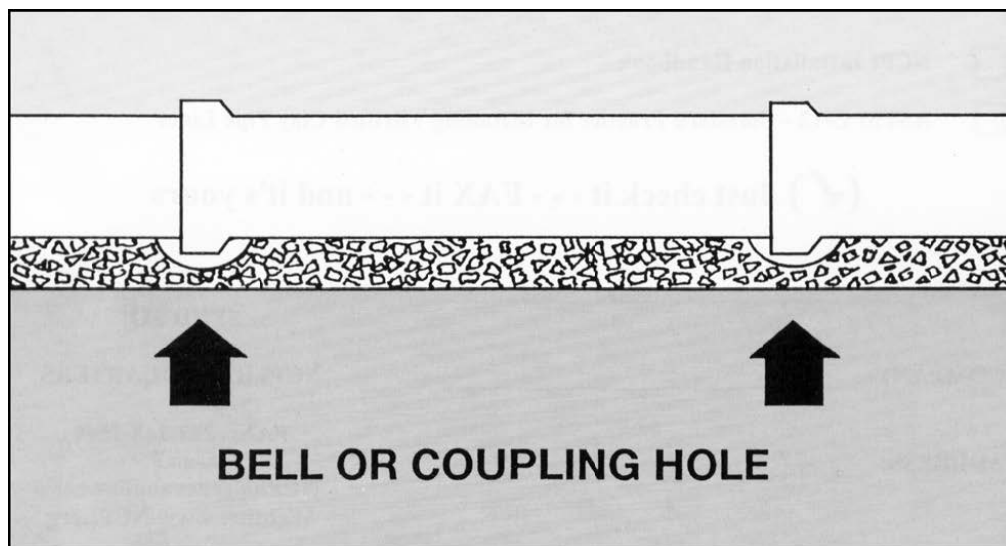


BELL OR COUPLING HOLES AND SHOVEL SLICING

The digging of bell or coupling holes and shovel slicing of the initial bedding in haunch areas of the pipe are two critical functions that need to be part of any successful sewer pipe installation. These two operations help insure the structural integrity of the pipeline when using native or imported materials.

BELL OR COUPLING HOLES

The barrel of the pipe must be supported uniformly for its full length. When bell or coupling holes are not provided, most of the load on the pipe is carried by the bell or coupling end and little support is provided by the barrel of the pipe. When a bell or coupling hole is provided, the load on the pipe will be distributed along the pipe barrel. In addition, under no circumstances should materials ever be placed, compacted, tamped or sliced into the bell or coupling hole area after the pipe is laid (see Fig. 1). The hole should be deep and wide enough so that no load is transferred to the bell or coupling as the trench is backfilled.



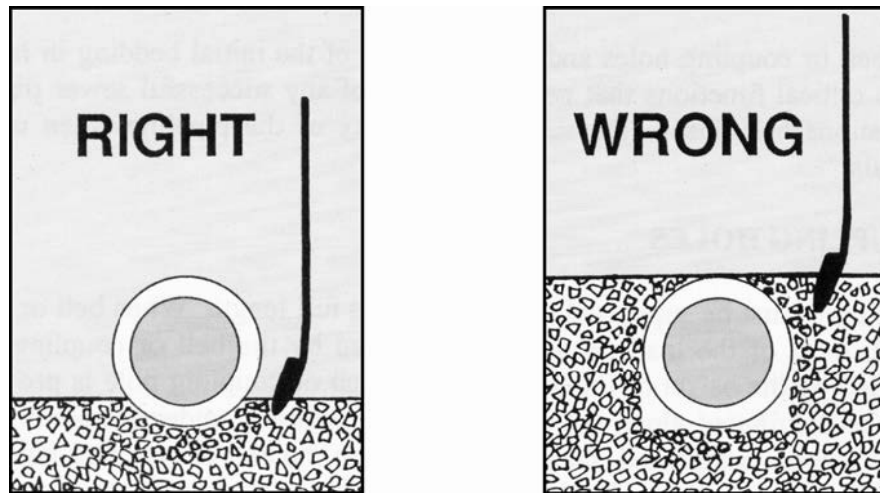
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SHOVEL SLICING

Compacting the bedding material in the haunch areas of the pipe barrel by shovel slicing, assures that the pipe will remain true to line and grade, eliminates voids beneath the pipe and in the haunch areas, consolidates the bedding where it is needed the most, and adds little or nothing to the cost of installation. To be most effective, shovel slicing must occur when the bedding material is no higher than 1/4 of the way up the barrel of the pipe (see Fig. 2). If the bedding material is allowed to get deeper, it will be very difficult to slice the material in the haunch areas of the pipe. Bedding materials larger than 3/4 in. become increasingly difficult to shovel slice. Sand and some native materials do not respond well to shovel slicing. Therefore, a tamping bar must be used to compact these materials in the haunch areas.



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