

GENERAL:

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION). COPIES ARE AVAILABLE FROM:

THE OHIO DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC
1980 WEST BROAD STREET
COLUMBUS, OHIO 43223.

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614, MAINTAINING TRAFFIC (LANE CLOSURE/REDUCTION REQUIRED):

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.

TRAFFIC SHALL BE MAINTAINED BY USE OF A WORK ZONE TRAFFIC SIGNAL FOR A TOTAL OF 15 CALENDAR DAYS (PHASES 2 & 3). A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$900 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS RESTRICTED TO SINGLE LANE SIGNALIZED OPERATION BEYOND THE SPECIFIED LIMIT.

NOTIFICATION OF CONSTRUCTION INITIATION:

AT LEAST FOURTEEN DAYS PRIOR TO STARTING INITIAL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS VIA EMAIL AT D06.PIO@DOT.OHIO.GOV, THE DISTRICT WORK ZONE TRAFFIC MANAGER VIA EMAIL AT D06.MOT@DOT.OHIO.GOV AND THE CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614)728-4099 OF THE ANTICIPATED START DATE OF ANY CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO THE PLACING OF WORK ZONE SIGNS. THE NOTIFICATION SHALL ALSO INCLUDE THE PROJECT NUMBER, PID, NAME AND PHONE NUMBER OF THE CONTRACTOR, A POINT OF CONTACT AND THE ANTICIPATED IMPACT ON TRAFFIC. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT WORK ZONE TRAFFIC MANAGER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION INITIATION DATE.

PUBLIC NOTIFICATION:

THE CONTRACTOR IS TO BE RESPONSIBLE FOR NOTIFYING, BY LETTER WITH HIS COMPANY LETTERHEAD, RESIDENTS, AND BUSINESSES ON WHERE DRIVEWAYS WILL BE IMPACTED DURING THIS PROJECT. ADVANCED NOTICE SHALL BE TWO WEEKS PRIOR TO THE FIRST DAY OF WORK AT THAT LOCATION. A COPY OF THE LETTER TO BE CIRCULATED SHALL BE PRESENTED AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR IS TO NOTIFY THE PROJECT ENGINEER OF THE DATES WHEN THIS NOTIFICATION IS DISTRIBUTED.

PART-WIDTH CONSTRUCTION:

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

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 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 FRAME TABLE			
ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>=2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE	14 CALENDAR DAYS PRIOR TO CLOSURE
	>12 HOURS & <2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	7 CALENDAR 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 AND TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION	

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME FRAME TABLE.

ACCESS TO PRIVATE PROPERTY:

MAINTAIN ACCESS TO COMMERCIAL PROPERTIES WITH ONLY ONE DRIVEWAY AT ALL TIMES BY USE OF PART WIDTH CONSTRUCTION. FOR COMMERCIAL PROPERTIES WITH MULTIPLE DRIVEWAYS, DO NOT CLOSE MORE THAN ONE DRIVEWAY AT A TIME.

MAINTAIN ACCESS TO RESIDENTIAL PROPERTIES AT ALL TIMES. WHEN A RESIDENTIAL DRIVE IS CLOSED FOR CONSTRUCTION, MAINTAIN ALTERNATE ACCESS TO THE PROPERTY. IT MAY BE REQUIRED FOR THE CONTRACTOR TO MAINTAIN ONE PASSABLE LANE WITHIN A CLOSURE IN ORDER FOR VEHICLES TO ACCESS RESIDENCY WITH A VEHICLE.

SUCCESSFULLY NOTIFY THE OCCUPANTS/OWNERS OF COMMERCIAL OR RESIDENTIAL DRIVES TO BE CLOSED AND COORDINATE THE CLOSURE AT LEAST 48 HOURS BEFORE THE CLOSURE BEGINS (SIMPLY LEAVING A WRITTEN NOTICE OR PHONE MESSAGE IS NOT SUFFICIENT). COORDINATE ALTERNATE ACCESS TO RESIDENTIAL PROPERTIES WITH THE OWNER/OCCUPANT.

PLACEMENT OF ASPHALT CONCRETE:

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

TRENCH FOR WIDENING:

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES.

PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING:

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 1 1/2 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

USE OF STANDARD DRAWINGS:

FOR THE PURPOSE OF THIS PROJECT, "MOVING OPERATION" SHALL BE LIMITED TO PAVEMENT MARKING STRIPING. IT MAY BE NECESSARY TO EXTEND THE ADVANCE WARNING AND BUFFER ZONES BEYOND THE MINIMUM DISTANCES SHOWN ON THE STANDARD DRAWINGS. THIS MAY BE DUE TO HORIZONTAL ALIGNMENT, VERTICAL ALIGNMENT, RAMP LOCATIONS, OR OTHER SIGHT OBSTRUCTIONS. LOCATIONS OF THE TAPER ZONES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER, BUT TAPER LENGTHS MUST MEET THE MINIMUM STANDARDS. TAPERS SHOULD BE PLACED IN TANGENT SECTIONS WHENEVER POSSIBLE. PAYMENT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

FOR ANY MULTILANE HIGHWAY, DEVICE SPACING SHALL BE A MAXIMUM OF 40' (FEET) CENTER ON CENTER IN THE TAPERS AND 80' (FEET) CENTER ON CENTER IN THE TANGENT SECTIONS.

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.

DUST CONTROL:

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 19 M. GAL.

PUBLIC OUTREACH AND NOTIFICATION (RESURFACING PROJECTS):

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT 6 PUBLIC INFORMATION OFFICE VIA EMAIL AT D06.PIO@DOT.OHIO.GOV TO COORDINATE EFFORTS TO NOTIFY ADJACENT RESIDENTS AND BUSINESSES OF THE UPCOMING RESURFACING PROJECT. ADVANCE NOTIFICATION SHALL OCCUR NO LATER THAN FOURTEEN (14) DAYS PRIOR TO THE FIRST DAY OF WORK. ALL NOTIFICATIONS SHALL BE MADE UTILIZING THE TEMPLATE PROVIDED BY THE DISTRICT 6 PUBLIC INFORMATION OFFICE.

CALCULATED
MAK
CHECKED
DKR

MAINTENANCE OF TRAFFIC GENERAL NOTES

DEL-36-25.61

I:\ProjectData\06405_DEL-36-26.01\Design\Roadway\Sheets\06405_MN001.dgn Sheet#01 5/27/2020 1:42:07 PM mkatona

USE OF WEIGHTED CHANNELIZER:

THE WEIGHTED CHANNELIZER MAY BE USED IN DURING MAINLINE OVERLAY WORK ONLY. DRUMS MUST BE USED DURING WIDENING WORK. THE WEIGHTED CHANNELIZER SHALL BE PREDOMINANTLY ORANGE IN COLOR AND SHALL BE MADE OF LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT LEAST 42 INCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A HANDLE OR LIFTING DEVICE WHICH EXTENDS ABOVE THE 42" MINIMUM HEIGHT.

THE MARKINGS ON THE WEIGHTED CHANNELIZER SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES 6 INCHES WIDE. EACH WEIGHTED CHANNELIZER SHALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. ANY NON-RETROREFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES SHALL NOT EXCEED 2 INCHES WIDE. THE WEIGHTED CHANNELIZER SHALL HAVE A 4-INCH MINIMUM WIDTH, REGARDLESS OF ORIENTATION.

USE OF WEIGHTED CHANNELIZERS ON FREEWAYS AND MULTILANE HIGHWAYS SHALL BE LIMITED TO SHORT-TERM OPERATION FOR EITHER DAY OR NIGHT. UPON COMPLETION OF WORK, THE WEIGHTED CHANNELIZERS SHALL BE REMOVED. THE WEIGHTED CHANNELIZERS MAY AGAIN BE PLACED ON THE HIGHWAY WHEN THE WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT. ANY LANE CLOSURE USING CHANNELIZATION DEVICES, EXPECTED TO REMAIN FOR MORE THAN TWELVE HOURS, SHALL REQUIRE THE USE OF DRUMS OR BARRIERS.

WHEN USED AT NIGHT, WEIGHTED CHANNELIZERS SHALL ONLY BE PLACED IN THE TANGENT AREA. THE TANGENT AREA IS DEFINED AS THE AREA AFTER THE TRANSITION TAPER WHERE THE WORK TAKES PLACE. DRUMS SHALL BE USED IN THE TRANSITION TAPERS FOR NIGHT OPERATIONS. MAXIMUM SPACING OF THE WEIGHTED CHANNELIZER SHALL BE 40 FEET AT NIGHT.

STEPS SHOULD BE TAKEN TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. BALLASTS SHOULD NOT PRESENT A HAZARD IF THE WEIGHTED CHANNELIZERS ARE INADVERTENTLY STRUCK, NOR SHOULD THEY AFFECT THE VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLASTS USED SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN:

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE

ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 8 SIGN MONTH (ASSUMING 2 PCMS SIGN(S) FOR 4 MONTH(S).

FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL:

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON SHEETS 20 - 21 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 FOLLOWS:

	PHASE			
	1 (ALL RED) DUMMY PHASE	2 MAINLINE EAST	3 (ALL RED) DUMMY PHASE	4 MAINLINE WEST
MIN. GREEN		10		10
EXTENSION		4		4
MAX. GREEN		30		30
YELLOW		3.5		3.5
ALL RED	10		10	
RECALL	ON	OFF	OFF	OFF

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.

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

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE ODOT INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE ODOT, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

* DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

* DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL

FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE ODOT, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

* FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 300 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

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

I:\ProjectData\06405_DEL-36-26.0\Design\Roadway\Sheets\06405_MN001.dgn Sheet02 5/27/2020 2:21:37 PM mkatona

CALCULATED
MAK
CHECKED
DKR

MAINTENANCE OF TRAFFIC GENERAL NOTES

DEL-36-25.61

I:\ProjectData\06405_DEL-36-26.0\Design\Roadway\Sheets\06405_GG001.dgn Sheet#0 5/26/2020 12:13:12 PM mkatong

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7-9	12-15	18	38	41	44	59	85	86-88	89-90	104	01/STR/PV	02/STR/CV						
											LS		201	11000	LS		CLEARING AND GRUBBING	
			1					1			1	1	202	20010	2	EACH	HEADWALL REMOVED	
					1,060						1,060		202	23000	1,060	SY	PAVEMENT REMOVED (NON-REINFORCED CONCRETE PAVEMENT), 6"	
					2,269						2,269		202	23001	2,269	SY	PAVEMENT REMOVED, AS PER PLAN (ASPHALT) 15.25"	7
			58								58		202	32000	58	FT	CURB REMOVED	
			2,189								2,189		202	35100	2,189	FT	PIPE REMOVED, 24" AND UNDER	
								88				88	202	35200	88	FT	PIPE REMOVED, OVER 24"	
			10					1			10	1	202	58100	11	EACH	CATCH BASIN REMOVED	
			1								1		202	98100	1	EACH	REMOVAL MISC.:BLOCK STRUCTURE	7
						2,525					2,525		203	10000	2,525	CY	EXCAVATION	
						1,130					1,130		203	20000	1,130	CY	EMBANKMENT	
					4,347						4,347		204	10000	4,347	SY	SUBGRADE COMPACTION	
					2						2		204	45000	2	HOUR	PROOF ROLLING	
								140			140		209	10000	140	FT	DITCH CLEANOUT	
			262.5								262.5		606	15050	262.5	FT	GUARDRAIL, TYPE MGS	
			50								50		606	17350	50	FT	GUARDRAIL, TYPE MGS, 25' LONG-SPAN	
			2								2		606	26150	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350 OR MASH 2016)	
50											50		606	98000	50	FT	GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT	9
			703								703		608	10000	703	SF	4" CONCRETE WALK	
			500								500		608	52000	500	SF	CURB RAMP	
1											1		623	38501	1	EACH	MONUMENT ASSEMBLY, AS PER PLAN	9
											1		SPECIAL	69050350	1	EACH	MAILBOX REMOVED AND RESET	9
											LS		878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
																	EROSION CONTROL	
								8			8		601	21050	8	SY	TIED CONCRETE BLOCK MAT, TYPE 1	
								11.1			11.1	11.1	601	32100	11.1	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
							2	2.5			4.5		601	32200	4.5	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
	19										19		616	10000	19	MGAL	WATER	
				140							1,061		659	00300	1,061	CY	TOPSOIL	
						8,331					8,331		659	10000	8,331	SY	SEEDING AND MULCHING	
					417						417		659	14000	417	SY	REPAIR SEEDING AND MULCHING	
					417						417		659	15000	417	SY	INTER-SEEDING	
					1.13						1.13		659	20000	1.13	TON	COMMERCIAL FERTILIZER	
					1.72						1.72		659	31000	1.72	ACRE	LIME	
						45					45		659	35000	45	MGAL	WATER	
				458							458		670	00700	458	SY	DITCH EROSION PROTECTION	
											LS		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
											LS		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
											LS		832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
											45,000	5,000	832	30000	50,000	EACH	EROSION CONTROL	
																	DRAINAGE	
											1.64		602	20000	1.64	CY	CONCRETE MASONRY	
											278		605	14000	278	FT	6" SHALLOW PIPE UNDERDRAINS	
											3,402		605	14000	3,402	FT	6" BASE PIPE UNDERDRAINS	
											177		611	00510	177	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
											50		611	01500	50	FT	6" CONDUIT, TYPE F	
											50		611	02600	50	FT	8" CONDUIT, TYPE F	
											50		611	03700	50	FT	10" CONDUIT, TYPE F	
											222		611	04400	222	FT	12" CONDUIT, TYPE B	
											34		611	04900	34	FT	12" CONDUIT, TYPE D	
											650		611	06100	650	FT	15" CONDUIT, TYPE C	
											750		611	07400	750	FT	18" CONDUIT, TYPE B	
											500		611	10600	500	FT	24" CONDUIT, TYPE C	
											582		611	11900	582	FT	27" CONDUIT, TYPE B	
											250		611	12100	250	FT	27" CONDUIT, TYPE C	
											79		611	22400	79	FT	54" CONDUIT, TYPE B	
											50	79	611	97400	50	FT	CONDUIT, MISC.: TYPE B FOR DRAINAGE CONTINUANCE	84

GENERAL SUMMARY

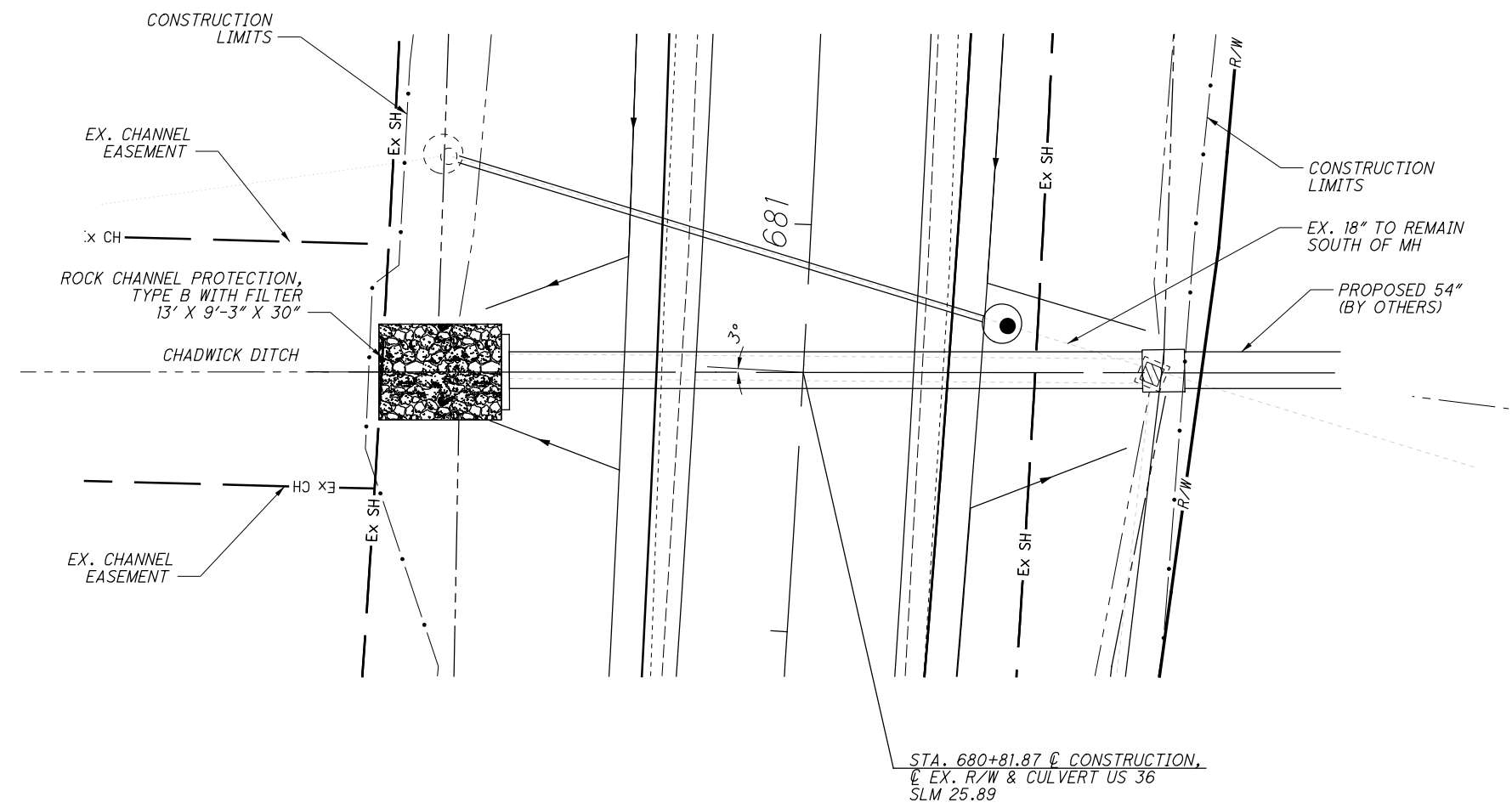
DEL -36 - 25 .61

I:\ProjectData\06405_DEL-36-26.0\Design\Roadway\Sheets\06405_GG001.dgn Sheet02 5/26/2020 12:25:30 PM mkatona

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7-9	12-15	18	38	41	44	59	85	86-88	89-90	104	01/STR/PV	02/STR/CV						
DRAINAGE (CONT.)																		
							50				50		611	97400	50	FT	CONDUIT, MISC.: TYPE C FOR DRAINAGE CONTINUANCE	84
							50				50		611	97400	50	FT	CONDUIT, MISC.: TYPE E FOR DRAINAGE CONTINUANCE	84
							50				50		611	97400	50	FT	CONDUIT, MISC.: TYPE F FOR DRAINAGE CONTINUANCE	84
								4			4		611	98470	4	EACH	CATCH BASIN, NO. 2-2B	
								6			6		611	98510	6	EACH	CATCH BASIN, NO. 2-3	
									1			1	611	98600	1	EACH	CATCH BASIN, NO. 2-6	
									2			2	611	99574	2	EACH	MANHOLE, NO. 3	
									1			1	611	99660	1	EACH	MANHOLE RECONSTRUCTED TO GRADE	
									4			4	611	99710	4	EACH	PRECAST REINFORCED CONCRETE OUTLET	
							4				4		611	99720	4	EACH	INSPECTION WELL	
PAVEMENT																		
30											30		251	01041	30	SY	PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN	7
					10,391						10,391		254	01000	10,391	SY	PAVEMENT PLANING, ASPHALT CONCRETE 1.50"	
					1,794						1,794		254	01000	1,794	SY	PAVEMENT PLANING, ASPHALT CONCRETE 3.25"	
					5,336						5,336		254	01000	5,336	SY	PAVEMENT PLANING, ASPHALT CONCRETE 6.50" MAX. (VAR.)	
					4,101						4,101		255	20000	4,101	FT	FULL DEPTH PAVEMENT SAWING	
1,085											1,085		301	46000	1,085	CY	ASPHALT CONCRETE BASE, PG64-22 9.0"	
					424						424		301	46000	424	CY	ASPHALT CONCRETE BASE, PG64-22 3.0"	
					899						899		301	46000	899	CY	ASPHALT CONCRETE BASE, PG64-22 6.0"	
					1,274						1,274		304	20001	1,274	CY	AGGREGATE BASE, AS PER PLAN 6.0" - 9.0"	9
					2,977						2,977		407	20000	2,977	GAL	NON-TRACKING TACK COAT	
	60										60		411	10001	60	CY	STABILIZED CRUSHED AGGREGATE, AS PER PLAN	15
					911						911		441	10000	911	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22 1.5"	
					557						557		441	10200	557	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) 1.75"	
	10										10		441	10201	10	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446), AS PER PLAN PG64-22	15
					435						435		452	12010	435	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P 1.75"	
					132						132		617	10100	132	CY	COMPACTED AGGREGATE	
5											5		617	25000	5	MGAL	WATER	
					1.9						1.9		618	41000	1.9	MILE	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)	
					0.95						0.95		618	43000	0.95	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)	
					1,128						1,128		SPECIAL	69012060	1,128	SY	PAVEMENT OVERLAY FABRIC COMPOSITE	10
					5,166						5,166		874	20000	5,166	FT	LONGITUDINAL JOINT PREPARATION	
TRAFFIC CONTROL																		
									127		127		621	00100	127	EACH	RPM	
									127		127		621	54000	127	EACH	RAISED PAVEMENT MARKER REMOVED	
									8		8		626	00110	8	EACH	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	
7									77		84		630	02100	84	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
									110		110		630	03100	110	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
									15		15		630	08520	15	FT	STREET NAME SIGN SUPPORT, NO. 3 POST	
									6		6		630	08600	6	EACH	SIGN POST REFLECTOR	
1									96.96		97.96		630	80100	97.96	SF	SIGN, FLAT SHEET	
									6		6		630	80500	6	EACH	SIGN, DOUBLE FACED, STREET NAME	
									26		26		630	84900	26	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
									13		13		630	86002	13	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
									3		3		630	86272	3	EACH	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND DISPOSAL	
					1.13						1.13		642	30030	1.13	MILE	REMOVAL OF PAVEMENT MARKING	
									1.87		1.87		644	00104	1.87	MILE	EDGE LINE, 6"	
									1.13		1.13		644	00300	1.13	MILE	CENTER LINE	
									591		591		644	00400	591	FT	CHANNELIZING LINE, 8"	
									152		152		644	00500	152	FT	STOP LINE	
									469		469		644	00600	469	FT	CROSSWALK LINE	
									6		6		644	01300	6	EACH	LANE ARROW	
TRAFFIC SIGNALS																		
									98		98		625	25400	98	FT	CONDUIT, 2", 725.04	
									59		59		625	25500	59	FT	CONDUIT, 3", 725.04	
									12		12		625	25600	12	FT	CONDUIT, 4", 725.04	
									125		125		625	29000	125	FT	TRENCH	
									1		1		625	30706	1	EACH	PULL BOX, 725.08, 24"	

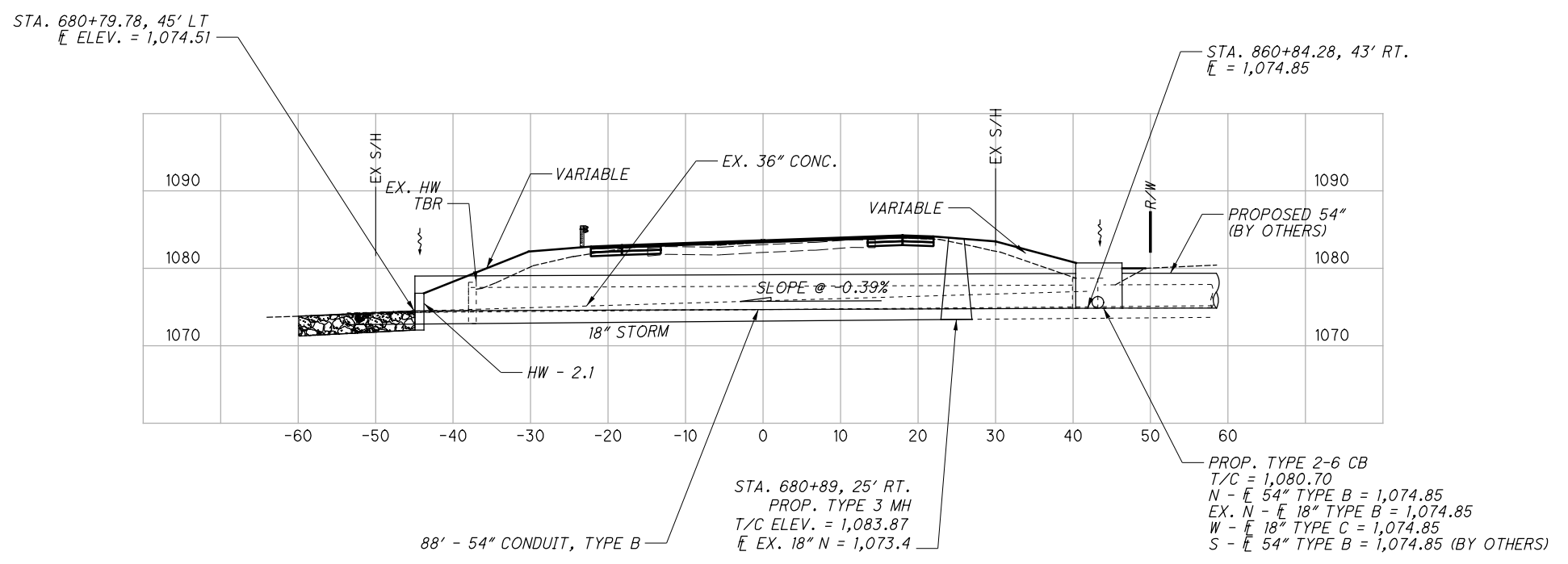
GENERAL SUMMARY

DEL -36 - 25 .61



ESTIMATED QUANTITIES				
ITEM	QUANTITY	UNIT	PLAN SPLIT	DESCRIPTION
202	1	EACH	2	HEADWALL REMOVED
202	88	FT	2	PIPE REMOVED, OVER 24"
202	1	EACH	2	CATCH BASIN REMOVED
601	11.1	CU YD	2	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
602	1.33	CU YD	2	CONCRETE MASONRY
611	79	FT	2	54" CONDUIT, TYPE B
611	1	EACH	2	2-6 CATCH BASIN

QUANTITIES CARRIED TO GENERAL SUMMARY



NOTE:
54" CONDUIT AND 18" CONDUIT TO BE CONSTRUCTED PART WIDTH.
SEE SHEETS 20 - 21 FOR MOT REQUIREMENTS DURING CONSTRUCTION.

I:\ProjectData\06405_DEL-36-26.0\Design\Roadway\Sheets\06405_DC001.dgn Sheet 5/26/2020 12:02:16 PM mkatona

STORM SEWER DETAIL
SLM 25.89

DEL-36-25.61

