ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, TWO (2) PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS). THE INTENT OF THE PCMS IS TO ALERT MOTORISTS OF TRAFFIC QUEUES OR INCIDENTS DURING CONTRAFLOW MAINTENANCE OF TRAFFIC PHASES. PCMS SHOULD BE PUT IN PLACE APPROXIMATELY A WEEK BEFORE CONTRAFLOW PHASE(S) ARE ESTABLISHED AND REMOVED ONCE CONTRAFLOW PHASES ARE DISCONTINUED. TWO (2) OF THE SIGNS SHALL BE LOCATED NEAR THE PROJECT SITE, ONE FOR EACH DIRECTION OF TRAVEL, AS DIRECTED BY THE ENGINEER. TWO OF THE SIGNS SHALL BE LOCATED APPROXIMATELY TWENTY-FIVE (25) MILES OUTSIDE THE PROJECT LIMITS, ONE FOR EACH DIRECTION OF TRAVEL, AS DIRECTED BY THE ENGINEER. THE SIGNS SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED CLASS "A" PCMS UNITS MAINTAINED BY THE ODOT DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGEMENT.

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. PCMS SHALL BE DELINEATED ON A PERMANENT BASIS IN ACCORDANCE WITH ODOT CMS 614.03.

THE PCMS LOCATIONS, LIMITS FOR THOSE LOCATIONS AND ALL ACTIVATION OF PCMS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE CHIEF ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE CHIEF 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, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW RETROREFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE CHIEF ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE TURNPIKE MAINTENANCE 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 CHIEF ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRE-CONSTRUCTION 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 SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL ALLOW REMOTE ACCESS BY THE OTIC COMMUNICATIONS CENTER THROUGH A WEB BROWSER OR PROVIDED SOFTWARE. REMOTE ACCESS WILL ALLOW PCMS ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS, REVISIONS TO TIME OF DAY PROGRAMS, VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES AND SHOW ITS CURRENT LOCATION ON A MAP. THE OTIC COMMUNICATIONS CENTER SHALL BE FURNISHED A USER NAME AND PASSWORD TO ACCESS THE PCMS THROUGH THE WEBSITE OR PROVIDED SOFTWARE.

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

ALL PCMS UNITS SHALL BE EQUIPPED WITH RADAR THAT ENABLES THE MESSAGE BOARD TO DISPLAY THE SPEED OF THE APPROACHING VEHICLES.

WHEN A PCMS IS INITIALLY BROUGHT OUT TO THE PROJECT THE CONTRACTOR SHALL CONTACT THE OTIC COMMUNICATIONS CENTER WITH THE PCMS NUMBER AND LOCATION. AT THAT TIME THE OTIC COMMUNICATIONS WILL VERIFY COMMUNICATION WITH THE PCMS.

WHEN A PCMS IS REPLACED OR RELOCATED THE CONTRACTOR SHALL CONTACT THE OTIC COMMUNICATIONS CENTER WITH THE PCMS NUMBER AND LOCATION.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF ODOT 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 CHIEF ENGINEER TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON THEIR 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. THE CONTRACTOR SHALL ONLY BE PAID FOR PCMS UNITS WHEN THEY ARE IN OPERATION ON THE PROJECT AS SPECIFIED IN THE PLANS OR BY THE CHIEF ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE CHIEF ENGINEER TO PROVIDE TWO (2) PORTABLE CHANGEABLE MESSAGE SIGNS, EACH SIGN FOR APPROXIMATELY 540 DAYS, FOR AN ESTIMATED TOTAL OF1080 DAYS.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN..... 1080 DAYS

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.

ANY IMPACT ATTENUATOR PLACED ON:

- NEW PAVEMENT
- PAVEMENT THAT IS NOT BEING REPLACED AS PART OF THIS PROJECT
- OR PAVEMENT ON AN ACCELERATION/DECELERATION RAMP SHALL BE AN ANCHORLESS WATER-FILLED IMPACT ATTENUATOR. FURNISH AN ANCHORLESS WATER-FILLED IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARD'S WEB PAGE FOR ROADWAY STANDARDS APPROVED PRODUCTS.

IMPACT ATTENUATORS SHOWN AND QUANTIFIED IN THE PLANS ARE FOR THE PROPOSED MAINTENANCE OF TRAFFIC PHASE LAYOUTS. ADDITIONAL IMPACT ATTENUATORS UTILIZED FOR PHASE SETUP, CONSTRUCTION ACCESS POINTS AND ALTERNATIVE MAINTENANCE OF TRAFFIC METHODS NOT DETAILED IN THESE PLANS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM SP 614 - MAINTAINING TRAFFIC AND SHALL INCLUDE THE COST OF THE ATTENUATOR, LABOR, MATERIALS AND EQUIPMENT NECESSARY TO SET, RESET AND REMOVE THE 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, MAINTAIN AND REMOVE COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED. AS REQUIRED BY THE MANUFACTURER. ANCHOR REMOVAL CAN CAUSE DAMAGE TO THE PAVEMENT SURFACE. PAYMENT SHALL INCLUDE REPAIRING ANY DAMAGE CAUSED DURING REMOVAL.

2

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC CLASS A, AS PER PLAN

THIS ITEM SHALL BE AS PER SECTION 615 OF THE ODOT CMS AND SHALL INCLUDE THE FOLLOWING:

ESTABLISHING THE MOT CROSSOVER PAVEMENT PER THE TYPICAL SECTION ON SHEET 27 AND RESTORING THE MOT CROSSOVER AREA BACK TO ITS ORIGINAL CONDITION PER THE TYPICAL SECTIONS ON SHEET 27 .

ALL COSTS FOR THE PLACEMENT OF THE MOT CROSSOVERS, RESTORING THE MOT CROSSOVER AREA TO ITS ORIGINAL CONDITION, AS DETAILED ABOVE, LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC,

CLASS A, AS PER PLAN ..... 5374 SQ. YD.

1

ITEM SPECIAL - MOT CROSSOVER TO BE CLOSED/RE-OPENED

THIS ITEM SHALL CONSIST OF TEMPORARILY CLOSING AND REOPENING THE MOT MEDIAN CROSSOVERS IN ACCORDANCE WITH OTIC STANDARD DRAWING TCB-3. ALL SECTIONS OF CONCRETE PORTABLE BARRIER SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE NCHRP-350 BARRIER WALL.

PAYMENT OF ALL EQUIPMENT, MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO CLOSE AND REOPEN THE MEDIAN BARRIER SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR:

ITEM SPECIAL - MOT CROSSOVER TO BE CLOSED/RE-OPENED

2

TEMPORARY DRAINAGE FOR MOT CROSSOVERS

IN CONJUNCTION WITH CONSTRUCTION AND REMOVAL OF MOT CROSSOVERS, TEMPORARY DRAINAGE ITEMS ARE REQUIRED TO BE INSTALLED AND SUBSEQUENTLY REMOVED. THIS WORK SHALL CONSIST OF INSTALLING THE 12 INCH SLOTTED DRAIN, TYPE 2 WITH THE REQUIRED CONNECTION TO THE EXISTING CATCH BASIN INCLUDING THE 12 INCH CONDUIT, TYPE B. AS PART OF RESTORING THE MOT CROSSOVER AREA BACK TO ITS ORIGINAL CONDITION PER THE TYPICAL SECTIONS ON SHEET 27 , THE 12 INCH INCH SLOTTED DRAIN AND THE 12 INCH CONDUIT SHALL BE REMOVED WHEN NO LONGER NEEDED.

THE 12" SLOTTED DRAIN, TYPE 2 SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT STANDARD CONSTRUCTION DRAWING DM-1.3. THE PROPOSED 12 INCH SLOTTED DRAIN, TYPE 2 SHALL BE A 12 INCH DIAMETER SLOTTED DRAIN ALUMINUM COATED STEEL CONDUIT 707.01 WITH 6 INCH TRAPEZOIDAL GALVANIZED SOLID BAR GRATE AS APPROVED BY THE CHIEF ENGINEER. THE EXISTING CATCH BASIN SHALL BE NEATLY CUT AND SUBSEQUENTLY REPAIRED WITH CLASS QC1 CONCRETE. EXCAVATION BACK FILL MATERIAL BELOW PAVEMENT BASE MATERIALS AROUND THE CATCH BASIN AND AFTER SLOT DRAIN AND CONDUIT REMOVAL SHALL BE LSM PER SP 604.

ALL COSTS FOR INSTALLING AND REMOVING THE DRAINAGE SYSTEM AS DETAILED ABOVE, INCLUDING LABOR, EQUIPMENT, MATERIALS, EXCAVATION, LSM BACKFILL, AND ALL INCIDENTAL WORK SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE FOLLOWING ITEMS AND QUANTITIES CARRIED TO THE GENERAL SUMMARY.

ITEM 611 - INSTALLATION AND REMOVAL OF 12" SLOT DRAIN, TYPE 2, AS PER PLAN. .....1120 FOOT

ITEM 611 - INSTALLATION AND REMOVAL OF 12" CONDUIT, TYPE B, AS PER PLAN. .....349 FOOT

NO.	REVISIONS	BY	DATE
1	REVISED NOTE	AKF	6/5/24
2	ADDED TEMP DRAINAGE ITEMS	TJW	6/14/24
-	-	-	-
-	-	-	-

DESIGNED	CHECKED
JAH	AKF
DRAWN	IN CHARGE
DGD	AKF

DESIGN AGENCY
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MAINTENANCE OF TRAFFIC
GENERAL NOTES

PORTAGE COUNTY

M.P. 199.5, 202.8 & 203.7

PROJECT 43-24-09

DATE: 03/26/24

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

OHIO TURNPIKE

2022348MN001.dwg: 6/14/24 - 12:56pm