## I. MATERIALS

- A. THE NON-METALLIC CONDUIT SHALL BE SCHEDULE 40 POLYVINYL CHLORIDE. IT SHALL BE DESIGNED TO FORM A SOUND, STRONG DUCT, FREE FROM DEFECTS. IT SHALL BE NON-MAGNETIC, RESISTANT TO CORROSIVE ACTION, UNAFFECTED BY ELECTROLYSIS AND SHALL NOT SOFTEN, DEFORM OR DETERIORATE WHEN EXPOSED TO THE MAXIMUM SAFE OPERATING TEMPERATURE OF CABLES. THE INSIDE SURFACE OF THE CONDUIT SHALL BE SMOOTH. AND ROUND AND SHALL HAVE A 2" NOMINAL INSIDE DIAMETER. THE CONDUIT SHALL BE CARLON, HERITAGE, CANTEX HEAVY WALL PV-DUIT PLUS CONDUIT OR APPROVED EQUAL.
- B. THE COUPLINGS, FITTINGS AND ACCESSORIES SHALL BE THE SAME MATERIAL AND QUALITY AS THE CONDUIT LISTED ABOVE, AND SHALL BE PERMANENTLY JOINED WITH CLEAR PVC CEMENT TO PREVENT SILT OR CONCRETE FROM ENTERING THE CONDUIT.
- C. SPACERS SHALL BE SIZE 2" X 1-1/2" PLASTIC BASE TYPE FOR 2" CONDUIT.
- D. THE UNDERGROUND CAUTION TAPE SHALL BE 3" WIDE RED PLASTIC WITH THE BLACK LETTERS STATING " CAUTION ELECTRIC LINE BURIED BELOW." THE TAPE SHALL BE MANUFACTURED BY T & B PANDUIT. TERA TAPE OR APPROVED EQUAL.

## **II. INSTALLATION**

- A. THE CONDUIT SHALL BE INSTALLED AS PER THE DETAIL SHOWN TO THE RIGHT.
- B. IF THE CONDUIT IS INSTALLED IN AN AREA TO BE PAVED UNDER A SEPARATE ITEM OF THIS OR ANOTHER CONTRACT, BACKFILL SHALL BE APPROPRIATE FOR THE PAVING INDICATED. NO OTHER SURFACE RESTORATION WILL BE REQUIRED.
- C. THE TRENCH SHALL BE DUG AS SHOWN. THE BOTTOM OF THE TRENCH SHALL BE LEVEL AND FREE OF ALL STONES AND ROCKS. EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AS SPECIFIED IN THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.
- D. THE CENTERLINE OF THE CONDUIT RUNS SHALL BE 3' FROM THE BACK OF THE OF THE CURB UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS OR INDICATED BY THE ENGINEER.
- E. AFTER THE DUCT LINES ARE INSTALLED, A FLEXIBLE MANDREL NOT LESS THAN 12" LONG, HAVING A CROSS SECTION APPROXIMATELY 1/4" LESS THAN THE CONDUIT SHALL BE PULLED THROUGH EACH CONDUIT AFTER WHICH A STIFF OVERSIZE WIRE BRUSH SHALL BE PULLED THROUGH TO MAKE CERTAIN THERE ARE NO PARTICLES LEFT IN THE CONDUIT. 2500 LB RATED PULLING TAPE (MULE TAPE), SHALL BE LEFT IN ALL EMPTY CONDUIT.
- F. THREE SPACERS SHALL BE INSTALLED UNDER EACH 10' SECTION OF CONDUIT. ONE IN THE MIDDLE AND ONE ON EACH END OF THE SECTION TO INSURE TOTAL ENCASEMENT OF THE CONDUIT. IF SAND IS USED, THE CONDUIT SHALL BE PLACED ON A 2" CUSHION OF SAND.
- G. THE UNDERGROUND CAUTION TAPE SHALL BE INSTALLED 6 TO 10 INCHES BELOW FINAL FINISHED GRADE WITH PRINTED SIDE UP, AND PARALLEL TO THE FINAL FINISHED GRADE. ENSURE THE CAUTION TAPE IS NOT PULLED, MISPLACED, OR DISTURBED DURING FINAL BACKFILL.
- H. UNLESS OTHERWISE SPECIFIED ON THE PLANS, ON RESIDENTIAL STREETS THE TRENCH MAY BE BACKFILLED WITH SELECTED SPOILS AROUND AND IN THE FIRST 4" ABOVE THE TOP OF THE CONDUIT. THE SPOILS SHALL BE FREE OF ROCK AND OTHER SOLID PIECES LARGER THAN 1/2".

## **III. BASIS OF PAYMENT**

ITEM UNIT DESCRIPTION MIS-700 LINEAR FOOT 2" CONDUIT, CONCRETE ENCASED

