

## **REQUIREMENTS FOR SUBMITTING WASTEWATER TREATMENT SYSTEM PLANS FOR REVIEW AND APPROVAL WITH APPLICATIONS FOR PERMITS**

Information is to be prepared by a Licensed Soil Scientist, Professional Geologist, Professional Land Surveyor, Professional Engineer, Registered Professional, or person with a demonstrated knowledge in wastewater design required by NCGS 89C, 89E, 89F, or 90A, Article 4. Maps and reports are to bear the name, signature, and seal, as appropriate, of the licensed or registered professional.

**Plans are to be submitted online on the Wake County Department of Environmental Services Permit Portal at**

**<http://www.wakegov.com/permitportal/Pages/default.aspx>**

### **Plans should contain the following:**

- A. Site Plan** (Scale of 1"= 30', 1"= 40', 1"= 50', 1"= 60' or 1"=100'. One site plan must be provided to scale that includes entire lot and all components, including off-site easement areas. The scale may be greater than 1"=100' if additional sectional site plans be provided at a scale listed above.

Apprv. Or Not Req./Not Approved

1. ☐ ☐ Benchmark- fixed point not subject to destruction
2. ☐ ☐ North Arrow
3. ☐ ☐ Application Information  
Including: Name, address, phone number and email address of owner, designer/engineer, date of plan submission, Pin #, WRP #, and address of property
4. ☐ ☐ Vicinity Map/ Directions
5. ☐ ☐ Drawing to scale - indicate scale
6. ☐ ☐ Location of Drainfield Components
7. ☐ ☐ Property lines with dimensions (must accurately represent lot as surveyed)
8. ☐ ☐ Surface Water Bodies and Their Buffers
9. ☐ ☐ Drainage Swales
10. ☐ ☐ Storm Water Devices, Culverts or Drainage Pipes
11. ☐ ☐ Easements or Right-Of-Ways
12. ☐ ☐ Existing/Proposed Utilities
13. ☐ ☐ Existing/Proposed Well Locations
14. ☐ ☐ Finish Floor Elev. of Proposed Structure (if known)

### **B. Soil Information (If Required)**

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1. ☐ ☐ A soil evaluation report clearly depicting location and classification of soil units must be provided
2. ☐ ☐ Methodology utilized to evaluate soil/site and soil moisture conditions at time of evaluation
3. ☐ ☐ Long Term Acceptance Rate and written justification
4. ☐ ☐ Inclusion of lab data, conductivity, etc., if applicable
5. ☐ ☐ Dates of evaluation, demonstration, or lab work
6. ☐ ☐ If site alterations are proposed, a grading plan with existing and proposed contours.

### **C. Specifications**

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1. ☐ ☐ Tanks - Approved by State. Pump tank emergency storage must be determined. Tank chosen must meet State and Wake County requirements
2. ☐ ☐ Pumps - Pump requirements and manufacturer's specifications (Performance curve).
3. ☐ ☐ Piping - Sizes of piping and components, material strength
4. ☐ ☐ Drainfield Product - Specify rock size or specific product(s) for each system. Include product approval number
5. ☐ ☐ Controls-Manufacturer's specifications on floats, control panels, etc. Electrical supply needed (phase, voltage)
6. ☐ ☐ Drainfield Design - Specify L.T.A.R., Design Unit Volume, Initial field designs, Mode of Distribution, Tap/ flow chart or drainfield calculation worksheet
7. ☐ ☐ Advanced Pretreatment - Specify product type and level of treatment. Include product approval number.
8. ☐ ☐ Repair system - Must include field layout, drainfield product type/product approval number, and tap/ flow chart or drainfield calculation worksheet
9. ☐ ☐ Design Concepts - Include, with calculations, design info that meet State and Wake County rules & regulations. Examples included but not limited to
  - ☐ ☐ Design flow
  - ☐ ☐ Dose volume
  - ☐ ☐ Pipe scour velocity
  - ☐ ☐ Drainfield reduction/ manifold sizing
  - ☐ ☐ Total dynamic head- include design, friction, and elevation heads for system

**D. Plans**

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1. ☐ ☐ Show system components (Original and Repair Fields) – Locations must also be shown in field by staking or flagging
2. ☐ ☐ Specify dimensions/Regulatory setbacks (i.e. Setbacks from Class I, II, III reservoir, streams, public water source, drainageway / watershed / Neuse Basin buffers, etc.)
3. ☐ ☐ Show elevation for components such as benchmark, tanks, inlets, on/off positions for floats, hydraulic profile, disposal lines, etc.

**E. Installation Procedure**

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1. ☐ ☐ Specify installation procedures for all major components (i.e. tanks, supply manifold, laterals, pretreatment, etc.)
2. ☐ ☐ Specify procedure for inspecting and testing components as needed

**F. Operating Instructions**

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1. ☐ ☐ Provide operating and maintenance procedures
2. ☐ ☐ If applicable, a maintenance schedule must be recorded with the Wake County Register of Deeds office after the system has been installed. A copy of the recorded form must be returned to the Wake County Department of Environmental Services before the Operation Permit can be issued.
3. ☐ ☐ If applicable, an executed contract with a Certified Subsurface Wastewater System Operator must be returned to the Wake County Department of Environmental Services before the Operation Permit can be issued.

The preceding items may not be totally inclusive for all proposals. Specific site constraints, wastewater quality and/or quantity, system types, etc. may require submission of additional information.

BSM: 3/16  
ICD: 1/29/18  
JXL:11/5/20