



Saturday, January 11, 2003

## Hancor Design Aids Section

### 6-6 OTHER INSTALLATION CONSIDERATIONS



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#### Vertical Installations

Sure-Lok® and Hi-Q® pipe are sometimes installed vertically for use as catch basins or manholes, pond risers, meter pits, and similar applications. Vertical installations do not behave the same as pipe that is installed horizontally because the pipe/soil interaction is different. The soil surrounding a vertical pipe locks into the corrugations, allowing the pipe to move along with the soil consolidation that occurs over time. This movement can cause a rippling of the interior liner that generally does not affect the performance of the finished installation.

Installation requirements are especially important for vertical installations. Backfill material and compaction levels will determine the performance of the finished installation. Backfill should extend a minimum of 1' (0.3m) completely around the vertical structure. Backfill material recommendations are identical to those for a horizontal installation; compaction levels and maximum lift requirements must be strictly adhered to (refer to Table 6-2).

Additional general applications limits include the following:

- Height of the vertical structure must not exceed 8' (2.4m), unless the design is reviewed by the Hancor Application Engineering Department.
- If traffic will be driving over a vertical structure, a concrete collar or similar structure designed to transmit the load into the ground must be used. Traffic loads must not be transmitted directly into the pipe wall.
- Cast iron frames holding grates or lids must be seated on a concrete collar or similar structure so that the weight of the frame and grate or lid is transferred into the ground, not to the vertical pipe.

Vertical installations of any Hancor fitting should first be reviewed for suitability with Hancor Application Engineering. This includes, but is not limited to, tees, elbows, and reducers of any combination. Improper application or inadequate installation may affect the function of the part or the drainage system. There may also be other product performance limits depending on the application. Contact Hancor for further information.

#### Featured Products

