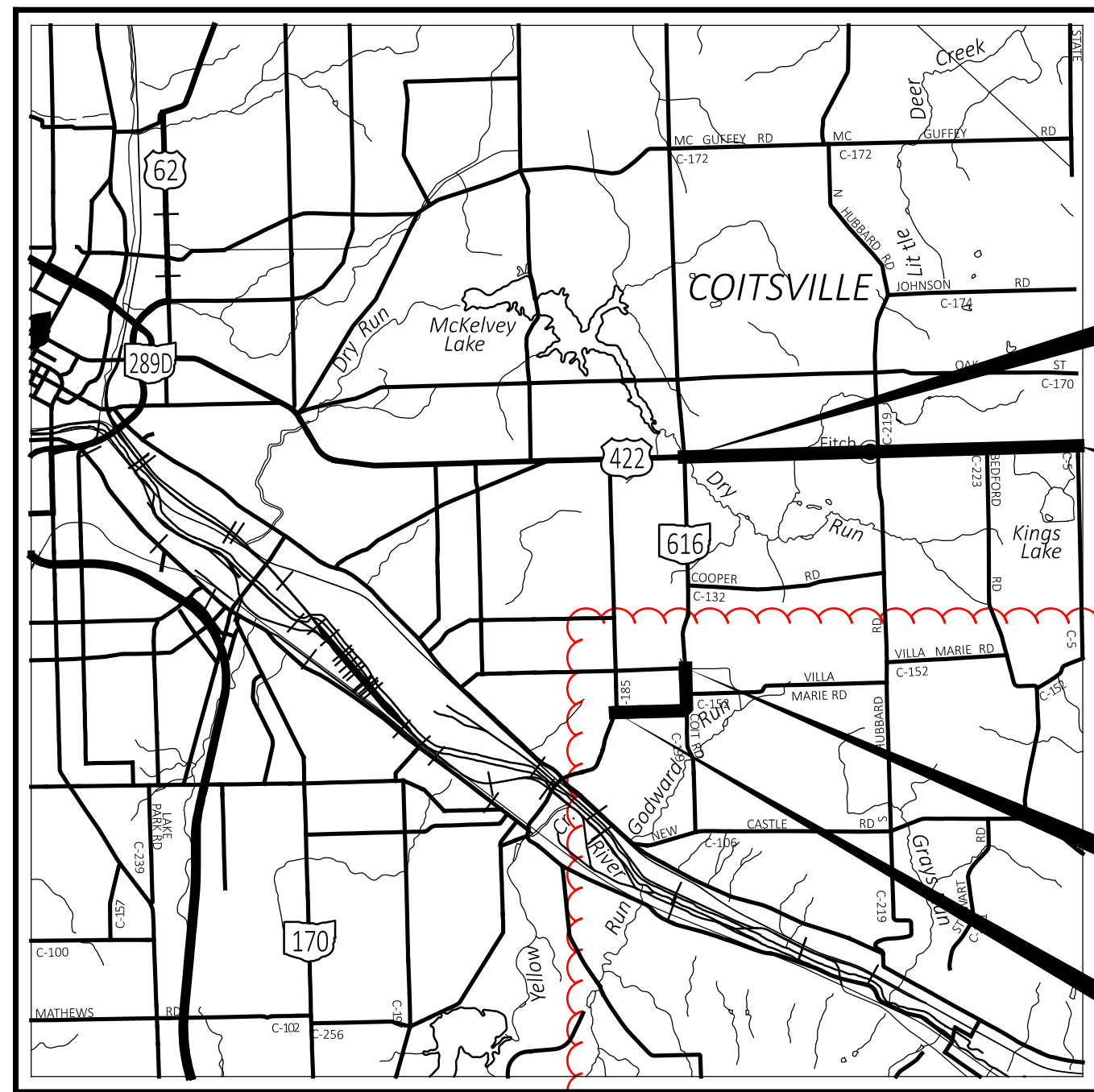


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

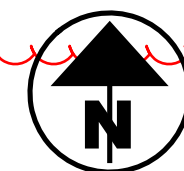
MAH-422/616-7.58/3.81

MAHONING COUNTY COITSVILLE TOWNSHIP



LOCATION MAP

LATITUDE: 41°04'45" LONGITUDE: 80°32'55"



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

DESIGN DESIGNATION	SR 616	US 422
CURRENT ADT (2025)	5,900	6,900
DESIGN YEAR ADT (2045)	5,900	8,100
DESIGN HOURLY VOLUME (2045)	650	850
DIRECTIONAL DISTRIBUTION	52%	55%
TRUCKS (24 HOUR B&C)	4%	10%
DESIGN SPEED	45 MPH	60 MPH
LEGAL SPEED	45 MPH	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	03 PRINCIPAL ARTERIAL OTHER (URBAN)	03 PRINCIPAL ARTERIAL OTHER (RURAL)
NHS PROJECT	YES	YES

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE

UNDERGROUND UTILITIES
Contact Two Working Days
Before You Dig

OHIO811.org
Before You Dig

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

PLAN PREPARED BY:

ODOT DISTRICT 4, CAPITAL PLANNING ENGINEERING ASSOCIATES INC.
2088 S. ARLINGTON ROAD 1935 EAGLE PASS
AKRON, OHIO 44306 WOOSTER, OHIO 44691

INDEX OF SHEETS:

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RIGHT-OF-WAY	RW.1-RW.8

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/19/24	RM-4.2	4/17/20	MT-105.10	1/17/20	800-2023	7/19/24 ASBESTOS
BP-4.1	7/19/13			MT-110.10	7/19/13	821	4/20/12 REPORT 5/6/22
BP-5.1	7/15/22	MT-95.31	7/19/19			832	7/19/24
BP-7.1	7/19/24	MT-95.32	4/19/19	TC-21.21	1/20/23	872	1/21/22 WATERWAY
		MT-95.50	7/21/17	TC-41.20	10/18/13	874	4/17/20 PERMIT 8/8/24
DM-1.1	7/17/20	MT-96.11	7/21/23	TC-42.10	10/18/13	875	1/18/19
DM-3.1	1/18/13	MT-96.20	7/21/23	TC-42.20	10/18/13	921	7/19/24
DM-4.3	1/15/16	MT-96.26	1/18/19	TC-52.10	10/18/13		
DM-4.4	1/15/16	MT-97.10	4/19/19	TC-52.20	1/15/21		
		MT-97.12	1/20/17	TC-61.30	7/19/24		
MGS-1.1	7/16/21	MT-99.20	4/19/19	TC-64.10	7/21/23		
MGS-2.1	1/19/18	MT-101.60	4/21/23	TC-65.10	1/17/14		
MGS-2.4	7/19/19	MT-101.70	7/19/24	TC-65.11	1/19/24		
MGS-4.2	7/19/13	MT-101.75	7/21/23	TC-71.10	4/21/23		
MGS-5.2	7/15/16	MT-101.90	7/17/20	TC-74.10	7/21/23		
MGS-5.3	7/15/16	MT-102.20	4/19/19				

Revised Date

FEDERAL PROJECT NUMBER

E240(133)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

RESURFACING OF US 422 FROM SLM 7.58 TO 10.14 AND SR 616 FROM SLM 3.82 TO SLM 4.53 IN MAHONING COUNTY. INCLUDES REPLACEMENT OF ONE CULVERT STRUCTURE AND MINOR BRIDGE MAINTENANCE.

Removed City of Campbell portion

EARTH DISTURBED AREAS (RESURFACING)

PROJECT EARTH DISTURBED AREA (RESURFACING): 0.22 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

Revised per City of Campbell removal

EARTH DISTURBED AREAS (STRUCTURE REPLACEMENT)

PROJECT EARTH DISTURBED AREA (CULVERT REPLACEMENT): 0.47 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

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 THIS IMPROVEMENT 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.

DISTRICT DEPUTY DIRECTOR

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

DIRECTOR, DEPARTMENT OF TRANSPORTATION

Pamela Boratyn

ENGINEER'S SEAL	ENGINEER'S SEAL

TITLE SHEET

DESIGN AGENCY



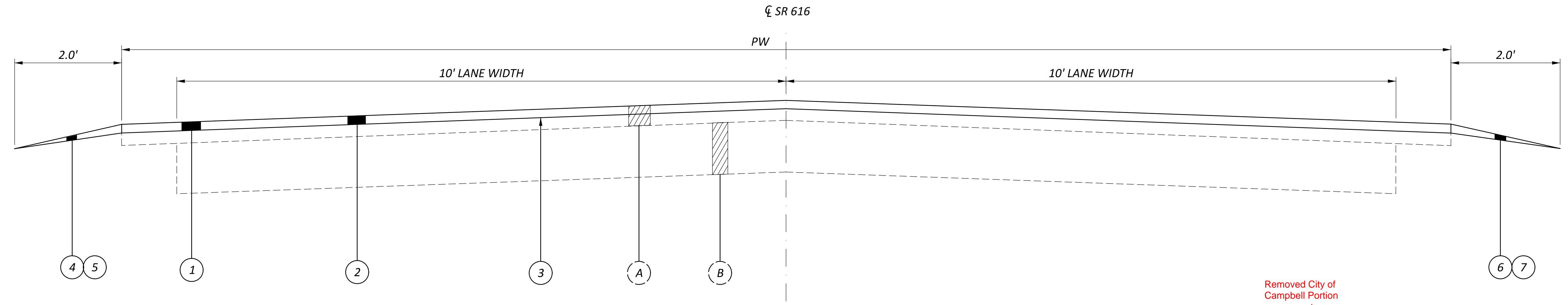
DESIGNER
SJ D
REVIEWER
MJA 12-11-23
PROJECT ID
105209
SHEET TOTAL
P.1 40

MAH-422/616-7.58/3.81

MODEL: Sheet PAPER: 34x22 (in.) DATE: 2/15/2025 TIME: 8:08:10 AM USER: sdudek
pvc:\ohiodot-pw-bentley.com\ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\105209\400-Engineering\Roadway\Sheets\105209_GT001.dgn

Removed City of
Campbell portion

TYPICAL SECTION 1 (NOT USED)



TYPICAL SECTION 2

Removed City of
Campbell Portion

SR 616			
S.L.M	AVG. PW	LENGTH	
FROM	TO	(FT)	(MILE)
3.82	4.35	30	0.53
4.35	4.53	25	0.18

LEGEND

- 1 ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5")
- 2 ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M (T=1.5")
- 3 ITEM 407, NON-TRACKING TACK COAT @ 0.09 GAL/SY
- 4 ITEM 617, COMPACTED AGGREGATE, AS PER PLAN (T=1" AVG.)
- 5 ITEM 408, PRIME COAT, AS PER PLAN @ 0.40 GAL/SY

- A EXISTING ASPHALT (3.5"±)
- B EXISTING REINFORCED CONCRETE BASE (9"±)
- C EXISTING CONCRETE GUTTER
- D EXISTING CURB

DESIGN AGENCY



DESIGNER
SJ

REVIEWER
MJA 12-11-23

PROJECT ID
105209

SHEET TOTAL
P.2 40

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

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

AQUA OHIO (MAHONING COUNTY)
 ATTN: ZACH TALLMADGE
 6650 SOUTH AVE.
 BOARDMAN, OH 44512
 330-397-0776
 814-490-5755 CELL
 ztallmadge@aquamerica.com

ARMSTRONG CABLE
 ATTN: CRAIG NOEL
 9328 WOODWORTH ROAD
 NORTH LIMA, OH 44452
 330-953-0705
 330-610-0170 CELL
 cnoel@agoc.com

AT&T
THE OHIO BELL TELEPHONE COMPANY
 ATTN: TORRICE ROBINSON
 50 W. BOWERY ST., FLR 6
 AKRON, OH 44308
 330-384-9851
 330-734-5117 CELL
 tr3463@att.com

DIAMOND ENERGY PARTNERS
 ATTN: AMBER KLEESE
 106 E. MARKET ST., FLR 2
 WARREN, OH 44481
 234-806-4185
 amber@diamondoiltech.com
 melanie@diamondoiltech.com

DOMINION ENERGY OHIO
 ATTN: MALLERIE STRASSER
 320 SPRINGSIDE DRIVE
 AKRON, OH 44333
 330-664-4601
 330-472-4209 CELL
 Mallerie.Strasser@dominionenergy.com

OHIO EDISON
 ATTN: PHILLIP RAWSON
 730 SOUTH AVENUE
 YOUNGSTOWN, OH 44502
 724-255-1332 CELL
 prawson@firstenergycorp.com

MAHONING COUNTY SANITARY ENGINEER
 ATTN: PAT GINNETTI, P.E., P.S.
 761 INDUSTRIAL ROAD
 YOUNGSTOWN, OH 44509
 330-793-5514 EXT.: 8208
 pginnetti@mahoningcountyoh.gov

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THIS SHEET OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

POSITIONING METHOD: STATIC
 MONUMENT TYPE: B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
 GEOID: GEOID 18

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
 ELLIPSOID: GRS80
 MAP PROJECTION: LAMBERT CONFORMAL CONIC
 COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
 COMBINED SCALE FACTOR: 0.99988932
 ORIGIN OF COORDINATE SYSTEM: EASTING (X): 0, NORTHING (Y): 0

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

UNITS ARE IN U.S. SURVEY FEET.

ITEM SPECIAL - SURVEY CONTROL VERIFICATION

THE CONTRACTOR SHALL PERFORM THIS WORK TO VERIFY THE PROVIDED SURVEY CONTROL. THE CONTRACTOR WILL PERFORM THE VERIFICATION USING ONE OF THE TWO METHODS BELOW DEPENDENT UPON THE CONTRACTOR'S CHOSEN MEANS OF SURVEY CONTROL TO BE USED ON THE PROJECT. THE WORK SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN OHIO LICENSED SURVEYOR.

1. IF USING GPS DEVICES TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL
 - a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
 - b. PERFORM A SITE CALIBRATION UTILIZING THE AVAILABLE HORIZONTAL AND VERTICAL CONTROL POINTS PROVIDED IN THE PLAN.
 - c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.
2. IF USING CONVENTIONAL SURVEY INSTRUMENTATION TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL
 - a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
 - b. LOCATE AND OBSERVE ANGLE AND DISTANCE TO ALL AVAILABLE HORIZONTAL CONTROL POINTS PROVIDE IN THE PLAN
 - c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM.

WORK LIMITS

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

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS:

Removed City of Campbell Portion

ROUTE	S.L.M. TO S.L.M.	LANE WIDTH
SR 616	3.82 TO 4.53	10'
US 422	7.58 TO 10.14	12'

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS HAVE BEEN SUPPLIED AS REFERENCE DOCUMENTS FOR THIS PROJECT AND ARE AVAILABLE ON THE ODOT FTP SITE AT <https://ftp.dot.state.oh.us/pub/contracts/Attach/> FOR THIS PROJECT. FOR ANY LOCATIONS THAT PAVEMENT MARKING DETAILS HAVE NOT BEEN MADE AVAILABLE TO THE CONTRACTOR, IT WILL BE THE CONTRACTORS RESPONSIBILITY TO PUT BACK NEW PAVEMENT MARKINGS IN THE ORIGINAL LOCATIONS.

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 10 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE ASPHALT SURFACE COURSE.

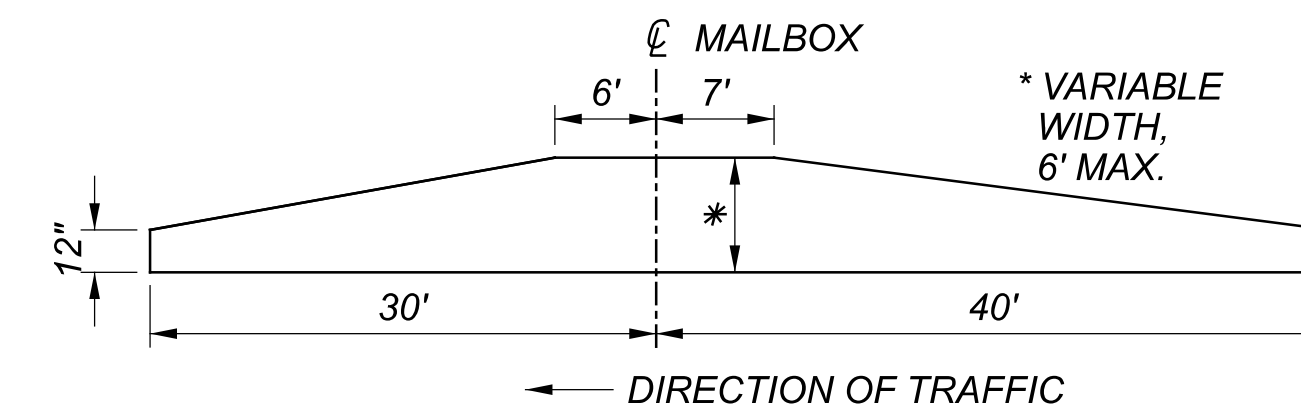
DRIVEWAYS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING DRIVEWAYS. IF APPROVED BY THE ENGINEER, AN ASPHALT WEDGE WITH A MINIMUM WIDTH OF 2' MAY BE PLACED EITHER ON THE ROADWAY SHOULDER OR DRIVEWAY DEPENDENT UPON WHICH SIDE IS HIGH. A QUANTITY OF MAINLINE SURFACE COURSE ASPHALT HAS BEEN PROVIDED IN THE CALCULATIONS AND GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK.

IN THE EVENT THAT THE ENGINEER DETERMINES ADDITIONAL WORK IS NECESSARY TO PROPERLY ADDRESS FIELD CONDITIONS, AN ITEM FOR WEARING COURSE REMOVED HAS BEEN PROVIDED. THE REMOVAL DEPTH IS DEPENDENT UPON THE ELEVATION DIFFERENCE AND ALLOW FOR 1"-2" OF COMPACTED ASPHALT MATERIAL TO BE PLACED.

PAVED MAILBOX APPROACHES

ALL EXISTING MAIL BOX APPROACHES WILL BE PAVED WITH ASPHALT CONCRETE AS PER TYPICAL SHOWN OR AS NEAR AS PRACTICAL. AGGREGATE APPROACHES SHALL HAVE A 2 IN. MIN. THICKNESS; IMPROVED APPROACHES SHALL HAVE A 2 IN. MIN. THICKNESS. THE CONTRACTOR SHALL HAVE THE OPTION OF PAVING THE MAILBOX APPROACHES WITH EITHER THE PAVING OF THE DRIVEWAYS OR THE PAVING OF THE MAINLINE AND SHOULDERS. PAYMENT SHALL BE AS FOLLOWS:



ITEM 408 - PRIME COAT, AS PER PLAN

APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

PROJECT CONTROL							
POINT	ALIGNMENT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP100	CLR422S	46+53.81	42.61' RT.	524762.314	2505920.743	1118.03	SURVEY NAIL SET
CP50	CLR422S	38+68.85	35.73' LT.	524818.042	2505133.860	1100.41	#5 REBAR SET W/ ODOT CAP
CP10	CLR422S	30+79.99	34.16' LT.	524793.769	2504345.366	1095.54	#5 REBAR SET W/ ODOT CAP
BM4	CLR422S	40+74.67	33.97' RT.	524754.284	2505341.598	1101.05	MAGNAIL SET IN SW WINGWALL OF CULVERT AT 8.35



LINEAR GRADING (SR 616)

AREAS WHERE THE SHOULDER IS HIGHER THAN THE EDGE OF PAVEMENT WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE. THIS WORK WILL ONLY BE PERFORMED IN AREAS NECESSARY AND WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

THE CONTRACTOR IS REQUIRED TO PLACE ITEM 617 WITHIN A PERIOD NOT TO EXCEED 7 DAYS. REFER TO THE AS PER PLAN NOTE FOR REQUIREMENTS.

EXPOSED EARTH OUTSIDE OF THE LIMITS OF ITEM 617 ARE REQUIRED TO BE SEEDED AND MULCHED WITHIN 7 DAYS OF PLACEMENT OF ITEM 617. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEM 832.

THE QUANTITY OF ITEM 209 IS NOT PERMITTED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:
 209, LINEAR GRADING, 38 STA.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

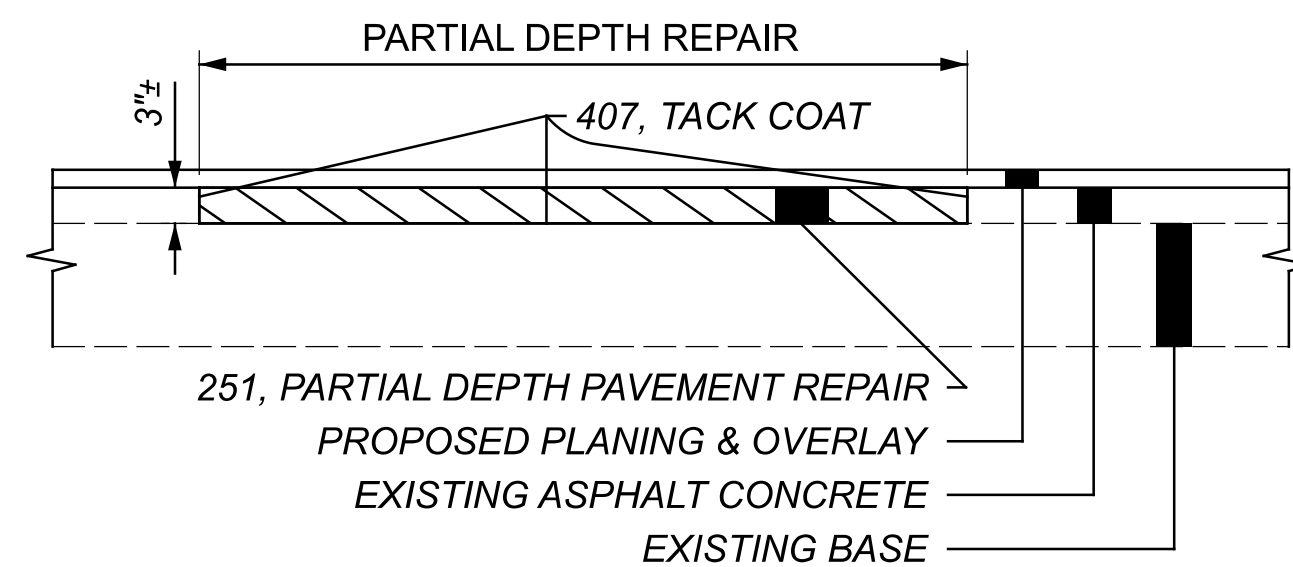
MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. PAVEMENT REPAIRS WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER ACCORDING TO CMS 251.02. MINIMUM WIDTH IS 2'. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING AND PRIOR TO THE PLACEMENT OF ASPHALT ON THE MILLED SURFACE. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:
 251, PARTIAL DEPTH PAVEMENT REPAIR (441), 800 SQ. YD. (SR 616 SLM 3.82 TO SLM 4.53)

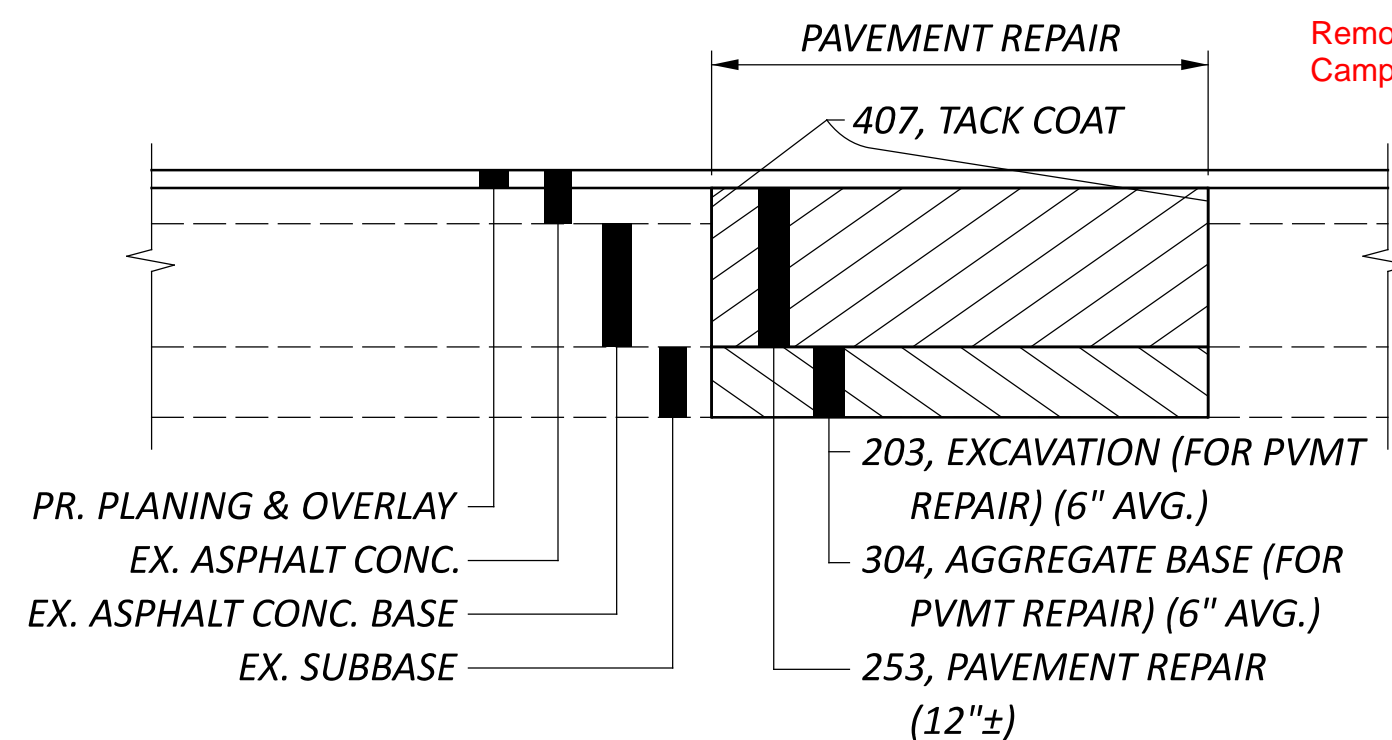


ITEM 253 - PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12"± 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED BEFORE THE START OF MAINLINE PAVEMENT PLANING.

IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:
 253, PAVEMENT REPAIR, 400 SQ YD (SR 616 SLM 3.82 TO SLM 4.53)

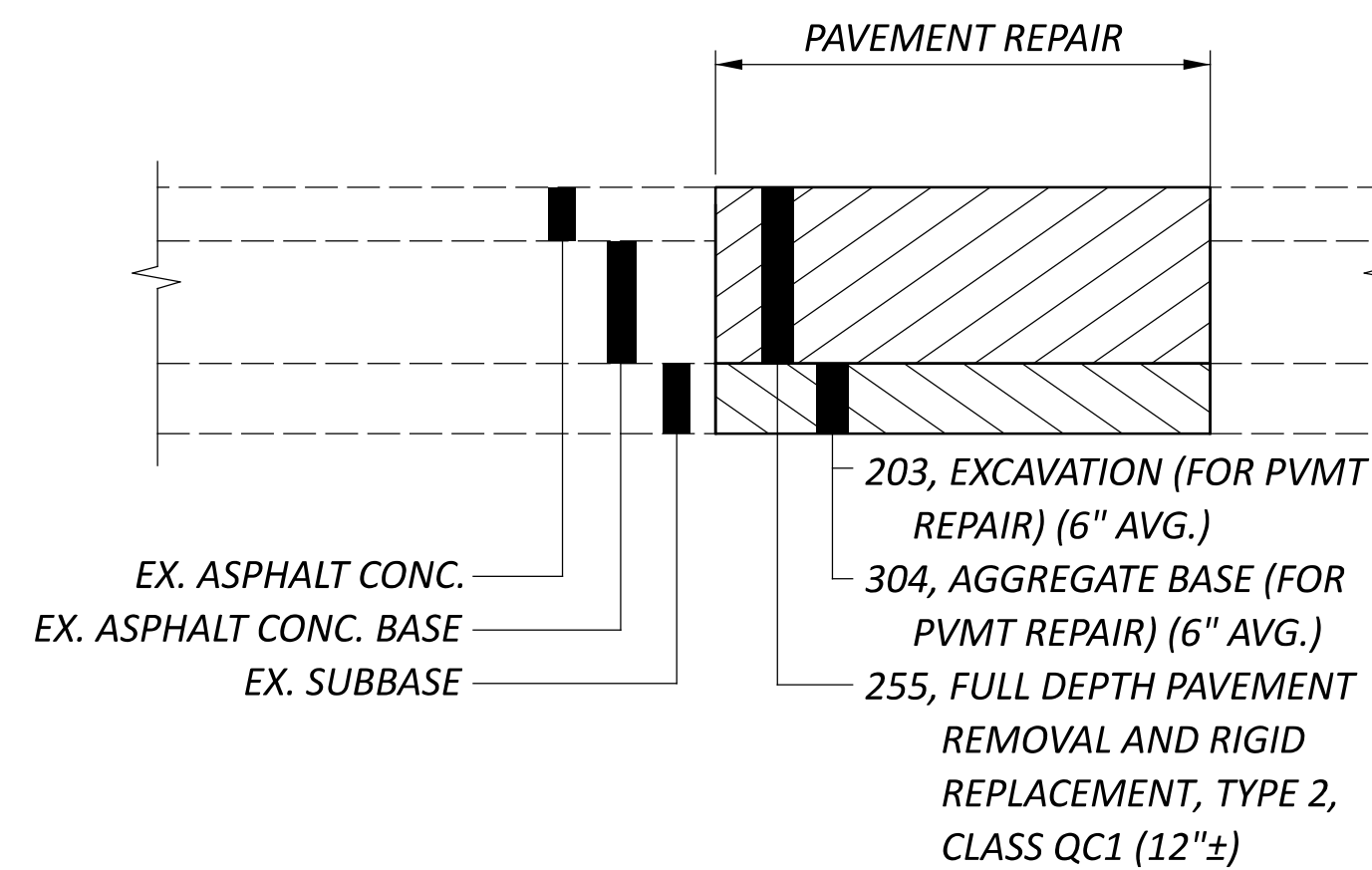


ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC1

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12" CONCRETE, CLASS QC1. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED BEFORE THE START OF MAINLINE PAVEMENT PLANING.

IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:
 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC1, 200 SQ YD (US 422)



ITEM 203 - EXCAVATION (FOR PAVEMENT REPAIR)

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

203, EXCAVATION (FOR PAVEMENT REPAIR), 23 CY (SR 616 SLM 3.82 TO SLM 4.53)
 203, EXCAVATION (FOR PAVEMENT REPAIR), 11 CY (US 422)

ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

304, AGGREGATE BASE (FOR PAVEMENT REPAIR), 23 CY (SR 616 SLM 3.82 TO SLM 4.53)
 304, AGGREGATE BASE (FOR PAVEMENT REPAIR), 11 CY (US 422)

ITEM 632 - DETECTOR LOOP, AS PER PLAN

THE CONTRACTOR SHALL CONTACT THE YOUNGSTOWN PUBLIC WORKS OFFICE (330-742-8800) THREE WORKING DAYS PRIOR TO ANY PLANING OR TRENCHING AT THE INTERSECTION OF SR 616 AND US 422. 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, AS PER PLAN, 6 EACH
 1 EACH, (6' X 20' POWERHEAD)
 3 EACH, (6' X 25' POWERHEAD)
 2 EACH, (6' X 30' POWERHEAD)

CURB RAMPS / DETECTABLE WARNINGS

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, INSTALLATION OF THE CURB RAMPS / DETECTABLE WARNINGS WILL BE PERFORMED PRIOR TO MAINLINE RESURFACING.

ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 3, AS PER PLAN

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED SECTIONS OF CURB AND GUTTER ON US 422 FROM SLM 7.58 TO SLM 10.14 AND REPLACING WITH NEW CURB AND GUTTER.

CURB AND GUTTER WORK SHALL BE PERFORMED PRIOR TO MAINLINE MILLING OPERATIONS.

FOR COMBINATION CURB AND GUTTER, TYPE 3, AS PER PLAN DIMENSIONS, SEE SHEET P.4.

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

202, CURB AND GUTTER REMOVED, 2000 FT
 609, COMBINATION CURB AND GUTTER, TYPE 3, AS PER PLAN, 2000 FT



ITEM 611 – MANHOLE ADJUSTED TO GRADE, AS PER PLAN
ITEM 623 – MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN
ITEM 638 – VALVE BOX ADJUSTED TO GRADE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 611.10.D FOR MANHOLES, 623.05 FOR MONUMENT ASSEMBLY, OR 638.18 FOR VALVE BOXES, THE CONTRACTOR WILL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (48" DIAMETER FOR STORM AND SANITARY MANHOLE CASTINGS, 24"-28" FOR VALVE BOXES AND MONUMENT ASSEMBLIES, AND 2' IN DIAMETER LARGER THAN THE CASTING DIAMETER FOR ANY CASTINGS THAT ARE LARGER THAN STANDARD MANHOLES) AND REMOVE AND DISCARD THE EXISTING CASTING. INSTALL A NEW CASTING TO GRADE (ACCORDING TO TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN REPLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE WILL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

PAYMENT WILL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION AND FURNISHING OF A NEW CASTING, AND ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 611 – MANHOLE ADJUSTED TO GRADE, AS PER PLAN, 2 EACH
- ITEM 623 – MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN, 8 EACH
- ITEM 638 – VALVE BOX ADJUSTED TO GRADE, 3 EACH

CATCH BASIN ADJUSTED TO GRADE (SR 616)

AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR ADJUSTING CATCH BASINS TO GRADE.

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF REQUIRED TYPE, SIZE AND STRENGTH. ENSURE ALL MATERIAL MEETS CMS ITEM 611 AND HAS PRIOR APPROVAL OF THE ENGINEER.

Removed City of Campbell Portion

- ITEM 611 – CATCH BASIN ADJUSTED TO GRADE, 2 EACH
- ITEM SPECIAL – MISCELLANEOUS METAL, 800 LB

CATCH BASIN ADJUSTED TO GRADE (US 422)

AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR ADJUSTING CATCH BASINS TO GRADE.

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF REQUIRED TYPE, SIZE AND STRENGTH. ENSURE ALL MATERIAL MEETS CMS ITEM 611 AND HAS PRIOR APPROVAL OF THE ENGINEER.

- ITEM 611 – CATCH BASIN ADJUSTED TO GRADE, 4 EACH
- ITEM SPECIAL – MISCELLANEOUS METAL, 1600 LB

CATCH BASIN RECONSTRUCTED TO GRADE (SR 616)

AN ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR RECONSTRUCTING CATCH BASINS TO GRADE.

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF REQUIRED TYPE, SIZE AND STRENGTH. ENSURE ALL MATERIAL MEETS CMS ITEM 611 AND HAS PRIOR APPROVAL OF THE ENGINEER.

- ITEM 611 – CATCH BASIN RECONSTRUCTED TO GRADE, 2 EACH
- ITEM SPECIAL – MISCELLANEOUS METAL, 900 LB

ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS

PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION PLANS. THE FORMAL AS-BUILT CONSTRUCTION PLANS SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. THE AS-BUILT CONSTRUCTION PLANS SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINED AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION PLANS.

THE CONTRACTORS VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL AS-BUILT CONSTRUCTION PLANS. THE CONTRACTORS VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTORS PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE).

IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE AS-BUILT CONSTRUCTION PLANS SHALL SHOW THE FOLLOWING:

1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.
2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE AS-BUILT CONSTRUCTION PLANS IN TERMS OF STATION, OFFSET AND ELEVATION.
3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).
4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.
5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS (CONT...)

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL, ETC.).

THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM.

TWO COPIES OF THE AS-BUILT CONSTRUCTION PLANS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION PLANS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPITAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES (MAH-422-8.352)

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

REVIEW OF DRAINAGE FACILITIES (MAH-422-8.352)

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

FARM DRAINS (MAH-422-8.352)

PROVIDE UNOBSTRUCTED OUTLETS TO ALL FARM DRAINS ENCOUNTERED DURING CONSTRUCTION. REPLACE EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY WITHIN THE (RIGHT OF WAY)(CONSTRUCTION) LIMITS WITH ITEM 611, CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

OUTLET EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES INTO THE ROADWAY.

DITCH USING ITEM 611, TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION IS ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. INTERCEPT LATERAL FIELD TILES WHICH CROSS THE ROADWAY WITH ITEM 611, TYPE E CONDUIT, AND CARRY IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS IS DETERMINED BY THE ENGINEER AND PAYMENT MADE ON FINAL MEASUREMENTS.

PROVIDE EROSION CONTROL PADS AT THE OUTLET END OF ALL FARM DRAINS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE.

PAYMENT FOR THE EROSION CONTROL PADS AND ANY NECESSARY BENDS OR BRANCHES IS INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

- 611 6" CONDUIT, TYPE B 30 FT.
- 611 6" CONDUIT, TYPE E 30 FT.
- 611 6" CONDUIT, TYPE F 30 FT.
- 601 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER 3 CU. YD.

ROADWAY POST STRUCTURE REPLACEMENT (MAH-422-8.352)

THE CONTRACTOR SHALL USE THE FOLLOWING ITEMS AND QUANTITIES, AT THE DISCRETION OF THE PROJECT ENGINEER, TO MAINTAIN TRAFFIC ON STRUCTURE MAH-422-8.352 AFTER ALL STRUCTURE REPLACEMENT WORK IS COMPLETED AND BEFORE THE MAH-422 MAINLINE PAVEMENT OPERATION COMMENCES:

- ITEM 411 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), 25 CY
- ITEM 614 - WORK ZONE LANE LINE, CLASS III, 642 PAINT, 0.04 MILES
- ITEM 614 - WORK ZONE CENTER LINE, CLASS III, 642 PAINT, 0.02 MILES



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:

TWO LANE SECTIONS:

1. A MINIMUM OF ONE TEN FOOT BIDIRECTIONAL LANE SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

THREE OR MORE LANE SECTIONS:

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 EXCEPT AS SHOWN ON PLAN PAGES P.14-P.19.

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 5 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.

MAINTENANCE OF TRAFFIC (CONT...)

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.

12. THE CONTRACTOR SHALL INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE WORK ZONE MARKING SIGNS AND THEIR SUPPORTS WITHIN THE WORK LIMITS. THESE SIGNS INCLUDE "NO EDGE LINES", "DO NOT PASS" AND "PASS WITH CARE". ALL OTHER SIGNS WILL BE INCIDENTAL TO THE LUMP SUM PAY ITEM 614 MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLANS. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS AS PER CMS 614.04.

13. 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.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:
614, WORK ZONE CENTER LINE, CLASS I, 3.20 MILE
614, WORK ZONE LANE LINE, CLASS I, 5.12 MILE
614, WORK ZONE STOP LINE, CLASS 1, 118 FT
614, WORK ZONE CHANNELIZING LINE, CLASS 1, 580 FT
614, WORK ZONE MARKING SIGN,(ALL PHASES) 6 EACH
614, WORK ZONE CENTERLINE, CLASS III, 642 PAINT 3.20 MILE
614, WORK ZONE LANE LINE, CLASS III, 642 PAINT 5.12 MILE
614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 118 FT
614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT 580 FT

TO BE USED AS DIRECTED BY THE ENGINEER
614, WORK ZONE EDGE LINE, CLASS III, 6.40 MILE

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.

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.

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.

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 YEAR'S (OBSERVED) GENERAL/REGULAR ELECTION DAY ((NOV) THANKSGIVING
- MEMORIAL DAY CHRISTMAS (OBSERVED)
- FOURTH OF JULY (OBSERVED)
- LABOR DAY

THE PERIOD OF TIME THAT THE LANES ARE TO 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 TIME ALL LANES
OR SPECIAL EVENT 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) 5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
- 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

DURING THE SAME PERIODS, MAINTAIN PEDESTRAIN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

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

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	>= 2WEEKS	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.

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.

DESIGN AGENCY



DESIGNER	SJD
REVIEWER	MJA
PROJECT ID	105209
SHEET	P.9
TOTAL	40

ITEM 614, MAINTAINING TRAFFIC (FOR MAH-422-8.352 SFN 5005559 ONLY)

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT WITH A TEMPORARY SIGNALIZED CLOSURE USING ONE LANE OF TWO-WAY TRAFFIC. LANE CLOSURES FOR PHASE 1 AND 2 SHALL ONLY BE PERMITTED FROM JULY 1, 2025 TO AUGUST 31, 2025.

SEQUENCE OF CONSTRUCTION

SETUP / PRE-PHASE 1

A. CLOSE RIGHT LANE OF WESTBOUND TRAFFIC WITH DRUMS PER MT-95.31.

B. PERFORM GUTTER REPAIRS AS DIRECTED BY ENGINEER. ESTIMATED QUANTITIES ARE SHOWN IN NOTE BELOW.

PHASE 1

A. MAINTAIN ONE LANE OF TWO-WAY TRAFFIC ON THE EXISTING SHOULDER AND OUTSIDE WESTBOUND LANE WITH WORK ZONE TRAFFIC SIGNALS PER MT-96.11 AND THE DETAILS SHOWN IN THE PLANS. THE MAXIMUM DURATION OF THIS PHASE SHALL BE 21 DAYS.

B. INSTALL TEMPORARY SHEETING, REMOVE THE OUTLET PORTION OF THE EXISTING STRUCTURE AND HEADWALLS, CONSTRUCT OUTLET HEADWALL, INSTALL THE BOX CULVERT, COMPLETE PAVEMENT, INSTALL GUARDRAIL AND ANY OTHER PROPOSED WORK AS NEEDED.

PHASE 2

A. MAINTAIN ONE LANE OF TWO-WAY TRAFFIC ON THE EXISTING SHOULDER AND OUTSIDE EASTBOUND LANE WITH WORK ZONE TRAFFIC SIGNALS PER MT-96.11 AND THE DETAILS SHOWN IN THE PLANS. THE MAXIMUM DURATION OF THIS PHASE SHALL BE 21 DAYS.

B. INSTALL TEMPORARY SHEETING, REMOVE THE INLET PORTION OF THE EXISTING STRUCTURE AND HEADWALLS, CONSTRUCT INLET HEADWALL, INSTALL THE BOX CULVERT, COMPLETE PAVEMENT, INSTALL GUARDRAIL AND ANY OTHER PROPOSED WORK AS NEEDED.

PHASE 3

A. MAINTAIN TRAFFIC IN EXISTING LANES PER MT-99.20.

B. COMPLETE TEMPORARY PAVEMENT MARKINGS FOR TRAFFIC TO OPERATE IN EXISTING LANES UNTIL ASPHALT CONCRETE SURFACE COURSE AND FINAL PAVEMENT MARKINGS ARE PLACED AS PART OF THE OVERALL RESURFACING PROJECT.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B 30 SY
ITEM 615 - ROADS FOR MAINTAINING TRAFFIC LUMP SUM

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.

PROPERTY ACCESS

THE CONTRACTOR SHALL MAINTAIN ACCESS TO EACH PROPERTY AT ALL TIMES DURING CONSTRUCTION. PROPERTIES THAT HAVE MULTIPLE DRIVEWAY ACCESS POINTS MAY HAVE A DRIVEWAY CLOSED OR TURNING MOVEMENT RESTRICTIONS IMPOSED DURING SPECIFIC PHASES AS SHOWN IN THE PLAN DETAILS. THE CONTRACTOR SHALL DISCUSS PROPERTY ACCESS RESTRICTIONS WITH THE PROPERTY OWNERS AND COMMUNICATE HOW TRAFFIC WILL BE MAINTAINED PRIOR TO THE IMPLEMENTATION OF EACH PHASE.

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY.

EXCAVATION FOR MAINTAINING TRAFFIC 6 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC 6 CU. YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT. WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON SHEETS P.15 & P.18 AND TRAFFIC SCDS MT-96.11, 96.20 AND 96.26 SHALL BE FULLY TRAFFIC-ACTUATED AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE INITIAL CONTROLLER TIMING SHALL BE AS SHOWN IN THE PLANS. PROVIDE TIMING APPROPRIATE FOR THE SIGNAL LOCATION UNDER CONSIDERATION. TYPICAL FLOW RATES ARE DISPLAYED IN TABLE 697-2 IN THE ODOT TRAFFIC ENGINEERING MANUAL (TEM). **Added Items**

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

OVERHEAD-MOUNTED WORK ZONE SIGNALS

SIGNALS SHALL BE OVERHEAD MOUNTED IN ACCORDANCE WITH THE DETAILS SHOWN ON TRAFFIC SCD MT-96.20.

SPECIAL - WORK ZONE TRAFFIC SIGNAL

THIS ITEM SHALL INCLUDE ALL WORK REQUIRED TO CONSTRUCT, POWER, OPERATE, AND MAINTAIN THE TEMPORARY TRAFFIC SIGNALS AND DETECTION EQUIPMENT PROPOSED FOR USE IN THESE PLANS. EACH LOCATION IS COUNTED AS ONE WORK ZONE TRAFFIC SIGNAL, REGARDLESS OF THE NUMBER OF MODIFICATIONS REQUIRED BY THE PLANS OR THE MATERIALS REQUIRED TO MAINTAIN TRAFFIC SIGNAL FUNCTION DURING CONSTRUCTION.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH LOCATION AND SHALL INCLUDE ALL MATERIALS, LABOR, INCIDENTALS, AND EQUIPMENT NECESSARY TO CONSTRUCT, OPERATE, MAINTAIN, AND REMOVE THE WORK ZONE TRAFFIC SIGNAL AND ASSOCIATED EQUIPMENT.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

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

ITEM 614, BARRIER REFLECTOR, TYPE 1 BI-DIRECTIONAL 16 EACH
ITEM 614, OBJECT MARKER, 2-WAY 16 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL; AND, ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

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

ITEM 614, BARRIER REFLECTOR, TYPE 2 BI-DIRECTIONAL 12 EACH
ITEM 614, OBJECT MARKER, 2-WAY 12 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEM(S).

ITEM 614, BUSINESS ENTRANCE (M4-H15) SIGN, AS PER PLAN

THE BUSINESS ENTRANCE (M4-H15) SIGN SHOULD BE PROVIDED AT EACH TEMPORARILY RELOCATED COMMERCIAL DRIVEWAY FOR WHICH THE RELOCATION IS NOT OBVIOUS TO THE MOTORIST. THE PROJECT ENGINEER SHALL DETERMINE WHETHER OR NOT THE DRIVEWAY RELOCATION IS, OR IS NOT, OBVIOUS AND WHETHER OR NOT A SIGN SHOULD BE PROVIDED. ONLY ONE SIGN PER BUSINESS SHALL BE PERMITTED. THE SIGN SHALL BE 36 INCH X 48 INCH IN SIZE WITH FLUORESCENT ORANGE RETROREFLECTIVE SHEETING. THE SIGN LEGEND SHALL BE PLACED ON BOTH SIDES OF THE SIGN (BACK TO BACK). THE SIGN SHALL HAVE THE STANDARD M4-H15 LEGEND WITH THE WORD "BUSINESS" ON THE TOP LINE, EXCEPT UNDER UNUSUAL CIRCUMSTANCES WHERE IT MAY NOT BE INTUITIVE THAT A DRIVEWAY SERVES A SPECIFIC BUSINESS. IN SUCH UNUSUAL CASES, THE ACTUAL BUSINESS NAME MAY BE SUBSTITUTED FOR THE WORD "BUSINESS".

THE SIGN SHALL BE MOUNTED ON TWO #3 POSTS OR ON TEMPORARY POSTS IN ACCORDANCE WITH SCD MT-105.10 AND IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. THE SIGN SHALL BE CLEARLY VISIBLE AND SHALL CLEARLY IDENTIFY THE LOCATION OF THE DRIVEWAY. THE SIGN SHOULD BE POSITIONED AT 90 DEGREES TO THE DIRECTION(S) OF TRAFFIC. THE SIGN MAY NEED TO BE MOVED FOR EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.

PAYMENT FOR ALL COSTS ASSOCIATED WITH MANUFACTURING, MOUNTING, RELOCATING, AND REMOVING THE SIGN, INCLUDING ALL LABOR, MATERIALS AND EQUIPMENT SHALL BE INCLUDED IN THE CONTRACT PRICE PER EACH FOR ITEM 614-BUSINESS ENTRANCE SIGN.

SPECIAL - MAILBOX REMOVED AND RESET

THIS ITEM SHALL INCLUDE ALL WORK REQUIRED TO TEMPORARILY RELOCATE MAILBOXES DURING CONSTRUCTION ACTIVITIES AND THEN RETURN TO THE ORIGINAL LOCATION AFTER COMPLETION OF THE WORK AS DIRECTED BY THE ENGINEER.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK AND SHALL BE PAID AT THE UNIT PRICE BID FOR EACH MAILBOX.

DESIGN AGENCY



ENGINEERING ASSOCIATES
— INC —
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WOOSTER, OHIO 44691
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DESIGNER

JGL

REVIEWER

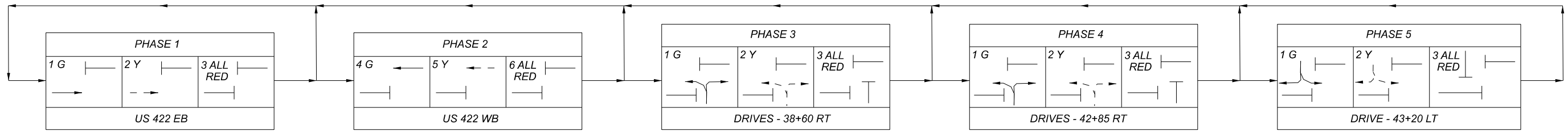
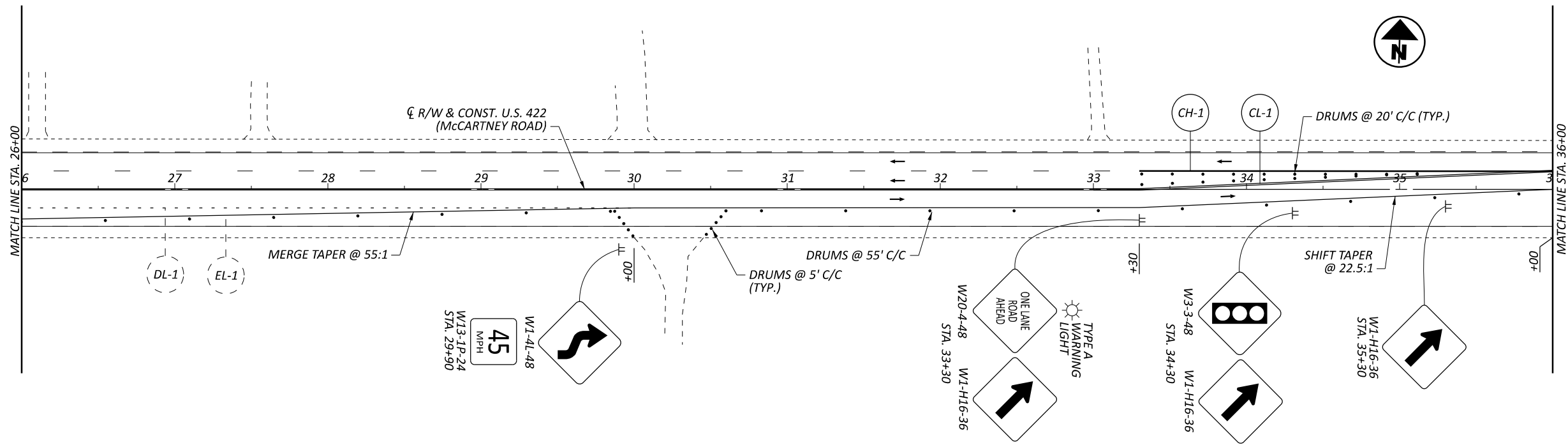
SDS 1-28-25

PROJECT ID

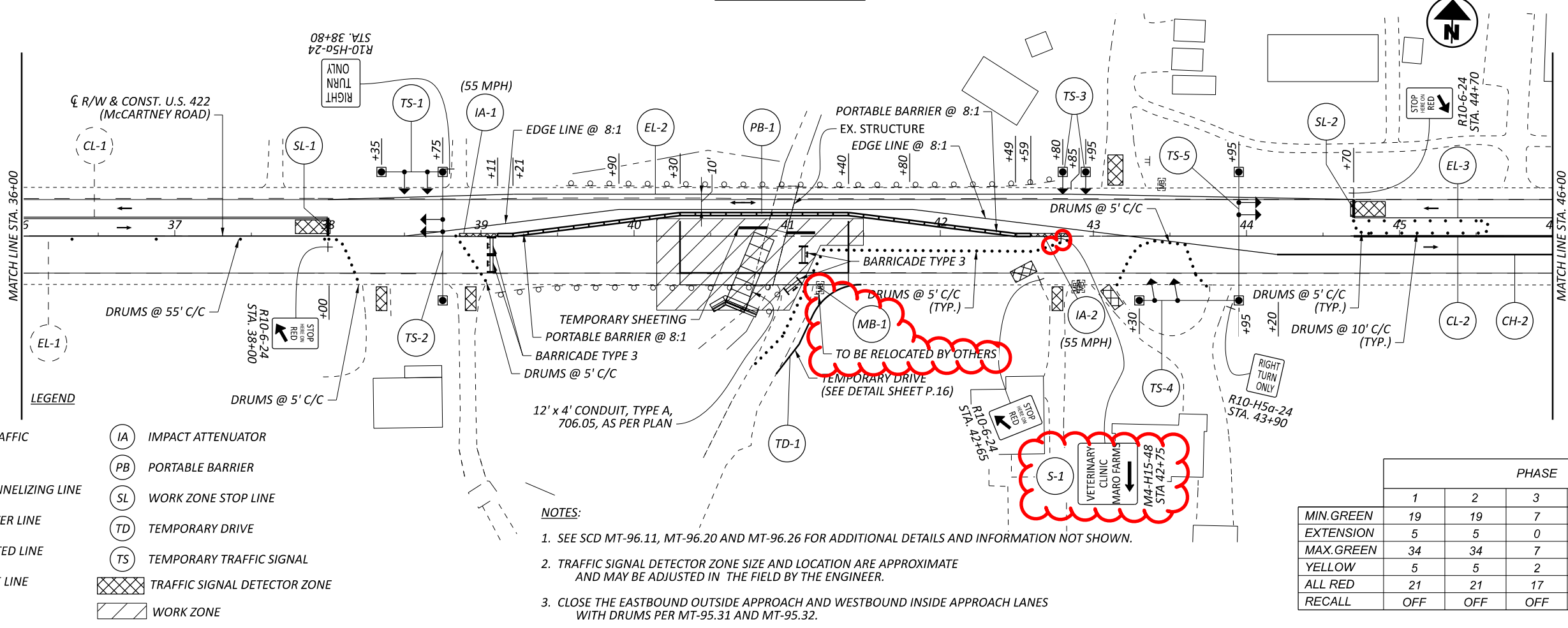
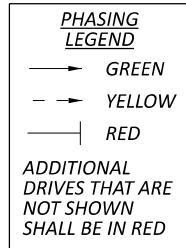
105209

SHEET TOTAL

P.11 40



SIGNAL PHASING CHART

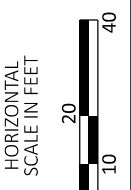


LEGEND

- DIRECTION OF TRAFFIC
- ↔ SIGNAL HEAD
- (CH) WORK ZONE CHANNELIZING LINE
- (CL) WORK ZONE CENTER LINE
- (DL) WORK ZONE DOTTED LINE
- (EL) WORK ZONE EDGE LINE
- (IA) IMPACT ATTENUATOR
- (PB) PORTABLE BARRIER
- (SL) WORK ZONE STOP LINE
- (TD) TEMPORARY DRIVE
- (TS) TEMPORARY TRAFFIC SIGNAL
- XXXX TRAFFIC SIGNAL DETECTOR ZONE
- ▨ WORK ZONE

- NOTES:
- SEE SCD MT-96.11, MT-96.20 AND MT-96.26 FOR ADDITIONAL DETAILS AND INFORMATION NOT SHOWN.
 - TRAFFIC SIGNAL DETECTOR ZONE SIZE AND LOCATION ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
 - CLOSE THE EASTBOUND OUTSIDE APPROACH AND WESTBOUND INSIDE APPROACH LANES WITH DRUMS PER MT-95.31 AND MT-95.32.

	PHASE				
	1	2	3	4	5
MIN. GREEN	19	19	7	7	7
EXTENSION	5	5	0	0	0
MAX. GREEN	34	34	7	7	7
YELLOW	5	5	2	2	2
ALL RED	21	21	17	17	17
RECALL	OFF	OFF	OFF	OFF	OFF



MAINTENANCE OF TRAFFIC PLAN - PHASE 1
STA 26+00 TO STA 46+00

DESIGN AGENCY

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 www.eaofo.com

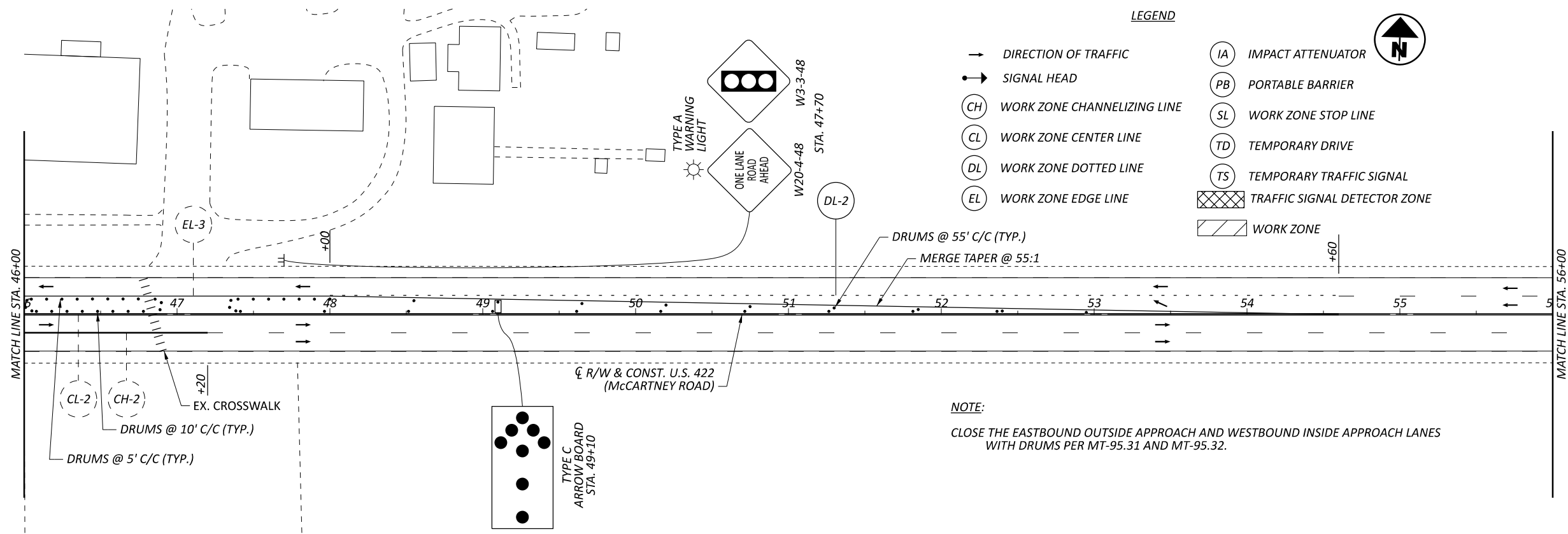
DESIGNER
TAC

REVIEWER

SDS 1-28-25

PROJECT ID
105209

SHEET TOTAL
 P.15 40

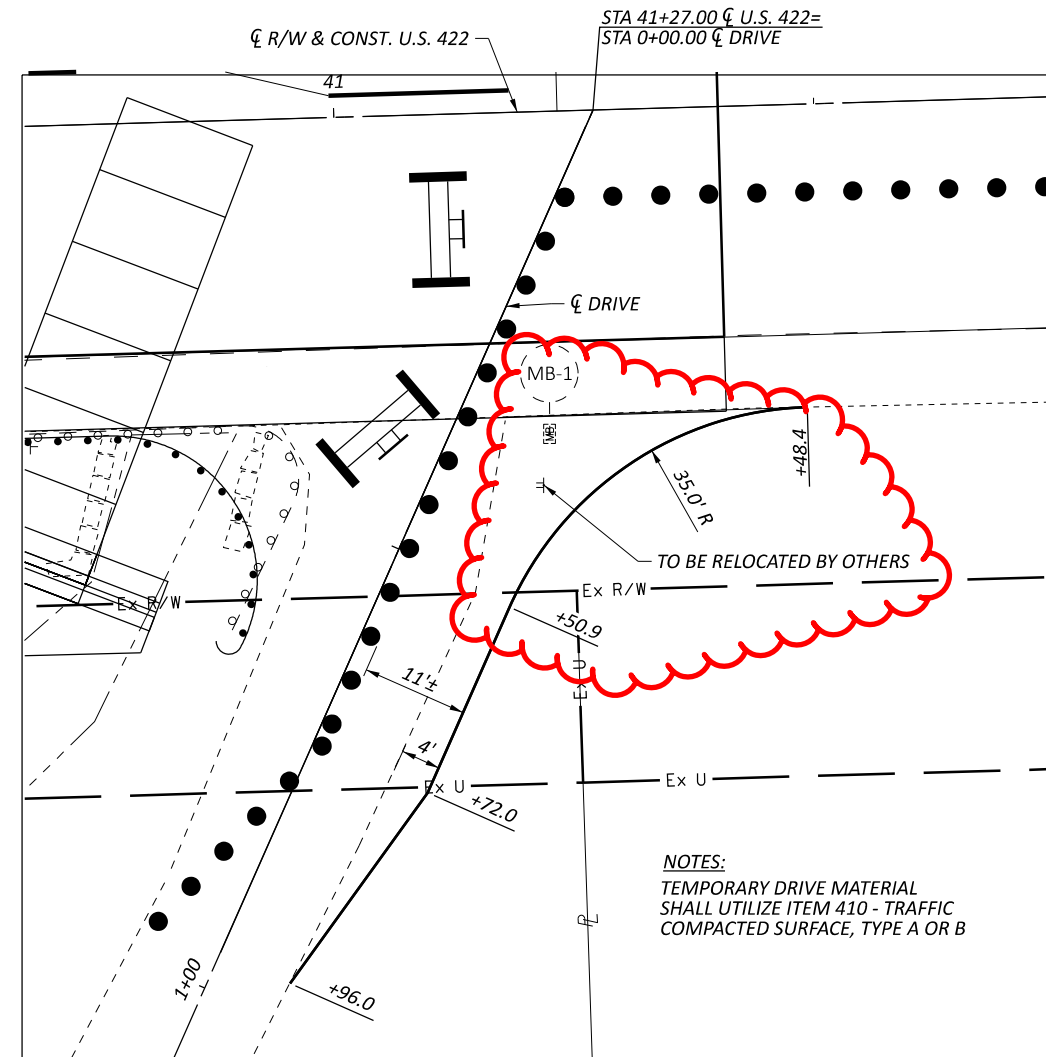
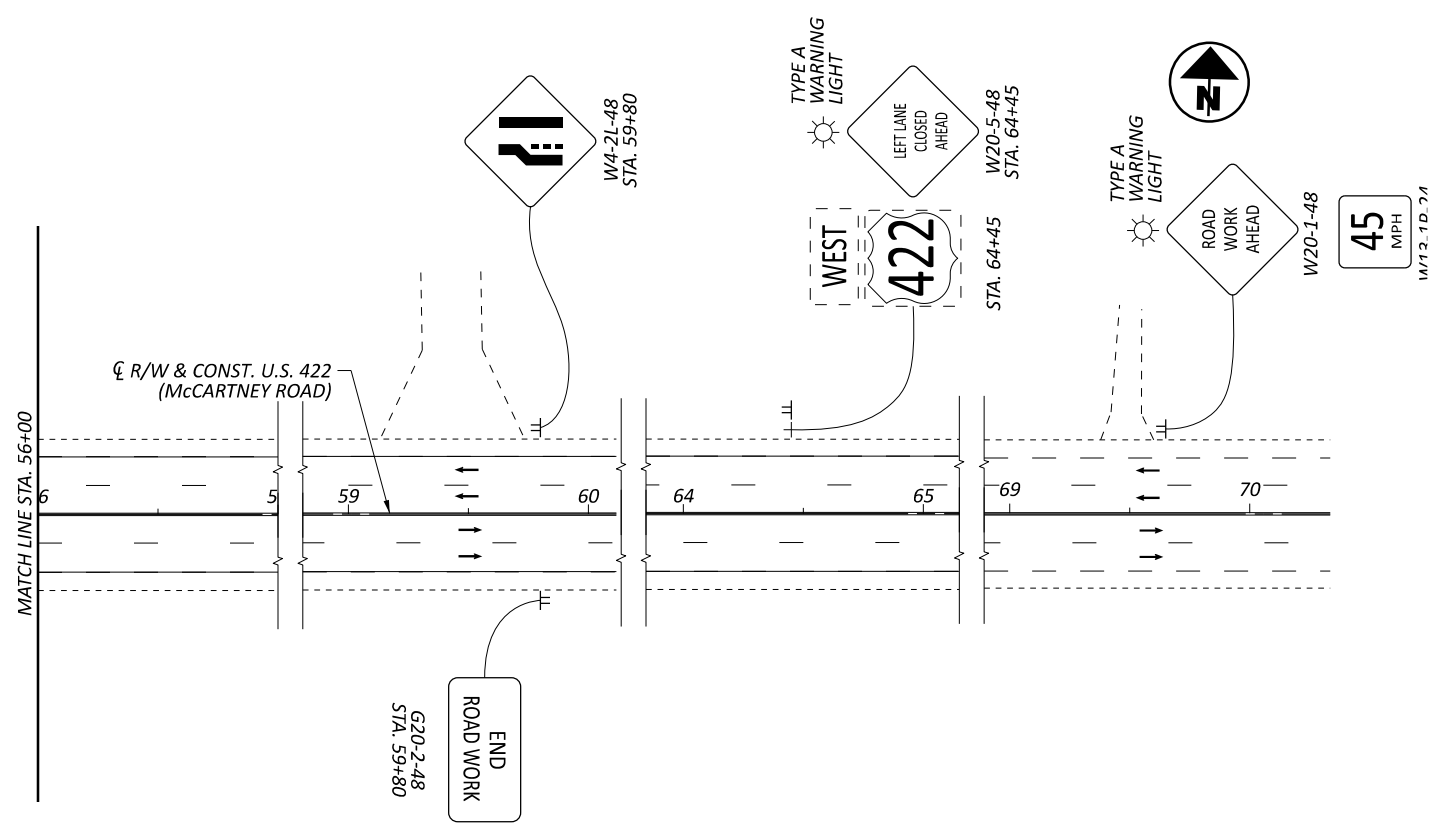


LEGEND

- DIRECTION OF TRAFFIC
- SIGNAL HEAD
- (CH) WORK ZONE CHANNELIZING LINE
- (CL) WORK ZONE CENTER LINE
- (DL) WORK ZONE DOTTED LINE
- (EL) WORK ZONE EDGE LINE
- (IA) IMPACT ATTENUATOR
- (PB) PORTABLE BARRIER
- (SL) WORK ZONE STOP LINE
- (TD) TEMPORARY DRIVE
- (TS) TEMPORARY TRAFFIC SIGNAL
- ▨ TRAFFIC SIGNAL DETECTOR ZONE
- ▨ WORK ZONE

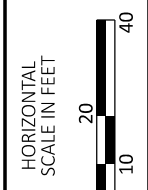


NOTE:
 CLOSE THE EASTBOUND OUTSIDE APPROACH AND WESTBOUND INSIDE APPROACH LANES WITH DRUMS PER MT-95.31 AND MT-95.32.



TEMPORARY DRIVE DETAIL
 STA 41+27 RT

NOTES:
 TEMPORARY DRIVE MATERIAL SHALL UTILIZE ITEM 410 - TRAFFIC COMPACTED SURFACE, TYPE A OR B



MAINTENANCE OF TRAFFIC PLAN - PHASE 1
 STA 46+00 TO STA 70+00

DESIGN AGENCY

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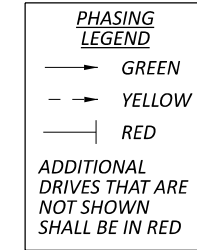
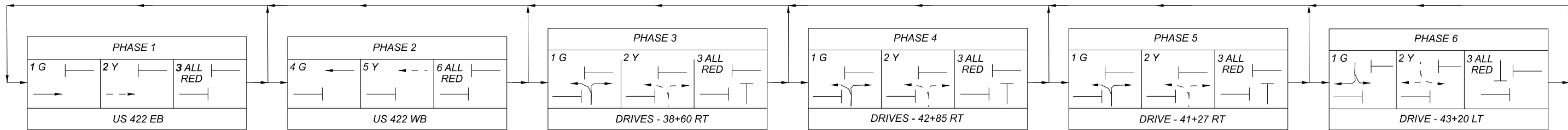
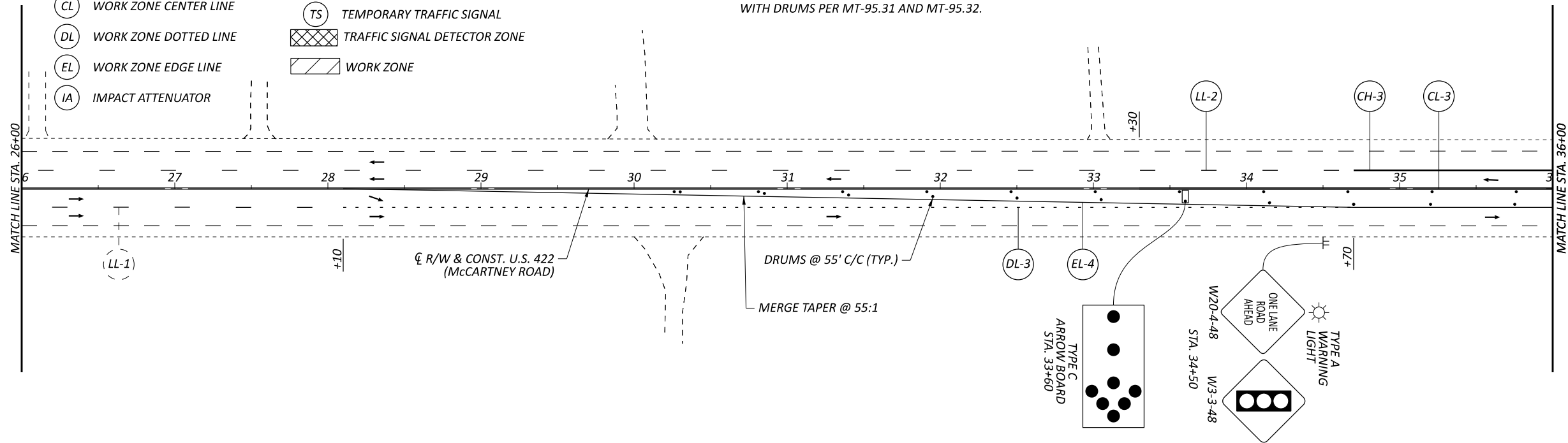
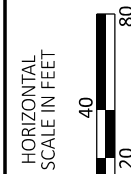
DESIGNER	TAC
REVIEWER	
SDS	1-28-25
PROJECT ID	105209
SHEET	TOTAL
P.16	40

LEGEND

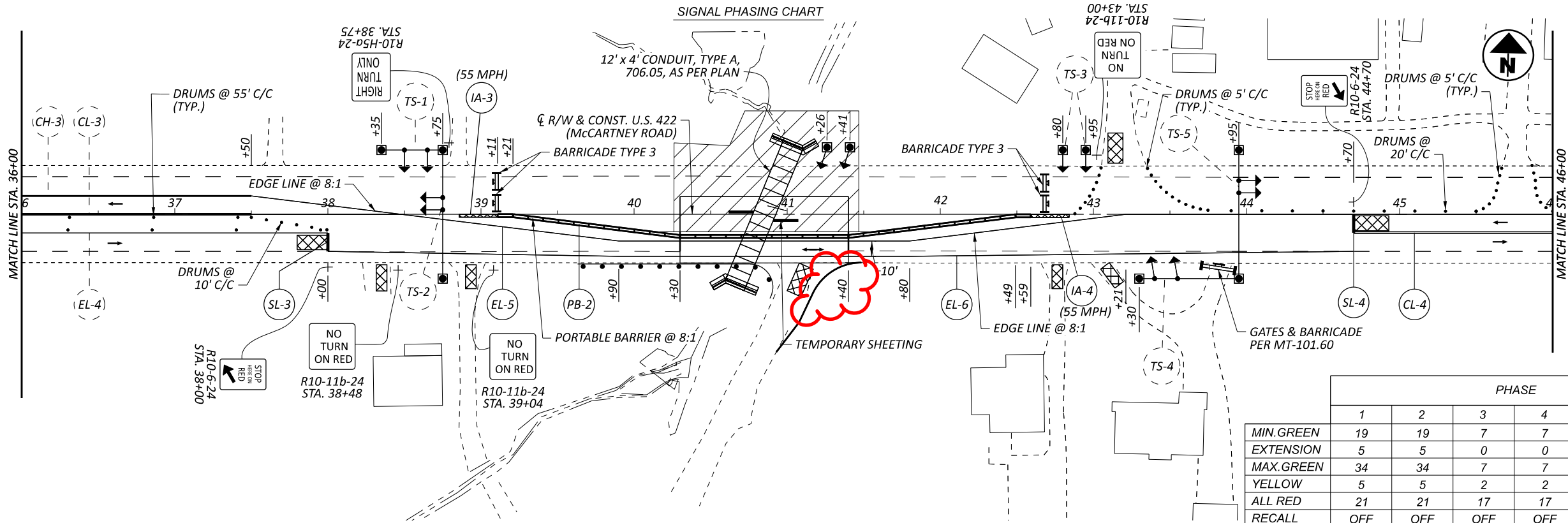
- DIRECTION OF TRAFFIC
- SIGNAL HEAD
- (CH) WORK ZONE CHANNELIZING LINE
- (CL) WORK ZONE CENTER LINE
- (DL) WORK ZONE DOTTED LINE
- (EL) WORK ZONE EDGE LINE
- (IA) IMPACT ATTENUATOR
- (LL) WORK ZONE LANE LINE
- (PB) PORTABLE BARRIER
- (SL) WORK ZONE STOP LINE
- (TS) TEMPORARY TRAFFIC SIGNAL
- ⊗ TRAFFIC SIGNAL DETECTOR ZONE
- ▨ WORK ZONE

NOTES:

- SEE SCD MT-96.11, MT-96.20 AND MT-96.26 FOR ADDITIONAL DETAILS AND INFORMATION NOT SHOWN.
- TRAFFIC SIGNAL DETECTOR ZONE SIZE AND LOCATION ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- CLOSE THE EASTBOUND INSIDE APPROACH AND WESTBOUND OUTSIDE APPROACH LANES WITH DRUMS PER MT-95.31 AND MT-95.32.



SIGNAL PHASING CHART



	PHASE					
	1	2	3	4	5	6
MIN. GREEN	19	19	7	7	7	7
EXTENSION	5	5	0	0	0	0
MAX. GREEN	34	34	7	7	7	7
YELLOW	5	5	2	2	2	2
ALL RED	21	21	17	17	11	17
RECALL	OFF	OFF	OFF	OFF	OFF	OFF

**MAINTENANCE OF TRAFFIC PLAN - PHASE 2
STA. 26+00 TO STA. 46+00**

DESIGN AGENCY



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DESIGNER

TAC

REVIEWER

SDS 1-28-25

PROJECT ID

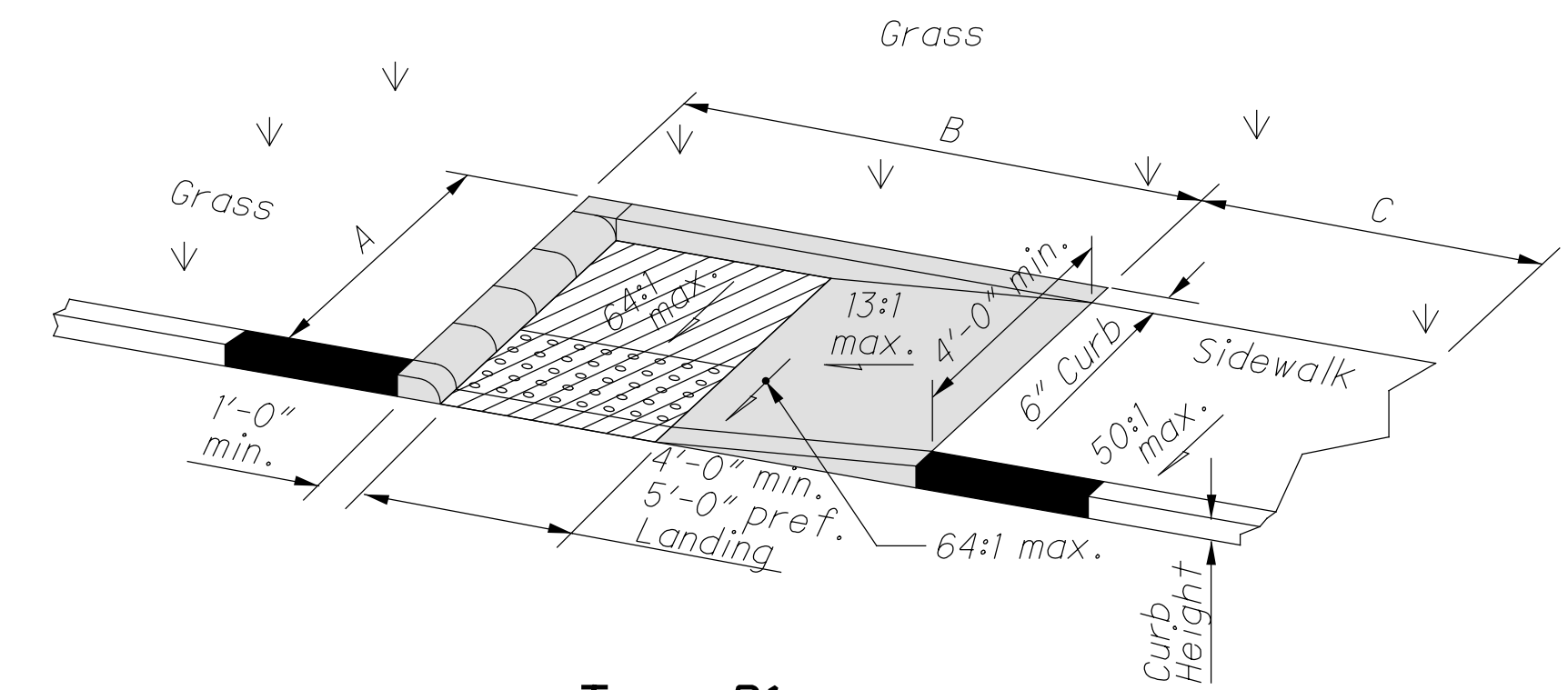
105209

SHEET TOTAL

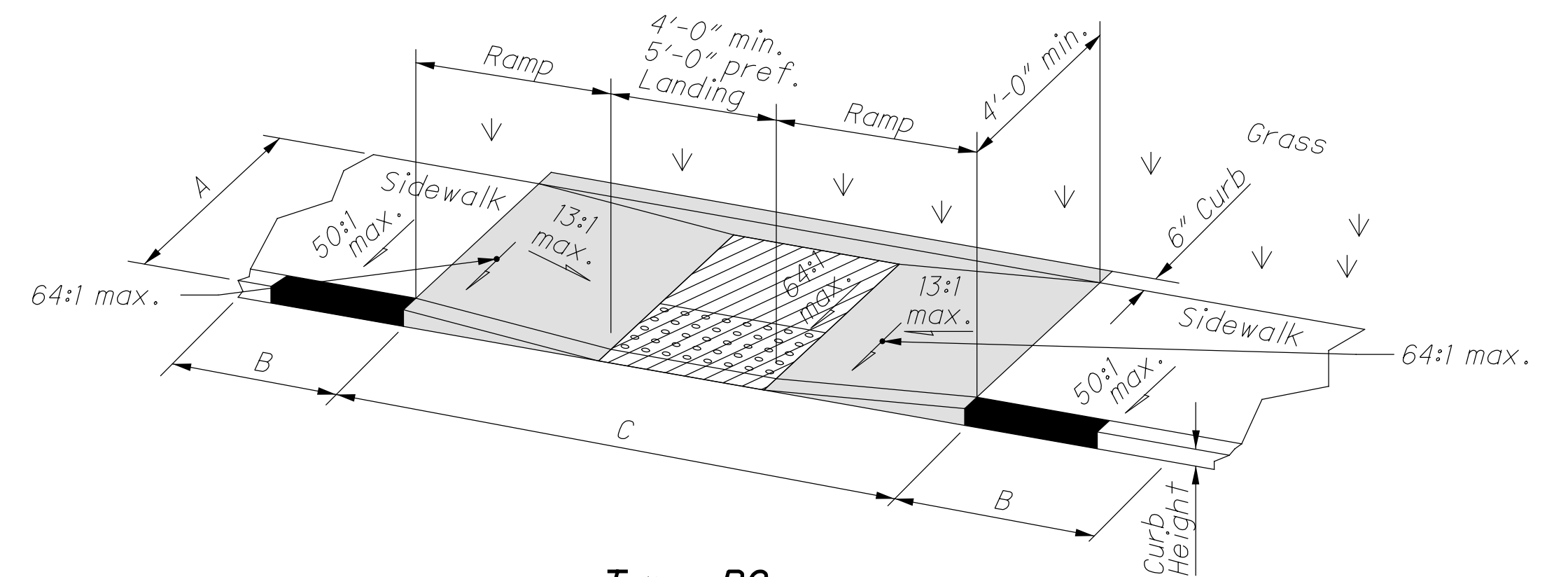
P.18 40

MAIN ROUTE	INTERSECTION ROUTE	DESIGN SHEET	QUADRANT	CURB RAMP TYPE	DIMENSIONS (FEET)							
					A	B	C	D	E	F	G	
US 422	SR 616		FL	B2	4	5	10					
			FL	B2	4	5	10					
			FR	B2	4	5	10					
			FR	B2	4	5	10					
			RR	B2	4	5	10					
			RR	B2	4	5	10					
US 422	PURPLE CAT (SLM 8.46)		FR	B1	5	10	0					
			RR	C1	10	6	4	4	8.0			

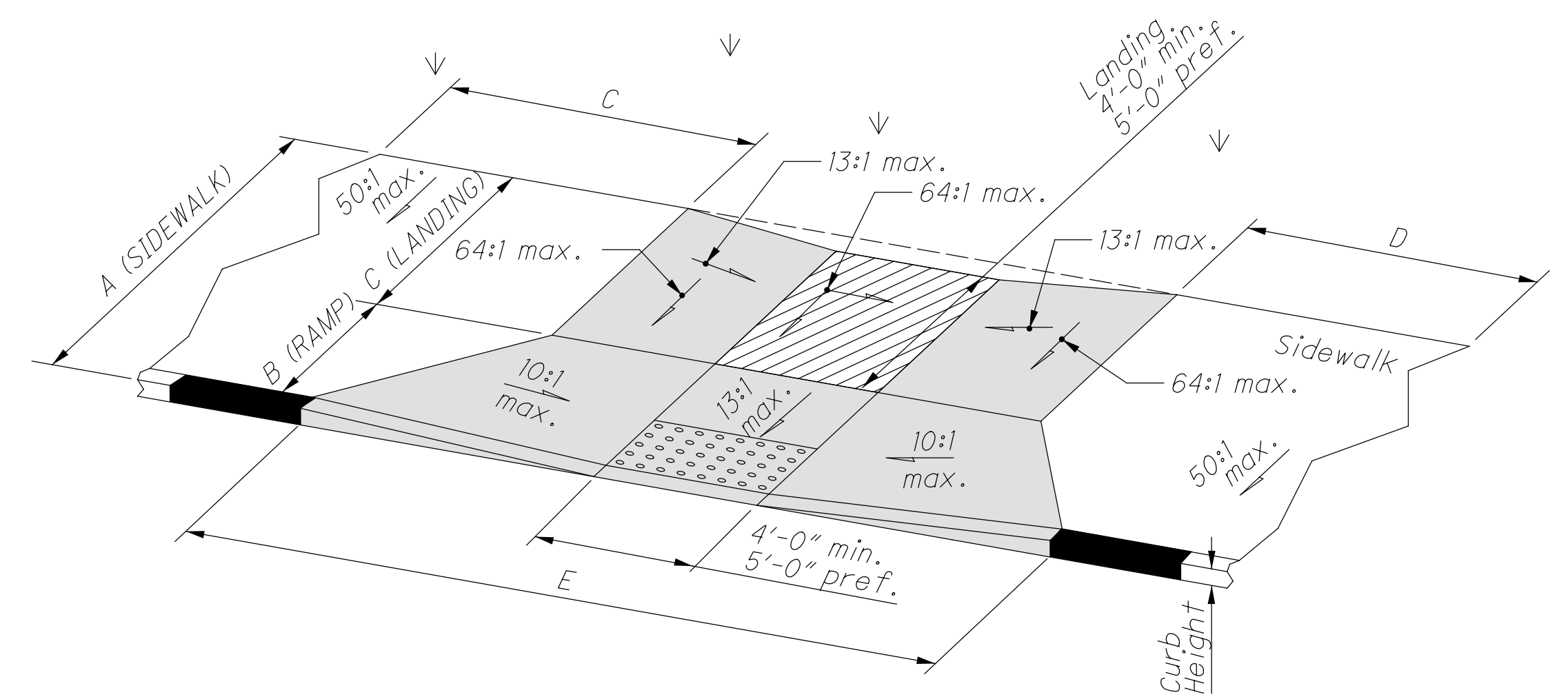
Removed City of Campbell Portion



Type B1



Type B2



Type C1

- CONCRETE WALK
- LANDING PAD
- CURB RAMP
- CURB

* SEE SHEET ... FOR DIMENSIONS
 * SEE SCD BP-7.1 FOR ALL OTHER DETAILS




MAH-422/616-7.58/3.81

MODEL: RPM Subsummary PAPER SIZE: 34x22 (in.) DATE: 2/5/2025 TIME: 8:08:12 AM USER: sdudek
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COUNTY	ROUTE	LOCATION		RPM (YELLOW/YELLOW)	RPM (WHITE/RED)	RPM (WHITE)	RPM (YELLOW/RED)	RAISED PAVEMENT MARKER REMOVED	REMARKS
		FROM	TO						
MAH	SR 616	3.82	4.53	48				38	
MAH	SR 616		3.82			16		13	INTERSECTION APPROACH AT SR 616/COY ST.
MAH	SR 616		4.27			16		13	INTERSECTION APPROACH AT SR 616/STRUTHERS-COITSVILLE RD
MAH	US 422	7.58	10.14	174	269			354	INCLUDES EASTBOUND AND WESTBOUND LANE LINES AND SR 616/SR422 APPROACHES
MAH	US 422		7.58	5	10	16		24	INTERSECTION APPROACH AT US 422/SR 616
MAH	US 422		10.14	9	7	16		26	INTERSECTION AT PENNSYLVANIA BORDER
TOTALS CARRIED TO GENERAL SUMMARY				236	286	64		469	

Removed City of Campbell Portion

RPM SUBSUMMARY

DESIGN AGENCY

 DESIGNER: SJJ
 REVIEWER: MJA 12-11-23
 PROJECT ID: 105209
 SHEET: P.28 TOTAL: 40

EDGE LINE

GENERAL SPEC: 640
MATERIAL TYPE: 646

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE, 6"			YELLOW EDGE LINE, 6"			COMMENTS
						TOTAL	HIGHWAY	RAMP	TOTAL	HIGHWAY	RAMP	
MAH	422	7.58	INTERSECTION OF US 422 AND SR 616	10.14	OHIO/PENNSYLVANIA STATE LINE	5.12	5.12					
MAH	616	3.82	INTERSECTION OF SR 616 AND COY ST.	4.46	ROBINSON RD.	1.28	1.28					
TOTAL						6.40	6.40					

LANE LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	6" LANE LINE		COMMENTS
							DASHED	SOLID	
MAH	422	7.58		10.14		5.12	5.12		
TOTAL						5.12	5.12		

CENTER LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
MAH	616	3.82	INTERSECTION OF SR 616 AND COY ST.	4.46	ROBINSON RD.	0.64	0.63	
TOTAL						3.20	1.72	

*** 24" HIGH VISIBILITY**

AUXILIARY

CTY	ROUTE LOCATION	TRUE LOG	CHANNEL LINE, 8"	CHANNEL LINE, 12"	STOP LINE	*CROSS WALK LINES	TRANSVERSE DIAGONAL LINES		ISLAND MARKING	SYMBOL MARKINGS			LANE ARROWS				REDUCT. ARROW	WORD ON PVMT ONLY		DOTTED LINES, 6"	COMMENTS
							WHITE	YELLOW		RxR	SCHOOL	TURN LEFT	TURN RIGHT	THRU	COMB.	72"		96"			
																			FT		
MAH	US 422 AT SR 616	7.580		350	94	161															
MAH	US 422 AT VICTORY CHURCH OH	7.770											8								
MAH	US 422 AT PA STATE LINE	10.140		230																	
MAH	SR 616 AT COY ST.	3.820			12																
MAH	SR 616 AT COIT ROAD	4.260			12																
TOTAL			580	118	161								11	3							

PAVEMENT MARKING SUBSUMMARY

MAH-422/616-7.58/3.81

MODEL: Pavement Marking Subsummary PAPER SIZE: 44x22 (in.) DATE: 2/5/2025 TIME: 8:09:19 AM USER: scudek
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DESIGN AGENCY



DESIGNER
SJID
REVIEWER
MJA 12-11-23
PROJECT ID
105209
SHEET TOTAL
P.29 40