717

Replacement of Sewers by Pipe Bursting Method

CHANGE TYPE: Addition

CHANGE SUMMARY: Replacement of building sewers by the pipe-bursting method has been used for many decades and is especially useful where excavation of the existing sewer is difficult and costly because of parking lots and other items on the ground surface that would need to be removed and replaced.

2015 CODE: **717.1 General.** This section shall govern the replacement of existing building sewer piping by pipe-bursting methods.

717.2 Applicability. The replacement of building sewer piping by pipe bursting methods shall be limited to gravity drainage piping of sizes 6 inches and smaller. The replacement piping shall be of the same nominal size as the existing piping.

717.4 Pipe. The replacement piping shall be manufactured with an SDR of 17 and in compliance with ASTM F 714.

Only the significant sections of this new section are shown.

CHANGE SIGNIFICANCE: Although the pipe-bursting method of underground pipe replacement is used for large pipe sizes, the code limits its use to the replacement of pipes that are 6 inches and smaller. The method uses an expanding mandrel that is attached to the end of the replacement pipe. The mandrel (with the replacement pipe in tow) is pulled by a cable through the existing sewer line. The mandrel has a hydraulically-activated expanding shell that expands and breaks (bursts) the existing pipe to make room for the new pipe as it is pulled into position.

The method requires that launching and receiving pits be excavated at the beginning and ending points of the pipe to be replaced. If there are any lateral connections that need to be made between the beginning and the end, excavated pits are required at those locations as well.

The only material that the code allows for sewer replacement is polyethylene plastic pipe (ASTM F714) having an SDR 17 wall thickness. This pipe is an outer-diameter- and wall-thickness-controlled product. SDR 17 provides for an inside diameter that is very close to the inside diameter of PVC and cast iron sewer piping of the same size.

An internal video camera survey of the completed installation is required to be reviewed by the code official prior to pressure testing of replacement pipe including all connections to the replacement pipe.

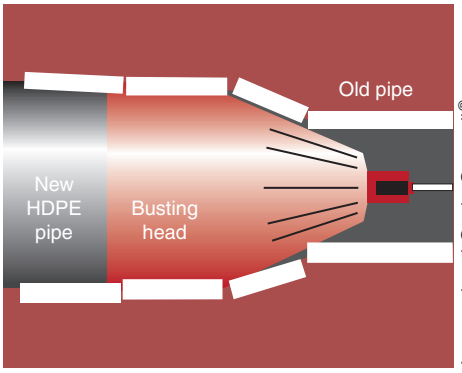

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Illustration of pipe bursting pipe installation