



## *City Of Raleigh*

NORTH CAROLINA

June 9, 2003

To: Engineers, Contractors, and Suppliers:

The City of Raleigh has expanded the allowable use of High Density Polyethylene Pipe (HDPE) to incorporate storm drainage applications inside the public street right-of-way. This approval applies only to private development projects that involve the construction or improvement of public streets. The City's Stormwater Management Design Manual will be revised to reflect this approval. The following conditions will apply to HDPE installed within the public right-of-way:

- Conform to AASHTO M294 – corrugated exterior/smooth interior pipe (Type S).
- Certification by PPI (Plastic Pipe Institute).
- Bell and spigot joints with O-ring gasket (on spigot end) required on all pipe installed within right-of-way. Bells shall cover two full corrugations on each section of pipe. Gasket to conform to ASTM F477.
- Installation trench width shall be a minimum of the outside diameter of the pipe + 4 feet.
- HDPE to be backfilled with 4" of #57 stone bedding under the pipe and to the springline of pipe. Remaining backfill shall be installed in accordance to current city standards.
- Third party certification by a licensed professional engineer. Certification will be based upon periodic observations of installation procedures.
- Minimum diameter of 15" - Maximum diameter of 48".
- Cover for HDPE shall be a minimum of 18 inches from the outside wall of pipe to finished grade (note that a minimum of 24" of cover should be provided for HDPE exposed to heavy traffic during construction).
- Maximum slope is 12%. Greater slopes may be approved by the Public Works Director upon submittal of appropriate detailed structural designs and other supporting documentation.
- No HDPE end treatments allowed. Reinforced concrete flared end sections/headwall to be used for all end treatments.
- Transition of HDPE to RCP to require Dissimilar Materials Adapter incorporating a geotextile coupler with mastic coating and stainless steel straps, and a full concrete encasement around connection.
- HDPE to be allowed only on minor residential/residential public streets as defined by the City of Raleigh's Streets, Sidewalks, and Driveway Access Handbook.
- All HDPE to be mirrored by City of Raleigh Engineering Inspectors.
- Bury depths greater than 20 ft. to have prior approval by the Public Works Director.
- 24-hour notice required prior to installation.

Any questions regarding the approval of this product should be directed to Paul Kallam, Engineering Manager, at (919) 516-2159.

Carl R. Dawson, Jr. PE  
Public Works Director