

SEWER TECHNICAL MEMORANDUM

TO: Prospective Commercial Real Estate Developers

FROM: Aaron Beauclair, PE – Summit Development Co & Mitch Klein, PE – XP Holdings LLC

DATE: August 11, 2025

SUBJECT: Sewer Availability – 12.46 Acres Along Whittaker Parkway, Orangeburg, SC

1. Purpose

This technical memorandum documents the results of due diligence performed regarding sewer availability for the 12.46-acre property along Whittaker Parkway in Orangeburg, SC. The objective is to inform prospective buyers of the sewer service options and constraints to support evaluation of the property for commercial development. Data was obtained from the Orangeburg Department of Public Utilities (DPU), Data Horizons, Google Earth, and South Carolina DHEC. No topological survey was obtained or utilized as part of this evaluation.

2. Background

The Orangeburg DPU provides sanitary sewer service in the vicinity of the subject property. Multiple sewer connection points exist, though each presents unique constructability considerations and potential costs. Soil testing conducted in May 2025 by Davis Horizons also assessed the feasibility of septic system use as an alternative. **Figure 2-1** below shows the location of the available public sewers in the area.



3. Analysis / Findings

3.1 Public Sewer Options

1. 8" Sewer – South Side of Ravine/Culvert (550' North of Five Chop Rd, East Side of Whittaker Parkway)

- Depth: 10.5 feet
- Flow Direction: East towards pump station along Corporate Dr
- Likely Requirement: Construction of inverted siphon under ravine on southern edge of property and crossing of Whittaker Parkway. Available capacity of existing sewer and downstream infrastructure unknown and would need evaluation.

2. 8" Sewer – South Side of State Rd S-38/S-796 (~215' East of Whittaker Parkway Centerline)

- Depth: 5 feet
- Configuration: Dead-end line heading east
- Likely Requirement: Pumping of flows across Whittaker Parkway and tie-in to dead-end line. Pumped flows will need to avoid water and storm sewer (not shown on map). Available capacity of existing sewer and downstream infrastructure unknown and would need evaluation.

3. Small-Diameter Sewer to NW (Kease Dr / Chitwood St)

- Existing Service: 4" or 6" diameter service lines to mobile homes. Service lines are long and shallow.
- Limitation: Insufficient capacity and depth; sewer not available via these service lines to NW of property.

3.2 Septic System Feasibility

Testing performed by Davis Horizons, May 2025

- Soils found to be generally Class II Loam with long term acceptance rates (LTAR) of about 0.7 gpd/sf
- Regulation 61-56 Section 501 defines peak flow rates for non residential uses. Assuming the subject property is developed into an office, the following peak day flows per unit apply:

ESTABLISHMENT	UNIT	PEAK FLOW RATE GAL/UNIT/DAY
Businesses/Offices/Factories	Employee/Shift	15
	Transient Employee (4 hrs or Less/Shift)	10
(Add for Showers)	Employee	10

- A large scale septic (defined as larger than 1500 gpd) could likely accommodate 100 – 150 employees before an engineered system would be required.
- Utilizing the LTAR of 0.7 gpd/sf, a non-engineered system up to 1500 gpd would require about 2,143 sf of treatment area. This is equivalent to about 8 trenches of 90 ft in length and 3 ft wide.

- Large Septic Systems (>1500 gpd)
 - Feasible in Bonneau soil on north and south portions of property.
 - Non-engineered design possible.
 - Small Septic Systems (<1500 gpd)
 - Feasible in Blanton soil in middle portion of property and Bonneau soil in north and south portions of property.
 - Non-engineered design possible.
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3.3 Key Takeaways

- Septic system service is likely the **most cost-effective** wastewater solution for the site.
 - Light industrial uses could be well supported using on-site septic systems.
 - Public sewer tie-in is possible but would involve higher construction complexity and cost (siphon construction and or pump station installation). Receiving sewer capacity and downstream pump station capacity would also need to be evaluated.
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4. Conclusion

The subject property has multiple sewer service possibilities, but physical constraints and infrastructure configuration make public sewer tie-in less likely. Septic systems, supported by favorable soil conditions, present a viable and cost-effective option for most light industrial and certain commercial developments. Uses that require heavy sewer usage are not recommended.

Attachments / Appendices:

- Appendix A – Figure 2-1: 12.46 Ac Whittaker Parkway Water and Sewer Map
- Appendix B – Whittaker Parkway Preliminary Soil Mapping Report, Davis Horizons (May 2025)
- Appendix C – South Carolina DHEC Regulation 61-56 Onsite Wastewater Systems