

NORTH CAROLINA

CHATHAM COUNTY

THIRD AMENDMENT TO AGREEMENT

This Third Amendment to the Agreement (this "Third Amendment") is made and entered into this ____ day of January, 2023, by and between Chatham County, North Carolina, a body politic and corporate of the State of North Carolina (the "County") and White & Smith, LLC (the "Contractor"). Either the County or the Contractor may be referred to herein as a "Party" or collectively as the "Parties".

RECITALS

A. The Parties entered into the original Agreement that commenced on September 10, 2021 (the "Agreement").

B. The County and the Contractor entered into a series of prior Agreements, the last of which was dated and made effective June 16, 2022.

C. The County has requested that the Agreement be amended to change the Scope of Service to add the additional work set forth in Appendix 1.

D. The Contractor has requested that the Compensation be amended to include an additional sum of \$572,622.50 to reflect the additional requested work in Appendix 1.

E. The Parties have agreed to amend the Agreement as requested.

NOW, THEREFORE, in consideration of the mutual covenants and the conditions contained herein, the County and Contractor agree as follows:

1. The Scope of Service is amended to include the services shown in Appendix 1.
2. The Compensation is amended to include an additional sum of \$572,622.50.

AGREEMENT TO REMAIN IN FULL FORCE AND EFFECT. Except for the Amendment set forth above, the original Agreement made effective September 10, 2021, and subsequent amendments shall remain in full force and effect.

CHATHAM COUNTY

BY: 
Dan LaMontagne, County Manager

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.


Roy Lynch, Finance Director

CONTRACTOR

BY: 

PRINT NAME: Tyson Smith, AICP

TITLE: Shareholder, White & Smith, LLC

APPENDIX 1

Plan Moncure (Phase 2)

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GENERAL

1.1 Background

On March 29, 2022, Governor Roy Cooper announced that automaker VinFast selected Chatham County as the location of its first North American assembly plant for its electric vehicles – the first major automotive plant in North Carolina’s history. The plant is planned for development on a portion of the Moncure megasite in Southeastern Chatham County, now known as Triangle Innovation Point (TIP) East. TIP East is situated on the east side of Pea Ridge Road.

In anticipation of this historic project, the Board of Commissioners (BOC) has initiated a wide-ranging planning effort to assess countywide impacts of the VinFast project, to prepare an action plan to address those impacts, and to develop an area plan for the County lands expected to be most directly impacted by the development of TIP East. It should be noted that significant changes are also being planned at “TIP West” and other nearby properties that are not part of this study.

1.2 Project Approach

The planning effort is being approached in two phases. Phase One, completed in December 2022, involved initial background research, fact finding, project assessment, and the development of the scope of work to be executed in the second phase. Phase One was necessary to define the longer-range County process of planning and public outreach in response to the TIP East site’s development. The resulting “*The Plan Moncure Small Area Plan: Phase 1 Assessment and Action Plan*” documents the findings of the initial assessment as well as the objectives for Phase Two.

Phase Two is the County’s formal planning initiative in response to the March announcement. It includes not only a full assessment of countywide impacts, but also recommendations and a corresponding action plan for responding to the development and its impacts. The scope of work presented herein outlines the tasks to be undertaken in this second phase.

1.3 Study Area

For the purposes of Plan Moncure, the Study Area is defined as the area within which future land use will be depicted in the final plan. It is restricted to Chatham County’s planning and zoning jurisdiction and includes related places not addressed by other adopted land use plans. As shown in Figure 7, it is delineated as follows:

- the County limits form the south and east sides;
- the US-501 corridor defines the western edge; and
- the town of Pittsboro’s extraterritorial jurisdiction (ETJ), Jordan Lake, and the Study Area of the Chatham–Cary Joint Land Use Plan, in combination, demarcate the northern boundary.

A core area delineated at the beginning of the planning process will be the focus of much of the analysis and land use and development design exercises.

The analysis to be conducted early in the process may investigate specific areas that extend beyond the limits shown on the map (e.g., potential commuter sheds, retail service areas, watershed subbasins).

1.4 Contract Administration

Nealon Planning, PLLC will lead *Plan Moncure* Phase 2, as a subcontractor to White & Smith, LLC under this contract revision. In addition, the following firms will be acting under subcontract to Nealon Planning in performance of its tasks under this agreement:

- Green Heron Planning, LLC
- City Explained, Inc.
- VHB Engineering NC, P.C. (VHB)
- Economic Leadership, LLC
- Freese & Nichols, Inc.

Nealon Planning will manage the tasks, budgets, and performance of its subcontractors and will include charges for services performed by them on monthly invoices from Nealon Planning to White & Smith, LLC, pursuant to subcontracts between Nealon and its subcontractors.

As the primary point of contact for this phase, the County may coordinate directly with Meg Nealon regarding tasks, budgets, and performance of Nealon Planning's tasks, but may also coordinate with Tyson Smith at White & Smith, LLC.

Ms. Nealon and Mr. Smith will communicate internally as well throughout Phase 2 in order to coordinate the tasks herein along with those associated with other aspects of *ReCode Chatham*, which White & Smith is leading, including at this time the Unified Development Ordinance and the Health and Equity Assessment.

1.5 Compensation

The amended Compensation of ~~\$572,622.50~~ includes the authorized amount of ~~\$418,502.50~~ plus an additional amount for optional tasks, all of which are identified in the scope of work set forth in this Appendix 1. The Contractor shall be compensated for the performance of any optional tasks authorized by the Planning Director. Such optional tasks are as follows:

- Community Engagement Activities:
 - BOC one-on-Ones (two rounds of virtual meetings, up to one hour each with each Commissioner) in Tasks 1 and 4
 - Community Open House #2 in Task 3
 - Technical Advisory Committee Meeting #6 in Task 5
 - One additional PB/BOC Update in Task 3
 - 60 person hours – additional activities in the menu to be included in the final version of Community Engagement and Outreach Plan, such as online activities (i.e., "Share a Photo," surveys, or mapping exercises)
- Analysis of Other Infrastructure (i.e., community facilities, energy and broadband) in Task 2 (refer to section 3.6)
- Additional future land use and conservation scenario map and implications (#3) in Task 3 (refer to sections 4.1.3 and 4.1.4)
- Return on Investment (Fiscal Impact) Assessment in Task 3 (refer to section 4.1.5)
- Area Master Plan under Task 3 (refer to section 4.3)

The total fee for the optional tasks is \$154,120, which is included in the not-to-exceed amount of ~~\$572,622.50~~.

2 TASK 1: PROJECT ORGANIZATION

2.1 PROJECT ORGANIZATION

Task 1 will be devoted to activities associated with project organization. Clarifying roles and responsibilities, establishing communication protocols, and providing access to data-sharing tools will be among the details addressed.

Throughout the process, the Project Team will conduct virtual coordination meetings with the Client and Technical Advisory Committee. Meetings will be scheduled to occur on a regular basis (e.g., monthly). In addition, the Team will participate in internal coordination meetings to ensure work progresses in an efficient and effective manner and in accordance with the scope of work.

2.2 KICKOFF MEETING AND AREA TOUR

A kickoff meeting and Study Area tour will mark the commencement of the project. This structure of the two events is designed to formally introduce the Project Team while familiarizing members with the stakeholder interests and the current status of the Study Area.

2.3 DATA COLLECTION

A key step at this stage is the assemblage of key data and documents. The Project Team will confirm access to available data necessary for the creation of Plan Moncure, particularly for the analyses conducted to assess the existing and potential future conditions. The Project Team will prepare a data inventory, specifying data that are readily available from the client as well as state, regional, and local agencies and defining the types and formats of missing data to be acquired. The inventory will identify an array of information ranging from GIS shapefiles to relevant plans and studies. As appropriate, the inventory will note any limitations of the data collected. This inventory will be provided to the client, as the client will assist the Project Team in identifying and obtaining such data.

The Project Team will review adopted plans and studies to gain a better understanding of the policies in place that are shaping growth and influencing development, redevelopment, investments, and other types of changes in the Study Area. In reviewing these documents, the Project Team will note relevant goals, objectives, and recommendations that will inform the update to the Comprehensive Land Use Plan.

At a minimum, the following will be reviewed:

- Plan Chatham
- Chatham County–Cary Joint Land Use Plan
- County Zoning and Subdivision Codes
- NCDOT Public Outreach Materials
- Comprehensive Parks and Recreation Master Plan
- Comprehensive Transportation Plan (CTP)

2.4 COMMENCEMENT OF COMMUNITY ENGAGEMENT ACTIVITIES

Plan Moncure will be developed through a process that includes extensive community engagement. The Project Team will work with County staff to solicit input from Moncure community leaders on the Community Engagement and Outreach Plan to help ensure it will effectively engage local stakeholders.

PRPOPOSED COMMUNITY ENGAGEMENT AND OUTREACH PLAN**TASK 1 ACTIVITIES**

At the outset of the project, the Project Team will create a Project Website and add informative content to orient viewers to the project and inform them of how to get involved. The website will be incorporated into the existing ReCode Chatham project website and is anticipated to have tabs and content related to the following regarding Plan Moncure: Introduction and Project Overview; draft Documents and Deliverables; a Project Schedule; and an events page. The Project Team will also host a virtual kickoff meeting of the Technical Advisory Committee (TAC Mtg. #1) to share information about the planning process and receive initial input on key issues in the Study Area. In addition, the Project Team will conduct up to six virtual Key Stakeholder Interviews with community residents and others with key data (e.g., historic preservation experts) identified by Chatham County staff, and up to three Small-Group Meetings with Residents at convenient locations in their community (i.e., fire stations), with virtual options. The Project Team may also conduct a fun Online Activity such as "Share a Photo" which would invite stakeholders to submit a photo of a special place and a short caption of why it is special to them for posting on the project website. The focus of this stage in the outreach effort will be to listen to community stakeholders, share basic information about the project format and schedule, and capture key information about wants, needs, concerns, and important local considerations.

TASK 2 ACTIVITIES

In this phase of the project, public engagement activities will continue to capture information on community wants and needs and then focus on sharing key results from the technical background analysis conducted on the Study Area, including the market analysis and land suitability analysis. This work will include a second virtual meeting with the Technical Advisory Committee (TAC Mtg. #2) to review and discuss preliminary analysis results. Then the Project Team will host a Community Open House (Open House #1) to provide another opportunity for initial community input on wants and needs and to share the results of the technical analysis.

At the open house, the Project Team will use fun activities such as "White Board Wisdom" and "Take One, Leave One" to obtain stakeholder feedback on key issues. The "White Board Wisdom" activity, for example, would give stakeholders a chance to write something that they think the County should know about the Study Area, its people, its history, and its special places on a handheld white board for photo recording. The "Take One, Leave One" activity, for example, would invite stakeholders to identify one place in the Study Area they would like to see change (and how) and one place they would like to see stay the same (and why).

Then the Project Team will provide an update on the public input received and the technical analysis results to the Planning Board and Board of County Commissioners (BOC) and receive feedback and direction. In addition, summary information on the analysis results will be posted on the project website. The Project Team will also conduct an Online Survey (Survey #1) to receive input from stakeholders who were not able to attend the open house.

TASK 3 ACTIVITIES

Next, the public engagement component of the project will share information on the scenario analysis about different ways land in the Study Area could be used in the years ahead. This will include a third meeting with the Technical Advisory Committee (TAC Mtg. #3) to discuss the preliminary results of the scenario analysis, followed by a Community Workshop (Workshop #1) to review these scenarios and their implications and receive stakeholder input.

The website will be updated with this information as well. Then the Project Team will meet again with the TAC (TAC Mtg. #4) to discuss the input received and identify a preferred land use scenario. Then the Project Team may host an optional Community Open House (Open House #2, refer to the menu of options) to provide an opportunity for a community review of the preferred scenario. This phase will conclude with an update to the Planning Board and the Board of County Commissioners and their feedback and general sign-off on the preferred scenario.

TASK 4 ACTIVITIES

Once the preferred land use and conservation plan map has been agreed upon, the final stage of the public engagement effort will focus on implementation strategies. The Project Team will hold another virtual meeting with the Technical Advisory Committee (TAC Mtg. #5) to discuss potential implementation measures and then host an in-person Community Workshop (Workshop #2) to invite community stakeholders to share input on potential strategies for realizing the small area plan on the ground. The project website will be updated, and another Online Survey (Survey #2) will be conducted to provide an input opportunity for those not able to attend the community workshop in person. Then the Project Team will prepare the public review draft of the small area plan and present it to the TAC (optional TAC #6), the Planning Board, and the Board of County Commissioners, as required by state law. Community Open Houses (Open Houses #3 and #4) will be held immediately prior to each of these board presentations to give community stakeholders a chance to get their questions answered and share any final input. In addition, a Public Hearing will be held by the BOC (also required by state law) prior to reviewing and adopting the small area plan.

Once the plan has been adopted, the project website will be updated again to post the plan and share the community vision that it embodies.

Work on implementing the Community Engagement and Outreach Plan will commence in this stage. Early steps include the activation and promotion of the project website, which will be initially populated with the following sections: introduction and project overview (background, objectives, relationship to UDO), draft documents and deliverables, a project schedule, and an events page. Meetings with the Technical Advisory Committee, area residents, and other stakeholders will also begin.

Selecting from a menu of activities, the County will have the option to expand the range of activities at this point to include one-on-one meetings with the Board of Commissioners, one or more online surveys, and other activities such as photo sharing. [Note: Optional items noted in the proposed Community Engagement and Outreach Plan above will be included in a menu of possible activities. The fee estimate indicates a budget for allocating up to 60 person hours to the tasks selected if the County would like to pursue several of these optional public engagement activities.]

STAFF ROLES: The County Project Manager will be responsible for meeting attendance; coordination (notices, space reservation and setup, etc.); invitations for virtual and in-person meetings; receiving, documenting, and synthesizing the input received through the “Contact” mechanism on the project webpage; data gathering; and regular coordination with the Project Team.

3 TASK 2: ANALYSIS

The purpose of this task is to explore the many topics of interest to the County. Leaders, residents, property owners, and business owners, especially those with a stake in the future of the Study Area, have provided input on the types of information deemed to be important for consideration in the development of Plan Moncure. That input helped determine the types of analyses to be conducted and the depth of study.

3.1 MARKET ASSESSMENT

The market conditions of the Study Area are rapidly changing as major investments in the “Carolina Core,” including the planned VinFast electric car manufacturing plant, are drawing more people and businesses to the region. The demand for housing for future workers and their families and commercial space to accommodate complementary industrial uses, as well as support businesses and services, is on the rise.

In contemplating the appropriate future development pattern around the Triangle Innovation Park (TIP) East, County leaders, residents, and investors must have an understanding of the potential growth in population and employment and how such increases translate to future development potential. Through the analysis described below, the market assessment will be conducted to determine the number of people and households that could be added to the Study Area over time and, more specifically, the amount of housing units by type that could be reasonably located in the Moncure area, if permitted. It will also provide projections for nonresidential uses, including industrial, office, retail, restaurant, and lodging uses, for which developers might be seeking locations in the Study Area.

3.1.1 PEER COMMUNITY REVIEW

The Project Team will summarize the experience of a few US communities that have experienced a similar type of major economic development investment, including substantial new job creation and dollar investment in facilities and equipment. What has been their experience in terms of population growth, residential and nonresidential development trends, the need for community amenities, and the ability to pay for those? Lessons from peer communities could shape the projections for the Moncure area and Chatham County.

Note: Graduate students are completing a preliminary study of a similar nature for NCDOT. The Team will acquire that report in December 2022, review it, and share it with County staff.

3.1.2 POPULATION/DEMOGRAPHICS

This task will be to create a current demographic snapshot of the Moncure area and how it fits within the County and region. Along with current conditions, we will describe trends and develop projections for how Moncure might grow in the future—although a small, unincorporated community, its development will be greatly affected by any planning framework created by Chatham County.

Work products will include the following:

- Current Chatham County and Moncure area population estimates
- Current demographic characteristics and trends for the Moncure area population (including age, race, and ethnicity; income levels; education attainment; and household size, home ownership, and housing types)
- Population projections for the Triangle region, Chatham County, and the Moncure area through 2040, taking into account past and current trends as well as the impact of major economic development announcements and noting any available data on in-migration trends, such as those moving to the region for work, retirement, college, etc.
- Projections regarding how Moncure could change in terms of demographic characteristics (age, income, household size, education attainment) over time

3.1.3 JOB GROWTH PROJECTIONS

For this task, we will first review current employment growth trends in both the Triangle and Triad regions. We will also consider the impact of major job announcements in the Carolina Core corridor that affect communities across the southern Triangle and Triad counties. The Project Team will then prepare projections regarding the following:

- Total job growth in the Triangle and Triad regions by number, percentage growth, and type
- Chatham County's share of projected job growth by number, percentage growth, and type
- Projected job growth in the Moncure area from the VinFast project
- Projected job growth in the Moncure area from businesses and industries related to the VinFast development (including industrial and office jobs)
- Projected job growth in the Moncure area from supporting sectors such as retail, service, leisure, and hospitality

3.1.4 MARKET ASSESSMENT

The Project Team will analyze existing residential and nonresidential supply and demand dynamics in the Triangle region, Chatham County, and the Moncure area.

For housing, we will examine the number, age, and type (single family vs. multifamily) of the existing housing stock in the County and in Moncure. We will develop projections for future housing demand in the region (including detached and attached units) and the County and Moncure's estimated shares of this demand. The percentage of new demand likely to be accommodated by existing or approved units will be included.

In addition, demographic and job creation projections will be used to form recommendations regarding the housing price levels, types, and amenities that may be needed to best meet consumer demand.

For nonresidential markets, the Project Team will cover supply and demand for industrial, retail, office, and lodging space. This analysis will detail the existing market size and vacancy rate for each type of commercial space for the Triangle region, Chatham County, and the Moncure area. It will project future growth for each type in the region, in the County, and in Moncure. For the County and Moncure, the analysis will estimate the percentage of new demand likely to be met by existing or approved space. Lodging demand for the Moncure area will focus on business-oriented travel that may be created by increased employment from VinFast and associated new activity.

The assessment will also take into account any potential space demand and/ or amenity demand related to tourism development for the Moncure area uncovered during the analysis.

STAFF ROLES: The County Project Manager will be responsible for provision of key data acquired by the County to the Project Team.

3.2 CULTURAL & HISTORIC RESOURCES

Many of the properties and sites within the Study Area are valued as historic and cultural resources. Working with County staff and stakeholders, the Project Team will help define the inventory of such assets and describe each of them using available data.

The Team will conduct virtual calls with key stakeholders and experts in the area regarding Moncure's cultural and historic assets (i.e., Historical Association representative). In addition, the Team will help evaluate how each resource can be highlighted as a key feature in the development pattern as it evolves over time so that the importance of each one is respected. Results and findings may be incorporated into the final small area plan as appropriate and applicable.

STAFF ROLES: The County Project Manager will be responsible for provision of key data acquired by the County to the Project Team and for setting up stakeholder virtual calls with the Team.

3.3 NATURAL RESOURCES & ENVIRONMENT

An analysis of vegetation, soil, water, and other environmental resources and features will be conducted to develop an appropriate growth strategy that will conserve valuable natural assets in this part of Chatham County. The Team will work with the community to identify and evaluate valuable assets and, using GIS, create an initial, conceptual framework of "green infrastructure" that should be conserved and managed. The inventory considered may include but is not limited to the following:

- Environmentally sensitive areas
- Water resources, considering the quality, quantity, and current protections
- Wetlands
- Floodplains
- Natural Heritage Inventory (NHI), etc.
- Valued assets
- Protected areas
- Federal lands (i.e., ACOE-managed land around Jordan Lake)
- State-maintained lands
- County parks (including nature preserves)
- Conservation easements
- Regulated buffers

The Team will then examine relevant regulations currently in place to protect the environment (i.e., watershed protection, erosion control, and stormwater). This step is intended to better understand potential deficiencies and consider mechanisms to address them.

The Chatham County Soil and Water Conservation District, Cooperative Extension, and the North Carolina Wildlife Resources Commission may be consulted for more input into this section of the plan.

STAFF ROLES: The County Project Manager will be responsible for provision of key data acquired by the County to the Project Team and for reviewing the mapping to ensure features encompass valued assets as well as development-related constraints.

3.4 INFRASTRUCTURE—UTILITIES

The capacity of the public utility infrastructure to serve the Study Area in the future will be provided primarily by the City of Sanford. The city is currently implementing capital improvement projects to ensure water and wastewater service to the VinFast site in accordance with the car manufacturer's schedule and specifications. Investments in such infrastructure are expected to be sufficient to meet the long-term demand created by additional developments for treatment plant capacity. Line extensions will be accomplished in conjunction with new developments through both public and private investments.

The utility system analysis to be completed as part of Plan Moncure will determine the amount and timing of future capacity as planned based on data and projections from the County, the City of Sanford, and other providers, if any. In addition, the analysis will provide a baseline so that any needs for additional system capacity required to satisfy future demand can be calculated. This calculation will be a general estimate of need and used as a factor in evaluating the land use scenarios to be prepared in Task 3.

3.4.1 FLOW PROJECTIONS

The Project Team will review and evaluate overall historical water and wastewater usage as well as usage by residential, commercial/industrial, and selected large users, if available. In addition, the Team will evaluate flow factors for alternative land uses to be included as part of the overall study.

Based on the review of historical data and flow factors to be developed, the Team will develop design criteria for water and wastewater demand projections, including per capita demands and peaking factors.

3.4.2 WATER AND WASTEWATER INFRASTRUCTURE ANALYSIS

The Project Team will evaluate the capacity of existing infrastructure. Specifically, the Team will identify limitations for area growth based on existing infrastructure or pending/planned infrastructure. This will include an evaluation of excess capacity that may be used to serve future development and capacity deficiencies.

STAFF ROLES: The County Project Manager will be responsible for provision of key data acquired by the County to the Project Team and for reviewing the mapping to ensure features encompass service areas by basin, as understood by County staff.

3.5 INFRASTRUCTURE—TRANSPORTATION

The NCDOT has initiated construction on major changes to the road and rail networks that will serve the VinFast development inside TIP East. As part of the analyses to better understand future circulation and access, this task will acknowledge existing and near-term mobility challenges. The future development scenarios tested in Task 3 will take into account the data about the network revealed in this step and can employ a travel demand model tailored for Chatham County.

3.5.1 NETWORK ASSESSMENT

Available data, analyses, and plans will be compiled and reviewed to assess current and anticipated deficiencies associated with transportation safety, capacity, connectivity, and accessibility for relevant modes, communities, and populations. Findings will be summarized in text and maps. All analysis will be at a planning level (no detailed Synchro modeling or level-of-service analysis will be conducted).

Both committed and planned transportation improvements (NCDOT, MPO, RPO, and others) will be assessed at a planning level for impacts on the Study Area.

- Secondary/indirect impacts of site-specific NCDOT improvements will be carefully considered.
- STIP and MTP/CTP assumptions and priorities will be validated or modified and tested as warranted.

Connectivity of/among various modes (personal vehicles, commercial vehicles, freight/rail, aviation, pedestrian, bicycle, and transit) will be evaluated.

- Traffic, commercial vehicle, freight, and rail issues will be particularly important.
- Potential for transit service (both regional and local) will be evaluated. This assessment will include access to transit as well as commuter, park-and-ride, and both fixed-route and demand-responsive services. Supportive design guidelines and policies will be described.
- Pedestrian and bicycle travel will be addressed with respect to stand-alone/mode-specific projects, as well as accommodations or conflicts associated with proposed roadway projects. Safety will be a primary concern. This task will also suggest appropriate design guidelines and policies.
- Parking policy and planning guidelines will be addressed.
- Potential impacts of the hybrid work environment, remote work/ work-from-home, broadband connectivity, vehicle electrification/ automation, and other technological innovations will be considered.
- Aviation may also be considered.

STAFF ROLES: The County Project Manager will be responsible for provision of key data acquired by the County to the Project Team and for reviewing the mapping to ensure features encompass network components, as understood by County staff.

3.5.2 CUSTOMIZED TRAVEL DEMAND MODEL

This effort will require some type of travel demand forecasting by design year horizon, mode, route, and origin/destination. A methodology will be developed to produce a model or tool to facilitate evaluation of different land use scenarios. This tool could be used beyond this study to test the travel impacts of future development proposals and to update this master plan. Considerations include the following:

- TRM Gen2—The pending update to the Triangle Regional Model does not provide enough detail in the Study Area to be helpful in evaluating scenarios. It also does not extend far enough to the southwest to answer all relevant transportation questions.
- ITE trip generation methodology—Typically used in traffic impact analyses (TIAs), this approach has limited applicability in such a unique situation, given the size, time horizons, and context of the study, especially across various modes.

- A hybrid subarea model combining TRM, ITE, and other methodologies in a spreadsheet and GIS platform may be necessary. Such an approach could save time and money in the long run.
 - Simpler to use and to update; designed for “what if” scenario analysis and sensitivity testing
 - Could be used to monitor, track, and plan
 - Has sustainability applications

3.6 (OPTIONAL) INFRASTRUCTURE—OTHER

The Project Team will evaluate other types of infrastructure. Specifically, the Team will inventory existing systems and facilities, note the service areas and/or capacity of each system, and acknowledge the planned expansions to each system and the anticipated locations, provided such information is available. Schools, parks, libraries, broadband, and energy will be among those examined.

STAFF ROLES: The County Project Manager will be responsible for provision of key data acquired by the County to the Project Team and for reviewing the mapping to ensure features encompass system components as understood by County staff.

3.7 LAND USE

An assessment of existing and potential future land use begins with an examination of the existing development pattern. The types of analysis may include land suitability analysis, carrying capacity analysis, or full build-out potential for the entire planning area or subgeographies within it. The following are specific mapping exercises that will be conducted to determine which types of (and where) development can be supported.

- Existing Land Use—The Project Team will examine the existing development patterns, prepare a map of existing land use, generate a breakdown of the amount of land devoted to each land use category, and compare those percentages to the percentage of the tax base each one represents. Key features include the following:
 - Agriculture—The consultant Team will build upon previous work in the County to create an inventory of working agricultural lands and lands suitable for agricultural use.
 - Community Facilities—Using available GIS data from the County, the Project Team will display existing and planned facilities that are, or are expected to be, part of the land use pattern in the Study Area. Those facilities may include schools, parks, civic spaces, and other community facilities that serve the current population or facilities planned in anticipation of future population growth.
- Land Supply—The Project Team will perform spatial analysis in GIS for the planning area to determine the area’s capacity for new development by mapping the supply of developable land in the Study Area. This step will delineate areas already developed and not likely to redevelop as well as areas permanently protected as open space. The remaining land will consist of lands described as “vacant” or underutilized and therefore ripe for redevelopment. Data and summary maps will be provided.
- Suitability—The Project Team will conduct a suitability analysis to update the suitability mapping completed for Plan Chatham and determine the areas most suitable for different types of development based on a variety of inputs. It is anticipated that suitability maps will be created for residential, commercial, and industrial development. This analysis takes into account location criteria that influence investors’ decisions in the selection of sites for specific types of development.

STAFF ROLES: The County Project Manager will be responsible for provision of key data acquired by the County to the Project Team and for reviewing the mapping to ensure features encompass system components as understood by County staff.

3.8 SUMMARY OF KEY FINDINGS

The Project Team will prepare a PowerPoint presentation to use in a variety of meetings to summarize the findings of Task 2. The maps and data table produced will be among the information communicated through this mechanism. The presentation will be made available for use by County staff and for uploading on the project webpage. At the client's request, the presentation will be designed for inclusion in the final plan as an appendix.

STAFF ROLES: The County Project Manager will be responsible for review of summary to ensure the presented details are clear and accurate.

4 TASK 3: PLAN DEVELOPMENT

4.1 SCENARIOS

Reaching a consensus will be critical to a successful and well-supported plan for the Moncure area. Sometimes, however, viewpoints diverge during the planning process. Therefore, we have built into Plan Moncure a formalized framework to support informed decision-making and meaningful resolution to the varied points of view that will be shared.

Scenario planning—evaluating two or more alternatives at the same time— and a suite of advanced decision-making tools designed specifically for the planning area (understanding what it takes to measure and evaluate conditions) will generate meaningful, localized data for evaluating the trade-offs between competing scenarios. Such data will help inform ideas for moving toward a preferred land use and conservation map. Moreover, the scenario planning process and its data and tools will be interwoven into the larger planning process. Specific tasks for the scenario planning initiative are summarized below by subtask.

4.1.1 MONCURE AREA COMMUNITYVIZ MODEL

The Project Team will build a grid cell-level computer model (using CommunityViz v. 5.2 and ArcGIS Desktop v. 10.6 software) to measure and evaluate alternative growth scenarios contemplated for the planning area. General components of the model will include carrying capacity analysis, land suitability analysis, build-out potential analysis, growth allocation, and reporting. The type and number of categories used in the build-out potential and growth allocation components of the model will rely on information produced by Project Team members focused on the market analysis or infrastructure assessments (limited to 10 or less categories).

The Project Team will provide Chatham County with a full copy of the Moncure Area CommunityViz Model and all associated files at the end of the project for their future use (independent of the Project Team). Chatham County will purchase a copy of CommunityViz v. 5.2 software for running the model on its own (if desired).

4.1.2 EVALUATION SKETCH TOOL

The Project Team will develop a project impact calculator in Microsoft Excel that may be used by the Project Team to evaluate proposed conditions for a specific site within the larger planning area. The tool will be based on the logic, assumptions, elasticity factors, or generation rates used for the Moncure Area CommunityViz Model. The sketch tool will be available to quickly evaluate site development alternatives without running the Moncure Area CommunityViz Model.

4.1.3 BASE CASE & ALTERNATIVES

The Project Team will develop up to three future land use and conservation scenarios for the Study Area that represent potential future development patterns based on trends, current and anticipated opportunities, the findings of the assessment of the Study Area conducted, and the objectives established in Phase 1. Each scenario will be different enough to measure and evaluate real trade-offs in the planning area—providing a range of development locations, types, patterns, intensities, and varying potential service areas—and identify gaps between current and preferred level-of-service thresholds.

The focus of this work will be on determining the highest and best use of property based on current and future infrastructure, environmental factors, and available resources, as well appropriate areas for future conservation.

Areas suitable for specific types of residential and nonresidential development will be delineated. As appropriate, the concepts will also reflect the relevant recommendations of recently adopted plans and recently approved development. We will use growth projections by category (produced in Task 2) in the CommunityViz model.

The Project Team will describe and evaluate each growth scenario for the planning area in CommunityViz using maps and data created for Plan Chatham as well as for the products of Task 2. Suggested scenarios to be tested include the following:

- Base Case: Build out using new zoning districts drafted for the UDO to date and apply them based on the Future Land Use Map (Plan Chatham).
- Alternative 1: Build out using an expanded set of new zoning districts drafted for the UDO to date and apply it based on results of market analysis to accommodate higher intensity than the Base Case's assumption.
- Alternative 2: Build out using an expanded set of new zoning districts plus additional districts proposed by the Project Team to reflect the higher end of the ranges projected in the market analysis and apply them to accommodate higher intensity than Alternative 1's assumption.

The Project Team will prepare a general development map and development profile table to describe each growth scenario using information generated in the CommunityViz software. We will then use this information to describe each growth scenario using maps, tables, text, or infographics.

STAFF ROLES: The County Project Manager will be responsible for provisions of parcel-level data for current and future land use, development status, and committed development to assume in the CommunityViz model.

4.1.4 PERFORMANCE MEASURES AND INDICATORS

The Project Team will use CommunityViz software to develop a suite of performance measures and indicators to supplement work completed by other Project Team members. Specific performance measures will be identified. General areas of interest may include but not be limited to the following: development and conservation potential, infrastructure impacts, or tax revenue generation impact. The number of performance measures and indicators created for the scenario-planning process will be limited to 15 to manage data, processing time, and project schedules with the larger planning process. Performance measures and indicators will be calculated for the base case, two alternatives, an optional third, and the preferred growth scenarios.

Some performance measures and indicators may be calculated in Microsoft Excel depending on their topic, nature, or numeric or spatial data needs.

Specific needs for this information will be outlined in the work program but may include the following:

- Water and wastewater utility needs:
 - Flow Projections
Utilizing selected design criteria and population and land use assumptions developed by others, the Team will develop projected average day, maximum day, and peak demands for existing and up to three (3) alternate planning scenarios as developed by others. It is anticipated that five-year increments will be used throughout the planning horizon. Projected water and wastewater demands will be distributed by planning area and will include up to five (5) planning horizon increments for each scenario.
 - Water and Wastewater Infrastructure
The Team will evaluate needed infrastructure to serve up to three (3) development scenarios. For each scenario, the Team will consider facility sizing, phasing alternatives, supply, and capacity. Infrastructure needs will be based on the overall study-planning horizon, and phasing will be considered for the five (5) increments as evaluated above.

The Project Team will develop opinions of probable cost based on the alternatives developed.

- Transportation needs—Future transportation needs will be identified, and mitigation/improvement options will be developed and evaluated for each scenario. These alternatives will be refined to support the preferred scenario.

The Project Team will develop opinions of probable cost of proposed capital, service, and operational improvements, along with phasing/ prioritization.

- Tax revenue generation estimates—Using the findings of the market assessment, the Project Team will project the volume and type of real estate product demand for the Moncure area through 2040. This will include an estimate of the values for each product type to incorporate in the CommunityViz model to determine potential tax revenue generation. It will include the number and type of residential units with a dollar value for each type and the type and square footage of nonresidential space with a per-square-foot dollar value for each type.

STAFF ROLES: The County Project Manager will be responsible for provision of available data that can be used for the performance measures identified to test scenarios (i.e., data not produced by the Project Team).

4.1.5 (OPTIONAL) RETURN ON INVESTMENT (FISCAL IMPACT) ASSESSMENTS

The Project Team will include data and performance measures in the Moncure Area CommunityViz Model to calculate fiscal impacts and measure potential return on investment for Chatham County under the different growth scenarios identified in this scope of work. This work will require information from a baseline infrastructure assessment and local government revenue study.

STAFF ROLES: The County Project Manager will be responsible for bond modeling to be done in house (outputs of Project Team's work to be shared with the County finance director).

4.2 PREFERRED LAND USE & CONSERVATION MAP

The Project Team will use the Moncure Area CommunityViz Model to test a preferred growth scenario for the planning area developed by the Project Team, which will become the Future Land Use & Conservation Map in the new area plan document. Up to three rounds of testing will occur with the project for developing the preferred growth scenario.

4.3 CONCEPTUAL ILLUSTRATIONS & IMAGERY

The Project Team will communicate the spirit of the overall plan, demonstrating the results of putting policies into action. To this end, the Project Team will also prepare up to three conceptual subarea plans. Each subarea plan will conceptually illustrate development design at that specific location with the core area delineated at the beginning of the planning process. At this level of detail, the Project Team can graphically express more specific ideas pertaining to mixture of uses, building form, infill development approaches, street pattern and streetscape, parks and open space, etc. Each illustration will be complemented by a set of precedent imagery that helps convey the ideas for the land use mix, scale of development, amenities, and other details suggested by the plan view drawings. These illustrations may serve as the starting point for plans associated with specific zoning districts developed after the area plan is adopted.

As an optional expansion of the conceptual illustrations, the Project Team will create an Area Master Plan to provide a more comprehensive illustrative development concept for the core area delineated at the beginning of the planning process. This will encompass and integrate the subarea concepts described above.

Future Transportation Concept Map(s) depicting proposed network improvements will also be provided. Roadways will be classified by facility type, as defined by general design guidelines consistent with federal, state, and local policies. Corresponding (typical) ROW and cross-section configurations will be identified.

STAFF ROLES: The County Project Manager will be responsible for review of illustrations and images prior to public review.

4.4 VISION SLIDES

The Project Team will prepare a brief set of slides for use in meetings with County leaders, residents, and other stakeholders to present the Future Land Use & Conservation Plan Map, the evaluation of scenarios to arrive at the preferred concept, and the supporting illustrations and imagery that further explain the intent of the Map. At the County's request, the presentation will be designed for inclusion in the final plan as an appendix.

STAFF ROLES: The County Project Manager will be responsible for review of slides to ensure the presented details are clear.

5 TASK 4: RECOMMENDATIONS

Once the Project Team has developed a Preferred Land Use & Conservation Plan Map and the Board of County Commissioners has provided general sign-off, then it is time to draft an integrated implementation strategy. To help the County move smoothly and effectively from planning to implementation, this process will include four components:

1. Implementation Project Identification
2. Implementation Feasibility Assessment
3. Matrix of Prioritized Implementation Projects
4. Zoning Strategy

5.1 IMPLEMENTATION PROJECT IDENTIFICATION

The Project Team will do this with the help of the Technical Advisory Committee in TAC Meeting #5. In addition, the Project Team will hold a community workshop (Workshop #2) to review the key elements of the shared community vision and invite stakeholders to provide input on potential implementation measures. This work will draw on the tools available to local governments in North Carolina, including regulations, public investments, policies and programs, follow-up studies, and partnerships.

STAFF ROLES: The County Project Manager will be responsible for participation in the initial effort to craft the list of potential implementation measures.

5.2 IMPLEMENTATION FEASIBILITY ASSESSMENT

To make sure the final portfolio of implementation strategies is both impactful and manageable, the Project Team will conduct Step 2—an implementation feasibility assessment (IFA). In this process, the Project Team will work with County staff to vet each potential implementation project for alignment with plan goals, feasibility based on the capacity and expertise of the County and its partners, and impact on advancing the shared community vision.

STAFF ROLES: The County Project Manager will be responsible for participation in the effort to assess each potential implementation project.

5.3 ZONING STRATEGY

This package of implementation measures will include a zoning strategy customized to the Moncure area that is integrated into the new UDO (Step 4) to enable the County to apply appropriate development standards to help implement the small area plan. All of this information will be summarized in the public review draft of the plan so that community stakeholders, staff, and appointed and elected officials can review the proposed approach.

STAFF ROLES: The County Project Manager will be responsible for review of the draft strategy and to provide feedback.

5.4 MATRIX OF PRIORITIZED IMPLEMENTATION PROJECTS

The Project Team will work with staff and stakeholders to prioritize the various implementation projects and help the County determine where to focus its efforts first. The priority projects will be listed in an implementation matrix that provides additional information about each initiative, such as the lead

department or organization, timing, order of magnitude of funding needed, potential funding sources, and next steps to move forward with the initiative.

STAFF ROLES: The County Project Manager will be responsible for review of the draft matrix and to provide feedback.

6 TASK 5: DOCUMENTATION & ADOPTION

The Project Team will conclude the planning process with the creation of a concise, user-friendly document that will present the community's vision for the future of the Moncure area. Charts, imagery, and infographics will be created to make the content of this plan more understandable. In 40 pages or less, the area plan will provide an overview of the planning process; describe the Study Area, conveying the existing conditions at a very high level; present the Future Land Use & Conservation Map ("vision" map) as well as supporting development concepts; and enumerate policies and strategies for achieving the desired future condition reflected in the map. As an effective communication tool, the plan will help facilitate both public and private sector investment.

(OPTIONAL) Prior to the initiation of the adoption process, a draft of the document will be reviewed with the Technical Advisory Committee (TAC #6) and refined based on that input.

The Project Team will assist County staff in the task associated with plan adoption, including creating a brief PowerPoint presentation for use in meetings with the Planning Board and Board of County Commissioners. The Project Team will participate in presenting to the boards and responding to key questions.

The final plan document will reflect any changes requested by County leaders and staff, and the related files will then be transferred to County staff.

A PDF of the final plan will be uploaded to the project website, where it will be made available to the public. It will also be uploaded to the County's website, where it will remain for the long term. It is anticipated that the final Plan Moncure document will inform County zoning, subdivision, and land use policy as the updated UDO is finalized.

7 DELIVERABLES

Throughout the planning process, the Project Team will provide work products that will inform the creation of the area plan, *Plan Moncure*. The planning process will conclude with the refinement of the area plan and companion documents, which the project Team will deliver following plan adoption. The following is a list of interim and final documents that will be provided by the Project Team during each of the five tasks.

STAFF ROLES: The County Project Manager will be responsible for reviewing all draft products and providing feedback.

Task 1

Community Engagement and Outreach Plan (format: PDF)

Community Engagement Tools (i.e., presentations, handouts, display boards) (format: various)

Task 2

Market Assessment Summary

Customized Travel Demand Model

Maps (formats: PDF, JPEG, and GIS shapefiles)

- Environmental / Natural Resources Map
- Existing and Planned Transportation Network Map, indicating existing conditions (safety, connectivity, and capacity deficiencies)
- Existing and Planned Utility Service Area Map
- Existing Land Use Map
- Value per acre (pie chart)
- Land Supply Map
- Land Suitability Maps (up to five)

Summary of Key Findings Slides (format: MS PowerPoint and PDF)

Task 3

CommunityViz Model

Evaluation Sketch Tool

Maps (formats: PDF, JPEG, and GIS shapefiles)

- Base Case Map
- Alternative 1 Map
- Alternative 2 Map
- (Optional) Alternative 3 Map
- Preferred Future Land Use & Conservation Map
- Infrastructure Systems Concepts (for transportation)

Vision Slides (format: MS PowerPoint and PDF)

Task 4

Plan Moncure Area Plan – Staff Review Draft (format: PDF)

Plan Moncure Area Plan – Public Review Draft (format: PDF)

Revised Future Land Use and Conservation Map for the Study Area (formats: PDF, JPEG, and GIS shapefiles, which will be delivered to the County to update Plan Chatham)

Conceptual Illustrations – Draft (format: JPEG)

Conceptual Illustrations – Final (format: JPEG)

Optional Area Master Plan (formats: JPEG)

Future Transportation Concept Map(s) (formats: PDF, JPEG, and GIS shapefiles)

Zoning Strategy (format: MS Word)

Conceptual Zoning Map for the Study Area (formats: PDF, JPEG, and GIS shapefiles)

Implementation Matrix (format: MS Word or MS Excel, and PDF)

Task 5

Plan Moncure Area Plan – Final Draft (formats: PowerPoint and PDF)

Imagery included in the Plan (formats: JPEG and PNG)

Charts and Tables created for the Plan (format: MS Excel, JPEG, and/or PDF)

GIS Shapefiles created by the Project Team for the Plan