115-1.1

# 

LATITUDE: 40°48'40" LONGITUDE: 84°07'10"

PORTION TO BE IMPROVED _	
NTERSTATE HIGHWAY	
EDERAL ROUTES	
STATE ROUTES	
COUNTY & TOWNSHIP ROADS	

# **DESIGN DESIGNATION**

4,500
5,000
750
56%
6%
60 MPH
55 MPH
NO

# **DESIGN EXCEPTIONS**

<u>DESIGN FEATURE</u> GRADED SHOULDER WIDTH APPROVAL DATE 2/16/22 SHEET NUMBER

# **ADA DESIGN WAIVERS**

NONE REQUIRED



PLAN PREPARED BY:
ODOT DISTRICT 1
1885 N. MCCULLOUGH ST.
LIMA, OH 45801

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

ALL-115-1.11

SUGAR CREEK TOWNSHIP

ALLEN COUNTY

# **INDEX OF SHEETS:**

TITLE SHEET SCHEMATIC PLAN TYPICAL SECTIONS GENERAL NOTES MAINTENANCE OF TRAFFIC {7-7A} GENERAL SUMMARY SUBSUMMARIES PLAN AND PROFILE 9-10 CROSS SECTIONS 11-17 DRILLED SHAFT WALL GEOTECHNICAL PROFILE - LANDSLIDE 21-27 CENTERLINE PLAT RW.1-RW.2

# FEDERAL PROJECT NUMBER

E230 (303)

# RAILROAD INVOLVEMENT

NON

# PROJECT DESCRIPTION

REPAIR SLIDE AREA BY CONSTRUCTING A PLUG PILE WALL. REPLACE CULVERT.

PROJECT LENGTH: 0.16 MILES

# EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.3 ACRES

ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.1 ACRES

NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

# 2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 6.

Christopher A. Hughes, P.E. District 01 Deputy Director

Jack Marchbanks, PhD

Director, Department of Transportation

	STANDARD CONSTRUCTION DRAWINGS SPECIFICATIONS PROVISIONS								
BP-3.1	1/21/22	HW-2.1	7/15/22			800-2023	4/21/23		
BP-5.1	7/15/22					832	7/15/22		
		MT-101.60	4/21/23			902	7/19/19		
CB-2-3, 2-4	1/20/23	MT-101.90	7/17/20						ENGINEER'S SEAL
CB-3A	7/16/21	MT-105.10	1/17/20						27737722773 32772
DM-1.1	7/17/20	TC-41.20	10/18/13						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
DM-1.2		TC-42.20	10/18/13						TEOFOLI
DM-4.4	1/15/16	TC-52.10	10/18/13						SOME
		TC-52.20	1/15/21						KRISTOPHER OSTERHAGE
MGS-1.1	7/16/21	TC-61.30	7/19/19				_		E-86193
MGS-2.1	1/19/18								E-86193
MGS-4.2	7/19/13								SSONAL ENGIN
MGS-5.3	7/15/16								THILLIAN.
DM 4.4	4/00/00								

DESIGN AGENCY

DESIGNER
KCO
REVIEWER
MJM 02-08-22
PROJECT ID
111498
SHEET TOTAL

P.1 27

# ITEM 606, GUARDRAIL, TYPE MGS, AS PER PLAN ITEM 606, GUARDRAIL, TYPE MGS WITH LONG POSTS, AS PER PLAN

THIS ITEM REQUIRES STEEL POSTS AND APPROVED COMPOSITE OR POLYMER ALTERNATIVE BLOCKOUTS. THE BLOCKOUTS SHALL BE FROM THE APPROVED PRODUCTS LIST THAT IS MAINTAINED BY THE OFFICE OF ROADWAY ENGINEERING. THE STEEL POSTS AND APPROVED ALTERNATIVE MGS BLOCKOUTS SHALL BE PROVIDED AND INSTALLED PER CMS 606 AND ALL PERTINENT STANDARD DRAWINGS. ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE STEEL POSTS AND APPROVED ALTERNATIVE MGS BLOCKOUTS SHALL BE INCLUDED IN THE UNIT BIDS FOR THE FOLLOWING ITEMS:

ITEM 606, GUARDRAIL, TYPE MGS, AS PER PLAN
ITEM 606, GUARDRAIL, TYPE MGS WITH LONG POSTS, AS PER PLAN

# ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL 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 31 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, MGS 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.

### ITEM 202 - ANCHOR ASSEMBLY REMOVED. TYPE A. AS PER PLAN

THE CONTRACTOR SHALL REMOVE THE EXISTING ANCHOR
ASSEMBLY, TYPE A IN ACCORDANCE WITH THE REQUIREMENTS OF
202.09 OF THE C&MS. IN ADDITION, THE CONCRETE ENCASED
POSTS AND THE CONCRETE ANCHOR AT THE GUARDRAIL
TERMINAL SHALL BE COMPLETELY REMOVED AND DISPOSED OF IN
ACCORDANCE WITH 202.02 OF THE C&MS.

ALL HOLES REMAINING AFTER REMOVAL OF CONCRETE ENCASED POSTS AND THE REMOVAL OF THE CONCRETE ANCHOR SHALL BE FILLED IN ACCORDANCE WITH 202.02 OF THE C&MS. FILL MATERIAL CONTAINING SOD SHALL NOT BE USED. FILL MATERIAL MUST MEET THE SPECIFICATION OF C&MS 703.11 AND MUST MEET THE APPROVAL OF THE ENGINEER PRIOR TO ITS USE. MATERIAL PLACED IN HOLES SHALL BE THOROUGHLY COMPACTED AND LEVELED OFF AS DIRECTED BY THE ENGINEER. PAYMENT FOR THE ABOVE SHALL BE INCLUDED WITH THE UNIT PRICE FOR ITEM 202 ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN.

### PAVEMENT MARKINGS

PAVEMENT MARKINGS MUST BE IN PLACE PRIOR TO OPENING THE ROAD TO TRAFFIC. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER FOURTEEN (14) CALENDAR DAYS IN ADVANCE OF THE NEED TO PLACE THE PAVEMENT MARKINGS. THE PROJECT ENGINEER SHALL CONTACT THE DISTRICT ROADWAY SERVICES ENGINEER (419-999-6893, ERIC.PFENNING@DOT.OHIO.GOV) TO SCHEDULE PAVEMENT MARKING PLACEMENT PRIOR TO THE OPENING TO TRAFFIC.

## PAVEMENT RESTORATION FOR WALL CONSTRUCTION

THE FOLLOWING QUANTITIES ARE PROVIDED FOR PAVEMENT RESTORATION FOLLOWING THE CONSTRUCTION OF THE PLUG PILE WALL BASED ON AN AREA OF 200' LONG BY 11' WIDE:

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1.5" DEPTH = 245 SY

ITEM 407 - NON-TRACKING TACK COAT (R = .085 GAL/SY) = 21 GAL ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 (T = 1.5") = 11 CY

THE ABOVE ITEMS SHALL BE USED AT THE DIRECTION OF THE ENGINEER.

# **ENVIRONMENTAL COMMITMENTS**

- 1. THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY ENDANGERED INDIANA BAT AND NORTHERN LONG-EARED BAT, AND THE STATE ENDANGERED LITTLE BROWN AND TRICOLORED BATS. NO TREES SHALL BE REMOVED UNDER THIS PROJECT 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 AND ORC 1531.25. FOR THE PURPOSE 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.
- 2. THIS PROJECT WAS DEVELOPED TO BE CONSTRUCTED WITHOUT EQUIPMENT OR MATERIALS BEING PLACED (PERMANENTLY OR TEMPORARILY) BELOW THE ORDINARY HIGH WATER MARK OF SUGAR CREEK.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF SECTIONS XXIV AND XXXIV OF THE OHIO DEPARTMENT OF TRANSPORTATION SAFETY & HEALTH STANDARD OPERATING PROCEDURE 220-006(SP) EFFECTIVE: NOVEMBER 1, 2018 (EXCEPT AS AMENDED BELOW) AND ALL SUBSEQUENT UPDATES POSTED AT THE FOLLOWING WEBSITE:

HTTP://WWW.DOT.STATE.OH.US/POLICY/POLICIESANDSOPS/ POLICIES/220-006(SP).PDF

AMENDMENTS TO THE REQUIREMENTS OF THIS DOCUMENT ARE:

XXIV. HEAD PROTECTION (HARD HATS)

ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR APPROPRIATE HEAD PROTECTION. ALL HARD HATS MUST MEET OR EXCEED ANSI Z89.1-2009 TYPE 1, CLASS E-G REQUIREMENTS.

XXXIV. SAFETY APPAREL AND VEST (HIGH VISIBILITY) ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR A HIGH-VISIBILITY SAFETY VEST THAT MEETS THE PERFORMANCE CLASS II OR CLASS III REQUIREMENTS OF THE ANSI/ISEA 107-2015 PUBLICATION ENTITLED "AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND ACCESSORIES."

WORKERS MAY WEAR AN ANSI CLASS II OR ANSI CLASS III AP-PROVED RAIN SUIT, JACKET OR OTHER APPAREL WITHOUT A SAFETY VEST OVER IT.

DESIGN AGENCY



ESIGNER

KCO
REVIEWER
MJM 02-08-22
PROJECT ID
111498

P.5 27

## ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 90 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON THIS SHEET. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE DETOUR SHALL BE ESTABLISHED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE STATE OF OHIO.

THE FIRST DAY THAT THE DETOUR IS IN EFFECT SHALL BE CONSIDERED THE STARTING DATE OF THE 90-DAY DETOUR LIMITATION. THE 90TH DAY OF THE DETOUR LIMITATION SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE. ON OR BEFORE THE 90TH DAY, THE ROADWAY SHALL BE OPENED TO THE SAFE AND CONVENIENT USE OF THE TRAVELING PUBLIC.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 DURING PERIODS IN WHICH THE AFFECTED ROAD IS CLOSED TO TRAFFIC AT LOCATIONS SPECIFIED IN CMS 614.05.

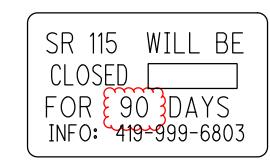
ACCESS TO ALL ADJACENT PROPERTIES WITHIN THE WORK LIMITS SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES, AS PER CMS 614.02(A)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

NOTICE OF CLOSURE SIGN TIME TABLE											
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC									
	>= 2 WKS	14 CALENDAR DAYS PRIOR TO CLOSURE									
RAMP & ROAD CLOSURES	> 12 HRS & < 2 WKS	7 CALENDAR DAYS PRIOR TO CLOSURE									
	< 12 HRS	2 BUSINESS DAYS PRIOR TO CLOSURE									

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD 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 OR NEAR THE POINT OF CLOSURE.

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION.



W20-H13-60

Note: The Contractor is to supply DATE

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

# **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 THE 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.

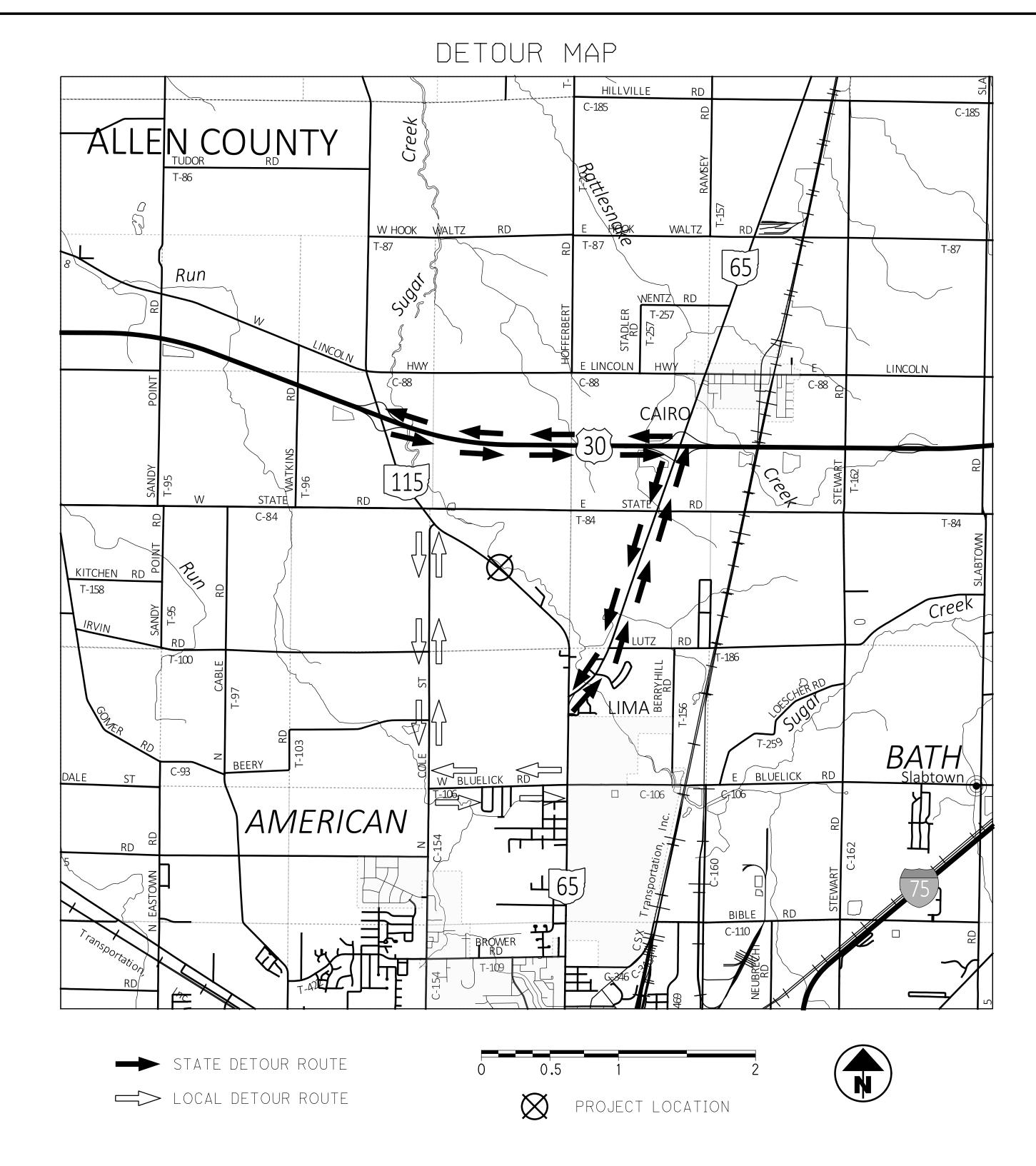
NOTIFICATION TIME TABLE											
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO									
	>= 2 WKS	21 CALENDAR DAYS PRIOR TO CLOSURE									
RAMP & ROAD CLOSURES	> 12 HRS & < 2 WKS	14 CALENDAR DAYS PRIOR TO CLOSURE									
	< 12 HRS	4 BUSINESS DAYS PRIOR TO CLOSURE									
LANE CLOSURES AND	>= 2 WKS	14 CALENDAR DAYS PRIOR TO CLOSURE									
RESTRICTIONS	< 2 WKS	5 BUSINESS DAYS PRIOR TO CLOSURE									
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION									

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

# DESIGNATED LOCAL DETOUR ROUTE

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON THIS SHEET. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.



ITEM 253 - PAVEMENT REPAIR = 20 CY

ITEM 407 - TACK COAT = 20 GAL

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE,

TYPE 1, (448), PG64-22 = 10 CY

ITEM 617 - COMPACTED AGGREGATE = 50 CY

DESIGN AGENCY



REVIEWER
MJM 02-08-22
PROJECT ID
111498
SHEET TOTAL
P.6 27

	1	1	SHEET NUM.				1	1	1	PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE	
								6		01/STR/06		EXT	TOTAL			SHEET NO	'.
															MAINTENANCE OF TRAFFIC		_
								20		20	253	02000	20	CY F	PAVEMENT REPAIR		-
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	1							1							INCIDENTALS		-
										LS	614	11000	LS		MAINTAINING TRAFFIC		-
										3	619	16010	3	MNTH F	FIELD OFFICE, TYPE B		
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