**Section 890.180 Sewer and Water Pipe Installation**

a) Trenching and Bedding. Trenches shall be of sufficient width to permit proper installation of the pipe. If shoring is required, ample allowance shall be made in the width of the trench for working conditions, based on the materials and installation methods. If trenches are excavated to a depth so that the bottom of the trench forms the bed for the pipe, solid and continual bearing between joints shall be provided and bell holes shall be provided at points where the pipe is joined. If trenches are excavated to a depth so that the bottom of the trench does not form the bed for the pipe, the trench shall be backfilled to the grade of the pipe with sand or fine gravel placed in layers of 6 inches maximum depth and compacted after each placement. The pipe shall not be supported on blocks. If rock is encountered in trenching, it shall be removed to a point at least 3 inches below the grade line of the trench; the trench shall be backfilled to grade with the sand tamped in place to provide a uniform bearing for the pipe between joints. The pipe shall not be allowed to rest on rock at any point. If soft materials of poor bearing qualities are found at the bottom of the trench, stabilization shall be achieved by over-excavating at least 2 pipe diameters and refilling with fine gravel or sand or a concrete foundation. A concrete foundation shall be bedded and sand tamped in place to provide a uniform bearing for the pipe joints. All piping in the ground shall be laid on a firm bed for its entire length.

b) Backfilling. Trenches shall be backfilled until the crown of the pipe is covered by at least 18 inches of tamped earth to ensure that the pipe beneath is secure. Loose earth that is free of rocks, broken concrete, frozen chunks or other rubble shall be carefully placed in the trench in 6 inch layers and tamped in place. The backfill under and beside the pipe shall be thoroughly compacted to ensure that the pipe is properly supported. Backfill shall be placed evenly on both sides of the pipe and tamped to retain proper alignment.

c) Breakage and Corrosion. Pipes passing under or through walls or floors shall be protected from breakage caused by stress or strain. Pipes passing under or through cinder, concrete or other corrosive material shall be protected from external corrosion, stress or strain by a protecting sleeve or a wrap-on material. (See Appendix B.Illustration AA.)

d) Sleeves. In exterior walls or floors, the annular space between sleeves and pipes shall be filled or tightly caulked with a cold tar, asphalt compound or other equally effective material. (See Appendix B.Illustration AA.)

e) Buried Piping Parallel to Footings. No buried piping shall be laid parallel to inside or outside footings, closer than 18 inches to the footing. (See Appendix B.Illustration BB.)

f) Depth. Piping installed parallel to footings or bearing walls shall not extend below the 45 degree bearing plane of the wall or footing. (See Appendix B.Illustration BB.)

(Source: Amended at 38 Ill. Reg. 9940, effective April 24, 2014)