

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## SUM-271/8-8.49/VAR

BOSTON AND NORTHFIELD CENTER TOWNSHIP

CITY OF MACEDONIA

SUMMIT COUNTY



**LOCATION MAP**

LATITUDE: 41°17'04" LONGITUDE: 81°31'33"



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

**DESIGN DESIGNATION**

DESIGN FUNCTIONAL CLASSIFICATION:  
 FREEWAYS AND EXPRESSWAYS  
 NHS PROJECT ----- YES

**DESIGN EXCEPTIONS**

NONE

**ADA DESIGN WAIVERS**

NONE

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

**OHIO811.org**  
Before You Dig

OHIO 811, 8-1-1, or 1-800-362-2764  
(Non members must be called directly)

PLAN PREPARED BY:  
 ODOT DISTRICT 4, CAPITAL PLANNING  
 2088 S. ARLINGTON ROAD  
 AKRON, OHIO 44306

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**FEDERAL PROJECT NUMBER**

E170(438)

**RAILROAD INVOLVEMENT**

NONE

**PROJECT DESCRIPTION**

RESURFACING OF SUM IR 271 FROM SLM 8.54 TO SLM 12.52. INCLUDES RETAINING WALL REPAIRS, MINOR WORK TO 12 STRUCTURES AND 5 CONDUITS.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA: 2.4 ACRES  
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 1.0 ACRES  
 NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)  
 \*ROUTINE MAINTENANCE PROJECT

**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.

**2019 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 THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEET P.8-13A, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

**DISTRICT DEPUTY DIRECTOR**

Arthur G. Noiro Jr., P.E.  
 04

**DIRECTOR, DEPARTMENT OF TRANSPORTATION**

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/21/22	MT-95.30	7/19/19	TC-41.20	10/18/13	800-2019 SEE PROPOSAL	WPC 3/29/23
BP-3.2	1/18/19	MT-95.50	7/21/17	TC-42.10	10/18/13	808 1/18/19	
BP-4.1	7/19/13	MT-98.10	1/17/20	TC-42.20	10/18/13	821 4/20/12	
BP-9.1	1/18/19	MT-98.11	1/17/20	TC-52.10	10/18/13	832 7/15/22	
		MT-98.20	4/19/19	TC-52.20	1/15/21	833 1/21/22	
DM-1.1	7/17/20	MT-98.22	1/17/20	TC-65.10	1/17/14	840 4/15/22	
DM-4.1	7/17/20	MT-98.29	1/17/20	TC-65.11	7/15/22	843 10/18/19	
DM-4.3	1/15/16	MT-99.20	4/19/19	TC-71.10	7/15/22	899 1/17/20	
DM-4.4	1/15/16	MT-101.90	7/17/20	TC-72.20	7/20/18	921 4/20/12	
		MT-104.10	10/16/15	TC-73.20	1/17/20	807 1/21/22	
EXJ-2-81	7/15/22	MT-105.10	1/17/20			850 4/15/22	
HW-1.1	7/20/18	MT-101.70	4/26/23			908 10/20/17	
HW-2.1	7/20/18	MT-101.75	1/17/20				
NBS-1-09	7/15/22						

**ENGINEER'S SEAL**  
ROADWAY

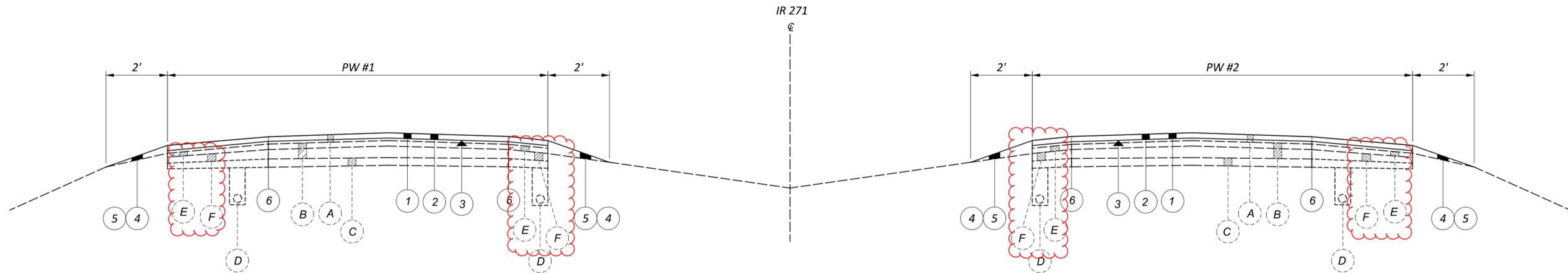


TITLE SHEET

DESIGN AGENCY	
DESIGNER	ROF
REVIEWER	MJA 02/03/23
PROJECT ID	93101
SHEET	TOTAL
P.1	39

SUM-271/8-8.49/VAR

MODEL: Sheet PAPER: 34x22 (in.) DATE: 5/19/2023 TIME: 7:01:04 AM USER: jltzsim pvc:\ohiodot-pw\benley.com\ohiodot-pw-02\Documents\01 Active Projects\District 04\Summit\93101\400-Engineering\Roadway\Sheets\93101\_GT001.dgn



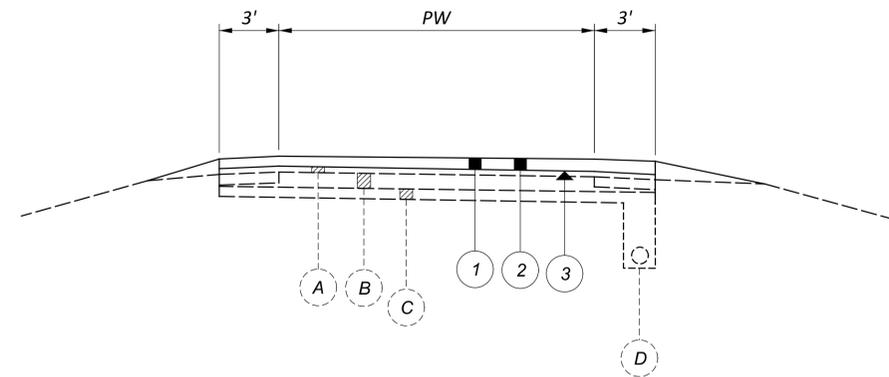
TYPICAL SECTIONS #1 (SOUTHBOUND)				
ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
271	8.54	11.16	2.62	39
271	11.18	11.20	0.02	39
271	11.23	11.43	0.20	39
271	11.43	11.62	0.19	52
271	11.62	11.86	0.24	56
271	11.92	12.32	0.40	53
271	12.32	12.52	0.20	65
TOTAL = 3.87				

TYPICAL SECTIONS #2 (NORTHBOUND)				
ROUTE	SLM		LENGTH (MILES)	PW (FEET)
	FROM	TO		
271	8.54	11.15	2.61	39
271	11.17	11.20	0.03	39
271	11.23	11.61	0.38	39
271	11.61	11.83	0.22	45
271	11.89	12.14	0.25	53
271	12.14	12.44	0.30	57
TOTAL = 3.79				

**LEGEND**

- ① ITEM 897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 1.5")
- ② ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PWL, 2024, AS PER PLAN, PG70-22M (T = 1.5")
- ③ ITEM 407, NON-TRACKING TACK @ 0.09 GAL/SY
- ④ ITEM 617 COMPACTED AGGREGATE, AS PER PLAN (T = 2")
- ⑤ ITEM 408, PRIME COAT, AS PER PLAN @ 0.40 GAL/SY
- ⑥ ITEM 618, RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)

- Ⓐ EXISTING ASPHALT CONCRETE PAVEMENT (T = 5")
- Ⓑ EXISTING CONCRETE BASE (T = 10")
- Ⓒ EXISTING SUBBASE
- Ⓓ EXISTING 6" SHALLOW PIPE UNDERDRAINS
- Ⓔ EXISTING ASPHALT CONCRETE BASE
- Ⓕ EXISTING AGGREGATE BASE



TYPICAL SECTIONS #3					
IR 271 / SR 8 INTERCHANGE RAMP CLOSURES		FROM	TO	LENGTH (MILES)	PW (FEET)
RAMP A	IR 271 S TO SR 8 S	MAINLINE IR 271	SUM-8-1758A	0.69	45
RAMP B	SR 8 N TO IR 271 N	MAINLINE IR 271	SUM-8-1757B	0.39	45
RAMP R3	IR 271 N TO SR 8	CADD GENERATED AREA			
RAMP D	IR 271 S TO SR 8	CADD GENERATED AREA			
RAMP E	SR 8 TO IR 271 S	CADD GENERATED AREA			



**MAINTENANCE OF TRAFFIC**

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
4. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.
5. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.
6. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE [1] MILE URBAN.
7. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.
8. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.
9. A QUANTITY OF 20 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.
10. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.
11. THE CONTRACTOR SHALL PLACE THE SIGNS: W8-1 [BUMP] PER OMUTCD 2C.28; W8-11 [UNEVEN LANES] PER OMUTCD 6F.45; AND W6-3 [TWO-WAY TRAFFIC] PER OMUTCD 6F.32. PAYMENT FOR THESE SIGNS SHALL BE INCIDENTAL TO THE LUMP SUM ITEM 614-MAINTAINING TRAFFIC. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS PER CMS 614.04.

12. THE CONTRACTOR SHALL SET A WORK ZONE AT THE REQUEST OF THE ENGINEER TO ALLOW THE LAYOUT OF THE PARTIAL/FULL DEPTH PAVEMENT REPAIR AREAS. THIS WORK IS INCIDENTAL TO ITEM 614 MAINTAINING TRAFFIC.

13. TO ENSURE THAT WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND AND MOVING TRAFFIC, ALL WEIGHTED CHANNELIZERS UTILIZED ON INTERSTATES AND FREEWAYS SHALL BE FROM MANUFACTURERS ON THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF MATERIAL MANAGEMENT'S QUALIFIED PRODUCTS LIST (QPL) WHICH UTILIZE A MINIMUM OF A 30 POUND BALLAST.

14. DRUMS UTILIZED ON THE HIGH SIDE OF A SUPERELEVATED INTERSTATE OR FREEWAYS SHALL BE FROM MANUFACTURERS ON THE OFFICE OF MATERIAL MANAGEMENT'S QUALIFIED PRODUCTS LIST (QPL) WITH A MINIMUM BALLAST WEIGHT OF 30 POUNDS. ALL BALLASTS USED SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

**PHASE I: MILLED SURFACE**

- 614, WORK ZONE LANE LINE, CLASS I, 6", 9.46 MILE
- 614, WORK ZONE STOP LINE, CLASS 1, 74 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS 1, 12", 9715 FT
- 614, WORK ZONE MARKING SIGN, (ALL PHASES) 18 EACH

**PHASE II: SURFACE COURSE**

- 614, WORK ZONE LANE LINE, CLASS III, 642 PAINT, 6", 9.46 MILE
- 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT, 74 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT, 12", 9715 FT

TO BE USED AS DIRECTED BY THE ENGINEER

- 614, WORK ZONE EDGE LINE, CLASS III, 6", 40.80 MILE

15. A QUANTITY OF 20 CY OF ITEM 410 TRAFFIC COMPACTED SURFACE, TYPE A OR B, HAS BEEN PROVIDED FOR THE CONTRACTOR'S USE WHEN ACCESSING THE PROJECT SITE BRIDGE JOINT REPAIR AREAS. THIS ITEM SHALL ONLY BE USED IF NECESSARY TO PROVIDE ACCESS TO THE JOINT REPAIR LOCATIONS AND IF APPROVED BY THE PROJECT ENGINEER.

16. EXPANSION JOINT REPLACEMENT WORK ON SUM-271-0914 SHALL NOT BE DONE CONCURRENTLY WITH THE EXPANSION JOINT REPLACEMENT WORK ON SUM-271-0967.

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 OTHERWISE ITEMIZED IN THE PLAN.

**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.

**TIME LIMITATION, TRAFFIC ON A MILLED SURFACE**

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$3,000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMIT.

**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 TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
ROAD & RAMP CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERNS 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.

**TRAFFIC CONTROL INSPECTOR**

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

**ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (SUM-271-0914 & SUM-271-0967)**

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 5 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET P.11-12. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$ 2,500 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

**ADVANCED NOTICE TO PAVE**

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

**LANE CLOSURES**

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT: <http://plcm.dot.state.oh.us>

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF \$2,500 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

DESIGN AGENCY



DESIGNER

ROF

REVIEWER

MJA 02/03/23

PROJECT ID

93101

SHEET

P.5

TOTAL

39

**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-26177, SUM-IR 271-(8.15-12.83) NB  
WZ-26177, SUM-IR 271-(8.26-13.69) 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.

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 GENERAL SUMMARY.

[ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 12 SIGN MNTH]  
[ASSUMING 2 DSL SIGN ASSEMBLY(IES) FOR 6 MONTH(S)]

**FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**STRUCTURE EXPANSION JOINT REPLACEMENTS AT SUM-271-1116R AND SUM-271-1122R**

THE EXPANSION JOINT REPLACEMENT WORK ON SUM-271-1116R AND SUM-271-1122R SHALL BE PERFORMED ONE LANE AT A TIME USING WEEKEND LANE CLOSURES BETWEEN 6 PM FRIDAY AND 6 AM MONDAY. TWO WEEKEND CLOSURES ARE ANTICIPATED FOR THIS WORK.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO IMPLEMENT THE WEEKEND LANE CLOSURES NECESSARY FOR THE EXPANSION JOINT REPLACEMENT WORK AT THE SUM-271-1116R AND SUM-271-1122R STRUCTURES.

PHASE 1 - LEFT LANE CLOSURE (SEE SHEET 13)

614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNDIRECTIONAL)	1 EACH
614, BARRIER REFLECTOR, TYPE 1	21 EACH
614, OBJECT MARKER, ONE WAY	21 EACH
622, PORTABLE BARRIER, UNANCHORED	980 FT

PHASE 2 - RIGHT LANE CLOSURE (SEE SHEET 13A)

614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNDIRECTIONAL)	1 EACH
614, BARRIER REFLECTOR, TYPE 1	20 EACH
614, OBJECT MARKER, ONE WAY	20 EACH
622, PORTABLE BARRIER, UNANCHORED	920 FT

ALL OTHER COSTS AND ITEMS NECESSARY FOR THE MAINTENANCE OF TRAFFIC WHEN PERFORMING THE STRUCTURE EXPANSION JOINT REPLACEMENT AT SUM-271-1116R AND SUM-271-1122R SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN**

PRIOR TO RESURFACING OPERATIONS, THE CONTRACTOR SHALL REINFORCE THE ROADWAY SHOULDERS USING FLEXIBLE PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN AS INDICATED IN THE MAINTENANCE OF TRAFFIC SCHEMATIC DETAIL. THE INTENTIONS ARE THAT THE REINFORCED ROADWAY SHOULDER WILL BE USED TO MAINTAIN SHIFTED TRAFFIC DURING BRIDGE JOINT REPAIR. THE FLEXIBLE PAVEMENT FOR MAINTAINING TRAFFIC SHALL REMAIN IN PLACE AFTER COMPLETION OF THE BRIDGE JOINT REPAIRS. THE SUBSEQUENT RESURFACING OPERATIONS SHALL MILL THE REINFORCED SHOULDER AS PART OF THE FINAL PAVING OPERATION.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN, 1175 SY

**ITEM 632 - DETECTOR LOOP, AS PER PLAN**

THE CONTRACTOR SHALL CONTACT THE DISTRICT OFFICE (330-786-3146) THREE WORKING DAYS PRIOR TO ANY PLANING OR TRENCHING AT THE INTERSECTION OF I-271 AND SR-8. LOOP DETECTORS DISTURBED BY PAVEMENT PLANING OR TRENCHING SHALL BE ABANDONED IN PLACE. THE LOOP DETECTOR WIRE WILL BE CUT INTO THE PAVEMENT AFTER THE PROPOSED SURFACE COURSE HAS BEEN PLACED. ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHALL BE THE POWERHEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE AS SPECIFIED BELOW. THE LOCATION OF THESE LOOPS SHALL BE SUCH THAT THE POWERHEAD IS LOCATED AT THE STOP LINE, NOT PAST IT. ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10 AND THE LOOP SHALL BE PLACED AT THE SAME LOCATION AS THE EXISTING LOOPS.

THE QUANTITIES LISTED BELOW HAVE BEEN CARRIED TO THE GENERAL SUMMARY. THE NEW LOOP DETECTOR WIRES SHALL BE RUN INTO THE EXISTING CONTROL BOX OR THE EXISTING PULLBOX. INCLUDED IN THIS ITEM IS THE POURED EPOXY TYPE CABLE SPLICE KIT (CONFORMING TO 725.15E) THAT MUST BE USED IN MAKING THESE CONNECTIONS. ALL NECESSARY MATERIAL, LABOR, SPLICE KITS AND EQUIPMENT SHALL BE INCIDENTAL TO PAYMENT OF THESE ITEMS.

632 DETECTOR LOOP, 6'X25', AS PER PLAN, 8 EACH

DESIGN AGENCY



DESIGNER

ROF

REVIEWER

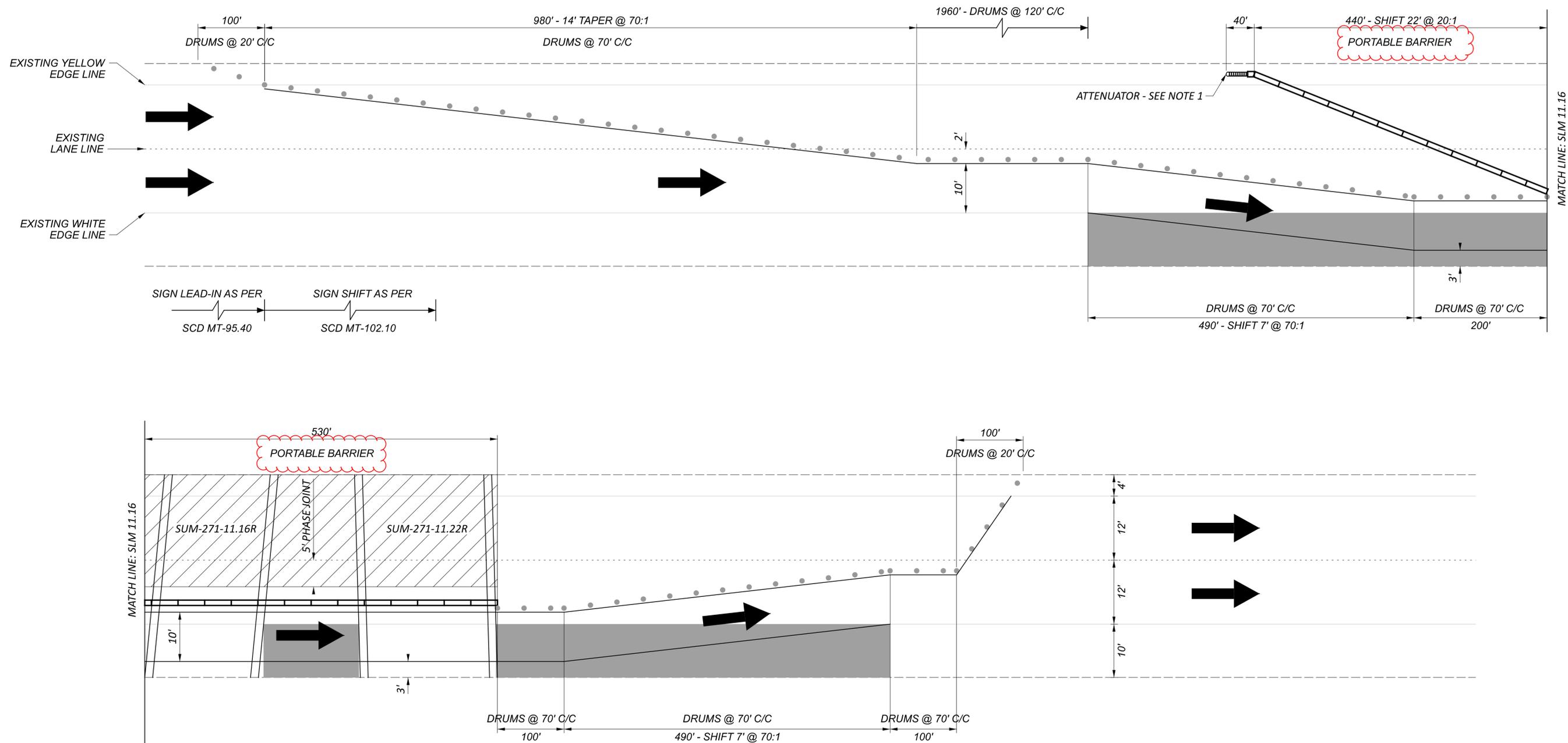
MJA 02/03/23

PROJECT ID

93101

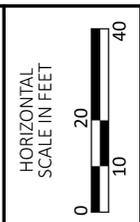
SHEET TOTAL

P.7 39



= WORK AREA  
 = TEMPORARY PAVEMENT

**NOTE 1:**  
 WHEN ATTENUATOR IS NOT BEING USED TO ACTIVELY CLOSE A LANE OF TRAFFIC, THE CONTRACTOR SHALL CLOSE THE AFFECTED SHOULDER IN ACCORDANCE WITH SCD-95.45.



**MOT SCHEMATIC PLAN**  
**STRUCTURES SUM-271-1116R & SUM-271-1122R**

DESIGN AGENCY

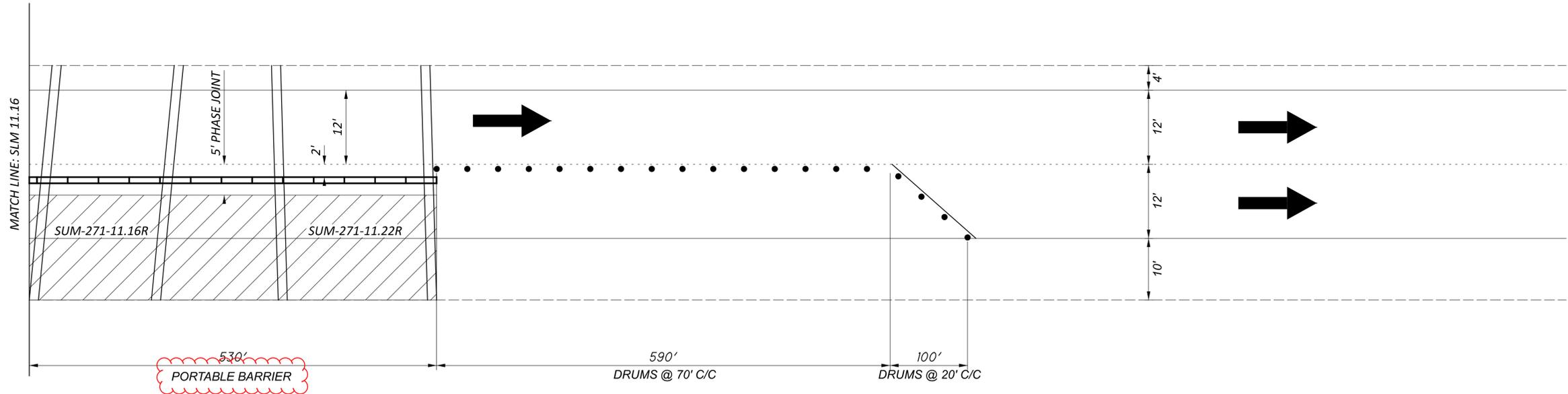
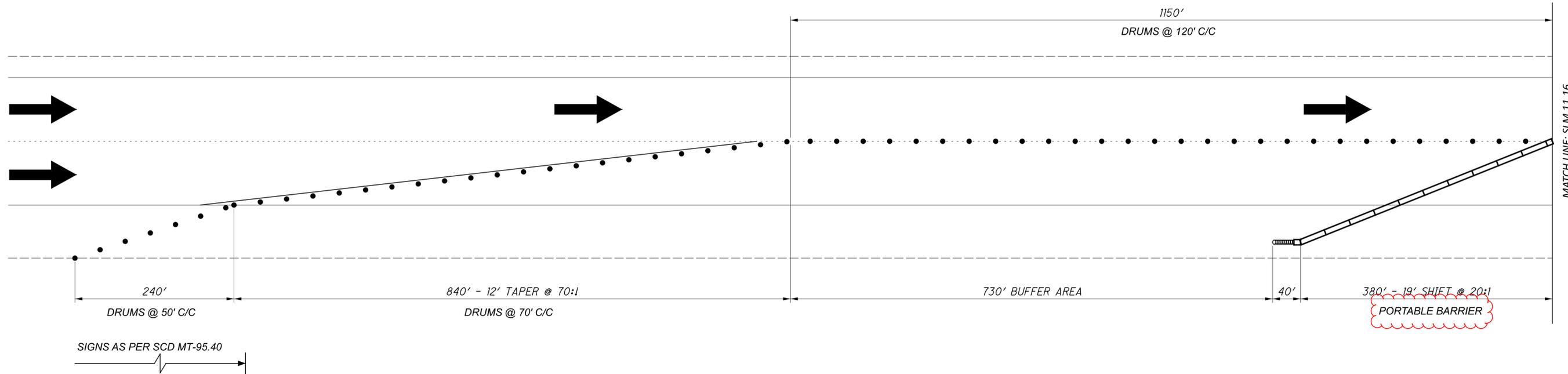


DESIGNER  
 JRF

REVIEWER  
 LB 02/13/23

PROJECT ID  
 93101

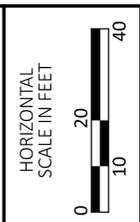
SHEET TOTAL  
 P.13 39



= WORK AREA

= TEMPORARY PAVEMENT

NOTE 1:  
 WHEN ATTENUATOR IS NOT BEING USED TO ACTIVELY CLOSE A LANE OF TRAFFIC, THE CONTRACTOR SHALL CLOSE THE AFFECTED SHOULDER IN ACCORDANCE WITH SCD-95.45.



MOT SCHEMATIC PLAN  
 STRUCTURES SUM-271-1116R & SUM-271-1122R

DESIGN AGENCY	
DESIGNER	JRF
REVIEWER	LB
PROJECT ID	93101
SHEET	TOTAL
P.13A	39





