

**ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN**

THE CONTRACTOR SHALL PERFORM ALL THE NECESSARY WORK ACCORDING TO ITEM 614 - MAINTAINING TRAFFIC AS SPECIFIED IN ODOT C&MS 2019.

ALL EXISTING LANES ON I.R. 670 SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND SHOULDERS.

ALL EXISTING LANES, INCLUDING RAMPS, SHALL BE OPEN AND AVAILABLE TO TRAFFIC IN THE ORIGINAL ALIGNMENT AND ALL PORTABLE BARRIER REMOVED FROM THE SHOULDERS BETWEEN OCTOBER 15 AND APRIL 1. SHOULD THE CONTRACTOR FAIL TO MEET THESE REQUIREMENTS, A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5000 PER CALENDAR DAY.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	MEMORIAL DAY	LABOR DAY
NEW YEAR'S	FOURTH OF JULY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00AM WEDNESDAY THROUGH 6:00AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DETERMINED BY THE ENGINEER.

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.

**ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)**

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/ RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME 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
	< =12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	2 BUSINESS DAYS PRIOR TO CLOSURE

**ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN (CONTINUED)**

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN SHALL DISPLAY THE PHONE NUMBER OF THE DISTRICT 6 PUBLIC INFORMATION CONSTRUCTION LINE, (740) 833-8268, WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION.

**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	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
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	<= 12 HOURS	5 BUSINESS DAYS PRIOR TO CLOSURE	
START OF CONSTRUCTION & 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 TABLE.

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, AS PER PLAN UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**SEQUENCE OF CONSTRUCTION**

IT IS THE INTENT OF THE FOLLOWING SEQUENCE OF CONSTRUCTION TO PROVIDE A WORK AREA FOR THE CONTRACTOR WHILE ALSO MAINTAINING TRAFFIC IN THE MANNER WHICH IS SAFE FOR THE TRAVELING PUBLIC. ALL WORK ZONE OR PERMANENT PAVEMENT MARKINGS SHALL BE IN PLACE BEFORE ANY PAVEMENT IS OPEN TO TRAFFIC. CONTRACTOR SHALL ERECT ALL TRAFFIC CONTROL DEVICES AND ENSURE THEY ARE IN GOOD WORKING ORDER PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES ON THE RETAINING WALLS.

ANY VARIANCES FROM THESE MAINTENANCE OF TRAFFIC NOTES MUST BE APPROVED IN ADVANCE IN WRITING BY THE ENGINEER. TRAFFIC IS TO BE MAINTAINED IN A UNIFORM PATTERN THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT AND NOT BE SUBJECTED TO CONSTANT LANE SHIFTS.

THE CONTRACTOR'S OPERATIONS SHALL BE ARRANGED TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE APPROVED BY THE ENGINEER.

**PHASE 1**

MAINTAIN TRAFFIC FOR IR-670 WESTBOUND AS SHOWN IN THE PLANS FOR PHASE 1. BEGINNING EAST OF RAMP NL, SHIFT THE FOUR LANES OF TRAFFIC TO THE SOUTH ALONG IR-670 AND REDUCE THE LANES FROM 12'-0" TO 11'-0" AS PER SCD MT-102.10. THE EXISTING INSIDE WESTBOUND LANE SHALL REMAIN AT 12'-0". MERGE THE TWO ENTRANCE RAMPS NL AND NM TO FORM AN 11'-0" LANE WITH A 2'-0" PORTABLE BARRIER OFFSET. A 10'-6" CONTRACTOR CONSTRUCTION AREA SHALL BE PROTECTED BY THE PORTABLE BARRIER AND ADJACENT TO THE NORTH RETAINING WALL BARRIER. SHIFT IR-670 TRAFFIC BACK TO THE ORIGINAL CONFIGURATION AFTER THE EXIT RAMP NF DIVERGE. EASTBOUND TRAFFIC SHALL REMAIN IN EXISTING CONDITIONS DURING THIS PHASE. PERFORM THE NORTH RETAINING WALL PATCHING AS SHOWN IN THE RETAINING WALL PLANS. INSTALL THE LIGHTING FIXTURES ON THE NORTH WALL AS DESCRIBED IN THE LIGHTING PLANS. RAMPS SHALL REMAIN OPEN AT ALL TIMES EXCEPT AS DESCRIBED IN THE PERMITTED LANE CLOSURE TABLE.

UPON COMPLETION OF ALL PHASE 1 WORK, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN.

**PHASE 2**

PHASE 2 MAY OCCUR CONCURRENTLY WITH PHASE 1 BUT WILL BE DESCRIBED AS AN INDEPENDENT PHASE FOR THESE PLANS. MAINTAIN TRAFFIC FOR IR-670 EASTBOUND AS SHOWN IN THE PLANS FOR PHASE 2. BEGINNING WEST OF RAMP NE, SHIFT THE FOUR LANES OF TRAFFIC TO THE NORTH ALONG IR-670 AND REDUCE THE LANES FROM 12'-0" TO 11'-0" AS PER SCD MT-102.10. THE RAMP NE TRAFFIC SHALL BE REDUCED TO A 11'-0" LANE WITH A 2'-0" PORTABLE BARRIER OFFSET. A 10'-6" CONTRACTOR CONSTRUCTION AREA SHALL BE PROTECTED BY THE PORTABLE BARRIER AND ADJACENT TO THE SOUTH RETAINING BARRIER. SHIFT IR-670 TRAFFIC BACK TO THE ORIGINAL CONFIGURATION AFTER THE EXIT RAMP NJ DIVERGE. WESTBOUND TRAFFIC SHALL REMAIN IN EXISTING CONDITIONS DURING THIS PHASE. PERFORM THE SOUTH RETAINING WALL PATCHING AS SHOWN IN THE RETAINING WALL PLANS. INSTALL THE LIGHTING FIXTURES ON THE SOUTH WALL AS DESCRIBED IN THE LIGHTING PLANS. RAMPS SHALL REMAIN OPEN AT ALL TIMES EXCEPT AS DESCRIBED IN THE PERMITTED LANE CLOSURE TABLE.

UPON COMPLETION OF ALL PHASE 2 WORK, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS. LANE CONFIGURATION SHALL BE RETURNED TO THE EXISTING CONDITIONS. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN.

**PHASE 3**

THIS PHASE SHALL NOT OCCUR CONCURRENTLY WITH EITHER PHASE 1 OR PHASE 2. DURING THIS PHASE, THE EXISTING INSIDE LANE AND SHOULDER FOR BOTH THE EASTBOUND AND WESTBOUND DIRECTION OF TRAFFIC SHALL BE TEMPORARILY CLOSED AS PER SCD MT-95.30. THE LANE CLOSURES SHALL BE IN COMPLIANCE WITH THE PERMITTED LANE CLOSURE SCHEDULE (PLCS) FOR IR-670. SEE PN 127 AND LANE VALUE CONTRACT TABLE FOR LANE CLOSURE DISINCENTIVES FOR IR-670. THE CONTRACTOR SHALL INSTALL THE MEDIAN LIGHTING AS SHOWN IN THE LIGHTING PLANS. RAMPS SHALL REMAIN OPEN AT ALL TIMES DURING THIS PHASE.

UPON COMPLETION OF ALL PHASE 3 WORK, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES. LANE CONFIGURATION SHALL BE RETURNED TO THE EXISTING CONDITIONS. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN.

**PHASE 4**

THIS PHASE SHALL FOLLOW PHASE 3. DURING THIS PHASE, THE OUTSIDE LANES AND ADJACENT RAMPS MAY BE CLOSED AS DESCRIBED IN THE PERMITTED LANE CLOSURE TABLE, FOR EPOXY SEALING OF THE ADJACENT RETAINING WALLS AS DESCRIBED IN THE PLANS.

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

DESIGN AGENCY

www.lgengr.com  
5910 WILCOX PLACE, SUITE C  
DUBLIN, OHIO 43016

DESIGNER

JEP

REVIEWER

RG 10-05-21

PROJECT ID

111340

SHEET TOTAL

2 41

**PN 127 - LANE VAUE CONTRACT**

THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE FOR EACH UNIT OF TIME A LANE/SHOULDER/RAMP IS CLOSED BY THE CONTRACTOR'S ACTION WHILE NOT OTHERWISE PERMITTED BY THE LANE VALUE CONTRACT TABLE.

LANE VALUE CONTRACT TABLE			
DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
IR-670	PER PLC. SEE NOTE BELOW	PER LANE/PER MIN.	\$345

**PERMITTED LANE CLOSURE TIMES**

THE PERMITTED LANE CLOSURE TIMES ON IR-670 WILL BE AS FOLLOWS:

ONE LANE MAY BE CLOSED FROM 10:00 PM TO 6:00 AM EACH NIGHT, SATURDAY NIGHT THROUGH SATURDAY MORNING. TWO LANE CLOSURES ARE NOT PERMITTED.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$345 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

**ITEM 614, MAINTAINING TRAFFIC (TEMPORARY RAMP CLOSURES)**

THE TABLE BELOW PROVIDES THE PERMITTED CLOSURE TIMES FOR RAMPS ON THE PROJECT ALONG WITH THE MAXIMUM NUMBER OF NIGHTS EACH RAMP MAY BE CLOSED. RAMP CLOSURES SHALL NOT OCCUR CONCURRENTLY.

SECONDARY ROUTE: NEIL AVE SLM ALONG 670:						
RAMP	MOVEMENT	NO CLOSURES ALLOWED		DETOUR ROUTES		MAX. NIGHT CLOSURE
		MON TO FRI	SAT TO SUN	PRIMARY ROUTE	SECONDARY ROUTE	
NE	NEIL AVE TO IR-670 EB	5AM - 8PM	8AM - 8PM	NEIL AVE TO W LONG ST/ US-33 TO N 4TH ST/ US-23 TO IR-670 EB	NEIL AVE TO 5TH AVE TO IR-670 EB	10
SECONDARY ROUTE: GOODALE SLM ALONG 670:						
RAMP	MOVEMENT	NO CLOSURES ALLOWED		DETOUR ROUTES		MAX. NIGHT CLOSURE
		MON TO FRI	SAT TO SUN	PRIMARY ROUTE	SECONDARY ROUTE	
NF	IR-670 EB TO GOODALE ST	5AM - 9PM	8AM - 8PM	IR-670 WB TO GRANDVIEW AVE TO IR-670 EB TO NEIL AVE TO GOODALE ST	NONE	10
NJ	IR-670 EB TO FOURTH ST (GOODALE ST)	5AM - 8PM	8AM - 7PM	IR-670 EB TO N 3RD ST (RAMP NJ) TO E CHESTNUT ST W TO N HIGH ST TO GOODALE ST	IR-670 EB TO IR-71 S TO MAIN ST TO HIGH ST W TO N 4TH ST TO GOODALE ST	10
SECONDARY ROUTE: US-23 SLM ALONG 670:						
RAMP	MOVEMENT	NO CLOSURES ALLOWED		DETOUR ROUTES		MAX. NIGHT CLOSURE
		MON TO FRI	SAT TO SUN	PRIMARY ROUTE	SECONDARY ROUTE	
NI	IR-670 EB TO N 3RD ST	5AM - 8PM	8AM - 7PM	IR-670 EB TO IR-71 N TO 5TH AVE TO SUMMIT/3RD ST	IR-670 EB TO FOURTH ST (RAMP NJ) TO W GOODALE ST TO N HIGH ST N TO WARREN ST E TO N 3RD ST	10
NL	N 3RD ST TO IR-670 WB	5AM - 9AM & 3PM - 7PM	NO RESTRICTION	N 3RD ST TO IR-670 E TO LEONARD AVE TO IR-670 W TO IR-670 W (RAMP NO)	N 3RD ST TO E LONG ST TO 4TH ST TO IR-670 E (RAMP NM)	10

**SHORT DURATION RAMP CLOSURES**

FOR THE PURPOSE OF PERFORMING THE REQUIRED WORK OR WHEN REQUIRED BY THE INTERSTATE ENTRANCE RAMP CLOSURE NOTE, RAMPS MAY BE CLOSED FOR SHORT DURATIONS AND DETOURED IN ACCORDANCE WITH THE RAMP CLOSURE TABLE IF APPROVED BY THE ENGINEER. RAMP CLOSURES ARE SUBJECT TO DISINCENTIVES.

FOR ALL SERVICE RAMP CLOSURES LASTING MORE THAN 12 HOURS BUT LESS THAN 60 HOURS AND/OR, FOR ALL SYSTEM RAMP CLOSURES LASTING MORE THAN 12 HOURS BUT LESS THAN 24 HOURS

THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

- A MINIMUM OF TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) PLACED, AS DIRECTED BY THE ENGINEER, TO WARN DRIVERS OF THE CLOSURE AND TO PROVIDE THE DESIGNATED DETOUR ROUTE.
- POSITIVE GUIDANCE ALONG THE DETOUR ROUTE WITH DETOUR SIGNS (M4-9 SERIES) IN ACCORDANCE WITH THE DETOUR SIGNS NOTE.

FOR ALL RAMP CLOSURES LASTING LESS THAN 12 HOURS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

- A MINIMUM OF TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) PLACED, AS DIRECTED BY THE ENGINEER, TO WARN DRIVERS OF THE CLOSURE AND TO PROVIDE THE DESIGNATED DETOUR ROUTE.

WHEN CLOSING ENTRANCE RAMPS, CORRESPONDING LEAD-IN LANES AND TURN LANES SHALL ALSO BE CLOSED.

IF A DESIGNATED DETOUR ROUTE IS NOT PROVIDED IN THE PLANS, TRAFFIC SHALL BE DIRECTED TO THE NEXT INTERCHANGE, IF AVAILABLE, TO TURN AROUND. IF THE USE OF THE NEXT INTERCHANGE IS NOT POSSIBLE, AN ALTERNATIVE DETOUR ROUTE SHALL BE PROVIDED BY THE ENGINEER.

SERVICE RAMP: INTERCHANGE RAMPS BETWEEN FREEWAYS (OR EXPRESSWAYS) AND NON-FREEWAYS (OR NONEXPRESSWAYS). THESE RAMPS PROVIDE ACCESS (CONNECTIONS) BETWEEN FREEWAYS/ EXPRESSWAYS AND OTHER PRINCIPAL/MINOR ARTERIALS, COLLECTORS OR LOCAL ROADS.

SYSTEM RAMP: INTERCHANGE RAMPS (OR CONNECTORS) BETWEEN FREEWAYS (OR EXPRESSWAYS) AND FREEWAYS (OR EXPRESSWAYS).

**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 VIA EMAIL AT hauling.permits@dot.ohio.gov 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.

**COORDINATION WITH ADJACENT PROJECTS**

THE CONTRACTOR SHALL COORDINATE WORK WITH ODOT AND THE CONTRACTORS ON THE ADJACENT PROJECT: "FRA-670-0.00-110051". COORDINATION SHALL BE MADE TO PREVENT CONFLICTING ADVANCE WARNING SIGNS, CONFLICTING DETOUR ROUTES, OVERLAPING/ CONFLICTING LANE CLOSURES, AND TO ENSURE THAT A MINIMUM DISTANCE OF 2 MILES BETWEEN ADJACENT LANE CLOSURES IS MAINTAINED. THIS IS NOT AN EXHAUSTIVE LIST OF COORDINATION ITEMS THAT MAY NEED TO BE RESOLVED BETWEEN PROJECTS. THE DEPARTMENT RESERVES THE RIGHT TO DECIDE WHICH PROJECT'S ACTIVITIES TAKE PRECEDENCE. PROJECTS THAT HAVE ACTIVITIES DELAYED DUE TO CONFLICTS WILL CONSIDER THIS AN EXCUSABLE, NON-COMPENSABLE DELAY PER 108.06.B. ON PROJECTS THAT HAVE ACTIVITIES DELAYED DUE TO CONFLICTS WHERE THE CONTRACTOR FAILED TO MEET THE NOTIFICATION REQUIREMENTS, THE DELAYS SHALL NOT BE CONSIDERED EXCUSABLE OR COMPENSABLE.

ATTENDANCE AT DEPARTMENT ORDERED TRAFFIC COORDINATION MEETINGS BETWEEN ADJACENT PROJECTS SHALL BE CONSIDERED MANDATORY FOR EACH PROJECT'S SUPERINTENDENT AND INCIDENTAL TO THE LUMP SUM MAINTENANCE OF TRAFFIC PAYMENT ITEM.

**REMOVAL OF EXISTING AND TEMPORARY PAVEMENT MARKINGS**

THIS WORK SHALL CONSIST OF REMOVING ALL EXISTING CONFLICTING PAVEMENT MARKINGS PRIOR TO PLACING THE TEMPORARY PAVEMENT MARKINGS. ALL THE TEMPORARY MARKINGS SHALL BE REMOVED AFTER EACH PHASE OF CONSTRUCTION. PAYMENT FOR ALL MATERIALS AND LABOR REQUIRED TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN.

**ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN**

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO CMS 614 OR CMS 621 AS SPECIFIED HEREIN.

RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.

RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM NOVEMBER 1 THROUGH MARCH 15.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO CMS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER CMS 621.08. THE FOLLOWING ITEMS HAVE BEEN QUANTIFIED IN THE MOT SUBSUMMARY AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN

**ITEM 614, 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.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND CONCRETE PERMANENT BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE CRIMPED. PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT101.70.

[TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT101.70.

THE FOLLOWING ITEMS HAVE BEEN QUANTIFIED IN THE MOT SUBSUMMARY AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, INCREASED BARRIER DELINEATION

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

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

DESIGN AGENCY	
DESIGNER	JEP
REVIEWER	RG
PROJECT ID	10-05-21
SHEET	111340
TOTAL	3   41

FRA-670-3.31

**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 OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, 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.

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, 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).

- FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:

- ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND
- AN AUTHORIZED SPEED LIMIT OF 45MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,
- ADT OF 50,000 (OR ADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

- THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR
  - THE ACTIVE WORK AREA Laterally CLOSEST TO THE OPEN TRAVELED LANE; OR
  - OTHER LOCATION AS APPROVED BY THE ENGINEER.
- THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

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.

**ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)**

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 160 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.

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

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 LOCATION(S) SPECIFIED IN THE PLANS.

ALTHOUGH IT MAY NOT BE SPECIFICALLY SHOWN IN THE PLANS, THE CONTRACTOR SHALL PROVIDE A MINIMUM 4 FOOT OFFSET BETWEEN THE EDGE LINE AND THE EDGE OF THE WORK ZONE IMPACT ATTENUATOR (WZIA). IF THERE IS NOT ENOUGH EXISTING PAVEMENT TO ANCHOR THE WZIA, ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS, THE CONTRACTOR SHALL PLACE A TEMPORARY PAD IN ORDER TO ANCHOR THE WZIA ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. ALL COSTS ASSOCIATED WITH THE INSTALLATION AND REMOVAL OF THE TEMPORARY PAD AND THE WORK ZONE IMPACT ATTENUATOR WILL BE INCLUDED IN THE COST FOR THE WORK ZONE IMPACT ATTENUATOR, AS PER PLAN.

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.

**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.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS SHALL BE DETERMINED AS PER THE ENGINEER. 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.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 4 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

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 PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.) THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

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

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 4 PCMS SIGN(S) FOR 2 MONTH(S)

**FLOODLIGHTING**

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

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

**EXISTING CENTERLINE AND RIGHT OF WAY**

THE CENTERLINE AND EXISTING RIGHT OF WAY INFORMATION SHOWN IN THESE PLANS WERE BASED ON THE EXISTING DRAWINGS AND ARE FOR REFERENCE ONLY. CONTRACTOR SHALL REFERENCE THE EXISTING PLANS FOR ADDITIONAL CENTERLINE AND EXISTING RIGHT OF WAY INFORMATION.

**PN 121 - DISINCENTIVE CONTRACT**

THE CONTRACTOR SHALL COMPLETE ALL CRITICAL WORK AND SAFETY ITEMS ACCORDING TO THE DISINCENTIVE CONTRACT TABLE PROVIDED BELOW. IN THE EVENT THE CONTRACTOR IMPEDES THE FLOW OF TRAFFIC SUBSEQUENT TO THE OPENING TO UNRESTRICTED TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE ACCORDING TO THE DISINCENTIVE CONTRACT TABLE. CRITICAL WORK IS SHOWN IN THE DISINCENTIVE CONTRACT TABLE.

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTION OF WORK OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE AT THEIR FINAL DESIGN WIDTH WITH ALL MARKINGS, RPM'S, AND SAFETY FEATURES INSTALLED, ALONG WITH NO RESTRICTIONS WITHIN 2 FEET OF THE EDGE LINE ON THE SHOULDERS. LANE CLOSURES AND RAMP CLOSURES WHICH CONFORM WITH THE PLCS WILL BE PERMITTED UNDER THE UNRESTRICTED TRAFFIC DEFINITION.

DISINCENTIVE AMOUNT: THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE ACCORDING TO THE DISINCENTIVE CONTRACT TABLE.

EXTENSIONS OF TIME WILL BE FOR CALENDAR DAYS AND CALCULATED IN ACCORDANCE WITH C&MS 108.06 EXCEPT AS FOLLOWS: NO EXTENSIONS OF TIME WILL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES (UNLESS SUCH DELAYS ARE INDUSTRY WIDE), AND LABOR STRIKES (UNLESS SUCH STRIKES ARE AREA WIDE).

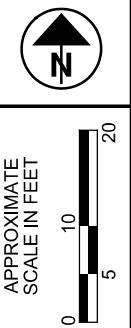
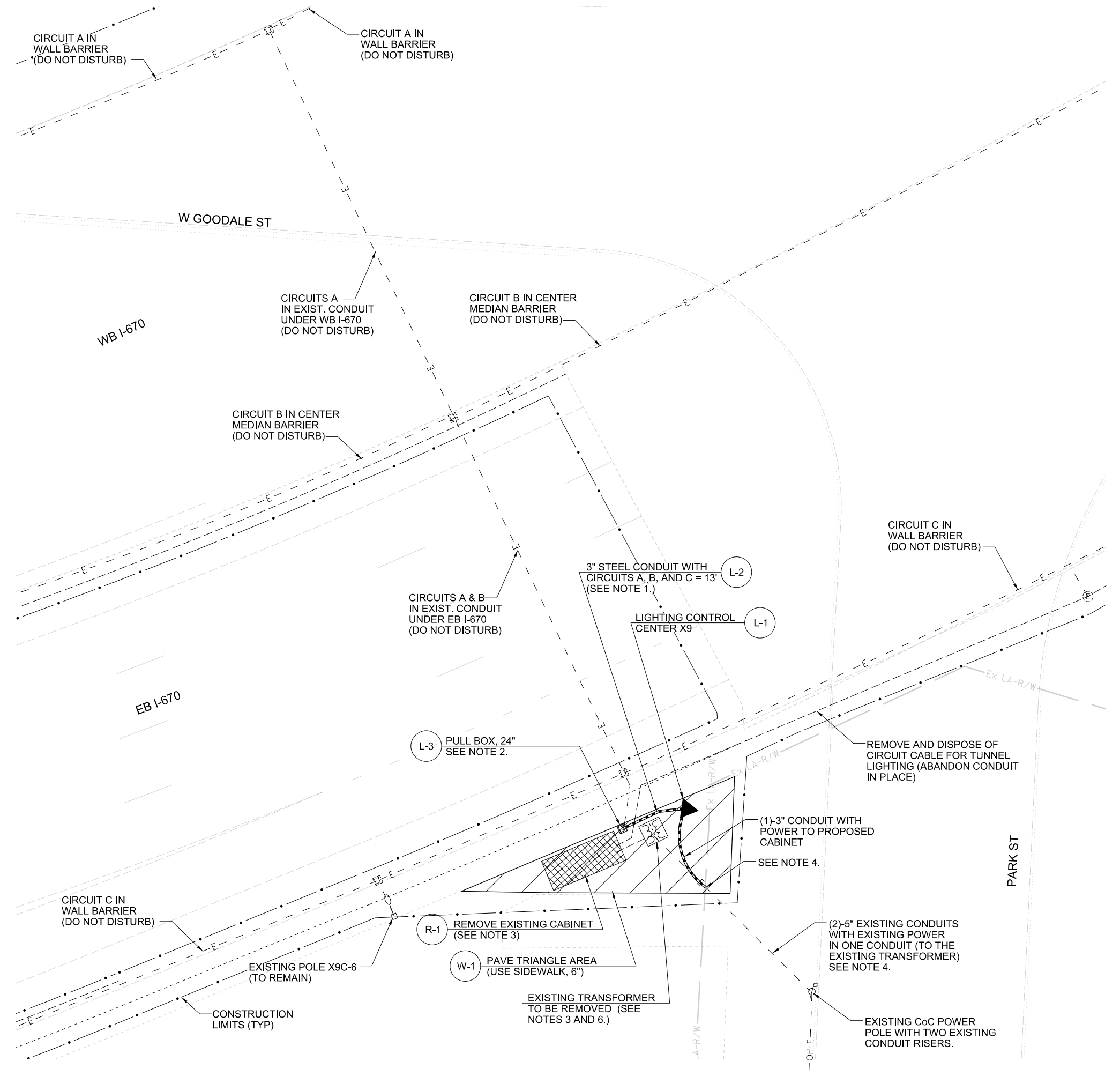
DISINCENTIVE CONTRACT TABLE		
DESCRIPTION OF CRITICAL WORK	COMPLETION DATE	DISINCENTIVE PER DAY
LIGHTING, EPOXY INJECTION, PATCHING	11-15-22	\$6,500

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY	
www.bgergroup.com 8910 WILCOX PLACE, SUITE C DUBLIN, OHIO 43016	
DESIGNER	JEP
REVIEWER	RG
PROJECT ID	111340
SHEET	TOTAL
4	41

- NOTES:
- 1) ALL CIRCUITS ARE 3-CONDUCTOR, #4 AWG.
  - 2) PULL BOX LOCATION IS APPROXIMATE. THE CONTRACTOR SHALL EXPOSE THE EXISTING CONDUIT. PLACE THE PROPOSED BOX SO THAT IT CAN BE CONNECTED TO THE EXISTING CONDUIT WHICH IS DESIGNATED AS EXISTING TO REMAIN. PROVIDE (9)-CONNECTIONS, UNFUSED TO SLICE EXISTING DISTRIBUTION CABLE TO PROPOSED DISTRIBUTION CABLE.
  - 3) THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING CONTROL CENTER AND ALL CONCRETE PADS. THE EXISTING TRANSFORMER AND TRANSFORMER CABINET SHALL BE RETURNED TO THE CITY DOP.
  - 4) LOCATION SHOWN IS APPROXIMATE. LOCATE AND EXPOSE EXISTING CONDUITS. CONNECT ONE 3" CONDUIT TO THE EXISTING SPARE 5" CONDUIT. ROUTE PROPOSED POWER CABLE FROM THE TOP OF THE POWER SERVICE POLE TO THE PROPOSED CABINET. ALLOW 10' OF COILED SLACK AT THE TOP OF THE POWER SERVICE POLE. THE POWER SERVICE CONNECTION SHALL BE MADE BY THE CITY OF COLUMBUS DOP. THE POWER TRANSFORMER SHALL BE SUPPLIED AND INSTALLED BY THE CITY OF COLUMBUS DOP.
  - 5) REMOVE AND DISPOSE OF ALL LIGHTING CIRCUIT AND POWER CABLE FOR HIGHWAY LIGHTING, NOT DESIGNATED TO REMAIN IN PLACE. CONDUIT MAY BE REMOVED OR ABANDONED IN PLACE.
  - 6) SEE LIGHTING GENERAL NOTES FOR ADDITIONAL INFORMATION ON MAINTAINING LIGHTING IN THE TUNNEL DURING CONSTRUCTION. SEE BELOW FOR THE SUGGESTED SEQUENCE OF CONSTRUCTION.

- SUGGESTED SEQUENCE OF CONSTRUCTION:
- STEP 1 - CLEAR TRIANGULAR AREA OF ALL WEEDS AND DEBRIS. DIG TO EXPOSE ALL UNDERGROUND CONDUITS IN THE TRIANGULAR AREA.
  - STEP 2. INSTALL PROPOSED LIGHTING CONTROL CENTER. PROVIDE POWER SERVICE CABLE FROM THE CITY OF COLUMBUS POWER SERVICE POLE TO THE PROPOSED LIGHTING CONTROL CABINET. (CONNECT TO THE SPARE 5" CONDUIT FOR THIS PURPOSE.) INSTALL POWER CABLE FROM THE TOP OF THE POWER SERVICE POLE TO THE PROPOSED LIGHTING CONTROL CENTER.
  - STEP 3. CONNECT THE PROPOSED CABINET TO THE EXISTING CONDUIT SYSTEM USED FOR HIGHWAY LIGHTING.
  - STEP 4. COORDINATE WITH CoC TO ENERGIZE THE PROPOSED CABINET, AND SWITCH THE OPERATIONS FOR CIRCUITS A,B, AND C FROM THE EXISTING CONTROL CABINET TO THE PROPOSED CABINET.
  - STEP 5. REPLACE TUNNEL LIGHTING SYSTEM, WHILE THE EXISTING CABINET REMAINS ENERGIZED TO POWER EXISTING FIXTURES. SEE SHEET 28 FOR ADDITIONAL TUNNEL LIGHTING REPLACEMENT SEQUENCING.
  - STEP 6. FOLLOWING REPLACEMENT OF THE TUNNEL LIGHTING SYSTEM, REMOVE THE EXISTING TRANSFORMER, EXISTING CABINET, AND PADS. RETURN THE TRANSFORMER AND CABINET TO CoC. DISPOSE OF THE LIGHTING CONTROL CENTER AND OTHER DEMOLISHED MATERIALS, OFF SITE. NOTE: IT IS ASSUMED THAT THE TRANSFORMER AND CABINET WILL BE REMOVED WITH A CRANE, STATIONED ON PARK STREET.
  - STEP 7. REMOVE OR ABANDON THE EXISTING POWER CABLE. CAP AND COVER THE 5" CONDUIT USED FOR THE EXISTING POWER.
  - STEP 8. PAVE THE TRIANGULAR AREA WITH 6" SIDEWALK.



LIGHTING PLAN  
HIGHWAY LIGHTING CONTROL CENTER - X9

DESIGN AGENCY	
 EGEMAN ENGINEERING & CONSULTING 6958 OLD CLIFTON RD SPRINGFIELD, OH 45502 (937) 319-8426	
DESIGNER	
MJH	
REVIEWER	
KAE 10-2-21	
PROJECT ID	
111340	
SHEET	TOTAL
22	41

NOTES:

- 1) PULL BOX LOCATION IS APPROXIMATE. THE CONTRACTOR SHALL EXPOSE THE EXISTING CONDUIT IN THE CONCRETE ENCASED DUCT BANK. FEED ONE-4" EXISTING CONDUIT INTO THE PROPOSED PULL BOX. PLUG/CAP AND BURY THE OTHER THREE CONDUITS.
- 2) THE LOCATION OF THE SPLICE POINT IS APPROXIMATE. THE CONTRACTOR SHALL EXPOSE THE EXISTING CONDUIT. SO THAT THE PROPOSED CONDUIT CAN BE CONNECTED TO THE EXISTING CONDUIT.
- 3) THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING CONTROL CENTERS, ADJACENT PULL BOXES, AND ALL CONCRETE PADS. THE EXISTING THE TRANSFORMER AND TRANSFORMER CABINET SHALL BE RETURNED TO THE CITY DOP.
- 4) REMOVE AND DISPOSE OF ALL LIGHTING CIRCUIT AND POWER CABLE FOR HIGHWAY LIGHTING. NOT DESIGNATED TO REMAIN IN PLACE. CONDUIT MAY BE REMOVED OR ABANDONED IN PLACE.
- 5) PROVIDE 3" CONDUIT, WITH POWER CABLE, FROM THE PROPOSED CONTROL CENTERS TO THE TOP OF THE CoC POWER SERVICE POLE. ALLOW 10' OF COILED SLACK AT THE TOP OF THE POWER SERVICE POLE. THE POWER SERVICE CONNECTION SHALL BE MADE BY THE CITY OF COLUMBUS DOP. THE POWER TRANSFORMER SHALL BE SUPPLIED AND INSTALLED BY THE CITY OF COLUMBUS DOP.
- 6) SEE LIGHTING GENERAL NOTES FOR ADDITIONAL INFORMATION ON MAINTAINING LIGHTING IN THE TUNNEL DURING CONSTRUCTION. SEE BELOW FOR THE SUGGESTED SEQUENCE OF CONSTRUCTION.
- 7) PARK STREET TUNNEL: SEE SHEET 24 FOR WIRING OF DAYTIME FIXTURES AND ADDITIONAL CONDUIT ROUTING DETAILS. SEE SHEET 25 FOR WIRING OF NIGHTTIME FIXTURES AND FIXTURE MOUNTING DETAILS.
- 8) HIGH STREET TUNNEL: SEE SHEET 26 FOR WIRING OF DAYTIME FIXTURES AND ADDITIONAL CONDUIT ROUTING DETAILS. SEE SHEET 27 FOR WIRING OF NIGHTTIME FIXTURES AND FIXTURE MOUNTING DETAILS.
- 9) CIRCUIT TO POLE X9A-6 NOT SHOWN FOR CLARITY. SEE SHEET 18 FOR INFORMATION RELATED TO THE CIRCUIT FEEDING THIS POLE.
- 10) PROVIDE PERMANENT UNFUSED CONNECTIONS TO SPLIT POWER CABLE, TO ENERGIZE BOTH CABINETS.

SUGGESTED SEQUENCE OF CONSTRUCTION:  
 STEP 1 - DIG TO EXPOSE ALL UNDERGROUND CONDUITS IN THE VICINITY OF THE EXISTING CABINETS.

STEP 2. INSTALL LIGHTING CONTROL CENTERS. PROVIDE POWER SERVICE CABLE FROM THE CITY OF COLUMBUS POWER SERVICE POLE TO THE PROPOSED LIGHTING CONTROL CENTERS.

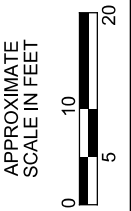
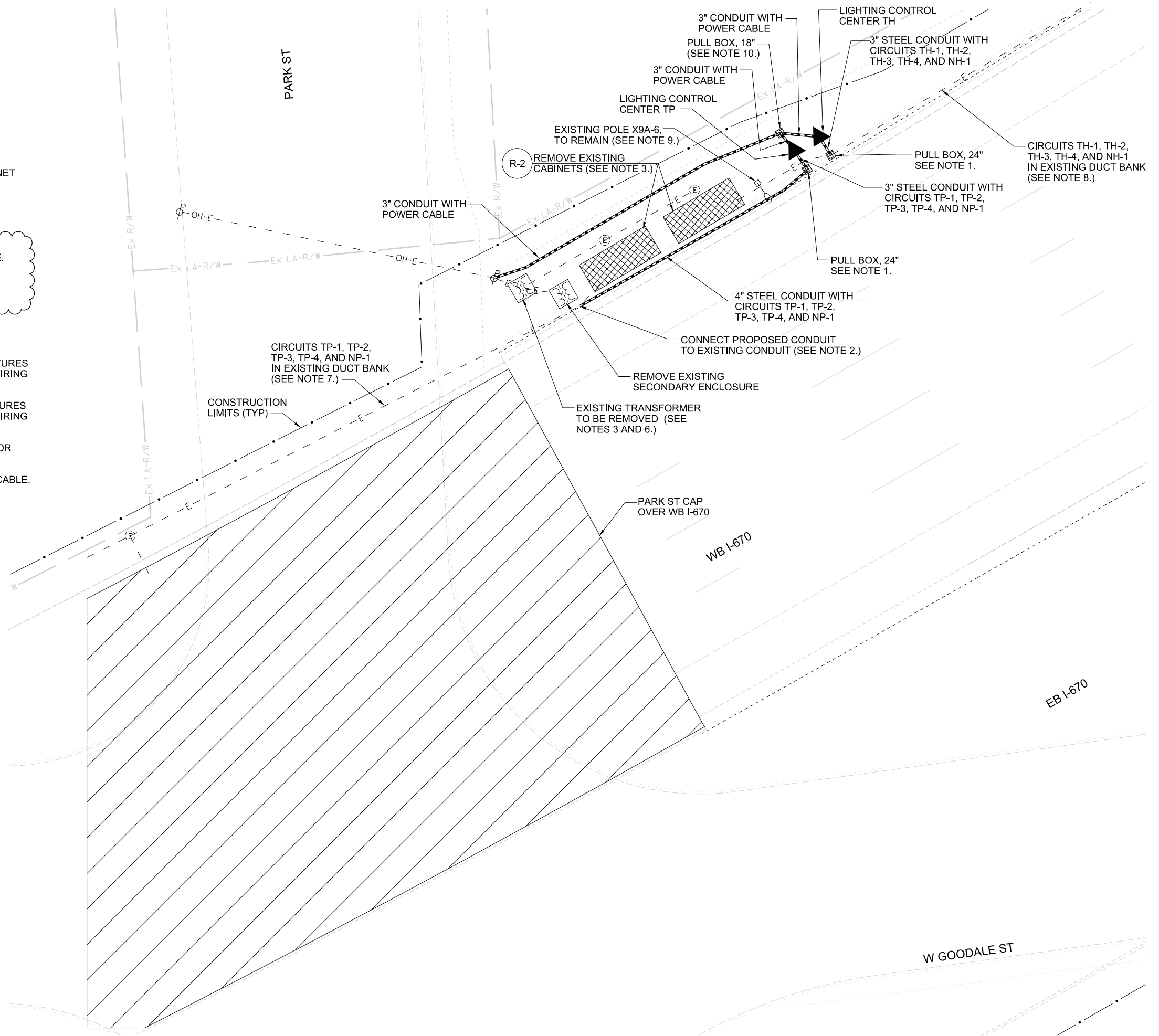
STEP 3. CONNECT THE PROPOSED CABINETS TO THE EXISTING CONDUIT SYSTEM USED FOR HIGHWAY LIGHTING.

STEP 4. COORDINATE WITH CoC TO ENERGIZE THE CABINETS. SEE SHEET 30 FOR ADDITIONAL CONTROL CENTER DETAILS.

STEP 5. REPLACE TUNNEL LIGHTING SYSTEM, WHILE THE EXISTING CABINETS REMAIN ENERGIZED TO POWER EXISTING FIXTURES. SEE SHEET 28 FOR ADDITIONAL TUNNEL LIGHTING REPLACEMENT SEQUENCING FOR WB I-670 UNDER PARK STREET. SEE SHEET 29 FOR ADDITIONAL TUNNEL LIGHTING REPLACEMENT SEQUENCING FOR I-670 UNDER HIGH STREET.

STEP 6. FOLLOWING REPLACEMENT OF THE TUNNEL LIGHTING SYSTEM, REMOVE THE EXISTING TRANSFORMERS, EXISTING CABINETS, AND PADS. RETURN THE TRANSFORMERS AND CABINETS TO CoC. DISPOSE OF THE LIGHTING CONTROL CENTERS AND OTHER DEMOLISHED MATERIALS, OFF SITE. NOTE: IT IS ASSUMED THAT THE TRANSFORMER AND CABINETS WILL BE REMOVED WITH A CRANE, STATIONED ON PARK STREET.

STEP 7. REPAIR GROUND DISTURBED BY CONSTRUCTION.



LIGHTING PLAN  
TUNNEL LIGHTING CONTROL CENTERS

FRA-670-3.31

DESIGN AGENCY



DESIGNER  
MJH

REVIEWER  
KAE 10-2-21

PROJECT ID  
111340

SHEET	TOTAL
23	41