

3-300 SEWER DESIGN CRITERIA

Style Definition: Style 4: Indent: Left:
0.56", Hanging: 0.81"

3-301 Design capacity sewer trunks and mains; - The design criteria for public sewers is based on residential (R1) zoning and land use with a density of 4 dwelling units per acre and 3.3 persons per dwelling unit. Use these figures unless more accurate population or land use studies are available:

3-301.1 Sewage production

- (1) Residential = ~~8063~~ gallons (~~304240~~ lpcd) per capita per day (gpcd) or ~~26530~~ gallons (~~4006870~~ liters) per EDU, per day.
- (2) School flow:
 - a) Elementary Schools: ~~152~~ gpcd (~~5746~~ lpcd).
 - b) Junior High and High Schools: ~~2013~~ gpcd (~~7650~~ lpcd).
- (3) Commercial/Industrial/Church: ~~2,500~~ 1,401, 712, 1,313 gpd/acre.
- (4) Parks: ~~500~~ 410 gpd/acre.
- (5) Peak to average ratio: See CVDS 18.

3-301.2 Pipe design capacity based on Manning's flow equation:

- (1) New Pipes Use 1/2 full design flow for diameters up to and including 12 inches.
- (2) New Pipes Use 3/4 full design flow for diameters greater than 12 inches (30cm).
- (3) "n" factors
 - a) for vitrified clay or reinforced concrete pipe:
 - 1) $n = 0.013$ for pipes up to 21" (53cm) diameter;
 - 2) $n = 0.012$ for pipes greater than 21" (53cm) diameter;
 - b) for PVC pipe, $n = 0.012$ for PVC pipe all sizes.
- (4) Velocities:
 - a) Minimum = 2 feet/second (.61m/s). See Section 3-302.2(6) also.
 - b) Maximum = ~~120~~ feet/second (~~3.60~~m/s) (except as approved by City Engineer).