FULTON COUNTY SEWER DESIGN GUIDE – SEWER REVIEW CHECKLIST

Department of Public Works
11575 Maxwell Road
Alpharetta, Georgia 3009
Telephone: 404-612-3421
www.fultoncountyga.gov

Project Name: _____

Project Number: _____

Project Location (address): _____

Parcel Identification Number (PIN): _____

Landlot\District\Section (if available): _____

City: _____

Date: _____ Reviewed By: _____

(UPDATED: NOVEMBER 2026)

General Comments

Review of sewer plans includes points of connection to Fulton County's (FC) sanitary sewer system, extensions of sewer main, sewers that are to be the responsibility of Fulton County for maintenance, sewers in utility easements dedicated to Fulton County. Private sewers generally fall under plumbing codes administered by local cities. Fulton County reserves the right to set criteria for construction and arrangement of any sewer that connects to FC sewer system or to deny connection for reasons of capacity, method of construction or failure to follow good engineering practices in design of sewers or due to the nature of the discharge to the sewer.

____1. Provide Fulton County Project Name, Project Number, and site address on all water and sewer related sheets (Cover, Utility Plans, Profiles and Details).

____2. Cover sheets shall contain the note: Wastewater Services Provided by Fulton County.

____3. Add Fulton County Standard Sewer Notes. Please see Sewer and Water Notes Form at the following link:

https://fultoncountyga.gov/-/media/Forms/Public-Works-Forms/Sewer-and-Water-Notes-81825.pdf

If there is a conflict between Fulton County Notes and the General Notes, then priority shall be given to Fulton

County notes.

____4. Replace covers on existing manholes with new (landscape and/or pavement) manhole cover.

____5. Please utilize Fulton County's standard utility details. A list of the most used sanitary sewer details can be found at the following link:

https://fultoncountyga.gov/Inside-Fulton-County/Fulton-County-Departments/Public-Works/Development-Permitting

____6. Add all road names on the overall utility plan of the entire property. If the sanitary sewer line that serves the site is within the right-of-way (ROW) of an existing roadway the speed limit must be shown. The term "variable right-of way" or similar shall not be used. If ROW varies, show approximate dimensions in areas of interest.

____7. For resubmittals, the engineer must submit written responses to each of the specific review comments along with the revised plans. These comments are valid for ninety (90) days. If after the 90-day period, the reviewer has not received amended drawings with written responses, the submitted construction plans will be discarded and a new submittal (including payment of the review fee) will be required.

Utility Plan/Profiles

___8. Developer shall network gravity pipeline through site to serve upstream property owners. A new manhole will be required at the upstream property line. This will be at the developer's expense. This requirement is per Fulton County Sanitary Sewer Regulations.

____9. Manhole inverts shall have a minimum 2/10 of a foot (.20') drop across the manhole.

____10. Minimum slopes for wastewater pipes are as follows:

a. 1.0 % on 6" lines
b. 0.7 % on 8" lines
c. 0.5 % on 10" lines
d. 0.4 % on 12" lines
e. 0.3 % on 15" lines
f. 0.25 % on 18" lines
g. 18" & larger sizes, maintain 2 feet/sec. at 1/4 capacity
h. Slopes less than 0.7 % shall be pre-approved based on a minimum velocity of 2.0 ft/s based on normal flow.

____11. HDPE and C900 PVC pipes to be used with wastewater applications only. Pipe fittings must be of the same type as the main sewer line. Combinations of material types will not be permitted.

a. For 6" and larger private sewer lines, the pipe material shall match the County standards (b – g).
b. For new developments, service line material shall match the sewer main material.
c. Minimum thickness for HDPE pipes shall be DR 17.

d. For sewer installations with no live load and not along stream banks, the standard pipe shall be SDR 26 PVC or HDPE DR 17 in ductile iron pipe size (DIPS) for pipe sizes 8-inch through 48-inch with maximum bury depth of 20 feet.
e. For sewer installations with HS20/25 live loads, or with bury depths greater than 20 feet and not along stream banks, the standard pipe shall be SDR 18 PVC or HDPE DR17 in ductile iron pipe size (DIPS) for pipe sizes 8-inch through 30-inch.
f. For force mains, regardless of bury depth or live load requirements (not along riverbanks), the standard pipe shall be SDR 18 PVC or HDPE DR 11 in ductile iron pipe size (DIPS) for pipe sizes 8-inch through 30-inch.
g. For sewer installations with no live loads and located along stream banks, the standard pipe shall be DR 17 HDPE in ductile iron pipe size (DIPS) for pipe sizes 8-inch through 48-inch with maximum bury depth of 20 feet.
h. Please note, Fulton County is open to allowing the use of ductile iron pipe in water and sewer applications, consistent with sound engineering design and judgement. Please consider the use of internal and/or external protective coatings for aggressive environments.
i. Sewer installations along streams may use concrete manholes if suitably designed. Please consider the use of internal and/or external protective coatings for aggressive environments.

____12. State size, material type, percent grade, and length of all pipes. Show direction of sewer flow on utility plan.

____13. Show location of all existing and proposed sanitary sewer, water, storm sewer, power, and gas lines. Please review Fulton County Standard Detail 101 for underground utility location requirements. Power and gas line locations should be based on (sketch) drawings prepared by utility.

____14. A minimum of eighteen 18 inches of vertical clearance shall be maintained between sewer mains and other crossing utilities. When local conditions prevent a vertical separation of 18-inches, the sewer line passing over or under other utilities (e.g. water mains) shall be constructed of a minimum of DR17 HDPE pipe in ductile iron pipe size (DIPS). Alternatively, a casing or concrete encasement should be considered.

____15. When local conditions prevent a horizontal separation of 10 feet between a Fulton County water main and a sewer line, a variance shall be obtained by the Director of Public Works (or their designee). The following conditions shall be satisfied:

a. Minimum 10-foot separation between water and sewer mains. The sewer shall be at least 18 inches deeper than water line.
b. Minimum 5-foot horizontal separation (from wall to wall) between water line and sewer line. The sewer pipe needs to be at least 18" deeper (from wall to wall) than the water line.

____16. Pipe material cannot be changed between manholes.

____17. When different size pipes are connected to a MH, the crest crown of each is required to be aligned.

____18. Concrete collars on wastewater lines are required when the slope is greater than 20%. The maximum allowable slope is 35%.

____19. For all wastewater pipes above the ground (except for Force mains), SDR 26 C900 PVC or DR 17 HDPE, or DI pipe shall be used. All bored sewers shall be located within a steel casing and field welded.

____20. Maximum distance between manholes is 700-feet.

____21. On the utility sheets provide reflection angles at all manholes. Minimum angle between influent and effluent wastewater line at a manhole is 90 degrees.

____22. No more than 4 connections are allowed per manhole. Provide 12" minimum between pipe penetrations.

____23. All service lines connecting to an existing wastewater line shall be made with either a manhole or a sleeve connection (for lines of 10-inches diameter or less). Trunk lines of 12-inches or greater require a manhole connection (Standard Detail 714).

____24. Profile all existing lines that will have new utility crossings and all proposed wastewater pipes showing all utilities with crossings. Please note a CCTV inspection may be required by the inspector if a connection to an existing sanitary line is being proposed.

____25. When laterals connect to manholes indicate invert in elevation on wastewater profiles.

____26. A single lateral is required for each individual home or townhouse.
In the event a building contains multiple units (for example a condominium) then a single lateral could be allowed at the discretion of the County.

____27. Laterals shall be provided for each lot, building, and unit. Laterals to serve a single lot or building may extend a maximum of 125 linear feet off site. Laterals must be 6" pipe from the main sewer line to the first cleanout at a minimum 1% slope. The lateral connecting the building/unit to the first 6" cleanout on owner's property must be of sufficient size to handle the intended flow.

____28. Sewer service lateral cleanouts shall be installed at the edge of public road right-of-way or County easement on owner's property (Standard Detail 101).

____29. Ideally no structure can be within 5 feet of a sewer cleanout. Including, but not limited to, any type of building, porches, foundations, stairs, signs, fences, retaining wall, etc.

____30. Laterals shall be perpendicular to the main line and connected through the use of a tee-wye.

____31. If sanitary sewer laterals cross storm sewer, please provide a profile sketch or other information to document vertical separation on the sanitary sewer profile sheet.

____32. Profile all laterals from the building to the tie-in location for non-residential projects. Profile all laterals from the dumpster drains to the tie-in location. Profile all laterals from the building through the grease trap to the tie-in location. Top of finished grade shall be shown.

____33. An outside drop is <u>required</u> at a manhole when the following conditions are exceeded (Standard Detail 115).

Incoming Pipe Size (inches)	Maximum Drop (in inches)
8	27
10	27
12	30
15	39
18	41

____34. An inside drop may be allowed at the discretion of the county for existing manholes deeper than 8 feet, when the following conditions apply (See Standard Detail 115).

Incoming Pipe Size (inches)	Maximum Drop (in inches)
8	27
10	27
12	30
15	39
18	41

____35. Manholes in excess of 24-feet in depth shall be pre-approved by the Development Permitting Section, on an individual basis.

____36. The tops of all manholes outside of roadways and ROW shall be a minimum 18" aboveground and shall be shown in sanitary sewer profile. If a manhole is in a flood plain or high-water area, they shall have watertight covers and extend above the 25-year floodplain level: clearly indicate and provide details. Manholes flush with the ground may be allowed, on a pre-approved basis.

____37. Proposed depths of wastewater lines in excess of 24-feet are not allowed except as approved by Fulton County Development Permitting Section.

__38. Manholes that receive discharge from force mains shall be coated with Epoxy Tech CPP series epoxy or approved equal. Please note that epoxy coated manholes may be required in areas involving industrial wastewater streams which may promote excessive corrosion.

Grease-Trap/Test-Manhole

____39. Grease trap, oil interceptor, pretreatment, etc., approval required from Water and Pollution Control Division of Public Works. Please contact commercial pre-treatment manager: Clint.Ghahramani@fultoncountyga.gov. A copy of approval certificate must be sent to Development Permitting Engineer before issuance of the construction permit. A copy of the plans that has been stamped "approved" shall be provided.

____40. Test manholes must be within 4 ft. downstream of grease traps and have a minimum of 1-foot of fall between inlet and outlet pipe inverts. The test manholes must have a 180-degree connection between the effluent and

influent lines with no other connections to the manhole. The test manhole is the last discharge point of the pretreatment system before the sanitary sewer. The sanitary sewer connection from the pretreatment system will not be allowed to connect to the site sanitary sewer line by going under or through the building. The connection to the sanitary sewer line must be kept to the exterior of the building structure. The connection from the building to the pretreatment system will be a direct straight line. One 90 degree or one 45-degree angle will be allowed with a clean out if a straight line is not obtainable.

____41. The test manhole will be located a maximum of 4-feet from the last tank in the pretreatment system. The test manhole shall have a minimum depth of 4-feet and a maximum depth of 12-feet.

____42. The pipe between the grease trap and test manhole must be 6-inch diameter PVC.

Dumpster Pad

____43. Obtain approval from Fulton County Board of Health, Environmental Health Division for the dumpster pad for any non-single family residential and commercial project. A copy of this approval or, if not required, a copy of the variance must be provided to Development Permitting Engineer prior to issuance of the construction permit. A copy of the plans that has been stamped "approved" shall be provided.

____44. Provide drains for the dumpster pads. The drain shall be an ABT S-2900B-02 Catch basin or equivalent with a galvanized trash bucket and a bolt down cast iron frame and grate. A foul air trap or p-trap shall be placed on the outlet pipes. The outlet pipe shall be a 6" DIP to the first cleanout. All portions of the dumpster pad shall drain to this cleanout/MH.

____45. No storm water from upside the dumpster pad shall flow onto the pad. This drain shall connect to the adjacent wastewater sewer system. Dumpster pad shall not be connected to the storm sewer system.

____46. Provide a 5/8-inch freeze-proof hose bibb with a reduced pressure (RP) backflow preventer within 50 feet of all portions of the dumpster pads.

Additional Design Considerations

____47. If a manhole is in a flood plain or high-water area, it shall have watertight covers and extend above the ten year floodplain level: clearly indicate and provide details.

____48. Riprap shall be placed for the full width of the excavation at all creeks crossings where wastewater pipelines cross and shall extend to the top of bank.

____49. If wastewater pipes are to be constructed adjacent to rivers and other waterways a registered Land Surveyor Please note construction adjacent to waterways may require a State Waters buffer variance). Offset distance from the top of bank of the creek shall be provided to all manholes. All creek banks within 10 feet of the centerline of the pipe shall be reinforced with riprap per Fulton County Standards.

____50. Force main effluent manholes shall conform to Fulton County Standard Detail 116 and/or 719 (low pressure systems).

___51. Pump stations for subdivisions which contain sanitary sewer pump stations may be subjected to review and approval by the County. Consideration should be given to the possibility of having CCTV monitoring to deter vandalism or theft.

____52. Pavement to be repaired to local City standards.

____53. Jack and bore to be performed in accordance with Fulton County Standard Details 107 and 129. Show steel casing for jack and bore installations. Carrier pipe shall be DIP.

____54. Show steel casing (possibly with concrete encasement) where wastewater line crosses under a retaining wall footing, approved hardscape features, creeks, and where the line is aerial. Please note additional sewer line protection may be required by Fulton County on a case-by-case basis such as where vertical separation requirements between utilities cannot be met. Where possible casing shall extend from manhole to manhole under retaining walls.

Easements

____55. Show all private and/or Fulton County easements. All offsite and onsite wastewater easements documents must be reviewed and approved by the Fulton County Department of Public Works before a permit will be issued. The document package must be completed and sent to the Development Permitting Engineer for initial review. Construction permits will not be issued until the easement package has been reviewed and approved by the Land Division. Private easements must be recorded prior to permit issuance.

____56. All easements shall allow adequate room to construct the sanitary sewer and appurtenances. Permanent easements shall be a minimum of 20 feet wide, 10 feet on each side of the line, except that when the depth of the sanitary sewer exceeds 10 feet the required sanitary sewer easement width shall increase such that the easement width is at least twice the depth from the ground surface to bottom of the pipe.

____57. Utilities and systems, publicly or privately owned and maintained, shall NOT be designed, installed, or permitted to run within a water and/or sewer easement except for perpendicular crossings. All utilities and systems crossing existing or proposed water easements shall have permanent markers designating the existence and type of utility or system placed at the locations where the utility or system crosses the sewer easement boundaries.

____58. Utilities and systems not regulated by the Georgia Public Service Commission (PSC) shall be considered privately owned and maintained. The PSC regulates Natural Gas, Electrical, and Telecommunications utilities.

____59. All privately owned utilities and systems encroaching into existing or proposed sewer easements shall be required to provide a Fulton County standard Encroachment and Indemnification Agreement. Examples of privately owned utilities include but are not limited to: storm sewer piping maintained by the HOA, irrigation system piping, private water and sewer piping, cable TV, internet coax or fiber, control wiring, etc. Easements and encroachments for residential projects (less than 5 lots) and commercial developments require approval of the easements and encroachments prior to permit issuance. Easements and encroachments for larger

residential subdivisions will be required prior to approval of final plat.

____60. If there is a recorded offsite easement dedicated to Fulton County, show book number and date of existing recorded offsite easement on the plans; this shall also be shown on the final plat for residential developments.

____61. No retaining wall, building, pole, sign, trees, or other vertical structure shall be constructed in sanitary sewer easements, including vehicular access easements around structures, without approval from the Department of Public Works.

____62. No surface water shall be impounded on a sanitary sewer easement.

____63. No other pipeline or utility shall be placed in a sanitary sewer easement without an encroachment agreement.

____64. All fences or other barriers crossing the wastewater easement will be installed with a 12-feet locked double gate so that Fulton County can have access. Fulton County will provide the lock and key.

GDOT

____65. A City utility encroachment permit or Georgia D.O.T. utility permit will be required before the construction of any utilities will be allowed within the respective rights-of way. For all planned encroachment of state routes, please ensure the surveyor identifies all existing utility elevations and locations along the length of your project site on all state routes. The surveyor should obtain data from ROW limit to ROW limit.

____67. Provide to Fulton County Development Permitting Engineer all information required for GDOT utility permit.

Flow Calculations

____68. For all residential projects of 5 lots or more, and all commercial developments; please complete the "Certificate of Water and Sewer Utility Availability" and send it to Development Permitting Engineer for determination of adequate capacity. Link to form:
https://www.fultoncountyga.gov/services/water-services/development-permitting/permitting-process

____69. For commercial development projects, please complete the "Wastewater Discharge Survey", and send it to Development Permitting Engineer and copy Ngozi Daramola at Ngozi.Daramola@fultoncountyga.gov
Link to form location:
https://www.fultoncountyga.gov/Property-and-Vehicles/Water/Industrial-Monitoring

____70. Please complete the table below and submit total sewer requirements with construction plans. Use sewage flows reported in Section J - Sewage Flow Schedule of the Georgia Department of Public Health Manual for On-Site Sewage Management Systems. Please copy and paste this into your browser search bar:
https://www.google.com/goto?url=CAESlQEB6zswFZGoFLuJQ0rhw4EkKDNrKikf24e60LkgJ-2UyhZ4jrn5ljnw58FoOvWTXDe4kna2EYjDZWpsdji4IBtTUFJDZih9UpxSPFkt97zmPD6Yc4YLAoDcDSDPQdkh8H1qZEWCyL1F_CpLcfKU-nwnj6ZogJcxIcwVaixUa3ED1RdCtdTeP2hKcBJ-2l7TKUTgR2-c_g

Use peaking factors from 10 State Standards. Minimum peaking factor for pump stations is 2.5.
This calculation report shall have the seal and signature of a Georgia Registered Professional Engineer.

Facility Type	Quantity/ Number of Units	Water Usage per Unit (GPD)	Total Sewer Requirement (GPD) (column 2 x column 3)
Total Sewer Requirement (GPD)			

Low Pressure Pump Station and Force Mains

____71. Please review GUIDELINES FOR SANITARY SEWER LOW PRESSURE PUMP STATION AND FORCE MAIN DESIGN document in its entirety.

https://www.fultoncountyga.gov/Services/Water-Services/Development-Permitting

____72. Provide to Fulton County Development Permitting Engineer all information required for GDOT utility permit. A topographic plan showing the development property and the surrounding properties.

____73. All adjacent upstream and downstream wastewater connection locations with invert elevations. Map will show distance from farthest development point to closest viable gravity sewer tie-in location.

____74. Provide to Fulton County Development Permitting Engineer all information required for GDOT utility permit. As part of the review process, the Developer is to show the reasons why sewer is unavailable. Additional information may be requested to support the Developer's position on why a gravity sewer option is unavailable if the submitted information is not sufficient for the Director to approve the system.

__75. Provide to Fulton County Development Permitting Engineer all information required for GDOT utility permit. Please note: the director of public works (or their designee) shall review the technical material provided and make a determination as to whether a low pressure sewer system will be allowed for the development

____76. Provide to Fulton County Development Permitting Engineer all information required for GDOT utility permit. Please note: The Homeowner / Developer shall own, maintain, and operate all system piping and valves to the right-of-way up to the backflow preventer and plug valve assembly. The grinder pump station including all controls, valves and piping outside of the easement, shall be owned, maintained and operated by the

Homeowner / Developer.

THE END