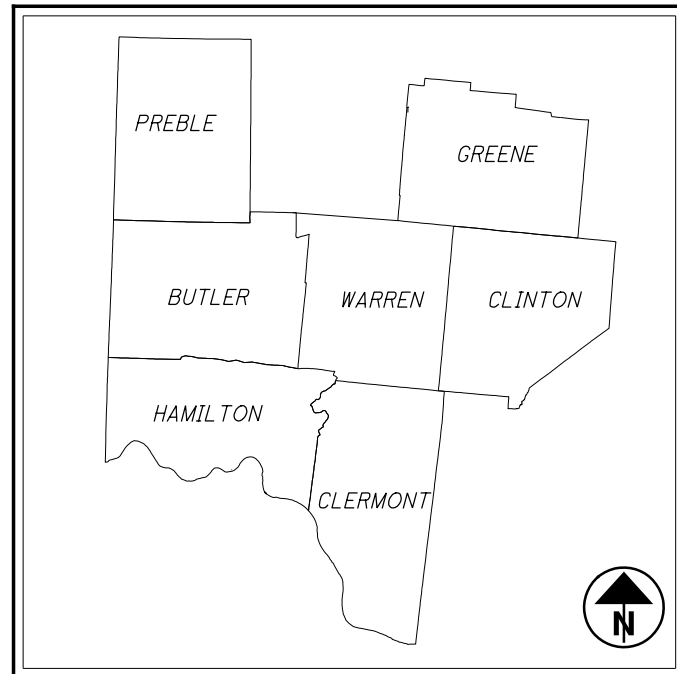


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LOCATION MAP

LATITUDE: 39°25'52" LONGITUDE: -84°17'03"

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
**D08 ITS MAINT
FY 2021**

**BUTLER COUNTY
CLERMONT COUNTY
CLINTON COUNTY
GREENE COUNTY
HAMILTON COUNTY
PREBLE COUNTY
WARREN COUNTY**

PROJECT DESCRIPTION

ITS MAINTENANCE ON POWER SERVICES, FIBER OPTICS AND OTHER MISC. RELATED WORK.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: N/A ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

INDEX OF SHEETS:

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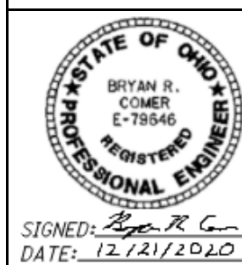
UNDERGROUND UTILITIES
Contact Two Working Days
Before You Dig

OHIO811.org
Before You Dig

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

PLAN PREPARED BY:
ODOT
DIVISION OF OPERATIONS
TRAFFIC OPERATIONS
COLUMBUS, OHIO

ENGINEERS SEAL:



STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
HL-10.13	4/17/20	ITS-10.10	1/15/21	ITS-50.11	1/15/21	800	4/16/21
HL-20.11	7/17/20	ITS-10.11	1/15/21	ITS-50.12	1/15/21	804	1/15/21
HL-30.11	7/17/20	ITS-11.10	1/15/21	ITS-60.10	1/15/21	809	4/16/21
HL-30.21	4/17/20	ITS-11.11	1/15/21	ITS-76.10	7/17/20	821	4/20/12
HL-30.22	4/17/20	ITS-12.10	7/19/19			832	10/19/18
HL-40.10	7/17/20	ITS-12.50	1/15/21			864	10/16/20
HL-40.20	7/17/20	ITS-13.10	1/15/21			904	1/15/21
HL-50.11	1/16/15	ITS-14.10	1/15/21			909	4/16/21
		ITS-14.11	1/15/21			921	4/20/12
TC-21.21	7/17/20	ITS-14.20	1/15/21				
TC-81.11	7/17/20	ITS-14.50	1/15/21				
TC-83.20	7/21/17	ITS-15.10	1/15/21				
		ITS-15.11	1/15/21				
MT-95.30	7/19/19	ITS-18.00	1/15/21				
MT-95.31	7/19/19	ITS-30.14	1/15/21				
MT-105.10	1/17/20	ITS-50.10	1/15/21				

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED _____

DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____

DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.

N/A

PID NO.

114141

CONSTRUCTION PROJECT NO.

N/A

RAILROAD INVOLVEMENT

NONE

D08 ITS MAINT

1
12

ESTIMATED QUANTITIES:

THE QUANTITIES SHOWN IN THE GENERAL SUMMARY ARE ESTIMATED QUANTITIES AND VARIANCES CAN BE EXPECTED IN THE ACTUAL QUANTITIES USED DURING THE LIFE OF THIS CONTRACT.

TERM OF CONTRACT:

DURING THE TERM OF THIS CONTRACT IT MAY BECOME NECESSARY FOR THE CONTRACTOR TO PERFORM REPAIR, MAINTENANCE, AND UPGRADE WORK AT VARIOUS LOCATIONS WHILE PERFORMING AN INSTALLATION AT A DIFFERENT LOCATION AND HAVE SUFFICIENT PERSONNEL AND EQUIPMENT AVAILABLE TO PERFORM THE REQUIRED WORK AS DIRECTED WITHIN THE DISTRICT BOUNDARIES.

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 OF TRAFFIC RESTRICTIONS TIME TABLE:

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

GENERAL COORDINATION AND COOPERATION BETWEEN CONTRACTORS:

THE CONTRACTOR'S ATTENTION SHALL BE DIRECTED TO SECTION 105.08 OF THE CMS. DURING THE DURATION OF THIS PROJECT, THE OHIO DEPARTMENT OF TRANSPORTATION ITS / SIGNALS SECTION OF THE OFFICE OF TRAFFIC OPERATIONS RESERVES THE RIGHT TO PERFORM PARTS OF ANY REPAIR OR UPGRADE IN COORDINATION WITH THE CONTRACTORS PERSONNEL. THE PROJECT ENGINEER SHALL COORDINATE THE WORK TO BE PERFORMED BY THE OHIO DEPARTMENT OF TRANSPORTATION ITS / SIGNALS SECTION AND THE CONTRACTOR. THE PROJECT ENGINEER SHALL PROVIDE A FIVE DAY NOTICE TO BOTH THE CONTRACTOR AND ITS / SIGNALS SECTION PRIOR TO THE WORK BEING PERFORMED. THE CONTACT PERSON(S) FOR THE OHIO DEPARTMENT OF TRANSPORTATION ITS / SIGNALS SECTION SHALL BE;

PRIMARY:
JAMIE FINK
1606 WEST BROAD ST.
COLUMBUS, OHIO 43223
OFFICE: (614) 644-6588
EMAIL: JAMIE.FINK@DOT.OHIO.GOV

SECONDARY:
BRYAN COMER
1606 WEST BROAD ST.
COLUMBUS, OHIO 43223
OFFICE: (614) 387-1253
EMAIL: BRYAN.COMER@DOT.OHIO.GOV

ODOT ITS LAB
1606 WEST BROAD STREET
COLUMBUS, OHIO 43223
MAINLINE: (614) 387-4113
CEN. ITS.LAB@DOT.OHIO.GOV

WATER QUALITY PROTECTION:

NO TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINT, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND SHALL BE DISCHARGED TO ANY STREAMS, DRAINAGE COURSES, OR BODIES OF WATER. ALL ASPHALT OR CONCRETE GRINDINGS, EXCESS ASPHALTIC OR CONCRETE MATERIALS OR ANY OTHER DEBRIS GENERATED DURING RESURFACING OR OTHER SIMILAR ACTIVITIES SHALL BE NOT BE DISPOSED OF WITHIN A FLOOD PLAIN BELOW THE 100-YEAR FLOOD ELEVATION. THE CONTRACTOR SHALL TAKE GREAT CARE TO MINIMIZE THE POTENTIAL TO CONTAMINATE THE PUBLIC DRINKING WATER SUPPLY, ALL PROJECT RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER AND ALL PRECAUTIONS NECESSARY TO PREVENT LIQUIDS USED TO REPAIR, CLEAN, SEAL, OR TREAT ANY BRIDGE STRUCTURE (I.E. PAINT, SEALER, SOLVENT) FROM ENTERING STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE. THE CONTRACTOR IS REQUIRED AND SHALL BE HELD RESPONSIBLE FOR THE CLEAN UP AND REMEDIATION OF ANY AND ALL SPILLS.

WATERSHED PROTECTION / EROSION CONTROL:

THE WORK ASSOCIATED WITH THIS PROJECT IS BEING PERFORMED WITHIN THE DIRECT DRAINAGE AREA OF A MAJOR DRINKING WATERSHED. IT IS ESSENTIAL THAT ALL ACTIVITIES ASSOCIATED WITH THIS WORK BE PERFORMED IN A MANNER CONSISTENT WITH BEST WATERSHED MANAGEMENT PRACTICES INCLUDING, BUT NOT LIMITED TO;

AREAS OF DISTURBED GROUND SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. IF HAZARDOUS/TOXIC MATERIALS INCLUDING BUT NOT LIMITED TO FUELS, OILS, BITUMENS, PAINTS, SEALANTS OR OTHER CHEMICALS, ARE STORED ON SITE, THEY SHALL BE STORED IN A DOUBLE-CONTAINMENT MANNER. ALL EQUIPMENT REPAIRS, MAINTENANCE, AND MECHANICAL WORK THAT COULD RESULT IN THE RELEASE OF HAZARDOUS/TOXIC MATERIALS SHALL BE PERFORMED IN AN APPROPRIATELY CONTAINED AREA, PREFERABLY OFF SITE OR AN APPROPRIATE OFF-SITE FACILITY.

IN THE EVENT THAT ANY HAZARDOUS/TOXIC MATERIALS INCLUDING BUT NOT LIMITED TO FUELS, OILS, BITUMENS, PAINTS, SEALANTS, OR OTHER CHEMICALS ARE SPILLED INTO ANY RIVER, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OHIO ENVIRONMENTAL PROTECTION AGENCY. THE CONTRACTOR SHOULD BE PREPARED TO PROVIDE DETAILED INFORMATION RELATIVE TO THE TYPE AND QUANTITY OF MATERIAL THAT HAS BEEN SPILLED AS WELL AS THE EXACT LOCATION AND THE EXACT TIME AT WHICH THE SPILL OCCURRED.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INFORMING ALL SUBCONTRACTORS AND OTHER AGENTS OF THESE RESPONSIBILITIES, PRECAUTIONS, AND PROHIBITIONS.

EXCAVATION:

NO EXCAVATION SHALL BE MADE WITHIN FIVE FEET OF ANY POLE OR SUPPORT THAT SUPPORTS TRAFFIC SIGNAL DISPLAYS OR SIGNS. EXCAVATION WITHIN EIGHT FEET BUT MORE THAN FIVE FEET SHALL REQUIRE ADDITIONAL SUPPORT (DOWN GUY, HEAD GUY, BASE GUY, ETC.). THE CONTRACTOR SHALL CONTACT THE ENGINEER AT LEAST TWO WORKING DAYS PRIOR TO SUCH EXCAVATION.

GROUNDING AND BONDING:

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ITS, HL, AND TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS.

ALL BONDING INCLUDED IN THE GROUNDING SYSTEMS FOR THIS PROJECT SHALL BE DONE SO BY THE METHOD OF EXOTHERMIC WELDING.

ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR. METAL PULL BOX LIDS SHALL BE BONDED BY ATTACHMENT OF THE EQUIPMENT GROUNDING CONDUCTOR TO THE FRAME DIAGONAL AS PROVIDED ON HL-30.11 AND ITS-50.10. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UN-SPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.

ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

GENERAL USE OF TRAFFIC CONTROL ITEMS:

IT IS THE INTENT OF THIS CONTRACT THAT THE WORK IS DONE AS QUICKLY AS POSSIBLE. THIS PART OF THE CONTRACT SHALL BE USED IN CONJUNCTION WITH THE ITS OR SIGNAL WORK AT VARIOUS LOCATIONS WITHIN THE DISTRICT. THIS WORK SHALL BE SHOWN ON THE WORK ORDER FOR EACH LOCATION DETAILING THE WORK TO BE PERFORMED. ALL TRAFFIC CONTROL ITEMS SHALL BE PLACED WITHIN THE TIME PERIODS DESCRIBED BY THE WORK ORDERS OR ACCORDING TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL REVIEW EACH LOCATION AND OBTAIN ANY PERMITS OR CLEARANCES FROM LOCAL MUNICIPALITIES AS NEEDED OR ANY OTHER PARTIES INVOLVED, PRIOR TO PERFORMING ANY WORK.

ITEM 201 - CLEARING AND GRUBBING:

IT IS THE INTENT OF THIS CONTRACT THAT THE WORK IS DONE AS QUICKLY AS POSSIBLE. THIS ITEM OF THE CONTRACT SHALL BE USED IN CONJUNCTION WITH ITS MAINTENANCE / UPGRADE WORK ORDER AT VARIOUS LOCATIONS DETAILING THE WORK TO BE PERFORMED WITHIN THE STATE OF OHIO.

THIS ITEM OF WORK SHALL CONSIST OF BRUSH CLEARING, TREE LIMB TRIMMING, THE REMOVAL AND DISPOSAL OF ALL UNWANTED VEGETATION AND THE REMOVAL OF TREES LESS THAN SIX INCHES IN DIAMETER TO PROVIDE FULL ACCESS AND AT LEAST 10 FEET CLEAR DISTANCE TO UTILITY POLES, STRAIN POLES, LIGHT POLES, CONTROL CENTER CABINETS, POWER SERVICES, SIGNAL CONTROLLERS, PULL BOXES, CONDUITS, GROUND RODS, AND BURIED CABLES FOR EACH ITS MAINTENANCE / WORK ORDER LOCATION OR AS REQUIRED BY THE PROJECT ENGINEER.

PAYMENT FOR ALL CLEARING AND GRUBBING AT ALL WORK ORDER LOCATIONS SHALL BE INCLUDED IN THE LUMP SUM BID ITEM FOR THE PAY ITEM, ITEM 201E11000 CLEARING AND GRUBBING.

ITEM 625 - CONNECTION, UNFUSED BOLTED:

THIS ITEM SHALL CONSIST OF LOCATING, EXCAVATING, UNCOVERING A BREAK OR SHORT OF UNDERGROUND CABLE, SPLICING THE BREAK OR SHORT WITH APPROVED WATERPROOF SPLICE KITS, AND BACKFILLING AND RESTORING THE AREA. A 1000-VOLT MEGGER TEST SHALL BE PERFORMED TO ASSURE THAT THE SPLICES ARE ACCEPTABLE. IF ANY FAULTS ARE FOUND, THE ENGINEER WILL DECIDE WHETHER TO SPLICE THE CABLE, INSTALL NEW CABLE, OR INSTALL NEW DUCT CABLE BETWEEN TWO TERMINAL POINTS. PAYMENT FOR REPLACEMENT OF CABLE OR INSTALLATION OF NEW DUCT IS NOT INCLUDED IN THIS PAY ITEM, BUT WILL BE PAID FOR UNDER THEIR RESPECTIVE PAY ITEMS.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH SPLICE MADE.

ITEM 625 - CONDUIT, MISC.: CONDUIT REPAIR:

THE CONTRACTOR SHALL REPAIR A SECTION OF CONDUIT WHERE FIBER IS UNABLE TO PASS THROUGH THE CONDUIT, AT LOCATIONS DIRECTED BY THE WORK ORDER AND PROJECT ENGINEER. IF THE CONDUIT CANNOT BE REPAIRED, THE CONTRACTOR SHALL REPLACE UP TO 10 FEET OF CONDUIT.

THIS ITEM WILL INCLUDE THE COST OF EQUIPMENT USE NEEDED TO REPAIR, CLEAN, OR CLEAR OUT THE CONDUIT DUCT PATHWAY SO THAT FIBER OPTIC CABLE MAY PASS THROUGH UNOBSTRUCTED.

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GENERAL NOTES

D08 ITS MAINT

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ITEM 625 - CONDUIT, MULTICELL, 4", 725.20, JACKED OR DRILLED:

DESCRIPTION

THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND OR ENCASED INSIDE CONCRETE BARRIER WALL SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROAD SIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G., AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNAL CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMP METER SIGNING FLASHERS & ILLUMINATION AND POWER. THE CONTRACTOR SHALL PLUG ALL UNUSED CELLS WITH CONDUIT CAPS TO ASSURE AIR AND WATER INTEGRITY OF EACH INDIVIDUAL INNERDUCT.

MATERIALS

THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY-ASSEMBLED SYSTEM OF (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTER DUCT. THE CONDUIT SHALL ADHERE TO 725.20 AND BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40 OR 80, HIGH DENSITY POLYETHYLENE, OR APPROVED EQUIVALENT. THE INNERDUCTS SHALL BE NOMINAL A MINIMUM OF 1.251.10 INCH INSIDE DIAMETER., TYPE DB PVC PER NEMA TC-8 WITH A BELL INSERTION DEPTH OF 1.75 INCHES MINIMUM. THE OUTER DUCT SHALL BE NOMINAL 4 INCH (INSIDE DIAMETER) AND MAXIMUM OUTSIDE DIAMETER OF 4.8 INCH, TYPE SCHEDULE 40 PVC. CARLON TYPE SCHEDULE 40 AND 80 OR APPROVED EQUIVALENT.

WHERE COUPLINGS ARE NEEDED, THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYPED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY, TO ALLOW THE INSPECTION OF EACH JOINT FOR PROPER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY, ONE 1/4" NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS, THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY. IN ADDITION THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

INSTALLED IN TRENCH

FOR PVC CONDUITS, INSTALLATION WILL BE IN 30" DEEP TRENCH, EXCEPT AS NOTED ON THE PLANS. PVC CONDUITS SHALL NOT BE INSTALLED INSIDED CONCRETE BARRIER WALL.

ALL JOINTS WILL BE JOINED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT. ALL PVC MULTI-CELL CONDUIT INSTALLED OUTSIDE OF THE ROADWAY IN TRENCH SHALL BE SCHEDULE 40 UNLESS DIRECTED BY THE ODOT PROJECT ENGINEER TO USE SCHEDULE 80 FOR USE IN WELL-TRAVELED VEHICULAR AREAS.

INSTALLED UNDER ROADWAY

FOR INSTALLATIONS UNDER ROADWAYS, INSTALLATION WILL BE AT LEAST 30" DEEP JACKED OR DRILLED UNDER PAVEMENT , EXCEPT AS NOTED ON THE PLANS.

ALL JOINTS WILL BE JOINED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT. ALL PVC MULTI-CELL CONDUIT INSTALLED UNDER THE ROADWAY SHALL BE SCHEDULE 80.

FOR HDPE CONDUITS, INSTALLATION WILL BE IN 30" DEEP TRENCH, DRILLED OR PLOWED TO A MINIMUM OF 30"DEEP, ENCASED INSIDE CONCRETE BARRIER WALL, OR AS NOTED ON THE PLANS.

THE HDPE CONDUIT SHALL BE INSTALLED IN CONTINUOUS LENGTHS WITHOUT JOINTS/COUPLINGS BETWEEN PULL BOXES OR JUNCTION BOXES.

METHOD OF MEASUREMENT

THE CONDUIT WILL BE MEASURED BY THE AMOUNT OF CONDUIT IN FEET FURNISHED AND INSTALLED OF EACH TYPE SCHEDULE 40 OR 80 MEASURED FROM CENTER -TO CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTING AND APPURTENANCES, JOINTS, BENDS, GROUNDS, AND CONCRETE ENCASEMENT WHERE SPECIFIED.

THE TRENCH WILL BE MEASURED BY THE NUMBER OF FEET OF TRENCH COMPLETED AS PER SECTION 625.21.

BASIS OF PAYMENT

THE PAYMENT FOR THESE ITEMS WILL BE MADE FOR THE ACCEPTED LINEAR FOOT QUANTITIES AT THE CONTRACT BID PRICE.

ITEM 625 - CONDUIT, MULTICELL, 4", 725.20, HDPE:

DESCRIPTION

THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND OR ENCASED INSIDE CONCRETE BARRIER WALL SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROAD SIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G., AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNAL CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMP METER SIGNING FLASHERS & ILLUMINATION AND POWER. THE CONTRACTOR SHALL PLUG ALL UNUSED CELLS WITH CONDUIT CAPS TO ASSURE AIR AND WATER INTEGRITY OF EACH INDIVIDUAL INNERDUCT.

MATERIALS

THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY-ASSEMBLED SYSTEM OF (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTER DUCT, HIGH DENSITY POLYETHYLENE OR APPROVED EQUIVALENT. THE INNERDUCTS SHALL BE A MINIMUM OF 1.10 INCH INSIDE DIAMETER. THE OUTER DUCT SHALL BE NOMINAL 4 INCH INSIDE DIAMETER AND MAXIMUM OUTSIDE DIAMETER OF 4.8 INCH.

THE HDPE CONDUIT SHALL BE COILABLE ON REELS.

WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY, ONE 1/4" NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS, THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY. IN ADDITION THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

INSTALLATION

INSTALLATION WILL BE IN 30" DEEP TRENCH, DRILLED OR PLOWED TO A MINIMUM OF 30" DEEP, BORED UNDER ROADWAYS, ENCASED INSIDE CONCRETE BARRIER WALL, OR AS NOTED ON THE PLANS.

THE HDPE CONDUIT SHALL BE INSTALLED IN CONTINUOUS LENGTHS WITHOUT JOINTS/COUPLINGS BETWEEN PULL BOXES OR JUNCTION BOXES.

METHOD OF MEASUREMENT

THE CONDUIT WILL BE MEASURED BY THE AMOUNT OF CONDUIT IN FEET FURNISHED AND INSTALLED FROM CENTER TO CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTING AND APPURTENANCES, JOINTS, BENDS, GROUNDS, AND CONCRETE ENCASEMENT WHERE SPECIFIED.

BASIS OF PAYMENT

THE PAYMENT FOR THESE ITEMS WILL BE MADE FOR THE ACCEPTED LINEAR FOOT QUANTITIES AT THE CONTRACT BID PRICE.

ITEM 625 - PULL BOX, 725.08, 18":

THE CONTRACTOR SHALL INSTALL OR REMOVE AND REPLACE WITH A NEW PULL BOXES AS SPECIFIED. ALL 18" PULL BOXES SHALL BE MARKED "ELECTRIC". THESE ITEMS SHALL CONFORM TO THE 2019 ODOT CONSTRUCTION & MATERIAL SPECIFICATIONS.

PAYMENT SHALL BE MADE FOR THE INSTALLED AND ACCEPTED PULL BOXES AT THE UNIT BID PRICE.

ITEM 625 - PULL BOX, 725.08, 32", AS PER PLAN:

THE CONTRACTOR SHALL FURNISH AND INSTALL OR REMOVE AND REPLACE WITH A NEW 32" ROUND PULL BOX WITH CONCRETE PAD PER STANDARD CONSTRUCTION DRAWING ITS-14.11.

ITEM 625 - PULL BOX, 725.08, 48", TYPE 2, AS PER PLAN:

THE CONTRACTOR SHALL FURNISH AND INSTALL OR REMOVE AND REPLACE WITH A NEW 48" ROUND PULL BOX WITH CONCRETE PAD PER STANDARD CONSTRUCTION DRAWING ITS-14.20.

ITEM 625 - PULL BOX, REMOVE AND REPLACE, AS PER PLAN:

THE CONTRACTOR SHALL REMOVE A 36" SQUARE PULL BOX LOCATED IN THE PAVEMENT AND REPLACE WITH A PULL BOX, 725.08, 32". THIS ITEM SHALL INCLUDE ALL PAVEMENT WORK TO PRODUCE A COMPLETE AND FUNCTIONING 32" PULL BOX WITH CONCRETE PAD IN THE ROADWAY PAVEMENT.

THE CONTRACTOR SHALL USE FAST SET CONCRETE FOR THE PAVEMENT REPAIR. ASPHALT PATCH SHALL NOT BE USED.

ITEM 625 - LIGHTING, MISC: STEP-DOWN TRANSFORMER AND SUPPORT:

THE CONTRACTOR SHALL INSTALL GROUND RODS PER STANDARD CONSTRUCTION DRAWING ITS-50.10. IN ADDITION, A GROUND ROD SHALL BE INSTALLED AT EACH ELECTRIC PULL BOX INSTALLED ON THIS PROJECT AND CONNECTED TO THE PULL BOX FRAME. AT EACH PULL BOX LOCATION, THE GROUND ROD SHALL ALSO BE TIED INTO THE DISTRIBUTION CABLE USED AS THE GROUND WIRE TO SERVICE THE CAMERA CABINET, IN ORDER TO PROVIDE A COMPLETE GROUNDING SYSTEM.

ITEM 625 - LIGHTING, MISC: STEP-DOWN TRANSFORMER AND SUPPORT:

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY FOR A POWER SERVICE PER ODOT CONSTRUCTION AND MATERIALS SPECIFICATION SECTION 625.15.

A 3.0 KVA, 480 VOLT TO 120/240V TRANSFORMER SHALL BE INCIDENTAL TO THIS PAY ITEM. AN EQUIPMENT STAND SHALL ALSO BE INCLUDED AND SHALL HAVE THE TRANSFORMER AND DISCONNECT MOUNTED UPON IT. THIS ITEM SHALL BE INSTALLED PER STANDARD CONSTRUCTION DRAWING ITS-50.11. THIS ITEM SHALL ALSO INCLUDE ALL CONDUIT AND MATERIALS NECESSARY TO RUN POWER WIRING OUT/IN THE NEAREST 18 INCH ELECTRICAL PULL BOX, IN ORDER TO PROVIDE 120 VOLT POWER TO THE ITS CABINET AND A COMPLETE AND FUNCTIONAL POWER SERVICE.

THE ITS RELATED POWER SERVICES SHALL BE MARKED WITH "ITS". SEPARATE DISCONNECT SWITCHES SHALL BE FUSIBLE, RATED FOR 60 AMPS WITH NEMA 4X ENCLOSURE, AND SHALL BE FUSED AT 30 AMPS, EXCEPT WHERE NOTED FOR DMS RELATED POWER SERVICES IN THE WORK ORDER. THIS SERVICE SHALL PROVIDE 120 VOLTS TO EACH RELATED SITE.

ITEM 632 - POWER SERVICE, AS PER PLAN A:

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY FOR A POWER SERVICE PER ODOT CONSTRUCTION AND MATERIAL SPECIFICATION SECTION 625.15.

THE POWER SERVICE SHALL BE A 120/240 VOLT SERVICE, POLE MOUNTED, WITH AERIAL POWER COMPANY FEED PER ODOT STANDARD CONSTRUCTION DRAWING ITS-15.11.

THE CCTV RELATED POWER SERVICES SHALL BE MARKED WITH "ITS". DISCONNECT SWITCHES SHALL BE FUSIBLE, RATED FOR 60 AMPS WITH NEMA 4X ENCLOSURE, AND SHALL BE FUSED AT 30 AMPS. THIS SERVICE SHALL PROVIDE 120 VOLTS TO EACH RELATED SITE.

THE CONTRACTOR SHALL COORDINATE WITH POWER COMPANY AND PROVIDE APPROPRIATE INSPECTIONS AND/OR SELF INSPECTION FORMS TO POWER COMPANY IN ORDER TO ENERGIZE SERVICE.

ITEM 632 - POWER SERVICE, AS PER PLAN B:

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY FOR A POWER SERVICE PER ODOT CONSTRUCTION AND MATERIAL SPECIFICATION SECTION 625.15.

THE POWER SERVICE SHALL BE A 120/240 VOLT SERVICE, GROUND MOUNTED, WITH GROUND POWER COMPANY FEED PER ODOT STANDARD CONSTRUCTION DRAWING ITS-15.10.

THE CCTV RELATED POWER SERVICES SHALL BE MARKED WITH "ITS". DISCONNECT SWITCHES SHALL BE FUSIBLE, RATED FOR 60 AMPS WITH NEMA 4X ENCLOSURE, AND SHALL BE FUSED AT 30 AMPS. THIS SERVICE SHALL PROVIDE 120 VOLTS TO EACH RELATED SITE.

THE CONTRACTOR SHALL COORDINATE WITH POWER COMPANY AND PROVIDE APPROPRIATE INSPECTIONS AND/OR SELF INSPECTION FORMS TO POWER COMPANY IN ORDER TO ENERGIZE SERVICE.

ITEM 632 - POWER SERVICE, AS PER PLAN C:

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY FOR A POWER SERVICE PER ODOT CONSTRUCTION AND MATERIAL SPECIFICATION SECTION 625.15.

THE POWER SERVICE SHALL BE A 480 VOLT SERVICE, POLE MOUNTED, WITH AERIAL POWER COMPANY FEED PER ODOT STANDARD CONSTRUCTION DRAWING ITS-15.11. THE CONTRACTOR SHALL COORDINATE WITH THE POWER COMPANY TO DETERMINE IF THEY HAVE ANY SPECIAL REQUIREMENTS FOR A METERED 480 VOLT SERVICE DROP, SUCH AS BUT NOT LIMITED TO, AN ADDITIONAL ENCLOSURE OR DISCONNECT AHEAD OF THE METER, CURRENT TRANSFORMERS, OR CONDUIT BOXES. IF SO, THE CONTRACTOR SHALL MODIFY THE POLE MOUNTED POWER SERVICE PER ITS-15.11 AS NEEDED, AS APPROVED BY THE ENGINEER.

THE CCTV RELATED POWER SERVICES SHALL BE MARKED WITH "ITS". DISCONNECT SWITCHES SHALL BE FUSIBLE, RATED FOR 60 AMPS WITH NEMA 4X ENCLOSURE, AND SHALL BE FUSED AT 30 AMPS. THIS SERVICE SHALL PROVIDE 480 VOLTS TO EACH RELATED SITE, WHERE IT WILL THEN BE STEPPED DOWN TO 120 VOLT VIA SEPARATE PAY ITEM.

THE CONTRACTOR SHALL COORDINATE WITH POWER COMPANY AND PROVIDE APPROPRIATE INSPECTIONS AND/OR SELF INSPECTION FORMS TO POWER COMPANY IN ORDER TO ENERGIZE SERVICE.

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ITEM 632 - POWER SERVICE, AS PER PLAN D:
THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY FOR A POWER SERVICE PER ODOT CONSTRUCTION AND MATERIAL SPECIFICATION SECTION 625.15.

THE POWER SERVICE SHALL BE A 480 VOLT SERVICE, GROUND MOUNTED, WITH AERIAL POWER COMPANY FEED PER ODOT STANDARD CONSTRUCTION DRAWING ITS-15.10. THE CONTRACTOR SHALL COORDINATE WITH THE POWER COMPANY TO DETERMINE IF THEY HAVE ANY SPECIAL REQUIREMENTS FOR A METERED 480 VOLT SERVICE DROP, SUCH AS BUT NOT LIMITED TO, AN ADDITIONAL ENCLOSURE OR DISCONNECT AHEAD OF THE METER, CURRENT TRANSFORMERS, OR CONDUIT BOXES. IF SO, THE CONTRACTOR SHALL MODIFY THE POLE MOUNTED POWER SERVICE PER ITS-15.10 AS NEEDED, AS APPROVED BY THE ENGINEER.

THE CCTV RELATED POWER SERVICES SHALL BE MARKED WITH "ITS". DISCONNECT SWITCHES SHALL BE FUSIBLE, RATED FOR 60 AMPS WITH NEMA 4X ENCLOSURE, AND SHALL BE FUSED AT 30 AMPS. THIS SERVICE SHALL PROVIDE 480 VOLTS TO EACH RELATED SITE, WHERE IT WILL THEN BE STEPPED DOWN TO 120 VOLT VIA SEPARATE PAY ITEM.

THE CONTRACTOR SHALL COORDINATE WITH POWER COMPANY AND PROVIDE APPROPRIATE INSPECTIONS AND/OR SELF INSPECTION FORMS TO POWER COMPANY IN ORDER TO ENERGIZE SERVICE.

ITEM 632 - POWER SERVICE, AS PER PLAN E:
THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY FOR A POWER SERVICE PER ODOT CONSTRUCTION AND MATERIAL SPECIFICATION SECTION 625.15.

THE EXISTING 120 OR 480 VOLT POWER SERVICE FOR THE SITE SHALL BE MAINTAINED. THIS PAY ITEM SHALL INCLUDE THE REPLACEMENT OF EXISTING OR INSTALLATION OF NEW DISCONNECT SWITCHES USED TO DIRECTLY POWER THE ITS SITE, INSTALLING NEW CONDUIT CONNECTIONS, AND INSTALLING A NEW METER BASE ON AN EXISTING POLE MOUNTED OR GROUND MOUNTED POWER SERVICE. THE FINAL MODIFIED POWER SERVICE SHALL BE LIKE NEW, PER SCD ITS-15.11 OR ITS-15.10.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE APPROPRIATE CONTACT WITH THE POWER COMPANY FOR DEENERGIZING AND ENERGIZING OF ANY POWER LINES.

THE CCTV RELATED POWER SERVICES SHALL BE MARKED WITH "ITS". SEPARATE DISCONNECT SWITCHES SHALL BE INSTALLED AND SHALL BE FUSIBLE, RATED FOR 60 AMPS WITH NEMA 4X ENCLOSURE, AND FUSED AT 30 AMPS.

ITEM 632 - POWER SERVICE, AS PER PLAN F:
THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY FOR A POWER SERVICE PER ODOT CONSTRUCTION AND MATERIAL SPECIFICATION SECTION 625.15.

THE EXISTING POWER SERVICE FOR THE SITE SHALL BE MAINTAINED. THIS POWER SERVICE SHALL CONSIST OF UTILIZING THE UNUSED 120V LEG IN THE DISCONNECT OF THE EXISTING 120/240V POWER SERVICE TO SUPPLY 120V TO THE CCTV ITS CABINET. THIS PAY ITEM SHALL INCLUDE THE REPLACEMENT OF THE EXISTING DISCONNECT SWITCH. THIS ITEM SHALL ALSO INCLUDE THE INSTALLATION OF A NEW DISCONNECT SWITCH USED TO DIRECTLY POWER THE CCTV. THE NEW DISCONNECT SWITCH SHALL BE INSTALLED ON SAME POLE AS EXISTING DISCONNECT SWITCH. IF EXISTING DISCONNECT SWITCH IS MOUNTED ON A SIGNAL CABINET, IT SHALL NOT BE REMOVED, AND THE NEW DISCONNECT SWITCH FOR THE CAMERA SHALL BE INSTALLED ON A GROUND MOUNTED STAND NEARBY. THE STAND SHALL BE PER SCD ITS-50.11 EXCEPT SMALLER AND WITH ONLY ONE DISCONNECT SWITCH AND NO TRANSFORMER, AS APPROVED BY THE ENGINEER.

INSTALL A NEW 30 AMP FUSE OR BREAKER AT LOCATIONS WHERE A NEW FUSE OR BREAKER MAY BE NEEDED. IN ORDER TO GET POWER WIRING FROM THE PULL BOX TO THE DISCONNECTS, IF A PATH THROUGH A STRAIN POLE IS NOT POSSIBLE, THE CONTRACTOR SHALL INSTALL A 2" SWEEP AND CONDUIT FROM THE PULL BOX, ALONG THE OUTSIDE OF THE POLE, AND INTO THE BOTTOM OF THE DISCONNECTS. THIS ITEM SHALL ALSO INCLUDE ALL CONDUIT AND MATERIALS NECESSARY TO TIE INTO THE DISCONNECTS AND PROVIDE A COMPLETE AND FUNCTIONAL POWER SERVICE. THE CONTRACTOR SHALL DELIVER THE REMOVED DISCONNECT SWITCH TO THE PROJECT ENGINEER, TO THEN BE RETURNED TO THE APPROPRIATE DISTRICT SIGNAL ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE APPROPRIATE CONTACT WITH THE POWER COMPANY FOR DEENERGIZING AND ENERGIZING OF ANY POWER LINES. IF THE POWER IS TO BE TIED INTO THE SAME POWER SOURCE AS A SIGNALIZED INTERSECTION, THE CONTRACTOR SHALL PRESENT PLANS FOR APPROVAL TO THE PROJECT ENGINEER SHOWING HOW THEY PLAN TO KEEP THE SIGNALIZED INTERSECTION RUNNING AT 100% FOR THE DURATION OF TIME THAT THE POWER SERVICE IS DEENERGIZED.

THE CCTV RELATED POWER SERVICES SHALL BE MARKED WITH "ITS". SEPARATE DISCONNECT SWITCHES SHALL BE INSTALLED AND SHALL BE FUSIBLE, RATED FOR 60 AMPS WITH NEMA 4X ENCLOSURE, AND FUSED AT 30 AMPS.

ITEM 632 - CONDUIT RISER, 2" DIAMETER:
THE CONTRACTOR SHALL INSTALL A 2" CONDUIT RISER (APPROX. 30 FT TO 65 FT IN LENGTH) AS SPECIFIED BY THE ENGINEER. THE CONTRACTOR SHALL SWEEP THE CONDUIT UNDERGROUND AND CONNECT INTO A NEARBY PULL BOX OR AS SPECIFIED BY THE ENGINEER. THE CONTRACTOR SHALL REFERENCE ITEM 732.16 IN THE 2019 ODOT CONSTRUCTION AND MATERIAL SPECIFICATION.

PAYMENT SHALL BE MADE FOR THE INSTALLED AT UNIT BID PRICE.

ITEM 632 - SIGNALIZATION, MISC.: CLEARING OF ITS SITES:
IT IS THE INTENT OF THIS CONTRACT THAT THE WORK IS DONE AS QUICKLY AS POSSIBLE. THIS ITEM OF THE CONTRACT SHALL BE USED IN CONJUNCTION WITH ITS MAINTENANCE/UPGRADE WORK ORDER AT VARIOUS LOCATIONS DETAILING THE WORK TO BE PERFORMED WITHIN THE STATE OF OHIO.

THIS ITEM OF WORK SHALL CONSIST OF BUSH CLEARING, TREE LIMB TRIMMING, THE REMOVAL AND DISPOSAL OF ALL UNWANTED VEGETATION AND THE REMOVAL OF TREES LESS THAN SIX INCHES IN DIAMETER TO PROVIDE FULL ACCESS AND AT LEAST 10 FEET CLEAR DISTANCE TO UTILITY POLES, STRAIN POLES, LIGHT POLES, CONTROL CENTER CABINETS, POWER SERVICES, SIGNAL CONTROLLERS, PULL BOXES, CONDUITS, GROUND RODS, AND BURIED CABLES FOR EACH ITS MAINTENANCE/WORK ORDER LOCATION OR AS REQUIRED BY THE PROJECT ENGINEER.

PAYMENT FOR ALL CLEARING GRUBBING AT ALL WORK ORDER LOCATIONS SHALL BE INCLUDED IN THE LUMP SUM BID ITEM FOR THE PAY ITEM, ITEM 201E11000 CLEARING AND GRUBBING.

ITEM 633 - CABINET FOUNDATION, AS PER PLAN:
THE CONTRACTOR SHALL INSTALL A CABINET FOUNDATION FOR EACH ITS GROUND MOUNTED CABINET. THE CONTRACTOR SHALL INSTALL ANCHOR RODS FOR AN ITS CABINET PER SUPPLEMENTAL SPECIFICATION 809 AND AS DIRECTED BY THE ENGINEER. SEE SUPPLEMENTAL SPECIFICATION 809 FOR CONDUIT REQUIREMENTS ENTERING THE ITS GROUND MOUNTED CABINET.

ITEM 633 - CONTROLLER WORK PAD, AS PER PLAN:
THE CONTRACTOR SHALL INSTALL A WORK PAD AT EACH ITS DEVICE (CAMERA POLE, CABINET, PULL BOX, ETC.) PER THE RELAVENT ODOT STANDARD CONSTRUCTION DRAWING FOR THE DEVICE, SUCH AS ITS-10.11, ITS-11.11, ITS-14.11, ITS-14.20. THE CONTRACTOR SHALL GRADE THE SURROUNDING AREA SLIGHTLY AND/OR POUR A SMALL CURB RETAINING WALL AND/OR STONE/GRAVEL AROUND THE PAD AS NEEDED IN ORDER TO INSTALL A LEVEL WORK PAD WITH APPROPRIATE PROTECTION AND RUNOFF. THE WORK PAD AND SITE RESTORATION SHALL BE PERFORMED AS APPROVED BY THE PROJECT ENGINEER.

PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE INCIDENTAL TO THE UNIT BID PRICE FOR ITEM 633, CONTROLLER WORK PAD, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT THE ITEM.

ITEM 804 - FIBER OPTIC CABLE, MISC.: INSTALL ONLY WITH TRACER WIRE:
THE CONTRACTOR SHALL INSTALL FIBER AND TRACER WIRE, BOTH FURNISHED BY ODOT, PER SUPPLEMENTAL SPECIFICATION 804/904. 150 FEET OF CABLE SLACK IN EACH 32" PULL BOX. THE CONTRACTOR SHALL ONLY PULL THE FIBER OPTIC CABLE THROUGH EXISTING CONDUIT AND LEAVE COILED IN PULL BOXES AS DIRECTED IN THE WORK ORDER. ODOT WILL PERFORM THE SPLICING AND THE TERMINATING OF FIBER OPTIC CABLE. THE CONTRACTOR SHALL RETURN UNUSED FIBER TO ODOT ITS AT 1606 WEST BROAD STREET, COLUMBUS, OHIO 43223, OR AT A LOCATION PER THE ENGINEER.

THE TRACER WIRE SHALL BE PROVIDED BY ODOT, AND INSTALLED ALONG SIDE FIBER OPTIC CABLE, AT THE SAME TIME, AND IN THE SAME DUCT. THE TRACER WIRE SHALL BE INSTALLED WITH 20 FEET OF SLACK IN EACH PULL BOX.

THE CONTRACTOR SHALL EXPECT TO INSTALL THE FIBER OPTIC CABLE THROUGH SECTION OF UNDERGROUND CONDUIT AND/OR CONCRETE BARRIER WALL WITHOUT EXISTING MULE TAPE OR PULL STRING. IF ANY UNFORESEEN ISSUES OCCUR WITH THE CONDUIT PATH, THE CONTRACTOR SHALL PAUSE THE INSTALLATION OPERATION UNTIL THE CONDUIT ISSUE CAN BE RESOLVED VIA A SEPERATE WORK ORDER OR PAY ITEM APPROVED BY THE ENGINEER.

ITEM 804 - FIBER OPTIC CABLE, MISC.: FIBER OPTIC CABLE MARKER:
THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 804/904 AT THE LOCATIONS PROVIDED IN THE WORK ORDER.

ITEM 804 - FIBER OPTIC CABLE, MISC.: TRACER WIRE INSTALL ONLY:
THE CONTRACTOR SHALL INSTALL TRACER WIRE, FURNISHED BY ODOT, ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 804/904, IN THE CONDUIT WHERE THERE IS EXISTING FIBER, AT THE THE LOCATIONS PROVIDED IN THE WORK ORDER.

ITEM 809 - CCTV CONCRETE POLE WITH LOWERING UNIT, 70 FEET:
THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS. IN ADDITION, THE CONTRACTOR SHALL INCLUDE A 1/2" ISOLATION JOINT MATERIAL BETWEEN THE CONCRETE POLE AND CONCRETE WORK PAD. THE CONTRACTOR SHALL PROVIDE 1 COMPLETE LOWERING UNIT TOOL ASSEMBLY PER CAMERA FOR LOWERING CAMERAS PER SUPPLEMENTAL SPECIFICATION 809 TO ODOT AT THE END OF THE PROJECT.

ODOT AND THE OFFICE OF GEOTECHNICAL ENGINEERING HAS OBTAINED AND ANALYZED THE SOIL BORING DATA FOR THIS SITE WHICH IS AT I-71 AND SR-126, RONALD REAGAN CROSS COUNTY HIGHWAY, WITHIN THE SOUTHEAST QUADRANT, NEAR THE EXISTING ITS CABINETS. THE POLE HEIGHT SHALL REMAIN 70 FT ABOVE GROUND BUT THE EMBEDMENT DEPTH SHALL BE ACCORDING TO THE WORK ORDER AS 12 FT. THE CONTRACTOR SHALL FURNISH/INSTALL POLES WITH THE CORRECT LENGTH/EMBEDMENT AND ALL COUPLINGS, HANDHOLES, ETC., IN THE APPROPRIATE LOCATION ABOVE GROUND ACCORDING TO SCD ITS-12.10. THE CONTRACTOR MAY FURNISH/INSTALL LONGER OVERALL LENGTH POLES AT A DEEPER EMBEDMENT DEPTH IF MORE BENEFICIAL FOR MANUFACTURING, SHIPPING, ETC., AS LONG AS ALL ABOVE GROUND COMPONENTS MAINTAIN APPROPRIATE HEIGHT LEVEL. IF NEEDED DUE TO UNFORSEEN CIRCUMSTANCES ARISING WITH BEDROCK, ETC., AND WITH APPROVAL FROM THE ODOT PROJECT ENGINEER, THE CONTRACTOR MAY FIELD CUT AN APPROPRIATE AMOUNT FROM THE BASE OF THE CONCRETE POLE WICH WOULD REQUIRE LESS EMBEDMENT DEPTH IN ORDER TO MAINTAIN APPROPRIATE LEVELS ABOVE GROUND. IF A POLE IS CUT, THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO NOT DAMAGE THE INTEGRITY OF THE POLE PER MANUFACTURER RECOMENATIONS AND ANY EXPOSED STEEL STRANDS SHALL BE COATED WITH EPOXY.

THE CONTRACTOR SHALL SUBMIT ALL POLE MANUFACTURER FABRICATION DRAWING SUBMITTALS, AS WELL AS INSTALLATION PRODECURES AND BACKFILL MATERIAL, TO THE ODOT PROJECT ENGINEER FOR ACCEPTANCE BEFORE ORDERING.

PAYMENT FOR EACH POLE COMPLETE, INSTALLED, AND ACCEPTED CONCRETE POLE WITH LOWERING UNIT, SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 809, CCTV CONCRETE POLE WITH LOWERING UNIT, 70 FEET.

ITEM 809 - ITS DEVICE, MISC.: REMOVE EXISTING CCTV POLE:
THE CONTRACTOR SHALL REMOVE A CCTV POLE WITH LOWERING UNIT AND EQUIPMENT MOUNTED TO IT AS REFERENCED IN THE WORK ORDER. THE CONTRACTOR SHALL REPLACE EXISTING EQUIPMENT ON THE POLE IF DAMAGED BY THE CONTRACTOR.

THE CONTRACTOR SHALL REMOVE FOUNDATIONS TO A DEPTH OF AT LEAST ONE FOOT BELOW GRADE AND RESTORE THE AREA. ANY UNDERGROUND CONDUIT OR CABLING THAT IS NO LONGER BEING UTILIZED, SHALL BE ABANDONED IN PLACE. THE CONTRACTOR SHALL STORE AND DELIVER REMOVED POLES AND/OR DEVICES TO ODOT ITS, IF DESIRED BY ODOT.

ITEM 809 - MAINTAINING ITS DURING CONSTRUCTION:
THE CONTRACTOR SHALL REFER TO SUPPLEMENTAL SPECIFICATION 809 FOR REQUIREMENTS ON MAINTAINING ITS DURING CONSTRUCTION AND INFORMATION ON LOCATING ODOT ITS INFRASTRUCTURE. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER AND ODOT ITS.

ODOT ITS LAB
1606 WEST BROAD STREET
COLUMBUS, OHIO 43223
MAINLINE: (614) 387-4113
CEN.ITS.LAB@DOT.OHIO.GOV

ITEM 832 - EROSION CONTROL:
THE CONTRACTOR SHALL FOLLOW ALL SPECIFICATIONS FOR EROSION CONTROL AS SET FORTH IN THE ODOT SUPPLEMENTAL SPECIFICATIONS SECTION 832.

ITEM 624 - MOBILIZATION, AS PER PLAN:
IT IS THE INTENT OF THIS CONTRACT THAT THE WORK IS DONE AS QUICKLY AS POSSIBLE. THIS WORK CONSISTS OF THE PREPARATORY WORK AND OPERATIONS INCLUDING, BUT NOT LIMITED TO, THOSE NECESSARY FOR THE MOVEMENT OF PERSONNEL, EQUIPMENT, SUPPLIES, AND INCIDENTALS TO THE LOCATION OF THE INTELLIGENT TRANSPORTATION SYSTEM / TRAFFIC SIGNAL WORK ORDER AND FOR ALL OTHER WORK AND OPERATIONS THAT MUST BE PERFORMED OR COST INCURRED BEFORE BEGINNING THE WORK IN CONJUNCTION WITH THE INTELLIGENT TRANSPORTATION SYSTEM / TRAFFIC SIGNAL SYSTEM, OTHER CONTRACT ITEMS AND DEMOBILIZATION AT VARIOUS LOCATIONS WITHIN THE STATE OF OHIO.

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GENERAL NOTES

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UTILITIES:

THE CONTRACTOR SHALL GIVE NOTICE OF INTENT TO CONSTRUCT TO THE OHIO UTILITIES PROTECTION SERVICE (OUPS), AND ANY NON-MEMBERS OF A REGISTERED PROTECTION SERVICE AT LEAST TWO WORKING DAYS BEFORE CONSTRUCTION AND IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE.

THE ODOT CONTRACTOR WILL TAKE ALL UTILITY MARKINGS INTO CONSIDERATION PRIOR TO INSTALLING ANY NEW EQUIPMENT TO AVOID ANY CONFLICTS. IT IS ODOT'S EXPECTATION THAT A MODIFICATION OF PLACEMENT OF NEW EQUIPMENT BE MADE TO ACCOMMODATE EXISTING UTILITIES SO THEY ARE NOT IMPACTED, IF POSSIBLE. IF THERE IS A CONFLICT THAT CANNOT BE AVOIDED, THE ODOT CONTRACTOR IS REQUIRED TO CONTACT THE IMPACTED UTILITY PRIOR TO INSTALLING THE EQUIPMENT AND FURTHER REVIEW OPTIONS WITH THE IMPACTED UTILITY OWNER FOR RESOLUTION.

IT IS REQUIRED OF THE ODOT CONTRACTOR TO SCHEDULE A FIELD REVIEW A MINIMUM OF 2 WEEKS PRIOR TO EQUIPMENT INSTALLATION TO ENSURE ALL UTILITIES ARE CLEAR AND ALL CURRENT LOCATIONS ARE KNOWN. IF ANY UTILITY ISSUES ARISE IT IS THE RESPONSIBILITY OF THE ODOT CONTRACTOR TO WORK OUT AN ACCEPTABLE SOLUTION WITH THE UTILITY AND ODOT TO KEEP THE PROJECT MOVING FORWARD.

OHIO UTILITY PROTECTION SERVICE: 1-800-362-2764
NON-MEMBERS MUST BE CALLED DIRECTLY, INCLUDING ODOT DISTRICTS WHO CAN BE CONTACTED THROUGH THE PROJECT ENGINEER.

LISTED BELOW ARE THE ODOT DISTRICT UTILITY COORDINATORS AND OTHER ODOT DISTRICT UTILITY OWNERS. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE DISTRICT UTILITY COORDINATOR IF CONTACT INFORMATION IS NEEDED FOR ANY UTILITY COMPANIES WITH THE WORK AREA.

DISTRICT 8 UTILITY COORDINATOR
ATTN: LUCAS BRAUN, P.E.
PH: 513-933-6598
505 S STATE ROUTE 741
LEBANON, OH 45036
LUCAS.BRAUN@DOT.OHIO.GOV

DISTRICT 8
ATTN: MARC GRAKE, P.E.
PH: 513-933-6607
505 S STATE ROUTE 471
LEBANON, OH 45036
MARC.GRAKE@DOT.OHIO.GOV

CENTRAL OFFICE UTILITIES MANAGER
ATTN: WENDI SNYDER
PH: 614-728-8062
1980 W BROAD ST
COLUMBUS, OH 43223
614-728-8062
WENDI.SNYDER@DOT.OHIO.GOV

UTILITIES, NEW POWER SERVICES:

FOR LOCATIONS WHERE A POWER SERVICE WITH A NEW METER BASE WILL BE INSTALLED, THE CONTRACTOR SHALL COORDINATE EVERYTHING WITH THE POWER COMPANY FOR INSTALLATION AND HOOKUP.

THE CONTRACTOR SHALL CONTACT THE METER SECTION OF THE POWER COMPANY FOR INFORMATION REGARDING THE METER BASE INSTALLATION PRIOR TO ORDERING MATERIALS. THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND PAYING ALL FEES. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE POWER SERVICE AND SITE IS ACCEPTED BY ODOT. THE CONTRACTOR SHALL THEN SEND ALL POWER SERVICE INFORMATION (ADDRESS, ACCOUNT #, METER #, LOCATION, ETC. TO THE PROJECT ENGINEER SO IT CAN BE SENT TO THE APPROPRIATE OFFICE TO TRANSFER THE SERVICE INTO ODOT'S NAME.

CONTINGENCY QUANTITIES:

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

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SHEET NUMBER								PARTICIPATION		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
								01/SAF/OT							
								LUMP		201	11000	LUMP		ROADWAY CLEARING AND GRUBBING	3
								2000		832	30000	2000	EACH	EROSION CONTROL	5
								5		625	00470	5	EACH	TRAFFIC SURVEILLANCE CONNECTION, UNFUSED BOLTED	3
								10000		625	22900	10000	FT	NO. 1/0 AWG 2400 VOLT DISTRIBUTION CABLE	
								10000		625	22990	10000	FT	NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	
								10000		625	23000	10000	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE	
								10000		625	23100	10000	FT	NO. 2 AWG 600 VOLT DISTRIBUTION CABLE	
								200		625	25408	200	FT	CONDUIT, 2", 725.051	
								50		625	25740	50	FT	CONDUIT, MULTICELL, 4", 725.20, JACKED OR DRILLED	4
								500		625	25740	500	FT	CONDUIT, MULTICELL, 4", 725.20, HDPE	4
								50		625	25908	50	FT	CONDUIT, JACKED OR DRILLED, 2", 725.052, SCHEDULE 80	
								5		625	25930	5	EACH	CONDUIT, MISC.: CONDUIT REPAIR	3
								700		625	29010	700	FT	TRENCH, 30" DEEP	
								35		625	30700	35	EACH	PULL BOX, 725.08, 18"	4
								30		625	30711	30	EACH	PULL BOX, 725.08, 32", AS PER PLAN	4
								2		625	30733	2	EACH	PULL BOX, 725.08, 48", AS PER PLAN	4
								5		625	31507	5	EACH	PULL BOX REMOVED AND REPLACED, AS PER PLAN	4
								35		625	32001	35	EACH	GROUND ROD, AS PER PLAN	4
								700		625	36010	700	FT	UNDERGROUND WARNING/MARKING TAPE	
								13		625	98000	13	EACH	LIGHTING, MISC: STEP-DOWN TRANSFORMER AND SUPPORT	4
								1		632	64020	1	EACH	PEDESTAL FOUNDATION	
								10		632	70001	10	EACH	POWER SERVICE, AS PER PLAN A	4
								1		632	70001	1	EACH	POWER SERVICE, AS PER PLAN B	4
								1		632	70001	1	EACH	POWER SERVICE, AS PER PLAN C	4
								1		632	70001	1	EACH	POWER SERVICE, AS PER PLAN D	5
								47		632	70001	47	EACH	POWER SERVICE, AS PER PLAN E	5
								1		632	70001	1	EACH	POWER SERVICE, AS PER PLAN F	5
								1		632	70400	1	EACH	CONDUIT RISER, 2" DIAMETER	5
								1		632	89300	1	EACH	WOOD POLE	
								5		632	90900	5	DAY	SIGNALIZATION, MISC: CLEARING OF ITS SITES	5
								1		633	67101	1	EACH	CABINET FOUNDATION, AS PER PLAN	5
								10		633	67201	10	EACH	CONTROLLER WORK PAD, AS PER PLAN	5
								16		642	30000	16	FT	REMOVAL OF PAVEMENT MARKING	
								16		644	00500	16	FT	STOP LINE	
								100000		804	98000	100000	FT	FIBER OPTIC CABLE, MISC.: INSTALL ONLY WITH TRACER WIRE	5
								5000		804	98000	5000	FT	FIBER OPTIC CABLE, MISC.: TRACER WIRE INSTALL ONLY	5
								10		804	98100	10	EACH	FIBER OPTIC CABLE, MISC.: FIBER OPTIC CABLE MARKER	5
								1		809	61000	1	EACH	CCTV CONCRETE POLE WITH LOWERING UNIT, 70 FEET	5
								1		809	65990	1	EACH	ITS DEVICE, MISC: REMOVE EXISTING CCTV POLE	5
								16		614	11110	16	hour	MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	6
								1		614	18000	1	EACH	MAINTAINING TRAFFIC, MISC: PARTIAL ENTRANCE RAMP LANE CLOSURE	
								LUMP		614	11000	LUMP		INCIDENTALS MAINTAINING TRAFFIC	6
								LUMP		623	10000	LUMP		CONSTRUCTION LAYOUT STAKES AND SURVEYING	6
								LUMP		624	10000	LUMP		MOBILIZATION	5

CALCULATED	DMJ	CHECKED	BRC
GENERAL SUMMARY			
D08 ITS MAINT			
8 12			