

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## SUM-77-24.12

### BATH TOWNSHIP RICHFIELD TOWNSHIP SUMMIT COUNTY

**FEDERAL PROJECT NUMBER**

E200 (137)

**RAILROAD INVOLVEMENT**

NONE

**PROJECT DESCRIPTION**

PROJECT CONSISTS OF FULL DEPTH RECONSTRUCTION AND WIDENING OF 4.6 MILES OF I.R. 77 TO SIX LANES, INCLUDING DRAINAGE, LIGHTING, SIGNING AND SIGNAL IMPROVEMENTS. PROJECT ALSO INCLUDES RECONSTRUCTION OF RAMPS AT THE GHENT ROAD INTERCHANGE AND REST AREA. PROJECT ALSO INCLUDES MINOR REHABILITATION WORK TO TWELVE STRUCTURES.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA: 146.50 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 1.00 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: 147.50 ACRES

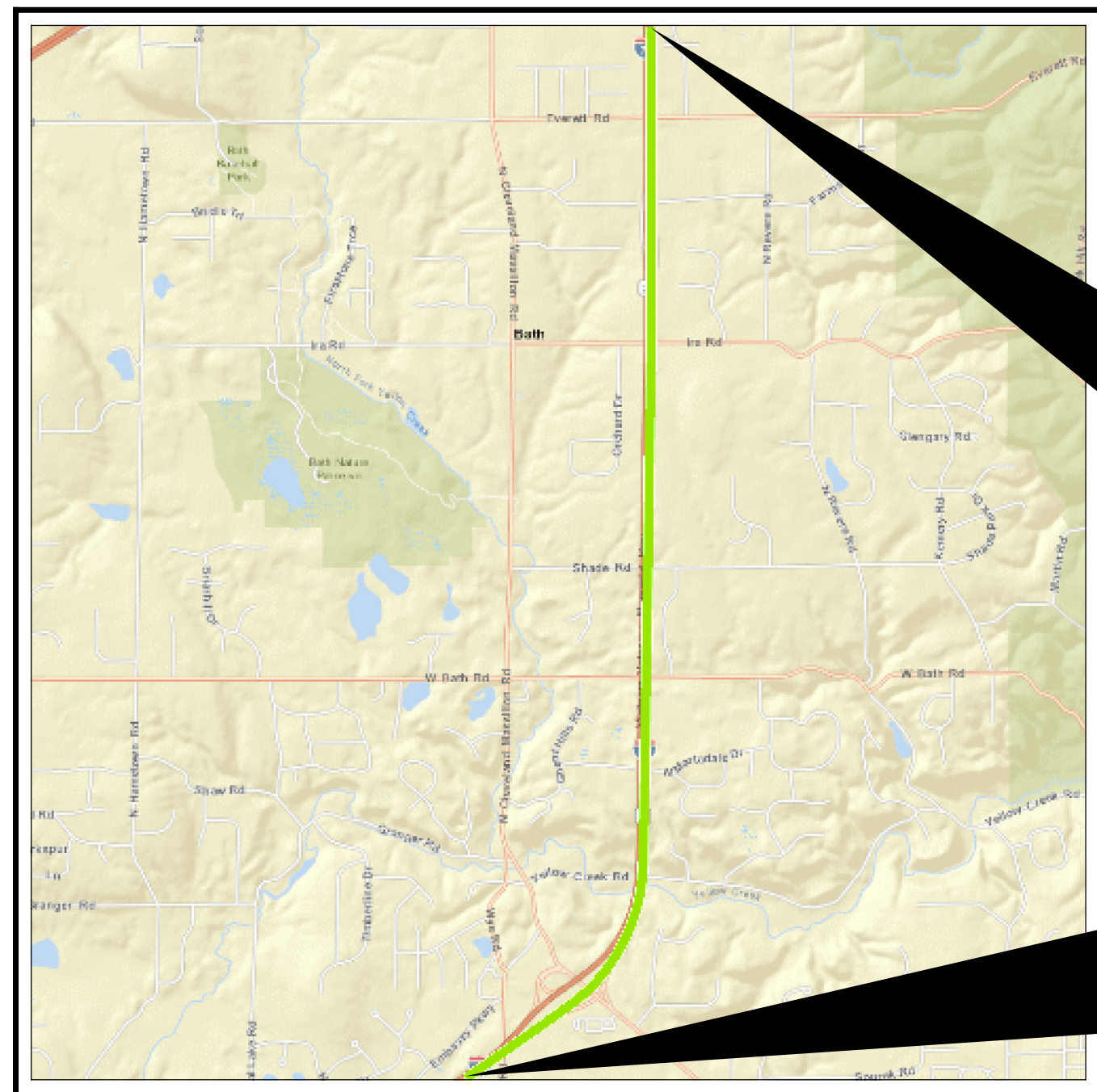
**LIMITED ACCESS**

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

**2023 SPECIFICATIONS**

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR THE RAMPS, AS DESCRIBED ON SHEETS 86 - 92 AND THAT PROVISIONS FOR THE MAINTENANCE OF TRAFFIC AND SAFETY OF TRAFFIC WILL BE SET FORTH ON THE PLANS AND ESTIMATES.

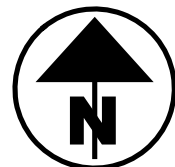


END PROJECT  
STA. 842+00.00  
S.L.M 28.77

BEGIN PROJECT  
STA. 599+00.00  
S.L.M 24.17

**LOCATION MAP**

LATITUDE: 41°10'31.7"N LONGITUDE: 81°37'33.2"W



PORTION TO BE IMPROVED	—————
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	-----
STATE ROUTES	=====
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

**DESIGN DESIGNATION**

FOR DESIGN DESIGNATIONS, SEE SHEET 2

**DESIGN EXCEPTIONS**

DESIGN FEATURE	APPROVAL DATES	SHEET NUMBERS
MEDIAN SHOULDER WIDTH (I.R. 77)	11-1-21	14 ,16 ,17 ,18
SUPERELEVATION (REST AREA RAMPS)	11-1-21	13
SHOULDER WIDTH (GHENT ROAD)	11-1-21	31

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**STANDARD CONSTRUCTION DRAWINGS**

STANDARD CONSTRUCTION DRAWINGS										SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS			
BP-2.1	1/21/22	DM-4.3	1/15/16	MH-1	7/15/22	HL-30.21	4/17/20	MT-98.29	1/17/20	TC-41.10	7/19/13	800-2023	7/19/24	WATERWAY PERMIT 12/30/24
BP-2.2	1/15/21	DM-4.4	1/15/16	MH-3	7/19/24	HL-30.22	1/15/21	MT-99.20	4/19/19	TC-41.20	10/18/13	807	1/21/22	
BP-3.1	1/19/24					HL-40.20	7/19/24	MT-99.30	1/17/20	TC-41.25	7/17/15	808	7/19/24	
BP-4.1	7/19/13	F-1.1	7/19/13	RM-1.1	1/20/23	HL-60.11	7/21/17	MT-100.00	1/19/24	TC-41.30	4/21/23	809	7/19/24	
BP-5.1	7/15/22	F-2.1	7/20/18	RM-3.1	7/20/18	HL-60.21	7/20/18	MT-101.60	4/21/23	TC-41.40	10/18/13	813	7/21/23	
BP-6.1	7/19/13	F-3.1	7/19/13	RM-4.1	7/21/17	HL-60.31	7/19/24	MT-101.70	7/19/24	TC-41.41	7/19/19	821	4/20/12	
BP-9.1	1/18/19	F-3.2	7/18/14	RM-4.2	7/19/24	MT-101.75	7/21/23	MT-101.75	7/21/23	TC-42.10	10/18/13	825	7/19/24	
		F-3.3	7/19/13	RM-4.3	1/21/22	MT-95.30	7/19/19	MT-101.90	7/17/20	TC-42.20	10/18/13	832	7/19/24	
		F-3.4	7/19/13	RM-4.4	7/21/23	MT-95.31	7/19/19	MT-102.10	7/21/23	TC-51.11	1/15/16	833	7/19/24	
CB-2-2A,				RM-4.5	7/19/24	MT-95.32	4/19/19	MT-102.20	4/19/19	TC-51.12	1/15/16	836	1/19/24	
2-2B, 2-2C	7/19/24	I-3C, 3C1	7/19/24	RM-4.6	7/19/24	MT-95.40	7/21/23	MT-102.30	10/16/15	TC-52.10	10/18/13	850	7/21/23	
CB-2-3, 2-4	7/19/24	I-3D	7/19/24			MT-95.41	7/21/23	MT-103.10	1/21/22	TC-52.20	1/15/21	875	1/18/19	
CB-3	7/19/24			HW-2.1	7/15/22	MT-95.45	7/21/23	MT-104.10	1/19/24	TC-65.10	1/17/14	899	1/19/24	
CB-3A	7/19/24	MGS-1.1	7/16/21	HW-2.2	7/20/18	MT-95.50	7/21/17	MT-105.10	1/17/20	TC-65.11	1/19/24	905	4/17/20	
CB-4	7/19/24	MGS-2.1	1/19/18	NBS-1-09	7/19/24	MT-95.70	7/21/23			TC-71.10	4/21/23	908	10/20/17	
CB-8	7/19/24	MGS-3.1	1/19/18			MT-95.71	7/21/23	TC-12.31	4/15/22	TC-72.20	7/21/23	909	7/19/24	
CB-4A, 5A,		MGS-3.2	1/18/13	HL-10.11	7/21/23	MT-97.10	4/19/19	TC-15.116	1/19/24	TC-73.20	7/19/24	921	7/19/24	
8A	7/19/24	MGS-4.2	7/19/13	HL-10.12	7/21/23	MT-97.12	1/20/17	TC-16.22	7/21/23	TC-74.10	7/21/23			
		MGS-4.3	1/18/13	HL-10.13	1/20/23	MT-98.10	1/17/20	TC-21.11	7/16/21	TC-81.22	7/21/23			
DM-1.1	7/17/20	MGS-5.2	7/15/16	HL-10.31	7/15/22	MT-98.11	1/17/20	TC-21.21	1/20/23	TC-83.10	1/17/20			
DM-1.2	7/16/21	MGS-5.3	7/15/16	HL-20.11	7/21/23	MT-98.20	4/19/19	TC-21.50	4/17/20	TC-83.20	7/19/24			
DM-2.1	1/18/13	MGS-6.1	1/19/18	HL-20.21	1/15/21	MT-98.21	7/21/23	TC-22.10	4/21/23	TC-85.20	4/21/23			
DM-4.1	7/17/20	MGS-6.2	7/19/24	HL-30.11	7/21/23	MT-98.22	1/17/20	TC-22.20	1/17/14					

**UNDERGROUND UTILITIES**  
Contact Two Working Days Before You Dig

OHIO811. 8-1-1. or 1-800-362-2764  
(Non members must be called directly)

PLAN PREPARED BY:

GPD GROUP  
520 South Main Street  
Akron, OH 44311  
330.572.2100 Fax 330.572.2101  
Copyright: Glaus, Pyle, Schomer, Burns & Dehaven, Inc. 2023

ENGINEER'S SEAL



ENGINEER'S SEAL



ENGINEER'S SEAL



ENTIRE PLAN EXCEPT SHEETS OTHERWISE NOTED

REV.	DATE	DESCRIPTION
2	2/19/25	ADD SP

*Arthur G. Noirot Jr.*  
Arthur G. Noirot Jr., P.E.  
District 04 Deputy Director

*Pamela Boratyn*  
Pamela Boratyn  
Director, Department of Transportation

TITLE SHEET

DESIGN AGENCY



DESIGNER

ATR

REVIEWER

CWL 12-18-23

PROJECT ID

111404

SHEET TOTAL

P.1 1240

SUM-077-24.12

MODEL: Sheet PAPER: 34x22 (in.) DATE: 2/19/2025 TIME: 7:09:14 AM USER: cluzler  
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**ENVIRONMENTAL**

**WETLAND AND ENVIRONMENTAL IMPACTS/AVOIDANCE**

THIS PROJECT WILL IMPACT A TOTAL OF 0.42 ACRES OF WETLANDS AND STREAM/DITCH 1,147 LINEAR FEET.

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT THE REMAINING WETLANDS/STREAMS/DITCHES INDICATED ON THE PLAN. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS WITHIN THESE WETLANDS.

TO PROTECT AND DELINEATE THE BOUNDARY OF THE EXISTING REMAINING WETLANDS, TEMPORARY CONSTRUCTION FENCE AND FILTER FABRIC FENCE 5322 LINEAR FEET, PAYMENT FOR THIS ITEM WILL BE MADE UNDER ITEM 832, EROSION CONTROL) SHALL BE INSTALLED ALONG THE PROPOSED CONSTRUCTION LIMITS WITHIN THE WETLANDS AREA BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS AND ADJACENT AREA AND MAINTAINED BY CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION. SEE SHEETS 3- 12 FOR WETLAND LOCATIONS.

**BEST MANAGEMENT PRACTICES/SOIL EROSION AND SEDIMENTATION CONTROL**

ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SPECIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER.

**ENDANGERED SPECIES HABITAT**

INDIANA BAT/NORTHERN LONG-EARED BAT: THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

TREES WITHIN THE MEDIAN ONLY IN THE PROJECT LIMITS ARE NOT SUBJECT TO SEASONAL CUTTING RESTRICTIONS WITH THE EXCEPTION OF TREES SOUTH OF GHENT ROAD WHICH ARE OUTSIDE THE CONSTRUCTION LIMITS. 2

REV.	DATE	DESCRIPTION
2	2/13/25	UPDATE NOTE

GENERAL NOTES

DESIGN AGENCY



DESIGNER  
ATR

REVIEWER  
CWL 12-18-23

PROJECT ID  
111404

SHEET TOTAL  
P.48 | 1240

**SEQUENCE OF CONSTRUCTION**

PRE-PHASE 1 (NOT SHOWN)

PRIOR TO COMMENCING PHASE 1 CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL RECONSTRUCT THE EXISTING ASPHALT SHOULDERS BASE ON THE LIMITS SHOWN ON THE PRE-PHASE 1 RECONSTRUCTED SHOULDER SCHEMATIC PLAN. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-95.30. ONLY ONE LANE ADJACENT TO THE OUTSIDE SHOULDERS SHALL BE CLOSED AT ANY ONE TIME AS PER THE ODOT PERMITTED LANE CLOSURE SCHEDULE. THIS WORK ZONE SHALL BE REMOVED BY 6 AM DAILY.

ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

PHASE 1

THE CONTRACTOR SHALL CLOSE THE LEFT LANE AND SHIFT TWO (2) NORTHBOUND LANES ONTO THE EXISTING OUTSIDE PAVEMENT AND RECONSTRUCTED OUTSIDE SHOULDER OF I-77. SOUTHBOUND TRAFFIC SHALL REMAIN IN THE EXISTING TRAFFIC PATTERN. THE CONTRACTOR SHALL CONSTRUCT THE PROPOSED NORTHBOUND INSIDE LANE AND SHOULDER OF I-77 UP TO AND INCLUDING THE INTERMEDIATE COURSE AND PLACE THE VARIABLE DEPTH TEMPORARY PAVEMENT TO MATCH EXISTING ADJACENT PAVEMENT ELEVATIONS. THE VARIABLE TEMPORARY PAVEMENT IS TO BE REMOVED/MILLED IN PHASE 3. TWO (2) LANES IN EACH DIRECTION ON I-77 SHALL BE MAINTAINED AT ALL TIMES, UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL CONSTRUCT THE TEMPORARY PAVEMENT FOR CROSSEOVERS #1, #2 AND #4. THE CONTRACTOR SHALL INSTALL TEMPORARY DRAINAGE AND THE CROSSEOVER LIGHTING SYSTEM. WHEN CONSTRUCTING THE TEMPORARY PAVEMENT FOR CROSSEOVER #4, THE CONTRACTOR SHALL CLOSE THE SOUTHBOUND LEFT LANE PER MT-95.30. LANE CLOSURE DURATIONS SHALL BE IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE SCHEDULE.

ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

1ST WINTER OVER PHASE

THE TRAFFIC SHALL REMAIN IN THE PHASE 1 TRAFFIC PATTERN FOR THE DURATION OF THE WINTER MONTHS (NOVEMBER 1 TO APRIL 1). THE CONTRACTOR SHALL REPLACE THE TEMPORARY WET REFLECTIVE PAVEMENT MARKING MATERIAL WITH TEMPORARY PAINT FOR THE DURATION OF THE WINTER PHASE.

PRE-PHASE 2 (NOT SHOWN)

NORTHBOUND TRAFFIC SHALL REMAIN IN THE WINTER OVER CONDITION. THE CONTRACTOR SHALL CLOSE THE SOUTHBOUND LEFT LANE PER MT-95.30 AND CONSTRUCT THE TEMPORARY PAVEMENT FOR CROSSEOVERS #3 AND #6. THE CONTRACTOR SHALL INSTALL TEMPORARY DRAINAGE AND THE CROSSEOVER LIGHTING SYSTEM. LANE CLOSURE DURATIONS SHALL BE IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE SCHEDULE.

PHASE 2

NORTHBOUND TRAFFIC SHALL REMAIN IN THE WINTER OVER CONDITION. THE CONTRACTOR SHALL SHIFT THE SINGLE SOUTHBOUND LANE OVER TO THE NORTHBOUND INSIDE NEWLY CONSTRUCTED PAVEMENT AND EXISTING PAVEMENT WHERE THE SECOND EXISTING SOUTHBOUND LANE IS LOCATED. THE CONTRACTOR SHALL CONSTRUCT ALL ROADWAY IMPROVEMENTS TO THE SOUTHBOUND PAVEMENT OF I-77, INCLUDING THE ASPHALT PAVEMENT UP TO AND INCLUDING THE INTERMEDIATE COURSE.

ONE (1) SOUTHBOUND LANE TO ENTER AND EXIT AT GHENT ROAD SHALL BE MAINTAINED SOUTH OF THE YELLOW CREEK BRIDGE AT ALL TIMES IN THIS PHASE. THE CONTRACTOR SHALL SHIFT ONE (1) SOUTHBOUND LANE TO THE OUTSIDE OF I-77 ONTO EXISTING AND CROSSEOVER/TEMPORARY PAVEMENT. THE CONTRACTOR SHALL CONSTRUCT ALL ROADWAY IMPROVEMENTS, SOUTH OF THE YELLOW CREEK BRIDGE, AS DETAILED IN THE MAINTENANCE OF TRAFFIC PLANS, INCLUDING THE ASPHALT PAVEMENT UP TO AND INCLUDING THE INTERMEDIATE COURSE.

THE CONTRACTOR SHALL INSTALL ALL THE PROPOSED SOUTHBOUND SIGNING ALONG I-77 AND THE SOUTHBOUND REST AREA.

ALL RAMPS FOR THE GHENT RD. INTERCHANGE SHALL REMAIN OPEN AT ALL TIMES.

RAMP D AND C (SB REST AREA) SHALL BE CLOSED FOR THE ENTIRE DURATION OF PHASE 2.

ALL WORK FOR PHASE 2 AND 2A SHALL BE COMPLETED BY 10/15/2026.

**SEQUENCE OF CONSTRUCTION (CONTINUED)**

PHASE 2A (RAMPS S & P CLOSED)

TRAFFIC SHALL REMAIN IN THE PHASE 2 CONDITION EXCEPT RAMPS S & P SHALL BE CLOSED. CLOSURES SHALL NOT EXCEED 45 CALENDER DAYS.

THE CONTRACTOR SHALL CONSTRUCT ALL ROADWAY IMPROVEMENTS FOR RAMPS S & P AND THE REMAINING PAVEMENT ALONG I-77 SOUTHBOUND UP TO AND INCLUDING THE INTERMEDIATE COURSE.

DURING THE 45 DAY CLOSURE OF RAMP S AND P, THE CONTRACTOR SHALL CLOSE THE OUTSIDE LANES ON GHENT ROAD AT THE GHENT ROAD / I-77 SOUTHBOUND RAMPS INTERSECTION. THE CONTRACTOR SHALL PERFORM ALL ROADWAY IMPROVEMENTS AT THE RAMP S / RAMP P / GHENT RD. INTERSECTION INCLUDING THE PROPOSED TRAFFIC SIGNAL.

ALL WORK FOR PHASE 2 AND 2A SHALL BE COMPLETED BY 10/15/2026.

PRE-PHASE 3 (NOT SHOWN)

THE TRAFFIC SHALL REMAIN IN THE PHASE 2 TRAFFIC PATTERN. THE CONTRACTOR SHALL CLOSE THE SOUTHBOUND LEFT LANE PER MT-95.30 AND CONSTRUCT THE TEMPORARY PAVEMENT FOR CROSSEOVER #5. THE CONTRACTOR SHALL INSTALL TEMPORARY DRAINAGE AND THE CROSSEOVER LIGHTING SYSTEM. LANE CLOSURE DURATIONS SHALL BE IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE SCHEDULE.

2ND WINTER OVER PHASE

THE TRAFFIC SHALL BE PLACED IN THE PHASE 3 TRAFFIC PATTERN FOR THE DURATION OF THE WINTER MONTHS (NOVEMBER 1 TO APRIL 1). THE CONTRACTOR SHALL REPLACE THE TEMPORARY WET REFLECTIVE PAVEMENT MARKING MATERIAL WITH TEMPORARY PAINT FOR THE DURATION OF THE WINTER PHASE.

PHASE 3

THE CONTRACTOR SHALL COMMENCE PHASE 3 NO LATER 10/15/2026.

THE CONTRACTOR SHALL CLOSE THE LEFT LANE AND SHIFT TWO (2) SOUTHBOUND LANES ONTO TO NEWLY CONSTRUCTED OUTSIDE PAVEMENT AND SHOULDER OF I-77 SB AND TWO (2) NORTHBOUND LANES SHALL BE CROSSED OVER TO THE SOUTHBOUND INSIDE NEWLY CONSTRUCTED PAVEMENT AND SHOULDER. THE CONTRACTOR SHALL CONSTRUCT ALL ROADWAY IMPROVEMENTS TO THE NORTHBOUND PAVEMENT OF I-77, INCLUDING REMOVING/MILLING THE VARIABLE DEPTH TEMPORARY PAVEMENT PLACE IN PHASE 1 AND PLACING THE ASPHALT PAVEMENT UP TO AND INCLUDING THE INTERMEDIATE COURSE.

ONE (1) NORTHBOUND LANE TO ENTER AND EXIT AT GHENT ROAD SHALL BE MAINTAINED SOUTH OF THE YELLOW CREEK BRIDGE AT ALL TIMES IN THIS PHASE. THE CONTRACTOR SHALL SHIFT ONE (1) NORTHBOUND LANE TO THE INSIDE OF I-77 ONTO EXISTING AND CROSSEOVER/TEMPORARY PAVEMENT. THE CONTRACTOR SHALL CONSTRUCT ALL ROADWAY IMPROVEMENTS, SOUTH OF THE YELLOW CREEK BRIDGE, AS DETAILED IN THE MAINTENANCE OF TRAFFIC PLANS, INCLUDING THE ASPHALT PAVEMENT UP TO AND INCLUDING THE INTERMEDIATE COURSE.

THE CONTRACTOR SHALL PLACE ALL THE PROPOSED NORTHBOUND SIGNING ALONG I-77 AND THE NORTHBOUND REST AREA.

ALL RAMPS FOR THE GHENT RD. INTERCHANGE SHALL REMAIN OPEN AT ALL TIMES.

RAMP A AND B (NB REST AREA) SHALL BE CLOSED FOR THE ENTIRE DURATION OF PHASE 3.

PHASE 3A (RAMPS L & N CLOSED)

TRAFFIC SHALL REMAIN IN THE PHASE 3 CONDITION EXCEPT RAMPS L & N SHALL BE CLOSED. CLOSURES SHALL NOT EXCEED 45 DAYS.

THE CONTRACTOR SHALL CONSTRUCT ALL ROADWAY IMPROVEMENTS ALONG RAMPS L & N AND THE REMAINING PAVEMENT ALONG I-77 NORTHBOUND UP TO AND INCLUDING THE INTERMEDIATE COURSE.

DURING THE 45 DAY CLOSURE OF RAMP L AND N, THE CONTRACTOR SHALL CLOSE THE OUTSIDE LANES OF GHENT ROAD AT THE GHENT ROAD / I-77 NORTHBOUND RAMPS INTERSECTION. THE CONTRACTOR SHALL PERFORM ALL ROADWAY IMPROVEMENTS AT THE GHENT ROAD / I-77 NORTHBOUND INTERSECTION INCLUDING THE PROPOSED TRAFFIC SIGNAL.

**SEQUENCE OF CONSTRUCTION (CONTINUED)**

PHASE 4

TRAFFIC SHALL BE PLACED IN THE PROPOSED TRAFFIC PATTERN, EXCEPT THE CONTRACTOR SHALL CLOSE THE INSIDE LANE FOR BOTH NORTHBOUND AND SOUTHBOUND. TWO (2) NORTHBOUND AND SOUTHBOUND LANES SHALL BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR SHALL REMOVE TEMPORARY PAVEMENT UTILIZED FOR CROSSEOVERS AND RESTORE THE MEDIAN, INSTALL THE CABLE GUARDRAIL FOR I-77 SOUTHBOUND AND THE MEDIAN WALL RESTORATION SHALL BE INSTALLED.

ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

PHASE 5 (NOT SHOWN)

THE CONTRACTOR SHALL PLACE THE FINAL ASPHALT SURFACE COURSE, INSTALL ANY REMAINING SIGNING AND PLACE THE FINAL PAVEMENT MARKINGS THROUGHOUT THE PROJECT LIMITS. DURING PLACEMENT OF THE FINAL ASPHALT SURFACE COURSE, MAINTAIN TRAFFIC IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS). DURING PLACEMENT OF THE FINAL PAVEMENT MARKINGS, MAINTAIN TRAFFIC IN ACCORDANCE WITH MT-99.20 (TRAFFIC CONTROL FOR LONG LINE PAVEMENT MARKING OPERATIONS).

ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

**ASPHALT PAVING LIMITATION**

THE CONTRACTOR SHALL NOT ANTICIPATE OR SCHEDULE PLACING ASPHALT (ASPHALT SURFACE COURSE, ASPHALT INTERMEDIATE COURSE, ASPHALT CONCRETE BASE, ETC.) BETWEEN NOVEMBER 1 AND APRIL 1 WHEN SUBMITTING THEIR INITIAL BAR CHART PROGRESS SCHEDULE TO THE DISTRICT CONSTRUCTION ENGINEER (DCE) AS SPECIFIED IN CMS SECTION 108.02A. THIS LIMITATION SHALL ALSO INCLUDE INITIAL BASE LINE SCHEDULES AND ALL UPDATES IF A CPM SCHEDULE IS REQUIRED.

**YELLOW CREEK CULVERT CONSTRUCTION**

THE CONTRACTOR SHALL INSTALL THE PROPOSED CULVERT ON YELLOW CREEK ROAD DURING ONE (1) WEEKEND CLOSURE. THE CONTRACTOR SHALL BE PERMITTED TO CLOSE YELLOW CREEK ROAD BEGINNING FRIDAY AT 8:00 PM AND SHALL REOPEN THE ROAD TO TRAFFIC NO LATER THAN 5:00 AM ON MONDAY.

**WORK HOUR DESCRIPTIONS**

- OFF-PEAK HOURS ARE DEFINED AS ANY PERIOD OTHER THAN 6:00 - 9:00 AM AND 3:00 - 7:00 PM (MONDAY THRU FRIDAY) AND LEGAL HOLIDAYS.
- NIGHTTIME HOURS ARE DEFINED AS BETWEEN 8:00 PM AND 6:00 AM.

**ITEM 614 - REPLACEMENT SIGN**

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 50 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

**ITEM 614 - REPLACEMENT DRUM**

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 200 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

**ITEM 622 - PORTABLE BARRIER, UNANCHORED, AS PER PLAN**

THIS WORK SHALL CONSIST OF FURNISHING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50-INCH PORTABLE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1.

PORTABLE STEEL BARRIER IS AN APPROVED ALTERNATIVE TO PORTABLE CONCRETE BARRIER. FOR INFORMATION ON APPROVED VENDORS. SEE THE APPROVED PRODUCTS LIST MAINTAINED BY THE OFFICE OF ROADWAY ENGINEERING.

PORTABLE BARRIER, 32 INCHES HIGH WITH AN 18-INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE SCREENS PROVIDED ON THE APPROVED LIST, AVAILABLE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.

THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER. FOR DIRECTIONS ON HOW TO INSTALL THE GLARE SCREEN AND THE BARRIER, SEE THE MANUFACTURER'S INSTRUCTIONS. THE MAINTENANCE AND REPLACEMENT OF DAMAGED GLARE SCREEN SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 622 - PORTABLE BARRIER, UNANCHORED, AS PER PLAN.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622, PORTABLE BARRIER, UNANCHORED, AS PER PLAN.

**CONSTRUCTION SCHEDULES**

PROJECT 111404 MAINTENANCE OF TRAFFIC HAS BEEN DESIGNED TO TIE INTO THE ADJACENT PROJECT LOCATED TO THE NORTH (PROJECT 111405). PHASE 1 (111404) CONSTRUCTION WILL TIE INTO PHASE 4 CONSTRUCTION (111405). THE CONTRACTOR SHALL COMPLETE ALL PHASE 1 (111404) WORK BY NOVEMBER 15, 2025 IN ORDER TO REMAIN COORDINATED WITH THE ADJACENT PROJECT.

PHASE 2 (111404) CONSTRUCTION WILL TIE INTO PHASE 5 CONSTRUCTION (111405). THE CONTRACTOR SHALL COMPLETE ALL PHASE 2 (111404) WORK BY NOVEMBER 15, 2026 IN ORDER TO REMAIN COORDINATED WITH THE ADJACENT PROJECT.

PHASE 3 (111404) CONSTRUCTION WILL TIE INTO COMPLETED PROJECT 111405.

THE CONTRACTORS FOR EACH PROJECT SHALL COORDINATE THE CLOSURES WITHIN PROJECT 111405 THAT UTILIZE GHENT ROAD AS A DETOUR ROUTE. THIS IS TO ENSURE THE RAMPS ARE NOT CLOSED IN 111404 AT THE SAME TIME AS THE DETOUR ROUTE IS USING THEM.



MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY



DESIGNER

BEB

REVIEWER

MAH 12-18-23

PROJECT ID

111404

SHEET TOTAL

P.52 1240

REV.	DATE	DESCRIPTION
2	2/12/25	UPDATE NOTE

**ITEM 615 - ROADS FOR MAINTAINING TRAFFIC, AS PER PLAN**

ROADS FOR MAINTAINING TRAFFIC WILL BE REQUIRED AT VARIOUS LOCATIONS AS SHOWN IN THE PLANS, AND SHALL BE CONSTRUCTED ACCORDING TO C&MS 615 AND AS DETAILED IN THE PLANS. WHEREVER "TEMPORARY ROAD OR TEMPORARY RAMP" IS SHOWN IN THE PLANS, PAYMENT SHALL BE MADE UNDER "ROADS FOR MAINTAINING TRAFFIC."

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GRADING, EMBANKMENT, EXCAVATION, MATERIALS, AND OTHER INCIDENTALS WHICH ARE REQUIRED TO PROVIDE AND MAINTAIN A SAFE DRIVING SURFACE, AS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY GRADING AND DRAINAGE FACILITIES DEEMED NECESSARY TO MAINTAIN ADEQUATE AND POSITIVE DRAINAGE THROUGH THE WORK ZONE, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN, TEMPORARILY RELOCATE, OR ADJUST TO TEMPORARY GRADE ALL TOPOGRAPHIC ELEMENTS WITHIN THE WORK LIMITS INCLUDING BUT NOT LIMITED TO: WATER METER PITS, MANHOLES, CATCH BASINS, INLETS, SIGNS, LANDSCAPED AREAS, LIGHTING FEATURES, AND OTHER UTILITY APPURTENANCES AS DIRECTED BY THE ENGINEER.

TEMPORARY DRAINAGE FACILITIES, WHERE SHOWN IN THE PLANS, ARE APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING WHERE TEMPORARY DRAINAGE IS NEEDED, ACTUAL TEMPORARY DRAINAGE CHARACTERISTICS INCLUDING SIZE AND DIMENSIONS, INCLUDING BARRIER PROTECTION AND TEMPORARY SHEETING, WHERE NEEDED TO KEEP SIDE SLOPES FROM INTERFERING WITH OTHER CONSTRUCTION ACTIVITIES AND/OR THE TRAVELING PUBLIC.

THE FOLLOWING ESTIMATED QUANTITIES FOR TEMPORARY DRAINAGE ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY:

ITEM 611 - CATH BASIN, NO. 2-2B	16 EACH
ITEM 611 - 12" CONDUIT, TYPE B	197 FT
ITEM 611 - 15" CONDUIT, TYPE B	862 FT
ITEM 611 - 15" CONDUIT, TYPE C	239 FT

FOLLOWING CONSTRUCTION OF PAVEMENTS AND ROADS FOR MAINTAINING TRAFFIC, TEMPORARY FACILITIES SHALL BE REMOVED AS PER C&MS 615.08, AND THE EXISTING TOPOGRAPHY SHALL BE RESTORED, UNLESS OTHERWISE SPECIFIED IN THE PLANS.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND OTHER INCIDENTALS FOR ROADS AND PAVEMENTS FOR MAINTAINING TRAFFIC SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 615 - ROADS FOR MAINTAINING TRAFFIC, AS PER PLAN UNLESS SEPARATELY ITEMIZED IN THE PLANS.

**MAINTAINING TRAFFIC FOR SIGN REMOVAL AND INSTALLATION**

THE WORK DESCRIBED IN THIS NOTE IS SPECIFIC FOR THE CONSTRUCTION ASSOCIATED WITH THE PROPOSED BARRIER WALL AND SIGNAGE WORK ON THE I-77 SOUTHBOUND EXIT RAMP TO WESTBOUND SR 18 AT APPROXIMATE STA. 568+00. ALL WORK SHALL BE COMPLETED IN THE FIRST CONSTRUCTION YEAR. THE ENGINEER SHALL APPROVE THE MAINTENANCE OF TRAFFIC SETUP PRIOR TO THE COMMENCEMENT OF WORK.

THE EXISTING WOODEN BOX BEAM MOUNTED SIGN SHALL BE REMOVED UTILIZING A DAILY SHOULDER CLOSURE IN ACCORDANCE PER ODOT SCD MT-95.45.

THE CONTRACTOR SHALL MAINTAIN AN ELEVEN (11') EXIT LANE AND CLOSE THE SHOULDER PER ODOT SCD MT-95.45 FOR THE GUARDRAIL REMOVAL, BARRIER WALL CONSTRUCTION, AND REMOVAL AND INSTALLATION OF THE OVERHEAD SIGNS ON THE I-77 SOUTHBOUND EXIT RAMP TO WESTBOUND SR 18.

PORTABLE BARRIER SHALL BE PLACED FROM STA. 566+50 TO STA. 570+00. A TWO FOOT CLEARANCE SHALL BE MAINTAINED FROM THE TEMPORARY EDGE LINE TO THE FACE OF BARRIER. ONCOMING TRAFFIC SHALL BE PROTECTED AT ALL TIMES BY PORTABLE BARRIER FROM ANY EXPOSED BREAK IN THE GUARDRAIL.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR ALL WORK DESCRIBED ABOVE:

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNIDIRECTIONAL)	1 EACH
ITEM 614 - BARRIER REFLECTOR, TYPE 1, ONE WAY	8 EACH
ITEM 614 - OBJECT MARKER, ONE WAY	8 EACH
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6"	0.08 MILE
ITEM 622 - PORTABLE BARRIER, UNANCHORED	350 FT

**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(S)	COUNTY-ROUTE-SECTION(S)	DIRECTION(S)
WZ 26213	SUM-077-24.12 (65 MPH SEGMENT)	NB
WZ 26213	SUM-077-24.12 (65 MPH SEGMENT)	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.

WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS SHALL BE IN ACCORDANCE WITH THIS NOTE AND SCD MT-104.10. ADDITIONALLY PAYMENT MAY BE REMOVED, OR A DISINCENTIVE APPLIED, FOR WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS THE SAME AS DESCRIBED IN THE MOST RECENT PUBLICATION OF SS 808 IN REGARDS TO WZSZS USING DSL SIGN ASSEMBLIES (SEE SS 808.06 PARAGRAPHS 4 THROUGH 7, INCLUDING TABLE 1).

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, PRECONSTRUCTION, 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.

**WORK ZONE SPEED ZONES (WZSZS) (CONTINUED)**

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		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT 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 MAINTENANCE OF TRAFFIC GENERAL SUMMARY.

ITEM 808 - DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 459 SNMT

ASSUMING 9 NB DSL SIGN ASSEMBLIES FOR 27 MONTHS  
ASSUMING 8 SB DSL SIGN ASSEMBLIES FOR 27 MONTHS

**ACCESS TO PROPERTIES**

ACCESS SHALL BE MAINTAINED TO ALL RESIDENTIAL AND COMMERCIAL PROPERTIES EXCEPT WHEN A DRIVEWAY MUST BE CLOSED FOR CONSTRUCTION. ALL RESIDENTS AND PROPERTY OWNERS SHALL BE PROVIDED WRITTEN NOTIFICATION BY THE CONTRACTOR A MINIMUM OF 24 HOURS PRIOR TO THE CLOSURE. THE NOTICE SHALL LIST THE TIME THE CLOSURE WILL BE IN EFFECT AND SHALL LIST 24-HOUR EMERGENCY PHONE NUMBERS OF THE CONTRACTOR RESPONSIBLE FOR THE CLOSURE. THE TIMES SHALL BE COORDINATED WITH EACH RESIDENT AND PROPERTY OWNER. INDIVIDUAL DRIVE CLOSURES SHALL BE KEPT TO THE MINIMUM TIME NEEDED FOR CONSTRUCTION ACTIVITIES. EVERY EFFORT MUST BE MADE TO ACCOMMODATE THE RESIDENT OR OWNER'S NEED FOR ACCESS. ACCESS MAY BE MAINTAINED WITH THE USE OF AGGREGATE OR STEEL PLATES.

WHERE A DRIVEWAY IS WIDE ENOUGH, THE CONTRACTOR SHALL CONSTRUCT THE DRIVEWAY PART-WIDTH WHILE MAINTAINING TWO-WAY TRAFFIC. WHERE A PROPERTY HAS MORE THAN ONE DRIVEWAY, DRIVES SHALL BE CONSTRUCTED ONE AT A TIME.

ALL LABOR AND MATERIALS REQUIRED FOR THE WORK DESCRIBED ABOVE SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**GHENT ROAD WORK ZONE PAVEMENT MARKINGS**

UPON COMPLETION OF THE PHASE 2A AND 3A CONSTRUCTION, THE CONTRACTOR SHALL RESTORE THE STOP LINES ON GHENT ROAD PRIOR TO OPENING THE RAMPS TO TRAFFIC.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR RESTORATION OF THE STOP LINES ON GHENT ROAD AT THE RAMP INTERSECTIONS:

ITEM 614 - WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I 96 FT

REV.	DATE	DESCRIPTION
2	2/10/25	UPDATE REPAIR ITEMS

**WORK ZONE SIGNING**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY FOR THE WORK ZONE SIGNING AS SHOWN ON THE MAINTENANCE OF TRAFFIC ELEVATION DETAILS, SEE SHEETS 96 - 101.

ITEM 630 - SIGN ATTACHMENT ASSEMBLY 11 EACH

ITEM 630 - SIGN, GROUND MOUNTED EXTRUSHEET 821.0 SF

ITEM 630 - SIGN, OVERHEAD EXTRUSHEET 268.5 SF

ALL MATERIAL, LABOR AND EQUIPMENT REQUIRED TO INSTALL AND SUBSEQUENTLY REMOVE SOLID WOOD POST SUPPORTS (OR APPROVED EQUAL) FOR WORK ZONE SIGNING SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

ALL MATERIAL, LABOR AND EQUIPMENT TO REMOVE, ADJUST AND/OR RELOCATE EXISTING OVERHEAD MOUNTED SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

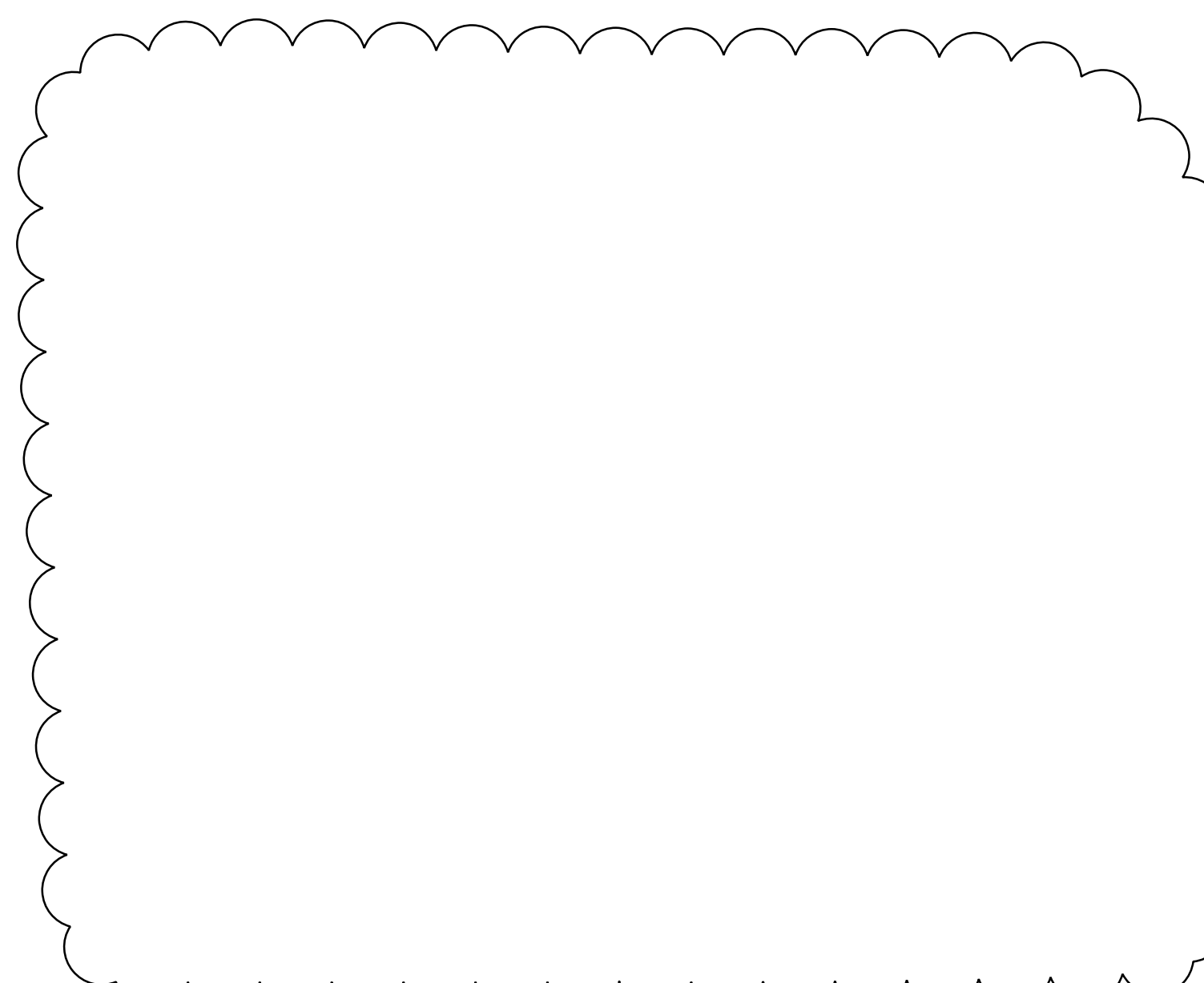
ALL REMAINING WORK ZONE SIGNING AND TEMPORARY SUPPORTS NOT SPECIFICALLY ITEMIZED SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

**ITEM 614 - MAINTAINING TRAFFIC, MISC.: SAFETY REPAIRS**

FOR IMPACT ATTENUATORS OR GUARDRAIL DAMAGED BY THE MOTORING PUBLIC, THE CONTRACTOR SHALL FOLLOW THE PROCESS OUTLINED IN 107.15. IF NO ACCIDENT REPORT IS AVAILABLE, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FROM THE VARIOUS POSSIBLE RESPONDING AGENCIES THAT NO ACCIDENT REPORT IS AVAILABLE. FOR INCIDENTS WITH AN ACCIDENT REPORT AVAILABLE, BUT THE OWNER OR INSURANCE COMPANY IS NON-RESPONSIVE, COPIES OF THE COMMUNICATION SHALL BE SUBMITTED TO THE PROJECT PER 107.15B. FOR BOTH CONDITIONS LISTED ABOVE, THE ENGINEER SHALL DETERMINE THE SAFETY ITEMS THAT MAY BE REPAIRED AND THE SAFETY ITEMS THAT SHALL BE REPLACED.

THE WORK WILL BE AS DIRECTED BY THE ENGINEER AND WILL INCLUDE ALL MAINTENANCE OF TRAFFIC COSTS ASSOCIATED WITH THE ACTIVITY. THE COST FOR EACH ITEM SHALL BE \$1.00. THE FIXED AMOUNT SHOWN IN THE PROPOSAL IS INCLUDED (AS ANY OTHER BID ITEMS) IN THE TOTAL BID AMOUNT. THIS FIXED AMOUNT IS THE DEPARTMENT'S ESTIMATE OF THE TOTAL COST FOR THE REPAIR OR REPLACEMENT OF SAFETY ITEMS WITHIN THE WORK LIMITS AS DIRECTED BY THE ENGINEER. CMS TABLE 104.02-2 DOES NOT APPLY TO REDUCTIONS IN THIS CONTRACT ITEM. FORCE ACCOUNT RECORDS SHALL BE KEPT TO TRACK AND ULTIMATELY DETERMINE THE AMOUNT OF THE PAY ITEM USED. THIS ITEM SHALL INCLUDE PAYMENT FOR ALL WORK, INCIDENTALS, AND ALL ASSOCIATED COSTS FOR THE REPAIR OR REPLACEMENT OF DAMAGED SAFETY ITEMS AS DIRECTED BY THE ENGINEER.

ITEM 614 - MAINTAINING TRAFFIC, MISC.: SAFETY REPAIRS 300,000 EACH



DESIGN AGENCY



DESIGNER

BEB

REVIEWER

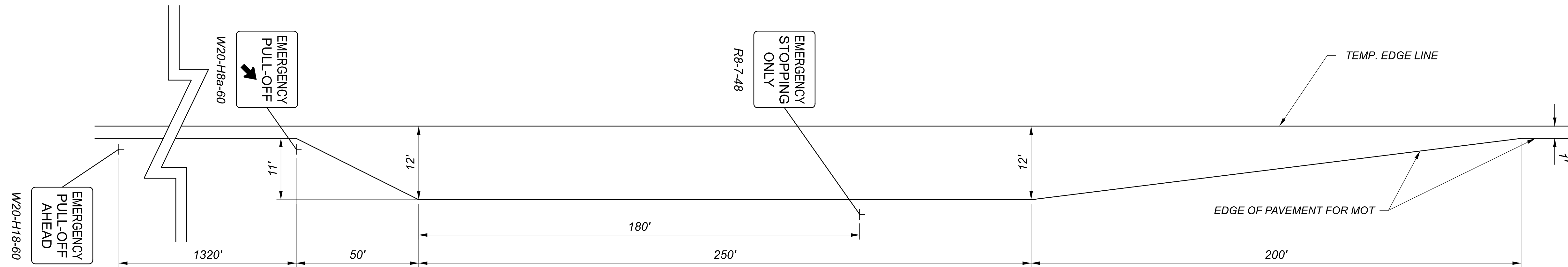
MAH 12-18-23

PROJECT ID

111404

SHEET TOTAL

P.58 1240



EMERGENCY PULL-OFF DETAIL

**EMERGENCY PULL-OFF AREAS**

THE CONTRACTOR SHALL CONSTRUCT EMERGENCY PULL-OFF AREAS ALONG I-77 BASED ON THE DETAIL PROVIDED ON THIS SHEET. SUGGESTED LOCATIONS HAVE BEEN IDENTIFIED IN THE DETAILED PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE IF THE SUGGESTED LOCATION IS SUITABLE FOR CONSTRUCTION. IF THE CONTRACTOR DETERMINE A BETTER LOCATION IS ADVISABLE, THE ENGINEER SHALL APPROVE THE NEW LOCATION PRIOR TO CONSTRUCTION.

PAYMENT FOR ALL LABOR AND MATERIALS REQUIRED TO PERFORM THE WORK DESCRIBED ABOVE, IN ADDITION TO TEMPORARY EARTHWORK, SIGNAGE, ADJUSTMENTS TO MAINTAIN DRAINAGE, ETC. TO INSTALL THE EMERGENCY PULL-OFF AREA SHALL BE INCLUDED IN THE PRICE BID FOR THE TEMPORARY PAVEMENT PAVEMENT FOR EACH LOCATION.

FOR BIDDING PURPOSES EACH LOCATION ASSUMES THE FOLLOWING AMOUNT OF TEMPORARY PAVEMENT BASED ON THE DETAIL ABOVE:

- 400 SY OF TEMPORARY PAVEMENT PER LOCATION
- DETAILS PLANS RECOMMEND 7 LOCATIONS.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A 2800 SY

- ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1
- ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2
- ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3
- ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4

THIS ITEM SHALL BE UTILIZED FOR THE PAVEMENT REPAIRS NEEDED DURING THIS CONSTRUCTION PROCESS. ALL AREAS TO BE REPAIRED SHALL BE LOCATED BY THE ENGINEER. IT IS LIKELY THAT REPAIRS WILL BE NEEDED PRIOR TO EACH PHASE SWITCH. GREAT CARE SHALL BE TAKEN TO MAINTAIN THE EXISTING PAVEMENT CROSS SLOPE AS WELL AS ALL LONGITUDINAL SLOPES. THE TYPE OF REPAIR SHALL BE DETERMINED BY THE PROJECT ENGINEER. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED FOR MAINTENANCE OF TRAFFIC FOR PAVEMENT REPAIRS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

TYPE 1 - IS TO BE USED WHEN NECESSARY TO MILL AND FILL AN AREA OF VARYING LENGTH AND HAVE AN AVERAGE WIDTH OF NOT LESS THAN 2 FEET.

TYPE 2 - IS TO BE USED FOR FIXING THE LONGITUDINAL JOINT ISSUES OF VARYING LENGTH AND HAVE A CONSISTENT WIDTH OF 2 FEET.

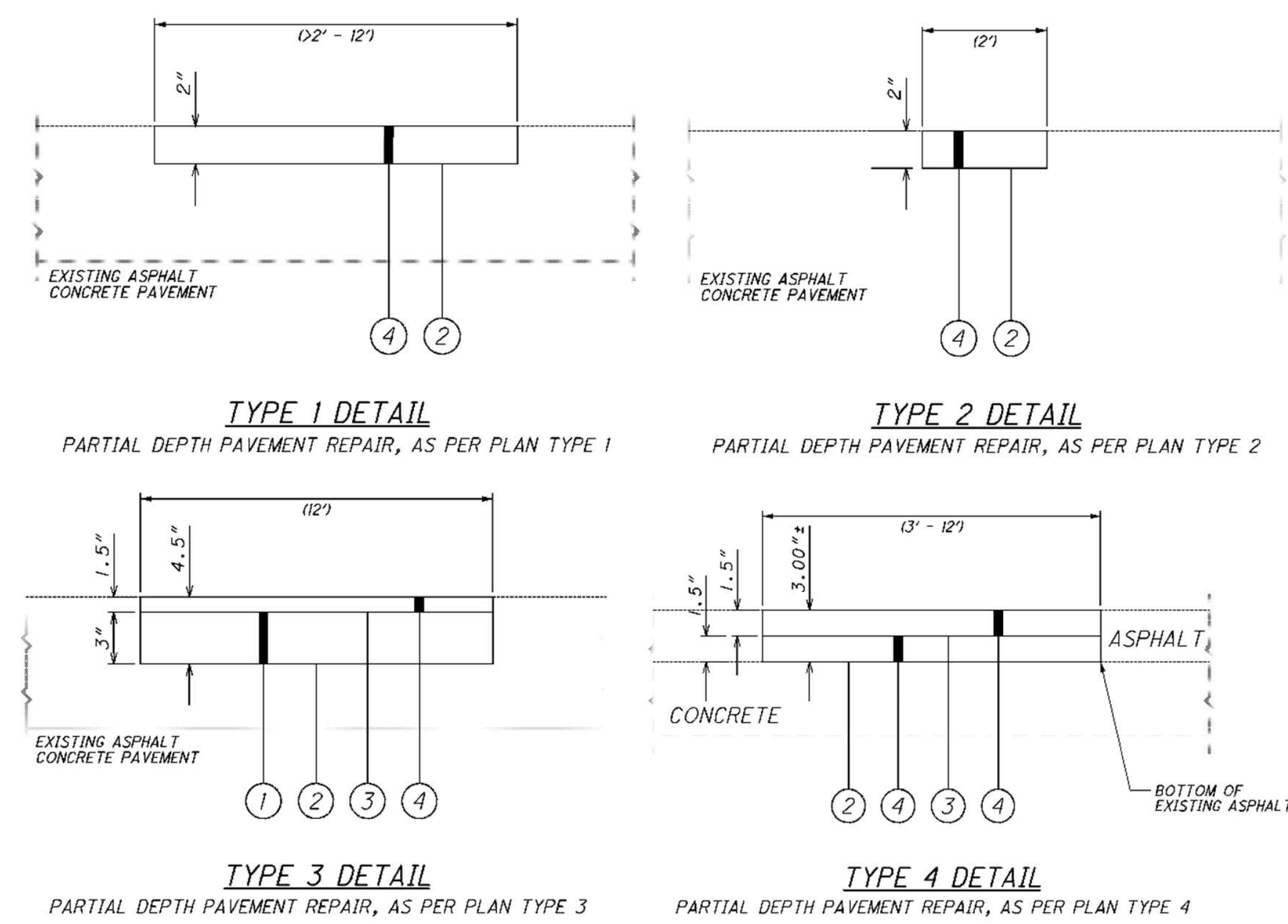
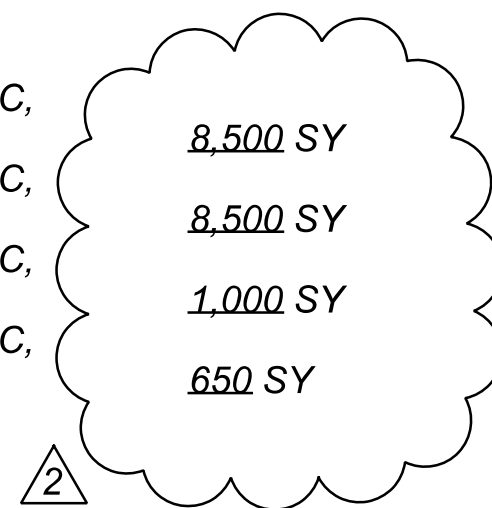
TYPE 3 - IS TO BE USED FOR DEEPER REPAIRS (POTHoles) OF VARYING LENGTH AND WILL HAVE AN AVERAGE WIDTH OF NOT LESS THAN 3 FEET.

TYPE 4 - IS TO BE USED FOR COMPOSITE PAVEMENT REPAIRS OF VARYING LENGTH AND WILL HAVE AN AVERAGE WIDTH OF NOT LESS THAN 3 FEET.

ALL COSTS ASSOCIATED WITH REMOVING AND REPLACING PAVEMENT AND TACK COAT FOR THE REPAIRS SHALL BE INCIDENTAL TO ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1 8,500 SY
- ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2 8,500 SY
- ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3 1,000 SY
- ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4 650 SY



**LEGEND:**

- ① ITEM 301 - ASPHALT CONCRETE BASE, PG64-22
- ② ITEM 407 - TACK COAT @ 0.075 PER SY. YD.
- ③ ITEM 407- TACK COAT FOR INTERMEDIATE @ 0.05 PER SY. YD.
- ④ ITEM 441 -TYPE 1 (AS DESCRIBED IN C&S 615.05)

REV.	DATE	DESCRIPTION
2	2/10/25	UPDATE REPAIR ITEMS

DESIGN AGENCY  
  
 DESIGNER  
 BEB  
 REVIEWER  
 MAH 12-18-23  
 PROJECT ID  
 111404  
 SHEET TOTAL  
 P.59 1240










SHEET NUM.										PART.		ALT (X)	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
		51			540		541			01/IMS/04	02/IMS/03								
					1,027					1,027			611	07400	1,027	FT	18" CONDUIT, TYPE B		
					2,141					2,141			611	07600	2,141	FT	18" CONDUIT, TYPE C		
					6					6			611	07600	6	FT	18" CONDUIT, TYPE C, 706.02		
					109					109			611	08200	109	FT	18" CONDUIT, TYPE F, 707.05 TYPE C OR 707.21		
					196					196			611	08900	196	FT	21" CONDUIT, TYPE B		
							38			38			611	10200	38	FT	24" CONDUIT, TYPE A, 706.02		
					310					310			611	10400	310	FT	24" CONDUIT, TYPE B		
					14					14			611	10400	14	FT	24" CONDUIT, TYPE B, 706.02		
					546					546			611	10600	546	FT	24" CONDUIT, TYPE C		
					90					90			611	11900	90	FT	27" CONDUIT, TYPE B		
					900					900			611	12100	900	FT	27" CONDUIT, TYPE C		
							43			43			611	13200	43	FT	30" CONDUIT, TYPE A, 706.02		
					103					103			611	13400	103	FT	30" CONDUIT, TYPE B		
					1,674					1,674			611	13600	1,674	FT	30" CONDUIT, TYPE C		
					96					96			611	13600	96	FT	30" CONDUIT, TYPE C, 706.02		
							53			53			611	16200	53	FT	36" CONDUIT, TYPE A		
							33			33			611	16200	33	FT	36" CONDUIT, TYPE A, 706.02		
							40			40			611	19200	40	FT	42" CONDUIT, TYPE A		
							46			46			611	19200	46	FT	42" CONDUIT, TYPE A, 706.02		
							25			25			611	20700	25	FT	48" CONDUIT, TYPE A, 706.02		
							21			21			611	22200	21	FT	54" CONDUIT, TYPE A		
					262					262			611	52404	262	FT	22" X 34" CONDUIT, TYPE C, 706.04		
							16			16			611	52700	16	FT	29" X 45" CONDUIT, TYPE A, 706.04		
					133					133			611	52704	133	FT	29" X 45" CONDUIT, TYPE C, 706.04		
					4					4			611	98150	4	EACH	CATCH BASIN, NO. 3		
					5					5			611	98180	5	EACH	CATCH BASIN, NO. 3A		
					27					27			611	98230	27	EACH	CATCH BASIN, NO. 4		
					1					1			611	98370	1	EACH	CATCH BASIN, NO. 6		
					12					12			611	98410	12	EACH	CATCH BASIN, NO. 8		
					4					4			611	98434	4	EACH	CATCH BASIN, NO. 8A		
					1					1			611	98435	1	EACH	CATCH BASIN, NO. 8A, AS PER PLAN	49	
					1					1			611	98470	1	EACH	CATCH BASIN, NO. 2-2B		
					1					1			611	98510	1	EACH	CATCH BASIN, NO. 2-3		
					1					1			611	98540	1	EACH	CATCH BASIN, NO. 2-4		
					2					2			611	98630	2	EACH	CATCH BASIN ADJUSTED TO GRADE		
					2					2			611	98634	2	EACH	CATCH BASIN RECONSTRUCTED TO GRADE		
					1					1			611	99100	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1		
					1					1			611	99110	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1		
					1					1			611	99114	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D		
					16					16			611	99574	16	EACH	MANHOLE, NO. 3		
					1					1			611	99575	1	EACH	MANHOLE, NO. 3, AS PER PLAN	49	
					59					42	21		611	99710	63	EACH	PRECAST REINFORCED CONCRETE OUTLET		
										1,000			SPECIAL	61199820	1,000	LB	MISCELLANEOUS METAL	49	
							292			292			△	899	10000	292	FT	CURED-IN-PLACE PIPE LINER 18" CMP	
							315			315			X	833	10000	315	FT	DRAINAGE (CULVERT #1 OPTION A): SPRAY LINER CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT 42" CMP	
							315			315			X	899	10000	315	FT	DRAINAGE (CULVERT #1 OPTION B): CURED-IN-PLACE LINER CURED-IN-PLACE PIPE LINER 42" CMP	
							513			513			X	833	10000	513	FT	DRAINAGE (CULVERT #3 OPTION A): SPRAY LINER CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT 36" CMP	
							513			513			X	899	10000	513	FT	DRAINAGE (CULVERT #3 OPTION B): CURED-IN-PLACE LINER CURED-IN-PLACE PIPE LINER 36" CMP	

GENERAL SUMMARY

DESIGN AGENCY  
  
 GPD GROUP  
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 DESIGNER  
 TMT  
 REVIEWER  
 CWL 12-18-23  
 PROJECT ID  
 111404  
 SHEET TOTAL  
 P.530 1240

REV.	DATE	DESCRIPTION
2	1/31/25	PAY ITEM CHANGE


SUM-077-24.12

MODEL: Sheet PAPER: 34x22 (in.) DATE: 2/10/2025 TIME: 8:58:33 AM USER: aluzler  
O:\Clients\ORD\2020\2020145\111404\00-Engineering\Roadway\Sheets\111404\_CG004.dgn

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS		51			574			1124			01/IMS/04	02/IMS/03						
4,048											2,712	1,336	254	01000	4,048	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5")	
51,302											34,372	16,930	302	56000	51,302	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
52,117		13									34,927	17,203	304	20000	52,130	CY	AGGREGATE BASE	
1,973		22									1,337	658	305	13010	1,995	SY	9" CONCRETE BASE, CLASS QC 1P	
512		2									344	170	407	13900	514	GAL	TACK COAT, 702.13	
31,177		3									20,891	10,289	407	20000	31,180	GAL	NON-TRACKING TACK COAT	
6,637											4,447	2,190	408	10001	6,637	GAL	PRIME COAT, AS PER PLAN	47
250		1									168	83	441	70000	251	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
58		1									40	19	441	70200	59	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449)	
		1									1		441	70500	1	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), PG64-22	
		2									1	1	441	70700	2	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)	
602											403	199	441	70801	602	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN	45
16,373											10,970	5,403	442	00100	16,373	CY	ANTI-SEGREGATION EQUIPMENT	
13,653											9,148	4,505	442	10080	13,653	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)	
11,686											7,830	3,856	442	10300	11,686	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PG70-22M	
					46						31	15	452	12050	46	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS	
19,514											13,074	6,440	452	14020	19,514	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	
461		19									322	158	609	24510	480	FT	CURB, TYPE 4-C	
657											440	217	609	26000	657	FT	CURB, TYPE 6	
166											111	55	609	70000	166	SY	4" CONCRETE MEDIAN	
1,054											706	348	617	10101	1,054	CY	COMPACTED AGGREGATE, AS PER PLAN	47
18,901											12,664	6,237	617	20000	18,901	SY	SHOULDER PREPARATION	
56											38	18	617	25000	56	MGAL	WATER	
19											13	6	618	40600	19	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
											6	2	625	00450	6	EACH	CONNECTION, FUSED PULL APART	
											33	11	625	00480	33	EACH	CONNECTION, UNFUSED PERMANENT	
											3	1	625	10490	3	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT12B40	
											14	4	625	12200	14	EACH	LIGHT TOWER, BBB100	
											3	1	625	14100	3	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
											2	1	625	15100	2	EACH	LIGHT TOWER FOUNDATION, 36" X 20' DEEP	
											11	4	625	15200	11	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP	
											1		625	15700	1	EACH	LIGHT TOWER FOUNDATION, MISC.: 36" X 37.5' DEEP	
											1,404	468	625	23200	1,404	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
											429	143	625	23300	429	FT	NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE	
											468	156	625	23400	468	FT	NO. 10 AWG POLE AND BRACKET CABLE	
											6,911	2,310	625	24320	6,911	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
											440	147	625	24330	440	FT	1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 2400 VOLT CABLES	
											138	46	625	25500	138	FT	CONDUIT, 3", 725.04	
											389	130	625	25902	389	FT	CONDUIT, JACKED OR DRILLED, 725.04: 3"	
											3	1	625	26253	3	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN: TYPE II, 480V	1123
											42	14	625	26263	42	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN: TYPE V, 480V	1123
											7,172	2,384	625	29002	7,172	FT	TRENCH, 24" DEEP	
											10	3	625	30700	10	EACH	PULL BOX, 725.08, 18"	
											1	1	625	30706	1	EACH	PULL BOX, 725.08, 24"	
											15	5	625	31510	15	EACH	PULL BOX REMOVED	
											28	9	625	32000	28	EACH	GROUND ROD	
											1		625	34001	1	EACH	POWER SERVICE, AS PER PLAN	1123
											7,172	2,384	625	36010	7,172	FT	UNDERGROUND WARNING/MARKING TAPE	
											LS	LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	1123
											1		SPECIAL	62540010	1	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	1123
											31	11	625	75400	31	EACH	LIGHT POLE REMOVED	1123
											31	11	625	75500	31	EACH	LIGHT POLE FOUNDATION REMOVED	
											1	1	625	75510	1	EACH	POWER SERVICE REMOVED	
											1,500	500	625	75551	1,500	FT	DISTRIBUTION CABLE REMOVED, AS PER PLAN	1123
											1	1	625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL: CONTROL CENTER "GNT", STA 89+35, GHENT RD	

REV.	DATE	DESCRIPTION
2	2/10/25	PAY ITEM CHANGE

DESIGN AGENCY



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DESIGNER	TMT
REVIEWER	CWL
PROJECT ID	111404
SHEET	P.531
TOTAL	1240

GENERAL SUMMARY

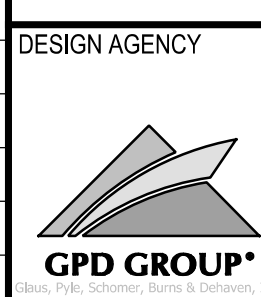




SHEET NO.	202	202	202						601	601	601	601	602			503	503	503	503	503
	PIPE REMOVED, 24" AND UNDER	PIPE REMOVED, OVER 24"	HEADWALL REMOVED						RIPRAP	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	ROCK CHANNEL PROTECTION, TYPE C WITH AGGREGATE FILTER	CONCRETE MASONRY			COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, STA. 344+18.00	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, STA. 659+95.75	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, STA. 661+56.33	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, STA. 719+76.01	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, STA. 720+98.37
	FT	FT	EACH						SY	CY	CY	CY	CY			LS	LS	LS	LS	LS
1009		10	2						4.47	27.87			2.25			LS				
1010	27		2						2.56		3.11		0.66				LS			
1012		3	2						3.83	17.78			1.52					LS		
1013	10		2						1.92			2.67	0.62							
1014		11	2						4.47	10.37			1.68							
1015		8	2						3.19		4.44		1.12							
1016	4		1								4.00		0.43							
1017		66	2						3.19	16.85			1.65						LS	LS
1018	10		2						2.56			3.56	0.86							
1019		15	2						3.3	13.33			0.98							
1020		24	2						4.47	19.44			1.68							
1021		11	2						2.56			3.11	0.86							
TOTALS CARRIED TO GENERAL SUMMARY	51	148	23						37	106	12	10	14.4			LS	LS	LS	LS	LS
SHEET NO.	611	611	611	611	611	611	611	611	611	611	611	611			899		833	899	833	899
	18" CONDUIT, TYPE A	18" CONDUIT, TYPE A, 706.02	24" CONDUIT, TYPE A, 706.02	30" CONDUIT, TYPE A, 706.02	36" CONDUIT, TYPE A	36" CONDUIT, TYPE A, 706.02	42" CONDUIT, TYPE A	42" CONDUIT, TYPE A, 706.02	48" CONDUIT, TYPE A, 706.02	54" CONDUIT, TYPE A	29"x45" CONDUIT, TYPE A, 706.04				CURED-IN-PLACE PIPE LINER 18" CMP		CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT 42" CMP	CURED-IN-PLACE PIPE LINER 42" CMP	CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT 36" CMP	CURED-IN-PLACE PIPE LINER 36" CMP
	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT			FT		FT	FT	FT	FT
1009																	#1 OPT A	#1 OPT B	#3 OPT A	#3 OPT B
1010	41																			
1012																				
1013		12																		
1014																				
1015																				
1016																				
1017																				
1018																				
1019																				
1020																				
1021																				
TOTALS CARRIED TO GENERAL SUMMARY	41	12	38	43	53	33	40	46		25	21	16			292		315	315	513	513

CURED-IN-PLACE PIPE LINER 18" CMP

CULVERT SUBSUMMARY



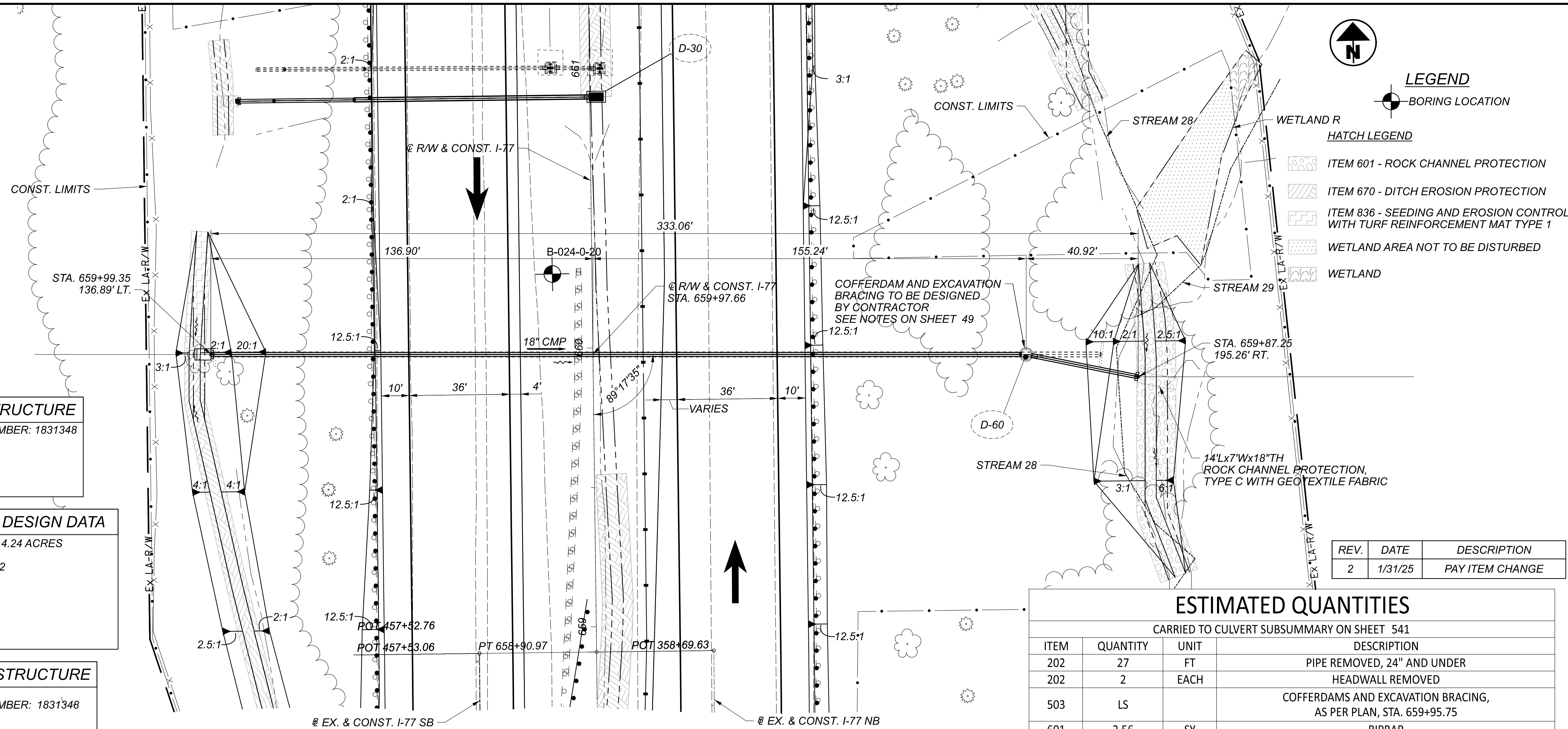
DESIGNER  
ZRS  
REVIEWER  
CWL 12-18-23  
PROJECT ID  
111404  
SHEET TOTAL  
P.541 1240

REV.	DATE	DESCRIPTION
2	1/31/25	PAY ITEM CHANGE

**EXISTING STRUCTURE**  
 CONDUIT FILE NUMBER: 1831348  
 SIZE: 18"  
 SKEW: 0° 42'  
 TYPE: CMP  
 LENGTH: 320'  
 DATE BUILT: 1961

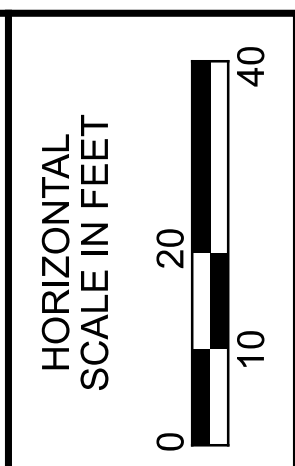
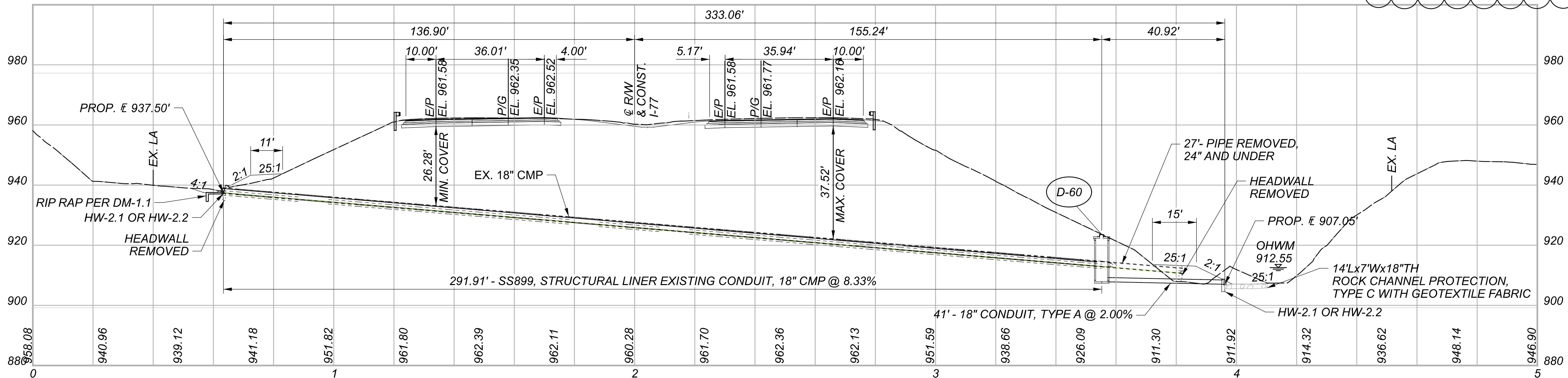
**HYDRAULIC DESIGN DATA**  
 DRAINAGE AREA = 4.24 ACRES  
 STREAM pH: 7.6  
 ABRASION LEVEL: 2  
 Q(50): 13.8 CFS  
 Q(100): 14.9 CFS  
 HW(50): 938.79 FT  
 HW(100): 938.86 FT  
 V(50): 8.72 FPS  
 V(100): 8.83 FPS

**PROPOSED STRUCTURE**  
 CONDUIT FILE NUMBER: 1831348  
 SIZE: 16"  
 SKEW: 0° 42"  
 TYPE: SS899, STRUCT. LINER  
 LENGTH: 333'  
 DESIGN SERVICE LIFE: 75 YR  
 NOTE: EXISTING 18" CMP  
 LINED AS PART OF PROJECT



REV.	DATE	DESCRIPTION
2	1/31/25	PAY ITEM CHANGE

ESTIMATED QUANTITIES			
CARRIED TO CULVERT SUBSUMMARY ON SHEET 541			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	27	FT	PIPE REMOVED, 24" AND UNDER
202	2	EACH	HEADWALL REMOVED
503	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, STA. 659+95.75
601	2.56	SY	RIPRAP
601	3.11	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC
602	0.66	CY	CONCRETE MASONRY
611	41	FT	18" CONDUIT, TYPE A
899	292	FT	CURED-IN-PLACE PIPE LINER 18" CMP



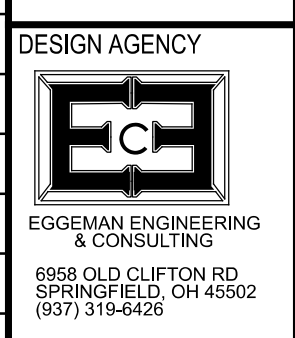
**CULVERT DETAIL**  
**CL RW & CONST. I-77 STA. 659+89.66 (CULVERT #2)**

DESIGN AGENCY  
  
 DESIGNER  
 DSM  
 REVIEWER  
 C.JC 12-18-23  
 PROJECT ID  
 111404  
 SHEET TOTAL  
 P.1010 1240

SHEET NUMBER FROM LIGHTING PLAN											PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
							1123	1125	1126	1127	01/IMS/04	02/IMS/03							
									6		4	2	625	00450	6	EACH	CONNECTION, FUSED PULL APART		
								21	12		22	11	625	00480	33	EACH	CONNECTION, UNFUSED PERMANENT		
									3		2	1	625	10490	3	EACH	LIGHT POLE, CONVENTIONAL DESIGN AT 12B40		
								8	6		10	4	625	12200	14	EACH	LIGHT POLE, TOWER, BBB100		
									3		2	1	625	14100	3	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP		
								2			1	1	625	15100	2	EACH	LIGHT TOWER FOUNDATION, 36" X 20' DEEP		
								5	6		7	4	625	15200	11	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP		
								1			1		625	15700	1	EACH	LIGHT TOWER FOUNDATION, MISC.: 36" X 37.5' DEEP		
								339	1065		936	468	625	23200	1,404	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE		
								429			286	143	625	23300	429	FT	NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE		
									468		312	156	625	23400	468	FT	NO. 10 AWG POLE AND BRACKET CABLE		
								3680	3231		4,601	2,310	625	24320	6,911	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES		
								440			293	147	625	24330	440	FT	1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 2400 VOLT CABLES		
											92	46	625	25500	138	FT	CONDUIT, 3", 725.04		
								216	173		259	130	625	25902	389	FT	CONDUIT, JACKED OR DRILLED, 725.04: 3"		
									3		2	1	625	26253	3	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN: TYPE II, 480V	1123	
								24	18		28	14	625	26263	42	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN: TYPE V, 480V	1123	
									4041	3131	4,788	2,384	625	29002	7,172	FT	TRENCH, 24" DEEP		
									7	3	7	3	625	30700	10	EACH	PULL BOX, 725.08, 18"		
									1			1	625	30706	1	EACH	PULL BOX, 725.08, 24"		
										15	10	5	625	31510	15	EACH	PULL BOX REMOVED		
								16	12		19	9	625	32000	28	EACH	GROUND ROD		
								1			1		625	34001	1	EACH	POWER SERVICE, AS PER PLAN	1123	
								4041	3131		4,788	2,384	625	36010	7,172	FT	UNDERGROUND WARNING/MARKING TAPE		
								LS			LS	LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	1123	
								1			1		SPECIAL	62540010	1	EACH	SPECIAL - REPLACEMENT OF EXISTING LIGHTING UNITS	1123	
										31	20	11	625	75400	31	EACH	LIGHT POLE REMOVED	1123	
										31	20	11	625	75500	31	EACH	LIGHT POLE FOUNDATION REMOVED		
										1		1	625	75510	1	EACH	POWER SERVICE REMOVED		
										1500	1000	500	625	75551	1500	FT	DISTRIBUTION CABLE REMOVED, AS PER PLAN	1123	
								1				1	625	76000	1	EACH	ARC FLASH CALULATIONS AND LABEL: CONTROL CENTER "GNT", STA 89+35, GHENT RD		

LIGHTING GENERAL SUMMARY

REV	DATE	DESCRIPTION
2	2/10/25	PAY ITEM CHANGE



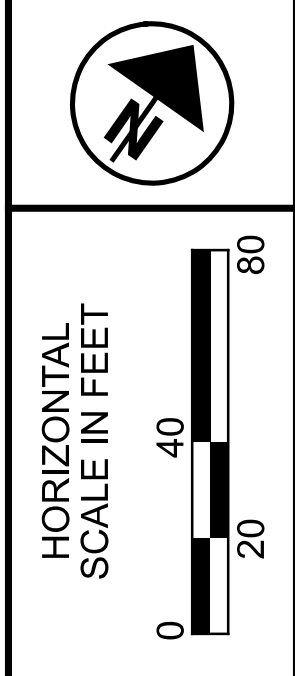
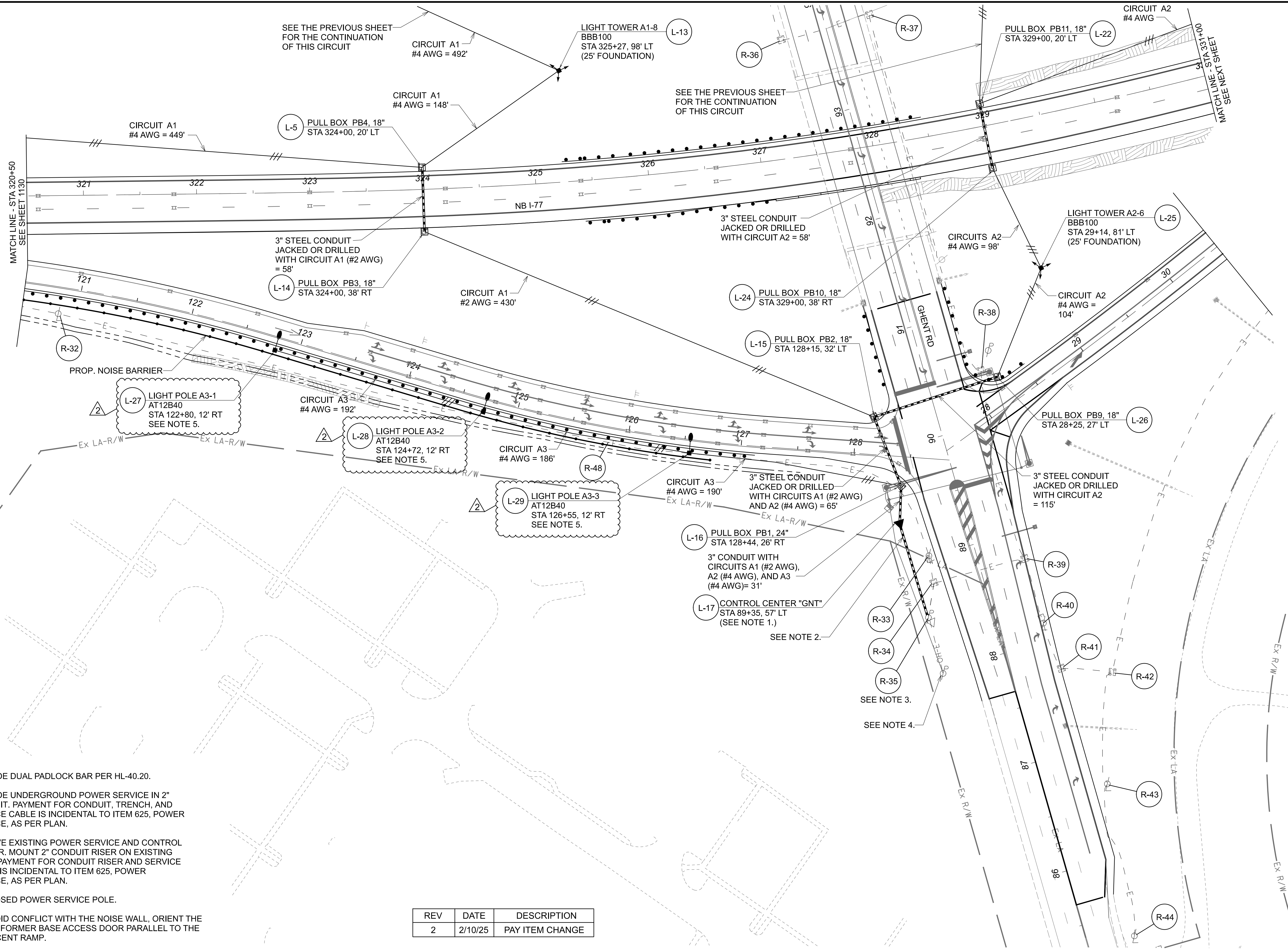
DESIGNER: MJH  
 REVIEWER: KAE  
 PROJECT ID: 111404  
 SHEET: P.1124 TOTAL: 1240





- NOTES:
- 1) PROVIDE DUAL PADLOCK BAR PER HL-40.20.
  - 2) PROVIDE UNDERGROUND POWER SERVICE IN 2" CONDUIT. PAYMENT FOR CONDUIT, TRENCH, AND SERVICE CABLE IS INCIDENTAL TO ITEM 625, POWER SERVICE, AS PER PLAN.
  - 3) REMOVE EXISTING POWER SERVICE AND CONTROL CENTER. MOUNT 2" CONDUIT RISER ON EXISTING POLE. PAYMENT FOR CONDUIT RISER AND SERVICE CABLE IS INCIDENTAL TO ITEM 625, POWER SERVICE, AS PER PLAN.
  - 4) PROPOSED POWER SERVICE POLE.
  - 5) TO AVOID CONFLICT WITH THE NOISE WALL, ORIENT THE TRANSFORMER BASE ACCESS DOOR PARALLEL TO THE ADJACENT RAMP.

REV	DATE	DESCRIPTION
2	2/10/25	PAY ITEM CHANGE



**LIGHTING PLAN**  
**STA 320+50 TO STA 331+00**

DESIGN AGENCY  
  
 EGGEMAN ENGINEERING & CONSULTING  
 6958 OLD CLIFTON RD  
 SPRINGFIELD, OH 45502  
 (937) 318-6426

DESIGNER  
**MJH**

REVIEWER  
**KAE**

PROJECT ID  
**10-12-23**

SHEET  
**111404**

TOTAL  
**1240**