

**ITEM 614, MAINTAINING TRAFFIC**

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT. MAINTAIN A MINIMUM LANE WIDTH OF 12 FEET DURING CONSTRUCTION.

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.

CLOSE THE LANES OF IR 77 WITH DRUMS PER STANDARD CONSTRUCTION DRAWING MT-95.30. EXISTING PERMANENT EDGE LINE AND LANE LINE SHALL BE LEFT IN PLACE. PROVIDE A TEMPORARY EDGE LINE FOR THE TAPER USING REMOVABLE TAPE (CMS 740.06, TYPE I). WORK AREA LENGTHS ARE 1,500 FT RIGHT (NB), 1,025 FT LEFT (SB). THE CONTRACTOR IS PERMITTED TO STOP TRAFFIC PER SCD MT-99.60. DURING BLASTING OPERATIONS. TRAFFIC MAY BE STOPPED NO LONGER THAN 15 MINUTES AT A TIME.

**SENTENCE DELETED**

CONSTRUCTION VEHICLES ON THE RIGHT (NB) SIDE OF THE PROJECT CAN USE THE MEDIAN CROSS OVER AT MILE MARKER 19.05 (NOB-77-1.45) FOR ENTRY TO THE LEFT (SB) LANE.

A WORK ZONE EGRESS WARNING SYSTEM SHALL BE PUT IN PLACE PER SCD MT-103.10 WHEN TRUCKS ARE EXITING THE PROJECT.

CONSTRUCTION ACCESS POINTS SIGNAGE PER SCD MT-103.10 SHALL BE USED IN THE RIGHT (NB) AND LEFT (SB) LANES.

ALL CONSTRUCTION VEHICLES MUST BE EQUIPPED WITH A FLASHING LIGHT / OR FLASHING LIGHTS VISIBLE FROM 360° AROUND THE VEHICLE.

PLACE ADVANCE AND EXTRA ADVANCE WARNINGS SIGNS IN RIGHT (NB) AND LEFT (SB) LANES PER SCD MT-95.50.

INSTALL PORTABLE BARRIER AND AN IMPACT ATTENUATOR ALONG THE OUTSIDE PAVED SHOULDER WHERE IT MEETS THE GRASS, REFER TO STANDARD CONSTRUCTION DRAWING MT-95.45.

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.

**SEQUENCE OF CONSTRUCTION**

PHASE 1:  
CLOSE BOTH OUTSIDE DRIVING LANES WITH DRUMS AND COMPLETE CLEARING AND GRUBBING OPERATIONS.

PHASE 2:  
CLOSE RIGHT (NB) DRIVING LANE WITH DRUMS (TO STA. 927+00) AND PLACE BARRIER ON SHOULDER AS DESCRIBED ABOVE. CLOSE LEFT (SB) PASSING LANE PRIOR TO THE 19.05 MILE MARKER MEDIAN CROSS OVER TO THE 18.05 MILE MARKER. COMPLETE WORK ON THE RIGHT (NB) SIDE.

PHASE 3:  
CLOSE LEFT (SB) DRIVING LANE WITH DRUMS AND PLACE BARRIER ON SHOULDER AS DESCRIBED ABOVE. COMPLETE WORK ON THE LEFT (SB) SIDE.

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

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.

**WORK ZONE SPEED ZONES (WZSZs)**

THE FOLLOWING WORK ZONE SPEED LIMIT REVISION(S) FOR VWZSZS USING DSL SIGN ASSEMBLIES HAS BEEN APPROVED FOR USE ON THIS PROJECT:

WZSZ REVISION NUMBER	ROAD	BEGIN ZONE SJM	END ZONE SJM	DIRECTION	SPEED LIMIT (MPH)	SPECIFIC WARRANTING CONDITIONS & FACTORS
WZ-55308	WAS-77	16.77	NOB-77-1.45	NB SB	55	DURING WORK ACTIVITY
					65	DURING NON-WORK ACTIVITY

WZSZs SHALL COMPLY WITH TRAFFIC ENGINEERING MANUAL (TEM) 642-24.

USE OF DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THE APPROVED LIST, SUPPLEMENTAL SPECIFICATION 808 AND 908, AND STANDARD CONSTRUCTION DRAWING MT-104-10.

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

**ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY**  
2 x 1 SIGN / MILE FOR 2.31 MILES = 6 SIGNS  
6 DSL SIGN ASSEMBLIES FOR 6 MONTHS  
36 SIGN MONTHS CARRIED TO GENERAL SUMMARY

**ITEM 614, SPEED ZONE AHEAD SYMBOL SIGN**  
4 W3-H5b SIGNS CARRIED TO THE GENERAL SUMMARY

**ITEM 614, RESUME LEGAL SPEED SIGN**  
4 R2-1 SIGNS CARRIED TO THE GENERAL SUMMARY

**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 800 FEET AND 650 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 C&MS 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.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 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.

PLACEMENT OF SIGNS SHALL BE PER SCD MT-99.60.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 12 SIGN MONTH ASSUMING 2 PCMS SIGNS FOR 6 MONTHS

**INTERIM COMPLETION DATE**

ALL WORK ON THE RIGHT SIDE (NORTH BOUND) OF IR 77 SHALL BE COMPLETE BY 7/1/25.

**PROJECT COORDINATION**

A CONCURRENT ASPHALT OVERLAY / CONCRETE JOINT REPAIR PROJECT (PID 96643) WILL BE WITHIN THE RIGHT (NORTH BOUND) LANES OF THIS PROJECT. THE ASPHALT OVERLAY WILL NOT BEGIN UNTIL 7/15/2025. CONCRETE JOINT REPAIR WORK MAY BEGIN BEFORE, IF WORK CAN BE COORDINATED BETWEEN PROJECTS AND IS APPROVED BY THE ENGINEER.

REF NO.	STATION		SIDE	614	614	614	614	622	
	FROM	TO		WORK ZONE IMPACT ATTEN.	BARRIER REFLECTOR, TYPE 1	OBJECT MARKER, ONE WAY	WORK ZONE EDGE LINE CLASS 1, 6" 740.06, TYPE 1	PORTABLE BARRIER, 32" UN-ANCHORED	
NORTH BOUND IR 77									
	902+00	917+00	RT	1	30	30		1500	
	885+60	894+00	RT				0.16		
SOUTH BOUND IR 77									
	904+75	915+00	LT	1	21	21		1030	
	21+60	30+00	LT				0.16		
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				<b>2</b>	<b>51</b>	<b>51</b>	<b>0.32</b>	<b>2,530</b>	