

Project:

Date:

SECTION Sanitary Sewerage System - Design Requirement:		Comments
EPD Letters required for private systems: 1) County does not accept wastewater, 2) Landfill clearance.		
EPD Letters required for public systems: 1) County accepts wastewater, 2) Landfill clearance.		
Fees due before approval.		
1.14	DEVELOPER'S PLANS AND SPECIFICATIONS	All engineering plans shall ...include, explicitly or by reference, into the Developer's engineering design, plans and specifications, the applicable standards and specifications of Lowndes County. As a minimum, for the following types of facilities, include the indicated information:
		Gravity Sewers
		Plan and Profile at a scale no smaller than 1 inch = 100 feet horizontal and 1 inch = 10 feet vertical.
		Stations on manholes or distances between manholes.
		Deflection angles between manholes or coordinates of manholes.
4.01	GENERAL	The Developer shall be responsible for the design of an adequate sewage collection system and/or treatment facilities where necessary. The Developer is responsible for the coordination of connection to a privately owned system. Public systems shall be located entirely within rights-of-way or dedicated easements.
4.02	DESIGN FLOWS	
	A.	Average Residential Flow Rates, Single-Family and Multi-Family: In the absence of data to the contrary, the following shall be used:
	1	100 gallons per capita per day (gpcd)
	2	280 GPD/per connection
	3	1,500 GPD/per acre (based on 15 persons per acre), multi-family
	B.	All Others: Actual flow or estimated for each individual case in accordance with the Water and Sewer Code of Lowndes County, Georgia.
	C.	Design Wastewater Peak Flow Factors
		Ratio of Peak Instantaneous Flow Rate to Average Daily Flow Rate for Tributary Population Range
		4.0 <3000
		3.8 3000 - 4000
		3.6 4000 - 6000
		3.4 6000 - 8000
		3.2 8000 - 10,000
		3.0 10,000 - 15,000
		2.8 15,000 - 20,000
		2.6 20,000 - 30,000
	D.	Design all sewers to carry peak design flow when flowing full (no hydraulic head allowed).
4.03	DESIGN PERIOD	
	A.	Gravity Sewers: 25 years minimum, 50 years preferred.
	B.	Force Mains: 20 years.
	C.	Pumping Stations: 20 years.
	D.	Treatment Facilities: 20 years.
4.04	HYDRAULIC DESIGN - SUBMIT HYDRAULIC DESIGN	
	A.	Mains, submains and lateral sewers, 8-inch pipe, minimum; actual as based on hydraulic computations.
	B.	House service connection, 6-inch pipe, minimum.
	C.	When increasing size of gravity sewer piping, pipe crowns shall be matched at manholes.
	D.	Force Main Manifolding: Force main shall not be manifolded with new or existing force mains.
4.05	LOCATION	
	A.	Mains and Submains: On centerline of street or easement.
	B.	Force Mains: Outside of pavements and on opposite side of street or easement from water main.
	C.	Easements: Minimum 20-foot width for sewer only; minimum 30-foot width for water and sewer. Easements will be allowed only when there is no other way to service development.
	D.	Pumping Stations: Located outside of street or easement right-of-way on a parcel of land no smaller than 30 x 30 feet.

4.06	SERVICE CONNECTIONS	
	A.	All service connections shall be 6-inch minimum size with a separate service connection to each lot.
	B.	Service connections are not permitted to 24-inch diameter or larger trunk sewers.
	C.	Inline manhole service connections shall be limited to two, one from each side of the street. Invert of service connection shall be installed at an elevation not greater than two feet above the invert of the sewer main. A maximum of three may be installed in any terminal manhole, provided the crown of the service connection and lateral sewer line are at the same elevation.
	D.	Vertical risers are not permitted within street rights-of-way.
	E.	Clean-outs are not permitted within street rights-of-way, except for service laterals; in such case the clean-out shall be located at the right-of-way line.
	F.	Connection to an existing manhole shall be made by mechanically coring into the wall structure of the manhole. Cored opening shall be sized to properly accommodate a rubber boot seal as specified in this section.
	G.	EPD regulations limit the maximum sewer service line length to be 250'.
4.07	VELOCITIES	
	A.	Gravity Sewers: When flow is full or one-half full, minimum velocity shall be 2.0 feet per second; maximum velocity shall be 4.0 feet per second.
	B.	Force Mains: minimum velocity shall be 2.0 feet per second; maximum velocity shall be 5.0 feet per second.
4.08	MINIMUM GRAVITY SEWER PIPE SLOPE	
		Diameter and Minimum Slope
		8" 0.40%
		10" 0.28%
		12" 0.22%
		15" 0.15%
		16" 0.14%
		18" 0.12%
		21" 0.11%
		24" 0.08%
4.09	MANHOLES	
	A.	Location: At all changes in pipe grade, pipe size, alignment, intersections, and at the end of a pipe run.
	B.	Spacing
	1	Pipe 15-Inches and Smaller: 400 feet maximum.
	2	Pipe 18 to 30-Inches: 500 feet maximum, except with approval, 600 feet.
	3	Pipe Larger than 30-Inches: As approved by EPD and the County.
	C.	Steps and rungs are not allowed in manholes.
	D.	Linings and Coatings: Manholes shall be lined on the interior and coated on the exterior in accordance with the requirements in the Standard Specifications for Wastewater Construction.
	E.	An outside drop pipe shall be provided at manholes where the influent sewer enters the manhole at a height of two pipe diameters plus 12 inches or greater above the outgoing pipe.
4.1	INTERCEPTORS	
	A.	Grease, oil, flammable liquid, and/or sand interceptors shall be provided at all vehicle service stations, commercial or industrial food-handling establishments and at any other commercial or industrial establishment or institution at which such devices are necessary for the proper handling of liquid wastes containing grease, oil, flammable liquids, or sand.
	B.	Such interceptors shall be of a type and size approved by the County and shall be located as to be readily and easily accessible for cleaning and inspection.
	C.	Such interceptor shall be properly maintained by the sewer service customer. Maintenance shall include periodic removal of the contents of the interceptor with no reintroduction of any portion of the waste into the interceptor or introduction into the County's sewer system. The County may require interceptor maintenance based upon the observation of material build-up in the interceptor.
	D.	Food-handling establishments with no inside cooking may install an inside/under-the-counter type interceptor. All other establishments where interceptors are required shall install an outside interceptor with a capacity of at least 1,000 gallons.

4.11	SEWAGE TREATMENT PLANTS/PUMPING STATIONS	Sewage treatment plants and pumping stations to be dedicated to the County will be considered on an individual basis.	
4.12	RECORD DRAWINGS	When completed, Record Drawings shall be submitted for all systems, whether public or private, for review and approval.	

END OF SECTION