

## **GENERAL NOTES: SANITARY SEWER CONSTRUCTION**

1. All sanitary sewer construction shall conform to Fauquier County Water and Sanitation Authority Utility Standards and Specifications, latest revision.
2. Sewer line inspections and testing must be scheduled a minimum of 48 hours in advance with the FCWSA Inspector.
3. Non-shrink grout must be used for any sanitary sewer use, excluding inverts and benches.
4. No dry mix concrete shall be used in conjunction with the installation of the sanitary sewer.
5. Rubber plugs shall be installed in manhole lift holes. Only on outside of the manhole shall non-shrink grout or mastic be used.
6. Invert channels in terminal manholes shall be built at the same grade as the mainline leaving the manhole but not less than one-inch per foot.
7. Manholes located within pavement areas must have the frames and covers set in non-shrink grout. Mastic shall be used on the outside of the joint in order to provide a water-tight seal.

Manholes located within easement areas must have frames and covers securely bolted to the manhole with a mastic seal between the frame and the cone section and/or adjustment rings. Frames and covers shall be manufactured by East Jordan Iron Works, Models 104325 and 104514 respectively. Manholes located within the limits of the 100-year flood plain shall have cam-locking type frames and covers as manufactured by East Jordan Iron Works, Model 104500, and shall have flood proof vents installed at 1,000 ft. intervals.

8. Concrete adjustment rings shall be used when adjustment to the precast manhole top elevation exceeds two inches. Non-shrink grout with metal or masonry shims may be allowed for final slope adjustment. Total adjustment must not exceed 12”.
9. Manhole invert channels may be precast or cast-in-place concrete. Brick or mortar shall not be used in this application. The invert channel shall be smooth and circular in shape, conforming to the adjacent sewer pipe section. Changes in the direction of flow shall be made with a smooth curve maintaining the same diameter as the adjacent pipe. Changes in size and grade of the channels shall be made gradually and evenly. The benches of the manhole shall be built with one to two-inch per foot fall from manhole wall to the middle point of the pipe. The invert channel depth shall be one-half of the diameter of the pipe. Unless otherwise approved by the Authority, a minimum drop of 0.2’ shall be provided across the manhole.

10. All manholes shall have an exterior protective coating of 16 MIL DFT of Kop coat 300M as manufactured by Carboline or approved equal.
11. Backfill compaction:
  - A. Within street rights-of-way, backfill compaction shall be a minimum of 95% of maximum density in accordance with AASHTO Method T-180.
  - B. Grading within easement areas shall comply with the lines and grades indicated on the plans. In general, all trenches and subgrade of easements shall be compacted to a density equal to the surrounding ground.
12. Sanitary sewer laterals located outside of the public right-of-way or easement are to be maintained by the landowner whom they serve.
13. All gravity sewer shall be SDR-35 PVC sewer pipe.
14. All pressure sewer shall be SDR-21 PVC sewer pipe.
15. Sanitary laterals:
  - A. Lateral material to be PVC unless otherwise indicated, and it shall meet County, Health Department and BOCA codes.
  - B. Lateral connections shall be minimum of two feet from any pipe joint (center to center). This shall also apply to the distance between two laterals.