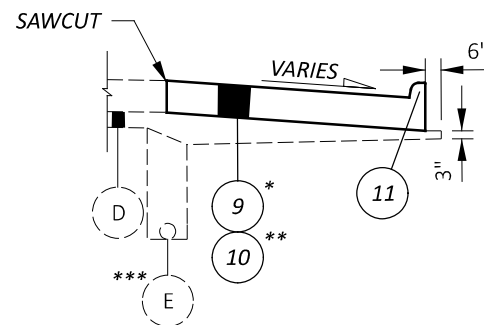
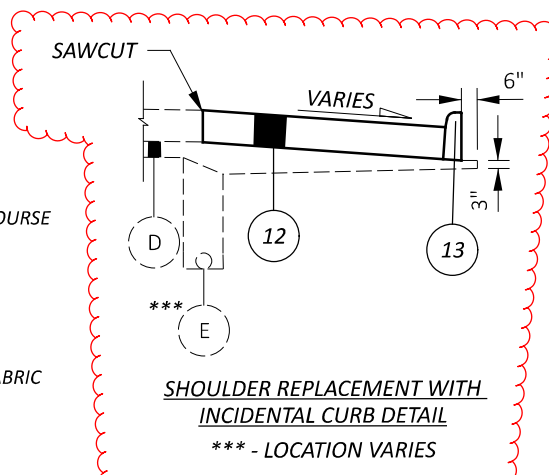


## EXISTING LEGEND

- (A) 1.5" ASPHALT CONCRETE SURFACE COURSE
- (B) 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE
- (C) 7.5" ASPHALT CONCRETE BASE
- (D) 6" AGGREGATE BASE
- (E) 6" PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC



## PROPOSED LEGEND

- (1) ITEM 202 - 4" PAVEMENT REMOVED
- (2) ITEM 204 - GEOGRID
- (3) ITEM 659 - TOPSOIL
- (4) ITEM 659 - SEEDING AND MULCHING, CLASS 2
- (5) ITEM 204 - GEOTEXTILE FABRIC
- (6) ITEM 202 - 10.75" PAVEMENT REMOVED
- (7) ITEM 305 - CONCRETE BASE, MISC.: 9.75" CONCRETE BASE, CLASS QC 1P
- (8) ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C
- (9) ITEM 255 - 12" FULL DEPTH RIGID PAVEMENT REMOVAL AND REPLACEMENT, TYPE 2, CLASS QC 1, AS PER PLAN
- (10) ITEM 255 - 13.5" FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC 1, AS PER PLAN
- (11) ITEM 609 - CURB, TYPE 2-A
- (12) ITEM 252 - FULL DEPTH RIGID REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN
- (13) ITEM 609 - CURB, TYPE 6

GENERAL (CONT.)

EQUIPMENT AND MATERIAL STORAGE

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC THE CONTRACTOR'S ATTENTION IS DIRECTED TO 614.03. IN ADDITION THE FOLLOWING PROVISIONS SHALL APPLY.

- 1. ANY REMOVED ITEMS SHALL NOT BE STORED ON THE RIGHT OF WAY FOR MORE THAN THIRTY (30) DAYS.
- 2. THE STORAGE OF EQUIPMENT, MATERIALS, AND VEHICLES WITHIN THE HIGHWAY RIGHT OF WAY WILL BE PERMITTED. THE NUMBER OF AREAS AND EXACT LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
- 3. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE STATE.

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

IN ADDITION TO THE REQUIREMENTS OF THE C&MS, THIS ITEM OF WORK WILL INCLUDE THE FOLLOWING ADDITIONAL REQUIREMENTS:

THE CONTRACTOR SHALL USE COMPETENT PERSONNEL AND SUITABLE EQUIPMENT FOR THE LAYOUT WORK REQUIRED AND SHALL PROVIDE THAT IT BE DONE UNDER THE SUPERVISION OF A REGISTERED SURVEYOR, LICENSED TO PRACTICE IN THE STATE OF OHIO.

THE CONTRACTOR SHALL USE A GPS UNIT CAPABLE OF LOCATING THE PROPOSED SIGN LOCATIONS WITHIN +/- ONE FOOT.

AFTER COMPLETION OF ALL WORK, BUT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, AN OHIO PROFESSIONAL SURVEYOR SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING AND NEW BRIDGES WITHIN THE PROJECT LIMITS. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT THE EDGE OF SHOULDERS, EDGE LINES, LANES LINES, AND CROWN OF THE ROADWAY BELOW. THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM SHALL BE USED, WHERE APPLICABLE, TO DOCUMENT THE MEASUREMENTS. WHERE THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM IS NOT APPLICABLE, THE MEASURMENTS SHALL BE DOCUMENTED ON A CONTRACTOR-DEVELOPED FORM THAT CLOSELY RESEMBLES THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM AND ACCURATELY DEPICTS THE BRIDGE AND THE LANE AND SHOULDER CONFIGURATION OF THE ROADWAY THAT PASSES BELOW THE BRIDGE. THE COMPLETED FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO PROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASURMENTS AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM CAN BE DOWNLOADED FROM THE FOLLOWING FTP SITE:

FTP://FTP.DOT.STATE.OH.US/PUB/CONTRACTS/ATTACH/CUY-120469

PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ROADWAY

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ROADWAY (CONT.)

ITEM 606 - ANCHOR ASSEMBLY, TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE E TANGENETIAL END TREATMENTS FOR TYPE MGS GUARDRAIL AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH SOLID FLUORESCENT YELLOW REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

WHEN THE FACE OF THE ADJACENT (ATTACHED) GUARDRAIL IS LESS THAN 4' OFFSET FROM THE PROPOSED EDGE LINE, AND PERMITTING SITE CONDITIONS EXIST: THE PROPOSED TYPE E ANCHOR ASSEMBLY SHALL BE INSTALLED AT A CONSISTENT FLARE RATE THROUGH THE FULL LENGTH OF THE SYSTEM. THE FLARE RATE SHALL BE A MAXIMUM OF 25:1 (RESULTING IN A 2' OFFSET). THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE SHOP DRAWINGS, PRODUCT INSTALLATION MANUAL/GUIDANCE, AND AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 606 - IMPACT ATTENUATOR, TYPE 3 (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE 3 IMPACT ATTENUATORS AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW, PERMANENT INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS).

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 3 (60 MPH, 28 INCHES), (UNIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PAVEMENT

ITEM 252 – FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN

THIS ITEM SHALL CONSIST OF REPLACING EXISTING PAVEMENT PER ITEM 252 AND THE NOTES BELOW.

EXISTING CONCRETE PAVEMENT THICKNESS MAY VARY FROM THAT SHOWN ON THE TYPICAL SECTIONS BY PLUS TWO INCHES OR MINUS ONE INCH. NO ADJUSTMENT IN PAYMENT FOR THIS ITEM SHALL BE MADE PROVIDING THAT THE AVERAGE PAVEMENT THICKNESS IS WITHIN ONE INCH OF THE THICKNESS SHOWN ON THE TYPICAL SECTIONS. ADDITIONAL COMPENSATION SHALL BE MADE BY CHANGE ORDER FOR THE MATERIAL COST OF CONCRETE ONLY WHEN THE AVERAGE THICKNESS EXCEEDS THE ONE INCH MAXIMUM TOLERANCE ABOVE. THE VOLUME OF CONCRETE PAID FOR SHALL BE BASED UPON THE AMOUNT OF CONCRETE ADDITIONAL ABOVE THE ONE INCH TOLERANCE LIMIT.

THE CONTRACTOR SHALL REMOVE THE EXISTING RIGID PAVEMENT WITH CARE SO AS TO NOT DISTURB THE ADJACENT REMAINING CONCRETE PAVEMENT, ADJACENT BARRIER, AND EXISTING UNDERDRAIN.

IF, AFTER REMOVAL OF THE RIGID PAVEMENT THE ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, THE ENGINEER WILL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH COMPACTED 304 AGGREGATE. QUANTITIES OF ITEM 203 - EXCAVATION AND ITEM 304 - AGGREGATE BASE HAVE BEEN PROVIDED TO REPAIR SAID FAILED SUBBASE OR SUBGRADE AREAS, ASSUMING HALF OF THE REPAIR AREAS WILL NEED SUBBASE OR SUGRADE REPAIR.

FOR ESTIMATED QUANTITIES, SEE SHEET P.11.

ITEM 255 – 13.5" FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC 1, AS PER PLAN

ITEM 255 – FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC 1, AS PER PLAN

THIS ITEM SHALL CONSIST OF REPLACING EXISTING PAVEMENT PER ITEM 255 AND THE NOTES BELOW AND DETAIL ON P.05.

EXISTING CONCRETE PAVEMENT THICKNESS MAY VARY FROM THAT SHOWN ON THE TYPICAL SECTIONS BY PLUS TWO INCHES OR MINUS ONE INCH. NO ADJUSTMENT IN PAYMENT FOR THIS ITEM SHALL BE MADE PROVIDING THAT THE AVERAGE PAVEMENT THICKNESS IS WITHIN ONE INCH OF THE THICKNESS SHOWN ON THE TYPICAL SECTIONS. ADDITIONAL COMPENSATION SHALL BE MADE BY CHANGE ORDER FOR THE MATERIAL COST OF CONCRETE ONLY WHEN THE AVERAGE THICKNESS EXCEEDS THE ONE INCH MAXIMUM TOLERANCE ABOVE. THE VOLUME OF CONCRETE PAID FOR SHALL BE BASED UPON THE AMOUNT OF CONCRETE ADDITIONAL ABOVE THE ONE INCH TOLERANCE LIMIT.

THE CONTRACTOR SHALL REMOVE THE EXISTING RIGID PAVEMENT WITH CARE SO AS TO NOT DISTURB THE ADJACENT REMAINING CONCRETE PAVEMENT, ADJACENT BARRIER, AND EXISTING UNDERDRAIN.

IF, AFTER REMOVAL OF THE RIGID PAVEMENT THE ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, THE ENGINEER WILL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH COMPACTED 304 AGGREGATE. QUANTITIES OF ITEM 203 - EXCAVATION AND ITEM 304 - AGGREGATE BASE HAVE BEEN PROVIDED TO REPAIR SAID FAILED SUBBASE OR SUBGRADE AREAS.



ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (449), AS PER PLAN, PG64-22

THE COARSE VIRGIN AGGREGATE AND AT LEAST 50% OF FINE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO.

TABLE 442.02-2 APPLIES EXCEPT NO. 4 SIEVE REQUIREMENTS ARE 52 TO 60 TOTAL PERCENT PASSING. FOR THE NO. 4 SIEVE DO NOT EXCEED 63 IN PRODUCTION.

IN ADDITION TO THE JOINT SEALING REQUIREMENTS SPECIFIED IN 401.17, THE CONTRACTOR SHALL SEAL THE PERIMETER OF ALL RUMBLE STRIP PAVEMENT REPLACEMENT AREAS. THE MATERIAL USED SHALL BE A CERTIFIED 702.01 PG BINDER. THE WIDTH OF THE SEALER SHALL BE 2-3 INCHES.

PAYMENT FOR ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (449), AS PER PLAN, PG64-22.

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES.

ITEM 255, 13.5" FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC 1, AS PER PLAN 474 SY

ITEM 255, FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC 1, AS PER PLAN 269 SY

THE ABOVE ITEM 255 QUANTITIES ARE BASED ON MATCHING THE EXISTING CONCRETE THICKNESS OF 12 INCHES (STA. 226+75 TO STA. 232+21.45) AND 3.5 INCHES OF ASPHALT AND 10 INCHES OF CONCRETE (NORTH OF STA. 232+21.45) AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

PAVEMENT RESTORATION FOR DRAINAGE STRUCTURE INSTALLATIONS

THE FOLLOWING QUANTITY IS PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION OF ITEM 611, DRAINAGE STRUCTURES.

ITEM 255, 13.5" FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC 1, AS PER PLAN 20 SY

ITEM 255, FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC 1, AS PER PLAN 36 SY

THE ABOVE ITEM 255 QUANTITIES ARE BASED ON MATCHING THE EXISTING CONCRETE THICKNESS OF 12 INCHES (STA. 226+75 TO STA. 232+21.45) AND 3.5 INCHES OF ASPHALT AND 10 INCHES OF CONCRETE (NORTH OF STA. 232+21.45) AND A WIDTH OF TWO FEET AROUND THE PERIMETER OF THE DRAINAGE STRUCTURE.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

ITEM 305 - CONCRETE BASE, MISC.: 9.75" CONCRETE BASE, CLASS QC 1P

THE THICKNESS OF THIS ITEM IS 9.75". ALL REQUIREMENTS OF ITEM 305 APPLY.

DESIGN AGENCY



DESIGNER

RHB

REVIEWER

CWP 10/07/25

PROJECT ID

120469

SHEET

P.07

TOTAL

86



TRANSVERSE RUMBLE STRIP REMOVAL

ALL EXISTING TRANSVERSE RUMBLE STRIPS THAT ARE IN CONFLICT WITH THE PROPOSED MOVEMENT OF TRAFFIC AS SHOWN IN THESE PLANS SHALL BE REMOVED BY PAVEMENT PLANING. THE REMOVED RUMBLE STRIP AREA SHALL BE FILLED WITH ASPHALT CONCRETE SURFACE COURSE.

THE RUMBLE STRIP REMOVAL AND REPLACEMENT SHALL BE 1.5 INCHES DEEP AND VARY IN WIDTH TO MATCH THE WIDTH REQUIRED FOR REMOVAL. THE PAVEMENT PLANING AND PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE SHOULD BE COMPLETED IN THE SAME OPERATION.

LONGITUDINAL RUMBLE STRIP REMOVAL

ALL EXISTING RUMBLE STRIPS THAT ARE IN CONFLICT WITH THE PROPOSED MOVEMENT OF TRAFFIC AS SHOWN IN THESE PLANS SHALL BE REMOVED BY PAVEMENT PLANING. THE REMOVED RUMBLE STRIP AREAS SHALL BE FILLED WITH ASPHALT CONCRETE SURFACE COURSE. THE RUMBLE STRIP REMOVAL AND REPLACEMENT AREA SHALL BE 2.5 FEET WIDE AND 1.5 INCHES DEEP, CENTERED ON THE RUMBLE STRIP IN THE AREA OF LONGITUDINAL RUMBLE STRIPS. THE PLANING AND PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE SHOULD BE COMPLETED IN THE SAME OPERATION.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS, UNIDIRECTIONAL

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.

SEQUENCE OF CONSTRUCTION

THE NORTHERN AND SOUTHERN SECTION MAY BE CONSTRUCTED AT THE SAME TIME.

NORTHERN SECTION

Ⓒ S.R. 176 STA. 122+00.00 TO Ⓒ RA-18093 STA. 22+21.91

CONTRACTOR MAY COMPLETE WORK IN SEGMENTS WITHIN STAGES 2 AND 3. CONTRACTOR SHALL SCHEDULE WORK TO ENSURE ALL PAVEMENT MARKINGS REMOVED ARE REPLACED WITH PAVEMENT MARKINGS THAT ENSURE SAFE OPERATIONS FOR THE PUBLIC EACH MORNING.

SEQUENCE OF CONSTRUCTION (CONT.)

PRE-STAGE 1

WORK ON PROPOSED MEDIAN INLETS ARE TO BE DONE WITH LANE CLOSURES DETAILED ON SHEETS P.14 - P.15.

WORK ON PROPOSED DRAINAGE CROSSING S.R. 176 FROM PROPOSED MEDIAN INLETS TO SHOULDER STRUCTURES VIA OPEN CUT TO BE COMPLETED DURING ONE (1) WEEKEND CLOSURE. SEE PIS 209565 ON SHEETS P.85 - P.86.

THE CONTRACTOR MAY NOT WORK ON MEDIAN FROM STA. 226+00.00 TO STA. 230+00.00 WHILE WORK ON OUTSIDE SHOULDER FROM STA. 226+65.00 TO STA. 232+50.00 IS ONGOING UNLESS DURING WEEKEND CLOSURE.

WORK ON PROPOSED DRAINAGE AND ROADWAY ITEMS ALONG AND OUTSIDE OF SHOULDER TO BE DONE FOLLOWING SCD’S MT-95.40 AND MT-95.45.

ASSUMING 3 WORK ZONES, AT AN AVERAGE LENGTH OF 650', AND 720' TAPER LENGTH THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) 3 EACH

ITEM 614, PORTABLE BARRIER, UNANCHORED 4,110 FT

IF EXISTING SHOULDER PAVEMENT IS NOT SUITABLE TO DRIVE ON, THE CONTRACTOR IS TO REPAIR THE SHOULDER PAVEMENT WITH ASPHALT CONCRETE OF THE SAME THICKNESS AS EXISTING.

IT IS ASSUMED 10% OF ALL SHOULDERS THROUGHOUT THE PROJECT LIMITS WILL NEED REPAIRED. OF THE ASSUMED SHOULDERS, 1% OF THE SHOULDER SUBGRADE IS ASSUMED TO NEED REPLACED.

THERE IS APPROXIMATELY 25,800 LINEAR FEET OF SHOULDER IN THE NORTHERN SECTION OF THE PROJECT. ASSUMING 10% WILL NEED REPAIRED IS 2,580 LINEAR FEET OF SHOULDER. ASSUMING AN AVERAGE WIDTH OF 8' GIVES AN AREA OF 20,640 SF. ASSUMING A THICKNESS OF 12" GIVES A VOLUME OF 20,640 CF.

SAWCUTS ASSUME AN AVERAGE REPAIR LENGTH OF 20' WITH 2 SAWCUTS ON EACH END AT 8' EACH PLUS THE LENGTH OF THE ASSUMED TOTAL SHOULDER REPAIR.

EXCAVATION AND AGGREGATE BASE ASSUME THE ESTIMATED REPAIR AREAS AT A THICKNESS OF 6" GIVES A VOLUME OF 1,032 CF.

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

ITEM 252, FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN 2,294 SY

ITEM 252, FULL DEPTH PAVEMENT SAWING 4,644 FT

ITEM 203, EXCAVATION 39 CY

ITEM 304, AGGREGATE BASE 39 CY

ITEM 609, CURB, TYPE 6 1,290 FT

SEE SHEET P.07 FOR DETAILS ON ITEM 252, FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN.

REMOVE ALL RUMBLE STRIPS THAT WILL BE IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS AS SHOWN IN THESE PLANS.

SEQUENCE OF CONSTRUCTION (CONT.)

STAGE 1 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

WORK ON SOUTHBOUND LANES ONLY. REMOVE AND REPLACE LANE MARKINGS IN SEGMENTS. OPEN LANES TO TRAFFIC ONLY AFTER MARKINGS ARE COMPLETE OR TEMPORARY MARKINGS ARE IN PLACE.

ASSUMING THE CONTRACTOR WILL WORK OPPOSITE THE DIRECTION OF TRAVEL SUCH THAT THREE (3) LANES ARE ESTABLISHED AND TRANSITION TO EXISTING THREE (3) LANES OF TRAVEL, THE AVERAGE LANE SHIFT TO EXISTING IS ASSUMED TO BE SIX (6) FEET. IT IS ASSUMED THAT IT WILL TAKE THE CONTRACTOR FOUR (4) DAYS TO COMPLETE THE MARKINGS AND RPM WORK. IT IS ASSUMED THE CONTRACTOR WILL NOT TRANSITION EDGE LINES.

6' X 60 MPH = 360' TRANSITION PER LANE MARKING  
2 CHANNELIZING LINES = 2 X 360' = 720'  
4 NIGHTS (MINUS 1 FOR COMPLETION) = 3 X 720' = 2,160'

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

ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS II, 12" 2160 FEET

REMOVE AND REPLACE SIGNS. REMOVE SIGNS ONLY WHEN REPLACEMENT SIGNS ARE ON THE SITE. REPLACE SIGN WITHIN SAME WORK PERIOD/DAY IN WHICH SIGN IS REMOVED.

PERFORM DRAINAGE AND OTHER WORK.

STAGE 2 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

WORK ON NORTHBOUND LANES ONLY. REMOVE AND REPLACE LANE MARKINGS IN SEGMENTS. OPEN LANES TO TRAFFIC ONLY AFTER MARKINGS ARE COMPLETE.

ASSUMING THE CONTRACTOR WILL WORK OPPOSITE THE DIRECTION OF TRAVEL SUCH THAT THREE (3) LANES ARE ESTABLISHED AND TRANSITION TO EXISTING THREE (3) LANES OF TRAVEL, THE AVERAGE LANE SHIFT TO EXISTING IS ASSUMED TO BE SIX (6) FEET. IT IS ASSUMED THAT IT WILL TAKE THE CONTRACTOR FOUR (4) DAYS TO COMPLETE THE MARKINGS AND RPM WORK. IT IS ASSUMED THE CONTRACTOR WILL NOT TRANSITION EDGE LINES.

6' X 60 MPH = 360' TRANSITION PER LANE MARKING  
2 CHANNELIZING LINES = 2 X 360' = 720'  
4 NIGHTS (MINUS 1 FOR COMPLETION) = 3 X 720' = 2,160'

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

ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS II, 12" 2160 FEET

REMOVE AND REPLACE SIGNS. REMOVE SIGNS ONLY WHEN REPLACEMENT SIGNS ARE ON SITE. REPLACE SIGN WITHIN SAME WORK PERIOD/DAY IN WHICH SIGN IS REMOVED.

PERFORM DRAINAGE AND OTHER WORK.

STAGE 3 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

INSTALL PROPOSED RUMBLE STRIPS AS SHOWN IN THESE PLANS.

STAGE 4 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

MARKINGS WILL BE RE-APPLIED A SECOND TIME NEAR COMPLETION OF THE PROJECT.

SEQUENCE OF CONSTRUCTION (CONT.)

SOUTHERN SECTION

Ⓒ S.R. 176 STA. 122+00.00 TO Ⓒ RA-18230 STA. 82+00.00

RAMP 18232 WILL BE UTILIZED IN THE DETOUR FOR PID 110810 AND CLOSED UPON BRIDGE AND RAMP 18252 RETURNING TO SERVICE.

CONTRACTOR SHALL SCHEDULE WORK TO ENSURE ALL PAVEMENT MARKINGS REMOVED ARE REPLACED WITH PAVEMENT MARKINGS THAT ENSURE SAFE OPERATIONS FOR THE PUBLIC EACH MORNING.

PRE-STAGE 1

ERECT SIGN TRUSS AND GUARDRAIL AT STA. 47+00.00 AHEAD OF PROJECT. ERECT SIGN TRUSS AND GUARDRAIL AT STA. 61+50.00 AHEAD OF PROJECT, BUT AFTER RAMP 18232 IS CONSTRUCTED

STAGE 1

CLOSE WB SR 17 ENTRANCE RAMP TO IR-480 EB (RAMP 18232). PERFORM WORK ALONG RAMP.

MOT DETAILS FOR BARRIER WORK ON SHEETS P.12 - P.13.

STAGE 2 (TO BE COMPLETED DURING PERMITTED LANE CLOSURES)

REMOVE AND REPLACE LANE MARKINGS. OPEN LANES TO TRAFFIC ONLY AFTER MARKINGS ARE COMPLETE.

REMOVE AND REPLACE SIGNS. REMOVE SIGNS ONLY WHEN REPLACEMENT SIGNS ARE ON THE SITE. REPLACE SIGN WITHIN SAME WORK PERIOD/DAY IN WHICH SIGN IS REMOVED.

PERFORM OTHER WORK.

IF EXISTING SHOULDER PAVEMENT IS NOT SUITABLE TO DRIVE ON, THE CONTRACTOR IS TO REPAIR THE SHOULDER PAVEMENT WITH ASPHALT CONCRETE OF THE SAME THICKNESS AS EXISTING.

IT IS ASSUMED 1% OF ALL SHOULDERS THROUGHOUT THE PROJECT LIMITS WILL NEED REPAIRED.

THERE IS APPROXIMATELY 6,800 LINEAR FEET OF SHOULDER IN THE SOUTHERN SECTION OF THE PROJECT. ASSUMING 1% WILL NEED REPAIRED IS 68 LINEAR FEET OF SHOULDER. ASSUMING AN AVERAGE WIDTH OF 8' GIVES AN AREA OF 544 SF. ASSUMING A THICKNESS OF 12" GIVES A VOLUME OF 544 CF.

SAWCUTS ASSUME AN AVERAGE REPAIR LENGTH OF 20' WITH 2 SAWCUTS ON EACH END AT 8' EACH PLUS THE LENGTH OF THE ASSUMED TOTAL SHOULDER REPAIR.

EXCAVATION AND AGGREGATE BASE ASSUME THE ESTIMATED REPAIR AREAS AT A THICKNESS OF 6" GIVES A VOLUME OF 272 CF.

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

ITEM 252, FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN 61 SY

ITEM 252, FULL DEPTH PAVEMENT SAWING 132 FT

ITEM 203, EXCAVATION 11 CY

ITEM 304, AGGREGATE BASE 11 CY

SEE SHEET P.07 FOR DETAILS ON ITEM 252, FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN.

DESIGN AGENCY



DESIGNER

RHB

REVIEWER

CWP 10/07/25

PROJECT ID

120469

SHEET

P.11

TOTAL

86

SHEET NUMBER													PART. 01/NHS	ITEM ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	10	11	18	19	20	22	23	26	27	29							
LS													LS	201	11000	LS		ROADWAY	
							338		20				358	202	23000	358	SY	CLEARING AND GRUBBING	
					1,185				40				1,225	202	30700	1,225	FT	PAVEMENT REMOVED	
							1,359						1,359	202	32000	1,359	FT	CONCRETE BARRIER REMOVED	
						64							64	202	35100	64	FT	CURB REMOVED	
																	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
													747	202	38000	747	FT	GUARDRAIL REMOVED	
					747								5	202	42010	5	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
					5								2	202	47800	2	EACH	IMPACT ATTENUATOR REMOVED	
				50	2								50	203	10000	50	CY	EXCAVATION	
							155						155	204	50000	155	SY	GEOTEXTILE FABRIC	
							69						69	204	51000	69	SY	GEOGRID	
					957								957	606	15050	957	FT	GUARDRAIL, TYPE MGS	
					6								6	606	26150	6	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
					1								1	606	60040	1	EACH	IMPACT ATTENUATOR, TYPE 3 UNIDIRECTIONAL, 60 MPH, 28 INCHES	
					85								85	622	10120	85	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	
					1								1	622	25008	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	
																		EROSION CONTROL	
		2											2	659	00100	2	EACH	SOIL ANALYSIS TEST	
		129											129	659	00300	129	CY	TOPSOIL	
		1,157											1,157	659	00510	1,157	SY	SEEDING AND MULCHING, CLASS 2	
		58											58	659	14000	58	SY	REPAIR SEEDING AND MULCHING	
		58											58	659	15000	58	SY	INTER-SEEDING	
		0.19											0.19	659	20000	0.19	TON	COMMERCIAL FERTILIZER	
		0.24											0.24	659	31000	0.24	ACRE	LIME	
		7											7	659	35000	7	MGAL	WATER	
													19,635	832	30000	19,635	EACH	EROSION CONTROL	
																		DRAINAGE	
						947							947	611	05901	947	FT	15" CONDUIT, TYPE B, AS PER PLAN	8
						588							588	611	06101	588	FT	15" CONDUIT, TYPE C, AS PER PLAN	8
						16							16	611	09101	16	FT	21" CONDUIT, TYPE C, AS PER PLAN	8
						2							2	611	98805	2	EACH	INLET, NO. 3B50, AS PER PLAN	8
						5							5	611	98841	5	EACH	INLET, NO. 2-A-6, AS PER PLAN	8
						4							4	611	98851	4	EACH	INLET, NO. 2-A-8, AS PER PLAN	8
						9							9	611	99150	9	EACH	INLET ADJUSTED TO GRADE	
						5							5	611	99575	5	EACH	MANHOLE, NO. 3, AS PER PLAN	8
																		PAVEMENT	
					2,355								2,355	252	01001	2,355	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN	7
					4,776								4,776	252	01500	4,776	FT	FULL DEPTH PAVEMENT SAWING	
									1,378				1,378	254	01000	1,378	SY	PAVEMENT PLANING, ASPHALT CONCRETE, (1.5")	
									351				351	254	01010	351	SY	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, (1.5")	
	494												494	255	11001	494	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN	7
							722		104				826	255	20000	826	FT	FULL DEPTH PAVEMENT SAWING	
	305												305	255	12001	305	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC1, AS PER PLAN	7
				50									50	304	20000	50	CY	AGGREGATE BASE	
							25						25	305	17500	25	SY	CONCRETE BASE, MISC.: 9.75" CONCRETE BASE, CLASS QC 1P	7
								157					157	407	20000	157	GAL	NON-TRACKING TACK COAT	
									73				73	442	22101	73	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG64-22	7
							547						547	609	14000	547	FT	CURB, TYPE 2-A	
							15						15	609	22000	15	FT	CURB, TYPE 3-B	
				1,290			693						1,983	609	26000	1,983	FT	CURB, TYPE 6	
								4,060					4,060	618	40100	4,060	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
								3,898					3,898	618	40200	3,898	FT	RUMBLE STRIPS, SHOULDER (CONCRETE)	
																		LIGHTING	
									8				8	625	00480	8	EACH	CONNECTION, UNFUSED PERMANENT	
									80				80	625	23308	80	FT	DISTRIBUTION CABLE, MISC.: NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	8
		LS											LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	8
									2				2	625	75800	2	EACH	DISCONNECT CIRCUIT	

GENERAL SUMMARY

DESIGN AGENCY



CHAGRIN VALLEY  
ENGINEERING, LTD.

DESIGNER

RHB

REVIEWER

CWP 10/07/25

PROJECT ID

120469

SHEET

P.16

TOTAL

86

PAVEMENT SUBSUMMARY	
DESIGN AGENCY  <b>CHAGRIN VALLEY ENGINEERING, LTD.</b>	
DESIGNER RHB	
REVIEWER CWP 10/07/25	
PROJECT ID 120469	
SHEET P.20	TOTAL 86