

CHECKLIST FOR APPROVAL AND ACCEPTANCE OF UTILITIES PROJECTS

TOWN OF HILLSBOROUGH ENGINEERING DEPARTMENT

A. Pre-Construction Requirements:

1. Meet with Town Engineer to informally discuss project to coordinate planned improvements (project must also be coordinated with the Town Planning Director if within Town Limits or ETJ).
2. A Water/Sewer Extension Contract will be required for all water and/or sewer extensions that exceed 1,000 feet total combined length, and/or serve more than 5 units (residential or commercial), and/or require a new sewage pump station. The contract shall be negotiated with the Town Engineer to the extent possible, and must be approved by the Town Board to allow the extension.
3. Submit 2 sets of plans and specifications (sealed by an NC Professional Engineer) to the Town Engineer that conform to the Town Specifications and Details (submit additional copies and revisions as required).
4. Upon Town approval, submit permit applications, plans, and specifications (and other attachments as required) to the applicable State of NC and Orange County agencies.
5. Obtain any necessary encroachment agreements or easements for use of property not owned by the developer or project owner.
6. Pay all water and sewer capital facilities fees for residential projects before construction of the utilities extension begins. Capital facilities fees for non-residential projects (or portion of projects) shall be due prior to initiation of service.
7. Receive approval and authorization to construct from all applicable agencies prior to start of construction.
8. For projects within the Town's planning jurisdiction which desire planning authorization to proceed before constructing required infrastructure, a performance bond equal to 125% of an approved engineer's construction cost estimate shall be submitted with the Town as beneficiary before planning approval is granted.
9. Ensure that contractor(s) have current set of Town-approved utility plans.

B. Construction Requirements:

10. All changes to the approved plans and specifications must be approved in advance by the Town Engineer.
11. All construction shall be performed by a contractor licensed to perform utilities work in North Carolina.
12. Contractor shall be provided with the Town-approved construction plans and Town Specifications by the Owner/Engineer. Owner/Engineer shall provide one set of ½ size (11" x 17") plans to the Town Engineer.

13. All construction is subject to inspection by Town personnel to determine compliance with requirements.
14. The Professional Engineer of record shall have a representative onsite each day that work is performed, or at a frequency that the engineer deems necessary to certify the project.
15. Water service locations must be coordinated with the Town Meter Reader Supervisor prior to installation (Call 919-732-2104 ext 0 to set up an appointment). All water meters to be located at property line adjoining public road right-of-way, shall be no deeper than 18" below grade, and shall be grouped in pairs along adjoining property lines.
16. Submit documentation on pressure tests, vacuum tests, air tests, backflow preventer tests, and sterilization lab results to Town Engineer.

C. Post-Construction Requirements:

Before the Town will allow water to flow to the project or permit use of the Town sewer system to serve the project, Developer shall complete the following items:

17. Schedule and perform inspection of installed facilities with Town Engineer, contractor, and project engineer.
18. Complete corrections of punch list items found deficient during the initial inspection. If the punch list is considered to be significant by the Town Engineer, a re-inspection may be required.
19. Submit to the Town Engineer a Schedule of Values for the utilities construction, which shows the total cost of utilities construction for the project.
20. Submit bond or letter of credit for 10% of utilities construction cost (for 1-year warranty period, from date of official acceptance or completion of all construction, whichever occurs later).
21. Submit to the Town Engineer four (4) printed copies and one (1) electronic copy (AutoCAD 2008 or previous version) of the record drawings, together with:
 - a) the contractor's affidavit that the drawings accurately represent the as-built improvements, and
 - b) a Contractor's Affidavit and Release of Liens from all subcontractors and materialmen.

Electronic record drawings shall include pipe material, size, fittings, valves, hydrants, blow-offs, services (to the property line/meter), and in addition for sewer: flow direction, manhole invert and top elevations, pump station pump data. Precise attributes and formatting shall be used to allow integration directly into the Town's GIS. Information on these requirements is available from the Town Engineer.

22. Submit to the Town Engineer a certificate of compliance executed by the Professional Engineer of record indicating that work has been performed in substantial compliance with the approved plans and specifications.
23. Submit to all applicable State of NC agencies letters stating final project completion, along with all required attachments (PE certifications, record drawings, etc.). Submit to the Town Engineer copies of all letters to the State of NC.
24. Convey to the Town and record or cause to have recorded in the Orange County Registry all deeds of easement and plats showing all water and/or sewer easements required to serve the project. Plats must be signed by the Town Planning Director.
25. Formally dedicate to the Town all utilities improvements constructed to serve the project. Upon completion of the above listed items, the Town Board shall consider acceptance of the utilities into the Town system, and commence the 1-year warranty period.

D. End-of-Warranty Requirements: Schedule and perform end-of-warranty inspection of installed facilities with Town Engineer, contractor, and project engineer.

26. Complete corrections of punch list items found deficient during the end-of-warranty inspection.
27. Schedule and perform end-of-warranty punch list inspection of installed facilities with Town Engineer, contractor, and project engineer.
28. Upon completion of all outstanding items, to the satisfaction of the Town Engineer, the warranty bond/letter-of-credit will be released and the Town will assume total responsibility for ownership, operation, and maintenance of the constructed utilities.

E. Multiple Phase Projects

29. For projects where continuing construction may damage accepted infrastructure, 25% of performance bond amount for the affect infrastructure will be retained during the warranty period rather than 10%.
30. The warranty period for infrastructure in multiple phase projects will extend until full project completion or until the affected infrastructure is no longer subject to damage.
31. At the discretion of the Town Board, bond amounts (either performance or warranty) may be released by type of infrastructure if the approved engineer's estimate is clear as to the dollar amount by type of improvement. For example, Subdivision X bonded the installation of water and sewer lines, stormwater ponds, streets, and a playground. The playground, utility lines, and ponds are ready for maintenance acceptance and warranty, but the roads are being held to the very end. If the engineer's estimate clearly separates the cost for the playground, lines, and ponds, that amount can be shifted to warranty without releasing the streets.