R, MAH-80-0313L, MAH-80-0313R

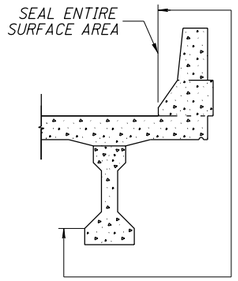
MAH-76/80-0.00/VAR
PID No. 81637



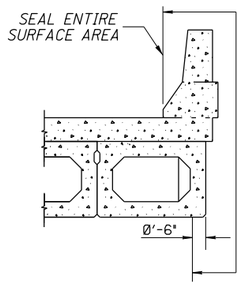
DETAIL A
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



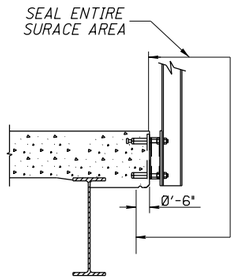
DETAIL B
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



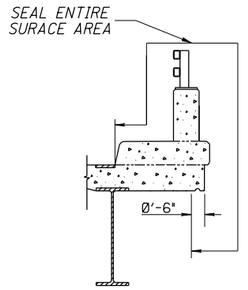
DETAIL C
CONCRETE DECK WITH
DEFLECTOR PARAPET



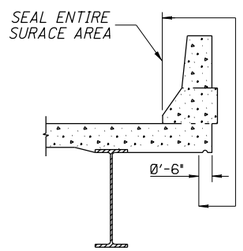
DETAIL D
PRESTRESSED BOX BEAM DECK
WITH DEFLECTOR PARAPET



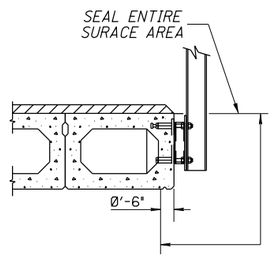
DETAIL E
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



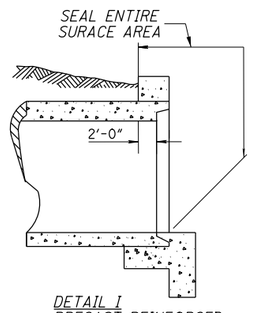
DETAIL F
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



DETAIL G
CONCRETE DECK WITH
DEFLECTOR PARAPET



DETAIL H
PRESTRESSED BOX BEAM DECK
WITH OVER THE SIDE DRAINAGE



DETAIL I
PRECAST REINFORCED
CONCRETE BOX CULVERT

BRIDGE NUMBER	STRUCTURE TYPE	PROPOSED SEALING	FEDERAL COLOR NUMBER	ESTIMATED QUANTITIES				
				ABUT (SQ YD)	PIER (SQ YD)	SUPER (SQ YD)	GENERAL (SQ YD)	TOTAL (SQ YD)
MAH-76-0067	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS			443	400	843
MAH-76-0092L	8 SPAN CONTINUOUS PRESTRESSED CONC. I-BEAMS	SEAL PARAPETS PER DETAIL G SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS			4362	725	5087
MAH-76-0092R	8 SPAN CONTINUOUS PRESTRESSED CONC. I-BEAMS	SEAL PARAPETS PER DETAIL G SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS			4362	725	5087
MAH-76-0165	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	91	587	564		1242
MAH-76-0604	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	282	307	469		1058
MAH-76-0606	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	282	307	469		1058
MAH-76-0701L	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS			452	400	852
MAH-76-0701R	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS			452	400	852
MAH-80-0076L	4 SPAN CONTINUOUS STEEL BEAM	SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS				250	250
MAH-80-0076R	4 SPAN CONTINUOUS STEEL BEAM	SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS				250	250
MAH-80-0246L	4 SPAN CONTINUOUS STEEL BEAM	SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS				250	250
MAH-80-0246R	4 SPAN CONTINUOUS STEEL BEAM	SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS				250	250
MAH-80-0313L	3 SPAN CONTINUOUS STEEL BEAM	SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS				250	250
MAH-80-0313R	3 SPAN CONTINUOUS STEEL BEAM	SEAL ALL AREAS THAT HAVE BEEN PATCHED	PER CMS				250	250

NOTES:
- *EPOXY-URETHANE SEALER SHALL BE USED UNLESS SHOWN OTHERWISE*
- *DETAILS E, F, G AND H ALSO APPLY TO CONCRETE SLAB BRIDGES*

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

DATE 1-26-16
REVIEWED NRC
STRUCTURE FILE NUMBER
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STRUCTURE GENERAL NOTES
MAH-76-0067, MAH-76-0092L, MAH-76-0092R, MAH-76-0165, MAH-76-0604, MAH-76-0606, MAH-76-0701L, MAH-76-0701R, MAH-80-0076L, MAH-80-0076R, MAH-80-0246L, MAH-80-0246R, MAH-80-0313L, MAH-80-0313R

MAH-76/80-0.00/VAR
PID No. 81637

7 / 7

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