

NRCS Minimum Pipe Specifications

All pipes must meet or exceed NRCS specifications

Smooth PVC and Polyethylene (PE)

Nominal Pipe Size (inches)	Schedule (SCH) Standard Dimension Ratio (SDR) Standard Inside Dimension Ratio (SIDR) Dimension Ration (DR)	Maximum Depth of Fill Over Pipe (Feet)	Specifications Pipe must conform to
PVC 1½, 2 Water supply Lines	SDR 26 SDR 21 Schedule 40 or Schedule 80	16 23 40	PVC 1120 or PVC 1220 ASTM D 1785 or D 2241 AWWA C900 or C905
PE 1½, 2 Water supply Lines	SIDR 11.5 SDR 11 or DR 11 or SIDR 9 SDR 9 or DR 9	15 19 33	PE 3408 ASTM D 2239 or D 3035
4 Water supply Lines	SDR 26 SDR 21 Schedule 40 Schedule 80	16 23 28 40	PVC 1120 or PVC 1220 ASTM D 1785 or D 2241 AWWA C900 or C905 PE 3408 ASTM D 2239 or D 3035
6 to 15	DR 25 or SDR 26 SDR 21 DR 18	16 23 31	PVC 1120 or PVC 1220 ASTM D 1785 or D 2241 AWWA C900 or C905 PE 3408 ASTM D 2239 or D 3035
16 to 24	DR 25 DR 18	17 31	PVC 1120 or PVC 1220 ASTM D 1785 or D 2241 AWWA C900 or C905 PE 3408 ASTM D 2239 or D 3035

Based on NEH Part 636, *Structural Engineering*, Chapter 52 with values of E' = 400 psi, 5% deflection, a soil unit weight of 120 pcf, and a 16,000-pound wheel load for allowable deflection

Corrugated PVC and PE pipe with smooth interior

Nominal Pipe Size (inches)	Pipe Type, Reference Specification, & Ring Stiffness Constant (RSC) or Pipe Stiffness (PS)	Maximum Depth of Fill Over Pipe (Feet)	Specifications Pipe must conform to
4 to 36	Dual Wall PVC , PS = 46	12	ASTM F 949
4 to 12	Dual Wall PE , PS = 50	12	AASHTO M252 or M294
15, 18, 24, or 30	Dual Wall PE , PS = 28-42	11	AASHTO M252 or M294
36, 42, or 48	Dual Wall PE , PS = 18-22	10	AASHTO M252 or M294
18, 24, or 30	Dual Wall PE , RSC = 40	10	ASTM F 894
36, 42, or 48	Dual Wall PE , RSC = 40	9	ASTM F 894

Based on NEH Part 636, *Structural Engineering*, Chapter 52 with values of E' = 400 psi, 5% deflection, a soil unit weight of 120 pcf, and a 16,000-pound wheel load for allowable deflection

PE pipe is limited to applications with less than 25 feet of head (10.8 psi)