HONG KONG

Tseung Kwan O Bus Interchange

Manhole Connectors & PE Pipe









A new bus interchange next to Tseung Kwan O tunnel (Sau Mau Ping side) is being constructed by CCED under contract NE/ 2016/05.

November 2019

Kwan On Construction Co. install 70 meters of DN225 (250 OD) CCTV pipe and eight sets of DSD Type A manhole connectors under the Bus Interchange.

Unlike Concrete and Earthenware, PE pipes cannot be installed directly into concrete manhole chambers without using a DSD Type A or B manhole connector for two main reasons:

- 1. PE is not a rigid pipe, it is subject to change in length due to temperature, if for example the pipe is installed on a hot day, when it cools after backfilling, it may pull out of the chamber if not secured using an approved manhole connector.
- 2. PE has a very high rate of thermal expansion. When PE is surrounded by concrete, the heat generated by curing expands both the PE pipe and the wet concrete. The concrete sets in this expanded position and after the pipe cools, a gap is created between the pipe and the concrete. Sewerage leaks from the chamber through this gap, polluting groundwater and causing other undesirable effects.

Manhole connectors create either a rigid anchored joint (Type A) or flexible joint (Type B) and both provide a watertight interface between concrete and PE.

For more information about concrete and PE refer to our technical section **here**.

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info@millpro.com.hk phone+852 254 36200

office Room 2102, 21/F Tai Yip Building, 141 Thomson Road, Wan Chai, Hong Kong, SAR