

**ITEM 614, MAINTAINING TRAFFIC**

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON SR 47, EXCEPT FOR A PERIOD SPECIFIED IN PHASES 1, 2, 3, AND POST-PHASE, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEETS 14, 17, 20, AND 23. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$40 FOR EACH MINUTE THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON SR 235, EXCEPT FOR A PERIOD SPECIFIED IN THE POST-PHASE SEQUENCE OF CONSTRUCTION NOTE, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 23. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$25 FOR EACH MINUTE THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

LENGTH 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 (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

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 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.

**NOTICE OF CLOSURE SIGN TIME TABLE**

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
ROAD CLOSURES	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	2 BUSINESS DAYS PRIOR TO 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. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER. THE PHONE NUMBER TO INCLUDE IS: 1-888-200-9919.

**SR 47 WILL BE CLOSED MMM-DD FOR ## DAYS INFO: 1-888-200-9919**

W20-H13-60

**ITEM 614, MAINTAINING TRAFFIC (CONTINUED)**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

- ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A 89 CU. YD.
- ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A 8,594 SQ. YD.
- ITEM 615, ROADS FOR MAINTAINING TRAFFIC LUMP SUM

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 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

- SR 47 JUST WEST OF PROJECT LIMITS
- SR 47 JUST EAST OF PROJECT LIMITS
- SR 47 AT SR 235 INTERSECTION (BOTH SIDES OF SR 235)

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 FOLLOWS:

- SR 47 JUST WEST OF SR 65
- SR 47 JUST EAST OF US 68

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.

ALL NEW LANES SHALL BE OPEN AND AVAILABLE TO TRAFFIC IN THE FINAL ALIGNMENT WITH ALL SAFETY ITEMS IN PLACE AND TEMPORARY OR PERMANENT LIGHTING COMPLETE BY THE INTERIM COMPLETION DATE OF SEPTEMBER 30, 2022. IF FABRICATION AND DELIVERY OF THE PROPOSED PERMANENT LIGHT POLES IS NOT YET COMPLETED, THE CONTRACTOR SHALL PROVIDE A TEMPORARY LIGHTING PLAN AND INSTALL TEMPORARY LIGHTING. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000/DAY FOR EACH CALENDAR DAY THE ABOVE REQUIREMENTS ARE NOT MET. THE PERMANENT LIGHTING SYSTEM SHALL BE INSTALLED BY THE COMPLETION DATE.

**TRENCH FOR WIDENING**

TRENCH EXCAVATION SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

**OVERNIGHT TRENCH CLOSING**

WHERE PORTABLE BARRIER IS NOT PROVIDED, THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 12 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE

**OVERNIGHT TRENCH CLOSING (CONTINUED)**

WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

**ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**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 C&MS 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.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 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) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

**ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)**

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 IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED 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 CONTRACTOR. 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.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

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. 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 48 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 A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**PLACEMENT OF ASPHALT CONCRETE**

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON SR 235 EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES. THESE REQUIREMENTS APPLY TO ALL CONSTRUCTION PHASES EXCEPT THE POST-PHASE.

DESIGN AGENCY




DESIGNER  
CJR

REVIEWER  
JCH 08/27/21

PROJECT ID  
110472

SHEET TOTAL  
12 114

SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
12	13	15	18	19	21	22	51	85	86	87	88	95	01/SAE/OT	EXT	TOTAL				
<b>LIGHTING</b>																			
												16	16	625	00450	16	EACH	CONNECTION, FUSED PULL APART	
												8	8	625	00460	8	EACH	CONNECTION, UNFUSED PULL APART	
												18	18	625	00480	18	EACH	CONNECTION, UNFUSED PERMANENT	
												8	8	625	10490	8	EACH	LIGHT POLE, CONVENTIONAL, AT 12B30	
												8	8	625	14000	8	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
												2,619	2,619	625	23000	2,619	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE	
												1,320	1,320	625	23400	1,320	FT	NO. 10 AWG POLE AND BRACKET CABLE	
												387	387	625	25408	387	FT	CONDUIT, 2", 725.051	
												384	384	625	25908	384	FT	CONDUIT, JACKED OR DRILLED, 725.052, 4"	
												8	8	625	26252	8	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), 240V, 9000-10000 LUMENS, TYPE III, AS PER PLAN	
												339	339	625	29002	339	FT	TRENCH, 24" DEEP	
												6	6	625	30701	6	EACH	PULL BOX, 725.08, 18", AS PER PLAN	
												1	1	625	30707	1	EACH	PULL BOX, 725.08, 24", AS PER PLAN	
												9	9	625	32000	9	EACH	GROUND ROD	
												1	1	625	34001	1	EACH	POWER SERVICE, AS PER PLAN	
												771	771	625	36010	771	FT	UNDERGROUND WARNING/MARKING TAPE	
												1	1	625	98000	1	EACH	LIGHTING, MISC.: TEMPORARY LIGHTING SYSTEM	
<b>TRAFFIC CONTROL</b>																			
								20					20	621	00100	20	EACH	RPM	
								23					23	621	54000	23	EACH	RAISED PAVEMENT MARKER REMOVED	
								165	488	318			971	630	03100	971	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
								92	230	166			488	630	80100	488	SF	SIGN, FLAT SHEET	
								47					47	630	84900	47	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								31					31	630	86002	31	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
								0.85					0.85	644	00104	0.85	MILE	EDGE LINE, 6"	
								0.26					0.26	644	00300	0.26	MILE	CENTER LINE	
								300					300	644	00700	300	FT	TRANSVERSE/DIAGONAL LINE	
								153					153	644	01514	153	FT	DOTTED LINE, 8"	
								56					56	644	20800	56	FT	YIELD LINE	
<b>TRAFFIC SIGNALS</b>																			
							1						1	632	90100	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	
<b>MAINTENANCE OF TRAFFIC</b>																			
89													89	410	10000	89	CY	TRAFFIC COMPACTED SURFACE, TYPE A	
48													48	614	11110	48	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		1	2	1									4	614	12380	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
	50												LS	614	12420	LS		DETOUR SIGNING	
													50	614	12600	50	EACH	REPLACEMENT DRUM	
		51	46										97	614	13350	97	EACH	OBJECT MARKER, ONE WAY	
		0.52	0.51		0.32	0.26							1.61	614	21550	1.61	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
		1.08	1.17		1.24	0.88							4.37	614	22360	4.37	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
						135							135	614	24614	135	FT	WORK ZONE DOTTED LINE, CLASS III, 8", 642 PAINT	
		26	13		26								65	614	26610	65	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
													3	614	30650	3	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
													56	614	98100	56	FT	WORK ZONE PAVEMENT MARKING, MISC.: YIELD LINE	
						56							LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
8,594													8,594	615	20000	8,594	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
	15												15	616	10000	15	MGAL	WATER	
		1,242	1,123										2,365	622	41100	2,365	FT	PORTABLE BARRIER, UNANCHORED	
		51	46										97	626	00102	97	EACH	BARRIER REFLECTOR, TYPE 1, 1WAY	
<b>INCIDENTALS</b>																			
													LS	614	11000	LS		MAINTAINING TRAFFIC	
													5	619	16010	5	MNTH	FIELD OFFICE, TYPE B	
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	

DESIGN AGENCY  
  
 DESIGNER  
 CJR  
 REVIEWER  
 JCH 08/27/21  
 PROJECT ID  
 110472  
 SHEET TOTAL  
 48 | 114