

ROAD COMMISSION FOR OAKLAND COUNTY

SPECIAL PROVISION
FOR
CONDUIT, DIRECTIONAL BORE

RCOC/TOC

PAGE 1 of 2

RCOC20SP818E

ORG:05-07-21

REV: 03-01-25

a. Description

This work consists of furnishing all labor, equipment, and materials necessary for directional bore conduit installation to complete the work according to the plans and sections 206, 818, 820, 902, and 918 of the Standard Specifications for Construction except as herein provided.

b. Materials

Materials must meet the following sections of the Standard Specifications for Construction:

Conduit	918
Backfill	206
Granular Material	902

All pipe used for Directional Bores must be Schedule 80 polyethylene pipe (HDPE).

c. Construction

Construction shall be governed by but not limited to Sections 206, 818, 820, and 918 of the Standard Specifications for Construction. The number and size of conduits shall be as shown on the plans or as directed by the Engineer.

Complete the work as indicated on the plans, or as directed by the Engineer in the field.

All directional bores crossing roadways, driveways, or any other paved areas must be 4 inches in diameter.

1. Fusing Polyethylene Pipe

The only fusion method allowed is butt fusing. All fusion will be done in the presence of an RCOC inspector. Any fusion made without an inspector present will be rejected. Failure to adhere to any conditions set forth in this specification will be grounds for rejecting the entire run of pipe.

Fusing will only be allowed from polyethylene pipe to polyethylene pipe. Butt fuses will be performed with either a hydraulic or manual butt fusion machine only.

Polyethylene pipe must be cleaned prior to fusing. Polyethylene pipe shall only be cleaned with water, acetone, or isopropyl alcohol.

All polyethylene pipe must be faced with either a hydraulic or manual butt fusion machine prior to fusing pipe. Alignment and proper face off shall be ensured to eliminate high/low misalignment. Alignment must be within 1/16 inch.

Butt fusion heater surface temperature must be 425 degrees Fahrenheit (+/- 25 degrees Fahrenheit). The dial thermometer on the heater indicates internal temperature and not surface temperature. A pyrometer may be required to ensure proper surface temperature. Inspector must be present to verify proper surface temperature. Fusion melt bead should be between 1/8 inch and 3/16 inch-tall and a minimum of 2 times as wide up to a maximum of 2 1/2 times as wide.

The fusion joint must be kept under pressure (optimum pressure is 75 psi) for 10 minutes as the joint cools. Allow the joint to cool an additional 30 minutes minimum outside of the fusion machine before subjecting the fusion to any rough handling or severe bending.

An RCOC inspector must be present at all times during the entire fusion process. The inspector will visually inspect all equipment used. The inspector will visually inspect the final fusing for acceptance.

d. Measurement and Payment

The completed work, as described, will be measured and paid for at the contract unit price using the following pay item(s).

Pay Item	Pay Unit
Conduit, Directional Bore, (number), __ inch, RCOC.....	Foot

Payment for **Conduit, Directional Bore, (number), _ inch, RCOC (Ft)** shall include all labor, equipment, and materials necessary to install schedule 80 polyethylene pipe (HDPE) conduit(s), filling voids, ground water control, and disposing of surplus materials as detailed on the plans and herein.