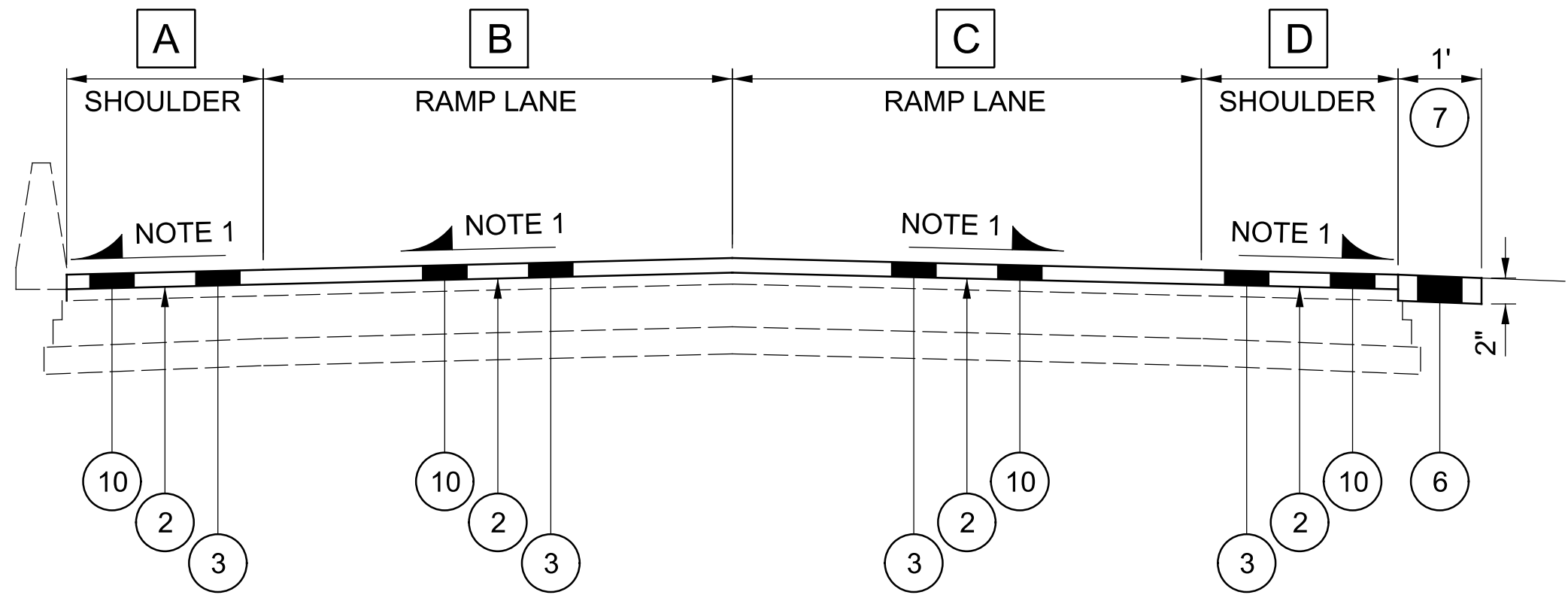
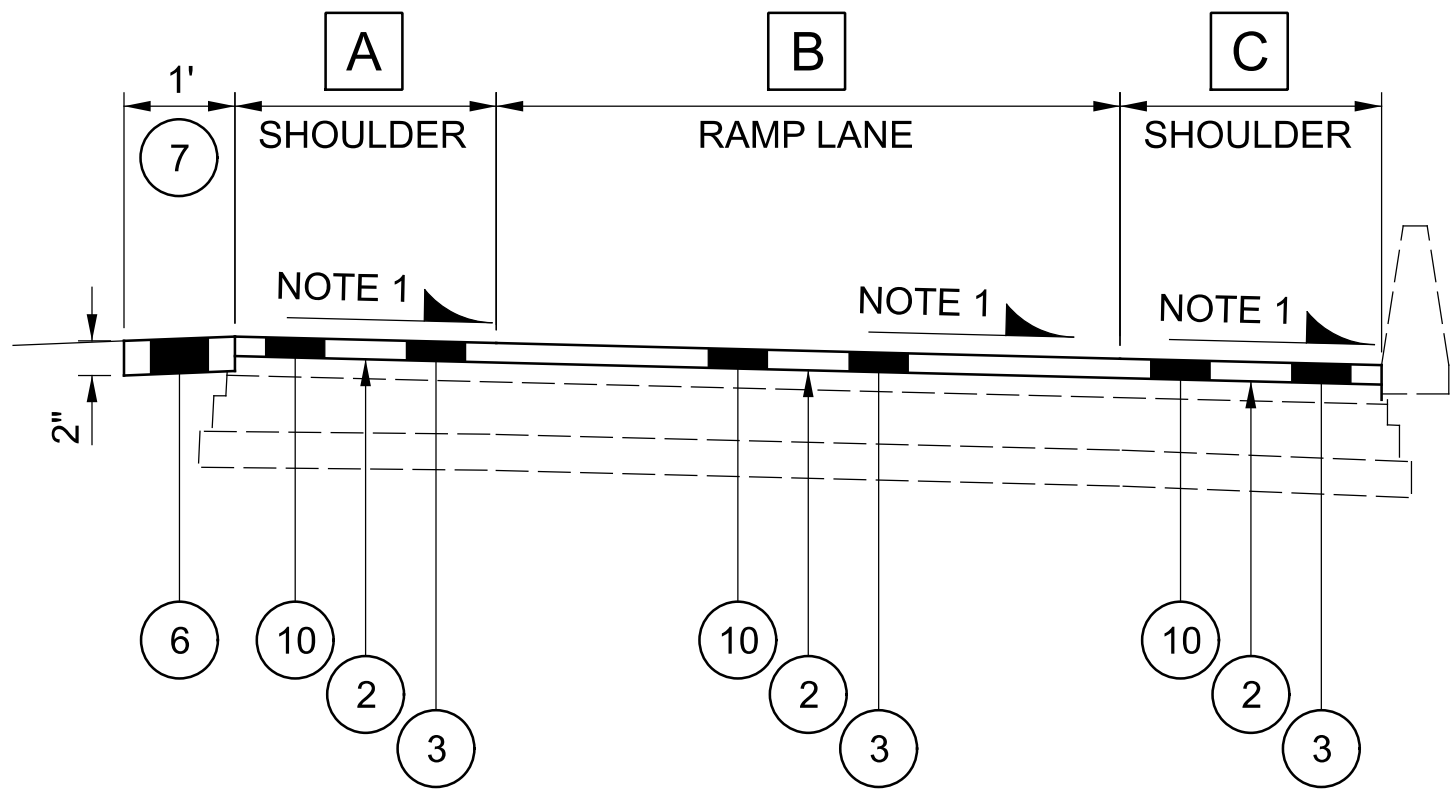
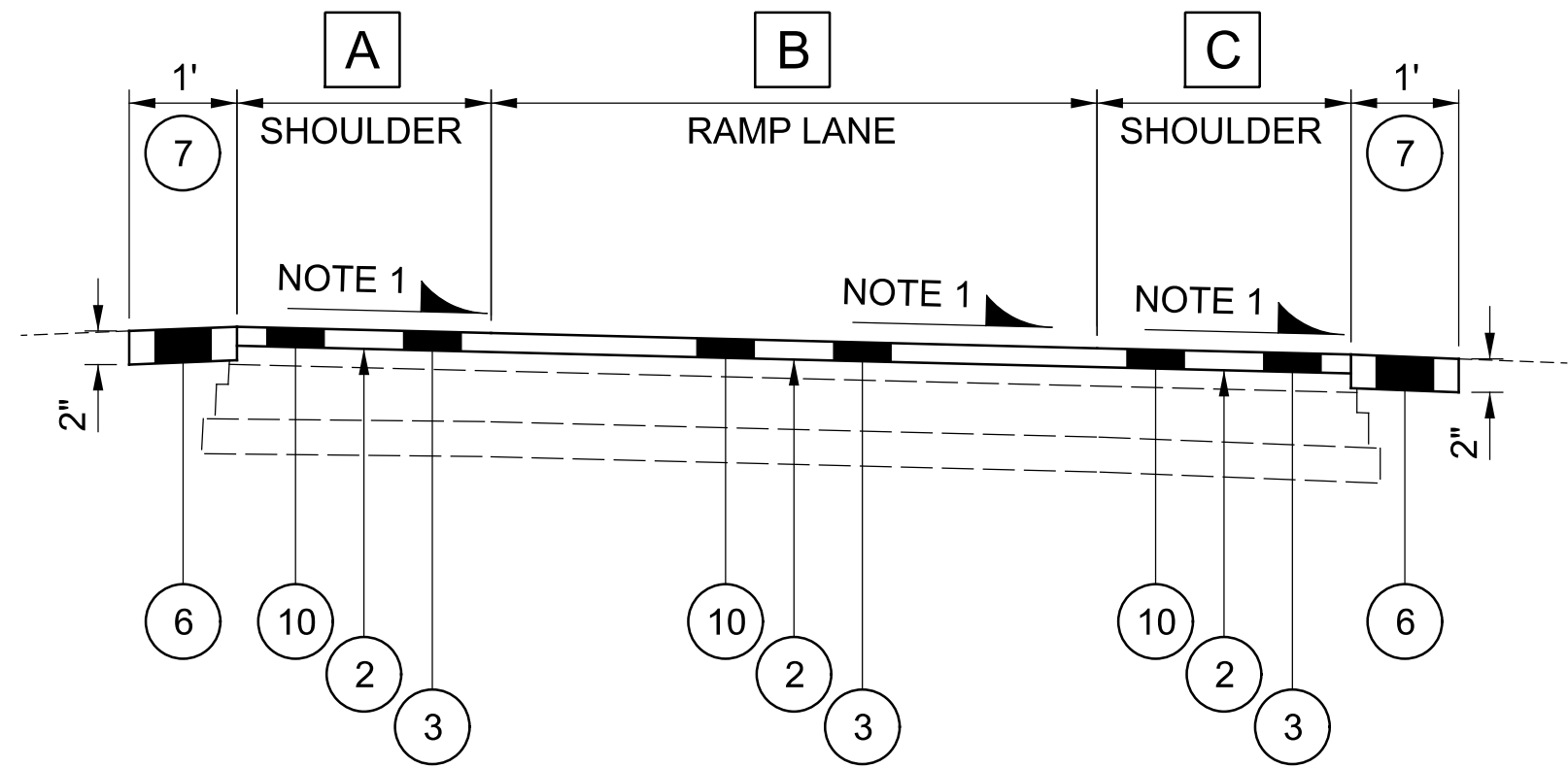




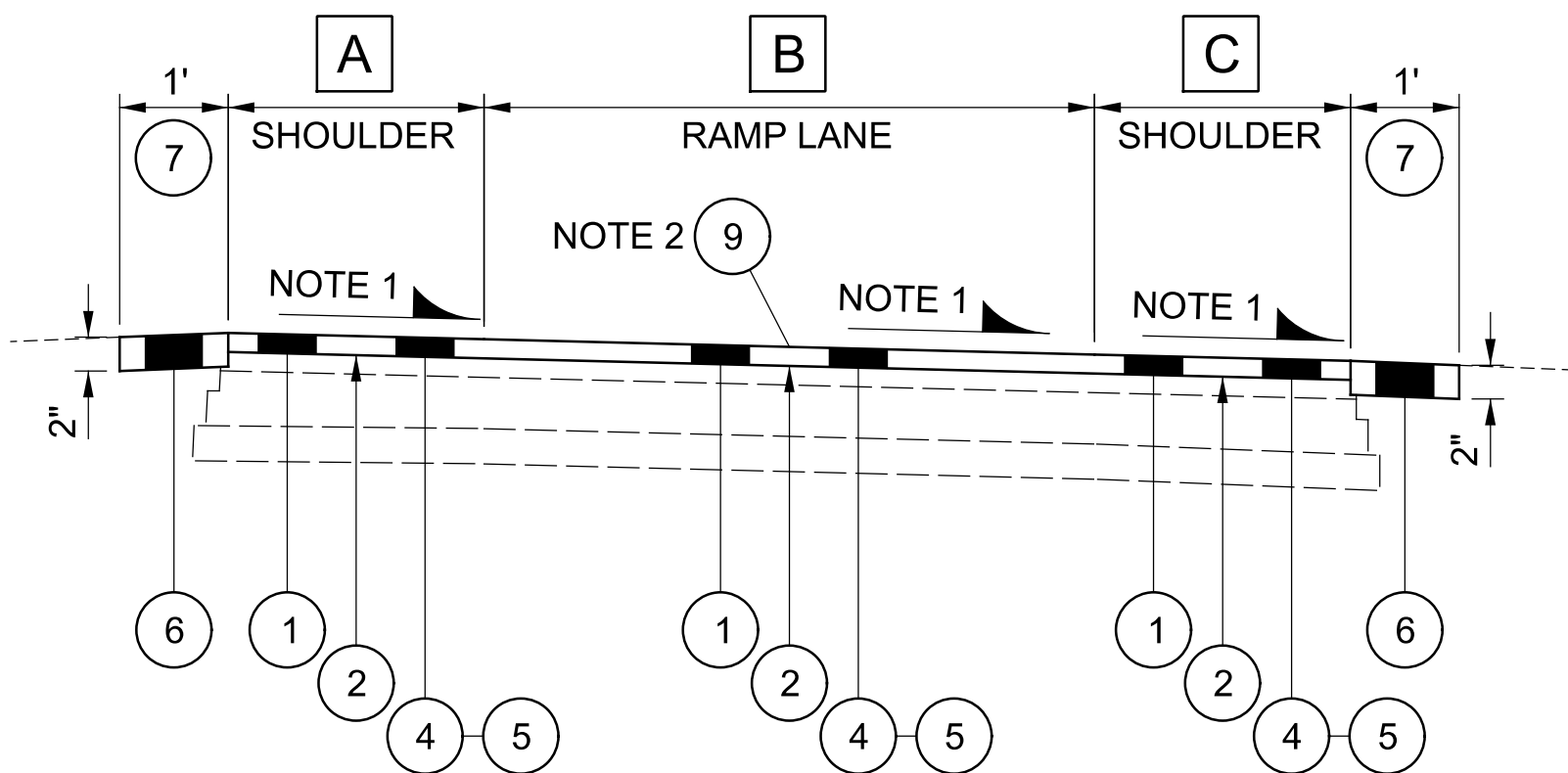
TYPICAL SECTION #6
I-71 RAMP
SECTION APPLIES TO:
RAMP 6 STA 12+25.23 TO STA 42+90.14 = 3065 FT
TOTAL = 3065 FT (= 0.58 MI)



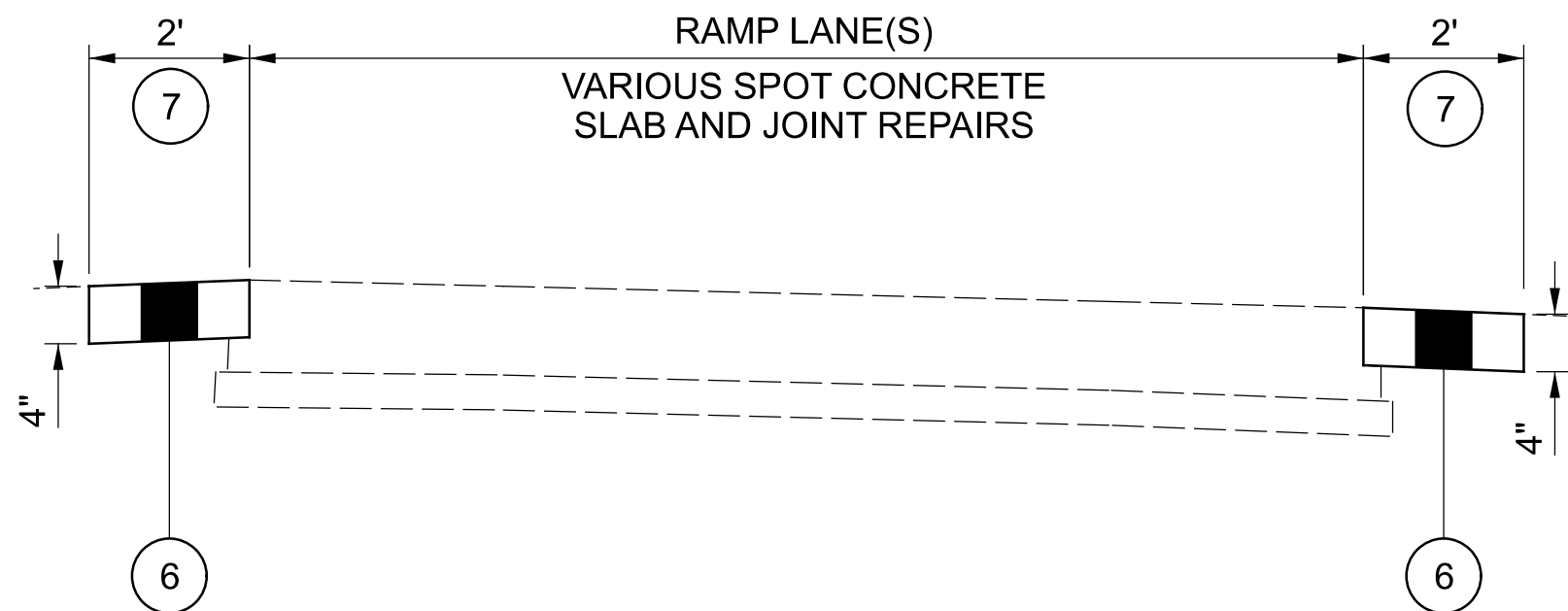
TYPICAL SECTION #7
I-71 RAMP
SECTION APPLIES TO:
RAMP 5A STA 13+07.10 TO STA 24+82.19 = 1175 FT
TOTAL = 1175 FT (= 0.22 MI)



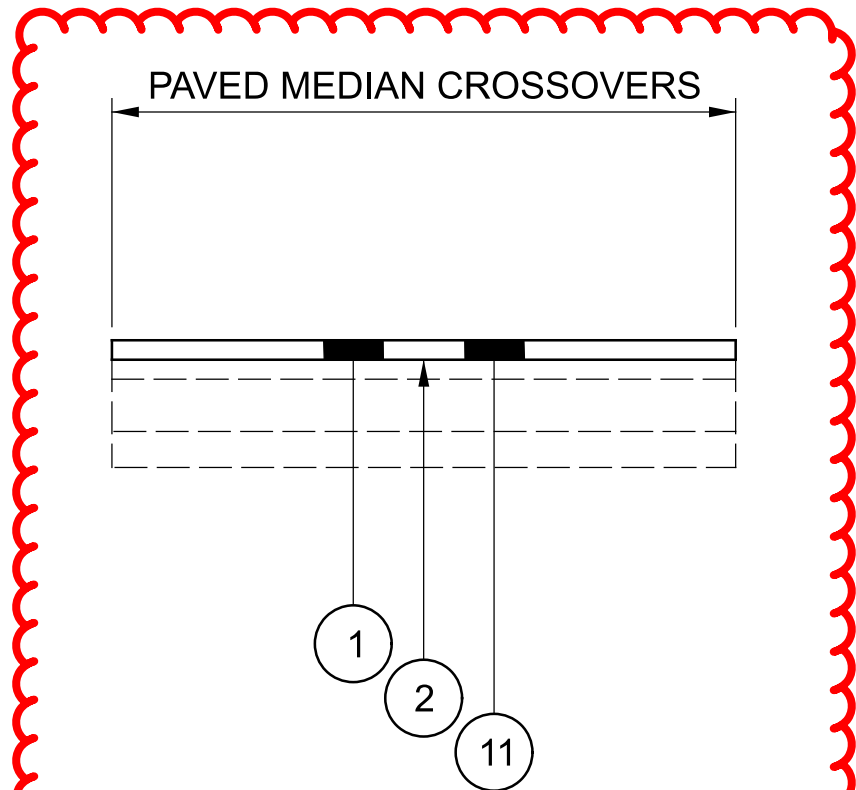
TYPICAL SECTION #8
I-71 RAMP
SECTION APPLIES TO:
RAMP 3 STA 0+55.84 TO STA 1+60.68 = 105 FT
RAMP 5B STA 33+47.62 TO STA 38+93.41 = 546 FT
TOTAL = 651 FT (= 0.12 MI)



TYPICAL SECTION #9
I-71 RAMP
SECTION APPLIES TO:
RAMP A STA 15+92.49 TO STA 23+20.80 = 728 FT
RAMP B STA 0+38.69 TO STA 7+12.00 = 673 FT
RAMP C STA 0+39.29 TO STA 7+12.47 = 673 FT
TOTAL = 2074 FT (= 0.39 MI)



TYPICAL SECTION #10
I-71 RAMP
SECTION APPLIES TO:
RAMP 1 STA 3+85.34 TO STA 12+63.91 = 879 FT
RAMP 2 STA 4+27.44 TO STA 17+54.38 = 1327 FT
RAMP 3 STA 1+60.68 TO STA 14+91.94 = 1331 FT
RAMP 4 STA 0+62.91 TO STA 9+58.99 = 896 FT
RAMP 5B STA 38+93.41 TO STA 44+11.82 = 518 FT
RAMP 7 STA 0+56.86 TO STA 11+72.98 = 1116 FT
TOTAL = 6067 FT (= 1.15 MI)



TYPICAL SECTION #11
PAVED MEDIAN CROSSOVERS
SECTION APPLIES TO:
DEL-71 STA 92+78.71
DEL-71 STA 144+29.11
DEL-71 STA 221+93.20
DEL-71 STA 322+16.42
DEL-71 STA 427+16.75
DEL-71 STA 475+10.72
DEL-71 STA 543+01.26
DEL-71 STA 602+80.39

LEGEND:

- A PAVEMENT WIDTH - SEE PAVEMENT CALCULATION SHEET(S)
- 1 ITEM 254 - (1.75") PAVEMENT PLANING, ASPHALT CONCRETE
- 2 ITEM 407 - NON-TRACKING TACK COAT (RATE PER C&MS TABLE 407.06-1)
- 3 ITEM 424 - (1.00") FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448)
- 4 ITEM 442 - (1.75") ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN, PG70-22M
- 5 ITEM 442 - ANTI-SEGREGATION EQUIPMENT (NOT INTENDED FOR MAINLINE SHOULDERS)
- 6 ITEM 617 - COMPACTED SHOULDER AGGREGATE
- 7 ITEM 617 - SHOULDER PREPARATION
- 8 ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)
- 9 ITEM 875 - LONGITUDINAL JOINT ADHESIVE (INCIDENTAL TO 447)
- 10 ITEM 897 - (1.00") PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A
- 11 ITEM 442 - (1.75") ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449)

NOTES:

NOTE 1:
MAINTAIN EXISTING CROSS SLOPE. SEE EXISTING TYPICAL SECTION AND EXISTING PLANS (AVAILABLE UPON REQUEST) FOR VERIFICATION.

NOTE 2:
ONLY REQUIRED ON "COLD JOINTS". SEE SURFACE COURSE. AS PER PLAN IN GENERAL NOTES FOR "COLD JOINT" REQUIREMENTS.

ITEM 606 – IMPACT ATTENUATOR, TYPE 1 (MASH 2016):
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE 1 IMPACT ATTENUATORS AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW, PERMANENT INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 1(UNIDIRECTIONAL OR BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR MISC.: TYPE 2 NOSE ASSEMBLY:
THIS ITEM SHALL CONSIST OF SUPPLYING AND INSTALLING A COMPLETE IMPACT ATTENUATOR, TYPE 2 NOSE ASSEMBLY AT SPECIFIC LOCATIONS AS DETAILED IN THE PLAN.

THE PROPOSED COMPLETE (YELLOW) NOSE ASSEMBLY SHALL BE COMPATIBLE WITH A QUADGUARD II IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC. AND SHALL INCLUDE ALL SUPPORTS, BRACKETS, AND HARDWARE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, SHOP DRAWING: "NOSE ASSY, QGII, NARROW".

REMOVAL OF THE EXISTING NOSE ASSEMBLY SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM AND PAYMENT SHALL BE AT THE UNIT BID PRICE OF EACH.

ITEM 606 - GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT:
THIS ITEM SHALL BE USED WHEN THE CONTRACTOR IS REQUIRED TO USE AN ALTERNATE METHOD TO SET POSTS TO PREVENT DAMAGE TO AN UNDERGROUND OBSTACLE, SUCH AS A UTILITY. THE USE OF THIS ITEM WILL BE AS DEEMED NECESSARY BY THE ENGINEER. THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED TO SET AND BACKFILL POSTS WHILE MEETING THE REQUIREMENTS OF THE APPLICABLE GUARDRAIL ITEM BEING PERFORMED. APPLICABLE GUARDRAIL ITEMS INCLUDE BUT ARE NOT LIMITED TO SETTING POSTS (AND SLEEVES) FOR TYPE 5, TYPE MGS, BARRIER DESIGN, ANCHOR ASSEMBLIES, AND BRIDGE TERMINAL ASSEMBLIES. PAYMENT SHALL BE AT THE UNIT BID PRICE OF EACH AND SHALL BE PAID FOR IN ADDITION TO THE APPLICABLE GUARDRAIL PLACEMENT ITEM LISTED ABOVE.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 606 - GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT:
= 200 FT

ITEM 659 - GRADING AND EROSION CONTROL:
AREAS DISTURBED BY GUARDRAIL ACTIVITIES, AND AREAS WHERE EMBANKMENT HAS BEEN PLACED SHALL BE REPAIRED, AS DIRECTED BY THE ENGINEER. ESTIMATED QUANTITIES HAVE BEEN PROVIDED ON SHEET **P.68** .

MANHOLES AND OTHER CASTING STRUCTURES:
THESE ITEMS PROVIDED BELOW ARE CONTINGENCY QUANTITIES TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AT VARIOUS LOCATIONS. THESE ITEMS SHALL INCLUDE THE COST OF ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST CASTINGS TO GRADE TO THE PROPOSED ASPHALT ELEVATION AS DIRECTED.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN PROVIDED AND THE TOTALS HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 611 – CATCH BASIN ADJUSTED TO GRADE = 4 EACH
ITEM 611 – MANHOLE ADJUSTED TO GRADE = 4 EACH
ITEM 638 – VALVE BOX ADJUSTED TO GRADE = 4 EACH

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), 4.50" :
ALL REPAIR AREAS DETAILED IN THE PLAN SHALL BE VERIFIED BY THE PROJECT ENGINEER BEFORE THE BEGINNING OF WORK. THE THE REPAIR AREAS SHALL CONSIST OF REMOVING **4.50** INCHES OF PAVEMENT AND PLACING **4.50** INCHES OF ITEM 301 - ASPHALT CONCRETE BASE, PG64-22, (449). THE AVERAGE WIDTH SHALL NOT BE LESS THAN 4 FEET. FOR MORE INFORMATION SEE DETAIL ON SHEET **P.11** . WORK SHALL BE PERFORMED PRIOR TO PLANING. NO MORE PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) SHALL BE STARTED AND PERFORMED THAN CAN BE COMPLETED IN THE SAME WORKING DAY.

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN PROVIDED TO BE USED "AS DIRECTED" AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), 4.50" = 10000 SY

ITEM 255 – FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS RS:
THIS ITEM IS PROVIDED FOR THE REPAIR OF EXISTING CONCRETE RAMPS WITHIN THE PROJECT LIMITS.

REPAIR AREAS SHALL BE DETERMINED BY THE PROJECT ENGINEER BEFORE THE BEGINNING OF WORK. THE REMOVAL SHALL INCLUDE THE EXISTING NON-REINFORCED CONCRETE PAVEMENT. THE REPLACEMENT SHALL INCLUDE RIGID REPLACEMENT. GREAT CARE SHALL BE TAKEN TO MAINTAIN THE EXISTING PAVEMENT CROSS-SLOPE (CROWN), AS WELL AS ALL LONGITUDINAL SLOPES DURING THE PAVING OPERATIONS. THIS ITEM OF WORK SHALL ALSO BE PERFORMED AS SHOWN ON TYPICAL DETAIL SHEET **P.12** AND STANDARD CONSTRUCTION DRAWING BP-2.5.

TYPE OF REPAIR SHALL BE AS SHOWN ON THE PAVEMENT REPAIR SUBSUMMARY SHEET. THIS WORK SHALL BE PERFORMED WHEN THE ALLOWABLE RAMP CLOSURE CHART PERMITS THE CLOSURE TO TRAFFIC. IF THE ALLOWABLE RAMP CLOSURE CHART REQUIRES THE LANES TO BE OPEN AND THE CONCRETE HAS NOT MET THE MINIMUM STRENGTH, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT TABLE PER THE PLAN.

FOR LOCATIONS AND QUANTITIES, SEE SHEETS **P.27 - P.29** .

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1.75":
THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE CONTRACTORS EQUIPMENT THAT MAY RESULT FROM THE PLANING OPERATION, INCLUDING DAMAGE CAUSED BY CASTINGS AND LOOP DETECTORS. THE DEPTH OF PLANING CLOSE TO THE CASTINGS SHALL BE AS DIRECTED; TO ACHIEVE A SMOOTH RIDING FINISHED PAVEMENT.

BUTT JOINTS SHALL BE PROVIDED AT THE BEGINNING AND END OF PAVING LIMITS AND AT THE APPROACH SLABS OF ALL STRUCTURES NOT BEING PAVED.

AT NO TIME SHALL TRAFFIC BE EXPOSED TO PLANED PAVEMENT ON MAINLINE, CD ROADS, AND RAMPS. AT NO TIME SHALL THE PLANED SHOULDERS BE LEFT AT A ELEVATION THAT VIOLATES THE DROPOFF REQUIREMENTS OF SCD MT-101.90.

FAILURE TO COMPLY SHALL SUBJECT THE CONTRACTOR TO LIQUIDATED DAMAGES AS PER SECTION 108.07 OF C&MS.

ITEM 442 - ANTI-SEGREGATION EQUIPMENT:
PROVIDE ANTI-SEGREGATION EQUIPMENT IN COMBINATION WITH ALL 442-ASPHALT CONCRETE COURSES OF UNIFORM THICKNESS IN ACCORDANCE WITH C&MS 401.12. THE QUANTITY FOR THIS ITEM IS IN CUBIC YARDS AND IS EQUAL TO THE AMOUNT OF ASPHALT COURSES ON THE MAINLINE (EXCLUDING SHOULDERS) AND RAMPS (INCLUDING SHOULDERS).

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447), AS PER PLAN, PG70-22:
LOCATE LONGITUDINAL JOINTS IN SURFACE COURSE AS DESCRIBED IN C&MS 447.07 SUBJECT TO THE FOLLOWING REQUIREMENTS:

- FOR PAVEMENT SECTIONS WITH 2 LANES IN A SINGLE DIRECTION, PLACE A SINGLE COLD LONGITUDINAL JOINT BETWEEN THE 2 LANES.
- FOR PAVEMENT SECTIONS WITH 3 OR 4 LANES IN A SINGLE DIRECTION, PLACE A SINGLE COLD LONGITUDINAL JOINT BETWEEN THE SECOND AND THIRD LANE FROM THE MEDIAN.
- WHEN LANES COME IN CONTACT WITH THE STRIPED GORE THEY ARE CONSIDERED TO BE ON THE RAMP AND COUNTED SEPARATELY FROM THE MAINLINE.
- PLACE A MAXIMUM OF A SINGLE COLD LONGITUDINAL JOINT FOR RAMP PAVING.

A COLD LONGITUDINAL JOINT IS PERMITTED BETWEEN THE MAINLINE AND SHOULDER FOR THIS PROJECT AS SPECIFIED IN C&MS 447.07. ITEM 875 - LONGITUDINAL JOINT ADHESIVE IS NOT REQUIRED FOR THE SHOULDER JOINT. ONE JOINT ALONG ONE OF THE TWO LINES THAT MAKE UP THE STRIPED GORE MAY BE A COLD JOINT. LONGITUDINAL JOINT ADHESIVE IS REQUIRED AT THESE LOCATIONS.

PROVIDE LOCATION REFERENCE COORDINATES FOR EACH CORE TAKEN FOR MAT AND JOINT DENSITY ACCEPTANCE. UTILIZE A GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) RECEIVER WITH AN ACCURACY OF ± 2 INCHES (50 MM) IN THE X AND Y DIRECTIONS. USE A GNSS WITH THE ABILITY TO OBTAIN POSITIONAL CORRECTIONS USING THE ODOT REAL TIME NETWORK (RTN) OR A BASE-ROVER REAL-TIME KINEMATIC (RTK) SYSTEM. TIE DATA TO THE MOST CURRENT VERSION OF THE NATIONAL SPATIAL REFERENCE SYSTEM (NSRS) THROUGH OHIO COUNTY COORDINATE SYSTEM (OCCS) COORDINATES. USE THE RTN ONLY WHEN COVERAGE IS AVAILABLE THROUGHOUT THE PROJECT LIMITS.

ITEM 617 - WATER:
THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY:
ITEM 617 – WATER = 10 MGAL

ITEM 897 - PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A, 1.0":
THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE CONTRACTORS EQUIPMENT THAT MAY RESULT FROM THE PLANING OPERATION, INCLUDING DAMAGE CAUSED BY CASTINGS AND LOOP DETECTORS. THE DEPTH OF PLANING CLOSE TO THE CASTINGS SHALL BE AS DIRECTED; TO ACHIEVE A SMOOTH RIDING FINISHED PAVEMENT.

BUTT JOINTS SHALL BE PROVIDED AT THE BEGINNING AND END OF PAVING LIMITS AND AT THE APPROACH SLABS OF ALL STRUCTURES NOT BEING PAVED.

AT NO TIME SHALL TRAFFIC BE EXPOSED TO PLANED PAVEMENT ON MAINLINE, CD ROADS, AND RAMPS. AT NO TIME OUTSIDE OF THE WORK SHIFT SHALL THE SHOULDERS BE LEFT AT A HIGHER ELEVATION THAN THE DRIVING LANES. PLANED OUTSIDE SHOULDERS MAY BE EXPOSED TO TRAFFIC FOR FIVE (5) CALENDAR DAYS.

FAILURE TO COMPLY SHALL SUBJECT THE CONTRACTOR TO LIQUIDATED DAMAGES AS PER SECTION 108.07 OF C&MS.

ITEM 626 - BARRIER REFLECTOR, TYPE 1, ONE-WAY:
THIS ITEM CONSISTS OF INSTALLING MISSING AND DAMAGED BARRIER REFLECTORS ON ALL CONCRETE BARRIER, AND BRIDGE PARAPETS WITHIN THE PROJECT LIMITS. THIS ITEM SHALL ONLY BE "NON-PERFORMED" IN AREAS AS DETERMINED BY THE ENGINEER.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 626 - BARRIER REFLECTOR, TYPE 1, ONE-WAY = 45 EACH

PAVEMENT MARKINGS:
APPLICATIONS OF PAVEMENT MARKINGS HAVE BEEN PROVIDED TO ENSURE PROPER COVERAGE FOR MULTIPLE STAGES OF THIS PROJECT :

"WINTER-OVER" MARKINGS APPLICATION
DEL-71 (MAINLINE & RAMPS)
FROM: STA 84+95.85 (SLM 1.61)
TO: STA 607+20.00 (SLM 11.50)
* ITEM(S) 642 - PAINT TYPE 1, 644-THERMO, AND 646-EPOXY HAVE BEEN PROVIDED FOR COMPLETING ALL FINAL "INTERIM" PAVEMENT MARKINGS WHICH WILL BE SUBJECT TO THE INTERIM COMPLETION DATE AS DESCRIBED ON SHEET **P.18** .

"SPRING-REFRESH" MARKINGS APPLICATION
DEL-71 (MAINLINE & RAMPS)
FROM: STA 84+95.85 (SLM 1.61)
TO: STA 607+20.00 (SLM 11.50)
* ITEM(S) 642 - PAINT TYPE 1A HAVE BEEN PROVIDED FOR COMPLETING ALL LONG-LINE "INTERIM" PAVEMENT MARKINGS WHICH WILL BE SUBJECT TO THE INTERIM COMPLETION DATE AS DESCRIBED ON SHEET **P.18** .

"FINAL" MARKINGS APPLICATION
ENTIRE PROJECT
* ITEM(S) 644 - THERMO AND 646-EPOXY (NOT YET COMPLETED IN PREVIOUS STAGES) HAVE BEEN PROVIDED FOR COMPLETING ALL FINAL AUXILIARY PAVEMENT MARKINGS.
* ITEM(S) 807 AND ITEM(S) 850 - RECESSED WET REFLECTIVE HAVE BEEN PROVIDED FOR COMPLETING ALL FINAL LONG-LINE PAVEMENT MARKINGS.

THE LOCATIONS, SIZES AND SHAPES OF THE PROPOSED PAVEMENT MARKINGS WILL BE THE SAME AS EXISTING ON THE MAJORITY OF THIS PROJECT. ANY DEVIATION FROM EXISTING WILL BE IDENTIFIED WITHIN THIS PLAN.

ENTRANCE AND EXIT RAMP PAVEMENT MARKINGS WILL BE UPDATED TO THE CURRENT STANDARDS (CHEVRON AND DOTTED LINE MARKINGS) PER SCD TC-72.20 AND AS DETAILED IN THE PLAN SHEETS. TRANSVERSE/DIAGONAL LINE AND CHEVRON MARKINGS SHALL BE SPACED AS DETAILED PER TEM 301-14 AND SCD TC-72.20.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE AND SHAPE OF THESE EXISTING PAVEMENT MARKINGS BEFORE THE PAVEMENT PLANING AND RESURFACING OBLITERATES THEM. ANY PAVEMENT MARKING WHICH IS PLACED AT THE WRONG LOCATION SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.



ITEM 644 - SPEED MEASUREMENT MARKING:

THERE ARE EXISTING AIR SPEED MARKINGS ON I-71 (SOUTHBOUND).

PROPOSED SPEED MEASUREMENT MARKINGS SHALL BE AS DETAILED ON SCD TC-75.10.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL DISTRICT 6 SURVEY OPERATIONS MANAGER AT (740) 833-8250 TO HAVE THE MARKINGS LAID OUT BEFORE BEING MARKED. A RECORD IS TO BE KEPT AND ONE ORIGINAL SIGNED AND SEALED DOCUMENT IS TO BE SENT TO THE DISTRICT TRAFFIC ENGINEER AND ONE COPY IS TO BE SENT TO THE DISTRICT CONSTRUCTION ENGINEER.

PAYMENT SHALL BE ACCORDING TO THE PAVEMENT MARKING MATERIAL USED AND SHALL INCLUDE THE SURVEYING COORDINATION.

LOCATION		MARK 1	MARK 2	MARK 3	DO NOT DISTURB	
I-71	SLM =	11.07	11.32	11.57	11.82	12.07
SB	STA =	580+20.00	593+40.00	606+60.00	619+80.00	633+00.00

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 644 - SPEED MEASUREMENT MARKING = 6 EACH

ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN:

THE ITEM SHALL CONSIST OF STATIONING USING 3 FT LATH STAKES OR PAINT MARKINGS. THE STAKES OR PAINT MARKINGS SHALL BE SPACED EVERY 200' FOR THE ENTIRE LENGTH. PLACEMENT OF THE STAKES OR PAINT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED OR MISSING STAKES, OR PAINT MARKINGS. PAINT MARKINGS SHALL BE PLACED ON CURBS AND USED IN AREAS WERE THE PLACEMENT OF STAKES IS NOT POSSIBLE AND APPROVED BY THE PROJECT ENGINEER.

THIS ITEM SHALL ALSO INCLUDE ANY WORK NECESSARY FOR THE CONTRACTOR TO VERIFY EXISTING RIGHT OF WAY, AS DIRECTED.

THIS ITEM HAS ALSO BEEN PROVIDED FOR THE CONTRACTOR TO MONITOR AND VERIFY THAT ALL OVERHEAD CLEARANCE HEIGHTS AT OVERHEAD STRUCTURES HAVE BEEN MAINTAINED.

ITEM 400 - SPECIAL - PAVER MOUNTED THERMAL PROFILING (PMTP) : THIS ITEM IS TO BE USED IN CONJUNCTION WITH ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447), AS PER PLAN.

THIS ITEM CONSISTS OF PROVIDING A PAVER MOUNTED THERMAL PROFILING (PMTP) SYSTEM TO IDENTIFY THE PRESENCE OF ANY THERMAL SEGREGATION OF AN UNCOMPACTED MAT OF HOT MIX ASPHALT. CONFORM TO THE SPECIFICATIONS FOUND IN THE SPECIAL PROVISION FOR METHODS AND PROCEDURES FOR DETERMINING THE THERMAL PROFILE USING A PMTP SYSTEM. NOTIFY THE ODOT OFFICE OF PAVEMENT ENGINEERING (OPE) AT LEAST TWO WEEKS PRIOR TO THE START OF PMTP DATA COLLECTION.

OPE WILL CONDUCT DENSITY GAUGE TESTING ON SOME OR ALL OF THERMAL PROFILE DATA SUBLOTS CATEGORIZED AS HAVING SEVERE THERMAL SEGREGATION, AS DEFINED IN THE SPECIAL PROVISION. THE RESULTS OF THIS TESTING ARE FOR RESEARCH PURPOSES AND WILL NOT RESULT IN ANY ADDITIONAL ADJUSTMENT TO THE ITEM UNIT BID PRICE. PROVIDE TRAFFIC CONTROL TO ALLOW OPE TO CONDUCT TESTING. THE DEPARTMENT WILL NOT REQUIRE MORE THAN FOUR DAYS OF ADDITIONAL LANE CLOSURES TO PERFORM DENSITY GAUGE TESTING.

INCLUDE THE COST OF ALL LABOR, EQUIPMENT, SOFTWARE, AND INCIDENTALS NECESSARY TO INSTALL THE EQUIPMENT AND ANALYZE THE DATA IN THE LUMP SUM BID FOR ITEM 400 - SPECIAL - PAVER MOUNTED THERMAL PROFILING (PMTP)

ITEM 690 - SPECIAL - INTELLIGENT COMPACTION (IC) : THIS ITEM IS TO BE USED IN CONJUNCTION WITH ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447), AS PER PLAN.

THIS ITEM CONSISTS OF PROVIDING AN INTELLIGENT COMPACTION (IC) SYSTEM TO MONITOR COMPACTION DURING PLACEMENT OF ASPHALT CONCRETE. INSTRUMENT ALL ROLLERS INVOLVED IN THE COMPACTION OF THE ASPHALT CONCRETE MAT. CONFORM TO THE SPECIFICATIONS FOUND IN THE SPECIAL PROVISION. NOTIFY THE ODOT OFFICE OF PAVEMENT ENGINEERING (OPE) AT LEAST TWO WEEKS PRIOR TO THE START OF IC DATA COLLECTION.

INCLUDE THE COST OF ALL LABOR, EQUIPMENT, SOFTWARE, AND INCIDENTALS NECESSARY TO INSTALL THE EQUIPMENT AND ANALYZE THE DATA IN THE LUMP SUM BID FOR ITEM 690 - SPECIAL - INTELLIGENT COMPACTION (IC).

ENVIRONMENTAL COMMITMENTS:

- NO TREE CLEARING IS REQUIRED OR PERMITTED ON THIS PROJECT. 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.
- ANY AND ALL CONSTRUCTION DEBRIS, EARTHEN DEBRIS, EXCESS ASPHALT OR CONCRETE, WOOD DEBRIS FROM CLEARING, EXCESS FILL MATERIAL, AND TRASH SHOULD BE DISPOSED OF AT AN APPROVED UPLAND SITE OR LAND FILL ABOVE FEMA 100-YEAR FLOOD ELEVATIONS.
- NO IMPACTS TO STREAMS, WETLANDS, DITCHES, OR WATERS OF THE US ARE PERMITTED.

ENDANGERED BAT HABITAT REMOVAL

THIS 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 (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

CITY OF COLUMBUS WATER GENERAL NOTES: (APPLIES WITHIN CITY OF COLUMBUS)

IT SHALL BE UNLAWFUL FOR ANY PERSON TO PERFORM ANY WORK ON CITY OF COLUMBUS WATER MAIN SYSTEMS WITHOUT FIRST SECURING LICENSE TO ENGAGE IN SUCH WORK, AS INDICATED IN COLUMBUS CITY CODE SECTION 1103.02 AND 1103.06. THIS WORK INCLUDES ANY ATTACHMENTS, ADDITIONS TO OR ALTERATIONS IN ANY CITY SERVICE PIPE OR APPURTENANCES (INCLUDING WATER SERVICE LINES AND TAPS). THIS REQUIREMENT MAY BE MET BY UTILIZATION OF A SUBCONTRACTOR WHO HOLDS A CITY OF COLUMBUS WATER CONTRACTOR LICENSE OR A COMBINED WATER/SEWER CONTRACTOR LICENSE TO PERFORM THIS WORK. UTILIZATION OF A SUBCONTRACTOR MUST MEET THE LICENSING REQUIREMENTS OF CITY OF COLUMBUS BUILDING CODE, IN PARTICULAR SECTION 4114.119 AND 4114.529.

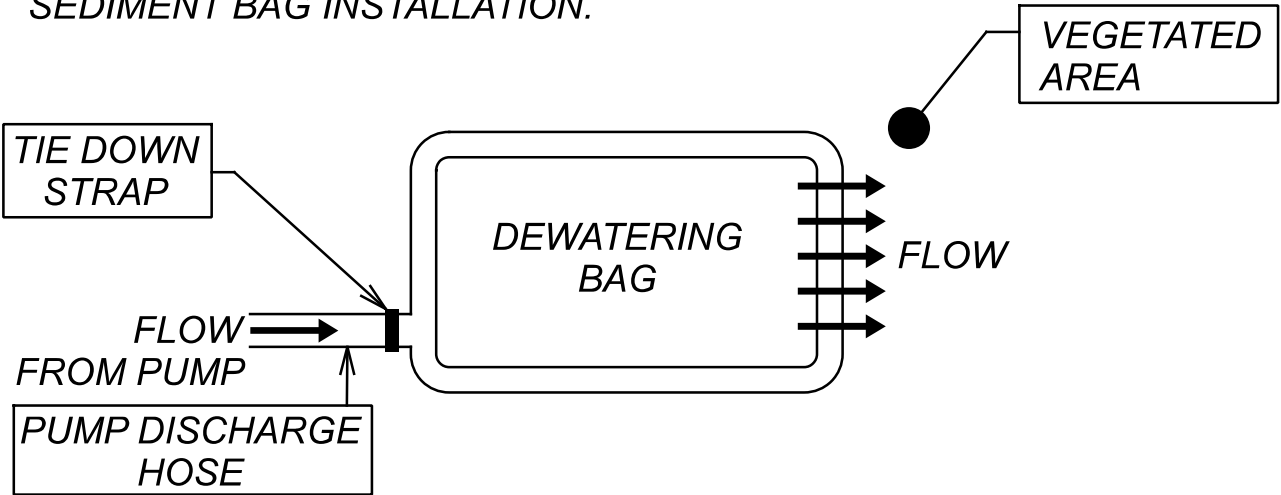
THE CONTRACTOR SHALL OBTAIN THE PROPER HYDRANT PERMIT(S), AND PAY ANY APPLICABLE FEES, FOR ANY APPROVED HYDRANT USAGE DEEMED NECESSARY FOR WORK UNDER THIS IMPROVEMENT. PERMITS MAY BE OBTAINED THROUGH THE DIVISION OF WATER PERMIT OFFICE (614-645-7330). THE CONTRACTOR SHALL ADHERE TO ALL RULES & REGULATIONS GOVERNING SAID PERMIT AND MUST HAVE THE ORIGINAL PERMIT ON SITE ANYTIME IN WHICH THE HYDRANT IS IN USE. PERMITS MAY BE OBTAINED BY ACCESSING [HTTP://PORTAL.COLUMBUS.GOV/PERMITS/](http://portal.columbus.gov/permits/).

CITY OF COLUMBUS WATER RECLAMATION GENERAL NOTES: (APPLIES WITHIN CITY OF COLUMBUS)

THE PUMPING OR DIRECT DISCHARGE OF SEDIMENT-LADEN (MUDDY) WATER TO THE CITY'S SEWER SYSTEM OR A RECEIVING STREAM IS A VIOLATION OF OHIO EPA AND CITY OF COLUMBUS REGULATIONS.

ALL INLETS RECEIVING FLOW FROM RUNOFF, PUMPING ACTIVITIES, OR OTHER DIRECT DISCHARGES SHALL BE FITTED WITH AN INLET PROTECTION DEVICE THAT IS PROPERLY SIZED AND SECURED TO REDUCE THE DISCHARGE OF SEDIMENT INTO THE STORM SEWER SYSTEM AND RECEIVING STREAM. INLET PROTECTION IS REQUIRED ON ALL INLETS RECEIVING DISCHARGE REGARDLESS OF WHETHER OR NOT THE INLET IS TRIBUTARY TO ANY DOWNSTREAM EROSION AND SEDIMENT CONTROLS.

DISCHARGE HOSES USED DURING PUMPING ACTIVITIES SHALL BE FITTED WITH SEDIMENT BAGS THAT ARE PROPERLY SIZED AND MAINTAINED PER THE MANUFACTURER'S RECOMMENDATIONS REGARDLESS OF WHAT OTHER SEDIMENT CONTROLS ARE IN PLACE FURTHER DOWNSTREAM. SEDIMENT BAGS MUST BE PROPERLY SECURED TO THE DISCHARGE HOSE AND PLACED OVER VEGETATED AREAS, WHERE FEASIBLE, DURING DISCHARGE. SEE DETAIL BELOW OF A TYPICAL SEDIMENT BAG INSTALLATION.



SUGGESTED DISCHARGE SET-UP FOR PUMPING MUDDY WATER

CITY OF COLUMBUS WATER RECLAMATION GENERAL NOTES: (APPLIES WITHIN CITY OF COLUMBUS)

PAVEMENT CUTTING, SAWING AND EXCAVATION OPERATIONS NOTE: ALL PUBLIC AGENCIES AND PRIVATE CONTRACTORS PERFORMING PAVEMENT-CUTTING OPERATIONS ON CITY OF COLUMBUS STREETS AND ROADWAYS SHALL PROTECT THE ENVIRONMENT FROM DISCHARGES CREATED BY THEIR PAVEMENT CUTTING OPERATIONS. NOTE THAT COLUMBUS CITY CODE 1145 PROHIBITS NON-STORMWATER DISCHARGE INTO THE CITY OF COLUMBUS SEWER SYSTEM, CURB INLETS AND ANY PART OF ITS MS4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM).

THE REQUIREMENT INCLUDES BUT IS NOT LIMITED TO WET OR DRY SAW-CUTTING, JACK HAMMERING, EXCAVATION EQUIPMENT USE, ETC. THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR WORK CREWS SHALL RECOVER AND DISPOSE OF DETRITUS, POLLUTED WATERS, OR OTHER SUCH DISCHARGES RESULTING FROM THEIR PAVEMENT CUTTING OPERATIONS AND PROTECT ALL STORM SEWER INLETS FROM RECEIVING ANY DISCHARGES FROM THE CONSTRUCTION OPERATIONS. THE AGENCY OR CONTRACTOR RESPONSIBLE FOR EACH PAVEMENT CUTTING ACTIVITY SHALL BE SOLELY LIABLE FOR NOTICE OF VIOLATIONS (NOV/S) AND FINES ISSUED BY CITY OF COLUMBUS AND/OR STATE OF OHIO AUTHORITIES.

EQUIPMENT, MATERIALS AND METHODS SHALL BE PROVIDED BY THE RESPONSIBLE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR TO WORK CREWS PERFORMING THE PAVEMENT CUTTING ACTIVITY AND MADE AVAILABLE TO WORK CREWS FOR USE IN CLEANING UP DISCHARGES RESULTING FROM SUCH CUTTING ACTIVITIES AND PREVENTING RUNOFF. ALL WORK CREWS SHALL BE TRAINED TO EXERCISE AND EMPLOY

EQUIPMENT, MATERIALS, AND ENVIRONMENTAL PROTECTIVE MEASURES TO PREVENT POLLUTED DISCHARGES FROM ENTERING THE CITY OF COLUMBUS STORM SEWER SYSTEM AND WATERS OF THE STATE OF OHIO.

THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT THE INLET PROTECTION IS ADEQUATE. THE MOST STRINGENT PROJECT PLANS, NOTES AND/OR DRAWINGS INCLUDING STORMWATER POLLUTION PREVENTION PLAN (SWP3) OR SPILL PREVENTION/REMEDIATION PLAN SHALL APPLY TO ALL PAVEMENT CUTTING, SAWING OR EXCAVATION OPERATIONS.

CITY OF COLUMBUS DIVISION OF POWER NOTES: (APPLIES WITHIN CITY OF COLUMBUS)

THE DIVISION OF POWER (DOP) MAY HAVE OVERHEAD AND UNDERGROUND PRIMARY, SECONDARY, AND STREET LIGHTING AT THIS WORK LOCATION. THE CONTRACTOR IS HEREBY REQUIRED TO CONTACT OHIO 811 (PREVIOUSLY OUPS) AT 811 OR 1-800-362-2764 FORTY-EIGHT HOURS PRIOR TO CONDUCTING ANY ACTIVITY WITHIN THE CONSTRUCTION AREA.

ANY PROJECT, BOTH PUBLIC OR PRIVATE, WITH IMPACTS REQUIRING RELOCATION, SUPPORT, PROTECTION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S ELECTRICAL FACILITIES IN THE CONSTRUCTION AREA IS TO BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECTION OF DOP PERSONNEL AND AT THE EXPENSE OF THE PROJECT.

UNLESS PREVIOUSLY AUTHORIZED, DOP SHALL MAKE ALL FINAL CONNECTIONS TO DOP'S EXISTING ELECTRICAL SYSTEM AT THE EXPENSE OF THE PROJECT.

NO PERSON SHALL WORK ON DOP FACILITIES UNLESS THEY HAVE COMPLETED CONTRACTOR SAFETY ORIENTATION WITH DOP. ANY PERSON WORKING ON DOP FACILITIES ON LIVE CONDUCTORS OR CONDUCTORS THAT MAY BECOME LIVE SHALL COMPLY WITH DOP'S CONDUCTOR SAFETY POLICY (TDMIS-1603), HOLD CARD SYSTEM (TDMIS-1604) AND STREET LIGHT LOCK OUT TAG OUT PROCEDURE (MIS-1). PRIOR TO BEGINNING WORK ON DOP FACILITIES, EACH PERSON SHALL CONTACT DOP'S DISPATCH OFFICE AT 614-645-7627 AND PROVIDE THEIR NAME, PHONE NUMBER, LOCATION, DESCRIPTION OF WORK AND CIRCUIT NUMBER. AT COMPLETION OF WORK, EACH PERSON SHALL NOTIFY DOP'S DISPATCH OFFICE.

THE CONTRACTOR SHALL USE MATERIAL AND MAKE REPAIRS TO A CITY OF COLUMBUS STREET LIGHTING SYSTEM BY FOLLOWING DOP'S "MATERIAL AND INSTALLATION SPECIFICATIONS" (MIS) AND THE CITY OF COLUMBUS "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (CMSC). ANY NEW OR RE-INSTALLED STREET LIGHT SYSTEM SHALL REQUIRE TESTING AS REFERRED TO IN SECTION 1001.18 OF THE CMSC MANUAL. CONTRACTORS WORKING ON STREET LIGHTING SHALL CONFORM TO DOP'S EXISTING STREET LIGHT LOCKOUT/TAGOUT (LOTO) PROCEDURE, MIS-1, COPIES OF WHICH ARE AVAILABLE FROM DOP AND ON THE CITY WEBSITE.

EMERGENCIES: IF ANY ELECTRIC FACILITY BELONGING TO DOP IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, ITS AGENTS, SERVANTS, OR EMPLOYEES, AND REQUIRES EMERGENCY REPAIRS, THE DOP DISPATCH OFFICE SHOULD BE CONTACTED IMMEDIATELY AT (614) 645-7627. DOP SHALL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE DIVISION OF POWER, CITY OF COLUMBUS, OHIO.

DESIGN AGENCY



DESIGNER

DKR

REVIEWER

KLM 02/26/26

PROJECT ID

114906

SHEET

P.15

TOTAL

75

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:

- 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).
- FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:
 - ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND
 - AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,
 - AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

“WITHOUT POSITIVE PROTECTION” MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS “WITHOUT POSITIVE PROTECTION”. FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

- THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR
- THE ACTIVE WORK AREA Laterally CLOSEST TO THE OPEN TRAVELED LANE; OR
- OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

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 THAT 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 DURING CONSTRUCTION OPERATIONS = 1800 HR

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

ITEM 614 - WORK ZONE MARKING SIGN:
THE FOLLOWING ESTIMATED QUANTITIES FOR "NO EDGE LINE" SIGNS (R4-1-18) HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE MARKING SIGNS PER THE REQUIREMENTS OF MT-101.90, 614.04 AND 614.11.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - WORK ZONE MARKING SIGN = 55 EACH

MAINTENANCE OF TRAFFIC FOR MARKING PAVEMENT REPAIRS:
PROVIDE LANE CLOSURES AS PER THE MAINTENANCE OF TRAFFIC NOTES IN THESE PLANS A MINIMUM OF 24 HOURS PRIOR TO PERFORMING PAVEMENT REPAIRS TO ALLOW THE ENGINEER TO IDENTIFY AND MARK THE AREAS OF THE PAVEMENT IN NEED OF REPAIRS.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, LEO HOURS, AND INCIDENTALS NEEDED TO PERFORM THE ABOVE LISTED WORK IS CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE INCLUDED IN THE LUMP SUM BID 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 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.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE PLAN. 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 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 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.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN (ASSUMING 4 PCMS FOR 9 MONTHS) = 36 SNMT

ITEM 614 - WORK ZONE PAVEMENT MARKING, CLASS III, 642 PAINT:
WORK ZONE PAVEMENT MARKING SHALL BE PLACED TO REFLECT THE PROPOSED PAVEMENT MARKINGS A DETERMINED FROM THE PROPOSED MARKINGS WITHIN THE PROJECT LIMITS. IT SHALL BE THE CONTRACTOR’S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE, AND TYPE OF WORK ZONE MARKINGS NEEDED MEETING THE REQUIREMENTS OF ITEM 614 BEFORE THE REMOVAL OR RESURFACING OBLITERATES THE EXISTING.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY:

614 - WORK ZONE PAVEMENT MARKING, CLASS III, 642 PAINT						
LOCATION	LANE LINE	EDGE LINE	CHANNELIZING LINE	DOTTED LINE	STOP LINE	ARROW
	6"	6"	12"	6"		
	MILE	MILE	FT	FT	FT	EACH
RESURFACING						
FRA-71NB	1.03	0.69	989	2880		
FRA-71SB	5.00	2.64	54	92		
DEL-71NB	23.88	22.58	8449	4449		
DEL-71SB	23.22	22.61	9315	4364		
RAMP 6	0.58	1.16				
RAMP 5A		0.45				
RAMP 3		0.04				
NB REST		0.07				
SB REST		0.07				
RAMP A	0.02	0.28	250	451		
RAMP B		0.25	1105	75	53	17
RAMP C		0.25				
REPAIR						
RAMP 1		0.03	64	24		
RAMP 2	0.02	0.05	162			6
RAMP 3		0.05				
RAMP 4		0.03				
RAMP 5		0.02				
RAMP 6	0.03	0.04	119			6
RAMP 7		0.04	64			3
RAMP 8		0.04				
TOTAL	53.78	51.38	20571	12335	53	32



ITEM 808 - WORK ZONE SPEED ZONES (WZSZS)
THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBER	COUNTY-ROUTE-SECTION	DIRECTIONS
WZ-35889	FRANKLIN/DELAWARE I-71	NB & SB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ. WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRE-CONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS				
ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION WORKERS PRESENT	WITHOUT POSITIVE PROTECTION WORKERS <u>NOT</u> PRESENT	WORKERS PRESENT	WORKERS <u>NOT</u> PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

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

ITEM 808 - DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY
(ASSUMING 8 DSL SIGN ASSEMBLIES FOR 9 MONTHS) = 72 SNMT

ITEM 896 - WORK ZONE QUEUE DETECTION WARNING SYSTEM
THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE QUEUE DETECTION WARNING SYSTEM (WZODWS) AS PER SUPPLEMENTAL SPECIFICATION 896.
THE INITIAL LOCATIONS OF THE PORTABLE NON-INTRUSIVE TRAFFIC SENSOR SHALL BE AT THE BEGINNING OF THE TAPER, 0.5 MILES FROM THE TAPER, AT 1 MILE FROM THE TAPER AND AT 2 MILES FROM THE TAPER. THE INITIAL LOCATION OF PCMS SHALL BE AT 3 MILES FROM THE TAPER. IT IS EXPECTED THAT THESE LOCATIONS WILL VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER. THE FOLLOWING TRAFFIC SENSOR THRESHOLDS AND PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MESSAGES SHALL BE USED: GREATER THAN OR EQUAL TO 50 MPH – USE FOUR CORNER FLASHING CAUTION MODE
BETWEEN 50 MPH AND 25 MPH – TRAFFIC AHEAD XX MPH / SLOW DOWN
BELOW OR EQUAL TO 25 MPH – TRAFFIC AHEAD XX MPH / PREPARE TO STOP
FOUR CORNER FLASHING CAUTION MODE SHALL CONSIST OF THE USE OF ONE ASTERISK IN EACH CORNER OF THE PCMS DISPLAY (4 TOTAL ASTERISKS).
XX SHALL BE ROUNDED UP TO THE NEAREST MULTIPLE OF 5 MPH MINUS 1. OCCUPANCY MAY BE DIRECTED TO BE USED BASED ON CERTAIN TRAFFIC CONDITIONS AND SCENARIOS. ODOT WILL DIRECT THE CONTRACTOR OF THE THRESHOLDS TO BE USED FOR THOSE AREAS WHERE OCCUPANCY IS DIRECTED TO BE USED.

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

ITEM 896 - PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS II
(ASSUMING 4 SENSORS FOR 9 MONTHS) = 36 SNMT

ITEM 896 - PORTABLE CHANGEABLE MESSAGE SIGN
(ASSUMING 2 PCMS FOR 9 MONTHS) = 18 SNMT

ITEM 614 - DETOUR SIGNING, AS PER PLAN
SIZE AND PLACEMENT OF DETOUR SIGNS (M4-9) SHOULD FOLLOW THE REQUIREMENTS OF THE OMUTCD SECTION 6F.03, SECTION 2A.11 AND TABLE 6F.01.

DETOUR SIGNING SHALL PROVIDE DRIVERS ADEQUATE TIME TO CLEARLY READ THE SIGNS AND MAKE THE PROPER DECISIONS AT EACH REQUIRED TURNING MOVEMENT. THE DESIGNATED DETOUR ROUTE SHALL BE SIGNED IN ACCORDANCE WITH THE REQUIREMENTS BELOW:

- APPROXIMATELY 1500 FEET PRIOR TO TIP OF THE PAINTED GORE AT AN INTERCHANGE WHEN EXITING A HIGH SPEED (45 MPH OR HIGHER) FACILITY.
- AT OR NEAR THE EXISTING SIGN IN THE GORE OF AN INTERCHANGE RAMP.
- AT OR NEAR THE FIRST EXISTING LANE ASSIGNMENT SIGN ON AN INTERCHANGE EXIT RAMP.
- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT THE END OF AN EXIT RAMP.
- APPROXIMATELY 500 FEET PRIOR TO A REQUIRED TURN AT AN INTERSECTION NOT CONTROLLED BY A STOP SIGN (FOR 45 MPH OR HIGHER ONLY).
- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT AN INTERSECTION.
- EVERY TWO MILES ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS OUTSIDE A CITY.
- EVERY TWO BLOCKS ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS WITHIN A CITY.
- AT ANY OTHER INTERSECTION OR DECISION POINT WHERE THE DETOUR ROUTE IS CONTRARY TO THE NORMAL, EXPECTED TURNING MANEUVER OR OTHERWISE UNCLEAR.

DETOUR SIGNS SHALL BE PLACED, WHEN POSSIBLE, NEXT TO BUT NOT BLOCKING EXISTING ROUTE MARKERS OR LANE ASSIGNMENT SIGNS. DETOUR SIGNS SHALL NOT OBSCURE OR BE OBSCURED BY OTHER EXISTING OR TEMPORARY SIGNS.

DETOUR SIGNS SHALL BE ERECTED AND/OR UNCOVERED PRIOR TO THE ROAD OR RAMP BEING CLOSED TO TRAFFIC BUT NO EARLIER THAN FOUR HOURS PRIOR TO THE CLOSURE. DETOUR SIGNS SHALL BE COVERED AND/OR REMOVED NO LATER THAN FOUR HOURS FOLLOWING THE ROAD OR RAMP RE-OPENING TO TRAFFIC. PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, PROPER SIGN PLACEMENT AND SIZING, TIMELY ERECTING AND/OR UNCOVERING OF SIGNS, MAINTAINING SIGNS, AND TIMELY COVERING AND/OR REMOVING SIGNS AND SUPPORTS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - DETOUR SIGNING, AS PER PLAN = LUMP SUM

INTERIM COMPLETION DATE:
THIS CONTRACT INCLUDES AN INTERIM COMPLETION DATE AS DESCRIBED IN PN 121 OF 01/18/2019 FOR ALL WORK IDENTIFIED BELOW:

- **WORK ITEM #1**
 - * ALL WORK ITEMS DESCRIBED IN THE PLANS COMPLETED ON **DEL-71 (MAINLINE & RAMPS)**
FROM: STA 84+95.85 (SLM 1.61)
TO: STA 607+20.00 (SLM 11.50)
 - * EXCEPT ITEM(S) 807 - FINAL "PERMANENT" (LONG LINE) WET REFLECTIVE PAVEMENT MARKINGS, WHICH WILL ONLY BE SUBJECT TO THE FINAL COMPLETION DATE.
 - * ITEM(S) 642 - PAINT TYPE 1, 644-THERMO, AND 646-EPOXY HAVE BEEN PROVIDED FOR COMPLETING ALL FINAL "INTERIM" PAVEMENT MARKINGS WHICH WILL BE SUBJECT TO THIS INTERIM COMPLETION DATE .
 - * ITEM 621 - RPM'S WILL BE SUBJECT TO THIS INTERIM COMPLETION DATE .
 - * EXCEPT ALL ITEM(S) INCLUDING OR ASSOCIATED WITH THE PROPOSED GUARDRAIL WORK, WHICH WILL ONLY BE SUBJECT TO THE FINAL COMPLETION DATE.
- **WORK ITEM #2**
 - * ALL ITEM(S) 642 - PAINT TYPE 1A AS DESCRIBED IN THE PLANS COMPLETED ON **DEL-71 (MAINLINE & RAMPS)**
FROM: STA 84+95.85 (SLM 1.61)
TO: STA 607+20.00 (SLM 11.50)
- **WORK ITEM #3**
 - * ALL WORK ITEMS DESCRIBED IN THE PLANS COMPLETED ON **FRA-71 (MAINLINE)**
FROM: STA 1511+27.78 (SLM 28.62)
TO: STA 1577+98.08 (SLM 29.89)
 - * EXCEPT ITEM(S) 807 - FINAL "PERMANENT" (LONG LINE) WET REFLECTIVE PAVEMENT MARKINGS, WHICH WILL ONLY BE SUBJECT TO THE FINAL COMPLETION DATE.
 - * EXCEPT ALL ITEM(S) INCLUDING OR ASSOCIATED WITH THE PROPOSED GUARDRAIL WORK, WHICH WILL ONLY BE SUBJECT TO THE FINAL COMPLETION DATE.
- **DEL-71 (MAINLINE & ASPHALT RAMPS)**
FROM: STA 0+0.00 (SLM 0.00)
TO: STA 84+95.85 (SLM 1.61)
 - * EXCEPT ITEM(S) 807 - FINAL "PERMANENT" (LONG LINE) WET REFLECTIVE PAVEMENT MARKINGS, WHICH WILL ONLY BE SUBJECT TO THE FINAL COMPLETION DATE.
 - * EXCEPT ALL ITEM(S) INCLUDING OR ASSOCIATED WITH THE PROPOSED GUARDRAIL WORK, WHICH WILL ONLY BE SUBJECT TO THE FINAL COMPLETION DATE.

INCENTIVE/DISINCENTIVE CONTRACT TABLE

DESCRIPTION OR LOCATION OF CRITICAL WORK	COMPLETION DATE	TIME PERIOD	DISINCENTIVE \$ PER TIME PERIOD
WORK ITEM #1 DESCRIBED ABOVE	10/15/2027	DAY	\$5,000
WORK ITEM #2 DESCRIBED ABOVE	5/31/2028	DAY	\$5,000
WORK ITEM #3 DESCRIBED ABOVE	7/31/2028	DAY	\$5,000

THE CONTRACTOR IS REQUIRED TO OBTAIN PRIOR AUTHORIZATION FROM THE ENGINEER TO DO ANY WORK AT LOCATIONS NOT LISTED ABOVE IN CALENDAR YEAR 2027.



SHORT DURATION RAMP CLOSURES:

FOR THE PURPOSE OF PERFORMING THE REQUIRED RAMP WORK AND WITH PRIOR APPROVAL FROM THE ENGINEER, ALL RAMPs WITHIN THE PROJECT WORK LIMITS MAY BE CLOSED AND DETOURED DURING THE HOURS LISTED IN THE RAMP CLOSURE RESTRICTION TABLE AND ARE SUBJECT TO DISINCENTIVES AS SHOWN IN THE LANE VALUE CONTRACT TABLE (PN127).

IF THE INTERSTATE IS REDUCED TO ONE THROUGH LANE, ALL NON-INTERSTATE ENTRANCE RAMPs ENTERING DIRECTLY INTO THE WORK ZONE TRANSITION AREA, ACTIVITY AREA OR TERMINATION AREA AS DEFINED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) OR ENTERING WITHIN 1000 FEET OF THE FIRST ARROW BOARD SHALL BE CLOSED IN ACCORDANCE WITH THE SHORT DURATION RAMP CLOSURES NOTE.

FOR ALL RAMP CLOSURES, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

- A MINIMUM OF TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) PLACED, AS DIRECTED BY THE ENGINEER, TO WARN DRIVERS OF THE CLOSURE AND TO PROVIDE THE DESIGNATED DETOUR ROUTE.
- POSITIVE GUIDANCE ALONG THE DETOUR ROUTE WITH DETOUR SIGNS (M4-9 SERIES) IN ACCORDANCE WITH THE DETOUR SIGNS NOTE.

WHEN CLOSING ENTRANCE RAMPs, CORRESPONDING LEAD-IN LANES AND TURN LANES SHALL ALSO BE CLOSED. IF A DESIGNATED DETOUR ROUTE IS NOT PROVIDED IN THE PLANS, TRAFFIC SHALL BE DIRECTED TO THE NEXT INTERCHANGE, IF AVAILABLE, TO TURN AROUND. IF THE USE OF THE NEXT INTERCHANGE IS NOT POSSIBLE, AN ALTERNATIVE DETOUR ROUTE SHALL BE PROVIDED BY THE ENGINEER. FOR CLOSURE PERIODS LESS THAN 72 HOURS, DETOUR SIGNS MAY BE PLACED ON TEMPORARY SIGN SUPPORTS IN ACCORDANCE WITH MT-105.10.

THE DESIGNATED DETOUR ROUTES AND RAMP CLOSURE RESTRICTIONS ARE SHOWN ON ALLOWABLE RAMP CLOSURE RESTRICTION TABLE:

RAMP CLOSURE RESTRICTIONS
INTERSTATE ROUTE 71 IN DELAWARE COUNTY

SECONDARY ROUTE: SR-750 SLM ALONG 71:					
RAMP	MOVEMENT	NO CLOSURES ALLOWED		DETOUR ROUTES	
		MON-FRI	SAT-SUN	PRIMARY DETOUR ROUTE	SECONDARY DETOUR ROUTE
1	SR-750 EB TO I-71SB	5AM-8PM	8AM-8PM	SR-750 TO I-71 NB TO GEMINI PL TO I-71 SB	NONE
2	I-71 NB TO SR-750	5AM-9PM	8AM-9PM	I-71 NB TO GEMINI PL TO ORION PL EB TO SR-750	NONE
3	SR-750 WB TO I-71SB	5AM-7PM	8AM-7PM	SR-750 WB TO LYRA DR NB TO GEMINI PL EB TO I-71	NONE
4	SR-750 TO I-71NB*	5AM-7PM	8AM-7PM	SR-750 TO ORION PL TO GEMINI PL TO I-71 NB	NONE

* WITH PERMISSION FROM LOCAL AGENCY

SECONDARY ROUTE: GEMINI PLACE SLM ALONG 71:					
RAMP	MOVEMENT	NO CLOSURES ALLOWED		DETOUR ROUTES	
		MON-FRI	SAT-SUN	PRIMARY DETOUR ROUTE	SECONDARY DETOUR ROUTE
5	GEMINI PL TO I-71SB	5AM-7PM	8AM-7PM	GEMINI PL TO LYRA DR SB TO SR-750 TO I-71 SB	NONE
6	I-71NB TO GEMINI PL	5AM-7PM	8AM-7PM	I-71 NB TO SR-750 EB TO ORION PL TO GEMINI PL	NONE
7	I-71SB TO GEMINI PL	5AM-7PM	8AM-7PM	I-71 SB TO I-270 EB TO CLEVELAND AVE TO I-270WB TO I-71 NB TO GEMINI PL	NONE
8	GEMINI PL TO I-71NB	5AM-7PM	8AM-7PM	GEMINI PL TO I-71 SB TO I-270 EB TO CLEVELAND AVE TO I-270WB TO I-71 NB TO GEMINI PL	NONE

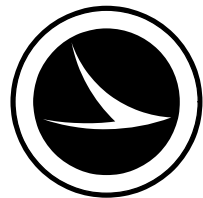
RAMP CLOSURE RESTRICTIONS
INTERSTATE ROUTE 71 IN DELAWARE COUNTY

SECONDARY ROUTE: SUNBURY PARKWAY SLM ALONG 71:					
RAMP	MOVEMENT	NO CLOSURES ALLOWED		DETOUR ROUTES	
		MON-FRI	SAT-SUN	PRIMARY DETOUR ROUTE	SECONDARY DETOUR ROUTE
A	SUNBURY PKWY TO I-71SB	5AM-10PM	5AM-10PM	WILSON RD NB TO US-36/SR-37 WB TO I-71	NONE
B	I-71NB TO SUNBURY PKWY	5AM-7PM	8AM-7PM	I-71 NB TO US-36/SR-37 EB TO WILSON RD SB	NONE

SECONDARY ROUTE: US-36/SR-37 SLM ALONG 71:					
RAMP	MOVEMENT	NO CLOSURES ALLOWED		DETOUR ROUTES	
		MON-FRI	SAT-SUN	PRIMARY DETOUR ROUTE	SECONDARY DETOUR ROUTE
A	US-36/SR-37 TO I-71SB	5AM-10PM	5AM-10PM	US-36/SR-37 TO I-71 NB TO SR-61 TO I-71 SB	NONE
B	I-71SB TO US-36/SR-37	5AM-10PM	5AM-10PM	I-71 SB TO GEMINI PL TO I-71 NB TO US-36/SR-37	NONE
C	US-36/SR-37 TO I-71NB	5AM-10PM	5AM-10PM	US-36/SR-37 TO I-71 SB TO GEMINI PL TO I-71 NB	NONE
D	I-71NB TO US-36/SR-37	5AM-10PM	5AM-10PM	I-71 NB TO SR-61 TO I-71 SB TO US-36/SR-37	I-71 NB TO SUNBURY PKWY TO WILSON RD TO US-36/SR-37*

* WITH PERMISSION FROM LOCAL AGENCY

DESIGN AGENCY



DESIGNER

DKR

REVIEWER

KLM 02/26/26

PROJECT ID

114906

SHEET

P.19

TOTAL

75

LANE VALUE CONTRACT(PN 127):
THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE FOR EACH UNIT OF TIME A LANE/SHOULDER/RAMP IS CLOSED BY THE CONTRACTOR'S ACTION WHILE NOT OTHERWISE PERMITTED BY THE LANE VALUE CONTRACT TABLE AS SHOWN BELOW:

LANE VALUE CONTRACT TABLE (PER PN 127)						
FRA-71						
SECTION (SLM)	EXISTING NO. OF LANES PER DIRECTION	LANE CLOSURES ARE NOT PERMITTED:				DISINCENTIVE AMOUNTS PER MINUTE PER LANE
		LANE REDUCTION	MON TO FRI	SAT	SUN	
AT I-270 (NORTH SIDE) (27.76 - 28.92)	3	3 TO 2	5AM-8PM	7AM-9AM 2PM-7PM	7AM-9AM 2PM-7PM	\$365
		3 TO 1	5AM-11PM	6AM-11PM	6AM-11PM	\$330
I-270 (NORTH SIDE) (28.92) TO DELAWARE COUNTY LINE (29.89)	4	4 TO 3	5AM-7PM	7AM-7PM	7AM-7PM	\$440
		4 TO 2	5AM-9PM	6AM-9PM	6AM-10PM	\$440
		4 TO 1	5AM-11PM	5AM-11PM	5AM-11PM	\$440
SHORT TERM SHOULDER CLOSURES ARE NOT PERMITTED 5AM-9AM AND 3PM-6PM MONDAY-FRIDAY.						

LANE VALUE CONTRACT TABLE (PER PN 127)						
DEL-71						
SECTION (SLM)	EXISTING NO. OF LANES PER DIRECTION	LANE CLOSURES ARE NOT PERMITTED:				DISINCENTIVE AMOUNTS PER MINUTE PER LANE
		LANE REDUCTION	MON TO FRI	SAT	SUN	
FRANKLIN COUNTY LINE (0.00) TO (1.42) POWELL ROAD OVERPASS (NORTHBOUND)	4	4 TO 3	5AM-7PM	5AM-8PM	8AM-6PM	\$395
		4 TO 2	5AM-9PM	5AM-9PM	7AM-8PM	\$395
		4 TO 1	5AM-11PM	5AM-11PM	6AM-11PM	\$395
FRANKLIN COUNTY LINE (0.00) TO (1.42) POWELL ROAD OVERPASS (SOUTHBOUND)	3	3 TO 2	5AM-9PM	5AM-9PM	8AM-8PM	\$530
		3 TO 1	5AM-11PM	5AM-11PM	6AM-11PM	\$530
POWELL ROAD OVERPASS (1.42) TO (11.50) ½ MILE NORTH OF BERKSHIRE ROAD OVERPASS (NORTHBOUND)	3	3 TO 2	6AM-7PM	6AM-8PM	8AM-7PM	\$290
		3 TO 1	6AM-10PM	6AM-10PM	7AM-10PM	\$290
POWELL ROAD OVERPASS (1.42) TO (11.50) ½ MILE NORTH OF BERKSHIRE ROAD OVERPASS (SOUTHBOUND)	3	3 TO 2	5AM-7PM	5AM-8PM	8AM-8PM	\$290
		3 TO 1	5AM-11PM	5AM-11PM	6AM-11PM	\$290
½ MILE NORTH OF BERKSHIRE ROAD OVERPASS (11.50) TO (17.23) MORROW COUNTY LINE	3	3 TO 2	2PM-5PM	1PM-6PM	NO RESTRICTION	\$290
		3 TO 1	5AM-9PM	5AM-10PM	7AM-10PM	\$290
1-71 CD LANE GORE (8.31) TO US-36 (9.56) COLLECTOR DISTRIBUTOR NB	2	2 TO 1	5AM-8PM	6AM-7PM	6AM-7PM	\$80
SHORT TERM SHOULDER CLOSURES ARE NOT PERMITTED 5AM-9AM AND 3PM-6PM MONDAY-FRIDAY.						

LANE VALUE CONTRACT TABLE (PER PN 127)						
DEL-71 RAMPS @ SR-750						
RAMP	MOVEMENT	LANE REDUCTION	LANE CLOSURES ARE NOT PERMITTED:			DISINCENTIVE AMOUNTS PER MINUTE
			MON TO FRI	SAT	SUN	
1	SR-750 EB TO I-71SB	LANE/RAMP CLOSURE	5AM-8PM	8AM-8PM	8AM-8PM	\$175
2	I-71 NB TO SR-750	LANE/RAMP CLOSURE	5AM-9PM	8AM-9PM	8AM-9PM	\$210
3	SR-750 WB TO I-71SB	LANE/RAMP CLOSURE	5AM-7PM	8AM-7PM	8AM-7PM	\$95
4	SR-750 TO I-71NB	LANE/RAMP CLOSURE	5AM-7PM	8AM-7PM	8AM-7PM	\$20

LANE VALUE CONTRACT TABLE (PER PN 127)						
DEL-71 RAMPS @ GEMINI PLACE						
RAMP	MOVEMENT	LANE REDUCTION	LANE CLOSURES ARE NOT PERMITTED:			DISINCENTIVE AMOUNTS PER MINUTE
			MON TO FRI	SAT	SUN	
5	GEMINI PL TO I-71SB	LANE/RAMP CLOSURE	5AM-7PM	8AM-7PM	8AM-7PM	\$155
6	I-71NB TO GEMINI PL	LANE/RAMP CLOSURE	5AM-7PM	8AM-7PM	8AM-7PM	\$200
7	I-71SB TO GEMINI PL	LANE/RAMP CLOSURE	5AM-7PM	8AM-7PM	8AM-7PM	\$55
8	GEMINI PL TO I-71NB	LANE/RAMP CLOSURE	5AM-7PM	8AM-7PM	8AM-7PM	\$60

LANE VALUE CONTRACT TABLE (PER PN 127)						
DEL-71 RAMPS @ SUNBURY PARKWAY						
RAMP	MOVEMENT	LANE REDUCTION	LANE CLOSURES ARE NOT PERMITTED:			DISINCENTIVE AMOUNTS PER MINUTE
			MON TO FRI	SAT	SUN	
A	SUNBURY PKWY TO I-71SB	LANE/RAMP CLOSURE	5AM-10PM	5AM-10PM	5AM-10PM	\$115
B	I-71NB TO SUNBURY PKWY	LANE/RAMP CLOSURE	5AM-7PM	8AM-7PM	8AM-7PM	\$130

LANE VALUE CONTRACT TABLE (PER PN 127)						
DEL-71 RAMPS @ US-36/SR-37						
RAMP	MOVEMENT	LANE REDUCTION	LANE CLOSURES ARE NOT PERMITTED:			DISINCENTIVE AMOUNTS PER MINUTE
			MON TO FRI	SAT	SUN	
A	US-36/SR-37 TO I-71SB	LANE/RAMP CLOSURE	5AM-10PM	5AM-10PM	5AM-10PM	\$240
B	TO I-71SB TO US-36/SR-37	LANE/RAMP CLOSURE	5AM-10PM	5AM-10PM	5AM-10PM	\$50
C	US-36/SR-37 TO I-71NB	LANE/RAMP CLOSURE	5AM-10PM	5AM-10PM	5AM-10PM	\$55
D	I-71NB TO US-36/SR-37	LANE/RAMP CLOSURE	5AM-10PM	5AM-10PM	5AM-10PM	\$190



SHEET NUMBER										PARTICIPATION				ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.13-P.15	P.16-P.20	P.23	P.64	P.68	P.69					01/IMS									
																		ROADWAY	
			38756.25							38756.25				202	38001	38756.25	FT	GUARDRAIL REMOVED, AS PER PLAN	P.13
			56							56				202	42011	56	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E, AS PER PLAN	P.13
			7							7				202	47801	7	EACH	IMPACT ATTENUATOR REMOVED, AS PER PLAN	P.13
			3027							3027				203	20001	3027	CY	EMBANKMENT, AS PER PLAN	P.13
			409.3							409.3				209	60200	409.3	STA	LINEAR GRADING	
			15800							15800				606	15050	15800	FT	GUARDRAIL, TYPE MGS	
			21056.25							21056.25				606	15100	21056.25	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
			487.5							487.5				606	15550	487.5	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
			56							56				606	26150	56	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
			40							40				606	26550	40	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			39							39				606	35002	39	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
			17							17				606	35102	17	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
			1							1				606	60002	1	EACH	IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL)	
			6							6				606	60012	6	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	
			12							12				606	98100	12	EACH	GUARDRAIL, MISC.:TYPE 2 NOSE ASSEMBLY	P.14
200										200				606	98000	200	FT	GUARDRAIL, MISC.:ALTERNATIVE GUARDRAIL PLACEMENT	P.14
			4							4				625	32000	4	EACH	GROUND ROD	
																		EROSION CONTROL	
				411						411				659	00300	411	CY	TOPSOIL	
			3638							3638				659	10000	3638	SY	SEEDING AND MULCHING	
				187						187				659	14000	187	SY	REPAIR SEEDING AND MULCHING	
				187						187				659	15000	187	SY	INTER-SEEDING	
				0.5						0.5				659	20000	0.5	TON	COMMERCIAL FERTILIZER	
				0.77						0.77				659	31000	0.77	ACRE	LIME	
				20						20				659	35000	20	MGAL	WATER	
										1000				832	30000	1000	EACH	EROSION CONTROL	
																		DRAINAGE	
4										4				611	98630	4	EACH	CATCH BASIN ADJUSTED TO GRADE	
4										4				611	99654	4	EACH	MANHOLE ADJUSTED TO GRADE	
																		PAVEMENT	
10000										10000				251	01040	10000	SY	PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), 4.5"	
		685889								685889				254	01000	685889	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.75"	
			5415							5415				255	19100	5415	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS RS, 9"	
			1765							1765				255	19100	1765	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS RS, 10"	
			1511							1511				255	19100	1511	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS RS, 11"	
			12404							12404				255	20000	12404	FT	FULL DEPTH PAVEMENT SAWING	
			13037							13037				257	10000	13037	SY	DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT	
LS										LS				SPECIAL	40010000	LS		PAVER MOUNTED THERMAL PROFILING (PMTF)	P.15
		79915								79915				407	20000	79915	GAL	NON-TRACKING TACK COAT	
		7064								7064				424	14000	7064	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (448)	
		20747								20747				442	00100	20747	CY	ANTI-SEGREGATION EQUIPMENT	
		33303								33303				442	10301	33303	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN, PG70-22	P.14
		38								38				442	22100	38	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449)	
		1780								1780				617	10100	1780	CY	COMPACTED AGGREGATE	
		27345								27345				617	20000	27345	SY	SHOULDER PREPARATION	
10										10				617	25000	10	MGAL	WATER	
		40.99								40.99				618	40600	40.99	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
LS										LS				SPECIAL	69098400	LS		INTELLIGENT COMPACTION (IC)	P.15
		254287								254287				897	01010	254287	SY	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A, 1.0"	
																		WATER WORK	
4										4				638	10800	4	EACH	VALVE BOX ADJUSTED TO GRADE	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

DKR

REVIEWER

KLM 02/26/26

PROJECT ID

114906

SHEET

P.21

TOTAL

75

SHEET NUMBER										PARTICIPATION				ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.13-P.15	P.16-P.20	P.23	P.64	P.68	P.69					01/IMS									
																		TRAFFIC CONTROL	
					3292					3292				621	00100	3292	EACH	RPM	
45					3292					3292				621	54000	3292	EACH	RAISED PAVEMENT MARKER REMOVED	
			521							45				626	00102	45	EACH	BARRIER REFLECTOR, TYPE 1, 1-WAY	
										521				626	00110	521	EACH	BARRIER REFLECTOR, TYPE 2, 1-WAY	
					39.53					39.53				642	00104	39.53	MILE	EDGE LINE, 6", TYPE 1	
					39.53					39.53				642	00114	39.53	MILE	EDGE LINE, 6", TYPE 1A	
					39.56					39.56				642	00204	39.56	MILE	LANE LINE, 6", TYPE 1	
					39.56					39.56				642	00214	39.56	MILE	LANE LINE, 6", TYPE 1A	
					8034					8034				642	00404	8034	FT	CHANNELIZING LINE, 12", TYPE 1	
					8034					8034				642	00414	8034	FT	CHANNELIZING LINE, 12", TYPE 1A	
					4965					4965				642	01510	4965	FT	DOTTED LINE, 6", TYPE 1	
					4965					4965				642	01516	4965	FT	DOTTED LINE, 6", TYPE 1A	
					53					53				644	00500	53	FT	STOP LINE	
					150					150				644	00620	150	FT	CROSSWALK LINE, 12"	
					26					26				644	00700	26	FT	TRANSVERSE/DIAGONAL LINE	
					745					745				644	00720	745	FT	CHEVRON MARKING	
					17					17				644	01300	17	EACH	LANE ARROW	
					1					1				644	01350	1	EACH	LANE REDUCTION ARROW	
					1					1				644	01360	1	EACH	WRONG WAY ARROW	
6										6				644	40000	6	EACH	SPEED MEASUREMENT MARKING	
					15					15				646	20300	15	EACH	LANE ARROW	
					5					5				646	20400	5	EACH	WORD ON PAVEMENT, 72", "ONLY"	
					3.85					3.85				807	12010	3.85	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
					1.26					1.26				807	12110	1.26	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
					4082					4082				807	12310	4082	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	
					239					239				807	12410	239	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"	
					50.89					50.89				807	14010	50.89	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
					53.40					53.40				807	14110	53.40	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
					20162					20162				807	14310	20162	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
					12311					12311				807	14410	12311	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
					104.29					104.29				850	10010	104.29	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					12311					12311				850	10110	12311	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					20162					20162				850	10130	20162	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
					5.11					5.11				850	20010	5.11	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
					239					239				850	20110	239	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
					4082					4082				850	20130	4082	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	
																		MAINTENANCE OF TRAFFIC	
	1800									1800				614	11110	1800	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	LS									LS				614	12421	LS		DETOUR SIGNING, AS PER PLAN	P.18
	55									55				614	12460	55	EACH	WORK ZONE MARKING SIGN	
	36									36				614	18601	36	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P.17
	53.78									53.78				614	20560	53.78	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
	51.38									51.38				614	22360	51.38	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
	20571									20571				614	23690	20571	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
	12335									12335				614	24612	12335	FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	
	53									53				614	26610	53	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
	32									32				614	30650	32	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
	72									72				808	18700	72	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
	36									36				896	00012	36	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS II	
	18									18				896	00020	18	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN	
																		INCIDENTALS	
										LS				614	11000	LS		MAINTAINING TRAFFIC	
										LS				623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	P.15
										LS				624	10000	LS		MOBILIZATION	

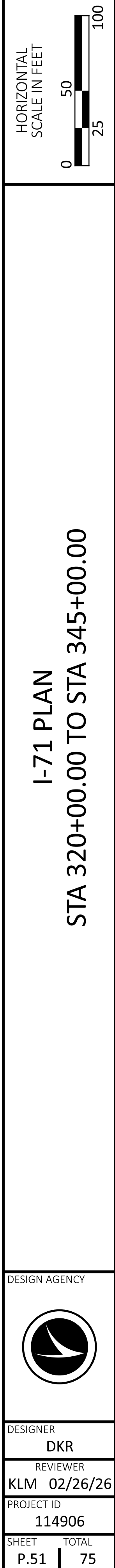


PAVEMENT SUBSUMMARY

LOCATION						PAVEMENT														
S H E E T	R O U T E	B E G S T A	E N D S T A	B E G S L M	E N D S L M	254	255	255	255	255	257	407	424	442	442	442	617	617	618	897
						PAVEMENT PLANING, ASPHALT CONCRETE, 1.75"	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS RS, 9"	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS RS, 10"	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS RS, 11"	FULL DEPTH PAVEMENT SAWING	DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAEMENT	NON-TRACKING TACK COAT	FINE GRADED POLYMER ASPHALT, TYPE B (448)	ANTI-SEGREGATION EQUIPMENT	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, AS PER PLAN, (447) PG70-22	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (449)	COMPACTED AGGREGATE	SHOULDER PREPARATION	RUMBLE STRIPS, SHOULDER (ASPHALT)	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A, 1.0"
						SQ YD	SY	SY	SY	FT	SY	GAL	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	SQ YD	MILE
FRA-71 MAINLINE PAVING																				
P.24	FRA-71	1511+27.78	1577+98.08	28.62	29.89							6818	2227				60	967		80186
DEL-71 MAINLINE PAVING																				
P.25	DEL-71	0+00.00	607+20.00	0.00	11.50	67611						70406	4226	20311	32867		1349	23952	40.99	152133
VARIOUS ASPHALT RAMPS & CROSSTOVERS PAVING																				
P.26						9772						2697	610	436	436	38	371	2426		21968
VARIOUS CONCRETE RAMPS REPAIR																				
P.27							500		1511	4138	3017									
P.28							2687	1312		5343	5998									
P.29							2228	453		2923	4022									
TOTALS CARRIED TO THE GENERAL SUMMARY						685889	5415	1765	1511	12404	13037	79915	7064	20747	33303	38	1780	27345	40.99	254287

LOCATION								DESIGN																	QUANTITIES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
S H E E T	R O U T E	B E G S T A	E N D S T A	B E G S L M	E N D S L M	L E N G T H	L E N G T H	T Y P I C A L	AVG LANE WIDTHS																	TOTAL PAVEMENT AREA		254 PAVEMENT PLANING, ASPHALT CONCRETE, 1.75"	407 NON-TRACKING TACK COAT		424 FINE GRADED POLYMER ASPHALT, TYPE B (448)		442 ANTI-SEGREGATION EQUIPMENT	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM,TYPE A, AS PER PLAN, (447) PG70-22		617 COMPACTED AGGREGATE	617 SHOULDER PREPARATION	618 RUMBLE STRIPS, SHOULDER (ASPHALT)	897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A, 1.0"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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						FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	SQ FT	SQ YD	SQ YD	GAL	INCH		CU YD	CU YD	INCH	CU YD		CU YD	SQ YD					MILE	SQ YD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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PAVEMENT CALCULATIONS DEL-71 RAMPS	
	
DESIGNER	
DKR	
REVIEWER	
KLM	02/26/26
PROJECT ID	
114906	
SHEET	TOTAL
P.26	75



LEGEND:

RESURFACING LIMITS

GR-X GUARDRAIL WORK LOCATION

FOR PAVEMENT CALCULATIONS AND QUANTITIES, SEE SHEETS P.24 - P.26 .

FOR PLAN QUANTITIES, SEE SHEETS P.65 - P.67 .

FOR PLAN TRAFFIC CONTROL QUANTITIES, SEE SHEETS P.70 - P.73 .

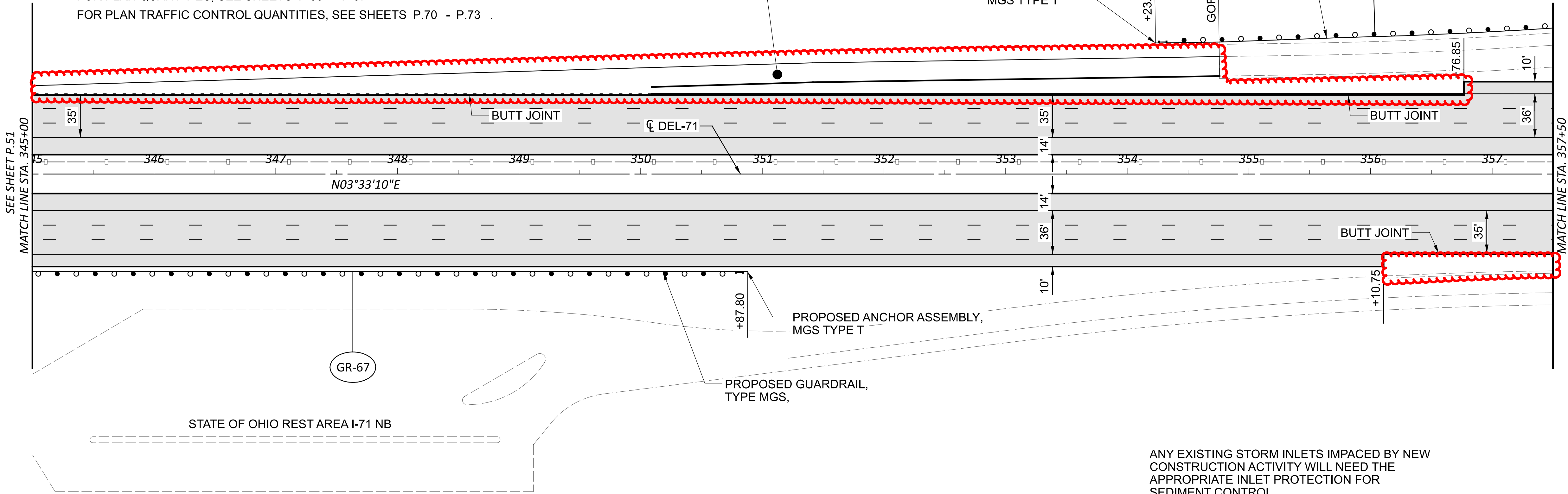
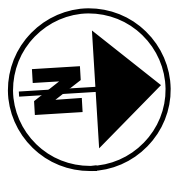
OHIO REST AREA TO I-71 SB RAMP
PROPOSED PAVEMENT MARKING, RPM'S
AND SHOULDER RUMBLE STRIPS
(RESURFACING PERFORMED BY OTHERS)

BERKSHIRE TOWNSHIP

PROPOSED ANCHOR ASSEMBLY,
MGS TYPE T

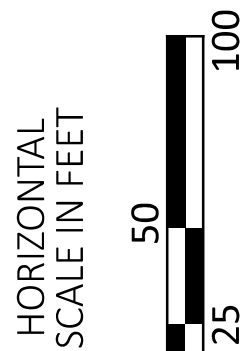
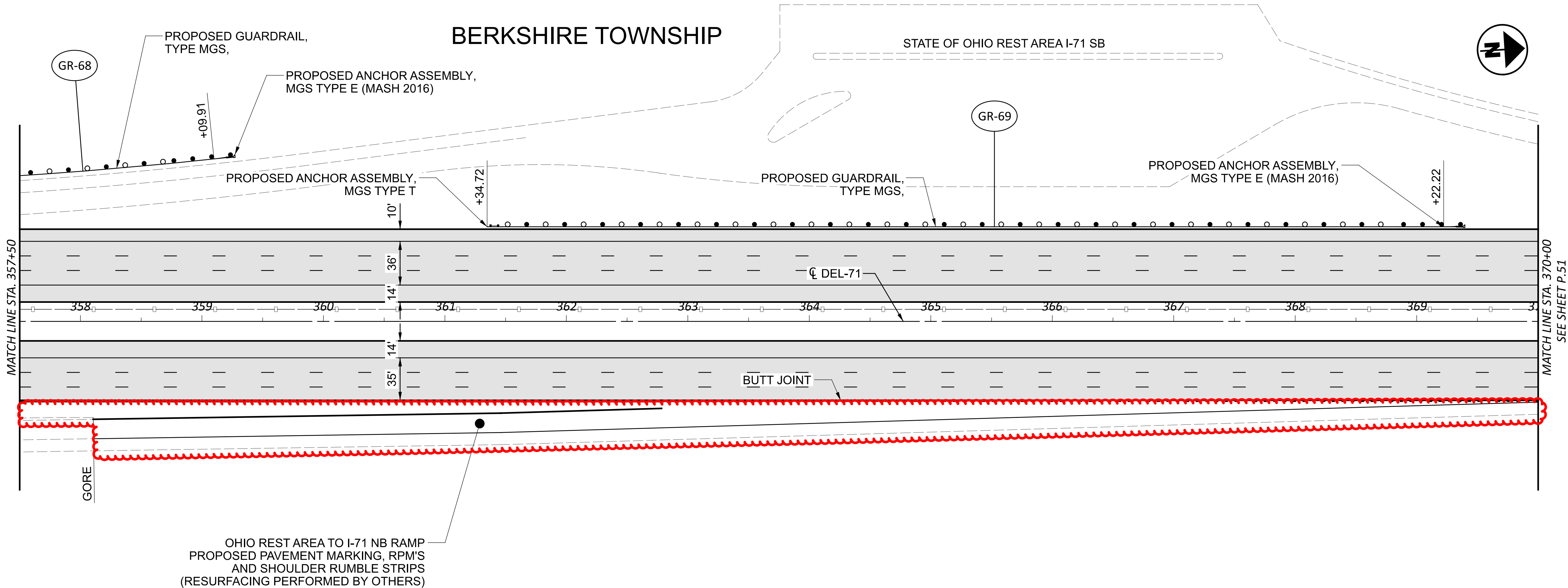
PROPOSED GUARDRAIL,
TYPE MGS,

GR-68



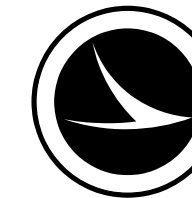
BERKSHIRE TOWNSHIP

STATE OF OHIO REST AREA I-71 SB



I-71 PLAN
STA 345+00.00 TO STA 370+00.00

DESIGN AGENCY



DESIGNER

DKR

REVIEWER

KLM 02/26/26

PROJECT ID

114906

SHEET

P.52

TOTAL

75



A horizontal scale bar labeled "HORIZONTAL SCALE IN FEET". The bar has three segments: a black segment from 0 to 25, a white segment from 25 to 50, and a black segment from 50 to 100. Numerical labels 25, 50, and 100 are placed below the bar at their respective positions.

I-71 PLAN
STA 370+00.00 TO STA 395+00.00

DESIGN AGENCY



DESIGNER

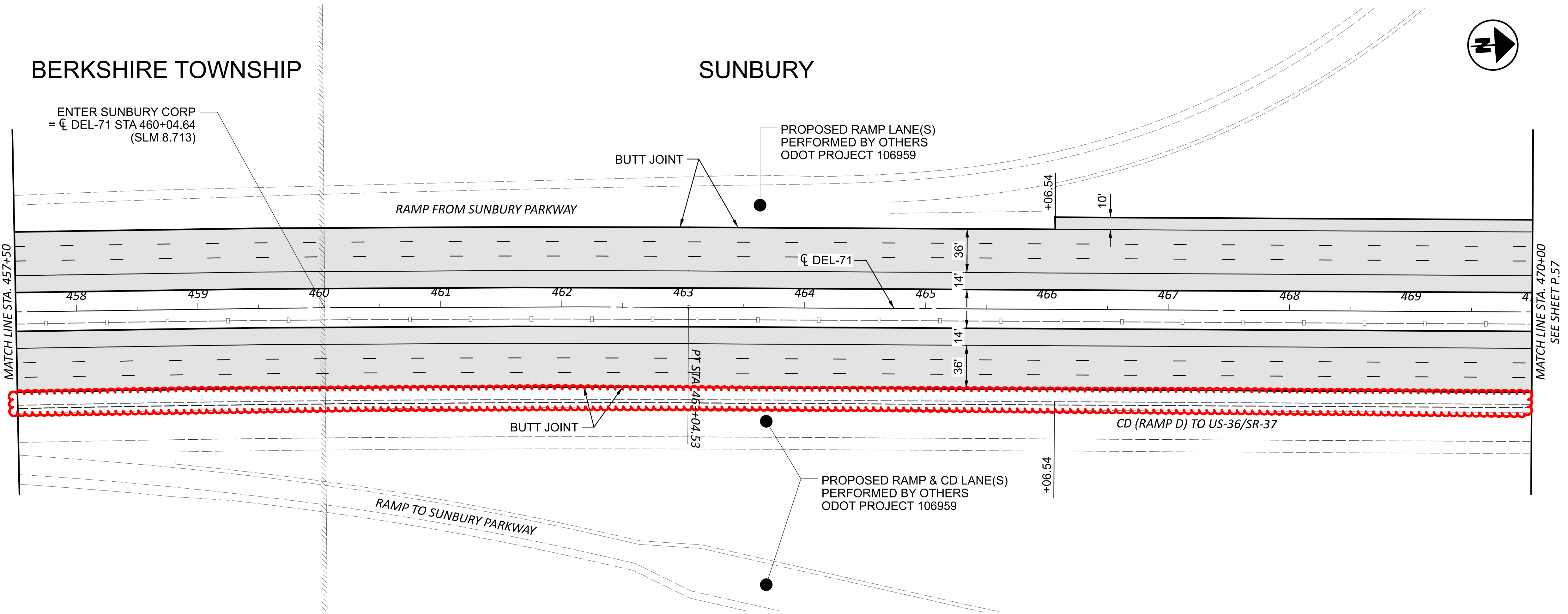
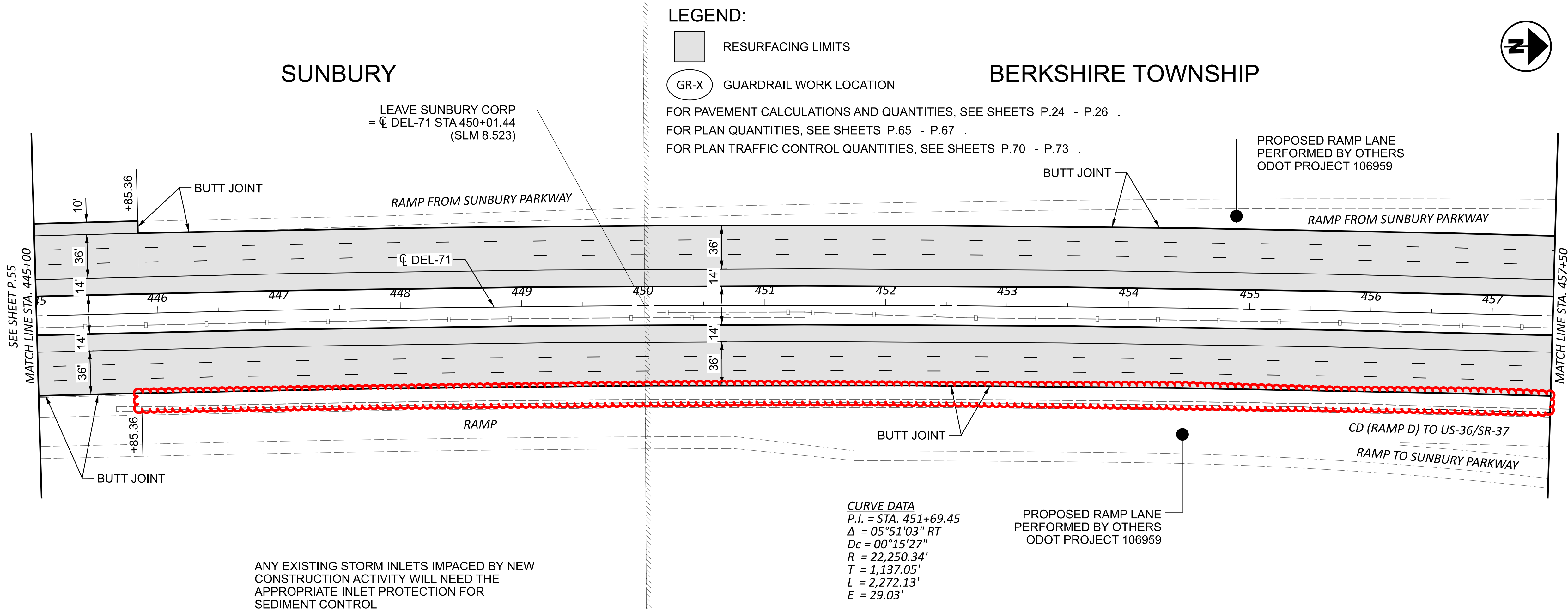
DKF

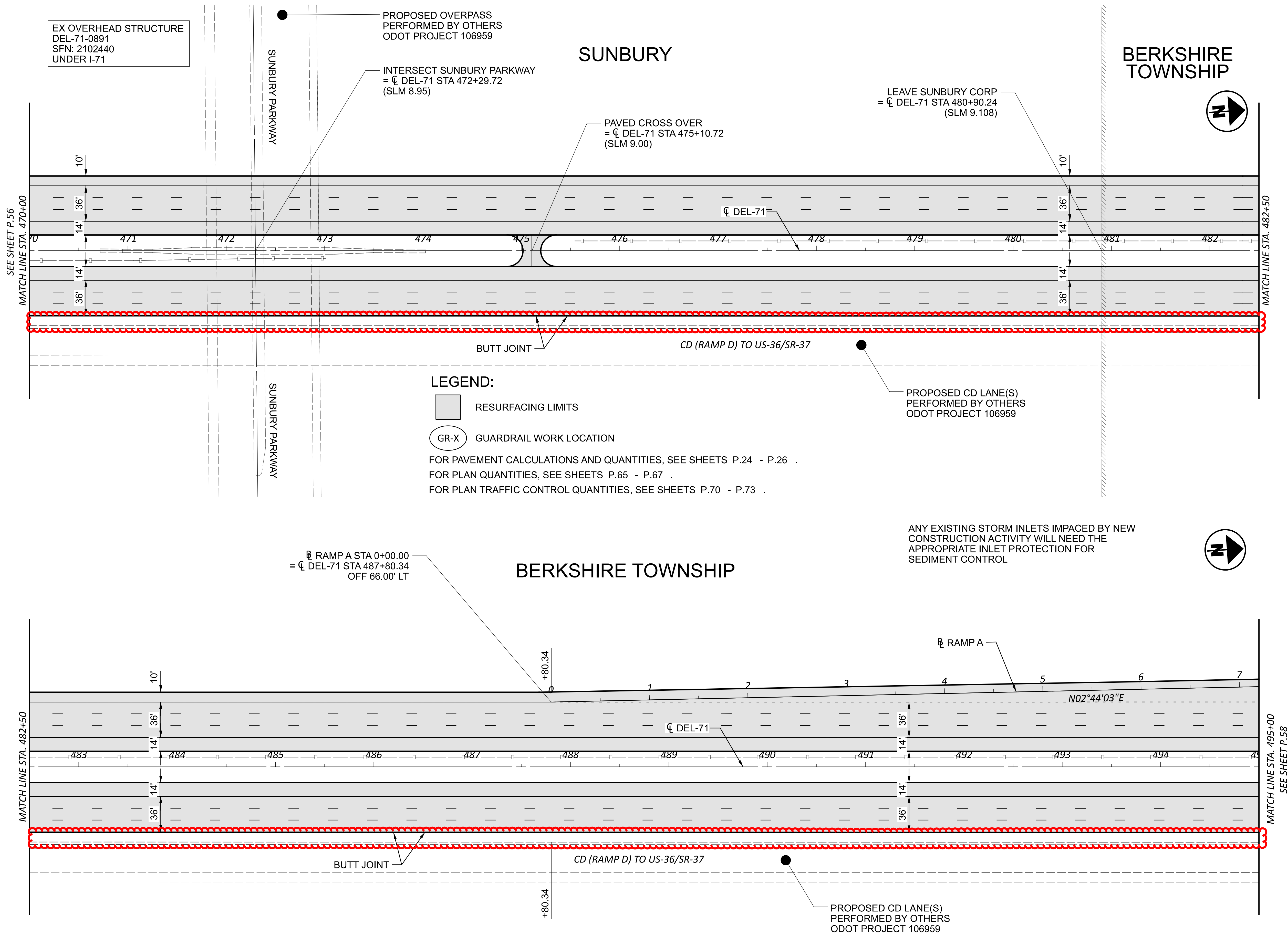
REVIEWER

KLM 02/26/20

PROJECT ID
114906

SHEET	TOTAL
P.53	7





HORIZONTAL
SCALE IN FEET

0

25

50

100

I-71 PLAN

STA 470+00.00 TO STA 495+00.00

DESIGN AGENCY

DESIGNER

DKR

REVIEWER

KLM 02/26/26

PROJECT ID

114906

SHEET

P.57

TOTAL

75

SHEET	TOTAL
P.58	75

TRAFFIC CONTROL SUBSUMMARY

LOCATION		642 - PAINT, TYPE 1				642 - PAINT, TYPE 1A				644 - THERMO						646 - EPOXY		807 - EPOXY				807 - THERMO				850 - GROOVING						621 - RPM		
S H E E T	LOCATION	EDGE LINE, 6"	LANE LINE, 6"	CHANNELIZING LINE, 12"	DOTTED LINE, 6"	EDGE LINE, 6"	LANE LINE, 6"	CHANNELIZING LINE, 12"	DOTTED LINE, 6"	STOP LINE	CROSSWALK LINE, 12"	TRANSVERSE / DIAGONAL LINE	CHEVRON MARKING	LANE ARROW	LANE REDUCTION ARROW	WRONG WAY ARROW	LANE ARROW	WORD ON PAVEMENT, 72", "ONLY"	EDGE LINE, 6"	LANE LINE, 6"	CHANNELIZING LINE, 12"	DOTTED LINE, 6"	EDGE LINE, 6"	LANE LINE, 6"	CHANNELIZING LINE, 12"	DOTTED LINE, 6"	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (CONCRETE)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (CONCRETE)	GROOVING FOR 12" RECESSED PAVEMENT MARKING (CONCRETE)	RAISED PAVEMENT MARKER REMOVED	RPM
		MI	MI	FT	FT	MI	MI	FT	FT	FT	FT	FT	FT	EA	EA	EA	EA	EA	EA	MI	MI	FT	FT	MI	MI	FT	FT	MI	FT	FT	MI	FT	FT	EA
P.70	DEL-71 NB	19.61	19.77	3014	2012	19.61	19.77	3014	2012				128																				995	995
P.71	DEL-71 SB	19.92	19.79	5020	2953	19.92	19.79	5020	2953				271																			1097	1097	
P.72	FRA-71 NB & DEL-71 NB												286						0.37	0.41			22.97	24.61	9438	7329	47.58	7329	9438	0.78			487	487
P.73	FRA-71 SB & DEL-71 SB												60						0.37	0.41			25.15	28.19	9369	4456	53.34	4456	9369	0.78			550	550
P.74	VARIOUS ASPHALT RAMPS									53	150	26		17	1	1							2.77	0.60	1355	526	3.37	526	1355				110	110
P.75	VARIOUS CONCRETE RAMPS																15	5	3.11	0.44	4082	239								3.55	239	4082	53	53
TOTALS CARRIED TO THE GENERAL SUMMARY		39.53	39.56	8034	4965	39.53	39.56	8034	4965	53	150	26	745	17	1	1	15	5	3.85	1.26	4082	239	50.89	53.40	20162	12311	104.29	12311	20162	5.11	239	4082	3292	3292

DESIGN OF A PROPOSED KINEMATICALLY REDUNDANT ROBOTIC ARM WITH A REDUNDANT JOINT

\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 06\Delaware\114906\400-Engineering\Roadway Sheets\114906 TC001.dgn

PAVEMENT MARKING QUANTITIES
DEL-71 SOUTHBOUND

DK

KLM 02/26/2026

114906

P.71 | 7

LOCATION							644 - THERMO								807 - EPOXY				807 - THERMO				850 - GROOVING						621 - RAISED PAVEMENT MARKERS									621			
S H E E T N O	C O U N T Y	R O U T E	B E G S T A	E N D S T A	L E N G T H	L E N G T H	STOP LINE	CROSSWALK LINE, 12"	TRANSVERSE / DIAGONAL LINE	CHEVRON MARKING	LANE ARROWS				LANE REDUCTION ARROW	WRONG WAY ARROW	EDGE LINE, 6"		LANE LINE, 6"	CHANNELIZING LINE, 12"	EDGE LINE, 6"		LANE LINE, 6"	CHANNELIZING LINE, 12"	DOTTED LINE, 6"	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (CONCRETE)	GROOVING FOR 12" RECESSED PAVEMENT MARKING (CONCRETE)	TWO WAY					ONE WAY			RAISED PAVEMENT MARKER REMOVED	RPM	
											LEFT	LEFT THRU	RIGHT THRU	RIGHT			WHITE RED				YELLOW RED										WHITE										
					W	Y											MILE	MILE			MILE	FT									FT	MILE	FT	FT	CHANN-ELIZING LINE	LANE LINE	DOTTED LINE	LEFT EDGE LINE			RIGHT EDGE LINE
					MILE	FT	FT	FT	FT	FT	EA	EA	EA	EA	EA	EA	MILE	MILE	MILE	FT	MILE	MILE	MILE	FT	FT	MILE	FT	FT	MILE	FT	40'	80'	60'	40'	80'	40'	80'	120'	EA	EA	
			FRA-71 MAINLINE SOUTHBOUND																																						
P.23	FRA	I-71SB	1511+27.78	1522+50.00	0.213	1122															0.213	0.213	0.830	54	92	1.256	92	54			2		2					37	41	41	
P.24	FRA	I-71SB	1522+50.00	1535+00.00	0.237	1250															0.237	0.237	0.948			1.422											42	42	42		
P.25	FRA	I-71SB	1535+00.00	1547+50.00	0.237	1250															0.237	0.237	0.948			1.422											42	42	42		
P.26	FRA	I-71SB	1547+50.00	1560+00.00	0.237	1250															0.237	0.237	0.948			1.422											42	42	42		
P.27	FRA	I-71SB	1560+00.00	1572+50.00	0.237	1250															0.237	0.237	0.948			1.422											42	42	42		
P.28	FRA	I-71SB	1572+50.00	1574+45.98	0.037	196															0.037	0.037	0.148			0.222											7	7	7		
STRUCTURE FRA-71-2983					0.036	188											0.036	0.036	0.108										0.180												
P.28	FRA	I-71SB	1576+34.13	1577+98.08	0.031	164															0.031	0.031	0.124			0.186											6	6	6		
			DEL-71 MAINLINE SOUTHBOUND																																						
P.35	DEL	I-71SB	0+00.00	7+00.00	0.133	700															0.133	0.133	0.420	855		0.686			855			22		60'	40'	80'			19	41	41
P.36	DEL	I-71SB	7+00.00	19+50.00	0.237	1250															0.237	0.237	0.474	3393	325	0.948	325	3393			85		6						21	112	112
P.37	DEL	I-71SB	19+50.00	32+50.00	0.246	1300															0.246	0.246	0.492		970	0.984	970						17					22	39	39	
P.38	DEL	I-71SB	32+50.00	45+00.00	0.237	1250															0.237	0.237	0.474	970	32	0.948	32	970			25		1					21	47	47	
P.39	DEL	I-71SB	45+00.00	57+50.00	0.237	1250															0.237	0.237	0.474			0.948											21	21	21		
P.40	DEL	I-71SB	57+50.00	70+00.00	0.237	1250					60										0.237	0.237	0.474	432	610	0.948	610	432			11		11					21	43	43	
P.41	DEL	I-71SB	70+00.00	84+95.85	0.283	1496															0.283	0.283	0.566			1.132											25	25	25		
P.41	DEL	I-71SB	84+95.85	95+00.00	0.190	1004															0.190	0.190	0.380			0.760															
P.42	DEL	I-71SB	84+95.85	120+00.00	0.664	3504															0.664	0.664	1.328			2.656															
P.43	DEL	I-71SB	120+00.00	129+91.31	0.188	991															0.188	0.188	0.376			0.752															
STRUCTURE DEL-71-0247					0.038	200											0.038	0.038	0.076										0.152												
P.43	DEL	I-71SB	131+90.83	145+00.00	0.248	1309															0.248	0.248	0.496			0.992															
P.44	DEL	I-71SB	145+00.00	151+69.08	0.127	669															0.127	0.127	0.254			0.508															
STRUCTURE DEL-71-0288					0.064	340											0.064	0.064	0.128											0.256											
P.44	DEL	I-71SB	155+09.09	162+27.19	0.136	718															0.136	0.136	0.272			0.544															
STRUCTURE DEL-71-0308					0.016	87											0.016	0.016	0.032												0.064										
P.44	DEL	I-71SB	163+14.19	170+00.00	0.130	686															0.130	0.130	0.260			0.520															
P.45	DEL	I-71SB	170+00.00	186+97.91	0.322	1698															0.322	0.322	0.644			1.288															
STRUCTURE DEL-71-0355					0.024	129											0.024	0.024	0.048												0.096										
P.45	DEL	I-71SB	188+27.19	195+00.00	0.127	673																																			

LOCATION							644 - THERMO								807 - EPOXY			807 - THERMO			850 - GROOVING						621 - RAISED PAVEMENT MARKERS						621			
S H E E T N O	C O U N T Y	R O U T E	B E G S T A	E N D S T A	L E N G T H	L E N G T H	STOP LINE	CROSSWALK LINE, 12"	TRANSVERSE / DIAGONAL LINE	CHEVRON MARKING	LANE ARROWS				LANE REDUCTION ARROW	WRONG WAY ARROW	EDGE LINE, 6"		LANE LINE, 6"	CHANNELIZING LINE, 12"	DOTTED LINE, 6"	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (CONCRETE)	GROOVING FOR 12" RECESSED PAVEMENT MARKING (CONCRETE)	TWO WAY				ONE WAY			RAISED PAVEMENT MARKER REMOVED	RPM	
											LEFT	LEFT THRU	RIGHT THRU	RIGHT			W	Y									WHITE RED		YELLOW RED		WHITE					
					EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
			DEL-71 (ASPHALT RAMPS)																																	
P.35		RAMP 6	12+25.23	26+33.45	0.267	1408																													36	36
P.36		RAMP 6	26+33.45	39+35.21	0.247	1302																													34	34
P.37		RAMP 6	39+35.21	42+90.14	0.067	355																													10	10
P.36		RAMP 5A	13+07.10	15+36.87	0.044	230																													3	3
P.37		RAMP 5A	15+36.87	24+82.19	0.179	945																													12	12
P.36		RAMP 3	0+55.84	1+60.68	0.020	105																													2	2
P.37		RAMP 5B	33+47.62	38+93.41	0.103	546																													7	7
P.51		RAMP TO OHIO REST AREA I-71 NB			0.034	178																													3	3
P.53		RAMP TO OHIO REST AREA I-71 SB			0.033	173																													3	3
P.58		RAMP A	15+92.49	19+68.14	0.071	376																														
P.59		RAMP A	19+68.14	23+20.80	0.067	353			26					1																						
P.59		RAMP B	0+38.69	7+12.00	0.127	673	53	150			3	4		10		1																				
P.59		RAMP C	0+39.29	7+12.47	0.127	673																														

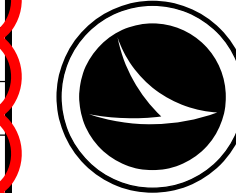
FRA-71-28.62, DEL-71-0.00

~~MOI.E.L: 1-1906_C108.PAPE.SIZE: 4x24 (in.). DATE: 05/15/26 TIME: 1:09:19 AM PLT.DWG: CHDOT_14F-plt.dwg PLOTBL: VDCD Pen.tbl User: D:\vd.R\inking dot.cpio.go WO KSPA.E: H:\DOTC\vo2 YORK ET: 1-1906 PROD\CT: OpenRdsDesign\24.00.00.20.pw\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 06\Delaware\114906\400-Engineering\Roadway\Sheets\114906_TCC001.dgn~~

LOCATION							646 - EPOXY							807 - EPOXY					850 - GROOVING						621 - RAISED PAVEMENT MARKERS									621					
S H E E T N O	C O U N T Y	R O U T E	B E G S T A	E N D S T A	L E N G T H	L E N G T H	STOP LINE	CROSSWALK LINE, 12"	TRANSVERSE / DIAGONAL LINE	CHEVRON MARKING	LANE ARROWS				LANE REDUCTION ARROW	WRONG WAY ARROW	WORD ON PAVEMENT, 72", "ONLY"	EDGE LINE, 6"		LANE LINE, 6"	CHANNELIZING LINE, 12"	DOTTED LINE, 6"	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (CONCRETE)	GROOVING FOR 6" RECESSED PAVEMENT MARKING (CONCRETE)	GROOVING FOR 12" RECESSED PAVEMENT MARKING (CONCRETE)	TWO WAY					ONE WAY			RAISED PAVEMENT MARKER REMOVED	RPM	
											LEFT	LEFT THRU	RIGHT THRU	RIGHT				WHITE RED											YELLOW RED		WHITE								
					MILE	FT					FT	FT	EA	EA				EA	EA										W MILE	Y MILE	MILE	FT	FT	MILE	FT	FT			CHANN-ELIZING LINE
			DEL-71 (CONCRETE RAMPS)																																				
P.36		RAMP 1	3+85.34	6+24.31	0.045	239											0.045	0.045			239					0.090	239												
P.36		RAMP 1	6+24.31	6+34.76	0.002	10											0.002	0.002		10						0.004		10											
P.37		RAMP 1	6+34.76	12+63.91	0.119	629											0.119	0.119		629						0.238		629											
P.36		RAMP 2	4+27.44	8+75.95	0.085	449											0.085	0.085								0.170													
P.36		RAMP 2	8+75.95	12+20.24	0.065	344											0.065	0.065	0.130							0.260													
P.36		RAMP 2	12+20.24	17+59.22	0.102	539											0.102	0.102		1617						0.204		1617											
P.37		RAMP 3	1+60.68	14+91.94	0.252	1331											0.252	0.252								0.504													
P.36		RAMP 4	0+62.91	6+01.07	0.102	538											0.102	0.102								0.204													
P.38		RAMP 4	6+01.07	9+58.99	0.068	358											0.068	0.068								0.136													
P.38		RAMP 5B	38+93.41	41+22.66	0.043	229											0.043	0.043								0.086													
P.39		RAMP 5B	41+22.66	44+11.82	0.055	289											0.055	0.055								0.110													
P.38		RAMP 6	42+90.14	44+57.06	0.032	167											0.032	0.032	0.032	334						0.096		334											
P.38		RAMP 6	44+57.06	51+83.72	0.138	727											0.138	0.138	0.276							0.552													
P.39		RAMP 6	51+83.72	54+43.11	0.049	259											0.049	0.049		856						0.098		856											
P.39		RAMP 7	0+56.86	3+75.19	0.060	318											0.060	0.060		636						0.120		636											
P.39		RAMP 7	3+75.19	9+71.83	0.113	597											0.113	0.113								0.226													
P.40		RAMP 7	9+71.83	11+72.98	0.038	201											0.038	0.038								0.076													
P.39		RAMP 8	0+48.18	9+23.94	0.166	876											0.166	0.166								0.332													
P.40		RAMP 8	9+23.94	10+38.37	0.022	114											0.022	0.022								0.044													
DEL-71 RAMP CONTINGENCY FOR CONCRETE REPAIRS																																							
P.36		RAMP 1	3+85.34	6+24.31	0.045	239																																	
P.36		RAMP 1	6+24.31	6+34.76	0.002	10																																	
P.37		RAMP 1	6+34.76	12+63.91	0.119	629																																	
P.36		RAMP 2	4+27.44	8+75.95	0.085	449																					1												
P.36		RAMP 2	8+75.95	12+20.24	0.065	344																					1												
P.36		RAMP 2	12+20.24	17+59.22	0.102	539						4				2											1												
P.37		RAMP 3	1+60.68	14+91.94	0.252	1331																					4												
P.36		RAMP 4	0+62.91	6+01.07	0.102	538																					2												
P.38		RAMP 4	6+01.07	9+58.99	0.068	358																					1												
P.38		RAMP 5B	33+93.41	41+22.66	0.138	729																					2												
P.39		RAMP 5B	41+22.66	44+11.82	0.055	289																					1												
P.38		RAMP 6	42+90.14	44+57.06	0.032	167																					1												
P.38		RAMP 6	44+57.06	51+83.72	0.138	727																					2												
P.39		RAMP 6	51+83.72	54+43.11	0.049	259						2	1	1	2												1												
P.39		RAMP 7	0+56.86	3+75.19	0.060	318						1			1	1											1												
P.39		RAMP 7	3+75.19	9+71.83	0.113	597																					2												
P.40		RAMP 7	9+71.83	11+72.98	0.038	201																					1												
P.39		RAMP 8	0+48.18	9+23.94	0.166	876																					3												
P.40		RAMP 8	9+23.94	10+38.37	0.022	114																					1												
TOTALS CARRIED TO TRAFFIC SUBSUMMARY SHEET P.69											15						5	3.11		0.44	4082	239				3.55	239	4082	TOTALS CARRIED TO TRAFFIC SUBSUMMARY SHEET P.69									53	53

PAVEMENT MARKING QUANTITIES VARIOUS CONCRETE RAMPS

DESIGN AGENCY



DESIGNER

DKR

REVIEWER

KLM 02/26

PROJECT ID

11400€

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