

MODEL: SHEET 1 PAPER SIZE: 17x11 (in.) DATE: 4/14/2026 TIME: 11:11:40 AM PLTDRV: OHDOT\_PDF.plt PENTBL: OHDOT\_Permit USER: Justin.Miseman@dot.ohio.gov WORKSPACE: OHDOTCEV02 WORKSET: 116282 PRODUCT: OpenRoadsDesigner 24.00.00.205 pvc:\ohdot-pw-bentley.com\shahdo-cpw-02\Documents\01 Active Projects\Distict 10\Meigs\116282\400-Engineering\Roadway\Sheets\116282\_GN001.dgn

**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

- AMERICAN ELECTRIC POWER  
38831 SR 7  
REEDSVILLE, OH 45769  
CLARKE SAUNDERS 614-312-5807
- TUPPERS PLAINS CHESTER WATER  
39561 BAR 30 ROAD  
REEDSVILLE, OH 45772  
DEREK BAUM 740-985-3315
- FRONTIER  
500 LANCASTER PIKE  
CIRCLEVILLE, OH 43113  
TRAVIS BRANNON 740-835-6825

**CLEARING AND GRUBBING**

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

ALL TREES WITHIN THE WORK LIMITS, AS DEFINED IN THE ENDANGERED BAT HABITAT REMOVAL, HAVE BEEN CUT TO MEET RESTRICTIONS. THE TREES WERE CUT LEAVING A 4 FOOT STUMP. NO LOGS, BRUSH OR CHIPS HAVE BEEN REMOVED FROM THE SITE. PAYMENT FOR REMOVAL OF THE STUMPS, LOGS, BRUSH AND CHIPS WILL BE INCLUDED WITHIN THE COST OF CLEARING AND GRUBBING.

**ITEM 659 - SEEDING AND MULCHING**

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

**CONTINGENCY QUANTITIES**

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**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 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 AND 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 CALENDAR 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	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.

THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO):  
ASHLEY RITTENHOUSE  
FAX: (740) 373-3953  
EMAIL: ASHLEY.RITTENHOUSE@DOT.OHIO.GOV

DISTRICT PERMIT SECTION:  
RYAN MAYLE  
FAX: (740) 373-3953  
EMAIL: RYAN.MAYLE@DOT.OHIO.GOV

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION:  
FAX: (614) 728-4099  
EMAIL: HAULING.PERMITS@DOT.OHIO.GOV

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF THE ABOVE MENTIONED ITEMS VIA MEDIA SOURCES.

**ENDANGERED BAT HABITAT REMOVAL**

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. 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. FOR THE PURPOSES 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.

**SURVEYING POSITIONAL PARAMETERS**

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING PROJECT CONTROL:

POSITIONING METHOD - OPUS STATIC NETWORK  
MONUMENT TYPE - A (CONCRETE MONUMENT WITH ODOT DISTRICT 10 TABLET)

VERTICAL POSITIONING:  
ORTHOMETRIC HEIGHT DATUM - NAVD88  
GEOID - GEOID18

HORIZONTAL POSITIONING:  
REFERENCE FRAME: NAD83 (2011) (epoch 2010.0)  
ELLIPSOID: GRS80  
OHIO COUNTY COORDINATE SYSTEM: MEIGS COUNTY  
MEIGS COUNTY LDP PROJECTION PARAMETERS:  
PROJECTION: LAMBERT CONFORMAL CONIC 1 PARALLEL  
CENTRAL MERIDIAN: E 278° 00' 00"  
STANDARD PARALLEL: N 39° 06' 00"  
FALSE NORTHING: 100,000 METERS  
FALSE EASTING: 50,000 METERS  
PROJECTION SCALE FACTOR: 1.000028  
FOOT DEFINITION: U.S. SURVEY FOOT

NOTE:  
THE LOW DISTORTION PROJECTION (LDP) IS A LOCAL COUNTY PROJECTION DEVELOPED BY O.D.O.T. THE DISTORTION BETWEEN GROUND AND GRID IS SO MINIMAL THAT THERE IS NO NEED FOR A SCALE FACTOR TO ADJUST BETWEEN GRID AND GROUND DISTANCES. CONTACT THE DISTRICT SURVEY DEPARTMENT FOR INFORMATION OR QUESTIONS.

NOTE:  
USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

BASIS OF BEARINGS:  
BEARINGS ARE BASED ON GRID NORTH OF THE O.D.O.T. LOW DISTORTION PROJECTION - MEIGS COUNTY

**CONTROL POINTS**

STATION	OFFSET	NORTHING	EASTING	ELEVATION	FEATURE
160+99.05	17.20' RT	355,864.993	130,371.470	733.455	CMON
171+96.33	18.50' LT	355,393.605	131,359.713	740.511	CMON
204+86.51	11.76' LT	354,530.619	134,457.556	717.902	CMON
214+28.90	19.93' LT	354,558.684	135,399.810	706.055	CMON

**STAKEOUT COORDINATES FOR S.R. 681**

STATION	NORTHING	EASTING
PT 15722.89	356,021.28	130,028.78
PC 15842.89	355,976.07	130,139.93
PT 16034.67	355,904.67	130,317.94
PC 16209.67	355,840.30	130,480.67
PCC 16309.43	355,800.25	130,572.00
PT 16463.19	355,731.33	130,709.45
PC 16763.19	355,592.87	130,975.58
PT 16814.47	355,568.54	131,020.73
PC 16909.47	355,522.26	131,103.70
PT 17011.54	355,470.99	131,191.94
PC 17126.54	355,411.47	131,290.34
PT 17257.12	355,350.50	131,405.73
PC 17372.40	355,302.65	131,510.61
PT 17580.51	355,207.24	131,695.48
PC 17589.94	355,202.52	131,703.63
PT 17824.68	355,079.01	131,903.22
PC 17879.56	355,048.77	131,949.02
PT 18492.22	354,853.41	132,522.68
PC 18530.13	354,850.64	132,560.50
PT 19026.72	354,714.44	133,034.36
PC 19076.64	354,691.09	133,078.48
PT 19891.31	354,505.64	133,862.75
PI 20401.38	354,517.05	134,372.70
PC 21401.70	354,538.34	135,372.79
PT 21793.70	354,511.89	135,763.39
POT 21881.98	354,498.13	135,850.59

**ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT**

THIS ITEM CONSISTS OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 72" X 48" ELLIPTICAL CONDUIT AND FILLING THE AREA SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

LOCATE THE BULKHEADS AT THE LIMITS OF THE AREA TO BE FILLED, AS INDICATED ON THE PLANS. THE BULKHEADS CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

PUMP THE FILL MATERIAL INTO PLACE OR BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH IS FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR IS THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED PER 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

DESIGN AGENCY



DESIGNER  
JDW

REVIEWER  
ARM 09/26/25

PROJECT ID  
116282

SHEET TOTAL  
P.006 P.207

**ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN**

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING AND/OR COMPLETED PAVEMENT, EXCEPT FOR A PERIOD NOT TO EXCEED 180 CONSECUTIVE CALENDAR DAYS, DURING PHASES 2 AND 3, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 12. THE ROAD CLOSURE OF SR 681 FOR PHASE 2 AND 3 CANNOT BEGIN UNTIL AFTER 04/01/2027.

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 OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THE 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 RAMP AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMP, 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	NOTICE DUE TO OFFICE OF COMMUNICATIONS
RAMP & 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 NUMBER SHALL BE 740-568-3904.

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.

- NEAR INTERSECTION OF C.R. 47, GOOSE CREEK RD (PHASE 2 AND 3)
- PR. S.R. 681 AT STA. 178+00 (PHASE 2 AND PHASE 3)
- EX. S.R. 681 AT STA. 188+00 (PHASE 2)
- PR. S.R. 681 AT STA. 218+00 (PHASE 2 AND PHASE 3)

**ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN (CONT.)**

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:**

1. WHILE USING FLAGGERS, INSTALL DRUMS, PORTABLE BARRIERS, SIGNS, SIGNALS AND PLACE PAVEMENT MARKINGS FOR WORK TO BE PERFORMED IN ACCORDANCE WITH SCD'S MT-96.11, MT-96.20, MT-96.26, MT-97.10, MT-101.70, AND MT-101.75. FROM STA. 160+50 TO STA. 165+25 AND FROM STA. 168+00 TO STA. 177+25 TRAFFIC SHALL BE MAINTAINED IN THE WEST BOUND LANE OF S.R. 681.
2. -EXCAVATE FROM STA. 177+25 TO STA. 205+00.  
-RECONSTRUCT EMBANKMENT FROM STA. 162+50 TO STA. 171+25
3. -CONSTRUCT EMBANKMENT FROM STA. 187+50 TO STA. 190+25 AND BUILD CULVERT AT STA. 189+25.  
-CONSTRUCT SPECIAL BENCHING FROM STA. 193+00 TO STA. 197+50 AND BUILD CULVERT AT STA. 197+50.  
-CONSTRUCT PART OF THE EMBANKMENT FROM STA. 201+00 TO STA. 205+00 SUCH THAT THE MAXIMUM ELEVATION DOES NOT EXCEED THE PROPOSED SURFACE OR SUBGRADE ELEVATIONS AND POSTIVE DRAINAGE CAN BE MAINTAINED.
4. BUILD PROPOSED S.R. 681 FROM STA. 183+00 STA. TO STA. 202+00.

**PHASE 2:**

1. S.R. 681 SHALL BE CLOSED FROM STA. 178+00 TO STA. 188+00 AND DETOUR TRAFFIC AS SHOWN ON SHEET 12.
2. WHILE USING FLAGGERS, INSTALL DRUMS, PORTABLE BARRIERS, SIGNS, AND PLACE PAVEMENT MARKINGS FOR WORK TO BE PERFORMED DURING PHASE 2. FROM STA. 169+50 TO STA. 177+70 INGRESS AND EGRESS SHALL BE MAINTAINED IN THE WEST BOUND LANE OF S.R. 681 FOR THE PROPERTY OWNER.
3. -BUILD PART WIDTH OF CULVERT AT STA. 176+75.  
-RECONSTRUCT AND/OR CONSTRUCT EMBANKMENT FROM STA. 175+50 TO STA. 183+00.
4. -BUILD PORTION OF PROPOSED S.R. 681 FROM STA. 171+25 TO STA. 176+25.
5. -BUILD PROPOSED S.R. 681 FROM STA. 177+75 TO STA. 183+00.  
-CONSTRUCT FIELD DRIVE AT STA. 178+75.
6. CONSTRUCT TEMPORARY PAVEMENT NEEDED FOR PHASE 3.

**PHASE 3:**

1. S.R. 681 SHALL BE CLOSED FROM EXISTING S.R. 681 STA. 188+00 TO PROPOSED STA. 215+00 AND DETOUR TRAFFIC AS SHOWN ON SHEET 12.
2. WHILE USING FLAGGERS, INSTALL DRUMS, PORTABLE BARRIERS, SIGNS, SIGNALS AND PLACE PAVEMENT MARKINGS FOR WORK TO BE PERFORMED IN ACCORDANCE WITH SCD'S MT-96.11, MT-96.20, MT-96.26, MT-97.10, MT-101.70, AND MT-101.75. FROM STA. 169+75 TO STA. 179+25 LOCAL TRAFFIC SHALL BE MAINTAINED IN THE EAST BOUND LANE OF S.R. 681.  
-MAINTAIN INGRESS AND EGRESS FOR PROPERTY OWNERS FROM STA. 202+00 ON S.R. 681 TO STA. 6+50 ON ACCESS RD.
3. CONSTRUCT PROPOSED S.R. 681 FROM STA. 171+25 TO STA. 176+25 AND COMPLETE CULVERT CONSTRUCTION AT STA. 176+75.
4. REMOVE EXISTING PAVEMENT FROM EXISTING S.R. 681 STA. 188+00 TO PROPOSED STA. 214+00.
5. -CONSTRUCT EMBANKMENT FROM PROPOSED STA. 202+00 TO STA. 214+00.  
-CONSTRUCT ACCESS ROAD AND BUILD BIORETENTION CELLS.  
-BUILD CULVERTS AT STA. 204+50.  
-BUILD PROPOSED S.R. 681 FROM STA. 202+00 TO STA. 214+00.
6. AS DIRECTED BY THE ENGINEER, USE FLAGGERS AND BARRELS, REMOVE PORTABLE BARRIERS, SIGNS, PAVEMENT MARKINGS, AND TEMPORARY PAVEMENT FROM STA. 169+75 TO STA. 179+25 TO MAINTAIN LOCAL TRAFFIC IN THE WEST BOUND LANE.
7. CONSTRUCT THE REMAINING PROPOSED S.R. 681 AND BUILD UP SURFACE COURSE FROM STA. 169+75 TO STA. 179+75.
8. INSTALL GUARDRAIL AND PERFORM FINAL STRIPING.

**LIGHTING**

LIGHTING SHALL BE PROVIDED AT EACH END OF THE LANE CLOSURE FOR THE CLOSING OF ONE LANE OF A TWO LANE HIGHWAY.

LIGHTING SHALL BE BY CONVENTIONAL METHODS, WITH LUMINAIRE ARMS ATTACHED TO THE SIGNAL SUPPORTS. AREA ILLUMINATION SHALL BE PROVIDED BY USING AN 8000-LUMEN LED, 150 WATT MINIMUM HIGH PRESSURE SODIUM LUMINARIES OR 250 WATT MINIMUM MERCURY LUMINARIES. THE MINIMUM HEIGHT OF THE LUMINAIRE SHALL BE 27 FT FROM THE GROUND SURFACE.

PAYMENT FOR LIGHTING SHALL INCLUDE DELIVERY, ERECTION, MAINTENANCE AND REMOVAL AS CALLED FOR IN THE PLANS. PAYMENT SHALL BE PER EACH.

**ITEM 614, BARRIER REFLECTORS AND/OR OBJECT MARKERS**

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE 50 FEET

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

