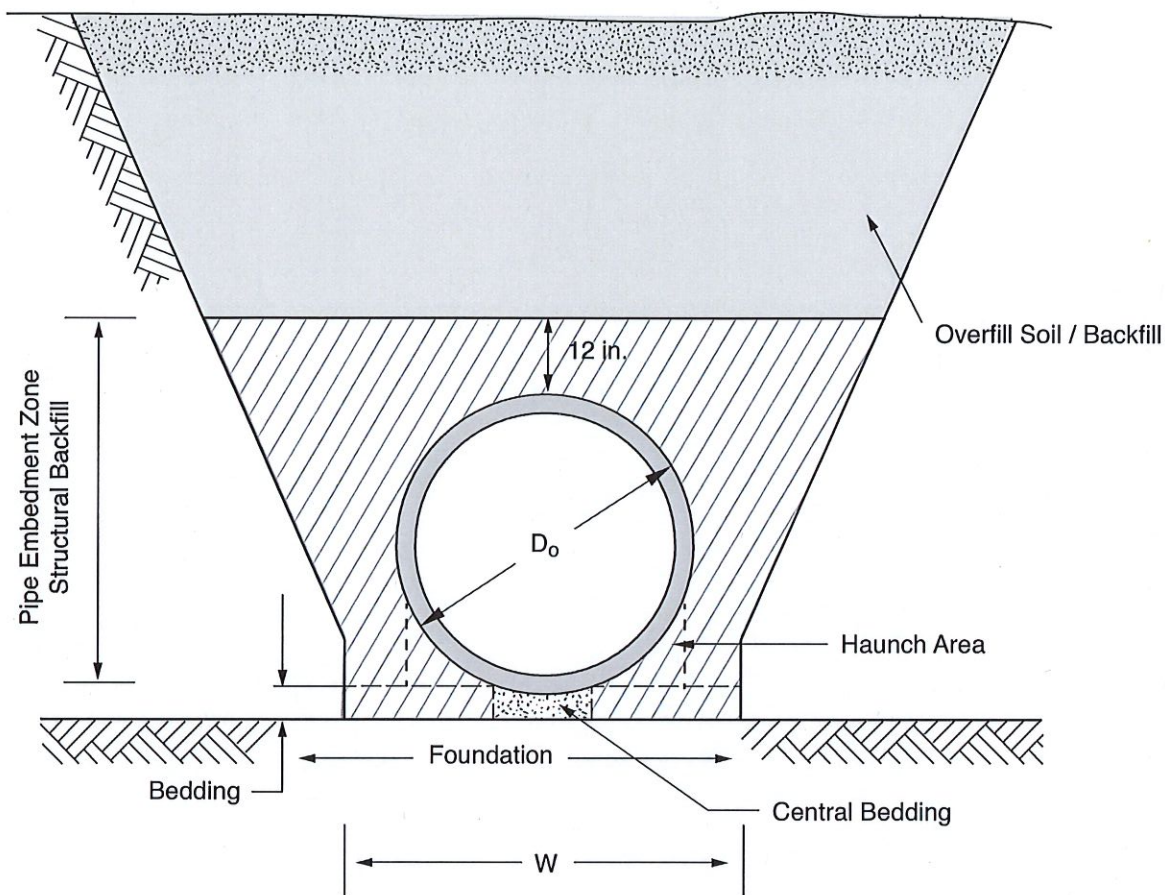


Thermoplastic Pipe Trench Detail



Thermoplastic Pipe Installation Specifications:

1. HDPE pipe shall meet AASHTO M294, and polypropylene (PP) pipe shall meet AASHTO M330. PP pipe in diameters 30 inches or larger shall be triple wall profile. All plastic pipe shall meet FDOT Section 948 and shall not contain recycled resin.
2. Minimum trench width, W , shall not be less than 1.5 time the pipe diameter (D_o) plus 12 inches. In embankments or in cases of poor native soils offering negligible lateral resistance (e.g., Blow Count, $N \leq 5$), then the trench width shall be 3 times the pipe diameter (D_o).
3. Provide a firm, stable, uniform bedding of 6 inches minimum thickness. The central bedding shall be loosely placed. If the trench bottom shows a "quick" tendency, notify the Engineer and excavate to a depth required by the Engineer and replace with crushed gravel, A-1, or A-3 material and place a geotextile between the foundation and bedding to prevent migration of fines.
4. Minimum cover from finished grade to pipe crown shall be at least 36 inches or one pipe diameter, whichever is greater.
5. Structural embedment shall be crushed gravel or A-1, A-2, or A-3 material compacted to 95% standard proctor density, AASHTO T-99 Method C.
6. Place backfill in layers not exceeding 8 inches loose lift thickness and brought up evenly on each side of the pipe to an elevation not less than 1 foot above the pipe.
7. Haunch material shall be tamped by hand, or "knifed," to ensure complete contact with the pipe bottom and to fill voids, before proceeding with remaining embedment.
8. Overfill/backfill materials and compaction shall be as required for embankment or surface condition bearing capacity (e.g., roadway, non-traffic area).
9. Contractor shall refer to site Geotech Report to determine conditions and suitability of in-situ materials. Resilient connections, per ASTM D2321 7.10, shall be used at all pipe connections to manholes and structures.
10. Pipe shall be video inspected and deflection tested using a mandrel or laser profiler no sooner than 30 days after placement of final backfill and structural pavement. All reports shall be provided to Engineer for review prior to final acceptance. Pipe deflected 5% or more shall be removed, replaced, and re-inspected.