# 1) ALL-75-1.00 L&R Structures

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

# ALL-75/117/309-VAR.

Shawnee, Bath & American Townships Village of Elida Allen County

### (2) ALL-117-12.73 to 14.06 (3) ALL-117-18.64 to 18.75 *ALL-309-15.16 to 15.99*

ALL-75-4.23 L&R Structures

ALL-75-4.48 L&R Structures

## **INDEX OF SHEETS:**

TITLE SHEET GENERAL NOTES ASPHALT CONCRETE INTERSECTION SUBSUMMARY PAVEMENT MARKING SUBSUMMARY CURB RAMP SUBSUMMARY CURB RAMP DETAILS TRANSITION DETAILS GENERAL SUMMARY

# **LOCATION MAP**

PORTION TO BE IMPROVED ... INTERSTATE HIGHWAY \_\_\_\_\_\_ FEDERAL ROUTES .\_\_\_\_\_ COUNTY & TOWNSHIP ROADS \_\_\_\_\_\_\_

LATITUDE: N 40°45'43" LONGITUDE: W 84°8'50"

DESIGN DESIGNATION	ALL-75	ALL-117	ALL-117	ALL-309
	0.00	12.73	18.64	15.16
CURRENT ADT (2022)	41,387	10,725	<i>25,795</i>	14,949
DESIGN YEAR ADT (2045)	46,500	10,500	26,000	15,000
DESIGN HOURLY VOLUME (2045)	5200	1300	3100	1900
DIRECTIONAL DISTRIBUTION	55.0	50.1	55.0	<i>55.0</i>
TRUCKS (24 HOUR B&C)	34.0	2.0	5.0	4.0
DESIGN SPEED	75 mph	50 mph	45 mph	45 mph
LEGAL SPEED	70 mph	45 mph	40 mph	40 mph
DESIGN FUNCTIONAL CLASSIFICATION:				

# **DESIGN EXCEPTIONS**

Freeway/Principal Arterial

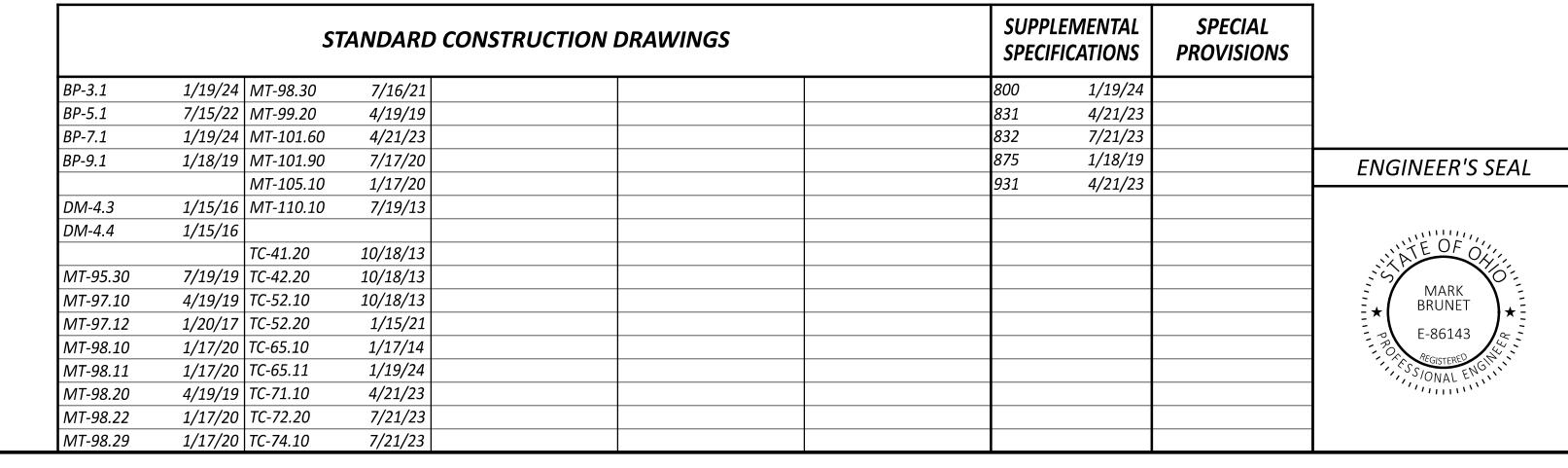
NONE

### ADA DESIGN WAIVERS

NONE



PLAN PREPARED BY: District One Ohio Department of Transportation Lima, Ohio



### FEDERAL PROJECT NUMBER

E240(452)

### RAILROAD INVOLVEMENT

NONE

### PROJECT DESCRIPTION

REHABILITATION OF 1.44 MILES OF ROADWAY ON SR 117 AND 0.83 MILES OF ROADWAY ON SR 309 IN ALLEN COUNTY. REHABILITATE BY MILLING AND RESURFACING AND PLACING PAVEMENT MARKINGS. ALSO CONSTRUCT CURB RAMPS IN THE VILLAGE OF ELIDA.

### EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: N/A \* N/A \* ESTIMATED CONTRACTOR EARTH DISTURBED AREA: NOTICE OF INTENT EARTH DISTURBED AREA:

\* - MAINTENANCE PROJECT

### **2023 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Christplee a Hughes Christopher A. Hughes, P.E. District 01 Deputy Director

Director, Department of Transportation

ESIGN AGENCY



ESIGNER GLI REVIEWER MPB 7-2-24 ROJECT ID 120884

(7)

### **TRAFFIC**

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. THE LENGTH OF RESTRICTED TRAFFIC ZONES SHALL BE KEPT TO A MINIMUM CONSISTENT WITH REQUIREMENTS FOR PROTECTION OF COMPLETED COURSES.

### RAILROAD CROSSINGS & BRIDGE TREATMENT

THE NEW SURFACE COURSE SHALL BE FEATHERED OR BUTT JOINTED TO MEET THE PROFILE AS SPECIFIED BY THE ENGINEER. CONCRETE APPROACH SLABS AND BRIDGE DECKS SHALL NOT BE PAVED. UNLESS OTHERWISE NOTED IN THE PLANS (SEE SHEET 6). THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT ANY ASPHALT CONCRETE MATERIAL FROM FALLING OFF THE EDGE OF A BRIDGE DECK OR EDGE OF A CULVERT DURING ANY CON-STRUCTION OPERATIONS. THE CONTRACTOR SHALL IMMEDIATELY REMOVE ANY MATERIAL THAT FALLS INTO THE ROADSIDE DITCHES OR STREAMS THROUGH NON-MECHANICAL MEANS. NO EQUIPMENT SHALL BE PERMITTED IN THE ROADSIDE DITCHES OR STREAMS.

### ALIGNMENT AND PROFILE

THE WORK PROPOSED FOR THIS PROJECT IS FOR THE RESUR-FACING OF THE EXISTING PAVEMENT. PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT.

### EXTRA AREAS

EXTRA AREAS SHALL INCLUDE DRIVEWAYS. MAILBOX PULL-OFFS AND OTHER SIMILAR AREAS AS DETERMINED BY THE ENGINEER. DRIVEWAYS SHALL BE FEATHERED IN APPROXIMATELY 6 FEET USING ASPHALT CONCRETE. SOME DRIVES MAY REQUIRE MORE THAN 6 FEET TO ALLOW FOR ADEQUATE TRANSITION TO THE MAINLINE PAVEMENT. THESE TRANSITIONS WILL BE AS DIRECTED BY THE ENGINEER. THE ASPHALT CONCRETE QUANTITIES FOR DRIVES AND MAIL BOXES ARE INCLUDED IN THE EXTRA AREA QUANTITIES IN THE PAVEMENT DATA TABLE.

### ASPHALT CONCRTE PLACEMENT ON SHOULDERS AND GUTTERS

THE ASPHALT CONCRETE ON THE SHOULDERS AND CONCRETE GUTTERS SHALL BE PLACED AT THE SAME TIME THAT THE ASPHALT CONCRETE IS PLACED ON THE ADJACENT LANES OF PAVEMENT. THE SHOULDER MATERIAL SHALL BE PLACED AT THE SAME CROSS SLOPE AS THE EXISTING SHOULDER OR CONCRETE GUTTER GRADES. NEW CONCRETE CURB AND GUTTER AT LOCATIONS OF CURB RAMPS SHALL BE COMPLETED PRIOR TO PLACEMENT OF ASPHALT CONCRETE.

### MAINTAINING TRAFFIC AT PLANED AREAS

THE CONTRACTOR SHALL ARRANGE THEIR OPERATIONS SO THAT TRAFFIC IS RETURNED TO AN AREA WHEN THE PLANING IS COM-PLETE. THE PLANED AREA SHALL BE CLEANED TO THE SATISFAC-TION OF THE ENGINEER PRIOR TO PLACING TEMPORARY MARKINGS. ALL REQUIRED WORK ZONE PAVEMENT MARKINGS SHALL BE PLACED PRIOR TO OPENING THE AREA TO TRAFFIC. NO PLANED SURFACE SHALL REMAIN OPEN TO TRAFFIC MORE THAN (7) DAYS BEFORE BEING COVERED WITH AN ASPHALT COURSE. IF THIS IS NOT DONE. LIQUIDATED DAMAGES WILL BE LEVIED AS PER SECTION 108.07 OF THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.

### **EROSION CONTROL**

THE QUANTITY BELOW HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR EROSION CONTROL.

ITEM 832 EROSION CONTROL = 1,000 EACH

### ITEM 617 COMPACTED AGGREGATE, AS PER PLAN

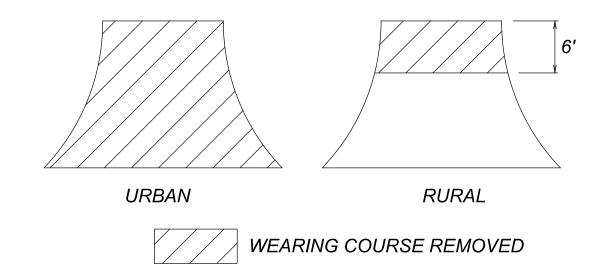
THIS ITEM SHALL MEET ALL REQUIREMENTS FOR ITEM 617 COMPACTED AGGREGATE WITH THE FOLLOWING EXCEPTION:

1) NO RECYCLED ASPHALT CONCRETE PAVEMENT SHALL BE USED IN THIS ITEM

ALL COSTS ASSOCIATED WITH THE EQUIPMENT, LABOR AND MATERIALS NECESSARY FOR SUPPLYING AND PLACING THIS ITEM SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR ITEM 617 COMPACTED AGGREGATE. AS PER PLAN.

### WEARING COURSE REMOVED AT INTERSECTIONS

TYPICAL WEARING COURSE REMOVED AT INTERSECTIONS AS DETAILED BELOW.



### ITEM 253 PAVEMENT REPAIR

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING PAVEMENT OR PAVED BERM WHICH MAY BE ASPHALT. BRICK. CONCRETE. OR A COMBINATION OF EACH, IN AREAS OF EXISTING PAVEMENT FAILURE.

THE ENGINEER SHALL DESIGNATE THE LOCATIONS AND LIMITS OF THE AREAS TO BE REPAIRED. THE REPAIR AREAS SHALL BE ROUGHLY RECTANGULAR IN SHAPE AND CUT OR SAWED TO A NEAT LINE. THE PAVEMENT SHALL BE REMOVED WITHIN THE DESIGNATED AREAS BY METHODS WHICH WILL NOT DAMAGE THE ADJACENT PAVEMENT. THE DEPTH OF REMOVAL, AS DIRECTED BY THE ENGI-NEER, SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT. THE MATERIALS SO REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 203.01.

THE VERTICAL FACES OF THE REPAIR AREA SHALL BE TACKED PRIOR TO PLACING THE 301 FOR ITEM 253 PAVEMENT REPAIR. THIS MATERIAL SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT EXISTING PAVEMENT SURFACE PRIOR TO PLACING THE PROPOSED ASPHALT CONCRETE OVERLAY. ALL COMPACTION SHALL BE ACHIEVED BY MECHANICAL METHODS TO THE SATISFACTION OF THE ENGINEER.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIR. AN ESTIMATED QUANTITY IS PROVIDED IN THE SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE AT THE UNIT PRICE BID PER CUBIC YARD OF ITEM 253 PAVEMENT REPAIR.

> 253 PAVEMENT REPAIR 150 CUBIC YARD

THE ABOVE ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER. IT IS ESTIMATED THE REPAIRS WILL BE APPROXIMATELY 6 INCHES DEEP AND BE MOSTLY LONGITUDINAL REPAIRS. THE ESTIMATED WIDTH OF THESE REPAIRS ARE APPROXIMATELY 4 FEET. THERE ARE SEVERAL LOCATIONS WHERE THE ESTIMATED LENGTHS OF REPAIRS WILL BE APPROXIMATELY 50 FEET, AND THERE ARE 3 LOCATIONS WHERE THE ESTIMATED LENGTHS OF REPAIRS WILL BE APPROXIMATELY 100 TO 150 FEET.

### WORK ZONE MARKINGS AND SIGNS

ERECT A GROOVED PAVEMENT SIGN 250 FEET IN ADVANCE OF ANY SECTION OF ROADWAY WHERE TRAFFIC MUST TRAVEL ON A PLANED SURFACE. ENSURE THESE SIGNS ARE IN PLACE BEFORE OPENING THE ROADWAY TO TRAFFIC. ERECT THESE SIGNS AT INTERSECTIONS OF THROUGH ROUTES TO WARN TRAFFIC OF THIS SURFACE CONDITION. PAYMENT FOR THESE SIGNS TO BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC.

ERECT A NO EDGE LINES SIGN IN ADVANCE OF ANY SECTION OF ROADWAY LACKING STANDARD EDGE LINE MARKINGS. ERECT A DO NOT PASS SIGN AT THE BEGINNING AND A PASS WITH CARE SIGN AT THE END OF EACH NO PASSING ZONE LACKING STANDARD CENTER LINE MARKINGS. ENSURE THESE SIGNS ARE IN PLACE BEFORE OPENING THE ROADWAY TO TRAFFIC. PAYMENT FOR THESE SIGNS TO BE INCLUDED IN ITEM 614 WORK ZONE MARKING SIGN.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF CMS 614.04. 614.055 AND 614.11.

ITEM 614, WORK ZONE MARKING SIGN	24 EACH
ITEM 614, WORK ZONE CENTER LINE, CLASS I	3.10 MILES
ITEM 614, WORK ZONE CENTER LINE, CLASS II	6.20 MILES
ITEM 614, WORK ZONE LANE LINE, CLASS I	1.85 MILES
ITEM 614, WORK ZONE LANE LINE, CLASS II	1.85 MILES

### 446 DENSITY ACCEPTANCE WITH FLAGGER CLOSING OF A 2-LANE HIGHWAY FOR PAVING OPERATIONS

THIS PLAN NOTE APPLIES ONLY TO A FLAGGER CLOSURE OF ONE LANE OF A 2-LANE HIGHWAY DURING PAVING OPERATIONS WHEN USING STANDARD CONSTRUCTION DRAWING MT 97.11 OR MT 97.12. AND ALLOWS A PAVING OPERATION TO PROCEED CONCURRENTLY WITH THE MARKING AND CUTTING OF CORE'S REQUIRED FOR 446 DENSITY ACCEPTANCE.

IN ALL CASES THE CONTRACTOR SHOULD LENGTHEN THEIR LANE CLOSURES TO THE MAXIMUM PERMISSIBLE LENGTH DETAILED IN THE ABOVE REFERENCED STANDARD CONSTRUCTION DRAWINGS TO ALLOW THE ENGINEER ADEQUATE TIME TO MARK THE REQUIRED CORE LOCATIONS AND FOR CORE CUTTING OPERATIONS.

THE CONTRACTOR WILL PROVIDE TO THE ENGINEER THE PLANNED QUANTITY THAT WILL BE PLACED FOR THE DAY'S PRODUCTION. EACH DAY'S PRODUCTION WILL BE CONSIDERED ONE LOT AND INCLUDES SHOULDERS. TEN CORES WILL BE OBTAINED BY THE CONTRACTOR FOR EACH LOT AT RANDOM LOCATIONS DETERMINED BY THE ENGINEER. THE ENGINEER WILL DIVIDE A LOT INTO FIVE EQUAL SUBPLOTS AND CALCULATE TWO RANDOM CORE LOCATIONS IN EACH SUBPLOT AS DESCRIBED IN C&MS 446.05.

THE ENGINEER WILL MARK THE CORE LOCATIONS AFTER THE PAVING OPERATION (INCLUDING THE FINISH ROLLER) HAS COMPLETELY PASSED THE RANDOMLY SELECTED CORE LOCATION. THE CORE DRILL OPERATION CAN BEGIN CUTTING CORES WHEN THE NEWLY PLACED PAVEMENT SURFACE TEMPERATURE IS LESS THAN 140 DEGREES F. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LANE CLOSURE DURING ALL PAVING. MARKING. AND CORING OPERATIONS PER THE REQUIREMENTS OF THE STANDARD CONSTRUCTION DRAWING USED FOR THE PAVING OPERATION.

### ITEM 614 MAINTAINING TRAFFIC (SR 117 AND SR 309)

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT. THE COMPLETED PAVEMENT. ITEM 502 STRUCTURE FOR MAINTAINING TRAFFIC, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410 AND 614.

### ITEM 614 MAINTAINING TRAFFIC (SR 117 AND SR 309) (CONTINUED)

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.

### 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 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 OF	TRAFFIC RESTRI	ICTIONS TIME TABLE
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
RAMP & ROAD CLOSURES	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES AND	> = 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
RESTRICTIONS	< 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.



ESIGNER GLI

REVIEWER MPB 7-2-24 ROJECT ID

120884

ESIGN AGENCY

### SINGLE MAILBOX TURNOUT & BRIDGE APPROACHES

IF THERE IS A DISTANCE OF 100 FEET OR LESS BETWEEN MAIL-BOXES. APPROACHES SHALL BE PAVED THRU TO THE LAST MAIL-BOX.

IF THERE IS A DISTANCE OF 50 FEET OR LESS BETWEEN DRIVEWAY AND MAILBOX. APPROACHES SHALL BE PAVED THRU TO THE LAST MAILBOX. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION OF MATERIALS FROM ALL STONE DRIVEWAYS AND MAILBOX APPROACHES TO A DEPTH OF 2 INCHES BELOW EXISTING PAVEMENT. EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN RESPONSIBILITY OUTSIDE THE LIMITS OF THE HIGHWAY RIGHT OF WAY.

IF NEITHER OF THE ABOVE CONDITIONS APPLY AND PER THE DIRECTION OF THE PROJECT ENGINEER, A MAILBOX TURNOUT SHALL BE PROVIDED AS PER THE ADJACENT DETAIL

FOR MAILBOX TURNOUTS, WHEN UNSTABLE MATERIAL IS ENCOUNTERED. EXCAVATION OF THIS MATERIAL SHALL BE TO A DEPTH OF 6 INCHES BELOW EXISTING PAVEMENT ELEVATION. AN ESTIMATED QUANTITY OF 304 AGGREGATE BASE HAS BEEN SET UP FOR BACKFILL OF THESE AREAS. EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN RESPONSIBILITY OUTSIDE THE LIMITS OF THE HIGHWAY RIGHT OF WAY.

AT BRIDGES WITH NO EXISTING BRIDGE APPROACHES AND PER THE DIRECTION OF THE PROJECT ENGINEER, BRIDGE APPROACHES SHALL BE PROVIDED PER THE ADJACENT DETAIL. THE AREA SHOWING THE LOCATIONOF THE BRIDGE WILL HAVE VARIABLE LENGTH AND NO WORK IS NEEDED WITHIN THIS AREA UNLESS NOTED OTHERWISE IN THE PLANS.

FOR BRIDGE APPROACHES, THE BRIDGE APPROACHES SHALL BE EXCAVATED TO A DEPTH OF 9 INCHES BELOW EXISTING ADJACENT PAVEMENT ELEVATIONS. AN ESTIMATED QUANTITY OF 304 AGGREGATE BASE HAS BEEN SET UP FOR BACKFILL TO A DEPTH OF 6 INCHES FOR THESE AREAS. AND ESTIMATED QUANTITIES OF ASPHALT SURFACE COURSE AND TACK COAT HAVE BEEN SET UP FOR PLACEMENT OF TWO ASPHALT CONCRETE SURFACE COURSES. EACH COURSE BEING  $1\frac{1}{2}$  INCHES THICK, FOR THESE AREAS. EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CON-TRACTOR AT HIS OWN RESPONSIBILITY OUTSIDE THE LIMITS OF THE HIGHWAY RIGHT OF WAY.

AN ADDITIONAL QUANTITY OF ASPHALT CONCRETE HAS BEEN SET UP TO BE USED IN THOSE AREAS EXCAVATED FOR DRIVEWAYS. MAILBOX AND BRIDGE APPROACHES.

ALL WORK. MATERIALS. EXCEPT ITEM 304. LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK SHALL BE INCIDENTAL TO THE PLACEMENT OF THE ASPHALT CONCRETE.

### LONGITUDINAL PAVEMENT JOINTS

IF THE FOLLOWING CONDITIONS APPLY AND WHERE TRAFFIC IS ALLOWED TO CROSS THE EDGE OF THE NEW PAVEMENT LANE. THE CONTRACTOR DOES NOT NEED TO COMPLETE THE LONGITUDINAL JOINT OF THE ADJACENT LANE WITHIN 24 HOURS AS STATED IN CMS 401.17.

- 1. THE DROP-OFF BETWEEN THE ADJACENT TRAVELED LANE IS LESS THAN OR EQUAL TO ONE AND A HALF INCHES (1 1/2") AND MEETS CONDITION 1 OF STANDARD CONSTRUCTION DRAWING MT-101.90.
- 2. THE CONTRACTOR PROVIDES AND ERECTS THE APPROPRIATE SIGNS AS PER SCD MT-101.90. ALL COST ASSOCIATED FOR PROVIDING AND PLACING THE SIGNS SHALL BE INCIDENTAL TO THIS ITEM.

THE ABOVE SHALL BE APPLIED PER THE APPROVAL AND TO THE SATISFACTION OF THE PROJECT ENGINEER.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF SECTIONS XXIV AND XXXIV OF THE OHIO DEPARTMENT OF TRANSPORTATION SAFETY AND HEALTH STANDARD OPERATING PROCEDURE 220-006(SP) EFFECTIVE: NOVEMBER 1, 2018 (EXCEPT AS AMENDED BELOW) AND ALL SUBSEQUENT UPDATES POSTED AT THE FOLLOWING WEBSITE:

HTTP://WWW.DOT.STATE.OH.US/POLICY/POLICIESANDSOPS/ POLICIES/220-006(SP).PDF

AMENDMENTS TO THE REQUIREMENTS OF THIS DOCUMENT ARE:

### XXIV. HEAD PROTECTION (HARD HATS)

ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA. REGARDLESS OF JOB TYPE. SHALL WEAR APPROPRIATE HEAD PROTECTION. ALL HARD HATS MUST MEET OR EXCEED ANSI Z89.1-2009 TYPE 1. CLASS E-G REQUIREMENTS.

XXXIV. SAFETY APPAREL AND VEST (HIGH VISIBILITY) ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR A HIGH-VISIBILTY SAFETY VEST THAT MEETS THE PERFORMANCE CLASS II OR CLASS III REQUIREMENTS OF THE ANSI/ISEA 107-2015 PUBLICATION ENTITLED "AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND ACCESSORIES."

WORKERS MAY WEAR AN ANSI CLASS II OR ANSI CLASS III APPROVED RAIN SUIT, JACKET OR OTHER APPAREL WITHOUT A SAFETY VEST OVER IT.

### **SEEDING AND MULCHING**

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS.

659, TOPSOIL 2 CU. YD. 659. SEEDING AND MULCHING 30 SQ. YD. 659. COMMERCIAL FERTILIZER 0.16 TON 659. WATER 0.20 M. GAL

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.

### ITEM 254 PAVEMENT PLANING, AS PER PLAN (I.R. 75)

COLLECT SURFACE SMOOTHNESS USING EQUIPMENT AND OPERATORS CONFORMING TO SUPPLEMENTAL 1058. FURNISH THE DEPARTMENT'S APPROVAL LETTER OF THE PROFILER AND OPERATOR TO THE ENGINEER.

### SMOOTNESS MEASUREMENT:

MEASURE THE PAVEMENT SURFACES SMOOTHNESS IN BOTH WHEEL PATHS. WHEEL PATHS ARE LOCATED PARALLEL TO THE CENTERLINE OR BASELINE OF THE ROADWAY OR RAMP AND APPROXIMATELY 3.0 FEET (1.0 M) FROM THE CENTERLINE OF THE LANE, MEASURED TRANSVERSELY IN BOTH DIRECTIONS. ENSURE THE PATH OF THE PROFILER IS PARALLEL TO THE LANE CENTER-LINE AT ALL TIMES. MEASURE THE ENTIRE LENGTH OF PAVEMENT, EVENT MARKING THE PROFILE RUNS SUCH THAT PROFILE DATE CAN LATER BE IDENTIFIED WHEN THE PROFILE SENSOR(S) IS WITH-IN 1.0 FOOT (0.3 M) OF ANY EXISTING PAVEMENT NOT CONSTRUCT-ED ON THE PROJECT, PRESSURE RELIEF JOINT, APPROACH SLAB,

### ITEM 254 PAVEMENT PLANING, AS PER PLAN (CONTINUED)

OR OTHER NON PAVEMENT FEATURES (I.E. MANHOLES, VALVE BOXES). IT IS THE OPERATOR'S RESPONSIBILITY TO NOTE SUCH LOCATIONS IN THE COLLECTED INERTIAL PROFILES. REMOVE ANY OBJECTS SUCH AS DIRT. DEBRIS. CURING COVERS. ETC.. PRIOR TO PERFORMING THE SURFACE SMOOTNESS MEASUREMENTS.

DEVELOP AN IRI ACCORDING TO ASTM E 1926 FOR EACH 0.1 - MILE (0.16 KM) SECTION. SUBMIT ELECTRONIC FILES OF THE SUMMARY REPORT FROM PROVAL CONFORMING TOP SUPPLEMENT 1110 AND ELECTRONIC FILES OF ALL LOGITUDINAL PAVEMENT PROFILES IN PROVAL COMPATIBLE FORMAT TO THE ENGINEER. THE ENGINEER WILL SUBMIT ELECTRONIC FILES TO THE OFFICE OF TECHNICAL SERVICES.

PROVIDE NECESSARY TRAFFIC CONTROL AND SURVEY STATIONING FOR ALL SURFACE SMOOTHNESS MEASUREMENTS.

### AT THE FOLLWING STRUCTURES:

BRIDGE NO. ALL-75-0100 L&R BRIDGE NO. ALL-75-0423 L&R BRIDGE NO. ALL-75-0448 L&R

IN EACH LANE AT EACH LOCATION, DEVELOP AND PROVIDE A VARIABLE DEPTH GRINDING PLAN THAT WILL ALLOW A UNIFORM 2" (TWO INCH) 441 INTERMEDIATE MIX TO BE PLACED THAT RESULTS IN A SURFACE SMOOTHNESS WITH NO LOCALIZED IRI OVER 250 IN EACH WHEEL PATHOF EACH LANE IN EACH SECTION. THE SHOULD-ERS SHALL BE MILLED TO MATCH THE VARIABLE DEPTH GRINDING OF THE (MAINLINE) LANES WITH A 2.1% - 4.0% CROSS SLOPE TO THE EDGE OF THE PAVEMENT (TO PROVIDE POSITIVE DRAINAGE) THAT WILL ALLOW A 2" INTERMEDIATE COURSE TO BE PLACED TO THE EDGE OF THE PAVEMENT AT EACH LOCATION. PAVEMENT PLANING ON TO THE APPROACH SLAB IS NOT PERMITTED AS PART OF THE GRINDING PLAN.

CARE NEEDS TO BE TAKEN SO THERE IS SMOOTH TRANSITION BETWEEN LANES AND SHOULDERS. PROVIDE THE PLAN TO THE ENGINEER FOR APPROVAL A MINIMUM OF 3 (THREE) DAYS PRIOR TO PERFORMING THIS WORK.

UPON COMPLETION OF THE VARIABLE DEPTH GRINDING AND 2" INTERMEDIATE ASPHALT CONCRETE COURSE. 3" (3 INCHES) OF WATERPROOFING ASPHALT SHALL BE PLACED IN TWO 1.5" LIFTS OVER THE ENTIRE BRIDGE DECK AND EXTEND PAST THE 2" INTER-MEDIATE COURSE . STANDARD CONSTRUCTION DRAWING BP-3.1 SHALL BE USED FOR TRANSITIONING THE WATERPROOFING ASPHALT BACK INTO THE EXISTING ASPHALT SURFACE. THE VAR-IABLE DEPTH GRINDING AND 2" INTERMEDIATE ASPHALT COURSE SHALL BE COMPLETED PRIOR TO THE WATERPROOFING ASPHALT.

PAYMENT FOR COLLECTING ALL SURFACE SMOOTHNESS PROFILES AND DEVELOPING THE CORRECTIVE ACTION PLAN IS INCLUDED WITH THE VARIABLE DEPTH MILLING.

A QUANTITY OF ITEM 254 PAVEMENT PLANING, AS PER PLAN HAS BEEN CARRIED TO THE GENERAL SUMMARY. FOR FURTHER DE-TAILS ON ESTIMATED QUANTITIES SEE SHEETS 15 THRU 17.

ESIGN AGENCY



ESIGNER GLI

REVIEWER MPB 7-2-24

> ROJECT ID 120884

# ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS:

NEW YEARS (OBSERVED)

GENERAL/REGULAR ELECTION DAY (NOV) THANKSGIVING CHRISTMAS (OBSERVED) MEMORIAL DAY FOURTH OF JULY (OBSERVED)

LABOR DAY

THE PERIOD OF TIME THAT THE LANES ARE TP BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR SPECIAL EVENT	TIMES ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY (GEN./REG. ELECTION)	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIRE-MENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

LANE VALUE CONTRACT TABLE											
DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT								
ALL LANES OF ALL-75 OPEN TO TRAFFIC	6:00 AM - 7:00 PM	EVERY 15 MIN. PERIOD	\$4,650								
ALL LANES OF ALL-75 OPEN TO TRAFFIC	#	EVERY 15 MIN. PERIOD	\$4,650								

# - AS SPECIFIED PER MOT NOTE FOR LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS

### ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

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. THEY SHALL BE PLACEDSO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CON-TROL SIGNS. ON ROADWAYS. THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANY-WHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTOR-ISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DIS-TRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE

TEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
	> = 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
ROAD 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 MM-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.

> RAMP WILL BE CLOSED FOR 1 DAYS INFO: 419-999-6803

> > W20-H13-60

NOTE: THE CONTRACTOR IS TO SUPPLY THE DATE

### 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:

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).

WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/ DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

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.

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 100 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614. LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

	WINDOW CONTRACT TABLE (PN 129)											
DESCRIPTION OF	CALENDAR											
CRITICAL WORK	DAYS TO COMPLETE	\$ PER DAY	START	END								
&	5	\$5,900	5/1/25	9/1/25								
&&	5	\$5,900	5/1/25	9/1/25								
&&&	150	PER C&MS 108.07	##	###								

& - CLOSURE OF SR 65 EXIT RAMP FROM SB IR 75 FOR ALL PAVING WORK NEEDING COMPLETED AT BRIDGE NO. ALL-75-0448L

&& - CLOSURE OF SR 65 ENTRANCE RAMP FROM NB IR 75 FOR ALL PAVING WORK NEEDING COMPLETED AT BRIDGE NO. ALL-75-0448R

&&& - ALL WORK ON PROJECT (INCLUDING WORK LISTED ABOVE)

## - CONTRACT EXECUTION DATE

### - PROJECT COMPLETION DATE

### ITEM 614, MAINTAINING TRAFFIC (I.R. 75)

RAMP TRAFFIC ALONG SR 65 TO THE ENTRANCE RAMP TO IR 75 NB AND RAMP TRAFFIC ALONG IR 75 SB TO THE EXIT RAMP TO SR 65 SHALL BE MAINTAINED AT ALL TIMES. EXCEPT FOR PERIODS NOT TO EXCEED THE CONSECUTIVE CALENDAR DAYS NOTED IN THE WINDOW CONTRACT TABLE ON THIS SHEET. WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 5. A DISINCEN-TIVE SHALL BE ASSESSED IN THE AMOUNT NOTED IN THE WINDOW CONTRACT TABLE FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. SEE THE WINDOW CONTRACT TABLE ON THIS SHEET FOR ADDITIONAL INFORMATION. ALSO ON IR 75, 2 LANES IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. EXCEPT BETWEEN 7 PM AND 7 AM. WHEN 1 LANE IN EACH DIRECTION SHALL BE MAINTAINED. SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING AND MAINTAINING SAFE AND EFFEC-TIVE TRAFFIC CONTROL 24 HOURS A DAY FOR THE DURATION OF THIS PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL BE FUR-NISHED. ERECTED. AND MAINTAINED. AND REMOVED BY THE CON-TRACTOR. THIS CONSISTS OF NOTIFYING THE OHIO STATE PATROL AFTER ENCOUNTERING ANY ACCIDENTS OR DISABLED VEHICLES OR OBJECTS HINDERING THE FLOW OF TRAFFIC.

THE CONTRACTOR SHALL DESIGNATE TO THE ENGINEER, A PERSON RESPONSIBLE FOR MAINTENANCE OF TRAFFIC CONTROL DURING NON-WORK HOURS WHO SHALL BE AVAILABLE ON SITE WITHIN THIRTY (30) MINUTES AFTER NOTIFICATION.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORD-ANCE WITH CMS 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.

ESIGN AGENCY

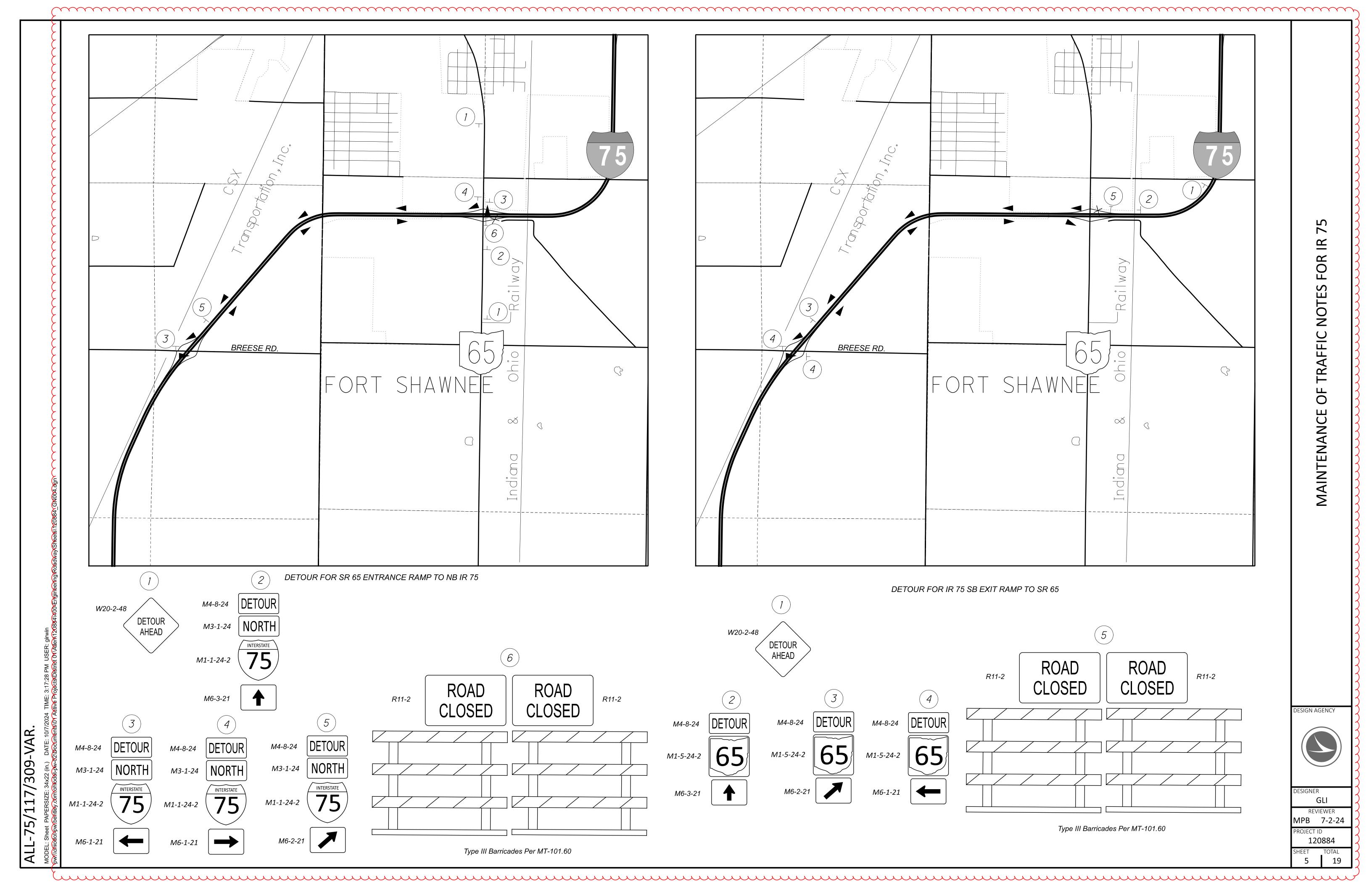


ESIGNER GLI

REVIEWER MPB 7-2-24 ROJECT ID

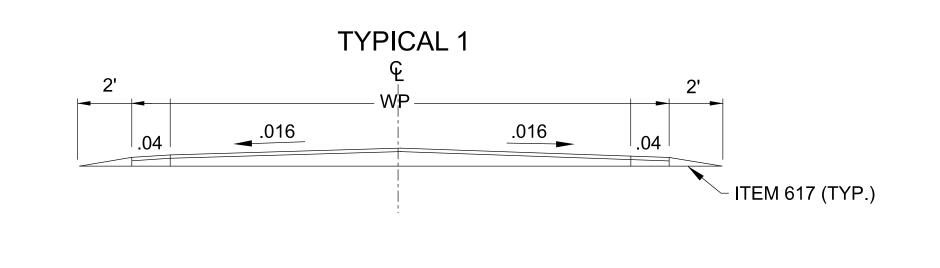
> 120884 19

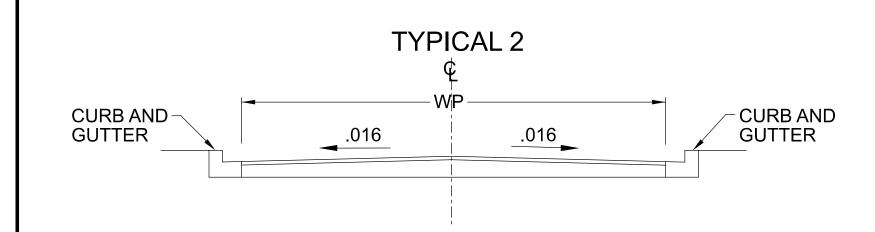
REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.





NOTE: MAILBOX AND DRIVE QUANTITIES
ARE INCLUDED IN THE EXTRA AREAS





ALL-75/117/309-VAR.

12.73 SERIFF RD.	EASTOWN RD. 12.91 EASTOWN RD.		13.60	13.85	13.91	LIMIT 14.06
BEGIN WORK	WEST SHORE DR.	SR 117	SHAWNEE RD.	SUSPEND WORK  RJ CORMAN RR	RESUME WORK	LIMA CORP. SUSPEND WORK

NOTE: ALL TOTALS CARRIED TO GENERAL SUMMARY

# PAVEMENT DATA

NOTE: DRAWINGS NOT TO SCALE

									202	407	44	12	2	54	304	617	875
ROUTE	FROM	то	PLAN SPLITS	DIST	ANCE	PAVT WIDTH	AL SECTION	PAVT AREA	WEARING COURSE REMOVED	- TRACKING	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)	PAVEMENT PLANING, ASPHALT CONCRETE	PATCHING PLANED SURFACES	AGGREGATE BASE	COMPACTED	LONGITUDINAL JOINT ADHESIVE
							TYPICA		THICKNESS 1 <sup>3</sup> ⁄ <sub>4</sub> "	NON- T	THICKNESS 1 <sup>3</sup> / <sub>4</sub> "	THICKNESS 1 3/4"	THICKNESS 1 <sup>3</sup> / <sub>4</sub> "	2% PLANED AREA	QUANTITY FOR DRIVEWAYS	2 INCH AVG. TH.	1 LB. PER 3 FT. (1 <sup>3</sup> / <sub>4</sub> " PAVE)
	SLM	SLM		MILES	FEET	FEET		SY	SY	GAL	CY	СҮ	SY	SY	СҮ	CY	LB
								-									
SR 117	12.73	12.78	01/S50/05	0.05	264	33 #	1	968		82	47		968	19		7	88
SR 117	12.78	12.88	01/S50/05	0.10	528	40 #	1	2347		199	114		2347	47		13	176
SR 117	12.88	12.96	<b>01/S50/05</b>	0.08	422	34 #	1	1596		136	78		1596	32		10	141
SR 117	12.96	13.35	01/S50/05	0.39	2059	27	1	6178		525	300		6178	124	20	51	686
SR 117	13.35	13.48	<b>01/S50/05</b>	0.13	686	28.5 #	1	2174		185	106		2174	43		17	229
SR 117	13.48	13.53	01/S50/05	0.05	264	24.5	2	719		61	35		719	14			88
SR 117	13.53	13.60	01/S50/05	0.07	370	32 #	2	1314		112	64		1314	26			123
SR 117	13.60	13.64	01/S50/05	0.04	211	36	2	845		72	41		845	17			70
SR 117	13.64	13.85	01/S50/05	0.21	1109	43 #	1	5298		450	258		5298	106		27	370
SR 117	13.85	13.91	bridge - no	1													
SR 117	13.91	13.99	01/S50/05	0.08	422	29	1	1361		116	66		1361	27		10	141
SR 117	13.99	14.06	01/S50/05	0.07	370	35 #	1	1437		122	70		1437	29		9	123
Extra Areas								464		39		23	464				
Intersections								2457	2457	209		120					
Totals									2457	2308	1179	143	24701	484	20	144	2235

ESIGN AGENOV



DESIGNER
GLI
REVIEWER
MPB 7-2-24

MPB 7-2-24
PROJECT ID
120884
SHEET TOTAL

	1		<b>T</b>						T		1		<b>T</b>							
											202	407	44	12	25	54	617	875		
ROUTE	FROM	то	PLAN SPLITS	ITS DISTANCE		DISTANCE		DISTANCE		SECTION TVAG		PAVT AREA	WEARING COURSE REMOVED	- TRACKING	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)	PAVEMENT PLANING, ASPHALT CONCRETE	PATCHING PLANED SURFACES	COMPACTED	LONGITUDINAL JOINT ADHESIVE
						WIDTH	TYPICAL	AREA	THICKNESS 1 ½"	NON- TR TACK	THICKNESS 1 ½"	THICKNESS 1 ½"	THICKNESS 1 ½"	2% PLANED AREA	2 INCH AVG. TH.	1 LB. PER 4 FT. (1 ½" PAVE)				
	SLM	SLM		MILES	FEET	FEET		SY	SY	GAL	CY	CY	SY	SY	CY	LB				
	•	•						•						•						
SR 117 EB	18.64	18.75	02/NHS/05	0.11	581	25	1	1613		137	67		1613	32		145				
SR 117 EB		All EB Turi	n Lanes					1178		100	49		1178	24		229				
SR 117 WB	18.64	18.75	02/NHS/05	0.11	581	25	1	1613		137	67		1613	32		145				
SR 117 WB	A	II WB Tur	n Lanes					67		6	3		67	1		18				
<b>SR 309 EB</b>	15.16	15.37	02/NHS/05	0.21	1109	25	1	3080		262	128		3080	62		277				
<b>SR 309 EB</b>		All EB Turi	n Lanes					1119		95	47		1119	22		239				
SR 309 WB	15.16	15.37	02/NHS/05	0.21	1109	25	1	3080		262	128		3080	62		277				
SR 309 WB		II WB Tur	n Lanes					636		54	27		636	13		123				
SR 309	15.37	15.87	02/NHS/05	0.50	2640	60	2	17600		1496	733		17600	352		660				
SR 309	Turi	n Lane int	o Walmart					330		28	14		330	7		75				
SR 309	15.87	15.99	02/NHS/05	0.12	634	76	3	5350		455	223		5350	107	16	158				
Extra Areas								24		2		1	24							
Intersections								3853	3853	328		161								
Totals									3853	3362	1486	162	35690	714	16	2346				

ALL-75/117/309-VAR.

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/7/2024 TIME: 3:17:50 PM USER: qirwin

DESIGN AGENCY

**ASPHALT CONCRETE** 

esigner **GLI** reviewer

REVIEWER

MPB 7-2-24

PROJECT ID

SHEET TOTAL 7 19

_	
	ALL-75/117/309-VAR.
	MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/7/2024 TIME: 3:18:00 PM USER: gir
	nw:\\ohiodot-nw hentley com:ohiodot-nw-02\Documents\01 Active Projects\District 01\Allen\

					202	407	442
INTERSECTION	PLAN SPLITS	SLM	SIDE	PAVT AREA	WEARING COURSE REMOVED	TACK COAT	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A, (448)
					THICKNESS 1 <sup>3</sup> / <sub>4</sub> "		THICKNESS 1 3/4"
				SQ YD	SQ YD	GAL	CU YD
		i					
Eastown Rd.	01/S50/05	12.82	L	303.1	303.1	25.8	14.7
Shore Dr.	01/S50/05	12.82	R	131.8	131.8	11.2	6.4
Eastown Rd.	01/S50/05	12.83	L	180.9	180.9	15.4	8.8
Walnut Ct.	01/S50/05	12.96	R	68.7	68.7	5.8	3.3
Winterberry Dr.	01/S50/05	13.04	L	78.5	78.5	6.7	3.8
Winghaven Dr.	01/S50/05	13.05	R	64.3	64.3	5.5	3.1
Winghaven Dr.	01/S50/05	13.07	R	78.8	78.8	6.7	3.8
Hickory Wood Ln.	01/S50/05	13.12	L	104.1	104.1	8.8	5.1
Trebor Dr.	01/S50/05	13.15	R	67.3	67.3	5.7	3.3
Queens Ln.	01/S50/05	13.19	L	102.7	102.7	8.7	5.0
Timberlane Dr.	01/S50/05	13.23	R	88.3	88.3	7.5	4.3
Shoreview Dr.	01/S50/05	13.30	R	102.4	102.4	8.7	5.0
Walmar Ave.	01/S50/05	13.30	L	84.0	84.0	7.1	4.1
Peacock Dr.	01/S50/05	13.48	R	66.3	66.3	5.6	3.2
Squire Ln.	01/S50/05	13.48	L	91.9	91.9	7.8	4.5
Shawnee Rd.	01/S50/05	13.60	R	386.6	386.6	32.9	18.8
Western Ohio Ave.	01/S50/05	13.60	R	233.2	233.2	19.8	11.3
Garden Blvd.	01/S50/05	13.77	R	224.0	224.0	19.0	10.9
Sub-Totals		<u> </u>		2457	2457	209	120

**Totals carried to Sheet 6.** 

					202	407	442
INTERSECTION	PLAN SPLITS	SLM	SIDE	PAVT AREA	WEARING COURSE REMOVED	TACK COAT	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)
					THICKNESS 1 ½"		THICKNESS 1 ½"
				SQ YD	SQ YD	GAL	CU YD
Roschman Ave.	02/NHS/05	18.67	R	211.4	211.4	18.0	8.8
Eastern Ave.	02/NHS/05	18.68	L	124.6	124.6	10.6	5.2
SR 117	02/NHS/05	15.16	R	688.6	688.6	58.5	28.7
Willard Ave.	02/NHS/05	15.16	L	305.8	305.8	26.0	12.7
<b>Bristol Ave.</b>	02/NHS/05	15.22	L	125.6	125.6	10.7	5.2
St. Andrews Blvd.	02/NHS/05	15.29	R	198.6	198.6	16.9	8.3
St. Andrews Blvd.	02/NHS/05	15.29	L	150.6	150.6	12.8	6.3
Mt. Holyoke Ave.	02/NHS/05	15.36	R	223.1	223.1	19.0	9.3
Mt. Holyoke Ave.	02/NHS/05	15.36	L	255.3	255.3	21.7	10.6
Radcliffe Ave.	02/NHS/05	15.43	L	158.2	158.2	13.4	6.6
<b>Belmont Ave.</b>	02/NHS/05	15.46	L	136.3	136.3	11.6	5.7
Lost Creek Blvd.	02/NHS/05	15.64	R	461.7	461.7	39.2	19.2
Lost Creek Blvd.	02/NHS/05	15.64	L	309.5	309.5	26.3	12.9
Walmart Dr.	02/NHS/05	15.86	R	237.6	237.6	20.2	9.9
Devonshire Dr.	02/NHS/05	15.86	L	266.4	266.4	22.6	11.1
Sub-Totals				3853	3853	328	161

**Totals carried to Sheet 7.** 

DESIGN AGENCY



DESIGNER GLI

MPB 7-2-24

/117/309-VAR.	ZE: 34x22 (in.) DATE: 10/7/2024 TIME: 3:18:11 PM
ALL-75/11	MODEL: Sheet PAPERSIZE: 34x22 (in.)

							621		64	12			64	<b>14</b>		
ROUTE	FROM	то	PLAN SPLITS	DIST	ANCE	RPM WHITE/ RED	RPM YELLOW/ YELLOW	RAISED PAVEMENT MARKER REMOVED	CENTER LINE	EDGE LINE	CHANNELIZING LINE, 12"	STOP LINE	STANDARD CROSSWALK LINE, 12"	HIGH VISIBILITY CROSSWALK LINE, 24"	TRANSVERSE DIAGONAL LINE	LANE ARROW
	SLM	SLM		MILES	FEET	EACH	EACH	EACH	MILE	MILE	FT	FT	FT	FT	FT	EA
SR 117	12.73	12.96	01/S50/05	0.23	1214	13	29	42	0.33	0.46	457	104	228	132	268	7
SR 117	12.96	13.48	01/S50/05	0.52	2746		35	35	0.52	1.04						
SR 117	13.48	13.64	01/S50/05	0.16	845	11	15	26	0.16		433	132			18	10
SR 117	13.64	14.06	01/S50/05	0.42	2218		34	34	0.55	0.84					110	
	•	-		·												
	Ī		Totals				.37	137	1.56	2.34	890	236	228	132	396	17

							621			642					644			
ROUTE	FROM	то	PLAN SPLITS	DIST	ANCE	RPM WHITE/ RED	RPM YELLOW/ YELLOW	RAISED PAVEMENT MARKER REMOVED	CENTER LINE	LANE LINE	EDGE LINE	CHANNELIZING LINE, 12"	STOP LINE	STANDARD CROSSWALK LINE, 12"	HIGH VISIBILITY CROSSWALK LINE, 24"	LANE ARROW	TWO WAY LEFT TURN ARROW	DOTTED LINE, 6"
	SLM	SLM		MILES	FEET	EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	FT	EA	EA	FT
				_														
SR 117 EB	18.64	18.75	02/NHS/05	0.11	581	21	9	30	80.0	0.11	80.0	601	118	131	96	8		57
SR 117 WB	18.64	18.75	02/NHS/05	0.11	581	5	8	13	0.08	0.08	0.08		36	173				183
SR 309 EB	15.16	15.37	02/NHS/05	0.21	1109	27	14	41	0.21	0.21	0.21	502	95	242	56	8		
SR 309 WB	15.16	15.37	02/NHS/05	0.21	1109	24	14	38	0.21	0.21	0.21	378	76	246	56	4		
SR 309	15.37	15.87	02/NHS/05	0.50	2640	93	52	145	0.78	1.00	1.00	1080	292	711	352	15	4 **	
SR 309	15.87	15.99	02/NHS/05	0.12	634	21	12	33	0.18	0.24	0.24	210	38		80	3	1	
			Totals			3	300	300	1.54	1.85	1.82	2771	655	1503	640	38	5	240

Pavement Marking subtotals carried to General Summary (Sheet 18)

Note: Standard Crosswalk Line, 12" will be used on the crossings at side streets.

High Visibility Crosswalk Line, 24" will be used on the crossings at State Routes.

Refer to Std. Constr. Dwg. TC-74.10 for crosswalk details. Use 5' spacing between longitudinal bars.

Note: Unless otherwise noted, proposed pavement markings shall match the locations of existing pavement markings. Prior to starting the work, the contractor and the project engineer shall confirm the locations of proposed pavement markings. See notes on this sheet for changes or additions to the existing pavement markings.

\*\* - Add 1 set of Two Way Left Turn Arrows in this roadway section.

DESIGN AGENCY



GLI

REVIEWER

MPB 7-2-24
PROJECT ID

120884
SHEET TOTAL

	DATE: 10/7/2024 TIME: 3:18:21 PM 11SER
-VAR.	DATE: 10/7/2024
ALL-75/117/309	MODEL Sheet PAPERSIZE 34x22 (in )

						Quantities	<u> </u>		
			2	02			608		
Ref. No.	Intersecting Street	Side	Walk Removed	Curb and Gutter Removed	Curb Ramp Type A2	Curb Ramp Type B1	Curb Ramp Type B2	Curb Ramp Type B3	Curb Ramp Type C1
			SF	FT	SF	SF	SF	SF	SF
1-R		Rt.	47						47
2-R		Rt.	42						42
3-R	<b>SR 117 and</b>	Lt.	9						9
4-R	Eastown Rd.	Rt.	47						47
5-R		Rt.	53						53
6-R		Lt.	27						27
7-R	<b>SR 117 and</b>	Rt.	76					76	
8-R	Roschman Ave.	Rt.	72		72				
9-R	<b>SR 117 and</b>	Lt.	51		51				
10-R	Eastern Ave.	Lt.	55		55				
11-R	SR 117 and	Rt.	72			72			
	SR 309								
12-R	SR 309 and	Rt.	59		54				
13-R	St. Andrews Blvd.	Rt.	53		41				
14-R	CD 200 J	Rt.	75		72				
	SR 309 and Mt. Holyoke Ave.								
15-R		Rt.	80				80		
16-R	SR 309 and	Lt.	141	25			204		
17-R	Lost Creek Blvd.	Lt.	50				50		
	Totals		1009	25	345	72	334	76	225



designer **GLI** 

REVIEWER

MPB 7-2-24

PROJECT ID

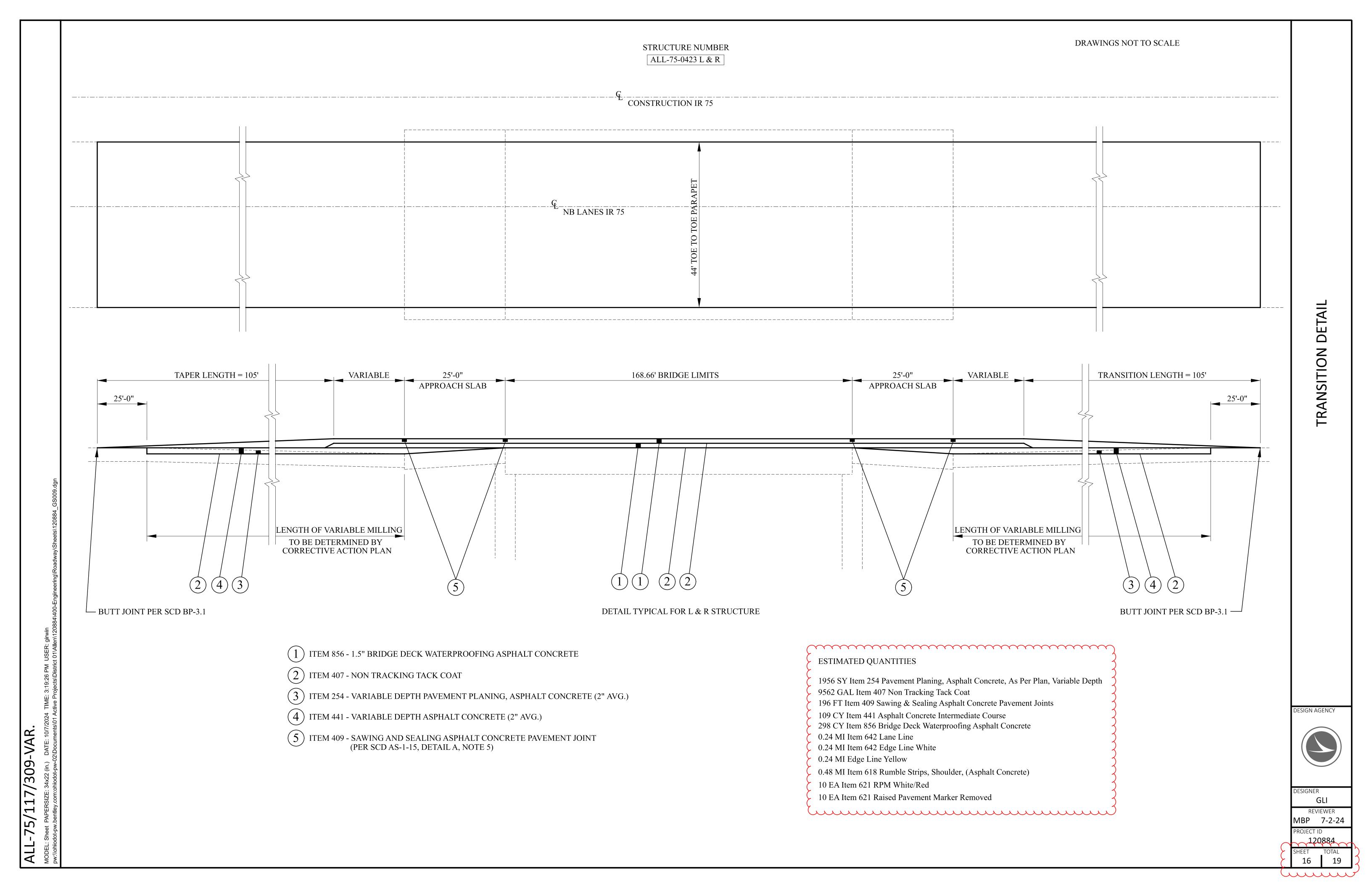
120884

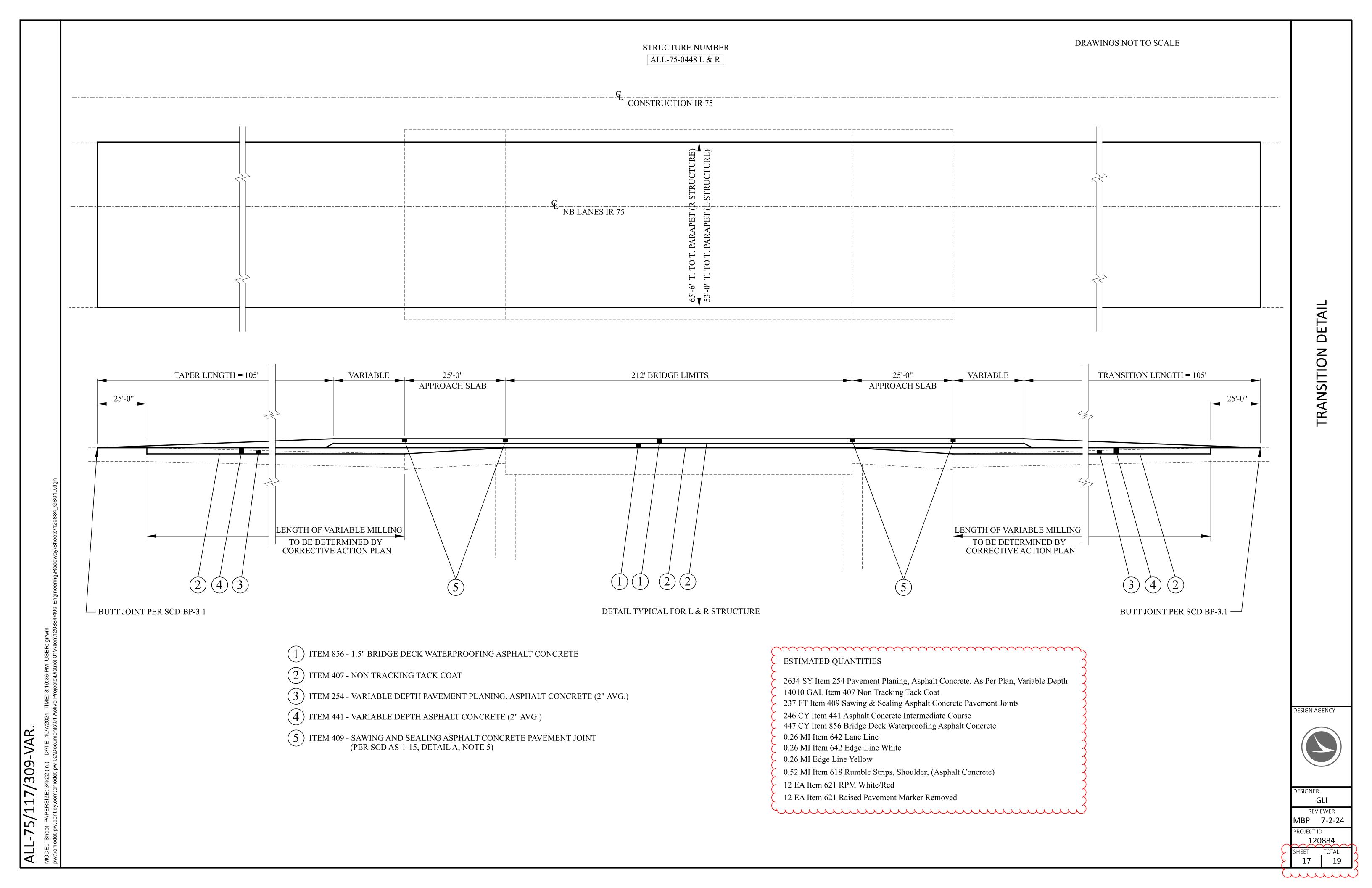
SHEET TOTAL

MPB 7-2-24

120884

mm





~~~	~~~~	~~~	~~~~	~~~\$I	HEET NU	M	~~~~	~~~	~~~~	7		PART.		ITEM	ITEM	GRAND	UNIT	DESCRIPTION SEE	_
2	3	4	6	7	9	10	15	16	17	3	01/S50/05	02/NHS/05	03/IMS/06	11611	EXT	TOTAL	ONT	NO.	
uu	ww	·····	uuu	ww	ww	·····	ww	uu	uuu	ک								ROADWAY	
			2,457	3,853							2,457	3,853		202	23500	6,310	SY	WEARING COURSE REMOVED	
						1,009					225	784		202	30000	1,009	SF	WALK REMOVED	
						1,052			+		225	25 827		202 608	32500 52000	25 1,052	SF	CURB AND GUTTER REMOVED  CURB RAMP	_
						1,032					223	027		000	32000	1,032	31		
																		EROSION CONTROL	
	2								1		1	1		659	00300	2	СҮ	TOPSOIL	
	30										15	15		659	10000	30	SY	SEEDING AND MULCHING	
	0.16										0.08	0.08		659 659	20000 35000	0.16	TON MGAL	COMMERCIAL FERTILIZER WATER	
1,000	0.2										800	200		832	30000	1,000	EACH	EROSION CONTROL	
																		PAVEMENT	
4.50												100				1			
150			24,701								50 24,701	100		253 254	02000 01000	150 24,701	CY SY	PAVEMENT REPAIR PAVEMENT PLANING, ASPHALT CONCRETE, 1.75" THICKNESS	
			24,701	35,690							24,701	35,690		254	01000	35,690	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5" THICKNESS	
			484	714							484	714		254	01600	1,198	SY	PATCHING PLANED SURFACE	
			20								20			304	20000	20	СҮ	AGGREGATE BASE	
			2,308	3,362							2,308	3,362		407	20000	5,670	GAL	NON-TRACKING TACK COAT	
			1,179	1,486					1		1,179	1,486		442	10000	2,665	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	
			143 144	162 16							143 144	162		442 617	20000	305 160	CY CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)  COMPACTED AGGREGATE, AS PER PLAN  2	
			2,235	2,346							2,235	2,346		875	10000	4,581	LB	LONGITUDINAL JOINT ADHESIVE	
																		TRAFFIC CONTROL	
								_	~~~	<u> </u>		Ç	$\sim$			Ç~~~	,	mmmmm	
					437	{	0.42	0.48	0.52	3	137	300	1.42 32	618 621	40600 00100	1.42	MILE (	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
					437	(	10	10	12	3	137	300	32	621	54000	469	EACH	RAISED PAVEMENT MARKER REMOVED	
					4.16		0.42	0.48	0.52	3	2.34	1.82	1.42	642	00104	5.58	MILE	EDGE LINE, 6", TYPE 1	
					1.85		0.21	0.24	0.26	3		1.85	0.71	642	00204	2.56	MILE	LANE LINE, 6", TYPE 1	
					3.1						1.56	1.54		642	00300	3.1	MILE	CENTER LINE, TYPE 1	
					3,661						890	2,771		644	00404	3,661	FT	CHANNELIZING LINE, 12"	
					891 1,731				1		236 228	655 1,503		644	00500 00620	891 1,731	FT FT	STOP LINE CROSSWALK LINE, 12"	
					772						132	640		644	00630	772	FT	CROSSWALK LINE, 24"	
					396						396			644	00700	396	FT	TRANSVERSE/DIAGONAL LINE	
					55						17	38		644	01300	55	EACH	LANE ARROW	
					240							240		644	01370 01510	240	EACH FT	TWO WAY LEFT TURN ARROW  DOTTED LINE, 6"	
																		STRUCTURE OVER 20 FOOT SPAN (ALL-75-0100 L&R)	
							1,956 7,450						1,956 7,450	254 407	01001 20000	1,956 7,450	SY GAL	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, VARIABLE DEPTH 3  NON-TRACKING TACK COAT	
							196						196	409	30000	196	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
							109						109	441	70300	109	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	
							230						230	856	10000	230	СҮ	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE	
																		STRUCTURE OVER 20 FOOT SPAN (ALL-75-0423 L&R))	DESIG
								1,956					1,956	254	01001	1,956	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, VARIABLE DEPTH 3	
								9,562 196					9,562 196	407 409	20000 30000	9,562 196	GAL FT	NON-TRACKING TACK COAT SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
								109					109	441	70300	109	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	
								298					298	856	10000	298	СҮ	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE	_
																		STRUCTURE OVER 20 FOOT SPAN (ALL-75-0448 L&R)	DESIGN
									2,634				2,634	254	01001	2,634	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, VARIABLE DEPTH 3	R MPB
									14,010				14,010	407	20000	14,010	GAL	NON-TRACKING TACK COAT	PROJEC
		I	I					1	237				237	409	30000	237	Į FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
									146				146	441	70300	146	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	SHEET

																																	ļ										DEC.	DESIGN	DESIG	DESIGNEF		
SEE SHEET NO.																																	-	<b></b>						+								
SCRIPTION	NANCE OF TRAFFIC	ASSISTANCE			NCIDENTALS																																											
DE	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	AW ENFORCEMENT OFFICER WITH PATROL CAR FOR WORK ZONE MARKING SIGN	VORK ZONE LANE LINE, CLASS I, 6" VORK ZONE LANE LINE, CLASS II, 6"	VORK ZONE CENTER LINE, CLASS I	VORK ZONE CENTER LINE, CLASS II	MAINTAINING TRAFFIC MOBILIZATION																																										
UNIT					MILE																																											
GRAND TOTAL	~~~~		1.85 1.85	3.1	6.2	LS LS																																										
ITEM EXT	~~~~		20010 20410	21000	21400	11000 10000																																										
ITEM		614	614 614	614	614	614 624																																	1	<del></del>								
1		50								$\vdash$					1	1	-	1		+	+	++	+	+	+	+	+	+	+		+	+		+	1	$\downarrow \downarrow \downarrow$		1		+	† †							
PART. 02/NHS/05			1.85 1.85	1.54	3.08	LS LS											<u> </u>			<del>                                     </del>		<del>                                     </del>			<del>                                     </del>	<del>                                     </del>	<del></del>	<del></del>	<del></del>	<b> </b>	<del></del>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	<u> </u>	<u> </u>	<u> </u>	1 -		+								
01/S50/05		50	+	1.56	3.12	LS LS				+			+					+	+	+	+	+	+	+	+	+	+	+	+		+	+	+				/	1		1								
3											<u> </u>	<u> </u>			<u> </u>	<u> </u>	<del>                                     </del>	<del> </del>		<del>                                     </del>	<del> </del>	<del> </del>	<del> </del>	<del>                                     </del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<b></b>	<del> </del>	<del>                                     </del>	<del></del>	<b></b>	<del></del>	1	1	1		<del> </del>	<del>                                     </del>	<del>                                     </del>						
17																				<b>—</b>	+	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	+'	+'	<b></b> '	<b>+</b> '	<b></b> '	<b></b> ′	<b></b>	<b></b> '	<b></b>		<b></b> ′	<b></b> ′	<b></b> ′	1		+								
16										<del>                                     </del>		<u> </u>			<u> </u>	<u> </u>	<u> </u>	<u> </u>		<del>                                     </del>	<del> </del>	<del> </del>	<b></b>	<del> </del>	<del> </del>		<b></b>		<b></b>	<b></b>	<del>                                     </del>		<del> </del>	<b></b>	<b></b>	<b></b>		1	-	<del> </del>	<del>                                     </del>							
15																			1	+	<del></del>	+	<del></del>	<del></del>		+		+	+		<del></del>	1					1	1	•	<del></del>								
10	· · · · · · · · · · · · · · · · · · ·																	-		+	+		+	+	+	+	+	+	<del>                                     </del>	<b></b>	+	+	+	<b></b>	<b></b>	<b></b> /	<b></b> /	_ <del></del>	, h	+								
HEET NUM	~~~																																															
SH 7																			++	+	$\leftarrow$	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	$\leftarrow$	+	$\leftarrow$	<del></del>	$\leftarrow$	<del></del>	$\leftarrow$		<del>                                     </del>	1	1 ———	<b>1</b>	<del></del>								
6	~~~																																						l l									
4		100																<del>                                     </del>		<del></del>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	<del></del>	<del></del>	<del></del>	<del></del>	<del>                                     </del>					1	<u> </u>													
3	ς																			+	+			+	+'	+'	<b></b> ′	+'	<b></b>	<b></b> ′	<u> </u>	<b></b>	<b></b>		<b></b> ′	<b></b> ′			-	+								
2	<u>-</u>	24	L.85 L.85	3.1	6.2																																								     			