Specification 31248. Thickness shall not be less than 8 mils (.008"). The material shall be chemically inert and moisture resistant to form an effective seal against penetration by water or vapor. Tensile strength shall be 1800 psi with elongation of 500%. The material shall be Polyetube, or equal, as manufactured by Polyetube Corporation, Birmingham, Alabama. Tape of polyethylene tube shall be plastic-backed adhesive tape, Polykan #900 or Scotchrap #50 or equal, 2" in width. The tube shall be of such length that a 1' overlap is provided at each joint in pipe.

## 405.5 MATERIALS – PVC PIPE

405.5.1 Material shall conform to Part 208 – Polyvinyl Chloride (PVC) Pipe, Sewer Service.

## 405.6 EXECUTION – DUCTILE IRON PIPE

- 405.6.1 INSTALLATION: Installation method shall conform to Part 307.1 of the City of Tulsa Construction Specifications.
- 405.6.2 If a joint is to be deflected, it shall be made up in a straight line before deflecting and shall be in accordance with the manufacturer's recommendations.

## 405.7 GRAVITY PIPELINES

- Joints between ductile iron pipe and other types of pipe shall be made with an AWWA C110 long body solid sleeve or another adapter as approved by the Engineer. If adapters are not available, the joint shall be made as instructed by the Engineer and encased with concrete 1' each side of the joint.
- The pipe shall be laid on a firm trench bottom, true to the lines and grades shown on the Plans and/or as given by the Engineer. The laying of the pipe in finished trenches shall be commenced at the lowest point, with the plain end pointing in the direction of flow. The ends of adjoining pipes shall butt against each other for their entire circumference so there is no shoulder or unevenness of any kind.
- 405.7.3 Pipe grade shall be obtained using laser beam, other electronic equipment, or batter boards and a "top line." The equipment and proposed method of use shall be approved by the Engineer.
- 405.7.4 Clean joint contact surfaces immediately prior to jointing. Use lubricants and other materials recommended by the pipe manufacturer.
- 405.7.5 Backfill trenches immediately after pipe is laid in accordance with Part 403 BACKFILL and Part 402 RESTORATION.

## 405.8 EXECUTION – PVC SEWER PIPE

405.8.1 PVC sewer pipe shall be installed in accordance with the Standard Details and with ASTM D2321, Recommended Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe, latest edition.