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# MAINTENANCE OF TRAFFIC

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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. ON 2 AND 3 LANE SECTIONS: A MINIMUM OF ONE TEN FOOT BIDIRECTIONAL LANE SHALL BE MAINTAINED ON THE EXISTING AND COMPLETED PAYEMENT DURING CONSTRUCTION OF THE WORK.

FOUR LANE SECTIONS: A MINIMUM OF ONE TEN 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. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.
- 5. 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.
- 6. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, 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.
- 7. 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.
- 8. A QUANTITY OF 20 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.
- 9. 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.
- 10. THE CONTRACTOR SHALL PLACE THE SIGNS: W8-1 [BUMP] PER OMUTCD 2C.28; AND W8-11 [UNEVEN LANES] PER OMUCTD 6F.45. PAYMENT FOR THESE SIGNS SHALL BE INCIDENTAL TO THE LUMP SUM ITEM 614-MAINTAINING TRAFFIC. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS PER CMS 614.04.

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

PHASE I - PLANED SURFACE

614, WORK ZONE CENTER LINE, CLASS I, 5.34 MILE

614, WORK ZONE STOP LINE, CLASS I, 381 FT

614, WORK ZONE LANE LINE, CLASS I, 6", 4.78 MILE

614, WORK ZONE MARKING SIGN, (ALL PHASES) 36 EACH

PHASE II - INTERMEDIATE COURSE

PHASE III - SURFACE COURSE

614, WORK ZONE CENTER LINE, CLASS I, 2.39 MILE

614, WORK ZONE STOP LINE, CLASS I, 347 FT 614, WORK ZONE LANE LINE, CLASS I, 6", 4.78 MILE

614, WORK ZONE CENTERLINE, CLASS III, 642 PAINT 5.34 MILE 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 381 FT

614, WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT 4.78 MILE

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

4.32 MILE

# TRAFFIC CONTROL INSPECTOR

6" 642 PAINT

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 REP-RESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISS-ING 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.

# 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.

# TIME LIMITATION, TRAFFIC ON A MILLED SURFACE

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 \$1500 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMT.

### NOTIFICATION OF TRAFFIC RESTRICTIONS

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

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

NOTIFICATION TIME TABLE								
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO						
ROAD & RAMP	>= 2WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE						
CLOSURES	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE						
CLOSURES	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE						
	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE						
LANE CLOSURES & RESTRICTIONS	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE						
START OF								
CONSTRUCTION &	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION						
TRAFFIC PATTERNS	IN/A							
CHANGES								

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

#### INTERIM START/COMPLETION DATES (SR 289, SLM 7.28 - 9.93)

THE CONTRACTOR MUST EITHER HAVE ALL WORK ON SR 289 FROM SLM 7.28 - 9.93 COMPLETED BY JULY 10, 2020, OR NOT BEGIN ANY WORK IN THESE LIMITS UNTIL JULY 20, 2020. SHOULD THE CONTRACTOR FAIL TO MEET THE APPLICABLE REQUIREMENTS, A DISINCENTIVE IN THE AMOUNT OF \$5,000 SHALL BE ASSESSED PER DAY OF WORK PERFORMED OUTSIDE OF THESE REQUIREMENTS.

#### TEMPORARY PAVEMENT WEDGES

TEMPORARY PAVEMENT WEDGES SHALL BE PROVIDED AT ALL TIMES WHERE TRAFFIC IS REQUIRED TO TRAVEL FROM OR ONTO A SURFACE OF A DIFFERENT ELEVATION IN THE DIRECTION OF TRAVEL (JOINTS, MANHOLES, CATCH BASINS, VALVE BOXES, MONUMENT BOXES, ETC.). THE TAPER RATE OF THE TEMPORARY PAVEMENT WEDGES SHALL BE AS PER THE REQUIREMENTS IN THE CHART BELOW. TEMPORARY PAVEMENT WEDGES SHALL BE REMOVED PRIOR TO PLACING THE SPECIFIED PAVEMENT COURSE. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE LUMP SUM BID ITEM FOR ITEM 614 - MAINTAINING TRAFFIC.

		DURATION		
		7 DAYS OR LESS	MORE THAN 7 DAYS	
SPEED	LESS THAN 45MPH	36:1	60:1	
	45MPH OR GREATER	60:1	120:1	

# DROPOFFS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND SIDE STREET APPROACHES/DRIVEWAYS GREATER THAN 1.25 INCH. THE CONTRACTOR SHALL PLACE A 12:1 ASPHALT WEDGE FOR ALL RESULTING ELEVATION DIFFERENCES GREATER THAN 1.25 INCH PRIOR TO OPENING TO TRAFFIC. THE PAVING OF INTERSECTION APPROACHES AND DRIVEWAYS, PER THE NOTES ON SHEET 5, SHALL BE PERFORMED WITHIN 7 DAYS OF MAINLINE SURFACE COURSE BEING APPLIED AND A DROPOFF BEING CREATED BETWEEN THE NEW SURFACE COURSE AND THE MILLED/EXISTING SIDE ROAD OR DRIVEWAY SURFACE. THE CONTRACTOR MAY ELECT TO PLACE A 12:1 ASPHALT WEDGE IN LIEU OF COMPLETING THE PAVING, HOWEVER THE ASPHALT CONCRETE USED FOR THE WEDGE SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 13/2 MAINTAINING TRAFFIC AND SHALL INCLUDE THE REMOVAL OF THE WEDGE BEFORE THE INTERSECTION/DRIVEWAY IS

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SS 843 DATED 04/18/03

#### DESIGN SPECIFICATIONS

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

#### EXISTING STRUCTURE VERIFICATION

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-289-0154 (OVER RR, CRAB CREEK, ANDREWS AVE)

- -PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE
- WEARING SURFACE, INCLUDING THE APPROACH SLABS -REPAIR TRIPPING HAZARD WHERE APPROACH SIDEWALK MEETS
- SIDEWALK ON LEFT OF STRUCTURE
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FFD RESIN
- -REPLACE DAMAGED APPROACH GUARDRAIL AT REAR
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -NEW STRUCTURE IDENTIFICATION SIGNS

#### MAH-289-0857 (GRAYS RUN)

- -PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN
- -REPAIR TRIPPING HAZARD WHERE APPROACH SIDEWALK MEETS SIDEWALK ON EITHER SIDE STRUCTURE
- -REPAIR SLOPE PROTECTION AT FORWARD RIGHT ABUTMENT -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -NEW STRUCTURE IDENTIFICATION SIGNS

#### MAH-616-0588 (DRY RUN)

-SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN

MAH-289D-0007 (HIMROD AVE OVER US62 & SR7)

- -PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE. INCLUDING RAILING, CURB, AND FLOOR. SEAL WITH EPOXY-URFTHANF
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEALWITH EPOXY-URETHANE
- -CLEAN SCUPPERS AND VEGETATION GROWTH AT DECK EDGES -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION

# MAH-289D-0057 (OAK ST OVER US62 & SR7)

- -CLEAN SCUPPERS AND VEGETATION GROWTH AT DECK EDGES -REPLACE THE TOPS OF BACKWALLS
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEALWITH EPOXY-URETHANE
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE
- -REPAIR SLOPE PROTECTION AT REAR LEFT
- -REMOVE AND REPLACE ASPHALT OVERLAY ON DECK AND APPROACH SLABS
- -REMOVE DEBRIS FROM SLIDING PLATE EXPANSION JOINT -REPLACE MISSING AND DAMAGED ALUMINUM RAIL AT BOTH
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION INCLUDING ON VPF -NEW STRUCTURE IDENTIFICATION SIGNS

#### MAH-422-0496 (OVER LINCOLN PARK)

- -PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE, INCLUDING THE APPROACH SLABS -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS
- WITH GRAVITY-FED RESIN -REPAIR EXPANSION JOINT SEALS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE,
- INCLUDING RAILING, AND SEAL WITH EPOXY-URETHANE -REPAIR EROSION AT FORWARD AND REAR RIGHT
- -REPAIR SLOPE PROTECTION AT FORWARD AND REAR
- -REPLACE OLD AND DAMAGED GUARDRAIL AT ALL FOUR CORNERS OF STRUCTURE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION

# MAH-422-0755 (DRY RUN)

-SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN

# TRU-422-2158 (LITTLE SQUAW CREEK)

- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE AND SEAL WITH EPOXY-URETHANE
- -PATCH ALL UNSOUND AREAS OF THE FLOOR WITH 519

COMPOSITE FIBER WRAR -CLEAN OUT CHANNEL AND REPAIR SCOUR AT INLET -OLEARING AND GRUBBING 15' LAROUND STRUCTURE TO REMOVE ALL VEGETATION

-NEW STRUCTURE IDENTIFICATION SIGNS

# CLEARING AND GRUBBING

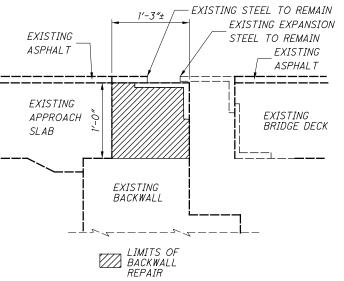
ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID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

### ITEM 511 - CONCRETE MISC .: BACKWALL REPAIR

THIS ITEM OF WORK CONSISTS OF THE REMOVAL OF ALL UNSOUND CONCRETE AT BOTH ABUTMENT BACKWALLS OF STRUCTURE MAH-289D-0057 TO THE LIMITS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER. THE PREPARATION OF THE SURFACE, FORMS, TEMPORARY SUPPORTS OF THE EXPAN-SION JOINT, AND PLACING CLASS QC 1 CONCRETE, SUBS-TRUCTURE.

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.



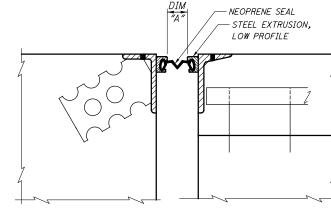
#### LINCOLN PARK

ACCESS TO ALL LINCOLN PARK FACILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES. TEMPORARY CONSTRUCTION FENCING WILL BE INSTALLED ALONG THE PROPOSED CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT LINCOLN PARK AND THE PUBLIC. APPROPRIATE SIGNAGE WILL BE INSTALLED TO ALERT USERS OF LINCOLN PARK OF CONSTRUCTION ACTIVITIES, IF IN PROXIMITY TO RECREATIONAL FACILITIES OR FEATURES. THE CONTRACTOR SHALL BE REQUIRED TO CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT AND THE CITY OF YOUNGSTOWN PARKS & RECREATION DEPARTMENT (DAWN TURNAGE. 330-742-8712) PRIOR TO THE BEGINNING OF CONSTRUCTION ACTIVITIES. AT LEAST ONE (1) DAY PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM ODOT AND THE CITY OF YOUNGSTOWN PARKS AND RECREATION DEPARTMENT OF THE PROPOSED ACCESS POINT(S) TO PERFORM THE PROPOSED MAINTENANCE ACTIVITIES BENEATH THE STRUCTURE AND THE ACCESS POINT(S) SHALL BE AGREED UPON BEFORE ANY SUCH WORK CAN BE PERFORMED.

# ITEM 516 - ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN

THIS ITEM WILL INCLUDE THE REMOVAL AND REPLACEMENT OF THE EXISTING SEALS FROM EDGE TO EDGE OF STRUCTURE MAH-422-0496 DECK. UPON REMOVAL OF THE SEAL, THE CONTRACTOR WILL ATTEMPT TO MATCH THE REPLACEMENT SEAL AS CLOSELY AS POSSIBLE WITH THE EXISTING SEAL SO AS TO PROVIDE A SNUG, WATERTIGHT SEAL. THE EXISTING SEAL WILL BE FIELD MEASURE PRIOR TO ORDERING MATERIAL.

THIS WORK WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 516, ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRU-SIONS, AS PER PLAN. THIS PRICE WILL INCLUDE THE REMOVAL OF THE EXISTING SEAL, LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS REQUIRED TO REPLACE THE SEAL.



# DIMENSION A

TEMPERATURE, °F	ATB-7-2755
30°	25/8"
40°	23%"
50°	21/8"
60°	17/8"
70°	15% "
80°	13%"
90°	11/8"

# ITEM 518 - SCUPPER MISC .: CLEANOUT

THIS WORK WILL CONSIST OF REMOVING ALL DEBRIS FROM ON TOP AND INSIDE OF THE SCUPPERS. SCUPPER CLEANOUT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 518, SCUPPER MISC.: CLEANOUT. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

# 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.

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MAH-289-01 MAH-422-



MAH-289-0154 ITEM 601, DUMPED ROCK FILL, TYPE B, 7 CY

MAH-422-0496 ITEM 203, BORROW, 15 CY ITEM 601, DUMPED ROCK FILL, TYPE B, 10 CY ITEM 601, CRUSHED AGGREGATE SLOPE PROTECTION, 20 CY

### SCOUR REPAIR

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THE FOLLOWING ITEM WILL BE USED TO SCOUR THE EROSION THAT HAS OCCURED AT THE INLET OF STRUCTURE TRU-422-2158. AS DIRECTED BY THE PROJECT ENGINEER:

TRU-422-2158

ITEM 601, ROCK CHANNEL PROTECTION, TYPE B, 5 CY

#### SIDEWALK CORRECTIONS

THE ITEMS LISTED FOR STRUCTURES MAH-289-0154 AND MAH-289-0857 SHALL BE USED AS DIRECTED BY THE ENGINEER TO REPAIR THE EXISTING CURB AND SIDEWALK AT THE APPROACHES OF THE STRUCTURE.

MAH-289-0154

ITEM 202, WALK REMOVED, 40 SF ITEM 202, CURB REMOVED, 10 FT ITEM 608, 6" CONCRETE WALK, 40 SF ITEM 609, CURB, TYPE 7, 10 FT

MAH-289-0857

ITEM 202, WALK REMOVED, 50 SF ITEM 202, CURB REMOVED, 10 FT ITEM 608, 6" CONCRETE WALK, 50 SF ITEM 609, CURB, TYPE 7, 10 FT

# SPECIAL - STRUCTURES: CONCRETE SPALL REMOVAL

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE BOTTOM DECK FLOOR OF STRUCTURES MAH-289D-0007 AND MAH-289D-0057 WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED, REMOVAL AREAS WILL BE SEALED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

CONCRETE SPALL REMOVAL WILL BE PAID FOR AT THE UNIT BID PRICE FOR SPECIAL - STRUCTURE MISC.: CONCRETE SPALL REMOVAL. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

MAH-289D-0007

SPEC, STRUCTURES: CONCRETE SPALL REMOVAL, 50 SQ YD 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), 50 SQ YD

MAH-289D-0057

SPEC, STRUCTURES: CONCRETE SPALL REMOVAL, 50 SQ YD 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), 50 SQ YD

THIS WORK WILL CONSIST OF REMOVING AND REPLACING A SLAB OF THE CONCRETE SLOPE PROTECTION UNDER STRUCTURE MAH-289D-0057 WITH ITEM 613, LOW STRENGTH MORTAR BACKFILL AND ITEM 601, CONCRETE SLOPE PROTECTION.

PLACE THE LOW STRENGTH MORTAR BACKFILL TO FILL ALL EROSION UNDER THE OLD CONCRETE SLOPE PROTECTION AND THEN PLACE NEW CONCRETE SLOPE PROTECTION SLABS PER CMS 601.07 AS DIRECTED BY THE PROJECT ENGINEER.

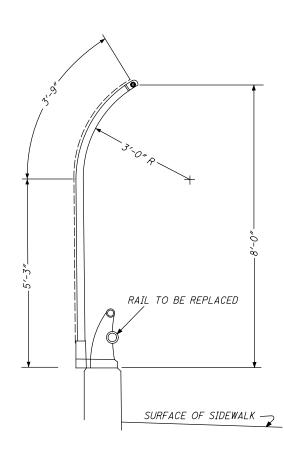
CONCRETE SLOPE PROTECTION REPLACEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 601, CONCRETE SLOPE PROTECTION AND ITEM 613, LOW STRENGTH MORTAR BACKFILL. REMOVAL OF EXISTING CONCRETE SLOPE PROTECTION WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 202, CONCRETE SLOPE PROTECTION REMOVED. THE PRICE FOR EACH ITEM WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM 202, CONCRETE SLOPE PROTECTION REMOVED, 63 SY ITEM 601. CONCRETE SLOPE PROTECTION. 63 SY ITEM 613, LOW STRENGTH MORTAR BACKFILL, 125 CY

# SPECIAL - STRUCTURES: REPLACE ALUMINUM RAIL

THIS ITEM WILL CONSIST OF THE REPLACEMENT OF THE MISSING AND DAMAGED RAILING OF THE VANDEL PROTECTION FENCE ON STRUCTURE MAH-289D-0057, THE ACTUAL SECTIONS NEEDED WILL BE FIELD MEASURED PRIOR TO ORDERING MATERIAL.

THIS WORK WILL BE PAID FOR AT THE UNIT PRICE BID FOR SPECIAL - STRUCTURES: REPLACE ALUMINUM RAIL. THIS PRICE WILL INCLUDE THE LABOR, EQUIPMENT, MATERIAL, RAILING AND INCIDENTALS REQUIRED TO REPLACE THE RAILING.



# 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-289-0154 (SFN:5004942) THE EXISTING SIGN SHOWS 0155. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS

STRUCTURE MAH-289D-0057 (SFN:5009510) THE EXISTING SIGN SHOWS 0053. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS

STRUCTURE TRU-422-2158 (SFN:7807201) THE EXISTING SIGN SHOWS 2196. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS

### STRUCTURE/CULVERT IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25b) 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-289-0154 (TWO APPROACHES) MAH-289-0857 (TWO APPROACHES) MAH-289D-0057 (TWO APPROACHES) TRU-422-2158 (TWO APPROACHES)

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

# ENDANGERED SPECIES HABITAT-INDIANA BAT/NORTHERN LONG-EARED BAT

THE TRU-422-21.58 BRIDGE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT, NO TREES SHALL BE REMOVED AT THIS LOCATION FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

#### GUARDRAIL REPLACEMENT

THE FOLLOWING ITEMS WILL BE USED TO REPLACE EXISTING PIECES OF GUARDRAIL THAT ARE DAMAGED, ROTTED, OR OUTDATED AT STRUCTURES MAH-289-0154 AND MAH-422-0496 AS DIRECTED BY THE PROJECT ENGINEER:

MAH-289-0154

202. GUARDRAIL REMOVED 50 FT 606, GUARDRAIL, TYPE MGS 50 FT

MAH-422-0496

125 FT 202, GUARDRAIL REMOVED 202. BRIDGE TERMINAL ASSEMBLY REMOVED. 4 EA 606, GUARDRAIL, TYPE MGS 125 FT 606, BRIDGE TERMINAL ASSEMBLY, TYPE 2, 4 EA

# STREAM AVOIDANCE - MAH-289-1.54, MAH-616-5.88,

UNDER NO CIRCUMSTANCES SHALL ANY EQUIPMENT (LIFT, BACKHOE, EARTH MOVING EQUIPMENT, ETC.) AND/OR MATERIALS ENTER THE STREAM(S) AT MAH-289-1.54, MAH-616-5.88, MAH-422-4.96 AND MAH-422-7.55. NO FILL MATERIAL (INCLUDING TEMPORARY FILLS) SHALL BE PLACED BELOW THE IDENTIFIED ORDINARY HIGH WATER MARK (OHWM) OF THE STREAM(S). THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ALL CONSTRUCTION MATERIALS, WASTE MATERIALS, WATER CHEMICALS OR OTHER SUBSTANCES USED TO CONSTRUCT THE PROJECT FROM ENTERING THE STREAM(S).

#### TREE CUTTING/REMOVAL PROHIBITED

THE MAH-289-1.54, MAH-289-8.57, MAH-289D-0.07, MAH-289D-0.57 AND MAH-422-4.96 BRIDGES ARE LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. TREE TRIMMING IS PERMITTED AT THESE LOCATIONS AS DIRECTED BY THE PROJECT ENGINEER, HOWEVER, NO TREES SHALL BE REMOVED AT THIS LOCATION. A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET. 

# ITEM 202 - REMOVAL MISC .: CHANNEL CLEANOUT

THIS WORK WILL CONSIST OF RE-ESTABLISHING THE ORIGINAL CHANNEL PROFILE BY REMOVING SEDIMENT BUILDUP, VEGETATION, AND DEBRIS FROM THE EXISTING CHANNEL WITHIN STATE RIGHT-OF-WAY LIMITS AS SPECIFIED IN THE PLANS FOR STRUCTURES TRU-422-2158. ANY TREES LOCATED WITHIN CHANNEL OR BANK LIMITS WILL BE INCLUDED UNDER ITEM 201, CLEARING AND GRUBBING. ALL MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 105.16 AND 105.17 OF THE CMS WITH THE APPROVAL OF THE ENGINEER. NO AREAS OF EXISTING CHANNEL PROTECTION SHALL BE REMOVED IN ORDER TO RESTORE THE ORIGINAL CHANNEL PROFILE. AFFECTED CHANNEL AREAS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CHANNEL CLEANOUT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 202 REMOVAL MISC .: CHANNEL CLEANOUT. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CHANNEL CLEANOUT.

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CONCRETE SLOPE PROTECTION REPAIR

2158.

MAH-422-4.96 AND MAH-422-7.55

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154, MAH-289

MAH-289-01 MAH-422-

		DDIDOC	NO / CT	DI ICTI IDE					ES1	TIMATED	QUANTITIES	
MART-203-0134 5004942 06/S>2/BR	MAH-289-0857 5005086 06/S>2/BR	MAH-289D-0007 5009472 05/NHS/BR	MAH-289D-0057 5009510 05/NHS/BR	MAH-422-0496 CO 5005493 CO 5/NHS/BR	MAH-422-0755 FF 5005531 O5/NHS/BR	MAH-616-0588 5006015 05/NHS/BR	TRU-422-2158 7807201 05/NHS/BR	ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEE
LS	LS	LS	LS	LS			LS	201	11000		CLEARING AND GRUBBING	
40	50							202	30000	SF	WALK REMOVED	
10	10							202	32000	FT	CURB REMOVED	
			63					202	32800	SY	CONCRETE SLOPE PROTECTION REMOVED	
			1890					202	23500	SY	WEARING COURSE REMOVED	
50				125				202	38000	FT	GUARDRAIL REMOVED	21
				4			Y Y Y	<b>202</b>	¥47000¥	<b>EACH</b>	BRIDGE TERMINAL ASSEMBLY REMOVED	21
						<u> </u>	LS	202	98000		REMOVAL MISC.:CHANNEL CLEANOUT	
				15			$\mathcal{L}\mathcal{L}$	<b>203</b> 2	40000		BORROW	
			474					407	40000	0.41	TACK 00 AT 700 40	
			171					407	13900 20000	GAL	TACK COAT, 702.13	
			114					407		GAL	NON-TRACKING TACK COAT FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A, AS PER PLAN	
			40 16					424 511	10001 71100	CY CY	, ,	
			16					511	71100	Cf	CONCRETE, MISC.:BACKWALL REPAIR	
100		150	200	200			100	512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
5032	232	100	200	4204	387	503	100	512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
0002	202			128	- 507	000		516	01301	FT	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN	20
			128	120				516	14600	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: CLEANOUT OF EXPANSION JOINTS	20
			120					0.10	11000	' '	CITICOTOTIVE CONTITUTE AND CON	
		6	4	17				518	12500	EACH	SCUPPER, MISC.: CLEANOUT	
							500	SPECIAL	51900100	SF	COMPOSITE FIBER WRAP SYSTEM	
100		100	150	200			100	519	11101	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	20
51	6	3		42				519	12304	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C	
		50	50					SPECIAL	53000800	SY	STRUCTURES: CONCRETE SPALL REMOVAL	
			72					SPECIAL	53001300	FT	STRUCTURES: REPLACE ALUMINUM RAIL	21
			63					601	21000	SY	CONCRETE SLOPE PROTECTION	
7				10				601	26000	CY	DUMPED ROCK FILL, TYPE B	
				20				601	20010	CY	CRUSHED AGGREGATE SLOPE PROTECTION	
	10						5	601	32100	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
50				125				606	15050	FT	GUARDRAIL, TYPE MGS	21
				4				606	35100	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	21
40	F.					1		600	12000	65	CU CONODETE MALK	
40	50							608	13000		6" CONCRETE WALK	
10	10		125			1		609 613	28000 41200	FT CY	CURB, TYPE 7 LOW STRENGTH MORTAR BACKFILL	
15	15		125				15	630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
10	13		13		-	1	10	030	02 100	11	ON CONTROL WICKING CONTROL 2 1	
2	2		2	1			2	630	80100	SF	SIGN, FLAT SHEET, 730.20	
2	2		2			1	2	630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2		2		-		2	630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
			79					856	10000	CY	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE	
			<u> </u>						10000	<del></del>		

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MAH/TRU-62/ VAR-19.36/VAR PID No. 96556

ESTIMATED QUANTITIES

MAH-289-0154, MAH-289-0857, MAH-289D-0007, MAH-289D-0057,

MAH-422-0496, MAH-422-0755, MAH-616-0588, TRU-422-2158

DESIGN AGENCY
ODOT--- DISTRICT 4
PLANNING & ENGINEERING

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