

FAX/EMAIL

TO: John Hopkins, John Hopkins Grading

FAX# 336-229-7897

FROM: Steven Berkowitz, P.E., On-Site Wastewater Engineering

DATE: May 2, 2006

CC: Andy Adams
Lorna Withrow

RE: Use of Hancor Sure-Lok[®] F477 Pipe for gravity supply line under driveway

This is in response to your faxed request on the proposed Use of Hancor Sure-Lok[®] F477 pipe to sleeve a gravity supply line in a subsurface wastewater system. I presume the proposal is for situations where there will be less than 30-inches of cover as a substitute for ductile iron pipe in an area subject to vehicular traffic. We do allow sleeving of Sch. 40 PVC with DOT-“traffic-rated” culvert pipe. A cursory review of NC-DOT specifications provides for the use of “Corrugated plastic pipe and fittings ...(that)...meet the requirements of AASHTO M252 for heavy duty tubing, except that the maximum stretch resistance shall be 10 percent” (DOT Material Specification 1044-6). While Hancor Sure-Lok[®] appears to comply with AASHTO M252, it requires special installation controls (to be per ASTM D2321), which include minimum 12-inch cover, and select bedding, haunching and backfill materials and installation procedures. We have similar requirements in Rule 15A NCAC 18A .1955(e), which allows for the use of corrugated PE tubing between a distribution device and the nitrification trench. Therefore, this use can be considered when the proposed use is verified to comply with DOT, AASHTO and ASTM requirements, such as by an engineer or DOT representative, or if the installer at least complies with the following procedures, which are verified by the local health department:

1. The sleeved pipe (Hancor Sure-Lok[®]) is installed in a trench that has a minimum bottom width of one foot.
2. The trench bed is compacted, smooth, and at a uniform grade.
3. The sleeved pipe is placed in the middle of the trench with a minimum of three inches of clearance between the pipe and the trench walls.
4. Washed stone or washed gravel envelope is placed and compacted in the trench on both sides of the pipe and up to a point at least six inches above the top of the pipe.
5. A minimum of six inches of final cover (soil or gravel) is placed and compacted over the stone or gravel envelope, resulting in at least 12-inch of total cover over the sleeved pipe beneath the final surface upon which there will be traffic.

ON-SITE WASTEWATER SECTION

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