The following is a list of requirements from the Engineering Division for plot plans included in Building Permit applications. A property located outside the City limits cannot connect to City water and sewer without obtaining a utility extension agreement and annexing into the City first.

A. Public Works Fee

The Public Works Plan Review fee can be paid as soon as the 8 digit Building permit number has been assigned. The fee must be paid before the Public Works final inspection for CO sign-off is requested. The fee can be paid online with using credit card or check at this link: https://ipn2.paymentus.com/rotp/dhbp.

1. Residential Building Permit Plan Review: $26
2. Commercial and Retaining Wall Building Permit Plan Review: $104

B. Utilities

1. Show in the plot plan existing or proposed locations for the **water meter** and sanitary sewer **cleanout**. Meter and cleanout shall be shown within the property (just behind the right of way, within the property). Meter shall be shown outside of the driveway and a few inches back from the sidewalk. Traffic bearing cleanouts shall be used if cleanout is located within the driveway.

   a. Accessory Dwelling Unit (ADU) with water and sewer service (garage with a bathroom, separate apartment, carriage house, etc.):
      - Show in the plot plan a second water meter if wanting to bill detached unit separately.
      - Show in the plot plan a second sewer cleanout connected to the main in the street or obtain a sewer extension permit and connect to the house's existing sewer service (https://deq.nc.gov/about/divisions/water-resources/water-quality-permitting/pretreatment-emergency-response-collection).

   b. **Duplex**: show on plot plan two meters if wanting to bill units separately.

2. Show on the plot plan all existing utilities, utility easements, and easement setbacks.
   a. **Existing water meters** within the right of way shall be relocated within the property (just behind the right of way).
   b. Existing water and/or sewer services not used shall be abandoned per City standards (**capped at the main**). A Public Works Right of Way/Private Property Permit will be required for the abandonment of the existing service/s and/or installation of new one/s. The change of location of services shall be shown in the asbuilts.
   c. Show and **record easements** for any existing public sewer and/or storm drainage (swales or pipes that convey runoff from adjacent property or the right of way within the lot) that do not have an easement already. The proposed structure shall be shown outside of any easements and easement setbacks. Easements shall be recorded prior to the approval of the building permit.
   d. Provide **calculations** from a North Carolina registered professional Engineer for any proposed storm drainage conveyance (swales or pipes) within the property. Record easements for the proposed conveyance prior to approval of the building permit.
C. Sidewalks

1. Show required sidewalks and curb ramps per the approved construction drawings.

D. Driveways

1. Show location of existing or proposed driveway and driveway approach (curb cut). Label width of proposed driveway. Existing driveways that are not to City standards shall be replaced.

2. If the property has an existing driveway curb cut that will not be utilized, then note the curb cut to be closed.

3. If the driveway is proposed in a strip paved street, provide calculations from a North Carolina registered professional Engineer to size the driveway pipe (minimum of 15” in diameter). The plot plan shall note the size of the driveway pipe.

4. Note on plot plan if the driveway curb cut is a shared driveway. Show a private access easement if the driveway within the property is shared with the adjacent property. A private access easement shall be recorded, if one does not exist already, prior to approval of the building permit.

5. Note distance from driveway to the PC/PT of a nearby intersection (at least 3 feet).

6. Show on plot plan any catch basins, fire hydrants, and speed humps in front of the property and note the distance from it to the turnout of the proposed driveway. At least 3 feet of curb is required to transition from the standup curb to the start of the driveway. Submit grate inlet conversion calculations from a Professional Engineer if driveway conflicts with a catch basin. Grate conversions are not allowed in sump conditions.


   b. Hydrants on rolled or valley curb streets: Hydrants require 5 feet of standup curb before curb can transition to rolled or valley curb, which requires 3 to 5 feet (page 19 https://durhamnc.gov/DocumentCenter/View/15305/Water-Details?bidId=). The flare of the driveway approach shall start at the end of the transition.
E. Stream buffers

1. If the US Soils Map and/or the USGS Quad Map show a stream in or adjacent to the property, do one of the following:

   a. Request from the Planning Department the width of the buffer and grading setback required on the stream. Survey the top of bank of the stream. The stream buffer shall be measured from the top of bank. Show top of bank, stream buffer, and grading setback on plot plan. The structure shall be located outside the stream buffer and grading setback.

   b. Conduct a stream determination study to determine that there are no streams in the vicinity. The stream determination study will vary depending on the watershed the property is located at:
• **Neuse River Basin**: The stream determination will be conducted by the North Carolina Department of Environmental Quality [http://edocs.deq.nc.gov/Forms/Determination-Request-Form](https://files.nc.gov/ncdeq/Water%20Quality/Surface%20Water%20Protection/401/Buffer_StreamDeterminationRequestForm_21June2018_RRO.docx).


If it’s determined that the stream is ephemeral then a stream buffer is not required. Record an easement for swales conveying runoff from the right of way or adjacent property.

**F. Retaining Wall Permits**

1. Provide plot plan showing proposed retaining wall with top and bottom wall elevations and distance to the public right of way. Show width of the geogrid if required.
2. Plot plan shall match the grading plan of the approved construction drawings.
3. Retaining walls and geogrid shall be located outside the right of way and utility easements (see sketch below).