



**BOARD OF COMMISSIONERS
AGENDA**

APRIL 21, 2014

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REVISED
Currituck County
Board of Commissioners Agenda
Historic Currituck County Courthouse

Date: Monday, April 21, 2014

Time: 7:00 PM

Work Session

6:00 PM Corolla Village Circulation and Wayfinding Plan

7:00 pm Call to Order

- A) Invocation- Reverend Jeremai Byrd, Old Paths Baptist Church
- B) Pledge of Allegiance
- C) Approval of Agenda
- D) Public Comment

***Please limit comments to items not appearing on the regular agenda;
please limit comments to 3 minutes.***

Administrative Reports

- A) ~~Presentation of the June 30, 2013 audit~~ **POSTPONED**

Public Hearings

- A) **Public Hearing and Action:** PB 14-04 Currituck County - Multi-Family Development Review Process: Request to amend the Unified Development Ordinance to require multi-family development to be within a conditional zoning district.

Old Business

- A) **Consideration and Action:** PB 13-17 Moyock Crossing: Request for preliminary plat/use permit for a 76 lot conservation subdivision located in Moyock on the north side of Shingle Landing Road, approximately 260 feet east of Fox Lane and along Shingle Landing Creek, Tax Map 9, Parcel 41, Moyock Township.

- B) **Consideration and Action:** Moyock Small Area Plan: Examines unique issues, concerns, and hopes of the community and works to establish public policy that accomplishes the vision cast in this plan.

New Business

- A) **Consideration of Ordinance Amendment to Allow Certain Commercial and Governmental Activities Involving Motor Vehicles on the Beach Strand and Foreshore from the Dare County Line to the North Beach Access Ramp between May 1 and September 30.**

- B) **Consideration of Ordinance Amendment to Make Certain Changes to Outdoor Tour Operator Regulations and Provide for Violation as a Civil Offense.**

- C) **Consent Agenda:**
 - 1. Approval of April 7, 2014, Minutes
 - 2. Budget Amendments
 - 3. Approval of Job Description for Manager, Business Development and Airport Operations
 - 4. Kitty Hawk Kites Combined Concession-Lease
 - 5. Petition to NC Department of Transportation to Add Ruddy Lane to State System for Maintenance
 - 6. Approval of Radio Equipment Purchase by Knotts Island Volunteer Fire Department
 - 7. Approval of Advance to Moyock Volunteer Fire Department for Air paks

- D) Commissioner's Report

- E) County Manager's Report

Special Meeting

Tourism Development Authority

- A) TDA Budget Amendments

Adjourn

Closed Session

Closed session pursuant to N.C. Gen. Stat. §143-318.11(a)(3) to consult with the county attorney in order to preserve the attorney-client privilege and pursuant to N.C. Gen. Stat. §143-318.11(a)(5) to establish or to instruct the public body's staff concerning the position to be taken by or on behalf of the public body in negotiating the price and other material terms of a contract or proposed contract for the acquisition of interest in real property by purchase, option, exchange, or lease held by Carolina Water Services of North Carolina, Inc., located at 1100 Club Road, Corolla, NC, for any public purpose.

Adjourn



Currituck County Agenda Item Summary Sheet

Agenda Item Title

PB 14-04 Multi-Family Development Review Process

Brief Description of Agenda Item

Request to amend the Unified Development Ordinance to require multi-family development to be within a conditional zoning district.

Planning Board Recommendation:

Mr. Cooper moved to deny PB 14-04 due to the current Unified Development Ordinance that the MXR zoning district was designed to streamline process for the approval and construction of multi-family projects in order to promote affordable housing and affordable rent in the area. Mr. Craddock seconded the motion. Ayes: Mr. Bell, Mr. Cooper, Ms. Bell, Ms. Overstreet, Mr. Clark, Mr. Cartwright, and Mr. Craddock. Nays: Ms. Newbern.

Board Action Requested

Action

Person Submitting Agenda Item

Ben Woody

Presenter of Agenda Item

Ben Woody



Currituck County

Planning and Community Development Department
Planning and Zoning Division
153 Courthouse Road, Suite 110
Currituck, North Carolina 27929
252-232-3055 FAX 252-232-3026

To: Board of Commissioners
From: Planning Staff
Date: March 21, 2014
Subject: PB 14-04 Multi-Family Development Review Process

On behalf of the Board of Commissioners, Currituck Planning & Community Development submits the following request to amend to the Unified Development Ordinance. The proposed amendment will modify the review process for multi-family developments including mansion apartments and townhouses.

Currently, multi-family developments are approved administratively within the Mixed Residential (MXR) zoning district, Community Center (CC) district, and Village Center (VC) district. The county contains approximately 251 acres of land zoned MXR, and zero acres zoned CC or VC. Additionally, the CC and VC districts can only be established in areas of the county containing a small area plan. Multi-family developments are allowed within planned developments through the approval of a master plan.

This proposed amendment would require multi-family developments to be within a conditional zoning district. This would allow for the developer, staff, Planning Board, and Board of Commissioners to address any impacts on the community expected to be generated by the development and place appropriate conditions on the zoning district.

Staff recommends approval of this request as it:

1. Is consistent with the goals, objectives, and policies of the Land Use Plan, specifically:

POLICY HN1: Currituck County shall encourage development to occur at densities appropriate for the location. LOCATION AND DENSITY FACTORS shall include whether the development is within an environmentally suitable area, the type and capacity of sewage treatment available to the site, the adequacy of transportation facilities providing access to the site, and the proximity of the site to existing and planned urban services. For example, projects falling within the Full Services areas of the Future Land Use Map would be permitted a higher density because of the availability of infrastructure as well as similarity to the existing development pattern. Such projects could be developed at a density of two (2) or more dwelling units per acre. Projects within areas designated as Limited Service would be permitted a density of one (1) to one and one half (1.5) units per acre depending upon the surrounding development pattern and availability of resources. Projects within areas designated as Rural or Conservation by the Future Land Use Plan would be

PB 13-18
Multi-Family Development Review Process
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permitted a much lower density of 1 dwelling unit per 3 acres because of the lack of infrastructure in the area, the existing low density development pattern, and presence of environmentally sensitive natural areas.

POLICY HN2: Currituck County recognizes that large-lot mini-estates (i.e. 5 to 10 acres) consume large amounts of land, often without economic purpose. Estate lots having no relationship to agriculture or other resource-based activities promote sprawl and make the provision of infrastructure and services very costly. The County shall therefore encourage alternatives to large lot developments through INNOVATIVE DEVELOPMENT CONCEPTS AND CORRESPONDING ZONING techniques.

POLICY HN4: Currituck County shall discourage all forms of housing from "LEAPFROGGING" INTO THE MIDST OF FARMLAND and rural areas, thereby eroding the agricultural resource base of the county.

2. Would improve compatibility among uses and ensure efficient development in the county; and
3. Would result in a logical and orderly development pattern.

The Planning Board ***recommended denial*** of PB 14-04 at their March 11, 2014 meeting.

PLANNING BOARD DISCUSSION (3-11-14)

Mr. Cooper said his concern is affordable housing in the Mixed Residential (MXR) zoning district, and changing the property rights of people who currently own property in the MXR zoning district. This text amendment would add another level that would make it harder to promote multi-family developments and affordable housing.

Staff provided an overhead map which showed where the MXR zoning districts located in the county.

Mr. Clark said he wished he had more information from the Board of Commissioners (BOC) as to why the commissioners requested this text amendment. Mr. Clark asked if this request should be tabled so staff could check with the BOC.

Mr. Woody said he could go to the county manager and ask why the commissioners requested the text amendment. Mr. Woody said if the board feels uncomfortable in making a recommendation, the board could recommend this conditional zoning is appropriate, but it shall not apply to the existing acreage.

Mr. Cooper said the MXR zoning districts were to make the process more streamlined to do multi-family developments in order to promote affordable housing in the county.

ACTION

Mr. Cooper moved to deny PB 14-04 due to the current Unified Development Ordinance that the MXR zoning district was designed to streamline process for the approval and construction of multi-family projects in order to promote affordable housing and affordable rent in the area. Mr. Craddock seconded the motion. Ayes: Mr. Bell, Mr. Cooper, Ms. Bell, Ms. Overstreet, Mr. Clark, Mr. Cartwright, and Mr. Craddock. Nays: Ms. Newbern.

**Multi-Family Development
UDO AMENDMENT REQUEST**

Amendment to the Unified Development Ordinance Chapter 2: Administration, and Chapter 4: Use Standards, to modify the review process for multi-family development.

BE IT ORDAINED by the Board of Commissioners of the County of Currituck, North Carolina that the Unified Development Ordinance of the County of Currituck be amended as follows:

Item 1: That Chapter 2: Administration is amended by adding the following underlined language and renumbering accordingly:

2.4.4 Conditional Rezoning

A. Purpose

The purpose of this section is to provide a uniform means for amending the Official Zoning Map to establish conditional zoning districts. In cases where the standards of a general use zoning district are inadequate to ensure that development allowed by the district will conform to the county’s adopted plans or to appropriately address the impacts expected to be generated by development, a landowner may apply for a conditional rezoning. The conditional zoning district that is equivalent to a corresponding general use zoning district, but is subject to additional conditions or restrictions that the applicant and county mutually agree are necessary to ensure conformance to adopted plans and adequately address expected development impacts.

B. Uses Allowed Subject to a Conditional Zoning District

Classification

Specific uses may require a conditional zoning district classification to appropriately address the impacts on the community expected to be generated by the development. Uses requiring a conditional zoning district classification are not allowed in the corresponding base zoning district.

Item 2: That Section 4.1 Use Table is amended by adding the following underlined language and renumbering accordingly:

A. General

(1) Table 4.1.1, Summary Use Table, lists use types and indicates whether they are allowed by right, allowed with a use permit, allowed in a conditional zoning district, allowed in a planned development zoning district, or prohibited in a zoning district. The use table also includes references to any additional requirements or regulations applicable to the specific use type.

E. Uses Allowed Subject to a Conditional Zoning District Classification

A “CZ” in a cell of the use table indicates that the corresponding use category or use type is only allowed within a parallel conditional zoning district of the corresponding base zoning district, subject to compliance with use-specific regulations set forth in the final column of the table, and any conditions imposed as part of the conditional rezoning. Uses subject to a conditional zoning district are subject to all other applicable regulations of this Ordinance, including those set forth in Chapter 3: Zoning Districts, Chapter 5: Development Standards, Chapter 6: Subdivision and Infrastructure Standards, and Chapter 7: Environmental Protection.

H. Uses Restricted or Prohibited by Overlay Zoning District

Regardless of whether the use table identifies a particular use type as requiring a zoning compliance permit, use permit, or allowed subject to a conditional zoning district classification or planned development district classification, the use type may be restricted or prohibited, or subject to more restrictive additional requirements, in accordance with applicable sub-district or overlay district provisions in Chapter 3: Zoning Districts.

TABLE 4.1.1: SUMMARY USE TABLE

PROPOSED UDO PROCEDURE: Z = Zoning Compliance Permit; U = Use Permit; MP = Allowed with Master Plan;
CZ = Allowed in a Conditional Zoning District blank cell = Prohibited

USE CATEGORY	USE TYPE	ZONING DISTRICT (CURRENT DISTRICT IN PARENTHESIS) [NOTE: OVERLAY OR SUB-DISTRICT REQUIREMENTS MAY FURTHER LIMIT USES]	L REQ
-----------------	----------	--	----------

		RC	AG	SFM	SFO	SFR	SFI	MXR	GB	LB	CC	VC	LI	HI	PD-R	PD-M	PD-O	
RESIDENTIAL USE CLASSIFICATION																		
Household Living	Dwelling, duplex			Z/U				Z			Z	Z			M P	M P	M P	2.A.1
	Dwelling, live/work							Z	Z	Z	Z	Z			M P	M P	M P	2.A.2
	Dwelling, mansion apartment							Z CZ			Z	Z			M P	M P	M P	2.A.3
	Dwelling, manufactured home (class A)		Z	Z			Z	Z	Z									2.A.4
	Dwelling, manufactured home (class B)		Z	Z			Z	Z	Z									2.A.4
	Dwelling, multi-family							Z CZ			Z	Z			M P	M P	M P	2.A.5
	Dwelling, single-family detached		Z	Z	Z	Z	Z	Z	Z	Z	Z	Z			M P	M P	M P	
	Dwelling, townhouse							Z CZ			Z	Z			M P	M P	M P	2.A.5
	Dwelling, upper story							Z	Z	Z	Z	Z			M P	M P	M P	2.A.6
	Group Living	Dormitory							Z	Z	U	Z	Z				M P	
Family care home				Z	Z	Z	Z	Z	Z	Z	Z			M P	M P	M P	2.B.2	
Rooming or boarding house								Z	Z		Z	Z		M P	M P	M P	2.B.3	

Item 3: The provisions of this Ordinance are severable and if any of its provisions or any sentence, clause, or paragraph or the application thereof to any person or circumstance shall be held unconstitutional or violative of the Laws of the State of North Carolina by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions which can be given effect without the invalid provision or application.

Item 4: This ordinance amendment shall be in effect from and after the day of , 2013.

Board of Commissioners' Chairman
Attest:

Mary S. Gilbert
Clerk to the Board

DATE ADOPTED: _____
MOTION TO ADOPT BY COMMISSIONER: _____
SECONDED BY COMMISSIONER: _____
VOTE: _____AYES_____NAYS_____

PLANNING BOARD DATE: _____
PLANNING BOARD RECOMMENDATION: _____
VOTE: _____AYES _____NAYS _____
ADVERTISEMENT DATE OF PUBLIC HEARING: _____
BOARD OF COMMISSIONERS PUBLIC HEARING: _____
BOARD OF COMMISSIONERS ACTION: _____
POSTED IN UNIFIED DEVELOPMENT ORDINANCE: _____
AMENDMENT NUMBER: _____



Currituck County Agenda Item Summary Sheet

Agenda Item Title

PB 13-17 Moyock Crossing: Request for preliminary plat/use permit for a 76 lot conservation subdivision located in Moyock on the north side of Shingle Landing Road, approximately 260 feet east of Fox Lane and along Shingle Landing Creek, Tax Map 9, Parcel 41, Moyock Township.

Brief Description of Agenda Item

Gee's Group of North Carolina is requesting preliminary plat/use permit approval for a proposed 76 lot conservation subdivision. The proposed lots will be served by county water and wastewater. The proposed development density is taken from the Full Service area and the Rural land use classification and the development density is 1.31 units per acre based on the gross acreage of the tract.

PLANNING BOARD RECOMMENDATION:

Mr. Cooper moved to approve PB 13-16 with the following conditions:

- Crosswalks are implemented at the intersections in order to prevent sidewalks in the wetlands.
- Continue sidewalks on both sides of the road on the north end of the subdivision.
- Reduce the number of lots on Fox Run from nine to five at 125 ft. lot width.
- Ten foot wide evergreen buffer at the back of the five lots and lots 49 and 50 that adjoin Fox Run and Shingle Landing Farms.
- An eight foot wide sidewalk installed along Crossing Avenue on one side of the street from intersection to intersection of internal streets.

Mr. Cartwright seconded the motion. Ayes: Mr. Bell, Ms. Newbern, Mr. Cooper, Mr. Clark, Ms. Wilson, and Mr. Cartwright. Nays: Ms. Bell and Mr. Wright.

Board Action Requested

Action

Person Submitting Agenda Item

Ben Woody

Presenter of Agenda Item

Ben Woody

**CASE ANALYSIS FOR THE
Board of Commissioners
DATE: April 21, 2014
PB 13-17 Moyock Crossing**

ITEM: PB 13-17 Moyock Crossing preliminary plat/use permit for 76 residential lots in a conservation subdivision.

LOCATION: Moyock: located on the north side of Shingle Landing Road, approximately 260 feet east of Fox Lane, and along Shingle Landing Creek, Moyock Township

TAX ID: 0009-000-0041-0000

ZONING DISTRICT: Single Family Mainland (SFM)

PRESENT USE: Woodland/Farmland

OWNER: Gee's Group of North Carolina, Inc.
770 Lynnhaven Parkway, #160
Virginia Beach, VA 23452

APPLICANT: Hyman & Robey, PC
150 US HWY 158
PO Box 339
Camden, NC 27921

LAND USE/ZONING OF SURROUNDING PROPERTY:

	Land Use	Zoning
NORTH:	Low density residential	SFM/GB
SOUTH	Low density residential/auto service/storage	GB
EAST:	Shingle Landing Creek/Low density residential	SFM
WEST:	Low density residential	AG/CD-SFM

**LAND USE PLAN
CLASSIFICATION:**

The 2006 Land Use Plan classifies the site as Full Service and Rural within the Moyock subarea.

SIZE OF SITE: 58.16 acres
47.68 acres - Full Service
10.48 acres - Rural

NUMBER OF UNITS: 76 lots

PROJECT DENSITY: 1.30 units – overall density

OPEN SPACE: 23.26 Acres Required
24.41 Acres Provided
20.84 acres primary conservation
3.57 acres secondary conservation

UTILITIES: The proposed lots will be served by county water. The developer also proposes to install the necessary infrastructure to connect to the county wastewater system.

RECREATION AND PARK AREA: The required park area dedication is 1.94 acres. The TRC requests a payment in lieu of the dedication. The payment, based on the current tax value, is \$10,710.70 and must be paid prior to final plat approval.

I. NARRATIVE OF REQUEST:

- The applicant is requesting preliminary plat/use permit approval of a 76 lot residential conservation subdivision.
- On November 4, 2013, the Board of Commissioners denied a text amendment to allow street intersections to be spaced 200 feet apart. The applicant redesigned the subdivision to meet the current UDO requirements.
- All lots are proposed to be served by county water and wastewater.
- The proposed development will provide street interconnection with Shingle Landing subdivision.
- The applicant submitted a traffic impact analysis and a revised drawing indicating the following changes:
 - A reduction in the proposed total number of lots from 90 residential lots to 76 residential lots;
 - An increase in the average lot size; and,
 - A reduction in the recreational equipment storage area from 8 spaces to 4 spaces (due to the reduction in the total number of lots).

II. USE PERMIT REVIEW STANDARDS:

Use Permit Criteria and Staff Findings:

Use permits (UP) are intended to allow the Board of Commissioners flexibility in the administration of the UDO. Through the UP procedure, property uses which would otherwise be considered undesirable in certain districts can be developed subject to conditions of approval to minimize any negative effects they might have on surrounding properties.

In order to approve a UP, certain criteria must be satisfied. The criteria and staff findings of fact are outlined as follows:

1. The use will not endanger the public health or safety.
Staff Findings:
 - a. The subdivision should have little to no negative impact on public health or safety.
2. The use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.
Staff Findings:
 - a. As proposed, the minimum lot size is 12,000 square feet (0.28 acre) with an average size of 16,327 square feet.
 - b. Proposed lots adjacent to Fox Run and Shingle Landing Farms subdivisions shall have a minimum 125 feet of road frontage.
 - c. A 10 foot evergreen buffer will be provided between the proposed subdivision and Fox Run and Shingle Landing Farms subdivisions.
3. The use will be in conformity with the Land Use Plan or other officially adopted plan.
Staff Findings:

The 2006 Land Use Plan classifies this site as Full Service and Rural within the Moyock subarea. Insert LUP classification narrative. The proposed use is in keeping with the policies of the plan, some of which are:

POLICY HN1: Currituck County shall encourage development to occur at densities appropriate for the location. LOCATION AND DENSITY FACTORS shall include whether the development is within an environmentally suitable area, the type and capacity of sewage treatment available to the site, the adequacy of transportation facilities providing access to the site, and the proximity of the site to existing and planned urban services. For example, projects falling within the Full Services areas of the Future Land Use Map would be permitted a higher density because of the availability of infrastructure as well as similarity to the existing development pattern. Such projects could be developed at a density of two (2) or more dwelling units per acre. Projects within areas designated as Limited Service would be permitted a density of one (1) to one and one half (1.5) units per acre depending upon the surrounding development pattern and availability of resources. Projects within areas designated as Rural or Conservation by the Future Land Use Plan would be permitted a much lower density of 1 dwelling unit per 3 acres because of the lack of infrastructure in the area, the existing low density development pattern, and presence of environmentally sensitive natural areas.

POLICY HN3: Currituck County shall especially encourage two forms of residential development, each with the objective of avoiding traditional suburban sprawl:

1. OPEN SPACE DEVELOPMENTS that cluster homes on less land, preserving permanently dedicated open space and often employ on-site or community sewage treatment. These types of developments are likely to occur primarily in the Conservation, Rural, and to a certain extent the Limited Service areas identified on the Future Land Use Map.
2. COMPACT, MIXED USE DEVELOPMENTS or DEVELOPMENTS NEAR A MIXTURE OF USES that promote a return to balanced, self-supporting community centers generally served by centralized water and sewer. The types of development are contemplated for the Full Service Areas identified on the Future Land Use Map.

POLICY TR7: A system of LOCAL CONNECTOR ROADS shall be identified and implemented to allow local traffic to move in a north-south direction without having to use and further burden US 158.

4. The use will not exceed the county's ability to provide adequate public facilities, including, but not limited to, schools, fire and rescue, law enforcement, and other county facilities. Applicable state standards and guidelines shall be followed for determining when public facilities are adequate.

Staff Findings:

- a. Based on the student generation rates, this subdivision will generate the following students:
 - i. 19 elementary students
 - ii. 6 middle school students
 - iii. 11 high school students
- b. The proposed development will not exceed the county's ability to provide adequate public facilities

III. COMPATIBILITY ANALYSIS (requested by the Board of Commissioners)

At the January 6, 2014 Board of Commissioners meeting, the board requested staff to complete an analysis of surrounding development patterns.

Development Patterns

- The development patterns of improved residential lots (2012 data) were analyzed based on the lot sizes within one-half mile and one mile of the proposed development, as well as Moyock Township.

- ½ Mile of Moyock Crossing

Lot Size	Number of Lots (315)	Percentage
½ acre or less	67	21%
½ - 1 acre	196	62%
1-2 acres	40	13%
2-3 acres	6	2%
3+ acres	6	2%

- 1 Mile of Moyock Crossing

Lot Size	Number of Lots (595)	Percentage
½ acre or less	80	13%
½ - 1 acre	349	59%
1-2 acres	108	18%
2-3 acres	23	4%
3+ acres	35	6%

- Moyock Township

Lot Size	Number of Lots (2241)	Percentage
½ acre or less	572	26%
½ - 1 acre	924	41%
1-2 acres	367	16%
2-3 acres	108	5%
3+ acres	270	12%

Traffic

- The following table illustrates the Annual Average Daily Traffic (AADT) volumes for intersections located near Moyock Crossing.
- The development analysis prepared by Hyman and Robey estimates 552 daily trips at build-out of Moyock Crossing.

- NCDOT AADT

Location	2012 AADT	Capacity
168 N of Shingle Landing Road intersection	19,000	37,600
168 S of Shingle Landing Road intersection	21,000	37,600
168 S of Tulls Creek Road intersection	17,000	37,600
Camelia Road W of Shingle Landing Road intersection	380	N/A
Tulls Creek Road E of Shingle Landing Road intersection	4,200*	8,000*

*2011 NCDOT AADT data

Stormwater

- According to Mike Doxey, Soil Conservation, there are no additional stormwater concerns based on the proposed development being adjacent Shingle Landing Creek, which provides a drainage outlet. In addition the soils within the development do not present drainage concerns.

IV. TRAFFIC IMPACT ANALYSIS (requested by the Board of Commissioners)

At the request of the Board of Commissioners, VHB Engineering NC prepared a traffic impact analysis based on 90 single family homes. The TIA indicates the proposed development is projected to have minimal impact on the traffic operations on the surrounding roadway network and intersections. However, the following improvements are recommended:

- Crossing Avenue
Crossing Avenue is a future collector road connecting Moyock Landing Drive to Shingle Landing Road. The proposed development will be accessed via three driveways along Crossing Avenue. Crossing Avenue will be a two-lane roadway with one travel lane in each direction.
- Moyock Landing Drive and Crossing Avenue
 - Construct the northbound Crossing Avenue to provide for one ingress lane and one egress lane.
 - Stripe the eastbound Moyock Landing Drive approach to provide a shared through/right-turn lane.
 - Stripe the westbound Moyock Landing Drive approach to provide a shared left-turn/through lane.
- SR 1516 (Shingle Landing Road) and Crossing Avenue
 - Construct the southbound Crossing Avenue to provide for one ingress lane and one egress lane.
 - Stripe the eastbound Moyock Landing Drive approach to provide a shared left-turn/through lane.
 - Stripe the westbound Moyock Landing Drive approach to provide a shared through/right-turn lane.
- Crossing Avenue and Access #1 (Hidden View Loop)
 - Construct Access #1 to provide for one ingress lane and one egress lane (shared left/right-turn lane).
- Crossing Avenue and Access #2 (Hidden View Loop)
 - Construct Access #2 to provide for one ingress lane and one egress lane (shared left/right-turn lane).
- Crossing Avenue and Access #3 (First View Way)
 - Construct Access #3 to provide for one ingress lane and one egress lane (shared left/right-turn lane).

V. TECHNICAL REVIEW COMMITTEE RECOMMENDATION:

Pursuant to the Unified Development Ordinance, the Technical Review Committee recommends conditional approval of the revised 90-lot preliminary plat. The Technical Review Committee must review the revised plan reducing the number of lots to 76 as well as any changes to the development. The TRC recommended conditional approval (90-lot plan) with the following corrections (based on the resubmitted plan):

1. Please contact James Mims regarding the fire hydrant placement. The proposed spacing appears to be greater than 1000 feet. *(Staff commentary: The fire marshal's office is reviewing the revised plan).*
2. The proposed drainage plan does not include lot line swales which are required by the UDO. However, there may be alternative methods for lot line swales that must be approved by the county engineer. A swale does not appear to extend along the western property line of lots 1-9 and lots 49-50 (entirely). Please clarify how the drainage will be handled on these lots. *(Staff commentary: Engineering has reviewed the revised plan and has no comments).*

3. The Water Department has requested an upsized waterline of 10" to be installed on "Crossing Avenue" from Moyock Landing Drive to Shingle Landing Road. A license agreement based on a certified engineering proposal must be submitted. *(Staff commentary: Public utilities has reviewed the revised plan and approved).*
4. Please indicate the riparian buffer zones on the plan. *(Staff commentary: The revised plan illustrates the riparian buffer).*
5. Since lots are now located along Crossing Avenue, sidewalks must be provided on both sides of the proposed street. *(Staff commentary: See Planning Board recommendation).*
6. Please clarify the installation of improvements for Crossing Avenue and the proposed phasing plan. *(Staff commentary: Phasing plan was corrected on revised plan).*
7. All corner lots (lots 10, 42, 70, 71, and 96) shall include a five foot non-ingress/egress easement along the lot line bordering the more heavily travelled street.
8. With the increase in the number of lots, one additional (9 total) recreational equipment storage space shall be provided. *(Staff commentary: The revised plan reduced the total number of lots to 90).*
9. The proposed fenced storage area shall be landscaped and indicated on the construction plans.
10. Utility easements shall be indicated on the preliminary plan.
11. Please clarify the function of the narrow strip of open space located behind many of the lots. The plan appears to create an area that may become a maintenance concern and not a functional area of open space.
12. The revised plan now indicates proposed lots located along Fox Run and Shingle Landing Farm property lines. As many as three lots now abut one existing residential lot to the west. Although the proposed development is consistent with the density allowed under the UDO, the development of lots 1-9 and 49-50 appear to not be consistent with one of the use permit criteria. Specifically, the criteria states, "The use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located". By developing as many as three lots that abut one residential lot does not appear to be in harmony with the subdivisions in the area. Efforts must be made to mitigate the impacts of the lots along the existing subdivisions. *(Staff commentary: The revised plan illustrates lots adjacent to Fox Run and Shingle Landing Farm subdivision have a minimum lot width of 125').*

The TRC and staff recommends conditional approval subject to the following permit conditions (revised April 15, 2014):

1. The revised preliminary plat shall be resubmitted to the Technical Review Committee and approved prior to issuance of the use permit.
2. Stormwater ponds for the development may not be located on individual lots unless an easement is provided for stormwater maintenance.
3. The development density shall not exceed 2 units per acre.
4. An elevated boardwalk shall be provided that connects the pedestrian sidewalk system to Shingle Landing Creek.
5. With the exception of the two wetland crossings (street/sidewalk and the elevated water access to Shingle Landing Creek) all wetlands on the property shall remain undisturbed.
6. The recommended roadway improvements identified in the traffic impact analysis prepared by VHB Engineering NC, PC dated April 4, 2014 shall be incorporated into the construction plans and installed prior to final plat approval of the appropriate phase.
7. To minimize the dissimilarity of the lot sizes in Moyock Crossing the subdivision plan shall incorporate one or a combination of the following options:
 - a. An adequate open space buffer must be provided between the proposed lots in Moyock Crossing and the existing residential lots in Fox Run and Shingle Landing Farms,

- b. Increased lot sizes consistent with the lots in Fox Run and Shingle Landing Farms, or
- c. Removal of lots along the western side of Crossing Avenue.

VI. PLANNING BOARD RECOMMENDATION:

The Planning Board *recommended approval* of the preliminary plat/use permit with staff recommendations and the following conditions:

- Crosswalks are implemented at the intersections in order to prevent sidewalks in the wetlands.
- Continue sidewalks on both sides of the road on the north end of the subdivision.
- Reduce the number of lots on Fox Run from nine to five at 125 ft. lot width.
- Ten foot wide evergreen buffer at the back of the five lots and lots 49 and 50 that adjoin Fox Run and Shingle Landing Farms.
- An eight foot wide sidewalk installed along Crossing Avenue on one side of the street from intersection to intersection of internal streets.

BOARD OF COMMISSIONERS (2-17-14)

When questioned about traffic count for Shingle Landing Road, Mr. Woody stated there was no information for that street in any NCDOT traffic studies for the past ten years.

Regarding Mr. Woody's statement that the area had been zoned residential since 2006, Chairman O'Neal questioned whether there was an existing SUP at the present time. Mr. Woody was not aware of one but would research it. Chairman O'Neal confirmed with Mr. Woody and Mr. McRee that, if a SUP had been approved, the Board would not be obligated to amend it.

Robin Currin, attorney for the applicant, cross-examined Mr. Woody regarding staff findings that the four factors had been met. Mr. Woody stated that was staff's conclusion. He also confirmed the rezoning was general use rezoning with no minimum number of lots; NCDOT considered the traffic numbers would not exceed capacity; and, if the subdivision were built to the UDO stormwater regulations, stormwater should not worsen current conditions. He also agreed that stormwater plans were not required to be reviewed at the preliminary plat/use permit stage.

Chairman O'Neal confirmed with Mr. McRee that the Board was to weigh all evidence presented, that it did not have to rely wholly on staff findings.

There was further discussion on traffic concerns.

Mr. McRee recognized Ms. Currin to present the applicant's case.

Ms. Currin reviewed the general requirements of the ordinance as well as the changes the applicant had agreed to make. She reminded the Board this was an application for a conservation subdivision which is allowed under the County's UDO which allows 2 units per acre. The subdivision proposed 1.53 units per acre. The use permit was required because there are over 20 units proposed.

Ms. Currin indicated the applicant was agreeable to having a traffic study added as a condition for approval. She would be calling witnesses to testify to compliance with the four conditions.

Regarding new concessions being proposed as a result of the last hearing, the applicant would not connect to sewer through Shingle Landing. Since Shingle Landing was not agreeable to the cross-connection road, the applicant proposed dedicating that land to the County along with a bond to cover the cost of constructing the connector if the County chooses. Since there was concern about the size of lots adjacent to the existing subdivision, the number had been reduced to four, each lot to be at least a half acre. The buffer between the two subdivisions would be a planted buffer at least 15 ft. wide with trees expected to reach 20 ft. in height.

Ms. Currin reviewed the four conditions and explained they had been met. She noted the applicant wanted to build a good project as encouraged by the LUP and allowed by the UDO and had made changes because he had heard the community and was attempting to implement changes based on public comments.

Eddie Hyman, Hyman and Robey, stated the applicant had followed the UDO requirements up to this phase. Once the use permit is approved, other required permits may be applied for and the design phase will be submitted for review.

Ms. Currin requested Mr. Hyman to review the NCDOT driveway permit application process, which he did.

Commissioners had several questions for Mr. Hyman regarding traffic safety and he indicated a traffic study would be performed. NCDOT would review the plans and make recommendations to facilitate the plan as proposed. Any recommendations by NCDOT would be implemented.

Ms. Currin called David Gianoscoli, one of the owners of the property and the developer, who indicated NCDOT traffic engineer assessment recommendations would be incorporated.

Commissioners still had concerns with traffic safety and density. Mr. Hyman noted that 2 units per acre was not considered high density.

Ms. Currin asked Mr. Hyman to confirm that 552 trips per day would not cause a traffic problem. Mr. Hyman responded it would not, according to NCDOT information.

Butch Boykin, Rose & Womble, Newport News, VA, was Ms. Currin's next witness. He talked briefly about his position with the company and the North Carolina subdivisions marketed by Rose & Womble. It was his opinion that the proposed project would be in harmony with the surrounding area and that the value of surrounding homes would not be harmed. He described the proposed homes and expected sales prices.

Chairman O'Neal asked if Mr. Boykin was a licensed appraiser. He responded he was an expert in sales and marketing.

Chairman O'Neal questioned Mr. McRee whether the Board should consider testimony only by a North Carolina licensed appraiser. Mr. McRee responded there are some cases that allow for real estate value testimony from a real estate agent.

Ms. Currin noted the law says it cannot be a lay witness. A real estate expert would be a competent witness.

Mr. Boykin stated he had 23 years' experience in sales and marketing and felt qualified to make statements about values. He responded to Commissioners' questions that he was not licensed in North Carolina and had not sold in North Carolina; however, his company had marketed several communities in Currituck County.

When asked if his company had a contractual agreement to market this subdivision, Mr. Boykin responded he hoped to.

David Gianascoli, owner/developer, distributed examples of models and floor plans and spoke about the prices of the houses. He planned to build a quality house.

Mr. Gianascoli was asked by Commissioners about the cost increases from original submittals, other subdivisions built by his company, HOA fees, whether local contractors and suppliers would be used and whether he had built in North Carolina previously. He responded the housing market was improving so prices were increasing. He described a subdivision he had built in Portsmouth. There would be HOA fees of less than \$200 annually for maintenance of common areas. He planned to use local contractors and vendors when possible. Although he had not built in North Carolina previously, he hoped to leave a good impression so he would be welcomed back for future projects. He just needed approval to start the first one.

Mr. McRee determined that the Board and Ms. Currin had no questions for Mr. Gianascoli and that Ms. Currin had no further witnesses. He opened the floor for public comments. Comments were to be limited to three minutes.

Eldon Miller, III, Moyock, was concerned with compatibility and harmony with adjacent properties. He noted that existing lots less than half an acre were platted 50 years ago. He was glad the proposed homes appeared to be of good size and quality but was overwhelmed with the many changes. His concern with use of local vendors had been addressed. He objected to the lack of public meetings with the developer and had concerns about a non-local developer. He opposed allowing residential hookup to the central sewer which was built for commercial use, even though he felt it was not promoted to businesses. He suggested requiring minimum lot sizes of 20,000 sq.ft. with no more than 25% variance in lot size and to require the developer to come back with a plan the community could live with. He respectfully requested that the Board of Commissioners deny the project even though it could mean a lawsuit. He felt that just because the project was legal didn't make it right.

Jo Drago, Moyock, a real estate agent with William E. Wood, stated she had sent the Commissioners pictures of flooding in Shingle Landing. She mentioned her background in real estate and that she learned of the Moyock Crossing increase from 39 to 90 lots from a Rose & Womble agent in November. Ms. Drago had done a comparative market analysis in Shingle Landing (81 lots, average lot size .8, median price \$336,000, average size 2450 sq.ft.). Proposed houses would be 1,900-3,000 sq ft. on an average .15 lot size. She was concerned about large houses on small lots. She also expressed safety concerns with parking, particularly during holidays.

Chairman O'Neal confirmed with Mr. McRee that Ms. Drago could be considered an expert witness. Mr. McRee responded that comments by both real estate agents should be weighed and could be accepted or rejected as expert testimony.

Ms. Currin asked Ms. Drago if she had performed an analysis of comparables for any other subdivision in a similar situation to this project. Ms. Drago responded she had only analyzed Shingle Landing as the only other similar subdivision would be Cypress Landing and she did not have time to pull comparables from there. Ms. Currin asked if she had the documents with her. Ms. Drago did not but would furnish them to Ms. Currin.

Bobby Gelormine, Moyock, was concerned with plans to interconnect Moyock Crossing with Moyock Landing Drive which is a private road. Although the interconnectivity would not be acceptable, he was also concerned that Moyock Crossing would only have one way in and one way out in case of emergency. He was also concerned with allowing residential hookups to the sewer system. Recalling information heard at the November meeting, if this subdivision moved forward, the sewer system would be at 80% capacity. If the goal is to generate business interest in Moyock, the sewer capacity would be a concern. He also addressed lot coverage and wondered if there was a maximum allowed. With the large ranch houses, decks, driveways, and sidewalks, there would be little left over for a yard, and homes would be too close together. He requested the developer build fewer homes. He noted recent residents to Moyock came for a rural experience with more space and requested that the Commissioners listen to them.

Neither the Board nor Ms. Currin had any questions for Mr. Gelormine.

Bob Crocker, Moyock, concurred with previous public comments. His major concern was with flooding, water run-off. He wondered if the Army Corps of Engineers had been contacted regarding wetlands delineation. He also commented on the number of changes by the developer. He felt all permits and drawings should have been in hand before coming to the Board of Commissioners for approval. He was concerned with water backup from Shingle Landing Creek during a storm event and was not convinced the proposed subdivision would not add to the flooding.

Neither the Board nor Ms. Currin had any questions for Mr. Crocker.

Mr. McRee asked if Ms. Currin had any rebuttal based on comments by the public.

Ms. Currin asked Mr. Hyman to address the Army Corps of Engineers issue. Mr. Hyman stated the wetlands delineation had been done and approved by the Army Corps of Engineers. Also CAMA verification and approval had been obtained for CAMA wetlands. This was done for the original 39 lots and had been approved for crossings based on the present plan.

Mr. McRee noted that concluded those who had signed up to speak. He felt it was appropriate to allow the applicant's attorney a brief summation which would conclude the evidentiary phase.

Ms. Currin felt that, based on the evidence, they had met the four factors. She recognized there was a lot of fears and concerns, but the developer would tell them he intends to build a good, high quality subdivision. The conservation subdivision is allowed by the UDO and he relied on the UDO standards to bring the proposed project to the Board. She requested approval of the project.

Mr. McRee stated the evidentiary phase was concluded and recommended the Chairman close the Public Hearing to be followed by deliberation and action.

Chairman O'Neal closed the Public Hearing.

Commissioner Petrey moved to continue PB 13-17 with the condition that the applicant secures any necessary permits for a wastewater line extension to serve the development. Commissioner Gilbert seconded the motion. Commissioner McCord moved to amend the motion to require a current traffic study. Commissioner Aydlett seconded the amendment. Amendment carried unanimously. Motion carried unanimously.

BOARD OF COMMISSIONERS (1-6-14)

Mr. Woody addressed Commissioners' questions regarding lot sizes, compliance with the Small Area Plan study and tap fees.

Jason Mizelle, Hyman and Robey, representing the applicant, reviewed compliance with the UDO. Proposed homes would be 2500-3000 sq.ft. at a cost of \$275,000-\$325,000. He stated drainage would not be an issue due to stormwater ponds.

Mr. Woody noted Shingle Landing Creek would not be negatively impacted. The subdivision would have to comply with the stormwater manual.

Commissioners were concerned about compatibility with the surrounding subdivisions. Mr. Mizelle described the transition between proposed subdivision and Shingle Landing. Vice-Chairman Martin opened the Public Hearing.

Jo Drago, Moyock, was concerned with density, drainage and providing services.

Bob Crocker, Moyock, was concerned with lot coverage, drainage, and run-off.

Commissioner Aydlett asked about original plans.

Eddie Hyman, Hyman and Robey, responded the original plan was for 39 lots plus open space designed under the old UDO. Due to availability of sewer, the lot number increased.

Mary Waller, Moyock, was in favor of the project; however, she was concerned with run-off and drainage. She expressed the need for diversity and more affordability.

Don Williams, Moyock, developer of Shingle Landing, opposed interconnection with Shingle Landing Drive. He asked where the sewer system would be coming in for the new development. The response was Moyock Landing Drive.

Eldon Miller, III, and Dorothee White, Moyock, members of the Small Area Plan Committee, spoke together. Ms. White stated that low density was preferred as well as a quality subdivision with adequate buffering. She remarked on the various plans that had been presented and her opinion that the sewer system was for commercial businesses. Mr. Miller was also concerned with density. He liked the original plan with 30+ lots and also felt the sewer should be for commercial use. He had commercial properties he would be interested in hooking up, but the tap fees were too high. He was opposed to residences hooking up to central sewer system. He also felt the subdivision was not in harmony with the area, and asked what it will create in the future.

Bob Gregory, Moyock, was concerned that the plan kept changing. He was not against development, but not in favor of the density.

Susan Davis, Moyock, requested denial of the sewer connection. Then fewer homes would be possible. She was opposed to 90 homes.

Bob Crocker, Moyock, asked if permission was needed to cut through the road. Ike

McRee, County Attorney, responded that an easement was needed.

Eddie Hyman, related the plans were evolving due to community meetings and Planning Board comments. He described the buffers. Sewer taps were offered and paid. He stated the project meets the criteria and requirements. When asked about changing the size of the homes, if not successful, he was confident the homes would sell. When asked about a homeowners association, he responded it was mandated under the UDO. In response to a question about traffic concerns, he stated DOT was in the process and felt there was adequate visibility. Interconnectivity will enhance safety.

There was also concern with the public boat ramp traffic.

Commissioners observed that the sewer allows a difference in this subdivision as opposed to one where sewer was not available.

Mr. Hyman responded that the County was looking for customers for the sewer system. He noted the design will come with approval. It is designed under the UDO, and stormwater rules will help.

Commissioners felt more study was needed to determine compatibility.

Vice-Chairman Martin stated they were at an impasse and suggested continuing the public hearing and action until the first meeting in February.

Commissioner Gilbert moved to continue PB 13-17 to allow staff to perform an analysis of surrounding development patterns since the proposed density of the project may not be in harmony with the area in which it is located. Compatibility, drainage and easements were to be

addressed. Commissioner McCord seconded the motion. Motion carried unanimously.

PLANNING BOARD DISCUSSION (12-10-13)

Mr. Bell asked if the applicant was aware sidewalks were required on both sides of the street.

Ms. Voliva stated they were aware based on recommendations from previously plans.

Ms. Bell stated she is concerned with the number of proposed homes on this little piece of land when wetlands are involved; and neighbors this close with their lot size so different. The Moyock Small Area Plan is in its final stages and a development of this size is not desirable. Mr. Clark agreed.

Ms. Voliva said this is a conservation subdivision and the minimal lot size no longer applies as it is based upon density.

Mr. Cartwright said people may not like certain things, but the applicant is going by the ordinance and rules and you should vote for the rules and not personal feelings.

Mr. Cooper stated the way it is drawn out it meets the density and outlay meet the current rules with the exception of the sidewalks.

Ms. Voliva stated it is not so much the use, but the compatibility between the two subdivisions with the lot sizes.

Mr. Mizelle said Phase 1 does provide connection to Shingle Landing. Mr. Mizelle provided a handout stating the proposed lots on Fox Run will go from nine lots to five lots, which will make the total of 92 lots. This will make the lots larger and more compatible to the adjoining lots. The lots are currently 11,000 sq. ft. and will be going to 18,000 sq. ft. Mr. Mizelle stated they will do crosswalks at each intersection to minimize the impact on the wetlands area.

The Planning Board discussed stormwater ponds and who will maintain them.

Mr. Clark asked if the applicant/owner would consider adding a buffer to the proposed five lots since they are increasing the lot size.

Mr. Mizelle said they would do a buffer, but prefer not to have an open space buffer. The homeowner will maintain the buffer.

Mr. Cooper stated that the evergreen buffer will be on the plat, as well as in the covenants so a potential buyer will know.

Mr. Crocker said he is concerned with stormwater runoff, traffic on a private road in Moyock Landing, and the impact of 92 driveways. Mr. Crocker stated he has been to a few of the Moyock Small Area Plan meetings and this request is far from what the residents of Moyock want to see.

Ms. White said she is a member of the Moyock Small Area Plan and this request is not what they are looking to see.

Mr. Clark said the board is really concerned with the resident concerns. Mr. Clark said the county has a Land Use Plan and Unified Development Ordinance, which an applicant/owner has to meet these criteria. If they meet them, then they have no other choice but to grant them permission to do what they want to do. The applicant/owner came back with a plan to decrease their lot sizes in order to meet the compatibility standard.

Ms. White said they would like to see fewer lots on the property.

Mr. Wright talked about this request is not in harmony with the surrounding area.

Mr. Miller said he understands you need to abide by rules. When the Gee's Group brought this property the original plan was for 39 lots with nice buffering. This request breaks his heart.

Ms. Bell stated it is hard to keep your emotions out of it when it is a place you live. Ms. Bell stated the developer will come and build these homes and leave. The people in this area will have to deal with stormwater, crowds and traffic. Ms. Bell stated it would be nice if somebody could think about the impact of the human beings that are going to live there for the rest of their lives and leave them with the consequences.

Mr. Clark stated when he became a board member five years ago his intent was to stop developments like this; but the county has a Unified Development Ordinance and adopted plans which the board is bound by.

Mr. Cooper said the board have rules which a lot of time and effort went into to develop them; and the board has to take these rules into consideration otherwise it may give the appearance to the public that they board is making up rules as they go along.

ACTION

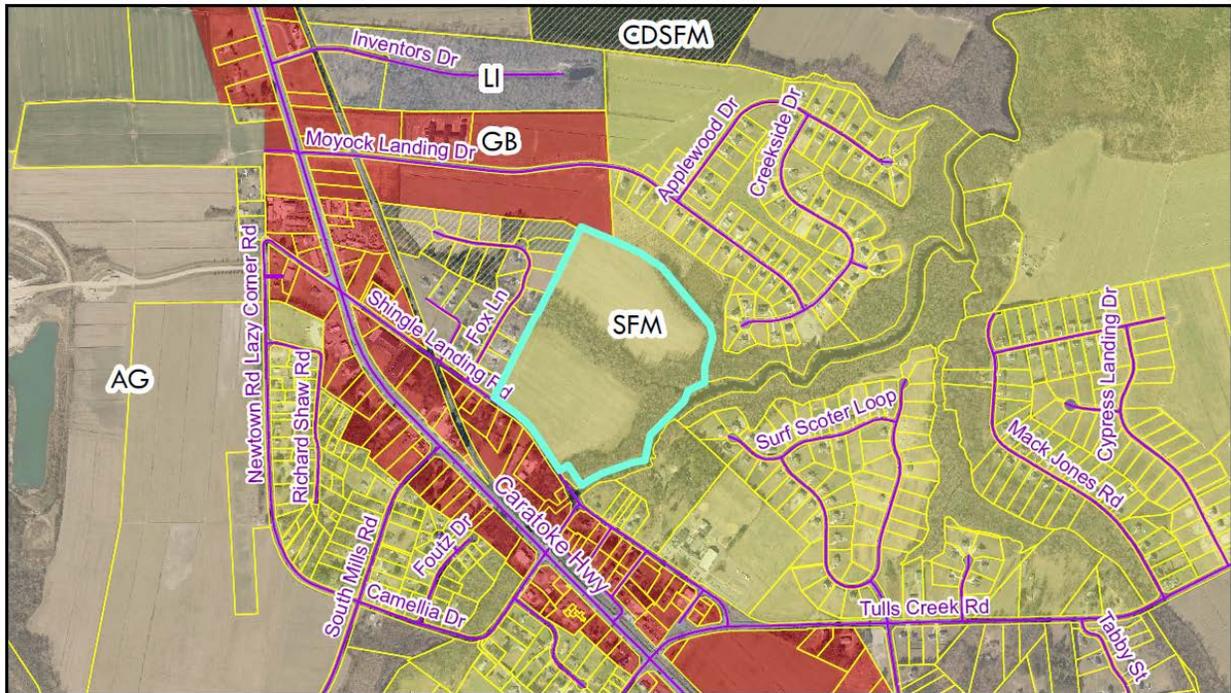
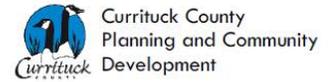
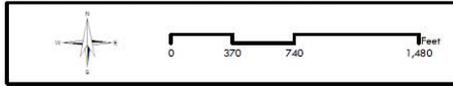
Mr. Cooper moved to approve PB 13-17 with the following conditions:

- Crosswalks be implemented at the intersections in order to prevent sidewalks in the wetlands;
- Continue sidewalks on both sides of the road on the north end of the subdivision;
- Reduce the number of lots on Fox Run from nine to five at 125 ft. lot width; and,
- Ten foot wide evergreen buffer at the back of the five lots and lots 49 and 50 that adjoin Fox Run and Shingle Landing Farms.
- An eight foot wide sidewalk installed along Crossing Avenue on one side of the street from intersection to intersection of internal streets.

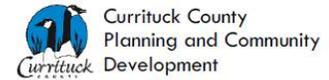
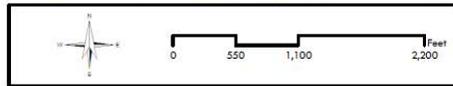
Mr. Cartwright seconded the motion. Ayes: Mr. Bell, Ms. Newbern, Mr. Cooper, Mr. Clark, Ms. Wilson, and Mr. Cartwright. Nays: Ms. Bell and Mr. Wright.

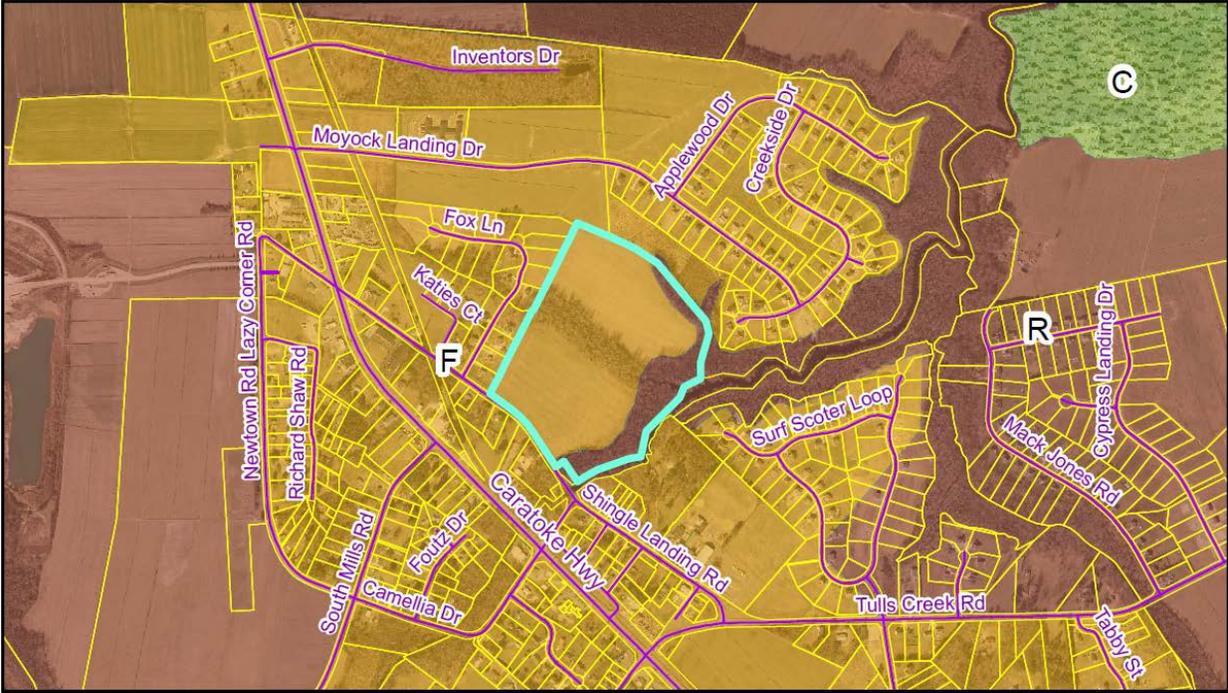


PB 13-17
 Moyock Crossing
 Preliminary Plat - Aerial

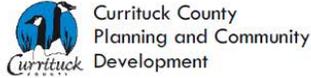
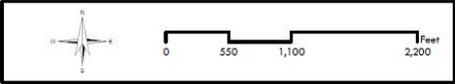


PB 13-17
 Moyock Crossing
 Preliminary Plat - Zoning





PB 13-17
 Moyock Crossing
 Preliminary Plat - LUC



MEMORANDUM

To: Jason Mizelle, Hyman & Robey
Gee's Group of North Carolina

From: Donna Voliva, Planner

Date: July 3, 2013

Re: Moyock Crossing, Preliminary Plat, TRC Comments

The following comments have been received for the July 17, 2013 TRC meeting. The preliminary plat/use permit will be reviewed by the technical review committee (TRC), recommended by the Planning Board, and acted on by the Board of Commissioners. In order for the item to remain on the July Planning Board the following TRC comments must be addressed and revised plans resubmitted by July 22, 2013. TRC comments are valid for six months from the date of the TRC meeting.

Planning, Donna Voliva 252-232-6032

Approved with comments

1. The following items must be submitted for a complete application:
 - a. Executed wetland certification letter and map (signed).
2. Please provide the following information on the preliminary plat:
 - a. Rural and Full Service land use classifications illustration.
 - b. Township, county, and state notations on the preliminary plat.
 - c. Subject property and adjacent property zoning and use.
 - d. Wooded areas and structures within 50 feet of the property line on the existing conditions plan.
 - e. Recreation and Park area dedication lands and calculations.
 - f. Phasing plan.
 - g. Sight triangles.
 - h. Connectivity index score calculation.
 - i. Lot dimensions.
 - j. Proposed street grade, design data for street corners and curves, and profile for streets.
3. The UDO requires conservation subdivisions to utilize low impact development features to the maximum extent practicable. Please identify what features are proposed.
4. Please provide the lot dimensional standards shall be established and placed on the preliminary and final plats (lot area, lot width, lot depth, setbacks, lot coverage).
5. The maximum number of dwelling units per acre can not exceed 2. Please identify any duplex lots, if any, proposed in the subdivision as they can be approved with this use permit. Also, accessory dwelling units would not counted in the density calculations. Detached accessory dwelling units, which require a use permit on individual lots, can be added to the application and approved for the entire subdivision with this use permit.
6. Street trees and sidewalks are required on both sides of the streets.

7. Please clarify if any vegetation will be removed from the site as a result of the proposed construction.
8. Please identify any CAMA wetlands.
9. The UDO requires 2 recreational equipment storage parking spaces (20' x 40') for every 20 units in the development. Please illustrate 8 spaces proposed for the 92 lot subdivision. This area shall be buffered from the neighboring subdivision.
10. The UDO requires intersections with all other streets to be 400 feet from another intersection. The first intersection from Shingle Landing Road does not meet this requirement.
11. A portion of the proposed off-street parking spaces for the water access appear to be located in the street right of way and would require direct backing into the street. If the streets are intended to be public, no direct backing or maneuvering on the public street is permitted.
12. More discussion is needed regarding recreational opportunities/parkland dedication.

Currituck County Utilities, Pat Irwin

Approval with corrections

1. Place two valves at each tee.

Currituck County Fire and Emergency Management, James Mims

Reviewed

1. Please move fire hydrant at lot 53, 54 so that it covers the storage area. And is still within 1000' of the adjacent hydrant.

Currituck Soil and Water, Mike Doxey

Approved

Currituck County Engineer, Eric Weatherly

Approved

1. Provide Stormwater Plan and calculations at Construction submittal.
2. Provide Wastewater and Water plans and specifications and hydraulic analysis at Construction submittal.

Albemarle Regional Health Services, Joe Hobbs 252-232-6603

Reviewed

1. Need approval letter from Division of Water Quality (Washington Regional Office) at 252-946-6481 to determine wastewater approval for these proposed lots that make up this proposed sub-division. Thank you.

Currituck County Economic Development, Peter Bishop

Reviewed

Currituck County Parks and Recreation, Jason Weeks

Under review

1. Additional discussion with Parks and Recreation regarding recreation and park area dedication.

Currituck County GIS, Harry Lee

Reviewed

1. Please provide proposed street names.

NC State Archaeology, Lawrence Abbot

No comment

NC DENR - Division of Coastal Management, Charlan Owens

Reviewed

1. As proposed, the development will require a CAMA Major Permit. Please contact Ron Renaldi, DCM Field Representative, to discuss the project. He can be reached at 252-264-3901.

NC DENR - Division of Water Quality, Amy Adams

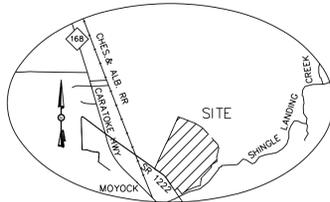
Reviewed

1. Site has wetlands and will require Corps delineation. Site will also need state stormwater permit.

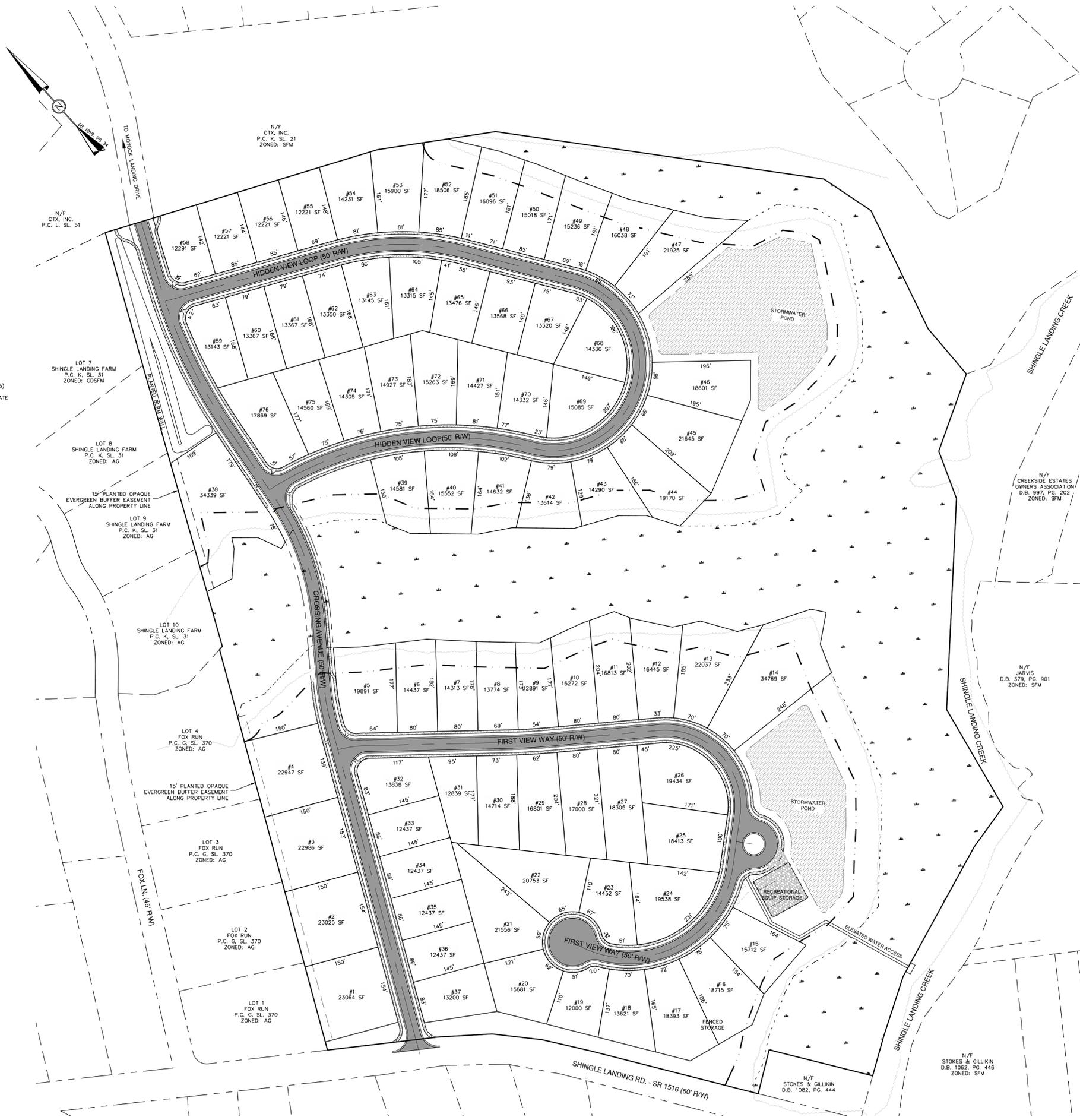
Comments not received from:

Currituck County Building Inspections, Spence Castello

THE APPLICATION AND RELATED MATERIALS ARE AVAILABLE ON THE COUNTY'S WEBSITE
Board of Commissioners: www.co.currituck.nc.us/board-of-commissioners-minutes-current.cfm



VICINITY MAP
NTS



- SITE DATA:
- OWNER: GEE'S GROUP OF NORTH CAROLINA, INC. 770 LYNNHAVEN PARKWAY, SUITE 160 VIRGINIA, VA 23452
 - PIN: 0009-000-0041-0000
 - THE MAJORITY OF THE SITE IS LOCATED IN FLOOD ZONE "X". A PORTION OF THE SITE IS LOCATED IN FLOOD ZONE "AE" (ELEV 5) AS SHOWN ON F.I.R.M. PANEL 3721802200J EFFECTIVE DATE DECEMBER 16, 2005 AND ON PANEL 6721803200J EFFECTIVE DATE DECEMBER 16, 2005.
 - ZONING: SINGLE FAMILY MAINLAND
 - SITE AREA: 58.16 AC
WETLAND: 15.51 AC
UPLANDS: 42.65 AC
 - WETLANDS SHOWN HEREON DELINEATED BY ATLANTIC ENVIRONMENTAL CONSULTANTS, LLC ON APRIL 18, 2013. US ARMY CORPS OF ENGINEERS APPROVED DELINEATION ONSITE APRIL 29, 2013. SIGNED PLAT PENDING.
 - PRIMARY CONSERVATION AREA: 20.84 AC (36%)
SECONDARY CONSERVATION AREA: 3.57 AC (6%)
TOTAL CONSERVATION AREA: 24.41 AC (42%)
 - DENSITY CALCULATION:
FULL SERVICE AREA: 47.68 AC @ 2.00 UNITS/AC = 95 UNITS
RURAL AREA: 10.48 AC @ 0.33 UNITS/AC = 3 UNITS
ALLOWABLE DENSITY = 98 UNITS TOTAL (76 SHOWN)
 - NO STREET LIGHTING IS PROPOSED.
 - RECREATION AND PARK AREA DEDICATION
76 LOTS X 0.0255 AC/LOT = 1.94 AC
 - RECREATIONAL EQUIPMENT STORAGE
76 LOTS / 20 = 3.8 (4 SPACES SHOWN)
 - AVERAGE LOT SIZE: 16,327 SF (0.37 AC)
SMALLEST LOT (#19): 12,000 SF (0.28 AC)

LEGEND

- RIGHT-OF-WAY
- PROPERTY BOUNDARY
- ADJACENT PROPERTY LINE
- PROPOSED GRAVITY SEWER
- PROPOSED SEWER FORCE MAIN
- PROPOSED WATERLINE
- EXISTING WATERLINE
- EXISTING TOP OF BANK
- EXISTING DITCH LINE
- WETLAND
- EXISTING ASPHALT PAVEMENT
- EXISTING GATE VALVE
- PROPOSED GATE VALVE
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING UTILITY POLE
- EXISTING TELEPHONE PEDESTAL
- PROPOSED SEWER MANHOLE

HYMAN ROBEY
SOLUTIONS FROM THE GROUND UP
Hyman & Robey, PC
150 US Hwy 158 E.
PO Box 339
Camden, NC 27921
(252) 338-2913
(252) 338-5552 fax
www.hymanrobey.com
License C-0598

PRELIMINARY
DO NOT USE FOR CONSTRUCTION,
SALES, OR RECORDATION.

MOYOCK
CROSSING
SUBDIVISION

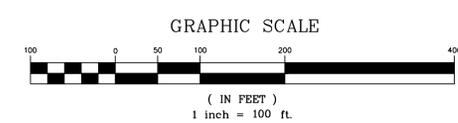
MOYOCK TOWNSHIP
CURRITUCK COUNTY
NORTH CAROLINA
KEY PLAN:

Project #: 120168
Drawing #: 120168 - SHEET SET
Drawn: RLH
Checked: JAM
Approved: SCR
Date: 11/20/13
Sheet #: 06/06
Scale: 1:100

REVISIONS:
NUM. DATE DESCRIPTION

SHEET TITLE:
LOT LAYOUT

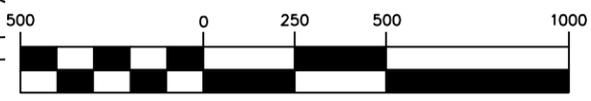
SHEET NUMBER:
C500





NOTES:

1. THIS PLAN FOR ILLUSTRATIVE PURPOSES ONLY.
2. ROUTE NO. 1 DOES NOT REQUIRE RAILROAD PERMITTING.
3. ROUTE NO. 2 IS THE PREFERRED ALTERNATIVE.



GRAPHIC SCALE

(IN FEET)
1 inch = 500 ft.



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MOYOCK CROSSING

FORCEMAIN EXHIBIT

MOYOCK TOWNSHIP
 CURRITUCK COUNTY, NC

Drawing #: 120168-FM-EXHB
 Drawn: JAM
 Date: 4/11/2014
 Sheet #: 1/1
 Scale: 1:x

SHEET TITLE:
FM EXHIBIT

SHEET NUMBER:

1

Moyock Crossing

Moyock, NC

Prepared for **Sean Robey, PE**
Hyman & Robey, PC
150 US Highway 158 East
PO Box 339
Camden, NC 27921

Prepared by **VHB Engineering NC, P.C. (C-3705)**
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April 4, 2014



Transportation | Land Development | Environmental



Executive Summary

Project Background

A residential development is being proposed between Moyock Landing Drive and Shingle Landing Road in Moyock, NC (Figure 1). The development is expected to be complete by 2017 and consists of the following land use:

- 90 single-family homes

Access will be provided via three unsignalized driveways along a future collector road, Crossing Avenue, which will connect to Moyock Landing Drive and Shingle Landing Road, as shown in Figure 2.

The following intersections are included in the study area and were analyzed for existing and future conditions, where applicable:

- US 168 and Moyock Landing Drive (unsignalized)
- US 168 and SR 1516 (Shingle Landing Road) (unsignalized)
- US 168 and SR 1228 (Camellia Drive) (signalized)
- Moyock Landing Drive and Crossing Avenue (future unsignalized)
- SR 1516 (Shingle Landing Road) and Crossing Avenue (future unsignalized)
- Crossing Avenue and Access #1 (Hidden View Loop) (future unsignalized)
- Crossing Avenue and Access #2 (Hidden View Loop) (future unsignalized)
- Crossing Avenue and Access #3 (First View Way) (future unsignalized)

Analysis was performed under three scenarios: Existing (2014), No-Build (2017), and Build (2017) conditions. The Existing (2017) scenario includes AM and PM peak hour analysis based on turning movement count data collected in March 2014. The No-Build (2017) scenario includes existing traffic with projected annual growth and approved development traffic. The Build (2017) scenario includes No-Build (2017) volumes with the addition of site trips generated by the proposed development.

Existing (2014) Conditions

Existing analyses were conducted based on current roadway geometrics and intersection turning movement counts.



As reported in the Summary Level of Service (LOS) table on page iv, all the intersections in the study area are currently operating at acceptable levels of service during the AM and PM peak hours.

No-Build (2017) Conditions

In the No-Build (2017) scenario, an annual growth rate of one percent (1%) was applied to the existing traffic to account for the normal growth between the base year (2014) and the build year (2017). In addition, site trips from one approved development were included.

Based on the No-Build (2017) analysis, all the study area intersections are projected to continue operating at acceptable levels of service during both AM and PM peak hours.

Trip Generation and Assignment

The development is proposed to consist of the following land use:

- 90 single-family homes

Trip generation was conducted based on the most appropriate corresponding trip generation code included in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition*, and the suggested method of calculation in the NCDOT's "Rate vs. Equation" Spreadsheet.

As a result, the proposed development is projected to generate 953 daily site trips with 73 trips (18 entering, 55 exiting) occurring in the AM peak hour and 96 trips (60 entering, 36 exiting) occurring in the PM peak hour. The generated site trips were distributed in accordance with the existing turning movement counts and surrounding land uses.

Build (2017) Conditions

The Build (2017) conditions account for both the No-Build (2017) traffic and the site traffic generated by the proposed development.

As shown on the Summary LOS table on page iv, the existing study area intersections are projected to continue operating at acceptable levels of service during both AM and PM peak hours with the addition of site trips. The addition of site trips will lead to no increase in overall delay at the study area intersections. In addition, all the future intersections are projected to operate at acceptable levels of service.



Roadway Improvement Recommendations

As indicated in the traffic operations analyses, the proposed development is projected to have minimal impact on the traffic operations of the surrounding roadway network and intersections. Nevertheless, the following roadway improvements are recommended based on the site plan and traffic analysis findings.

Crossing Avenue (Future Collector Street)

Crossing Avenue is a future collector road connecting Moyock Landing Drive to Shingle Landing Road, as shown in Figure 2. The proposed development will be accessed via three driveways along Crossing Avenue. Crossing Avenue will be a two-lane roadway with one travel lane in each direction.

Moyock Landing Drive and Crossing Avenue (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct the northbound Crossing Avenue to provide for one ingress lane and one egress lane.
- Stripe the eastbound Moyock Landing Drive approach to provide a shared through/right-turn lane.
- Stripe the westbound Moyock Landing Drive approach to provide a shared left-turn/through lane.

SR 1516 (Shingle Landing Road) and Crossing Avenue (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct the southbound Crossing Avenue to provide for one ingress lane and one egress lane.
- Stripe the eastbound Moyock Landing Drive approach to provide a shared left-turn/through lane.
- Stripe the westbound Moyock Landing Drive approach to provide a shared through/right-turn lane.

Crossing Avenue and Access #1 (Hidden View Loop) (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct Access #1 to provide for one ingress lane and one egress lane (shared left/right-turn lane).



Crossing Avenue and Access #2 (Hidden View Loop) (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct Access #2 to provide for one ingress lane and one egress lane (shared left/right-turn lane).

Crossing Avenue and Access #3 (First View Way) (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct Access #3 to provide for one ingress lane and one egress lane (shared left/right-turn lane).

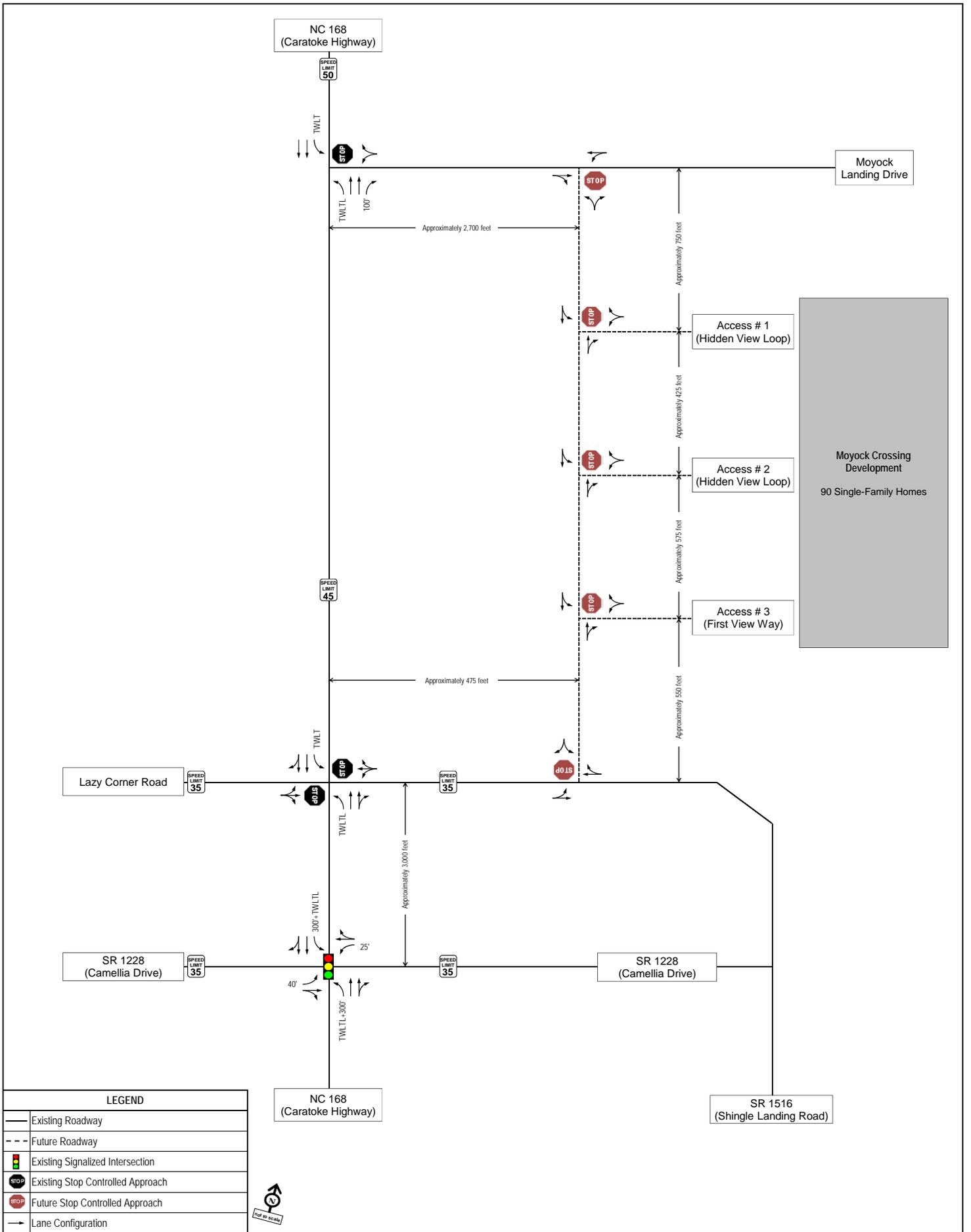
The rest of the study intersections are projected to operate at acceptable levels of service under both the No-Build (2017) and Build (2017) conditions. Therefore, no further improvements are recommended.

A summary of LOS results across scenarios is shown in Table ES - 1 and the future lane geometrics and traffic control are shown in Figure ES - 1.

Table ES - 1 Summary Level of Service Table

Intersection Name	Control	Existing (2014)		No-Build (2017)		Build (2017)	
		AM	PM	AM	PM	AM	PM
NC 168 and Moyock Landing Drive	Unsignalized	(WB-C)	(EB-B)	(WB-C)	(WB-C)	(WB-C)	(WB-B)
NC 168 and SR 1516 (Shingle Landing Road/Lazy Corner Road)	Unsignalized	(WB-C)	(EB-B)	(WB-C)	(EB-C)	(WB-C)	(EB-D)
NC 168 and SR 1228 (Camellia Drive)	Signalized	B (EB-D)	C (WB-D)	B (EB-D)	B (EB-D)	B (EB-D)	B (EB-D)
Moyock Landing Drive and future Crossing Avenue	Future Unsignalized	-	-	-	-	(NB-A)	(NB-A)
SR 1228 (Shingle Landing Road) and future Crossing Avenue	Future Unsignalized	-	-	-	-	(SB-A)	(SB-A)
Future Crossing Avenue and Access #1 (Hidden View Loop)	Future Unsignalized	-	-	-	-	(WB-A)	(WB-A)
Future Crossing Avenue and Access #2 (Hidden View Loop)	Future Unsignalized	-	-	-	-	(WB-A)	(WB-A)
Future Crossing Avenue and Access #3 (First View Way)	Future Unsignalized	-	-	-	-	(WB-A)	(WB-A)

LEGEND: X = Overall signalized intersection LOS; (XX-X) = (worst approach – worst approach LOS)



LEGEND	
	Existing Roadway
	Future Roadway
	Existing Signalized Intersection
	Existing Stop Controlled Approach
	Future Stop Controlled Approach
	Lane Configuration



Figure ES - 1
Build (2017) Lane Geometrics and Traffic Control

Moyock Crossing
 Currituck County, NC



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- APPENDIX B Traffic Signal Plan and Timings
- APPENDIX C Intersection Capacity Analysis



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Introduction

A residential development is being proposed between Moyock Landing Drive and Shingle Landing Road in Moyock, NC (Figure 1). The development is expected to be complete by 2017 and consists of the following land use:

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Access will be provided via three unsignalized driveways along a future collector road, Crossing Avenue, which will connect to Moyock Landing Drive and Shingle Landing Road, as shown in Figure 2.

The following intersections are included in the study area and were analyzed for existing and future conditions, where applicable:

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- Crossing Avenue and Access #3 (First View Way) (future unsignalized)

Analysis was performed under three scenarios: Existing (2014), No-Build (2017), and Build (2017) conditions. The Existing (2017) scenario includes AM and PM peak hour analysis based on turning movement count data collected in March 2014. The No-Build (2017) scenario includes existing traffic with projected annual growth and approved development traffic. The Build (2017) scenario includes No-Build (2017) volumes with the addition of site trips generated by the proposed development.

VHB Engineering NC, P.C. was retained by Hyman & Robey, PC to analyze the potential traffic impacts of the proposed expansion and to identify any necessary roadway improvements. This Traffic Impact Analysis (TIA) summarizes trip generation, distribution, traffic assignment, and traffic analyses for the proposed development.

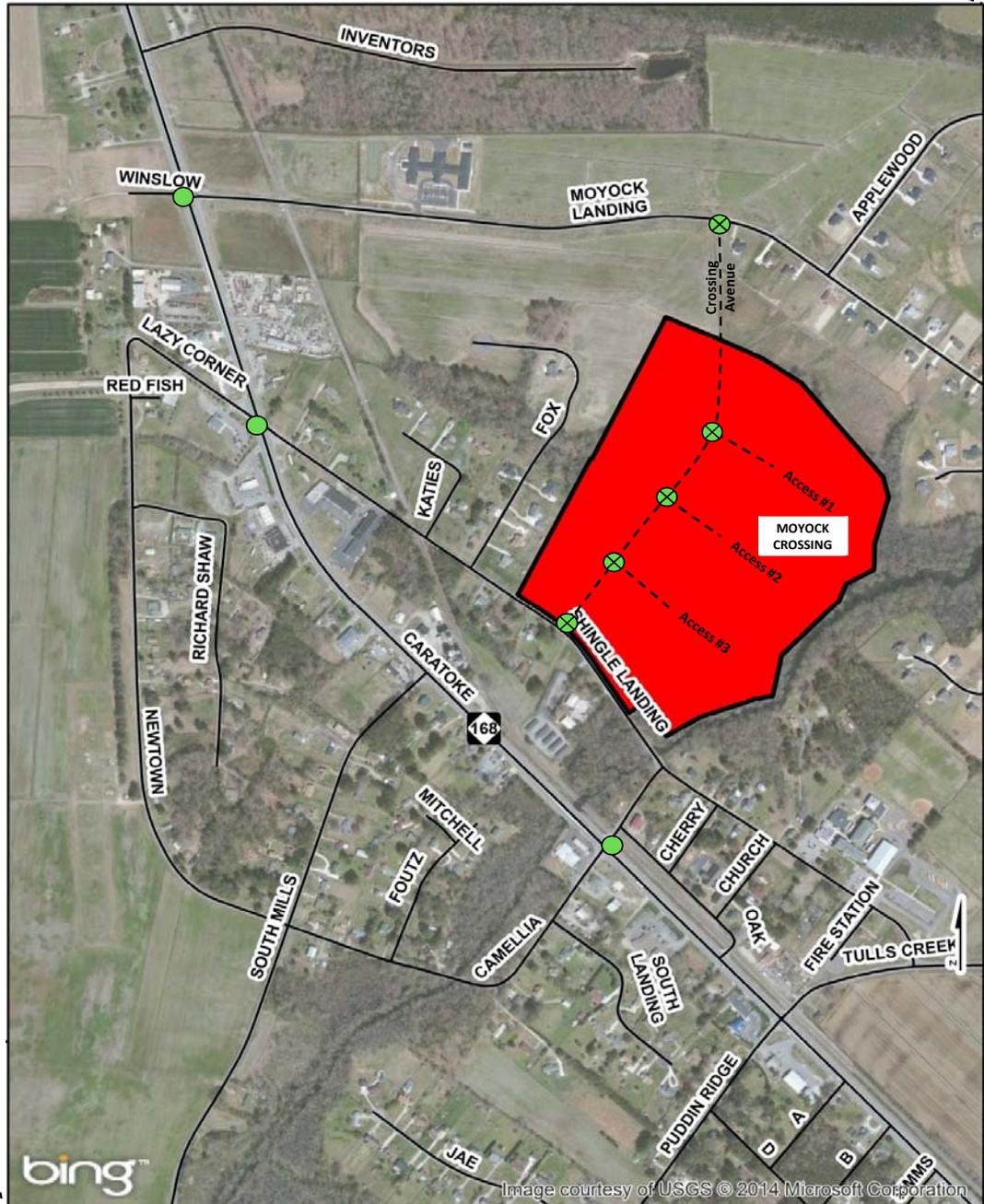
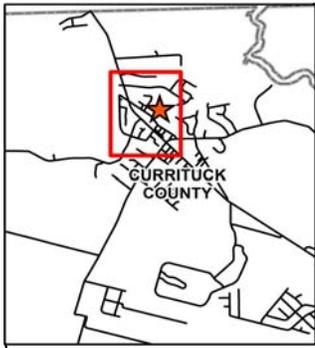


Image courtesy of USGS © 2014 Microsoft Corporation

LEGEND	
	Study Area Intersections
	Future Study Area Intersections
	Existing Roadways
	Proposed Moyock Crossing Development

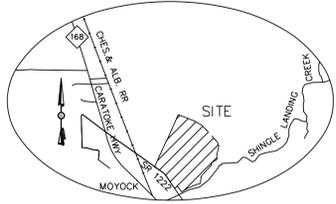
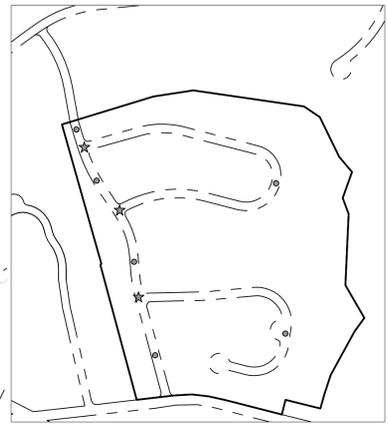


Figure 1
Vicinity Map

Moyock Crossing
Currituck County, NC

PRELIMINARY
DO NOT USE FOR CONSTRUCTION,
SALES, OR RECORDATION.

MOYOCK CROSSING SUBDIVISION

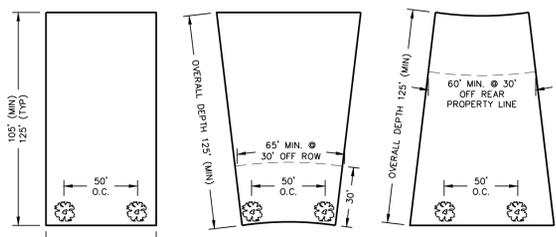


SITE DATA:
NTS

- OWNER: GEE'S GROUP OF NORTH CAROLINA, INC. 770 LYNNHAVEN PARKWAY, SUITE 160 VIRGINIA, VA 23452
- PIN: 0009-000-0041-0000
- THE MAJORITY OF THE SITE IS LOCATED IN FLOOD ZONE "X". A PORTION OF THE SITE IS LOCATED IN FLOOD ZONE "AE" (ELEV 5) AS SHOWN ON F.I.R.M. PANEL 37218022001 EFFECTIVE DATE DECEMBER 16, 2005 AND ON PANEL 8721803200J EFFECTIVE DATE DECEMBER 16, 2005.
- ZONING: SINGLE FAMILY MAINLAND
- SITE AREA: 58.16 AC
WETLAND: 15.51 AC
UPLANDS: 42.65 AC
- WETLANDS SHOWN HEREON DELINEATED BY ATLANTIC ENVIRONMENTAL CONSULTANTS, LLC ON APRIL 18, 2013. US ARMY CORPS OF ENGINEERS APPROVED DELINEATION ON SITE APRIL 29, 2013. SIGNED PLAT PENDING.
- PRIMARY CONSERVATION AREA: 20.84 AC (36%)
SECONDARY CONSERVATION AREA: 2.52 AC (4%)
TOTAL CONSERVATION AREA: 23.36 AC (40%)
- DENSITY CALCULATION:
FULL SERVICE AREA: 47.68 AC @ 2.00 UNITS/AC = 95 UNITS
RURAL AREA: 10.48 AC @ 0.33 UNITS/AC = 3 UNITS
ALLOWABLE DENSITY = 98 UNITS TOTAL (90 SHOWN)
- NO STREET LIGHTING IS PROPOSED.
- RECREATION AND PARK AREA DEDICATION
90 LOTS X 0.0255 AC/LOT = 2.30 AC

LINE TABLE			CURVE TABLE						
LINE	BEARING	DISTANCE	CURVE	ARC LENGTH	RADIUS	TANGENT	DELTA	CHORD BEARING	CHORD LENGTH
L1	N26° 46' 07"E	624.23	C1	90.26'	500.00'	45.25	10°20'35"	N31° 56' 24"E	90.14'
L2	N26° 46' 07"E	48.73	C2	253.46'	500.00'	129.52	29°02'41"	N22° 35' 21"E	250.76'
L3	N37° 06' 42"E	119.97	C3	269.02'	1000.00'	135.33	15°24'49"	N15° 46' 25"E	268.21'
L4	N8° 04' 01"E	26.51	C4	27.37'	1000.00'	13.69	1°34'05"	N24° 15' 52"E	27.37'
L5	N8° 04' 01"E	159.02	C5	355.28'	685.66'	181.72	29°41'17"	N17° 14' 14"E	351.32'
L6	N25° 02' 55"E	135.47	C6	261.07'	500.00'	133.59	29°55'01"	S48° 42' 49"E	258.12'
L7	N32° 04' 52"E	197.79	C7	193.52'	150.00'	112.87	73°55'15"	S3° 12' 19"W	180.38'
L8	N8° 03' 53"E	38.08	C8	334.78'	180.82'	240.31	106°04'45"	N87° 08' 41"W	288.97'
L9	S63° 40' 19"E	350.25	C9	543.53'	667.96'	287.83	46°37'22"	N57° 03' 59"W	528.66'
L10	S33° 45' 19"E	452.82	C10	55.73'	230.00'	28.00	13°52'55"	S56° 17' 25"E	55.59'
L11	S39° 48' 57"W	1.83	C11	67.32'	1000.00'	33.67	3°51'26"	S51° 16' 41"E	67.31'
L12	N33° 45' 19"W	200.00	C12	324.25'	180.00'	227.15	103°12'39"	S1° 36' 04"E	282.15'
L13	S49° 20' 58"E	292.63	C13	302.17'	180.00'	200.56	96°11'05"	N81° 54' 12"W	267.92'
L14	S53° 12' 24"E	257.10							
L15	S50° 00' 15"W	25.78							
L16	S50° 00' 15"W	83.83							
L17	N33° 48' 39"W	165.89							
L18	N39° 59' 45"W	35.00							

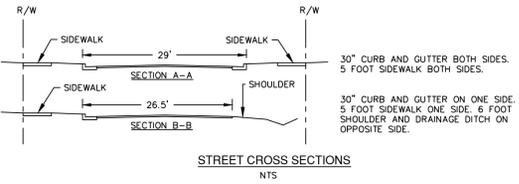
*L8 and C5 NOT SHOWN



LOT NOTES:

- SMALLEST LOT SIZE IS 9,080 SF (AVG. 13,030 SF)
- UNLESS OTHERWISE NOTED, SETBACKS ARE:
FRONT = 30 FT
REAR = 20 FT
SIDE = 5 FT
- MAXIMUM LOT COVERAGE = ±60%

TYPICAL LOT PARAMETERS



LEGEND

- RIGHT-OF-WAY
- PROPERTY BOUNDARY
- ADJACENT PROPERTY LINE
- PROPERTY LINE
- PROPOSED TOP OF BANK
- PROPOSED CULVERT
- WETLAND
- PROPOSED SIDEWALK
- EXISTING ASPHALT PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PHASE DELINEATION LINE
- EXISTING WOODSLINE
- PROPOSED WOODSLINE
- EXISTING UTILITY POLE
- EXISTING TELEPHONE PEDESTAL
- WILLOW OAK
- LIVE OAK
- RED MAPLE
- SCARLET OAK
- WAX MYRTLE
- NELLIE STEVENS HOLLIE

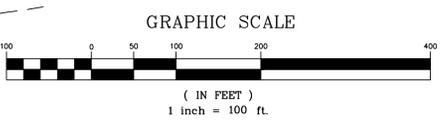
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CURRITUCK COUNTY
NORTH CAROLINA
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NUM. DATE DESCRIPTION

SHEET TITLE:
SITE PLAN OVERVIEW
SHEET NUMBER:

C200



Existing (2014) Conditions

Existing Roadway Conditions

This section describes the existing roadways in the vicinity of the proposed development. Average Annual Daily Traffic (AADT) data for the surrounding network of roadway were obtained from the North Carolina Department of Transportation (NCDOT). The most recent available AADT counts from NCDOT are for 2012 on the study area roadways.

NC 168 (Caratoke Highway)

- NC 168 is a five-lane cross-section in the study area. The posted speed limit on NC 168 is 50 miles per hour (mph) north of Moyock Landing Drive and 45 mph south of it.
- According to the NCDOT, the AADT on NC 168 was 19,000 vehicles per day (vpd) north of Moyock Landing Drive, 21,000 south of Shingle Landing Road and 19,000 vpd between Shingle Landing Road and Camellia Drive in 2012.



Looking south along NC 168 at the Camellia Drive intersection



Looking north along NC 168 at the Moyock Landing Drive intersection

Moyock Landing Drive

- Moyock Landing Drive is a paved roadway with no lane markings and no posted speed limit within the study area.
- The land use along Moyock Landing Drive is mostly agricultural with some residential towards the eastern end and an assisted living facility on the north side. No AADT information is available for Moyock Landing Road.



Looking east along Moyock Landing Drive from NC 168 intersection



Looking west along Moyock Landing Drive towards the NC 168 intersection

SR 1516 (Shingle Landing Road)

- Shingle Landing Road is a two-lane roadway connecting NC 168 to SR 1222 (Tulls Creek Road). The posted speed limit is 35 mph within the study area.
- The land use along Shingle Landing Road is mostly residential with Moyock Elementary School near the Tulls Creek Road intersection. No AADT information is available for Shingle Landing Road.



Looking east along Shingle Landing Road near the NC 168 intersection



Looking west along Shingle Landing Road at the NC 168 intersection



SR 1516 (Lazy Corner Road)

- Lazy Corner Road is a two-lane roadway with a posted speed limit is 35 mph within the study area.
- The land use along Lazy Corner Road is office and industrial. No AADT information is available for Lazy Corner Road.

SR 1228 (Camellia Drive)

- Camellia Drive is a two-lane roadway with a posted speed limit is 35 mph within the study area.
- The land use along Camellia Drive is mostly residential with some commercial use near the NC 168 intersection.
- According to the NCDOT, the AADT on Camellia Drive was 380 vpd east of NC 168 and 1,400 vpd to the west in 2012.

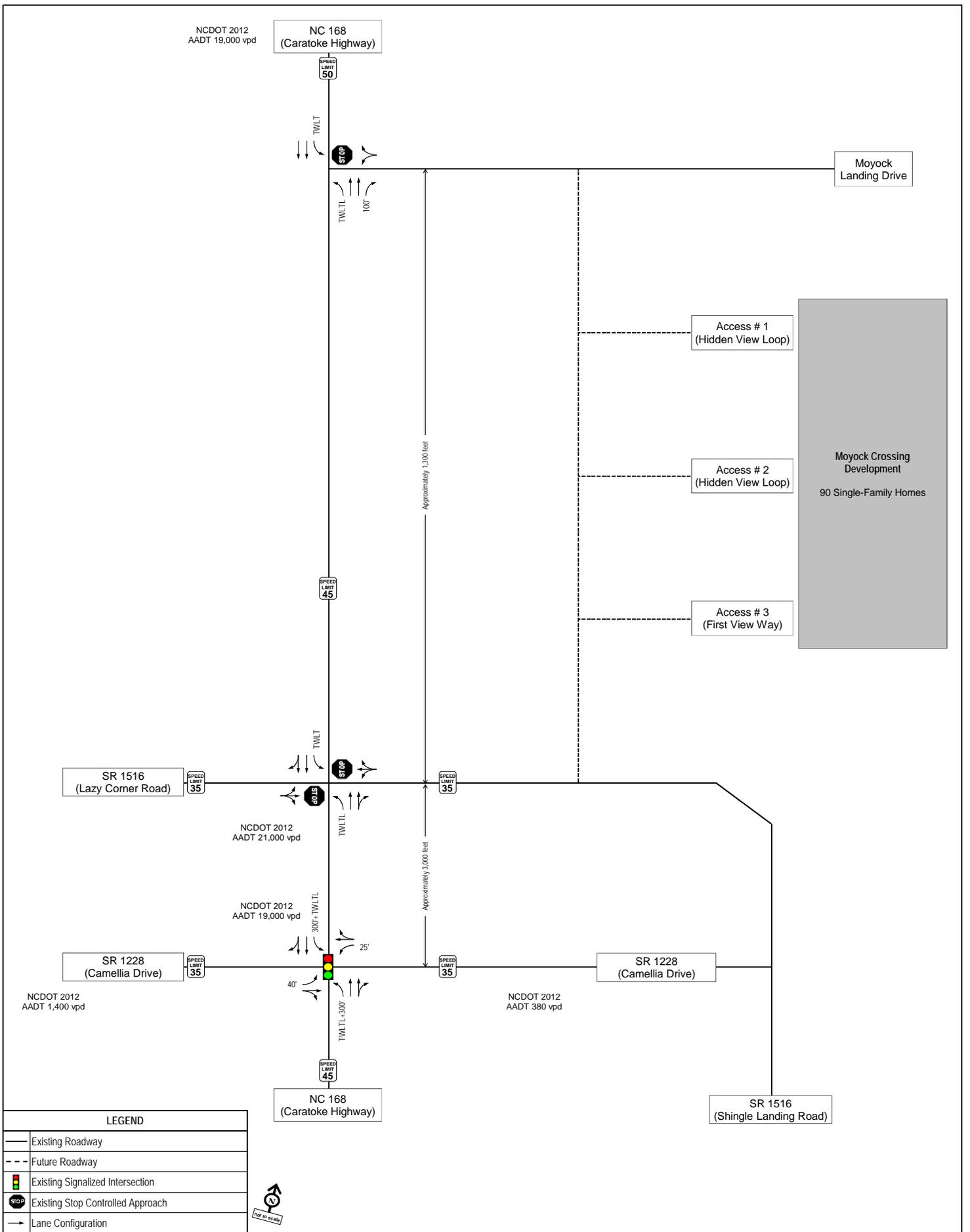


Looking west along Camellia Drive from the NC 168 intersection



Looking east along Camellia Drive from the NC 168 intersection

Figure 3 provides a schematic diagram of the roadways near the proposed development including the existing intersection geometrics.





Existing Turning Movement Data

VHB Engineering NC, P.C. collected the weekday peak hour intersection turning movement counts analyzed in this TIA. Table 1 summarizes the schedule used to obtain the turning movement data. A detailed summary of the traffic counts can be found in Appendix A.

Table 1 Weekday Peak Hour Turning Movement Count Schedule

Intersection	Time Period	Data Collection Date
NC 168 at Moyock Landing Drive	6:30 AM-9:00 AM 4:00 PM-6:30 PM	Thursday, March 20, 2014
NC 168 at SR 1516 (Shingle Landing Road)/Lazy Corner Road	6:30 AM-9:00 AM 4:00 PM-6:30 PM	Thursday, March 20, 2014
NC 168 at SR 1228 (Camellia Drive)	6:30 AM-9:00 AM 4:00 PM-6:30 PM	Thursday, March 20, 2014

The existing peak hour turning movement volumes are shown in Figure 4.

Level of Service Criteria

Peak hour level of service (LOS) measures the adequacy of the intersection geometrics and traffic controls of a particular intersection or approach for the given turning volumes. Levels of service range from A through F, based on the average control delay experienced by vehicles traveling through the intersection during the peak hour. Control delay represents the portion of total delay attributed to traffic control devices (e.g., signals or stop signs). Table 2 provides a general description of various levels of service categories and delay ranges.

Level of service is based on an analysis of the average peak hour with LOS D considered acceptable for both signalized intersections and unsignalized approaches. For signalized intersections, when the background analysis yields a level of service worse than LOS D, no increase in overall intersection delay is allowed under build conditions. For unsignalized intersections where the stop-controlled approach is below a LOS D under background conditions, the installation of a traffic signal shall only be required when the intersection meets required warrants for a signal, and the new signal does not cause an undesirable delay in the surrounding roadway system.



Table 2 Level of Service Description for Intersections

Level of Service	Description	Signalized Intersection	Unsignalized Intersection
A	Little or no delay	<= 10 sec.	<= 10 sec.
B	Short traffic delay	10-20 sec.	10-15 sec.
C	Average traffic delay	20-35 sec.	15-25 sec.
D	Long traffic delay	35-55 sec.	25-35 sec.
E	Very long traffic delay	55-80 sec.	35-50 sec.
F	Unacceptable delay	> 80 sec.	> 50 sec.

Level of Service Analysis

Intersection levels of service analyses were performed for the typical weekday peak hours using *Synchro/SimTraffic Professional Version 7*. The Existing (2014) scenario analysis utilized the existing signal plans and timings, which are included in Appendix B. A summary of the findings for the Existing (2014) scenario LOS analysis can be found in Table 3 and the full *Synchro/HCS* output can be found in Appendix C.

As reported in Table 3, all the intersections in the study area are currently operating at acceptable levels of service during the AM and PM peak hours.

Table 3 Existing (2014) Level of Service Results

Intersection Name	Control	Existing (2014)	
		AM	PM
NC 168 and Moyock Landing Drive	Unsignalized	(WB-C)	(EB-B)
NC 168 and SR 1516 (Shingle Landing Road/Lazy Corner Road)	Unsignalized	(WB-C)	(EB-B)
NC 168 and SR 1228 (Camellia Drive)	Signalized	B (EB-D)	C (WB-D)

LEGEND: X = Overall signalized intersection LOS; (XX-X) = (worst approach – worst approach LOS)

NC 168
(Caratoke Highway)

(1404) (27)
380 7
↓ ↘

STOP
↖ 25 (6)
↗ 14 (11)

↑ ↘
1241 8
(678) (8)

Moyock Landing Drive

Access # 1
(Hidden View Loop)

Access # 2
(Hidden View Loop)

Access # 3
(First View Way)

Proposed Residential Development
90 Dwelling Units
Single Family Homes

(9) (1330) (41)
8 364 24

↖ 46 (15)
← 1 (1)
↗ 2 (3)

SR 1516
(Lazy Corner Road)

(1) 2
(2) 0
(4) 8

STOP
↖ 14 1211 0
↑ (0) (659) (6)
↗

SR 1228
(Camellia Drive)

(20) (1265) (7)
8 430 23

↖ 25 (10)
← 9 (2)
↗ 13 (9)

(15) 27
(4) 5
(92) 69

↖ 45 1013 6
↑ (86) (683) (6)
↗

SR 1228
(Camellia Drive)

NC 168
(Caratoke Highway)

SR 1516
(Shingle Landing Road)

LEGEND

	Existing Roadway
	Future Roadway
	Existing Signalized Intersection
	Existing Stop Controlled Approach
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



Figure 4
Existing (2014) AM and PM Peak Hour Turning Movement Volumes

Moyock Crossing
Currituck County, NC



No-Build (2017) Conditions

Background Growth and Development

Based on a review of historic Annual Average Daily Traffic (AADT) collected by NCDOT in the area, there is no growth along NC 168 in the last nine years. However, to be conservative, a one percent (1%) growth rate was applied to the study area roadways intersections. There is one approved development in the vicinity of the study area – the Shingle Landing Subdivision proposed on the south side of Moyock Landing Drive. This development is proposed to consist of 15 single-family homes.

The trip generation for the Shingle Landing Subdivision was generated based on the most appropriate corresponding trip generation code included in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition*, and the suggested method of calculation in the NCDOT's "Rate vs. Equation" Spreadsheet. As a result, it is projected to generate 555 daily site trips with 45 trips (11 entering, 34 exiting) occurring in the AM peak hour and 56 trips (35 entering, 21 exiting) occurring in the PM peak hour. These trips were distributed to the study area intersections based on the trip distribution assumed in this study. The trips from the approved development are included in the No-Build (2017) peak hour trips are shown in Figure 5.

Level of Service Analysis

Intersection levels of service analyses were performed for the typical weekday peak hours using *Synchro/SimTraffic Professional Version 7*. Signal cycle lengths and splits were optimized with *Synchro* as part of the future year analysis. A summary of the findings for the No-Build (2017) scenario LOS analysis can be found in Table 4 and the full *Synchro/HCS* output can be found in Appendix C.

As reported in Table 4, all the study area intersections are projected to continue operating at acceptable levels of service during both AM and PM peak hours.



Table 4 No-Build (2017) Level of Service Results

Intersection Name	Control	No-Build (2017)	
		AM	PM
NC 168 and Moyock Landing Drive	Unsignalized	(WB-C)	(WB-C)
NC 168 and SR 1516 (Shingle Landing Road/Lazy Corner Road)	Unsignalized	(WB-C)	(EB-C)
NC 168 and SR 1228 (Camellia Drive)	Signalized	B (EB-D)	B (EB-D)

LEGEND: X = Overall signalized intersection LOS; (XX-X) = (worst approach - worst approach LOS)

NC 168
(Caratoke Highway)



Moyock Landing Drive

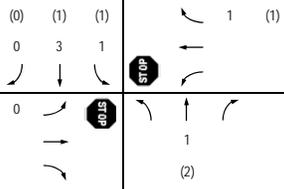
Shingle Landing Subdivision
15 Single-Family Homes

Access # 1
(Hidden View Loop)

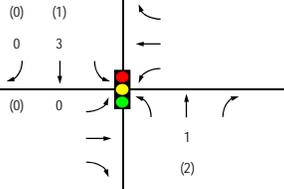
Access # 2
(Hidden View Loop)

Access # 3
(First View Way)

Moyock Crossing Development
90 Single-Family Homes



SR 1516
(Lazy Corner Road)



SR 1228
(Camellia Drive)

SR 1228
(Camellia Drive)

NC 168
(Caratoke Highway)

SR 1516
(Shingle Landing Road)

LEGEND

	Existing Roadway
	Future Roadway
	Existing Signalized Intersection
	Existing Stop Controlled Approach
	Turning Movement
XX	AM Peak Hour Turning Movement Volumes
(XX)	PM Peak Hour Turning Movement Volumes



Figure 5
Approved Development Trips

Moyock Crossing
Currituck County, NC

NC 168
(Caratoke Highway)

(1446) (37)
391 11
↓ ↘
STOP
↑ ↙
1278 9
(698) (11)

Moyock Landing Drive

Access # 1
(Hidden View Loop)

Access # 2
(Hidden View Loop)

Access # 3
(First View Way)

Moyock Crossing Development
90 Single-Family Homes

(9) (1371) (43)
8 378 26
↙ ↓ ↘
STOP
↙ ↑ ↘
(1) 2
(2) 0
(4) 8
14 1248 0
(0) (681) (6)

SR 1516
(Lazy Corner Road)

(21) (1304) (7)
8 446 24
↙ ↓ ↘
Signalized Intersection
↙ ↑ ↘
(15) 28
(4) 5
(95) 71
46 1044 6
(89) (705) (6)

SR 1228
(Camellia Drive)

SR 1228
(Camellia Drive)

SR 1516
(Shingle Landing Road)

NC 168
(Caratoke Highway)

LEGEND	
	Existing Roadway
	Future Roadway
	Existing Signalized Intersection
	Existing Stop Controlled Approach
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



Figure 6
No-Build (2017) AM and PM Peak Hour Turning Movement Volumes

Moyock Crossing
Currituck County, NC



4

Build (2017) Conditions

A residential development is being proposed between Moyock Landing Drive and Shingle Landing Road in Moyock, NC (Figure 1).

Trip Generation

The development is proposed to consist of the following land use:

- 90 single-family homes

Trip generation was conducted based on the most appropriate corresponding trip generation code included in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition*, and the suggested method of calculation in the NCDOT's "Rate vs. Equation" Spreadsheet.

As a result, the proposed development is projected to generate 953 daily site trips with 73 trips (18 entering, 55 exiting) occurring in the AM peak hour and 96 trips (60 entering, 36 exiting) occurring in the PM peak hour. The generated site trips were distributed in accordance with the existing turning movement counts and surrounding land uses.

Table 5 summarizes the assumed trip generation for the proposed development for typical weekday peak hours.

Table 5 Trip Generation Rates (Vehicle Trips)

ITE Land Use Code	USE	Units	ADT	AM Peak*			PM Peak*		
				Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Housing	90	953	18	55	73	60	36	96

* ITE Trip Generation Manual, 9th Edition



Traffic Distribution and Assignment

Access will be provided via three unsignalized site driveways along a future collector road, Crossing Avenue, which will connect to Moyock Landing Drive and Shingle Landing Road, as shown in Figure 2.

The generated site trips were distributed in accordance with the existing traffic patterns and land uses in the vicinity of the study area as follows:

- 75% to/from NC 168 to the north
- 17% to/from NC 168 to the south
- 5% to/from Shingle Landing Road to the east
- 2% to/from Lazy Corner Road to the east
- 1% to/from Camellia Drive to the west

The site trip percentages are depicted in Figure 7, with the resulting site trips shown in Figure 8.

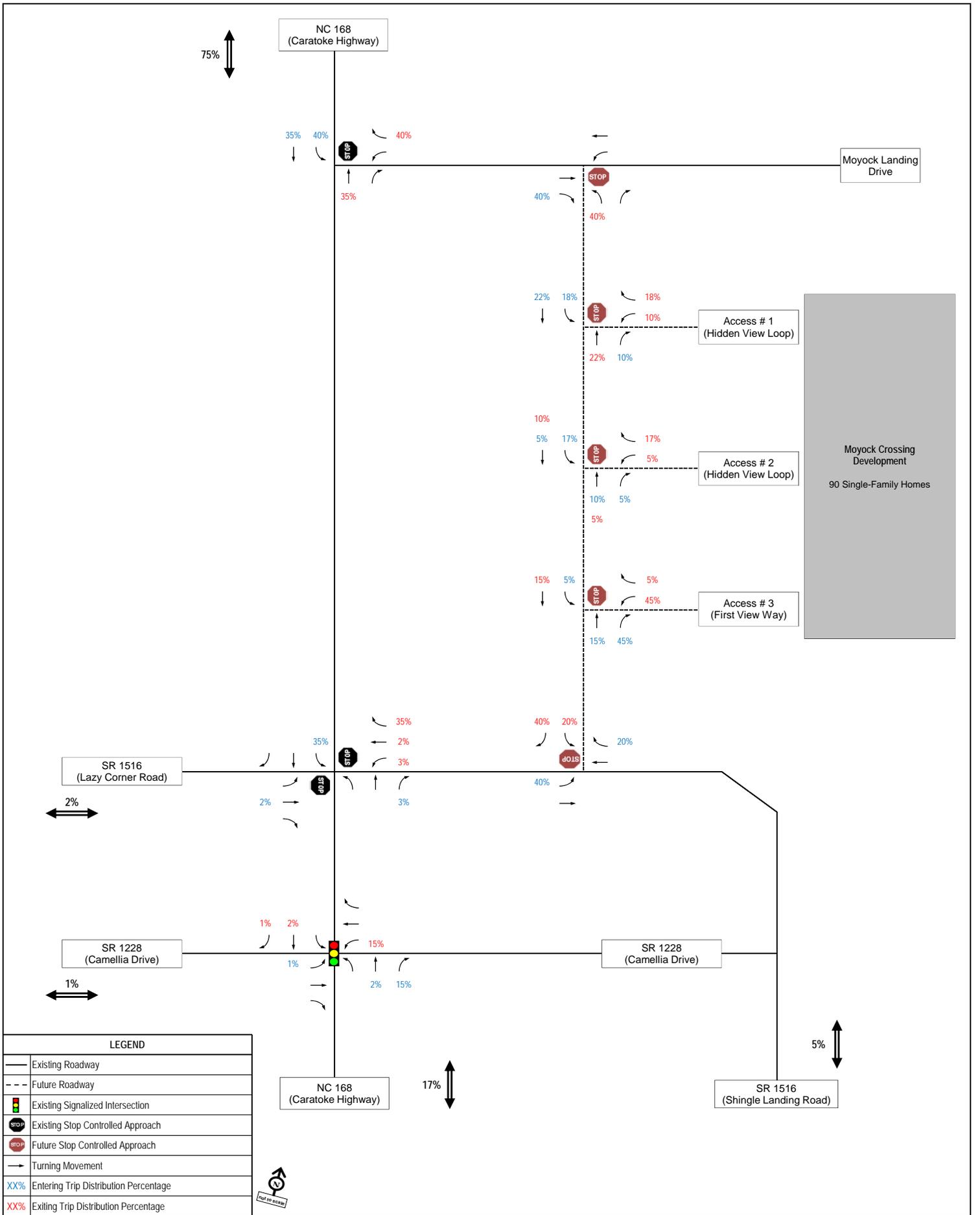


Figure 7
AM and PM Peak Hour Directional Distribution Percentages

Moyock Crossing
 Currituck County, NC

NC 168
(Caratoke Highway)

(21) (24)
7 7
↓ ↓

Moyock Landing Drive

(24) 7
(13) 22 (14)

(13) (11)
4 3
↓ ↓

Access # 1
(Hidden View Loop)

12 2
(8) (6)

(7) (10)
7 3
↓ ↓

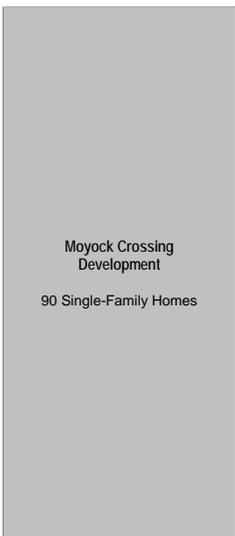
Access # 2
(Hidden View Loop)

5 1
(8) (3)

(5) (3)
8 1
↓ ↓

Access # 3
(First View Way)

3 8
(9) (27)



(14) (7)
22 11
↓ ↓

SR 1516
(Lazy Corner Road)

(21) 19 (13)
7 1 (1)
↓ ↓

SR 1228
(Camellia Drive)

(0) (1)
1 1
↓ ↓

NC 168
(Caratoke Highway)

SR 1516
(Shingle Landing Road)

LEGEND	
	Existing Roadway
	Future Roadway
	Existing Signalized Intersection
	Existing Stop Controlled Approach
	Future Stop Controlled Approach
	Turning Movement
XX	AM Peak Hour Site Trips
(XX)	PM Peak Hour Site Trips



Figure 8
AM and PM Peak Hour Site Trips

Moyock Crossing
Currituck County, NC



Level of Service Analysis

The Build (2017) analysis scenario includes the No-Build (2017) traffic as well as site generated trips from the proposed development as described previously. With the construction of Crossing Avenue, some new cut-through trips are anticipated to occur between Shingle Landing Road and Moyock Landing Drive. Therefore, nominal trips are added to these movements in the Build (2017) scenario. Figure 9 depicts the turning movement volumes used in the Build (2017) scenario analysis.

Intersection levels of service analyses were performed for the typical weekday AM and PM peak hours using *Synchro/SimTraffic Professional Version 7*. Table 6 summarizes the findings of the LOS analysis and Appendix C contains the full *Synchro/HCS* reports of the analyses.

As reported in Table 6, the existing study area intersections are projected to continue operating at acceptable levels of service during both AM and PM peak hours with the addition of site trips. The addition of site trips will lead to no increase in overall delay at the study area intersections. In addition, all the future intersections are projected to operate at acceptable levels of service.

Table 6 Build (2017) Level of Service Results

Intersection Name	Control	Build (2017)	
		AM	PM
NC 168 and Moyock Landing Drive	Unsignalized	(WB-C)	(WB-B)
NC 168 and SR 1516 (Shingle Landing Road/Lazy Corner Road)	Unsignalized	(WB-C)	(EB-D)
NC 168 and SR 1228 (Camellia Drive)	Signalized	B (EB-D)	B (EB-D)
Moyock Landing Drive and Future Crossing Avenue	Future Unsignalized	(NB-A)	(NB-A)
SR 1228 (Shingle Landing Road) and Future Crossing Avenue	Future Unsignalized	(SB-A)	(SB-A)
Future Crossing Avenue and Access #1 (Hidden View Loop)	Future Unsignalized	(WB-A)	(WB-A)
Future Crossing Avenue and Access #2 (Hidden View Loop)	Future Unsignalized	(WB-A)	(WB-A)
Future Crossing Avenue and Access #3 (First View Way)	Future Unsignalized	(WB-A)	(WB-A)

LEGEND: X = Overall signalized intersection LOS; (XX-X) = (worst approach – worst approach LOS)

NC 168
(Caratoke Highway)

(1467) (78)
398 22

73 (36)
23 (16)

40 (18)
0 (0)

Moyock Landing Drive

1297 11
(711) (17)

(36) 15
(24) 7

22 0
(14) (0)

(13) (11)
4 3

Access # 1
(Hidden View Loop)

12 2
(8) (6)

(7) (10)
7 3

Access # 2
(Hidden View Loop)

5 1
(8) (3)

(5) (3)
8 1

Access # 3
(First View Way)

3 8
(9) (27)

Moyock Crossing Development
90 Single-Family Homes

(9) (1374) (65)
9 381 34

67 (30)
2 (2)
4 (4)

(14) (7)
22 11

4 (12)
51 (22)

SR 1516
(Lazy Corner Road)

(2) 2
(3) 0
(4) 8

14 1249 0
(0) (685) (8)

(24) 7
(52) 27

SR 1228
(Camellia Drive)

(21) (1308) (7)
9 450 24
(16) 28
(4) 5
(95) 71

26 (10)
9 (2)
13 (9)
46 1045 9
(89) (710) (15)

SR 1228
(Camellia Drive)

NC 168
(Caratoke Highway)

SR 1516
(Shingle Landing Road)

LEGEND	
	Existing Roadway
	Future Roadway
	Existing Signalized Intersection
	Existing Stop Controlled Approach
	Future Stop Controlled Approach
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



Figure 9
Build (2017) AM and PM Peak Hour Turning Movement Volumes

Moyock Crossing
Currituck County, NC

Findings and Conclusions

As indicated in the traffic operations analyses, the proposed development is projected to have minimal impact on the traffic operations of the surrounding roadway network and intersections. Nevertheless, the following roadway improvements are recommended based on the site plan and traffic analysis findings.

Crossing Avenue (Future Collector Street)

Crossing Avenue is a future collector road connecting Moyock Landing Drive to Shingle Landing Road, as shown in Figure 2. The proposed development will be accessed via three driveways along Crossing Avenue. Crossing Avenue will be a two-lane roadway with one travel lane in each direction.

Moyock Landing Drive and Crossing Avenue (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct the northbound Crossing Avenue to provide for one ingress lane and one egress lane.
- Stripe the eastbound Moyock Landing Drive approach to provide a shared through/right-turn lane.
- Stripe the westbound Moyock Landing Drive approach to provide a shared left-turn/through lane.

SR 1516 (Shingle Landing Road) and Crossing Avenue (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct the southbound Crossing Avenue to provide for one ingress lane and one egress lane.
- Stripe the eastbound Moyock Landing Drive approach to provide a shared left-turn/through lane.
- Stripe the westbound Moyock Landing Drive approach to provide a shared through/right-turn lane.



Crossing Avenue and Access #1 (Hidden View Loop) (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct Access #1 to provide for one ingress lane and one egress lane (shared left/right-turn lane).

Crossing Avenue and Access #2 (Hidden View Loop) (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct Access #2 to provide for one ingress lane and one egress lane (shared left/right-turn lane).

Crossing Avenue and Access #3 (First View Way) (future unsignalized)

The traffic analysis indicates that this future intersection is projected to operate acceptably during both AM and PM peak hours. Therefore, the following intersection configuration is recommended at this location:

- Construct Access #3 to provide for one ingress lane and one egress lane (shared left/right-turn lane).

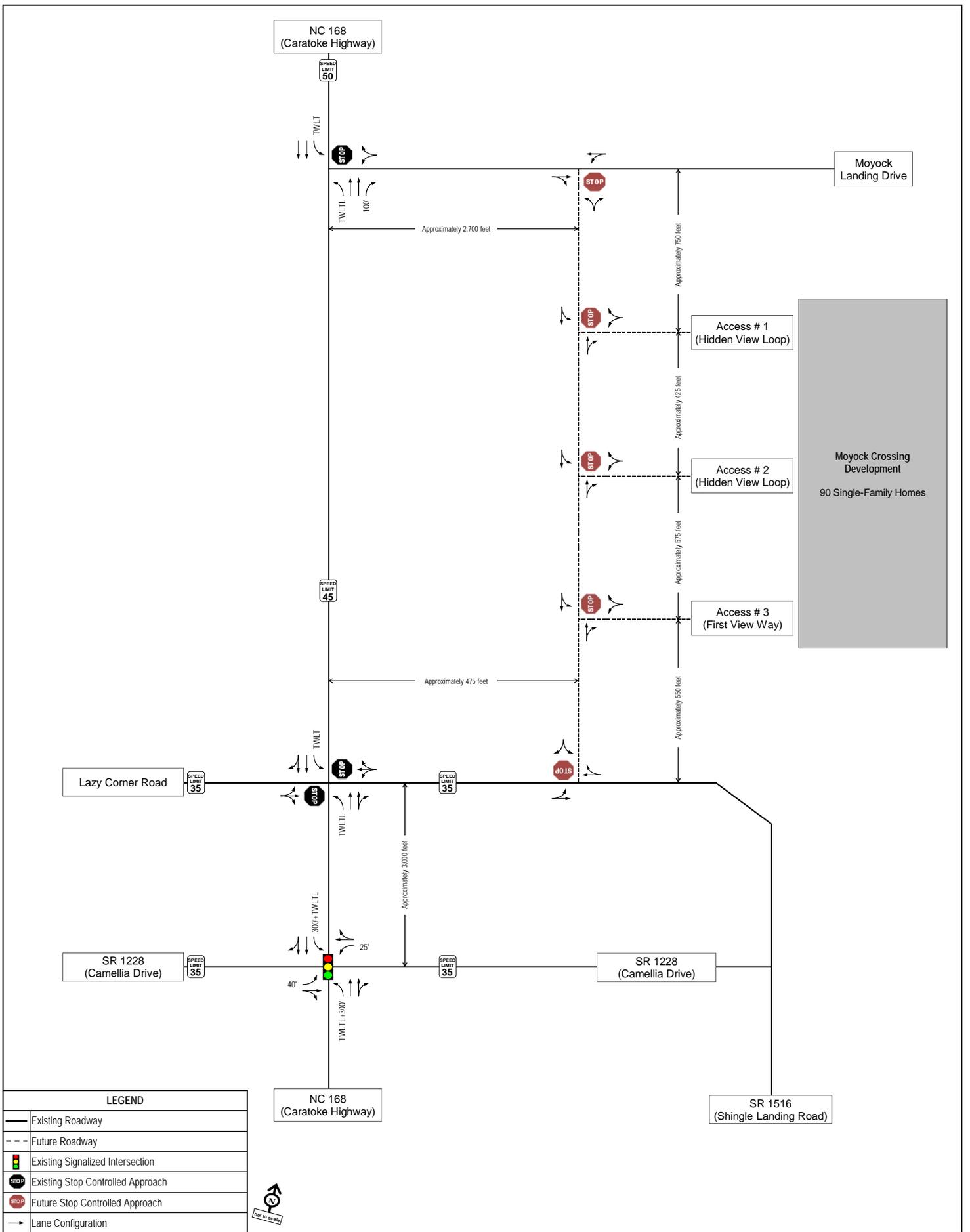
The rest of the study intersections are projected to operate at acceptable levels of service under both the No-Build (2017) and Build (2017) conditions. Therefore, no further improvements are recommended.

A summary of LOS results across scenarios is shown in Table 7 and the future lane geometrics and traffic control are shown in Figure 10.

Table 7 Summary of Level of Service Results

Intersection Name	Control	Existing (2014)		No-Build (2017)		Build (2017)	
		AM	PM	AM	PM	AM	PM
NC 168 and Moyock Landing Drive	Unsignalized	(WB-C)	(EB-B)	(WB-C)	(WB-C)	(WB-C)	(WB-B)
NC 168 and SR 1516 (Shingle Landing Road/Lazy Corner Road)	Unsignalized	(WB-C)	(EB-B)	(WB-C)	(EB-C)	(WB-C)	(EB-D)
NC 168 and SR 1228 (Camellia Drive)	Signalized	B (EB-D)	C (WB-D)	B (EB-D)	B (EB-D)	B (EB-D)	B (EB-D)
Moyock Landing Drive and Future Crossing Avenue	Future Unsignalized	-	-	-	-	(NB-A)	(NB-A)
SR 1228 (Shingle Landing Road) and Future Crossing Avenue	Future Unsignalized	-	-	-	-	(SB-A)	(SB-A)
Future Crossing Avenue and Access #1 (Hidden View Loop)	Future Unsignalized	-	-	-	-	(WB-A)	(WB-A)
Future Crossing Avenue and Access #2 (Hidden View Loop)	Future Unsignalized	-	-	-	-	(WB-A)	(WB-A)
Future Crossing Avenue and Access #3 (First View Way)	Future Unsignalized	-	-	-	-	(WB-A)	(WB-A)

LEGEND: X = Overall signalized intersection LOS; (XX-X) = (worst approach – worst approach LOS)



LEGEND	
	Existing Roadway
	Future Roadway
	Existing Signalized Intersection
	Existing Stop Controlled Approach
	Future Stop Controlled Approach
	Lane Configuration



Figure 10
Build (2017) Lane Geometrics and Traffic Control



Moyock Crossing
 Currituck County, NC



APPENDICES



APPENDIX A

Turning Movement Counts

VHB Engineering NC, P.C.

4000 WestChase Boulevard, Suite 530

Raleigh, NC 27607

p: 919-829-0328 f: 919-829-0329

File Name : NC 168 and Moyock Landing
 Site Code :
 Start Date : 3/20/2014
 Page No : 1

Groups Printed- Passenger Vehicles - Dual Trucks - TTST - Pedestrians

Start Time	NC 168 (Carotoke Highway) Southbound				Moyock Landing Drive Westbound				NC 168 (Carotoke Highway) Northbound				Dirt Road Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
06:30 AM	0	53	0	0	0	0	9	0	0	278	1	0	0	0	0	0	0	341	341
06:45 AM	3	69	0	0	4	0	8	0	0	322	7	0	0	0	0	0	0	413	413
Total	3	122	0	0	4	0	17	0	0	600	8	0	0	0	0	0	0	754	754
07:00 AM	3	79	0	0	3	0	8	0	0	331	0	0	0	0	0	0	0	424	424
07:15 AM	0	110	0	0	3	0	7	0	1	309	0	0	0	0	0	0	0	430	430
07:30 AM	1	122	0	0	4	0	2	0	0	280	1	0	0	0	0	0	0	410	410
07:45 AM	1	134	0	0	1	0	6	0	0	251	0	0	0	0	0	0	0	393	393
Total	5	445	0	0	11	0	23	0	1	1171	1	0	0	0	0	0	0	1657	1657
08:00 AM	0	123	0	0	3	0	4	0	0	235	0	0	0	0	0	0	0	365	365
08:15 AM	4	104	0	0	1	0	3	0	0	240	1	0	0	0	0	0	0	353	353
08:30 AM	3	89	0	0	2	0	3	0	0	208	0	0	0	0	0	0	0	305	305
08:45 AM	1	82	0	0	2	0	4	0	0	191	2	0	0	0	0	0	0	282	282
Total	8	398	0	0	8	0	14	0	0	874	3	0	0	0	0	0	0	1305	1305
*** **																			
04:00 PM	6	299	0	0	0	0	3	0	0	140	4	0	0	0	0	0	0	452	452
04:15 PM	9	312	0	0	2	0	0	1	0	155	1	0	0	0	0	0	1	479	480
04:30 PM	10	335	0	0	2	0	1	0	0	148	2	0	0	0	0	0	0	498	498
04:45 PM	4	361	0	0	3	0	3	0	0	192	0	0	0	0	0	0	0	563	563
Total	29	1307	0	0	7	0	7	1	0	635	7	0	0	0	0	0	1	1992	1993
05:00 PM	4	396	0	0	4	0	2	0	0	183	5	0	0	0	0	0	0	594	594
05:15 PM	4	292	0	0	2	0	5	0	0	141	3	0	0	0	0	0	0	447	447
05:30 PM	6	360	0	0	2	0	3	0	0	134	3	0	0	0	0	0	0	508	508
05:45 PM	8	327	0	0	4	0	1	0	0	133	2	0	0	0	0	0	0	475	475
Total	22	1375	0	0	12	0	11	0	0	591	13	0	0	0	0	0	0	2024	2024
06:00 PM	5	289	0	0	4	0	4	0	0	149	1	0	0	0	0	0	0	452	452
06:15 PM	3	257	0	0	2	0	2	0	0	119	7	0	0	0	0	0	0	390	390
Grand Total	75	4193	0	0	48	0	78	1	1	4139	40	0	0	0	0	0	1	8574	8575
Apprch %	1.8	98.2	0	0	38.1	0	61.9	0	0	99	1	0	0	0	0	0	0	100	100
Total %	0.9	48.9	0	0	0.6	0	0.9	0	0	48.3	0.5	0	0	0	0	0	0	100	100
Passenger Vehicles	72	4078	0	0	47	0	72	0	1	4050	38	0	0	0	0	0	0	0	8358
% Passenger Vehicles	96	97.3	0	0	97.9	0	92.3	0	100	97.8	95	0	0	0	0	0	0	0	97.5
Dual Trucks	3	86	0	0	1	0	6	0	0	62	2	0	0	0	0	0	0	0	160
% Dual Trucks	4	2.1	0	0	2.1	0	7.7	0	0	1.5	5	0	0	0	0	0	0	0	1.9
TTST	0	29	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	56
% TTST	0	0.7	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0.7
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Pedestrians	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0

VHB Engineering NC, P.C.

4000 WestChase Boulevard, Suite 530

Raleigh, NC 27607

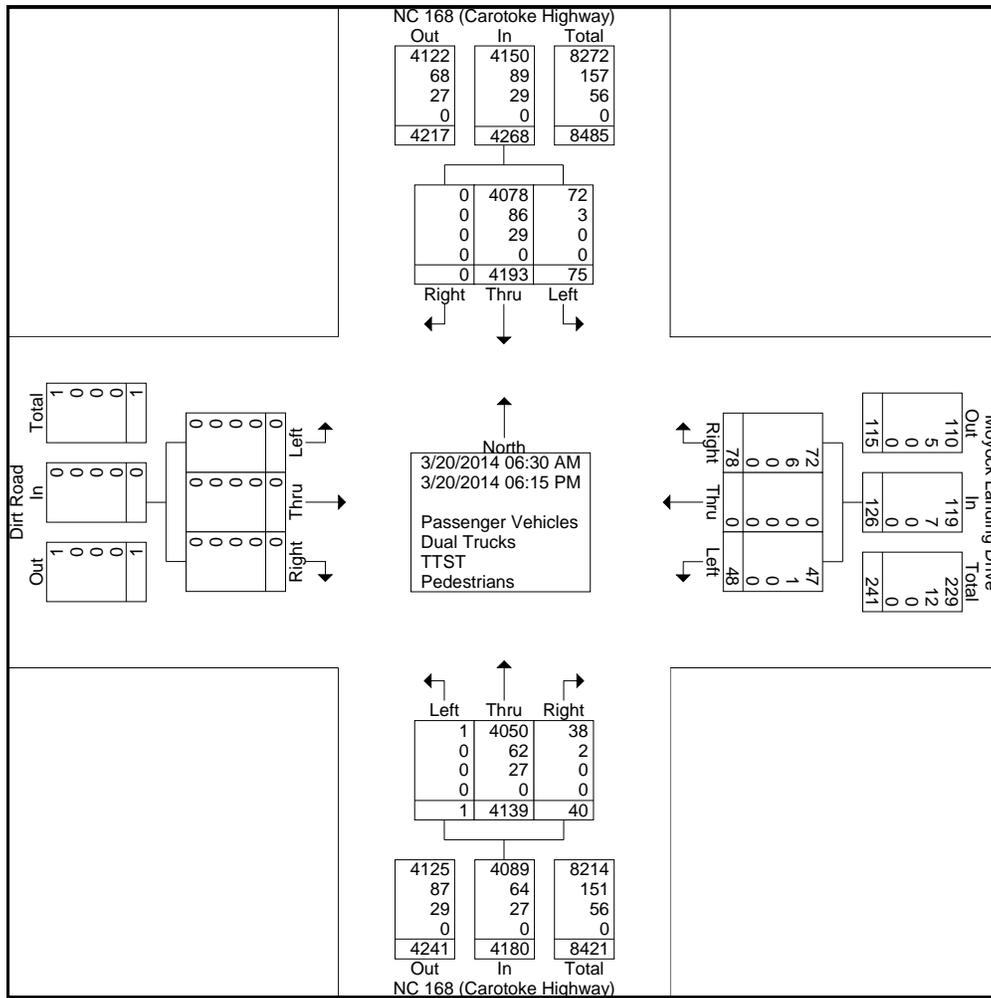
p: 919-829-0328 f: 919-829-0329

File Name : NC 168 and Moyock Landing

Site Code :

Start Date : 3/20/2014

Page No : 2



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4000 WestChase Boulevard, Suite 530

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p: 919-829-0328 f: 919-829-0329

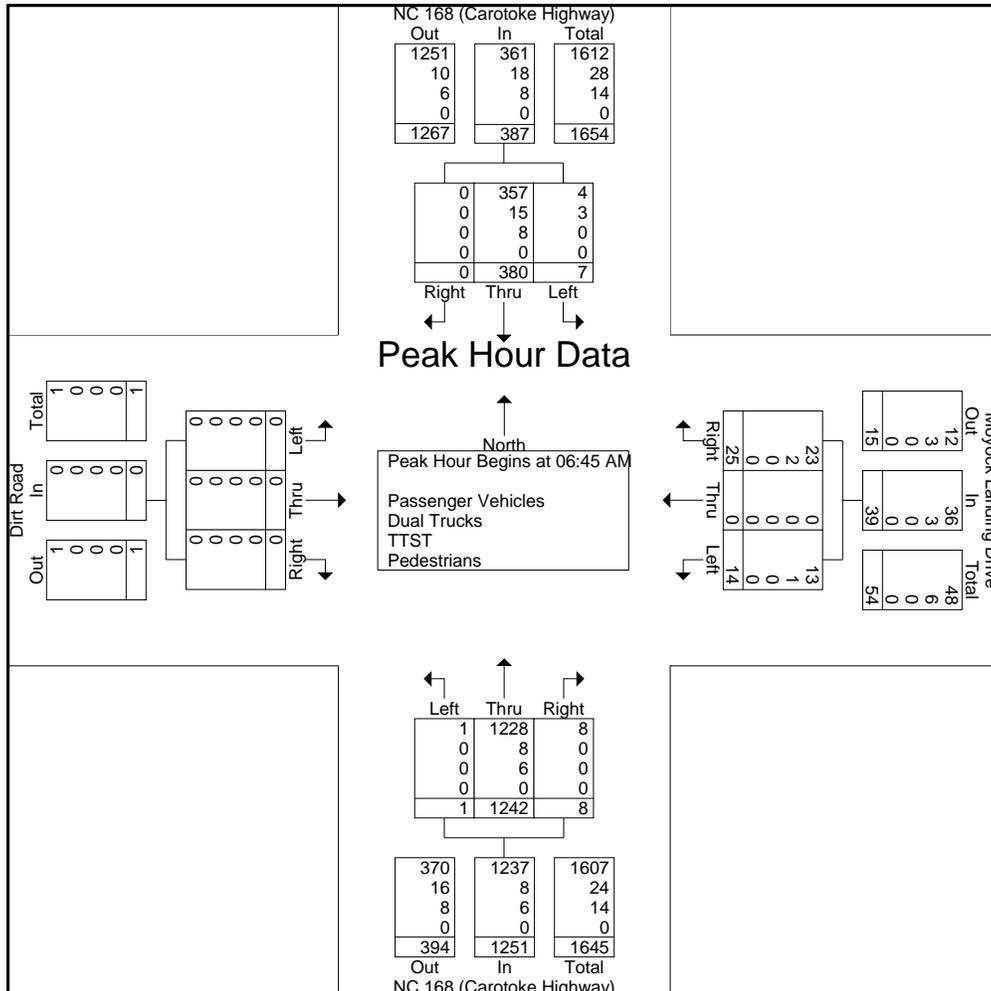
File Name : NC 168 and Moyock Landing

Site Code :

Start Date : 3/20/2014

Page No : 3

Start Time	NC 168 (Carotoke Highway) Southbound				Moyock Landing Drive Westbound				NC 168 (Carotoke Highway) Northbound				Dirt Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:30 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 06:45 AM																	
06:45 AM	3	69	0	72	4	0	8	12	0	322	7	329	0	0	0	0	413
07:00 AM	3	79	0	82	3	0	8	11	0	331	0	331	0	0	0	0	424
07:15 AM	0	110	0	110	3	0	7	10	1	309	0	310	0	0	0	0	430
07:30 AM	1	122	0	123	4	0	2	6	0	280	1	281	0	0	0	0	410
Total Volume	7	380	0	387	14	0	25	39	1	1242	8	1251	0	0	0	0	1677
% App. Total	1.8	98.2	0		35.9	0	64.1		0.1	99.3	0.6		0	0	0		
PHF	.583	.779	.000	.787	.875	.000	.781	.813	.250	.938	.286	.945	.000	.000	.000	.000	.975
Passenger Vehicles	4	357	0	361	13	0	23	36	1	1228	8	1237	0	0	0	0	1634
% Passenger Vehicles	57.1	93.9	0	93.3	92.9	0	92.0	92.3	100	98.9	100	98.9	0	0	0	0	97.4
Dual Trucks	3	15	0	18	1	0	2	3	0	8	0	8	0	0	0	0	29
% Dual Trucks	42.9	3.9	0	4.7	7.1	0	8.0	7.7	0	0.6	0	0.6	0	0	0	0	1.7
TTST	0	8	0	8	0	0	0	0	0	6	0	6	0	0	0	0	14
% TTST	0	2.1	0	2.1	0	0	0	0	0	0.5	0	0.5	0	0	0	0	0.8
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



VHB Engineering NC, P.C.

4000 WestChase Boulevard, Suite 530

Raleigh, NC 27607

p: 919-829-0328 f: 919-829-0329

File Name : NC 168 and Shingle Landing

Site Code : 00000000

Start Date : 3/20/2014

Page No : 1

Groups Printed- All Vehicles

Start Time	NC 168 (Caratoke Highway) Southbound				Shingle Landing Road Westbound				NC 168 (Caratoke Highway) Northbound				Lazy Corner Road Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Left	Thru	Right	Trks			
06:30 AM	1	49	2	2	0	0	10	0	2	276	0	4	2	0	2	0	6	344	350
06:45 AM	1	68	3	6	0	1	8	0	3	324	0	3	0	0	1	0	9	409	418
Total	2	117	5	8	0	1	18	0	5	600	0	7	2	0	3	0	15	753	768
07:00 AM	4	76	1	4	0	0	10	0	5	317	0	7	1	0	0	0	11	414	425
07:15 AM	8	108	3	7	0	0	7	0	5	305	0	1	1	0	6	2	10	443	453
07:30 AM	11	112	1	2	2	0	21	0	1	265	0	2	0	0	1	0	4	414	418
07:45 AM	6	109	5	8	1	0	21	1	5	229	0	2	4	0	4	2	13	384	397
Total	29	405	10	21	3	0	59	1	16	1116	0	12	6	0	11	4	38	1655	1693
08:00 AM	1	131	4	9	1	0	3	0	3	228	0	5	4	0	3	3	17	378	395
08:15 AM	1	103	2	7	1	0	5	0	1	232	1	1	2	0	3	2	10	351	361
08:30 AM	0	92	2	4	3	0	6	1	1	208	2	5	2	0	2	2	12	318	330
08:45 AM	3	76	1	4	0	1	11	0	2	181	2	1	3	0	2	1	6	282	288
Total	5	402	9	24	5	1	25	1	7	849	5	12	11	0	10	8	45	1329	1374
*** **																			
04:00 PM	4	281	3	3	0	0	2	0	0	141	1	6	5	0	0	1	10	437	447
04:15 PM	13	309	3	6	0	0	9	0	0	153	0	1	3	0	1	0	7	491	498
04:30 PM	18	262	0	6	0	0	8	0	0	136	1	0	0	0	0	0	6	425	431
04:45 PM	16	341	2	3	0	0	5	0	0	189	1	6	0	1	0	0	9	555	564
Total	51	1193	8	18	0	0	24	0	0	619	3	13	8	1	1	1	32	1908	1940
05:00 PM	10	377	3	1	0	1	5	0	0	184	2	1	1	0	2	0	2	585	587
05:15 PM	9	310	1	2	3	0	2	0	0	147	2	5	0	0	1	0	7	475	482
05:30 PM	6	302	3	4	0	0	3	0	0	139	1	2	0	1	1	0	6	456	462
05:45 PM	15	270	2	3	0	0	2	0	0	133	1	3	0	1	2	0	6	426	432
Total	40	1259	9	10	3	1	12	0	0	603	6	11	1	2	6	0	21	1942	1963
06:00 PM	10	292	1	1	0	0	8	0	0	146	0	3	0	0	2	0	4	459	463
06:15 PM	5	256	1	2	0	0	2	0	1	129	1	2	0	0	0	0	4	395	399
Grand Total	142	3924	43	84	11	3	148	2	29	4062	15	60	28	3	33	13	159	8441	8600
Apprch %	3.5	95.5	1		6.8	1.9	91.4		0.7	98.9	0.4		43.8	4.7	51.6				
Total %	1.7	46.5	0.5		0.1	0	1.8		0.3	48.1	0.2		0.3	0	0.4		1.8	98.2	

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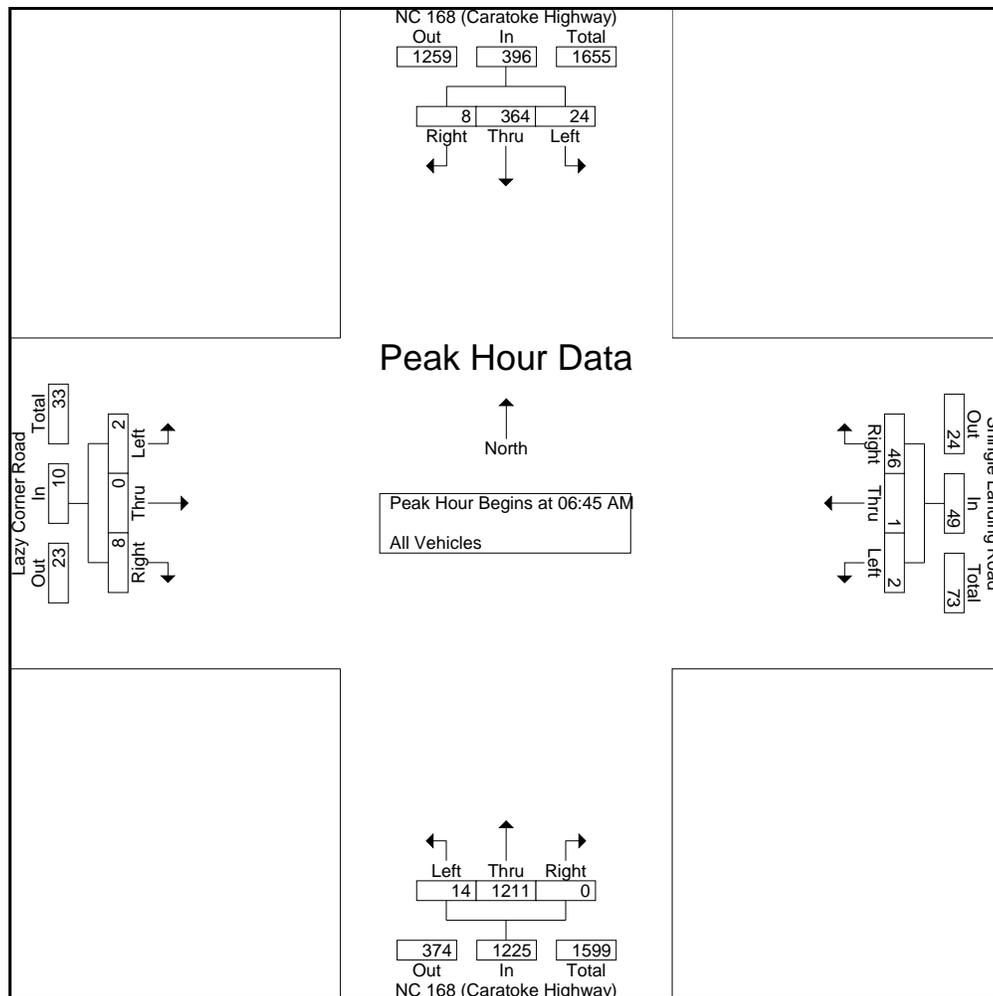
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Raleigh, NC 27607

p: 919-829-0328 f: 919-829-0329

File Name : NC 168 and Shingle Landing
 Site Code : 00000000
 Start Date : 3/20/2014
 Page No : 2

Start Time	NC 168 (Caratoke Highway) Southbound				Shingle Landing Road Westbound				NC 168 (Caratoke Highway) Northbound				Lazy Corner Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:30 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 06:45 AM																	
06:45 AM	1	68	3	72	0	1	8	9	3	324	0	327	0	0	1	1	409
07:00 AM	4	76	1	81	0	0	10	10	5	317	0	322	1	0	0	1	414
07:15 AM	8	108	3	119	0	0	7	7	5	305	0	310	1	0	6	7	443
07:30 AM	11	112	1	124	2	0	21	23	1	265	0	266	0	0	1	1	414
Total Volume	24	364	8	396	2	1	46	49	14	1211	0	1225	2	0	8	10	1680
% App. Total	6.1	91.9	2		4.1	2	93.9		1.1	98.9	0		20	0	80		
PHF	.545	.813	.667	.798	.250	.250	.548	.533	.700	.934	.000	.937	.500	.000	.333	.357	.948



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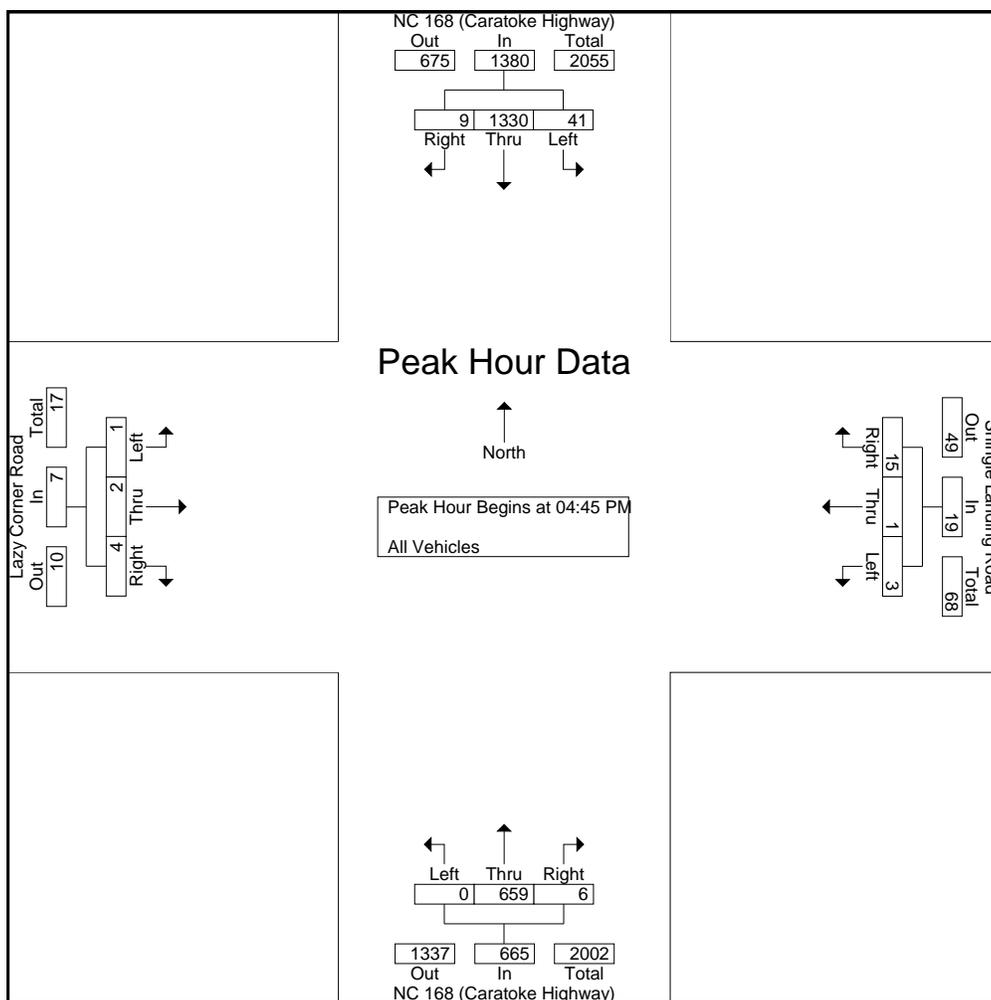
File Name : NC 168 and Shingle Landing

Site Code : 00000000

Start Date : 3/20/2014

Page No : 3

Start Time	NC 168 (Caratoke Highway) Southbound				Shingle Landing Road Westbound				NC 168 (Caratoke Highway) Northbound				Lazy Corner Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	16	341	2	359	0	0	5	5	0	189	1	190	0	1	0	1	555
05:00 PM	10	377	3	390	0	1	5	6	0	184	2	186	1	0	2	3	585
05:15 PM	9	310	1	320	3	0	2	5	0	147	2	149	0	0	1	1	475
05:30 PM	6	302	3	311	0	0	3	3	0	139	1	140	0	1	1	2	456
Total Volume	41	1330	9	1380	3	1	15	19	0	659	6	665	1	2	4	7	2071
% App. Total	3	96.4	0.7		15.8	5.3	78.9		0	99.1	0.9		14.3	28.6	57.1		
PHF	.641	.882	.750	.885	.250	.250	.750	.792	.000	.872	.750	.875	.250	.500	.500	.583	.885



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File Name : NC 168 and South Landing

Site Code :

Start Date : 3/20/2014

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Groups Printed- Passenger Vehicles - Dual Trucks - TTST - Pedestrians

Start Time	NC 168 (Carotoke Highway) Southbound				South Landing Road Westbound				NC 168 (Carotoke Highway) Northbound				South Landing Road Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
06:30 AM	1	56	1	0	0	0	4	0	7	238	1	0	4	1	4	0	0	317	317
06:45 AM	2	55	2	0	0	0	4	0	5	307	0	0	3	0	11	0	0	389	389
Total	3	111	3	0	0	0	8	0	12	545	1	0	7	1	15	0	0	706	706
07:00 AM	0	79	0	0	0	1	2	0	7	284	1	0	7	1	11	0	0	393	393
07:15 AM	6	113	2	0	0	0	1	0	15	276	2	0	5	2	18	0	0	440	440
07:30 AM	13	116	2	0	6	6	11	0	12	252	1	0	11	2	24	0	0	456	456
07:45 AM	4	122	4	0	7	2	11	0	13	215	2	0	4	0	16	0	0	400	400
Total	23	430	8	0	13	9	25	0	47	1027	6	0	27	5	69	0	0	1689	1689
08:00 AM	1	137	2	0	0	0	1	0	5	224	1	0	2	1	13	0	0	387	387
08:15 AM	0	109	0	0	0	0	2	0	12	222	1	0	6	1	6	0	0	359	359
08:30 AM	5	96	1	0	3	2	3	0	10	184	0	0	4	4	15	0	0	327	327
08:45 AM	10	84	3	0	0	0	7	0	9	184	1	0	6	1	9	0	0	314	314
Total	16	426	6	0	3	2	13	0	36	814	3	0	18	7	43	0	0	1387	1387
*** **																			
04:00 PM	1	255	4	0	2	0	2	0	17	145	1	0	5	0	15	0	0	447	447
04:15 PM	0	293	4	0	2	0	1	0	11	134	0	0	2	1	17	0	0	465	465
04:30 PM	1	299	6	0	0	1	3	0	22	173	0	0	0	0	21	0	0	526	526
04:45 PM	2	319	3	0	4	0	3	0	12	176	1	0	5	1	20	0	0	546	546
Total	4	1166	17	0	8	1	9	0	62	628	2	0	12	2	73	0	0	1984	1984
05:00 PM	3	354	7	0	2	1	3	0	28	185	3	0	6	1	28	0	0	621	621
05:15 PM	1	293	4	0	3	0	1	0	24	149	2	0	4	2	23	0	0	506	506
05:30 PM	4	316	6	0	0	4	2	0	14	125	4	1	4	3	26	0	1	508	509
05:45 PM	4	303	4	0	4	0	1	0	20	131	2	1	1	0	30	0	1	500	501
Total	12	1266	21	0	9	5	7	0	86	590	11	2	15	6	107	0	2	2135	2137
06:00 PM	4	269	2	0	3	0	2	0	21	141	6	0	3	0	20	0	0	471	471
06:15 PM	0	254	1	0	1	0	2	0	16	123	1	0	4	0	14	0	0	416	416
Grand Total	62	3922	58	0	37	17	66	0	280	3868	30	2	86	21	341	0	2	8788	8790
Apprch %	1.5	97	1.4		30.8	14.2	55		6.7	92.6	0.7		19.2	4.7	76.1				
Total %	0.7	44.6	0.7		0.4	0.2	0.8		3.2	44	0.3		1	0.2	3.9		0	100	
Passenger Vehicles	59	3810	54		37	17	64		276	3783	29		84	18	335		0	0	8566
% Passenger Vehicles	95.2	97.1	93.1	0	100	100	97	0	98.6	97.8	96.7	0	97.7	85.7	98.2	0	0	0	97.5
Dual Trucks	3	87	2		0	0	2		4	59	1		2	3	6		0	0	169
% Dual Trucks	4.8	2.2	3.4	0	0	0	3	0	1.4	1.5	3.3	0	2.3	14.3	1.8	0	0	0	1.9
TTST	0	25	2		0	0	0		0	26	0		0	0	0		0	0	53
% TTST	0	0.6	3.4	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0.6
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	0	2
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0

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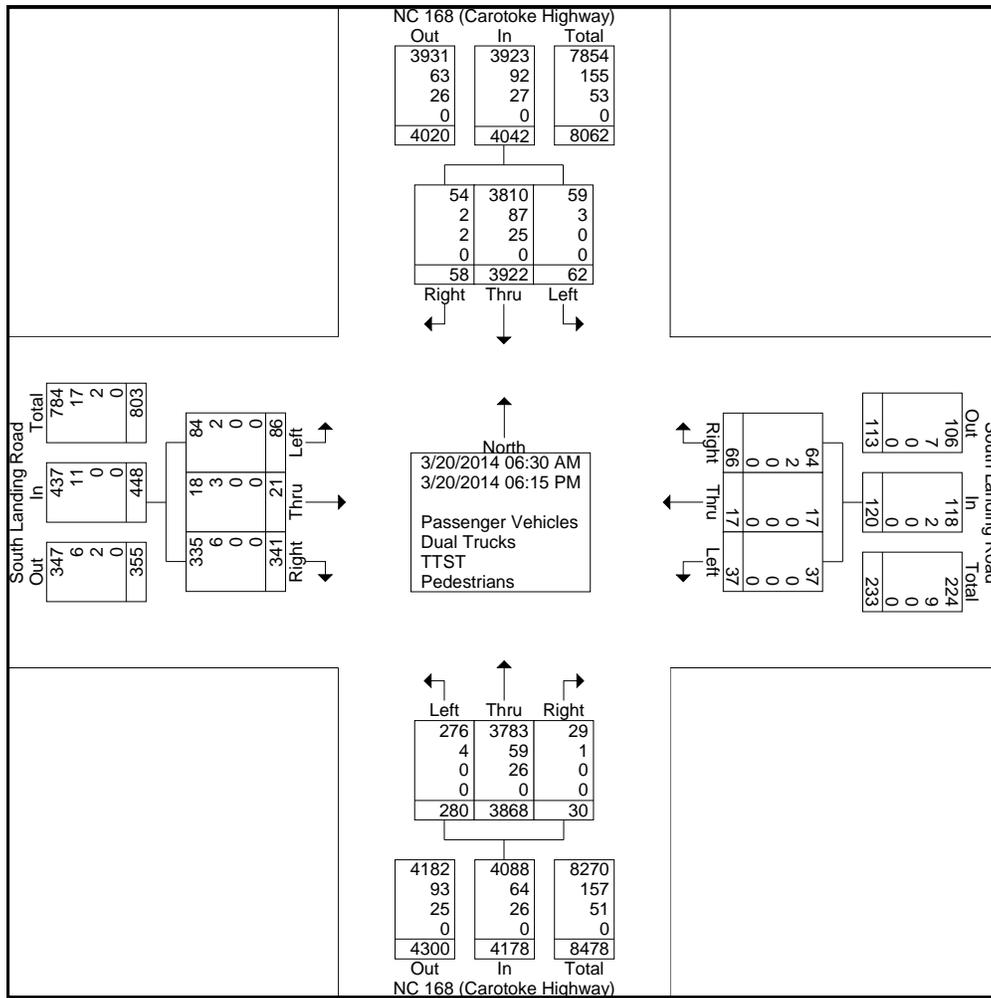
p: 919-829-0328 f: 919-829-0329

File Name : NC 168 and South Landing

Site Code :

Start Date : 3/20/2014

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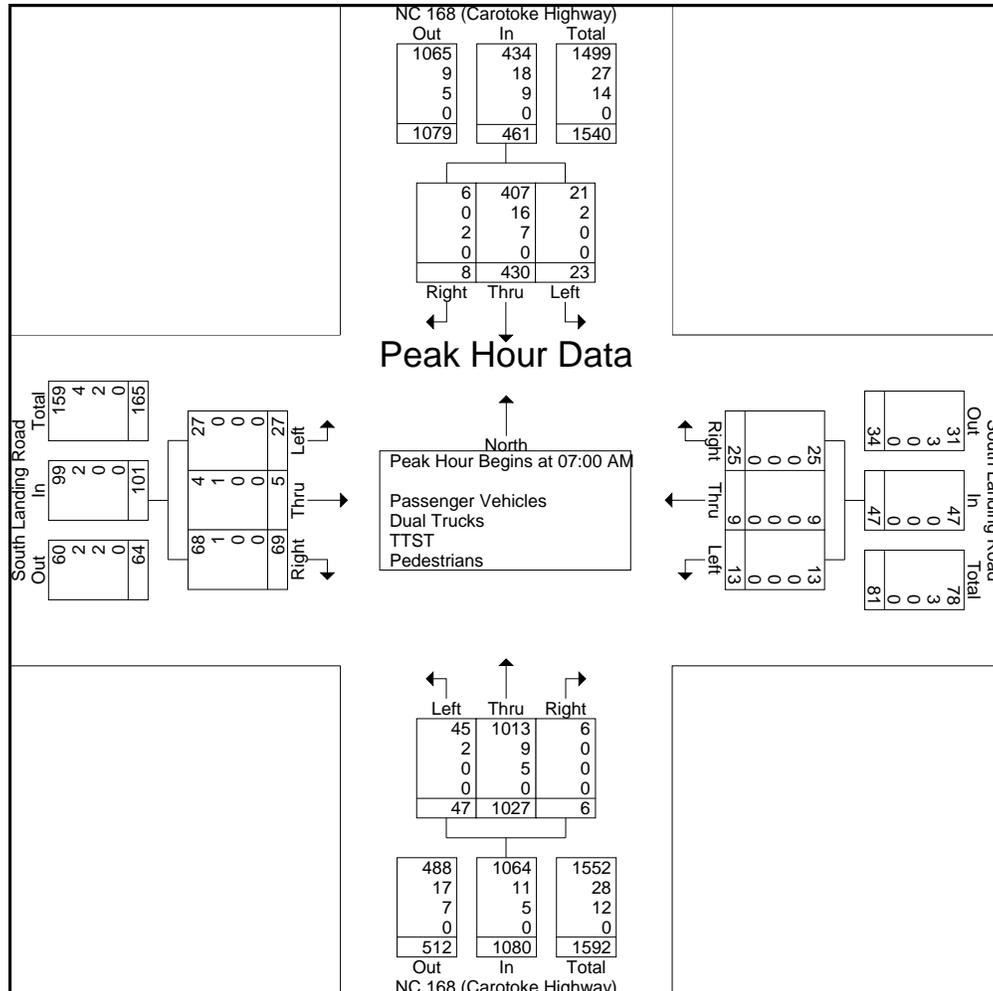
File Name : NC 168 and South Landing

Site Code :

Start Date : 3/20/2014

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Start Time	NC 168 (Carotoke Highway) Southbound				South Landing Road Westbound				NC 168 (Carotoke Highway) Northbound				South Landing Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:30 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	79	0	79	0	1	2	3	7	284	1	292	7	1	11	19	393
07:15 AM	6	113	2	121	0	0	1	1	15	276	2	293	5	2	18	25	440
07:30 AM	13	116	2	131	6	6	11	23	12	252	1	265	11	2	24	37	456
07:45 AM	4	122	4	130	7	2	11	20	13	215	2	230	4	0	16	20	400
Total Volume	23	430	8	461	13	9	25	47	47	1027	6	1080	27	5	69	101	1689
% App. Total	5	93.3	1.7		27.7	19.1	53.2		4.4	95.1	0.6		26.7	5	68.3		
PHF	.442	.881	.500	.880	.464	.375	.568	.511	.783	.904	.750	.922	.614	.625	.719	.682	.926
Passenger Vehicles	21	407	6	434	13	9	25	47	45	1013	6	1064	27	4	68	99	1644
% Passenger Vehicles	91.3	94.7	75.0	94.1	100	100	100	100	95.7	98.6	100	98.5	100	80.0	98.6	98.0	97.3
Dual Trucks	2	16	0	18	0	0	0	0	2	9	0	11	0	1	1	2	31
% Dual Trucks	8.7	3.7	0	3.9	0	0	0	0	4.3	0.9	0	1.0	0	20.0	1.4	2.0	1.8
TTST	0	7	2	9	0	0	0	0	0	5	0	5	0	0	0	0	14
% TTST	0	1.6	25.0	2.0	0	0	0	0	0	0.5	0	0.5	0	0	0	0	0.8
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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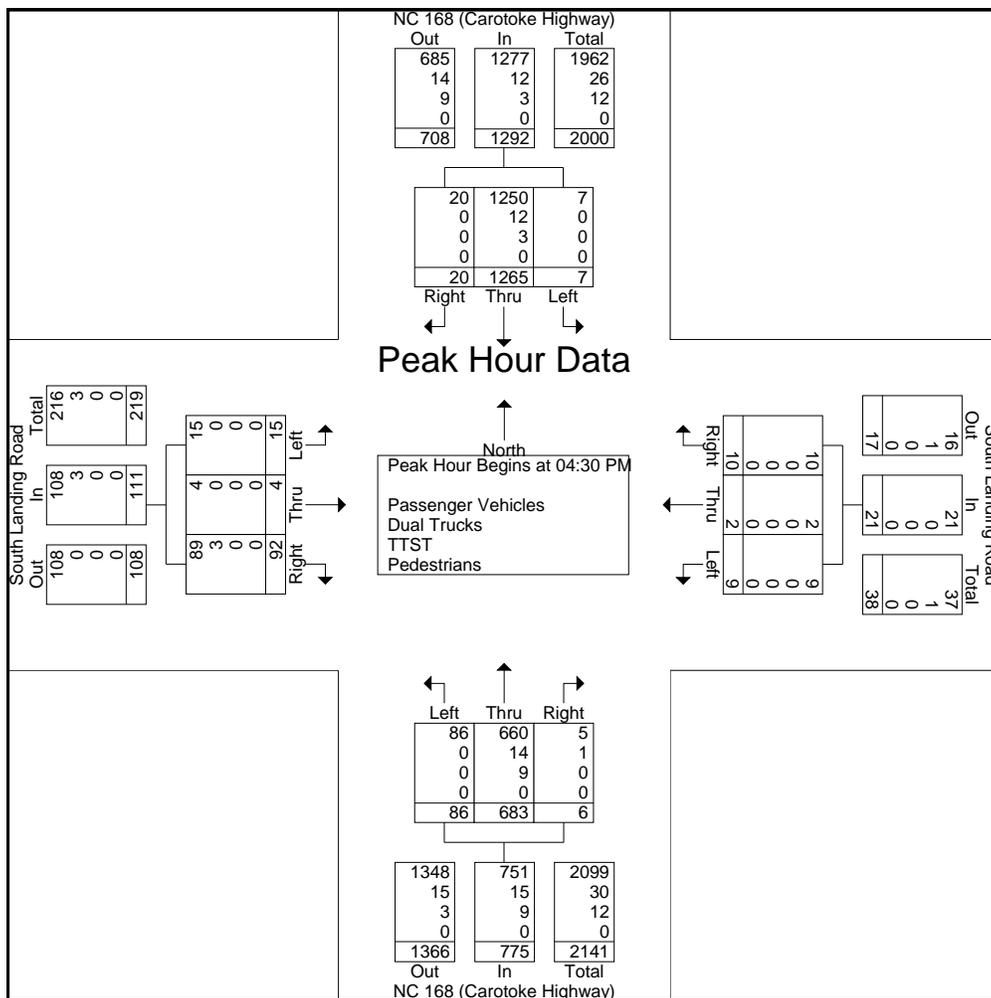
File Name : NC 168 and South Landing

Site Code :

Start Date : 3/20/2014

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Start Time	NC 168 (Carotoke Highway) Southbound				South Landing Road Westbound				NC 168 (Carotoke Highway) Northbound				South Landing Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	299	6	306	0	1	3	4	22	173	0	195	0	0	21	21	526
04:45 PM	2	319	3	324	4	0	3	7	12	176	1	189	5	1	20	26	546
05:00 PM	3	354	7	364	2	1	3	6	28	185	3	216	6	1	28	35	621
05:15 PM	1	293	4	298	3	0	1	4	24	149	2	175	4	2	23	29	506
Total Volume	7	1265	20	1292	9	2	10	21	86	683	6	775	15	4	92	111	2199
% App. Total	0.5	97.9	1.5		42.9	9.5	47.6		11.1	88.1	0.8		13.5	3.6	82.9		
PHF	.583	.893	.714	.887	.563	.500	.833	.750	.768	.923	.500	.897	.625	.500	.821	.793	.885
Passenger Vehicles	7	1250	20	1277	9	2	10	21	86	660	5	751	15	4	89	108	2157
% Passenger Vehicles	100	98.8	100	98.8	100	100	100	100	100	96.6	83.3	96.9	100	100	96.7	97.3	98.1
Dual Trucks	0	12	0	12	0	0	0	0	0	14	1	15	0	0	3	3	30
% Dual Trucks	0	0.9	0	0.9	0	0	0	0	0	2.0	16.7	1.9	0	0	3.3	2.7	1.4
TTST	0	3	0	3	0	0	0	0	0	9	0	9	0	0	0	0	12
% TTST	0	0.2	0	0.2	0	0	0	0	0	1.3	0	1.2	0	0	0	0	0.5
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





APPENDIX B

Traffic Signal Plan and Timings

5 Phase W/ RR Preempt Fully Actuated NC 168 (Moyock) Closed Loop System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated July 2006 and "Standard Specifications for Roads and Structures" dated July 2006.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Remove Existing backup protection.
4. Phase 1 and/or phase 5 may be lagged.
5. Set all detector units to presence mode.
6. Pavement markings are existing.
7. Ensure flashing operation does not alter operation of blankout signs.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
9. Closed loop system data: Master Asset 10109, Controller Asset #0255.

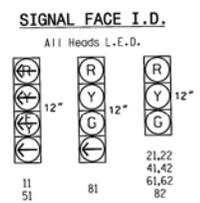
OASIS 2070L LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	INDUCTIVE LOOPS		DETECTOR PROGRAMMING						
			TUBING	NEW LOOP	PHASE	CALLING EXTENSION	PULSE TIME (SECS)	STRETCH TIME	DELAY TIME	EXTEND LOOP	NEW CAP
1A	6X60	0	2-4-2	-	1	Y	Y	-	-	15	-
2A	6X6	300	5	-	2	Y	Y	-	-	-	-
2B	6X6	300	5	-	2	Y	Y	-	-	-	-
4A	6X30	0	2-4-2	-	4	Y	Y	-	-	3	-
4B	6X60	0	2-4-2	-	4	Y	Y	-	-	10	-
4C	6X6	0	4	-	4	Y	Y	-	-	15	-
5A	6X60	0	2-4-2	-	5	Y	Y	-	-	15	-
6A	6X6	300	5	-	6	Y	Y	-	-	-	-
6B	6X6	300	5	-	6	Y	Y	-	-	-	-
8A	6X6	55	4	-	8	Y	Y	-	-	3	-
8B	6X20	0	2-4-2	-	8	Y	Y	-	-	3	-
8C	6X20	0	2-4-2	-	8	Y	Y	-	-	15	-
8D	6X6	0	4	-	8	Y	Y	-	-	15	-
S1A	6X6	+150	5	-	-	-	-	-	-	-	Y
S2A	6X6	+150	5	-	-	-	-	-	-	-	Y

TABLE OF OPERATION

SIGNAL FACE	PHASE											
	01	02	03	04	05	06	07	08	09	10	11	12
11	-	-	-	-	-	-	-	-	-	-	-	-
21,22	R	R	G	G	R	R	G	G	R	G	G	Y
41,42	R	R	R	R	G	R	R	R	R	R	R	Y
51	-	-	-	-	-	-	-	-	-	-	-	-
61,62	R	G	R	G	R	R	G	R	R	G	Y	-
81	R	R	R	R	G	R	R	R	R	R	R	Y
82	R	R	R	R	G	R	R	R	R	R	R	Y
Sign B	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	#

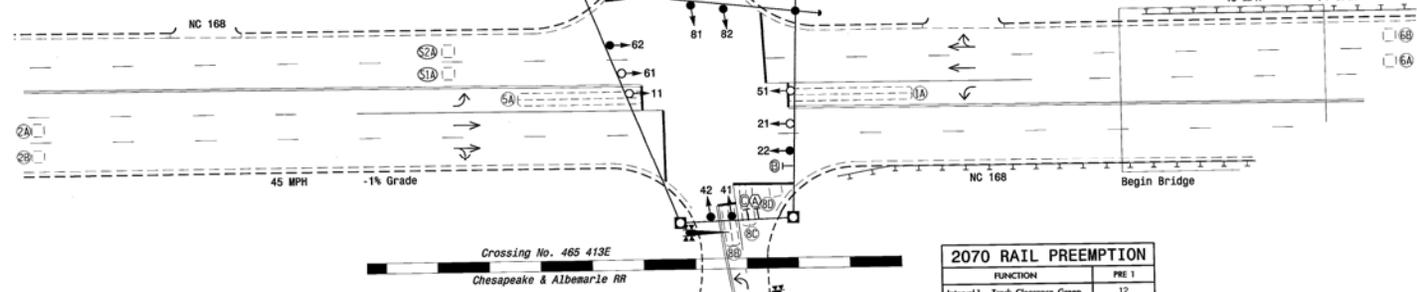
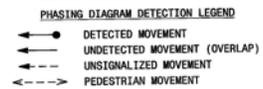
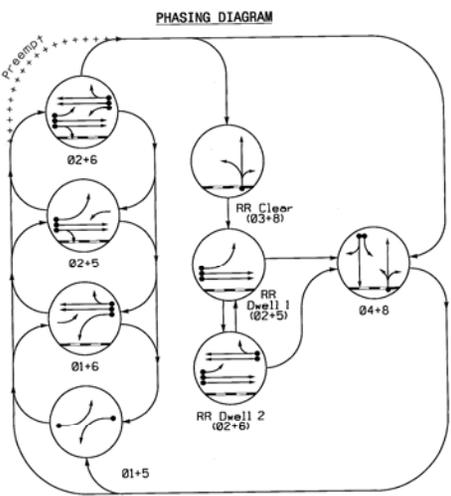
* - See Note 7



STANDARD SIGNAL FACE CLEARANCES FOR FLASHING LEFT TURN SIGNAL

TO	FROM			
	1	2	1	2
1	-	-	-	-
2	-	-	-	-
1	-	-	-	-
2	-	-	-	-

Flashing Yellow Arrow



OASIS 2070L TIMING CHART

FEATURE	PHASE							
	1	2	4	5	6	8	7	8
Min Green 1*	4	12	7	4	12	7	-	-
Extension 1*	1.0	6.0	1.0	1.0	6.0	1.0	-	-
Max Green 1*	20	180	30	15	180	30	-	-
Yellow Clearance	3.0	4.6	3.8	3.0	4.6	3.8	-	-
Red Clearance	1.5	1.0	2.1	1.8	1.0	1.6	-	-
Walk 1*	-	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-	-
Seconds Per Actuation*	-	1.5	-	-	1.5	-	-	-
Max Variable Initial*	-	34	-	-	34	-	-	-
Time Before Reduction*	-	10	-	-	10	-	-	-
Time to Reduce*	-	30	-	-	30	-	-	-
Minimum Gap	-	3.2	-	-	3.2	-	-	-
Recall Mode	-	MIN RECALL	-	-	MIN RECALL	-	-	-
Vehicle Call Memory	-	YELLOW	-	-	YELLOW	-	-	-
Dual Entry	-	-	ON	-	-	ON	-	-
Simultaneous Cap	ON	ON	ON	ON	ON	ON	ON	ON

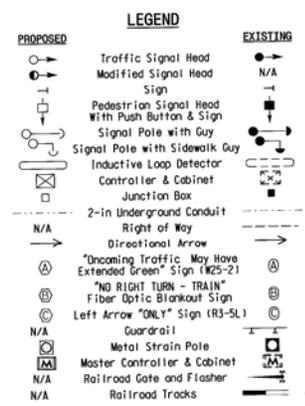
* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 4 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

2070 RAIL PREEMPTION

FUNCTION	PRE 1
Interval 1 - Track Clearance Green	12
Interval 1 - Track Clearance Yellow	3.8
Interval 1 - Track Clearance Red	1.6
Interval 2 - Dwell Green	255
Interval 2 - Dwell Yellow	0.0*
Interval 2 - Dwell Red	0.0*
Interval 5 - Exit Green	1
Interval 5 - Yellow	0.0
Interval 5 - Red	0.0
Priority	High
Delay Time	0
Min Green Before Pre	1
Red Clear Before Pre	0
Yellow Clear Before Pre	0.0*
Red Clear Before Pre	0.0*
Dwell Min Time	7
Red Clear Through Yellow	N
Onit Overlaps	A

* Time defaults to time used for phase during normal operation.

This signal was designed for Simultaneous Preemption.



Signal Upgrade

Prepared In the Office of:

750 R. Overholser, Raleigh, NC 27602

NC 168 At SR 1228 (Shingle Landing Road) Division 01 Currituck County Moyock

PLM DATE: August 2010 REVIEWED BY: [Signature]

PREPARED BY: G.D. SPURDAS REVIEWED BY: [Signature]

REVISIONS: [Table with columns for REVISIONS, DATE, and BY]

SCALE: 0 30 1"=30'

9/5/10

SIC INVENTORY NO. 01-0255



APPENDIX C

Intersection Capacity Analysis

HCM Unsignalized Intersection Capacity Analysis
1: Moyock Landing Drive & NC 168

Moyock Crossing
Existing (2014) AM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	14	25	1241	8	7	380	
Volume (veh/h)	14	25	1241	8	7	380	
Sign Control	Stop	Free	Free	Free	Free	Free	
Grade	0%	0%	0%	0%	0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	16	28	1379	9	8	422	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		TWLT		TWLT			
Median storage (veh)		2		2			
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	1606	689			1388		
vC1, stage 1 conf vol	1379						
vC2, stage 2 conf vol	227						
vCu, unblocked vol	1606	689			1388		
IC, single (s)	7.0	7.1			4.2		
IC, 2 stage (s)	6.0						
IF (s)	3.6	3.4			2.3		
p0 queue free %	91	93			98		
cM capacity (veh/h)	182	374			464		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	43	689	689	9	8	211	211
Volume Left	16	0	0	0	8	0	0
Volume Right	28	0	0	9	0	0	0
cSH	271	1700	1700	1700	464	1700	1700
Volume to Capacity	0.16	0.41	0.41	0.01	0.02	0.12	0.12
Queue Length 95th (ft)	14	0	0	0	1	0	0
Control Delay (s)	20.8	0.0	0.0	0.0	12.9	0.0	0.0
Lane LOS	C				B		
Approach Delay (s)	20.8	0.0			0.2		
Approach LOS	C						
Intersection Summary							
Average Delay			0.5				
Intersection Capacity Utilization			44.3%				A
Analysis Period (min)			15				

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
2: Lazy Corner Road & NC 168

Moyock Crossing
Existing (2014) AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	0	2	8	2	1	46	14	1211	0	24	364	8
Volume (veh/h)	0	2	8	2	1	46	14	1211	0	24	364	8
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free
Grade	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	2	0	9	2	1	51	16	1346	0	27	404	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							TWLT		TWLT			
Median storage (veh)							2		2			
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1218	1839	207	1641	1843	673	413			1346		
vC1, stage 1 conf vol	462	462		1377	1377							
vC2, stage 2 conf vol	756	1377		264	467							
vCu, unblocked vol	1218	1839	207	1641	1843	673	413			1346		
IC, single (s)	7.9	6.9	7.3	7.5	6.5	6.9	4.1			4.2		
IC, 2 stage (s)	6.9	5.9		6.5	5.5							
IF (s)	3.7	4.2	3.5	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	98	99	87	99			95		
cM capacity (veh/h)	232	144	747	145	194	398	1142			492		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	11	54	16	897	449	27	270	144				
Volume Left	2	2	16	0	0	27	0	0				
Volume Right	9	51	0	0	0	0	0	0				
cSH	517	364	1142	1700	1700	492	1700	1700				
Volume to Capacity	0.02	0.15	0.01	0.53	0.26	0.05	0.16	0.08				
Queue Length 95th (ft)	2	13	1	0	0	4	0	0				
Control Delay (s)	12.1	16.6	8.2	0.0	0.0	12.7	0.0	0.0				
Lane LOS	B	C	A			B						
Approach Delay (s)	12.1	16.6	0.1			0.8						
Approach LOS	B	C										
Intersection Summary												
Average Delay					0.8							
Intersection Capacity Utilization					43.5%							A
Analysis Period (min)					15							

VHB Synchro 7 - Report
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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
Existing (2014) AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	5	69	13	9	25	45	1013	6	23	430	8
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	40	0	25	0	300	0	300	0	300	0	0	0
Storage Length (ft)	1	0	1	0	1	0	1	0	1	0	1	0
Storage Lanes	100	100	100	100	100	100	100	100	100	100	100	100
Taper Length (ft)	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Lane Util. Factor		0.861			0.889		0.999		0.997			
Fit	0.950		0.950		0.950		0.950		0.950		0.997	
Fit Protected	1770	1604	0	1770	1656	0	1770	3536	0	1703	3395	0
Satd. Flow (prot)	0.732		0.703		0.472		0.209		0.209			
Fit Permitted	1364	1604	0	1310	1656	0	879	3536	0	375	3395	0
Satd. Flow (perm)			No		No		No		No		No	
Right Turn on Red												
Satd. Flow (RTOR)												
Link Speed (mph)	35		35		50		50		50		50	
Link Distance (ft)	846		542		1294		2954		40.3		2954	
Travel Time (s)	16.5		10.6		17.6		17.6		17.6		17.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	6%	6%
Adj. Flow (vph)	30	6	77	14	10	28	50	1126	7	26	478	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	83	0	14	38	0	50	1133	0	26	487	0
Turn Type	Perm			Perm			D,P+P			D,P+P		
Protected Phases		4			8		5		2		1	6
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	12.0		4.0	12.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		14.0	20.0		14.0	20.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	14.0	54.0	0.0	14.0	54.0	0.0
Total Split (%)	24.4%	24.4%	0.0%	24.4%	24.4%	0.0%	15.6%	60.0%	0.0%	15.6%	60.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		7.0	47.0		7.0	47.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	12.2	12.2		12.2	12.2		67.6	66.3		68.6	63.5	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.75	0.74		0.76	0.71	
v/c Ratio	0.16	0.38		0.08	0.17		0.07	0.43		0.06	0.20	
Control Delay	35.1	39.9		33.3	34.9		3.7	8.0		3.8	7.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	35.1	39.9		33.3	34.9		3.7	8.0		3.8	7.4	
LOS	D	D		C	C		A	A		A	A	
Approach Delay		38.6			34.5			7.8			7.2	
Approach LOS		D			C			A			A	

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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
Existing (2014) AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT
------------	-----	-----	-----	-----	-----	-----	-----	-----

HCM Unsignalized Intersection Capacity Analysis
1: Moyock Landing Drive & NC 168

Moyock Crossing
Existing (2014) PM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	1	6	6	8	2	14	
Volume (veh/h)	11	6	678	8	27	1404	
Sign Control	Stop	Free	Free	Free	Free	Free	
Grade	0%	0%	0%	0%	0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	12	7	753	9	30	1560	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			TWLT		TWLT		
Median storage (veh)			2		2		
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	1593	377			762		
vC1, stage 1 conf vol	753						
vC2, stage 2 conf vol	840						
vCu, unblocked vol	1593	377			762		
IC, single (s)	6.8	6.9			4.1		
IC, 2 stage (s)	5.8						
IF (s)	3.5	3.3			2.2		
p0 queue free %	96	99			96		
cM capacity (veh/h)	288	621			846		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	19	377	377	9	30	780	780
Volume Left	12	0	0	0	30	0	0
Volume Right	7	0	0	9	0	0	0
cSH	355	1700	1700	1700	846	1700	1700
Volume to Capacity	0.05	0.22	0.22	0.01	0.04	0.46	0.46
Queue Length 95th (ft)	4	0	0	0	3	0	0
Control Delay (s)	15.7	0.0	0.0	0.0	9.4	0.0	0.0
Lane LOS	C				A		
Approach Delay (s)	15.7	0.0			0.2		
Approach LOS	C						
Intersection Summary							
Average Delay			0.2				
Intersection Capacity Utilization			48.8%				A
Analysis Period (min)			15				

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HCM Unsignalized Intersection Capacity Analysis
2: Lazy Corner Road & NC 168

Moyock Crossing
Existing (2014) PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	2	4	3	1	15	0	659	6	41	1330	9
Volume (veh/h)	1	2	4	3	1	17	0	732	7	46	1478	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Free						
Grade	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	2	4	3	1	17	0	732	7	46	1478	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLT			TWLT	
Median storage (veh)								2			2	
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1957	2313	744	1571	2314	369	1488			739		
vC1, stage 1 conf vol	1574	1574		736	736							
vC2, stage 2 conf vol	383	739		836	1579							
vCu, unblocked vol	1957	2313	744	1571	2314	369	1488			739		
IC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
IC, 2 stage (s)	6.5	5.5		6.5	5.5							
IF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	99	99	99	97	100			95		
cM capacity (veh/h)	105	145	357	239	147	628	448			863		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	8	21	0	488	251	46	985	503				
Volume Left	1	3	0	0	0	46	0	0				
Volume Right	4	17	0	0	7	0	0	10				
cSH	203	439	1700	1700	1700	863	1700	1700				
Volume to Capacity	0.04	0.05	0.00	0.29	0.15	0.05	0.58	0.30				
Queue Length 95th (ft)	3	4	0	0	0	4	0	0				
Control Delay (s)	23.4	13.6	0.0	0.0	0.0	9.4	0.0	0.0				
Lane LOS	C	B				A						
Approach Delay (s)	23.4	13.6	0.0			0.3						
Approach LOS	C	B										
Intersection Summary												
Average Delay					0.4							
Intersection Capacity Utilization					47.1%							A
Analysis Period (min)					15							

VHB Synchro 7 - Report
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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
Existing (2014) PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	2	4	2	2	10	8	1	6	1	1	20
Volume (vph)	15	4	92	9	2	10	86	683	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40	0	25	0	0	300	0	300	0	300	0	0
Storage Lanes	1	0	1	0	0	1	0	1	0	1	0	0
Taper Length (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Fit	0.950	0.856		0.950	0.873		0.950	0.999		0.950	0.998	
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1579		1770	1626		1752	3501		1770	3532	
Fit Permitted	0.749			0.689			0.122			0.340		
Satd. Flow (perm)	1382	1579		1283	1626		225	3501		633	3532	
Right Turn on Red			No			No		No				No
Satd. Flow (RTOR)												
Link Speed (mph)	35			35			50			50		
Link Distance (ft)	846			542			1294			2954		
Travel Time (s)	16.5			10.6			17.6			40.3		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Adj. Flow (vph)	17	4	102	10	2	11	96	759	7	8	1406	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	106	0	10	13	0	96	766	0	8	1428	0
Turn Type	Perm	4		Perm			D,P+P			D,P+P		
Protected Phases							5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	12.0		4.0	12.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		14.0	20.0		14.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	14.0	56.0	0.0	14.0	56.0	0.0
Total Split (%)	22.2%	22.2%	0.0%	22.2%	22.2%	0.0%	15.6%	62.2%	0.0%	15.6%	62.2%	0.0%
Maximum Green (s)	13.0	13.0		13.0	13.0		7.0	49.0		7.0	49.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effct Green (s)	12.8	12.8		12.8	12.8		66.0	68.4		69.0	59.9	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.73	0.76		0.77	0.67	
v/c Ratio	0.09	0.47		0.05	0.06		0.31	0.29		0.01	0.61	
Control Delay	33.3	42.1		32.7	32.5		6.4	5.5		3.6	13.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	33.3	42.1		32.7	32.5		6.4	5.5		3.6	13.1	
LOS	C	D		C	C		A	A		A	B	
Approach Delay	40.9			32.6			5.6			13.0		
Approach LOS	D			C			A			B		

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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
Existing (2014) PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT</
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HCM Unsignalized Intersection Capacity Analysis
1: Moyock Landing Drive & NC 168

Moyock Crossing
No-Build (2017) AM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	1B	37	1278	9	11	391	
Volume (veh/h)	18	37	1278	9	11	391	
Sign Control	Stop	Free	Free	Free	Free	Free	
Grade	0%	0%	0%	0%	0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	20	41	1420	10	12	434	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		TWLT		TWLT			
Median storage (veh)		2		2			
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	1662	710			1430		
vC1, stage 1 conf vol	1420						
vC2, stage 2 conf vol	242						
vCu, unblocked vol	1662	710			1430		
IC, single (s)	6.8	6.9			4.1		
IC, 2 stage (s)	5.8						
IF (s)	3.5	3.3			2.2		
p0 queue free %	89	89			97		
cM capacity (veh/h)	182	376			471		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	61	710	710	10	12	217	217
Volume Left	20	0	0	0	12	0	0
Volume Right	41	0	0	10	0	0	0
cSH	279	1700	1700	1700	471	1700	1700
Volume to Capacity	0.22	0.42	0.42	0.01	0.03	0.13	0.13
Queue Length 95th (ft)	20	0	0	0	2	0	0
Control Delay (s)	21.5	0.0	0.0	0.0	12.8	0.0	0.0
Lane LOS	C				B		
Approach Delay (s)	21.5	0.0			0.4		
Approach LOS	C						
Intersection Summary							
Average Delay			0.8				
Intersection Capacity Utilization			45.3%				A
Analysis Period (min)			15				

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
2: Lazy Corner Road & NC 168

Moyock Crossing
No-Build (2017) AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		0	8	2	1	48	14	1248	0	26	378	8
Volume (veh/h)	2	0	8	2	1	48	14	1248	0	26	378	8
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
Grade	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	2	0	9	2	1	53	16	1387	0	29	420	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							TWLT		TWLT			
Median storage (veh)							2		2			
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1261	1900	214	1694	1904	693	429			1387		
vC1, stage 1 conf vol	482	482		1418	1418							
vC2, stage 2 conf vol	778	1418		277	487							
vCu, unblocked vol	1261	1900	214	1694	1904	693	429			1387		
IC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
IC, 2 stage (s)	6.5	5.5		6.5	5.5							
IF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	98	99	86	99			94		
cM capacity (veh/h)	247	161	790	137	185	386	1127			490		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	11	57	16	924	462	29	280	149				
Volume Left	2	2	16	0	0	29	0	0				
Volume Right	9	53	0	0	0	0	0	9				
cSH	549	353	1127	1700	1700	490	1700	1700				
Volume to Capacity	0.02	0.16	0.01	0.54	0.27	0.06	0.16	0.09				
Queue Length 95th (ft)	2	14	1	0	0	5	0	0				
Control Delay (s)	11.7	17.1	8.2	0.0	0.0	12.8	0.0	0.0				
Lane LOS	B	C	A			B						
Approach Delay (s)	11.7	17.1	0.1			0.8						
Approach LOS	B	C										
Intersection Summary												
Average Delay						0.8						
Intersection Capacity Utilization						44.5%						A
Analysis Period (min)						15						

VHB Synchro 7 - Report
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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
No-Build (2017) AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1
Volume (vph)	26	5	71	13	9	26	46	1044	6	24	446	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40	0	25	0	300	0	300	0	300	0	0	0
Storage Lanes	1	0	1	0	1	0	1	0	1	0	1	0
Taper Length (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Fit	0.861			0.888			0.999			0.997		
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1588	0	1770	1654	0	1752	3501	0	1770	3529	0
Fit Permitted	0.732			0.702			0.462			0.199		
Satd. Flow (perm)	1350	1588	0	1308	1654	0	852	3501	0	371	3529	0
Right Turn on Red	No		No		No		No		No			No
Satd. Flow (RTOR)												
Link Speed (mph)	35			35			50			50		
Link Distance (ft)	846			542			1294			2954		
Travel Time (s)	16.5			10.6			17.6			40.3		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Adj. Flow (vph)	31	6	79	14	10	29	51	1160	7	27	496	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	85	0	14	39	0	51	1167	0	27	505	0
Turn Type	Perm			Perm			D,P+P			D,P+P		
Protected Phases		4			8		5	2		1		6
Permitted Phases	4			8			6			2		2
Detector Phase	4	4		8	8		5	2		1		6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	12.0		4.0	12.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		14.0	20.0		14.0	20.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	14.0	54.0	0.0	14.0	54.0	0.0
Total Split (%)	24.4%	24.4%	0.0%	24.4%	24.4%	0.0%	15.6%	60.0%	0.0%	15.6%	60.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		7.0	47.0		7.0	47.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	12.3	12.3		12.3	12.3		67.5	66.2		68.5	63.3	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.75	0.74		0.76	0.70	
v/c Ratio	0.17	0.39		0.08	0.17		0.07	0.45		0.07	0.20	
Control Delay	35.1	40.0		33.2	34.8		3.7	8.3		3.9	7.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	35.1	40.0		33.2	34.8		3.7	8.3		3.9	7.4	
LOS	D	D		C	C		A	A		A	A	
Approach Delay	38.7			34.4			8.1			7.2		
Approach LOS	D			C			A			A		

VHB Synchro 7 - Report
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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
No-Build (2017) AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL
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HCM Unsignalized Intersection Capacity Analysis
1: Moyock Landing Drive & NC 168

Moyock Crossing
No-Build (2017) PM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	13	11	698	11	37	1446	
Volume (veh/h)	13	11	698	11	37	1446	
Sign Control	Stop	Free	Free	Free	Free	Free	
Grade	0%	0%	0%	0%	0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	14	12	776	12	41	1607	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		TWLT		TWLT			
Median storage (veh)		2		2			
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	1661	388			788		
vC1, stage 1 conf vol	776						
vC2, stage 2 conf vol	886						
vCu, unblocked vol	1661	388			788		
IC, single (s)	6.8	6.9			4.1		
IC, 2 stage (s)	5.8						
IF (s)	3.5	3.3			2.2		
p0 queue free %	95	98			95		
cM capacity (veh/h)	271	611			827		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	27	388	388	12	41	803	803
Volume Left	14	0	0	0	41	0	0
Volume Right	12	0	0	12	0	0	0
cSH	364	1700	1700	1700	827	1700	1700
Volume to Capacity	0.07	0.23	0.23	0.01	0.05	0.47	0.47
Queue Length 95th (ft)	6	0	0	0	4	0	0
Control Delay (s)	15.7	0.0	0.0	0.0	9.6	0.0	0.0
Lane LOS	C				A		
Approach Delay (s)	15.7	0.0			0.2		
Approach LOS	C						
Intersection Summary							
Average Delay			0.3				
Intersection Capacity Utilization			50.0%		ICU Level of Service		A
Analysis Period (min)			15				

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
2: Lazy Corner Road & NC 168

Moyock Crossing
No-Build (2017) PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	2	4	3	1	16	0	661	6	43	1371	9
Volume (veh/h)	1	2	4	3	1	16	0	661	6	43	1371	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
Grade	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	2	4	3	1	18	0	757	7	48	1523	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							TWLT		TWLT			
Median storage (veh)							2		2			
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2021	2387	767	1623	2389	382	1533			763		
vC1, stage 1 conf vol	1624	1624		760	760							
vC2, stage 2 conf vol	397	763		863	1629							
vCu, unblocked vol	2021	2387	767	1623	2389	382	1533			763		
IC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
IC, 2 stage (s)	6.5	5.5		6.5	5.5							
IF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	99	99	99	97	100			94		
cM capacity (veh/h)	97	137	345	229	138	616	430			845		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	8	22	0	504	259	48	1016	518				
Volume Left	1	3	0	0	0	48	0	0				
Volume Right	4	18	0	0	7	0	0	10				
cSH	192	432	1700	1700	1700	845	1700	1700				
Volume to Capacity	0.04	0.05	0.00	0.30	0.15	0.06	0.60	0.30				
Queue Length 95th (ft)	3	4	0	0	0	4	0	0				
Control Delay (s)	24.6	13.8	0.0	0.0	0.0	9.5	0.0	0.0				
Lane LOS	C	B				A						
Approach Delay (s)	24.6	13.8	0.0			0.3						
Approach LOS	C	B										
Intersection Summary												
Average Delay					0.4							
Intersection Capacity Utilization					48.2%		ICU Level of Service			A		
Analysis Period (min)					15							

VHB Synchro 7 - Report
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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
No-Build (2017) PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	2	4	3	1	16	0	661	6	43	1371	9
Volume (vph)	15	4	95	9	2	10	89	705	6	7	1304	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40	0	25	0	300	0	300	0	300	0	0	0
Storage Lanes	1	0	1	0	1	0	1	0	1	0	0	0
Taper Length (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Fit	0.950	0.855		0.950	0.873		0.950	0.999		0.950	0.998	
Fit Protected	1752	1577		1770	1626		1752	3501		1770	3532	
Fit Permitted	0.749			0.679	0.113		0.330			0.330		
Satd. Flow (perm)	1382	1577		1265	1626		208	3501		615	3532	
Right Turn on Red			No			No		No				No
Satd. Flow (RTOR)												
Link Speed (mph)	35			35			50			50		
Link Distance (ft)	846			542			1294			2954		
Travel Time (s)	16.5			10.6			17.6			40.3		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Adj. Flow (vph)	17	4	106	10	2	11	99	783	7	8	1449	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	110	0	10	13	0	99	790	0	8	1472	0
Turn Type	Perm			Perm			D,P+P			D,P+P		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	12.0		4.0	12.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		14.0	20.0		14.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	14.0	56.0	0.0	14.0	56.0	0.0
Total Split (%)	22.2%	22.2%	0.0%	22.2%	22.2%	0.0%	15.6%	62.2%	0.0%	15.6%	62.2%	0.0%
Maximum Green (s)	13.0	13.0		13.0	13.0		7.0	49.0		7.0	49.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effct Green (s)	12.8	12.8		12.8	12.8		66.0	68.4		69.0	59.9	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.73	0.76		0.77	0.67	
v/c Ratio	0.09	0.49		0.06	0.06		0.33	0.30		0.01	0.63	
Control Delay	33.3	42.7		32.7	32.6		6.9	5.6		3.6	13.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	33.3	42.7		32.7	32.6		6.9	5.6		3.6	13.4	
LOS	C	D		C	C		A	A		A	B	
Approach Delay	41.4			32.6			5.7			13.4		
Approach LOS	D			C			A			B		

VHB Synchro 7 - Report
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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
No-Build (2017) PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	8	58										

HCM Unsignalized Intersection Capacity Analysis
1: Moyock Landing Drive & NC 168

Moyock Crossing
Build (2017) AM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	1B	59	1297	9	18	398	
Volume (veh/h)	18	59	1297	9	18	398	
Sign Control	Stop	Free	Free	Free	Free	Free	
Grade	0%	0%	0%	0%	0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	20	66	1441	10	20	442	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		TWLT			TWLT		
Median storage (veh)		2			2		
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	1702	721			1451		
vC1, stage 1 conf vol	1441						
vC2, stage 2 conf vol	261						
vCu, unblocked vol	1702	721			1451		
IC, single (s)	6.8	6.9			4.1		
IC, 2 stage (s)	5.8						
IF (s)	3.5	3.3			2.2		
p0 queue free %	89	82			96		
cM capacity (veh/h)	177	370			463		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	86	721	721	10	20	221	221
Volume Left	20	0	0	0	20	0	0
Volume Right	66	0	0	10	0	0	0
cSH	295	1700	1700	1700	463	1700	1700
Volume to Capacity	0.29	0.42	0.42	0.01	0.04	0.13	0.13
Queue Length 95th (ft)	29	0	0	0	3	0	0
Control Delay (s)	22.1	0.0	0.0	0.0	13.1	0.0	0.0
Lane LOS	C				B		
Approach Delay (s)	22.1	0.0			0.6		
Approach LOS	C						
Intersection Summary							
Average Delay			1.1				
Intersection Capacity Utilization			47.2%				A
Analysis Period (min)			15				

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
2: Lazy Corner Road & NC 168

Moyock Crossing
Build (2017) AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		2	0	8	4	2	67	14	1248	0	33	378	8
Volume (veh/h)		2	0	8	4	2	67	14	1248	0	33	378	8
Sign Control		Stop		Stop		Stop		Free			Free		
Grade		0%		0%		0%		0%			0%		
Peak Hour Factor		0.90		0.90		0.90		0.90			0.90		
Hourly flow rate (vph)		2	0	9	4	2	74	16	1387	0	37	420	9
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type								TWLT			TWLT		
Median storage (veh)								2			2		
Upstream signal (ft)													
pX, platoon unblocked													
vC, conflicting volume	1298	1916	214	1710	1920	693	429				1387		
vC1, stage 1 conf vol	498	498		1418	1418								
vC2, stage 2 conf vol	800	1418		292	502								
vCu, unblocked vol	1298	1916	214	1710	1920	693	429				1387		
IC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1		
IC, 2 stage (s)	6.5	5.5		6.5	5.5								
IF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2		
p0 queue free %	99	100	99	97	99	81	99				93		
cM capacity (veh/h)	216	154	790	137	184	386	1127				490		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3					
Volume Total	11	81	16	924	462	37	280	149					
Volume Left	2	4	16	0	0	37	0	0					
Volume Right	9	74	0	0	0	0	0	9					
cSH	516	341	1127	1700	1700	490	1700	1700					
Volume to Capacity	0.02	0.24	0.01	0.54	0.27	0.07	0.16	0.09					
Queue Length 95th (ft)	2	23	1	0	0	6	0	0					
Control Delay (s)	12.1	18.8	8.2	0.0	0.0	12.9	0.0	0.0					
Lane LOS	B	C	A			B							
Approach Delay (s)	12.1	18.8	0.1			1.0							
Approach LOS	B	C											
Intersection Summary													
Average Delay						1.2							
Intersection Capacity Utilization						46.0%						A	
Analysis Period (min)						15							

VHB Synchro 7 - Report
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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
Build (2017) AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1
Volume (vph)	26	5	71	13	9	26	46	1044	9	24	447	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40	0	25	0	300	0	300	0	300	0	0	0
Storage Lanes	1	0	1	0	1	0	1	0	1	0	0	0
Taper Length (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Fit		0.861			0.888		0.999		0.997			
Fit Protected	0.950		0.950		0.950		0.950		0.950		0.997	
Satd. Flow (prot)	1752	1588	0	1770	1654	0	1752	3501	0	1770	3529	0
Fit Permitted	0.732		0.702		0.461		0.198		0.198			
Satd. Flow (perm)	1350	1588	0	1308	1654	0	850	3501	0	369	3529	0
Right Turn on Red			No			No		No				No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35		50		50		50	
Link Distance (ft)		846			542		1294		2954		40.3	
Travel Time (s)		16.5			10.6		17.6		43.3		40.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Adj. Flow (vph)	31	6	79	14	10	29	51	1160	10	27	497	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	85	0	14	39	0	51	1170	0	27	507	0
Turn Type	Perm			Perm			D,P+P		D,P+P			
Protected Phases		4			8		5	2		1		6
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1		6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	12.0		4.0	12.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		14.0	20.0		14.0	20.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	14.0	54.0	0.0	14.0	54.0	0.0
Total Split (%)	24.4%	24.4%	0.0%	24.4%	24.4%	0.0%	15.6%	60.0%	0.0%	15.6%	60.0%	0.0%
Maximum Green (s)	15.0	15.0		15.0	15.0		7.0	47.0		7.0	47.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	12.3	12.3		12.3	12.3		67.5	66.2		68.5	63.3	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.75	0.74		0.76	0.70	
v/c Ratio	0.17	0.39		0.08	0.17		0.07	0.45		0.07	0.20	
Control Delay	35.1	40.0		33.2	34.8		3.7	8.3		3.9	7.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	35.1	40.0		33.2	34.8		3.7	8.3		3.9	7.4	
LOS	D	D		C	C		A	A		A	A	
Approach Delay		38.7			34.4			8.1			7.3	
Approach LOS		D			C			A			A	

VHB Synchro 7 - Report
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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
Build (2017) AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR
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HCM Unsignalized Intersection Capacity Analysis
4: Moyock Landing Drive & Crossing Avenue

Moyock Crossing
Build (2017) AM Peak

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	15	7	4	40	22	2
Volume (veh/h)	Free			Free	Stop	
Sign Control	0%			0%	0%	
Grade	0.90	0.90	0.90	0.90	0.90	0.90
Peak Hour Factor	17	8	4	44	24	2
Hourly flow rate (vph)						
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	None			None		
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			24		74	21
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			24		74	21
IC, single (s)			4.1		6.4	6.2
IC, 2 stage (s)						
IF (s)			2.2		3.5	3.3
p0 queue free %			100		97	100
cM capacity (veh/h)			1590		927	1057
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	24	49	27			
Volume Left	0	4	24			
Volume Right	8	0	2			
cSH	1700	1590	937			
Volume to Capacity	0.01	0.00	0.03			
Queue Length 95th (ft)	0	0	2			
Control Delay (s)	0.0	0.7	9.0			
Lane LOS	A	A	A			
Approach Delay (s)	0.0	0.7	9.0			
Approach LOS	A		A			
Intersection Summary						
Average Delay			2.7			
Intersection Capacity Utilization		15.4%		ICU Level of Service	A	
Analysis Period (min)		15				

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
5: Shingle Landing Road & Crossing Avenue

Moyock Crossing
Build (2017) AM Peak

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	15		15	22
Volume (veh/h)	7	26	51	6	15	22
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	29	57	7	17	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		63			104	60
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		63			104	60
IC, single (s)		4.1			6.4	6.2
IC, 2 stage (s)						
IF (s)		2.2			3.5	3.3
p0 queue free %		99			98	98
cM capacity (veh/h)		1539			889	1005
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	37	63	41			
Volume Left	8	0	17			
Volume Right	0	7	24			
cSH	1539	1700	955			
Volume to Capacity	0.01	0.04	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	1.6	0.0	8.9			
Lane LOS	A	A	A			
Approach Delay (s)	1.6	0.0	8.9			
Approach LOS	A		A			
Intersection Summary						
Average Delay			3.0			
Intersection Capacity Utilization		17.4%		ICU Level of Service	A	
Analysis Period (min)		15				

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
6: Access #1 & Crossing Avenue

Moyock Crossing
Build (2017) AM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	14	10	14	2	3	8
Volume (veh/h)	6	10	14	2	3	8
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	7	11	16	2	3	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)			None		None	
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	32	17			18	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	32	17			18	
IC, single (s)	6.4	6.2			4.1	
IC, 2 stage (s)						
IF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	979	1062			1599	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	18	18	12			
Volume Left	7	0	3			
Volume Right	11	2	0			
cSH	1030	1700	1599			
Volume to Capacity	0.02	0.01	0.00			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	8.6	0.0	2.0			
Lane LOS	A	A	A			
Approach Delay (s)	8.6	0.0	2.0			
Approach LOS	A		A			
Intersection Summary						
Average Delay			3.7			
Intersection Capacity Utilization		13.3%		ICU Level of Service	A	
Analysis Period (min)		15				

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
7: Access #2 & Crossing Avenue

Moyock Crossing
Build (2017) AM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	14	9	14	1	3	11
Volume (veh/h)	3	9	14	1	3	11
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	3	10	8	1	3	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)			None		None	
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	27	8			9	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	27	8			9	
IC, single (s)	6.4	6.2			4.1	
IC, 2 stage (s)						
IF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	986	1074			1611	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	13	9	16			
Volume Left	3	0	3			
Volume Right	10	1	0			
cSH	1050	1700	1611			
Volume to Capacity	0.01	0.01	0.00			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	8.5	0.0	1.6			
Lane LOS	A	A	A			
Approach Delay (s)	8.5	0.0	1.6			
Approach LOS	A		A			
Intersection Summary						
Average Delay			3.6			
Intersection Capacity Utilization		13.3%		ICU Level of Service	A	
Analysis Period (min)		15				

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
8: Access #3 & Crossing Avenue

Moyock Crossing
Build (2017) AM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↕	↕	↔	↔
Volume (veh/h)	25	2	5	8	1	12
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	28	2	6	9	1	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	26	10			14	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	26	10			14	
IC, single (s)	6.4	6.2			4.1	
IC, 2 stage (s)						
IF (s)	3.5	3.3			2.2	
p0 queue free %	97	100			100	
cM capacity (veh/h)	989	1071			1604	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	30	14	14			
Volume Left	28	0	1			
Volume Right	2	9	0			
cSH	995	1700	1604			
Volume to Capacity	0.03	0.01	0.00			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	8.7	0.0	0.6			
Lane LOS	A		A			
Approach Delay (s)	8.7	0.0	0.6			
Approach LOS	A					
Intersection Summary						
Average Delay			4.6			
Intersection Capacity Utilization		13.3%		ICU Level of Service		A
Analysis Period (min)		15				

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
1: Moyock Landing Drive & NC 168

Moyock Crossing
Build (2017) PM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	↔	↔	↕	↕	↔	↔	
Volume (veh/h)	13	25	711	11	61	1467	
Sign Control	Stop		Free		Free		
Grade	0%		0%		0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	14	28	790	12	68	1630	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			TWTLT		TWTLT		
Median storage (veh)			2		2		
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	1741	395			802		
vC1, stage 1 conf vol	790						
vC2, stage 2 conf vol	951						
vCu, unblocked vol	1741	395			802		
IC, single (s)	6.8	6.9			4.1		
IC, 2 stage (s)	5.8						
IF (s)	3.5	3.3			2.2		
p0 queue free %	94	95			92		
cM capacity (veh/h)	249	604			817		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	42	395	395	12	68	815	815
Volume Left	14	0	0	0	68	0	0
Volume Right	28	0	0	12	0	0	0
cSH	406	1700	1700	1700	817	1700	1700
Volume to Capacity	0.10	0.23	0.23	0.01	0.08	0.48	0.48
Queue Length 95th (ft)	9	0	0	0	7	0	0
Control Delay (s)	14.9	0.0	0.0	0.0	9.8	0.0	0.0
Lane LOS	B				A		
Approach Delay (s)	14.9	0.0			0.4		
Approach LOS	B						
Intersection Summary							
Average Delay			0.5				
Intersection Capacity Utilization		50.6%		ICU Level of Service			A
Analysis Period (min)		15					

VHB Synchro 7 - Report
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HCM Unsignalized Intersection Capacity Analysis
2: Lazy Corner Road & NC 168

Moyock Crossing
Build (2017) PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↕	↕	↕	↔	↔	↔
Volume (veh/h)	1	3	4	4	2	29	0	681	8	64	1371	9
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	3	4	4	2	32	0	757	9	71	1523	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWTLT		TWTLT		
Median storage (veh)								2		2		
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	2082	2436	767	1671	2437	383	1533			766		
vC1, stage 1 conf vol	1671	1671		761	761							
vC2, stage 2 conf vol	412	766		910	1676							
vCu, unblocked vol	2082	2436	767	1671	2437	383	1533			766		
IC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
IC, 2 stage (s)	6.5	5.5		6.5	5.5							
IF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	97	99	98	98	95	100			92		
cM capacity (veh/h)	88	126	345	213	128	615	430			844		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	9	39	0	504	261	71	1016	518				
Volume Left	1	4	0	0	0	71	0	0				
Volume Right	4	32	0	0	9	0	0	10				
cSH	171	429	1700	1700	1700	844	1700	1700				
Volume to Capacity	0.05	0.09	0.00	0.30	0.15	0.08	0.60	0.30				
Queue Length 95th (ft)	4	7	0	0	0	7	0	0				
Control Delay (s)	27.2	14.2	0.0	0.0	0.0	9.7	0.0	0.0				
Lane LOS	D	B				A						
Approach Delay (s)	27.2	14.2	0.0			0.4						
Approach LOS	D	B										
Intersection Summary												
Average Delay								0.6				
Intersection Capacity Utilization		54.9%							ICU Level of Service			A
Analysis Period (min)		15										

VHB Synchro 7 - Report
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Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
Build (2017) PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↕	↕	↕	↔	↔	↔
Volume (vph)	16	4	95	9	2	10	89	706	15	7	1305	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40	0	25	0	300	0	300	0	300	0	300	0
Storage Lanes	1	0	1	0	1	0	1	0	1	0	1	0
Taper Length (ft)	100	100	100	100	100	100	100	100	100	100	100	100
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.855			0.873			0.997			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1577	0	1770	1626	0	1752	3494	0	1770	3532	0
Flt Permitted	0.749			0.679			0.113			0.326		
Satd. Flow (perm)	1382	1577	0	1265	1626	0	208	3494	0	607	3532	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			50			50	
Link Distance (ft)		846			542			1294			2954	
Travel Time (s)		16.5			10.6			17.6			40.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Adj. Flow (vph)	18	4	106	10	2	11	99	784	17	8	1450	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	110	0	10	13	0	99	801	0	8	1473	0
Turn Type	Perm			Perm			D,P+P			D,P+P		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			6			2		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		4.0	12.0		4.0	12.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		14.0	20.0		14.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	14.0	56.0	0.0	14.0	56	

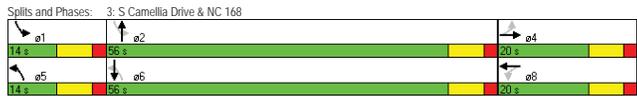
Lanes, Volumes, Timings
3: S Camellia Drive & NC 168

Moyock Crossing
Build (2017) PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	9	58		5	6		13	66		1	290	
Queue Length 95th (ft)	28	108		19	23		27	160		4	388	
Internal Link Dist (ft)		766			462			1214			2874	
Turn Bay Length (ft)	40			25			300			300		
Base Capacity (vph)	230	263		211	271		307	2655		583	2352	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.08	0.42		0.05	0.05		0.32	0.30		0.01	0.63	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 14 (16%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 12.3
 Intersection Capacity Utilization 61.7%
 Analysis Period (min) 15



HCM Unsignalized Intersection Capacity Analysis
4: Moyock Landing Drive & Crossing Avenue

Moyock Crossing
Build (2017) PM Peak

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Volume (veh/h)	36	24	2	18	14	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	40	27	2	20	16	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume				67	78	53
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol				67	78	53
IC, single (s)				4.1	6.4	6.2
IC, 2 stage (s)						
IF (s)				2.2	3.5	3.3
p0 queue free %				100	98	100
cM capacity (veh/h)				1535	924	1014

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	67	22	20
Volume Left	0	2	16
Volume Right	27	0	4
cSH	1700	1535	942
Volume to Capacity	0.04	0.00	0.02
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.0	0.7	8.9
Lane LOS	A	A	A
Approach Delay (s)	0.0	0.7	8.9
Approach LOS	A		A

Intersection Summary

Average Delay: 1.8
 Intersection Capacity Utilization: 13.4%
 Analysis Period (min): 15
 ICU Level of Service: A

HCM Unsignalized Intersection Capacity Analysis
5: Shingle Landing Road & Crossing Avenue

Moyock Crossing
Build (2017) PM Peak

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Volume (veh/h)	24	51	21	16	9	14
Sign Control	Free	Free	Free	Stop	Stop	Free
Grade	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	27	57	23	18	10	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		None	None			
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		41		142	32	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		41		142	32	
IC, single (s)		4.1		6.4	6.2	
IC, 2 stage (s)						
IF (s)		2.2		3.5	3.3	
p0 queue free %		98		99	99	
cM capacity (veh/h)		1568		836	1042	

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	83	41	26
Volume Left	27	0	10
Volume Right	0	18	16
cSH	1568	1700	950
Volume to Capacity	0.02	0.02	0.03
Queue Length 95th (ft)	1	0	2
Control Delay (s)	2.4	0.0	8.9
Lane LOS	A	A	A
Approach Delay (s)	2.4	0.0	8.9
Approach LOS	A		A

Intersection Summary

Average Delay: 2.9
 Intersection Capacity Utilization: 20.7%
 Analysis Period (min): 15
 ICU Level of Service: A

HCM Unsignalized Intersection Capacity Analysis
6: Access #1 & Crossing Avenue

Moyock Crossing
Build (2017) PM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↔	↔	↔	↔
Volume (veh/h)	4	6	12	6	11	15
Sign Control	Stop	Free	Free	Free	Free	Free
Grade	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	4	7	13	7	12	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		58	17		20	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		58	17		20	
IC, single (s)		6.4	6.2		4.1	
IC, 2 stage (s)						
IF (s)		3.5	3.3		2.2	
p0 queue free %		100	99		99	
cM capacity (veh/h)		942	1062		1596	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	11	20	29
Volume Left	4	0	12
Volume Right	7	7	0
cSH	1011	1700	1596
Volume to Capacity	0.01	0.01	0.01
Queue Length 95th (ft)	1	0	1
Control Delay (s)	8.6	0.0	3.1
Lane LOS	A	A	A
Approach Delay (s)	8.6	0.0	3.1
Approach LOS	A		A

Intersection Summary

Average Delay: 3.1
 Intersection Capacity Utilization: 18.1%
 Analysis Period (min): 15
 ICU Level of Service: A

HCM Unsignalized Intersection Capacity Analysis
7: Access #2 & Crossing Avenue

Moyock Crossing
Build (2017) PM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	6	12	3	10	9
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	2	7	13	3	11	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	47	15			17	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	47	15			17	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			99	
cM capacity (veh/h)	956	1065			1601	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	9	17	21			
Volume Left	2	0	11			
Volume Right	7	3	0			
cSH	1035	1700	1601			
Volume to Capacity	0.01	0.01	0.01			
Queue Length 95th (ft)	1	0	1			
Control Delay (s)	8.5	0.0	3.8			
Lane LOS	A		A			
Approach Delay (s)	8.5	0.0	3.8			
Approach LOS	A					
Intersection Summary						
Average Delay			3.4			
Intersection Capacity Utilization			17.7%	ICU Level of Service	A	
Analysis Period (min)			15			

VHB

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HCM Unsignalized Intersection Capacity Analysis
8: Access #3 & Crossing Avenue

Moyock Crossing
Build (2017) PM Peak

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	16	2	13	27	3	7
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	18	2	14	30	3	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	44	29			44	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	44	29			44	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	965	1045			1564	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	20	44	11			
Volume Left	18	0	3			
Volume Right	2	30	0			
cSH	973	1700	1564			
Volume to Capacity	0.02	0.03	0.00			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	8.8	0.0	2.2			
Lane LOS	A		A			
Approach Delay (s)	8.8	0.0	2.2			
Approach LOS	A					
Intersection Summary						
Average Delay			2.6			
Intersection Capacity Utilization			13.3%	ICU Level of Service	A	
Analysis Period (min)			15			

VHB

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Currituck County Agenda Item Summary Sheet

Agenda Item Title

Moyock Small Area Plan

Brief Description of Agenda Item

The Moyock Small Area Plan (SAP) examines unique issues, concerns, and hopes of the community and works to establish public policy that accomplish the vision cast in this plan. The SAP includes policies that will address growth management, sense of place and quality of life, and economic development. Upon adoption, the plan is used to assist staff and the Board of Commissioners in guiding growth as well as planning for future county improvements to infrastructure and services.

The Board of Commissioners requested that staff initiate a planning process to engage the community and address growth and development in a comprehensive manner. An in depth public process was undertaken to develop the vision, policies, and actions in this plan. Residents and property owners of Moyock and the Stakeholder Committee attended meetings over the course of 18 months to define what matters to them- why they live in Moyock, what they like about Moyock, what is important to preserve as Moyock continues to grow, and what their vision for Moyock is in next 10 years. In addition to public input from the community, extensive input with all county departments was undertaken. This plan is the culmination of this process and reflects the vision for the future of Moyock that will serve as a guide to help balance future growth.

Planning Board Recommendation:

The Planning Board recommended unanimous approval at their March 11, 2014 meeting.

Board Action Requested

Action

Person Submitting Agenda Item

Holly B. White

Presenter of Agenda Item

Holly White

VIRGINIA
NORTH CAROLINA

CURRITUCK CO.
CAMDEN CO.

Moyock

Shingle Landing C.

Northwest R.

Tulls Bay

North Landing R.

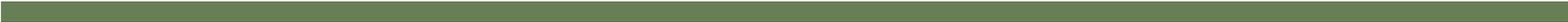


Moyock

SMALL AREA PLAN



Department of Planning and
Community Development
Currituck County, North Carolina



Acknowledgments

Stakeholder Committee

Sarah Alford
Carol Bell, Planning Board Liason
Doris Flora
Mike Hall, Vice Chairman
Bruce Harding
Brian Innes
Eldon Miller III
Charles Morris
Vic Ramsey
Marsha Stonecypher
Janet Taylor
Rose Thompson
Dorothee White
Fred Whiteman, Chairman
Valarie Williams

Currituck County Staff

Technical Advisory Group

Peter Bishop, Director of Economic Development
Mike Doxey, Soil & Water Conservation Technician
Robert Glover, Chief, Currituck County Fire-EMS
Michelle Perry, Engineering Technician
Eric Weatherly, County Engineer
Jason Weeks, Director of Parks & Recreation

County Project Staff

Tammy Glave, Planner II
Harry Lee, GIS Coordinator
Brad Schuler, Planner I
Holly White, Senior Planner
Ben Woody, Director of Planning

Community Partners

Josh Bass, President, Chamber of Commerce
Chip Melton, Fire Chief, Moyock VFD

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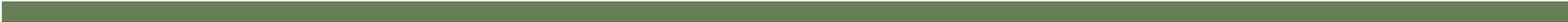
- Growth Management
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Introduction

10 Fastest Growing N.C. Counties 2000-2010 (By percentage)

1. Union	62.8%
2. Brunswick	46.8%
3. Camden	45.0%
4. Wake	43.5%
5. Hoke	39.5%
6. Johnston	38.5%
7. Cabarrus	35.8%
8. Mecklenburg	32.2%
9. Iredell	30.0%
10. Currituck	29.4%

Source: U.S. Census Bureau

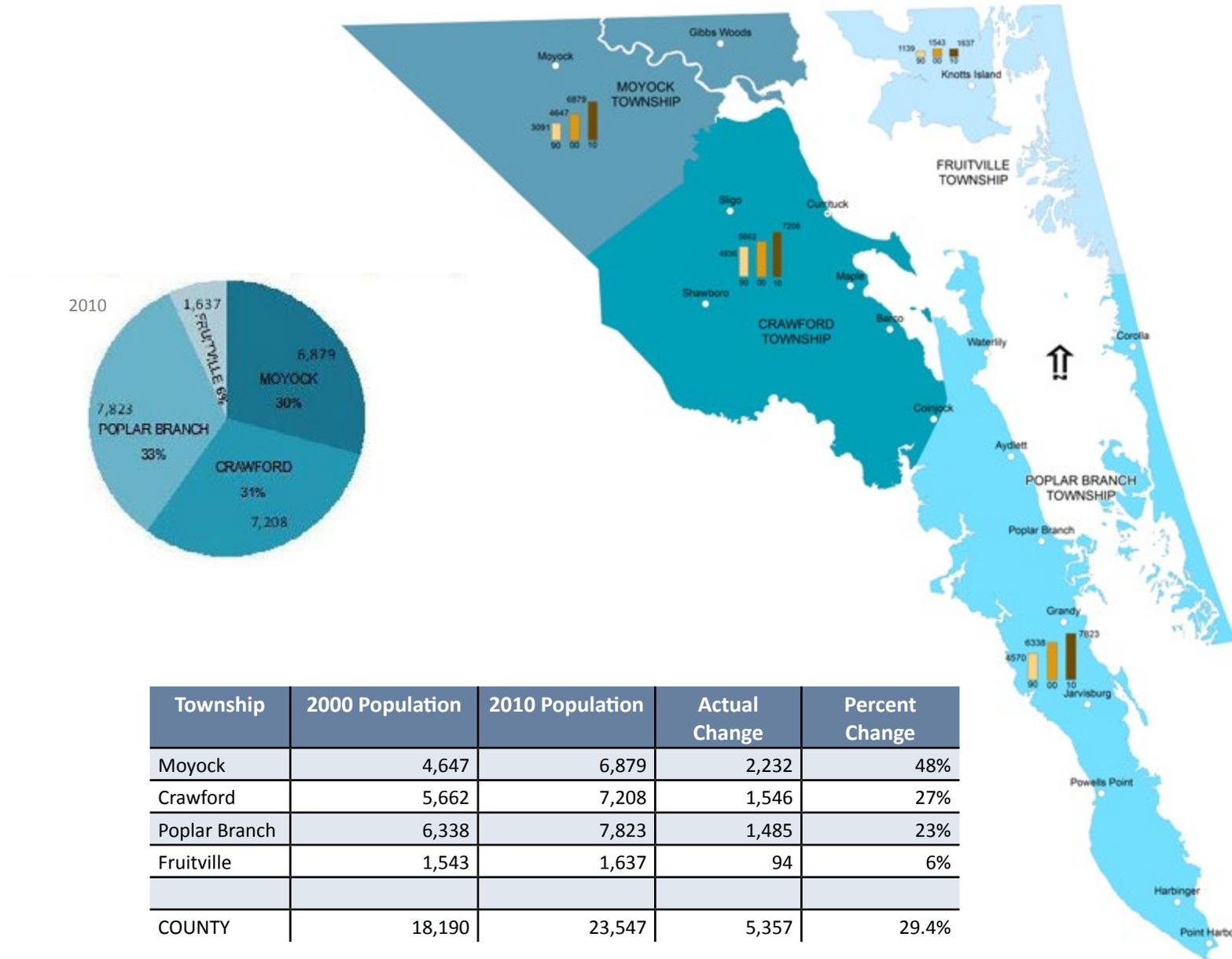
Moyock is the most northern community in Currituck County and is located at the North Carolina and Virginia State line. It serves as the “Gateway” to the county, state, and beaches along the coast. Moyock is rural by nature experiencing steady growth for the last fifty years. In the last decade, Moyock has become the fastest growing township in Currituck County growing by approximately 122% since 1990.

Moyock has experienced growth pressures from the Hampton Roads metropolitan area. Moyock is a destination for people seeking a more rural living experience. It is also an attractive place to live due to low property taxes, proximity to a major metropolitan area, and North Carolina’s tax relief for veterans. As a result, Moyock is experiencing the side effects of growth such as increased traffic and flooding. While still mostly rural, Moyock is beginning to take on the characteristics of a small town. The challenge for residents in Moyock is to honor the past while embracing the future.

The Board of Commissioners recognizes the uniqueness of Moyock and as a result requested that growth and development be addressed in a comprehensive manner. An in depth public process was undertaken to develop the vision, policies, and actions in this plan. Residents and property owners of Moyock and the Stakeholder Committee attended meetings over the course of 18 months to define what matters to them- why they live in Moyock, what they like about Moyock, what is important to preserve as Moyock continues to grow, and what their vision for Moyock is in next 10 years. In addition to public input from the community, extensive input with all county departments was undertaken. This plan is the culmination of this process and reflects the vision for the future of Moyock that will serve as a guide to help balance future growth.

This Small Area Plan (SAP) examines unique issues, concerns, and hopes of the community and works to establish public policy that work to accomplish the vision cast in this plan. The SAP includes policies that will address growth management, sense of place and quality of life, and economic development. Upon adoption, the plan is used to assist staff and the Board of Commissioners in guiding growth as well as planning for future county improvements to infrastructure and services.

Population Comparison By Township



Source: U.S. Census Bureau

Plan & Process

Stakeholder Committee

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Vision, Policies and Actions

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Appointed Boards and Committees

Updating the Plan

Stakeholder Committee

The Board of Commissioners appointed a 15 member Stakeholder Committee in January 2013 to serve as a guide and sounding board for county staff during the planning process. These citizen representatives embody the ideas, backgrounds, and interests of the greater majority of the community. The Stakeholder Committee championed the process and plan by talking to neighbors and asking for their opinions. Since the first meeting in January 2013, there have been 14 committee meetings. Through monthly meetings, the committee provided staff with feedback on issues important to the community. The committee was instrumental in the creation of this plan and their input is largely the basis for the vision, policies, and actions of this plan.



Plan Development and Community Input

The Moyock SAP process was initiated in the Fall of 2012 after the BOC directed staff to comprehensively examine growth and development issues. Staff began existing conditions research in the Fall of 2012 and the plan was developed under the following schedule:

Date	Event
Summer 2012	BOC Initiation
September 2012	Plan Kick-Off: Community Meeting
Ongoing	Existing Conditions Data Collection and Mapping
December 2012	Community Meeting
January 2013	Stakeholder Committee formed
February 2013	Stakeholder Kick-Off Meeting
March 2013 - February 2014	Stakeholder Committee Meetings (14 meetings)
June 2013	Community Meeting
February 2014	Community Meeting
March - April 2014	Public Hearings and Plan Adoption

Stakeholder Committee

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*Plan Development & Community
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Appointed Boards and Committees*

Updating the Plan

Through the year and half long process, the stakeholder committee and citizens were guided through a public input process giving them opportunities to discuss:

- What is your vision of Moyock in 10 years? What do you hope Moyock will look like in 10 years? What type of atmosphere, businesses, and services do you hope will be available?
- What is important to you in Moyock. Why did you move here?
- What do you hope will be different in the future?

There was extensive public input throughout this planning process with 4 community meetings and 14 Stakeholder Committee meetings. Stakeholder Committee meetings were public meetings open to the community that were subject to public meeting law. The public was given an opportunity to speak at the end of each meeting and often times engage in each meeting.

The major concerns heard consistently throughout the public input process were:

- Need for additional recreational opportunities
- Preservation of rural atmosphere
- Improved stormwater management/drainage
- Proactive planning that balances growth and development
- Low taxes
- Interconnectivity of streets
- Greater variety and availability of entertainment, retail, and restaurant offerings



Vision, Policies and Actions

The plan contains a vision, policies, and actions. This plan is the official vision and policy direction for Moyock in the next 10 years.

The **Vision Statement** describes the future conditions of Moyock as the community hopes to see it in the future. It is a big picture and the foundation for the policies and actions. The policies and actions work to accomplish the vision.

Policy Statements are broad, officially adopted positions of the county used by the staff, Board of Commissioners, and other appointed boards to review plans, make recommendations, determine consistency with the community’s vision, and plan future Capital Improvement Projects and services. Policy statements work to implement the vision.

Actions are the work plan of items or measurable outcomes that will be achieved in a specific timeframe in order to accomplish the policy and vision. Unlike a vision or policy, once an action is complete it goes away. Actions work to accomplish policy statements.

Values

The values identified during the visioning process as being important to the community tie the vision, policies, and actions together throughout the plan.

- Rural atmosphere- sights, sounds, smells, and overall feel of a rural community
- Low taxes, fiscal responsibility, and availability of adequate county services
- Human scale development that supports walkability

Placement of a symbol next to a policy or action indicates that the policy or action is accomplishing a value that the community holds in high regard.

Stakeholder Committee

Plan Development & Community Input

Vision, Policies and Actions

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Fiscal Responsibility



Rural Atmosphere



Walkability

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How to Use the Plan

*County Staff
Board of Commissioners
Appointed Boards and Committees*

Updating the Plan

How to Use the Plan

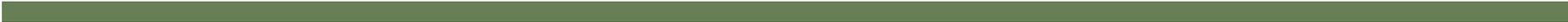
This plan will supplement the Land Use Plan to more specifically address the needs and issues of the study area over the next 10 years. The policies and guidance given in this plan are consistent with the Land Use Plan and other county policies and documents. This plan will establish a new focus for growth and development.

The Board of Commissioners and staff will use the SAP to make recommendations about development proposals and other county land use policy decisions. This plan is a vital tool for staff in day to day decision making and in assisting the public with development proposals.

Updating the Plan

Each year, a working group should meet to assess the completion of actions listed in the plan. The working group should be comprised of the responsible parties assigned to each action. After meeting with the working group, an annual report will be prepared by Planning staff and presented to the Board of Commissioners outlining the status of the action plan. Additionally, the plan should be evaluated and updated every three years, if necessary.

The Small Area Plan promotes thoughtful, responsible growth. The success of this plan largely depends on the continued cooperation and coordination between county agencies and an engaged citizenry. A united partnership between the citizenry and the county will result in the realization of the policies and goals outlined in this plan.



The community strives to accomplish this vision by:

- Meeting the infrastructure and service needs of the community to focus growth and public investment;
- Ensuring that stormwater runoff, soil erosion, and sedimentation are properly managed to reduce flooding and pollution;
- Encouraging and supporting design and development of an interconnected, multi-modal, transportation network that safely supports pedestrians, bicyclists, rail, and vehicles;
- Expanding and developing recreational opportunities for all age and user groups including opportunities that increase access to the water, natural environment, walking trails, multi-purpose fields, multi-purpose community building, and other non traditional types of recreational opportunities;
- Encouraging and fostering development that is compatible with rural atmosphere, transitional areas, and a small town, main street feel, designed to enhance community appearance and promote a human scale;
- Supporting local entrepreneurs that establish community serving businesses that diversify the local economy, are in close proximity to residential areas, and promote community interaction;
- Promoting economic growth proportionate to population growth in order to ensure growth of the local tax base; and,
- Encouraging development of Moyock as a destination within the region.

As Moyock continues to grow, the community values:

- Rural atmosphere - sights, sounds, smells, and overall feel of a rural community;
- Low taxes, fiscal responsibility, and availability of adequate county services; and,
- Human scale development that supports walkability.

It is acknowledged that in order to secure this future everyone must work together, treating all with respect and fairness, focusing on common goals.

Policy Focus Areas

Focus Areas

Growth Management

Transportation
Infrastructure and Services
Future Land Use Map

Sense of Place & Quality of Life

Recreation
Heritage
Community Character

Economic Development & Business

Small Town, Main Street
Business and Industry
Tourism

Quick Facts

- Median age - 38
- Median income - \$63,000
- 71.9% of residents commute out of state
- Largest employment sector -
Educational services
Health care industry

The study area encompasses 36,775 acres and remains largely undeveloped. Approximately 81% of the study area is forested or in cultivation. Residential development makes up the next largest use of land at 10%. Industrial development only occupies 3% of the total land area and commercial development occupies less than 1% of the total study area. The remaining area is undeveloped residential, residential open space, and institutional uses (public and private).

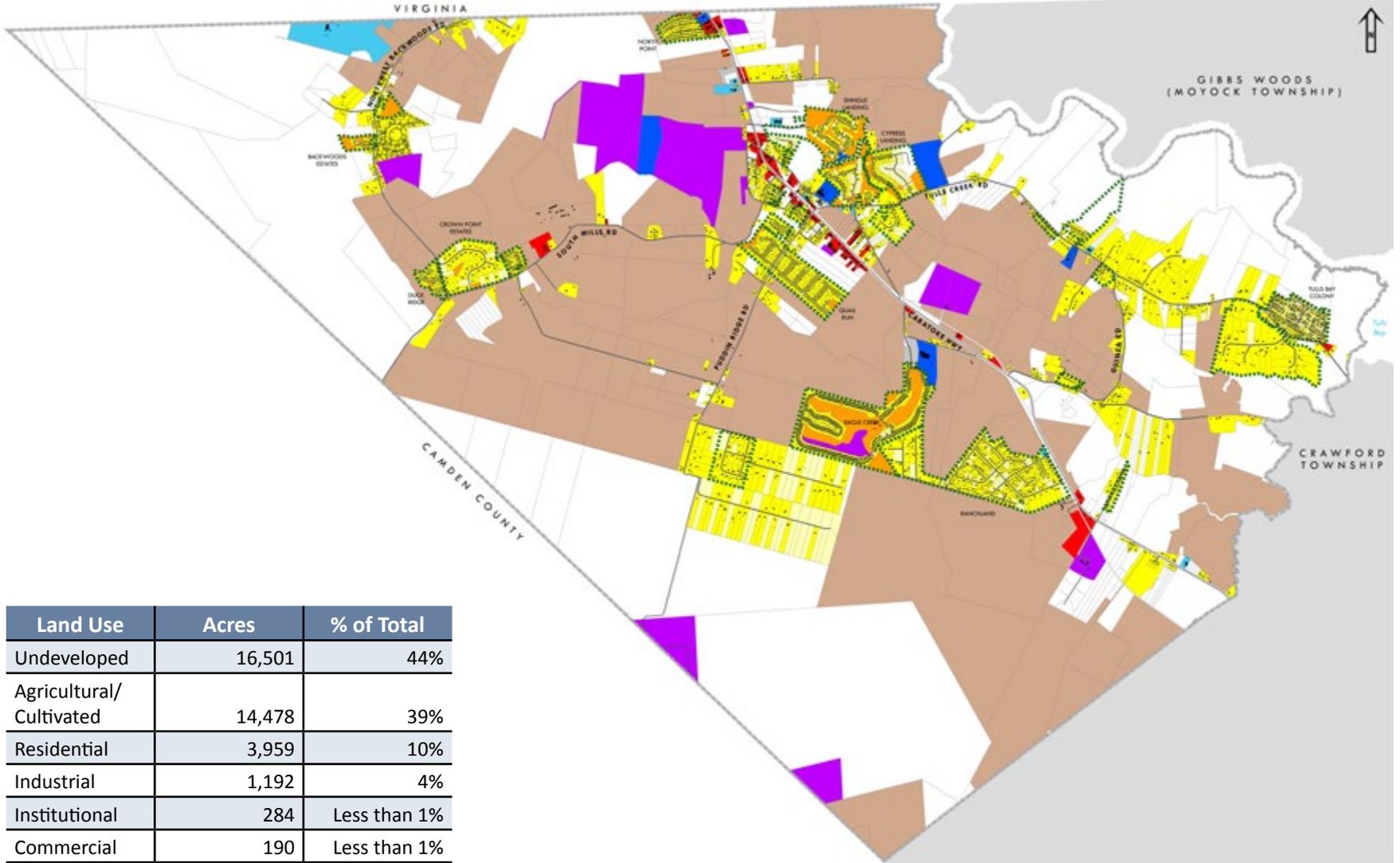
The majority of residential development is scattered along Highway 168. One large concentration occurs at the heart of Moyock between the intersections of Highway 168 and Puddin Ridge Road between Moyock Landing Drive and Swayertown Road. Subdivisions in this area include Shingle Landing, Creekside Estates, Cypress Landing, Moyock Meadows, and Quail Run. The other large concentration of residential density occurs in Eagle Creek Subdivision and Ranchland. This area is detached and just south from the heart of Moyock.

Residents of Moyock have a median age of 38 and median household income of \$63,000. Median age in Currituck County is 41 while that of North Carolina is 37. Median income for Currituck County is \$57,588 and North Carolina is \$46,291. The majority of residents in Moyock are employed in the educational services and health care industry. In addition, approximate 71.9% of Moyock residents commute out of state to their jobs. This is consistent with the county wide trend of 41.6% of residents commuting out of state.

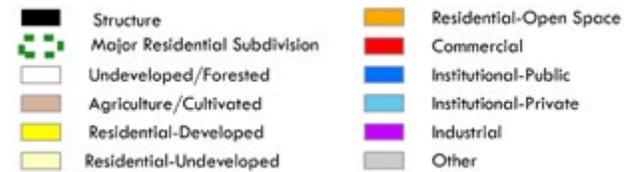
Feedback during the public input process revealed that rural atmosphere was consistently important to the community. There will undoubtedly be growth pressures that will prove challenging due to the high volume of undeveloped acreage and close proximity to the Hampton Roads Area.

However, further exploration with the Stakeholder Committee also showed that a small town, main street feel, availability of public and private services, and economic development were central to where they hoped Moyock would be in 10 years.

Existing Land Uses

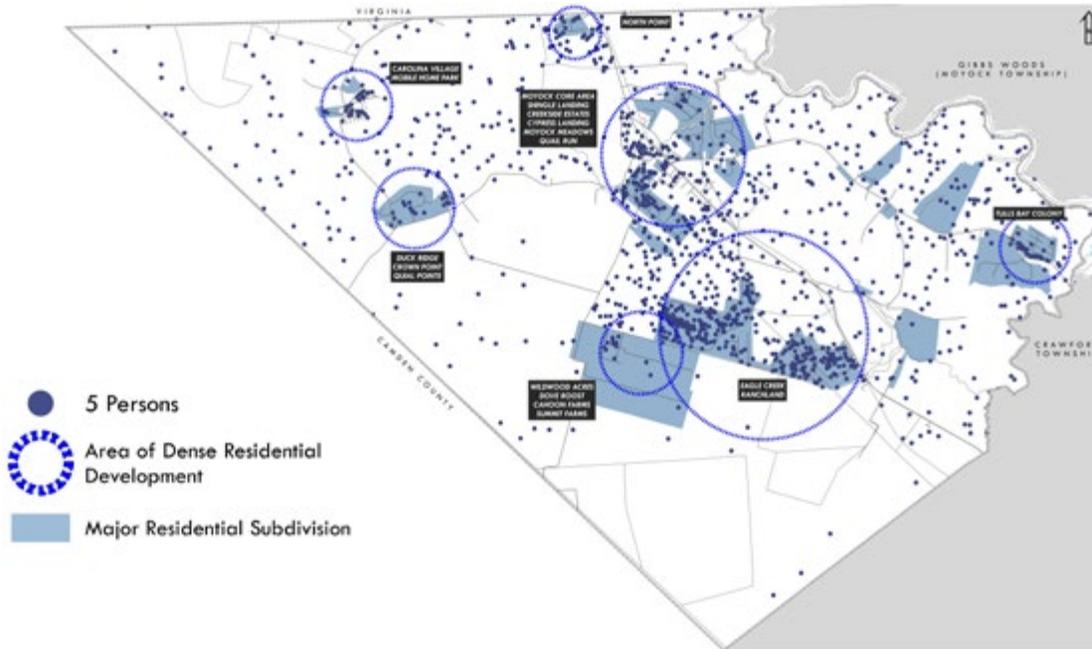


Land Use	Acres	% of Total
Undeveloped	16,501	44%
Agricultural/ Cultivated	14,478	39%
Residential	3,959	10%
Industrial	1,192	4%
Institutional	284	Less than 1%
Commercial	190	Less than 1%
Other	171	Less than 1%
Total	36,775	100%

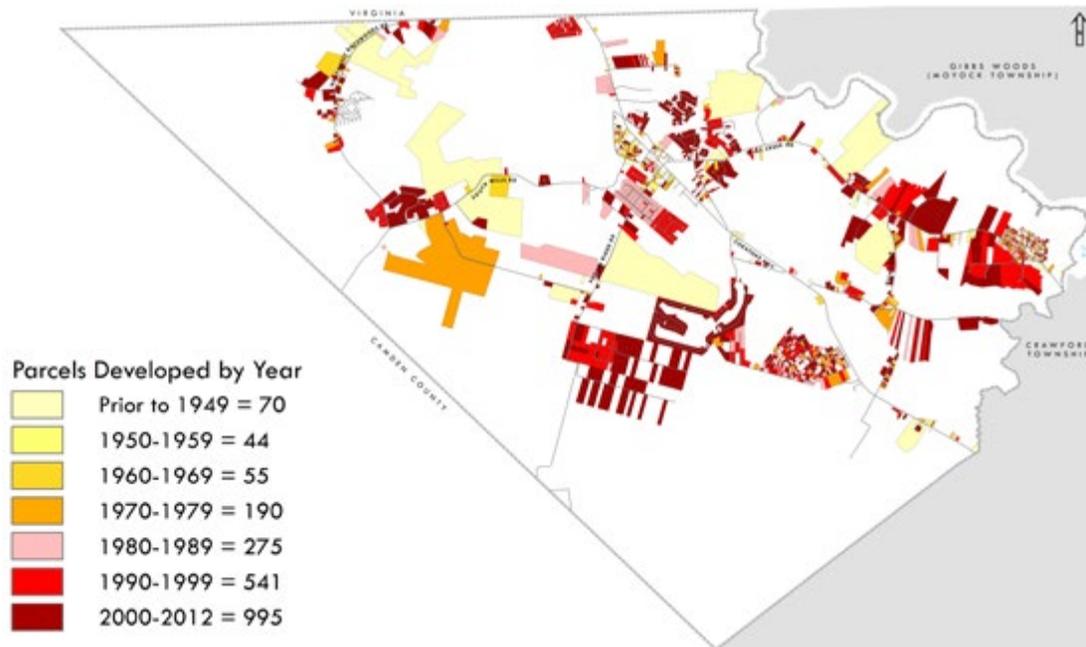


Policy Focus Areas

2010 Population Density



Historical Development Patterns



Growth Management

The Growth Management Focus Area encompasses policies and actions that address Transportation, Infrastructure and Services, and Future Land Use.

Highway 168 forms the north-south backbone of the transportation network in Moyock. Tulls Creek Road, South Mills Road, Northwest Backwoods Road, and Guinea Road make up the major network of connector streets. Tulls Creek Road runs north-south parallel to Highway 168 and allows local traffic to continue to move freely during the summer season when traffic is backed up from Moyock to Currituck. South Mills Road provides a direct connection from Moyock to Camden County and Highway 17.

During the public input process participants expressed concern about transportation related issues. Seasonal traffic, associated with beach rental home turn over days, is a major issue in the study area from May through September. Traffic often backs up and at times comes to a standstill as vacationers arrive and leave on Saturday creating difficult turning movements and heavy congestion along Highway 168. In addition, building a network of interconnected streets for east-west and north-south movement was important along with safer facilities for moving bicycles and pedestrians.

The North Carolina Department of Transportation (NCDOT) outlined several important projects in its 2012 Transportation Improvement Plan (TIP). This plan is a long range multi-modal transportation plan. The time horizon for the proposed project completions is 2035 and well beyond the time horizon of this SAP. One of the larger, notable projects is a proposed four-lane freeway that would bypass Moyock from NC 168 near Virginia to US 158, with interchanges at NC 168, South Mills Road (SR 1227/1218), NC 34, and US 158. The TIP also recommends several sidewalk improvements in Moyock along portions of Hwy 168, Puddin Ridge Road, Tulls Creek Road, Sawyertown, and Survey Road.

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Existing Transportation System



Policy Focus Areas

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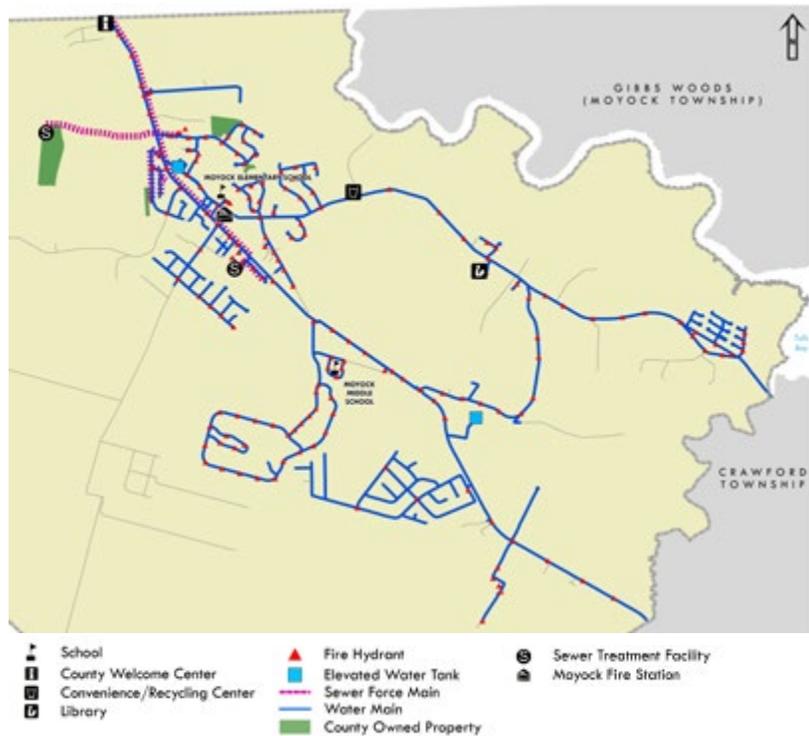
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In addition to the NCDOT TIP, a regional bike plan was funded by NCDOT and developed through the Albemarle Rural Planning Organization (ARPO). The Albemarle Regional Bike Plan covers a 10 county region of northeastern North Carolina. The purpose of this plan is to provide a clear framework for the development of new facilities, programs, and policies that will support safe and efficient bicycling throughout the region. This plan also recommends several projects including multi use path and paved shoulders in Moyock.

Currituck County has both water and sewer infrastructure in Moyock. County water has been available in Moyock since 1989. The county acquired a small package plant behind Moyock Commons in 2003 with a capacity of 40,000 gallons per day. This plant was taken off line for use when the county completed construction of new sewer plant in 2012. The new plant became operational in January of 2013 with a capacity of 100,000 gallons per day and the ability to be expanded to 600,000 gallons per day. Both Fire and Emergency Medical Service (EMS) services are available through a volunteer service to residents. There is an elementary and middle school in Moyock.

Existing County Infrastructure



Improvement in stormwater management was another issue identified during the community engagement process. Although Moyock has some of the highest elevations in the county, the area contains very poor draining soils. The western portion of the study area contains remnant fragments of the Dismal Swamp that have been drained and either are developed or in agriculture. Localized flooding is a common problem. Three of the five stormwater districts within the county are in the Moyock study area. Residents in the districts pay a stormwater tax to the county and the county maintains the ditches and manages stormwater improvements within the district. The Stakeholder Committee recommended exploring a consolidated stormwater district for the entire study area that would enable the county to better and more comprehensively manage stormwater in Moyock. However, a feasibility study is needed to identify areas of improvements, cost estimates for improvements, ongoing maintenance, and potential implementable funding options. The feasibility study should also include public input and involvement to determine the best way to meet the needs of the community.

Transportation



Policy TR 1 Design future transportation improvements that are consistent with Complete Streets Policy. Complete Streets Policy encourages design of transportation networks and facilities that safely accommodate pedestrians, bicyclists, rail, and vehicles.



Action TR 1A: Coordinate with NCDOT to develop typical street cross sections accepted into the state system for maintenance. Typical cross sections should include: travel lanes, separated side paths, landscaping features, utilities, lighting, pedestrian crossings, medians, way finding and safety signage, signalization, and rail crossings.



Action TR 1B: Develop typical cross sections for private streets that include Complete Street design features but are not intended for dedication to NCDOT.



Action TR 1C: Amend the UDO to incorporate standards and typical cross sections consistent with Complete Street policies.



Action TR 1D: Coordinate with NCDOT to request installation of pedestrian traffic signal controllers at existing stop lights and other pedestrian safety measures as sidepaths are constructed.



Action TR 1E: Identify pedestrian and cyclists improvements including but not limited to wayfinding and safety signage, traffic calming measures, bike racks, benches, side paths, and pedestrian plazas/rest points that can be incorporated into the county's Capital Improvement Plan (CIP).



Policy TR 2 Ensure that all development is designed with an interconnected, multi-modal transportation network between neighborhoods, activity centers, and other destinations to improve mobility and emergency access. Development of an interconnected road network east and west of Highway 168 that allows north-south movement for local residential traffic is strongly encouraged.

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Infrastructure & Services



Policy IS 1 The costs of infrastructure, facilities, and services related to new growth and development should be borne primarily by those creating the demand.



Policy IS 2 Meet the infrastructure and service needs of the community at appropriate levels as the community continues to focus growth and public investment in areas identified as activity centers.



Action IS 2A: Develop regulations or incentives for water and sewer upgrades or extensions that direct growth, lessen the burden on existing infrastructure capacity, and promote fiscally responsible development patterns.



Action IS 2B: Identify levels of service to determine the capacity of public safety services to protect the health, safety, and welfare of the community.



Action IS 2C: Create incentives for residential and commercial sprinkler systems that lessen demand for services and allow for more flexible development patterns.



Policy IS 3 Recognize that water and sewer services have significant influence on growth and require that consideration be given to the placement of proposed utilities in perspective to desired growth patterns.



Action IS 3A: Establish a water and sewer connection and extension policy for Moyock that limits public investment and directs growth away from areas designated as rural and conservation on the future land use map.



Action IS 3B: Develop construction standards for water and sewer infrastructure to ensure that development is constructed in way that promotes uniformity and anticipates future growth of the systems. This includes incorporation of fire suppression needs such as adequate volume and pressure.



Policy IS 4 Ensure that stormwater runoff, soil erosion, and sedimentation is properly managed to reduce nuisance flooding and pollution of sensitive environmental areas



Action IS 4A: Explore the feasibility of establishing a stormwater drainage district. The feasibility study should include an analysis of existing conditions, identify areas needing improvements, cost estimates for improvements, and on-going maintenance and recommend implementable funding options.



Policy IS 5 Encourage retrofitting of NCDOT drainage infrastructure to manage nuisance flooding.



Action IS 5A: Coordinate with NCDOT to develop a plan of action for addressing the following drainage issues:

- Ranchland subdivision street flooding
- Moyock Commons/Currituck Commercial (culvert under Hwy 168 in Moyock Service District {MSD}) - Ditch #1
- Area between the Post Office and Taylors Do-It Center - Ditch #3 (MSD)
- Culvert under Puddin Ridge Road - Ditch #4 (MSD)



Policy IS 6 Encourage development of shared (co-located) county facilities for public safety, senior services, recreation, and other community facility services.



Action IS 6A: Develop locational and operational criteria for purchase or dedication of land for future shared (co-located) facilities. This might include minimum acreage, utility needs, avoidance of hazard areas, land use patterns (FLU Map), and proximity to major road connections.

Policy IS 7 Encourage and actively engage in advanced planning for the location of new public schools. School locations should serve to reinforce desirable growth patterns and should be viewed as cornerstones of the community.



Policy IS 8 Provide adequate maintenance for existing community facilities/properties and plan for the future management operations/staffing appropriate for the needs as land is acquired or sites are developed.



Action IS 8A: Conduct a study for typical staffing needs, on-going maintenance costs, and any needed facility renovations for community facilities and properties that can be incorporated into the county's Capital Improvement Plan.

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Policy FLU 1 Promote compatibility between new development and existing development to avoid adverse impacts to the existing community. This is achieved through design and includes larger setbacks, landscaped or forested strips, transition zones, fencing, screening, density and/or bulk step downs, or other architectural and site planning measures that encourage harmony.



Action FLU 1A: Convene meetings with community stakeholders to define sensitive transitional areas where higher, denser development may abut lower density areas and better define compatibility solutions for these areas.



Action FLU 2A: Explore establishment of a Community Center district, and associated sub-districts, that will implement the vision and policies of the plan by creating development standards specific to Moyock study area.

Sense of Place & Quality of Life

Existing recreational opportunities in Moyock are limited to programming offered by the Parks and Recreation Department, fields and facilities at the elementary and middle school, an extended shoulder utilized by pedestrians and cyclists along Highway 168, a public boat ramp and parking area, and a paddle trail along Shingle Landing Creek, Northwest River, and Tulls Bay (designated as a NC Paddle Trail). The Parks and Recreation Department utilizes the fields and facilities at the elementary and middle school for its various programming including, baseball, softball, t-ball, soccer, football, and basketball.

During the community engagement process, citizens expressed a strong desire for increased recreational opportunities in Moyock. They were specifically interested in a community facility, walking trails, and better access to the water. For citizens who attended input opportunities, greater access to recreational opportunities was more important than rural atmosphere.

In 2011, the Parks and Recreation Department completed a Parks and Recreation Master Plan for the county. The Parks and Recreation Masterplan lays out a road map for development of the county's park system. After extensive public input, the plan identified a need in Moyock and recommended a community facility and park that is programmed as a Capital Improvement Project.

An important factor in increased quality of life is access to the abundant natural resources in the study area. Moyock has extensive rural vistas visible from all the major roads. With over 80% of the study area still undeveloped, there are many open farm fields, wooded areas, wetlands, swamps, marshes, and waterways. Moyock is bounded on the east by the Shingle Landing Creek, Northwest River, and Tulls Bay. These waterways form a network that empty in the Currituck Sound. The western portion of Moyock is comprised mostly of open farm fields with an extensive ditching system that drains east to the Northwest River or Tulls Creek. This western edge of the study area contains remnant fragments of the Dismal Swamp.

The Stakeholder Committee recognized the importance of maintaining a rural atmosphere at the periphery of the study area, especially along roads and water ways. However, the committee also felt it important to enhance a main street, small town feel at the center of the study area. There was a general desire during the public input process, for a wider variety and availability of restaurants, entertainment, and other retail shopping opportunities. The delicate balance between maintaining rural feel but offering all that a small town has to offer is essential in maintaining and enhancing the sense of place and quality of life in Moyock in the future.

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Recreation

Policy R 1 Expand and develop recreational opportunities for all ages and users including access to the water and natural environment, walking trails, multi-purpose fields, multi-purpose community building, and other non-traditional types of recreational opportunities that are consistent with the Currituck County Parks and Recreation Master Plan.

Action R 1A: Explore the feasibility of installing camping platforms along the designated NC paddle trail on the Northwest River, Tulls Creek, and Currituck Sound. Establish partnerships and seek funding for project implementation.

Action R 1B: Explore the feasibility of installing a greenway system of boardwalks or natural trails adjacent to water bodies, community open space, or conservation areas.

Action R 1C: Plan and construct community parks and a multipurpose community facility to meet the recreational needs of the Moyock community.

Policy R 2 Ensure that all development connects existing or planned public recreational improvements and facilities to promote a high quality of life and healthy living.

Action R 2A: Amend the UDO to incorporate standards that require publicly available connections to existing or planned recreational improvements and facilities.



Heritage: Where We Come From



Policy H 1 Protect scenic vistas of natural landscapes and features that are important in establishing and enhancing the visual character of Moyock from roadways and waterways. This may be accomplished through clustering development and providing open space in way that preserves scenic vistas.



Policy H 2 Encourage the preservation of significant architectural, historic, and cultural resources that are critical to telling the story of Moyock’s rural heritage and atmosphere.



Action H 2A: Establish partnerships to inventory significant architectural, historic, and cultural resources in Moyock.



Action H 2B: Encourage and support the efforts of local historic preservation advocacy groups and other civic groups that work to preserve significant architectural, historic, and cultural resources.

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Community Character: Where We Are Going

Policy CC 1 Encourage and foster development that is compatible with rural atmosphere, transitional areas, and a small town, main street feel consistent with the vision, policies, and future land use map of this plan.



Policy CC 2 Encourage non-residential and mixed use development that incorporates building and site design to enhance community appearance, promote human scale, and create a unique sense of place. This may include common themed building materials, forms, and site amenities.



Action CC 2A: Develop regulations and incentives for non-residential and mixed use development that establish design standards specific to each activity center in this plan.



Policy CC 3 Recognize the importance of Moyock by creating and enhancing entryways that promote a unique sense of place and convey community pride.

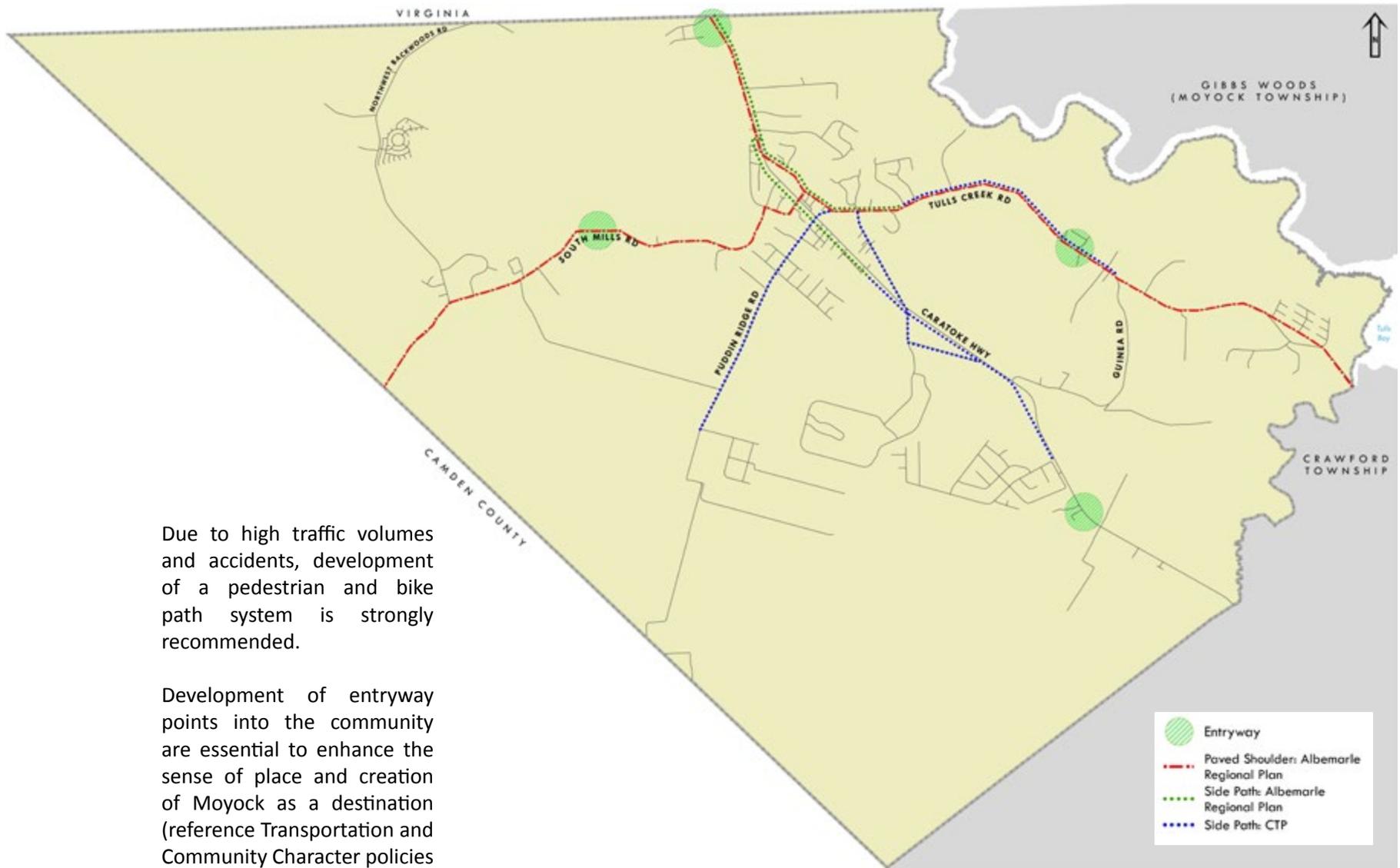


Action CC 3A: Plan and construct entryways into Moyock and its activity centers that evoke a sense of arrival and have positive visual impacts.



Action CC 3B: Amend the UDO to create regulations that enhance public investment into entryways. This includes appropriate land uses, overall site design, landscaping, signage, and screening/location of outdoor storage.

Public Paths and Entryways



Due to high traffic volumes and accidents, development of a pedestrian and bike path system is strongly recommended.

Development of entryway points into the community are essential to enhance the sense of place and creation of Moyock as a destination (reference Transportation and Community Character policies and actions).

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Economic Development & Business

Moyock's rural atmosphere, proximity to the Hampton Roads area, low taxes, and abundant opportunity for growth make it desirable for people, business, and industry. The new sewer plant, available real estate for business ventures, and low taxes draw industry to the area. Another asset to Moyock is the major rail line that connects Currituck to Virginia and runs the entire length of the study area.

During the community engagement process, emphasis was given to fostering a small town, main street feel. The Stakeholder Committee was particularly interested in the "feel" of small town, main street. Emphasis should be given to creating environments and places with a unique feel that allow people to interact and create community. This can not only be accomplished through infrastructure improvements, such as public plazas, but also by small businesses that encourage community interaction and community programming.

Moyock's natural environment and waterways are an underutilized asset. Other communities in the region are capitalizing on their natural resources by creating networks of paddle trails and camping platforms making them regional destinations for ecotourism. This plan explores opportunities for tapping into the ecotourism market.

Small Town, Main Street



Policy ST 1 Promote the establishment of an area dedicated to community serving businesses that foster a small town, main street feel.

Action ST 1A: Convene meetings with civic groups, business leaders, and the community to determine the feasibility of creating a main street in Moyock. A feasibility study should incorporate a market analysis and regulatory constraints.

Action ST 1B: Implement the findings of a feasibility study, make necessary regulatory changes, and market appropriately.



Policy ST 2 Support local entrepreneurs that establish community serving businesses that diversify the local economy, are in close proximity to residential areas, and promote community interaction.

Action ST 2A: Review the UDO to identify, modify, and remove regulatory barriers and establish incentives for development that is consistent with this plan.



Policy ST 3 Actively market and promote businesses in Moyock to surrounding communities, including Hampton Roads and the Albemarle Region.



Action ST 3A: Establish partnerships to develop marketing and promotional materials specific to the Moyock business community.

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Business & Industry



Policy BI 1 Support the expansion of health care services that meet the needs of local residents and other nearby areas. This includes small medical offices, regional medical facilities, and ancillary medical services.



Policy BI 2 Encourage well planned mixed use developments to include a range of intensities and diverse housing types which capitalize on seasonal traffic volumes and provide increased opportunities for local residents and businesses. Large scale mixed use projects should be carefully located in areas supported by the future land use map and adequately served by infrastructure and county services.



Action BI 2A: Establish a sewer extension and connection policy that encourages mixed use developments to locate in activity centers and full service areas.



Policy BI 3 Promote economic growth proportionate to population growth in order to ensure growth of the local tax base is proportionate to increased demand for public services.



Action BI 3A: Actively market Moyock as an emerging growth area (virtual micropolitan) to encourage targeted retail and service development.



Action BI 3B: Develop regulations or incentives that require large scale residential development that utilizes centralized sewer, to include a supporting non-residential component and interconnection to existing businesses.



Policy BI 4 Provide industrial development opportunities for cluster industries identified by Currituck Economic Development such as defense aero-aviation, port and maritime related industries, alternative energy, agriculture and food, and local existing business support.



Action BI 4A: Identify rail-served, sewerred, and other properties suitable for industrial development and proactively zone those areas for industrial uses. Ensure that industrial uses take place in areas off of the 168 corridor and include conditions for buffering between visual impact areas and established residential areas.

Action BI 4B: Review the UDO to identify, modify, and remove regulatory barriers and establish incentives for development that is consistent with this plan.

Tourism



Policy TO 1 Encourage the continued development of Moyock as a destination to Hampton Roads and the Albemarle Region by developing additional recreational opportunities and promoting historic and cultural sites.

Action TO 1A: Convene meetings with businesses, resource managers, and neighboring jurisdictions to target and attract entrepreneurs developing eco-tourism and recreational opportunities based around Moyock’s abundant natural resources.

Action TO 1B: Develop branding and marketing materials, such as maps and wayfinding signage, that support and promote Moyock as a destination. This should include significant architectural, historic, cultural, and natural resources.

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Future Land Use Map

The future land use map is one of the most visible components of the SAP. The map works to apply the vision and policies of the plan within the study area by visually showing where growth is directed. The map should be used in conjunction with the entire plan and not weighted as more important than the vision, policies, or other recommendations.

The future land use map is a guide that outlines a desired general pattern of development. The boundaries of the different land uses shown are definitive and reflect transitions from one land use to another. Successful transitions mitigate incompatibilities between adjacent and nearby land uses. Incompatibilities arise when nearby uses differ significantly in terms of intensity, bulk, and/or scale. Tools such as change in scale, attention to architectural detail, increase in landscaping, distance between buildings or uses, and compatibility in intensity and bulk can allow successful transitions between properties with dissimilar characteristics. Where incompatibility arises from use, an intermediate intervening use can serve as a buffer.

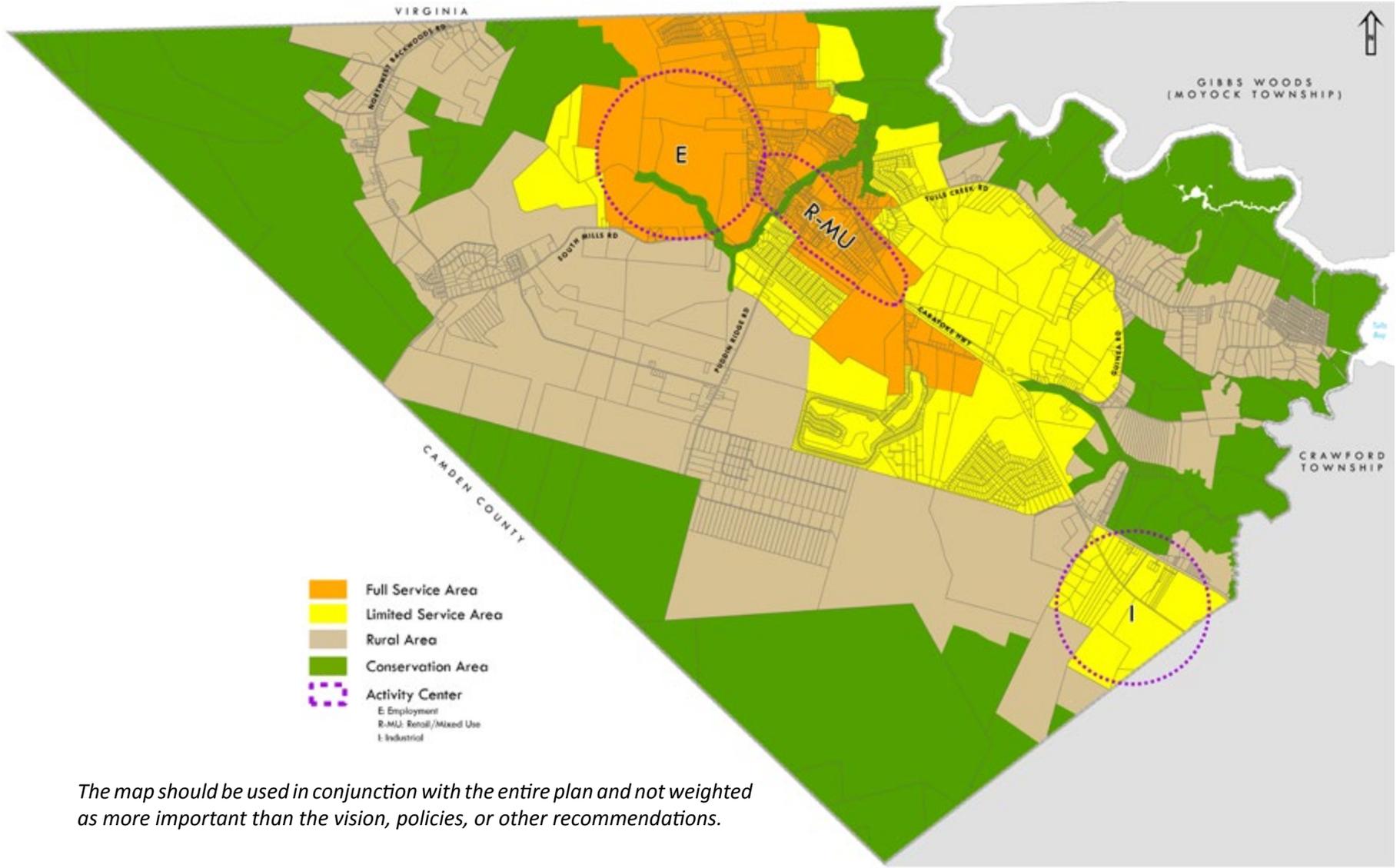
Appropriate parameters for successful transitions include:

Higher intensity commercial uses are appropriately buffered from low to moderate density residential areas through an intervening area of low intensity office or medium density residential use.

Higher intensity residential uses are buffered from low to moderate density residential areas through increased setbacks, buffers, or landscaping. In addition, special attention should be given to general design and how the proposed development marries existing development. Design elements that encourage compatibility could include comparable:

- Lot sizes at the fringe of the development similar to existing development,
- Use of open space to create transitions or give appearance of larger lot size, or;
- Height or design features including but not limited to building height, orientation of structures, front porches, windows, and other architectural features.

Future Land Use Map



The map should be used in conjunction with the entire plan and not weighted as more important than the vision, policies, or other recommendations.

Future Land Use Designation Descriptions

Full Service designations are focal points in the community where high amounts of activity occur. In full service designations a broad range of infrastructure and service investments are or will be made available by the public and/or private sectors. Infrastructure investments may include, for example, centralized water and sewer, community parks, multipurpose community facilities, schools, and fire and rescue facilities. Full service areas will have high concentrations of public investment and medium to higher development intensities. Mixed use development with both residential and commercial components will be present in full service areas. In addition, clustered or planned commercial and residential areas with diversity in housing types is preferred. Typical densities in full service designations range from 1.5 – 3 units per acre depending on surrounding land uses. All development should encourage human scale in full service areas. Human scale development encourages interconnected transportation systems that support both vehicles and pedestrians and contain site amenities designed for humans (i.e. lighting, benches, bike racks, etc). In full service areas, there will be a high degree of architectural elements and creative site design is encouraged. Activity centers are located in full service designations.

Limited Service designations are less intensely developed than full service. Emphasis in this designation is more on residential development and densities. Limited service designations provide for limited availability to infrastructure and services and low to moderate residential densities. Limited service designation has reduced public services such as fire protection, emergency services, recreation, and public water. Residential densities in this designation range between 1 – 1.5 units per acre. Clustered residential and small neighborhood service commercial such as retail, office, basic services, and civic uses can be found in this designation.

Rural designations provide for low density, scattered residential, institutional, agricultural, and other traditional rural uses such as small scale farm operations. Residential densities in this designation are low at less than one unit per acre. Access to public water, fire protection, and emergency services is limited but available. Rural view sheds in this designation are important and should be preserved from road and waterways.

Conservation designations offer protection to significant, limited, or irreplaceable sensitive areas. The conservation designation encompasses wetlands, estuarine and coastal shorelines, public trust and estuarine waters, areas mapped as floodplains and floodways, Significant Natural Heritage Areas (as designated by the State Natural Heritage Program), and other similar lands that are environmentally significant because of their natural role in the integrity of the coastal region. These lands include but are not limited to bottomland hardwoods, pocosins, and swamp forests containing significant productive, natural, scenic, cultural, or recreational resources.

Conservation areas should be preserved and not developed. However, small areas of upland may be appropriate for limited development provided that development is performed in a very controlled, low impact manner through careful planning and cautious attention to the preservation of key environmental features or habitats. Development must utilize sustainable design approaches that include but are not limited to sustainable building materials, site design that encourages preservation of habitat, and low impact development techniques. Appropriate limited development may include: passive and active recreational facilities such as trails and parks; eco-businesses dependant on water or other natural resource areas as a basis for operation; and governmental and community facilities provided that the footprint of development is minimized to preserve important ecological resources and view sheds. The provision of infrastructure and services should not stimulate or intensify development in these fragile areas. Proper management of these areas is needed to conserve the natural, cultural, recreational, scenic, or biologically productive value of these areas.

Activity Centers are focal points of activity and development in the community. These are anticipated to have future concentrations of uses that serve as destinations or hubs of activity for the surrounding community. Activity centers provide services on a local and regional scale and are generally located in full service areas. They are characterized by higher intensity uses, compact development patterns, walkability, and a higher standard of architectural and site design. Amenities that encourage community interaction such as pedestrian plazas, court yards, pocket parks, and a variety of other neighborhood oriented uses are commonly found in activity centers including but not limited to schools, day care, parks, civic facilities, beauty shops, drug stores, hardware stores, and restaurants. Areas designated as activity centers should be planned in a way to allow for pedestrian and bicycle movement within the activity center and connecting to other activity centers. Care should be taken to ensure transitions are successful between activity centers and less intense uses and designations.

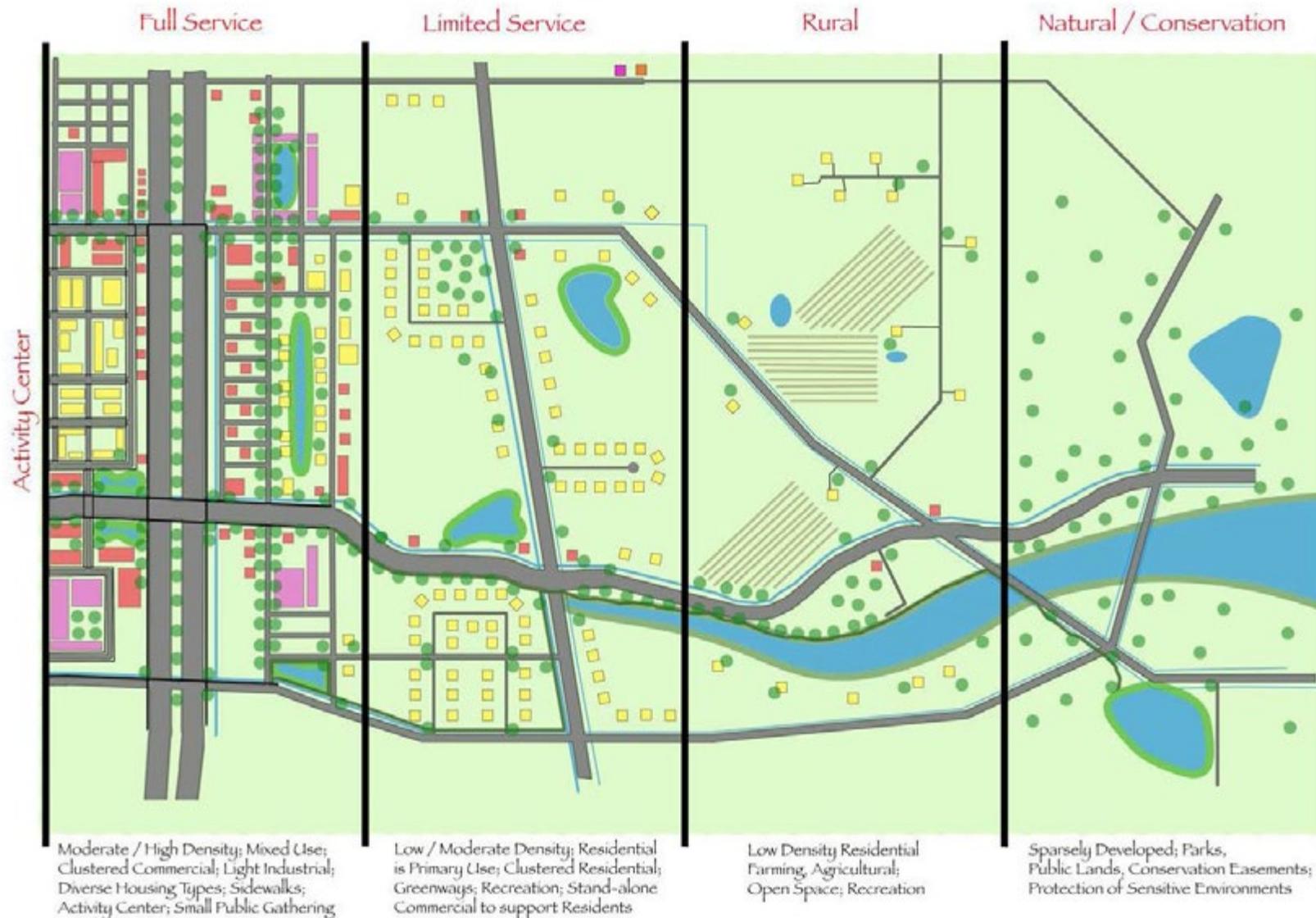
This plan recommends three types of activity centers:

Retail/Mixed Use includes a mix of retail, restaurant, office and medical services, employment, institutional, and higher intensity residential uses.

Employment includes office, planned corporate parks, warehousing, institutional, light industrial and manufacturing. Supporting service industries, retail, restaurant, attached residential, and other complementary services should be included.

Industrial includes light and heavy industry and manufacturing that are not typically visible from roadways or in close proximity to residential areas.

Community Transect



The community transect represents a cross section of the future land use map that helps to visualize each land use designation and the transitions between designations. The transect illustrates land uses, development of transportation systems, and preservation and enhancement of natural habitats. The community transect should be used in conjunction with the policies and future land use map.

Glossary

Actions - The work plan of items or measurable outcomes that will be achieved in a specific timeframe in order to accomplish the policy and vision. Unlike a vision or policy, once an action is complete it goes away. Actions work to accomplish policy statements.

Human Scale - Development that is designed and oriented with people in mind. This means that development is more portioned to a human (smaller scale). Places with good human scale have buildings that reflect an expression of human activity such as human sized doors, windows, and porches oriented to the front of buildings, human scaled amenities such as lighting and plazas/ pedestrian seating areas, and walkways and multi use paths.

Mixed Use - - Development that integrates and blends a variety of land uses and housing types including residential, office, commercial, service, employment, and industry with shared vehicular use areas and pedestrian access and connections.

Policy statements - Broad, officially adopted positions of the county used by the staff, Board of Commissioners, and other appointed boards to review plans, make recommendations, determine consistency with the community's vision, and plan future Capital Improvement Projects and services. Policy statements work to implement the vision.

Recreation, active - Recreational activities, that are typically organized and performed with others, often utilizing equipment and taking place at specific places, sites, or fields. This includes but is not limited to basketball, baseball, softball, soccer, football, other field sports, and playgrounds.

Recreation, passive - Recreational activities that make use of existing natural resources, have minimal impact, and allow users to experience natural environments. This includes but is not limited to parks, hiking, walking, running, biking, picnicking, boating, kayaking, camping, fishing, crabbing, and bird watching.

Rural - A sparsely developed area where land is primarily used for farming, forestry, water dependent uses, very low density residential uses, and open space.

Rural atmosphere - Sights, sounds, smells, and overall feel of a rural community. Vistas of open farm fields, wooded areas, swamps, marshes, rivers, creeks, and other natural environments are common elements of rural atmosphere.

Vision Statement - Describes the future conditions of Moyock as the community hopes to see it in the future. It is a big picture and the foundation for the policies and actions. The policies and actions work to accomplish the vision.



Appendix





Currituck County Agenda Item Summary Sheet

Agenda Item Title

Consideration of An Ordinance Amending Section 10-63 of the Code of Ordinances to Allow Certain Commercial and Governmental Activities Involving Motor Vehicles on the Beach Strand and Foreshore from the Dare County Line to the North Beach Access Ramp Between May 1 and September 30

Brief Description of Agenda Item

The proposed ordinance amendment will allow the use of motor vehicles for certain purposes on the beach strand and foreshore from the Dare County line to the North Beach Access Ramp between May 1 and September 30. Specifically, the ordinance will allow use of motor vehicles as follows:

1. For the delivery, placement and pickup of recreational equipment, umbrellas and chairs and collection of solid waste by county based commercial entities and management of planned unit development communities located adjacent to the Atlantic Ocean.
2. For activity under a CAMA permit requiring access to the beach and authorized by the county permit officer.
3. By county employees, county contractors, county vehicles or emergency vehicles in the performance of public duties.

Note that this ordinance amendment only provides for the operation of motor vehicles on the beach for certain purposes. The ordinance does not allow for commercial use of the beach which is regulated by the Unified Development Ordinance and will be discussed by Planning staff during the Board's meeting.

Board Action Requested

Action

Person Submitting Agenda Item

Ike McRee, County Attorney

Presenter of Agenda Item

Ike McRee, County Attorney

1 **AN ORDINANCE OF THE CURRITUCK COUNTY BOARD OF COMMISSIONERS**
2 **AMENDING SECTION 10-63 OF CHAPTER 10 OF THE CURRITUCK COUNTY**
3 **CODE OF ORDINANCES TO ALLOW CERTAIN COMMERCIAL AND**
4 **GOVERNMENTAL ACTIVITIES INVOLVING MOTOR VEHICLES ON THE BEACH**
5 **STRAND AND FORESHORE FROM THE DARE COUNTY LINE TO THE NORTH**
6 **BEACH ACCESS RAMP BETWEEN MAY 1 AND SEPTEMBER 30**

7 WHEREAS, pursuant to N.C. Gen. Stat. §153A-121 a county may by ordinance define,
8 regulate, prohibit, or abate acts, omissions, or conditions detrimental to the health, safety, or
9 welfare of its citizens and the peace and dignity of the county;

10 WHEREAS, pursuant to Section 1 of Chapter 875 of the 1985 Session Laws the county
11 may by ordinance regulate, restrict, and prohibit the use of dune or beach buggies, jeeps,
12 motorcycles, cars, trucks, or any other form of power-driven vehicle specified by the county's
13 governing board on the foreshore, beach strand and barrier dune system.

14 NOW, THEREFORE, BE IT ORDAINED by the Board of Commissioners for the
15 County of Currituck, North Carolina as follows:

16 PART I. The Code of Ordinances, Currituck County, North Carolina is amended by rewriting
17 Section 10-63 of the Code of Ordinances to read as follows:

18 **Sec. 10-63. Restricted areas.**

19 (a) Where there is an improved all-weather road, dedicated to public use, and running
20 generally north and south and parallel to the beach strand, all vehicles, mopeds, motorcycles or
21 motor vehicles on the foreshore and beach strand are prohibited between May 1 and September
22 30. This section shall apply specifically to, but is not limited to, the foreshore and beach strand
23 ~~adjacent to the Ocean Sands Subdivision and the Whalehead Subdivision~~ extending from the
24 Dare County line to the north side of the North Beach Access Ramp at North Beach Access
25 Road.

26 (b) All ~~commercial~~ activities involving motor vehicles, mopeds and horses shall be
27 prohibited from operating on ~~the Currituck Outer Banks~~, the beach foreshore and the beach
28 strand ~~unless so permitted by the Currituck County Department of Planning and Inspections.~~
29 This includes vehicles used to tow hang gliders.

30 (c) The provisions of subsection (b) of this section do not apply to the following:

- 31 (1) delivery, placement and pickup of recreational equipment, umbrellas and chairs
32 and collection of solid waste between the hours of 6:00 a.m. and 7:30 a.m. and
33 5:30 p.m. and 7:00 p.m. by commercial entities maintaining a base of operation
34 within the county and management of planned unit development communities
35 adjacent to the Atlantic Ocean ;



Currituck County Agenda Item Summary Sheet

Agenda Item Title

Consideration of Ordinance Amending Chapter 8, Article IV of the Code of Ordinances to Make Certain Changes to Outdoor Tour Operator Regulations and Amending Section 1-8(i) of the Code of Ordinances to Provide for Violation as a Civil Offense

Brief Description of Agenda Item

Attached for consideration is an amendment to the Outdoor Tour Operator Ordinance to provide for staff recommended modifications to enhance enforcement and to provide a process for selection of new licensee upon forfeiture, revocation, nonrenewal or other vacation of a tour license. The ordinance amendment also provides that violation of the ordinance is a civil offense that may be cited without prior notice.

Board Action Requested

Action

Person Submitting Agenda Item

Ike McRee, County Attorney

Presenter of Agenda Item

Ike McRee, County Attorney

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**AN ORDINANCE OF THE CURRITUCK COUNTY BOARD OF COMMISSIONERS
AMENDING CHAPTER 8, ARTICLE IV OF THE CURRITUCK COUNTY CODE OF
ORDINANCES TO MAKE CERTAIN CHANGES TO OUTDOOR TOUR OPERATOR
REGULATIONS AND AMENDING SECTION 1-8(i) OF THE CURRITUCK COUNTY
CODE OF ORDINANCES TO PROVIDE FOR VIOLATION AS A CIVIL OFFENSE**

WHEREAS, pursuant to N.C. Gen. Stat. §153A-121 a county may by ordinance define, regulate, prohibit, or abate acts, omissions, or conditions detrimental to the health, safety, or welfare of its citizens and the peace and dignity of the county; and

WHEREAS, pursuant to N.C. Gen. Stat. §153A-134 a county may by ordinance regulate and license occupations, businesses, trades, and professions; and

WHEREAS, pursuant to Section 1 of Chapter 875 of the 1985 Session Laws, as amended by Session Law 1998-64 and Session Law 2001-33 Currituck County may by ordinance regulate, restrict, and prohibit the use of dune or beach buggies, jeeps, motorcycles, cars, trucks, or any other form of power-driven vehicle specified by the Board of Commissioners on the foreshore, beach strand, and the barrier dune system;

NOW, THEREFORE, BE IT ORDAINED by the Board of Commissioners for the County of Currituck, North Carolina as follows:

PART I. Chapter 8, Article IV of The Code of Ordinances, Currituck County, North Carolina is amended to read as follows:

ARTICLE IV. OUTDOOR TOUR OPERATORS

Sec. 8-86. Purpose.

It is the purpose and intent of this article to allow outdoor tour operators but to regulate outdoor tour operators in a manner that will protect and enhance the public’s use of its beach, protect the county’s natural resources and preserve the livability and attractiveness of northern Currituck Outer Banks communities.

Sec. 8-87. Definitions.

Bus shall mean a vehicle with chassis greater than one (1) ton and overall length greater than 25 feet, intended to carry more than 15 passengers and used for the purpose of touring for hire.

1 *Designated area* shall mean that area of the county on the Outer Banks from the terminus
2 of the paved portion of N.C. Highway 12 to the Virginia state line

3 *Outdoor tour operator* shall mean a company or individual that arranges travel tours by
4 outdoor tour vehicle.

5 *Outdoor tour vehicle* shall mean a vehicle with maximum passenger capacity of 15
6 persons engaged in the business of carrying passengers for hire or offering to carry passengers
7 for hire, when the primary purpose for riding in such vehicle is not transportation but touring and
8 sight-seeing. A bus may not be used as an outdoor tour vehicle.

9 **Sec. 8-88. License required.**

10 (a) It shall be unlawful for any person to engage in business as an outdoor tour operator
11 or to operate an outdoor tour vehicle in the designated area without a license issued pursuant to
12 this article. The license shall be effective only for term of two years stated in the license and
13 upon payment of any annual fee, unless suspended or revoked sooner as provided for by
14 ordinance and may not be transferred.

15 (b) No more than ten (10) licenses to engage in business as an outdoor tour operator or to
16 operate outdoor tour vehicles in the designated area shall be issued at any one time. In the event
17 that a license is forfeited, revoked, not renewed or otherwise vacated, the county manager or
18 county manager's designee may solicit by public notification applications for the available
19 license. The county manager or county manager's designee shall then use a lottery in selecting
20 from among the qualified license applicants.

21 (c) Each license may allow an outdoor tour operator to operate at any given point in
22 time and only on approved routes five (5) outdoor tour vehicles or the number of outdoor tour
23 vehicles allowed in an issued special use permit, whichever is less.

24 (d) Any outdoor tour operator lawfully operating more outdoor tour vehicles than
25 allowed pursuant to Sec. 8-88(c) of this Ordinance on the date that is Ordinance becomes
26 effective shall be deemed a nonconforming use. Any use determined to be a nonconforming use
27 by application of the provisions of Sec. 8-88(d) of this Ordinance shall be permitted to continue
28 for a period not to exceed one year from the effective date of this Ordinance.

29 **Sec. 8-89. Application; inspection**

30 (a) *Application.* Application for a license issued hereunder shall be notarized and made
31 upon forms prepared and made available by the county manager or manager's designee and shall
32 contain:

- 1 (1) The name and address of the owner, ~~and the event the owner is a corporation or~~
2 ~~partnership, a copy of the articles of incorporation or organizational documents;~~
- 3 (2) ~~Factory authorized material setting forth t~~ The characteristics of each outdoor
4 tour vehicle including dimensions, weight, passenger capacity, and manner of
5 propulsion;
- 6 (3) Color photographs ~~not less than eight (8) inches by ten (10) inches~~ of all four (4)
7 sides of each outdoor tour vehicle ~~or, in the discretion of the county manager or~~
8 ~~designee, sketches of a similar make and model, and sample of the color proposed~~
9 ~~for use on the tour vehicle;~~
- 10
- 11 (4) The make, model, passenger capacity and vehicle identification number of each
12 outdoor tour vehicle including outdoor tour vehicles held in reserve;
- 13
- 14 (5) Adequate proof of liability insurance coverage;
- 15 (6) A current state department of transportation license tag or registration tag
16 required by any other government entity;
- 17 (7) Address of fixed headquarters within the county for the operation of the outdoor
18 tour operator's business;
- 19 (8) A fee for each year of the license term as set from time to time by the board of
20 commissioners; and
- 21 (9) A copy of any permit required by the Currituck County Unified Development
22 Ordinance.

23 (b) *Investigation of applicant.* Within five business days after receipt of each
24 application, the county's manager or manager's designee shall cause an investigation to be made
25 of the applicant and applicant's proposed operation. Such investigation shall be made for the
26 purpose of verifying the information in the application and ensuring compliance with the
27 provisions of this article.

28 (c) *Issuance.* The county's manager or manager's designee shall issue an outdoor tour
29 operator license when the county's manager or manager's designee finds that the applicant meets
30 the requirements of this article. Renewal of the license shall be required by March 31 of the last
31 year of the current license term.

32 **Sec. 8-90. Fixed place of business required.**

33 Each outdoor tour operator, as a condition for holding a license under the provisions of
34 this article, shall establish and maintain a fixed headquarters on private property within the

1 county for the operation of the outdoor tour operator’s business. The headquarters shall conform
2 to the ordinances of the county and shall provide adequate off-street parking space for all
3 outdoor tour vehicles not in service. The outdoor tour operator’s headquarters shall not be
4 moved except by the approved transfer of the outdoor tour operator’s license to another location.

5 **Sec. 8-91. Insurance for the benefit of passengers.**

6 Any outdoor tour operator company desiring a license under this article shall give and
7 maintain a policy of liability insurance from an insurance company authorized to do business in
8 the State of North Carolina for each outdoor tour vehicle in use as an outdoor tour operation
9 vehicle with minimum coverage as shall be required by state law for bodily injuries and property
10 damage resulting from an accident. Such policies of insurance shall be filed with the county and
11 shall specifically provide that such policy shall not be canceled without notice to the county.

12 **Sec. 8-92. Identification and marking generally.**

13 (a) Every outdoor tour vehicle shall have a sign in plain view on each side of the vehicle,
14 legible at a distance of 50 feet in letters not less than three inches high, containing the full name
15 of the outdoor tour operator company operating the vehicle.

16 (b) Every outdoor tour vehicle shall display the required identification for the current
17 year as provided by the county as part of license approval. ~~There shall be on each side and on~~
18 ~~the rear of each outdoor tour vehicle a number no less than three inches high, such number to be~~
19 ~~separate and distinct number from that on any other outdoor tour operator vehicle in the county.~~
20 ~~The numbers must be permanently affixed to the vehicle. The number shall be assigned to the~~
21 ~~outdoor tour vehicle and the owner thereof by the county manager or manager’s designee and~~
22 ~~shall not be altered or changed without consent of the county manager or manager’s designee.~~

23 **Sec. 8-93. Tour guide required.**

24 All tours by an outdoor tour operator or on outdoor tour vehicles shall be conducted by
25 guide who is an employee of the outdoor tour operator. No outdoor tour shall be comprised of
26 more than five (5) outdoor tour vehicles including the outdoor tour vehicle operated by the guide.

27 **Sec. 8-94. Safe mechanical condition of outdoor tour vehicles.**

28 Every outdoor tour vehicle operated within the county shall be maintained in a safe
29 mechanical condition, with all safety equipment remaining intact and operative at all times with
30 the outdoor tour vehicle is in service.

31

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1 **Sec. 8-95. Cleanliness of outdoor tour vehicles.**

2 Each outdoor tour vehicle operated under this article shall be kept painted and in a clean
3 and sanitary condition, free of litter and debris, and at all times suitable for transportation of
4 passengers.

5 **Sec. 8-96. State license tag for outdoor tour operator required.**

6 Prior to the use and operation of any vehicle as an outdoor tour vehicle under the
7 provisions of this article, the owner of the outdoor tour vehicle shall secure and display on the
8 outdoor tour vehicle a current North Carolina license registration tag as required by law.

9 **Sec. 8-97. Authority for removal of outdoor tour vehicles from operation in county.**

10 The county manager or manager's designee shall have the authority to remove from
11 operation in the county any vehicle used as an outdoor tour vehicle which is in violation of this
12 article and to prohibit operation of the outdoor tour vehicle until all deficiencies have been
13 corrected.

14 **Sec. 8-98. Traffic regulations.**

15 (a) Outdoor tour vehicles shall operate within the county in accordance with the rules of
16 the road as provided in the laws of the state and ordinances of the county.

17 (b) Outdoor tour vehicles may be restricted to operation on the route or routes approved
18 by the Board of Commissioners and on file with the Clerk to the Board of Commissioners. The
19 Board of Commissioners may approve one route, or may approve various routes based on, but
20 not limited to, the type, size, and/or passenger loads of outdoor tour vehicles, the condition of
21 streets and roads and number of single-family residential dwellings located along a street or road.

22 (c) It shall be unlawful to operate an outdoor tour vehicle in any manner which places
23 the occupants of the outdoor tour vehicle in immediate harm, or in any manner which impedes
24 standard traffic flow on streets, roads or public vehicular areas. Impeding standard traffic flow
25 on streets, roads or public vehicular areas shall include moving slower than the standard traffic
26 flow or stopping within or along streets, roads or public vehicular areas for other than slowing,
27 yielding or stopping as may be required by motor vehicle law.

28 (d) It shall be unlawful to operate an outdoor tour vehicle before 8:00 a.m. or after 8:00
29 p.m. west of the dune line in the designated area.

30

31

1 **Sec. 8-99. Penalties for violation; issuance of citations; suspension.**

2 (a) Failure to comply with this article or any of the laws, ordinances and regulations of
3 the county may result in revocation or nonrenewal of a license and shall be punishable as
4 provided in Section 1-8 of this Code.

5 (b) The county shall notify the license holder of any citation issued for violation of this
6 article including those citations issued to an operator of a tour vehicle within five business days
7 of the citation date. Notice may be provided via first class mail, email or hand delivery. ~~Any~~
8 ~~citation issued for violation of this article shall be issued to the license holder at the time of the~~
9 ~~violation.~~

10 (c) Any outdoor tour operator whose outdoor tour vehicles receive multiple sustained
11 citations for violating this article in a thirty day period shall be suspended from operating in the
12 designated area in accordance with the following schedule:

13	<u>Number of citations issued</u>	<u>Days of Suspension</u>
14	<u>In Thirty Day Period</u>	
15		
16	2 or more	3 days
17	5 or more	10 days
18	10 or more	Revocation

19 Outdoor tour operators suspended under this section must pay all outstanding civil
20 citations in full before license privileges will be reinstated.

21 PART II. Section 1-8(i) of The Code of Ordinances, Currituck County, North Carolina is
22 amended to read as follows:

23 (i) Upon determination of a violation of any section of this Code, the penalty for which is a civil
24 penalty, the county shall cause a warning citation to be issued to the violator, setting out the
25 nature of the violation, the date of the violation and an order to immediately cease the violation
26 or, if the violation is in the nature of an infraction for which an order of abatement would be
27 appropriate in a civil proceeding, stating a reasonable period of time in which the violation must
28 be abated. The warning citation shall specify that a second citation shall incur a civil penalty.
29 The initial issuance of a warning citation upon a violator as provided above shall not be required
30 for the immediate imposition of civil penalties for a determination of a violation of any of the
31 following provisions:

32 (1) Chapter 3, section 3-36;

CURRITUCK COUNTY
NORTH CAROLINA
April 7, 2014

The Board of Commissioners met in the Historic Courthouse Conference Room, at 6:00 PM for a work session with Donna Voliva, Senior Planner, for a presentation on the Residential Subdivision Compatibility Standards.

The Board of Commissioners met at 7:00 PM for its regularly scheduled meeting at the Historic Courthouse in the Board Meeting Room with the following members present: Chairman Paul O'Neal, Vice-Chair Paul Martin, Commissioners Aydlett, Gilbert, Griggs, McCord and Petrey.

Chairman O'Neal called the meeting to order at 7:00 PM and announced that the Board had met in a work session at 6:00 PM on minimum lot size and transition standards.

A) Invocation

Reverend Bill Masciangelo, Moyock United Methodist Church, gave the invocation.

B) Pledge of Allegiance

Reverend Bill Masciangelo, Moyock United Methodist Church, led the Pledge of Allegiance.

C) Approval of Agenda

Chairman O'Neal amended the agenda to change Item E under Public Hearings to Item A-1 and Item A to A-2, to continue New Business Items A and B, and to cancel the Closed Session. Commissioner Aydlett moved to approve the agenda as amended. Commissioner Petrey seconded the motion. Motion carried unanimously.

APPROVED AGENDA

Work Session

6:00 PM Minimum Lot Size and Transition Standards

7:00 pm Call to Order

- A) Invocation-Reverend Bill Masciangelo, Moyock United Methodist Church
- B) Pledge of Allegiance
- C) Approval of Agenda
- D) Public Comment

Please limit comments to items not appearing on the regular agenda; please limit comments to 3 minutes.

Administrative Reports

- A) **Presentation on NC 2-1-1 by Keith Letchworth, East Carolina Behavioral Health**
- B) **Cooperative Extension's Report to the People**

Public Hearings

- A-1) **Public Hearing and Action:** Moyock Small Area Plan: Examines unique issues, concerns, and hopes of the community and works to establish public policy that accomplish the vision cast in this plan.

- A-2) **Public Hearing and Action:** PB 88-66 Villages of Ocean Hill: Request to amend a Sketch Plan/Use Permit to establish General Business zoning and commercial landscaping use in the Villages at Ocean Hill in Corolla, directly south of the Enviro-Tech Wastewater Treatment Plant, Tax Map 114, Parcel 3K, Poplar Branch Township.
- B) **Public Hearing and Action:** PB 87-56 Monterey Shores, PUD: Request to amend the sketch plan and use permit to increase the commercial allocation within the planned unit development by 0.62 acres, Tax Map 115, Parcel 3S, Poplar Branch Township.
- C) **Public Hearing and Action:** PB 13-21 Brumsey Ridge, Phase 2: Request for a preliminary plat and use permit for a 4 lot subdivision phase located in Moyock on the north side of Brumsey Road approximately 1/4 mile from the intersection with Tulls Creek Road, Tax Map 49, Parcel 82A, Crawford Township.
- D) **Public Hearing and Action:** PB 14-02 Shore Shot Pawn and Gun: Request a use permit to operate a pawn shop in Grandy at 6599 Caratoke Highway, Tax Map, 108, Parcel 9, Poplar Branch Township.

New Business

- A) ~~Consideration of Ordinance Amendment to Allow Certain Commercial and Governmental Activities Involving Motor Vehicles on the Beach Strand and Foreshore from the Dare County Line to the North Beach Access Ramp between May 1 and September 30.~~
CONTINUED
- B) ~~Consideration of Ordinance Amendment to Make Certain Changes to Outdoor Tour Operator Regulations and Provide for Violation as a Civil Offense.~~
CONTINUED
- C) **Board Appointments:**
1. Appointments to Whalehead Solid Waste Advisory Board
 2. Appointments to Economic Development Advisory Board
- D) **Consent Agenda:**
1. Approval of March 17, 2014, Minutes
 2. Budget Amendments
 3. Award of Beach Cleanup Contract
 4. Project Ordinance - Southern Parallel Taxiway; NC Division of Aviation Grant 36237.8.9.1
 5. Project Ordinance - Bus Parking Area
 6. License Agreement Granting Use of Wine & Swine Service Mark
 7. Resolution Accepting State Aid to Airports Block Grant and Authorizing County Manager to Enter into a Grant Agreement with NC Department of Transportation for the Southern Parallel Taxiway (Design/Bid/Environmental Documentation)
 8. Authorize County Manager to Execute Five Year Lease Agreement with Ricoh for Register of Deeds Copier
 9. Resolution in Support of Recognition of World War II Coastwise Merchant Mariners
 10. Resolution Declaring Southern Outer Banks Water System Surplus Items
 11. Resolution to declare vehicles surplus
 12. CDBG Monthly Status Report
- E) Commissioner's Report
- F) County Manager's Report

Closed Session

~~Closed session pursuant to N.C. Gen. Stat. §143-318.11(a)(3) to consult with the county attorney in order to preserve the attorney-client privilege and pursuant to N.C. Gen. Stat. §143-318.11(a)(5) to establish or to instruct the public body's staff concerning the position to be taken by or on behalf of the public body in negotiating the price and other material terms of a contract or proposed contract for the acquisition of interest in real property by purchase, option, exchange, or lease held by Carolina Water Services of North Carolina, Inc., located at 1100 Club Road, Corolla, NC, for any public purpose.~~

CLOSED SESSION CANCELLED

Adjourn

D) Public Comment

Chairman O'Neal opened the Public Comment period.

Mary Etheridge, Shawboro, stated that on December 5, 2011, the Board of Commissioners approved a junkyard on 1.1 acres of land in Shawboro. Even though staff, real estate and other agencies felt it was a bad idea, they were ignored. She informed the public, the same could happen to them.

Will Crodick, Knotts Island, corrected a previous statement concerning homework not being required. He noted it is now elective and could be considered as 10% of the student's final grade. He also quoted GS 115C-429 concerning the approval of school money allotment and interpreted that as the Board of Commissioners right to control how school funds are spent.

Dan Scanlon, County Manager, reviewed the General Statutes concerning duties of the Board of Education and the State's Uniform Chart of Accounts for all school systems. He noted the General Statutes do not give the Board of Commissioners control of line items.

Chairman O'Neal advised Mr. Crodick this was not a candidate issue.

Ginger Burcker, Moyock, with the Currituck County Homeschoolers, announced the start-up of a co-op and invited home school families to join. She noted they are on Facebook, gave contact information and noted there were 150 home school families in the county.

There being no further comments, Chairman O'Neal closed the Public Comment period.

Administrative Reports

A) Presentation on NC 2-1-1 by Keith Letchworth, East Carolina Behavioral Health

Keith Letchworth, East Carolina Behavioral Health (ECBH), stated ECBH serves 19 counties in Northeast North Carolina. ECBH is the local partner for NC 2-1-1 for 17 of the 19 counties. NC 2-1-1 is a statewide service available to all citizens 24/7/365 days a year for information about resources available to them in their area.

B) Cooperative Extension's Report to the People

Josh Bass, Chairman of the Cooperative Extension Board, introduced Cameron Lowe, Director of the Cooperative Extension Currituck Center.

Ms. Lowe introduced her staff and their positions. She announced this year is the Centennial Celebration of Cooperative Extension and reviewed accomplishments during the past year regarding 4-H and Backpacks for Kids, Agriculture and the Master Gardeners, Family & Consumer Science and the Wellness Program, SHIP assistance to Medicare recipients, the Rural Center and location of the Currituck Heritage Festival scheduled for September 20, 2014. She invited everyone to attend.

Barbara Snowden, dressed in the fashion of 1914, described how the Board meeting room would have looked the year Cooperative Extension began.

Public Hearings

A-1) Public Hearing and Action: Moyock Small Area Plan: Examines unique issues, concerns, and hopes of the community and works to establish public policy that accomplish the vision cast in this plan.

Holly White, Senior Planner, noted the plan before the Commissioners had been a one year and seven months process. She introduced the stakeholders on the committee and thanked them as well as staff for their input.

Rose Thompson stated the reason for the plan was a better quality of life. She gave some demographic facts regarding the Moyock area.

Mike Hall reviewed the process which included 18 meetings held to receive public input.

Doris Flora spoke about the committee's vision and asked the Commissioners to be proactive. She also reviewed the future land use map, thanked the staff and thanked the Commissioners for the opportunity to work on the plan.

Holly White explained the relationship between the vision, policies and actions, noted this Small Area Plan would replace the current Land Use Plan for the area, and referred to the Community Transect drawing.

Bruce Harding, Jr., covered the transportation phase of the plan regarding interconnectivity for the purpose of safety and improved response times.

Brian Innes reviewed the infrastructure and services recommendations with respect to sewer, water and stormwater management.

Bruce Harding, Jr., noted elements needed to establish a sense of place and quality of life such as a community park, multi-purpose facility, eco-tourism, small town main street, entryways and diversity of housing types.

Charlie Morris expressed the need for more small, locally owned businesses to encourage buying local and better marketing of those businesses for job creation and diversity of the tax base to keep taxes low. He also stated the importance of promoting Moyock as a destination for tourism.

Vic Ramsey provided closing remarks and expressed the need to locate facilities in the best places.

The Commissioners complimented the committee on a job well done and thanked them for their careful considered efforts.

Chairman O'Neal noted the plan would be considered in the Capital Improvement Program, that the Moyock Small Area Plan was a good document. He too thanked the participants with a special thanks to Holly White and staff.

Chairman O'Neal opened the Public Hearing.

Wende Shannon, Moyock, stated she was there on behalf of herself as a resident and the Moyock Concerned Citizens. She noted the Concerned Citizens Facebook page was growing.

Her main concern was with stormwater and flooding and she felt that the County should fix what is there before taking on more.

There being no further comments, Chairman O'Neal closed the Public Hearing.

Commissioner Petrey moved to continue the item. Commissioner McCord seconded the motion. Motion carried unanimously.

Chairman O'Neal called a 10 minute recess.

A-2) Public Hearing and Action: PB 88-66 Villages of Ocean Hill: Request to amend a Sketch Plan/Use Permit to establish General Business zoning and commercial landscaping use in the Villages at Ocean Hill in Corolla, directly south of the Enviro-Tech Wastewater Treatment Plant, Tax Map 114, Parcel 3K, Poplar Branch Township.

Sworn testimony was given prior to making comments.

Ben Woody, Planning and Community Development Director, reviewed the request including staff, Technical Review Committee and Planning Board recommendations.

CASE ANALYSIS FOR THE
Board of Commissioners
DATE: April 7, 2014

PB 88-66 Villages at Ocean Hill, Amended Sketch Plan/Use Permit

ITEM:	PB 88-66 Villages at Ocean Hill, Amended Sketch Plan/Use Permit
LOCATION:	Located directly South of the Enviro-Tech Wastewater Treatment Plant, in Corolla, within the Poplar Branch Township.
TAX ID:	0114-000-003K-0000
ZONING DISTRICT:	Single Family Residential - Outer Banks (SFO)
PRESENT USE:	Undeveloped Land
OWNER:	Midlantic Builders, LLC James V. Bickford III P.O. Box 2225 Kitty Hawk, North Carolina 27949
APPLICANT:	Bissell Professional Group P.O. Box 1068 Kitty Hawk, North Carolina 27949

LAND USE/ZONING OF SURROUNDING PROPERTY:

	Land Use	Zoning
NORTH:	Wastewater Treatment Plant	SFO
SOUTH	Conservation (US Fish and Wildlife Service)	SFO
EAST:	Landscaping Services	SFO (GB)
WEST:	Conservation (US Fish and Wildlife Service)	SFO

LAND USE PLAN

CLASSIFICATION:	The 2006 Land Use Plan classifies the site as Conservation within the Corolla subarea.
SIZE OF SITE:	0.55 acres
NUMBER OF UNITS:	NA
PROJECT DENSITY:	NA
UTILITIES:	NA
PUD ALLOCATION:	Total PUD land area: 153.50 acres
	Total Open Space Provided: 84.79 acres (55.2%)
	Total Open Space Required: 53.70 acres (35%)
	Total Proposed Commercial Allocation: 11.75 acres (7.7%)
	Total Allowable Commercial Allocation: 15.35 acres (10%)

I. NARRATIVE OF REQUEST:

Addition to Villages at Ocean Hill Commercial (GB) use area for the purpose of material and equipment storage and landscape operations, similar to previously approved sites to the North and South. No impervious coverage is proposed. Stormwater runoff and sedimentation will be managed using perimeter swales and check dams. The existing approved accessway will be utilized.

II. USE PERMIT REVIEW STANDARDS:

Use Permit Criteria and Staff Findings:

Use permits (UP) are intended to allow the Board of Commissioners flexibility in the administration of the UDO. Through the UP procedure, property uses which would otherwise be considered undesirable in certain districts can be developed subject to conditions of approval to minimize any negative effects they might have on surrounding properties.

In order to approve a UP, certain criteria must be satisfied. The criteria and staff findings of fact are outlined as follows:

1. The use will not endanger the public health or safety.

Based on the suggested finding provided by the applicant, staff has determined it is probably true that the use will not endanger the public health or safety.

Suggested Findings:

- a. No public health or safety concerns have been identified in connection with the proposed use.

2. The use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.

Based on the suggested findings provided by the applicant, staff has determined it is probably true that the use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.

Suggested Findings:

- a. The use is similar to approved uses to the North and South of the site (Storage, Stockpiling, and Equipment and Landscaping Operations) and is therefore in harmony with the area.
3. The use will be in conformity with the Land Use Plan or other officially adopted plan.

Based on the applicants response to Technical Review Committee comments concerning the sites Conservation classification in the Land Use Plan, and subsequent review of the Land Use Plan policies which lead to the following suggested findings, staff has determined it is probably true that the use will be in conformity with the Land Use Plan or other officially adopted plans.

The applicant provided the following statement addressing the Technical Review Committee's Concerns regarding conformity with the Land Use Plan:

While the Land Use Plan classifies the area as Conservation, we believe the proposed use is compatible, since it is related to a nursery operation, including storage of materials and equipment used to grow and maintain landscape areas. Also, we believe that Land Use Plan Policy OB2 is supported by this proposal. OB2 states "So as to minimize COMMERCIAL STRIP DEVELOPMENT and maximize the traffic moving capability of NC12, Currituck County shall encourage commercial development to cluster at appropriate locations rather than disbursing along NC12." The proposal locates a compatible commercial use well off of NC12 and adjacent to other similar uses in an area that has been reserved by the developer for that purpose. Concerning the wetland fill, this activity has already been authorized by the Army Corp of Engineers.

Potential impacts to sensitive areas are being minimized and mitigated by storing equipment toward the existing roadway and away from adjacent wetlands, and by installing a swale and vegetative filter along the northern boundary, so that any pollutants can be captured and filtered prior to leaving the site.

Suggested Findings:

The 2006 Land Use Plan classifies this site as Conservation within the Corolla subarea.

Conservation Areas

The purpose of the Conservation class is to provide for the long-term management and protection of significant, limited, or irreplaceable areas. Proper management is needed to conserve the natural, cultural, recreational, scenic or biologically productive values of these areas. The Conservation class should be applied to areas that should not be developed at all (preserved), or if developed, done so in a very limited manner characterized by careful planning and cautious attention to the conservation of environmental features. Infrastructure and services, public or private, should not be provided in these areas as a catalyst that could stimulate development. The Conservation class includes:

1. Areas of Environmental Concern, as defined in 15A NCAC 7H (e.g. coastal wetlands, estuarine and coastal shorelines, estuarine waters, public trust waters, etc.)
2. Freshwater wetland areas under the jurisdiction of the US Army Corps of Engineers' 404 Wetlands Permit Program and as generally identified by the National Wetlands Inventory of the U.S. Fish and Wildlife Service.
3. Certain critical wildlife habitat areas as may be designated by the State Natural Heritage Program and approved by the County Commissioners for inclusion in this class. (e.g. Great Marsh on Knotts Island, Currituck Banks/Swan Island Natural Area, Currituck Banks Corolla Natural Area, Pine Island/Currituck Club Natural Area, Northwest River Marsh Game Land, and many other marsh areas on the mainland.)
4. Other similar lands, environmentally significant because of their natural role in the integrity of the coastal region and which include, but are not limited to: bottom land hardwoods, pocosins, and swamp forests containing significant productive, natural, scenic, cultural or recreational resources, and as may be approved by the County Commissioners for inclusion in this class.

Due to the low-lying nature of much of Currituck County, and the prevalence of wetlands in the County, the Conservation class is the most extensive of the four land classes. Oftentimes, the scattered, widespread nature of such areas (e.g. 404 wetlands) precludes their mapping except at a very generalized level of detail. In such instances, the standards of the Conservation class shall be applied in accordance with the site specific information made available during special studies and/or the land development process.

As stated above, much of the land included in the Conservation classification is environmentally sensitive and therefore already protected through existing, federal, state, and local regulations. However, for areas within the classification that would be considered developable, uses such as agriculture, agriculture related services, and extremely low density residential development (1 unit per 3 acres or less) would be permitted. With the exception of agricultural related uses, nonresidential uses should not be encouraged. It is anticipated that any uses within the Conservation area would be served by individual on-site water and wastewater.

The proposed use is in keeping with the policies of the plan, some of which are:

POLICY ES4: In approving new developments, Currituck County shall support the retention or creation of a vegetated buffer area along ESTUARINE SHORELINES as a simple, effective and low-cost means of preventing pollutants from entering estuarine waters. Exceptions to this requirement may include developments involving pre-existing man-made features such as hardened shorelines, ditches, and canals. Farming and forestry operations that abide by appropriate "best management practices" are also exempt. The County also supports CAMA use standards for all COASTAL SHORELINES, whether estuarine or otherwise.

POLICY WQ6: Currituck County supports the retention or preservation of VEGETATED BUFFERS along the edge of drainage ways, streams and other components of the estuarine system as an effective, low cost means of protecting water quality.

POLICY OB2: So as to minimize COMMERCIAL STRIP DEVELOPMENT and maximize the traffic moving capability of NC 12, Currituck County shall encourage commercial development to cluster at appropriate locations rather than dispersing along NC 12.

4. The use will not exceed the county's ability to provide adequate public facilities, including, but not limited to, schools, fire and rescue, law enforcement, and other county facilities. Applicable state

standards and guidelines shall be followed for determining when public facilities are adequate. Such facilities must be in place or programmed to be in place within two years after the initial approval of the plan (sketch plan in the case of major subdivisions).

Based on the suggested findings, staff has determined it is probably true that the use will not exceed the county's ability to provide adequate public facilities, including but not limited to schools, fire and rescue, law enforcement, and other county facilities.

Staff Findings:

- a. According to the applicant, the use is expected to have no impact on the County's ability to provide adequate public facilities.
- b. The applicant proposes minimal site development, no structures are proposed, and the use will have no impact on schools.

III. TECHNICAL REVIEW COMMITTEE RECOMMENDATION:

Pursuant to the Unified Development Ordinance, the Technical Review Committee recommends approval subject to the following conditions:

1. Any structures and/or impervious surfaces will require site plan approval, stormwater plan approval, and low impact development techniques shall be utilized to fully address environmental concerns.
2. Any change or intensification of use requires County approval through the appropriate process.

IV. PLANNING BOARD RECOMMENDATION:

The Planning Board *recommended approval* to amend a Sketch Plan/Use Permit with the staff recommendations.

PLANNING BOARD DISCUSSION (3.11.14)

Mr. Bissell said the use area for the purpose of material and equipment storage and landscape operations is similar to previously approved sites to the North and South. No impervious coverage is proposed. Stormwater runoff and sedimentation will be managed using perimeter swales and check dams. The existing approved access way will be utilized. Mr. Bissell will be glad to answer any questions the board may have.

Ms. Bell said the 2006 Land Use Plan classified this site as conservation within the Corolla subarea. Ms. Bell said item 4 states, "With the exception of agricultural related uses, nonresidential uses should not be encouraged." Ms. Bell said this request is not an agricultural use.

Mr. Bissell said it would be related to nursery operation, which would be exempt from this restriction.

Ms. Overstreet asked if this area is subject to flooding.

Mr. Bissell said it did flood during Hurricane Irene.

Mr. Cooper said structures or impervious surfaces are not proposed with this request.

Mr. Bissell said that is correct.

Mr. Cooper said if in the future something like this is proposed it would require staff review.

Mr. Bissell said that is correct.

PLANNING BOARD ACTION

Mr. Bell moved to approve PB 88-66 with the findings of fact and staff recommendations included in the case analysis. Mr. Craddock seconded the motion. Ayes: Mr. Bell, Mr. Cooper, Ms. Bell, Mr. Clark, Ms. Newbern, Mr. Cartwright and Mr. Craddock. Nays: Ms. Overstreet.

Commissioners expressed concerns with proximity to wetlands and monitoring.

Mr. Woody explained the process for monitoring use permits annually.

Chairman O'Neal opened the Public Hearing.

Mark Bissell, Kitty Hawk, representing the owner, noted that precautions were being taken to protect the environment and it is compatible with the neighborhood. He stated the request meets the criteria for the use permit, and there were no impervious surfaces.

Mr. Woody was asked about the process if the applicant were to request a mapping change from conservation to full service. He explained the steps to get approval of a Land Use Plan amendment.

Commissioners agreed the requested landscaping use was preferable to a structure.

Mr. Woody stated equipment would be parked on site, but away from the wetlands.

Starkey Sharp, Kitty Hawk, felt a mistake had been made on the drawing.

Jim Bickford, Kitty Hawk, noted the conservation tract had been given to the County by the owners of Ocean Hill. The County in turn gave it to Fish and Wildlife. Somehow this little piece in question got sandwiched somewhere it didn't belong.

There being no further comments, Chairman O'Neal closed the Public Hearing.

Commissioner McCord moved to approve PB 88-66 with the staff findings and recommendations included in the case analysis. Commissioner Martin seconded the motion. Motion carried unanimously.

- B) Public Hearing and Action: PB 87-56 Monterey Shores, PUD: Request to amend the sketch plan and use permit to increase the commercial allocation within the planned unit development by 0.62 acres, Tax Map 115, Parcel 3S, Poplar Branch Township**

Sworn testimony was given prior to making comments.

Ben Woody, Planning and Community Development Director, reviewed the request including staff, Technical Review Committee and Planning Board recommendations.

CASE ANALYSIS FOR THE
Board of Commissioners
DATE: April 7, 2014
PB 87-56 Monterey Shores, PUD

ITEM: PB 87-56 Monterey Shores, PUD Amended Sketch Plan/Use Permit to increase the commercial allocation within the PUD by 0.62 acres.

LOCATION: Monterey Shores, Ocean Trail, Corolla, NC.

TAX ID: 0115-000-0035-0000

ZONING DISTRICT: SFO (Single Family Outer Banks) with PUD Overlay

PRESENT USE: Undeveloped

PROPOSED USE: Grocery Store

OWNER: Food Lion, LLC
2110 Executive Drive
Salisbury, NC 28145

APPLICANT: Food Lion, LLC

LAND USE/ZONING OF SURROUNDING PROPERTY:

	Land Use	Zoning
NORTH:	Residential	SFO/PUD overlay
SOUTH:	Residential/Undeveloped	SFO/PUD overlay
EAST:	Undeveloped	SFO/PUD overlay
WEST:	Currituck Sound	N/A

LAND USE PLAN

CLASSIFICATION: The 2006 Land Use Plan classifies the site as Full Service within the Corolla subarea.

SIZE OF SITE: 14.1 acres

NUMBER OF UNITS: 654 units

PROJECT DENSITY: 2.05 units per acre

UTILITIES: The development will be served by Southern Outer Banks water system and the Monterey Shores/TimBuck II wastewater treatment plant.

PUD ALLOCATION: 355.60 acres (approved development area)
363.21 acres (summation on approved plans)
36.32 acres proposed commercial allocation (10%)
131.13 acres proposed open space (36.10%)

I. NARRATIVE OF REQUEST:

- The applicant, Food Lion, LLC, is requesting an amended sketch plan and (special) use permit to increase the commercial allocation from 5.48 acres to 6.10 acres on the parcel currently owned by Food Lion, LLC.
- The development summary (open space, commercial and residential) provides an update and reflects the 2007 sketch plan with plan changes approved in 2010.
- The BOC approved the same request on December 3, 2007; however, the commercial allocation was not included in updated sketch plans submitted and approved after the 2007 approval prepared by another engineering firm.
- All remaining acreage (8 acres) of this tract not included in the General Business allocation will be dedicated open space.
- A conceptual plan of a proposed food store is provided for illustrative purposes only. The site specific development plan is not approved for this property or part of this submittal. A site plan for any proposed development on the tract must be submitted to the county, follow the appropriate review process for the type of use proposed, and be approved by the appropriate authority.

II. USE PERMIT REVIEW STANDARDS:

Use Permit Criteria and Staff Findings:

Use permits (UP) are intended to allow the Board of Commissioners flexibility in the administration of the UDO. Through the UP procedure, property uses which would otherwise be considered undesirable in certain districts can be developed subject to conditions of approval to minimize any negative effects they might have on surrounding properties.

In order to approve a UP, certain criteria must be satisfied. The criteria and staff findings of fact are outlined as follows:

1. *The use will not endanger the public health or safety.*

Based on the suggested findings provided by the applicant, staff has determined it is probably true that the use will not endanger the public health or safety.

Suggested Findings:

- a. The proposed zoning request will increase the property's commercial allocation from 5.40 acres to 6.10 acres (net 0.6 acres).
- b. The increased commercial allocation on the parcel will not endanger public health or safety.
- c. The property is located in the Corolla subarea (Full Service Area) where a broad range of infrastructure and service investments are publically and privately provided.
- d. Available infrastructure and services are adequate and support the proposed increase in commercial land allocation.

2. *The use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.*

Based on the suggested findings provided by the applicant, staff has determined it is probably true that the use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.

Suggested Findings:

- a. The proposed zoning request will increase the property's commercial allocation from 5.4 acres to 6.10 acres (net 0.6 acres).

- b. The property is also located within the Corolla subarea (Full Service Area) where commercial developments along with many other uses are supported.
- c. The property has a commercial designation (GB). The request is to increase the commercial allocation of the property by approximately 11%.
- d. The proposed increase in commercial allocation will not injure the value of abutting properties and will be in harmony with the area in which it is located.

3. *The use will be in conformity with the Land Use Plan or other officially adopted plans.*

Based on the suggested findings, staff has determined it is probably true that the use will be in conformity with the Land Use Plan or other officially adopted plans.

Suggested Findings:

The 2006 Land Use Plan classifies this site as Full Service within the Corolla subarea. The full service area may include nonresidential uses that are clustered and serve the immediate area, and where appropriate, a more extensive market territory. The policy emphasis for the Corolla area is to allow for predominately medium density residential development with minimal commercial development arranged in clusters. The proposed use is in keeping with the policies of the plan, some of which are:

POLICY OB2: So as to minimize COMMERCIAL STRIP DEVELOPMENT and maximize the traffic moving capability of NC 12, Currituck County shall encourage commercial development to cluster at appropriate locations rather than dispersing along NC 12.

POLICY WQ5: Development that preserves the NATURAL FEATURES OF THE SITE, including existing topography and significant existing vegetation, shall be encouraged. If COASTAL and NON-COASTAL WETLANDS are considered part of a lot's acreage for the purpose of determining minimum lot size or development density, Low Impact Development techniques or appropriate buffers shall be integrated into the development. Open space developments shall be encouraged to REDUCE IMPERVIOUS SERVICE AREAS associated with new development and redevelopment.

4. *The use will not exceed the county's ability to provide adequate public facilities, including but not limited to schools, fire and rescue, law enforcement, and other county facilities. Applicable state standards and guidelines shall be followed for determining when public facilities are adequate:*

Based on the suggested findings, staff has determined it is probably true that the use will not exceed the county's ability to provide adequate public facilities, including but not limited to schools, fire and rescue, law enforcement, and other county facilities.

Suggested Findings:

- a. The proposed development will not have an impact on schools.

III. TECHNICAL REVIEW COMMITTEE RECOMMENDATION:

Pursuant to the Unified Development Ordinance, the Technical Review Committee recommends approval subject to the following conditions:

- 1. A current USACOE wetland delineation shall be submitted with the proposed site plan.

IV. PLANNING BOARD RECOMMENDATION:

The Planning Board *recommended approval* to amend the Sketch Plan/Use Permit with the staff recommendation.

PLANNING BOARD DISCUSSION (3.11.14)

Mr. Dail said staff did a good job presenting the request and would be glad to answer any questions the board may have.

PLANNING BOARD ACTION

Mr. Cooper moved to approve PB 87-56 as presented with the findings of fact and staff recommendations included in the case analysis. Mr. Craddock seconded the motion and motion carried unanimously.

Chairman O'Neal opened the Public Hearing.

Derek Dail, Quible and Associates, stated his firm applied for the 2007 amended sketch plan approval and he was back for the current request. He offered to answer any questions.

There being no questions and no further comments, Chairman O'Neal closed the Public Hearing.

Commissioner Aydlett moved for approve PB 87-56 Monterey Shores: Amended sketch plan/use permit to increase GB zoning with staff findings and recommendations included in the case analysis and the following additional findings and conclusions:

- The use will not endanger the public health or safety.
- The use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.
- The use will be in conformity with the Land Use Plan or other officially adopted plan.
- The use will not exceed the county's ability to provide adequate public facilities.

Commissioner Gilbert seconded the motion. Motion carried unanimously.

C) Public Hearing and Action: PB 13-21 Brumsey Ridge, Phase 2: Request for a preliminary plat and use permit for a 4 lot subdivision phase located in Moyock on the north side of Brumsey Road approximately 1/4 mile from the intersection with Tulls Creek Road, Tax Map 49, Parcel 82A, Crawford Township.

Sworn testimony was given prior to making comments.

Ben Woody, Planning and Community Development Director, reviewed the request including staff, Technical Review Committee and Planning Board recommendations.

CASE ANALYSIS FOR THE
Board of Commissioners
DATE: April 7, 2014
PB 13-21 Brumsey Ridge, Phase II

ITEM: PB 13-21 Brumsey Ridge, Phase II, Preliminary Plat/Use Permit for a 4 lot subdivision phase.

LOCATION: In Moyock, on the north side of Brumsey Road approximately 1/4 mile from the intersection with Tulls Creek Road, Crawford Township.

TAX ID: 0049-000-082A-0000

ZONING DISTRICT: Single Family Mainland (SFM)

PRESENT USE: Undeveloped

**OWNER/
APPLICANT:** H. Kim Old
104 Tulls Creek Road
Moyock NC 27958

LAND USE/ZONING OF SURROUNDING PROPERTY:

	Land Use	Zoning
NORTH:	Wetlands	SFM
SOUTH	Residential	SFM
EAST:	Residential	SFM
WEST:	Residential/farmland/undeveloped	SFM

LAND USE PLAN

CLASSIFICATION: The 2006 Land Use Plan classifies the site as Limited Service within the Courthouse subarea.

SIZE OF SITE: 11.5 acres

NUMBER OF UNITS: 4 Residential Lots (Phase II)
8 Residential Lots (Phases I and II)

PROJECT DENSITY: 0.70 units per acre (Phase I and Phase II)

**OPEN SPACE
AREA:** 3.45 acres required
3.60 acres provided

UTILITIES: The individual lots will be served by county water and on-site septic systems.

I. NARRATIVE OF REQUEST:

- The final plat of Brumsey Ridge, Phase 1, Part 1, (2 lots) was recorded on February 12, 2014.
- Kim Old is requesting preliminary plat/use permit approval of a 4 lot (Phase II) residential subdivision with an overall project density of 0.70 units per acre in the SFM zoning district.

II. QUESTION(S) BEFORE THE BOARD:

Use Permit Criteria and Staff Findings:

Use permits (UP) are intended to allow the Board of Commissioners flexibility in the administration of the UDO. Through the UP procedure, property uses which would otherwise be considered undesirable in certain districts can be developed subject to conditions of approval to minimize any negative effects they might have on surrounding properties.

In order to approve a UP, certain criteria must be satisfied. The criteria and suggested findings of fact are outlined as follows:

1. *The use will not endanger the public health or safety.*

Based on the suggested finding provided by the applicant, staff has determined it is probably true that the use will not endanger the public health or safety.

Suggested Findings:

- a. The use will adhere to county health and safety standards and will not endanger the public health or safety.

2. *The use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.*

Based on the suggested findings provided by the applicant, staff has determined it is probably true that the use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.

Suggested Findings:

- a. The proposed use is a residential subdivision that is permissible in the SFM zoning district.
- b. There are existing residential uses to the east and west as well as across the street from the proposed use.

3. *The use will be in conformity with the Land Use Plan or other officially adopted plans.*

Based on the suggested findings, staff has determined it is probably true that the use will be in conformity with the Land Use Plan or other officially adopted plans.

Suggested Findings:

The 2006 Land Use Plan classifies this site as Limited Services within the Courthouse subarea. The Limited Services area is to provide for primarily residential development at low densities. The policy emphasis is for the Courthouse area to continue to grow as a small community center. The proposed use is in keeping with the policies of the plan, some of which are:

POLICY HN1: Currituck County shall encourage development to occur at densities appropriate for the location. LOCATION AND DENSITY FACTORS shall include whether the development is within an environmentally suitable area, the type and capacity of sewage treatment available to the site, the adequacy of transportation facilities providing access to the site, and the proximity of the site to existing and planned urban services. For example, projects falling within the Full Services areas of the Future Land Use Map would be permitted a higher density because of the availability of infrastructure as well as similarity to the existing development pattern. Such projects could be developed at a density of two (2) or more dwelling units per acre. Projects within areas designated as Limited Service would be permitted a density of one (1) to one and one half (1.5) units per acre depending upon the surrounding development pattern and availability of resources. Projects within areas designated as Rural or Conservation by the Future Land Use Plan would be permitted a much lower density of 1 dwelling unit per 3 acres because of the lack of infrastructure in the area, the existing low density development pattern, and presence of environmentally sensitive natural areas.

POLICY HN3: Currituck County shall especially encourage two forms of residential development, each with the objective of avoiding traditional suburban sprawl:

1. OPEN SPACE DEVELOPMENTS that cluster homes on less land, preserving

permanently dedicated open space and often employ on-site or community sewage treatment. These types of developments are likely to occur primarily in the Conservation, Rural, and to a certain extent the Limited Service areas identified on the Future Land Use Map.

2. **COMPACT, MIXED USE DEVELOPMENTS or DEVELOPMENTS NEAR A MIXTURE OF USES** that promote a return to balanced, self-supporting community centers generally served by centralized water and sewer. The types of development are contemplated for the Full Service Areas identified on the Future Land Use Map.

POLICY AG2: Farms and woodlands shall be recognized as an integral part of the county's OPEN SPACE SYSTEM. Efforts to keep these areas viable as part of the area's resource-based economic sector, shall be encouraged.

POLICY ES2: NON-COASTAL WETLANDS, including FRESHWATER SWAMPS, AND INLAND, NON-TIDAL WETLANDS, shall be conserved for the important role they play in absorbing floodwaters, filtering pollutants from stormwater runoff, recharging the ground water table, and providing critical habitat for many plant and animal species. Currituck County supports the efforts of the U.S. Army Corps of Engineers in protecting such wetlands through the Section 404 permit program of the Clean water Act, as well as Section 401 water quality certifications by the State of North Carolina.

4. *The use will not exceed the county's ability to provide adequate public facilities, including but not limited to schools, fire and rescue, law enforcement, and other county facilities. Applicable state standards and guidelines shall be followed for determining when public facilities are adequate:*

Based on the suggested findings, staff has determined it is probably true that the use will not exceed the county's ability to provide adequate public facilities, including but not limited to schools, fire and rescue, law enforcement, and other county facilities.

Suggested Findings:

- a. The proposed development will have the following impact on schools:
 - i. Elementary: 1 student
 - ii. Middle: 0 student
 - iii. High: 0 student

III. TECHNICAL REVIEW COMMITTEE RECOMMENDATION:

Pursuant to the Unified Development Ordinance, the Technical Review Committee recommends approval subject to the following condition:

1. Any impacts to waters or wetlands of the US will require a permit review.

IV. PLANNING BOARD RECOMMENDATION:

The Planning Board recommended approval of the preliminary plat/use permit with the staff recommendations.

PLANNING BOARD DISCUSSION (3.11.14)

Mr. Bissell said the reason this project was done in two phases there was a delay in getting the Health Department's approval on some of the lots; and they had to reconfigure some of the lots. Mr. Bissell said he would be glad to answer any questions the board may have.

Mr. Craddock said Mr. Bissell did a good job explaining the project when he presented Phase 1.

PLANNING BOARD ACTION

Ms. Overstreet moved to approve PB 13-21 as presented with the findings of fact and staff recommendations included in the case analysis. Mr. Cartwright seconded the motion and motion carried unanimously.

Chairman O'Neal opened the Public Hearing.

Mark Bissell, Kitty Hawk, representing the owner, stated the request was consistent with the Land Use Plan and the neighborhood. He asked for approval.

Chairman O'Neal asked for clarification on water line size.

Mr. Bissell responded it would be 6" on the north side.

Kim Old, Moyock, the owner, asked for approval and offered to answer any questions.

Commissioner McCord asked about the lot size to which Mr. Old replied about 40,000 square feet.

There being no further comments, Chairman O'Neal closed the Public Hearing.

Commissioner Petrey moved to approve PB 13-21 with staff findings. Commissioner Gilbert seconded the motion.

Commissioner Griggs requested to amend the motion to add motion to approve PB 13-21 Brumsey Ridge, Phase 2: Preliminary Plat/Use Permit with the staff findings and recommendations included in the case analysis and the following additional findings and conclusions:

- The use will not endanger the public health or safety.
- The use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.
- The use will be in conformity with the Land Use Plan or other officially adopted plan.
- The use will not exceed the county's ability to provide adequate public facilities.

Commissioner Gilbert seconded the amended motion. Motion carried unanimously.

D) Public Hearing and Action: PB 14-02 Shore Shot Pawn and Gun: Request a use permit to operate a pawn shop in Grandy at 6599 Caratoke Highway, Tax Map, 108, Parcel 9, Poplar Branch Township.

Sworn testimony was given prior to making comments.

Ben Woody, Planning and Community Development Director, reviewed the request including staff, Technical Review Committee and Planning Board recommendations.

CASE ANALYSIS FOR THE
Board of Commissioners
DATE: April 7, 2014
PB 14-02 Shore Shot Pawn & Gun

ITEM: PB 14-02 Shore Shot Pawn and Gun request for a use permit to operate a pawn shop.

LOCATION: Grandy: 6599 Caratoke Highway

TAX ID: 0108000-0009-0000

ZONING DISTRICT: General Business (GB)

PRESENT USE: Retail/Service (Machine Shop and Quilting Shop)

OWNER: Cynthia Holland
101 Mallard Dr
Currituck NC 27929

APPLICANT: Rebecca January
PO Box 266
Nags Head NC 27959

LAND USE/ZONING OF SURROUNDING PROPERTY:

	Land Use	Zoning
NORTH:	Residential	GB
SOUTH	Residential	GB
EAST:	Residential	AG
WEST:	Retail	GB

LAND USE PLAN

CLASSIFICATION: The 2006 Land Use Plan classifies the site as Full Service within the Grandy subarea.

SIZE OF SITE: 1.18 acres

COMMUNITY MEETING: A community meeting was held on January 21, 2014 at the Currituck Bible Baptist Church. No residents attended the meeting.

I. NARRATIVE OF REQUEST:

1. The applicant is requesting to operate a pawn shop in an existing building.
2. The applicant is proposing infrequent display of goods (i.e. bikes) outside of the building. Outdoor display is allowed as an accessory use to the business and must meet all of the requirements of Section 4.3.3.P Outdoor Display and Sales of the UDO.
3. The applicant will be using 1,000 sf of the building for the pawn shop and the remaining 3,600 sf as storage.

II. QUESTION(S) BEFORE THE BOARD:

Use Permit Criteria and Staff Findings:

Use permits (UP) are intended to allow the Board of Commissioners flexibility in the administration of the UDO. Through the UP procedure, property uses which would otherwise

be considered undesirable in certain districts can be developed subject to conditions of approval to minimize any negative effects they might have on surrounding properties.

In order to approve a UP, certain criteria must be satisfied. The criteria and suggested findings of fact are outlined as follows:

1. *The use will not endanger the public health or safety.*

Based on the suggested finding provided by the applicant, staff has determined it is probably true that the use will not endanger the public health or safety.

Suggested Findings:

- a. The use will keep detailed records and will be available to the sheriff's office on a daily basis.

2. *The use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.*

Based on the suggested findings provided by the applicant, staff has determined it is probably true that the use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.

Suggested Findings:

- a. According to the applicant, the area is zoned GB and there are several other businesses clustered together in the general vicinity of the shop.
- b. The proposed use will be within an existing building.
- c. There are existing retail uses across the street from the proposed use.

3. *The use will be in conformity with the Land Use Plan or other officially adopted plans.*

Based on the suggested findings, staff has determined it is probably true that the use will be in conformity with the Land Use Plan or other officially adopted plans.

Suggested Findings:

The 2006 Land Use Plan classifies this site as Full Services within the Grandy subarea. The Full Service area is to preserve existing community character. The policy emphasis is for the Grandy area to further evolve as a community center. The proposed use is in keeping with the policies of the plan, some of which are:

- a. POLICY CD5: Incompatible or poorly planned commercial encroachment within or immediately adjoining existing residential areas shall be prohibited. Such incompatible encroachments often include, but are not limited to, large-scale commercial uses or automobile-oriented commercial uses such as service stations, car lots, car washes, drive through restaurants, and the like.
- b. POLICY ED1: New and expanding industries and businesses should be especially encouraged that: 1) diversify the local economy, 2) train and utilize a more highly skilled labor force, and 3) are compatible with the environmental quality and natural amenity-based economy of Currituck County.
- c. POLICY ED4: In addition to the recruitment and expansion of major new industries, the considerable value of small business start-ups, expansions, and spin-offs shall also be recognized.

4. *The use will not exceed the county's ability to provide adequate public facilities, including but not limited to schools, fire and rescue, law enforcement, and other county facilities. Applicable state standards and guidelines shall be followed for determining when public facilities are adequate:*

Based on the suggested findings, staff has determined it is probably true that the use will not exceed the county's ability to provide adequate public facilities, including but not limited to schools, fire and rescue, law enforcement, and other county facilities.

Suggested Findings:

- b. According to the applicant, the use will not create any undue burden on public facilities and there will be no site improvements made.
- c. The proposed development will have no impacts on schools.

III. TECHNICAL REVIEW COMMITTEE RECOMMENDATION:

Pursuant to the Unified Development Ordinance, the Technical Review Committee recommends approval of the use permit subject to the findings of fact and the following conditions:

1. The square footage used by the pawn shop shall not exceed 1,000 sf under this approval.
2. Do not park, drive, or store merchandise on septic system area and private well area.

IV. PLANNING BOARD RECOMMENDATION:

The Planning Board *recommended approval* of PB 14-02 of the use permit with staff recommendations.

PLANNING BOARD DISCUSSION (3-11-14)

Mr. Cooper asked if the 1,000 sf was sectioned off in the building.

Ms. Glave said yes.

Mr. Cooper asked if the daily record is kept in case something is stolen.

Ms. Glave said General Status is very aggressive with pawn shops keeping detailed records, which will be provided to the sheriff's office on a daily basis.

Ms. January said it took a long time to find a building that would accommodate this type of business and a good location for it. Ms. January would be glad to answer any questions.

Mr. Craddock said he does not feel this request would be a detriment to Grandy or the highway corridor if this request was allowed.

PLANNING BOARD ACTION

Ms. Bell moved to approved PB 14-02 as presented with the findings of fact and staff recommendations included in the case analysis. Mr. Craddock seconded the motion and motion carried unanimously.

Chairman O'Neal opened the Public Hearing.

Rebecca January, Kitty Hawk, thanked the Commissioners for considering her request.

There being no further comments, Chairman O'Neal closed the Public Hearing.

Commissioner Petrey moved to approve PB 14-02 Shore Shot Pawn and Gun: Use Permit with the staff findings and recommendations included in the case analysis and the following additional findings and conclusions:

- The use will not endanger the public health or safety.
- The use will not injure the value of adjoining or abutting lands and will be in harmony with the area in which it is located.
- The use will be in conformity with the Land Use Plan or other officially adopted plan.

- The use will not exceed the county's ability to provide adequate public facilities.

Commissioner Martin seconded the motion. Motion carried unanimously.

New Business

- ~~A) Consideration of Ordinance Amendment to Allow Certain Commercial and Governmental Activities Involving Motor Vehicles on the Beach Strand and Foreshore from the Dare County Line to the North Beach Access Ramp between May 1 and September 30.~~

CONTINUED

- ~~B) Consideration of Ordinance Amendment to Make Certain Changes to Outdoor Tour Operator Regulations and Provide for Violation as a Civil Offense.~~

CONTINUED

C) Board Appointments

1. Appointments to Whalehead Solid Waste Advisory Board

Commissioner Aydlett recommended Matt Hinson for a term ending September 2015, Sandra LaRue, term ending September 2015, and Dennis Umberger, term ending September 2014. Motion carried unanimously.

2. Appointments to Economic Development Advisory Board

Commissioner Petrey recommended Al Marzetti, term ending March 2016. Commissioner McCord recommended Greg Laput, term ending March 2016. Motion carried unanimously.

D) Consent Agenda:

1. Approval of March 17, 2014, Minutes
2. Budget Amendments
3. Award of Beach Cleanup Contract
4. Project Ordinance - Southern Parallel Taxiway; NC Division of Aviation Grant 36237.8.9.1
5. Project Ordinance - Bus Parking Area
6. License Agreement Granting Use of Wine & Swine Service Mark
7. Resolution Accepting State Aid to Airports Block Grant and Authorizing County Manager to Enter into a Grant Agreement with NC Department of Transportation for the Southern Parallel Taxiway (Design/Bid/Environmental Documentation)
8. Authorize County Manager to Execute Five Year Lease Agreement with Ricoh for Register of Deeds Copier
9. Resolution in Support of Recognition of World War II Coastwise Merchant Mariners
10. Resolution Declaring Southern Outer Banks Water System Surplus Items

- 11. Resolution to declare vehicles surplus
- 12. CDBG Monthly Status Report

Commissioner Aydlett stated that he had consulted the County Attorney concerning whether to recuse himself from voting on Item 3 due to his son-in-law working for the lowest bidder. The County Attorney had informed him he could not recuse himself.

Commissioner Martin moved to approve the Consent Agenda. Commissioner Gilbert seconded the motion. Motion carried unanimously.

<u>Account Number</u>		<u>Account Description</u>	Debit	Credit
			Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
10790	513000	Utilities	\$ 1,000	
10790	516000	Repairs & Maintenance		\$ 1,000
			<u>\$ 1,000</u>	<u>\$ 1,000</u>

Explanation: *Library (10790) - Transfer funds to increase utilities budget,*

Net Budget Effect: Operating Fund (10) - No change.

<u>Account Number</u>		<u>Account Description</u>	Debit	Credit
			Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
10410	502000	Salaries	\$ 30,816	
10410	505000	FICA	\$ 2,357	
10410	506000	Health Insurance	\$ 158	
10410	506001	Unemployment Insurance	\$ 4	
10410	507000	Retirement	\$ 3,783	
10410	590000	Capital Outlay	\$ 80	
10410	526000	Advertising		\$ 3,500
10410	561000	Professional Services		\$ 1,013
10415	502000	Salaries		\$ 23,130
10415	505000	FICA		\$ 1,170
10415	506000	Health Insurance		\$ 5,546
10415	506001	Unemployment Insurance	\$ 2	
10415	507000	Retirement		\$ 2,841
			<u>\$ 37,200</u>	<u>\$ 37,200</u>

Explanation: *Administration (10410); Legal (10415) - Transfer lapsed salaries from Legal to Administration to amend current Clerk to the Board retirement date, pay out accrued vacation and hire replacement position to train with current position from May 19 through June 30.*

Net Budget Effect: Operating Fund (10) - No change.

<u>Account Number</u>		<u>Account Description</u>	Debit	Credit
			Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
60808	533601	System Supplies	\$ 1,500	
60808	531000	Gas	\$ 3,000	
60808	533801	Chemicals		\$ 4,500
61818	533800	Chemicals		\$ 4,000
61818	545000	Contract Services	\$ 4,000	
66868	532000	Supplies	\$ 10,000	
66868	516000	Maintenance & Repair		\$ 7,000
66868	545000	Contract Services		\$ 3,000
67878	516000	Repairs & Maintenance	\$ 700	
67878	533000	Supplies	\$ 2,100	
67878	545000	Contract Services	\$ 1,400	
67878	553000	Dues & Subscriptions		\$ 1,500
67878	533800	Chemicals		\$ 1,500
67878	533200	Lab Tests		\$ 1,200
68888	513000	Utilities	\$ 1,300	
68888	516000	Repairs & Maintenance	\$ 400	
68888	531000	Gas		\$ 200
68888	533800	Chemicals		\$ 1,500
			<u>\$ 24,400</u>	<u>\$ 24,400</u>

Explanation: *Ocean Sands Water and Sewer (60808); Mainland Water (61818); Southern Outer Banks Water (66868); Moyock Central Sewer (67878); Walnut Island Sewer (68888) - Transfer for operations for the remainder of this fiscal year.*

Net Budget Effect: Ocean Sands Water and Sewer Fund (60) - No change.
 Mainland Water Fund (61) - No change.
 Southern Outer Banks Water Fund (66) - No change.
 Moyock Central Sewer Fund (67) - No change.
 Walnut Island Sewer Fund (68) - No change.

<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
10531	532000	Supplies	
		Emergency Management	
10330	445000	Grant	
		\$ 9,137	
			\$ 9,137
		<u>\$ 9,137</u>	<u>\$ 9,137</u>

Explanation: *Emergency Management (10531)* - Increase funding to record Homeland Security Grant funding for 3 exercises.

Net Budget Effect: Operating Fund (10) - Increased by \$9,137.

<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
10540	553000	Dues & Subscriptions	
10540	526000	Advertising	
10540	516200	Vehicle Maintenance	
10540	514000	Travel	
10540	514500	Training & Education	
10660	561000	Professional Services	
10660	545000	Contract Services	
10660	531000	Gas	
10660	516200	Vehicle Maintenance	
10660	514800	Fees Paid to Officials	
		\$ 250	
			\$ 250
		\$ 950	
			\$ 350
			\$ 600
		\$ 500	
			\$ 500
		\$ 200	
		\$ 500	
			\$ 700
		<u>\$ 2,400</u>	<u>\$ 2,400</u>

Explanation: *Inspections(10540); Community Development (10660)* - Transfer budget funds for operations for the remainder of this fiscal year.

Net Budget Effect: Operating Fund (10) - No change.

<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
10530	503000	Part-time Salaries	\$ 20,000
10530	502100	Overtime	\$ 50,000
10530	553000	Dues & Subscriptions	\$ 150
10530	545000	Contract Services	\$ 2,700
10530	590000	Capital Outlay Ad Valorem Taxes - 2013	\$ 44,000
10310	400013	Levy	\$ 39,450
10530	502000	Salaries - Regular	\$ 74,550
10530	561000	Professional Services	\$ 150
10530	514000	Travel	\$ 700
10530	514800	Fees Paid to Officials	\$ 2,000
		<u>\$ 116,850</u>	<u>\$ 116,850</u>

Explanation:

Emergency Medical Services (10530) - Increase appropriations to purchase a used 4 X 4 ambulance to use in the off-road area. Also, transfer budgeted funds to upgrade tires on ambulance, transfer funds to overtime to cover for employees on FMLA and Worker's Comp and operating transfers for the remainder of this fiscal year.

Net Budget Effect:

Operating Fund (10) - No change.

<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
12548	514515	Travel & Training	\$ 4,800
12548	516115	Building & Grounds	\$ 11,633
12548	526015	Promotions	\$ 1,200
12458	561015	Professional Services	\$ 500
12548	553015	Dues & Subscriptions	\$ 8,000
12548	544015	Volunteer Assistance	\$ 15,000
12548	545000	Contract Services	\$ 3,633
12548	532115	Fire Supplies	\$ 7,500
		<u>\$ 26,133</u>	<u>\$ 26,133</u>

Explanation: *Knotts Island Vol Fire Dept (12548) - Operating transfers for Knotts Island Vol Fire Department as requested in e-mail dated March 19, 2014.*

Net Budget Effect: Fire Services Fund (12) - No change.

<u>Account Number</u>		<u>Account Description</u>	Debit Decrease Revenue or Increase Expense	Credit Increase Revenue or Decrease Expense
10775	506000	Insurance Expense	\$ 3,240	
10775	514000	Travel	\$ 600	
10775	526000	Advertising		\$ 300
10775	531000	Gas		\$ 1,500
10775	545000	Contract Services - Nutrition		\$ 2,040
			<u>\$ 3,840</u>	<u>\$ 3,840</u>

Explanation: *Senior Citizens Center (10775) - Transfer funds to increase health insurance require for part-time worker under the Affordable Care act and for additional Senior programming.*

Net Budget Effect: Operating Fund (10) - No change.

<u>Account Number</u>		<u>Account Description</u>	Debit Decrease Revenue or Increase Expense	Credit Increase Revenue or Decrease Expense
10750	545000	Contract Services	\$ 2,540	
10750	557000	Crisis Intervention	\$ 3,161	
10750	557701	LIEAHP	\$ 3,982	
10760	585001	Donations - Currituck Kids	\$ 2,000	
10750	502000	Salaries		\$ 830
10330	430000	DSS Miscellaneous		\$ 8,853
10380	487001	Donations - Currituck Kids		\$ 2,000
			<u>\$ 11,683</u>	<u>\$ 11,683</u>

Explanation: *Social Services Administration (10750); County Assistance (10760) - Increase budget to reflect increases in State funding authorizations and donations collected.*

Net Budget Effect: Operating Fund (10) - Increased by 10,853.

<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
51800	596100	Professional Services	\$ 10,459
51800	588000	Contingency	\$ 10,236
51800	594500	Contract Services	\$ 295,763
51800	597000	Reimbursable Expenses Central Elementary Bus	\$ 12,561
51848	598001	Parking	\$ 223,245
51800	587050	T T - Co Govt Facilities	\$ 84,856
		<u>\$ 318,560</u>	<u>\$ 318,560</u>

Explanation: COA Construction (51800) - Transfer residual funds to County Governmental Construction to fund Central bus parking and to close out COA construction.

Net Budget Effect: School Facilities Construction Fund (51) - No change.

<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
10460	503500	Temporary Services	\$ 2,898
10460	502000	Salaries - Full Time	\$ 2,898
		<u>\$ 2,898</u>	<u>\$ 2,898</u>

Explanation: Public Works (10460) - Appropriate funds to hire a temporary maintenance worker at a rate equivalent to Grade 53 step 1 to fill position while employee is on FMLA from May 25 through August 5.

Net Budget Effect: Operating Fund (10) - No change.

<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		Decrease Revenue or Increase Expense	Increase Revenue or Decrease Expense
10430	503500	Temporary Services	\$ 7,200
10430	505000	FICA	\$ 551
		Ad Valorem Taxes - 2013	
10310	400013	Levy	\$ 7,751
		<u>\$ 7,751</u>	<u>\$ 7,751</u>

Explanation: *Elections (10430)* - Appropriate funds to hire a temporary Deputy Elections Director at a rate of \$15/hr to serve while employee is on FMLA during the May primary from mid April until June 30.

Net Budget Effect: Operating Fund (10) - Increased by \$7,751.

**COUNTY OF CURRITUCK
CAPITAL PROJECT ORDINANCE**

BE IT ORDAINED by the Currituck County Board of Commissioners, North Carolina that pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following capital project ordinance is hereby adopted:

SECTION 1. The project authorized is design, bid and construction of Southern Parallel Taxiway – Division of Aviation Grant 36237.8.9.1.

SECTION 2. The following amounts are appropriated for the project:

S Parallel Taxiway - Grant 36237.8.9.1	\$ 123,045
	<u>\$ 123,045</u>

SECTION 3. The following revenues are available to complete this project:

Transfer from School Capital Construction Fund	\$ 12,304
State Aid to Airports	110,741
	<u>\$ 123,045</u>

SECTION 4. The Finance Director is hereby directed to report, on a quarterly basis, on the financial status of each project element delineated in Section 2 above.

SECTION 5. SPECIAL APPROPRIATIONS AND RESTRICTIONS

The Budget Officer is hereby authorized to transfer appropriations within the fund as contained herein under the following conditions:

- a. He may transfer amounts between object line items within the fund up to One Thousand dollars (\$1,000).

SECTION 6. CONTRACTUAL OBLIGATIONS

The County Manager is hereby authorized to execute contractual documents under the following conditions:

- a. He may execute contracts for construction or repair projects which do not require formal competitive bid procedures.
- b. He may execute contracts for (1) purchases of apparatus, supplies, and materials, or equipment which are within the budgeted departmental appropriations; (2) leases of personal property for a duration of one year or less and within budgeted departmental appropriations; and (3) services which are within budgeted departmental appropriations.
- c. He may execute contracts, as the lessor or lessee of real property, which are of a duration of one year or less which are within the budgeted departmental appropriations.

SECTION 7. USE OF BUDGET ORDINANCE

The Budget Officer and the Finance Director shall use this capital project ordinance for administration of the budget and for the accounting system.

**COUNTY OF CURRITUCK
CAPITAL PROJECT ORDINANCE**

BE IT ORDAINED by the Currituck County Board of Commissioners, North Carolina that pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following capital project ordinance is hereby adopted:

SECTION 1. The project authorized is design, bid and construction of Bus Parking Project.

SECTION 2. The following amounts are appropriated for the project:

Bus Parking Lot	\$ 244,131
Professional Services	\$ 37,185
Contingency	\$ 18,684
	<u>\$ 300,000</u>

SECTION 3. The following revenues are available to complete this project:

Transfer from School Capital Construction Fund	\$ 300,000
	<u>\$ 300,000</u>

SECTION 4. The Finance Director is hereby directed to report, on a quarterly basis, on the financial status of each project element delineated in Section 2 above.

SECTION 5. SPECIAL APPROPRIATIONS AND RESTRICTIONS

The Budget Officer is hereby authorized to transfer appropriations within the fund as contained herein under the following conditions:

- a. He may transfer amounts between object line items within the fund up to One Thousand dollars (\$1,000).

SECTION 6. CONTRACTUAL OBLIGATIONS

The County Manager is hereby authorized to execute contractual documents under the following conditions:

- a. He may execute contracts for construction or repair projects which do not require formal competitive bid procedures.
- b. He may execute contracts for (1) purchases of apparatus, supplies, and materials, or equipment which are within the budgeted departmental appropriations; (2) leases of personal property for a duration of one year or less and within budgeted departmental appropriations; and (3) services which are within budgeted departmental appropriations.
- c. He may execute contracts, as the lessor or lessee of real property, which are of a duration of one year or less which are within the budgeted departmental appropriations.

SECTION 7. USE OF BUDGET ORDINANCE

The Budget Officer and the Finance Director shall use this capital project ordinance for administration of the budget and for the accounting system.

RESOLUTION IN SUPPORT OF RECOGNITION OF **“WW II COASTWISE MERCHANT MARINERS ”**

Findings 1: The US Merchant Marine Seamen of WW II gained veteran status under a court ruling via Schmacher, Willner, et al, V. Secretary of the Air Force Edward C. Aldridge, Jr 665 F Supp 41 (D.D.C 1987) providing they meet certain eligibility requirements.

Findings 2: USCG Information Sheet #77 (April 1992) identifies **acceptable forms of documentation** for eligibility meeting the requirements pursuant to Schmacher V. Aldridge, 655 41(D.D.C 1987)

- a. Certificate of Discharge (Form 718A)
- b. Continuous Discharge Books (ship’s deck/engine logbooks)
- c. Company letters showing vessel names and dates of voyages

Findings 3: Some 10,000 to 30,000 **coastwise** seagoing tug and barge merchant seamen have been or may be denied recognition upon application because actions taken by government agencies (prior to P. L. 95-202) have removed required eligibility records from being available to the veteran.

Findings 4: Commandant USCG Order of 20 March, 1944 **relieves masters** of tugs, towboats and seagoing barges **of the responsibility of submitting reports of seamen shipped or discharged on forms 718A**. This action removes item (a) from the eligibility list in Findings 2.

Findings 5: USCG Information Sheet # 77 (April, 1992) further states “Deck logs were traditionally considered to be the property of the owners of the ships. After World War II, however, the deck and engine logbooks of vessels operated by the War Shipping Administration were turned over to that agency by the ship owners, and **were destroyed during the 1970s**”. This action effectively eliminates item (b) from the eligibility list in Findings 2.

Findings 6: Company letters showing vessel names and dates of voyages are highly suspect of ever existing due to the strict orders prohibiting even the discussion of ship/troop movement. Then consider item (c) of Findings 2 should be removed from the eligibility list. USCG Info Sheet # 77, page 2 refers

Findings 7: Commandant, USCG Ltr 5739 Ltr of 09 Apr 2010 states, **“The US Government did not issue mariner credentials to females during the World War II.”**

Findings 8: Excerpts from Pres. Roosevelt’s fireside Chat 23: On the Home Front (Oct. 12, 1942): “In order to keep stepping up our production, we have had to add millions of workers to the total labor force of the Nation. “In order to do this, we shall be compelled to use **older men, and handicapped people, and more women, and even grown boys and girls**, wherever possible and reasonable, to replace men of military age and fitness; **to use their summer vacations, to work somewhere in the war industries.**

Findings 9: Post the Revolutionary War; many Acts of Congress were enacted to provide pensions to those veterans applying for support. Thousands of servicemen were without documented service and remained without any viable means to prove service. Excerpts from documents retained at the NARA provide: **Generally the process required an applicant to appear before a court of record in the State of his or her residence to describe under oath the service for which a pension was claimed.** This sets precedence for using certified oaths in conjunction with the Social Security documents as alternative documentation.

Findings (10): US CG Official Shipping/Discharge documents (Forms 718A) were obtained from the National Archives and Records Administration, Wash. DC through the superb support of Mr. Mark Mollan, WW II Senior Archivist, that contained information proving Active Duty (AD) services for some WW II coastwise barge and tug Merchant Mariners. Together with additional information obtained via a FOIA request to the National Maritime Center, research brought forth additional information. **Research** conducted between **June-August 2013, in concert with the NMC**, using official records of 1172 coastwise merchant mariners and the USCG Merchant Marine Casualties of WW II report of 1950 revealed the following:

WW II Coastwise Mariners Listing: Excel Sheet #1

1172 Mariners identified via official USCG Shipping/Discharge Forms 718A
 84 Mariners may be women according to their feminine sounding names; OR 7.2%
 1058 Mariners’ ages were specified. Ages ranged from 10 to 78.
 583 Mariners identified within draft age and included those in 4F status; OR 55.1% of known ages.
 525 Mariners identified at over the draft age of 37; OR 49.6% of known ages.
 114 Mariners with age not specified; OR 9.7%
 47 Mariners who served were under the age of 17; OR 4.4% of known ages.
 16 Mariners KIA with 1 receiving DD Form 1300.

National Maritime Form DD 214 Listing: Excel Sheet #2

794 Mariners were identified on NMC Coastwise Mariners listing identifying Active Duty services.
 291 Mariners on NMC listing had no USCG MMLD numbers listed; OR 36.6%
 85 Mariners **issued** DD Form 214 from NMC listing, OR 10.7% of NMC; OR 7.2% of WW II CMM

Merchant Marine KIA & MIA Casualties from all causes = 9521 * (usmm.org)

5662 Mariner Casualties from USCG per 1950 Report * (USCG 1950 casualty report)
 3859 Mariner Casualties from Other Sources * (Additional sources = Art. Moore and US Congress)

Merchant Marine Casualties recognized by all sources = 414

- 344 Mariner Casualties from USCG 1950 Casualty Report * (USCG 1950 casualty report)
- 77 Mariner Casualties from NMC report & not listed on USCG 1950 Casualty List * (NMC DD 1300 Report)
- 1 Mariner in NMC DD 1300 files as having received Form DD 1300 yet 16 identified on WW II CM listing

Rationale: 9521 Merchant Mariners KIA or MIA serving and **only 414** receiving Veteran status.

Findings 11: The USCG cannot provide a true estimate of merchant mariners serving in WW II. **GAO/HEHS-97-196R** refers. Estimates range from 250,000 to 410,000 from recognized historians. None of these historians were aware of these 10,000 to 30,000 coastwise merchant seamen where many served without proper credentials and were not included in above estimates. **Some were elderly handicapped; others women and some were school children** who served in a billet, drew wages and paid taxes. They served on the same vessels in the same hostile war zones and performed the same services alongside others who were documented. **Yet, only about 91,000 merchant mariners have been recognized as veterans with just 1192 of these veterans in receipt of compensation or pension benefits the VA refers.** This is a vast disparity in ratio of the other service branches.

Findings 12: DOD and NARA Agreement **N1-330-04-1 of Jul, 08, 2004** puts in place a procedure to transfer military personnel files of individuals from all services, (including civilian personnel or contractual groups who were later accorder military status under the provisions of Public Law 95-202). This agreement affects military personnel records of individuals **62 years** after separation from service. Action has taken place for all **except** the US Merchant Marine IAW P.L 95-202. This **inaction** by the **Department of Homeland Security via (COMDT USCG)** has caused many of the mariners to have **gone unrecognized** for their services. Many have passed without ever gaining recognition or benefits and soon all will be History. Only **about 91,000 out of 250,000 have ever received recognition** as veterans with many unable to gain access because of age and health condition requiring assistance for others outside family. Had compliance taken place, these records would be available to all and providing the mariner a chance to being recognized many years ago and enjoying the benefits awarded to them via public law.

Whereas: (1) By court order, Schumacher v. Aldridge 665 F Supp 41 (D.D.C. 1987) **provided for veteran status** to certain US Merchant Marine seamen during WW II (07 December, 1941 to 31 December, 1946) with the same benefits accorded all veterans as administrated by the Veterans Administration. There were **no provisions** for the elderly handicapped, women or schoolchildren to even be considered for their services as mariners serving anywhere within the US Merchant Marine providing an avenue to veteran status.

Whereas: (2) The USCG Information Sheet #77 of Apr. 1992 identifies specific criteria to be used to prove active duty performed by an individual seaman for the purposed of attaining veteran status and findings (5), (6) & (7) identified specific **official government actions** that **removed** these particular documents from the reach of the mariner and **clearly identifies the requirement** to put in place a method of utilizing **alternative** documentation and other approved methods to take the place of specific documents removed from use by the government actions cited in this document.

Whereas: (3) Women **were removed** from ships at the onset of WW II and not allowed to serve in any capacity by direction of the War Shipping Administrator, Admiral Emory S. Land. The Captains of the Ports (USCG COTP) were given specific directions to **deny** official USCG maritime credentials to any woman requesting them. They **served but without official credentials** in every capacity on most vessels. Families were the sole crew on many barges throughout the WW II and afterwards. Companies **welcomed this** arrangement because **critical** crew replacements were **reduced** considerably and allowing those barges to move the bulk war materials more quickly freeing the more abled bodied seaman and provided the opportunity to man the larger seagoing ships taking vital supplies to troops on all the fronts, keeping the enemy from our doors. A **win win** situation vital to war defense. **To date** there is **no law or other avenue** recognizing women as veterans of the US Merchant Marine during WW II

Whereas: (4) President Roosevelt's speech of 12 Oct, 1942 **puts in place the use of elderly and handicapped individuals, school children and women in an effort to support war efforts** by replacing men of military age and fitness, and in stepping up our production of war materials for those on the front lines. Women, the elderly disabled and schoolchildren entered the varied war defense plant services in droves and many found their way into the coastwise barge and tug trades as well.

Whereas: (5) DOD & NARA Agreement N1-330-04-1 of July 08, 2004 **provides for the transfer** of military records to the National Personnel Records Center, St. Louis, MO for use as archival records, open to the public. But **inaction by the DHS for the mariner in over 10** years has caused the veteran loss of due access of his records that may have accorded him recognition as a veteran. Under aged children served this nation in every war.

Whereas: (6) Previous bills HR 1288, now HR 2189 and S-1361 would have provided for **alternative records** to be used in place of **records lost, destroyed or denied** for coastwise seamen affected and allowed women and school children be recognized for their services rendered for the first time ever. **No laws** in place to allow for resolution. Note: **S 1361** was incorporated into **S 1950 and then S 1982** but **reduced to a 90 day Process Review**, thereby losing its effectiveness to recognize any of the coastwise mariners. Both bills were rejected by the Senate. A review of the Process is not warranted or necessary. Both Bills S 1950 and S 1982 were rejected by Senate vote.

Whereas: (7) The elderly disabled, children and women have served in every war this nation has ever known. Most have served without recognition but history is replete with actions of young children stepping up to serve, some receiving our highest honors and others serving in our highest ranks of service, congress and the presidency; e.g. President Andrew Jackson (age **13**); America's first Admiral, David Glasgow Farragut was appointed a midshipman at age **9** by President James Madison; Willie Johnson (age **11**) was recipient of the Medal of Honor; Albert Cohen of Memphis TN who enlisted at age **11** & KIA age **15**. History is laced with children defending this nation and Coastwise Mariners had their fair share of them. **Findings #10 provides support** info.

Whereas: (8) Although they served gallantly and with honor, actions taken against those that were elderly and disabled, school children and women by denying them official credentials during WW II is considered **discrimination** today.

Whereas: (9) The House Bill HR 2189 contains the original wording as proposed and offers alternative methods of recognition for these Coastwise Mariners from WW II. The proposed Senate Bill S 1982 will only **review** the process used to determine whether an individual performed service under honorable conditions that satisfies the requirements of a coastwise merchant seaman who is recognized as having performed active duty service under the court ruling via Schmacher, Willner, et al, V. Secretary of the Air Force Edward C. Aldridge Jr 665 f Supp 41 (D.D.C.1987). There are no considerations in any **existing** legislation that provides for women who served, under aged schoolchildren or elderly handicapped seaman any avenue to attain veteran status. **Nor** is there a current avenue to use alternative methods of recognition or other actions that have proved effective in past wars for use in lieu of documents that were denied and/or destroyed by several specific official government actions.

Whereas: (10) A Process Review of 90 additional days can only **conclude** that in order to correct this significant oversight, legislation will still be required to allow for alternative documentation and other actions that will lead to recognition as veterans for these WW II coastwise merchant mariners. By the time the study is over the 113th congress will have expired and all is lost and back to the beginning; thereby again losing precious lives who may gain recognition if **HR 2189 is allowed to move forward. Notwithstanding cost associated with a study.**

The following actions are recommended:

(1) Initiate congressional actions to: Provide sufficient response to support Merchant Mariners' provisions of HR 2189 (with wording intact to insure all coastwise barge and tugboat mariners who served during WW II regardless of age, gender or disability) are recognized as veterans in accordance with or similar to: court ruling via Schmacher, Willner, et al, V. Secretary of the Air Force Edward C. Aldridge, Jr 665 F Supp 41 (D.D.C 1987, **granting veterans status.**

Now, therefore, be it resolved that the Currituck County Board of Commissioners hereby supports the efforts on behalf of the World War II Coastwise Merchant Mariners and urges our Representatives in the Senate and the House to pass legislation to approve the above recommendations.

R E S O L U T I O N

WHEREAS, the Board of Commissioners of Currituck County, North Carolina, during its regularly scheduled meeting held on April 7, 2014, authorized, pursuant to GS 160A and 270(b), that the property listed below be declared surplus and disposed of through auction on govdeals.com:

Description

Four steel filters and associated piping from Corolla Light Treatment Plant

R E S O L U T I O N

WHEREAS, the Board of Commissioners of Currituck County, North Carolina during its regularly scheduled meeting held on April 7th, 2014, authorized the following, pursuant to GS 160A and 270(b), that the property listed below, be disposed of at auction or by advertised sale

ASSET	YEAR	MAKE	VIN#	YEAR
3333	1995	JEEP RIGHT HD	1J4FY29S2SP270662	ML WATER
5844	2004	JEEP RIGHT HD	1J4F449S94P772370	ML WATER
5927	2004	FORD EXPED.	1FMPU16W94LB57207	EMS
7226	1995	NISSAN MAXIMA	JNACA21D2ST668331	SHERIFF
5733	2003	FORD F150	1FTRF17W83NB50189	ANIMAL CONTROL
5743	2004	FORD CROWN VIC	2FAFP71W74X112275	JAIL
5960	2005	FORD CROWN VIC	2FAFP71W05X137066	SHERIFF
6390	2007	DODGE CHARGER	2B3KA43H97H757839	SHERIFF
6349	2007	FORD CROWN VIC	2FAFP71WX7X134629	SHERIFF
6733	2008	FORD CROWN VIC	2FAHP71V98X146224	SHERIFF
6810	2008	NISSAN TITAN	1N6AA07C78N358242	SHERIFF
6736	2008	FORD CROWN VIC	2FAHP71V48X146227	SHERIFF
7018	2009	DODGE CHARGER	2B3KA43T49H607841	SHERIFF
5400	2001	FORD CROWN VIC	2FAFP71W71X109551	AIRPORT

NOW, THEREFORE, BE IT RESOLVED, that the Board of Commissioners of County of Currituck reserves the right to reject any and all bids.

E) Commissioner's Report

Commissioner Aydlett expressed a concern that Dominion Power had installed a pole in a dangerous curve on Knotts Island. He requested that, if not moved, the County Manager and County Attorney get involved.

Commissioner Gilbert announced the Currituck Kids egg hunt and the need for power at the site. She also noted that NCDOT would begin paving in Ranchland on April 15. She thanked Mike Doxey and the DOT staff.

Commissioner McCord announced two new restaurants in the county – Pass the Salt in Currituck and Giordano Pizza in Moyock.

Chairman O'Neal announced the National Day of Prayer on May 1.

F) County Manager's Report

Dan Scanlon, County Manager, brought the Commissioners' attention to a packet he had given them regarding Animal Lovers Assistance League. He also announced the Patriot Guard would be driving their motorcycles through the County on April 12 honoring the veterans.

Closed Session

~~Closed session pursuant to N.C. Gen. Stat. §143-318.11(a)(3) to consult with the county attorney in order to preserve the attorney-client privilege and pursuant to N.C. Gen. Stat. §143-318.11(a)(5) to establish or to instruct the public body's staff concerning the position to be taken by or on behalf of the public body in negotiating the price and other material terms of a contract or proposed contract for the acquisition of interest in real property by purchase, option, exchange, or lease held by Carolina Water Services of North Carolina, Inc., located at 1100 Club Road, Corolla, NC, for any public purpose.~~

CLOSED SESSION CANCELLED

Adjourn

There being no further business, Commissioner Aydlett moved to adjourn. Commissioner Martin seconded the motion. The meeting was adjourned.

BUDGET AMENDMENT

The Currituck County Board of Commissioners, at a meeting on the 21st day of April 2014, passed the following amendment to the budget resolution for the fiscal year ending June 30, 2014.

<u>Account Number</u>		<u>Account Description</u>	Debit	Credit
			<u>Decrease Revenue or Increase Expense</u>	<u>Increase Revenue or Decrease Expense</u>
10510	516000	Repairs and Maintenance		\$ 1,000
10510	503500	Temporary Services	\$ 1,000	
10510	545000	Contracted Services		\$ 1,135
10510	557100	Software License Fees	\$ 1,135	
10511	514000	Travel	\$ 350	
10511	516200	Vehicle Maintenance	\$ 3,000	
10511	545000	Contracted Services	\$ 7,000	
10511	547000	Meals		\$ 7,000
10511	561000	Professional Services		\$ 3,350
10512	516200	Vehicle Maintenance	\$ 500	
10512	511010	Data Transmission	\$ 845	
10512	542000	Rabies Vaccinations	\$ 1,500	
10512	514000	Travel		\$ 375
10512	514500	Training & Education		\$ 470
10512	532000	Supplies		\$ 1,500
10512	536000	Uniforms		\$ 500
			<u>\$ 15,330</u>	<u>\$ 15,330</u>

Explanation: *Elections (10430)* - Appropiat funds to hire a temporary Deputy Elections Director at a rate of \$15/hr to serve while employee is on FMLA during the May primary from mid April until June 30.

Net Budget Effect: Operating Fund (10) - Increased by \$7,751.

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Clerk to the Board

BUDGET AMENDMENT

The Currituck County Board of Commissioners, at a meeting on the 21st day of April 2014, passed the following amendment to the budget resolution for the fiscal year ending June 30, 2014.

<u>Account Number</u>	<u>Account Description</u>	<u>Debit</u>	<u>Credit</u>
		<u>Decrease Revenue or Increase Expense</u>	<u>Increase Revenue or Decrease Expense</u>
10460	545000	\$ 5,342	
10510	516200	\$ 741	
10750	516200	\$ 1,950	
10750	516000		\$ 1,000
10380	484001		\$ 7,033
		<u>\$ 8,033</u>	<u>\$ 8,033</u>

Explanation: *Public Works (10460); Sheriff (10510); Social Services (10750)* - Increase appropriations to record insurance payments for damaged vehicles in the Sheriff and Social Services Departments and for water damage in the Health Department.

Net Budget Effect: Operating Fund (10) - Increased by \$7,033.

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Clerk to the Board

BUDGET AMENDMENT

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<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		<u>Decrease Revenue or Increase Expense</u>	<u>Increase Revenue or Decrease Expense</u>
10530 516200	Vehicle Maintenance	\$ 10,000	
10530 516000	Repairs & Maintenance		\$ 3,000
10530 561000	Professional Services		\$ 7,000
		<u>\$ 10,000</u>	<u>\$ 10,000</u>

Explanation: *Emergency Medical Services (10530)* - Transfer funds for additional vehicle maintenance for EMS vehicles for the remainder of this fiscal year.

Net Budget Effect: Operating Fund (10) - No change.

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Clerk to the Board

BUDGET AMENDMENT

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<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		<u>Decrease Revenue or Increase Expense</u>	<u>Increase Revenue or Decrease Expense</u>
10531	514000	Travel	
		\$ 3,400	
10531	590000	Capital Outlay	
		\$ 7,600	
10531	516200	Vehicle Maintenance	
		\$ 1,000	
10531	532000	Supplies	
		\$ 10,025	
10330	445000	Emergency Management Grant	
			\$ 22,025
		<u>\$ 22,025</u>	<u>\$ 22,025</u>

Explanation: *Emergency Management (10531)* - Increase appropriations for 2013 Emergency Management Performance Grant; \$20,625 and Virginia Emergency Management; \$1,400.

Net Budget Effect: Operating Fund (10) - Increased by \$22,025.

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Clerk to the Board

BUDGET AMENDMENT

The Currituck County Board of Commissioners, at a meeting on the 21st day of April 2014, passed the following amendment to the budget resolution for the fiscal year ending June 30, 2014.

<u>Account Number</u>	<u>Account Description</u>	<u>Debit</u>	<u>Credit</u>
		<u>Decrease Revenue or Increase Expense</u>	<u>Increase Revenue or Decrease Expense</u>
10390	499900	Fund Balance Appropriated	
		\$ 35,516	
10535	557100	Software License Fee	
		\$ 7,221	
10510	557100	Software License Fee	\$ 35,937
10530	557100	Software License Fee	\$ 6,800
26535	545000	Contract Services	
		\$ 2,000	
26535	557100	Software License Fees	
		\$ 36,306	
26390	499900	Fund Balance Appropriated	\$ 38,306
		<u>\$ 81,043</u>	<u>\$ 81,043</u>

Explanation: *Communications (10535); Sheriff (10510);Emergency Medical Service (10530); Emergency Telephone System (26535) - Adjust software license fees to transfer from County Funding to E911 Funding as a result of recent State review. This transfer is for funding from both FY 2013 and FY 2014.*

Net Budget Effect: Operating Fund (10) - Decreased by \$35,516.
 Emergency Telephone System Fund (26) - Increased by \$38,306.

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 Clerk to the Board

CURRITUCK COUNTY JOB DESCRIPTION

JOB TITLE:

MANAGER, BUSINESS DEVELOPMENT AND AIRPORT OPERATIONS

DEPARTMENT OF ECONOMIC DEVELOPMENT

GENERAL STATEMENT OF JOB

Under general supervision, performs responsible administrative, managerial and supervisory work in both providing critical staff support and business development work for Currituck County Economic Development, and directing the operations of Currituck County Regional Airport (ONX), a public-use, General Aviation airport,

This position is dually responsible for managing various projects and tasks in support of Currituck County Economic Development, and directing the operations, administration, maintenance, and security of the Currituck County Regional Airport. The Business Development and Airport Operations Manager is a mid-level management position, requiring considerable initiative, expertise and collaborative spirit with the ability to balance day-to-day activities with long and short-term projects.

Additional responsibilities may be assigned. Reports to the Director of Economic Development.

SPECIFIC DUTIES AND RESPONSIBILITIES

ESSENTIAL JOB FUNCTIONS

BUSINESS DEVELOPMENT MANAGER, ECONOMIC DEVELOPMENT

- Provides professional level management support to the Director of Economic Development in the promotion of Currituck County & Currituck Regional Airport to retain, expand and recruit business and spur job creation.
- Performs work to support Currituck County Economic Development Advisory Board, including the development of meeting agendas, minutes, project reports, data and other critical support material as instructed by the Director.
- Works closely with Director and marketing consultants on content development and contract management for the ThinkCurrituck.com website, to include: database updates (properties, current events, announcements, business list), promotional flyers, blog posts, E-blasts, etc.
- Assists Department Director in managing and executing promotional strategies formulating budgets, contracts and hired consultants. Provides capable and critical overview and feedback regarding Currituck County promotional and marketing materials.

- Works closely with the Economic Development Advisory Board, Currituck Chamber of Commerce, Currituck County Travel & Tourism Department, NCDOT Division of Aviation, NC Department of Commerce, and other strategic alliance partners to support and promote Currituck County to various business clients.
- Assists the Department Director in representing the County on Airport & Economic Development boards and committees. As directed, travels to meetings throughout the region concerning Currituck County Regional Airport & Economic Development. Establishes and strengthens relationships with State, Regional and Federal officials.
- Provides direct client recruitment support in responding to new business queries, developing relocation packages, attending meetings and directing County resources. In partnership with Director, maintains database of active prospects, clients and projects.

AIRPORT OPERATIONS MANAGER, CURRITUCK COUNTY REGIONAL AIRPORT

- Plans, organizes and directs airport operations, security and maintenance services, emergency situations, and for long range expansion in response to demand.
- Manages fuel system: updates computerized Fuel Management system on a regular basis; orders and coordinates delivery of fuel; ensures fuel farm is maintained in a safe and secure manner.
- Formulates, oversees, updates and enforces Airport Rules & Regulations, Minimum Operating Standards, internal operational procedures, aircraft landing, taxiing, take-off patterns, and aircraft safety arrangements for Currituck County Regional Airport.
- Responsible for the establishment, encouragement and continued practice of polite, friendly, customer-oriented service by all County employees and contractors for all travelers, pilots, tenants and other guests of Currituck County Regional Airport.
- Supervises lineman staff and private contractors involved in security, trades, equipment operation, custodial, administration, accounting, etc.
- Coordinates, and educates where necessary, Airport tenants in safety, security, rules and regulations, and interaction with County Finance Office, and other areas. Maintains required federal, state and local records, including FAA; ensures compliance with all regulations including OSHA safety and health.
- Oversees hiring and training of County airport staff; recommends discipline and dismissal of staff to the Economic Development Director and County Manager.
- Works with Economic Development Director on preparation and management of annual and capital budgets; provides annual reporting and forecasting for airport revenues and expenses; recommends fee changes; maintains accounting for budget; requisitions and approves purchases through County finance department.
- Establishes and maintains effective working relationships with associates and tenants; promotes effective interrelationships with leasing tenants, fixed base operators, business and guest passengers, federal, state and local officials, and the general public.
- Works with Economic Development Director on marketing strategies to promote airport facilities and services to expand business and attract aviation-related tenants; devises new methods to increase revenues. Responsible for management and updating of all airport information available online and in print via ThinkCurrituck.com, CurrituckGovernment.com, AirNav.com, etc.
- Ensures the maintenance, repair and state of all airport facilities including runways, ramps, taxiways and roadways meet Federal Airport Certification requirement

Work is performed under general direction of the Economic Development Director. Work is evaluated through annual performance evaluations, supplemented by weekly meetings and quarterly reports regarding economic development and airport business operations.

Work includes short and long range planning and budgeting, supervising staff and contractors. Work involves ensuring that facilities are in operational condition at all times and in compliance with FAA safety regulations; developing and recommending policies, procedures, and fee structures for approval by the Board of County Commissioners; and serving as staff liaison to the Economic Development Advisory Board.

This employee operates with considerable latitude that requires discretion and judgment grounded in extensive technical aviation knowledge and business acumen to make independent professional and managerial decisions. Tact and diplomacy are required in contacts with pilots, corporate and business executives, the general public, employees, local officials and advisory board members.

The employee is subject to hazards in the work including indoor and outside environmental conditions; significant noise and vibrations; physical conditions such as proximity to moving mechanical parts, electrical current; working in high places, narrow aisles, crawl spaces and areas which could cause claustrophobia; and exposure to high heat, chemicals, oils, fumes, dusts, odors, or poor ventilation.

Duties may also expose the employees to human body fluids and thus the work is subject to the OSHA requirements on blood borne pathogens.

ADDITIONAL JOB FUNCTIONS

Assist with operational, administrative or any tasks as needed in supervising the daily operations or performing the technical aspects of airport functions.

Performs duties as assigned by the County Manager or his designees during a State of Emergency or other disaster.

Performs other related work as required.

MINIMUM TRAINING AND EXPERIENCE

Graduation from four year college with a degree in Aviation Management, Business Administration or related field and at least four (4) years of considerable, progressively responsible airport, economic development, business administration, management; or any equivalent combination of education and experience. Must have demonstrated experience in management of personnel.

SPECIAL REQUIREMENT

Possession of a valid North Carolina driver's license.

Certification in advanced airport safety and operations.

Ability to pass a security background check.

**MINIMUM QUALIFICATIONS OR STANDARDS REQUIRED
TO PERFORM ESSENTIAL JOB FUNCTIONS**

Must be able to perform basic life functions including climbing, balancing, standing, walking, pushing, pulling, lifting, grasping, talking, hearing, and repetitive motions.

Must be able to perform medium work involving exerting up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 10 pounds constantly to move objects.

Must have visual acuity to prepare and analyze data and figures; to develop budget figures; operate a computer terminal; to read extensively; to inspect small defects, parts or moving equipment and to use measurement devices; to operate equipment; and to inspect work and determine accuracy and thoroughness.

KNOWLEDGE, SKILLS AND ABILITIES

Considerable knowledge of and skill in utilizing principles of leadership, supervision, organization, and administration.

Considerable knowledge of regional and local economic development issues and relevant NC Statutes covering public information, public meetings law, and client confidentiality.

Skill in analyzing business, operational and maintenance issues and in developing alternative solutions or approaches.

Thorough understanding and knowledge of marketing principles, promotional activities and general sales practices.

Thorough & considerable knowledge of FAA rules, regulations and federal certification standards for operating a general aviation airport, and of airport operations, management and development.

Considerable knowledge of equipment, tools and facilities required for safe, efficient operation of an airport.

Considerable knowledge of modern practices and principles of accounting and budgeting as applied to airport operations.

Considerable knowledge of the occupational hazards and safety precautions involved in the work.

Ability to establish and maintain effective working relationships with pilots, business executives, federal, state and local officials, customers, County departments heads, employees, and the general public.

Ability to be tactful and courteous in dealing with the customers and the general public.

Ability to keep accurate records and to prepare reports.

Ability to interpret and utilize technical sketches and plans.

STATE OF NORTH CAROLINA

CONCESSION LICENSE AGREEMENT

COUNTY OF CURRITUCK

THIS AGREEMENT, to be effective as of the _____ day of April, 2014, by and between the **COUNTY OF CURRITUCK, NORTH CAROLINA**, a body corporate and politic existing pursuant to the laws of the State of North Carolina, hereinafter “County”, and **KITTY HAWK KITES, INC.**, a North Carolina corporation, hereinafter “Licensee”;

WITNESSETH:

WHEREAS, County is the owner of a certain tract of land together with the buildings and other improvements thereon known as the Currituck Regional Airport (“Airport”) and has full right and authority to enter into leases, agreements, or contracts providing for the use of the space, area improvements or equipment at the Airport for aeronautical purposes or purposes incidental thereto; and

WHEREAS, Licensee is a corporation, organized and created under the laws of the State of North Carolina, operating a business of commercial aviation activities for aeronautical purposes or purposes incidental thereto and desires to carry on such business at the Airport;

NOW, THEREFORE, the parties do mutually undertake, promise and agree as follows:

ARTICLE I

PREMISES, PRIVILEGES, USES, RIGHTS, ACTIVITIES, EXCLUSIONS, AND
CONDITIONS

For and in consideration of the terms, conditions and covenants of this Concession License Agreement to be performed by Licensor, all of which Licensee accepts, County hereby grants a license to Licensee, and Licensee accepts non-exclusive use of the the premises hereinafter set out for the purposes set forth herein.

A. DESCRIPTION OF LICENSED PREMISES. The premises (“Premises”) of which Licensee is granted non-exclusive use by this Concession License Agreement are described as follows: Being that property described on Exhibit A attached hereto, which is incorporated herein by reference, or such other areas to which Licensee may be relocated by County.

B. DESCRIPTION OF GENERAL PRIVILEGES, USES AND RIGHTS. County hereby provides to Licensee the following general privileges, uses and rights, all of which are and shall be subject to the terms, conditions and covenants hereinafter set forth and all of which shall be non-exclusive to Licensee.

- (1) The general use of all public airport facilities and improvements which are now or may hereafter be connected with said Airport, except as hereinafter provided, to be used by Licensee for aviation activities and fixed base operations, as herein defined.

For the purpose of this Concession License Agreement “public airport facilities” shall include all necessary landing area appurtenances including but not limited to approach areas, runways, taxiways, aprons, aircraft and automobile parking area, roadways, sidewalks, navigational and navigational aids, lighting facilities, terminal facilities or other public appurtenance to said Airport.

- (2) The right of ingress to and egress from the Premises over and across public roadways serving the Airport for Licensee, its agents and servants, patrons and invitees, suppliers of service and furnishers of material.

Said right shall be subject to such ordinances, rules and regulations as now or may hereafter have application at the Airport.

C. DESCRIPTION OF SPECIFIC PRIVILEGES, USES AND RIGHTS. In addition to the general privileges, uses and rights hereinbefore described and without limiting the generality thereof, County hereby grants to Licensee, the non-exclusive right to engage in aviation activities, as defined in Paragraph D, subject to the conditions and covenants hereinafter set out.

D. DEFINITION OF AVIATION ACTIVITIES. “Aviation Activities” are hereby defined as those activities performed at or from the Airport, which involve the sale of aviation services for profit to the general public as set forth hereafter.

Tandem Hang Gliding and Associated Operations
Light Sport Aircraft Instruction
Discovery Flights in Light Sport Aircraft

E. CONCESSIONS EXCLUDED. Licensee shall not engage in business operations or concessions of any other kind than those set forth in paragraph D above, unless approved in writing by County prior to the commencement thereof.

F. CONDITION OF GRANTING LEASE. The granting of this Concession License Agreement, its acceptance by Licensee, and the obligations of Licensee hereunder and the rights of Licensee are conditioned upon the following:

- (1) The rights to use the Airport facilities in common with others authorized so to do is, and shall be subject to and exercised only in accordance with the laws of the United States of America, the State of North Carolina, the County, and any other governmental entities with jurisdiction over the Airport; the rules and regulations promulgated by any of the foregoing with reference to aviation and air navigation; and all reasonable and applicable rules, regulations and ordinances of County, now in force or hereafter prescribed or promulgated.

ARTICLE II

OBLIGATIONS OF COUNTY

A. **AUTHORITY TO LICENSE.** County covenants that at the time of granting and delivery of this Concession License Agreement, it has full right and authority to grant a license for use of the Premises in accordance herewith.

County warrants to Licensee peaceful possession and quiet enjoyment of the Premises during the term hereof, upon Licensee's performance of its covenants herein.

B. **OPERATION AS PUBLIC AIRPORT.** County shall, during the term hereof, operate and maintain the Airport as a public airport consistent with and pursuant to Assurances given by County to the United States Government under the Airport and Airways Development Act (P.L. 91-258), as amended.

C. **REPAIR OF PREMISES.** County provides the Premises, and the same are accepted by Licensee in their "as is" condition. County retains responsibility for repairs which are or become necessary to keep the Premises in a safe and serviceable condition, except as hereinafter stated in this Article II.

D. **COUNTY DUTIES.** (1) County shall schedule, supervise, and bear the cost of, mowing grassed areas, snow removal from all public areas of the Airport. (2) County shall administer all hangar rentals and land leases for private hangar construction at the Airport. (3) County shall schedule, supervise, and bear the cost of maintaining all County owned hangars, radios, ASOS, NDB, RTR, runway lights, the windsock, the rotating beacon, and all other County owned buildings or Airport premises and equipment not otherwise leased to or owned by private entities. (4) County shall prepare and submit annual Airport TIP grant requests to the Aviation Division of the North Carolina Department of Transportation. (5) County shall reasonably maintain all public roads on the Airport which provide access to the Premises, in good and adequate condition, for use by cars and trucks; and shall provide access to the Premises over said roads at all times, except as County may modify access in accordance herewith or as County may deem it advisable to limit access in order to maintain the same. County reserves the right to relocate any and all existing roads and drives on the Airport provided, however, reasonable access to the Premises by reasonably adequate roadways are always maintained to the Airport.

ARTICLE III

OBLIGATIONS OF LICENSEE

A. **MAINTENANCE.** Licensee accepts the Premises in their existing ("as is") condition. Licensee shall, on a day to day basis, maintain the County's improvements and appurtenances under its use and control in a presentable condition, consistent with good business practice and equal in appearance and character to other similar improvements on the Airport. Licensee shall notify County, in a timely manner, of any conditions of the premises that require repair so as to allow County to meet its obligations appearing in Article II hereinabove.

B. **AVIATION SERVICES BY LICENSEE.** Licensee shall make aviation services available which meet the demands for such service at the Airport.

Licensee shall charge fair, reasonable and non-discriminatory prices for its goods and services sold, which prices shall be reasonably consistent with prices charged for comparable goods and services by fixed based operators located in the southeastern United States that are comparable to Licensee both in volume of sales and in goods and services offered. Licensee shall provide County from time to time, upon County's request, copies of County's list of charges.

C. UTILITIES. Licensee shall assume and pay for all costs or charges for utility services furnished to Premises under the control of Licensee during the term hereof. County shall provide utility line availability at the boundary line of the Premises and shall provide a paved access road to the Premises. Licensee must place all new gasoline or other petroleum product tanks above ground, unless Licensee complies with all governmental (EPA) regulations regarding underground tanks.

D. TRASH, GARBAGE, ETC. Licensee shall provide a complete and proper arrangement for the adequate sanitary handling and disposal, away from the Airport, of all trash, garbage and other refuse existing or caused as a result of the operation of its business. Licensee shall provide and use suitable covered metal receptacles for all such garbage, trash and other refuse. Piling of boxes, cartons, barrels or other similar items in an unsightly or unsafe manner on or about the Premises is forbidden.

E. SIGNS. Licensee shall not maintain or erect upon the Premises any billboards or advertising signs which are visible from the exterior of the improvements on the Premises without first obtaining the written approval of the County.

F. FIELD USE CHARGES. Nothing herein shall be deemed to relieve Licensee and its tenants, sublicensees, patrons, invitees, and others from field use charges, as may be levied generally by County directly upon the operation of aircraft.

ARTICLE IV

TERM OF LICENSE

The term of this License shall be one (1) year from the effective date as specified on Page 1 hereof through the 31st day of March, 2015.

ARTICLE V

FEES

A. FEES. The Licensee agrees to pay to County, during the term of this License Agreement, for the rights and privileges granted to it hereunder **ELEVEN THOUSAND FOUR HUNDRED AND THIRTY EIGHT AND NO/100 DOLLARS (\$11,438.00)** due and payable upon execution of this License Agreement. The License Fee herein includes Licensee's annual rent for Hanger No. 5, Hanger No. 11 and Office Space 2 at the Airport under separate Hanger Lease Agreement the terms of which are incorporated herein by reference.

ARTICLE VI

INSURANCE, INDEMNIFICATION, AND SUBROGATION

A. INDEMNIFICATION. County shall stand indemnified by the Licensee as herein provided. Licensee is and shall be deemed to be an independent contractor and operator responsible to all parties for its acts and omissions; and County is and shall in no way be responsible therefor. In the use of the Airport, in the erection of any improvements and in the exercise or enjoyment of the privileges herein granted, Licensee shall indemnify and save harmless the County from any and all losses that may proximately result to the County because of any negligence on the part of the Licensee, and shall indemnify County against any and all mechanic's and materialmen's liens or any other types of liens sought to be imposed upon the Premises. Licensee has no right or authority to do anything which could result in a lien being filed.

Licensee shall promptly, upon the execution of this Concession License Agreement, provide insurance of the following type and amounts:

General Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000
Damage to rented or licensed premises (Each Occurrence)	\$ 50,000
Medical Expense (Any one person)	\$ 1,000

Licensee shall maintain all such insurance with insurance underwriters authorized to do business in the State of North Carolina satisfactory to County.

All of the said policies or certificates shall contain a provision that written notice of cancellation or of any material change in said policy by the insurer shall be delivered to County thirty (30) days in advance of the effective date thereof.

In order to assure indemnification from liability created by acts of Licensee, the policies or certificates of liability insurance shall name, as additional insured, the County of Currituck and its employees.

B. WAIVER OF SUBROGATION. Neither County nor Licensee nor anyone claiming by, through, under, or in, their behalf shall have any claim, right of action or right of subrogation one

against the other for or based upon any loss or damage caused by fire, explosion or other insured casualty (not limited to the foregoing) relating to the Premises or to any property upon, in, or about the Premises, whether such fire, explosion or other insured casualty shall arise from the negligence of County or Licensee, their respective agents, representatives or employees, or otherwise.

ARTICLE VII

TERMINATION, CANCELLATION, ASSIGNMENT, TRANSFER, AND SUSPENSION

A. **TERMINATION.** This Concession License Agreement shall expire at the end of the full term hereof, and Licensee shall have no further right or interest in any of the Premises subsequent thereto, except as provided in Article VIII.

B. **CANCELLATION BY LICENSEE.** This Concession License Agreement shall be subject to cancellation by Licensee upon the occurrence of one or more of the following events:

1. The permanent abandonment of the Airport as an air transportation facility.
2. The lawful assumption by the United States Government, or any authorized agency thereof, of the operation, control or use of the Airport, or any substantial part or parts thereof, in such a manner as substantially to restrict Licensee for a period of at least ninety (90) days from operating thereon.
3. Issuance by any court of competent jurisdiction of any injunction in any way preventing or restraining the use of the Airport, and the remaining in force of such injunction for a period of at least ninety (90) days.
4. The default by County in the performance of any covenant or agreement herein required to be performed by County and the failure of County to remedy such default for a period of sixty (60) days after receipt from Licensee of written notice by registered mail to remedy the same, unless such remedy requires in excess of said period to complete, in which event, the remedy must commence within sixty days and must reasonably continue thereafter.

Licensee may exercise such right of termination by written notice delivered by registered mail to County at any time after the lapse of the applicable periods of time, and this lease shall terminate as of that date. Rental due hereunder shall be payable through the date of said termination and the vacation of the Premises.

C. **CANCELLATION BY COUNTY.** This Concession License Agreement shall be subject to cancellation by County in the event that Licensee shall:

1. Fail to pay County the whole or any part of the amounts due hereunder for a period of ten (10) days after the date such payments become due; or
2. File a voluntary petition in bankruptcy; or
3. Make a general assignment for the benefit of creditors; or
4. Have a Receiver appointed for it by a court of competent jurisdiction; or

5. Abandon or vacate the Premises; or
6. Discontinue Commercial Aviation Activities as set forth in Article III, Paragraph B for a period of more than one hundred eighty (180) days (in the aggregate) in any period of twelve (12) consecutive months; or
7. Fail to perform any of the other covenants and/or conditions required herein (except rental payments) to be kept and performed by Licensee, and the lack of cure thereof for a period of thirty (30) days after receipt of written notice from County of said failure.

In any of aforesaid events, County may take immediate possession of the Premises and remove Licensee's effects, without being deemed guilty of trespass. Upon written notice of termination provided by County in accordance herewith or upon vacation by Licensee and re-entry by County, this Concession License Agreement shall terminate. Any fees due hereunder shall be payable to said date of termination or to said date of vacation of the Premises and re-entry by County, whichever event occurs later in time.

Failure of County to declare this Concession License Agreement terminated upon the breach by Licensee for any of the reasons set out shall not operate as a waiver of County's right to declare this License terminated by reason of such breach or any subsequent violation of the terms of this Concession License Agreement.

D. ASSIGNMENT AND TRANSFER. Licensee shall not at any time during the term of this Concession License Agreement, either directly or indirectly, assign, hypothecate or transfer its interest in this agreement or any interest therein without the consent of the County.

E. SUSPENSION OF LICENSE. During any time of war or national emergency, County shall have the right to lease or otherwise provide the landing area or any part thereof to the United States Government for military use. If any such lease or other agreement is executed, any provisions of this agreement which are inconsistent with the provisions of the lease or other agreement with the Government, shall be suspended, provided that the term of this lease shall be extended by the amount of the period of suspension.

ARTICLE VIII

PREMISES AND PERSONAL PROPERTY

A. GENERAL. At the termination of this Concession License Agreement for any reason except as outlined in Paragraph B, below, County shall be entitled, at its election, to have the Premises returned to it including any improvements which have been constructed by Licensee

B. PERSONAL PROPERTY. Title to personal property shall at all times during the term of this Concession License Agreement remain in County and Licensee as their individual interests may appear at the time of execution of this agreement. Upon termination of this Concession Licenses Agreement for any cause, Licensee shall remove all of its personal property from the Premises within thirty (30) days after said termination. If Licensee fails to remove said personal property, County may thereafter remove said property at Licensee's expense.

ARTICLE IX

GENERAL PROVISIONS

A. **FAIRNESS IN DEALINGS.** County shall not require a greater level of service or performance from Licensee than that which is required from any other occupant of the Airport providing some or all of the same services (“Competitor”), nor shall County grant terms more favorable than those contained in this Concession License Agreement to any other Competitor. It is the intention of the parties that no Competitor, whether presently occupying the Airport or occupying the Airport hereafter, have an unfair advantage by paying a lesser rental than Licensee or being provided with terms or treatment which are directly more favorable to Competitor than those provided to or required of Licensee.

B. **ATTORNEY’S FEES.** In any action brought by either party hereto for the enforcement of the obligation(s) of the other, the successful party shall be entitled to recover interest and reasonable attorney’s fees.

C. **TAXES.** Licensee shall pay any taxes or assessments which may be lawfully levied against Licensee’s property and its occupancy or use of the Premises or any improvements placed thereon as a result of Licensee’s occupancy.

D. **SUBORDINATION OF LICENSE.** This License is and shall be subordinate to the provisions of any existing or future agreement between County and the United States relative to the operation or maintenance of the Currituck Regional Airport.

E. **BINDING EFFECT AND COMPLETE TERMS.** The terms, covenants, conditions and agreements herein contained shall be binding upon and enure to the benefit of and shall be enforceable by County and Licensee and by their respective successors and assigns. All negotiations and agreements of County and Licensee are merged herein. No modification hereof or other purported agreement of the parties shall be enforceable unless the same is in writing and signed by the County and Licensee.

F. **FORCE MAJEURE.** In the event that either party hereto shall be delayed or hindered in or prevented from the performance of any act required hereunder by reason of strikes, lock-outs, labor troubles, inability to procure materials, failure of power, restrictive governmental laws or regulations, riots, insurrection, war or other reason of a like nature not the fault of the party delayed in performing work or doing acts required under the terms of this License, then performance of such act shall be excused for the period of the delay and the period for the performance of any act shall be extended for a period equivalent to the period of such delay.

G. **CONSTRUCTION OF LICENSE.** This Concession License Agreement shall not be construed more strictly against either party regardless of which party is responsible for the preparation of the same.

H. **EASEMENTS, RESTRICTIONS AND RIGHTS OF WAY.** The License for use of the Premises is granted subject to all easements, restrictions and rights of way legally affecting the Premises.

I. **CIVIL RIGHTS COMPLIANCE.** Licensee shall not conduct its business at the Airport or act in a manner which violates Title VI or Title VII of the Civil Rights Act of 1964, as amended, nor shall Licensee knowingly discriminate by segregation or otherwise against any person or class of persons by reason of age, sex, race, religion, color, national origin or handicap,

whether in the performance of this agreement in the provision of the Commercial Aviation Activities or otherwise. Licensee shall maintain open hiring and employment practices and shall receive applications for employment in compliance with all requirements of applicable federal, state and local laws and regulations issued pursuant thereto relating to nondiscriminatory hiring and employment practices. Licensee shall serve its customers at the Airport without unlawful discrimination as to any person's age, sex, race, religion, color, national origin or handicap.

[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have set their hands and seals.

COUNTY OF CURRITUCK

By: _____

ATTEST:

Clerk to the Board

(COUNTY SEAL)

LICENSEE

By: _____

Its: _____

ATTEST:

Secretary

(CORPORATE SEAL)

STATE OF NORTH CAROLINA
COUNTY OF CURRITUCK

I, _____, a Notary Public of the aforesaid County and State, do hereby certify that _____ personally appeared before me this day and acknowledged that she is the Clerk to the Board of Commissioners of the County of Currituck and that by authority duly given and as the act of the county, the foregoing instrument was signed in its name by its _____, sealed with its corporate seal and attested by her as its Clerk to the Board.

WITNESS my hand and Notarial Seal, this the ____ day of _____, 2014.

Notary Public

My Commission Expires: _____

EXHIBIT A

An 8' by 14' area, more or less, inside the runway fence line and approximately at the midpoint of the runway, plus an approximately 30' by 150' area in the immediate vicinity of this operations space, to takeoff and land light sport aircraft and hang gliders on the grass adjacent to the runway.

CURRITUCK REGIONAL AIRPORT HANGAR LEASE AGREEMENT

OFFICE USE ONLY

 Rules & Regulations
 Certificate(s) of Insurance

This lease, made and entered into this _____ day of _____, April, 2014 by and between **Currituck County**, North Carolina, a body corporate and politic existing pursuant to the laws of the State of North Carolina, (Lessor), and **KITTY HAWK KITES, INC.**, a North Carolina corporation, hereinafter (Lessee);

WITNESSETH:

The Lessor hereby leases to the Lessee and covenants to keep the Lessee in quiet possession of the following described premises, to wit;

Space located within the Lessor's designated hangar area at the Currituck Regional Airport (Airport), designated as Hangars **A-T-5, A-T-11, and Office Space 2** (the Premises) as shown on **Exhibit A** attached hereto and subject to the terms and conditions set forth herein.

The Premises herein demised shall be used solely as aviation aircraft storage space subject to the conditions, limitation, and restrictions contained elsewhere in this Lease.

I. TERM:

Term: The term of this Lease shall be for one (1) year, **commencing April 1, 2014.**

II. PAYMENT:

2.1 The Lessee and Lessor acknowledge and agree that annual rent for the Premises is included with the amount paid annually by Lessee to Lessor under that Concession License Agreement by and between Lessee and Lessor dated April 1, 2014.

2.2 In the event Lessee shall fail to pay the rent set forth hereunder, or shall fail to keep or perform any of the covenants, agreements or conditions of this Lease for a period of thirty (30) days, then Lessor may terminate this agreement and repossess the premises and retain any deposits made with the execution of this agreement. Otherwise, in the event Lessee performs all of the terms of said lease and pays all rents due hereunder, then at the end of the term Lessor shall refund to Lessee any deposit made with the execution of this lease agreement.

2.3 Lessee may be required to provide a damage deposit in an amount equal to two (2) monthly rental payments. Any such deposit will be held by the Lessor until the termination of the lease and shall be used to offset damages that may occur during the tenant's occupancy of the premises. Failure of the Lessor to require such a deposit at the execution of the lease will not limit the right to establish such a requirement during the lease term.

III. LEASE PROVISIONS

3.1 Lessee agrees to take good care of the Premises and to return the same at the expiration of the term in as good condition as received, ordinary wear, tear and natural decay excepted. If destruction

of the Premises, or any part thereof, shall occur during the term of this Lease (and the destruction is not the result of actions or fault by the Lessee), so as to make the premises unfit for the uses described in this Lease, the Lessee may surrender and cancel this Lease.

3.2 It is agreed and understood that the Premises are to be used solely as storage space for aircraft activity equipment owned or leased by the Lessee and for no other purpose, unless approved by the Lessor in writing. Any other provision of this Lease notwithstanding, in the event of any violation of the provisions of this paragraph on the part of the Lessee, the Lessor shall have the right to cancel this Lease forthwith and without notice.

a. The Premises are for the private use of the Lessee and shall not be used for any commercial purpose, including, but not by way of limitation, the sale of products or services of any kind, whether or not such sales are transacted for a profit. However, the Lessor may agree to allow certain commercial uses of the leased premises if the terms and conditions relating to such use are set forth in a Rider to this lease.

b. Lessee shall be allowed to perform preventive maintenance on Lessee's aircraft, registered for that hangar, of the kind and to the extent permitted by Federal Aviation Administration regulation, FAR 43.3 Appendix A, paragraph (c), titled Preventive Maintenance.

c. Lessee agrees that use of the premises shall be in accordance with federal, state and local laws and regulations, including, but not limited to, those pertaining to fire and safety, as well as the Currituck Regional Airport Rules and Regulations.

d. Lessee's exclusive use is restricted to the Premises designated herein and does not apply to ramp, apron or taxiway areas. All such exterior areas are common use areas available to all other tenants on the airport. Lessee agrees that Lessee's aircraft shall not be parked or positioned in such exterior areas so as to block, limit or restrict the use of the ramps, aprons or taxiways by other airport tenants or uses.

e. Lessee will be permitted to have a small desk and work bench and necessary small tools required by work permitted under 3.2b of this Lease.

f. Lessee will not be permitted to add electrical service to the Premises or to otherwise alter the electrical service provided without the written consent of the Lessor.

g. Storage of aircraft parts and accessories for aircraft registered for hangar will be permitted.

h. The Lessee is permitted to store a personal vehicle within the hangar space during periods when the aircraft is in use. Lessee is not permitted to use the hangar space for permanent vehicle storage in substitution for aircraft storage.

i. Installation of a power (if electrical service is added) or hand winch to assist with hanging of aircraft is permissible.

j. Lessee may store more than one (1) aircraft in the Premises as provided by this Lease.

k. Lessee will be permitted to keep and store small quantities of lubricants, cleaners and other similar materials within the hangar space, provided all flammable materials are kept in fire retardant containers. The hangar space shall not be used for storage of large amounts of fuel nor as a fueling area for the resident aircraft. Lessee at Lessee's own expense may construct an enclosed space in the hangar with written consent of the Lessor.

l. Lessee will not be permitted to perform repair service on automobiles or automotive equipment of any kind in the Premises.

m. Lessee shall not store any material or object not directly related to the registered aircraft, unless the storage of such prohibited items or materials has been approved by the Lessor in writing. This prohibits the storage (without permission) of furniture, inoperative and unregistered aircraft, utility trailers and all other similar materials.

n. Lessee shall not perform painting operations of any kind within the Premises.

o. Installation or use of any hazardous devices, including but not limited to space heaters and engine heaters shall be prohibited in the Premises, unless specifically authorized by the Lessor.

p. Washing aircraft will not be permitted in the Premises or within the hangar area without the express permission of the Lessor.

q. Installation of furniture or appliances that are not required under permitted uses specified above or for which written permission has not been granted by the Lessor shall be prohibited. This prohibits sleeping couches, cots, beds, hot plates, stoves or other cooking devices, unless specifically authorized by the Lessor.

IV. GENERAL PROVISIONS:

4.1 It is agreed that the demised sites are accepted in their "as is" condition. Except as established in the preceding paragraph, Lessor assumes no responsibility as to the condition of the demised premises nor shall it assume responsibility for the maintenance, upkeep or repairs which might become necessary to keep the Premises in a safe and serviceable condition.

4.2 The Premises shall not be underlet or the term in whole or in part assigned, transferred or set over by the act of the Lessee, by process or operation of law or in any other manner whatsoever without the prior written consent of the Lessor.

4.3 No signs, emblems or advertising shall be placed or erected on or in the Premises herein demised, nor shall Lessee make any alterations, changes or additions to the Premises including, but not limited to, the replacement or change of locks for the Premises.

4.4 Should the Lessee continue to occupy the Premises after the expiration of the term of this Lease or after a forfeiture occurred, whether with or against the consent of the Lessor, such tenancy shall be month to month but in all other respects shall be in accordance with the terms of this Lease.

4.5 The Lessor shall not be liable for any damage, either to person or property, sustained by the Lessee or by other persons due to the building or any part thereof or any appurtenances thereof becoming out of repair or due to the happening of any accident in or about the building or due to any act or neglect of any tenant or occupant of the building or of any other person. Without limiting the generality of the foregoing, the Lessor shall not be liable for damage caused by water, wind or electrical causes or the negligence of contractors, employees, agents or licensees of the Lessor unless provided to be the gross negligence of the Lessor.

4.6 The Lessee agrees to indemnify and save the Lessor, its officers, agents and employees harmless from any liability, including, but not limited to claims, judgments, fines, costs and attorney's fees to persons or property resulting from or arising out of the Lessee's use or occupancy of the Premises.

4.7 This Lease, at the option of the Lessor, shall be void and forfeited in case of any violation of any agreement herein contained. This covenant is not to be considered or construed as a penalty, but shall be punctually enforced and the Lessor's failure to enforce the same with respect to any violation shall not constitute a waiver of the right to enforce the same with respect to any other violation.

4.8 The Lessee agrees that the Lessor shall have the right to enter the demised premises at any time for the purpose of making inspections thereof and to make such repairs or alterations as are, in the opinion of the Lessor, desirable or necessary and to take such materials into the premises for the safe and economical accomplishment of said purposes without in any way being deemed guilty of an actual or constructive eviction of the Lessee.

4.9 Lessee shall maintain an insurance policy for any aircraft placed within the leased premises in full force and effect for the period covered by the Lease and any renewals filed with the County. The insurance policy (policies) must identify the Lessor as an additional insured. A copy of the insurance policy (policies) or certificate of insurance must be filed with the Currituck County Finance Department within 30 days of the signing of the lease. The insurance will meet the specifications set forth below.

The amounts of such insurance shall not be less than the following:

Bodily Injury \$100,000
Property \$1,000,000
Each Accident \$1,000,000

V. SUBLEASE/ASSIGNMENT:

The space hereby leased will not be subleased by Lessee nor will this Lease be assigned without the express approval of the Lessor. Parking of aircraft not belonging to, or leased by Lessee, shall be construed as a sublease and unless approved by the Lessor shall be grounds for termination of this lease.

VI. NOTICES:

Notices to the Lessor provided for herein shall be sufficient if sent by registered mail, postage prepaid, or hand delivered, addressed to **Currituck County Attorney, 153 Courthouse Road, Suite 210, Currituck, NC 27929** and notices to the Lessee shall be sufficient if sent registered mail, postage prepaid, or hand delivered, addressed to **John Harris, President, Kitty Hawk Kites, Inc, PO Box 1839, Nags Head, NC 27959** or to such other respective addresses as the parties may designate to each other in writing from time to time. Lessee shall notify the Currituck County Legal Department of any change of address within thirty (30) days.

VII. TERMINATION:

This agreement may be terminated by either party upon thirty days (30) written notice of non-renewal as provided for in paragraph I above. In addition, Lessor may terminate this agreement during the course of monthly term upon the occurrence of any of the following which shall constitute a breach of this Lease by Lessee: Rent is not paid by the 20th of any month; Lessee has failed to comply with any condition of this lease and has not reasonably corrected the deficiency upon notice by Lessor. In the event of such breach, Lessor shall notify Lessee of termination in writing.

IN WITNESS WHEREOF, the parties have executed this agreement the day and year first above written.

CURRITUCK COUNTY

ATTEST:

Clerk to the Board

BY: _____ (SEAL)
Daniel F. Scanlon, II, County Manager

(County Seal)

LESSEE:

KITTY HAWK KITES, INC.

BY: _____ (SEAL)

Print Name: _____

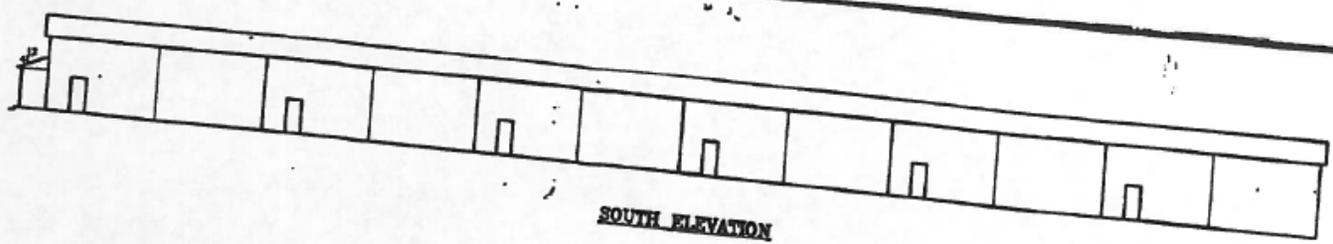
Telephone: _____

Please list any and all authorized persons that will have access to the premises:

Name: _____
Address: _____

(A)

7



Runway

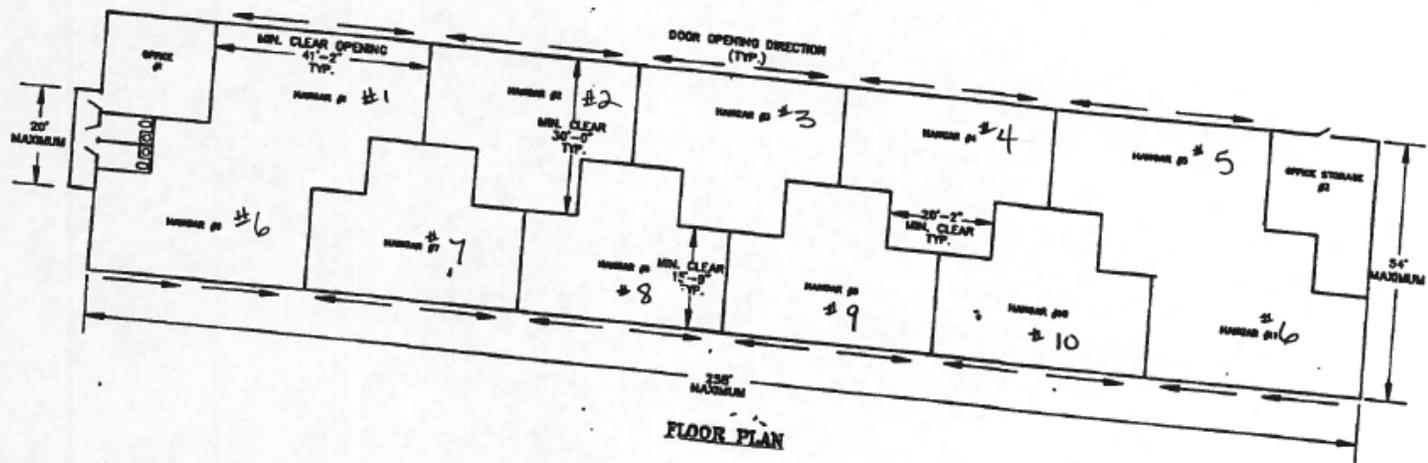


EXHIBIT A

ALBEMARLE ENGINEERING

2500 S. CANTON HWY., BEL GARD HILLS, N.C. 27008 (919) 441-2713

FLOOR PLAN & ELEVATION			
FOR			
CURRITUCK COUNTY AIRPORT			
"T" HANGAR ADDITION			
MAPLE, NC.			
SCALE	DATE	PROJECT	LOCATION
1"=20'	02/08/94	MAPLE	CURRITUCK CO. NORTH C.
DRAWN	DATE	PROJECT	LOCATION
J.D.	02/08/94	MAPLE	CURRITUCK CO. NORTH C.
REVIEWED	DATE	PROJECT	LOCATION
J.D.	02/08/94	MAPLE	CURRITUCK CO. NORTH C.

206

**North Carolina Department of Transportation
Division of Highways
Petition for Road Addition**

ROADWAY INFORMATION: (Please Print/Type)

County: Currituck Road Name: Ruddy Ln.
(Please list additional street names and lengths on the back of this form.)

Subdivision Name: Swan Haven Length (miles): 1/8 mile

Number of occupied homes having street frontage: 5 Located (miles): 1/8 mile

miles N S E W of the intersection of Route Ferry Dock and Route Fentress Dr.
(Check one) (SR, NC, US) (SR, NC, US)

We, the undersigned, being property owners and/or developers of Swan Haven in Currituck County, do hereby request the Division of Highways to add the above described road.

CONTACT PERSON: Name and Address of First Petitioner. (Please Print/Type)

Name: Charlotte (Ferrell) Parker Phone Number: 757-477-9690
 Street Address: 223 Fentress Dr. Knotts Island, NC 27950
 Mailing Address: "

PROPERTY OWNERS

<u>Name</u>	<u>Mailing Address</u>	<u>Telephone</u>
<u>MARY Tippet</u>	<u>109 Ruddy Lane</u>	<u>252-429-3268</u>
<u>Billy Davis</u>	<u>112 Ruddy Ln</u>	<u>757-472-3878</u>
<u>JOHN K. BRINKLEY</u>	<u>105 Ruddy Ln</u>	<u>757 651 6390</u>
<u>KELLY TURMON</u>	<u>104 Ruddy Ln</u>	<u>757-434-5092</u>

Marlea & Ed Williams
717-528-4936 Ruddy Ln.

* Not home at time of signing.



Quote Number: QU0000270765
 Effective: 04 APR 2014
 Effective To: 03 JUN 2014

Bill-To:

KNOTTS ISLAND VOLUNTEER FIRE DEPT
 P O BOX 115
 KNOTTS ISLAND, NC 27950
 United States

Ultimate Destination:

KNOTTS ISLAND VOLUNTEER FIRE DEPT
 153 S END RD
 KNOTTS ISLAND, NC 27950
 United States

Attention:

Name: Mary Beth News
 Phone: 252-232-2115

Sales Contact:

Name: Warren Bell
 Email: wbell@gately.com
 Phone: 252-441-2066

Request For Quote: Mary Beth News
 Contract Number: NC STATE NON ARIBA -725G
 Freight terms: FOB Destination
 Payment terms: Net 30 Due

Item	Quantity	Nomenclature	Description	List price	Your price	Extended Price
1	1	M25URS9PW1AN	APX6500 7/800 MHZ MID POWER MOBILE	\$5,949.00	\$4,461.75	\$4,461.75
1a	1	W22BA	ADD: PALM MICROPHONE			
1b	1	G806BE	ENH: ASTRO DIGITAL CAI OP APX			
1c	1	G442AJ	ADD: O5 CONTROL HEAD			
1d	1	G67BC	ADD: REMOTE MOUNT O5 MID POWER			
1e	1	G843AH	ADD: AES ENCRYPTION APX7500			
1f	1	W969BG	ADD: MULTIPLE KEY ENCRYPTION OPERATION			
1g	1	G444AE	ADD: APX CONTROL HEAD SOFTWARE			
1h	1	G361AH	ADD: P25 TRUNKING SOFTWARE			
1i	1	G51AU	ENH: SMARTZONE OPERATION APX6500			
1j	1	QA01648AA	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY			
1k	1	G335AW	ADD: ANT 1/4 WAVE 762-870 MHZ			
1l	1	B18CR	ADD: AUXILARY SPKR 7.5 WATT			
1m	1	G996AS	ENH: OVER THE AIR PROVISIONING			
1n	1	W947AT	ADD: RS232 PACKET DATA INTERFACE			
1o	1	G309AC	ADD:USB DATA INTFC CABLE-TRK			
2	2	H98UCF9PW6AN	APX6000 700/800 MODEL 2.5 PORTABLE	\$6,234.00	\$4,696.50	\$9,393.00
2a	2	Q806BM	ADD: ASTRO DIGITAL CAI OPERATION			
2b	2	QA01648AA	ADD: ADVANCED SYSTEM KEY - HARDWARE KEY			
2c	2	H869BZ	ENH: MULTIKEY			
2d	2	Q629AK	ENH: AES ENCRYPTION			
2e	2	H885BK	ENH: 2 YR SFS LITE			
2f	2	QA02006AA	ENH: APX6000XE RUGGED RADIO			
2g	2	H64BE	ALT: PUBLIC SAFETY YELLOW			
2h	2	G996AU	ADD: PROGRAMMING OVER P25 (OTAP)			
2i	2	Q947BC	ADD: RADIO PACKET DATA			
2j	2	H38BT	ADD: SMARTZONE OPERATION			
2k	2	Q361AR	ADD: P25 9600 BAUD TRUNKING			
3	2	WPLN7080A	IMPRES SUC US/NA/CA/LA	\$125.00	\$96.25	\$192.50

Item	Quantity	Nomenclature	Description	List price	Your price	Extended Price
4	2	NNTN7624B	CHR IMP VEH EXT NA/EU KIT	\$390.00	\$300.30	\$600.60
5	147	SVC03SVC0115D	SUBSCRIBER PROGRAMMING	\$1.00	\$1.00	\$147.00
6	695	SVC03SVC0124D	SUBSCRIBER INSTALL - CUST LOCATION	\$1.00	\$1.00	\$695.00

Total Quote in USD

\$15,489.85

PO Issued to Motorola Solutions Inc. must:

- >Be a valid Purchase Order (PO)/Contract/Notice to Proceed on Company Letterhead. Note: Purchase Requisitions cannot be accepted
- >Have a PO Number/Contract Number & Date
- >Identify "Motorola Solutions Inc." as the Vendor
- >Have Payment Terms or Contract Number
- >Be issued in the Legal Entity's Name
- >Include a Bill-To Address with a Contact Name and Phone Number
- >Include a Ship-To Address with a Contact Name and Phone Number
- >Include an Ultimate Address (only if different than the Ship-To)
- >Be Greater than or Equal to the Value of the Order
- >Be in a Non-Editable Format
- >Identify Tax Exemption Status (where applicable)
- >Include a Signature (as Required)

QUOTE

RHINEHART FIRE SERVICES

DATE 1/16/14

22 Piney Park Rd. , Asheville NC 28806
 Phone 828.273.1789
 bob@rhinehartfire.com

EXPIRATION DATE 12/30/2014

TO Moyock Fire Department
 108 Fire Station Ct.
 Moyock , NC 27958
 Deputy Chief Pervere
rpervere@gmail.com
 252-207-5866

SALESPERSON	JOB	PAYMENT TERMS	DUE DATE
Ellis		Due on receipt	

QTY	DESCRIPTION	UNIT PRICE	LINE TOTAL
21	X3314021200302 4.5 Air-pak X3 with CGA Fitting Standard Harness, Belt, CBRN Regulator with standard hose , Dual EBSS , Pass & Pak-Tracker	\$ 4,610.00	\$ 96,810.00
42	804722-01 4500 PSI 45 Minute Carbon Cylinder & Valve	\$ 900.00	\$ 37,800.00
21	201215-02 Med. AV3000HT No Comms.	\$ 235.00	\$ 4,935.00
7	201215-01 Small AV3000Ht No Comms.	\$ 235.00	\$ 1,645.00
7	201215-03 Large AV3000HT NO Comms.	\$ 235.00	\$ 1,645.00
2	Handheld Pak-Trackers with truck charging system	\$ 1,600.00	\$ 3,200.00
3	Scott Rit-Pak III with low and high Pressure, Mask 60 min Cylinder We will come out and setup the paks and give a class on how to use them. We will also, do the first year's flow test when they come due for free.	\$ 3,300.00	\$ 9,900.00
			FREE SHIPPING
		SUBTOTAL	\$ 155,935.00
		SALES TAX	PLUS TAX
		TOTAL	

Quotation prepared by: _____

This is a quotation on the goods named, subject to the conditions noted below: (Describe any conditions pertaining to these prices and any additional terms of the agreement. You may want to include contingencies that will affect the quotation.)

To accept this quotation, sign here and return: _____

THANK YOU FOR YOUR BUSINESS!

BUDGET AMENDMENT

The Currituck County Board of Commissioners sitting as the Tourism Development Authority, at a meeting on the 21st day of April, 2014 , passed the following amendment to the budget resolution for the fiscal year ending June 30, 2014.

<u>Account Number</u>	<u>Account Description</u>	Debit	Credit
		<u>Decrease Revenue or Increase Expense</u>	<u>Increase Revenue or Decrease Expense</u>
15442-526200	Promotional Efforts	\$ 9,050	
15350-565002	Co-op Advertising		\$ 9,050
		<u>\$ 9,050</u>	<u>\$ 9,050</u>

Explanation: Occupancy Tax - Tourism Promotion (15442) - Increase appropriations to record Co-op advertising revenues.

Net Budget Effect: Occupancy Tax Fund (15) - Increased by \$9,050.

Minute Book # _____, Page # _____

Journal # _____

Clerk to the Board