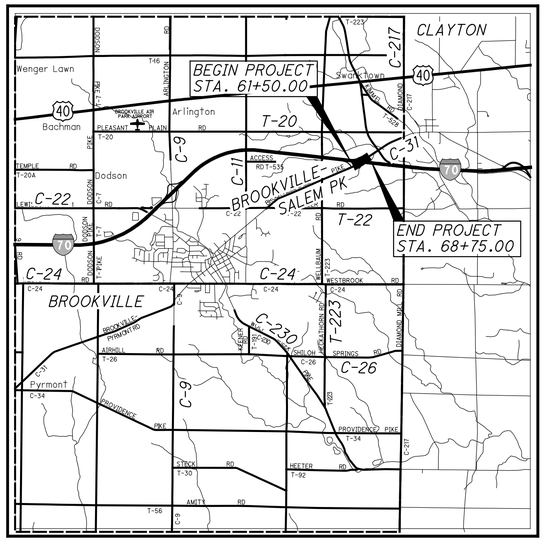
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MOT-70-6.03

CLAY TOWNSHIP
MONTGOMERY COUNTY



LOCATION MAP

LATITUDE: N 39°51'19" LONGITUDE: W 84°22'42"

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

BROOKVILLE-SALEM PIKE (CR 31)

CURRENT ADT (2018)	9280
DESIGN YEAR ADT (2038)	11050
DESIGN HOURLY VOLUME (2038)	650
DIRECTIONAL DISTRIBUTION	55%
TRUCKS (24 HOUR B&C)	4%
DESIGN SPEED	55 MPH
LEGAL SPEED	50 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN COLLECTOR
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
PRIME AE

ENGINEERS SEAL:
STATE OF OHIO
ANGELA M TRAUTMAN
E-82339
REGISTERED
PROFESSIONAL ENGINEER

INDEX OF SHEETS:

PROJECT DESCRIPTION

IMPROVEMENT OF BROOKVILLE-SALEM PIKE (CR 31) (0.15 MILE) INCLUDING REPLACING THE EXISTING DECK WITH A NEW COMPOSITE REINFORCED CONCRETE DECK AND CONVERTING THE ABUTMENTS TO SEMI-INTEGRAL FOR MOT-70-0603.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.60 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.28 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 AND CHANGES 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 FOR THE SIDE ROAD, BROOKVILLE-SALEM PIKE, AS DESCRIBED ON SHEET 8, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

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.

STANDARD CONSTRUCTION DRAWINGS												SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	1/21/22	MT-95.30	7/19/19	TC-41.20	10/18/13	AS-1-15	1/20/23					800	7/21/23	OEPA DEMO	05/01/2015
BP-3.2	1/18/19	MT-95.45	1/17/20	TC-42.20	10/18/13	AS-2-15	1/20/23					821	4/20/12		
BP-5.1	7/15/22	MT-95.50	7/21/17	TC-61.30	7/19/19	GSD-1-19	1/15/21					832	7/21/23		
		MT-97.10	4/19/19	TC-65.10	1/17/14	SBR-1-20	1/20/23					921	4/20/12		
DM-4.1	7/17/20	MT-98.10	1/17/20	TC-65.11	7/15/22	SICD-1-96	7/18/14								
DM-4.4	1/15/16	MT-98.11	1/17/20			SICD-2-14	1/15/21								
		MT-98.20	4/19/19	HL-50.21	7/15/22	VPF-1-90	1/20/23								
F-2.1	7/20/18	MT-99.60	7/15/16												
F-3.1	7/19/13	MT-101.60	4/21/23												
		MT-101.70	4/21/23												
MGS-1.1	7/16/21	MT-105.10	1/17/20												
MGS-2.1	1/19/18														
MGS-3.1	1/19/18	RM-4.2	4/17/20												
MGS-4.3	1/18/13														
MGS-5.3	7/15/16														
MGS-6.1	1/19/18														

John W. O'Brien
District 07 Deputy Director

Jack Marchbanks, PhD
Director, Department of Transportation

FEDERAL PROJECT NO. E171(383)
PID NO. 105085
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
MOT-70-6.03
1 / 49

ITEM 614, MAINTAINING TRAFFIC

BROOKVILLE-SALEM PIKE (CR 31):

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 120 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 8. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $1500 PER EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

INTERSTATE ROUTE 70:

A MINIMUM OF TWO (2) LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, EXCEPT AS STATED IN THE PERMITTED LANE CLOSURE TIMES NOTE AND THE SHORT DURATION ROAD CLOSURES ON IR 70 NOTE.

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

MEMORIAL DAY	THANKSGIVING
DAYTON AIR SHOW	CHRISTMAS
FOURTH OF JULY	NEW YEARS
LABOR DAY	

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	TIMES ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THRU 6:00AM MONDAY
MONDAY	12:00N FRIDAY THRU 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THRU 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THRU 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THRU 6:00AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	12:00N WEDNESDAY THRU 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THRU 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THRU 6:00AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $150 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

LEGNTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS SHOWN ON SHEET 8 .

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 AND ITEM 614, DETOUR SIGNING, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614, MAINTAINING TRAFFIC (CONTINUED)

THE CONTRACTOR SHALL MAINTAIN INGRESS AND EGRESS FROM ALL DRIVES WITH THE PROJECT LIMITS AT ALL TIMES BY THE USE OF EXISTING PAVEMENT, COMPLETED PAVEMENT, AND TEMPORARY SURFACES USING ITEMS 410 AND 614 AS REQUIRED.

LEGNTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST FOURTEEN DAYS IN ADVANCE OF THE SCHEDULED ROAD 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 THE POINT OF CLOSURE.

W20-H13-60

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AND ADVANCE SIGNING, AS DETAILED IN SCD MT-101.60 AND AS SHOWN ON THE DETOUR MAP ON SHEET 8 DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

SHORT DURATION ROAD CLOSURES ON IR 70

TWO LANE, TWO WAY TRAFFIC ON IR 70 SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THE BROOKVILLE-SALEM BRIDGE OVER IR 70 EXCEPT AS FOLLOWS:

1. DURING THE REMOVAL OF THE BRIDGE DECK

THE SHORT TERM CLOSURES SHALL BE LIMITED TO A MAXIMUM OF 15 MINUTE PERIODS BETWEEN 8:00 PM & 5:00 AM. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, TRAFFIC SHALL BE COMPLETELY CLEARED BEFORE BEGINNING THE NEXT CLOSURE.

THE CONTRACTOR SHALL FURNISH AND INSTALL TWO (2) "WATCH FOR STOPPED TRAFFIC" SIGNS (SPECIAL) 1500 FEET UPSTREAM FROM THE "ROAD CONSTRUCTION AHEAD" SIGNS ON IR 70, AND AT INTERSECTION LOCATIONS. THE CONTRACTOR SHALL INSTALL ADDITIONAL "WATCH FOR STOPPED TRAFFIC" SIGNS EVERY 1800 FEET UPSTREAM FROM THE "WATCH FOR STOPPED TRAFFIC" SIGNS ON IR 70 IF TRAFFIC BACKUPS REACH THE FIRST SET OF SIGNS. THE NEED FOR THESE SIGNS SHALL BE CONSTANTLY MONITORED BY THE CONTRACTOR. ALL "WATCH FOR STOPPED TRAFFIC" SIGNS AND "PREPARE TO STOP" SIGNS SHALL BE EQUIPPED WITH A TYPE B HIGH INTENSITY FLASHING WARNING LIGHT.

THE EXISTING VERTICAL CLEARANCE OVER THE IR 70 SHALL BE MAINTAINED AT ALL TIMES. SEE ADDITIONAL REQUIREMENTS IN C&MS 501.05.

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
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES		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.

PERMITTED LANE CLOSURE TIMES ON IR 70

THE PERMITTED LANE CLOSURE TIMES ON IR 70 WILL BE AS FOLLOWS:

NO LANES CLOSURES WILL BE PERMITTED BETWEEN 6:00 AM AND 8:00 PM. ONE LANE MAY BE CLOSED FROM 8:00PM TO 6:00 AM EACH NIGHT, BEGINNING SATURDAY AT 8:00 PM THROUGH THURSDAY AT 6:00 AM. SHORT DURATION CLOSURES OF TWO LANES ON IR 70 MAY OCCUR FROM 8:00 PM TO 5:00 AM EACH NIGHT, SATURDAY NIGHT THROUGH THURSDAY MORNING FOR BRIDGE DEMOLITION AND JACKING OF BRIDGE BEAMS USING ODOT STANDARD CONSTRUCTION DRAWING MT-99.60. SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $150 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

PN 129 - WINDOW CONTRACT TABLE

DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE $ PER DAY	WORK WINDOW START	WORK WINDOW END
ALL PIER WORK & IR-70 SHOULDER CLOSURE (REMOVE PORTABLE BARRIER UPON COMPLETION)	75	$5,000	4/1/2024	7/31/2024
BROOKVILLE-SALEM PIKE CLOSURE	120	$1,500	4/1/2024	9/30/2024

CALCULATED JEP CHECKED AA

MAINTENANCE OF TRAFFIC GENERAL NOTES

MOT-70-6.03

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE (OFFICE OF MATERIALS MANAGEMENT WEB PAGE). THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FEET AND 475 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH CMS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

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

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONTINUED)

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

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

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 8 SIGN MONTH
ASSUMING 2 PCMS SIGN(S) FOR 4 MONTH(S).

COORDINATION WITH ADJACENT PROJECTS

THE CONTRACTOR SHOULD BE AWARE THAT THERE IS AN ADJACENT PROJECT WITHIN THE PROJECT LIMTS THAT WILL BE UNDER CONSTRUCTION DURING EXECUTION OF THIS PROJECT.

MOT-70-0.00, PID-105365: RESURFACING 6.71 MILES.
PROJECT SALE DATE 1/11/24 WITH A COMPLETION DATE OF 9/30/24.

MOT-40-0.00, PID-109778: RESURFACING 6.22 MILES.
PROJECT SALE DATE 5/9/24 WITH A COMPLETION DATE OF 10/15/24.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

[DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.]

[TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.]

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, INCREASED BARRIER BELINEATION 120 FEET

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

CALCULATED JEP CHECKED AA

MAINTENANCE OF TRAFFIC GENERAL NOTES

MOT-70-6.03

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
4		12	20			22		25			OFFICE CALCS.		01/IMS/13						
																		ROADWAY	
													LS	201	11000	LS		CLEARING AND GRUBBING	
											1,014		1,014	202	23000	1,014	SY	PAVEMENT REMOVED	
		830											830	202	38000	830	FT	GUARDRAIL REMOVED	
		79											79	202	75000	79	FT	FENCE REMOVED	
25			439										464	203	10000	464	CY	EXCAVATION	
25			132										157	203	20000	157	CY	EMBANKMENT	
											1,462		1,462	204	10000	1,462	SY	SUBGRADE COMPACTION	
		600											600	606	15050	600	FT	GUARDRAIL, TYPE MGS	
		100											100	606	15100	100	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
		2											2	606	26150	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350/MASH 2016)	
		4											4	606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE I	
		81											81	607	15000	81	FT	FENCE, TYPE 47	
																		EROSION CONTROL	
								100					100	601	20001	100	SY	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN	24
		166											166	601	21060	166	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT	
141													141	659	00300	141	CY	TOPSOIL	
1,271													1,271	659	10000	1,271	SY	SEEDING AND MULCHING	
64													64	659	14000	64	SY	REPAIR SEEDING AND MULCHING	
0.17													0.17	659	20000	0.17	TON	COMMERCIAL FERTILIZER	
0.26													0.26	659	31000	0.26	ACRE	LIME	
7													7	659	35000	7	MGAL	WATER	
													5,000	832	30000	5,000	EACH	EROSION CONTROL	
																		DRAINAGE	
144													144	605	31100	144	FT	AGGREGATE DRAINS	
																		PAVEMENT	
											211		211	301	56000	211	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
											237		237	304	20000	237	CY	AGGREGATE BASE	
											63		63	407	10000	63	GAL	TACK COAT	
											88		88	441	50000	88	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
		75											75	609	24510	75	FT	CURB, TYPE 4-C	
																		TRAFFIC CONTROL	
						4							4	621	00100	4	EACH	RPM	
						9							9	621	54000	9	EACH	RAISED PAVEMENT MARKER REMOVED	
						10							10	626	00102	10	EACH	BARRIER REFLECTOR, TYPE 1 BIDIRECTIONAL	
						13							13	626	00110	13	EACH	BARRIER REFLECTOR, TYPE 2 BIDIRECTIONAL	
						0.28							0.28	646	10010	0.28	MILE	EDGE LINE, 6"	
						0.14							0.14	646	10200	0.14	MILE	CENTER LINE	
																		STRUCTURE OVER 20 FOOT SPAN (MOT-70-0603)	
								LS					LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	24
								184					184	202	22900	184	SY	APPROACH SLAB REMOVED	
								184					184	202	23600	184	SY	WEARING COURSE REMOVED	
								LS					LS	503	21300	LS		UNCLASSIFIED EXCAVATION	
								39,705					39,705	509	10000	39,705	LB	EPOXY COATED STEEL REINFORCEMENT	
								1,377					1,377	509	10001	1,377	LB	EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN	24
								130,086					130,086	509	26000	130,086	LB	GALVANIZED STEEL REINFORCEMENT	
								12,576					12,576	509	30020	12,576	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
								770					770	510	10000	770	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
								4					4	511	33501	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	8, 12
								487					487	511	34446	487	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
								123					123	511	34450	123	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
								26					26	511	41010	26	CY	CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS	
								44					44	511	44110	44	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	
								10					10	511	46510	10	CY	CLASS QC1 CONCRETE, FOOTING	

CALCULATED AA
CHECKED JEP

GENERAL SUMMARY

MOT-70-0.03

SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
	6	7		9			$0603CEQ001						01/IMS/13		EXT	TOTAL			
																		STRUCTURE OVER 20 FOOT SPAN (MOT-70-0603)	
							1,202						1,202	512	10100	1,202	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
							35						35	512	10600	35	FT	CONCRETE REPAIR BY EPOXY INJECTION	
							29						29	512	74000	29	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
							2,790						2,790	513	20000	2,790	EACH	WELDED STUD SHEAR CONNECTORS	
							5,292						5,292	513	21600	5,292	LB	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN	24
							17						17	516	13600	17	SF	1" PREFORMED EXPANSION JOINT FILLER	
							211						211	516	13900	211	SF	2" PREFORMED EXPANSION JOINT FILLER	
							130						130	516	14020	130	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
							100						100	516	31010	100	FT	2" DEEP JOINT SEALER	
							10						10	516	44200	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (12"X15"X3.98") AND LOAD PLATE (13"X16"X1.50")	
																		(NEOPRENE)	
							10						10	516	44200	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (12"X24"X3.58") AND LOAD PLATE (15"X25"X1.75")	
																		(NEOPRENE)	
							5						5	516	44200	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (12"X24"X3.58") AND LOAD PLATE (15"X25"X1.875")	
																		(NEOPRENE)	
							LS						LS	516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	24
							114						114	518	21200	114	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
							138						138	518	40000	138	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
							53						53	518	40010	53	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
							191						191	526	25011	191	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN	24
							100						100	526	90011	100	FT	TYPE A INSTALLATION, AS PER PLAN	24
							753						753	607	39900	753	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC	
																		MAINTENANCE OF TRAFFIC	
		300											300	614	11110	300	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		120											120	614	11630	120	FT	INCREASED BARRIER DELINEATION	7
				4									4	614	12381	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN	6
	LS												LS	614	12420	LS		DETOUR SIGNING	
				28									28	614	13310	28	EACH	BARRIER REFLECTOR, TYPE 1 BIDIRECTIONAL	
				28									28	614	13350	28	EACH	OBJECT MARKER, ONE WAY	
		8											8	614	18601	8	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	7
	2												2	616	10000	2	MGAL	WATER	
				1,100									1,100	622	41100	1,100	FT	PORTABLE BARRIER, UNANCHORED	
																		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	

CALCULATED AA
CHECKED JEP

GENERAL SUMMARY

MOT-70-6.03

GENERAL NOTES:

PROPOSED WORK: MAJOR REHABILITATION

THE EXISTING DECK WILL BE REPLACED WITH A NEW COMPOSITE REINFORCED CONCRETE DECK ON THE EXISTING 4-SPAN SUPERSTRUCTURE. THE EXISTING TURNBACK WINGWALLS WILL BE REMOVED AS SHOWN IN THE PLANS AND REPLACED WITH NEW TURNBACK WINGWALLS. THE ABUTMENTS WILL BE RECONSTRUCTED AS SEMI-INTEGRAL. STRUCTURAL STEEL WILL BE SPOT-PAINTED AS NECESSARY. THE PIER CAPS WILL BE RAISED. ALL EXISTING BEARINGS WILL BE REPLACED WITH NEW ELASTOMERIC BEARINGS.

REFERENCE WILL BE MADE TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	1/20/23
AS-2-15	REVISED	1/20/23
GSD-1-19	REVISED	1/15/21
SBR-1-20	REVISED	1/20/23
SICD-1-96	REVISED	7/18/14
SICD-2-14	REVISED	1/15/21
VPF-1-90	REVISED	1/20/23

AND THE FOLLOWING HIGHWAY LIGHTING STANDARD DRAWING:

HL-50.21	REVISED	7/15/22

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17th EDITION, 2002, AND THE ODOT BRIDGE DESIGN MANUAL, 2004.

DESIGN LOADING:

HS20, CASE II AND THE ALTERNATIVE MILITARY LOADING.
FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT.

DESIGN DATA:

CONCRETE, QC/QA CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE, CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (ABUTMENTS & APPROACH SLABS)

GALVANIZED STEEL REINFORCEMENT - MINMUM YIELD STRENGTH 60 KSI (DECK & DIAPHRAGM)

GFRP (PARAPETS)

EXISTING STRUCTURAL STEEL - ASTM A709, GRADE 33, MINIMUM YIELD STRENGTH 33 KSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK

EXISTING STRUCTURE VERIFICATION:

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

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

INSPECTION OF EXISTING STRUCTURAL STEEL:

THE ENGINEER WILL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES TO ENSURE THE WELDS, PLATES AND BEAMS OR GIRDERS ARE FREE OF DEFECTS AND CRACKS. IF NECESSARY, REMOVE ALL DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS THAT MAY INTERFERE WITH THE ENGINEER'S INSPECTION. THE INSPECTION WILL NOT TAKE PLACE UNTIL THE TOP FLANGES ARE CLEANED ACCORDING TO 511.10, BUT IT WILL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE DEPARTMENT WILL PAY FOR THE COST ASSOCIATED WITH THIS INSPECTION WITH ITEM 511, SUPERSTRUCTURE CONCRETE. THE ENGINEER WILL REPORT ALL CRACKS FOUND TO THE OFFICE OF CONSTRUCTION ADMINISTRATION, BRIDGE CONSTRUCTION SPECIALIST, ALONG WITH SPECIFIC INFORMATION ON LOCATION OF THE CRACKS, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05. THIS WORK CONSISTS OF:

A. REMOVAL OF ENTIRE EXISTING DECK, CURBS, RAILS, AND BEARINGS. THE TOTAL EXISTING BRIDGE DECK THICKNESS IS APPROXIMATELY 9¼". THIS INCLUDES AN OVERLAY OF APPROXIMATELY 1⅜". PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF STRUCTURAL SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE.

B. PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

C. REMOVALS METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVAL OVER STRUCTURAL MEMBERS (STEEL GIRDERS), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS [16 KILOGRAMS] BUT NOT TO EXCEED 90 POUNDS [41 KILOGRAMS] UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE STRUCTURAL MEMBERS.

DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G. FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED ENGINEER TO THE DIRECTOR. OBTAIN DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

ANY STRUCTURAL MEMBERS THAT ARE DAMAGED DURING CONCRETE REMOVAL WILL BE SPOT PAINTED WITH FEDERAL BROWN #10324 AT NO COST TO THE PROJECT.

D. EXISTING WELDED ATTACHMENTS: REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES

E. REMOVAL OF PORTIONS OF ABUTMENTS INCLUDING BACKWALLS AND WINGWALLS AS SHOWN ON PLANS. CLEAN WEEPHOLES AND FILL WITH LOW STRENGTH MORTAR OR CONCRETE.

F. MODIFY EXISTING PIERS AS SHOWN ON PLANS.

G. CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING NEW CONCRETE.

H. SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

I. MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ITEM 509 - EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

ITEM 513 - STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN

NEW PIER BEARING STIFFENERS SHALL BE ASTM A709. BEARING STIFFENERS SHALL BE PAINTED FEDERAL BROWN #10324 TO MATCH GIRDERS. ITEM WILL INCLUDE THE PAYMENT FOR THE STRUCTURAL STEEL, WELDING, AND PAINTING OF BEARING STIFFENERS, AS WELL AS, REPAIR OF ANY DAMAGED STEEL.

ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, 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.

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.

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB WITH QC/QA (T=15"), AS PER PLAN:

APPROACH SLAB CONCRETE SHALL BE PLACED SEPARATELY FROM THE SUPERSTRUCTURE CONCRETE.

ALL REINFORCING STEEL IS TO BE PAID SEPARATELY UNDER ITEM 509-EPOXY COATED REINFORCING STEEL.

ITEM 601 - CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN

THE THICKNESS FOR CRUSHED AGGREGATE SLOPE PROTECTION SHALL BE 1'-0" MINIMUM. THE EXISTING STONE MATERIAL SHALL BE REUSED AND PLACED ACCORDING TO 601.06 AND PLACED ONLY IN AREAS WHERE NEEDED OR AS DIRECTED BY THE ENGINEER. ADDITIONAL MATERIAL AND FILTER FABRIC WILL BE NECESSARY. THE ESTIMATED QUANTITY IS PER SQUARE YARD AND IS CALCULATED BASED ON AN ESTIMATED REPAIR AREA OF 100 SQUARE YARDS.

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.46 KIPS FOR A TOTAL MACHINE LOAD OF 19.68 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103 INCHES.

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65 INCHES.

STANDARD ABBREVIATIONS:

BRGS.	-	BEARINGS
B	-	BOTTOM
C/C	-	CENTER TO CENTER
C.J.	-	CONSTRUCTION JOINT
CLR.	-	CLEAR
DIA.	-	DIAMETER
E.F.	-	EACH FACE
EL.	-	ELEVATION
EQ.	-	EQUAL
EX.	-	EXISTING
EXP.	-	EXPANSION
F.A.	-	FORWARD ABUTMENT
F.F.	-	FAR FACE
F.S.	-	FIELD SPLICE
M	-	MIDDLE
MIN.	-	MINIMUM
N.F.	-	NEAR FACE
PEJF	-	PERFORMED EXPANSION JOINT FILLER
R.A.	-	REAR ABUTMENT
SPA.	-	SPACING/SPACES
STA.	-	STATION
T	-	TOP
TYP.	-	TYPICAL

ITEM 526 - TYPE A INSTALLATION, AS PER PLAN:

ALL REINFORCING STEEL IS TO BE PAID SEPARATELY UNDER ITEM 509 - EPOXY COATED REINFORCING STEEL.

PRIME AE
DESIGN AGENCY
8415 Pulsar Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	12/15/2017
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		5704987	

GENERAL NOTES
BRIDGE NO. MOT-070-0603
IR 70 UNDER BROOKVILLE-SALEM PIKE (C31)

MOT-70-6.03
105085

MOT-070-0603 ESTIMATED QUANTITIES					MADE BY AMT DATE 06/01/18			CHECKED BY BTJ DATE 06/04/18	
ITEM	ITEM EXT.	TOTAL	UNITS	DESCRIPTION	MOT-070-0603 ABUTS.	PIERS	SUPER.	GENERAL	SHT. REF.
202	11203	LS	LS	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	2
202	22900	184	SY	APPROACH SLAB REMOVED				184	
202	23500	184	SY	WEARING COURSE REMOVED				184	
503	21100	LUMP	LS	UNCLASSIFIED EXCAVATION	LUMP				
509	10000	39705	LB	EPOXY COATED STEEL REINFORCEMENT	7049	3359		29297	
509	10001	1377	LB	EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN	1377				
509	26000	130086	LB	GALVANIZED STEEL REINFORCEMENT			130086		
509	30020	12576	FT	NO. 4 DEFORMED GFRP REINFORCEMENT			12576		
510	10000	770	EACH	DOWEL HOLES WITH NON-SHRINK, NONMETALLIC GROUT	530	240			
511	33501	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	4				8, 12
511	34446	487	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			487		
511	34450	123	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			123		
511	41010	26	CY	CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS		26			
511	44110	44	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	44				
511	46510	10	CY	CLASS QC1 CONCRETE, FOOTING	10				
512	10100	1202	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	75	70	1057		
512	10600	35	FT	CONCRETE REPAIR BY EPOXY INJECTION	35				
512	74000	29	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	12	17			
513	20000	2790	EACH	WELDED STUD SHEAR CONNECTORS			2790		
513	21600	5292	LB	STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN			5292		2
516	13600	17	SF	1" PREFORMED EXPANSION JOINT FILLER	17				
516	13900	211	SF	2" PREFORMED EXPANSION JOINT FILLER	211				
516	14020	130	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	130				
516	31010	100	FT	2" DEEP JOINT SEALER				100	
516	44200	10	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (12"x15"x3.98") AND LOAD PLATE (13"x16"x1.5") (NEOPRENE)	10				
516	44200	10	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (12"x24"x3.58") AND LOAD PLATE (15"x25"x1.75") (NEOPRENE)		10			
516	44200	5	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (12"x24"x3.58") AND LOAD PLATE (15"x25"x1.875") (NEOPRENE)		5			
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			LS		2
518	21200	114	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	114				
518	40000	138	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	138				
518	40010	53	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	53				
526	25011	191	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN				191	2
526	90011	100	FT	TYPE A INSTALLATION, AS PER PLAN				100	2
601	20001	100	SY	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN				100	2
607	39900	753	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC			753		

NOTE:
TOTALS CARRIED TO GENERAL SUMMARY SHEETS 10 AND 11 .

DESIGN AGENCY
PRIME AE
8415 Pulsar Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	12/15/2017
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		5704987	

ESTIMATED QUANTITIES
BRIDGE NO. MOT-070-0603
IR 70 UNDER BROOKVILLE-SALEM PIKE (C31)

MOT-70-6.03
105085

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