

INTERCONNECT

PATCH CABLES

THE OPTICAL PATCH CORDS FURNISHED UNDER THIS CONTRACT SHALL BE CONSTRUCTED OF DUPLEX SINGLE FIBER, JACKETED, CABLE EQUIPPED WITH FACTORY ASSEMBLED OPTICAL CONNECTORS AT BOTH ENDS (LC/UPC DUPLEX).

ALL PATCH CABLES SHALL HAVE UNIQUE IDENTIFICATION LABELS ON EACH END.

THE NON-ARMORED DUPLEX CABLE SHALL USE DIFFERENT COLORS FOR STRAIN RELIEF BOOTS ON EITHER SIDE OF THE CABLE, WITH LIKE COLORS ON EITHER END OF THE SAME FIBER (I.E. FIBER #1 STRAIN RELIEF BOOT IS BLUE ON BOTH ENDS OF PATCH CABLE, FIBER #2 STRAIN RELIEF BOOT IS WHITE ON BOTH SIDES OF CABLE).

NON-ARMORED PATCH CABLES SHALL BE CORNING PART NUMBER (CHOOSE ONE OR MORE AS APPLICABLE: 040402R5120001M (1 M LENGTH), 040402H5Z20002M (2 M LENGTH), 040402R5120003M (3 M LENGTH), 040402R5120010M (10 M LENGTH), 040402R5120015M (15 M LENGTH), OR 040402R5120020M (20 M LENGTH)).

PATCH CABLES INSTALLED AT COMMUNICATIONS NODE SITES SHALL BE CONSTRUCTED USING FLEXIBLE INTERLOCKING COILED STAINLESS STEEL ARMOR UNDER THE CABLE JACKETING.

ARMORED PATCH CABLES SHALL BE FIBER CONNECTIONS LIGHT ARMORED PATCH CORDS PART NUMBER (CHOOSE ONE OR MORE AS APPLICABLE: VP2LPLPT-1-0 (1 M LENGTH), VP2LPLPT-2-0 (2 M LENGTH), VP2LPLPT-3-0 (3 M LENGTH), OR VP2LPLPT-5-0 (5 M LENGTH)).

PATCH CABLES SHALL BE CONSIDERED INCIDENTAL TO ITEM 632 INTERCONNECT, MISC: TERMINATION PANEL, 24 FIBER, ITEM 633 CONTROLLER ITEM, MISC.: FIBER OPTIC ETHERNET TRANSCEIVER, SHORT RANGE, AND ITEM 633 INTERCONNECT MISC.: LAYER 2 SWITCH.

ITEM 625 - CONDUIT, MISC.: ENCASED INTERCONNECT CONDUIT BANK, (4)-3" & (1)-1.5", TC-2, SCH 40

IN ADDITION TO THE REQUIREMENTS OF 625.12,

ANY CONDUIT WITHOUT A SPACER ABOVE IT (I.E. ANY TOP ROW CONDUIT) SHALL BE WIRE-WRAPPED TO THE SPACER BENEATH IT IN ORDER TO BE HELD IN PLACE.

A NUMBER 10 GAUGE, STRANDED COPPER, POLYESTER OR CROSS LINKED POLYETHYLENE (XLPE) INSULATED TRACING WIRE SHALL BE INSTALLED IN THE 1-1/2" CONDUIT. THE WIRE INSULATION SHALL BE RESISTANT TO MOISTURE ABSORPTION AND ABRASIVE ACTIONS. THE TRACING WIRE JACKET SHALL BE ORANGE; NO OTHER JACKET COLOR IS ALLOWED. THE TRACING WIRE SHALL ENTER A PULLBOX THROUGH THE 1-1/2" CONDUIT AND SHALL BE ROUTED AROUND THE INSIDE PERIMETER OF THE PULLBOX TO THE OTHER SIDE AND THEN EXIT THE OPPOSING 1-1/2" CONDUIT. THE TRACING WIRE SHALL BE CONTINUOUSLY RUN BETWEEN PULLBOXES (ABSOLUTELY NO SPLICES EXCEPT IN A PULLBOX). CONDUIT THAT BRANCHES OFF THE MAIN CONDUIT RUN SHALL HAVE ITS TRACING WIRE TERMINATED IN A PULLBOX OR CONTROLLER CABINET. THE WIRE SHALL BE TAGGED AS "TRACING WIRE", COILED (3 FEET IN LENGTH) AND LEFT DISCONNECTED AT EACH END (OPEN CIRCUIT).

ENCASED CONDUIT BANK SHALL BE ORIENTED AS REPRESENTED IN THE PLANS AND INSTALLED AS SHOWN IN SCD 4001.

THE COST FOR THE TRACING WIRE AND ITS INSTALLATION SHALL BE INCIDENTAL TO THE COST OF THIS PAY ITEM.

5/17/16

ITEM 625 - CONDUIT, MISC.: 3" CONDUIT, FIBERGLASS REINFORCED, ATTACHED TO STRUCTURE

IN ADDITION TO THE REQUIREMENTS OF 625.12,

THIS CONDUIT IS INTENDED FOR ATTACHMENT TO BRIDGES OR STRUCTURE AS INDICATED IN THE PLANS.

THE CONDUIT SHALL BE IRON PIPE SIZE (IPS) REINFORCED THERMOSETTING RESIN CONDUIT (RTRC), LISTED BY UNDERWRITERS LABORATORIES, UL, STANDARD UL 1684, AND SHALL COMPLY WITH NEMA STANDARD NUMBER TC 14-2002. THE CONDUIT SHALL HAVE A NOMINAL WALL THICKNESS OF 0.070 INCHES AND SHALL BE GRAY IN COLOR. THE CONDUIT INSTALLED SHALL BE THREADED, TWENTY (20)-FOOT SECTIONS. EPOXY ADHESIVE SHALL BE APPLIED TO THE CONDUIT ENDS WHEN JOINING SECTIONS OF CONDUIT. CONDUIT EXPANSION JOINTS AND OTHER CONDUIT FITTINGS SHALL BE INSTALLED AS PER THE CONDUIT MANUFACTURER'S RECOMMENDATIONS.

THE CONDUIT SHALL BE ATTACHED BENEATH THE BRIDGE DECK, ATTACHED TO THE CROSS FRAMES, OR ATTACHED TO VERTICAL SURFACES BEHIND THE WALLS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. STANDARD CLAMP TYPE CONDUIT HANGERS SHALL BE USED. STRAP HANGERS ARE NOT ACCEPTABLE. BRIDGE ATTACHMENT HARDWARE AND SUPPORT SPACING USED SHALL CONFORM TO THE CONDUIT MANUFACTURER'S RECOMMENDATIONS. ALL HANGERS AND HANGER HARDWARE SHALL BE GALVANIZED AND ON THE ODOT QPL. ALL HANGER COMPONENT SURFACES IN CONTACT WITH THE CONDUIT SHALL BE MADE FROM FIBERGLASS. HOLES FOR EXPANSION ANCHORS SHALL BE DRILLED AS PER 510.03. EXPANSION ANCHORS SHALL BE SET WITH EPOXY ADHESIVE. THREAD ADHESIVE SHALL BE USED ON BOTH THE ANCHOR BOLT MACHINE SCREW AND THE CONDUIT CLAMP SCREW AND NUT.

REFER TO ODOT SCD HL-30.32 FOR EXPANSION/DEFLECTION FITTINGS AT THE END OF THE BRIDGE ABUTMENT. EXPANSION/DEFLECTION FITTINGS USED SHALL CONFORM TO THE CONDUIT MANUFACTURER'S RECOMMENDATIONS AND SHALL BE APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL INSTALL NON-ORGANIC FIBERGLASS PULL TAPE WITH A MINIMUM 1800 FT./LBS. TENSION STRENGTH IN THE CONDUIT. THE COST FOR THE PULL TAPE AND ITS INSTALLATION SHALL BE INCIDENTAL TO THE COST OF THIS PAY ITEM.

FLEXIBLE METAL CONDUIT AND FITTINGS AS MANUFACTURED BY LIQUATITE, DELIKON, OR APPROVED EQUAL SHALL BE USED WHEN DIRECTED BY THE ENGINEER TO CONNECT THE STANDARD FIBERGLASS REINFORCED CONDUIT TO THE STANDARD CONDUIT OR WHEN ROUTING AROUND THE LIGHTING PILASTER. THE FLEXIBLE METAL CONDUIT SHALL BE WATERPROOF AND GRAY IN COLOR. THE FLEXIBLE METAL CONDUIT AND FITTINGS SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.

THE WORK AS DESCRIBED WILL BE MEASURED AS THE NUMBER OF LINEAR FEET OF CONDUIT FURNISHED AND INSTALLED FROM END TO END, AND SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS, INCLUDING ALL JOINTS, COUPLINGS, FITTINGS, HANGERS, ATTACHMENT HARDWARE, AND ACCESSORIES, NECESSARY TO COMPLETE THE WORK SPECIFIED.

9/23/15

RIGHT OF ENTRY PERMIT

THE CITY OF COLUMBUS HAS SUBMITTED AN APPLICATION FOR A NON-ENVIRONMENTAL RIGHT-OF-ENTRY TO NORFOLK SOUTHERN RAILROAD TO WORK ABOVE THE RAILROAD TRACKS FOR THE INSTALLATION OF THE CONDUIT ON THE BRIDGE PARAPET. A COPY OF THE APPROVED RIGHT-OF-ENTRY WILL BE PROVIDED TO THE CONTRACTOR WHEN IT IS AVAILALABLE.

