

15A NCAC 18E .0703 PIPE MATERIALS

(a) The gravity pipe between a septic tank, gravity distribution device, and the dispersal field shall be a minimum of three-inch Schedule 40 PVC, Schedule 40 polyethylene, or Schedule 40 ABS.

(b) Three-inch or greater non-perforated polyethylene corrugated tubing, PVC SDR 21 and SDR 26 pressure rated at 160 psi or greater and labeled as compliant with ASTM D2241, PVC SDR 35 gravity sewer pipe rated as compliant with ASTM D3034, or alternative non-perforated pipe materials described in Paragraph (d) of this Rule, may be substituted for Schedule 40 between the distribution device and the dispersal field when the following minimum installation criteria are met:

- (1) the pipe is placed on a compacted, smooth surface free of indentations or clods at a uniform grade, and with an excavation width of one foot;
- (2) the pipe is placed in the middle of the excavation with three inches of clearance between the pipe and the walls;
- (3) a washed gravel or crushed stone envelope is placed in the excavation on both sides of the pipe and to a point two inches above the top of the pipe;
- (4) six inches of soil is placed and compacted over the stone or gravel envelope; and
- (5) earthen dams consisting of two feet of undisturbed or compacted soil are located at both ends of the excavation separating the trench from the distribution device.

(c) All pipe joints from the septic tank to the dispersal field shall be watertight. Solvent cement-joints shall be made in a two-step process with primer manufactured for thermoplastic piping systems and solvent cement conforming to ASTM D2564.

(d) Pipe used for gravity distribution laterals shall be corrugated plastic tubing complying with ASTM F667 or smooth-wall plastic pipe complying with ASTM D2729 or ASTM F810. The pipe shall be marked as complying with ASTM standards. The corrugated tubing or smooth-wall pipe shall have three rows of holes, each hole between one-half inch and three-fourths inches in diameter and spaced longitudinally approximately four inches on centers. The rows of holes may be equally spaced 120 degrees on centers around the pipe periphery, or three rows may be located in the lower portion of the tubing, the outside rows being approximately on 120-degree centers. The holes may be located in the same corrugation or staggered in adjacent corrugations. Other types of pipe may be used for laterals provided the pipe satisfies the requirements of this Rule and is approved by the Department.

(e) Pump discharge piping, including the force main to the next component in the wastewater system, shall be of Schedule 40 PVC or stronger material and pressure rated for water service at a minimum of 160 psi or two times the maximum operating pressure, whichever is greater. The pipe shall meet ASTM D1784, ASTM D1785, and ASTM D2466.

(f) Pipe materials other than those identified in this Rule may be proposed when designed and certified by a PE, including any installation and testing procedures. Gravity pipe materials shall be shown to comply with the requirements of Paragraphs (a), (b), and (c) of this Rule. Alternative pressure rated pipe materials shall be constructed of PVC, polyethylene, or other pressure rated pipe and conform to applicable ASTM standards for pipe material and methods of joining. The proposed pipe shall be installed per ASTM D2774. Installation testing shall include a hydrostatic pressure test similar to pressure testing required for water mains for any line exceeding 500 feet in length and shall comply with the requirements of Rule .0701(a)(4) of this Section.

*History Note: Authority G.S. 130A-335(e), (f), and (f1);
Eff. January 1, 2024.*