

RECODE CHATHAM

UNIFIED DEVELOPMENT ORDINANCE

AUDIT REPORT



PREPARED BY:



IN PARTNERSHIP WITH:



CLARION

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1 - Introduction

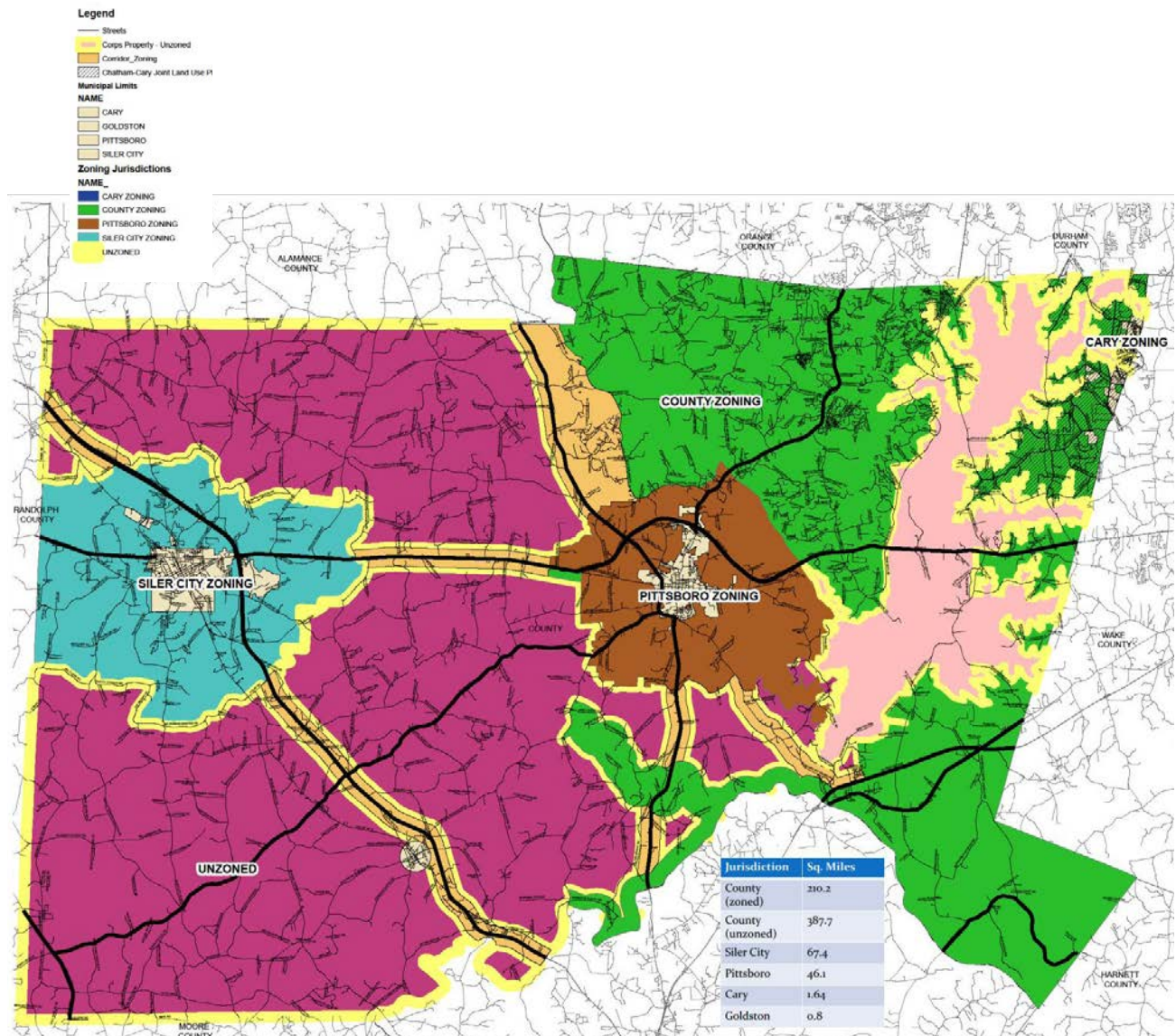
1.1 Project Background

Chatham County engaged a consultant team led by White & Smith Planning and Law Group and including Tetra Tech, Clarion Associates, and Green Heron Planning to consolidate its zoning, subdivision, and other development-related ordinances into a new Unified Development Ordinance (UDO). The UDO will be a clear, flexible, predictable, consistent, and user-friendly document that aligns the County's development regulations with the vision of its Comprehensive Plan, *Plan Chatham*, in an effort to implement the plan goals.

In November and December 2021, the consultant team met with Chatham County staff and elected and appointed officials in a series of virtual and in-person Focus Group Meetings to discuss the current development ordinances. These meetings resulted in an extensive list of issues relating to the existing zoning and development regulations, ranging from big-picture items (such as how to consolidate and simplify the codes) to specific regulatory issues (such as watershed protection, density, and corridor zoning). In addition, *Plan Chatham* includes implementation recommendations that detail specific areas of the codes where amendments are desired.

The last comprehensive update of the Zoning Ordinance and Subdivision Regulations occurred in 2008. Since that time, the County has adopted targeted amendments to various sections of the ordinances in response to land use and development issues. However, significant growth has occurred in the county over the past thirteen years, and the existing development codes are outdated and do not promote desired development patterns.

Land development in Chatham County is regulated through more than a dozen ordinances, which makes the development process difficult to navigate for applicants, staff, elected and appointed officials, and the public. In addition to the Zoning Ordinance and Subdivision Regulations, the County regulates land use and development activities through a Watershed Protection Ordinance, Stormwater Ordinance, Soil Erosion and Sedimentation Control Ordinance, Flood Damage Prevention Ordinance, Compact Communities Ordinance, Wireless Telecommunications Facilities Ordinance, Junkyard Control Ordinance, Hazardous Waste Management Ordinance, Mobile Home Ordinance, and Off-Premise Sign Ordinance.



Prior to August 2016, 210.2 square miles of unincorporated Chatham County (outside cities and towns and their extraterritorial jurisdictions) were zoned and 387.7 square miles were un-zoned.

The County originally adopted the Subdivision Regulations in the 1960s and the Zoning Ordinance in the late 1960s and early 1970s. Until August 2016, two-thirds of the County was un-zoned which created a need to regulate certain aspects of land use and development outside the Zoning Ordinance. While many of the development-related ordinances have been updated at various points over several decades, many—like the Hazardous Waste Management Ordinance, adopted in 1982—are outdated. The development ordinances are not well coordinated and often contain inconsistent regulations.

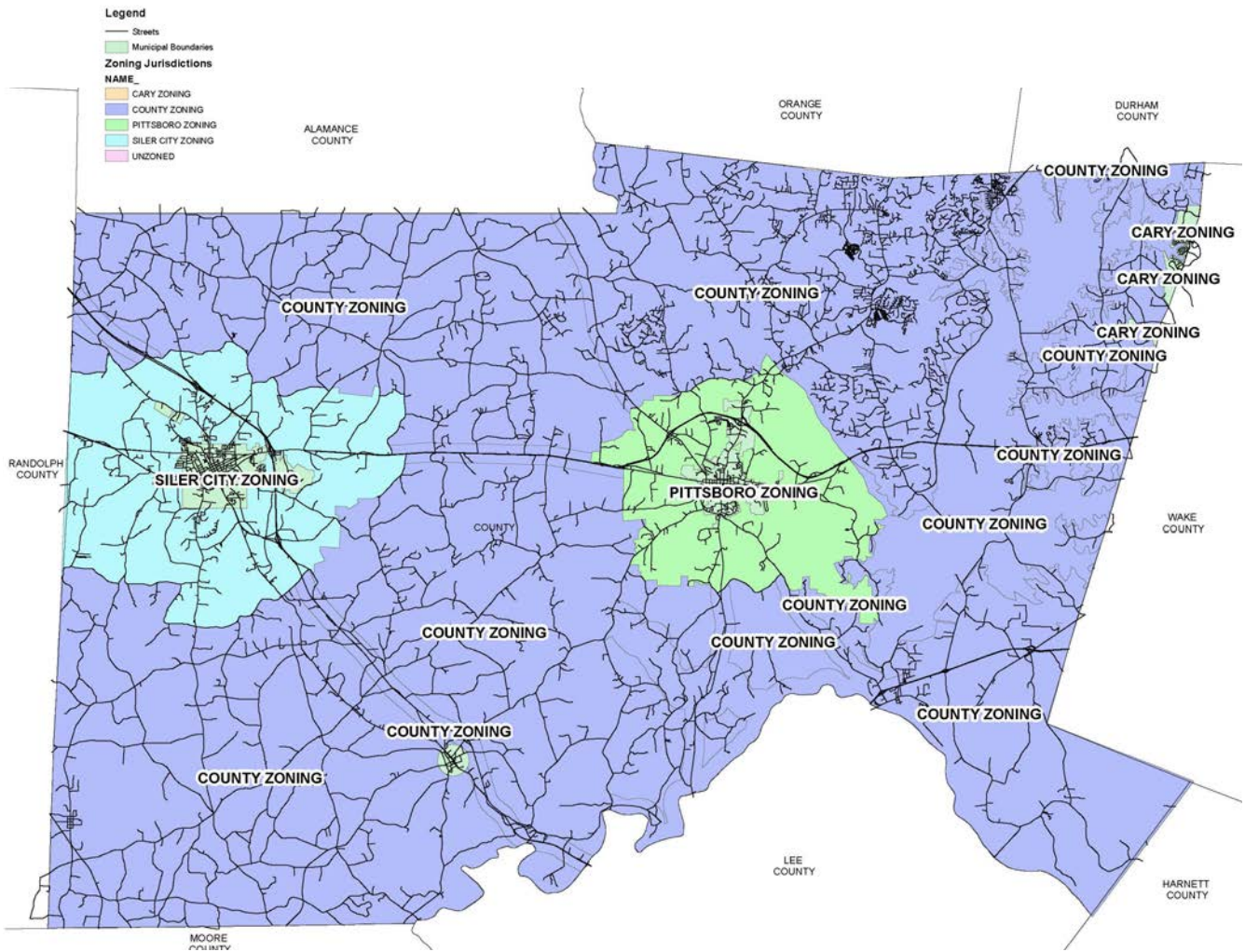
A consistent theme that emerged during the Focus Group Meetings is the need to align the development codes with *Plan Chatham*. The comprehensive planning process generated significant community interest in and support for updating the codes to implement the recommendations expressed in the plan. The Plan recognizes that a one-size-fits-all approach to zoning and land development is not appropriate for Chatham County. The development regulations should recognize the differences in development patterns and growth potential in the rural, suburban, and more urban areas of the county.

1.2 How This Report is Written

This Audit Report builds on the Issues Identification summary provided to Chatham County staff in February 2022. It is organized by broad topics, discusses issues identified by stakeholders, and recommends proposed approaches for addressing the issues. Key items that the UDO should address are presented in bold text throughout the report.

This report is designed to allow the County and consultant team to focus their efforts on the specific issues identified during the assessment phase of the project, based on feedback from the County and key stakeholders, residents, and developers. It is not the last word on the UDO update, but provides an opportunity for the County to verify the approach the consultant team is taking. We therefore encourage County stakeholders to carefully review this assessment, provide comments and suggestions, and stay involved in this important process.

This report begins with discussion of **goals** and **high-level issues**, such as equity and natural resources, that touch on many aspects of the UDO, followed by more detailed discussion of the **primary development ordinances**—the Watershed Protection Ordinance, Stormwater Ordinance, Soil Erosion and Sedimentation Control Ordinance, Flood Damage Prevention Ordinance, Subdivision Regulations, and Zoning Ordinance. The report closes with a discussion of development approval procedures, application submittal requirements, and administrative manuals, and includes an appendix with the **Focus Group Meeting summaries**.



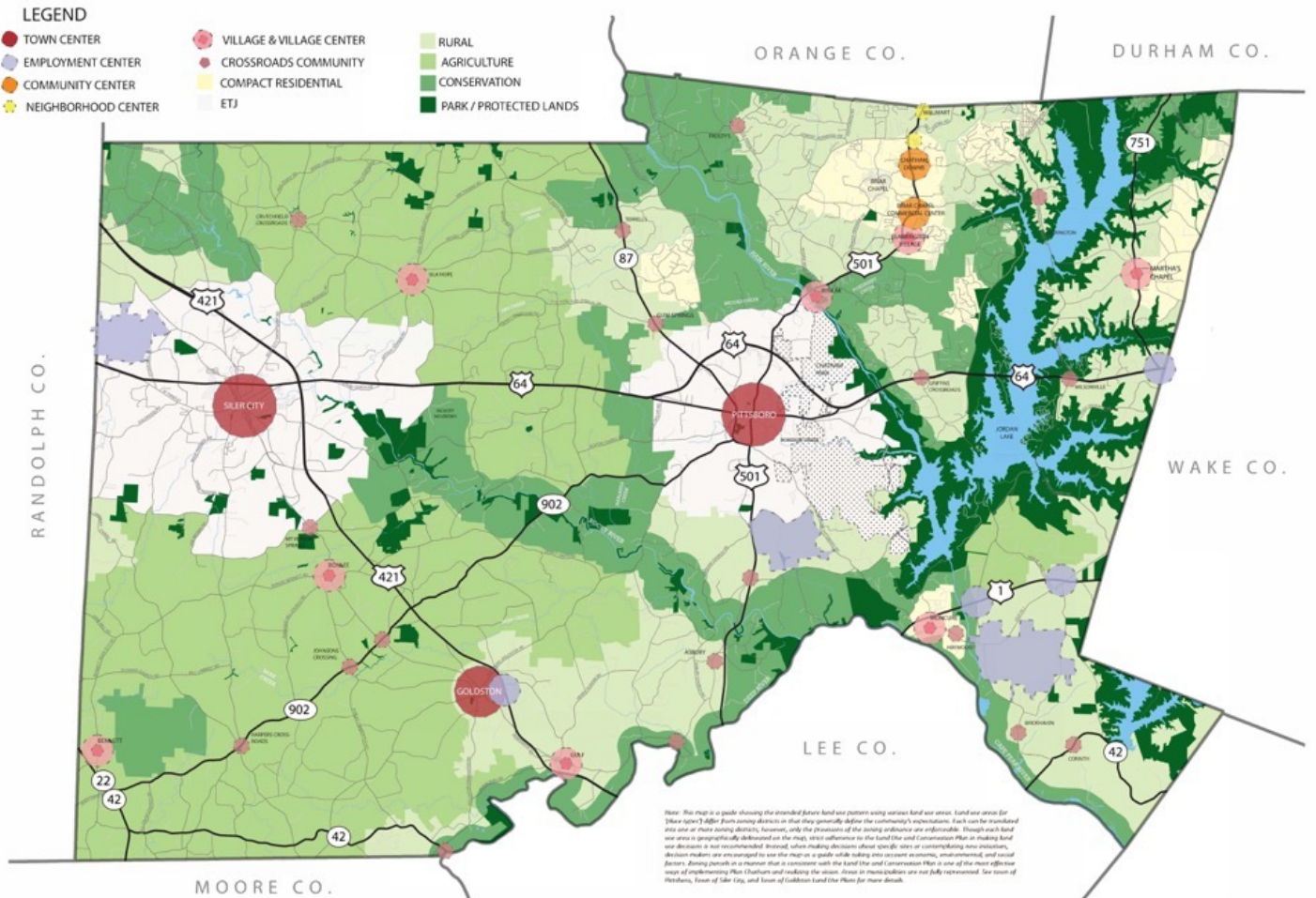
Chatham County's current zoning jurisdiction includes all areas of the County outside cities and towns and their extraterritorial jurisdictions.

2 - Top Implementation Issues from *Plan Chatham*

In November 2017, Chatham County adopted its first comprehensive plan, *Plan Chatham*. The County now seeks a comprehensive revision of its zoning and land development ordinances to guide future development and redevelopment in accordance with the community's vision.

Plan Chatham establishes ten overarching goals in support of the plan's vision. Each goal includes key objectives and associated policies and strategies for progressing towards the community's goals. Based on the feedback from stakeholders, all of the plan's goals remain relevant today. However, stakeholders identified the following as key issues that the UDO should address:

- » Preservation of rural character, especially farmland and open space preservation;
- » Connectivity of parks and trails and access to open space;
- » Focus more intensive development in designated nodes;
- » Increased sustainability and green building;
- » Affordable housing;
- » Support appropriate targeted industries and commercial uses at Triangle Innovation Point (formerly Moncure mega-site) and in designated employment centers; and,
- » Encourage small businesses and small commercial developments to help businesses grow and diversify the County's tax base.



Plan Chatham's Future Land Use and Conservation Map will help inform development of the UDO.

3 - Overarching Goals for the UDO

This project's overarching purposes are to implement *Plan Chatham* planning policies and bring Chatham County's zoning and development regulations into the 21st century, with the following specific project goals:

- » Ensure the UDO is simple and flexible.
- » Improve development review procedures and increase predictability in the zoning and land development process while allowing discretion where appropriate.
- » Provide standards and districts that support and reflect the land use designations on the Future Land Use and Conservation Map.
- » Create a UDO that is less prescriptive than the current regulations and does not try to regulate every possible scenario.
- » Focus on addressing “big picture” items that are going to matter in the long run, such as affordability, connectivity, and equity.
- » Comply with current State laws, including preemptions.
- » Provide flexibility to meet the community's goals in different ways and respond to innovative planning and development concepts.
 - Use incentives where possible to advance goals of Plan Chatham and promote the character of development desired by the community. Explore the use of incentives related to density, lot size, and built-upon area.
 - Explore whether and how the UDO can incentivize voluntary steps in areas the County may not be able to regulate (e.g., the type of wastewater treatment a development must use raises scope of authority questions; affordable housing).



4 - Equity

The American Planning Association notes “equity is a necessary guiding principle for planners and all who participate in the process of planning as advisors, advocates, and decision makers. In the aftermath of a global pandemic, and on the heels of civic awakening around racial injustice, local governments and planners are taking a fresh look at social equity as one of their greatest challenges—from a lack of access to health care and transportation for under-served communities, to increased exposure to environmental hazards, to a digital divide that impacts public participation.”¹

Recode Chatham presents a significant opportunity for Chatham County to advance equity in the land development process, and should explore options for addressing in the UDO not only equity, but also resiliency and environmental, economic, and social sustainability. For example, Recode Chatham will consider how UDO standards can:

- » Encourage livable and connected neighborhoods;
- » Improve access to healthy food and comprehensive health services;
- » Encourage healthy, active living; and
- » Increase the availability of affordable housing.

Stakeholders suggested that the development review process should include review of the equity impacts of a proposed development, to the extent the impacts can be addressed by code implementation and within the County’s authorities. Recode Chatham **will consider the best way to incorporate equity into the review processes** (e.g., including equity, climate, and housing impacts in staff reports).

Stakeholders feel the County should **consider environmental justice issues in zoning and land development decisions**. This could take the form of enhanced requirements for Environmental Impact Assessments. For example, the UDO could add an accident risk analysis for certain land uses where the applicant analyzes potential health and environmental risks and identifies alternatives to mitigate those risks.

¹ American Planning Association (July 1, 2020). [*APA Launches Equity in Planning Video Series*](#).

Stakeholders suggest the County consider a minimum housing code or construction standards to ensure housing quality at all price points. However, this would involve a significant investment by the County as it likely would require additional staff members and extensive inspections and enforcement. There are concerns about whether a minimum housing code could result in an increase in the number of families experiencing homelessness. Counties in North Carolina do not typically have minimum housing codes and it would be important to understand the implications of implementing such a program. This is a discussion the County should begin if there is continued interest in the community; however, it would be a separate effort from Recode Chatham.

Stakeholders noted the importance of community engagement—both in the Recode Chatham process and in the future. The County should ensure nondiscrimination in community engagement techniques and offer Spanish language input opportunities. The County currently has documentation translation services but does not have interpretive services, which limits the ability of Spanish speakers to participate in public meetings. The County should **improve access to information for all populations/demographics through enhanced participation requirements and tools**. A potential approach is to allow community members to request, prior to a public meeting, a Spanish language presentation, and the County (or developer) would ensure a translator is present for the meeting.

Stakeholders emphasized the importance of **incorporating education, awareness, and outreach into the zoning and land development process** (particularly approval procedures). The County should continue to value transparency, encourage open meetings, and seek opportunities to enhance public participation.

Recode Chatham will **ensure the UDO is clear and user-friendly** so the community understands where and how the regulations apply, which enables them to provide more constructive input into the development process.

5 - Future Growth

Plan Chatham indicates Chatham County is the second fastest growing county in North Carolina. Growth is expected to continue, with a projected population increase of nearly 81% between 2015 and 2040.² There is a general desire for the County to continue to coordinate with municipalities and support each other's efforts in effectively managing growth.

The most development pressure is occurring along the 15/501 corridor, and this also is expected to continue. While stakeholders disagreed on whether additional growth in the 15/501 corridor should be encouraged, there is general consensus that growth should occur in the centers identified on *Plan Chatham's* Future Land Use & Conservation Map (FLUC Map). This includes six centers of varying intensities along the corridor between the northern County line and Pittsboro.

² *Plan Chatham*, p. 14



The US 1 and US 421 corridors are also emerging development corridors with the [Triangle Innovation Point](#) (TIP) site in Moncure and [Chatham-Siler City Advanced Manufacturing Site](#) in Siler City. These sites are part of the [NC Carolina Core initiative](#), an economic development initiative focused along “a 120+ mile stretch of central North Carolina from west of Winston-Salem to Fayetteville encompassing Greensboro and High Point and in close proximity to Charlotte and the Research Triangle, all along future Interstate 685.”³

As growth continues, it is important to maintain a balance between existing residents and new developments and preserve Chatham County’s rural character. Stakeholders feel the County should guide development towards incorporated towns and other areas with existing infrastructure (e.g., water, sewer). **The UDO can encourage this by aligning zoning districts and associated densities with the FLUC Map and Plan Chatham’s land use area descriptions.** For example, the UDO could establish a “neighborhood center” zoning district available for use in areas designated as “neighborhood center” on the FLUC Map and other areas deemed appropriate by the County Commissioners.

3 NC Carolina Core, <https://nccarolinacore.com>

6 - Mobility

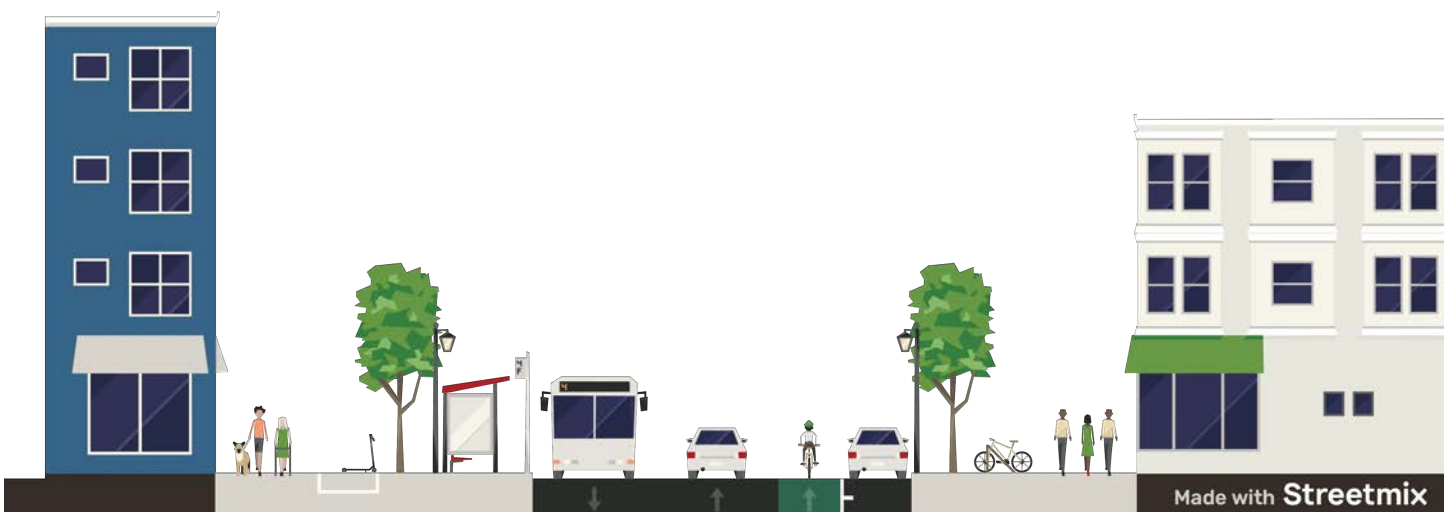
Mobility is an important issue that touches on many others, including environment, affordability, and equity. In its simplest terms, mobility refers to the ability of people to move freely and conveniently from one location to another. An efficient and equitable transportation network is multi-modal, accommodating cars, pedestrians, bicycles and scooters, wheelchairs, public transit, rideshares, and other forms of mobility.

Traffic congestion is increasing in Chatham County and public transit options are currently limited. However, the UDO should **incorporate provisions for transit**, such as requiring construction of transit stops in conjunction with new development in nodes, and **anticipate future conditions and innovations in transportation**. The UDO must consider how



today's development decisions impact the County's ability to accommodate new forms of shared and mass transit in the future. The advent of the sharing economy produced a dramatic shift in the availability of transportation options in a relatively short period of time. Future innovations, such as autonomous vehicles, will further shift the transportation system in new directions.

Stakeholders agree the **UDO standards should lead to increased connectivity of streets and sidewalks**, consistent with NCDOT plans. The UDO should help the County implement a comprehensive approach to a connected greenways and parks system. The consultant team will **explore ways the UDO can require or incentivize open space connectivity**.



7 - Density



Stakeholders are concerned the current zoning and development regulations do not align with market demands. The County is experiencing demand for small lots and higher density, but the current regulations only accommodate this type of development in the Mixed Use Conditional District and the Compact Communities Conditional District—both of which require a significant amount of non-residential uses.

Stakeholders noted that not all higher density developments need a commercial component, particularly if they are close or adjacent to existing developments with commercial uses. The County should **consider focusing more intense development in the nodes identified on the FLUC Map and allowing, but perhaps not requiring, mixed use in districts that accommodate higher density residential.**

Density issues are driving developers to the conservation subdivision technique, but the development outcomes are inconsistent with the intent of conservation subdivision. Developers are also turning to the Compact Communities Ordinance (CCO) to meet market demand for smaller lots. However, the CCO was designed in response to Briar Chapel, so it is difficult to apply the standards to different sites (see further discussion in *Compact Communities Ordinance on page 57*). This adds time to the review process because the process is not appropriate for what the applicant is trying to achieve.

Stakeholders generally affirmed the land use vision expressed in the *Plan Chatham* FLUC Map, which identifies areas suitable for higher density development. Stakeholders feel that zoning and land development decisions should align, in most cases, with the FLUC Map since it provides predictability to developers and the public and guides higher density development to areas where water and sewer are available.

Stakeholders noted that two of *Plan Chatham's* major goals—preserving rural character and providing equitable access to housing—will be difficult to achieve without having dense nodes of development in appropriate places. Higher density nodes also help advance the County's land conservation and resiliency goals. In addition, clustered, walkable, mixed use development reduces drive times, which is important because transportation is the County's biggest greenhouse gas emitter.



An example of mixed use infill development from Plan Chatham (p. 64)

A challenge in addressing density is that the definition is different among different people, and what is considered “appropriate” is subjective. Stakeholders feel the County needs to make a significant policy decision on density. While higher density development can advance many of the County’s planning goals, it can create issues with septic and wastewater systems.

Much of Chatham County is zoned R-1, which allows a maximum of one dwelling unit per acre, but the County should consider whether this should continue to be the norm. One unit per acre can be too restrictive in certain cases, but may be necessary to accommodate septic systems in areas not served by wastewater systems. Anything beyond two dwelling units per acre or 36% built-upon area is a significant change, and decision-makers need to understand and consider the implications of increasing density under State Water Supply Rules. The consultant team will **evaluate options for implementing high density County-wide or using a hybrid approach to ensure lower densities are maintained in certain areas to preserve rural character**. The team will also **consider innovative approaches, such as regulating “rooftops per acre”** rather than “dwelling units per acre,” where a “rooftop” could mean a single-family house, duplex, triplex, quadplex, or even larger multi-family buildings.

Stakeholders noted [N.C.G.S. § 143-214.5\(d2\)](#) mandates density averaging, but Chatham County has not yet implemented these requirements. The consultant team will **consider options and approaches for density averaging, including an evaluation of the eight criteria for density averaging specified in the statute and determine how the UDO can clarify or add details to the requirements and process**. Density averaging can be more “nimble” than other approaches to create protection areas.

The team will also **evaluate the appropriateness of providing density bonuses in limited instances** (e.g., for increased buffers).

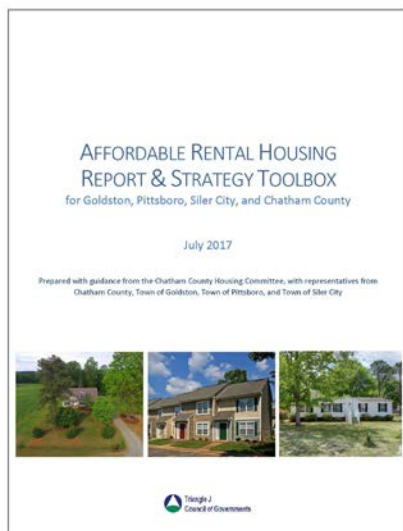
Stakeholders suggest the UDO should **include criteria for density transfers and require formal agreements in order to obtain credits**. This approach could include new zoning districts with less intense development.

There is some interest among stakeholders in implementing a Transfer of Development Rights (TDR) program. TDR programs are “intended to reduce or eliminate development potential in places that should be preserved by increasing development potential in places where growth is wanted.”⁴ In the Chatham County context, a TDR program has a lot of potential to incentivize rural and agricultural preservation, increase density in appropriate areas, and respond to increasing development pressures. However, stakeholders have serious concerns about impacts on staff time since these programs can be complex to administer. The consultant team will **explore less “staff-intensive” approaches, and evaluate State law’s bearing on any approach to transfer density or other development rights**.

Stakeholders also suggested the County **reconsider the maximum size of developments allowed in unincorporated areas**. Some of the larger developments operate like small towns (e.g., Fearington Village, Governors Club, Briar Chapel) and may be more appropriate only in incorporated cities and towns.

4 Rick Pruetz & Noah Standridge (2008): What Makes Transfer of Development Rights Work?: Success Factors from Research and Practice, *Journal of the American Planning Association*, 75:1, 78-87.

8 - Affordable Housing



Recode Chatham can use the [Affordable Rental Housing Report & Strategy Toolbox](#), produced by the Triangle J Council of Governments in 2017, to inform its approach to addressing affordable housing in the Unified Development Ordinance.

As noted in *Top Implementation Issues from Plan Chatham*, affordable housing is a critical need in Chatham County. There is a need to revisit the County’s current approach in order to meet changing needs and demands of the community. The issue of housing affordability relates to many other issues of great importance to the community, including into equity; transportation access; environmental resources, health, and protection; and mental health. Stakeholders feel the UDO should **accommodate and encourage housing across the income spectrum and ensure all neighborhoods include access to open space**. Further, stakeholders recognize that **achieving the County’s housing goals may require increased density in appropriate areas**.

There is a sentiment that there may be community resistance to multi-family dwellings and increased density, but many concerns can be addressed through design, equal access to amenities, equal representation on HOAs, and other techniques to encourage neighborhood cohesion. There is some support for mixing density and small multi-family (studios to two bedroom units) into residential areas, as stakeholders see a significant need for smaller dwellings. Again, design is an important component. From the exterior, “affordable” dwellings generally should be indistinguishable from market-rate dwellings (e.g., materials/finishes, front façades, setbacks). Relevant factors that should be considered in locating mixed housing types include:

- » Availability of transit and other mobility options;
- » Proximity to schools, employment centers, retail areas, and community services; and
- » Other criteria used by the [Chatham County Housing Trust Fund](#) or typical affordable housing funding agencies (e.g., qualified allocation plans).

Stakeholders noted the cost of land is high in northeastern Chatham County. Because the County only allows single-family residential on one acre lots, some stakeholders believe allowing other dwelling types and lot sizes could help reduce cost of land and increase housing options. There is a need for market-rate housing that is more affordable by design (smaller footprints, multi-unit buildings, etc.), but deed-restricted affordable housing has a place as well to ensure housing remains attainable for people at all income levels. **In addition to expanding allowed housing types in the UDO, Recode Chatham can explore options for incentivizing the construction of housing with restricted sales prices, rents, and/or owner/tenant incomes.**

It is important for the UDO to **use an inclusive definition of affordable housing**. The goal is to address the full range of income levels, including very- and extremely-low, not just households with incomes in the 80-120% range of the Area Median Income (AMI). Stakeholders noted most of the need in Chatham County is for housing attainable to households earning less than 50% AMI. Note that Chatham County's AMI according to the U.S. Department of Housing and Urban Development (HUD) includes Chapel Hill, which increases the County median income. While the County has access to local income data, all federal, state, and regional programs with funding sources for affordable housing use HUD's metrics. The UDO's **definition of affordable housing should be consistent with HUD's definitions.**

Recode Chatham should **consider where affordable housing fits in the County's subdivisions** (in terms of access/proximity to jobs, transportation, and services, along with other factors) and **evaluate options to incentivize the construction of inclusive affordable housing**. Incentives could include

increased density or building height and streamlining the development approval process for affordable tiny home communities. It is critical for the UDO to include techniques that **prioritize built housing**, not just the dedication of land or payment of fees-in-lieu.

While the [Chatham County Housing Trust Fund](#) does not require deed restrictions for projects that receive public funding, it does award more points to projects that have clearly outlined long-term affordability measures in place. There is general consensus among stakeholders that this practice should continue, particularly when there is public funding involved.

Stakeholders noted that conditional zoning may provide a path to increasing the production of affordable housing. However, while conditional zoning districts could encourage the provision of affordable housing, approvals cannot be conditioned upon a requirement to provide it.

Recode Chatham should consider techniques to **encourage the integration of senior housing into neighborhoods, particularly those in or near designated growth nodes** since those neighborhoods are close to everyday services such as healthcare facilities.



Substandard housing is an historic concern. Stakeholders feel that any affordable housing built should have long-term maintenance standards and ongoing monitoring requirements. Homes built using funding from federal sources, such as the Low Income Tax Credit program, have such requirements. Recode Chatham should explore whether the UDO can include long-term housing maintenance requirements. Stakeholders suggested learning more about minimum housing codes and maintenance provisions from other communities in the region, including Siler City. As noted in *Equity*, developing a minimum housing for Chatham County would be a separate effort from Recode Chatham. However, Recode Chatham can explore whether the UDO can include a process to resolve issues related to housing maintenance.

Stakeholders shared a concern with the potential displacement of those living in manufactured housing. As a separate effort from Recode Chatham, the County could consider identifying properties at higher risk of displacement due to their proximity to designated growth areas or areas with high development pressures and examining ways to prevent displacement.

9 - Natural Resources



The Green Growth Toolbox can inform Recode Chatham’s efforts to incorporate natural resources and habitat conservation techniques into the UDO.

9.1 Natural Resources Protection

Chatham County has been a leader in natural resources protection. A prime example is the Chatham Conservation Partnership (CCP), “a collaboration of local, state, and federal government agencies, non-profit organizations, businesses, universities, and individuals who work together on natural resource conservation programs and issues in Chatham County.”⁵ Stakeholders noted the partnership is a good resource for Recode Chatham. The CCP prepared A Comprehensive Conservation Plan for Chatham County, North Carolina in 2011. The Plan describes Chatham County’s natural resources, identifies potential threats to those resources, and recommends conservation and resource management strategies. The CCP website provides extensive resources, including maps, data, and sample ordinances.

Plan Chatham’s Natural Resources chapter includes recommendations that should be incorporated into UDO such as Strategy 2.4, which is to “[r]equire/incentivize Low Impact Development (LID) techniques and Green Stormwater Infrastructure (GSI) in and near Centers and in Compact Residential Areas.”⁶

The County should **consider performance zoning or incentives for natural resources protection**, such as the preservation of wildlife corridors. The first step is to determine the key outcomes the County is planning for (e.g., carbon production or sequestration), then determine the most effective approaches. The Climate Change Advisory Committee has developed a draft “model scorecard” that could inform this process.

5 Chatham Conservation Partnership, <https://www.chathamconservation.org/home>

6 *Plan Chatham*, p. 107

The N.C. Department of Natural and Cultural Resources' Natural Heritage Program (NHP) provides yet another valuable resource that can inform the land development process in Chatham County. The NHP provides comprehensive data on the state's natural resources and designates significant Natural Areas. Chatham County does not currently have a regulatory tool to protect NHP-designated Natural Areas, except in the context of conservation subdivisions. The conservation subdivision regulations require at least 80% of the subdivision's Conservation Space to consist of Natural Space. The highest priority areas for preservation of Natural Space State are Natural Heritage Areas and Natural Heritage Element Occurrences, NC Wildlife Action Plan Upland Systems, and historic and cultural resources (as defined by the State Historic Preservation Office and the Chatham County Historical Association).⁷ Recode Chatham should **consider expanding protections for NHP Natural Areas in the UDO and incorporating NHP data into the review process for zoning and land development applications.**

⁷ Subdivision Regulations Section 7.7.B. and Chatham County Conservation Subdivision Guidelines for Conservation Space Selection, p. 2



9.2 Conservation/Open Space & Recreation

There is broad consensus on the importance of preserving conservation and open space. Stakeholders feel it is critically important to maintain green infrastructure, including wildlife corridors, and ensuring developers and property owners understand the types of areas the County wants to conserve. The UDO should **include provisions for parks and recreation space in new development, including trails, and require connections between open spaces.** The UDO could prioritize the conservation of certain types of open space in new development based on its value to the County's overall open space network and/or relax certain standards (e.g., density and other design standards) when open space requirements are exceeded.

Stakeholders generally support requiring open space in all subdivisions—including connections and access to nature in affordable developments. Trails are important to the community and there is a need to determine where trails should be located and how they connect. The *Plan Chatham* Parks and Recreation Element “big idea” is to “double the amount of natural surface trails and paved greenways by 2030.”⁸ The Plan includes a conceptual map showing the location of greenways, blueways, and trails, as well as other recreational facilities.

In close consultation with the County Attorney, Recode Chatham should **explore ways for the UDO to require developers to construct in new developments trail/greenway sections** identified in *Plan Chatham* or other adopted plans and **provide public access easements along rivers.** The UDO must ensure any requirement for land or facility dedication does not exceed the roughly proportionate amount required to offset the impacts of a proposed development's demand for parks and open space. It is also important to consider the effect of such requirements on the cost of housing and ensure they do not disincentivize the construction of affordable housing.

⁸ *Plan Chatham*, p. 117

Recode Chatham should **evaluate and clarify the current conservation and open space regulations**. The UDO should **require a diversity of open space types and features**, including natural areas, forests, wetlands, trails, open fields, wildlife corridors, viewing areas/birdwatching, and active and passive recreation areas. Stakeholders identified a need to **clarify the definitions of conservation and open space and the type of activities for which these areas can and cannot be used**. The UDO could allow a certain percentage of riparian buffer areas to count towards required open space, but exclude or limit “leftover” areas or otherwise undevelopable areas. Stakeholders suggested consideration of whether preserved tree canopy areas should count as open space and whether carbon reduction and other environmental benefits can be considered in regard to what is considered open space. Stakeholders also suggest the County **consider limiting or prohibiting the use of herbicides and pesticides in conservation and open space**.

Stakeholders identified a need for pools and aquatic facilities, and suggested the County could consider allowing these uses in required open space. Recode Chatham should carefully consider whether allowing these uses in required open space is consistent with the County’s goals for natural resource conservation. Swimming pools and aquatics facilities use a significant amount of water, take large amounts of energy to maintain, and typically use a lot of chemicals in their maintenance.

There are mixed opinions as to whether golf courses should count towards required open space (currently, it depends on the type of project). If golf courses are allowed as open space, equitable access is a concern as golf courses are often private and typically require user fees. Further, golf courses can negatively impact the environment through the use of non-native turfgrass species and the intensive use of pesticides and herbicides that can negatively impact water quality in downstream water systems. However, there is growing interest in creating environmentally-beneficial golf courses—though they remain few and far between. Audubon International notes that “golf courses are uniquely positioned to offer a host of environmental benefits,” including providing wildlife habitat, protecting water resources,

filtering stormwater runoff through wetlands and turfgrass, and rehabilitating degraded landscapes (e.g., former landfill sites).⁹ If the UDO allows golf courses to count as open space, there should be strict operational requirements to ensure they provide environmental benefits and advance the County's conservation, equity, and housing affordability goals.

Chatham County requires developers to pay a recreation fee and has an option for land or facility dedication in lieu of fee payment. Fee payment is typical, while it is less common for a developer to dedicate land. This requirement applies to all subdivisions (including minor subdivisions). State law limits the way the County can use these funds, and stakeholders seemed to prefer land/facility dedication over fee payment. Recode Chatham should **evaluate ways for the UDO to encourage land and/or easement dedication rather than fees, and identify additional approaches for preservation or dedication of property as part of the development review process.** Any option for land dedication should include consideration of Natural Heritage Program data and Plan Chatham metrics for land conservation to ensure dedicated land has high conservation value and/or provides other significant public benefits. Consideration also must be given to the long-term financial impacts to the County associated with dedicated land (e.g., maintenance and improvements). To that end, Recode Chatham should **evaluate the potential for developer-funded, short-term maintenance funds for dedicated land.**

Developers are required to permanently protect all Conservation Space in a conservation subdivision through an easement (made in favor of the County or a land trust or similar non-profit conservation organization), a permanent restrictive covenant, or alternative restriction approved by the County Attorney.¹⁰

The Subdivision Regulations do not specify long-term monitoring and enforcement requirements; presumably, this is negotiated on a case-by-case basis with each easement. In any case, it is necessary for the easement co-holder to

⁹ Audubon International, <https://auduboninternational.org/wp-content/uploads/2019/03/GE-Golf-and-the-Environment.pdf>

¹⁰ Subdivision Regulations Section 7.7.H.

monitor lands under conservation easement on a regular basis. Depending on the number of easements to which the County is a part, tracking and monitoring could have a significant impact on staff time.

The UDO should **clarify procedures for conservation easements**, including requirements for long-term monitoring and enforcement, and Recode Chatham should **explore alternatives for County involvement as an easement co-holder**. For example, the County has an easement with the N.C. Land and Water Fund (formerly known as the Clean Water Management Trust Fund) for its Northeast District Park. The Chatham Soil and Water Conservation District provides annual monitoring of this easement for a nominal fee. A similar arrangement may be appropriate for conservation subdivisions.

9.3 Agricultural Preservation

Agricultural preservation is important in Chatham County. The County's rural and agricultural character draws in new residents, but increased development (particularly residential development) threatens that character. The challenge lies in balancing development and increased population with the preservation of productive soils and improving water management. Stakeholders noted that climatic changes are of increasing significance to farmers, so it is important to protect the larger ecosystems and soil stability.

A key issue that Recode Chatham should address is whether the County should move away from density in agricultural areas to protect farmland and the agricultural economy, or maintain/increase allowable density to protect farm owners' future rights to develop or sell their land. If density is reduced, the UDO should offer other development rights or incentives, such as additional allowed uses (e.g., agritourism) or transfer of development rights.

Conventional residential subdivisions typically are not compatible with agricultural uses. A "village approach"

(clustered, compact communities surrounded by open rural/agricultural land) is more compatible with existing agricultural uses. Some stakeholders believe the County should consider dis-incentives for residential development in agricultural areas.

Recode Chatham should **explore options for protection of agricultural areas through zoning districts or other approaches**, such as requiring new developments adjacent to working farms and agricultural areas to provide increased buffers. The County used to have Residential/Agricultural zoning districts (e.g., RA-1, RA-5), but the names of these districts were revised when the N.C.G.S. made it clear that bona fide farm uses are exempt from zoning regulations. However, it has caused confusion among community members who want to farm but do not know they can in an R zoning district. Recode Chatham should **examine whether it is appropriate to rename one or more of the residential districts to clarify where agricultural uses are allowed** (other than bona fide farms, which are exempt from regulation).

Stakeholders want to ensure that agricultural support businesses do not slowly decline as non-agricultural development encroaches into agricultural areas. Recode Chatham should **consider the compatibility of allowed uses in agricultural areas and ensure there is a place for all types of agriculture**. Produce farms are different from commercial livestock operations, and tend to be more compatible with residential uses than farms with livestock. The scale of the agricultural operation is another key to compatibility, but there needs to be a place for large-scale operations. Recode Chatham should **consider the most appropriate approach to regulating more intensive agricultural uses**, and the UDO should **make a thoughtful distinction between large farms (especially livestock) and small scale farms**. The UDO also should **provide flexibility for specialized farming uses**.

Community education is important to agricultural preservation efforts. Stakeholders find that new residents in agricultural areas want to better understand how agricultural uses typically operate, what to expect, and what it means to be a good neighbor.

Recode Chatham should **evaluate the effectiveness of current Voluntary Agricultural Districts (VADs) in protecting agricultural uses**. Stakeholders think VADs seem effective and attractive to farmers, but noted the districts have not really been tested. The UDO should clarify the long-term benefits to farmers.

Survey plats are required to include notice of VAD proximity. Recode Chatham should **explore ways to increase public awareness of the location of working farms** even if they are not located in a VAD. For example, staff recently began exploring ways to use tax data to map the location of working farms on the County's interactive online GIS system. In addition to making this information readily available to the public, it also would allow staff to easily incorporate this information into their reports on proposed developments.

Where possible, the UDO should **promote the use of agricultural easement programs** (e.g., Natural Resources Conservation Service Agricultural Conservation Easement Program). These types of programs may be useful in the context of agrihoods (see *Agricultural-Friendly Subdivisions on page 45*).



10 - Watershed Protection Ordinance & Riparian Buffers

The State of North Carolina requires local governments to adopt regulations for the management and protection of watersheds to protect public health and to maintain, protect, and enhance water quality. [N.C.G.S. § 143-211\(c\)](#) authorizes the N.C. Department of Environmental Quality (NCDEQ) to “administer a program of water and air pollution control and water resource management.” Pursuant to this legislative authorization, the NCDEQ requires local governments to develop riparian buffer programs to protect the Jordan Lake watershed since the lake serves as a major water supply for the central portion of the state. The Watershed Protection Ordinance implements these mandates.

The community supports the continued protection of natural resources in new developments, particularly watersheds and riparian buffer areas; the maintenance of riparian buffer requirements; and the addition of incentives to encourage increased protection of natural resources. Riparian buffers are critically important and stakeholders generally feel the requirements should be as strict as possible. As mentioned in [13 - Flood Damage Prevention Ordinance on page 41](#), the County should **consider expanding flood regulations to include the 500-year floodplain which could effectively increase the size of riparian buffer areas.**

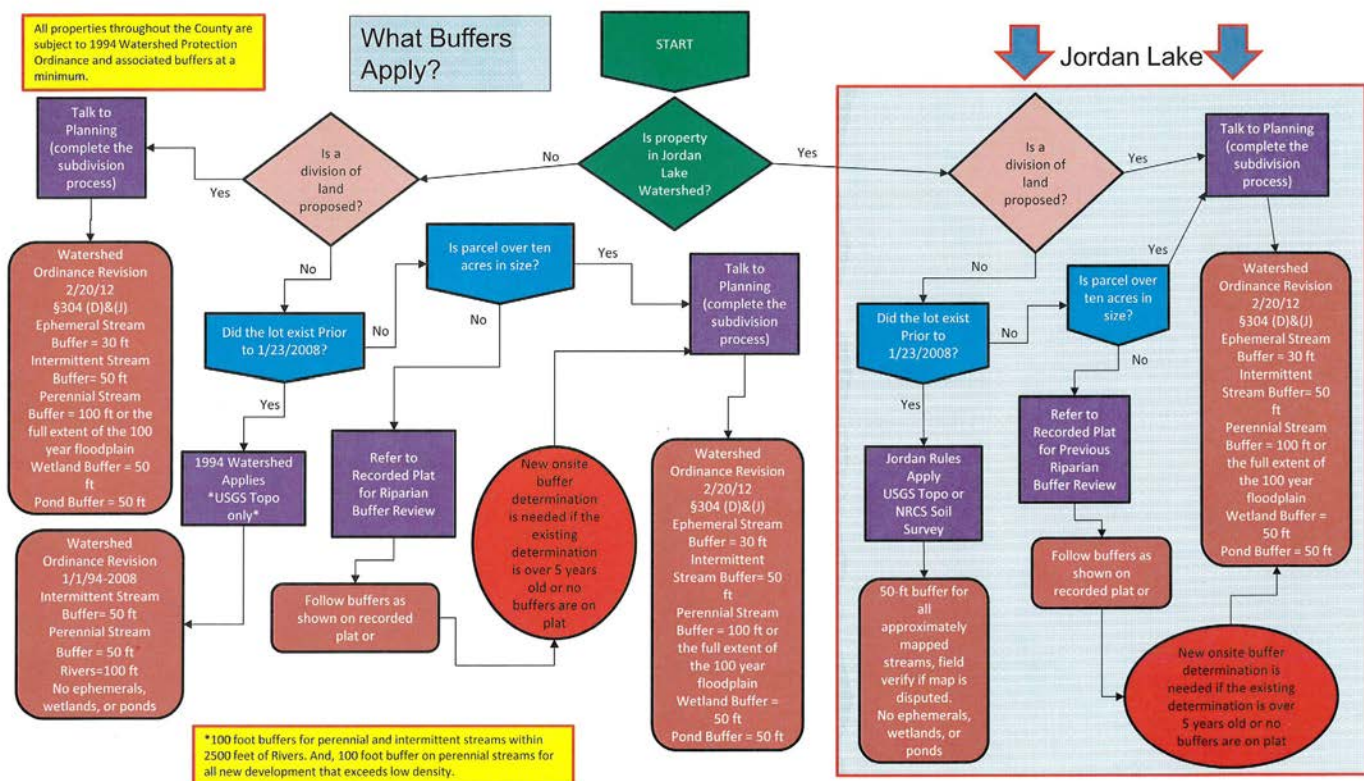
Developers often voluntarily increase riparian buffer widths through the subdivision process, but the applicable regulations

for “voluntary buffers” are unclear and maintenance of the buffers cannot be enforced over the long-term. Recode Chatham should **explore options for incentivizing additional buffer widths in accordance with State law, while ensuring their continued maintenance over time.** Stakeholders suggested lot size flexibility could be helpful as an incentive.

Stakeholders noted the importance of protecting the Haw River watershed and feel Recode Chatham should **explore ways the UDO can help preserve access to the water and protect wildlife.**

Land development is particularly complex in Chatham County due to the number of watersheds and the required Jordan Lake buffers. As evidenced by the flowchart prepared by staff (see Figure 10.1), the riparian buffer requirements are complex

Figure 10.1: Flowchart illustrating the complexity of Chatham County’s riparian buffer regulations.



to administer since there are four applicable ordinances with different standards. However, there are concerns that the requirements would lose effectiveness if they are streamlined. Further, due to recent legislative activity, there is some uncertainty about the scope and extent of potential revisions the County can consider to the Watershed Protection Ordinance and riparian buffer requirements. Stakeholders believe that providing a scientific basis for having different buffers may help address preemption issues. **Any revisions should include close consultation with the County Attorney regarding preemption and the limits of County authority.** In addition, more than one County department is involved in administering the Watershed Protection Ordinance and riparian buffer requirements and will need to be involved in any proposed revisions.

Stakeholders feel the riparian buffer requirements generally are working well, but **certain aspects could use review and clarification or revision, including the timing of the riparian buffer determination during the subdivision process.** Sometimes certain buffer impacts (e.g., stream crossings, driveways) are not anticipated at the time the subdivision is reviewed. There is a need to better understand the full range of impacts earlier in the process. There also is a need for clarity for applicants, who often do not know who to contact or how the buffer determination process works.

The UDO should also clarify the interaction between riparian buffers and subdivision (i.e., establishment of property lines) and the timing of land disturbance permit and platting. As with other development-related procedures (see *16 - Approval Procedures on page 81*), **a flow chart would be helpful.**

Stakeholders noted the **Watershed Protection Ordinance variance process** is unclear—both to staff and the public—and **should be clarified and simplified.**

Additional areas of potential revision identified by stakeholders include:

- » Specific riparian buffer impact plan requirements;
- » Inspection protocols;
- » Penalty structure for violations;
- » “Parent tract” interpretation;
- » Agricultural and timber activity exemptions (e.g., the addition of detailed explanations of these exemptions); and
- » Consideration of adding application requirements for exempt activities.

The **addition of tables** would help clarify the applicability of each of the four ordinances and the allowable activities inside vs. outside the Jordan Lake Watershed, and would help summarize and clarify the requirements for the various watershed districts.

The Watershed Protection Ordinance overlaps with other requirements and ordinances (e.g., stormwater, sediment and erosion control, wastewater, zoning). Recode Chatham **will streamline these requirements where possible and resolve any inconsistencies between the various ordinances.**

The Watershed Protection Ordinance impacts allowed land uses, density, and built-upon areas—items commonly regulated by a zoning ordinance. For example, the WS-II Watershed Areas - Balance of Watershed (WS-II-BW) limits allowed land uses to agriculture, silviculture, residential uses, and an explicit list of non-residential uses. However, the Zoning Ordinance makes no mention of the Watershed Protection Ordinance in the context of allowed uses. A property owner reading the Zoning Ordinance to understand the types of uses allowed on their property would not know that uses may be further limited by the watershed in which the property is located. Recode Chatham should **consider the most effective way to integrate zoning regulations with watershed regulations.** Several communities in North Carolina, including Union County, the City of Raleigh, and the Towns of Davidson and Huntersville, use overlay zoning districts to implement watershed protection requirements. Recode Chatham should explore the utility of this approach in Chatham County.

11 - Stormwater Ordinance



A bioretention cell in downtown Pittsboro that captures and treats stormwater runoff.

Stakeholders agreed the **Stormwater Ordinance needs close review** and should better coordinate with the Watershed Protection, Soil Erosion and Sedimentation Control, and Flood Damage Prevention Ordinances. They noted the County can learn from other communities in the region (e.g., Wake County). Some stakeholders support increasing regulatory requirements. It is important to note that the direction the County takes on density (see *Density*) impacts the type of changes needed to the stormwater regulations.

Recode Chatham should **evaluate whether the current regulations are adequate to accommodate future conditions and buildout of the watersheds**. The ultimate total built-upon/impervious area for a proposed development is largely unknown at the site plan review stage, and there are concerns about the adequacy of the current regulations to effectively regulate based on an unknown end state.

Stakeholders shared several concerns related to stormwater, including concerns about water quality, particularly that of Jordan Lake; the effect of new development on water quantity; and the increasing frequency of flood events. The County has experienced problems with incised streams due to increased impervious surfaces, and stakeholders feel Recode Chatham should **reevaluate the current approach to stormwater control and stream protection**.

Stakeholders identified a need to **better address cumulative impacts of new developments**, possibly through the requirement for drainage basin studies rather than limiting drainage studies to a proposed development site.

Recode Chatham should **evaluate additional techniques the UDO could implement to help improve water quality**. For example, there is interest in allowing or requiring green stormwater infrastructure in general and in rights-of-way (e.g., bioswales, bulb-outs). Stakeholders feel stormwater features should be used as an amenity and should improve the aesthetics of new development.

Section 400(5)b of the Stormwater Ordinance allows developers to utilize low impact development (LID) techniques to manage stormwater. Recode Chatham should **consider the effectiveness of incorporating requirements for developers to use LID techniques** to address issues with stormwater runoff and flooding. As with other development requirements, Recode Chatham must consider the potential impact on housing affordability. However, in many cases, utilization of LID techniques can actually reduce development costs. In a report summarizing 17 case studies of developments that incorporate LID techniques, the U.S. Environmental Protection Agency found that “in the vast majority of cases, significant savings were realized due to reduced costs for site grading and preparation, stormwater infrastructure, site paving, and landscaping. Total capital cost savings ranged from 15 to 80 percent when LID methods were used, with a few exceptions in which LID project costs were higher than conventional stormwater management costs.”¹¹

Finally, the UDO needs to **clarify the responsibilities of developers, builders, and homeowners related to stormwater infrastructure**, including the responsibility for long-term maintenance.

¹¹ U.S. EPA (2007): *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*.



Low impact development techniques, such as this rain garden in Davidson, NC, manage stormwater, mitigate heat island effects, and improve the aesthetic quality of development.

12 - Soil Erosion & Sedimentation Control Ordinance

Stakeholders support making **improvements to the Erosion and Sedimentation Control Ordinance**, as it is inconsistent in some ways with the N.C. Department of Environmental Quality (NCDEQ) Erosion Control Model Ordinance. However, there is a desire to **maintain any current requirements that are more stringent than those in the model ordinance** (e.g., sediment basin design, which requires double the storage volume that the model ordinance does). The County should also continue to **explore ways to encourage the use of polyacrylamides (PAM) on construction sites** to enhance erosion control by reducing soil detachment, maintaining soil structure, and increasing infiltration rates, thus improving water quality.¹² The NCDEQ confirmed that the County does

¹² N.C. State Extension, <https://content.ces.ncsu.edu/using-polyacrylamide-pam-to-reduce-erosion-on-construction-sites>



not have the authority to require PAM or other flocculants, but could encourage their use by including them in standard detail drawings.¹³

Due to recent legislation ([House Bill 489/Session Law 2021-121](#)), there is some uncertainty about the scope and extent of revisions needed to the erosion and sediment control ordinance. Staff has received assistance from the NCDEQ and has begun work on changes to the County's ordinance to align it with the Model Ordinance and potentially make additional updates. **The consultant team will work closely with County staff and the County Attorney to ensure any changes to the erosion control requirements align with this new State law.**

Stakeholders identified specific challenges with the current ordinance, including ownership changes and phasing of large development projects. As with other types of development plans, the UDO needs to **address the transfer of erosion control plans when ownership or the financially responsible person changes.**

Recode Chatham should **explore the possibility of additional erosion control permit types.** Currently, the County has two permits for erosion control—a land-disturbing permit and a residential lot permit. For example, an early grading permit could help address the challenges with large development projects that will be submitted in phases over the course of many years where the “end product” of the construction site is an unknown at the time the erosion control permit is issued. Stakeholders identified Charlotte-Mecklenburg as an example that may be helpful as the County consider options for erosion control permitting.

Stakeholders suggest **consideration of different erosion control permitting thresholds** based on location, construction type, or other development characteristics. As shown in Figure 12.1, some jurisdictions have one permitting threshold for all types of development and a lower threshold in certain watersheds.

¹³ Email correspondence dated February 8, 2022 from J. Coco, PE, State Sediment Program Engineer, North Carolina Department of Environmental Quality, to J. Hasenfus, Watershed Specialist, Chatham County Watershed Protection Department.

Figure 12.1: Erosion control permitting thresholds for select North Carolina jurisdictions

Erosion & Sedimentation Control Permitting Thresholds	
Jurisdiction	Permitting Threshold
Chatham County	<ul style="list-style-type: none"> » > 25,000 sf for single-family dwellings » > 20,000 sf for all other development
Lincoln County	<ul style="list-style-type: none"> » All land disturbance > 1 acre » Where a building permit is required: <ul style="list-style-type: none"> » Land disturbance > 1,000 sf but < 1 acre (requires an application, not a plan) » Any non-residential land disturbance > 20,000 sf
Wake Forest	<ul style="list-style-type: none"> » All projects > ½ acre » All projects that are part of a common plan of development
Orange County	<ul style="list-style-type: none"> » All projects > 20,000 sf » All projects > 10,000 sf in certain watersheds
Holly Springs, Apex	<ul style="list-style-type: none"> » All projects > 20,000 sf
Fuquay Varina, Johnson County, Charlotte-Mecklenburg County	<ul style="list-style-type: none"> » All projects > 1 acre
Wake County	<ul style="list-style-type: none"> » All projects > 1 acre » All projects that are part of a common plan of development
Guilford County	<ul style="list-style-type: none"> » All projects > 1 acre » Grading activities within Tier 1 or Tier 2 of the Watershed Critical Area (WCA) » Projects that include a permanent runoff control structure within the WCA
Durham County, Raleigh	<ul style="list-style-type: none"> » All projects > 12,000 sf

Even if the County's permitting thresholds remain the same, the UDO should **add a permitting requirement for developments that are under the permitting threshold, but part of a larger "common plan of development."**

Recode Chatham should **explore options to allow bonding related to erosion control.** For example, a permitted commercial facility has been constructed and the developer wants a Certificate of Occupancy, but the sediment basin has not yet been converted to a stormwater pond as required. The facility wants to open and the County wants to allow it, but cannot do so without guarantees that the owner will convert the basin as required. A monetary bond could be withheld until the work is completed.

The UDO **should clearly state that compliance with the permitting requirements of other applicable local, state, and federal agencies is required** prior to erosion control plan approval or permitting by Chatham County. The UDO should also **recognize the County's interlocal agreements with the Towns of Pittsboro and Goldston to handle their erosion control permitting.** The only mention of the Town of Pittsboro in the current Soil Erosion and Sedimentation Control Ordinance is in Section 164.99: *Penalty*.

The UDO should **include more detailed requirements for erosion control plan contents.** The County could also **consider creating a plan template** for use by applicants, which would streamline the plan submittal and review process and potentially reduce review timeframes. The Land Development Manual discussed in *18 - Administrative Manuals on page 96* would be an ideal location for this template.

Finally, the revised Erosion and Sedimentation Control regulations should **incorporate other types of enforcement mechanisms** (e.g., one-day fines that County staff can issue on-the-spot for violations).

13 - Flood Damage Prevention Ordinance

Stakeholders agreed that few, if any, revisions are needed to the County's Flood Damage Prevention Ordinance. **Revisions suggested include consideration of the following:**

- » Adding a table of uses to clarify allowed uses and specific use conditions;
- » The impact of State laws on buffer requirements;
- » Whether the regulations should include the 500-year floodplain and how this could potentially impact other regulations, as well as property owners' insurance;
- » Better defining and clarifying restoration and penalty processes; and
- » Clarifying what happens when fill materials are placed in floodplains.

14 - Subdivision Regulations

14.1 Subdivision Types

As noted in *Future Growth*, the demand for new subdivisions in northeastern Chatham County is strong. The majority of new major subdivisions proposed in the past year were located in this area. The County sees a wide variety of major subdivision sizes—some with less than 20 lots and others with hundreds of lots. Some are standalone subdivisions, while others are phases of much larger developments.

Stakeholders noted the County may begin seeing increased demand for equestrian subdivisions, so Recode Chatham will **consider whether the UDO should include standards specific to this type of development.**

Stakeholders also suggest the UDO **include provisions related to solar orientation in block and lot design.**

This Section discusses conservation subdivisions, a subdivision type that comprises the majority of new subdivisions; agricultural-friendly subdivisions, a potential new subdivision type; and minor subdivisions.

Conservation Subdivisions

According to staff, the majority of new subdivisions proposed in the past year were conservation subdivisions. There is a sense among stakeholders that most developers choose this option to reduce infrastructure costs, which is one of many benefits of the conservation subdivision design technique.

Conservation subdivision design is an alternative to conventional subdivision design in which at least 40% of the project area must be retained as Conservation Space. Conservation subdivisions “preserve natural features as amenities in exchange for flexibility related to minimum lot sizes and housing types.”¹⁴

Stakeholders think some revisions to the conservation subdivision regulations are needed, but generally the regulations work well. They find value in allowing and encouraging this subdivision type, as it leads to increased open space and improved tree protection. Some stakeholders suggested using conservation subdivisions as a “baseline” subdivision design technique in one or more areas of the County. Recode Chatham will **consider the appropriateness of requiring all new major subdivisions**

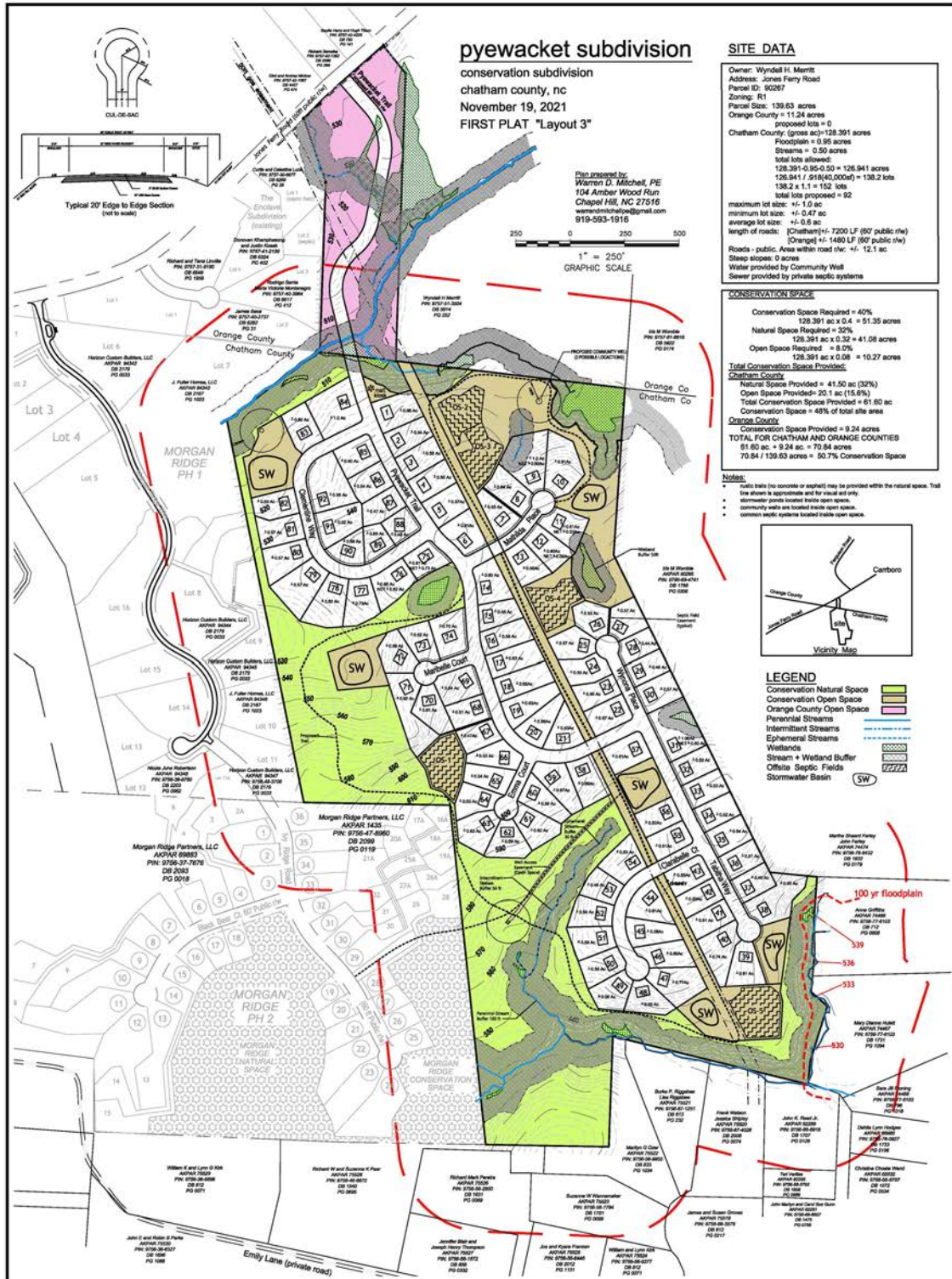
¹⁴ *Plan Chatham*, p. 66

in certain geographic areas or zoning districts to be conservation subdivisions.

The UDO could implement more than one type of conservation subdivision, with different standards based on the type of wastewater system or the subdivision’s location within the County. For example, the UDO could provide standards “compact” minor conservation subdivisions that might be appropriate in more rural areas of the County.

Stakeholders agreed that Recode Chatham needs to **reconsider what percentage of required conservation space in new subdivisions can be comprised of otherwise undevelopable land** (e.g., riparian buffers and floodplains). They also believe the UDO should **require conservation subdivisions to maintain or create wildlife corridors.**

Conservation subdivisions currently are the only type of subdivision that require submittal of a Natural Heritage Program (NHP) report. Stakeholders want to see this requirement maintained in the UDO for conservation subdivisions and potentially expanded to other types of development applications (see further discussion of the NHP report in [17 - Application Submittal Requirements on page 93](#)).



The first plat for Pyewacket Subdivision, a conservation subdivision located in northeastern Chatham County.



A view of a working farm and nearby homes in Serenbe, an agrihood located outside Atlanta, GA (photo courtesy of Serenbe.com)

Agricultural-Friendly Subdivisions

Plan Chatham Land Use Action Item 03 recommends that the County **modify the subdivision process to encourage “agricultural-friendly developments”** in order to preserve rural character and minimize encroachment on existing agricultural operations.¹⁵ Stakeholders agreed that subdivisions in rural areas should preserve rural character.

Plan Chatham suggests consideration of allowing administrative approval of minor subdivisions up to 15 lots in rural and agricultural areas as long as agricultural-friendly design criteria are met, and requiring all major subdivisions, or just those receiving County water, to be designed as agricultural-friendly developments. Recode Chatham can help identify the characteristics of what constitutes an agricultural-friendly development. For example, the UDO can require new development to provide wide, natural buffers to mitigate potential negative impacts of the new development on adjacent agricultural uses.

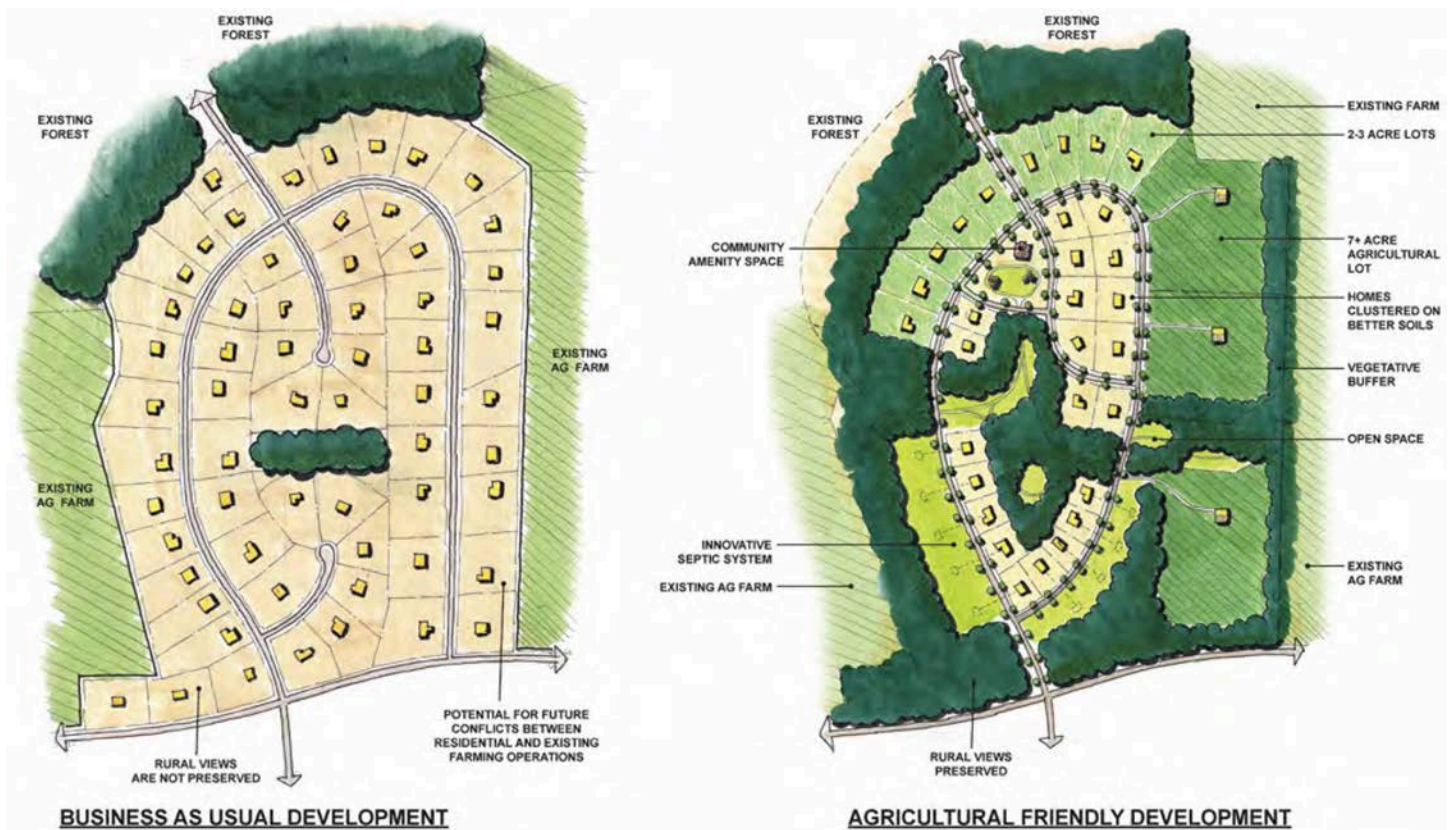
Stakeholders further expanded on *Plan Chatham’s* recommendation by suggesting the UDO **add “agrihoods” as an allowable subdivision type**. Agrihoods integrate residential subdivisions with less intensive agricultural enterprises in open spaces. The UDO would include a strong framework to ensure these neighborhoods meet community expectations for preserving agricultural land and providing housing in a low density format.

This framework could include a minimum site area (e.g., 60 acres), a certain percentage of land (e.g., 70%) reserved for agricultural activities, and a limitation or prohibition of large-scale livestock growing operations. In addition, the UDO could require home sites to be situated far from existing roads, which would allow the subdivision entry road to serve as a

¹⁵ *Plan Chatham*, p. 148

site for systems (infrastructure) and higher value perennials (e.g., orchard crops). The UDO could provide flexibility in site design requirements, as the preferred site layout for agrihoods is very site-specific and depends on soils, slope, septic fields, and other site characteristics.

Stakeholders noted community education is an important aspect of this subdivision type. Residents need to be aware of the typical time of farming operations (early morning) and the potential for noise and odor.



Plan Chatham Figure 20 (p.98): Illustrative comparison between conventional development and agricultural friendly development. The development on the left has 60 lots on roughly 120 acres and has lots located adjacent to working farmland. The development on the right has less lots and a design that buffers existing farms from new residential development. The alternative also includes an innovative septic system that allows for some clustering without a sewer system and a few large farmstead lots that would allow agricultural uses.

Minor Subdivisions

Recode Chatham should review the definition of and procedures for minor subdivisions. Stakeholders suggested the County **consider including up to 15 lots in conventional subdivisions for consistency with conservation subdivisions.** While this provides consistency, it removes an incentive for minor subdivisions to utilize conservation subdivision design. The question is whether developers would continue to use the conservation subdivision option for small subdivisions or, since conventional 15-lot subdivisions could also be approved administratively, would instead opt for conventional subdivision design. However, if the UDO requires conservation subdivisions in certain instances (see *Conservation Subdivisions on page 43*), it would make sense to increase the number of lots allowed in a conventional minor subdivision.

There was general consensus that access easements, rather than public or private streets, are acceptable for minor subdivisions. Stakeholders suggest the County should **consider increasing (to 5 or more) the number of lots that can be accessed by an easement.**

Staff suggests **several revisions to the regulations for minor subdivisions**, based on their experience administering these provisions:

- » Add a section in the UDO that addresses the requirements for new minor subdivision size lots when the lot does not perk and requires a State approved wastewater system. Currently, the Subdivision Regulations require a lot to be created through the Exempt review process as a non-buildable lot and then recorded. Once the State approves the system and provides a letter of approval, the applicant has to come back through Planning for a Minor Subdivision review to make it a buildable lot.
- » Codify the recently adopted policy for the Director of Chatham County Utilities to review preliminary plats for water availability.

- » The UDO should note that creating a new lot by deed is a violation.
- » The UDO should clarify there are two possible options for exemption for recreation fees with minor subdivision reviews, Family Subdivision or Expedited review option.
- » Clarify that lot line adjustments (where no new lots are created) are subject to Exempt review even if the adjustment reduces the size of a lot to less than 10 acres.
- » Clarify the requirement for applicants to submit certain forms in conjunction with a minor subdivision, including “perpetual easement” forms and forms related to “pre-75 roadbed requirements.”
- » The UDO should clarify the definition of “cumulative development” to limit the number and or frequency of minor subdivisions of a particular site over time.

14.2 Water and Wastewater

Wastewater

Wastewater treatment is a major issue in Chatham County. Community septic systems, off-site septic systems, and package plants are of particular concern; however, the County does not have control over the type of system installed—only its location.

The community consistently expresses concerns with impacts to riparian buffers and other environmental impacts (e.g., water quality impacts, stormwater impacts, and (increased) flooding and drainage impacts). These are not merely speculative concerns—the Chatham News + Record reported last year that “[m]ore than 47,000 gallons of sewage has spilled from [Briar Chapel’s] private plant since 2016.”¹⁶

¹⁶ Chatham News + Record (April 14, 2021): <https://www.chathamnewsrecord.com/stories/weighing-the-options-for-chathams-private-sewage-systems,8871>



Photo from Plan Chatham

“Piecemeal” development plays a role in the issues with wastewater treatment systems. Without a regional wastewater treatment facility, each neighborhood must create its own, tie into another private system, or use septic systems. A key issue is the ability to effectively serve growth nodes with water and sewer, which is difficult without a regional (public or private) facility.

Off-site septic systems are problematic due to issues with soils and stream and wetland buffers. Stakeholders are concerned about how septic systems affect potable water quality for nearby property owners and surrounding areas. The typical locations of these systems also are a concern; they are often located in flag lots behind houses and the associated lines/easements often “criss-cross.” Stakeholders see a lack of community awareness not only about the location of off-site septic systems, including the lines that serve their home, but also how to maintain and monitor these systems.

There are no requirements for private wastewater service providers to notify the County of proposed service areas. RecodeChatham could **consider incorporating a requirement for private wastewater service providers to notify the County of proposed wastewater treatment facilities and for the County to provide comments to NCDEQ on proposed facilities**, even though the County’s authority to approve or disapprove the facility itself may be limited.

The County recently created the Northeast Wastewater Study Commission “to study future growth in northeastern Chatham County along the US Highway 15-501 corridor and wastewater treatment systems.”¹⁷ Stakeholders agreed the issue of wastewater treatment is bigger than the UDO and will require regional coordination among many different entities, but there **may be ways for the UDO to address certain aspects of wastewater treatment** (e.g., ensuring long-term monitoring and maintenance of off-site septic systems, encouraging consolidation of these lines).

¹⁷ Chatham County, *Northeast Wastewater Study Commission*, available: <https://www.chathamcountync.gov/government/appointed-boards-and-committees/northeast-wastewater-study-commission>

Potable Water

Stakeholders noted that reliable and continued water supply for agricultural livestock operations is important, but expressed the following concerns with the impacts of agriculture and other types of development on potable water supply:

- » Water use on farms can decrease well supply for residential uses;
- » Septic systems can negatively impact the quality of well water;
- » Maintaining clean well water is an issue; and
- » High out-of-parameter mineral content is a problem.

The Planning Board formed a [Well Subcommittee](#) that met from 2020 through 2021 and after hearing from every expert available, the subcommittee finally reached the conclusion that **the County is largely preempted by the State rules.**

Stakeholders noted the [N.C. Geological Survey](#) division of the NCDEQ is finalizing a detailed geologic survey of the County that can be used to inform the UDO.

14.3 Streets and Sidewalks

In Chatham County, all streets are owned and maintained by the NCDOT or by private entities (with the exception of one street in an industrial park owned and maintained by the County). The Subdivision Regulations include public street standards, but stakeholders suggested that Recode Chatham **eliminate the street standards in Section 7.2.C. in favor of NCDOT standards.**

There was general consensus that access easements are acceptable for minor subdivisions (see *Minor Subdivisions on page 47*). Stakeholders noted challenges with landlocked parcels that do not have public road frontage, but are accessed via “handshake” easements from 80 to 100 years ago.

Recode Chatham should **review and potentially revise the private street standards and the conditions under which they are allowed.** Subdivision Regulations Section 7.2.D.(1) allows private streets in subdivisions where individual lots are a minimum of three acres in size and the average lot size is five acres or more. For major subdivisions, stakeholders suggest removing the lot averaging provision altogether as the drawbacks outweigh the benefits. The lot averaging

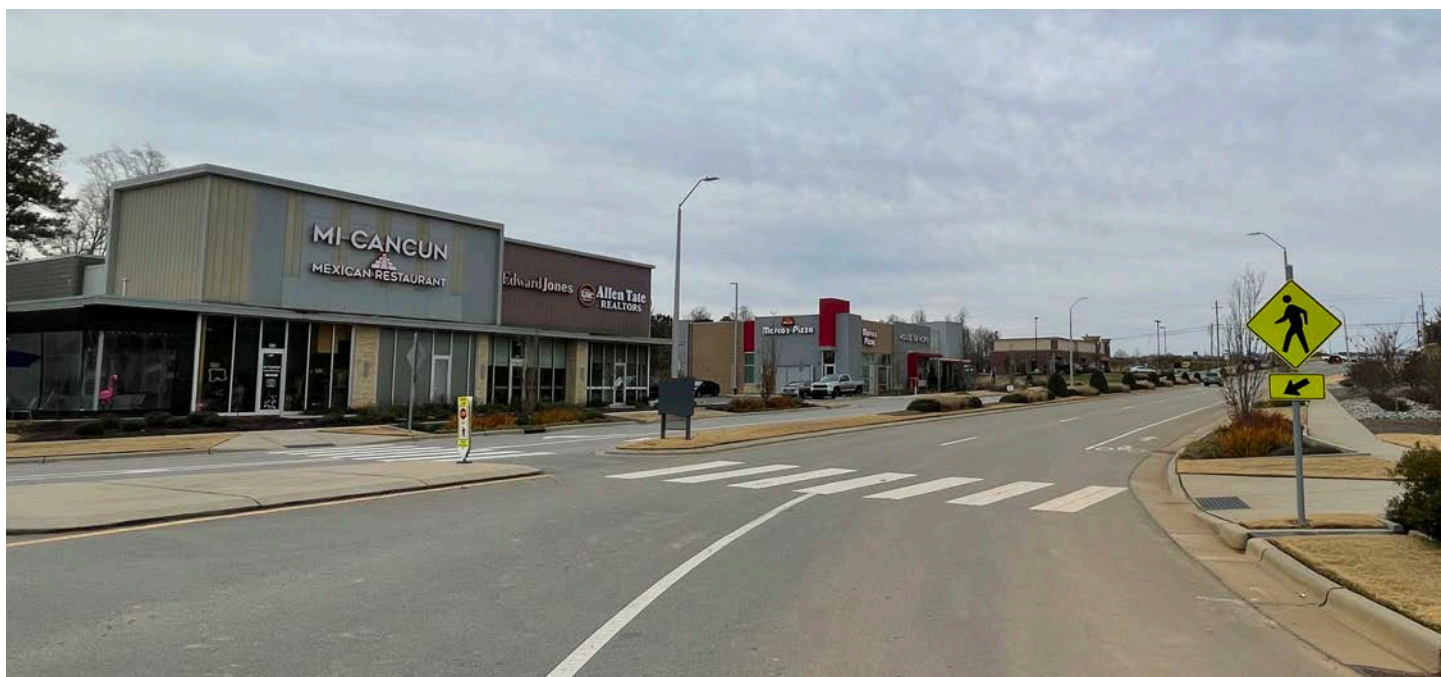


provisions are difficult to administer and manage over the long-term, and major subdivision developers typically would opt to construct public streets in accordance with NCDOT standards.

Stakeholders support strengthening pedestrian and vehicular interconnectivity requirements. The UDO should **include requirements for stub roads in new developments and subdivisions to provide access to adjacent properties.**

Stakeholders suggest that Recode Chatham **consider ways the UDO could encourage more “tree-conscious” road building and the use of light-colored impervious surfaces to reduce heat island effects.**

The Subdivision Regulations include only limited sidewalk requirements and stakeholders suggested the UDO should **include increased standards for sidewalks.** Some stakeholders feel sidewalks are too narrow and should be at least five feet in width. There is support for incorporating [NCDOT Complete Streets](#) guidelines into the UDO, including



requiring all new streets (public and private) to **accommodate multi-modal transportation opportunities** (e.g., sidewalks, bike lanes, bus stops). This is particularly important in high density and mixed use developments.

In clustered and denser developments, stakeholders noted issues with Fire Department and emergency vehicle access due to on-street parking and narrow street widths. Dense developments often require aerial trucks, which are very large. On-street parking tends to occur on both sides of street, which can obstruct aerial trucks. Parking enforcement is a challenge and is typically left to homeowners' associations. Stakeholders expressed a desire to **better accommodate on-street parking in appropriate locations**. There currently are no fixed standards for road width, so the UDO could require wider rights-of-way when on-street parking is proposed. In developments with smaller lots, the UDO also could add requirements for overflow parking and increase minimum front setbacks in order to accommodate cars in driveways.

15 - Zoning Ordinance

15.1 Generally

Stakeholders feel the zoning ordinance is working well in many respects, though **allowed land uses should be reviewed and updated** to ensure they are appropriate in the zoning districts in which they are allowed. The use table needs modernization and clarification (see further discussion in *15.3 Uses and Use Regulations on page 65*).

Section 3 of the Zoning Ordinance exempts bona fide farms from regulation in accordance with N.C.G.S. §160D-903 [formerly §153A-340(b)]. Stakeholders feel the statute is not clear and there is inconsistency in how local governments in the state interpret the exemption. They noted the UDO needs to clarify this agricultural exemption. In consultation with the County Attorney, the consultant team will **ensure the UDO clearly and concisely describes what constitutes sufficient evidence for a landowner to demonstrate they meet the State requirements for the agricultural exemption.**

15.2 Zoning Districts

Generally

The Zoning Ordinance establishes nine base districts, eleven conditional districts, and two legacy districts (see Figure 15.1). Nine base districts is a reasonable number based on the size of the County, particularly when each base district has a parallel conditional district that allows the Board of Commissioners and applicants to tailor zoning to a particular development site. However, the addition of new base and overlay zoning districts may help achieve *Plan Chatham* goals related to agricultural and rural preservation, major corridors, and mixed use developments.

Figure 15.1: Current Chatham County zoning districts

Current Chatham County Zoning Districts		
Base Districts	Conditional Districts	Legacy Districts
R5 (Residential)	CD-R5	B1 (General Business)
R2 (Residential)	CD-R2	CD-B1
R1 (Residential)	CD-R1	
O&I (Office & Institutional)	CD-O&I	
NB (Neighborhood Business)	CD-NB	
CB (Community Business)	CD-CB	
RB (Regional Business)	CD-RB	
IL (Light Industrial)	CD-IL	
IH (Heavy Industrial)	CD-IH	
	CD-CC	
	CD-MU	

Stakeholders identified a need for conservation districts for U.S. Army Corps of Engineers’ Jordan Lake property. The FLUC Map designates properties throughout the County as Park/Protected Lands, including Jordan Lake State Recreation Area, White Pines Nature Preserve, and Lower Haw River Natural Area. The UDO should **establish a zoning district to implement the Park/Protected Lands land use area.** In accordance with *Plan Chatham*, it would be available for permanently protected lands, including federal- and state-maintained recreation areas, parkland, and privately owned land.

Stakeholders think Recode Chatham should explore options for limiting growth and development types in certain areas to desired development patterns. To this end, several potential new zoning districts are discussed later in this Section.

Conditional Zoning Districts

N.C.G.S. §160D-703 authorizes local governments to implement conditional zoning districts in which “site plans or individualized development conditions are imposed.” Conditional zoning districts (CDs) allow for flexibility in the development review process, which may result in developments of higher quality, with elevated design features, or with an increased amount of affordable housing. However, over-reliance on conditional districts can also reflect an inability of the current regulations to accommodate projects the community desires and to implement comprehensive plan policies in a consistent manner.

In addition, conditional zoning districts are challenging for staff to administer, as they essentially establish a mini development ordinance for each district. The current Zoning Ordinance does not require a minimum land area for CDs, and there are many single-parcel CDs throughout the County. Over time, this can result in dozens of separate development ordinances for staff to monitor and enforce, in addition to the County’s generally applicable development ordinances.

The County should **consider limiting the use of this zoning technique to growth nodes and employment centers and/or applying a minimum acreage for their use**, but requiring applicants to select general base districts outside these areas. **The County has a set of “standard conditions” that are typically applied to all conditional zoning district approvals, which should be incorporated into the UDO as “base” requirements for all CDs.**

Compact Communities Ordinance

The Compact Communities Ordinance (CCO) was developed in 2004 to regulate the development of Briar Chapel, a large mixed use community in northeast Chatham County. However, the CCO is an available zoning district for other properties in a defined area near U.S. 15-501. While the CCO was developed and works best for larger developments, it has recently been used for small developments.

The CCO requires at least 100,000 square feet of commercial development, which stakeholders feel may not be realistic in the market. The CCO also requires a minimum of 30% open space, and stakeholders questioned whether that figure is appropriate in the U.S. 15-501 corridor. There also are concerns with the intersection of the CCO and the density averaging under State law. Staff noted that several sections of the CCO are no longer relevant based on new, generally applicable regulations adopted by the County Commissioners.

There are mixed opinions on whether the CCO should be revised or retired. **The consultant team will evaluate the continued relevance of the CCO.** If the County chooses to maintain the CCO, it will be **revised to include “tiers” based on development size or other characteristics, road access requirements will be strengthened, and the performance standards in CCO Section 12.1 will be fine-tuned to ensure they produce the desired development outcomes.** If the County decides to retire the CCO, the UDO could replace it with a mixed use district as described below.

Mixed Use Zoning Districts

As noted in *7 - Density on page 15*, there is demand for higher density residential development, but the current regulations only accommodate it in the Mixed Use and Compact Communities Conditional Districts—both of which require a significant amount of non-residential uses.

Stakeholders noted that not all higher intensity developments need a commercial component, particularly if they are close or adjacent to existing developments with commercial uses. The County should **consider focusing more intense development in the nodes identified on the FLUC Map and allowing, but perhaps not requiring, mixed use in districts that accommodate higher density residential.**

Plan Chatham Land Use Action Item 01 suggests the County should “facilitate well-designed mixed-use development in appropriate locations.” Clustered, walkable, mixed use

development reduces drive times, which is important because transportation is the county's largest greenhouse gas emitter.

Action Item 1.2 recommends the UDO **establish of a set of three mixed use (MU) zoning districts** that build on the County's current Mixed Use Conditional District (CD-MU), Compact Communities Conditional District (CD-CC), and provisions for Planned Residential Developments (PRD). The Plan describes each of these MU districts:

MU-1 would carry forward the current PRD regulations to accommodate residential mixed use developments. The Plan does not define residential mixed use, and the PRD does not explicitly require non-residential uses. The UDO could define "residential mixed use" as developments that include more than one dwelling type, such as detached single-family and townhouses or multi-family and townhouses. MU-1 could be available for implementation in areas designated as Compact Residential on the FLUC Map.

MU-2 would use relevant provisions from the CD-CC to accommodate primarily residential uses, with supporting neighborhood retail uses. This district could replace the CD-CC, if the County decides to retire the CCO as discussed in *Compact Communities Ordinance on page 57*. MU-2 could be available for implementation in areas designated as Community Center or Neighborhood Center on the FLUC Map.

MU-3 would modify the CD-MU standards to accommodate primarily non-residential developments with some amount of complementary residential uses. The MU-3 district would replace the CD-MU since that district has never been used (which indicates issues with the district's standards). MU-3 could be available for implementation in areas designated as Community Center, Neighborhood Center, or possibly Employment Center on the FLUC Map. *Plan Chatham* does not include residential in its description of the Employment Center land use. However, including residential uses in

proximity to job-generating uses improves quality of life by reducing commute times, provides environmental benefits by reducing vehicle miles traveled, and promotes the concept of “live, work, play.” Of course, the UDO would need to set parameters to ensure residential uses do not reduce the economic development potential of Employment Center land use areas.

Rural Commercial Zoning Districts

There is a sense among stakeholders that zoning constrains development and business in agricultural areas. The rural and agricultural areas are largely zoned R-1; there is demand for commercial uses that are not allowed in R-1, but the community often opposes rezoning to a general commercial district. Stakeholders also noted that zoning districts should enable a transition to a more rural development character in certain geographic areas (e.g., moving northwest of the U.S. 421/64 interchange or southwest of U.S. 64). This points to a need for the UDO to **establish new rural zoning districts**.

Plan Chatham Land Use Action Item 02 recommends the County should “develop a mechanism for facilitating home-based and rural business activity in areas designated for



Agriculture and Rural” [on the FLUC Map]. The Plan further describes this approach:

Consider a performance-based approach to zoning in these areas, where different performance standards could apply based on different types of uses and/ or existing adjacent development. For instance, less intense uses could be required to meet requirements slightly higher than smaller rural home-based businesses. More intense uses could be subject to additional requirements.

The Plan then provides a hypothetical example of performance standards for zoning in rural and agricultural areas, which describes uses, building sizes, and development standards. The UDO can **build on these performance standards to establish two or more rural districts** to address demand for commercial uses in rural areas, without opening the door to potentially inappropriate land uses or requiring applicants to use conditional zoning districts. As discussed in *Conditional Zoning Districts on page 57*, the County should seek to limit the use of conditional districts.

Refer to *9.3 Agricultural Preservation on page 28* for a brief discussion of potential changes to the names of residential districts to clarify where agricultural uses, other than bona fide farms, are allowed.

Corridor Zoning Districts

Stakeholders think corridor-specific zoning districts may be a useful tool for Chatham County. Many communities use corridor zoning to accomplish goals such as promoting mixed-use, office, and/or commercial development; promoting economic development; promoting higher-density development; and promoting visually appealing development. Regulation of corridors is frequently accomplished through the adoption of a special overlay zoning district that adds a layer of regulatory controls in addition to those of the base districts.

Delineation of the district typically includes all parcels with frontage on the corridor or that are located within a specific distance of the right-of-way. In the latter case, the overlay district should avoid “splitting” parcels (particularly small parcels) such that only a portion of the parcel is located within the corridor overlay.

Uses in corridor overlay districts are generally controlled by a list of permitted and excluded uses (particularly noxious or visually unappealing uses such as landfills) to promote desired land uses. Architectural design standards and increased landscaping requirements are frequently imposed to create more visually appealing developments.





Commercial Centers along the U.S. 15-501 corridor
(image from Plan Chatham 15-501 Corridor Market Profile and Analysis)

With regard to the U.S. 421 corridor, there is a need to align the text of *Plan Chatham* and the FLUC Map. The text of the plan indicates some industrial and other development is appropriate, but the map is not clear as to where potential locations are along this corridor. There is an expectation among stakeholders that development (preferable economic development uses, industrial uses, transportation uses, etc.) will occur at the interchanges, regardless of the FLUC Map designation. The UDO should **implement a base or overlay district that addresses properties located at interchanges along U.S. 421**, rather than all properties along the corridor.

A corridor zoning district may also be appropriate along the U.S. 15-501 corridor. As noted in 5 - Future Growth on page 11, most of the County's growth pressures are occurring along this corridor. The FLUC Map designates centers along the corridor and the *Plan Chatham* text provides detailed descriptions of each type of center. The UDO should **include a corridor zoning district to implement the centers in the context of U.S. 15-501 and address development that occurs along the corridor between the centers.**

While the U.S. 15-501 corridor district may regulate similar elements as the U.S. 421 district, the specific design and development standards will be different in order to address the significant differences in context between the two corridors. The implementation of corridor zoning districts would support *Plan Chatham* Land Use Action Item 06, which is to "update design guidelines that improve the aesthetics of commercial, office, industrial and mixed-use development along major corridors."

15.3 Uses and Use Regulations

Use Table

The Zoning Ordinance utilizes a use table to list allowed uses in each zoning district, which is a best practice. Use tables streamline the code, allowing repetitive lists of uses to be removed from the individual district regulations. They also are user-friendly and easy to read and understand. Visual aids can further facilitate reading and understanding of the use table. For example, the York County, South Carolina Zoning Code color-codes the use table to match the zoning map (see Figure 15.2).

However, the current use table includes regulatory standards for certain uses. For example, the line for bed and breakfast homes states “[o]wner-occupied bed and breakfast homes with no more than two (2) rooms (units) for rent for stays no longer than seven (7) consecutive days and may be located on legal, non-conforming and conforming lots of record, on at least one and one half (1.5) acres, which may have standard setbacks as set in the district in which it is located.” The UDO will **exclude regulatory standards from the use table** and instead include them in a separate section of the code. The use table could **include a separate column that cross-references the applicable section containing the use-specific standards.**

The current list of uses will be audited against modern industry classifications (such as the North American Industrial Classification System (NAICS) and the American Planning Association’s Land-Based Classification Standards (LBCS) to ensure that—between the listing and use definitions—all known uses are accounted for. The listing of uses should include fairly broad categories, but with specific definitions that consolidate similar specific uses in a logical fashion. The use table also should **address unique and emerging land uses**, such as short-term rentals and homesharing; co-housing; breweries, wineries, and distilleries; small wireless facilities; personal shooting ranges; and the use of personal aircraft on private property.

Figure 15.2: Excerpt from the York County, SC Zoning Code, which color codes the use table to match the zoning map

Table 155.271-1: Use Table (PR, AGC, AGC-I, RUD, RUD-I, RSF-40, RSF-30, RMX-20, RMX-10, and RMX-6 Districts)		PR	AGC	AGC-I	RUD	RUD-I	RSF-40	RSF-30	RMX-20	RMX-10	RMX-6
Uses	Use Conditions										
ACCESSORY USES											
Refer to Subchapter C, Part 4 for accessory uses for all districts.											
ACCOMMODATION AND GROUP LIVING											
Assisted Living, Skilled Nursing, Continuing Care Retirement Facilities				SE	SE	SE				P	P
Bed and Breakfasts	Subpart 3.5		SE	SE	SE	SE	SE	SE	SE	SE	SE
Community Residences, Long-Term (up to 5 residents)							P	P	P	P	P
Community Residences, Long-Term (up to 15 residents)										P	P
Community Residences, Short-Term										P	P
Emergency Shelters											P
Group Living, including Rooming Houses, Dormitories, and Fraternity and Sorority Housing										SE	SE
Hotels and Motels											
Short-Term Rentals	Subpart 3.33		C	C	C	C	C	C	C	C	C
Transitional Housing											
AGRICULTURE AND NATURAL RESOURCES											
Agricultural Processing											
Agricultural Support Sales and Services			P	P	P	P					
Animal Production and Livestock (Keeping or Raising)			P	P	P	P					

Home Occupations

Recode Chatham will **review and revise the regulations pertaining to home occupations**. The UDO will clarify allowed uses for home occupations and add additional performance standards to help clarify thresholds at which a home occupation would be considered a commercial use. Recode Chatham will specifically consider whether the Neighborhood Home Occupation standards in Zoning Ordinance Section 16.1 should be revised for high density developments. For example, another “tier” could be added that has stricter limits on the frequency of client visits or the number non-resident employees. The revised home occupation regulations also will add criteria for temporary special events like the Chatham Artists Guild Annual Studio Tour, festivals, and fundraisers.

Housing Types

Stakeholders expect demand for detached single-family residential houses in northeastern Chatham County to remain strong, and noted that **smaller lots may be acceptable in this area**.

There is general interest in **expanding allowed housing types**, specifically including tiny houses and cottage courts. Recode Chatham should add more opportunities for multi-family uses and consider allowing middle housing types, like triplexes and quadplexes, as by-right uses in residential districts.



“The Missing Middle Housing types provide diverse housing options, such as duplexes, fourplexes, and bungalow courts, that fit seamlessly into low-rise walkable neighborhoods and support walkability, locally-serving retail, and public transportation options. They provide solutions along a spectrum of affordability to address the mismatch between the available U.S. housing stock and shifting demographics combined with the growing demand for walkability.” Opticos Design, Inc.

Historic Preservation and Infill

Recode Chatham should **consider whether the UDO should include incentives for historic preservation**. For example, the UDO could encourage the protection of Newlin barns, a local historic resource reflective of the agricultural character of Chatham County. Harvey Newlin built 153 barns in Chatham, Alamance, and neighboring counties beginning in the late 1920s.¹⁸ A successful local preservation example is Orange County's [Blackwood Farm Park](#).

While the Chatham County Historical Commission (CCHC) is separate from County government, it does provide input related to new developments. For example, the CCHC has worked with the developer of Chatham Park in Pittsboro on historic preservation efforts.¹⁹ The County could **consider formalizing the CCHC's role in the development review process** to ensure the long-term preservation of the County's historic and cultural resources.

¹⁸ David K. Hobson (2020): *A Story of Harvey Newlin's Barns*. Available: <https://chathamhistory.org/resources/Documents/PDFs/ResearchArticles/HarveyNewlinsBarnsDavidHobson.pdf>

¹⁹ Chatham County Historical Association, <https://chathamhistory.org/page-18157>



*Agrivoltaics photo courtesy of
the [National Renewable
Energy Laboratory](#)*

Clean Energy

A “big idea” in *Plan Chatham* is for Chatham County to become a carbon negative county “to reduce the County’s greenhouse gas emissions and the environmental risks that will result from global warming.”²⁰ To further this goal, the UDO should **include incentives and remove disincentives for clean energy uses**. Examples of potential incentives include increased height allowances to accommodate energy generation systems like rooftop solar panels and wind turbines; exclusion of ground-mounted solar panels from lot coverage calculations; reduced setback requirements; relaxed or alternative tree protection requirements; and expedited permitting processes for developments that include clean energy generation systems.

There is some concern about the proliferation of solar farms in otherwise undeveloped areas, but the UDO could expressly allow for “dual use” solar and agriculture (crops or animals) on a single parcel which may help address these concerns. As noted in *Parking on page 108*, the UDO should expressly allow solar canopies in parking areas.

Stakeholders noted that the N.C. Department of Environmental Quality is currently preparing a report regarding the decommissioning of solar farms, which may provide guidance on issues related to local governments holding financial guarantees for decades.

²⁰ *Plan Chatham* Resiliency Element, p. 111

15.4 Development and Design Standards

Generally

There is general consensus that the UDO should **include additional tools to help achieve the type of development desired by the community**. Suggestions include:

- » Impervious surface ratios;
- » Different models for mixed use development throughout the County;
- » More concentrated development in appropriate areas, with a good framework for development in high density areas;
- » Increased density for infill areas; and
- » Incentives for passive solar uses.
- » There are some developers who want to be creative and to go the extra mile, but the codes need to be strict enough to prevent flexibility leading to reduced quality of development

Stakeholders feel setbacks are too restrictive, for both principal buildings in standard zoning districts and for accessory structures. In conditional districts, conservation subdivisions, and planned residential developments, developers have flexibility to establish neighborhood-specific setbacks. The UDO should **continue to provide this flexibility for setbacks and consider reducing setbacks in conventional base districts** as well. The UDO should **include provisions incentivizing the adaptive reuse of existing structures** which can include flexibility for setbacks and other development standards, such as parking, landscaping, and buffers.

Stakeholders suggest the UDO should **incorporate portions of County Code Chapter 93: Fire Prevention and Protection**. County staff will identify which provisions should be relocated.

The UDO should include cross-references to the adopted [North Carolina State Building Codes](#), and current references to planning and zoning enabling legislation need to be updated to reflect the recently consolidated statute ([N.C.G.S. Chapter 160D: Local Planning and Development Regulation](#)).



A Chatham County white oak listed in North Carolina's [Champion Tree Database](#)

Tree Protection, Landscaping, and Screening

Stakeholders feel tree protection, landscaping, and screening requirements are closely tied to the community's conservation and open space goals, including agricultural preservation, as well as buffer and watershed requirements. For example, tree removal for new development can increase farms' susceptibility to the effects of wind and weather. Protection of existing trees in riparian buffers is particularly important, and the County's goal of carbon neutrality is tied to this. In addition, natural buffers and native landscaping contribute to the desired rural development character.

There is a general consensus that the County should **add tree protection, removal, and mitigation standards to the UDO**, including tree protection requirements for individual lots in subdivisions. Any requirements for individual subdivision lots should **consider the size of trees at maturity**, since certain species of trees can be very large at maturity and may create problems for the homeowner in the long-term. Stakeholders noted the need to monitor a pending bill in the legislature that could impact a local government's ability to regulate tree removal.

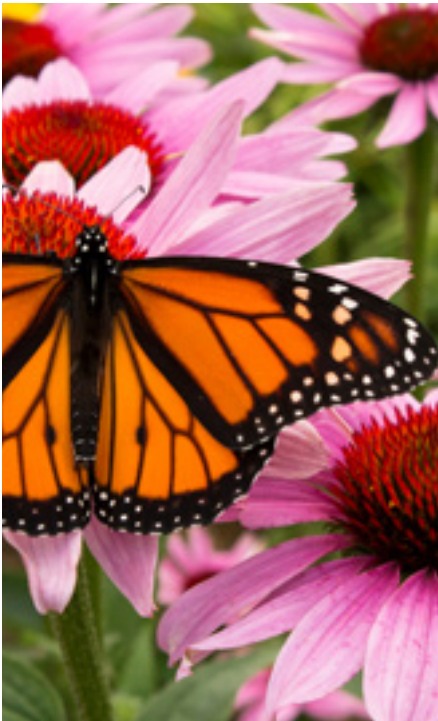
Recode Chatham should **reconsider the definitions of heritage and historic trees and ensure they align with best practices**. For context, the consultant team will review the guidelines for designation of trees through the [Grand Trees of Chatham](#) program.

Stakeholders have concerns with clearcutting development sites, including for environmentally beneficial developments like solar farms, and feel the UDO should **focus on maintaining and increasing the County's tree canopy**. Recode Chatham should **consider whether preserved tree canopy areas should count as conservation/open space in new developments**. The UDO should limit topographical changes and tree removal in new developments to address stormwater issues, which could involve limits on building footprints.

Stakeholders expressed a general preference for maintaining existing trees along roads, rather than clearcutting and replanting. Maintaining the rural character of Chatham County is important and right-of-way buffers are important in maintaining the County's rural character and "feel." However, in many cases, road right-of-way is used for utility installation and trees and root intrusion can cause damage to sidewalks, water and sewer lines, and fiber optics. **Any UDO requirements for maintaining natural roadside buffers should account for the placement of utilities and infrastructure.** In addition, maintaining a natural roadside buffer may not be possible for properties under State-regulated timber management or forestry plans.

Stakeholders stated that **Zoning Ordinance Section 12: Landscaping and Buffering Standards is out of date and in need of a comprehensive update.** Recode Chatham should consider whether required screening buffers are adequate and explore ways to provide flexibility in the standards. The UDO should add requirements for the use of native plants and species diversity in landscaping. Native species diversity increases resiliency by guarding against a disease wiping out all trees in a particular area.





*Photo courtesy of
N.C. State Extension*

The landscaping regulations could **require or incentivize xeriscaping techniques** for water conservation purposes. The UDO also could **encourage pollinator gardens**, which the County is incorporating into its Southwest District Park and Northeast District Park, and include incentives for planting trees and allowing non-profit organizations and community members to harvest fruits and nuts (e.g., apples, pecans).

Recode Chatham should **explore options for revising the acceptable plant list** in the Design Guidelines, including cross-referencing other lists (e.g., N.C. State Extension) or consulting local resources (garden clubs, native species nurseries) to develop a Chatham County-specific list. The list currently includes invasive species and plants that do not fare well in the area. There is consensus that the list should **expressly prohibit Bradford pears**. They are not native to the United States and contribute “to one of the worst invasive plant species in the Southeast – the callery pear.”²¹ The acceptable plant list should **include more native species and species that provide food and habitat for birds and other wildlife**.

The Natural Resources Conservation Service (NRCS) offers financial and technical assistance to landowners to implement conservation practices. Recode Chatham should **consider how the UDO could encourage the use of these programs and others, like carbon offset markets**. With respect to carbon offset markets, it is important to recognize the difference between a mature tree saved and a young tree planted. These should not be viewed as a 1:1 ratio. Mature trees store and sequester significantly more carbon than a planted sapling. Similarly, cutting down a mature tree will release far more carbon into the atmosphere than is sequestered by planting a new tree.

The Climate Change Advisory Committee and the Appearance Commission have drafted code language related to tree protection and may have drafts that could be shared with the consultant team for incorporation into the UDO.

²¹ Clemson Cooperative Extension, <https://www.clemson.edu/extension/bradford-pear/>

Stakeholders suggested other tools related to tree preservation that the County could explore outside the Recode Chatham process. *Plan Chatham* establishes a goal to permanently protect 20,000 additional acres of land by 2040. Some stakeholders suggested the County consider putting land/trees/natural resources into conservation easements to help meet this goal, as well as reduce the potential for State legislative changes to negatively impact conservation efforts in the County. Others suggested the use of conservation credits to fund a land trust for land preservation. Stakeholders further noted the County could identify stands of native trees and groves of particular significance, as well as those mature and large trees that the “Grand Trees of Chatham” program can help identify, and protect them through conservation easements or other mechanisms.

Building and Site Design Standards

Many stakeholders find the current Design Guidelines confusing and, in some cases, inadequate. The intent of the guidelines should be better articulated, as development sites can be designed to meet regulations but not the design intent. Stakeholders generally envision a more rural development character throughout the County.

The UDO should **clarify how the Design Guidelines apply to development and the role of the Appearance Commission in the development approval process.**

The County should **consider adding architectural standards to the UDO** (except for single-family and two-family dwellings, since N.C.G.S. 160D-702(b) limits the county's authority to regulate building design elements for these types of buildings). The goal would be to guide design, rather than just building placement, landscaping, and other site design elements. There was general support for limiting architectural standards to corridors (e.g., U.S. 15-501) and nodes, and considering variation in standards based on geographic location. Stakeholders noted any architectural standards should provide choices and encourage creativity in design.

The UDO should **better address the physical form of structures, public spaces, and streetscapes.** The Appearance Commission has prepared draft revisions to the current Design Guidelines and may have further input on building and site design options to provide during Recode Chatham.

Implementation of any new design regulations should **consider capacity issues**, such as the staff and board time and expertise needed to review applications.

The Zoning Ordinance currently limits building height to 60 feet, except in the industrial districts which do not have a height limit. Section 8.8 provides exceptions to the height limit for public buildings, communications towers, silos, grain elevators, chimneys, smokestacks, and other structures. Some

stakeholders feel the County should reconsider building height limits. Limiting building footprints and impervious areas can necessitate taller buildings, since land costs are increasing.

However, there are concerns about water access for firefighting purposes and that the Fire Districts' current equipment may not be sufficient to serve taller buildings. In addition, additional Building Code requirements may discourage taller structures. For these reasons, and since the community prefers a more rural development character, there may not be a need to increase maximum building heights County-wide. Recode Chatham will, however, **review and potentially update height limits as well as the list of height exceptions.**

Stakeholders support the incorporation of building design/construction standards related to resiliency and disaster-preparedness in the UDO. Strategy 3.3. in *Plan Chatham's Resiliency Element* recommends the County encourage new commercial and industrial buildings to meet LEED standards and encourage new neighborhoods to achieve "LEED-ND" certification.²² The UDO will **encourage or require LEED certification in certain types of new development.**

²² *Plan Chatham*, p. 113

Outdoor Lighting

Stakeholders agreed that Zoning Ordinance Section 13: *Lighting* is out of date and in need of updating. Outdoor lighting is tied to the County's goal of rural character preservation and the community's desire to preserve the night sky. More dense, clustered development may necessitate increased controls for outdoor lighting.

The updated outdoor lighting regulations will **reflect more modern industry standards and provide standards tailored to different areas of the County.**



*The summer Milky Way above Mayland Earth to Sky Park & Bare Dark Sky Observatory in Yancey County, NC
(photo by Todd Bush)*

Parking

Stakeholders agreed that **Zoning Ordinance Section 14 is out of date, requires too much parking, and needs comprehensive review and revision.**

An unintended side effect of minimum parking requirements is excessively sized surface parking areas. Communities are increasingly responding to this issue by either “rightsizing” and reducing their parking minimums, or eliminating them altogether. Eliminating parking minimums leaves the supply of parking to the marketplace. Some communities establish a maximum number of spaces, or a “soft” maximum that triggers additional requirements when spaces increase. For example, if spaces exceed a given ratio, the code could trigger transit, impervious surface, or other transportation or stormwater requirements.

The Zoning Ordinance currently requires a minimum number of parking spaces for a list of uses; however, the uses do not align with those listed in the use table in Section 10.13. Recode Chatham will **align parking requirements with broad use categories, or assign a parking standard for each use listed in the use table.**

The required spaces are tied to building floor area, dwelling units, beds, number of employees, seats, service bays or stations, or other variables. Current best practices for certain uses have moved away from seats and employment as a way to regulate parking, since both of these can fluctuate over time. However, employment may be the best way to regulate parking for certain types of uses such as data centers, warehouses, and industrial uses.

Stakeholders support the UDO providing **options for pervious parking**, which helps reduce stormwater runoff, and encouraging the use of light-colored impervious surfaces, which helps reduce “heat islands” as the summer sun hits the pavement. Pervious parking requirements may be more appropriately controlled in the Watershed Protection regulations, rather than the parking regulations.

There is an increasing demand for electric vehicles, so it is important for the UDO to include any necessary development standards for charging stations in parking lots. Stakeholders suggested the UDO should **require electric vehicle charging stations in new multi-family, commercial, and non-residential developments and expressly allow for solar canopies in parking areas.**

Refer to 14.3 Streets and Sidewalks on page 52 for discussion of on-street parking.



A solar canopy above a parking lot at AVX Corporation in Fountain Inn, South Carolina (photo by Hannah Solar)

Signs

There is general consensus that **Section 15: Regulations Governing Signs** needs modernization and a comprehensive update to comply with best practices and case law. For example, guidance from the United States Supreme Court's 2015 decision in *Reed v. Town of Gilbert, Arizona* requires that local governments generally adopt a "content neutral" approach to sign regulation. An example of a content neutral sign regulation is the County's definition of "freestanding sign," which is defined by its physical characteristics as a structure that is "non-movable" and "entirely supported by one or more uprights, poles, braces or base in or upon the ground." Any revisions to current sign regulations should be drafted under this principle of content-neutrality.

Also, there is a pending U.S. Supreme Court ruling on [City of Austin, Texas v. Reagan National Advertising of Texas Inc.](#), a case involving the distinction between on-premise and off-premise signs. If this ruling is made during Recode Chatham, the consultant team will work with the County Attorney to revise the sign regulations, if needed, to comply with the decision.



16 - Approval Procedures

Sample Standard Workflow for Procedures

- » Purpose
- » Applicability
- » Initiation
- » Completeness
- » Notice
- » Decision-Making Process
- » Approval Criteria
- » Scope of Approval
- » Appeals
- » Reapplication
- » Modifications

16.1 Generally

The County’s land development process is complicated and, in some instances, navigable only by developers who frequently use the process (with designers, attorneys, etc.). Much of the complexity in the land development process is due to the sheer number of development-related ordinances and the lack of clarity on how the various ordinance requirements relate to one another. The current Zoning Ordinance and Subdivision Regulations also lack a consolidated procedures section, requiring the reader to review multiple sections of the ordinances to determine applicable approval procedures. Stakeholders also find that the Watershed Protection Ordinance variance process is not clear. The UDO will **consolidate all decision-making procedures into a single section and utilize a standard workflow** (see example at right) to clearly define each step in all procedures, along with approval criteria, what the approval authorizes an applicant to do next, how decisions are appealed, and how modifications to an approved development plan are handled.

The Subdivision Regulations include flowcharts to illustrate the various elements of the major subdivision approval process. Stakeholders think it would be helpful for the UDO to **include flowcharts and matrices for additional decision-making processes**. Flowcharts help readers understand a particular procedure at a glance, without having to read through the associated text. They are helpful for developers in navigating the ordinances, for staff members in explaining the ordinance, and for community members in understanding the often-complex process of land development. Flowcharts help make a development code more accessible, particularly for those who infrequently use the code. Matrices can provide a similar at-a-glance summary of decision-making processes. Figure 16.1 provides an example matrix for Chatham County’s current subdivision procedures.

Stakeholders feel the UDO needs a clearer process for “mega-site” developments. The County often receives proposals for very large residential, commercial, or mixed use developments, and a 2,000-lot subdivision goes through the same approval process as a 50-lot subdivision. As discussed in *14 - Subdivision Regulations on page 42*, the County could **consider tiered procedures for developments of different sizes.**

The Zoning Ordinance authorizes the Zoning Administrator, Planning Board, Appearance Commission, or Board of Commissioners to request an applicant to submit a Traffic Impact Analysis (TIA) in conjunction with rezoning or SUP

Figure 16.1: A sample table summarizing Chatham County’s current subdivision-related procedures

Summary of Current Subdivision Procedures									
Procedure	Review, Decision-Making, & Appeal Bodies						Pre-Application Meeting Required	Community Meeting Required	Public Hearing Required (Held By)
	Staff	TRC	AC	BOA	PB	BOC			
Administrative Review (Appeals of Administrative Decisions)				D			No	No	Yes (BOA)
Major Subdivisions									
<i>Concept Plan</i>	R	R					Yes	Yes	No
<i>First Plat</i>	R	R			R	D	No	No	Yes (PB)
<i>Construction Plan</i>	D	R				A	No	No	No
<i>Final Plat</i>	D	R				A	No	No	No
Minor Subdivisions									
<i>Conventional (5 or fewer lots)</i>	D ¹			A			Yes	No	No
<i>Conservation (15 or fewer lots)</i>	D ²					A	No	No	No
Variances	R			D			No	No	Yes (BOA)

Key: Staff = Planning Department staff | TRC = Technical Review Committee | AC = Appearance Commission | BOA = Board of Adjustment | PB = Planning Board | BOC = Board of County Commissioners | R = Review Body | D = Decision-Making Body | A = Appeal Body

¹ Also includes review by CCNC “Division of Environmental Health of the Chatham County Health Department or the Division of Environmental Management” (Subdivision Regulations Section 5.3.B).

² Also includes review by CCNC Environmental Health Department if development will not be served by public sewer.

applications.²³ The Ordinance requires the TIA to follow NCDOT's TIA Analysis Guidelines and consider non-motorized and public transportation, but does not provide any other guidance or requirements. Stakeholders feel the **TIA process needs review**. Since NCDOT maintains roads, the UDO must **maintain the Department's involvement in the review process and ensure the County's TIA requirements are consistent with NCDOT requirements**. Further, the UDO must **clarify the role of TIAs in the development approval process**. Transportation issues associated with proposed new developments are a major community concern, but the County's current ordinances do not clearly specify the County's authority under state law to require transportation system improvements.

Stakeholders suggest the County **consider adding provisions to require additional technical or specialized studies for unique or complex development applications**.

Stakeholders expressed concerns with the cumulative impact of new developments on the County's transportation network and stormwater management systems, as well as the cumulative impacts of new wastewater treatment systems on the environment. They noted State preemption issues related to the evaluation of cumulative impacts in Environmental Impact Assessments. The consultant team will **evaluate ways for the County to better assess the cumulative impacts of new developments during the review process**.

Some Board and Commission members feel that input from the public and developers tends to come at the last minute before a meeting, leaving little time for appointed and elected officials to thoroughly review and consider the input. They feel this input would be more effective if received earlier in the process. The UDO could **add timeframes within which input must be submitted in order to be considered at a development review meeting** (e.g., at least three days prior to the scheduled meeting).

Finally, the UDO should **clarify how the transfer of ownership prior to the completion of a development affects existing approvals or unfinished permit items**.

²³ Zoning Ordinance Section 5.3B(3)

16.2 Role of Staff, Boards, and Commissions

There is consensus on the need for the UDO to **clarify the roles and authorities of the BOC and appointed boards and commissions**. With the County Attorney's direction, the UDO needs to be clear on where each decision-making body's authority begins and ends under State law for all types of development-related procedures. There is a general sentiment that the decision-making process would benefit from more flexibility, if permissible, but elected and appointed officials, the public, developers, and staff need to understand when and where a decision-making body has no legal right to deny an application.

Chatham County includes a significant number of appointed boards and commissions in the development review process, and the UDO should **ensure proper weight is given to their input**. Where appropriate (and permitted under State law), the County should **consider increasing the responsibilities of boards and commissions** due to the value their specialized expertise brings to the development review process.

Staff's current role in the development approval process is largely to review and provide recommendations on applications. Staff has approval authority for four types of applications—home occupation permits, construction plans, final plats, and minor subdivisions.

While staff recommendations are informative, stakeholders find they can sometimes be divisive—particularly on rezoning applications, which have more subjective approval criteria. For example, identifying whether an application is consistent with the Comprehensive Plan (e.g., adequacy of infrastructure) can be particularly subjective. Subdivision approvals, on the other hand, are ministerial in nature. It is generally easy to determine whether an application meets regulatory standards. Nonetheless, staff recommendations on subdivision applications also can create controversy. Stakeholders generally support the **elimination of staff recommendations on applications and requiring staff to provide only reports and findings of fact**.

Stakeholders had mixed opinions on whether staff should have approval authority for additional types of applications. Those who support additional staff approval authority noted that any administratively-approved applications should have clear, objective approval criteria. However, the UDO must recognize the reality of available staffing to administer new and revised approval processes.

Finally, the UDO should clarify how the transfer of ownership prior to the completion of a development affects existing approvals or unfinished permit items.

The modern best practice is to assign as many processes as possible to administrative staff when public hearings are not necessary. Public hearings are not necessary when a use is subject to very clear regulations defined in the ordinance (leaving no room for interpretation or discretion), or where the application is the final step in multi-step approval processes where discretionary decisions have already been made. Where development has unique impacts, or impacts that are incapable of resolving completely through development standards, public hearings should be required to ensure that neighborhoods have an opportunity to weigh in on applications that affect them.

16.3 Rezoning and Special Use Permits

There is general consensus that the **rezoning and special use permit (SUP) procedures should be streamlined**. Including application submittal deadlines, the process is quite long—likely taking a minimum of five months, not including the community meeting. This may be appropriate for large-scale developments and land uses with significant impacts, but seems excessive small-scale rezonings and for certain uses that require an SUP (e.g., day care centers for fewer than 15 children in residential districts; libraries, museums, and art galleries in the Neighborhood Business District; indoor shooting ranges in the Light Industrial District; storage warehouses in the Heavy Industrial District). Stakeholders find it important to **maintain the requirement for community meetings on rezoning and SUP applications** (see [16.5 Community Meetings on page 91](#)), which adds at least two weeks to the timeframe mentioned above.

The Appearance Commission reviews proposed landscaping and sign plans for conditional district rezoning and SUP applications, and provides a recommendation within 45 days of plan submittal. The applicant then submits a complete application to the Planning Department at least 45 days prior to the public hearing. The Zoning Ordinance terms the public hearing as a joint meeting by the BOC and Planning Board; however, the Zoning Ordinance does not require a quorum of Planning Board members to attend the public hearing. The BOC may continue the public hearing to future meetings, but does not limit the length of a continuance.

Following the public hearing, Planning Department staff prepares a final analysis and recommendation to approve, deny, or defer action on the application. Staff then adds the application to the Planning Board agenda not later than the Board's second regular meeting following the public hearing. The Planning Board has a maximum of three regular meetings to review and provide a recommendation on the application to the BOC. The Zoning Ordinance does not specify the timeframe in which the BOC must act on the application.

It can be confusing to the public for the BOC to hold the initial public hearing, followed by Planning Board review, then action by the BOC. The County should **consider authorizing the Planning Board to conduct the first application review**, which could include the required public hearing. Alternatively, the BOC could continue to hold the public hearing but could hold it after the Planning Board’s review.

The Zoning Ordinance specifies only limited (and somewhat subjective) approval criteria for these types of applications: whether the request “is consistent with an adopted comprehensive plan, is reasonable, and in the public interest.”²⁴ Because of this, the Comprehensive Plan is part of the conversation on development proposals—although there are differences of opinion as to whether a particular proposal is “consistent” with the plan. During the UDO development process, the consultant team will **evaluate the rezoning and SUP approval criteria in the context of State law and consider ways to clarify and increase specificity, including an evaluation of sub-findings related to how the County determines compliance with the approval criteria. The team will also evaluate whether the approval criteria can include other issues not identified in State law** (e.g., environmental justice).

The UDO also should **clarify the role of the FLUC Map in the decision-making process**. For example, stakeholders expressed concern with new developments proposed close to, but outside of, a center designated on the FLUC Map. This raises questions of whether “proximity” is consistent with the comprehensive plan and perpetuates subjectivity in the development approval process.

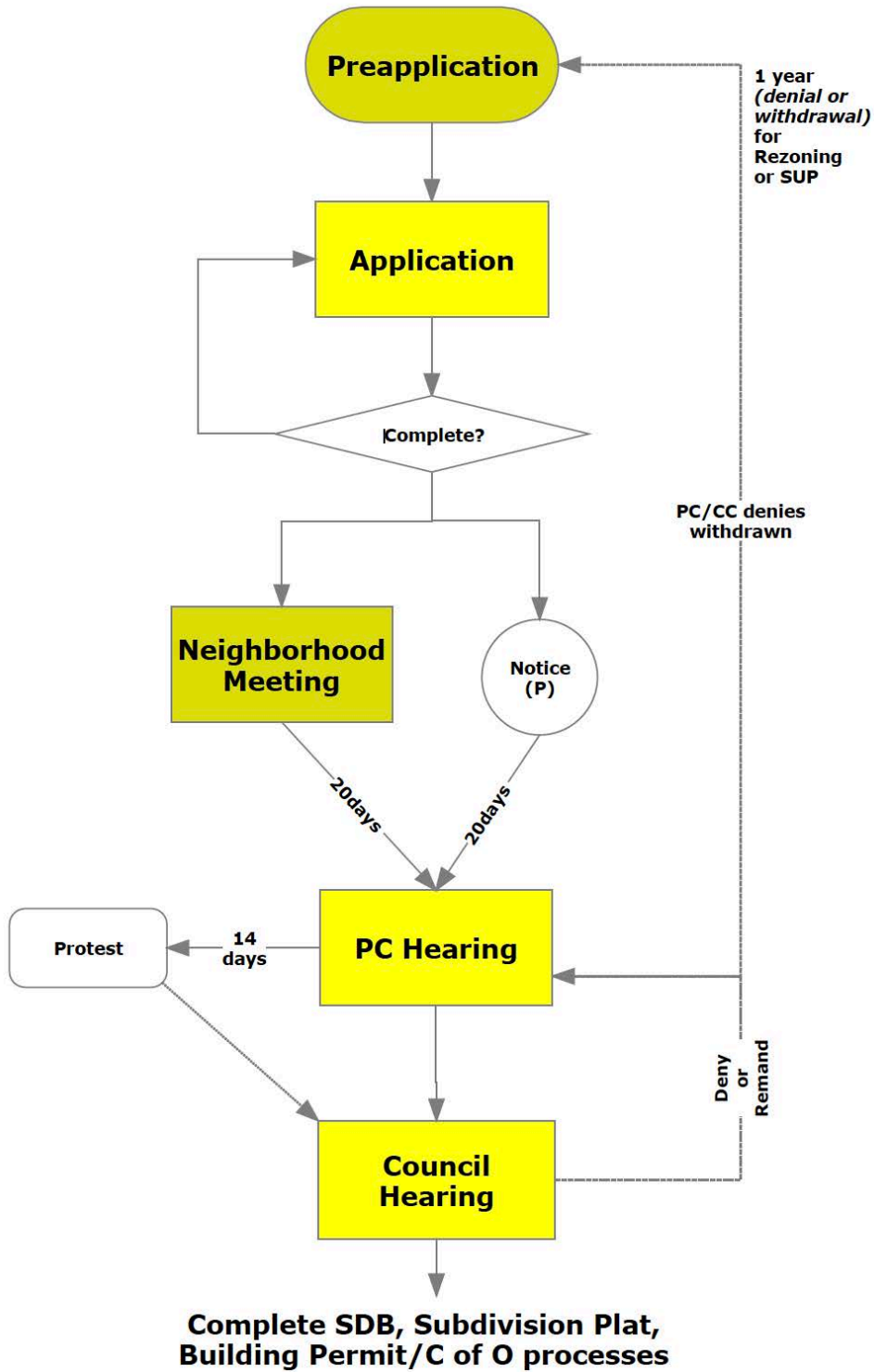
Stakeholders expressed general concerns with “speculative” rezonings, which occur when an applicant has not identified a specific use or development plan for the subject property. However, Zoning Ordinance Section 19.3 expressly prohibits applicants from providing “any testimony or evidence concerning the specific manner in which he/she intends

24 Zoning Ordinance Section 19.9

to use or develop the property.” The Ordinance directs an applicant to apply for a conditional zoning district if the applicant “believes that the development of his property in a specific manner will lessen adverse effects upon surrounding properties or otherwise make the rezoning more in accordance with principles underlying the” Comprehensive Plan.

Prohibiting discussion of the intended land use from the deliberations on a general (i.e., non-conditional district) rezoning is a rational approach. Base districts allow a range of uses and the review and decision-making bodies should consider the appropriateness of all possible uses for the property proposed for rezoning. There is no guarantee that the intended use at the time of rezoning will be the ultimate use of the property or that the use will not change in the future.

Concerns with speculative rezonings may indicate that certain uses are not appropriately districted or that development standards do not sufficiently produce the desired character of a zoning district. As discussed in 15.2 Zoning Districts on page 55 and 15.4 Development and Design Standards on page 70, the UDO will **revise zoning district and development standards to better align with the intended community character**. The UDO should **encourage base district rezonings and discourage, to some extent, conditional district rezonings**.



Rezoning procedure flowchart from the Olathe, Kansas Unified Development Ordinance

16.4 Subdivision Procedures

While Section 5 of the Subdivision Regulations clearly lays out the approval procedures for major and minor subdivisions, procedures for specialized development types or districts are specified in other sections (e.g., conservation subdivisions in Section 7.7, planned unit developments in Section 9, and compact communities in Section 10). Sections 7.7 and 10 cross-reference or use the same terminology as the Section 5 procedures, so the applicable procedures are generally clear. For planned unit developments, however, it is unclear which approval procedures apply. Section 9.1: *Procedure for First Plat and Construction Plan Approval* states “[a]ll master plans for planned unit developments shall be reviewed and granted final approval prior to recordation.” The section title seems to indicate first plats and construction plans are required, but it is unclear whether the required master plan follows the same process as major subdivision concept plans or follows a different procedure altogether. Consolidating approval procedures into a single section and providing a summary table as depicted in Figure 16.1 on page 82 would increase clarity in the subdivision approval process.

There was consensus that the County should continue to allow administrative (staff) approval of smaller subdivisions, both for conservation and conventional subdivisions, and potentially **increase the number of lots considered a “minor” subdivision**. Currently, staff has approval authority for minor conventional subdivisions with five or fewer lots and minor conservation subdivisions with 15 or fewer lots, which helps to incentivize the construction of small conservation subdivisions. The County sees many requests for large subdivisions, some with hundreds of lots. Stakeholders believe it would be appropriate for staff to approve smaller subdivisions so elected and appointed officials have more time during meetings to focus on the subdivisions with the greatest impacts.

N.C.G.S. § 160D-802(b) allows local governments to “provide for expedited review of specified classes of subdivisions.”

The UDO could implement two or more tiers of major subdivisions, with different requirements and approval processes based on the subdivision size. For example, major subdivisions with 100 or fewer lots could require approval by the Technical Review Committee, while major subdivisions with more than 100 lots would follow the current procedure for major subdivisions.

16.5 Community Meetings

Chatham County requires developers to hold a community meeting prior to submittal of applications for major subdivisions, conditional zoning district rezonings, and SUPs. For major subdivisions, the ordinance states the purpose of the meeting is to “offer an open dialogue between applicant and neighbors/community for better communication, to share goals of the development and gather information from neighbors about any concerns about the land, the goal being to achieve a balance for the environment, neighborhood/community and applicant.”²⁵

Both ordinances specify meeting notice requirements, but the Subdivision Regulations require more extensive notice, including posting a sign along every street frontage of the subject property.

Stakeholders feel the community meeting for major subdivisions occasionally occur too far in advance of the Concept Plan application; in some cases, the meeting occurs 12 to 18 months prior to application.

Stakeholders find value in the community meetings but think the documentation may be insufficient. Though the Zoning Ordinance requires applicants to submit a meeting summary, the Subdivision Regulations do not. The Zoning Ordinance requires a written summary of the meeting, including notice efforts, attendance, “a summary of issues discussed at the meeting, and a description of any changes to the rezoning application made by the applicant as a result of the meeting.”²⁶

²⁵ Subdivision Regulations Section 5.2B(2)d.

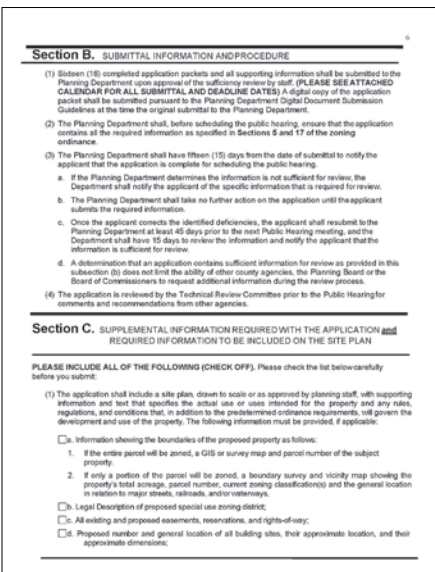
²⁶ Zoning Ordinance Section 5.87A(2)a.

Although not explicitly stated in the Zoning Ordinance, the purpose of community meetings for rezonings and SUPs is the same as for major subdivisions. For this reason, the UDO should **streamline the requirements for community meetings so that all meetings have the same notice and documentation requirements.** This provides predictability for neighbors and the development community and increases clarity in the development approval process. The UDO also should require developers to conduct community meetings within a maximum of six to nine months prior to application submittal.

An important aspect not currently addressed by the County's ordinances is the degree to which a developer must adjust their plan to adequately address community input. Stakeholders find this often occurs only when application approval is contingent on making such changes. The consultant team will **examine ways for the UDO to require incorporation of community input into development plans early in the approval process.**

In order to increase equity in the planning process, the County should **consider adding requirements for Spanish language community meeting opportunities.** For example, if the proposed development is in a region with higher than a certain percentage of Spanish speakers, the UDO could require developers to provide meeting materials in both English and Spanish. The County could potentially use (and make available on its website) its GIS data on Spanish-speaking communities.

17 - Application Submittal Requirements



Many of Chatham County's zoning-related application forms include a checklist of submittal requirements.

Both the Zoning Ordinance and Subdivision Regulations include lists of application submittal requirements. For example, Section 6 of the Subdivision Regulations includes detailed submittal requirements for First Plats, Construction Plans, and Final Plats, totaling nine pages of text—which comprises approximately 12% of the entire Subdivision Regulations document.

Inclusion of submittal requirements in a development code adds to the length of the ordinance and necessitates a legislative amendment to make even a minor change. A more common practice is to **maintain submittal checklists for all types of applications outside the code and simply cross-reference them in the development code**. This allows staff to maintain and update the checklists as needed. If submittal requirements are maintained within the UDO, they should be consolidated into a single section of the UDO or perhaps incorporated into the procedures section. In any case, there should be more uniformity and specificity in submittal requirements. For example, a “site plan” should include the same basic elements for all procedures in which it is required, with additional elements required as applicable for the particular application.

For subdivision applications, the County could **consider requiring submittal of a Natural Heritage Program (NHP) report rather than the Environmental Impact Assessment (EIA) and General Environmental Documentation (GED)**. The North Carolina Natural Heritage Program “has developed the state’s most comprehensive database of natural resource

information.”²⁷ An NHP report would offer more information and be more beneficial in the long run than the EIA and GED. The publicly-available NHP data is not complete, as it only includes survey data for areas that have been surveyed and not all lands in the state. Therefore, requiring an NHP report would also increase knowledge of habitats and natural resources in the County overall, serving many of the community’s goals.

If the County maintains the requirement for applicants to submit an EIA, the UDO should **clarify how the report can be used in the approval process**. For example, Orange County’s UDO states that EIAs are informational and can only be used to determine compliance with specific standards established in the ordinance.²⁸ Further, the County could **consider a two-step approach to environmental assessments**. Applicants could first prepare an environmental assessment then, unless there is a finding of no significant impact, the UDO could require submittal of a more detailed EIA. **Any UDO requirements for environmental studies must be consistent with State law**, including N.C.G.S. § 113A-8(d) which requires local ordinances to exempt certain types of development projects from the requirement to submit environmental documents.

Generally, board and commission members would like to see **more information provided by applicants up front**. However, there is a struggle with the level of detail required—there are concerns about adding to an applicant’s costs, but the community wants to know what a development is going to look like. With respect to major subdivisions, stakeholders agreed that the review and decision-making bodies need a full overview showing the entire subdivision even if development of the subdivision will include multiple phases. Stakeholders also are interested in understanding a proposed development’s long-term impact on climate.

27 North Carolina Natural Heritage Program, <https://www.ncnhp.org>

28 Orange County, NC [Unified Development Ordinance](#) Section 2.25.2(D)(1)

In addition, there are parts of the development process that involve things the boards and commissions want to know but do not have the authority to address or require changes. **If a particular submittal requirement does not address a policy goal and the review and decision-making bodies cannot require changes to the plan related to the submittal requirement, the UDO should not require an applicant to provide it.**

The Appearance Commission does not feel it receives the application materials necessary for its review. The Commission is seeing conventional site design that contributes to urban/suburban sprawl. To better address this, **the Commission would like to see additional submittal requirements, such as building façades and elevations.**

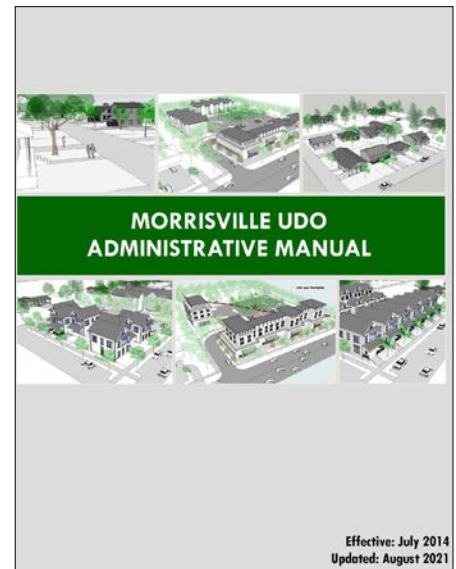
For some applications, the Planning Board feels it receives more materials than necessary to effectively conduct its review. For example, the Board members may not need printed copies of deeds or traffic data sheets. The County posts applications and supporting materials online for public review, and so could limit the printed materials it provides to Planning Board members or eliminate paper agenda packets altogether. In addition to the environmental benefits, this saves applicants time and money. The [SUP application checklist](#) requires 16 copies of the application and all supporting materials, which is a significant expense.

18 - Administrative Manuals

Due to the number and complexity of Chatham County's current zoning and land development ordinances, staff has created several guidance documents intended to help explain and clarify the regulations. Consolidating the various ordinances into a Unified Development Ordinance will increase consistency and clarity. The UDO will provide a coordinated regulatory process; combine and consolidate standards, where appropriate, for ease of review and administration; and will avoid the use of vague language that results in differing interpretations. These changes will significantly reduce the need for these various guidance documents.

However, even with the changes implemented by Recode Chatham, there will still be a need for a brief, easy-to-understand document that provides an overview of the zoning and development-related regulations. **Towards the end of Recode Chatham, the consultant team will prepare an Administrative Manual for the new UDO.** The Administrative Manual will include an introduction and executive summary of the regulations, a series of frequently asked questions (FAQs), and an explanation of how the zoning and development regulations work together.

Many communities also create a Land Development Manual to address the more technical aspects of land development. These manuals typically include standard engineering details, such as those related to street design and construction, water and wastewater systems, and stormwater and erosion/sedimentation control structures. These standards are highly technical and not frequently referenced by most code users.



I. OVERVIEW
HOW TO USE THIS MANUAL

This manual serves as the Administrative Manual for the New Hanover County Unified Development Ordinance (UDO). It provides information needed to complete and submit development applications identified in the UDO, including application fees, deadlines for submitting applications, and an index that links to individual application forms (each application form includes a checklist of submital requirements). Users of this manual are encouraged to consult Article 10 of the UDO as they prepare to submit development applications. Article 10 sets out the review procedure for each type of application, identifying the review bodies that make recommendations and decisions on the application and the standards for making a decision on the application.

The county uses the COAST portal for the submital and processing of development applications. This portal can be accessed at <https://www.coastnc.com>. The table below identifies the COAST portal processes required for the applications identified in the UDO.

UDO APPLICATION TYPE	UDO SECTION	COAST PORTAL PROCESS(ES)
Text Amendment	10.3.1	Plan: NHC Text Amendment-Ordinance
Zoning Map Amendment	10.3.2	Plan: NHC Repealing-Map Amendment
Conditional Zoning	10.3.3	Plan: NHC Repealing-Conditional Zoning Detail
Neighborhood Development	10.3.4	Plan: NHC Repealing-Neighborhood Development Plan: NHC Repealing-Street and Road Use Detail Plan: NHC Repealing-Conditional Zoning Detail (CZM2)
Special Use Permit	10.3.5	Plan: NHC Special Use Permit-Residential Plan: NHC Special Use Permit-Industrial
Site Plan-Major	10.3.6(2)	Plan: NHC Commercial Site Application
Site Plan-Minor	10.3.6(1)	Plan: NHC Commercial Site Application
Preliminary Plan-Major Subdivision	10.3.7(2)(1)	Plan: NHC Major Subdivision Preliminary Plan-Commercial Plan: NHC Major Subdivision Preliminary Plan-Residential
Construction Plan-Major Subdivision ¹	10.3.7(2)(2)	Plan: NHC Major Subdivision Construction Plan-Commercial Plan: NHC Major Subdivision Construction Plan-Residential
No application fees required		
Final Plan-Major Subdivision	10.3.7(2)(3)	Plan: NHC Major Subdivision Final Plan-Commercial Plan: NHC Major Subdivision Final Plan-Residential
Minor Subdivision Plan	10.3.7(1)	Plan: NHC Minor Subdivision-Commercial Plan: NHC Minor Subdivision-Residential

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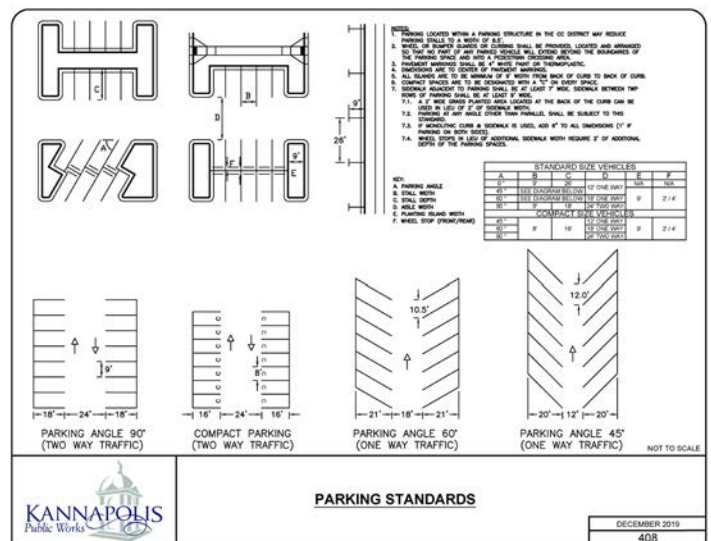
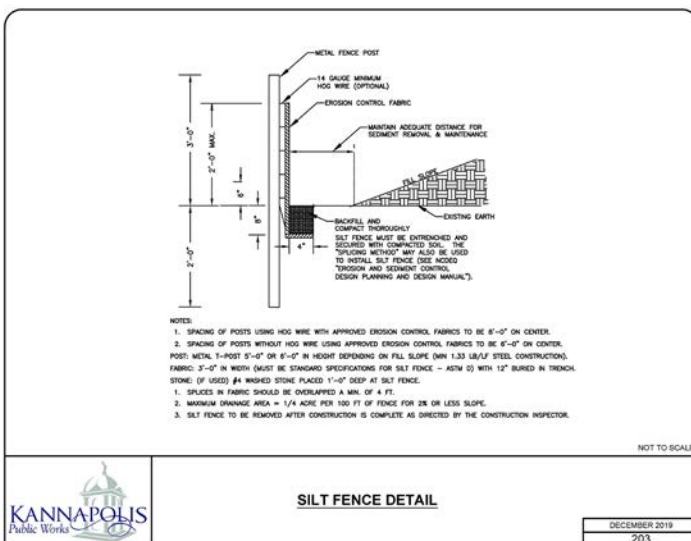
The Town of Morrisville, NC and New Hanover County, NC use administrative manuals primarily to explain the development review process.

The County should **consider developing a Land Development Manual (LDM) separate from the UDO and the UDO Administrative Manual.** Excluding technical standards from the UDO and instead incorporating them into a separate LDM would allow staff to update and augment them as needed for consistency with industry standards and NCDOT requirements.

In addition to standard engineering details, the LDM also could include standard plan templates. For example, the LDM could specify requirements for a standard erosion control plan that includes:

- » A list of required sheets and table of contents;
- » Tables and calculations layout template;
- » Calculation spreadsheet template;
- » Approval and signature blocks for other departments and staff signaling that the plan sets are consistent;
- » Planning- and zoning-related information;
- » Floodplain identification;
- » Riparian buffers identification; and
- » Stormwater information.

The LDM would be developed and maintained by County staff, though the consultant team can work with staff to identify which standards to incorporate into the LDM and which should remain in the UDO.



The City of Kannapolis, NC publishes a Land Development Standards Manual for use in the design and construction of infrastructure in its jurisdiction. It includes standards for streets, sidewalks, and trails; parking areas; driveways; and water, sewer, and stormwater infrastructure.

Appendix A: Focus Group Meeting Summaries

Summary of Meetings (2021)	
December 3	<u><i>Chatham County Climate Change Advisory Committee on page 99</i></u>
December 2	<u><i>Chatham County Affordable Housing Advisory Committee on page 100</i></u>
November 22	<u><i>Chatham County Board of Health on page 101</i></u>
November 17	<u><i>Chatham County Appearance Commission on page 102</i></u>
November 17	<u><i>Chatham County Recreation Advisory Committee on page 104</i></u>
November 17	<u><i>Chatham County Technical Review Committee on page 107</i></u>
November 9	<u><i>Chatham County Agriculture Advisory Board on page 109</i></u>
November 9	<u><i>Chatham County Environmental Review Advisory Board on page 111</i></u>
November 8	<u><i>Chatham County Board of County Commissioners on page 115</i></u>
November 8	<u><i>Chatham County Planning Board on page 120</i></u>

Chatham County Climate Change Advisory Committee

Meeting Date: December 2, 2021

Summary of Comments from Committee and Staff:

- » Board has been in existence for about 6 years
- » Committee role has historically been advisory only; not engaged in formal development decisions to this point.
- » On 12/20, 10 recommendations related to climate change are being presented to the BOC
- » Can committee be elevated to a greater role of oversight, including EIA processes; in development projects, like appearance Commission?
- » Perhaps to advise staff on discretionary approvals or to establish compliance with standards and criteria?
- » Relevant areas of development process:
 - Tree protection; A draft tree ordinance was prepared several years ago.
 - Sustainable agriculture
 - Riparian Buffers:
 - ▷ A draft 3-tier buffer framework based on Michigan has been assembled
 - ▷ Need to protect trees in riparian buffers in particular (carbon neutrality is tied directly to this)
 - ▷ Can match the floodplain
 - Wildlife corridors; noting NCWRC's "Green Growth Toolbox"
 - LID is important
- » Means of protecting waterways with water quality regs; re: agricultural uses and others; including impacts on Jordan Lake/watershed, particularly where feeding waterways go through this new development area and areas slated for growth.
- » Consider using increased requirements for water standards – quality and stormwater.
- » Explore passive solar use; incentivize.
- » Light colored ground cover of impervious surfaces.
- » Density averaging can be more "nimble" to create protection areas; and/or making it applicable to more residential development.
- » Performance zoning/incentives? What would be the key outcomes to "plan to"? Carbon production, or sequestration, e.g.
- » Model scorecard for the 10 recommendations to the BOC (a draft developed already)
- » Native plants and natural planting areas required (e.g., xeriscaping); consider carbon reduction and other environmental benefits with regard to what's considered open space.

Chatham County Affordable Housing Advisory Committee

Meeting Date: December 2, 2021

Summary of Comments from Committee and Staff:

- » Incentives to developers to create inclusive affordable housing, including density; additional height; and percentage mix affordable to MR (related to inclusionary housing concept);
- » Dedication/FIL are one option, but actual built units is most effective
- » Consider role for/of Community Home Trust
- » Affordable housing by agreements or conditional zoning has been used
- » Prioritize mitigation that results in built housing; not just land or fees, for example, unless a solid plan to those resulting in timely built housing.
- » Maybe community resistance to more MF and increased density; but concerns may be mitigated through good design and equal access to amenities, equal representation on HOAs, etc.
- » Mixing density and MF into residential areas is supported in some areas; studios to 2 BR may be the right mix
- » Some heirs properties complexities persist
- » Relevant factors to be considered as to location of housing mixes:
 - available transit
 - proximity to schools
 - Consider criteria used in the Affordable Housing Trust Fund decisions rubric
- » Displacement of those in manufactured / mobile housing is concern (land use?)
- » Substandard housing a historic concern; that any affordable housing built have long-term maintenance standards requirements/inspections/commitments to maintain condition.
- » Chatham Council on Aging has a Senior Housing Subcommittee; compatibility of senior housing with other housing types (lifestyle differences) to be considered
- » Definition of Affordable Housing is important:
 - Goal is also to address very- and extremely-low, as well as well as median.
 - But, traditionally most County programs have used 80-120%
 - AMI in Chatham Co includes Chapel Hill (or surrounding areas), so using 80% may be advisable; CH demographic may pull median income up.
- » Conditional zoning may provide a path to affordable housing (in lieu of or in addition to “inclusionary housing”?)
- » Market rate or deed restricted?
 - CCNC does require DRs for affordable housing fund, purposes
 - This is the preference, particularly if there is public \$ involved
 - But best to both; DR, but also design-driven affordable housing via market rate.

Chatham County Board of Health

Meeting Date: November 22, 2021

Summary of Comments from Commission and Staff:

- » Most intersection with Planning/land use is Environmental Health side
 - Bigger role for staff than Board
 - Septic approval is a key issue
 - County can refer to DEQ for surface system
- » Work with Parks & Rec on many issues
 - Walkability
 - Exercise, recreation, etc.
- » How can we incorporate equity into UDO?
 - Public Health focuses on this and can bring expertise and resources
 - Community engagement
- » Priority Areas
 - Access to Comprehensive Health Services
 - ▷ Healthcare
 - ▷ Mental Healthcare
 - Obesity
 - ▷ Healthy Living
 - ▷ Active Living
 - ▷ Access to Healthy Food
 - Reevaluating now, may have new priorities

Chatham County Appearance Commission

Meeting Date: November 17, 2021

Summary of Comments from Commission and Staff:

- » Current design guidelines are inadequate
 - Commission has prepared draft revisions
- » Specific concerns:
 - Tree protection
 - ▷ Don't currently have, want to consider adding
 - ▷ Strengthen tree canopy coverage requirements
 - ▷ Along major road corridors
 - ▷ Preference for maintenance of existing trees along road, rather than clear cutting and replanting
 - Land use in general
 - Buffers
- » Commission may not be receiving the submittal documents necessary for its review
- » Seeing a level of conventional site design that contributes to urban/suburban sprawl; need specific site plan requirements, such as building façades and elevations
- » Important to maintain green infrastructure; including wildlife corridors
- » Limit topographical changes, tree removal, etc. to address stormwater; could mean smaller building footprints
- » Design guidelines are confusing, don't seem to implement intent of the commission/code/plan.
- » Building design
 - Concern that buildings are already designed by the time the Commission reviews them
 - Concern with storage facilities
 - Buildings can be designed to meet regulations, but not the design intent—need to better articulate intent
 - Does Commission have authority to require changes to building design?
 - Consider adding architectural standards to UDO
 - ▷ Guide design, rather than just building placement, landscaping, etc.
 - ▷ Need to balance, provide choices
 - ▷ Colors
 - ▷ Other communities in the region have building design standards, but it may be challenging in Chatham County
 - ▷ Perhaps limit to corridors (e.g., 15/501) and/or nodes, or consider variation in standards based on geographic location

- ▷ In 2008, the BOC considered overlay districts with architectural design standards but didn't move forward
- ▷ Need to consider capacity issues—staff and board time and expertise to review
- Desire to maintain rural character of the County; ROW buffers are important to maintaining rural feel
- Appearance Commission may want to further discuss building design options
- » Increase ability to have pervious parking; consider impact of im/pervious surfaces on stormwater runoff, flooding
- » Provide for clean energy, solar; e.g. solar canopies in parking areas
- » Transitional development supported— e.g., more rural as move away from ETJs
- » Plant list in design guidelines needs revision
 - Includes (invasive) species and plants that don't do well in the area
 - Can the code cross-reference other lists, e.g. NC State? Or have to create one specifically for the UDO? Explore different options.
- » Stormwater used as an amenity, part of landscape
 - Incorporate low impact development (LID) techniques
 - Coordinate with Watershed Protection

Chatham County Recreation Advisory Committee

Meeting Date: November 17, 2021

Summary of Comments from Committee and Staff:

- » Protection of the Haw River and watershed important
- » Preservation
 - Of access to water
 - Of wildlife
- » Implement riparian buffers
- » Possible to include conservation easements in more instances?
- » Open space requirements for new development
 - Construction of greenway sections as identified in the Master Plan
- » River corridors
 - Consider requiring developers to provide public easement along rivers
- » County requires a recreation fee
 - Fee payment is typical, developer set aside of land is less common
 - County broken into two districts, per lot fee based on location
 - ▷ ~ \$528 for Western district
 - ▷ ~ \$926 for Eastern district
 - ▷ Hasn't been updated in 10+ years
 - Applies to all subdivisions (including minor)
 - Consider land and/or easement dedication rather than fees
 - ▷ Connection to adjacent trails, park system is important to developers
 - ▷ Concern with long-term maintenance costs if turned over to County
- » Could UDO require developer to provide maintenance funds for first few years? May be beyond the UDO scope, but an important part of the discussion
 - NC Statutes limit how the County can use these funds
 - TRC reviewed a 1,521 lot subdivision in Moncure (11-17)
 - ▷ \$1.4m in rec fees; appears can only be used for acquisition
 - Consider how/where fees can be used
- » Chatham Conservation Partnership and NC Wildlife Commission had maps of areas to preserve (natural heritage areas, endangered species, stream buffers, heritage trees, etc.)
 - Certain % of land the County wants to preserve
 - Conservation subdivisions require on-site evaluations
- » Newlin barns (built in 1940s onward)
 - 140+ barns in Chatham and Alamance Counties
 - Effort to preserve at least one as part of a working farm or historic site

- Orange County did this with Blackwood Estate
- » Negotiation with developers (on parks and rec) during zoning process is not common
 - But staff meets with developer and discusses possibilities, alternatives to fee-in-lieu
 - Retreat at Haw River went dormant, may be moving forward next year
 - ▷ Preliminary discussions with development
 - ▷ Conditional use permit or zoning
 - ▷ Land donation (rather than fee-in-lieu) to County is an open item for discussion
- » Joins Lower Haw River State Park
- » Passive park
- » Smaller, neighborhood pocket parks typically owned/maintained by HOA
- » Trails are important to the community
 - Need to determine where trails should be located, how they connect
- » Need for pools, aquatic facilities
- » What is the definition of open space?
 - Does it include golf courses? Currently, it depends on the type of project.
 - CCO requires certain %, some must be left undisturbed
 - Conservation subdivision has more specific requirements (natural space vs. open space)
 - Current open space regulations need to be evaluated and clarified
- » Open space
 - Trails, open fields, not golf courses—in any case, the UDO should define active and passive
 - ▷ Active needed in western part of County, but not seeing same development demand as other areas
 - Natural areas, trails
 - Wildlife corridors, viewing areas/birdwatching
 - Contiguous forest areas
 - Wetlands
- » Limiting or eliminating herbicide and pesticide use, especially in public parks
- » Use more native species for required landscaping and in common areas
 - Pecan trees, apple trees, other fruit trees available for harvest by community members
 - Provides food for birds
 - No more Bradford pears(!)
- » Encourage pollinator gardens
 - County incorporating into parks (SW Park, NE Park, “Peaceful Pathways”)
 - Seasonal native species

- » Good local resources exist, including:
 - Briar Chapel Garden Club
 - Other native species nurseries
- » Consider size of trees at maturity when planted
 - Certain trees planted on lots get very large and may create problems for the homeowner in the long-term
- » Consider requirements for species diversity, variety in landscaping
 - Guards against disease wiping out all trees in an area
- » Walkability and accessibility
 - Sidewalks are narrow
 - Need less of a focus on cars, more on other forms of transportation
 - Incorporate transit and anticipate future conditions and innovations in transportation
- » Are there ways to limit growth and type of development in certain areas?
- » Congestion is increasing, transit can help
- » Tree canopy protection
 - Could potentially count as open space
- » Can the UDO require a diversity of open space types and features?
 - If golf courses are allowed as open space, public/private access is an issue
- » Consider requiring life cycle analysis of new development—long-term impact on climate
 - Carbon sequestering systems
- » Building height limits—what is appropriate in the County?
 - Currently 60' limit except in industrial district?
 - Land costs are increasing, limiting building footprints, impervious areas can necessitate taller buildings

Chatham County Technical Review Committee

Meeting Date: November 17, 2021

Summary of Comments from Staff:

- » Ag-exempt businesses
- » Timing of riparian buffer determination during the subdivision process
 - Sometimes certain buffer impacts (e.g., stream crossings, driveways) are not anticipated at the time the subdivision is reviewed
 - Need to better understand full range of impacts earlier in the process
 - Need clarity for applicants, don't know who to contact or how the process works
 - A flow chart might be helpful
- » Denser developments
 - Issues with Fire Dept. and emergency vehicle access due to on-street parking and street widths
 - Parking on both sides of street, dense developments often require aerial trucks which are large
 - Enforcement is an issue
 - ▷ Sheriff's Dept., Highway Patrol doesn't enforce
 - ▷ Left to HOAs
- » Density averaging
 - State mandate
 - Translate into a TDR program? For mixed use districts
 - ▷ Add criteria for density transfer (rural land, ag land)
 - ▷ Developer obtains credits from landowners, sends to more urbanized areas
 - ▷ Creates benefits for ag landowners
- » Density
 - Density is driving developers to the conservation subdivision technique, results are inconsistent with intent of conservation subdivision
 - Compact communities intended for Briar Chapel only, but others trying to fit sites into CCO
 - This adds time to the review process because the process is not appropriate for what the applicant is trying to achieve
 - Demand is increasingly for small lots (higher density)
 - ▷ Chatham County regulations not set up for this type of development (other than CCO)
 - ▷ Standards don't fit with what the market is demanding
 - Higher density development also creates new issues with septic, wastewater
- » Staff recommendations on applications/agenda items
 - Provide reports only
 - Subdivisions
 - ▷ Approvals are ministerial, but become controversial nonetheless
 - ▷ Easy to determine whether application meets regulatory standards

- Rezoning
 - ▷ More subjective
 - ▷ Identifying whether an application is consistent with the Comp Plan is also subjective (adequacy of infrastructure, etc.)
 - ▷ Staff recommendations on rezonings can be divisive
- » What objections do you hear consistently?
 - Concerns with off-site septic, community septic
 - ▷ Often results in application denial, but County doesn't have role in type of system built other than specifying the location (permit is issued by the State)
 - Impacts to riparian buffers and other environmental impacts
 - ▷ Water quality impacts
 - ▷ Stormwater impacts
 - ▷ Concern with (increased) flooding, drainage impacts
- » Tree removal on subdivision lots
 - Consider tree protection regulations
 - ▷ This is important to Climate Change Committee
- » Smaller subdivisions (< 15 lots)
 - Consider administrative approvals
 - Both for conservation and conventional subdivisions
- » Community meetings
 - Mandatory for subdivisions
 - Occasionally occurs too far in advance of the application (e.g., 1 to 1.5 years)
 - Consider requiring within 6 (maybe 9) months of Concept Plan application
- » Need to closely review stormwater and erosion control ordinances
 - Need to clarify responsibilities for developer, builder, homeowner
- » Incorporate community EV charging in new developments (multi-family and non-residential)
- » Move fire protection ordinance into UDO
 - Mainly Appendix D
 - Staff to identify which should be included in UDO
- » Briar Chapel roads are owned/maintained by State
 - Alleys are private
 - Parking enforcement is a challenge
- » Parking
 - Need standards for overflow parking in clustered, denser development
 - Consider increasing front setbacks to accommodate cars in driveways
 - ▷ Conservation subdivisions only require 5 ft front setback
- » Include cross-ref to adopted State Building Code
 - Current references to enabling legislation need to be changed / updated
 - Permits and inspections covered under 160D
- » There is interest in allowing/requiring green stormwater infrastructure in ROW (e.g., bioswales, bulb-outs)
- » Are there possibilities to include resiliency, sustainability, and equity in the UDO?

Chatham County Agriculture Advisory Board

Meeting Date: November 9, 2021

Summary of Comments from Board and Staff:

- » Development impacts on ag lands and ag economy creates challenging issues
- » Desire to consider an Agricultural Zoning district
 - Taking chance that Ag Land will be left is unlikely without some “intervention”
 - People move there because they like the rural environment; expect and wish it to remain rural
 - Examples of uses in Ag Zone:
 - ▷ Farms (are home-based businesses)
 - ▷ Home-based businesses don’t create many conflicts with AG
 - ▷ Conflicts are caused by people moving to the rural area – complaints of smells, etc., possibly nuisance lawsuits, threat of household pets to livestock
 - Consider incentives for subdivisions to cluster buildings and minimize impervious surfaces
 - Focus on preservation of prime ag soils
 - Value of Land to many farmers is the ability to sell it
 - Catch-22 of farming –
 - ▷ Value of land for use vs. value of land for sale
 - ▷ Farmers often are “land rich and cash poor”
 - How to balance development and increased population with preservation of soils and improving water management
 - Potential for use of transfer/purchase of development rights program should be considered
- » What is the biggest threat to the viability of active farming operations?
 - Threats/challenges to agriculture’s viability are multiple, some land use-related, others may not be solved through zoning/subdivision
 - ▷ Encroachment of new development on existing farms can be a threat, though not in all cases
 - ▷ Tree removal for new development can increase farms’ susceptibility to the effects of wind, weather
 - Reliable and continued water supply for livestock operations is important
 - Climatic changes are of increasing significance; important that the larger ecosystems and soil stability is protected
 - Agricultural support businesses – slowly decline as non-agricultural development encroaches into ag areas
- » Are there examples of development that’s compatible with agricultural uses?
 - Conventional residential subdivisions typically are not compatible
 - Village approach (clustered, compact communities surrounded by open rural/ag land) is more compatible with existing agricultural uses

- » Approaches...
 - Hard line vs. different approach (e.g., conservation subdivisions)
 - Cooperative Extension Office is fielding an increased number of calls from new homeowners trying to understand if agricultural use is operating normally, what to expect, and what it means to be a good neighbor to farmers
- » Smaller/Specialty Operations and Compatibility
 - Produce farm example is different than commercial livestock operation
 - Produce farms tend to be more compatible with residential uses than farms with livestock
 - Scale of the operation is a key to the compatibility
 - But larger operations need to be protected too
- » Scale of parcels can be diminished by inheritance over the years
- » Confined livestock operation might be most incompatible
- » Residential development is predominant pressure on agriculture
- » Agrihoods – integration of subdivision with less intensive agricultural enterprises in open spaces
 - Could also allow compact residential (up to 14 homes?) – more aggressive conservation subdivisions, potentially improves affordability
 - Size of parcel that works for this – 60 acre minimum – 10% to road and development – 40-50 acres set aside for agriculture?
 - ▷ Limitation on uses in this situation – perhaps limit large-scale livestock growing operations, or maybe not limit it at this point
 - ▷ Example of agrihood-Blue Heron Farm
 - ▷ Role of education-
- » Time of farming operations (early morning, etc.?)
- » Noises, smells, etc.
 - ▷ Buffers can mitigate incompatibility; burden can be placed on new development to resolve incompatibilities
 - Preferred Site Design for agrihood –
 - ▷ Depends on soil, slope, septic fields, very site-specific
 - ▷ If development is close to the road, it doesn't look rural anymore
 - ▷ When development is situated further back on the property (away from existing roads), the new road corridor can be site of systems and higher value perennials (orchard crops, etc.)
- » Voluntary Ag District- does this approach protect agricultural uses?
 - If farmer signs up, they should protect from being sued for nuisance claims
 - It seems effective and attractive, but hasn't really been tested
 - May not provide sufficient, long-term protection of agricultural uses
 - What is the long-term benefit to a farmer?
 - Survey plat includes notice of VAD proximity

Chatham County Environmental Review Advisory Board

Meeting Date: December 9, 2021

Summary of Comments from Committee and Staff:

- » Top Three Challenges with Current Regulations (Open Discussion Format)
 - Wastewater Treatment
 - ▷ Piecemeal development and problems with wastewater treatment
 - ▷ Should consider whether Chatham needs a quasi-governmental entity for wastewater treatment similar to OWASA
 - Solar Farms
 - ▷ Chatham County is so pristine – concern that solar farms are taking being placed throughout and over too much area.
 - ▷ Concern the materials may be toxic or
 - ▷ Maybe toxic material but should be recycled
 - ▷ Potential for solar and crops or animals, dual use
 - Potable water supply
 - ▷ Wells, central system – consider issues with Pittsboro water supply
 - ▷ Maintaining clean well water is issue
 - ▷ High out of parameter mineral content is a problem.
 - Tree Protection/Open Space
 - ▷ Need mechanism to prevent clear-cutting forests for solar farms
 - ▷ Would like tree protection ordinance to be considered, since so much land is being developed rapidly
 - ▷ Open space inventory would help – identify land that will be intentionally preserved
 - ▷ Plan Chatham identifies 30-40,000 acres that they want to preserve
 - ▷ But issue with lack of staff time and lack of regulations for qualifying and preserving open space
 - Light Pollution
 - ▷ Clustered development may require controls for light - may need standards
 - Relationship between Potable Water and Septic
 - ▷ They should be thought of as a interrelated system
 - ▷ Important to consider how septic affects owners and surrounding areas
 - Environmental Justice
 - ▷ NCDEQ - environmental justice tool - permitting has to consider environmental justice
 - Public Perception and Awareness
 - ▷ Need to inform public about changes in regulations because the regulations

- determine the type of development
 - ▷ Important that community knows where the County boards have discretion and where their ability to condition or deny development is limited or preempted
 - ▷ Transparency, open meetings important
 - ▷ Education/awareness/outreach important
- Affordable Housing
 - ▷ EIA Review - need alternative options for proposals, need something like incentives for tiny home communities for affordable housing (i.e.: Raleigh's new approval)
 - ▷ Would it be possible to develop partnerships with groups like Habitat for Humanity to develop housing?
- Buffers
 - ▷ Guidelines are too brief - need progressive buffers and watershed protection
 - ▷ Need to find balance and be careful in watershed protected areas - needs to be preserved for the future - extra step above 100 year could be 500-year floodplain
 - ▷ Holistic approach for streams (aka: OneWater)
- » Water quality
 - County has too many 303(D)(clean water act) impaired water bodies; Jordan Lake is under TMDL
 - Problem with incised stream where volume is too high - due to increased impervious surfaces in watershed
 - Floodplain regulations are good now, but buffers may not work because of state limitations on local government authority
 - The current approach to streams is not good enough because water quality remains a problem
 - Wells
 - ▷ Does County have any responsibility to help landowners with well water quality?
 - ▷ One problem with water quality is use of septic
 - ▷ Also, there are minerals in the area's geology – they are in water at higher concentrations than is healthy
- » Additional Ordinances or Standards that are Missing for Watershed
 - Tree protection ordinance
 - Wastewater and storm water control
 - Important to have enforceable (not aspirational) requirements for habitat connectivity and corridors
 - Dealing with regulatory limitation on state level - storm water and erosion control – is a problem to be addressed

- Wider riparian zones might be a way to address this without running afoul of state limitation - consider 500-year floodplain
- Proximity to major airport RDU - concern about whether county has any influence in air traffic pattern
- » Natural Heritage Natural Areas
 - Don't have a regulatory tool to preserve NHNAs but comes up in EIA review –
 - Conservation subdivision is only process where NHNA areas must be considered
 - County doesn't use NHNA data in any other process currently
 - Conservation subdivision is the most popular development type, so natural heritage areas do come up some
 - Not being used well enough - if there's an NHNA – desire for a mechanism for county to protect that area
 - NHP data and on-site reports is helpful and important – in trying to persuade developers to develop conservation subdivision
 - May want to expand NHNA review to county projects
 - Want to look at natural heritage data with more reviews - maybe even making the map available to the public
- » Green infrastructure and LID
 - Unsure of how green stormwater works long term, including maintenance requirements
 - Need to make sure that the regs don't limit the green infrastructure tools
- » On-site Wastewater and Private WWTP
 - Problems particularly with onsite WWTP; important to BOC esp. in North Chatham
 - The issue goes beyond ERAC; a new commission/subcommittee has been set up to study
 - Pollution ends up in Jordan Lake whenever there's an overflow or failure in the neighborhoods' systems
 - Development is fast and piecemeal so definitely an issue
 - Important to coordinate Recode with task force recommendations on wastewater
 - Concern that County cannot regulate wastewater facilities - size of pipes and pressure, etc.
 - Greensboro has some options to regulate wastewater system details - could these be considered for Chatham?
- » Barriers in the Current Codes' effectiveness
 - Conservation Subdivision
 - ▷ There are many topics that need to be revised, made better, tighter, - language is too loose and open to interpretation
 - ▷ Some recommendations by planning board, ERAC, and staff have been provided – staff will provide to consultants
 - Development Delays

- ▷ Concern that two mega sites haven't gotten off the ground? Is it a regulatory issue?
- Variance process
 - ▷ Not very clear - many questions even when they review one –
 - ▷ Never denied one fully - environment not always considered sufficiently
- Specific Examples
 - ▷ Some wastewater treatment problems that have emerged after the development started were foreseeable based on the original plan
 - ▷ Need a good master plan to survive 50 years from now
 - ▷ Example of development near Harris Teeter (Williams Corner) was a case where ERAC recommended changes may have been implemented, there was also significant public input/opposition
- Compact Communities and Density Averaging
 - ▷ Developer can use land for density calculations if in the same watershed - maybe not contiguous- gap or loophole in location?
 - ▷ This contiguity or watershed preservation area may not be consistent across the different regulations
 - ▷ Density averaging is not currently addressed expressly in County codes, but is provided for by NCGS
 - ▷ Need to compare to 8 factors in NCGS - density averaging criteria are vague - want to come up with more details on how to apply in County
 - ▷ Concern with how to apply and incorporate into the ordinances
- » Erosion and Sediment Control
 - ERAC is supportive of improvements to erosion and sediment control
 - Don't have specifics - maybe staff has those details

Chatham County Board of County Commissioners

Meeting Date: December 8, 2021

Summary of Comments from Board:

General Notes

- » District-based Commissioners (i.e., not at-large)
- » Wastewater treatment is a huge issue; related recurring conditions of approval are common
- » Moratorium on major subdivisions / residential development is not authorized per State law, but could do for non- residential uses, subject to statutes
- » Want consultants to give weight to input from advisory boards and commissions
- » Preserve rural character; esp. preservation of farmland
- » Affordable housing
 - Where does this fit into County subdivisions? Can County require affordable house?
 - Entire income spectrum is important
 - Meet changing needs, demands of community
 - Revisit current approach for alternatives
 - Housing ties into environmental health, mental health
- » Connectivity of parks and trails; provide access in lower cost housing areas

Goals for UDO

- » Flexibility
- » Simplicity
- » Less prescriptive
- » Don't try to regulate every possible scenario
 - What are the goals? What results do we want?
 - Provide flexibility to meet these goals in different ways
- » BOC wants to balance the need for discretion/flexibility with the need for predictability and efficiency.
 - This ensure long-term consistency over the years
 - Want to be able to consider incentives for good developments
 - Watershed protection in particular requires discretion/flex to administer
- » New regulations/development standards may be important to consider
 - Agricultural subdivisions
 - ▷ Add as a type?

- Tree protection
 - ▷ Consider status of any pending legislative bills
 - ▷ Ties into conservation/open space goals

Future Growth

- » 15/501 corridor is where most development pressure is occurring
 - Need to discuss/evaluate whether this is where most growth should occur
- » Focus growth in nodes (as identified in Plan Chatham)
- » Zoning constrains development, business in agricultural areas
 - e.g., demand/desire for commercial uses that may not be currently allowed in AG district, but which would currently require rezoning to commercial (which may not be desired either)
- » High cost of land in NE Chatham County, since primarily single-family residential on 1-acre lots, allowing other uses, lot sizes may reduce cost of housing; more efficient development opportunities.

Density

- » Identify areas suitable for higher density development
 - Stick with Comp Plan
 - Preserving rural character and affordable housing requires dense nodes (as identified in the Plan)
- » Specify where density is desired, where conservation is desired
 - To provide predictability to developers
 - Need to allow density in the right places in order to achieve other goals, like preservation/rural character
- » Definition of density is varies for different people
- » May be support for density bonuses as an incentive for e.g., increased buffers
- » Can conservation subdivision serve as the “baseline” subdivision requirement
 - Conservation subdivisions then could be different in different areas of the County
- » There are areas where higher densities should be accommodated
- » Perhaps R-1 (1 du/ac) is no longer the norm (much of the County is R-1)
 - ▷ Consider allowing “1 roof per acre” and the roof could cover a duplex, triplex, etc.

Approval Process

- » Need to clarify role of Planning Board; when and basis of its recommendation differing from staff recommendation
- » It is important that to understand when/where the BOC or PB has no legal right to deny an application or impose conditions (i.e., thresholds of authority, discretion, legislative preemption)
- » Would like to see more information provided by applicants up front; a better sense of what is planned, not speculative or vague projections/descriptions
 - There's a struggle with the level of detail required
 - ▷ Concern with adding to the applicant's costs
 - ▷ But community will want to know what a development is going to look like
- » BOC wants to encourage creative solutions that facilitate County vision and the plan
 - Sometimes regulations need to be specific and prescriptive to avoid loopholes and unintended consequences.
 - Process should balance regulations with efficiency and ease of navigating
 - Simple / common development/improvements should be achievable by the average property owner, not requiring consultants and professional level developers, etc.
- » Consistency with Comp Plan
 - It's relevant to BOC decision making; it's the "first and last thing" for some
 - Although there are differences of opinion on whether something's consistent with the plan, part of or all the plan is usually part of the discussion.
- » Consultant team should get feedback from applicants on review process, what unnecessarily adds time and expense to the process
 - There are parts of the process that involve things the BOC finds important, but may lack the tools or authority to address through land use regulations
 - Important not to require the applicant to address or provide for matters that are beyond the County's power to address effectively
 - e.g., TIA—and the role of NCDOT vs. local government is cloudy/awkward
- » Are there items that could be approved administratively or otherwise, without BOC involvement in every case, if specific standards are provided and scope of discretion is limited/clear.
 - Probably... need to see examples, possibilities/case by case.
 - Maybe redefine minor subdivisions—not based on lots, but on meeting certain standards?

Stormwater

- » Concern with current stormwater regulations
 - 1-inch in 24 hours may not be adequate any longer, e.g.
 - Need to better address cumulative impacts of new developments
 - Community concerns about flooding
 - ▷ What is the role and capacity for the County to address these issues; are regulations and available powers sufficient?
 - Buffers are important
 - Some supports for increasing buffer requirements appropriately

Mobility

- » Mobility is an important issue that touches on many other things (environmental, affordability, equity, etc.)
 - UDO should take into account things that are going to matter in the long run in this regard, where relevant to land use
 - Very far from transit in the County right now, but should be thinking about it and planning for it now

Conservation/Open Space

- » Certain areas may have more value (e.g., wetlands vs. stand of trees); this needs to be looked at
- » Clarify what can happen in approved open space, what it can be used for
- » If a developer meets open space requirement, who strict do density and other design standards for the rest of the subdivision need to be; what's the relationship/balance?
- » Guide developers, so they understand clearly the types of areas the County wants to conserve
- » Require connections between open spaces
- » Question about TDR, how does it work; what are applicable state laws?
- » Broad support for open space in all subdivisions

Housing Types

- » There's always going to be a market for detached single family residential in NE CCNC; but smaller lots might be considered for appropriateness and impact on available more affordable housing

- » Interest in expanding allowed housing types
 - Address/allow tiny houses and cottage courts
 - Need more opportunities for multifamily

Mixed Use Areas

- » Consider whether all developments need a commercial component, particularly if they're close/adjacent to existing developments with commercial uses
- » Should allow, but perhaps not require in some instances
- » Only way to get higher density is thru Mixed Use or CCO, both of which require non-residential uses.

Chatham County Planning Board

Meeting Date: November 8, 2021

Summary of Comments from Board and Staff:

- » Concern about home businesses, at what point does a rezoning become necessary to facilitate one?
- » May be a lack of full awareness in community of off-site septic systems, how to maintain and monitor
 - Soils, stream and wetland buffers
 - Location of areas impacted
 - Is there a mechanism to ensure long-term monitoring and maintenance?
 - Ensure community knows location of these systems, including their lines
 - Can we encourage consolidation of wastewater lines?
 - Can we encourage community vs. individual septic systems
- » Concerns about water quantity and quality, effect of new development on quantity
- » Concern about wastewater related to new development, including associated costs; package plants
- » Compact community ordinance
 - Requirement for 100K SF non-res may not be realistic in the market
 - Strengthen road access requirements
 - Is the current requirement for natural space appropriate in the 15/501 corridor?
 - May work best for larger developments
- » Subdivision procedures
 - Is the number of meetings/hearings appropriate?
 - Should the Planning Board hold the first hearing?
- » Application materials
 - Planning Board may receive more materials than they need (deeds, traffic data sheets, etc.) for some applications.
- » Buffers and protection of natural resources in new developments
- » Balance between existing residents and new developments
- » Plan Chatham policies
 - Agrihoods
 - Increased sustainability, green building
 - Affordable housing
 - Implement requirements for housing (affordability, green, etc.)
- » Problematic ordinances
 - Conservation subdivisions
 - Off-site septic

- » Consider proximity to incorporated towns
 - Availability of water, sewer
 - Guide development towards these areas with existing infrastructure
- » Limited control/discretion over subdivisions
 - Decision-making process would benefit from more flexibility
- » Riparian buffers ordinance is working well
- » Zoning ordinance is also working well
- » Revise permitted uses
- » Subdivision process generally works well
- » Consolidating land use and development ordinances will help resolve inconsistencies that can cause problems in decision-making process
- » New districts?
 - Mixed use?
- » Applicability of Plan Chatham Future Land Use Map Confusion arises where proposed developments are close to a designated node
- » Watershed Protection
 - Overlapping requirements with other ordinances, need to streamline
- » Public and developer input
 - May come in close to the relevant Board meeting
- » Community meetings are good, but documentation may be insufficient
 - Community input may not always be adequately addressed by developer
- » Natural resource protection
 - County has been a leader
 - Chatham Conservation Partnership <https://www.chathamconservation.org>
 - ▷ Conservation plan + recommendations
 - ▷ Planning tools for Pittsboro—tree protection, natural resources overlay
 - ▷ May be a good resource for Chatham County
 - Plan Chatham Natural Resources chapter includes recommendations that should be incorporated into UDO
- » Agricultural preservation is important
- » More tools are needed
 - E.g., impervious surface ratios
 - Conservation credits to fund land trust for land preservation
 - Different models for mixed use development throughout the County
 - Platform for public-private partnerships for water/sewer infrastructure
 - Better framework for high density areas
 - ▷ Taller buildings
 - ▷ More concentrated development in appropriate areas
- » Improve connectivity
 - Consistent with NCDOT plans

- » Comprehensive approach to connected greenways and parks system
- » GIS updates, parcel-by-parcel map of Future Land Use designations
- » Navigating and understanding NC pre-preemptions, other state regulations is important
- » Provisions for adaptive reuse
- » Historic preservation regulations
- » Clearer process for mega-site developments
- » Agricultural subdivisions, need a good framework
- » How to work with, coordinate with municipalities, support each other's efforts
- » Incorporate resiliency, disaster-preparedness
- » Add incentives for what we want to see
- » Provide flexibility to respond to innovative planning and development concepts
- » Concern with current lighting ordinance
 - Need to maintain rural character, preserve night sky
- » Landlocked parcels without public road frontage
 - Consider requiring stub roads in new development, subdivisions to provide access
 - "Handshake" easements from 80-100 years ago
- » Rural preservation
 - May see increased demand for equestrian subdivisions
- » Include provisions for parks and recreation space
 - Trails
- » How can the UDO help businesses grow, diversify tax base?

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