

Table 401-1 Pipe Alternates for Culvert Classes						
Type of Pipe Depth of Cover (ft) (a)	Class A Culvert 0–10 (l)	Class B Culvert >10–16	Class C Culvert >16–23	Class D Culvert >23–33 (i)	Class E Culvert 0–3 (b)	Class F Drive Culvert (c)
Reinforced Concrete Pipe (d)	II	III	IV	V	IV	II
Nonreinforced Concrete Pipe (e)	1	3	No	No	No	1, 3 (f)
Corrugated and Spiral Ribbed Al- Alloy Pipe	Yes	Yes	Yes	Yes	No	Yes
Corrugated and Spiral Ribbed Steel Pipe	Yes	Yes	Yes	Yes	No	Yes
Smooth-Lined Corrugated Plastic Pipe (CPE) (g, j)	Yes (h)	Yes (k)	No	No	No	Yes (h)
<p>a. Cover, including the pavement structure is the height of fill above the top of the pipe.</p> <p>b. Class E culvert applies if the culvert is beneath the influence of proposed pavement and the depth of cover is 3 ft or less.</p> <p>c. Class F culvert applies for driveway culverts (residential and commercial).</p> <p>d. Roman numerals refer to class of reinforced concrete pipe in accordance with AASHTO M 170.</p> <p>e. Arabic numerals refer to the class of nonreinforced concrete pipe in accordance with AASHTO M 86.</p> <p>f. Nonreinforced concrete pipe Class 1 is allowed for Class F culverts with a depth of cover up to 10 ft. Nonreinforced concrete pipe Class 3 is allowed for Class F culverts with a depth of cover from 10 ft to 16 ft.</p> <p>g. Provide CPE in accordance with AASHTO M 294, Type S polyethylene pipe.</p> <p>h. Allowed only for no greater than 36 in diameter pipe for CPE pipes</p> <p>i. Special design is required for fill heights greater than 33 ft.</p> <p>j. At least 2 ft cover if the culvert is outside the influence of proposed pavement (measured from top of pipe to final grade)</p> <p>k. Allowed only for 12 in to 24 in diameter CPE pipes. Refer to the Class B Plastic Pipe Qualified Products List for approved manufacturers and products.</p> <p>l. Class A culvert applies if the culvert is outside the influence of proposed pavement or is beneath the influence of proposed pavement and the depth of cover is from 3 ft to 10 ft.</p>						