I. APPLICATION

THE 2" HDPE CONDUIT SHALL BE INSTALLED IN AREAS WHERE LIGHTER TRAFFIC VOLUMES ARE PREVALENT SUCH AS RESIDENTIAL SUBDIVISIONS, UNDER ACCESS DRIVEWAYS, TREE LAWNS, SHARED USE PATHS, OR SIDEWALKS. THE 2" HDPE CONDUIT SHALL NOT BE INSTALLED FOR ROADWAY CROSSINGS UNLESS PRIOR AUTHORIZATION HAS BEEN OBTAINED IN WRITING FROM THE DIVISION OF POWER PROJECT MANAGER.

THIS SPECIFICATION IS TO BE USED IN CONJUNCTION WITH MIS–403 FOR 2–WIRE APPLICATIONS, AND MIS–404 FOR 3–WIRE APPLICATIONS. THIS SPECIFICATION ALLOWS FOR THE 2" HDPE CONDUIT TO BE INSTALLED SEPARATE (EMPTY) FROM THE APPROPRIATE CIRCUIT CABLE.

II. MATERIALS

A. THE 2" HDPE CONDUIT SHALL BE CONSTRUCTED FROM BLACK POLYETHYLENE, ADHERING TO NEMA TC–7 SPECIFICATIONS, AND COMPLYING WITH ASTM DESIGNATION D1248 AS TYPE III. THE 2" HDPE CONDUIT SHALL BE HIGH DENSITY, CLASS C, GRADE P34, CATEGORY 5, AND HAVE A NOMINAL OUTSIDE DIAMETER OF 2.375". THE INSIDE OF THE 2" HDPE CONDUIT SHALL BE SMOOTH FOR EASE OF CABLE INSTALLATION.

THE 2" HDPE CONDUIT SHALL BE PERMANENTLY MARKED ON THE OUTSIDE SURFACE AT REGULAR 5' INTERVALS WITH THE MANUFACTURER'S NAME, TRADEMARK, NOMINAL DUCT DIAMETER, TYPE III, AND YEAR OF MANUFACTURE.

THE 2" HDPE CONDUIT SHALL BE DURA–LINE PART # DUR–SW–2I–SC, PRYSMIAN GROUP # 20475739 OR APPROVED EQUAL.

B. IN CASES WHERE THE 2" HDPE CONDUIT IS TO BE ATTACHED TO 2" PVC CONDUIT, THE HDPE TO PVC CONDUIT COUPLER SHALL BE DURA–LINE SHUR–LOCK II # 2000123 OR APPROVED EQUAL.

II. INSTALLATION

A. THE 2" HDPE CONDUIT SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE CONTRACT DRAWINGS AND INDICATED IN THE FIELD BY THE ENGINEER. THE DESIGN ENGINEER SHALL MEASURE THE CONDUIT FROM CENTER OF POLE TO CENTER OF POLE AND INCLUDE AN ALLOWANCE OF AN ADDITIONAL TEN PERCENT TO ALLOW FOR CONNECTIONS AND TRANSITIONS.

B. TRENCHLESS INSTALLATION OF 2" HDPE CONDUIT SHALL BE ACCOMPLISHED BY USE OF A GUIDED DIRECTIONAL DRILLING DEVICE PER CMS 1001.13. THE CONTRACTOR SHALL PLACE THE DRILL WITH THE LEAST AMOUNT OF DISTURBANCE TO THE EXISTING PAVEMENT, BERM PAVEMENT OR SHOULDERS OF THE ROADWAY.

C. THE CONTRACTOR SHALL EXERCISE CARE NOT TO DAMAGE THE 2" HDPE CONDUIT DURING INSTALLATION. DAMAGED SECTIONS ARE NOT ACCEPTABLE, AND SHALL HAVE NEW 2" HDPE CONDUIT RE–DRILLED. THE 2" HDPE CONDUIT SHALL BE INSTALLED A MINIMUM 30" DEEP, AND EXTENDED AT LEAST 3' BEYOND THE PAVEMENT BERM.

D, THE 2" HDPE CONDUIT SHALL BE PUSHED THROUGH EXCAVATION FOR PULL BOXES AND FOUNDATIONS AND SHALL BE IN PLACE PRIOR TO THE INSTALLATION OF PULL BOXES AND POURING OF CONCRETE FOUNDATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

E. THE 2" HDPE CONDUIT SHALL BE INSTALLED IN SUFFICIENT LENGTH TO ALLOW FOR SPLICING LOOPS AT LIGHT POLE FOUNDATIONS, PULL BOXES, SPLICE BOXES AND OTHER LOCATIONS AS INDICATED BY THE ENGINEER.

F. THE 2" HDPE CONDUIT SHALL NOT BE INSTALLED WHEN THE TEMPERATURE OF THE DUCT IS BELOW 32 DEGREES F (0 DEGREES CELSIUS) EXCEPT WITH PERMISSION OF THE ENGINEER.

G. TERMINAL POINTS AND SPLICE LOCATIONS OF THE 2" HDPE CONDUIT SHALL BE COMPLETELY SEALED BY THE APPLICATION OF HEAT SHRINKABLE TUBING OR PRE–MOLDED BOOTS. SEALING SHALL BE PERFORMED PROMPTLY UPON COMPLETION OF INSTALLATION.

H. THE CONDUIT ENDS SHALL BE SEALED WITH A PROTECTIVE CAP TO PROTECT THE CONDUIT FROM MOISTURE. AT NO TIME SHALL THE EXPOSED CONDUIT ENDS BE LEFT UNPROTECTED.

I. THE CONDUIT END CAPS SHALL BE CROSS–LINKED HEAT SHRINKABLE POLYETHYLENE CAPS SUPPLIED WITH A FACTORY–APPLIED SEALANT THAT RECOVERS TO A PREDETERMINED DIAMETER UPON THE APPLICATION OF HEAT. THE CONDUIT END CAPS SHALL HAVE AN EXPANDED/RECOVERY ID OF 0.80/0.36 IN. THE END CAPS SHALL BE 3–M PRODUCTS #ICEC–201–A OR APPROVED EQUAL.

J. IN CASES OF REPAIR WHERE THE 2" HDPE CONDUIT MUST BE ATTACHED TO 2" PVC CONDUIT, THE CONTRACTOR SHALL USE A 2" HDPE TO PVC CONDUIT COUPLER TO CONNECT THE 2" HDPE CONDUIT TO 2" PVC CONDUIT.

III. BASIS OF PAYMENT

ITEM	UNIT	DESCRIPTION
MIS–711	LINEAR FOOT	2" HDPE CONDUIT, TRENCHLESS INSTALLATION

MIS-711

DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER
CITY OF COLUMBUS, OHIO

2" HDPE CONDUIT, TRENCHLESS INSTALLATION

DRAWN BY: SAW	DATE: 2/24/25	
SCALE: NONE	SHEET: 1 OF 1	711