

# Application Submittal Requirements

For Herndon Farms Light Industrial Rezoning

## *Property Information*

- A. Map of the property showing the parcel or portions thereof that are affected by this rezoning request. [Exhibits B.2](#) and [B.1.2](#).
- B. Written legal description of such land. Deed Information for parcel 2752, [Exhibit B.8](#), Page 3-7.
- C. Application Narrative and Answers
  - 1) ***Any alleged error in the Ordinance, if any, which would be remedied by the proposed amendment.*** No remedy for a zoning error is requested.
  - 2) ***The changed or changing conditions, if any, which make the proposed rezoning reasonably necessary***
    - a) ***Need and Desirability.*** Herndon Farms requires an onsite wastewater treatment system to serve the development. The Developer is requesting a one-acre parcel be rezoned to Light Industrial as per a requirement by the Chatham County Planning Department. This requirement is based on the project accepting a limited amount of wastewater from an adjacent commercial property. Inefficient treatment of wastewater has the potential to contaminate streams and wetlands. By making the excess wastewater capacity available to adjacent properties, which may have outdated, inefficient, or failing systems, the state-of-the-art wastewater treatment facility at Herndon Farms will reduce wastewater nutrient discharges.
    - b) ***Survey of Similar Uses.*** There are currently three wastewater treatment facilities near Herndon Farms; at Cole Park that discharges into the Jordan Lake watershed (NPDES), at Ferrington Village which discharges into the Jordan Lake watershed (NPDES), and at Briar Chapel which has a non-discharge permit for land application of wastewater. None of these facilities meet the higher nutrient removal standards of Type 2 reuse wastewater. The treatment plant Herndon Farms is planned to meet these reuse standards. [Exhibit I.5](#).

- c) **Public Provided Improvements.** There are no public improvements required for this facility.
  - d) **Tax considerations.** The land and treatment facility will have an approximate valuation of \$800,000 to \$1.5 million once completed.
  - e) **Employment.** Not significant. However, the facility will enable the development of Herndon Farms which will in turn produce significant employment in the purposed development.
- 3) **The manner in which the proposed rezoning will carry out the intent and purpose of the adopted Land Use Plan or part thereof.**
- a) **Issues and Opportunities.** Chatham County is experiencing an increase in population growth primarily because of its location to major universities and meaningful growth in the entire region, prompted by the desirability of the quality of life in and around North Carolina's Capital, Raleigh. The rural character of Chatham County in particular, is often a large draw for individuals to the area. The Herndon Farms development is a planned Fifty-Five-and-Older Community submitted for zoning approval under Chatham County's Compact Communities Ordinance. Herndon Farms will provide much needed senior housing while embracing and reflecting the rural ambience of the County. By featuring open space, planned gardens and community farming operations, Herndon Farms beautifully blends senior housing and Chatham's rural character as are both stated goals in Chatham County's Land Use Plan.

### **“Preferences**

The senior population is likely to increase in the coming years, due to the youngest of the baby boomers reaching their older years. Research has shown that Millennials and Boomers have a stronger preference for lower maintenance yards and smaller housing types than other age groups. Making accommodations for the housing preferences of these two age groups by providing opportunities for well-located housing products, such as cottage, patio homes, townhomes and condos, may help Chatham appeal to a broader demographic.”

### **“Rural Character**

Preserving rural character was identified as the most important goal during the planning process. Rural character means different things to different people. For some, it is clean water, forests, and wildlife. For others, it

is scenic beauty or a lifestyle that includes privacy, peace and quiet. For many, it is simply the ability to farm.”

As is with the majority of Chatham County, wastewater treatment is not provided by the municipality. In order for this development to be built, water and wastewater must be built as part of the development. The Developer is planning a state-of-the-art wastewater treatment facility for this project which will generate highly treated effluent for reuse in water features and irrigation. This application for rezoning of one acre of the larger project site to light industrial is needed for this purpose and allows the opportunity for the development to extend a limited amount of wastewater treatment to nearby users who may have outdated, inefficient, or failing systems, thereby providing a net good to the County. The facility will be in a remote part of the project and will not be easily visible from any roadway. In addition, the facility will be using special equipment to reduce noise and odors as is generally produce by these facilities.

- b) Goals and Objectives.* The Herndon Farms wastewater facility specifically meets the stated goal #7 in the Chatham County Comprehensive Plan “**7. Provide infrastructure to support desired development and support economic and environmental objectives.** “. This application for rezoning of this parcel to light industrial for the wastewater facility is in support of meeting these objectives.
- c) Land Use Description.* The wastewater treatment system planned for Herndon Farms is an extremely efficient technology, allowing the development to handle all its wastewater and wastewater from a limited number of other sites, if requested. The proposed technology, a Membrane Bioreactor (MBR), has matured over the last twenty years to be efficient and more cost effective to operate than older technologies. The highly treated Type 2 reuse wastewater is planned to be used in the development for irrigation and other water features.
- d) Economic Development.* As a Fifty-Five-and-Older community Herndon Farms will help with retail leakage out of Chatham County. Retires do not generally commute to a job outside their community and tend to shop near where they live. The Herndon Farms location will help with survivability and thriving of existing commercial establishments near the development.

The light industrial zoning and wastewater treatment facility will not it itself have much of an effect on employment or other material economic impacts. However, the facility obviously enables the development of Herndon Farms and

may support other commercial operations which all will have a significant positive economic impact on the County.

- e) **Land Use.** Plan Chatham's primary goal is to preserve the rural character of the County. Herndon Farms will do this by having over thirty percent of the site as open space, a majority of the viewshed buffer will be 100 feet or more and use the landscape-dominating power easement as pasture and recreation space.

A secondary goal of Plan Chatham is a diversified tax base. The wastewater treatment facility will allow 150,000 square feet of commercial space to operate in the development and possibly support additional surrounding commercial space in continued operation.

- f) **Natural Resources.** A small part of Herndon Farms is comprised of the Bennett Mountain Natural Heritage Area, this area will remain undeveloped and untouched by the wastewater treated by this facility. An additional thirty-five acres under the control of the Herndon Farms development will also remain undeveloped. The light industrial area is one acre near the 90-foot Duke Power high voltage transmission line.

- g) **Parks and Recreation.** The Herndon Farms development is repurposing part of the Duke Power easement into a community dog park, open fields for recreation, and agricultural use. This area is adjacent to US Highway 15-501 and is highly visible. The Developer believes the creative change in use will have a dramatic positive effect on the perception of the easement from highly undesirable to desirable.

- 4) List all other circumstances, factors, and reason which the applicant offers in support of the proposed amendment.

- a. **Traffic.** After completion of the wastewater treatment facility there will be one vehicle visiting the site periodically.

- b. **Visual Impact & Screening:** The facility has been intentionally placed near the 90-foot Duke Power major transmission line and interior to the Herndon Farms site, [Exhibit B.2](#). There will be fencing around the facility and native plants will be used to replant any over grading. The facility will not be easily visible

from any public road.

- c. **Lighting.** The plant will be lighted with 4 full cut-off fixtures. These fixtures are only to be in operation if nighttime maintenance is required. Extensive exterior nighttime security lighting will not be required for this remote facility. A small porchlight type fixture will be installed at the control area which will be motion activated.
  
- d. **Noise.** The Developers are planning on using a Membrane Bioreactor (MBR) in lieu of an Integrated Fixed Film Activate Sludge (IFAS). The MBR, [Exhibit J.7](#) uses blowers which typically create more noise than the micro bubblers in the IFAS system. However, the change in technologies is being considered because of two new developments for the MBR technology. First, new baffled blowers are now available that greatly reduce noise. Second, the problem with the expensive 4–5-year membrane change-out has been solved with the use of new ceramic membranes that carry a 10-year warranty, making the MBR more efficient to operate.
  
- e. **Chemicals, Biological and Radioactive Agents.** The wastewater treatment facility will use some chemicals in its operation. These chemicals and the sludge from the plant will be the responsibility of a NC State certified Class Four plant operator, who is licensed and skilled in managing these materials. However, the major chemical usually used in this type of facility is chlorine which will not be used in this facility. Instead, this facility will be using a UV disinfection system, thus eliminating a potential hazard from this chemical.
  
- f. **Signs.** There will be no signage for this facility except at the entry gate to the facility.
  
- g. **Emergency Services.** The wastewater treatment plant will have a specified address and will be easily accessible from Oak Island

Road, which connects directly to 15-501 S, should there be any emergency need at the facility.

- h. ***Impact to surrounding Land Values.*** The facility is internal to the Herndon Farms property and will not directly abut any residential or commercial properties. This location within the project, along with the odor and noise abating technologies integrated in the facility, will mean there are no impacts to adjacent land values.
- 5) All other information required on this application or as offered by the applicant in support of the request.
- a) ***Water Source and Requirements.*** A waterline from Chatham County Utilities will be installed for periodic maintenance of the facility.
  - b) ***Wastewater Management.*** This rezoning request is for the wastewater treatment system for Herndon Farms. The facility itself does not require wastewater. After completion, the facility is fully automated so personnel will only be on site for short periods.
  - c) ***Water/Sewer Impact Statement.*** The water/sewer impact for Herndon Farms is discussed in the Herndon Farms [CCO rezoning submission](#). This facility is a standalone wastewater treatment facility and does not have an impact itself.
  - d) ***Access Roads.*** Access to the facility will be via Oak Island Road which connects to 15-501 S.
  - e) ***Stormwater Runoff.*** The facility will require grading and a stormwater control plan. This plan will be submitted and will meet all current local and State regulations.

All exhibits and applications can be viewed at:

<https://www.dropbox.com/sh/71k3f5mzwt0wmjb/AABC7e-cW48mhiLTWmkRw9t5a?dl=0>