Engineer's Report
for
Water Main Extensions

Date:

Project Name:

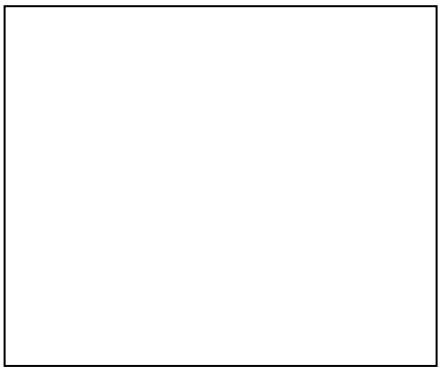
Water System Name: West Carteret Water Corporation

Water System ID: NC 0416040

County of Project: Carteret

Prepared by:

Signature and seal of professional engineer that prepared this report



I attest that this engineer's report has been prepared by me, or under my responsible charge, and is accurate, complete and consistent with the information supplied in the engineering calculations. I further attest that the proposed design has been prepared in accordance with 15A NCAC 18C. Although page 4 of this report incorporates data provided by others, inclusion of these materials under my seal signifies that I have reviewed this material and have judged it to be consistent with the proposed design.

Water Main Extension Engineer's Report Mandatory Information
To present data required by 15A NCAC 18C .0307(b)
Specific citations from 15A NCAC 18C are provided when data is required to confirm compliance with another regulation.

Applicant Information

Applicant name (must be a person): Lisa Smith-Perri

Applicant mailing address: 4102 Highway 24 Newport, NC 28570

Applicant phone numbers: Business 252-393-1515

Applicant e-mail address: lisa.smithperri@wcwc.biz

Description of Proposed Project

Name of proposed project:

Provide a summary of the diameter, length and material of all piping proposed in the project.

Diameter of piping	Length of piping	Material

Location of project: (use existing road and intersections, address if available; and identify municipality).

The proposed project is an expansion of the existing public water system. X Yes □ No

The source of water for the proposed project will be provided by a separately owned public water system. □ Yes X No

Is the project phased? □ Yes □ No

If yes, delineate all phases in plan sheets. Partial final approvals may be granted to completed phases specified in this submittal.

If yes, depending on whether the water system does or does not provide fire flow; provide calculations to demonstrate that the project can provide adequate peak demand (domestic peak demand) at the minimum required residual pressure of 30 pounds per square inch gauge (psig) or can provide peak demand with fire flow (domestic peak demand plus fire flow) at the minimum pressure of 20 psig through ***each*** phase of construction.

Check here if project is a water main replacement with no additional demands. **(Water main replacement consists of like size, no additional service connections, and no additional hydrants and no added fire demand.)**	□ If box checked, proceed to page 4

Provide anticipated project flows for any project that will increase demands

Does the proposed project include any in-ground irrigation?	□ Yes □ No
If yes, attach appropriate analysis to address how the system is designed to accommodate the impact of irrigation use on treated water supply, storage needs and system pressure.	
Peak demand of the proposed project Maximum daily demand of the proposed project	_____gpm _____gpd
Per Rule .0901, are the water mains and water system designed to carry fire protection flows for this project?	□ Yes X No
If the water mains and water system **<u>are not</u>** designed to provide fire protection flow, indicate the minimum ***calculated*** pressure at domestic peak demand (non-fire flow). The pressure must be at least 30 psig per Rule .0901.	_____psig
If the water mains and water system **<u>are</u>** designed to provide fire protection flow, indicate the minimum **calculated** pressure at peak demand (domestic plus fire flow). Pressure must be at least 20 psig per Rule .0901.	_____<u>N/A</u>_____psig

The project will add ___ services to the West Carteret Water System. The peak demand for West Carteret Water Corporation is 270 GPD per equivalent customer.

They flushing device that is provided as a part of this project will be used for flushing only and is not intended to provide fire protection.

gpm: gallons per minute

gpd: gallons per day

psig: pounds per square inch gauge

Water System-Supplied Information

Data provided by: __Michelle S. Clements, PE _(name) Date provided:____5/22/23_____

Position: Water System Engineer

Number of current connections in water system	7,914 connections
Approved number of connections in water system	7,914 connections
Current average and maximum daily demand of existing system. Average day demand is the one day average demand for the latest calendar year.	1,231,000 average gpd 1,880,000 maximum gpd
Current maximum daily treated water supply of existing system Maximum daily treated water supply is the maximum quantity of treated water that can be produced and/or purchased by the system.	2,550,000 maximum gpd
Total elevated storage capacity of existing system	2,100,000 gallons
Systems > 300 connections: • Total storage volume is at least half the average annual daily demand (Rule .0805(c))	X Yes □ No