DW:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DSOL_NA\Documents\60527425-CUY-176-10.13\900-CAD GIS\10194L CUY-176-10.13\Design\Roadway\Sheets\10194L GN001.dgn Sheet 7/9/2020 4:43:35 PM robert.jankovsky

GENERAL

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

CITY OF CLEVELAND
DIVISION OF WATER
ATTN.: FRED ROBERTS
1201 LAKESIDE AVENUE
CLEVELAND, OH 44114
OFFICE: 216-664-2444 EXT. 5590
FRED_ROBERTS@CLEVELANDWATER.COM

CITY OF CLEVELAND
DIVISION OF WATER POLLUTION CONTROL
ATTN.: ELIE RAMY
12302 KIRBY ROAD
CLEVELAND, OH 44108
OFFICE: 216-664-2756
ERAMY@CLEVELANDWPC.COM

FIRST ENERGY CORP
ATTN.: JOHN ZASSICK
6896 MILLER ROAD
BRECKSVILLE, OH 44141
OFFICE: 440-546-8706
JMZASSICK@FIRSTENERGYCORP.COM

COLUMBIA GAS OF OHIO
ATTN.: DAN SUREN
7080 FRY ROAD
MIDDLEBURG HEIGHTS, OHIO 44130
OFFICE: 440-891-2428
DSUREN@NISOURCE.COM

NORTHEAST OHIO REGIONAL SEWER DISTRICT
ATTN.: MARY MACIEJOWSKI
3900 EUCLID AVENUE
CLEVELAND, OH 44115-2506
OFFICE: 216-881-6600 EXT. 6466
MACIEJOWSKIM@NEORSD.ORG

DOMINION ENERGY OHIO
ATTN.: KEVIN BIRT
320 SPRINGSIDE DR.,
SUITE 320
AKRON, OH 44333
OFFICE: 330-664-2409
KEVIN.J.BIRT@DOMINIONENERGY.COM
RELOCATION@DOMINIONENERGY.COM

VERIZON
ATTN.: JEFF KADUSKY
1150 WEST 3RD STREET
CLEVELAND, OH 44256
OFFICE: 330-253-8267
THOMAS.KADUSKY@VERIZON.COM

BP OIL
ATTN.: KEITH BOYLE
30 SOUTH WACKER DRIVE,
SUITE 900
CHICAGO, IL 60606
OFFICE: 312-809-4708
KEITH.BOYLE@BP.COM

AT&T
ATTN.: JAMES JANIS
13630 LORAIN AVE.
CLEVELAND, OH 44111
OFFICE: 216-476-6142
PJ8191@ATT.COM

BUCKEYE PIPELINE
ATTN.: DAVID JONES
9999 HAMILTON BOULEVARD
BREINIGSVILLE, PA 18031
OFFICE: 610-904-4409
DAJONES@BUCKEYE.COM

CHARTER COMMUNICATIONS
ATTN.: GARY NAUMANN
8179 DOW CIRCLE
STRONGSVILLE, OH 44136
OFFICE: 216-575-8016 EXT. 5033
GARY.NAUMANN1@CHARTER.COM

COX COMMUNICATIONS
ATTN.: CRAIG SMITH
12221 PLAZA DRIVE
PARMA, OH 44130
OFFICE: 216-535-3356
CRAIG.SMITH@COX.COM

CITY OF CLEVELAND
TRAFFIC ENGINEERING
ATTN.: ANDREW CROSS
601 LAKESIDE AVENUE
ROOM 25
CLEVELAND, OH 44114
OFFICE: 216-664-3197
ACROSS@CITY.CLEVELAND.OH.US

CITY OF PARMA
TRAFFIC DIVISION
ATTN.: JIM MIHELICH
6611 RIDGE ROAD
PARMA, OH 44129
OFFICE: 440-885-8111
JMIHELICH@CITYOFPARMA-OH.GOV
TRAFFICDIVISION@CITYOFPARMA-OH.GOV

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

PAVING PROJECT PID 106394 WITHIN PROJECT LIMITS

THE PAVING PROJECT (PID 106394) WILL BE PERFORMED BEFORE AND WITHIN THE PROJECT LIMITS OF CUY-176-10.13 (PID 101941). THE CONTRACTOR IS EXPECTED TO ENCOUNTER WORK THAT WAS COMPLETED DURING THIS PROJECT. THIS MAY RESULT IN THE REMOVAL OF EXTRA OR VARYING MATERIAL (APPROXIMATE 1.5"± ASPHALT OVERLAY) TO COMPLETE CUY-176-10.13 (PID 101941) AS DETAILED IN THESE PLANS. REFER TO EXISTING TYPICAL SECTIONS FOR APPROXIMATE LIMITS OF OVERLAY. COST FOR REMOVAL OF THE ADDITIONAL MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THE APPLICABLE PAVEMENT REMOVED ITEM.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 3 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

POSITIONING METHOD: STATIC
MONUMENT TYPE: TYPE A

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 12B

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (CORS2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99992804
ORIGIN OF COORDINATE SYSTEM: 0,0

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

UNITS ARE IN U.S. SURVEY FEET.

WORK LIMITS

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

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS) A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS, AS DEFINED ABOVE, WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 204 - PROOF ROLLING

PROOF ROLLING HAS BEEN CALCULATED AS PART OF THE PROJECT OFFICE CALCULATIONS AND CARRIED TO THE GENERAL SUMMARY.

ITEM 619 - FIELD OFFICE, TYPE C, AS PER PLAN

A TYPE C FIELD OFFICE IS REQUIRED FOR THIS PROJECT. THE FOLLOWING REVISIONS TO EQUIPMENT SUPPLIED WITH THE TYPE C FIELD OFFICE, AS SPECIFIED IN TABLE 619.02-1, FIELD OFFICE, SHALL APPLY:

THE BROAD BAND INTERNET CONNECTION MUST MEET A MINIMUM DOWNLOAD SPEED OF 10MB PER SECOND AND A MINIMUM UPLOAD SPEED OF 5MB PER SECOND.

CONTRACTOR SHALL FURNISH AND SET UP A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11ac FOR THE EXCLUSIVE USE OF THE DEPARTMENT.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE C FIELD OFFICE.

619, FIELD OFFICE, TYPE C, AS PER PLAN 26 MNTH

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS/HER OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT, SPECIFICALLY PID 108480, THE CUY-480/STATE ROAD AUXILIARY LANE PROJECT. NO WAIVER OF ANY PROVISIONS OF 105.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS IS INTENDED.

ROADWAY

ITEM 202 - PAVEMENT REMOVED, AS PER PLAN

REMOVAL OF EXISTING PRESSURE RELIEF JOINTS, AS IDENTIFIED IN THE PLANS, SHALL BE CONSIDERED INCIDENTAL TO THE PAVEMENT REMOVAL. BACKFILLING OF THE RESULTANT CAVITY SHALL MEET THE REQUIREMENTS OF C&MS 204, GRANULAR MATERIAL, TYPE B (703.16). LOCATIONS THAT REQUIRE SUBGRADE TREATMENT, AS DETAILED ON SHEETS 23 - 24, SHALL STILL RECEIVE THE PRESCRIBED SUBGRADE TREATMENT FOLLOWING REMOVAL OF THE EXISTING PRESSURE RELIEF JOINTS. ADDITIONAL COSTS FOR THE PRESSURE RELIEF JOINT REMOVAL AND BACKFILL SHALL BE CONSIDERED INCIDENTAL TO THE COST OF PAVEMENT REMOVAL. ALL OTHER REQUIREMENTS OF C&MS 202 SHALL STILL APPLY.

ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN (1)

PAYMENT SHALL INCLUDE THE COST TO REMOVE EXISTING RACEWAYS (ITS AND LIGHTING) AS DETAILED IN THE PLANS. ALL OTHER REQUIREMENTS OF C&MS 202 SHALL BE MET.

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.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS THAT MEET MASH REQUIREMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

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. 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.

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.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E (MASH), 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.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209, RESHAPING UNDER GUARDRAIL, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 , (448), (UNDER GUARDRAIL), AS PER PLAN.

ITEM 209, RESHAPING UNDER GUARDRAIL, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL,AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS, AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, RESHAPING UNDER GUARDRAIL, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:
1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

METHOD B:
1. PLACE ITEM 441
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1(448), UNDER GUARDRAIL, AS PER PLAN.

ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN

THIS ITEM SHALL BE PLACED BETWEEN RAMP OBE-JN AND I.R. 480 PAVEMENT FROM APPROXIMATELY STA. 100+56 TO THE CSX RAILROAD BRIDGE.

ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL, AGGREGATE OR OLD ASPHALT CONCRETE, PLACEMENT OF AGGREGATE, COMPACTION AND APPLYING HERBICIDE AS SPECIFIED IN THE "PAVING UNDER GUARDRAIL" NOTE.

ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN.

ITEM 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL), AS PER PLAN
ITEM 622 - PORTABLE BARRIER, UNANCHORED, AS PER PLAN
ITEM 622 - PORTABLE BARRIER, "X" CONNECTOR, AS PER PLAN

THESE ITEMS SHALL BE NEW AND REMAIN IN PLACE AT THE END OF THE PROJECT AND BECOME THE PROPERTY OF THE DEPARTMENT. ALL OTHER REQUIREMENTS OF C&MS 622 SHALL STILL BE MET.

A+B BIDDING WITH MULTIPLE SECTIONS CONTRACT TABLE

THE CONTRACTOR WILL BID THE NUMBER OF CALENDAR DAYS TO COMPLETE EACH SEGMENT AS LISTED IN THE PROPOSAL.

CONTRACT SEGMENT - LOCATION OF CRITICAL WORK	MINIMUM DAYS	MAXIMUM DAYS	INCENTIVE/ DISINCENTIVE $ PER DAY	MAXIMUM INCENTIVE $
SEGMENT 1 COMPLETE CLOSURE OF RAMP OBW-JN FROM STA 34+60 TO 53+40 DURING PH 1/1A	7	14	$12,000	$84,000
SEGMENT 2 COMPLETE CLOSURE OF RAMP JN-OBW FROM STA 43+87 TO 63+50 DURING PH 3A	7	14	$12,000	$84,000

CALCULATED SMS
CHECKED MAW

GENERAL NOTES

CUY-176-10.13

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ITEM 614 - MAINTAINING TRAFFIC

THE CONTRACTOR SHALL NOTIFY ODOT DISTRICT 12 OFFICE (216-584-2005) AND THE ENGINEER AT LEAST EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION OR MAINTENANCE OF TRAFFIC (MOT) OPERATIONS. THE CONTRACTOR MUST CONTACT THE CITY OF CLEVELAND DIVISION OF TRAFFIC ENGINEERING NOT LESS THAN 14 DAYS BEFORE THE WORK ZONE IS TO BE ESTABLISHED AT THE INTERSECTION OF S.R. 176 AND S.R. 17 (BROOKPARK ROAD).

AT ALL TIMES

EXCEPT AS NOTED BELOW, ALL LANES ON I-480 IN BOTH DIRECTIONS AND ALL MOVEMENTS WITHIN THE I-480/SR 176 SYSTEM INTERCHANGE SHALL REMAIN OPEN AT ALL TIMES. TRAFFIC LANE(S) OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410 AND 614. THE FOLLOWING CLOSURES WILL BE ALLOWED SUBJECT TO ODOT'S PERMITTED LANE CLOSURE SCHEDULE, ODOT DISTRICT 12'S PERMITTED LANE CLOSURE TIMES (CURRENT REVISION), AND THE APPROVAL OF THE DISTRICT WORK ZONE TRAFFIC MANAGER:

-LANE CLOSURES FOR SETUP OF ANY MOT PHASE INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT
-ONE LANE OF RAMP OBE-JN MAY BE CLOSED FOR THE DURATION OF THE PROJECT.
-WEEKEND CLOSURES OF RAMPS OBW-JN AND JN-OBW SUBJECT TO THE CONDITIONS BELOW.

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.

APPROVED MAINTENANCE OF TRAFFIC POLICY EXCEPTIONS

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE BEEN APPROVED BY THE MOT EXCEPTION COMMITTEE (MOTEC) OR THE PROJECT IMPACT ADVISORY COUNCIL (PIAC) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTIONS INCLUDE:
-CLOSURE OF RAMP OBW-JN
-CLOSURE OF RAMP JN-OBW
-WEEKNIGHT CLOSURES OF RAMP OBW-JN AND/OR RAMP JN-OBW IN ADVANCE OF A SCHEDULED CLOSURE FOR PRE-WORK (I.E. MILLING, RESURFACING, STRIPING, GUARDRAIL ADJUSTMENTS, ETC.)

RAMP CLOSURE AND RELATED WORK MUST BE COMPLETED BETWEEN JUNE 15 AND AUGUST 15. RAMP OBW-JN AND RAMP JN-OBW MAY NOT BE CLOSED CONCURRENTLY. SEE A+B BIDDING WITH MULITPLE SECTIONS CONTRACT TABLE ON SHEET 20 FOR ADDITIONAL REQUIREMENTS. WEEKNIGHT CLOSURES WILL BE PERMITTED FROM 8 PM TO 5 AM SUBJECT TO ODOT DISTRICT 12'S PERMITTED LANE CLOSURE TIMES (CURRENT REVISION). A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $125 PER MINUTE PER RAMP FOR EACH MINUTE THAT ANY RAMP REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM), THE CITY OF CLEVELAND, THE CITY OF PARMA AND THE VILLAGE OF BROOKLYN HEIGHTS AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN THIS OR OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTIONS REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED 4/12/19 FOR PID 101941" IN THE NOTIFICATION AND OTHER CORRESPONDENCES.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE APPLICABLE ODOT CENTRAL OFFICE COMMITTEE (MOTEC OR PIAC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DWZTM A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE APPLICABLE ODOT CENTRAL OFFICE COMMITTEE. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

NOTIFICATIONS DURING CLOSURES REQUIRED

THE WORKSITE TRAFFIC SUPERVISOR OR OTHER DESIGNATED ON-SITE POINT OF CONTACT SHALL COMMUNICATE WITH THE TMC AS THE STATUS OF ANY CLOSURE CHANGES:

-IF A CLOSURE IS POSTPONED OR CANCELED
-AT THE TIME A CLOSURE IS IMPLEMENTED
-AT THE TIME THE CLOSURE IS REMOVED AND ALL LANES ARE RESTORED
-IF A CLOSURE WILL NOT BE OPENING ON TIME

THE TMC CAN BE CONTACTED IN THE FOLLOWING WAYS:

-PHONE: (614) 387-2438 OR (800) 884-4030
-EMAIL: STATEWIDETMC@DOT.OHIO.GOV
-RADIO: XDOT MAIN

HOLIDAY CLOSURES

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

CHRISTMAS	NEW YEAR'S
MEMORIAL DAY	FOURTH OF JULY
LABOR DAY	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 THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM MONDAY
THANKSGIVING DAY	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $125 PER LANE OR PER RAMP FOR EACH MINUTE THE ABOVE DESCRIBED CLOSURE RESTRICTIONS ARE VIOLATED. THIS DISINCENTIVE SHALL BE APPLIED IN ADDITION TO THOSE LISTED IN THE LANE VALUE CONTRACT TABLE ON SHEET 26.

WINTER TIME LIMITATIONS

SHOULD THE CONTRACTOR FAIL TO MEET THE FOLLOWING REQUIREMENTS, A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $125 PER LANE OR PER RAMP FOR EACH MINUTE THE ABOVE DESCRIBED CLOSURE RESTRICTIONS ARE VIOLATED. THIS DISINCENTIVE SHALL BE APPLIED IN ADDITION TO THOSE LISTED IN THE LANE VALUE CONTRACT TABLE ON SHEET 26.

WINTER 2020-2021

ALL EXISTING LANES, INCLUDING RAMPS, SHALL BE OPEN AND AVAILABLE TO TRAFFIC IN THE ORIGINAL ALIGNMENT BETWEEN OCTOBER 15 AND APRIL 1.

WINTER 2021-2022

COMPLETE WORK THROUGH PHASE 2 PRIOR TO WINTER 2021-2022. PHASE 2 INCLUDES AN INTERIM COMPLETION DATE OF OCTOBER 15, 2021. ALL EXISTING LANES, INCLUDING RAMPS, SHALL BE OPEN AND AVAILABLE TO TRAFFIC IN THE ORIGINAL OR PROPOSED FINAL ALIGNMENT OR TEMPORARY MOT LOCATION AS DIRECTED BY THE ENGINEER BETWEEN OCTOBER 15 AND APRIL 1. MAINTAIN PCB ON THE CENTERLINE OF SR-176 TO SEPARATE BI-DIRECTIONAL TRAFFIC.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO INSTALL PCB IN THE PERMANENT MEDIAN BARRIER LOCATION (APPROX. STA. 100+10 TO STA. 117+00) AND INSTALL TEMPORARY MARKINGS IN THE ORIGINAL OR PROPOSED FINAL ALIGNMENT AT THE COMPLETION OF PHASE 2:

ITEM 614	- WORK ZONE LANE LINE, CLASS I, 6" 642 PAINT	1.45 MILE
ITEM 614	- WORK ZONE EDGE LINE, CLASS I, 6" 642 PAINT	10.45 MILE
ITEM 614	- WORK ZONE CHANNELIZING LINE, CLASS I, 12" 642 PAINT	8597 FT
ITEM 614	- WORK ZONE DOTTED LINE, CLASS I, 6" 642 PAINT	5431 FT
ITEM 622	- PORTABLE BARRIER 50", AS PER PLAN	1690 FT
ITEM 254	- PAVEMENT PLANING, ASPHALT CONCRETE (T=1½")	5000 SY
ITEM 407	- NON-TRACKING TACK COAT	250 GAL
ITEM 614	- ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	250 CY

NOTICE OF CLOSURE SIGN

NOTICE OF CLOSURE SIGN (W20-H13), AS DETAILED BELOW, SHALL BE ERECTED BY THE CONTRACTOR 14 CALENDAR DAYS PRIOR TO THE SCHEDULED RAMP CLOSURE.

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.

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 LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

(STREET NAME) WILL BE
CLOSED (DATE)
FOR (NUMBER) DAYS
INFO: 216-584-2007

W20-H13-60

ESTIMATED QUANTITIES

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

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 25 CU. YD.

ROAD CLOSED SIGN

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

-RAMP GE-1
-RAMP GE-2
-RAMP JN-OBW
-RAMP OBW-JN
-SR 176 NB RAMP FROM SR 17 (BROOKPARK ROAD)

SIGNS AND BARRICADES

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS SHOWN IN THE MOT PLANS AND STANDARD CONSTRUCTION DRAWINGS.

WHERE A WORK ZONE SIGN IS TO BE PLACED ADJACENT TO A NARROW SHOULDER (SHOULDER WIDTH <4 FEET) AND MOUNTED TO CONCRETE BARRIER OR PORTABLE BARRIER, SIGN SIZES FOR CONVENTIONAL ROADS MAY BE USED IN LIEU OF THOSE FOR FREEWAYS/EXPRESSWAYS AT THE APPROVAL OF THE ENGINEER.

PAYMENT

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

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION(HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

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

CALCULATED BNC
CHECKED JMS

MAINTENANCE OF TRAFFIC GENERAL NOTES

CUY-176-10.13

pw:\\AECOM-NA-AWS1.aecomonline.local:AECOM_DS01_NA\Documents\60527425-CUY-176-10.13\900-CAD GIS\10194_CUY-176-10.13_MN001.dgn Sheet 7/9/2020 1:44:42 PM robert.jankovsky

SCHEDULE OF THROUGH LANES TO BE MAINTAINED

ALL LANE CLOSURES MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" LIST, WHICH IS LOCATED ON THE ODOT WEBSITE:

WWW.DOT.STATE.OH.US/DIST12/WORKZONE/LANECLO.HTM

THE LATEST REVISION, AT 14 DAYS PRIOR TO THE BID DATE, WILL BE CONSIDERED TO BE THE CURRENT REVISION AND SHALL BE IN EFFECT FOR THIS PROJECT.

NO LANE OR SHOULDER CLOSURES SHALL BE IN PLACE WHEN NO WORK IS BEING PERFORMED, UNLESS DIRECTED BY THE ENGINEER. SHOULDER CLOSURES SHALL ONLY BE ALLOWED AT THE TIMES SPECIFIED FOR LANE CLOSURES.

ANY ROADWAY NOT LISTED SHALL NOT HAVE ANY LANE CLOSURES ON WEEKDAYS FROM 6:30AM TO 9:00AM AND 3:00PM TO 6:00PM. CONTACT DENNIS O'NEIL, DISTRICT 12 WORK ZONE TRAFFIC MANAGER, AT (216) 584-2204 IF THERE ARE ANY QUESTIONS.

ALL NOTES ON THE PERMITTED LANE CLOSURE TIMES SHALL BE PART OF THE PROJECT.

IR-480 & SR-176 RAMPS		
LOCATION	PERMITTED RAMP CLOSURES, LANE REDUCTIONS	
	SHORT TERM CLOSURE	PARTIAL WIDTH CLOSURE (MAINTAIN ONE 11' LANE)
ONE-LANE RAMPS	9:00PM - 5:00AM	DURATION OF SUBJECT RAMP'S CONSTRUCTION
TWO-LANE RAMPS	NOT PERMITTED	DURATION OF SUBJECT RAMP'S CONSTRUCTION

EACH RAMP MAY BE CLOSED FOR A MAXIMUM OF TWO (2) SEPARATE TIMES USING AN APPROVED DETOUR. ANY CLOSURE SHALL BE AS DIRECTED BY THE ENGINEER.

LANE VALUE CONTRACT TABLE

DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE $ PER TIME UNIT PER LANE
S.R. 176	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$240
I.R. 480	AS PER THE D12 PERMITTED LANE CLOSURE SCHEDULE	EACH MINUTE	$305

THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF THE SUM TOTAL OF THOSE SECTIONS IMPACTED BY THE PHYSICAL LANE RESTRICTION, INCLUDING THE TRANSITION AREA, ACTIVITY AREA, AND TERMINATION AREA AS DEFINED BY THE OMUTCD. HOLIDAY DISINCENTIVES SHALL BE APPLIED PER SECTION PER LANE PER TIME UNIT.

DRUM REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, WILL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

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 60 M. GAL.

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11:

ITEM 614 - WORK ZONE MARKING SIGN 14 EACH

ITEM 614 - WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT 0.50 MILE

ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT 1.00 MILE

ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT 3,000 FT

ITEM 614 - WORK ZONE DOTTED LINE, CLASS I, 642 PAINT 1,000 FT

TEMPORARY TRAFFIC SIGNALS

TEMPORARY TRAFFIC SIGNALS SHALL BE INSTALLED IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), AND THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS), CURRENT EDITION, LATEST REVISIONS. USED MATERIALS IN GOOD CONDITION ARE ACCEPTABLE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE WOOD POLES. THE CONTRACTOR WILL FURNISH, ERECT, OPERATE, MAINTAIN AND SUBSEQUENTLY REMOVE EACH TEMPORARY SIGNAL. THE CONTRACTOR WILL COORDINATE WITH THE POWER COMPANY FOR POWER SERVICE AND THE CONTRACTOR WILL PAY ALL FEES AND POWER USAGE FOR THE TEMPORARY SIGNALS.

THE RELOCATION OF SIGNAL HEADS FOR EACH PHASE OF CONSTRUCTION AND ALL NECESSARY FIELD ADJUSTMENTS OF THE PHASING AND/OR TIMING WILL BE INCLUDED IN THIS ITEM.

THE CONTRACTOR SHALL FIELD ADJUST PHASING AND TIMING TO MAINTAIN BACKUPS TO A MINIMUM WITH THE APPROVAL OF THE ENGINEER.

TRAFFIC SIGNAL HEAD CLEARANCE SHALL BE 16' MINIMUM AND 18' MAXIMUM.

ITEM 622 - PORTABLE BARRIER, 50", AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50-INCH PORTABLE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1.

PORTABLE STEEL BARRIER IS AN APPROVED ALTERNATIVE TO PORTABLE CONCRETE BARRIER. FOR INFORMATION ON APPROVED VENDORS, SEE THE APPROVED PRODUCTS LIST MAINTAINED BY THE OFFICE OF ROADWAY ENGINEERING.

PORTABLE BARRIER, 32 INCHES HIGH WITH AN 18-INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE SCREENS PROVIDED ON THE APPROVED LIST, AVAILABLE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE. THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER.

FOR DIRECTIONS ON HOW TO INSTALL THE GLARE SCREEN AND THE BARRIER, SEE THE MANUFACTURER'S INSTRUCTIONS. PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622, PORTABLE BARRIER, 50", AS PER PLAN.

ITEM 614 - REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 20 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

WORK ZONE SPEED ZONES (WZSZs)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBER	COUNTY-ROUTE-SECTION	DIRECTION
WZ-65220	CUY-176-10.13-10.80	NORTH & SOUTH

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRECONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65
65	55	60
60	55	60
55	50	55

ORIGINAL POSTED SPEED LIMIT	WITHOUT POSITIVE PROTECTION WORKERS PRESENT	WORKERS NOT PRESENT
70	45	65
65	55	60
60	50	60
55	50	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY 114 SIGN MNTH

(ASSUMING 6 DSL SIGN ASSEMBLIES FOR 19 MONTHS)

CALCULATED BNC
CHECKED JMS

MAINTENANCE OF TRAFFIC GENERAL NOTES

CUY-176-10.13

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WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUTDOWNS.

THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.

THE R11-H5A-48 SIGNS SHALL BE MOUNTED ON 2 NO. 3 POSTS WHEN LOCATED WITHIN CLEAR ZONES.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALTIES SIGN 6 EACH

WORK ZONE INCREASED PENALTIES SIGNS WILL BE PLACED AS PER STANDARD CONSTRUCTION DRAWING MT-102.30.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF C&MS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND RE-ERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

ITEM 615 - ROADS FOR MAINTAINING TRAFFIC

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

EXCAVATION FOR MAINTAINING TRAFFIC	5,000 CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC	5,000 CU. YD.

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

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.

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

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

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

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

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

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

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT BID PRICE PER EACH 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 - WORK ZONE CROSSOVER LIGHTING SYSTEM

THIS WORK SHALL CONSIST OF FURNISHING, ERECTING, OPERATING, MAINTAINING AND REMOVING A WORK ZONE LIGHTING SYSTEM FOR A SINGLE CROSSOVER, OR OVERLAPPING A PAIR OF CROSSOVERS. THE SYSTEM SHALL BE AS SHOWN ON TRAFFIC SCD MT-100.00. THE CONTRACTOR SHALL ARRANGE FOR AND PAY FOR POWER. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE PORTIONS OF 625 AND 725 EXCEPT: THE PERFORMANCE TEST OF 625.19F, AND CERTIFIED DRAWING REQUIREMENT OF 625.04, ARE WAIVED AND USED MATERIALS IN GOOD CONDITION ARE ACCEPTABLE.

POLES WHICH ARE NOT PROTECTED BY GUARDRAIL OR PORTABLE BARRIER SHALL BE LOCATED OUTSIDE THE CLEAR ZONE, AND SHOULD BE LOCATED AT LEAST 30 FEET (PREFERABLY 40 FEET) FROM THE EDGE OF PAVEMENT WHEN POSSIBLE. ADDITIONAL POLE LINES, CABLES AND APPURTENANCES NECESSARY TO FURNISH POWER TO THE LIGHTING SYSTEM SHALL BE INCLUDED IN THIS ITEM. SERVICE POLES SHALL BE POSITIONED WITH THE SAME CONSTRAINTS AS THE LIGHTING POLES AS A MINIMUM.

PAYMENT WILL BE MADE AT THE UNIT PRICE PER EACH FOR ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM THROUGHOUT ALL PHASES OF WORK WHEN THE CROSSOVER ROADWAYS ARE USED.

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 THE 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, 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 PRE-CONSTRUCTION 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.

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. THE SIGNS SHALL BE PLACED IN SERVICE 7 DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

THE PORTABLE CHANGEABLE MESSAGE SIGNS SHALL HAVE A WEB BASED COMMUNICATION SYSTEM THAT WILL ALLOW THE CONTRACTOR OR ODOT TO CHANGE OR PROGRAM THE MESSAGE BOARD REMOTELY. THIS SYSTEM SHALL BE PASSWORD PROTECTED AND MAY BE OPERATED FROM A COMPUTER AND HAVE AN APPLICATION THAT CAN BE OPERATED FROM A CELL PHONE, ANDROID OR I PHONE. THE WEB BASED COMMUNICATION SYSTEM WILL SHOW THE LOCATION OF EACH MESSAGE BOARD ON A MAP AND WHAT MESSAGE IS BEING DISPLAYED.

ALL CHARGES FOR THE WEB BASED COMMUNICATION SYSTEM WILL BE INCLUDED IN THE COST OF THIS ITEM, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN.

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 182 SIGN MONTH

(ASSUMING 7 PCMS SIGNS FOR 26 MONTHS)

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 12 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.

CALCULATED BNC
CHECKED JMS

MAINTENANCE OF TRAFFIC GENERAL NOTES

CUY-176-10.13

TRAFFIC INCIDENT MANAGEMENT (TIM) DURING MOT

OHIO TIM IS OHIO'S TRAFFIC INCIDENT MANAGEMENT PROGRAM WHICH IS COMMITTED TO MAINTAINING THE SAFE AND EFFECTIVE FLOW OF TRAFFIC DURING EMERGENCIES AS TO PREVENT FURTHER DAMAGE, INJURY OR UNDUE DELAY OF THE MOTORING PUBLIC. IN ADDITION TO COMPLYING WITH THE PROVISION OF OMUTCD CHAPTER 6I, CONTROL OF TRAFFIC THROUGH TRAFFIC INCIDENT MANAGEMENT AREAS, THE CONTRACTOR SHALL ACTIVELY PARTICIPATE IN TIM PLANNING AND IMPLEMENTATION AS OUTLINED BELOW.

1. SUPERINTENDENT SHALL IDENTIFY THE INDIVIDUAL PERSONS ON THE PROJECT WHO WILL, OR MAY NEED TO, PERFORM THE DUTIES HEREIN. AT A MINIMUM, INCLUDE THE SUPERINTENDENT, FOREMEN AND SUPERVISORS (OR EQUIVALENT) AS WELL AS THE WORKSITE TRAFFIC SUPERVISOR (WTS; IF APPLICABLE TO THE PROJECT). THESE INDIVIDUALLY IDENTIFIED PERSONS SHALL COLLECTIVELY BE KNOWN AS CONTRACTOR TRAFFIC INCIDENT MANAGEMENT (TIM) CONTACTS. NOTIFY THE PROJECT ENGINEER OF THE CONTRACTOR TIM CONTACTS (ALONG WITH CONTACT INFORMATION FOR EACH) AT OR BEFORE THE PRE-CONSTRUCTION MEETING.

2. SUPERINTENDENT SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY CONTRACTOR TIM CONTACT IS ADDED, REMOVED OR THE CONTACT INFORMATION CHANGES OVER THE COURSE OF THE PROJECT.

3. PRIOR THE FIRST DAY OF WORK IN THE FIELD, EACH CONTRACTOR TIM CONTACT ON THE PROJECT SHALL HAVE ATTENDED AND SUCCESSFULLY COMPLETED OHIO TIM TRAINING PROVIDED BY THE DEPARTMENT OR DESIGNEE. TRAINING INFORMATION CAN BE FOUND AT WWW.OHIOTIM.COM.

4. SUPERINTENDENT, AT A MINIMUM, SHALL ATTEND AND ACTIVELY PARTICIPATE IN A DEPARTMENT SCHEDULED TIM MEETING BEFORE CONSTRUCTION WORK BEGINS AND BEFORE EACH PHASE CHANGE. THESE MEETINGS WILL RESULT IN A DEPARTMENT ISSUED PROJECT SPECIFIC TRAFFIC INCIDENT MANAGEMENT PLAN (TIMP). AT THE TIM MEETINGS THE ATTENDING CONTRACTOR TIM CONTACTS SHALL:

A. COLLABORATE WITH ODOT AND SAFETY FORCES;

B. SHARE PROJECT SPECIFIC DETAILS THAT IMPACT TIM RESPONDERS; AND

C. RECOMMEND WAYS TO INCORPORATE NECESSARY EMERGENCY ACCESS AND OTHER TIM ELEMENTS FOR TIM RESPONDERS GIVEN PROJECT SPECIFIC WORK BEING COMPLETED AND PROJECT SPECIFIC PHASING.

5. CONTRACTOR TIM CONTACTS SHALL IMPLEMENT COMPONENTS OF THE RESULTING TIMP (SUCH AS APPROVED EMERGENCY INGRESS/EGRESS POINTS, ETC), AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.

6. CONTRACTOR TIM CONTACTS SHALL PERFORM, AT A MINIMUM, THE FOLLOWING FUNCTIONS WHEN AN INCIDENT/CRASH OCCURS:

A. IF OBSERVED OR PRESENT WHEN OCCURS, CALL 911 AND THEN NOTIFY THE TRAFFIC MANAGEMENT CENTER (TMC) TO PROVIDE THE FOLLOWING:
I. LOCATION, INCLUDING MILEPOST NUMBER AND DIRECTION OF TRAVEL
II. NUMBER AND TYPE OF VEHICLES INVOLVED, IF KNOWN
III. ESTIMATED EXTENT OF DAMAGE OR INJURY, IF KNOWN
IV. ESTIMATED NUMBER OF PATIENTS INVOLVED, IF KNOWN
V. ANY POTENTIAL HAZARDOUS CONDITIONS, IF KNOWN
VI. THE PLACARD NUMBER ON ANY HAZARDOUS MATERIALS PLACARD FROM A SAFE DISTANCE, IF APPLICABLE AND VISIBLE

B. FOLLOWING AN INCIDENT/CRASH:
I. INITIATE TRAFFIC MANAGEMENT/PROVIDE TEMPORARY TRAFFIC CONTROL AS INDICATED IN THE TIMP, AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.
II. RECOMMEND ROADWAY REPAIR NEEDS.
III. PROVIDE REPAIR RESOURCES AND INITIATE REPAIRS, AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.
IV. ATTEND AND PARTICIPATE IN AN AFTER ACTION REVIEW (AAR).

ALL COSTS, UNLESS OTHERWISE SPECIFIED, RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614, MAINTAINING TRAFFIC. FAILURE TO PERFORM THE REQUIREMENTS OF THIS PLAN NOTE WILL RESULT IN A DAILY FINE OF 2% OF ITEM 614, MAINTAINING TRAFFIC AND MAY RESULT IN ONE OR MORE CONTRACTOR TIM CONTACTS BEING REMOVED FROM THE LIST OF OHIO TIM TRAINED INDIVIDUALS (AT THE SOLE DISCRETION OF THE OHIO TIM EXECUTIVE COMMITTEE). IN THE EVENT AN INDIVIDUAL IS REMOVED FROM THE OHIO TIM TRAINED LIST, THE INDIVIDUAL WILL BE REMOVED FROM CONTRACTOR TIM CONTACT RESPONSIBILITIES ON ALL PROJECTS.

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 PERMANENT CONCRETE 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 MT- 101.70.

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 MT- 101.70.

IN ADDITION TO THE QUANTITIES IN THE SUBSUMMARY, THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 614, BARRIER REFLECTOR, TYPE 1, ONE-WAY 50 EACH
ITEM 614, OBJECT MARKER, ONE-WAY 50 EACH
ITEM 614, INCREASED BARRIER DELINEATION 500 FEET

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.

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

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

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFLECTORS.

IN ADDITION TO THE QUANTITIES IN THE SUBSUMMARY, THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 614, BARRIER REFLECTOR, TYPE 3, ONE WAY 50 EACH

ITEM 614, OBJECT MARKER, ONE WAY 50 EACH

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

TRANSITION AREAS ON I.R. 480

UPON COMPLETION OF PHASE 1, RESURFACE THE TRANSITION AREAS AND RESTORE THE PERMANENT PAVEMENT MARKINGS ON I.R. 480.

TRANSITION AREA RESURFACING LIMITS:

I.R. 480 EASTBOUND
STA. 848+50 TO STA. 858+40 = 990 FT
STA. 884+35 TO STA. 894+25 = 990 FT

I.R. 480 WESTBOUND
STA. 842+71 TO STA. 852+61 = 990 FT
STA. 891+49 TO STA. 901+39 = 990 FT

THE FOLLOWING QUANTITIES ARE PROVIDED FOR THE RESURFACING OF THE TRAVEL LANES AND SHOULDERS (ASSUMED 56' WIDTH) WITHIN THE TRANSITION AREAS:

ITEM 621 - RAISED PAVEMENT MARKER REMOVED
(990*4)/120 = 33 EACH

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (T=1½")
(990*4*56)/9 = 24,640 SY

ITEM 407 - NON-TRACKING TACK COAT
24,640*0.05 = 1,232 GAL

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447), AS PER PLAN, PG76-22M (T=1½")
(990*4*56*(1.5/12))/27 = 1,027 CY

ITEM 621 - RPM
(990*4)/120 = 33 EACH

PERMANENT MARKINGS AND REPLACEMENT RPM REFLECTORS (FOR THE NON-TRANSITION AREAS OF I.R. 480) ARE PROVIDED IN THE TRAFFIC CONTROL QUANTITIES.

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKERS ON PERMANENT CONCRETE SURFACES

RAISED PAVEMENT MARKERS IN WORK ZONES, INSTALLED ON PERMANENT CONCRETE SURFACES, SHALL BE ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS. WZRPMS ARE INTENDED FOR USE ONLY DURING THE NON-SNOW-PLOWING SEASON. WZRPMS SHALL NOT BE PROVIDED DURING THE SNOW-PLOWING SEASON.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 15 THROUGH APRIL 1.

WHERE A TEMPORARY ALIGNMENT WILL REMAIN IN USE THROUGH THE WINTER, THE WZRPMS SHALL BE REMOVED PRIOR TO THE BEGINNING OF THE SNOW-PLOWING SEASON AND REPLACED APPROXIMATELY APRIL 1, OR AS OTHERWISE DETERMINED BY THE ENGINEER.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS.

AN ESTIMATED QUANTITY OF 1,000 EACH OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

RUMBLE STRIPS ON I.R. 480

THE FOLLOWING ITEMS HAVE BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER FOR THE REMOVAL OF EXISTING RUMBLE STRIPS, REPLACEMENT WITH ASPHALT CONCRETE AND SUBSEQUENT REPLACEMENT OF RUMBLE STRIPS TO THEIR PRECONSTRUCTION CONDITION ON I.R. 480:

ITEM 254 - PAVEMENT PLANING (T = 1 1/2")
2,100 SY

ITEM 407 - NON-TRACKING TACK COAT
105 GAL

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447) AS PER PLAN, PG 76-22M (T=1½")
90 CY

ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)
1.76 MILE

FOR LOCATION OF RUMBLE STRIPS, SEE SHEET 12.

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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.

> 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 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 SETUP 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 LEO'S 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. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. 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 600 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.

WORK ZONE QUEUE DETECTION WARNING SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE QUEUE DETECTION WARNING SYSTEM (WZQDWS) AS PER SUPPLEMENTAL SPECIFICATION 896.

THE PROBABLE INITIAL LOCATIONS OF THE WZQDWS DEVICES ARE SHOWN ON SHEETS 64 TO 65 OF THE PLAN. IT IS EXPECTED THAT THESE LOCATIONS WILL VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER.

THE FOLLOWING TRAFFIC SENSOR THRESHOLDS AND PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MESSAGES SHALL BE USED:

FOR IR-480 EASTBOUND:
- GREATER THAN OR EQUAL TO 50 MPH:
  - USE FOUR CORNER FLASHING CAUTION MODE
- BETWEEN 50 MPH AND 25 MPH:
  - "TRAFFIC AHEAD XX MPH" / "SLOW DOWN"
- BELOW OR EQUAL TO 25 MPH:
  - "TRAFFIC AHEAD XX MPH" / "PREPARE TO STOP"

FOR ALL OTHERS:
- GREATER THAN OR EQUAL TO 50 MPH:
  - USE FOUR CORNER FLASHING CAUTION MODE
- BETWEEN 50 MPH AND 25 MPH:
  - "I-480 W TRAFFIC XX MPH" / "SLOW DOWN"
- BELOW OR EQUAL TO 25 MPH:
  - "I-480 W TRAFFIC XX MPH" / "PREPARE TO STOP"

FOUR CORNER FLASHING CAUTION MODE SHALL CONSIST OF THE USE OF ONE ASTERISK IN EACH CORNER OF THE PCMS DISPLAY (4 TOTAL ASTERISKS).

XX SHALL BE ROUNDED UP TO THE NEAREST MULTIPLE OF 5 MPH MINUS 1. OCCUPANCY MAY BE DIRECTED TO BE USED BASED ON CERTAIN TRAFFIC CONDITIONS AND SCENARIOS. ODOT WILL DIRECT THE CONTRACTOR OF THE THRESHOLDS TO BE USED FOR THOSE AREAS WHERE OCCUPANCY IS DIRECTED TO BE USED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 896, PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS II
285 SIGN MONTH

(ASSUMING 15 SENSORS FOR 19 MONTHS)

ITEM 896, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
114 SIGN MONTH

(ASSUMING 6 PCMS SIGNS FOR 19 MONTHS)

WORK ZONE EGRESS WARNING SYSTEM

THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE EGRESS WARNING SYSTEM (WZEWS) AS PER SUPPLEMENTAL SPECIFICATION 829.

THE LOCATIONS OF THE WZEWS DEVICES ARE EXPECTED TO VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, AND MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER.

WZEWS SHALL BE USED IN ACCORDANCE WITH MT-103.10. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 829, WORK ZONE EGRESS WARNING SYSTEM 79 SIGN MONTH

(ASSUMING 4 WORK ZONE EGRESS WARNING SYSTEM(S) FOR 19 MONTHS.)

WORK ZONE MARKINGS

THE FOLLOWING PAVEMENT MARKING QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER FOR THE PURPOSE OF INSTALLING PAVEMENT MARKINGS ON THE COMPLETED INTERMEDIATE COURSE PAVEMENT AND HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT
1.45 MILE

ITEM 614, WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT
10.45MILE

ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT
8597 FT

ITEM 614, WORK ZONE DOTTED LINE, CLASS I, 642 PAINT
5431 FT

THE FOLLOWING PAVEMENT MARKING QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER FOR THE PURPOSE OF INSTALLING CLASS III PAVEMENT MARKINGS ON THE COMPLETED SURFACE COURSE PAVEMENT AND HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT
1.45 MILE

ITEM 614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT
10.45MILE

ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT
8597 FT

CALCULATED BNC CHECKED JMS
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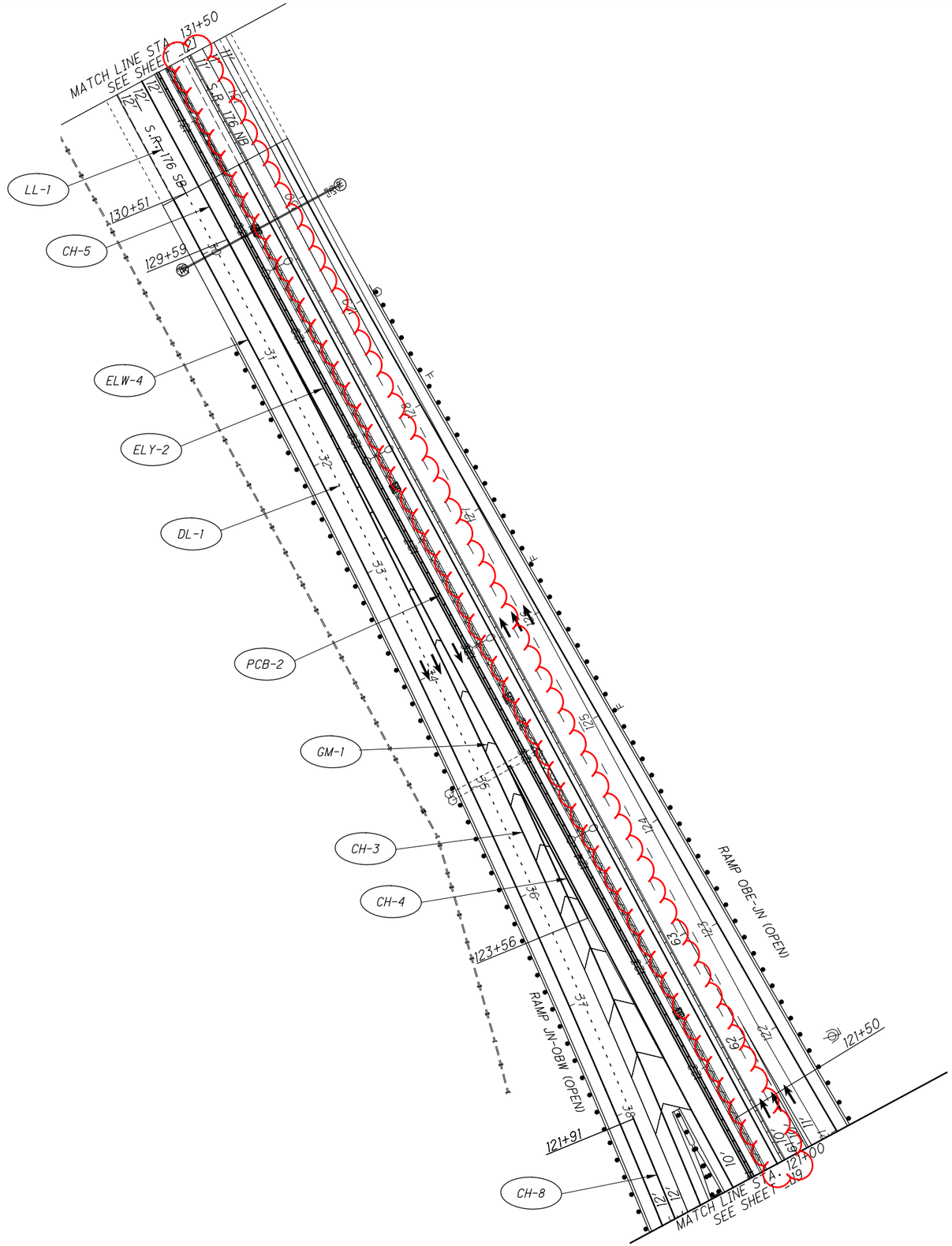

MOT LEGEND

	WORK AREA
TP	TEMPORARY PAVEMENT
PCB	PORTABLE BARRIER
IA	IMPACT ATTENUATOR
	TYPE III BARRICADE
	DRUM
	DIRECTION OF TRAFFIC
LL	WORK ZONE LANE LINE, 6"
DY	WORK ZONE CENTER LINE
ELW	WORK ZONE EDGE LINE (WHITE), 6"
ELY	WORK ZONE EDGE LINE (YELLOW), 6"
CH	WORK ZONE CHANNELIZING LINE, 12"
DL	WORK ZONE DOTTED LINE, 6"
SL	WORK ZONE STOP LINE
GM	WORK ZONE GORE MARKING
A	WORK ZONE ARROW
IM	WORK ZONE ISLAND MARKING (YELLOW)

0 25 50 100
HORIZONTAL SCALE IN FEET

CALCULATED R.J.J
CHECKED JMS

MAINTENANCE OF TRAFFIC PHASE 4

CUY-176-10.13

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OFFICE CALCS	20 - 22	25 - 31	44	136	137	138	139	140	143	144	145	147	148	149	322	326	327	330	344	355	360	362	01/NHS/PV	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																												ROADWAY (CONT.)	
							2																2	622	25009	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN	21
							6																6	622	25014	6	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1	
							1																1	622	25050	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
							1220																1220	622	41101	1220	FT	PORTABLE BARRIER, UNANCHORED, AS PER PLAN	20
							1																1	622	41051	1	EACH	PORTABLE BARRIER, "Y" CONNECTOR, AS PER PLAN	20
																												EROSION CONTROL	
									10														10	601	21050	10	SY	TIED CONCRETE BLOCK MAT, TYPE 1	
											173												173	601	21060	173	SY	TIED CONCRETE BLOCK MAT, TYPE 2	
	2																						2	659	00100	2	EACH	SOIL ANALYSIS TEST	
	3289													853									4142	659	00300	4142	CY	TOPSOIL	
										29635													29635	659	00510	29635	SY	SEEDING AND MULCHING, CLASS 2	
	1482																						1482	659	14000	1482	SY	REPAIR SEEDING AND MULCHING	
	1482																						1482	659	15000	1482	SY	INTER-SEEDING	
	4.13																						4.13	659	20000	4.13	TON	COMMERCIAL FERTILIZER	
	6.12																						6.12	659	31000	6.12	ACRE	LIME	
	164																						164	659	35000	164	MGAL	WATER	
														7678									7678	670	00500	7678	SY	SLOPE EROSION PROTECTION	
											106												106	670	00700	106	SY	DITCH EROSION PROTECTION	
														LS									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	
														130000									130000	832	30000	130000	EACH	EROSION CONTROL	
																												DRAINAGE	
				0.5																			0.5	602	20000	0.5	CY	CONCRETE MASONRY	
									10071														10071	605	11110	10071	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
									8746														8746	605	12210	8746	FT	6" DEEP PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
									456														456	605	13410	456	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
									15258														15258	605	13510	15258	FT	6" ROCK CUT UNDERDRAINS WITH GEOTEXTILE FABRIC	
									23027														23027	605	14020	23027	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
									1676														1676	611	00510	1676	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
				5																			5	611	04600	5	FT	12" CONDUIT, TYPE C	
				1021																			1021	611	05900	1021	FT	15" CONDUIT, TYPE B	
				121																			121	611	05900	121	FT	15" CONDUIT, TYPE B, 706.02	
				196																			196	611	06100	196	FT	15" CONDUIT, TYPE C	
				10																			10	611	06100	10	FT	15" CONDUIT, TYPE C, 706.02	
				114																			114	611	06700	114	FT	15" CONDUIT, TYPE F, 707.05 TYPE C OR 707.21	
				15																			15	611	07400	15	FT	18" CONDUIT, TYPE B, 706.02	
				15																			15	611	10400	15	FT	24" CONDUIT, TYPE B, 706.02	
				1																			1	611	98150	1	EACH	CATCH BASIN, NO. 3	
				3																			3	611	98180	3	EACH	CATCH BASIN, NO. 3A	
				1																			1	611	98230	1	EACH	CATCH BASIN, NO. 4	
				6																			6	611	98370	6	EACH	CATCH BASIN, NO. 6	
				2																			2	611	98410	2	EACH	CATCH BASIN, NO. 8	
				3																			3	611	98840	3	EACH	INLET, NO. 2-A-6	
				1																			1	611	99094	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B	
				4																			4	611	99095	4	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B, AS PER PLAN	21
				1																			1	611	99101	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1, AS PER PLAN	21
				6																			6	611	99105	6	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C, AS PER PLAN (1)	21
				4																			4	611	99105	4	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C, AS PER PLAN (2)	320
				2																			2	611	99111	2	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1, AS PER PLAN	21
				2																			2	611	99574	2	EACH	MANHOLE, NO. 3	
				1																			1	611	99661	1	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	21
									5														5	611	99710	5	EACH	PRECAST REINFORCED CONCRETE OUTLET	
				902																			902	839	30000	902	FT	TRENCH DRAIN WITH STANDARD GRATE	
																												PAVEMENT	
7092																							7092	252	01500	7092	FT	FULL DEPTH PAVEMENT SAWING	
												1465											1465	254	01000	1465	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = 3 1/4")	
		31740																					31740	254	01000	31740	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = 1 1/2")	
	500																						500	255	10160	500	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS	
19166																							19166	302	46000	19166	CY	ASPHALT CONCRETE BASE, PG64-22	
15808																							15808	304	20000	15808	CY	AGGREGATE BASE	

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OFFICE CALCS	20 - 22	25 - 31	44	136	137	138	139	140	143	144	145	147	148	149	322	326	327	330	344	355	360	362	01/NHS/PV	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																												PAVEMENT (CONT.)	
9909		1587										267											11763	407	20000	11763	GAL	NON-TRACKING TACK COAT	
								159															159	411	10001	159	CY	STABILIZED CRUSHED AGGREGATE, AS PER PLAN	20
								447															447	441	50701	447	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), (UNDER GUARDRAIL), AS PER PLAN	20
4421																							4421	442	10100	4421	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
3717		1117										63											4897	442	10301	4897	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN, PG 76-22M	21
												104											104	442	20200	104	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	
571																							571	452	09010	571	SY	4" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
560																							560	452	15010	560	SY	12" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
174																							174	609	14000	174	FT	CURB, TYPE 2-A	
898																							898	609	24510	898	FT	CURB, TYPE 4-C	
185																							185	609	26000	185	FT	CURB, TYPE 6	
2.31		1.76																					4.07	618	40600	4.07	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
																												LIGHTING	
																						7	7	625	00450	7	EACH	CONNECTION, FUSED PULL APART	
																						7	7	625	00460	7	EACH	CONNECTION, UNFUSED PULL APART	
																						2	2	625	00480	2	EACH	CONNECTION, UNFUSED PERMANENT	
																						28	28	625	10620	28	EACH	LIGHT POLE ANCHOR BOLTS, MISC.: MEDIAN MOUNTED LIGHT POLE	361
																						7	7	625	14306	7	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP	
																						1652	1652	625	22910	1652	FT	NO. 2/0 AWG 2400 VOLT DISTRIBUTION CABLE	
																						1118	1118	625	23308	1118	FT	DISTRIBUTION CABLE, MISC.: NO. 4/0 AWG 2400 VOLT DISTRIBUTION CABLE	
																						7	7	625	32000	7	EACH	GROUND ROD	
																						7	7	625	35011	7	EACH	REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN	361
																						LS	LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	361
																						7	7	625	75500	7	EACH	LIGHT POLE FOUNDATION REMOVED	
																						1	1	625	75800	1	EACH	DISCONNECT CIRCUIT	
																												TRAFFIC SURVEILLANCE	
					700																		700	625	25752	700	FT	CONDUIT, 4", MULTICELL, 725.20, EPC-80, FOR TRAFFIC SURVEILLANCE	22
					350																		350	625	29010	350	FT	TRENCH, 30" DEEP	
					14																		14	625	29931	14	EACH	MEDIAN JUNCTION BOX, AS PER PLAN	22
					6																		6	625	30710	6	EACH	PULL BOX, 725.08, 32"	
					6																		6	625	31510	6	EACH	PULL BOX REMOVED	
																												TRAFFIC CONTROL	
																		400					400	614	11631	400	FT	INCREASED BARRIER DELINEATION, AS PER PLAN	330
	33																		413				446	621	00100	446	EACH	RPM	
																			295				295	621	00300	295	EACH	RPM REFLECTOR	
	33																		587				620	621	54000	620	EACH	RAISED PAVEMENT MARKER REMOVED	
																				3			3	625	32000	3	EACH	GROUND ROD	
							144																144	626	00102	144	EACH	BARRIER REFLECTOR, TYPE 1, BI-DIRECTIONAL	
								3															3	626	00112	3	EACH	BARRIER REFLECTOR, TYPE 3, ONE WAY	
								195															195	626	00112	195	EACH	BARRIER REFLECTOR, TYPE 3, BI-DIRECTIONAL	
																				326.6			326.6	630	03100	326.6	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
																				35.2			35.2	630	06500	35.2	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	
																				41.9			41.9	630	07600	41.9	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	
																				32.0			32.0	630	08004	32.0	FT	ONE WAY SUPPORT, NO. 3 POST	
																				127.7			127.7	630	08300	127.7	FT	GROUND MOUNTED WOODEN BOX BEAM SUPPORT, TYPE L BEAM	
																				39			39	630	08600	39	EACH	SIGN POST REFLECTOR	
																				4			4	630	09000	4	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
																				1			1	630	20800	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	
																				1			1	630	45500	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8	
																				1			1	630	55000	1	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TC-7.65	
																				1			1	630	79101	1	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	329
																				18			18	630	79600	18	EACH	SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 1	
																				399.0			399.0	630	80100	399.0	SF	SIGN, FLAT SHEET	
																				13.4			13.4	630	80101	13.4	SF	SIGN, FLAT SHEET, AS PER PLAN	328
																				48.0			48.0	630	80200	48.0	SF	SIGN, GROUND MOUNTED EXTRUSHEET	

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OFFICE CALCS	20 - 22	25 - 31	44	136	137	138	139	140	143	144	145	147	148	149	322	326	327	330	344	355	360	362	01/NHS/PV	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																												TRAFFIC SIGNALS (CONT.)	
																					1		1	632	80602	1	EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 12	
																					3		3	632	89600	3	EACH	PEDESTAL, 8'	
																					2		2	632	90008	2	EACH	PEDESTAL, 15', TRANSFORMER BASE	
																					1		1	632	90101	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	329
																					1		1	809	69123	1	EACH	ATC V6.24 CONTROLLER, AS PER PLAN	329
																					1		1	633	67101	1	EACH	CABINET FOUNDATION, AS PER PLAN	330
																					1		1	633	67201	1	EACH	CONTROLLER WORK PAD, AS PER PLAN	330
																					1		1	633	75001	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	330
																					3		3	809	69100	3	EACH	STOP LINE RADAR DETECTION	330
																												STRUCTURE REPAIR (BRIDGE NO. CUY-480-1557)	
																15							15	SPECIAL	51912510	15	SY	PATCHING CONCRETE BRIDGE DECK	326
																												STRUCTURE MODIFICATIONS (RAMP JN-OBE RETAINING WALL BARRIER)	
															145								145	512	10100	145	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
															30								30	516	13600	30	SF	1" PREFORMED EXPANSION JOINT FILLER	
																												MAINTENANCE OF TRAFFIC	
		600																					600	614	11110	600	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		500																					500	614	11630	500	FT	INCREASED BARRIER DELINEATION	
							2																2	614	12381	2	EACH	WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL), AS PER PLAN	20
			19																				19	614	12380	19	EACH	WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)	
		14																					14	614	12460	14	EACH	WORK ZONE MARKING SIGN	
		6																					6	614	12484	6	EACH	WORK ZONE INCREASED PENALTIES SIGN	
		20																					20	614	12500	20	EACH	REPLACEMENT SIGN	
			1																				1	614	12756	1	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
		1000	4333																				5333	614	12800	5333	EACH	WORK ZONE RAISED PAVEMENT MARKER	
		275																					275	614	13000	275	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
		50	4523																				4573	614	13310	4573	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
		50																					50	614	13314	50	EACH	BARRIER REFLECTOR, TYPE 3, ONE WAY	
		100	1599																				1699	614	13350	1699	EACH	OBJECT MARKER, ONE WAY	
		182																					182	614	18601	182	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	27
		3.40	7.49																				10.89	614	20110	10.89	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
		1.45																					1.45	614	20560	1.45	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	30
			0.01																				0.01	614	21100	0.01	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
		21.90	37.77																				59.67	614	22110	59.67	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
		10.75																					10.75	614	22360	10.75	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	30
		20194	49746																				69940	614	23210	69940	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
		8587																					8587	614	23690	8587	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	30
		11862	8613																				20475	614	24200	20475	FT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	
			104																				104	614	26200	104	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
			869																				869	614	28000	869	FT	WORK ZONE GORE MARKING, CLASS II	
			2																				2	614	30200	2	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
			21																				21	614	32700	21	SF	WORK ZONE ISLAND MARKING, CLASS I	
																							LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
			6973																				6973	615	20000	6973	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
		60																					60.00	616	10000	60.00	MGAL	WATER	
			55342																				55342	622	41100	55342	FT	PORTABLE BARRIER, UNANCHORED	
		1690	10515																				12205	622	41011	12205	FT	PORTABLE BARRIER, 50", AS PER PLAN	26
			3																				3	622	41050	3	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
		114																					114	808	18700	114	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
		76																					76	829	00100	76	SNMT	WORK ZONE EGRESS WARNING SYSTEM	
		285																					285	896	00012	285	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS II	
		114																					114	896	00021	114	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	30
																												INCIDENTALS	
																							LS	100	50200	LS		DEPARTMENT'S SHARE OF THE DISPUTE RESOLUTION ADVISOR	
																							LS	108	10000	LS		CPM PROGRESS SCHEDULE	
																							LS	614	11000	LS		MAINTAINING TRAFFIC	328
	26																						26	619	16021	26	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	20
																							LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
																							LS	624	10000	LS		MOBILIZATION	

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