

- D. The beginning and end of the liner pipe shall be sealed to the rehabilitated pipeline and the manhole liner using a material that is compatible with the liner.
- E. Immediately after installation the liner shall be tested. Type and duration of test to be carried out on completion of rehabilitation works shall be as per international standards.
- F. After the pipeline is completely rehabilitated but before the drainage flow is returned the liner shall be inspected using CCTV in accordance with the requirements of Section 02830 of the specification and the Contractor shall provide the Engineer with a recording showing the completed work including the restored conditions.
- G. Any defects which will or could affect the integrity of the liner shall be repaired at the Contractor's expense in a manner approved by the Engineer.
- H. Wrinkles in the finished pipe shall be as per international standards and if exceeded then the liner shall be removed and a replacement liner to be installed to the approval of the Engineer.

29.3.8 Deformed and Reformed HDPE Pipe Installation

- A. The Contractor shall retain the services of a licensed installer of the manufacturer of the deformed and reformed HDPE liner pipe rehabilitation system to assist the Contractor during preparation and installation of the system to certify that the work has been performed in accordance with the manufacturer's recommendations.
- B. The following procedures shall serve as a general installation guide only.
- C. The Contractor shall obtain detailed installation instructions and procedures from the manufacturer for the actual installation of the deformed and reformed HDPE liner system. The requirements of ASTM F1606 shall also be satisfied.
 - i. The section of pipeline to be lined shall have been cleaned, surveyed and repaired to the requirements of this section of the specification prior to liner installation.
 - ii. A cable shall be strung through the existing drainage to be rehabilitated from upstream to downstream manholes and attached to the liner. The liner shall be pulled through the existing pipe by this cable.
 - iii. Care shall be taken not to damage the deformed liner pipe during installation by using appropriate sleeves and rollers to protect the liner.
 - iv. When the deformed pipe liner is in place it shall be cut and the pipe end closing assembly used for heat and pressure control within the liner shall be attached and secured at both pipe ends. Temperature and pressure measuring instruments shall be attached to both