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*The mission of the Wilmington MPO is to develop and implement a comprehensive multi-modal transportation plan that supports the existing and future mobility needs and economic vitality of the Wilmington Urban Area. This shall be accomplished by protecting the environment, safe guarding the social equity, improving the quality of life for the citizens of the community, improving the local economy and providing for the safe and efficient mobility throughout the region. This is achieved through the long range transportation planning process which includes a comprehensive, continuous and cooperative approach from citizens and participating members.*

### **Technical Coordinating Committee Meeting Agenda**

**TO:** Technical Coordinating Committee Members  
**FROM:** Mike Kozlosky, Executive Director  
**DATE:** March 10, 2016  
**SUBJECT:** March 16<sup>th</sup> meeting

A meeting of the Wilmington Urban Area MPO's Technical Coordinating Committee will be held on Wednesday, March 16<sup>th</sup> at 10 am. The meeting will be held in the Lord Spencer Compton Conference Room at 102 North 3rd Street in downtown Wilmington.

The following is the agenda for the meeting:

- 1) Call to Order
- 2) Approval of Minutes:
  - a. 2/10/16
- 3) Presentation
  - a. Transportation Demand Management Activities Update, Adrienne Harrington, WMPO
  - b. Wilmington Urban Area MPO Organizational Survey Results, Josh Lopez, WMPO
- 4) Consent Agenda
  - a. Resolution adopting STIP/MTIP Amendments (January and February)
  - b. Resolution adopting the STIP/MTIP Modification (February)
  - c. Resolution adopting the FY 17 Unified Planning Work Program
  - d. Resolution Certifying the Transportation Planning Process for the Wilmington Urban Area MPO
- 5) Regular Agenda
  - a. Resolution amending the TCC adopted meeting calendar for the May meeting
  - b. Resolution adopting the Coastal Pender County Collector Street Plan
  - c. Resolution supporting the improvements to the Container Facility at the Port of Wilmington
- 6) Discussion
  - a. Organizational Improvements
  - b. Draft Local Input Point Assignment

### Wilmington Urban Area Metropolitan Planning Organization

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- 7) Updates
    - a. Crossing over the Cape Fear River
    - b. Wilmington MPO
    - c. Rail Re-alignment Task Force
    - d. Cape Fear Public Transportation Authority
    - e. NCDOT Division
    - f. NCDOT Transportation Planning Branch
  - 8) Announcements
    - a. WMPO Bike/Ped Committee Meeting- March 24<sup>th</sup>
  - 9) Next meeting –April 13, 2016

**Attachments:**

- Minutes 2/10/16 meeting
- STIP/MTIP Amendments (January and February)
- Resolution adopting STIP/MTIP Amendments (January and February)
- STIP/MTIP Modification (February)
- Resolution adopting the STIP/MTIP Modification (February)
- FY 17 Unified Planning Work Program
- Resolution adopting the FY 17 Unified Planning Work Program
- Resolution Certifying the Transportation Planning Process for the Wilmington Urban Area MPO
- Resolution amending the TCC adopted meeting calendar for the May meeting
- Coastal Pender Collector Street Plan
- Resolution adopting the Coastal Pender County Collector Street Plan
- Resolution supporting the improvements to the Container Facility at the Port of Wilmington
- WMPO Organizational Survey Results
- Cape Fear River Crossing Update (March)
- Wilmington MPO Project Update (March)
- Cape Fear Public Transportation Authority Update (March)
- NCDOT Project Update (March)

**Wilmington Urban Area  
Technical Coordinating Committee  
Meeting Notes for February 10, 2016**

**Members Present:**

Mike Kozlosky, City of Wilmington  
Adrienne Harrington, TDM Coordinator  
Ken Vafier, New Hanover County  
Megan O'Hare, Pender County  
Trey Burke, Town of Navassa  
Robert Waring, Town of Leland  
Athina Williams, Town of Belville

Allen Serkin, CFCOG  
Helen Bunch, Brunswick County  
Alan Pytcher, NCDOT  
Nancy Avery, Town of Kure Beach  
Adam Snipes, NCDOT Planning Branch  
Stephanie Ayers, NC State Ports Authority  
Megan Matheny, WAVE Transit

**1. Call to Order**

Mr. Kozlosky called the meeting to order at 10:04am.

**2. Approval of Minutes**

The minutes for the meeting January 13, 2015 were approved unanimously.

**3. Presentation**

**a. Wilmington MPO 101: Transportation Projects from Conception to Construction, Suraiya Rashid**

Ms. Rashid gave a presentation on Transportation Projects from Conception to Construction. She reviewed the WMPO's role in the process of taking a project from developing the concept to the final steps necessary for its addition to the State Transportation Improvement Program and the Metropolitan Transportation Improvement Program.

Ms. Avery asked about the distinction between items that are determined by the WMPO Transportation Advisory Committee and items that the North Carolina Board of Transportation determine.

Ms. Rashid stated that the TAC has the ultimate authority over the adoption of the Comprehensive Transportation Plan, the Metropolitan Transportation Plan and the Metropolitan Transportation Improvement Program. The North Carolina Board of Transportation has ultimate authority over the Strategic Prioritization Process and the programming of the State Transportation Improvement Program. She said in the event that the TAC has an issue with something programmed with the STIP, they could stop it from happening by not adopting the MTIP because it's a federal requirement that the STIP and the MTIP match.

**4. Consent Agenda**

- a. Resolution approving STIP/MTIP Administrative Modifications (January and February)**
- b. Resolution Re-affirming Support to Increase the Ferry Tolls for the Southport and Fort Fisher Ferry**
- c. Resolution adopting the Wilmington Urban Area MPO's 2016 Legislative Agenda**
- d. Opening of the 30-day public comment period for STIP/MTIP Amendments (February)**

Ms. Bunch made the motion to approve the items on the consent agenda and forward to the TAC for consideration. Ms. Avery seconded to motion and it carried unanimously.

## **5. Regular Agenda**

### **a. Resolution adopting the Wilmington Urban Area MPO's Amended Memorandum of Understanding**

Mr. Kozlosky told members last year staff proposed to amend the MOU to acknowledge the TAC as a "Board" and to change the organization's name from the Wilmington Urban Area MPO to the Greater Wilmington Urban Area MPO. Because of the legislation pertaining to the Map Act, the organization name cannot be changed. Mr. Kozlosky said the amended MOU that will retain the name Wilmington Urban Area MPO, and it reflects the actions that were taken in December by Congress in passing the FAST Act.

Ms. Avery made the motion to adopt the Wilmington Urban Area MPO's amended Memorandum of Understanding and forward to the TAC for consideration. Ms. Bunch seconded the motion and it carried unanimously.

### **b. Resolution adopting Amendments to the Wilmington Urban Area MPO's Bylaws**

Mr. Kozlosky told members that the amendment will allow the TAC to approve the agenda at the beginning of each meeting. This will allow an opportunity to add or remove items from the meeting agenda.

Mr. Snipes made the motion to adopt the amendments to the Wilmington Urban Area MPO Bylaws and forward to the TAC for approval. Mr. Waring seconded the motion and it carried unanimously.

### **c. Resolution amending the FY15-16 Unified Planning Work Program**

Ms. Bunch made the motion to amend the FY 15-16 Unified Planning Work Program. Mr. Snipes seconded the motion and it carried unanimously.

### **d. Resolution approving the 2016 TAP-DA Allocation**

Mr. Kozlosky told members that the TAC instructed staff to bring forward a resolution supporting the allocation of the 2016 TAP-DA funds in the amount of \$225,000.00 to the Town of Navassa for the multi-use path at the Town's park. He noted that they were the only entity that submitted a request for funds. This will fund a portion of their project and it is anticipated that they will submit for the remaining funds in the 2017 TAP-DA call for projects.

Ms. Williams made the motion to approve the allocation of 2016 TAP-DA funds to the Town of Navassa for construction of a multi-use path at the Town's park. Ms. Avery seconded the motion and it carried unanimously.

## **6. Discussion**

### **a. Organizational Improvements**

- i. Customer Survey
- ii. Update Strategic Business Plan

Mr. Kozlosky reminded members that the customer survey closes on February 29<sup>th</sup>. He told members that staff is working with TAC members to schedule a retreat to begin the development of the Strategic Business Plan. The date has not yet be finalized.

**b. STIP/MTIP Modifications (February)**

Mr. Kozlosky told members that the STIP/MTIP modifications do not require a 30-day public comment period. Staff will bring the modifications back to the March meeting for consideration.

**7. Updates**

Updates are included in the agenda packet.

**8. Announcements**

**9. Adjournment**

With no further items, the meeting was adjourned at 10:35am.

**THE ABOVE MINUTES ARE NOT A VERBATIM RECORD OF THE PROCEEDINGS.  
THE ENTIRE PROCEEDINGS ARE RECORDED ON A COMPACT DISC AS PART OF THIS RECORD.**

## Proposed Revisions to 2016-2025 STIP/MTIP Program

### STIP/MTIP Additions (January)

U-4751A NEW HANOVER PROJ.CATEGORY STATEW IDE	LENDIRE ROAD, WEST OF US 17 BUSINESS (MARKET STREET) TO US 17 BUSINESS (MARKET STREET)/SR 1403 (MIDDLE SOUND LOOP ROAD). REALIGN ROADW AY. ADD CONSTRUCTION IN FY 16 NOT PREVIOUSLY <u>PROGRAMMED.</u>	CONSTRUCTION	FY 2016 - <u>\$1,000,000</u> (T) \$1,000,000
U-5880 NEW HANOVER PROJ.CATEGORY REGIONAL	US 74 (MARTIN LUTHER KING, JR. BOULEVARD), US 17 BUSINESS (MARKET STREET). UPGRADE INTERCHANGE. NEW PROJECT PROGRAMMED DUE TO <u>ADDITIONAL REVENUE (HB 97).</u>	RIGHT-OF-W AY CONSTRUCTION	FY 2022 - \$3,000,000 (T) FY 2024 - \$6,250,000 (T) FY 2025 - <u>\$6,250,000</u> (T) \$15,500,000
U-5881 NEW HANOVER PROJ.CATEGORY STATEW IDE	NC 132 (COLLEGE ROAD), SR 2048 (GORDON ROAD) TO SR 1272 (NEW CENTRE DRIVE). UPGRADE NEW PROJECT PROGRAMMED DUE TO <u>ADDITIONAL REVENUE (HB 97).</u>	RIGHT-OF-W AY UTILITIES CONSTRUCTION	FY 2023 - \$19,208,000 (T) FY 2023 - \$2,305,000 (T) FY 2025 - \$31,350,000 (T) POST YR - <u>\$31,350,000</u> (T) \$84,213,000
U-5914 BRUNSWICK PROJ.CATEGORY DIVISION	NC 133, US 17/74/76 TO SR 1554 (OLD RIVER ROAD). MODERNIZE ROADW AY. NEW PROJECT PROGRAMMED DUE TO <u>ADDITIONAL REVENUE (HB 97).</u>	CONSTRUCTION	FY 2020 - <u>\$5,130,000</u> (T) \$5,130,000

\* W -5203DIV VARIOUS, DIVISION 3 RUMBLE STRIPS, RIGHT-OF-WAY  
 BRUNSWICK GUARDRAIL, SAFETY AND LIGHTING CONSTRUCTION  
 ONSLOW IMPROVEMENTS AT SELECTED  
 NEW HANOVER LOCATIONS.  
 PROJ.CATEGORY ADD RIGHT-OF-WAY IN FY 16 AND  
 DIVISION CONSTRUCTION IN  
FY 16 NOT PREVIOUSLY PROGRAMMED.  
 FY 2016 - \$36,000 (HSIP)  
 FY 2016 - \$3,575,000 (HSIP)  
 \$3,611,000

\* W -5203REG VARIOUS, DIVISION 3 RUMBLE STRIPS, RIGHT-OF-WAY  
 ONSLOW GUARDRAIL, SAFETY AND LIGHTING CONSTRUCTION  
 PROJ.CATEGORY IMPROVEMENTS AT SELECTED  
 REGIONAL LOCATIONS.  
 ADD RIGHT-OF-WAY IN FY 16 AND  
CONSTRUCTION IN  
FY 16 NOT PREVIOUSLY PROGRAMMED.  
 FY 2016 - \$25,000 (HSIP)  
 FY 2016 - \$1,255,000 (HSIP)  
 \$1,280,000

\* W -5203SW VARIOUS, DIVISION 3 RUMBLE STRIPS, RIGHT-OF-WAY  
 BRUNSWICK GUARDRAIL, SAFETY AND LIGHTING CONSTRUCTION  
 ONSLOW IMPROVEMENTS AT SELECTED  
 NEW HANOVER LOCATIONS.  
 PROJ.CATEGORY ADD RIGHT-OF-WAY IN FY 16 AND  
 STATEWIDE CONSTRUCTION IN FY 16 AND FY 17 NOT  
PREVIOUSLY PROGRAMMED.  
 FY 2016 - \$51,000 (HSIP)  
 FY 2016 - \$5,725,000 (HSIP)  
 FY 2017 - \$725,000 (HSIP)  
 \$6,501,000

U-5926 NEW ROUTE. SR 1302 (23RD STREET) TO RIGHT-OF-WAY  
 NEW HANOVER 26<sup>TH</sup> STREET. CONSTRUCT ROUTE ON NEW  
 DIVISION LOCATION.  
 PROJ.CATEGORY ECONOMIC DEVELOPMENT PROJECT.  
 ADD RIGHT-OF-WAY IN FY 17 AND  
 CONSTRUCTION IN FY 18 NOT PREVIOUSLY  
PROGRAMMED. THIS IS AN  
ECONOMIC DEVELOPMENT PROJECT.  
 FY 2017 - \$225,000 (T)  
 FY 2017 - \$225,000 (L)  
 FY 2018 - \$2,436,000 (T)  
 FY 2018 - \$2,436,000 (L)  
 \$5,322,000

## Proposed Revisions to 2016-2025 STIP/MTIP Program

### STIP/MTIP Amendments (February)

* W -5700 STATEWIDE	VARIOUS, SIGNAL RETIMING TO IMPROVE SAFETY. <u>NEW PROJECT PROGRAMMED AT REQUEST OF TRANSPORTATION MOBILITY AND SAFETY DIVISION -STI CATEGORY PROGRAMMING SHOW N BELOW.</u>	
* W -5700DIV STATEWIDE	VARIOUS, SIGNAL RETIMING TO IMPROVE SAFETY. <u>NEW PROJECT PROGRAMMED AT REQUEST OF TRANSPORTATION MOBILITY AND SAFETY DIVISION - DIVISION NEEDS CATEGORY.</u>	CONSTRUCTION
		FY 2016 - \$600,000 (HSIP)
		FY 2017 - \$450,000 (HSIP)
		FY 2018 - \$450,000 (HSIP)
		FY 2019 - \$450,000 (HSIP)
		FY 2020 - \$450,000 (HSIP)
		FY 2021 - <u>\$450,000</u> (HSIP)
		\$2,850,000
* W -5700REG STATEWIDE	VARIOUS, SIGNAL RETIMING TO IMPROVE SAFETY. <u>NEW PROJECT PROGRAMMED AT REQUEST OF TRANSPORTATION MOBILITY AND SAFETY DIVISION - REGIONAL IMPACT CATEGORY.</u>	CONSTRUCTION
		FY 2016 - \$600,000 (HSIP)
		FY 2017 - \$450,000 (HSIP)
		FY 2018 - \$450,000 (HSIP)
		FY 2019 - \$450,000 (HSIP)
		FY 2020 - \$450,000 (HSIP)
		FY 2021 - <u>\$450,000</u> (HSIP)
		\$2,850,000

* W -5700SW	VARIOUS, SIGNAL RETIMING TO IMPROVE	CONSTRUCTION	FY 2016 - \$800,000 (HSIP)
STATEWIDE	SAFETY.		FY 2017 - \$600,000 (HSIP)
PROJ. CATEGORY	<u>NEW PROJECT PROGRAMMED AT REQUEST OF</u>		FY 2018 - \$600,000 (HSIP)
STATEWIDE	<u>TRANSPORTATION MOBILITY AND SAFETY</u>		FY 2019 - \$600,000 (HSIP)
	<u>DIVISION STATEWIDE STRATEGIC MOBILITY</u>		FY 2020 - \$600,000 (HSIP)
	<u>CATEGORY.</u>		FY 2021 - <u>\$600,000</u> (HSIP)
			\$3,800,000

**ADDITIONS to the Transit 2016-2025 STIP (February)**

STIP #	Transit Partner	DESCRIPTION	match	FUND	FY16 (000)	FY17 (000)	FY18 (000)	FY19 (000)	FY20 (000)	FY21 (000)	FY22 (000)
TD-4721	Cape Fear Transportation Authority	Intermodal Facility – Land, Planning, Design, and Construction	FUZ	STPDA	2,400						
			Local	L	600						
TO-5210	Cape Fear Public Transportation Authority	Operating assistance for express fixed route serving Fordeh Station and Downtown Stations	FUZ	JARC	184						
			Local	L	184						

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION  
TRANSPORTATION ADVISORY COMMITTEE**

**RESOLUTION APPROVING AMENDMENTS TO THE  
2016-2025 STATE /METROPOLITAN TRANSPORTATION IMPROVEMENT  
PROGRAMS**

**WHEREAS**, the Wilmington Urban Area Metropolitan Planning Organization provides transportation planning services for the City of Wilmington, Town of Carolina Beach, Town of Kure Beach, Town of Wrightsville Beach, Town of Belville, Town of Leland, Town of Navassa, New Hanover County, Brunswick County, Pender County, Cape Fear Public Transportation Authority and the North Carolina Board of Transportation; and

**WHEREAS**, the Transportation Advisory Committee has found that the Wilmington Urban Area Metropolitan Planning Organization is conducting transportation planning in a continuous, cooperative, and comprehensive manner; and

**WHEREAS**, the North Carolina Board of Transportation adopted the 2016-2025 State Transportation Improvement Program on June 4, 2015 and the Wilmington Urban Area Metropolitan Planning Organization adopted the Statewide/Metropolitan Transportation Improvement Program on June 24, 2015; and

**WHEREAS**, the Wilmington MPO desires to amend the State/Metropolitan Transportation Improvement Programs to add projects U-4751A, U-5880, U-5881, U-5914, W-5203DIV, W-5203REG, W-5203SW, U-5926, W-5700, W-5700DIV, W-5700REG, W-5700SW, TD-4721 and TO-5210; and

**WHEREAS**, the Wilmington Metropolitan Planning Organization has conducted a 30-day public comment period to receive citizen input on these transportation projects.

**NOW THEREFORE**, be it resolved by the Wilmington Urban Area Metropolitan Planning Organization's Transportation Advisory Committee approves amending 2016-2025 State/Metropolitan Transportation Improvement Programs to add projects U-4751A, U-5880, U-5881, U-5914, W-5203DIV, W-5203REG, W-5203SW, U-5926, W-5700, W-5700DIV, W-5700REG, W-5700SW, TD-4721 and TO-5210.

**ADOPTED** at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization Transportation Advisory Committee on March 30, 2016.

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Gary Doetsch, Chair  
Transportation Advisory Committee

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Mike Kozlosky, Secretary

## Proposed Revisions to 2016-2025 STIP/MTIP Program

### STIP/MTIP Modification (February)

* SR-5001	VARIOUS, SAFE ROUTES TO SCHOOL PROGRAM.	CONSTRUCTION	FY 2016 - \$3,100,000 (SRTS)
STATEW IDE	PROJECTS TO IMPROVE SAFETY, REDUCE		FY 2017 - <u>\$500,000</u> (SRTS)
PROJ.CATEGORY	TRAFFIC, FUEL CONSUMPTION AND AIR		
DIVISION	POLLUTION IN VICINITY OF SCHOOLS.		\$3,600,000
	<u>ADD CONSTRUCTION IN FY 16 AND FY 17 NOT</u>		
	<u>PREVIOUSLY PROGRAMMED. AT REQUEST OF</u>		
	<u>DIVISION OF BICYCLE AND PEDESTRIAN</u>		
	<u>TRANSPORTATION.</u>		

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION  
TRANSPORTATION ADVISORY COMMITTEE**

**RESOLUTION APPROVING MODIFICATIONS TO THE  
2016-2025 STATE /METROPOLITAN TRANSPORTATION IMPROVEMENT  
PROGRAMS**

**WHEREAS**, the Wilmington Urban Area Metropolitan Planning Organization provides transportation planning services for the City of Wilmington, Town of Carolina Beach, Town of Kure Beach, Town of Wrightsville Beach, Town of Belville, Town of Leland, Town of Navassa, New Hanover County, Brunswick County, Pender County, Cape Fear Public Transportation Authority and the North Carolina Board of Transportation; and

**WHEREAS**, the Transportation Advisory Committee has found that the Wilmington Urban Area Metropolitan Planning Organization is conducting transportation planning in a continuous, cooperative, and comprehensive manner; and

**WHEREAS**, the North Carolina Board of Transportation adopted the 2016-2025 State Transportation Improvement Program on June 4, 2015 and the Wilmington Urban Area Metropolitan Planning Organization adopted the Statewide/Metropolitan Transportation Improvement Program on June 24, 2015; and

**WHEREAS**, the Wilmington Urban Area MPO desires to modify the State/Metropolitan Transportation Improvement Programs for SR-5001.

**NOW THEREFORE**, be it resolved by the Wilmington Urban Area Metropolitan Planning Organization's Transportation Advisory Committee approves modifying the 2016-2025 State/Metropolitan Transportation Improvement Programs for SR-5001.

**ADOPTED** at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization Transportation Advisory Committee on March 30, 2016.

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Gary Doetsch, Chair  
Transportation Advisory Committee

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Mike Kozlosky, Secretary



# Unified Planning Work Program

## Fiscal Year 2017

**DRAFT**

**FY 2016-2017 UNIFIED PLANNING WORK PROGRAM  
for the  
WILMINGTON, NORTH CAROLINA URBAN AREA**

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## Introduction

In compliance with Federal law and in the spirit of cooperation, the Wilmington Urban Area conducts a “cooperative, comprehensive, and continuing....” transportation planning process. This Planning Work Program (PWP) outlines the tasks and associated funding sources dedicated to the Wilmington Urban Area MPO transportation planning process during fiscal year 2016-2017. Depending on the specific funding source, tasks funded through the PWP are eligible for reimbursement of 80-90% of their cost from the Federal Highway Administration and Federal Transit Administration through the North Carolina Department of Transportation.

The PWP for the Wilmington Urban Area identifies four separate funding sources for Urban Area transportation planning. A brief description of these funding sources follows:

- Statewide Planning and Research Programs (SPR)-These funds are used by NCDOT to conduct work for the Wilmington Urban Area MPO.
- Federal Highway Administration Section 104(f) Funds-These funds are dedicated to the urban area to perform transportation planning. They require a 20% local match.
- Federal Transit Administration Section 5303 Funds-These funds are used for transit planning in the urban area. The Federal Transit Administration provides 80% of these funds, NCDOT 10%, and there is a required 10% local match.
- Surface Transportation Program-Direct Attributable Funds- These funds are dedicated to Transportation Management Areas and these funds can be used to perform transportation planning. They require a 20% local match.

The local match requirements will be shared by all members of the Wilmington Urban Area MPO in direct proportion to population as defined in the Wilmington Urban Area MPO Memorandum of Understanding.

**Narrative of PWP Section 104(f) Work Tasks to be Performed in FY 2016-2017**

(Primary work to be performed by lead planning agency staff except where noted.)

Line Item Code

II-A1 Traffic Volume Counts- Wilmington MPO staff maintains an ongoing traffic counting program. An annual summary of the urban area traffic counts and accident data will be prepared and uploaded to the WMPO website.

II-A2 Vehicle Miles of Travel- Establish VMT as measure of effectiveness of transportation system. Measure the VMT with the new travel demand model.

II-A3 Street System Changes- No tasks foreseen.

II-A4 Traffic Accidents-Currently MPO staff conducts an ongoing effort to summarize traffic accident data for specific projects. MPO staff also utilizes accident data for specific inquiries.

II-A5 Transit System Data- Update of transit system database as needed.

II-A6 Dwelling Unit, Population, Employment Changes- Will measure land use changes by Transportation Analysis Zone between 2010 Census and travel demand model base year. Staff will provide capacity analysis for proposed developments within the Wilmington planning area boundary.

II-A7 Air Travel- Assistance to Wilmington International Airport as needed.

II-A8 Vehicle Occupancy Rate Counts- Monitor VOC as needed.

II-A9 Travel Time Studies- No tasks foreseen.

II-A10 Mapping- Keep Geographic Information System files current and produce maps to support the TCC and TAC, transportation plans, programs, and projects.

II-A11 Central Area Parking Inventory- No tasks foreseen.

II-A12 Bicycle and Pedestrian Facilities Inventory- Update bicycle suitability assessment of federal-aid functionally classed roadways.

II-B1 Collection of Base Year Data- No tasks foreseen.

II-B2 Collection of Network Data- No tasks foreseen.

II-B3 Travel Model Updates- No tasks foreseen.

II-B4 Travel Surveys- No tasks foreseen.

II-B5 Forecast of Data to Horizon Year-No tasks foreseen.

II-B6 Community Goals and Objectives- Monitor public input as it pertains to goals and objectives set forth in the adopted Metropolitan Transportation Plan. Implementation of the Performance Measures from MAP-21.

II-B7 Forecast of Future Year Travel Patterns- No tasks foreseen.

II-B-8 Capacity Deficiency Analysis- Identify areas of deficient capacity through use of travel demand model for further analysis as potential long range transportation improvement projects.

II-B9 Highway Element of Metropolitan Transportation Plan (MTP)- Identification of highway deficiencies, priorities, and proposed highway improvement solutions and strategies. Provide documentation of process and recommendations in the MTP. Implementation of the Performance Measures from MAP-21 and the FAST Act.

II-B10 Transit Element of Metropolitan Transportation Plan- Identify public transportation deficiencies, priorities, and proposed transit improvement solutions for inclusion in the update of the MTP. Provide documentation of process and recommendations in the update of the MTP. Implementation of the Performance Measures from MAP-21 and the FAST Act.

II-B11 Bicycle and Pedestrian Element of the Metropolitan Transportation Plan- Identify bicycle deficiencies, priorities, and proposed bicycle and pedestrian improvement solutions and strategies. Provide documentation of the process and recommendations in the update of the MTP. Implementation of the Performance Measures from MAP-21 and the FAST Act.

II-B12 Airport/Air Travel Element of the Metropolitan Transportation Plan - Identify airport and air service deficiencies, priorities, and proposed airport and air service improvement solutions and strategies. Provide documentation of process and recommendations in the update of the MTP. Implementation of the Performance Measures from MAP-21 and the FAST Act.

II-B13 Collector Street Element of Metropolitan Transportation Plan- Develop regionally acceptable collector street policies and program recommendations for inclusion in the update of the MTP. Implementation of the Performance Measures from MAP-21 and the FAST Act.

II-B14 Rail, Waterway and Other Elements of Metropolitan Transportation Plan - Identify rail and waterway deficiencies, priorities, and proposed rail and waterway improvement solutions and strategies. Provide documentation of process and recommendations in the update of the MTP. Implementation of the Performance Measures from MAP-21 and the FAST Act.

II-B15 Freight Movement/Mobility Planning- Identification of freight movement deficiencies, priorities, and proposed improvement solutions and strategies. Provide documentation of process and recommendations in the update of the MTP. Implementation of the Performance Measures from MAP-21 and the FAST Act.

II-B16 Financial Planning- Develop realistic, best estimates of funding sources available and project cost estimates throughout the forecast years for the MTP. Ensure fiscal constraint in the update of the MTP. Implementation of the Performance Measures from MAP-21 and the FAST Act.

II-B17 Congestion Management Strategies- Develop strategies to address and manage congestion by increasing transportation system supply, reducing demand by application of alternative mode solutions, and transportation system management strategies. Evaluate strategies developed for the Congestion Management Process. Document process and solutions in the update of the MTP and CMP report. Implementation of the Performance Measures from MAP-21 and the FAST Act.

II-B-18 Air Quality Planning/ Conformity Analysis- No tasks foreseen.

III-A Planning Work Program- Evaluation of FY 2016 PWP and development of FY 2017 PWP.

III-B Transportation Improvement Program-Review and amend the 2016-2025 Transportation Improvement Program on an as needed basis.

III-C1 Title VI Compliance-Work to insure compliance with the requirements of Title VI in urban area policies and practices.

III-C2 Environmental Justice- Analysis and outreach to insure that transportation plans and projects comply with Environmental Justice policies.

III-C3 MBE Planning- Activities to encourage participation of minority-owned business enterprises in contractual and supply opportunities.

III-C4 Planning for the Elderly and Disabled- Ensure the special needs of the elderly and disabled are addressed in all transportation planning projects.

II-C5 Safety/Drug Control Planning- No tasks foreseen by the MPO.

III-C6 Public Involvement- Extensive Public Participation effort will be carried out to solicit input and reaction to the completion of planning studies within the Wilmington MPO's planning area boundary.

III-C7 Private Sector Participation- Activities to encourage private sector participation in planning and project activities.

III-D1 Transportation Enhancement Planning- Prepare and submit applications for potential transportation enhancement funding in the Wilmington Urban Area.

II-D2 Environmental and Pre-TIP Planning- Conduct environmental analysis and planning for the development of transportation projects in the Wilmington Urban Area.

III-D3 Special Studies- Consultant will be contracted to assist in the completion of the Metropolitan Transportation Plan and other studies completed by the MPO. These special studies include a feasibility study for the relocation of the rail line, a street design manual for

the Town of Leland and a future transportation network for northeastern New Hanover County.

III-D4 Statewide and Regional Planning- Coordination of urban area activities with statewide and regional initiatives.

III-E Management and Operations- Required ongoing administrative and operational tasks to support MPO committees and reporting requirements

MPO	Wilmington
FTA Code	442100-
Task Code	II-A-5
Title	Transit System Data
Task Objective	Collect and analyze data for route planning and submission to NTD
Tangible Product Expected	Accurate data from multiple data collection devices onboard Wave Transit vehicles and other sources to ensure compliance with National Transit Database requirements
Expected Completion Date of Products	June 2016
Previous Work	Collection of data and submission to NTD
Relationship	This is a collaborative effort of the Wilmington MPO and the Cape Fear Public Transportation Authority (Wave Transit)
Responsible Agency	CFPTA
SPR - Highway - NCDOT 20%	
SPR - Highway - F11WA 80%	
Section 104 (f) PL, Local 20%	
Section 104 (f) PL, FHWA 80%	
Section 5303 Local 10%	1,200
Section 5303 NCDOT 10%	1,200
Section 5303 FTA 80%	9,600
Section 5307 Transit - Local 10%	
Section 5307 Transit - NCDOT 10%	
Section 5307 Transit - FTA 80%	
Additional Funds - Local 100%	

MPO	Wilmington
FTA Code	442100-
Task Code	II-B-6
Title	Community Goals & Objectives
Task Objective	Interpret and communicate with members of the Authority and WMPO TCC and TAC adopted planning documents defining community goals and objectives
Tangible Product Expected	Service offerings that are compliant with adopted plans that outlined the goals of the community for public transportation in the region
Expected Completion Date of Products	June 2016
Previous Work	Communication of goals and objectives to decision makers and the public
Relationship	This is a collaborative effort of the Wilmington MPO and the Cape Fear Public Transportation Authority (Wave Transit)
Responsible Agency	CFPTA
SPR - Highway - NCDOT 20%	
SPR - Highway - F11WA 80%	
Section 104 (f) PL, Local 20%	
Section 104 (f) PL, FHWA 80%	
Section 5303 Local 10%	400
Section 5303 NCDOT 10%	400
Section 5303 FTA 80%	3,200
Section 5307 Transit - Local 10%	
Section 5307 Transit - NCDOT 10%	
Section 5307 Transit - FTA 80%	
Additional Funds - Local 100%	

MPO	Wilmington
FTA Code	442100-
Task Code	II-B-10
Title	Transit Element of the LRTP
Task Objective	Provide input to CAC, TCC and TAC regarding long range transit plans for the region
Tangible Product Expected	Informed decisions regarding long range public transportation plans leading to a realistic planning document for the region
Expected Completion Date of Products	June 2016
Previous Work	Provided input and educated decision makers regarding the federal and state public transportation program
Relationship	This is a collaborative effort of the Wilmington MPO and the Cape Fear Public Transportation Authority (Wave Transit)
Responsible Agency	CFPTA
SPR - Highway - NCDOT 20%	
SPR - Highway - F11WA 80%	
Section 104 (f) PL, Local 20%	
Section 104 (f) PL, FHWA 80%	
Section 5303 Local 10%	400
Section 5303 NCDOT 10%	400
Section 5303 FTA 80%	3,200
Section 5307 Transit - Local 10%	
Section 5307 Transit - NCDOT 10%	
Section 5307 Transit - FTA 80%	
Additional Funds - Local 100%	

MPO	Wilmington
FTA Code	442100-
Task Code	II-B-16
Title	Financial Planning
Task Objective	Plan capital and operating cost estimates to ensure fiscal compliance and maintain the adopted level of transit service
Tangible Product Expected	Short range financial plans based on current federal and state legislation to ensure that transit services are provided in a consistent manner utilizing the most economical and efficient methods
Expected Completion Date of Products	June 2016
Previous Work	Financial planning of the public transportation program
Relationship	This is a collaborative effort of the Wilmington MPO and the Cape Fear Public Transportation Authority (Wave Transit)
Responsible Agency	CFPTA
SPR - Highway - NCDOT 20%	
SPR - Highway - F11WA 80%	
Section 104 (f) PL, Local 20%	
Section 104 (f) PL, FHWA 80%	
Section 5303 Local 10%	800
Section 5303 NCDOT 10%	800
Section 5303 FTA 80%	6,400
Section 5307 Transit - Local 10%	
Section 5307 Transit - NCDOT 10%	
Section 5307 Transit - FTA 80%	
Additional Funds - Local 100%	

MPO	Wilmington
FTA Code	442100-
Task Code	II-C-1
Title	Title VI
Task Objective	Interpret and prepare Title VI documents and monitor Title VI efforts to ensure compliance with FTA approved Title VI program
Tangible Product Expected	Compliance with the Title VI circular and adopted Title VI program
Expected Completion Date of Products	June 2016
Previous Work	Title VI program development and compliance efforts
Relationship	This is a collaborative effort of the Wilmington MPO and the Cape Fear Public Transportation Authority (Wave Transit)
Responsible Agency	CFPTA
SPR - Highway - NCDOT 20%	
SPR - Highway - F11WA 80%	
Section 104 (f) PL, Local 20%	
Section 104 (f) PL, FHWA 80%	
Section 5303 Local 10%	800
Section 5303 NCDOT 10%	800
Section 5303 FTA 80%	6,400
Section 5307 Transit - Local 10%	
Section 5307 Transit - NCDOT 10%	
Section 5307 Transit - FTA 80%	
Additional Funds - Local 100%	

MPO	Wilmington
FTA Code	442100-
Task Code	II-C-3
Title	Minority Business Enterprise
Task Objective	Implement and monitor the MBE program to be compliant with adopted MBE program, update MBE goals as required, and undertake MBE outreach
Tangible Product Expected	MBE participation that is equal to or greater than the adopted and approved MBE goal
Expected Completion Date of Products	June 2016
Previous Work	MBE program oversight
Relationship	This is a collaborative effort of the Wilmington MPO and the Cape Fear Public Transportation Authority (Wave Transit)
Responsible Agency	CFPTA
SPR - Highway - NCDOT 20%	
SPR - Highway - F11WA 80%	
Section 104 (f) PL, Local 20%	
Section 104 (f) PL, FHWA 80%	
Section 5303 Local 10%	800
Section 5303 NCDOT 10%	800
Section 5303 FTA 80%	6,400
Section 5307 Transit - Local 10%	
Section 5307 Transit - NCDOT 10%	
Section 5307 Transit - FTA 80%	
Additional Funds - Local 100%	

MPO	Wilmington
FTA Code	442100-
Task Code	II-C-6
Title	Public Involvement
Task Objective	Hear and analyze public comment from monthly meetings of the Authority, email comments, written comments and other comments outlined in the Authority Public Involvement Program. Work with public to update LCP, LRTP, SRTP and other planning documents.
Tangible Product Expected	Make recommendations to appropriate parties from comments made to the Authority by members of the community
Expected Completion Date of Products	June 2016
Previous Work	Public comment
Relationship	This is a collaborative effort of the Wilmington MPO and the Cape Fear Public Transportation Authority (Wave Transit)
Responsible Agency	CFPTA
SPR - Highway - NCDOT 20%	
SPR - Highway - F11WA 80%	
Section 104 (f) PL, Local 20%	
Section 104 (f) PL, FHWA 80%	
Section 5303 Local 10%	800
Section 5303 NCDOT 10%	800
Section 5303 FTA 80%	6,400
Section 5307 Transit - Local 10%	
Section 5307 Transit - NCDOT 10%	
Section 5307 Transit - FTA 80%	
Additional Funds - Local 100%	

MPO	Wilmington
FTA Code	442100-
Task Code	III-E
Title	Management & Operations
Task Objective	MPO and CFPTA staff will conduct required administrative and operational tasks to support Wave Transit. Periodical reviews of administrative agreements and procedures. Staff will perform daily operations to disseminate planning information to the TAC/TCC committee members, the public and/or other agencies.
Tangible Product Expected	Compliance with FTA and NCDOT requirements, well informed community and elected officials about the public transit program, and functional system that meets the needs of the community
Expected Completion Date of Products	June 2016
Previous Work	Collection of data and submission to NTD
Relationship	This is a collaborative effort of the Wilmington MPO and the Cape Fear Public Transportation Authority (Wave Transit)
Responsible Agency	CFPTA
SPR - Highway - NCDOT 20%	
SPR - Highway - F11WA 80%	
Section 104 (f) PL, Local 20%	
Section 104 (f) PL, FHWA 80%	
Section 5303 Local 10%	2,800
Section 5303 NCDOT 10%	2,800
Section 5303 FTA 80%	22,400
Section 5307 Transit - Local 10%	
Section 5307 Transit - NCDOT 10%	
Section 5307 Transit - FTA 80%	
Additional Funds - Local 100%	

# Wilmington Urban Area Metropolitan Planning Organization

FY2017 Unified Planning Work Program

Approved:

TASK CODE	TASK DESCRIPTION	SEC. 104 (f) PL		SECTION 5303			STP-DA		TDM		TASK FUNDING SUMMARY					
		Highway / Transit Local 20%	FHWA 80%	Local 10%	Transit / Highway State 10%	FTA 80%	Highway / Transit Local 20%	FHWA 80%	Local 50%	Transit State 50%	LOCAL	STATE	FEDERAL	TOTAL		
II-A	Surveillance of Change															
II-A-1	Traffic Volume Counts	8,800	35,200										8,800	35,200	44,000	
II-A-2	Vehicle Miles of Travel	50	200										50	200	250	
II-A-3	Street System Changes															
II-A-4	Traffic Accidents	600	2,400										600	2,400	3,000	
II-A-5	Transit System Data	100	400	1,200	1,200	9,600							1,300	1,200	10,000	
II-A-6	Dwelling Unit Pop. & Emp. Change	400	1,600										400	1,600	2,000	
II-A-7	Air Travel	50	200										50	200	250	
II-A-8	Vehicle Occupancy Rates	50	200										50	200	250	
II-A-9	Travel Time Studies															
II-A-10	Mapping	600	2,400										600	2,400	3,000	
II-A-11	Central Area Parking Inventory															
II-A-12	Bike & Ped. Facilities Inventory	50	200										50	200	250	
II-B	<b>Long Range Transp. Plan</b>															
II-B-1	Collection of Base Year Data															
II-B-2	Collection of Network Data															
II-B-3	Travel Model Updates															
II-B-4	Travel Surveys															
II-B-5	Forecast of Data to Horizon year															
II-B-6	Community Goals & Objectives	4,000	16,000	400	400	3,200							4,400	400	19,200	
II-B-7	Forecast of Future Travel Patterns															
II-B-8	Capacity Deficiency Analysis	400	1,600										400	1,600	2,000	
II-B-9	Highway Element of th L RTP	2,000	8,000										2,000	8,000	10,000	
II-B-10	Transit Element of the L RTP	400	1,600	400	400	3,200							800	400	4,800	
II-B-11	Bicycle & Ped. Element of the L RTP	2,000	8,000										2,000	8,000	10,000	
II-B-12	Airport/Air Travel Element of L RTP	450	1,800										450	1,800	2,250	
II-B-13	Collector Street Element of L RTP	600	2,400										600	2,400	3,000	
II-B-14	Rail, Water or other mode of L RTP	800	3,200										800	3,200	4,000	
II-B-15	Freight Movement/Mobility Planning	200	800										200	800	1,000	
II-B-16	Financial Planning	200	800	800	800	6,400							1,000	800	7,200	
II-B-17	Congestion Management Strategies	500	2,000										500	2,000	2,500	
II-B-18	Air Qual. Planning/Conformity Anal.															
III-A	<b>Planning Work Program</b>															
III-A-1		200	800										200	800	1,000	
III-B	<b>Transp. Improvement Plan</b>															
III-B-1		200	800										200	800	1,000	
III-C	<b>CVI Rpts. Comp./Otr. Reg. Rpts.</b>															
III-C-1	Title VI	200	800	800	800	6,400							1,000	800	7,200	
III-C-2	Environmental Justice	200	800										200	800	1,000	
III-C-3	Worthy/Business Enterprise	100	400	800	800	6,400							900	800	6,800	
III-C-4	Planning for the Elderly & Disabled	50	200										50	200	250	
III-C-5	Safety/Drug Control Planning															
III-C-6	Public Involvement	600	2,400	800	800	6,400							1,400	800	8,800	
III-C-7	Private Sector Participation	50	200										50	200	250	
III-D	<b>Incidental Png./Project Dev.</b>															
III-D-1	Transportation Enhancement Png.	50	200										50	200	250	
III-D-2	Enviro. Analysis & Pre-TIP Png.	50	200										50	200	250	
III-D-3	Special Studies	28,000	112,000										28,000	112,000	140,000	
III-D-4	Regional or Statewide Planning	100	400										100	400	500	
III-E	<b>Management &amp; Operations</b>															
III-E-1		22,000	88,000	2,800	2,800	22,400							144,800	62,800	350,400	
III-E-2	<b>TOTALS</b>	<b>74,050</b>	<b>296,200</b>	<b>8,000</b>	<b>8,000</b>	<b>64,000</b>	<b>60,000</b>	<b>240,000</b>	<b>60,000</b>	<b>60,000</b>	<b>60,000</b>	<b>60,000</b>	<b>202,050</b>	<b>68,000</b>	<b>600,200</b>	<b>438,000</b>

**Anticipated DBE Contracting Opportunities for FY 2016-2017**

Name of MPO: Wilmington Urban Area MPO

Person Completing Form: Mike Kozlosky Telephone Number: 910-342-2781

<b>Prospectus Task Code</b>	<b>Prospectus Description</b>	<b>Name of Agency Contracting Out</b>	<b>Type of Contracting Opportunity (Consultant, etc.)</b>	<b>Federal Funds to be Contracted Out</b>	<b>Total Funds to be Contracted Out</b>
III-D-3	Special Studies	City of Wilmington	Consultant	\$100,000	\$125,000

**RESOLUTION**

**APPROVING THE FY 2016-2017 PLANNING WORK PROGRAM  
OF THE WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION**

**WHEREAS**, a comprehensive and continuing transportation planning program must be carried out cooperatively in order to ensure that funds for transportation projects are effectively allocated to the Wilmington Urban Area;

**WHEREAS**, the City of Wilmington has been designated as the recipient of Federal Transit Administration Metropolitan Planning Program (Section 5303) funds and Federal Highway Administration Metropolitan Planning (Section 104(f)) funds;

**WHEREAS**, members of the Wilmington Urban Area Metropolitan Planning Organization's Transportation Advisory Committee agree that the Planning Work Program will effectively advance transportation planning for State Fiscal Year 2016-2017;

**NOW THEREFORE**, be it resolved that the Wilmington Urban Area Metropolitan Planning Organization Transportation Advisory Committee hereby endorses the FY 2016-2017 Planning Work Program for the Wilmington Urban Area.

\*\*\*\*\*

I, Gary Doetsch, Chair of the Wilmington Urban Area Metropolitan Planning Organization Transportation Advisory Committee do hereby certify that the above is a true and correct copy of an excerpt from the minutes of a meeting of the Wilmington Urban Area Transportation Advisory Committee, duly held on this the 30<sup>th</sup> day of March 2016.

\_\_\_\_\_  
Gary Doetsch, Chair  
Wilmington Urban Area MPO TAC

\*\*\*\*\*

Subscribed and sworn to me this the \_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Notary Public

My commission expires\_\_\_\_\_.

## **RESOLUTION CONFIRMING TRANSPORTATION PLANNING PROCESS**

### **RESOLUTION CERTIFYING THE WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION'S TRANSPORTATION PLANNING PROCESS FOR FY 2016**

**WHEREAS**, the Transportation Advisory Committee has found that the Metropolitan Planning Organization is conducting transportation planning in a continuous, cooperative, and comprehensive manner in accordance with 23 U.S.C. 134 and 49 U.S.C. 1607; and

**WHEREAS**, the Transportation Advisory Committee has found the Transportation Planning Process to be in full compliance with Title VI of the Civil Rights Act of 1964 and the Title VI Assurance executed by each State under 23 U.S.C. 324 and 29 U.S.C. 794; and

**WHEREAS**, the Transportation Advisory Committee has considered how the Transportation Planning Process will affect the involvement of Disadvantaged Business Enterprises in the FHWA and the FTA funded planning projects (Section 1003(b) of ISTEA of 1991 (Pub. L. 102-240), Sec. 105(f), Pub. L. 97-424, 96 Stat. 2100, 49 CFR part 23); and

**WHEREAS**, the Transportation Advisory Committee has considered how the Transportation Planning Process will affect the elderly and the disabled per the provision of the Americans With Disabilities Act of 1990 (Pub. L. 101-336, 104 Stat. 327, as amended) and the U.S. DOT implementing regulations (49 CFR parts 27, 37, and 38); and

**WHEREAS**, the Metropolitan Transportation Plan has a planning horizon year of 2040, and meets all the requirements for an adequate Metropolitan Transportation Plan.

**NOW THEREFORE**, be it resolved that the Wilmington Urban Area Metropolitan Planning Organization Transportation Advisory Committee hereby certifies the transportation planning process for the Wilmington Urban Area Metropolitan Planning Organization on this the 30<sup>th</sup> day of March, 2016.

---

Gary Doetsch, Chair  
Transportation Advisory Committee

---

Mike Kozlosky, Secretary  
Wilmington Urban Area Metropolitan Planning Organization

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION  
TRANSPORTATION ADVISORY COMMITTEE**

**RESOLUTION AMENDING THE 2016 WILMINGTON MPO MEETING CALENDAR**

**WHEREAS**, the Wilmington Urban Area Metropolitan Planning Organization provides transportation planning services for the City of Wilmington, Town of Carolina Beach, Town of Kure Beach, Town of Wrightsville Beach, Town of Belville, Town of Leland, Town of Navassa, New Hanover County, Brunswick County, Pender County, Cape Fear Public Transportation Authority and the North Carolina Board of Transportation; and

**WHEREAS**, the Wilmington Urban Area MPO's Technical Coordinating Committee and Transportation Advisory Committee approve the meeting calendars on an annual basis; and

**WHEREAS**, the Wilmington Urban Area MPO desires to modify the Technical Coordinating Committee meeting date from May 11<sup>th</sup> to May 18<sup>th</sup> to accommodate a scheduling conflict.

**NOW THEREFORE**, be it resolved by the Wilmington Urban Area Metropolitan Planning Organization's Transportation Advisory Committee hereby amends the 2016 Wilmington Urban Area MPO meeting calendar.

**ADOPTED** at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization Transportation Advisory Committee on March 30, 2016.

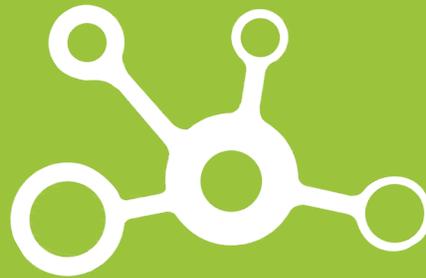
---

Gary Doetsch, Chair  
Transportation Advisory Committee

---

Mike Kozlosky, Secretary  
Transportation Advisory Committee

*A plan to connect southern Pender County to the future, containing recommended policies and infrastructure that support our community's desire to build on its identity and maximize economic, social, and environmental opportunity.*



# Pender County Collector Street Plan



Final Report ● 3-2016 ● Pender County



prepared for Pender County and Wilmington Metropolitan Planning Organization by Stantec Consulting Services Inc.





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## **ACKNOWLEDGEMENTS**

The development of the Pender County Collector Street Plan was a collaborative process involving numerous stakeholders, including the Pender County Collector Street Plan Steering Committee members, the Pender County Planning and Community Development Department, the Wilmington Urban Area Metropolitan Planning Organization, and members of the public. We profoundly thank everyone involved for making this a successful project.

### **Pender County Collector Street Plan Steering Committee**

David Piepmeyer, Pender County Commissioner  
Hiram Williams, Chairman, Pender County Planning Board  
Sonya Edens, Pender County Planning Board  
Patrick Riddle, Division Planning Engineer, NCDOT  
Adam Snipes, Transportation Engineer, NCDOT  
Robert Vause, District Engineer, NCDOT  
Karen Collette, Division 3 Engineer, NCDOT  
Tommy Batson, Fire Marshal, Pender County  
Ellen Cornette, Citizen  
Bobbie Pufpaff, Citizen  
Kevin Reynolds, Citizen  
Chuck Strickland, Citizen

### **Pender County Planning and Community Development Department**

Kyle Breuer, Planning Director  
Megan O'Hare, Senior Planner

### **Wilmington Urban Area Metropolitan Planning Organization**

Mike Kozlosky, Executive Director  
Suraiya Motsinger, Senior Transportation Planner  
Josh Lopez, Associate Transportation Planner  
Beth Doliboa, Associate Transportation Planner

### **Consultant Team**

Mike Rutkowski, P.E., AICP  
Max Bushell, AICP  
Scott Lane, AICP  
Michelle Peele

### **Special Thanks to...**

*The citizens of Pender County for attending public meetings and providing valuable input.*

## Introduction and Purpose

The Wilmington Urban Area Metropolitan Planning Organization (WMPO), in partnership with the Pender County Planning and Community Development Department, has commissioned this Collector Street Plan to determine future roadway connectivity needs in the southern portions of Pender County. The study area map is presented in Figure 1 below.

### What are Collector Streets?

Collector streets are defined as streets that connect neighborhoods and local roads to the arterial roads. A few existing examples of collector streets in the study area are Country Club Drive, Sloop Point Loop Road, NC-133, and Hoover Road. These streets are typically two lanes, not more than two to three miles long, have speed limits between 25 and 45 mph, and carry lower volumes of traffic.

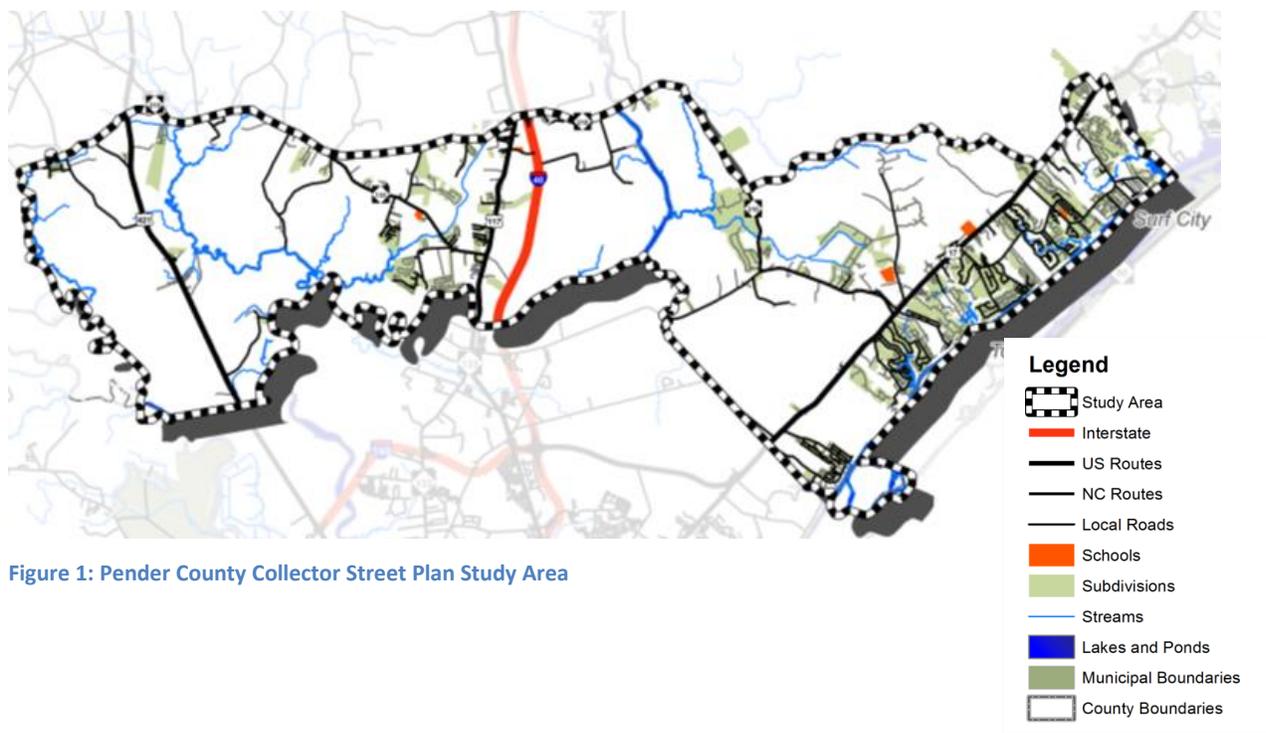


Figure 1: Pender County Collector Street Plan Study Area

Collector streets serve a number of important functions within the street network. They are very important in reducing congestion on arterial roads by equitably distributing the traffic burden so that shorter, local trips use the collector street system and long-distance trips remain on the arterial streets. Another important benefit is providing enhanced mobility opportunities for all users of the roadway, including emergency service providers, pedestrians, joggers, bicyclists, school buses, and municipal services. Pender County does not own or maintain roadways. Roads are either public and maintained by NCDOT, or they are privately owned and maintained. Therefore, this plan is an important step toward ensuring that the development community that does build roads maintains appropriate connectivity across the study area.

### **Mission Statement and Purpose**

The primary goal of the Pender County Collector Street Plan is to guide investment in new collector streets with the ultimate intention of improving connectivity, focusing land development in suitable areas, encouraging all modes of transportation, maintaining levels-of-service on existing roadways, promoting safety, ensuring that significant natural areas are conserved, and providing a safe and high-quality transportation system for existing and future residents, businesses, and visitors.

To achieve these goals, the Steering Committee, Pender County, and WMPO planners agreed on the following guiding principles and objectives for the Pender County Collector Street Plan.

- Develop a realistic and feasible network of collector streets that support the local street and arterial system
- Work with the development community to ensure proper connectivity and collector street design
- Be sensitive to environmental issues and “build in” context sensitive design approaches where applicable
- Integrate multimodal design features into the street design that support walkability and bikability

## Existing Conditions

This section provides an overview of the project and information on the history, demographics, future growth, previous planning efforts, environmental conditions, and transportation in southern Pender County.

### Background

The WMPO, whose jurisdiction includes seven (7) municipalities and three counties, is the primary organization responsible for regional transportation planning in the Wilmington metropolitan area. The portion of Pender County that is the focus of this collector street planning effort corresponds to the WMPO jurisdiction boundaries in Pender County. This area includes the unincorporated areas of Hampstead, Scotts Hill, and Rocky Point and parts of the Topsail, Long Creek, Holly, and Grady townships. The Pender County Collector Street Plan (CSP) study area encompasses 152 square miles. This CSP is a follow-up to the 2007 Coastal Pender Collector Street Plan and reflects the new boundary for the WMPO jurisdiction due to the designation of Wilmington as a Transportation Management Area (i.e., an urbanized area of 200,000 or more people).

Growth is expected to continue in the study area, with much of the development in recent years centered around the Topsail Township and unincorporated Hampstead area (also unincorporated Scotts Hill). There is residential development along US 17, NC-210, and US 117. Industrial growth is planned along US 421 within the study area as well.

While rural land uses still dominate the outer reaches of the WMPO jurisdiction, significant infrastructure projects such as the proposed Hampstead Bypass and sewer investments will likely continue to spur growth to the west of US 17 in the Topsail Township of the study area. Additionally, the aforementioned industrial growth on US 421 will likely also serve as a catalyst for further development in the CSP study area.



*Residential Suburban Development in the CSP Study Area.*

This area is transitioning from primarily rural land uses to more suburban residential, commercial, and industrial development. As this occurs, the transportation network, which is comprised mostly of two-lane farm to market roads, will come under increasing strain. In order to accommodate future growth and allow for the efficient movement of people and goods in the CSP study area, a well-planned collector street system should be implemented. Collector streets serve as the conduit through which

people leave their homes on local streets and reach the major mobility carrying arterial streets, such as US 17, NC-210, US 117, and US 421. By planning a collector street network and working with the development community prior to significant land development in the area, traffic congestion can be more effectively managed in the long term, avoiding costly street reconstruction and widening projects. Additionally, the provision of collector streets can help direct growth to locations that are adequately serviced by roadway infrastructure, ultimately leading to the better use of public infrastructure investment dollars.

## History

### Settlement

European explorers first arrived in Pender County in 1524, reporting a surplus of wild game in the area. The county was gradually settled and, in 1663, the Barbados commissioners explored and founded a community along the northeast branch of the Cape Fear River, naming the area Rocky Point. The town still exists today and retains the same name. Over the next fifty years, the population gradually increased and by 1725 the area was almost entirely settled. Officially, what we now know as Pender County was still part of New Hanover County until 1875.

The first European settlers of the area were Welsh, who came to settle the bottom land and take advantage of the tidal river transportation, though German and English settlers soon followed. The approximately 150-year period between 1725 and the United States Civil War saw sustained, if gradual, population growth in the



*Sloop Point Plantation: Courtesy of the Pender County Public Library.*

area and commercial success. Large plantations were constructed during this period of prosperity, including the Sloop Point and the Belvidere plantations; the Sloop Point plantation house is still standing, while the Belvidere plantation house has since been demolished.

Migration continued unabated through the Revolutionary War. Between 1763 and 1775, nearly 20,000 Scots moved to the Cape Fear region, augmenting the already diverse population in the area. However, in the early 1800s, technological advances in New England and settlement of cheap land to the west led people to leave eastern North Carolina, accounting for the slow pace of growth in the area. The advent of the railroad in 1840 changed this dramatically and led to a resurgence of both population and economic development in Pender County.

### *Revolutionary and Civil Wars*

Residents of Pender County played an important role in both the Revolutionary and United States Civil Wars, fighting and winning a crucial battle against the Scottish Highlanders at Moores Creek, just northeast of Montague in 1776. In the United States Civil War, the area sent nearly 4,000 troops to war and was home to the youngest Confederate General, William D. Pender, after whom the County is named. He was killed in the Battle of Gettysburg in 1863.

Following the Civil War, the local plantation system declined, though much of the population continued to work in farming, clamming, fishing, and salt-making, among other professions. During the tumultuous Reconstruction era, local political machinations led to the formal creation of the County from the northeastern area of New Hanover County. The first Pender County seat was Watha, but was later moved to Burgaw, named after the local Native American tribe.

### *Transportation through the Years*

Prior to the 19<sup>th</sup> Century, transportation in Pender County was restricted primarily to waterways, with Wilmington achieving important status as a trading hub at the terminus of the Cape Fear River, the only river in the state directly accessible to the ocean. Gradually, however, roads become more and more important as farmers needed a more direct link to markets for their goods. The first roads were cleared to provide access to river wharfs, but as time passed, more and more roads were constructed, eventually becoming the ideal mode of transportation for most Pender County residents.



*Rocky Point Railyard: Courtesy of the Pender County Public Library.*

In 1836, construction on the railroad line between Wilmington and Weldon in Halifax County began, connecting rural eastern North Carolina counties with Washington D.C. and New York. The development of the railroad had major impacts on life in Pender County, opening new markets for agricultural goods and facilitating passenger travel. Additionally, plank roads began to be constructed during this time. Plank roads are the precursor to asphalt roadways. Initially, these roads provided better access to railroads, but soon became important pieces of transportation infrastructure in their own right.

Into the 20<sup>th</sup> century, roads continued to be the most important infrastructure, while the railroad system gradually became obsolete. Passenger service was discontinued in 1939, though freight lines still operated on the Pender County railroad until the 1980s. In the early 20<sup>th</sup> Century, old plank roads, such as the Holly Shelter Plank Road, Duplin Road, and Clinton Road, were improved substantially, becoming US 17, US 117, and US 421, respectively. Over the course of the century, these roads were further

improved, while the Interstate highway system was also constructed. Interstate 40 was originally planned to end in Morehead City, but the plans were revised and the Interstate terminated in Wilmington instead.

**The Current Day**

In the current day, Pender County’s economy is predominantly comprised of farming and manufacturing enterprises. Agricultural products include blueberries, strawberries, tobacco, soybeans, and livestock, while factories produce clothing, food and pressure sensitive labels.

Pender County is located on the coastal plain in Southeastern North Carolina and includes six towns and seven communities. The incorporated Town of Burgaw, located to the north, is the county seat and the location of many of the County government buildings. With a land area of 869.79 square miles, Pender County is the fifth-largest county in North Carolina by land area.

The Cape Fear River forms the southern bounds and then traverses the study area east of I-40, while the Black River serves as the western study area boundary. The NE Cape Fear River and six creeks, including Long Creek, Morgan’s Creek, Turkey Creek, Harrison Creek, Godfrey Creek, and Cross Creek make up the other significant water features in the area. The study area abuts the Intracoastal Waterway on the eastern side.

The CSP study area contains five significant highway facilities. Both NC-210 and NC-133 provide east-west mobility and access across the study area, while US 421, US 117, and US 17 serve as north-south roadways. Interstate 40 also bisects the County on a north-south axis.

Collectors and local roads provide access to shopping, business, and residential land uses in the study area.

**Demographics**

The Pender County Collector Street Plan (CSP) study area does not

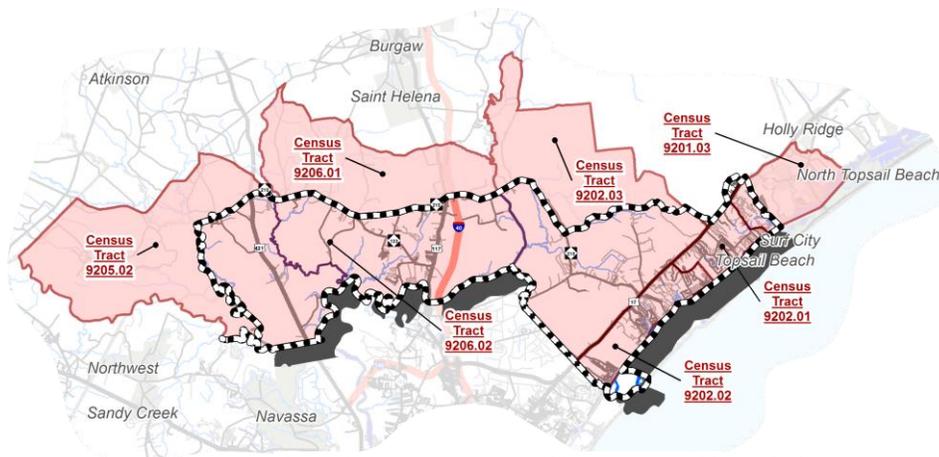
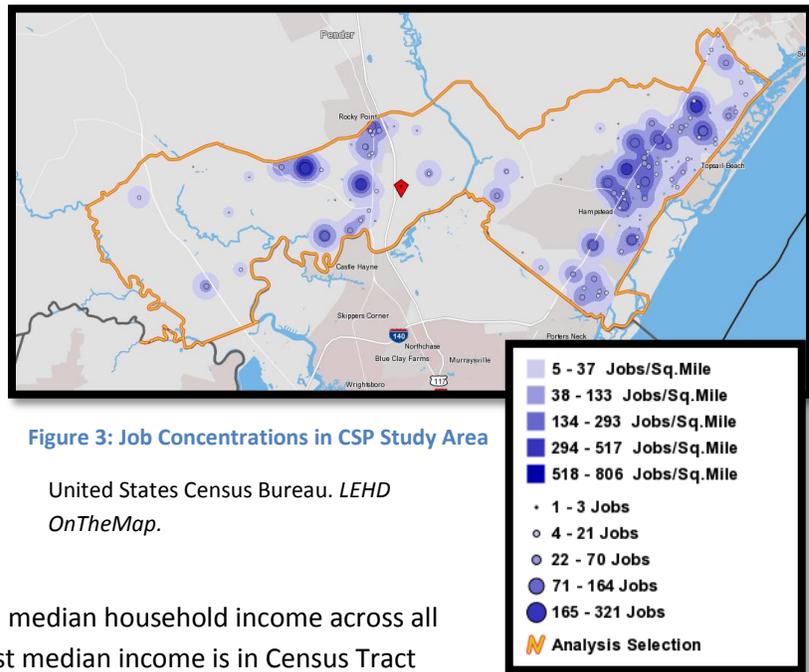


Figure 2: Census Tracts Used for Demographic Analysis

exactly correspond to United State Census Block Group or Census Tract boundaries. For ease of analysis and understanding, Census Tracts and Pender County as a whole are used to calculate demographics. Census data from the 2010 Decennial Census was used to determine population statistics for the Census Tracts referenced in Figure 2. Overall, 30,505 people reside in these Census Tracts, with 85.3 percent identifying as white, 8.8 percent identifying as African-American, 0.6 percent identifying as Native American, and 0.5 percent as Asian. People identifying as belonging to some other race account for 2.8 percent of the population of the study area, while 1.9 percent identify as belonging to two or more races. Approximately 5.5 percent of people are Hispanic or Latino in this area.

Due to the substantial population changes in Pender County, Census Tract boundaries were significantly altered between the 2000 and 2010 Decennial Censuses. As such, comparing population in our specific study area between these two time periods lacks utility for this project. However, in comparing between the 2010 Census and the 2013

American Community Survey, Census tract boundaries remained the same. Overall, the area has seen some population growth, with an estimated population of 31,533 in 2013. Of the workers aged 16 or over in the selected Census Tracts, almost 80 percent travel to work by driving alone, while 15.6 percent carpool, and less than one percent walk, bike, or take public transportation. The median household income for these Census Tracts ranges from \$41,867 to \$68,152, with an average median household income across all Census Tracts of \$48,951. The highest median income is in Census Tract 92.02, which contains the unincorporated community of Hampstead.



### Commuting

In examining primary jobs and commuting patterns, the exact CSP study area boundary was used. Overall, jobs are mostly congregated around the Topsail Township and the more densely populated areas to the east and west of US 17, while areas along US 117, US 421 and NC-133 are also job centers in Pender County, as indicated in Figure 3.

There are 973 people who both live and work in the study area. Less people are commuting to the study area to work from other places at 2,266, while more people live in the study area, but work elsewhere at 10,230 (Figure 4). With this in mind, it is clear that the CSP study area supports a large commuting residential population. Figure 4 indicates that 83 percent of the working population of the CSP study



**Figure 4: Commuting Statistics for CSP Study Area**

area commutes more than 10 miles to work, with nearly half traveling between 10 and 24 miles to the major urban and employment center of Wilmington, NC. Jacksonville and area military bases are also large employers and represent significant employment destinations for residents of the study area. A

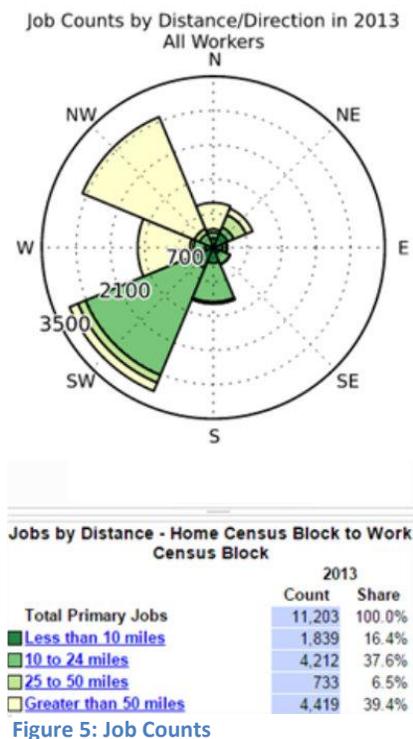


Figure 5: Job Counts

significant portion, accounting for 39.4 percent of people, are also commuting northwest from the CSP study area, likely to industrial and commercial centers in the interior of Pender County and in nearby counties. These commuting trips are predominantly for distances of 50 miles or more. Across the CSP study area, average commute times ranged from 25 to 31 minutes (see Figure 5). Overall, these commuting patterns reflect the fact that the study area serves as the location for many homes, but for substantially fewer employers. With such a large commuting population and further development forecast in the area, it will be very important to maintain major mobility carriers at relatively uncongested levels.

Of the 3,239 primary jobs in the study area, 21.6 percent are held by people aged 29 or younger, 57 percent by people aged 30 to 54, and 21.4 percent by people aged 55 or older. The most prevalent type of employment in the CSP study area is educational services, which accounts for 20.7

percent of all jobs. Other major job sectors include health care and social assistance (11

percent), retail trade (10.7 percent), construction (9.6 percent), and accommodation and food service (8.9 percent). Agriculture, Forestry, Fishing, and Hunting, historically the leading employment sector in Pender County, now only accounts for 6.2 percent of all jobs.

The most prevalent type of employment in the CSP study area is educational services, which accounts for 20.7 percent of all jobs.

### Future Growth

According to the North Carolina Office of State Budget and Management, Pender County as a whole is projected to grow by 11,201 people between 2010 and 2020, roughly a 22 percent increase. The rate of growth continues the existing trend in Pender County between 2010 and 2014, a period which experienced growth in excess of 5.8 percent overall. Looking further into the future, Pender County is forecast to grow by a further 18 percent between 2020 and 2030.

As the County is growing at a rapid rate, much of the projected growth is likely to fall in areas of Pender County close to the Atlantic coastline and in proximity to existing community nodes and metropolitan areas. The CSP study area will likely see a substantial population boost as the Wilmington metropolitan area continues to expand, while Jacksonville and nearby military bases will also continue to spur growth in this area. Residential growth will also likely continue along the major highways in the study area.

These areas are particularly ripe for development due to the appeal of rural lifestyles with quick access to Wilmington on US Routes and Interstate 40.

In many cases, rapid land development can leave transportation planners with few options to improve the transportation networks in an area. Constructing new roads or widening existing roads after surrounding parcels have developed is often a controversial and costly process. With new development adding further pressure to the existing roadway network in the CSP study area, the need for a Collector Street Plan that prioritizes roadway investments, is based on community input, and focuses new roadway construction in areas away from sensitive natural features cannot be overstated.

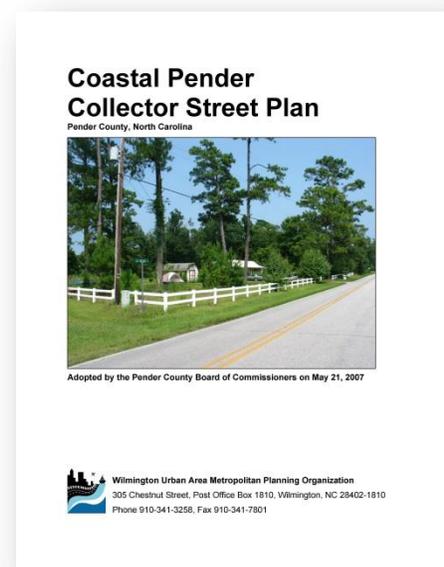
### Previous Planning Efforts

The first step in the planning process was to gather existing planning documents. A number of plans were examined including;

- 2007 Coastal Pender Collector Street Plan,
- 2010 Pender County Comprehensive Parks and Recreation Master Plan,
- 2012 US 17/NC 210 Corridor Study,
- Cape Fear Transportation 2040 (Metropolitan Transportation Plan), and
- 2010 Pender County Comprehensive Land Use Plan.

### 2007 Coastal Pender Collector Street Plan

The Coastal Pender County Collector Street Plan is the guiding document for the planning of new collector streets within a small area of coastal Pender County. The plan expounds on the background, history, demographics, and future growth potential within the study area, while also detailing the previous plans and studies relating to collector streets. This plan created specific recommendations for new collector streets based on public outreach and also suggested implementation strategies.



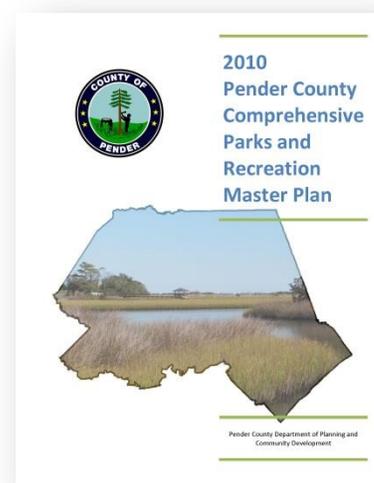
### Relationship to the Pender County Collector Street Plan Project

This plan serves as a precursor to the current Pender County Collector Street Plan effort. The current planning effort encompasses the entire Wilmington Urban Area Metropolitan Planning Organization jurisdiction within Pender County, a much larger area than the area examined in the 2007 Coastal Pender Collector Street Plan. This larger area is the result of the WMPO designation as a Transportation Management Area, which expanded the WMPO's boundaries to encompass larger areas of Pender County. The 2007 Coastal Pender Collector Street Plan only addresses collector streets in a small area of north of the New Hanover County line focused on the Topsail Township and the community of Hampstead. This plan is bounded by the Holly Shelter Game Lands on the west and Sloop Point Loop Road in the north and represents a significant population node in Pender County.

The recommendations of this plan include a number of new collector streets as well as new arterials. While some collector streets are proposed in areas between US 17 and the Intracoastal Waterway to improve the current road network, the majority of recommended new collector roadways are located between US 17 and the study area boundary to the west due to land available for development in these areas. Some existing roads are extended to make new connections, such as Godfrey Creek Road, Holiday Drive, and Wolf Pond Road, while a large number of new collector roads are recommended in the areas between Island Creek Road and US 17. These recommendations will be re-evaluated as part of this planning effort and will serve as the basis for recommendations in the 2016 Pender County Collector Street Plan. However, the lack of an environmental analysis component in the 2007 Coastal Pender Collector Street plan requires that any recommendations from this plan be vetted extensively to ensure that construction is feasible before inclusion in the current planning effort.

### ***2010 Pender County Comprehensive Parks and Recreation Master Plan***

The 2010 Pender County Comprehensive Parks and Recreation Master Plan provides a framework for the development of future parks and recreation opportunities in Pender County and also catalogs existing facilities and supportive programs. A substantial public outreach effort was conducted as part of the Plan, which helped identify critical parks and recreation needs and provided insight into the desires of Pender County citizens with regard to recreation opportunities, particularly with respect to the provision of pedestrian and bicycle facilities. The Plan also recommended new park and recreation facilities and identified funding solutions while also addressing proposed bicycle and pedestrian facilities in Pender County.



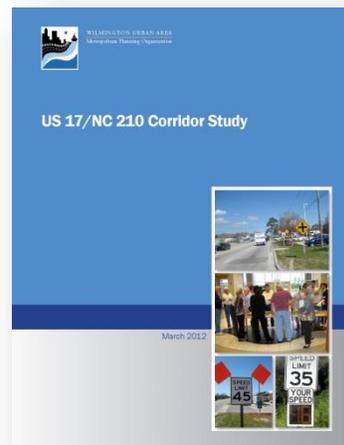
### ***Relationship to the Pender County Collector Street Plan Project***

This Plan recommends numerous parks and greenway facilities in the Pender County Collector Street Plan (CSP) Study Area. Two waterway access areas are proposed in the plan. The first water access, at the terminus of Lewis Road, has been completed and another in the Scotts Hill area has yet to be completed. Additionally, this plan recommends a number of new parks including the Scotts Hill Community Park in the Scotts Hill area, the Island Creek Neighborhood Park in the vicinity of the intersection of NC Highway 210 and Island Creek Road, and the Rocky Point Regional Park near the Heide Trask High School in Rocky Point just outside the CSP Study Area. Other possible parks include the Cape Fear Neighborhood Park near the Cape Fear Elementary School east of Rocky Point on NC-133, the Long Creek Community Park situated at the terminus of Montague Road at NC-210, and the Sand Ridge Neighborhood Park along US 421. The Sand Ridge Neighborhood Park would serve as a trailhead for the West Pender Rail-Trail. If implemented, these proposed new parks would be likely to generate pedestrian, bicycle, or vehicular traffic on mainline roads and may necessitate other access via new collector streets.

This Plan also identifies recommended bicycle and pedestrian projects in the Study Area. The proposed Coastal Pender Greenway would utilize the Duke Energy's easement, extending from NC-210 near Island Creek Road north to NC-210 near Surf City, ultimately connecting pedestrian and bicycle facilities in Surf City to facilities in New Hanover County. The Coastal Pender Rail-Trail, the Central Pender Rail-Trail, and the West Pender Rail-Trail are also recommended, the first along US 17, the second along the rail corridor parallel to US 117, and the third running parallel to US 421 as indicated in Figure 20.

### ***2012 US 17/NC-210 Corridor Study***

US 17 and NC-210 are both vital mobility carriers within the Pender County Collector Street Plan (CSP) study area. This study was convened to identify near-term strategies to address safety and mobility issues on US 17 and NC-210. Ultimately, the goal of this study was to address safety and mobility deficiencies on US 17 and NC-210 in Hampstead and identify strategies to reduce the rate of injuries and fatalities in traffic crashes, reduce delay, and improve the road for pedestrians and bicyclists. Both crashes and pedestrian and bicycle mobility are key issues on this corridor. In fact, a pedestrian facility is planned on US 17 between Washington Acres and Sloop Point Loop, which will support safe pedestrian travel along the corridor. Planning and environmental studies on US 17 resulting from this plan has been programmed in the State Transportation Improvement Program (U-5732 – Superstreet Conversion).



### ***Relationship to the Pender County Collector Street Plan Project***

As both US 17 and NC-210 are key roads within the CSP, the proposed improvements will have a tangible effect on traffic volumes as well as access management, including a reduction in left turn volume. It is possible that by reducing left turning movements on US 17, the demand for cross-access via collector streets will become even more important, particularly in the areas east of US 17. These proposed roadways are included in this plan as priority new collectors.

### ***Cape Fear Transportation 2040***

The Cape Fear Transportation 2040 plan, prepared by the WMPO, is the Metropolitan Transportation Plan for the Wilmington Urban Area. This plan is designed to present a fiscally-constrained vision of transportation projects within a twenty-year time horizon. This plan includes a substantial public outreach effort and addresses six areas of transportation; aviation, bicycle and pedestrian, ferry and water transportation, freight and rail, mass transportation, and roadways. A robust public involvement process provided the basis for many of the recommended projects and policies.

### *Relationship to the Pender County Collector Street Plan Project*

This plan prioritizes improvements within the CSP study area and also provides some information about growth in the Pender County portion of the WMPO area. Notably, employment is forecast to grow substantially in area west of US 421, while population is forecast to grow across the entire CSP study area.

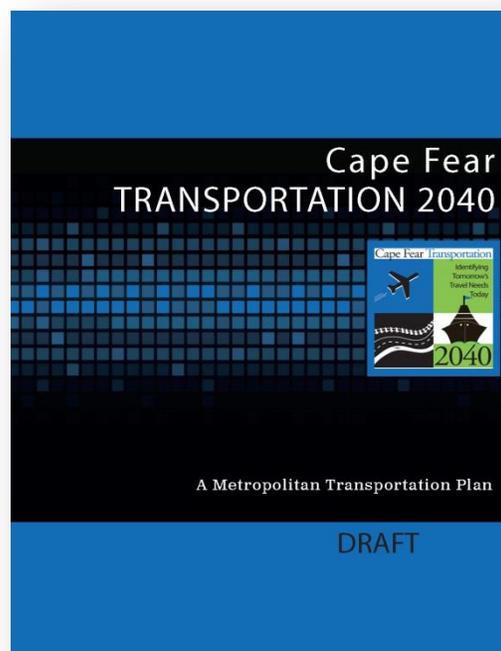
No ferry and water projects are identified in the Pender County area, while only one freight/rail project extends to the study area, namely a rail line extension from Invista to Pender Commerce Park, located along US 421 in the CSP study area (FR-6).

Three bicycle and pedestrian projects within the CSP study area are identified, including proposed sidewalks along Jenkins Road from US 17 to Saint Johns Church Road (BP-70), Saint Johns Church Road from Jenkins Road until it ends (BP-72), and Masters Lane from Doral Drive to Sloop Point Loop Road (BP-73). These improvements were included in this study.

Some mass transit improvements are forecast for the CSP study area, mostly in the form of Park and Ride locations, but also in the form of transit stop improvements in the Topsail Township. The Park and Ride locations are located at US 421 and Cowpen Landing Road (MT-128), and US17 at NC-210 in the shopping center parking lot (MT-39), and US 17 at Sidbury Road (MT-75). Transit stop improvements are located at US 17 at NC-210 (MT-18), US 117/NC-133 at Old Blossom Ferry Road (MT-120), and US 421 at Blueberry Road (MT-121). These improvements were examined as part of this study.

Major roadway improvements are also proposed as part of this plan. These improvements include a superstreet on US 17 between Washington Acres Road and Sloop Point Loop Road (R-12); improvements to NC-210 between Island Creek Road and US 17 (R-36); the Hampstead Bypass, which stretches from Porters Neck Road to Sloop Point Road (R-38); and intersection improvements at Country Club Drive/Doral Drive and Sloop Point Loop Road (R-39). Any roadway improvements should align with the proposed cross-sections as detailed in this plan.

This plan also details information about environmental justice in the CSP area. There are substantial areas with low income populations and populations without access to vehicles in the CSP, mostly along the northern edge of the study area boundary.



### ***2010 Pender County Comprehensive Land Use Plan***

The 2010 Pender County Comprehensive Land Use Plan is the main planning document for land use planning in the County and provides guidance to support orderly growth and development. Over the course of the planning process, two main steps were realized by local planners and citizens. The first was to prepare a comprehensive land use planning document that sets goals and policies for the future, while the second was to update regulatory standards, procedures, and combine freestanding ordinances into a unified development ordinance. Overall, the planning process was designed to promote consensus among stakeholders to build broad support for established goals, provide the basis for development of design standards and regulations, and establish the need for coordination among County departments and with other units of government.

Conforming to ten key smart growth tenets, this plan advocates for a mix of land uses; compact building design; a range of housing choices and opportunities; walkable communities; distinctive and attractive communities with a strong sense of place; preserving open space, environmental areas, and farmland; strengthening development towards existing communities; providing a variety of transportation choices; making decisions fair, predictable, and cost effective; and encouraging collaboration from citizens and stakeholders. This plan addresses growth management, infrastructure, development patterns/community appearance, housing and community development, natural resources, historic and cultural preservation, parks and recreation, open space, waterway access, agricultural preservation, hazard mitigation, economic development, small area plans, and the procedures for amending the Comprehensive Plan. This plan also presents a series of important maps, most notably the future land use maps for different areas of the County.



### ***Relationship to the Pender County Collector Street Plan Project***

As the main document directing development in Pender County, the plan advocates for development around existing communities, the preservation of rural and agricultural lands, and the avoidance of areas subject to floods, wetlands, high winds, or wildfires. In addition, water and sewer should not be extended to areas designated as rural growth areas as identified in the 2010 Comprehensive Land Use Plan. Any proposed collector streets were vetted carefully in light of these recommendations. Also, this effort used zoning designations to help identify collector street spacing standards based on the level/density of planned future development. These standards are discussed in greater detail in subsequent sections.

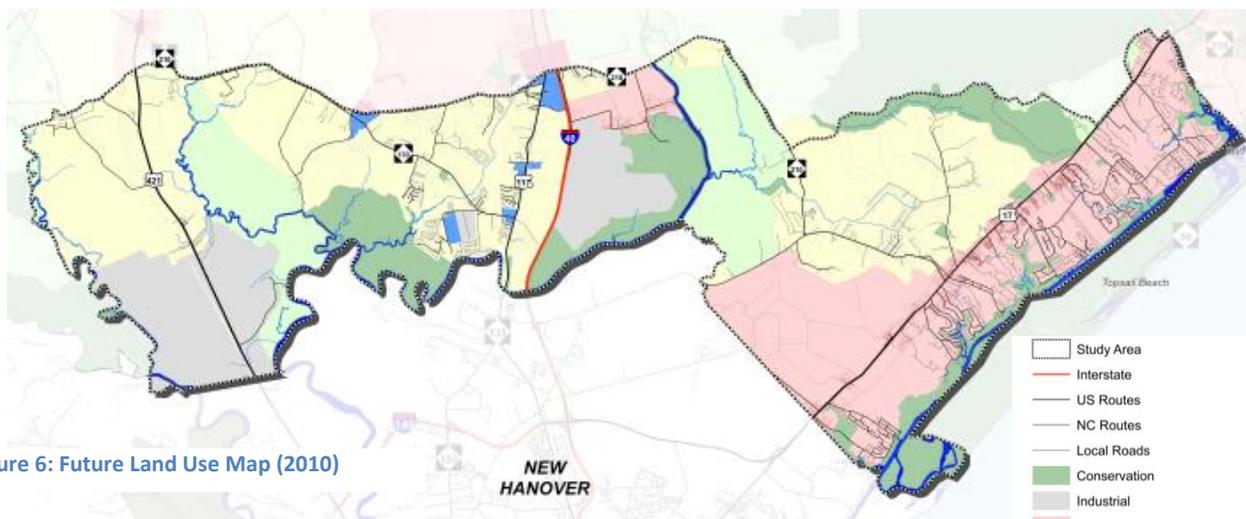


Figure 6: Future Land Use Map (2010)

The future land use map indicates that much of the area east of US 17 is classified as mixed use or conservation, while much of the remaining land in the CSP study area is slated for rural or suburban growth, with some areas reserved for conservation purposes, particularly close to the NE Cape Fear River. The land uses in three Small Area Plan geographies are also presented in this document. The Coastal Pender Small Area Plan is primarily noted as mixed use, though an area of suburban growth is indicated to the west of US 17, north of NC-210, and bounded by the Holly Shelter Game lands in the north. The Rocky Point Small Area Plan is centered approximately on the interchange of NC-210 and I-40 and US 117. Land uses are varied in this area, with industrial areas in the southeast, rural growth in the northeast, mixed use in the northwest, and suburban growth with some conservation areas in the southwest. The US 421 South Corridor Small Area Plan is a linear planning area running along US 421 north from the New Hanover County border. The southern portion of the planning area is consumed by a large industrial parcel, while the middle section is designated as a suburban growth area. Farther north, the area is slated to develop as a mixed use area. The future land use map is located in Figure 6.

Any proposed collector streets should support the land uses indicated in this plan. This plan is scheduled for an update in coming years.

### Environmental Conditions

Pender County is also known as one of the few natural habitats for the Venus Fly Trap, which is found only in the Carolina Bay region within a seventy-five mile radius of Wilmington. Red Cockaded Woodpeckers are prevalent in this area as well. Pender County contains some notable conservation areas, including the southern portion of the Holly Shelter Game Lands, parts of the Cape Fear River Wetlands Game Lands, and areas of the North Carolina Coastal Land Trust Preserves.



*Venus Fly Trap, Pender County:  
Courtesy of the Pender County Public Library.*

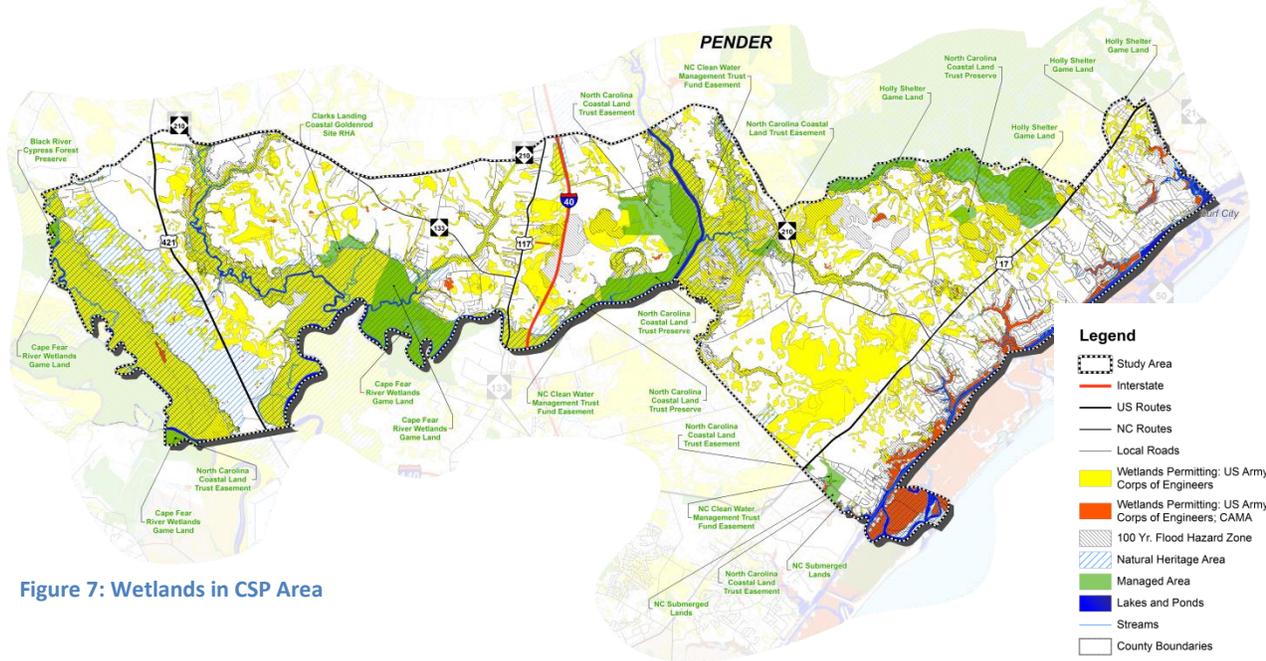


Figure 7: Wetlands in CSP Area

As a coastal county, Pender has significant environmental features that have the potential to limit development. In particular, substantial parts of the County are covered by wetland areas. Though buildable in some cases, these areas often require United States Army Corps of Engineers (US ACE) permits and/or North Carolina Coastal Area Management Act (CAMA) impact permits, which can make development more complex and more time-consuming. These lands also support a diverse array of wildlife and serve other important functions including water filtration and flood protection. Appendix B indicates those wetlands that will likely not require permitting to develop, the wetlands which require a US ACE permit, and those that require both a US ACE and CAMA permit to develop, while 7 indicates the location of these areas within the study area. This map is also located in Appendix A, the map book for this document. Figure 8 indicates the percentage of the study area that requires permitting to build.

With population increasing substantially in Pender County, sensitive environmental areas are under increasing pressure from development; it is fundamentally important to protect, manage, and minimize impacts to important environmental areas to ensure that the natural legacy in Pender County is maintained for future generations.

Additionally, irrespective of whether developable lands support uses that are rural or urban in character, Pender County residents expect clean water, while federal and State regulations mandate that land remain unpolluted and air quality is maintained at an acceptable level, as determined by North Carolina standards. Meeting the twin goals of

### Wetland Permitting Requirements

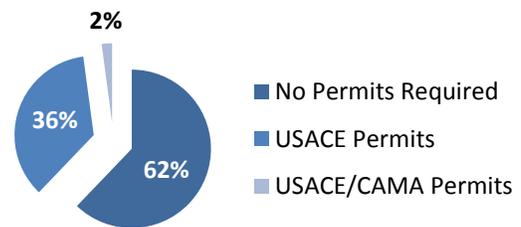


Figure 8: Wetland Permit Requirements

providing clean water and air, and reducing pollution will require that sensitive natural areas be preserved from development, whether it is public or privately funded.

The careful examination of environmental permitting requirements and conservation areas indicates the challenge the County faces in constructing new collector street connections. In order to fulfill the County's commitment to preserving sensitive natural areas, collector streets must be developed in such a way as to avoid these areas or to mitigate the impact of new road construction to ensure that these connections are developed with the least environmental disturbance.

### Existing Transportation Conditions

#### Arterial Streets

Referencing NCDOT Geographic Information Systems (GIS) data for Pender County, there are a number of roadways that fall into the category of arterial roads in the CSP

study area. Arterials are defined as roads that provide the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control. Essentially, the primary function of these roads is to support mobility between destinations. These roads provide less accessibility to nearby properties, though some arterials do support access to adjacent land uses. With regard to functional classification, these roadways fall between collector streets and interstates.

In the CSP study area, three US routes and two NC routes constitute the arterial system. One interstate, I-40, is also present in the study area running north-south. US 17, US 117, and US 421 all provide north-south access as well, while NC-210 provides east-west mobility across the study area

#### US 17

US 17 begins in Punta Gorda, Florida and snakes up the eastern coastline north to Winchester, Virginia. US 17 provides mobility in a north-south direction from Wilmington in the south towards Jacksonville in the north, running parallel to the Intracoastal Waterway. It is duplexed with NC-210 between Hampstead and Surf City and runs for 12.6 miles within the project study area. Beginning at Sidbury Road on the southern edge of the CSP study area and continuing as far north as Pearson Lane, US 17 is a four-lane divided full-access facility, configured by NCDOT as a "superstreet". The "superstreet" facility includes signalized left-turn facilities, U-turn crossovers, and bulb-outs to allow for tractor-trailer U-turn movements. Left-turning movements from driveways and cross-streets are mostly restricted, but are allowed at certain locations. North of Washington Acres Road, US 17 becomes a five-lane, undivided facility with a two-way, left-turn lane through Lodge Road, before the roadway reverts back to a four-



*NCDOT Crews Prepare for a Tropical Storm, Flickr: NCDOTcommunications 2004.*

lane, divided section with unrestricted median breaks at most major roadway cross-street intersections. There are currently 11 signals along US 17 in the CSP study area, of which three are signalized left turns and seven are fully signalized. These signalized left turns are located at Sidbury Road, at Scotts Hill Loop Road in the northbound direction only, and at a bulbout approximately 1/3 of a mile north of Scotts Hill Loop Road in the southbound direction only. The fully signalized intersections are located at NC-210/Dan Owen Drive, at Hoover Road, at the Bailey Shoppes commercial amenities approximately 2,000 feet north of the Hoover Road intersection, at Jenkins/Country Club Drive, at the Hampstead Town Center located approximately 1,400 feet north of Country Club Drive, at Vista Lane/Topsail Middle and High School access, and at Sloop Point Loop Road. One emergency traffic signal is in operation at the Hampstead Volunteer Fire Department.



*US 17 in the Pender County Collector Street Plan Study Area*

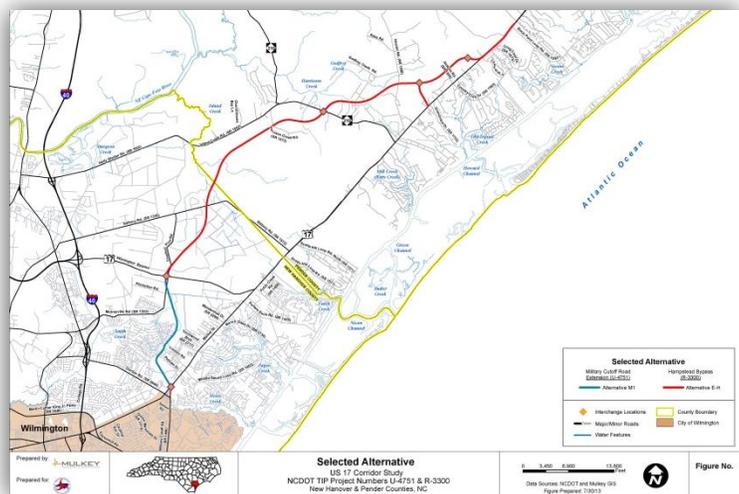
There is a funded STIP project to convert existing US 17 to a superstreet (U 5732), which will implement important access management upgrades along US 17 from Washington Acres Road to Sloop Point Loop Road, ultimately reducing traffic congestion in this area.

Running parallel and occasionally joining I-95, US 17 runs for 1,206.47 miles and has been in existence since 1926. Volumes along US 17 range from 38,000 vehicles per day (vpd) in the southern portion of the CSP study area to 36,000 vpd in Hampstead and 28,000 vpd leading to the split with NC-210 just north of the CSP study area boundary.

This roadway is also used as a primary hurricane evacuation route and serves the military between Camp Lejeune, the Port of Wilmington, and Military Ocean Terminal at Sunny Point.

[Hampstead Bypass \(R 3300\)](#)

The Hampstead Bypass was originally identified in the 1997 Thoroughfare Plan for Pender County as a proposed principal arterial, running parallel to US 17. Beginning just south of Sloop Point Loop Road and connecting into planned



Proposed Hampstead Bypass Alignment

portions of the I-140 bypass around the City of Wilmington. The Hampstead Bypass would provide higher speed controlled access around the unincorporated community of Hampstead. This roadway is recommended to improve not only traffic carrying capacity, but also to improve safety in this heavily traveled corridor.

The STIP identifies this project as R-3300. As of September 2015, the final environmental document for this project, the State Record of Decision (SROD) has been completed and indicates that the selected alternative is M1+E-H. This project is currently unfunded.

### US 117

US 117 is a two-lane arterial road with occasional turn lanes that traverses the study area just to the west of I-40 in a north-south direction. Running from Wilmington to Wilson, US 117 runs for 114 miles and is contained completely within the state of North Carolina. Within the CSP study area, US 117 provides access to some adjacent land uses over its 5.38 mile span.

There are two signalized intersections along this portion of US 117, one at NC-133 and one at the intersection with NC-210. Some commercial development is present at the NC-210 and US 117 intersection. Volumes along US 117 ranged between 7,100 vpd south of NC-210 and 12,000 vpd north of NC-210 in the CSP study area.

### US 421

US 421 is another north-south route through the CSP study area, passing through the western portion of the study area. As a spur route of US 21, US 421 traverses four states, Indiana, Kentucky, Virginia, and North Carolina, running for 941 miles from Wilmington, NC to Michigan City, Indiana. US 421 travels for 8.05 miles within the CSP study area, entirely as a four-lane divided facility with no signalized intersections along the portion within the study area. There is relatively little adjacent development along US 421 in this area. However, the Pender County Commerce Park is located along this corridor and is slated for future industrial development. A water facility and wastewater treatment plant and a seafood-processing plant are already located in the park. It is anticipated the Park will see additional development. A discontinued rail line also runs adjacent to US 421. Volumes along US 421 decrease as US 421 continues northward, with volumes of 4,300 vpd close to the New Hanover County line gradually decreasing to 4,900 vpd north of NC-210. However, US 421 does serve as an important freight route, accommodating significant volumes of truck traffic as well as mobility needs for freight and military to and from the Port of Wilmington.

### NC-210

NC-210 serves east-west traffic along the north boundary of the CSP study area. Beginning at US 17 in the east, NC-210 runs for approximately 23.5 miles within the study area, not including the portion that is duplexed with US 17 running north between



*Typical Cross-Section on NC-210*

Hampstead and Surf City. The ultimate terminus is just east of Selma/Smithfield, while the terminus in the CSP study area is just shy of the intersection with US 421, commonly known as Johnson's Corner. NC-210 is a two-lane facility for the entirety of the portion in the study area and provides access from homes and subdivisions along the roadway to commercial amenities and other major arterials and highways. Some major agricultural holdings are present in the western portion of the study area along NC-210. The roadway crosses the NE Cape Fear River close to the interchange with I-40.

There are three signals along NC-210 in the CSP study area, located at the US 117 and NC-210, the interchange of I-40 and NC-210, and at NC-210 and US 17. In contrast to other routes in the study area which do not meander, NC-210 makes sharp turns along the route, most notably at the intersections with Island Creek Road and NC-133. Volumes along NC-210 vary between 1,900 vpd near US 421 and 7,800 vpd near Hampstead.

### Interstate 40

I-40 is a major Interstate Highway that traverses the southern United States beginning in Wilmington and terminating in Barstow, California. Within the CSP study area, I-40 runs northward for 5.5 miles. As an Interstate facility it is controlled access, there are no signalized intersections, though there is one interchange, with NC-210, in the CSP study area. I-40, as an interstate facility, carries substantially more traffic than other roadways in the CSP study area, though not as much as US 17, at 24,000 vpd.

### *Existing Collector Streets*

Collector streets are defined as streets that connect neighborhoods to the major arterial roads. These streets are typically two lanes, not more than two to three miles long, with speed limits between 35 and 45 mph, and lower volumes of traffic. The CSP study area is generally lacking in collector streets, though some streets that fit this criteria are in fact present, predominantly in the vicinity of the unincorporated community of Hampstead. Streets such as Sidbury Road, Scotts Hill Loop, Washington Acres Road, Factory Road, Hoover Road, Country Club Drive, Sloop Point Road, and Sloop Point Loop Road are emblematic of typical collector streets found in the CSP study area.

### NC-133

NC-133 is the only NC Route designated as a collector street in the CSP study area. Linking US 117 and NC-210, NC-133 only runs for approximately 4.9 miles in the study area. With its genesis in Oak Island, NC-133 runs northward, eventually duplexing with US 117 before extending westward to its terminus at NC-210. NC-133 does include one signalized intersection in the CSP study area, at US 117. This roadway provides access for residences to major roads. Additionally, there are some agricultural lands only accessible via NC-133. Volumes along NC-133 equate to 9,100 vpd.



*Typical Local Street in the CSP Study Area*

### Local Streets

Local streets, as one would expect, are not used for long distance travel. Their primary function is to provide access to adjacent properties and they often include pedestrian amenities in the form of sidewalks within the right-of-way. Local streets also funnel traffic to the collector and arterial systems and form the basis of the functional classification system.

For the most part, local streets are designed to minimize through traffic. However, local streets will also often provide important connectivity to neighborhood land uses, particularly for non-motorized modes. In the CSP study area, there are a number of local roads. Many of these streets are maintained by NCDOT, which identifies these roads with a Secondary Route number, while some of the private roads are maintained by Homeowner’s Associations (HOAs). Pender County does not own or maintain any roadway facilities.

### Functional Classification

The Wilmington Urban Area MPO member jurisdictions refer to the functional classification of roadways in their land development codes and regulations in an effort to better coordinate land use and transportation planning. The WMPO reviewed the federal functional classification of all roadway

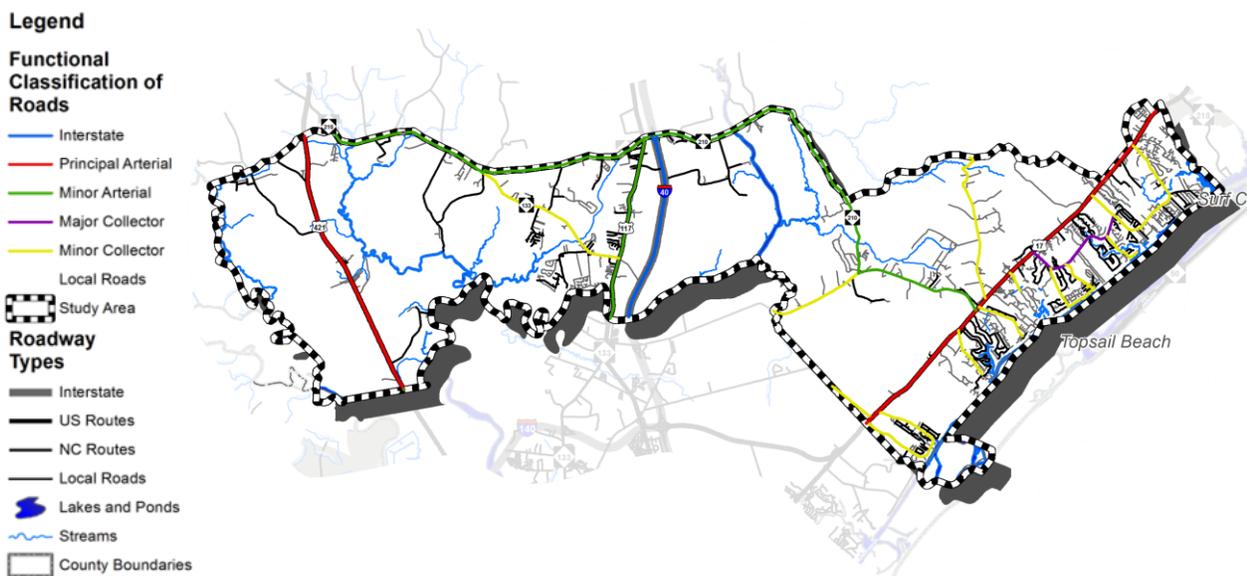


Figure 7: Functional Classification Map – Pender County Collector Street Plan Study Area

elements in the WMPO Planning Area Boundary following the decennial census and the organization’s Transportation Advisory Committee proposed changes to the federal functional classification of WMPO Planning Area Boundary’s roadways. However, several of the proposed changes were not accepted by the NCDOT due to statewide constraints that were not directly related to the functional nature of existing conditions in the WMPO Planning Area Boundary roadway network. Therefore, the Transportation Advisory Committee adopted the “Wilmington Urban Area MPO’s Local Functional Classification Maps” for member jurisdictions to refer to for non-federal local planning purposes on August 26, 2015. Figure 9 details these roads within the CSP study area.

### Pedestrian and Bicycle

Pedestrian and bicycle facilities are very limited in the CSP study area. There are isolated pockets of developer-built sidewalk present, most notably in the neighborhoods along Crown Pointe Drive, East and West Island View Drive, and in the Avendale neighborhood off of NC-210, but overall, only approximately 8 miles of sidewalk are currently built. However, new developments are adding sidewalks, as a recommendation of the 2007 Collector Street Plan. This accounts for roughly 4 percent of the total roadway mileage in the study area. There are no crosswalks or pedestrian signals at signalized intersections, though some off-road hiking and biking trails are present in the Holly Shelter Game Land. Further bicycle and pedestrian installations are currently programmed, including a Safe Routes to School and DA funded project, but have not yet been constructed.

In terms of bicycle facilities, there are no dedicated facilities in the CSP study area, though there is one bicycle route, the *NC 3: Ports of Call* route. NC 3 runs along the coastline from Norfolk, Virginia to North Myrtle Beach, South Carolina and passes along both the Pamlico and Albemarle Sounds. Within the CSP study area, NC 3, also known as the “Venus Flytrap” section, runs along Island Creek Road, NC-210, and north via US 17. Other pedestrian and bicycle facilities are programmed in the study area, including the Mountains-To-Sea Trail, the Coastal Pender Greenway, the Coastal Pender Rail Trail, the Central Pender Rail Trail, and the East Coast Greenway identified on the Bicycle and Pedestrian Facilities Map, located in the mapbook for this document. However, the exact alignments for these trails has not yet been determined. Additionally, Cape Fear Transportation 2040 (Metropolitan Transportation Plan) recommends three pedestrian and bicycle projects in the CSP study area, one along Jenkins Road from US 17 to St Johns Church Road and the other on Master Lane from Doral Drive to Sloop Point Loop Road.

### Public Transportation

The Cape Fear Public Transportation Authority, which is also known as Wave Transit, provides a variety of public transportation options to residents of the Cape Fear region. However, no fixed transit routes penetrate the CSP study area. Transit service is offered to the CSP study area by the Pender Adult Services Transportation, allowing anyone to ride, though focused primarily on people aged 65 or older and individuals with disabilities. Service begins at the Cape Fear Community College North Campus and continues north on US 17 to the Topsail Senior Center, then doubles back and travels along NC-210 and

**Venus Flytrap D-3**

**General Description**  
Leaving the populated area north of Wilmington, you will travel through a remote, wooded area for about 10 miles. As before, the terrain continues to be flat. Turning onto US 17, the “Ocean Highway”, you will parallel the coast for about 9 miles before turning east on NC 210, which will take you to Topsail Island. An 8 mile stretch along the shore gives you plenty of opportunity to stop and enjoy the beautiful sandy beaches. Leaving the coastfront once again, you will travel inland for a few miles to pick up another road which parallels the coast. Approximately 38 miles/61 kilometers.

**Hazardous Areas**  
US 17, a major route through the area, has much more traffic than is desirable. This road is a three-lane facility, which creates the passing situation for motorists. 3 miles.  
NC 210, along Topsail Island has a high volume of seasonal traffic during summer months. 8 miles.

**Roadway Condition**  
The roads in this segment are in good condition. There is a paved shoulder along most of 1002 in New Hanover and Pender counties. US 17 is a three lane road.

**Services**  
Services are limited from the beginning of the segment to the NC 210/US 17 intersection. Periodic stores and restaurants provide needed services along the remainder of the segment. There are a number of private campgrounds and motels along the route. There are no bicycle shops in this segment.

**Points of Interest**

- 1 Venus Flytrap  
The Venus Flytrap is the most dramatic of all carnivorous plants. Spreading from its base are leaves three to six inches long, each of which broadens into a pair of kidney-shaped lobes. The leaf has six slender hairs, spaced so as to form a triangle on each lobe. Secretions inside the margin of the leaf act as a lure for insects. When an unfortunate bug touches the tip of the hairs, the trap springs shut. The plant squeezes its prey by not immediately pressing too tightly. Tiny insects can escape through the spaces between the long, stiff bristles at the outer edges of the lobes. These bristles form prison bars for prey large enough to constitute a worthwhile meal. After a few minutes, the lobes of the leaf slowly press more and more tightly together, killing the soft bodied insect. Digestion takes 5 to 10 days, after which the leaf opens again, ready to trap the next victim.
- 2 Sloop Point  
Probably built between 1726 and 1731 by John Baptista Ashe, the house is possibly the earliest surviving house in this part of the state. Of particular interest is the “West Indian” type porch, common to the Carolinas, Deep South and West Indies. One chimney of this house is so large that it contains a door and a porch. This property, which is privately owned, is listed on the National Register of Historic Places.

Excerpt from the *NC Bicycle Route Brochure*. Courtesy of <http://www.ncdot.gov/travel/mappubs/bikemaps/>.

US 117 north to Burgaw and Wallace. As a deviated fixed route service, passengers can be picked up or dropped off within 15 miles of any of four fixed stop locations.

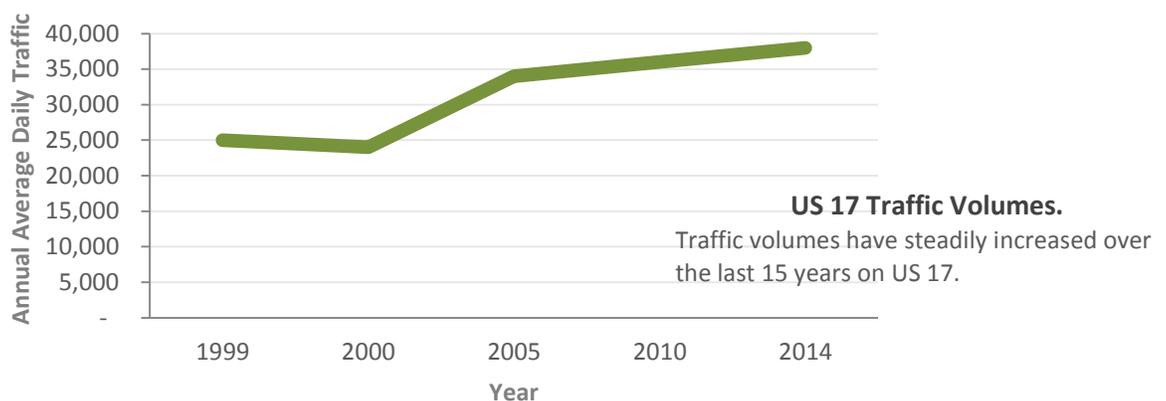
*Cape Fear Transportation 2040* proposes three park-and-ride locations in the PC CSP study area, at US 17 and NC-210, US 17 and Sidbury Road, and US 421 and Cowpen Landing Road. These locations, designed to accommodate 8-20 parking spaces and serve people wishing to access vanpools and carpools, will be contain dedicated spots and signage. Additionally, *Cape Fear Transportation 2040* calls for stop amenity upgrades at three locations, US 117/NC-133 at Old Blossom Ferry Road, US 421 at Blueberry Road, and US 17 at NC-210.

**Traffic and Safety**

The North Carolina Department of Transportation provides annual traffic counts for most streets within the CSP study area. Traffic counts represent a yearly average amount of traffic on that roadway segment and are collected annually for most interstates and NC routes and biannually for secondary routes. The following table (Table 1) provides further detail with regard to certain roadways in the CSP study area.

Table 1: Selected AADT Comparisons

Roadway Name	2006 ADT	2013/2014 ADT	Percent Change
US 17 – South of NC-210	27,000	33,000	22.2%
US 17/NC-210	33,000	38,000	15.2%
NC-210 – West of US 17	9,000	7,800	-13.3%
I-40 in CSP Study Area	25,000	24,000	-4.2%
NC-210 – West of I-40	12,000	14,000	16.7%
NC-210 – East of I-40	7,400	5,900	-20.2%
US 117 – North of NC-210	12,000	12,000	0%
US 117 – South of NC-210	7,600	7,100	-6.6%
NC-133	10,000	9,100	-9%
US 421	6,000	4,900	-18.3%
NC 210 – East of US 421	2,700	1,900	-29.6%



Judging from the changes in ADT between 2006 and counts conducted in 2013/2014, traffic has increased substantially on NC-210 and on US 17 and is reduced on roads within the study area west of I-40. Indeed, even I-40 has a lower ADT, though not by a substantial amount. This is likely due to the growth and development around the Topsail Township and further development between US 17

and the Intracoastal Waterway. As new subdivisions are constructed in that area and on undeveloped parcels along NC-210 between I-40 and US 17, traffic is likely to continue to increase. Transportation improvements are also likely to focus on these areas. These AADTs may also reflect a difference in population and housing type in the Topsail Township area and with the planned developments in the Scotts Hill area.

In terms of safety, an analysis of crash types and severities was conducted for the entire CSP study area using crash data from the three-year period between

It is also important to note that new developments are required to conduct a Traffic Impact Study for any new development forecast to generate more than 100 trips in the AM or PM peak hour.

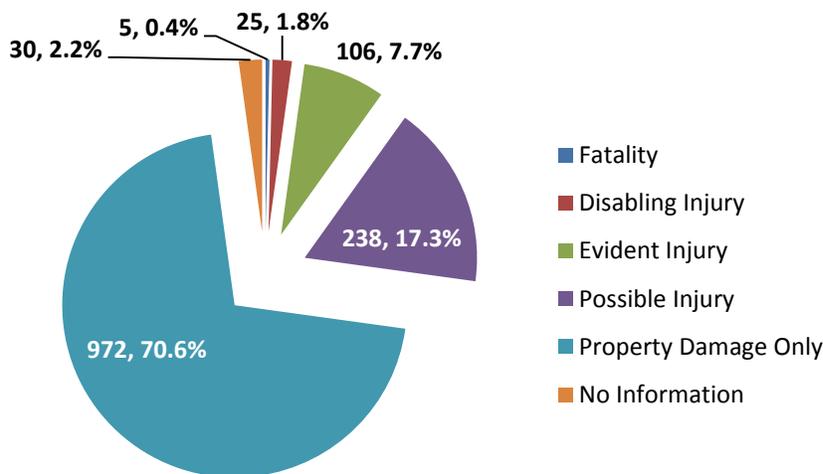


Figure 90: Crash Severities

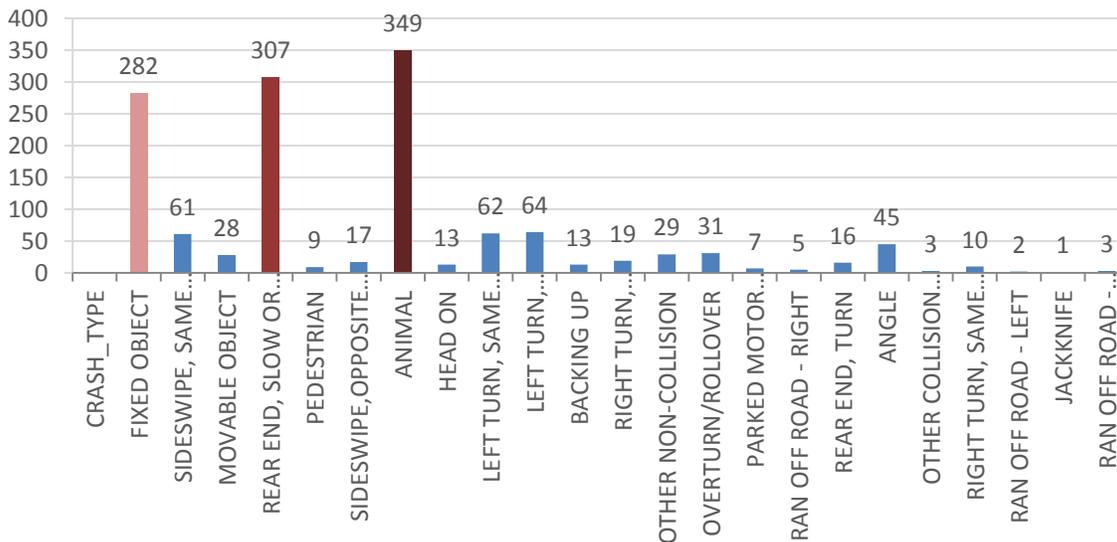


Figure 81: Crash Types in the CSP Study Area

2011 and 2013. Overall, 1,376 crashes occurred during that time, with five crashes (0.4%) resulting in a fatality. A further 25 crashes (1.8%) resulted in a disabling injury, while 106 crashes (7.7%) resulted in an evident injury, 238 crashes (17.3%) resulted in a possible injury, and 972 crashes (70.6%) resulted in property damage only. Figure 11 provides this information. There were 30 crashes (2.2%) with no severity information. The majority of crashes occurred during daylight conditions (61.2%), while 36.7% occurred during dark conditions on roadways without lighting. The remaining percent (3.5%) occurred either during dark conditions on roadways with lighting, at dusk, or at dawn. In terms of crash type, Figure 12 indicates that the most prevalent crash type was a collision with an animal (349, 25%), followed by Rear End, Slow or Stop (307, 22%) and Fixed Object (282, 20%).

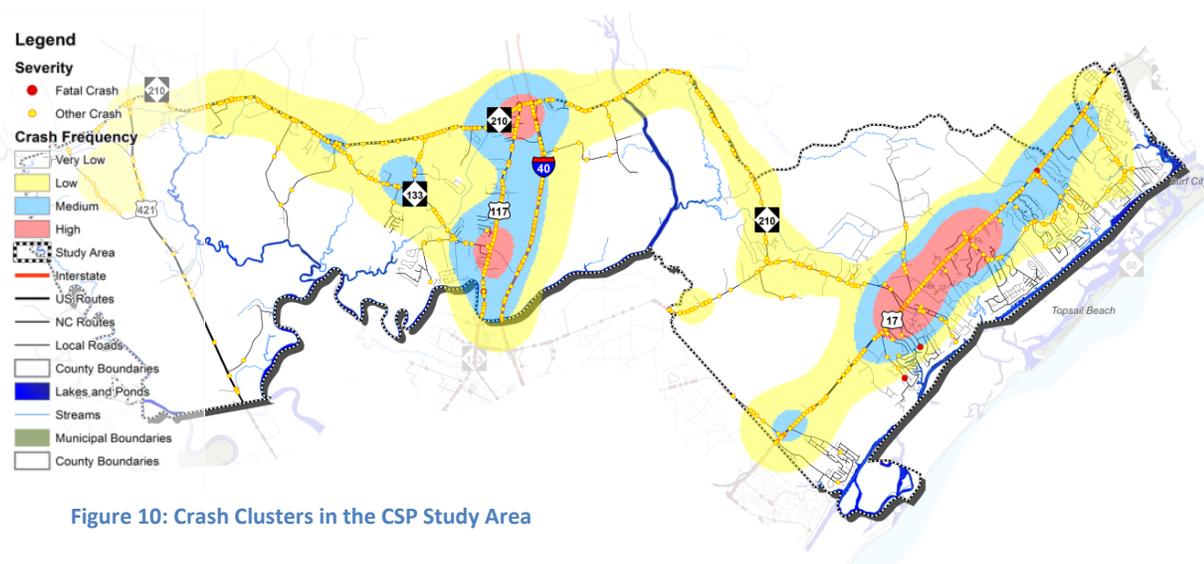


Figure 10: Crash Clusters in the CSP Study Area

In terms of crash location, crashes occurred across the study area, but were most concentrated along US 17, at the interchanges at I-40 and US 117, and at the intersection of US 117 and NC-133. With the exception of the southern portion of US 421, all major US, NC, and Interstate routes experienced higher concentrations of crashes than other roads. US 17, in particular, had the highest concentration of crashes, including two fatal crashes along the roadway. Figure provides further detail. With new signal timing projects occurring along US 17 and the proposed (but currently unfunded) implementation of the Hampstead Bypass, it is possible that there will be a reduction of crashes in this area as these projects will ultimately reduce traffic volumes on existing roadways and streamline flow through the corridor.

**TIA: Traffic Impact Analysis**

The 2007 Coastal Pender County Collector Street Plan and the current Pender County Unified Development Ordinance speaks to the requirements for a Traffic Impact Analysis (TIA) for various kinds of development. The emphasis on TIAs in the role of determining land use suitability and infrastructure needs for transportation is crucial: the TIA represents a concrete linkage between land use and transportation. A TIA measures the impact of traffic on the existing roadway network

Impact can be measured in multiple ways. One such way is the familiar, letter-based system for evaluating level of service performance is based on vehicular delays, typically as vehicles move through an intersection. The vehicular delay that is incurred increases as more trips are added from new

development. Delay can be reduced by redistributing traffic through a more-connected network or making other street improvements to the existing network. An important part of that network is the construction of collector streets, which form connections of streets that balance land accessibility with local mobility needs in a community. Projects that have an impact on the street network can also include mitigation efforts like changes in land use type/intensity or off-site improvements. These mitigation efforts are an important part of the development process, and help manage the negative consequences to valuable roadway capacity in places that are developing faster than publicly funded roadway projects can be built to handle the extra need.

Any new development that is anticipated to generate more than 100 trips in any hour of the day has to prepare and submit a detailed Traffic Impact Analysis to ensure a complete review the anticipated traffic impacts of a particular project proposal. The policy section of this report describes some suggested changes and improvements to the TIA process and documentation.

It is also important to note that new developments are required to conduct a Traffic Impact Study for any new development forecast to generate more than 100 trips in the AM or PM peak hour, as per the 2007 Coastal Pender County Collector Street Plan and the Unified Development Ordinance.

**Land Use/Zoning**

The future land use map provides a bold vision for the CSP study area. Substantial portions of the study area are designated as mixed use and suburban growth, while rural growth and conservation areas account for proportionally less. Additionally, there is some industrial growth, mostly in the southern portion around US 421 and along the east side of I-40. Figure 13 indicates the proposed land uses by percent of coverage in the study area. The mixed use areas are predominantly located in the more developed areas along US 17, while suburban growth is concentrated near the Holly Shelter Game Land just northwest of Hampstead, as well as in areas along the northern portion of US 421 and in areas west of I-40.

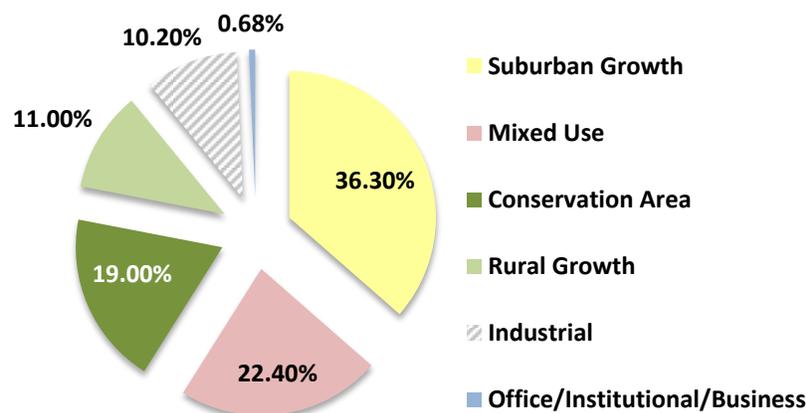


Figure 11: Future Land Uses (2010)

These land use categories are very important with regard to the development of a Collector Street Plan, though street spacing standards will be based on current zoning with some consideration of future land use. In terms of current zoning, the existing zoning map paints a vastly different picture of the CSP study area. Much of the area is dominated by Rural Agricultural, which accounts for 52.8 percent, while 22.5 percent is Residential and 10.8 percent is Planned Development. The remaining categories, such as General Industrial (6.6 percent), Environmental Conservation (5.3 percent), General Business (1.2 percent), Office and Institutional (0.6 percent), and Manufactured Housing Community (0.1 percent), all account for a total of 13.8 percent, a small portion of the study area. The existing zoning map (Figure 14) is included below.

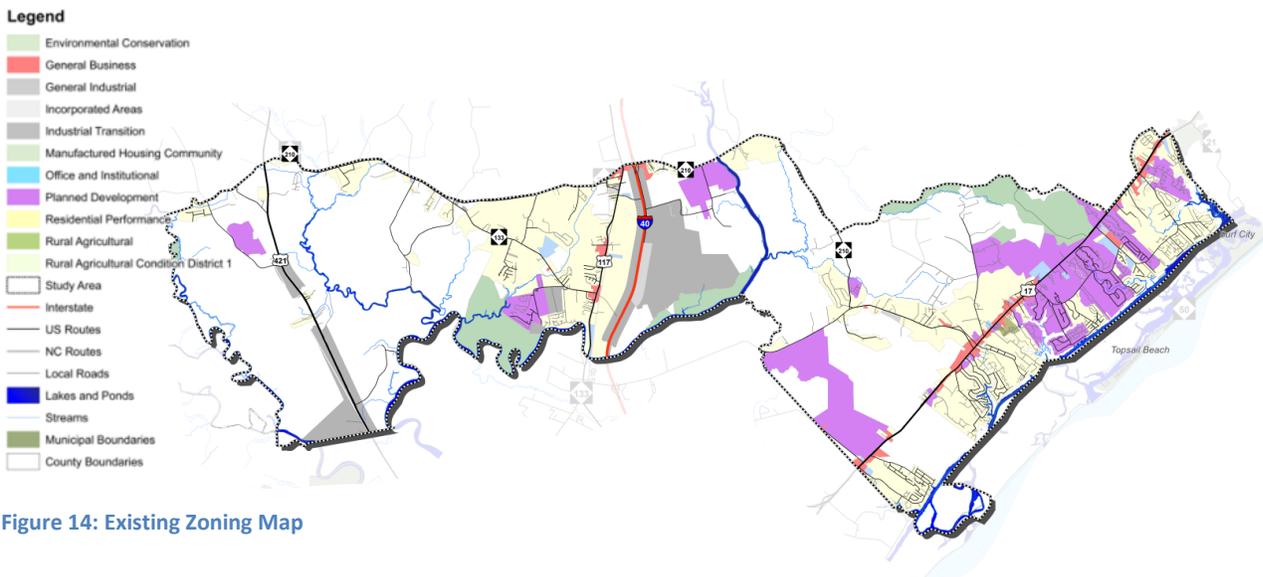
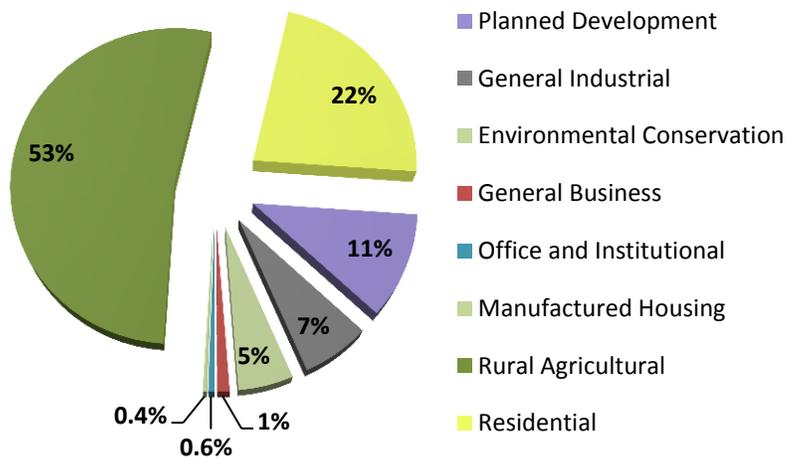


Figure 14: Existing Zoning Map



## Public Input

Public outreach is vital to ensuring that a planning process reflects local wishes and desires and ultimately receives support from elected officials and the public. To ensure that public opinion played an important role in shaping this project, a Steering Committee was convened at the outset of this process. Over the course of this project, four Steering Committee meetings and two public outreach meetings were held. Pender County and WMPO staff also presented to local officials and at public meetings.



## Meeting Summaries

The Steering Committee was composed of seventeen members, including community members, elected and appointed officials as well as staff from the WMPO, Pender County, and NCDOT. The 17 Steering Committee members provided important oversight and input to the process of developing the preferred collector street scenario. Using paper maps and markers, Steering Committee members indicated areas on the map in need of greater connectivity and helped revise the collector street alignments. The Steering Committee also provided important feedback on the proposed roadway cross-sections and helped prioritize policy measures for inclusion in this plan. As a result of the Steering Committee's active participation in the project, key stakeholders were able to provide important input into this planning process. With their support, this Pender County Collector Street Plan will have broad buy-in from the public, multiple agencies, as well as, elected officials.



## Public Outreach

Two public outreach meetings were held, one at the Heide Trask Senior High School in Rocky Point and the other at the Hampstead Annex in Hampstead. Attendees provided input on where collector streets are needed in the study area, where pedestrian and bicycle facilities are desired, and which cross-sections apply to specific collector streets. Additionally, Pender County Staff sent the survey and a link to the website to every church in the study area through the Postal Service to solicit feedback as well.

**Survey**

Another important method to reach people in the CSP study area was the paper and online survey. Disseminated through the project website ([www.pendercollector.com](http://www.pendercollector.com)) and through advertising at meetings and community events, the survey consisted of 12 questions, asking general questions such related to how long the respondent has lived in Pender County, the experience of traveling in Pender County, and work status. The survey also provided an open-ended question, soliciting feedback from respondents about their experiences traveling, by any mode, in Pender County. Some of the responses to this question and other information from the survey is provided in Figure 16 on the following page.

Overall, with 112 people responding to the survey and the active participation of members of the Steering Committee, the public outreach component of this planning process solicited substantial feedback. The importance of local champions and ensuring ownership of planning efforts cannot be overstated. Ultimately, the numerous opportunities to provide input and emphasis on citizen and stakeholder collaboration led to the development of a community-supported plan.

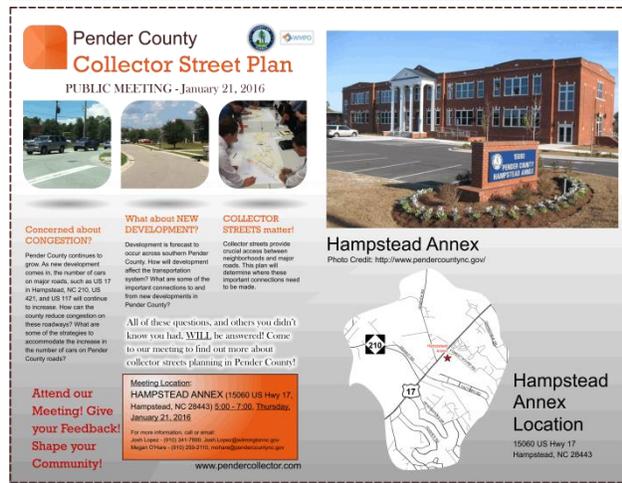
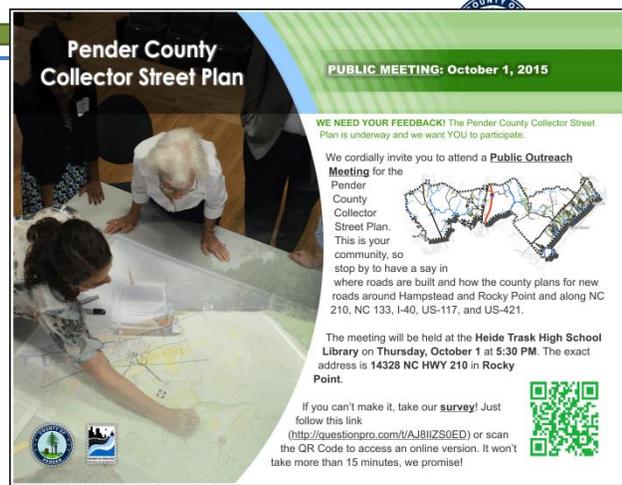
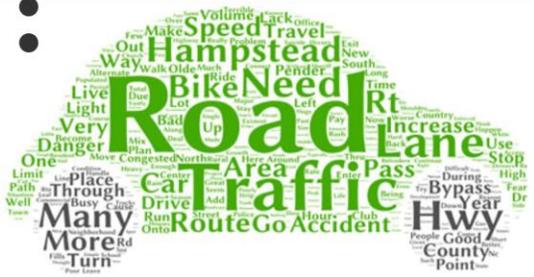
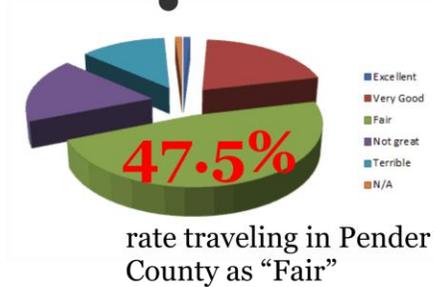


Figure 125: Flyers for the Public Meeting.

# Survey Summary

The most important features to include on collector streets are...

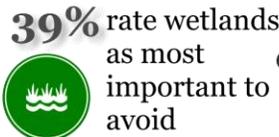
-  Lighting **25%**
-  Bike Lanes or Bikeways **24%**
-  Sidewalks **21%**



The most mentioned words in the survey.



7 out of 10 people are not concerned about the impact of collector streets, if they are well designed



**80%** think Hampstead is most in need of collector streets

**27%** think avoiding a problematic intersection is the most important.

## Select Quotes

“

- Heavy traffic on US 17
- Motorists do not observe speed limits. Need that bypass around Hampstead!
- Middle lane is the problem!
- When an accident occurs there is no way to by-pass it as there are few if any roads around the accident.
- Trouble and danger entering and exiting US 17.
- No shoulders on two lane roads, ex. 210 west, no bike lanes, roads with more than 20 homes remain unpaved, “suicide” turning lanes.

”

Figure 136: Selected Survey Responses

## Recommendations

As part of the process for recommending new collector streets for the CSP project, the project team undertook a number of steps to ensure that the proposed collector street network reflects existing



Bicycle parked outside of the Jade Garden restaurant in Rocky Point

conditions, land suitability, future proposed land uses, stakeholder input, ongoing roadway design projects, and other current planning processes. It was particularly important to ensure that the recommendations accommodate likely users of the facility. For instance, all collector streets should allow for the efficient movement of emergency vehicles, while only some collector streets will need to support larger vehicles, such as tractor trailer trucks or fire engines among others. It was also important to assess whether pedestrians and/or bicyclists should be accommodated and to what degree. A thorough understanding of these issues as well as how the collector street network supports connectivity between land uses was a crucial component of this planning effort. This section presents the recommended collector street connections.

### Emergency/School Vehicles

It is important to note that all roadways, and particularly collector streets, will be designed to

accommodate the safe and convenient movement of emergency vehicles, including roll curb where appropriate. Additionally, every effort was made to create alignments conducive to easy and safe access by school buses.

### Connectivity/VMT Reduction

Collector streets, while providing access to neighborhoods and facilitating access to the arterial network, also serve another important function, reducing need to access major corridors. Collector streets should provide numerous points of access to the surrounding collector and arterial system. With the provision of additional access points to neighborhoods, commercial centers, and schools, travelers will have additional options to access their local destinations. By allowing back access between land uses, people can reach their destinations without having to drive on major roadways. Connectivity requires that private entities coordinate across different properties to anticipate future, connections between adjacent properties. Providing connectivity to nearby amenities and to the arterial system is important to avoid congestion across the transportation system.

### Land Use Connectivity

Certain land uses (for instance major employment centers) generate substantial traffic at particular times of the day. Providing better access from residential neighborhoods to employment centers (especially to areas slated to develop as industrial centers) was an important consideration for this plan.

There are large-scale industrial operations in the western portion of the study area; much of the collector street development in these areas is underpinned by the need to connect to industrial facilities or provide an alternate connection to reduce peak hour congestion. It is also important to provide alternative access from US 17, which has the highest population density. It is also important to provide alternative access from US 17, which has the highest population density. Collector Streets and enhanced connectivity provide needed relief to over-congested facilities like US 17, which has seen a 52% increase in traffic volumes over the past 15 years alone. As it stands, US 17 has experienced significant traffic congestion because majority of neighborhood streets connect directly into it. Enhanced connectivity improvements provide alternative routes for shorter trips and avoid major arterials altogether.

### *Large Trip Generators*

With local shopping amenities, numerous school facilities, and industrial areas in the CSP study area, it will also be important to provide access from arterial roads to these facilities. Hampstead itself is an important regional destination as well. Providing additional access to areas of high traffic is another important consideration in the development of the proposed collector street network.



School bus traffic on US 117

### *Spacing Standards*

Spacing Standards were developed as part of a modeling exercise (conducted in 2011) to determine the ideal spacing needed for streets to maintain a Level-of-Service “D” on all roadways within a given study area. A Level-of-Service “D” constitutes acceptable conditions under which speed and freedom to maneuver are severely restricted, though traffic flow is still stable. A Level-of-Service “D” serves as a baseline in this instance. The details of the spacing standards are presented in Table 2 below. The parentheses indicate the zoning definition that corresponds to the land use intensity. The Access Function column refers to the amount of access that the collector street will provide. As land use intensity increases, there are more collector streets, allowing transportation network users to access specific areas via different routes, meaning that the access provided per collector street is lower than if the collector was the only street in a low intensity area. In the “lowest intensity” areas, each collector streets provides substantial access, more than if there were multiple collector streets nearby.

Table 2: Spacing Standards

Type of Collector Street (Zoning Designation)	Intensity	Access Function	Approximate Street Spacing
No Collector Streets (Environmental Conservation)	No Development	N/A	N/A
Lowest Intensity (Rural Agricultural)	Less than 2 Dwelling Units per Acre	Highest	3,000 to 6,000 feet apart
Medium Intensity (General Business, General Industrial, Industrial Transitional, Manufactured Housing Community, Residential Performance)	2 to 4 Dwelling Units per Acre	High	1,500 to 3,000 feet apart
High Intensity (Residential Mixed, Office Institutional, Planned Development)	More than 4 Dwelling Units per Acre	Medium	750 to 1,500 feet apart

Source: Stantec, Wake County TDM Modeling Analysis, 2011.

Each land use type is assigned an approximate street spacing based on the density and intensity of land use development; the proposed street spacing may not exactly correspond to the ideal spacing standard, based on the presence of natural or man-made features. Figure 18 provides further detail.

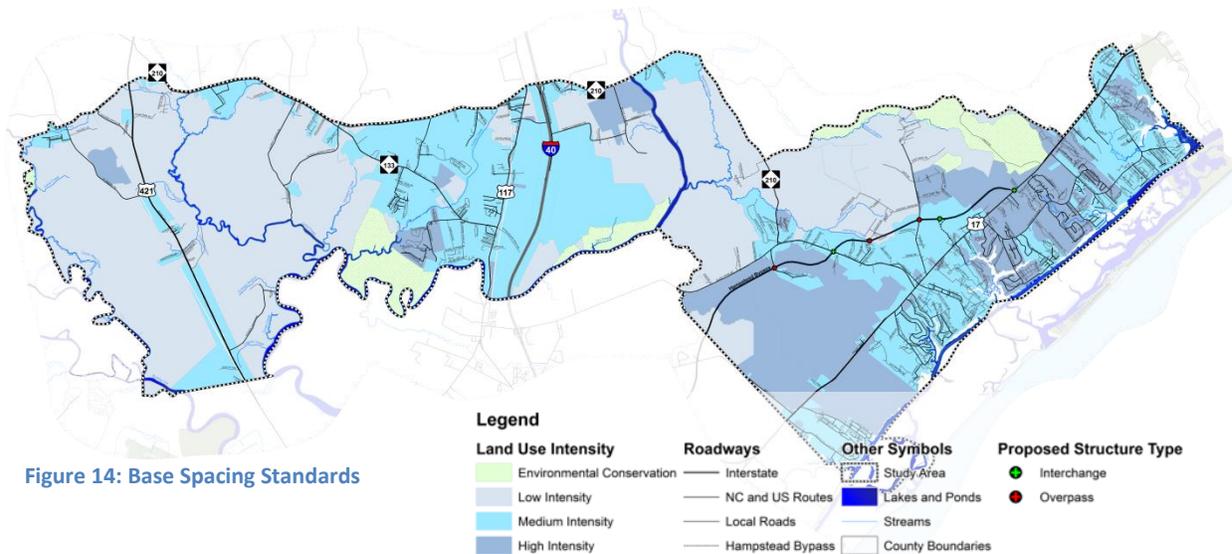


Figure 14: Base Spacing Standards

### Complete Streets

The NCDOT Complete Streets Design Manual provides guidance on the design and construction of streets that accommodate all users of the transportation system, including bicyclists, pedestrians, transit users, and motorists. The Complete Streets approach incorporates bicycle and pedestrian amenities into new street design, especially collector roadways which serve as important connector roadways to

handle high volumes of traffic. It is important to note that existing collector streets may need to be retrofitted to include bicycle and pedestrian amenities, which may not be in existence currently.

### Soil Road and Paper Streets

“Soil roads,” existing unpaved roads in the CSP study area, and “paper streets,” platted connections that are identified as a future connection, were also considered as part of this process. If possible, an unpaved road was considered as a proposed collector street along the existing soil road. This will ultimately reduce the cost of constructing proposed collectors. In a similar vein, project planners endeavored to route collector streets through as few parcels as possible in order to mitigate right-of-way costs for parties responsible for implementing the design and construction of collector streets in the future.

### Preferred Collector Street Scenario

With existing conditions in mind, a collector street scenario was created and refined for the CSP area. Pender County, WMPO, and the public commented on the proposed alignment, ultimately leading to a broadly accepted plan. Figure 18 provides more detail. Additionally, a pedestrian and bicycle facility map was also created as part of this planning effort. (Figure 20 indicates those existing signed bicycle routes, proposed multi-use trails, and collector streets designated as bike-friendly connections.



“Soil road” in the project study area

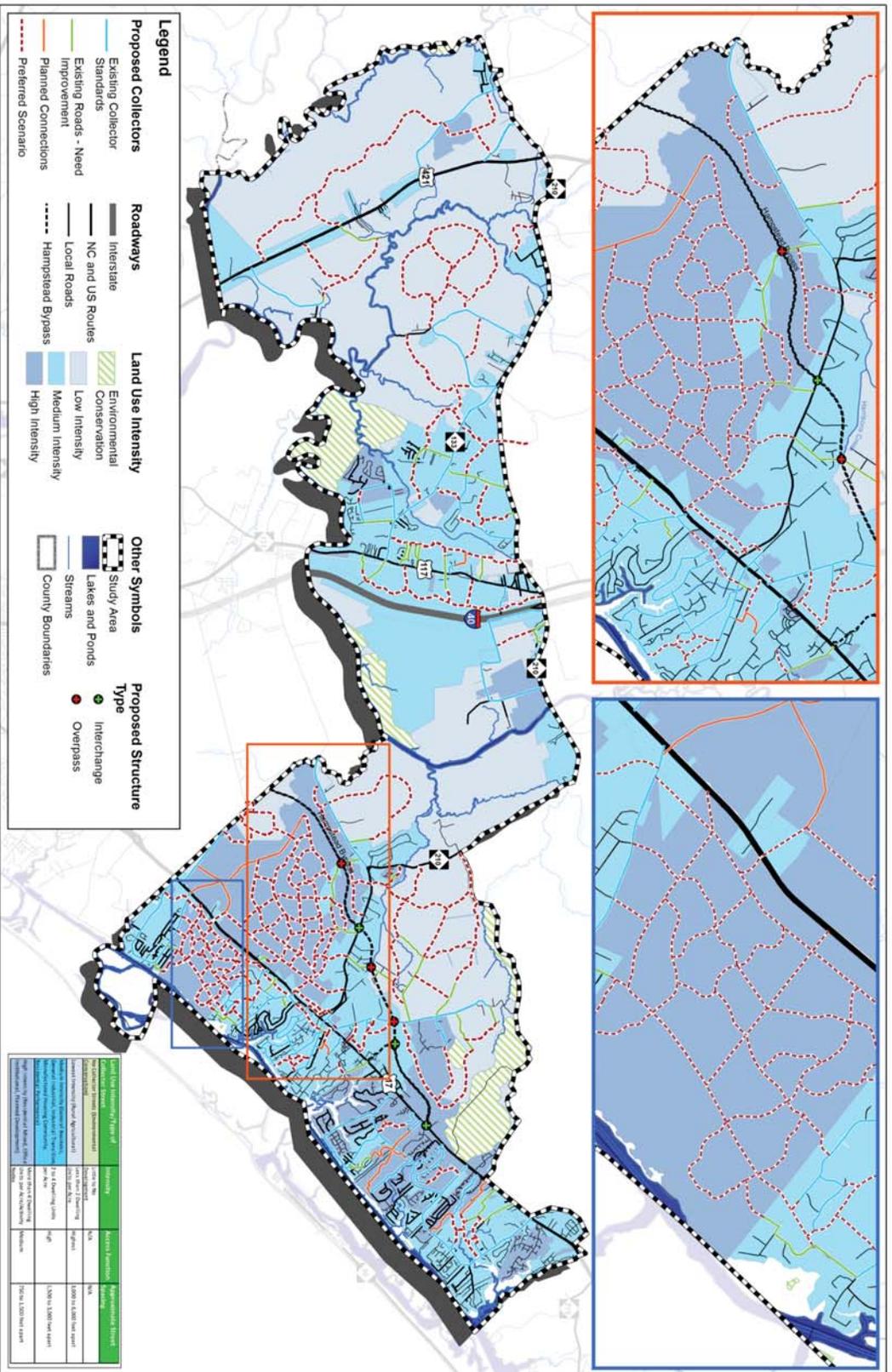


Figure 18: Preferred Collector Street Scenario

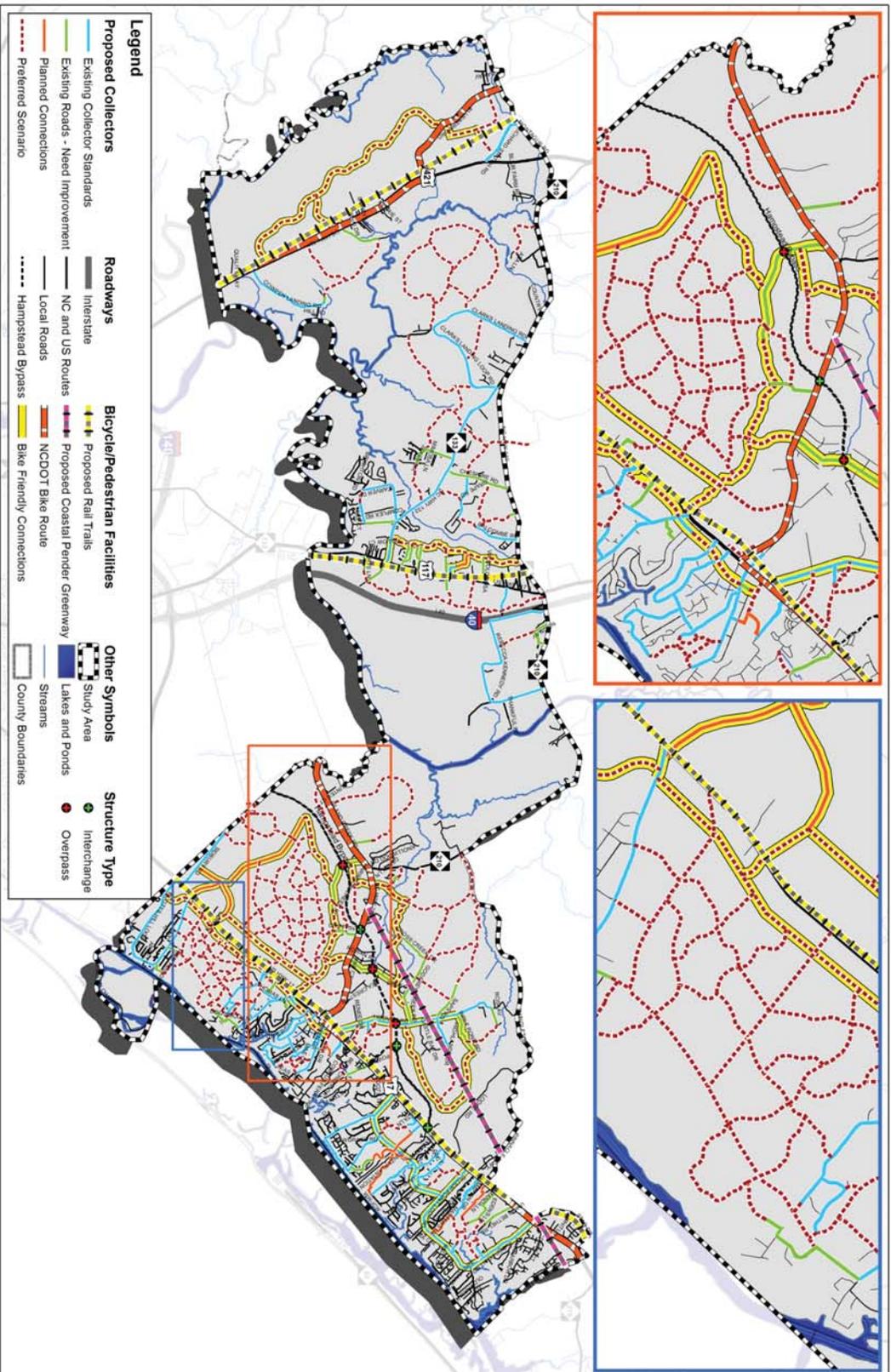


Figure 15: Proposed Pedestrian and Bicycle Facilities

## Design Requirements

### Cross-Sections

A series of cross-sections were developed as part of this plan, ranging from a rural cross-section (best suited to areas with low density development) to a neighborhood cross-section (designed to accommodate automobiles, pedestrians, and bicyclists in a more densely populated area). These cross-sections are presented in the following figures and are color-coded to the collectors identified on the map. Each color does not represent one cross-section, in fact, an array of cross-sections are presented for each category for flexibility in design, while still maintaining amenities for pedestrians and bicyclists. Each recommended cross section was designed based on the most current version of NCDOT's Complete Streets Policies. This was done to ensure that each road was built to NCDOT design standards.

### Land Use Intensity

These categories are broadly linked to development intensity, which also served as the underlying information for creating the spacing standards used to program collector streets. While land use intensity can function as a determinant for the level of amenity provided for pedestrians and bicyclists, the presence of key County destinations, including schools and parks, may also necessitate the presence of a pedestrian and/or bicycle facility, regardless of land use intensity.

### Cross-Section Categories

The following tables categorize the cross-sections developed as part of this plan. The requirements reflect the minimum cross-section allowed for each roadway designation. The cross-section may be designed to any higher level designation, but must construct collector streets to the minimum standards, in accordance with NCDOT standards and to the specifications provided in the cross-sections. To avoid confusion, a sidewalk is defined as a recommended 5' facility, a bike lane as a recommended 5' facility, and a sidepath as a recommended 10' facility. A sidepath is the equivalent of a multi-use path for the purposes of this plan.

Figure 30 is color-coded to match a cross-section category, indicating which cross-sections categories apply to which proposed collector street. This allows flexibility in determining which cross-section is most appropriate for the context, while ensuring that pedestrian and bicycle amenities are in fact constructed as part of collector streets. It is important to keep in mind that the exact design of each of these cross-sections will ultimately be determined with input from NCDOT, in accordance with the Complete Streets Manual.

**Group 1**

<p><b>Baseline</b></p>	<p>This facility will include:</p> <ul style="list-style-type: none"> <li>• two travel lanes and</li> <li>• a 2' to 4' shoulder.</li> </ul>
<p><b>Baseline with Bike Lanes</b></p>	<p>This facility will include:</p> <ul style="list-style-type: none"> <li>• two travel lanes and</li> <li>• two on-road bicycle lanes.</li> </ul>
<p><b>Baseline with Sidewalk</b></p>	<p>This facility will include:</p> <ul style="list-style-type: none"> <li>• two travel lanes and</li> <li>• a 2' to 4' shoulder and</li> <li>• sidewalks on one or two sides.</li> </ul>

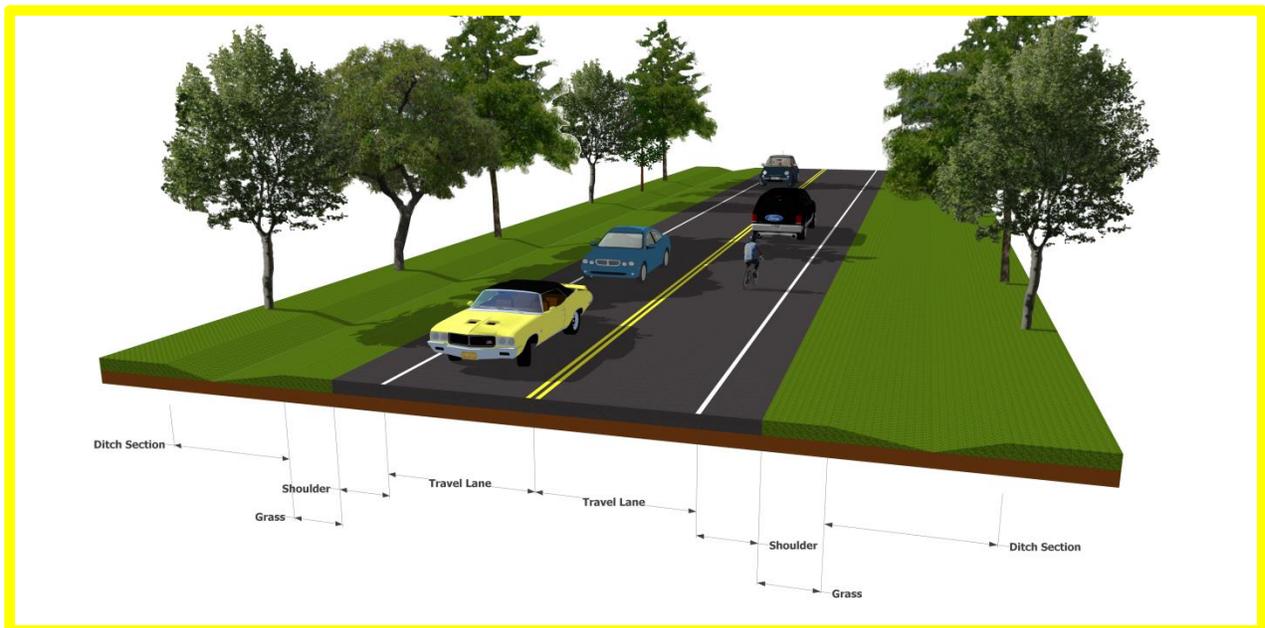


Figure 20: Baseline



Figure 161: Baseline with Bike Lanes



Figure 172: Baseline with Sidewalk (only required on one side)

**Group 2**

<p><b>Baseline with Sidewalk and Bike Lanes</b></p>	<p>This facility will include:</p> <ul style="list-style-type: none"> <li>• two travel lanes,</li> <li>• sidewalks on both sides, and</li> <li>• two on-road bicycle lanes.</li> </ul>
<p><b>Baseline with Sidepath</b></p>	<p>This facility will include:</p> <ul style="list-style-type: none"> <li>• two travel lanes and</li> <li>• one separated sidepath.</li> </ul>

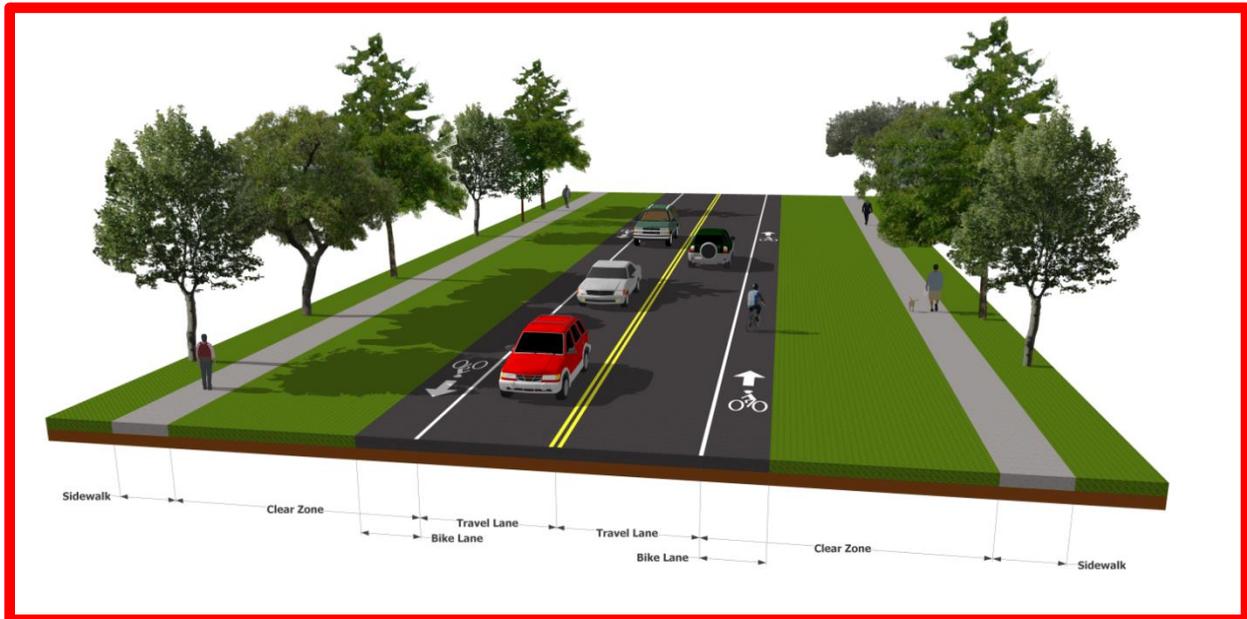


Figure 18: Baseline with Sidewalks and Bike Lanes

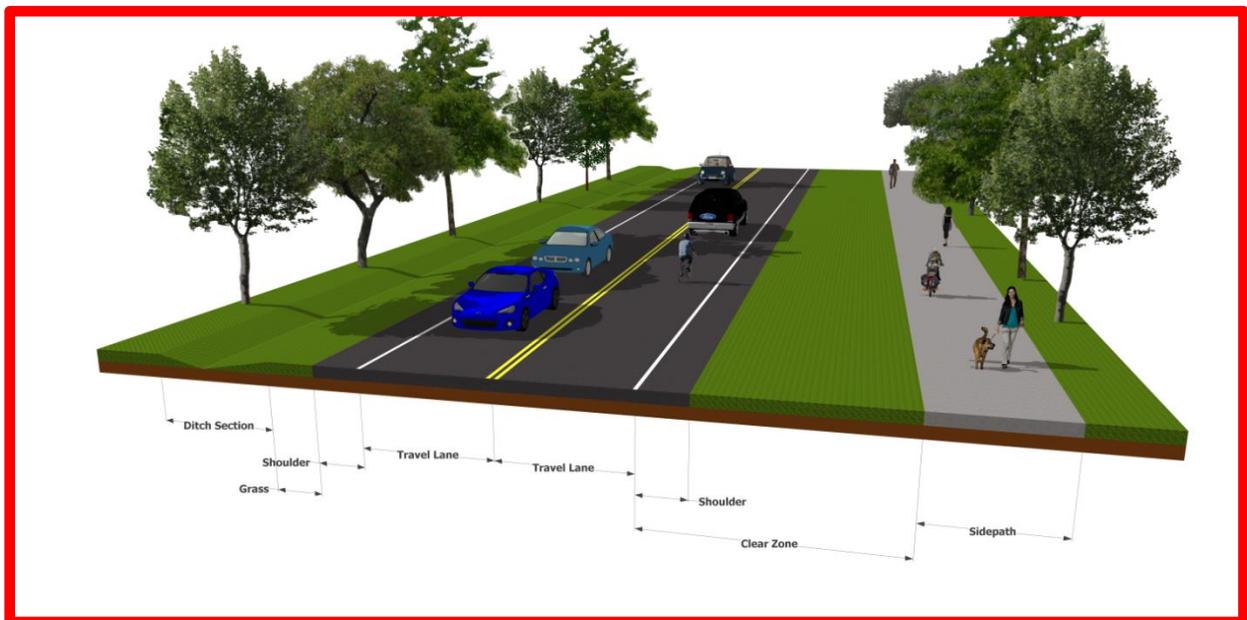


Figure 19: Baseline with Sidepath

**Group 3**

<p><b>Residential with Sidepath (one side) <u>or</u> Sidewalk (both sides)</b></p>	<p>This facility will include:</p> <ul style="list-style-type: none"> <li>• two travel lanes and</li> <li>• either a sidepath on one side <u>or</u></li> <li>• sidewalks on both sides.</li> </ul>
<p><b>Baseline with Sidepath</b></p>	<p>This facility will include:</p> <ul style="list-style-type: none"> <li>• two travel lanes and</li> <li>• one separated sidepath.</li> </ul>

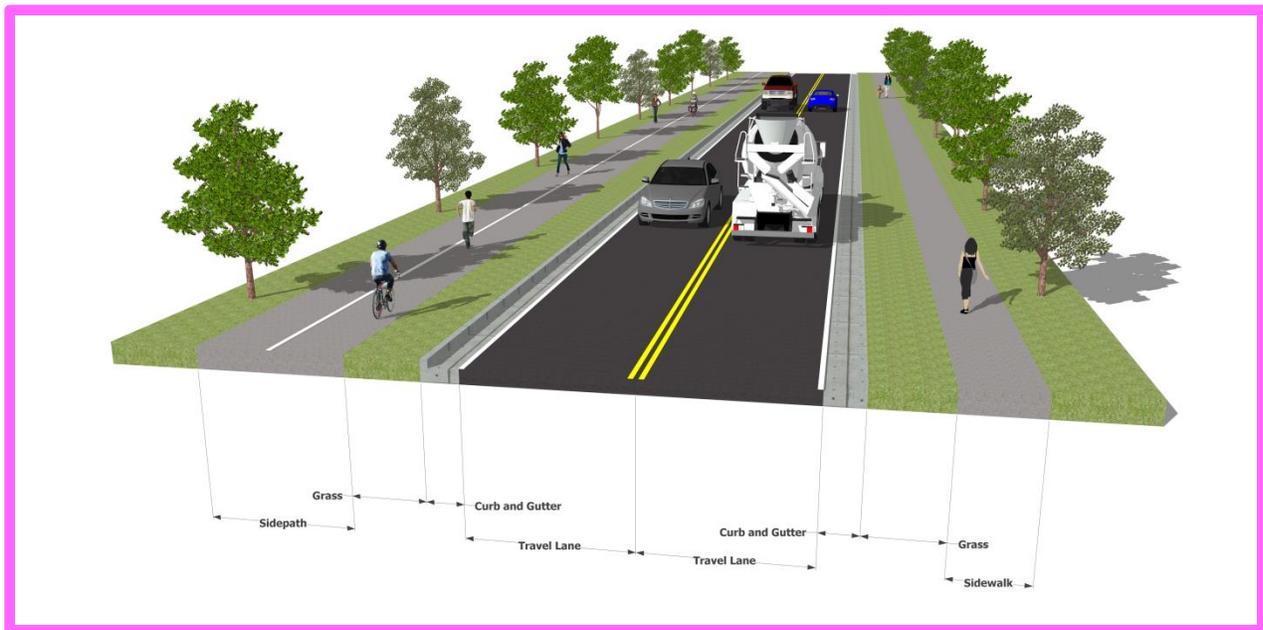


Figure 25: Residential with Sidepath (one side) or Sidewalks (both sides)

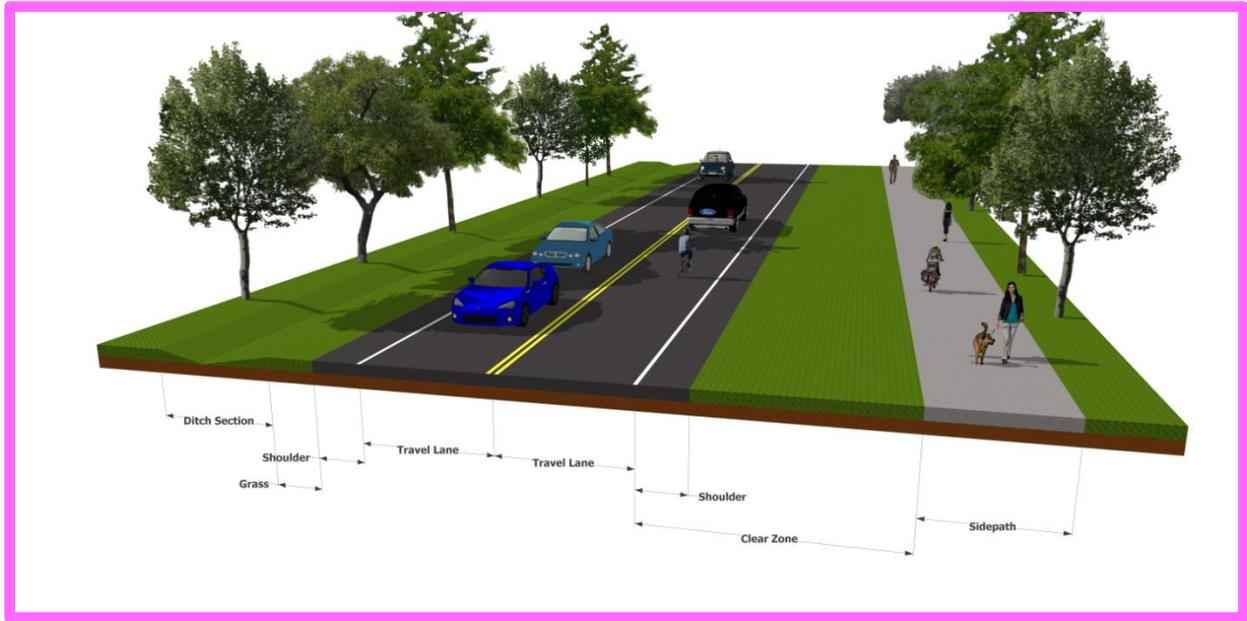


Figure 20: Baseline with Sidepath

**Group 4**

<p><b>Residential Median-Divided with Bike Lanes and Sidewalk (both sides)</b></p>	<p>This median-divided facility will include</p> <ul style="list-style-type: none"> <li>• a planted median,</li> <li>• two travel lanes,</li> <li>• two bike lanes, and</li> <li>• sidewalks on both sides.</li> </ul>
<p><b>Neighborhood with Bike Lanes and Sidewalks (both sides)</b></p>	<p>This facility will include:</p> <ul style="list-style-type: none"> <li>• two travel lanes,</li> <li>• two bike lanes, and</li> <li>• sidewalks on both sides.</li> </ul>



Figure 27 Residential Median-Divided with Bike Lanes and Sidewalks (both sides)

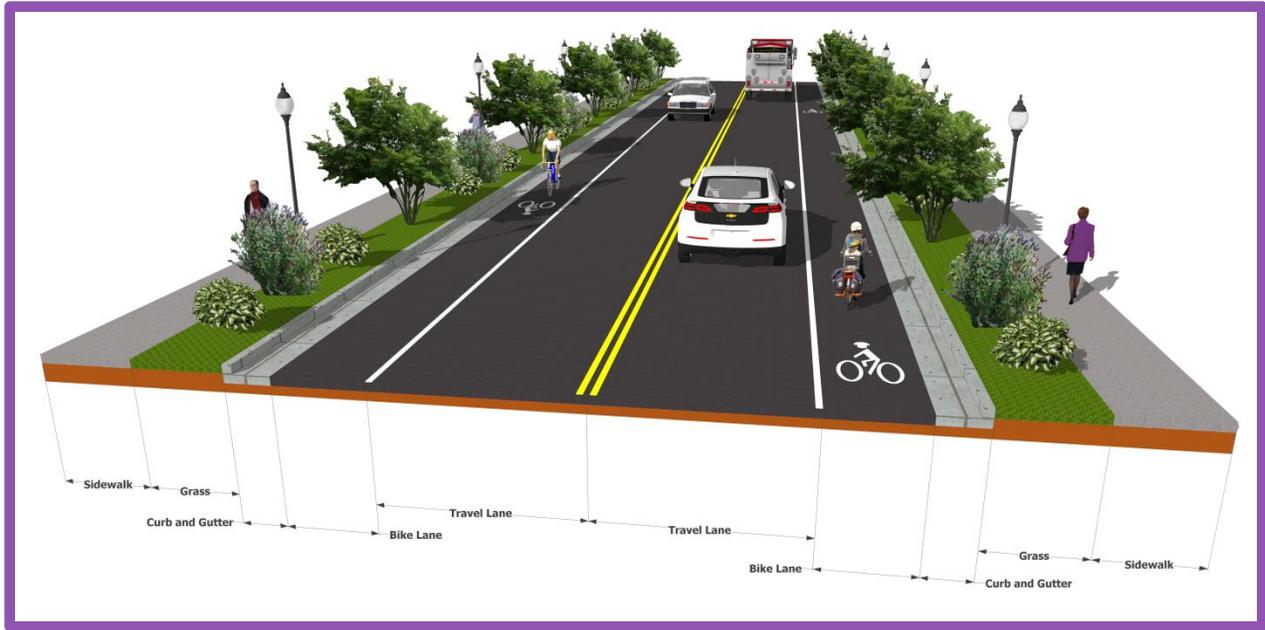
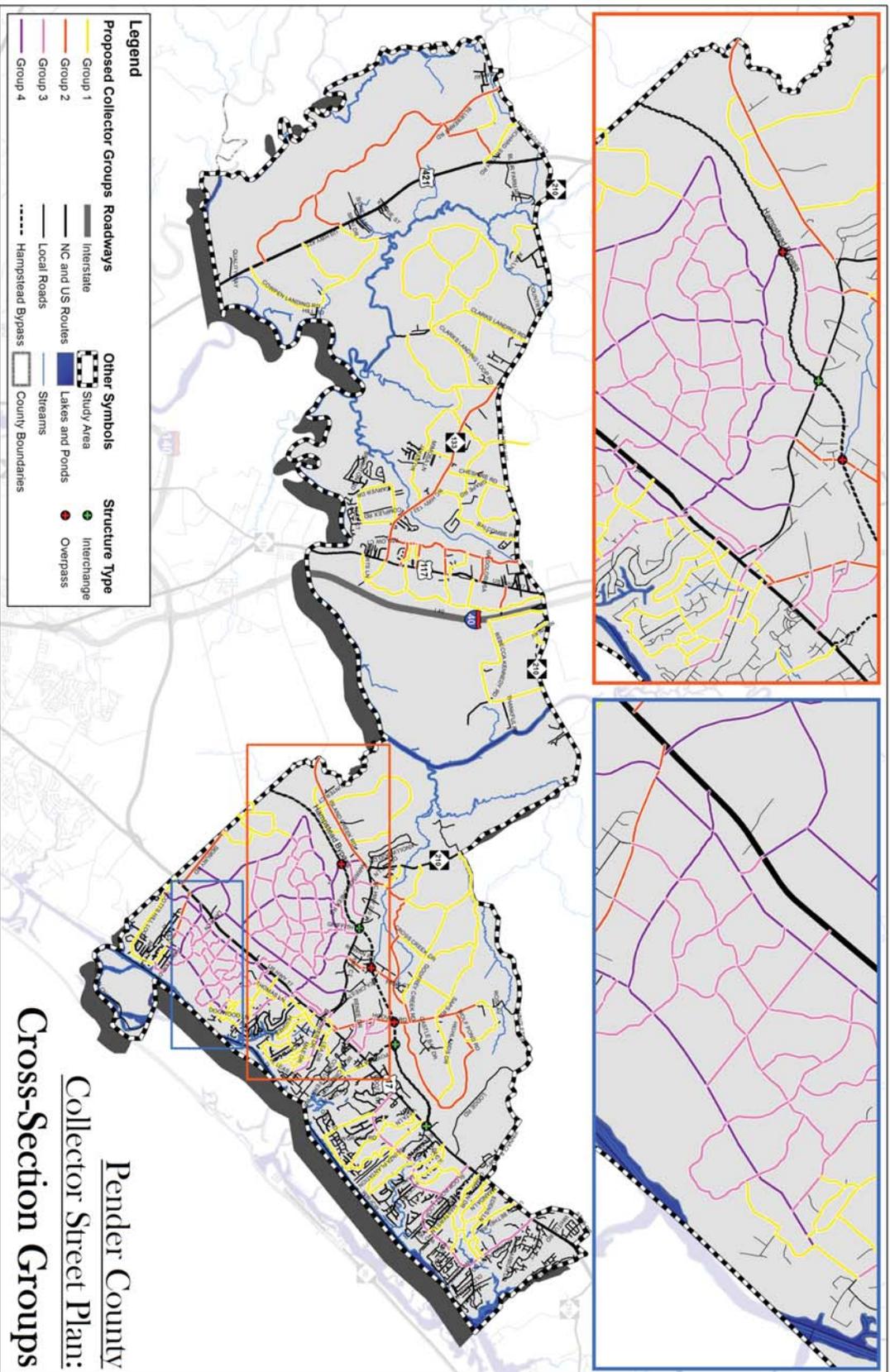


Figure 21: Neighborhood with Bike Lanes and Sidewalks (both sides)



**Pender County**  
**Collector Street Plan:**  
**Cross-Section Groups**

Figure 29: Proposed Cross-Sections

## Policy Strategies

Each of the following tables provides further information on the recommended policy measures for Pender County, as they relate to the Pender County Collector Street Plan. The policies in Table 3 through Table 8 were evaluated by the CSP Steering Committee as most important.

**Table 3: Stormwater/Green Streets Policy Requirement**

<p><b>Description/Purpose</b></p>	<p>Stormwater and Green Streets Policies can help ensure stormwater Best Management Practices (BMPs) are implemented, safeguarding precious natural resources, ensuring water quality, and preventing infrastructure maintenance issues. Both the North Carolina Department of Transportation and the North Carolina Department of Natural Resources provide guidance regarding stormwater BMPs. In Pender County, shellfish areas can be negatively affected as nutrient rich runoff from roads and other impervious surfaces enters streams, rivers, and wetlands. Safely treating stormwater runoff is important in terms of maintaining critical wildlife habitats and ensuring water quality for plant, animal, and human uses.</p>
<p><b>Target Performance Measure</b></p>	<p>Pender County will implement a community education campaign regarding the importance of stormwater mitigation; develop a stormwater management and maintenance plan; and explore the possibility of providing incentives to developers for providing stormwater BMPs which will enhance the standard level of treatment. Incentives could include reducing required widths for lanes, sidepaths, or right of way; alternative materials for bicycle and pedestrian facilities such as pervious pavements; and density credits for developments. All provisions should be developed and articulated in a Stormwater Management Plan.</p>
<p><b>Sample Language / Recommendation</b></p>	<p>Stormwater BMPS and Green Streets Policies are essential in mitigating pollution and maintaining water quality, particularly in sensitive natural areas. Pender County is home to significant natural resources, which can be negatively impacted by stormwater runoff. To avoid this type environmental degradation, stormwater BMPS are recommended to be implemented as appropriate to local conditions.</p>
<p><b>Comments</b></p>	<p>The measure ensures a rigorous implementation of stormwater BMPs and establishes a regulatory framework to require stormwater BMPs where appropriate. Providing stormwater BMPs around critical surface waters and watershed areas can help mitigate water quality issues.</p>

Table 4: Street Spacing and Access Standards

<p><b>Description/Purpose</b></p>	<p>This policy creates street spacing standards for collector streets to ensure adequate cross access between land uses.</p>
<p><b>Target Performance Measure</b></p>	<p>The benefits of establishing a maximum distance between collector streets (or any “through” street that connects with the rest of the street network) include: traffic relief on major roadways, equitable distribution of traffic, improving emergency response access / reliability, increasing bicycling / walking propensity in an area by shortening the distance between destinations and creating efficiencies for service vehicles to do their jobs in less time.</p> <p>Several of these benefits have the secondary promise of reducing mobile source pollution. When street spacing standards are established by local governments, they often vary considerably, but a reasonable balance between the costs of construction and the desire to achieve the benefits of a tighter-grained network is ¼-mile to ½-mile for collector streets. Local streets should connect to the collector streets together to form a hierarchy of streets that serve their intended uses. Regardless, it is much easier to create a street network as new development occurs rather than “retrofit” new street connections into existing neighborhoods that often feel like more connectivity introduces more problems than it solves. (reference: <i>Driveway and Street Intersection Spacing</i>, Transportation Research Circular No. 456, 1996; Levinson, Herbert, <i>Street Spacing and Scale</i>, TRB Circular E-C019: Urban Street Symposium; and various municipal codes including West Richland, WA; Fairborn, OH; and Fuquay-Varina, NC).</p>
<p><b>Sample Language / Recommendation</b></p>	<p>Any site plan or master development plan requiring the implementation of a collector street as defined by the adopted Pender County CSP or the WMPO non-federal classification shall meet minimum spacing standards as defined by the table below. If modifications or waiver to the spacing standards are warranted for any reason, they must be based on objective criteria, including:</p> <ol style="list-style-type: none"> <li>1. The modification or waiver is necessary to eliminate impacts on existing topographical constraints such as; drainage patterns, riparian areas, significant trees or vegetation, or steep slopes;</li> <li>2. An existing structure such as a substantial retaining wall makes widening a street or right-of-way or required placement of lines impractical or undesirable;</li> <li>3. Street access to an existing lot would be eliminated without the waiver or modification;</li> <li>4. Building on an existing lot could not occur without the waiver or modification;</li> </ol>

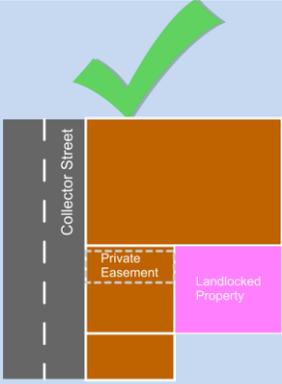
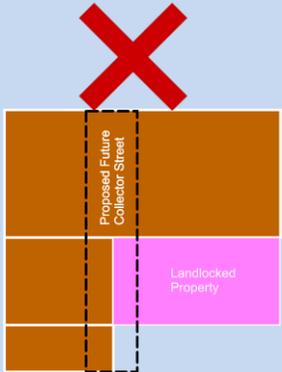
 <p>Meets Exclusion Requirements</p>  <p>Not Excluded from Requirements</p>	<p>5. .</p> <p>5. The existing infrastructure (a) does not meet current standards, (b) is and will remain functionally equivalent to current standards, and (c) there is little likelihood that current standards will be met in the area;</p> <p>6. The installation of the required improvements would likely cause unacceptable significant adverse environmental impacts and the waiver/modification would avoid such impacts;</p> <p>7. There is insufficient right-of-way to allow a full width street cross-section and additional right-of-way cannot be provided;</p> <p>8. There is no existing or proposed street or street right-of-way adjacent to the property, and street access has been obtained across private property ;</p> <p>9. Required street frontage improvements for individual single-family dwellings could best be accomplished by planned area-wide improvements at a future date.</p> <p>Maximization of the number of lots or parcels in a land division is not a reason to allow a waiver or modification.</p>																				
<p><b>Comments</b></p>	<p>Each land use type is assigned an approximate street spacing based on the density and intensity of land use development.</p>																				
<p><b>Notes</b></p>	<table border="1"> <thead> <tr> <th>Type of Collector Street (Zoning Designation)</th> <th>Intensity</th> <th>Access Function</th> <th>Approximate Street Spacing</th> </tr> </thead> <tbody> <tr> <td>No Collector Streets (Environmental Conservation)</td> <td>Little to No Development</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>Lowest Intensity (Rural Agricultural)</td> <td>Less than 2 Dwelling Units per Acre</td> <td>Highest</td> <td>3,000 to 6,000 feet apart</td> </tr> <tr> <td>Medium Intensity (General Business, General Industrial, Industrial Transition, Manufactured Housing Community, Residential Performance)</td> <td>2 to 4 Dwelling Units per Acre</td> <td>High</td> <td>1,500 to 3,000 feet apart</td> </tr> <tr> <td>High Intensity (Residential Mixed, Office Institutional, Planned Development)</td> <td>More than 4 Dwelling Units per Acre/Activity Nodes</td> <td>Medium</td> <td>750 to 1,500 feet apart</td> </tr> </tbody> </table>	Type of Collector Street (Zoning Designation)	Intensity	Access Function	Approximate Street Spacing	No Collector Streets (Environmental Conservation)	Little to No Development	N/A	N/A	Lowest Intensity (Rural Agricultural)	Less than 2 Dwelling Units per Acre	Highest	3,000 to 6,000 feet apart	Medium Intensity (General Business, General Industrial, Industrial Transition, Manufactured Housing Community, Residential Performance)	2 to 4 Dwelling Units per Acre	High	1,500 to 3,000 feet apart	High Intensity (Residential Mixed, Office Institutional, Planned Development)	More than 4 Dwelling Units per Acre/Activity Nodes	Medium	750 to 1,500 feet apart
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High Intensity (Residential Mixed, Office Institutional, Planned Development)	More than 4 Dwelling Units per Acre/Activity Nodes	Medium	750 to 1,500 feet apart																		

Table 5: Traffic Impact Analysis Requirement

<p><b>Description/Purpose</b></p>	<p>NCDOT requires that Traffic Impact Studies be conducted for developments forecast to generate 3,000 vehicle trips per day (vpd). Pender County requires a lower threshold, 100 vehicle trips during the AM or PM peak hour or 1,000 vpd. This policy ensures that the arterial system in Pender County is not unduly burdened without understanding the impacts of the proposed development impacts to the existing system.</p>
<p><b>Target Performance Measure</b></p>	<p>Require new developments forecasted to generate over 100 trips during the AM or PM Peak hour or 1,000 vpd to conduct a Traffic Impact Analysis.</p> <p>The TIA is a useful assessment tool that can have an expanded range and different levels of considerations to make it more suitable for use on collector streets. TIA reports are a critical part of the development review and approval process, as they are the primary tool for identifying the potential net effects from a development proposal. The standard “1,000” thresholds (per day) that trigger a TIA represent a significant fraction (8%-10%) of the total capacity of a collector street. A significant increase in traffic on a collector street can reduce functional integrity and public purpose. A traffic study should consider all modes of travel including cars, transit cyclists and pedestrians.</p>
<p><b>Sample Language / Recommendation</b></p>	<p>A Traffic Impact Analysis (TIA) shall be required if one of the following applies to a specific site plan:</p> <ol style="list-style-type: none"> <li>1. The development generates 1,000 vehicle trips per day or</li> <li>2. 100 vehicles in the AM or PM peak hour.</li> </ol> <p>This requirement applies to all phases of a proposed development. Other stipulations regarding internal capture, trip generation, trip distribution, and peak hour factors will be part of the basic requirements of the TIA. It is recommended to assess and quantify the cumulative impact to the roadway network and establish processes to address additional traffic created as a result of additional development.</p>
<p><b>Comments</b></p>	<p>With substantial development likely to occur in the CSP study area of Pender County in the next decades, establishing robust measures to ensure that back access is created to new developments is of paramount concern. Traffic is already heavy on US 17 and the provision of multiple developments without adequate cross-access to other roadways in the area will only worsen existing traffic issues. This measure is a requirement.</p>

Table 6: NCDOT Complete Streets Design Manual

<p><b>Description/Purpose</b></p>	<p>The NCDOT Complete Streets Design Manual provides guidance on the design and construction of streets that accommodate all users of the transportation system, including bicyclists, pedestrians, transit users, and motorists. This policy would require implementing a Complete Streets approach in new street design and construction in areas where bicycle and pedestrian amenities are programmed in the adopted Pender County Collector Street Plan.</p>
<p><b>Target Performance Measure</b></p>	<p>Proposed collector streets should be designed to Complete Streets standards to accommodate pedestrians and bicyclists when these facilities are recommended in the adopted Pender County Collector Street Plan. It is recommended that providing incentives to developers be explored for building Complete Streets in certain cases. Incentives could include reducing required widths for lanes, sidepaths, or right of way; alternative materials for bike/ped facilities such as pervious pavements; use of curb and gutter (i.e., narrow width); utilizing multiuse path on one side of street; and density credits for developments.</p>
<p><b>Sample Language / Recommendation</b></p>	<p>Proposed collector streets as defined by the Pender County Collector Street Plan (CSP) will adhere to the NCDOT Complete Streets Design Manual, including the design of multimodal facilities – i.e., proposed pedestrian and bicycle facilities must be designed and constructed to the applicable standard.</p>
<p><b>Comments</b></p>	<p>This measure is based on a stated desire from the public and other adopted plans in the County to include more pedestrian and bicycle amenities along roads in the CSP study area. Future construction of roadways (new or existing) should be constructed to the standards indicated in the NCDOT Complete Streets Design Manual and in the adopted Pender County Collector Street Plan on the collector roadways.</p>
<p><b>Notes</b></p>	<p>The information in this table is a requirement. Specific treatments must be implemented as they are programmed within the adopted Pender County Collector Street Plan.</p>

Table 7: Environmental Conservation Policy

<p><b>Description/Purpose</b></p>	<p>Extending outward from the need to create interconnected populations (streets and greenways) and a reduced footprint from water quality/quantity impacts is the desire to create interconnected ecologies. This practice is called “landscape ecology,” a subset of conservation biology which requires the consideration of how green spaces can interconnect to provide habitat for species, green space for people, and preserve the rural character that is valued in Pender County. Large, protected areas like parks and preservation zones need to be connected with “stepping stone” areas that allow the movement of wildlife and promotion of biodiversity.</p> <p>It is recommended to develop a “Greenprint” that shows areas that would be preserved based on utility (or lack thereof) to private development; linkages to large, protected areas; and biologically diverse habitat (e.g., streams, older-growth forests).</p> <p>Future developments would incorporate these green areas into their plans as part of the requirements for open space; additional space provisions could be rewarded through clustering bonuses that allow a higher intensity of development elsewhere on the site.</p>
<p><b>Target Performance Measure</b></p>	<p>Avoid sensitive natural areas to the degree possible when programming new development or reserving road right-of-way.</p>
<p><b>Sample Language / Recommendation</b></p>	<p>In order to preserve the unique natural environment in Pender County, any new development that would require the construction of collector street as defined (alignment) by the Pender County CSP, would avoid or minimize impacts to sensitive natural areas, such as wetlands, floodplains, and areas with endangered flora/fauna. Additional justification (i.e., Corps Delineation, etc.) or other additional resource may be necessary.</p>
<p><b>Comments</b></p>	<p>In some cases, development will necessarily encroach into sensitive natural areas. Avoiding these areas is strongly recommended, though it may not always be feasible or even desirable to do so.</p>

Table 8: Tri-Party Agreement

<p><b>Description/Purpose</b></p>	<p>The Tri-Party agreement is a framework for the construction and maintenance of new pedestrian and bicycle facilities along collector streets. While NCDOT would ultimately maintain the street, all maintenance and liability costs for the construction and maintenance of pedestrian and bicycle facilities would be borne by Pender County (or HOA) until the construction is complete. At that point, maintenance would be transferred to the Home Owner’s Association or other qualified party, absolving both the NCDOT and Pender County from any liability or maintenance relating to the pedestrian and bicycle amenity.</p>
<p><b>Target Performance Measure</b></p>	<p>Negotiate and implement the Tri-Party agreement with NCDOT. (See steps in Appendix F).</p> <p>Inform effected development community/Homeowner’s Associations that this agreement may be warranted for specific situations related to the implementation of bicycle or pedestrian facilities.</p>
<p><b>Sample Language / Recommendation</b></p>	<p>See Appendix F.</p>
<p><b>Comments</b></p>	<p>The Tri-Party Agreement is fundamental to constructing and maintaining pedestrian and bicycle amenities in the CSP study area. Implementing and abiding by this agreement would be a requirement in situations where bicycle and pedestrian amenities are planned to be constructed.</p>

Table 9: General Connectivity of Collector Roadways

<p><b>Description/Purpose</b></p>	<p>Connectivity requires that private entities coordinate across different properties to anticipate future, connections between adjacent properties. Providing connectivity to nearby amenities and to the arterial system is important to avoid congestion across the transportation system. This policy requires that new collector roadways be constructed to provide connections between the collector and arterials systems.</p> <p>As new development is programmed, this policy would require that collector roadways are not closed off, but are “stubbed out” to ensure that future roadway construction could tie back in to the public roadway network. Essentially, this policy stipulates that no collector street can dead end.</p>
<p><b>Target Performance Measure</b></p> <div data-bbox="191 829 516 1012" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;"><b>NOTICE</b> THIS RIGHT-OF-WAY MAY BE EXTENDED IN THE FUTURE TO OTHER DEVELOPMENT AND TO OTHER ROADWAYS. COUNTY OF PENDER</p> </div>	<p>Each new development needs to provide connections to another collector or arterial within the recommended spacing, or shall provide a signed stub-out to allow future connections as new development occurs. All practical connections must be included.</p> <p>No collector street should be discontinued without signage (i.e., Future Connection)</p>
<p><b>Sample Language / Recommendation</b></p>	<p>By definition, collector streets are not “dead-end” streets: they always connect to (1) adjacent land at a location that allows the continuation of the collector street onto the adjacent property; or (2) another collector street or another, higher-level (e.g., arterial) street.</p> <p>Furthermore, any new development or additions to existing developments such that the total number of dwelling units exceeds one hundred (100) shall be required to provide for vehicular access to at least two (2) public streets.</p> <p>However, in instances where the collector street cannot be constructed in its entirety a temporary turnaround at the end of the street.</p> <ol style="list-style-type: none"> <li>1. The temporary turnaround shall be reviewed and approved by NCDOT;</li> <li>2. Stub-outs shall be adequately signed at the time of final plat recordation, with an easement recorded to the adjacent parcel, and their existence shall be noted on all subdivision plats and deed documents;</li> <li>3. Stub-out streets will connect to adjacent properties in such a way as to ensure that stream crossings, floodplains and other barriers are avoided to create the continuation of the street or any other areas as listed in Table 4</li> </ol>
<p><b>Comments</b></p>	

	Collector streets should provide numerous points of access to the surrounding collector and arterial system. This policy would recommend that developments provide connections to ensure that Efforts should be connections are made to existing street stubs and streets rights-of-way.

Table 10: Bicycle and Pedestrian Accommodation

<b>Description/Purpose</b>	As Pender County develops, the demand for safe, comfortable bicycle and pedestrian facilities will continue to increase. This policy requires the accommodation of non-motorized users along collector streets, particularly in areas close to residential developments, schools, or parks, the network of facilities for pedestrians and bicyclists will become a high-quality amenity in the County. Beyond health and mobility related benefits, one additional advantage of accommodations for bike/pedestrians is preservation of capacity along the roadways with reduced vehicular use (active modes of transportation).
<b>Target Performance Measure</b>	Connect key destinations, including schools, parks, commercial centers, and residential developments with pedestrian and bicycle amenities.
<b>Sample Language / Recommendation</b>	<p>All proposed collector streets, as defined by the Pender County CSP, shall have accommodations for bidirectional bicycle or pedestrian facilities.</p> <p>In the case of Group 1 collector streets, requirements for bicycle or pedestrian accommodations will be made in accordance with existing planning documents. Other bicycle and pedestrian accommodations will be considered if afforded by existing planning documents.</p>
<b>Comments</b>	The inclusion of sidewalks/pedestrian paths/bikeways on all collector streets should be viewed as a required minimum standard.

Table 11: Reduced Paper Streets

<p><b>Description/Purpose</b></p>	<p>A paper street is a “street shown on a recorded plan but never built on the ground” (Shapiro v. Burton, 23 Mass. App. Ct. 327, 328, 1987). These anticipated roads are shown in planning documents or on plats currently on record.</p> <p>This policy requires that platted right of way becomes built to NCDOT standards to ensure connectivity is implemented.</p>
<p><b>Target Performance Measure</b></p>	<p>Minimize the number of new paper streets and mileage.</p> <p>Encourage the construction of paper streets to the greatest extent possible; reduce the number and extent of paper streets.</p>
<p><b>Sample Language / Recommendation</b></p>	<p>All platted site plans must honor paper streets, reserving right-of-way and ensuring that streets can be constructed to NCDOT standards. Paper streets must be preserved until such time as they are constructed.</p>
<p><b>Comments</b></p>	<p>Proper ROW preservation/width is needed to ensure implementation of an adequate street system with the appropriate non-motorized facilities.</p>

### Island Creek Road and NC-210

The intersection of Island Creek road and NC-210 poses a serious safety issue for motorists. Between January 1, 2011 and December 31, 2013, a total of 11 crashes occurred in the direct vicinity of this intersection. Five of the crashes correspond to the “angle” crash type, while four are defined as “rear end, slow or stop” type crashes. One “fixed object” and one “overturn/rollover” crash also occurred at



Figure 22: Proposed Infrastructure Changes

this location. In order to mitigate the crash issue at this location, the proposal is to modify the existing intersection and alignment as needed and potentially; close the cut-through to through traffic, essentially creating a cul-de-sac at this location, and adding a full signal only if warranted at the intersection of what is now Island Creek Road and Dallie Futch Road. In effect, NC -210 would continue onto Island Creek Road before turning right onto Dallie Futch Road before rejoining current NC-210 north of the cut-through. Figure 31 provides more information.

### Funding

Collector streets are likely to be funded through a variety of sources. The development community may aid in constructing these facilities, while Pender County, the WMPO, and NCDOT may also have a hand in creating new collector streets. What is

certain is that finding alternative funding sources will help Pender County and its residents realize this plan quickly and begin to see the results of a more robust collector street network. A few likely funding sources are detailed as potential revenue sources.

### Transportation Bonds

Local roadways are often not particularly high on NCDOT Division priority lists, especially in this new era of SPOT funding. With this in mind, strategic bond measures can prove instrumental in helping gather funds to construct needed local facilities. Pedestrian and bicycle facilities, in particular, may be good

candidates for local funding sources, though voters have approved bond measures for larger road construction in other communities, both large and small.

### ***Impact Fees***

Impact fees are another way that local governments can pay for needed infrastructure. Often used for water or wastewater service, police and fire protection, and schools, impact fees can also be levied to provide funding for new infrastructure. These fees place the burden on developers and remove the burden from local taxpayers, who are often forced to pay for sometimes expensive new public services that may not directly benefit them. While levying impact fees requires approval from the North Carolina General Assembly and is not a typical funding mechanism, these fees are something that Pender County could consider.

### ***TIGER Grants***

Short for Transportation Investment Generating Economic Recovery (TIGER), these grants provide discretionary funding for projects (rail, road, port, and transit) that will have a significant impact on the Nation, a metropolitan area, or a region. Now in the 8<sup>th</sup> round of grants, this could be a funding mechanism to fund a marquee project in the CSP study area.

### ***Private Grants***

Foundations and other private organizations will often provide infrastructure grants to communities. Depending on the specific grant, private money may be available, particularly to support the construction of pedestrian and bicycle facilities.

### ***FAST Act Funding***

The new Fixing America's Surface Transportation (FAST) Act could be another important funding source for Pender County. This five-year, \$305 billion transportation bill provides substantial funding for roads and bridges, public transportation, highway and motor vehicle safety, truck and bus safety, hazardous materials, railroads, and other provisions. Depending on the State of North Carolina chooses to allocate this funding, some may be available to counties to help construct important infrastructure projects.

Ultimately, it is our assumption that many of the collector streets in Pender County will be constructed by the development community and that the funding sources mentioned above can support collector street construction, but will likely not be primary sources of funding.

**Action Plan**

The following steps constitute important actions that can be undertaken to implement the recommendations of this Pender County Collector Street Plan. While other funding sources may become available, these actions present a clear way forward with the ultimate goal of achieving plan implementation within a reasonable timeframe.

<b>Action</b>	<b>Responsible Party</b>	<b>Timing</b>
<b>Adopt Pender County Collector Street Plan</b>	Pender County Commissioners	<i>Spring 2016</i>
<b>Research and Apply for FAST Transportation Funding (in coordination with the WMPO)</b>	WMPO, Pender County Planning and Community Development Department	<i>Ongoing</i>
<b>Pursue Funding to Implement Collector Street Recommendations (local, state, private)</b>	Pender County Planning and Community Development Department	<i>Ongoing</i>
<b>Pursue Grants, including TIGER and SRTS, to implement marquee projects, pedestrian and bicycle facilities</b>	WMPO, Pender County Planning and Community Development Department	<i>Ongoing</i>
<b>Adopt Policy Measures into County Ordinances</b>	Pender County Planning and Community Development Department	<i>Fall 2016</i>
<b>Develop Bicycle and Pedestrian Plan to Reflect Collector Street Plan Recommendations</b>	WMPO, Pender County Planning and Community Development Department	<i>2018-2020</i>

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# Pender County Collector Street Plan

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION  
TRANSPORTATION ADVISORY COMMITTEE**

**RESOLUTION ADOPTING THE 2016 PENDER COUNTY COLLECTOR STREET PLAN**

**WHEREAS**, the Wilmington Urban Area Metropolitan Planning Organization provides transportation planning services for the City of Wilmington, Town of Carolina Beach, Town of Kure Beach, Town of Wrightsville Beach, Town of Belville, Town of Leland, Town of Navassa, New Hanover County, Brunswick County, Pender County, Cape Fear Public Transportation Authority and the North Carolina Board of Transportation; and

**WHEREAS**, the Wilmington Urban Area MPO along with Pender County collaboratively began the Pender County Collector Street Plan in July 2015 in an effort to increase connectivity in Pender County through identifying needed improvements and future connections in the collector street network; and

**WHEREAS**, the plan involved an existing conditions inventory which reviewed crashes and safety issues on the existing transportation network, existing and projected conditions of traffic congestion, land use, zoning and environmental considerations in the study area, and jurisdictional codes and policies related to the future development of the street network; and

**WHEREAS**, the plan included public outreach efforts to include focus groups, participation in community events, a project website, a project survey, and public workshops; and

**WHEREAS**, the Pender County Collector Street Plan will be used to guide the future development of the collector street network in the study area; and

**WHEREAS**, the Pender County Board of Commissioners adopted the Pender County Collector Street Plan on March 21, 2016.

**NOW THEREFORE**, be it resolved that the Wilmington Urban Area Metropolitan Planning Organization's Transportation Advisory Committee hereby adopts the Pender County Collector Street Plan.

**ADOPTED** at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization Transportation Advisory Committee on March 30, 2016.

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Gary Doetsch, Chair  
Transportation Advisory Committee

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Mike Kozlosky, Secretary

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION  
TRANSPORTATION ADVISORY COMMITTEE**

**RESOLUTION SUPPORTING THE IMPROVEMENTS TO THE CONTAINER FACILITY AT  
THE PORT OF WILMINGTON**

**WHEREAS**, the Wilmington Urban Area Metropolitan Planning Organization provides transportation planning services for the City of Wilmington, Town of Carolina Beach, Town of Kure Beach, Town of Wrightsville Beach, Town of Belville, Town of Leland, Town of Navassa, New Hanover County, Brunswick County, Pender County, Cape Fear Public Transportation Authority and the North Carolina Board of Transportation; and

**WHEREAS**, the North Carolina State Ports Authority owns and operates an ocean port terminal in Wilmington, North Carolina in New Hanover County and the operation of such a terminal is a tremendous catalyst for economic growth and development throughout North Carolina, and particularly in eastern North Carolina; and

**WHEREAS**, the North Carolina State Ports Authority's contributed more than \$14 billion in annual economic contribution to the state's economy constituted by goods moving through the port facilities and supported 76,700 full-time jobs at North Carolina businesses; and

**WHEREAS**, in order to service existing container customers and accommodate growing container volumes at the Port of Wilmington, improvements to the container facility will be required to accommodate the forecasted container volumes; and

**WHEREAS**, the North Carolina State Ports Authority, in coordination with the North Carolina Department of Transportation, is preparing a grant application for the United States Department of Transportation's Transportation Investment Generating Economic Recovery (TIGER) program for Fiscal Year 2016 to fund the modernization of the container berth complex at the Port of Wilmington.

**NOW THEREFORE**, be it resolved the Wilmington Urban Area Metropolitan Planning Organization Transportation Advisory Committee hereby supports the modernization of the container berth complex at the Port of Wilmington.

**ADOPTED** at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization Transportation Advisory Committee on March 30, 2016.

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Gary Doetsch, Chair  
Transportation Advisory Committee

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Mike Kozlosky, Secretary

## Q1 What practices are really working well, organizational competencies and effective processes?

Answered: 26 Skipped: 8

#	Responses	Date
1	WMPO attends WAVE meetings.	2/26/2016 11:29 AM
2	Longer-term planning	2/23/2016 11:22 PM
3	Collaboration of NCDOT and planning	2/22/2016 9:52 AM
4	The monthly meetings are very informative. The process of the meetings and the fact that they start on time and finish on time is good.	2/22/2016 9:18 AM
5	Committee agendas and action toward meeting goals	2/21/2016 12:45 PM
6	Regular committee meetings	2/21/2016 5:02 AM
7	Procedures that treat each member fairly. Availability of staff. Follow through of staff. Thoroughness of preparation before meetings.	2/19/2016 5:08 PM
8	Housing MPO in Wilmington's Administrative offices is convenient for staff and contractors.	2/19/2016 11:38 AM
9	Consistency in meeting scheduling and the availability of staff to provide technical assistance on short notice.	2/19/2016 10:52 AM
10	relationship between TAC and CAC are working well. CAC inclusiveness in presenting 25-year plan to TAC works well.	2/15/2016 2:35 PM
11	I think everything is working well.	2/13/2016 3:19 PM
12	Monthly meetings, community outreach for public comment, cooperation with local agencies	2/10/2016 12:12 PM
13	Community engagement seems to work well. Sharing of data, specifically geographic data regarding projects (wish lists, planned, funded, etc) does not work well; technology is under utilized.	2/9/2016 11:20 AM
14	Trying to bring all groups to the table, creating interest and buy-in for the planning process and outcome.	2/5/2016 12:33 PM
15	The team is bright and competent and focused on the areas of their responsibility.	2/2/2016 1:56 PM
16	I've never heard of the WMPO until I received this survey. I don't know anyone with knowledge of this group. I cannot help you. I'm sorry.	2/1/2016 6:10 PM
17	bike-ped planning.	2/1/2016 12:22 PM
18	New member orientation; meeting announcements, meeting agendas, meeting operations, meeting minutes.	2/1/2016 12:01 PM
19	General structure seems to work well with TCC/TAC, Bike-Ped Committee, etc. Staff (at least senior staff) appears knowledgeable and professional. Opportunity for public officials to interact with NCDOT is valuable.	2/1/2016 11:52 AM
20	The TIA scoping process on new residential and commercial development proposals.	2/1/2016 9:08 AM
21	Collaboration with other organizations and staff support of boards and committees	1/31/2016 10:13 PM
22	Identifying projects needed.	1/31/2016 4:59 PM
23	comprehensive, multi-jurisdictional is the proper approach	1/30/2016 2:35 PM
24	Inclusiveness: i.e making all organizations feel as if they are included in the groups decisions	1/30/2016 12:31 PM
25	My experience with the WMPO is with the Bike/Ped Committee. It is working well and is effective.	1/30/2016 2:48 AM
26	Inter-agency cooperation	1/29/2016 2:48 PM

## Q2 Knowledge gaps, inefficient procedures, lack of value, synergy?

Answered: 21 Skipped: 13

#	Responses	Date
1	Coordination with WAVE	2/23/2016 11:22 PM
2	Question why so many layers of drawing up of plans and incorporate of building desired structures are standard. In the business world we are constantly challenged to take out steps/ layers.	2/22/2016 9:52 AM
3	The overall mission of the WMPO is not clear to me personally. After this survey I will dig deeper and attempt to get a better understanding of the charge of the WMPO. Would it be possible to meet in a larger room/facility. There have been several, almost all meetings, which are very crowded with attendees sitting almost on top of each other.	2/22/2016 9:18 AM
4	Elected officials goals vs citizen concerns	2/21/2016 12:45 PM
5	None	2/21/2016 5:02 AM
6	Need to create a consistency in the criteria used for awarding STP-DA and TAP-DA fundings. Should "studies" quality?	2/19/2016 5:08 PM
7	Additional coordination with DOT on maintenance of DOT right-of-way and tree removal in the ROW would be helpful.	2/19/2016 11:38 AM
8	Commercial site plan reviews lack detail. Little input provided at the meetings held every 2 weeks with local governments and NCDOT. Updates in project status are not made.	2/19/2016 10:52 AM
9	catch-up period for newly elected officials necessary but is detrimental to TAC	2/15/2016 2:35 PM
10	I can think of none at this time.	2/13/2016 3:19 PM
11	Need for additional staff, Provide training for Board members	2/10/2016 12:12 PM
12	Gaps are present in data management, dissemination and document management.	2/9/2016 11:20 AM
13	n/a	2/5/2016 12:33 PM
14	New member-have observed none at this time.	2/1/2016 12:01 PM
15	Project DA funding criteria, management, and assistance needs further improvement, despite strides already made.	2/1/2016 11:52 AM
16	At times under the scoping review process, two significant projects close to proximity to each other carry challenges to staff on how to communicate and coordinate potential off-site road improvements to an already existing road infrastructure.	2/1/2016 9:08 AM
17	Public information could be stronger	1/31/2016 10:13 PM
18	coordination w/ NC DOT at higher levels or at greater time horizons	1/30/2016 2:35 PM
19	thorough understanding of the State's discretionary funding of projects	1/30/2016 12:31 PM
20	None I know of	1/30/2016 2:48 AM
21	Keep public better informed of plans and practices	1/29/2016 2:48 PM

### Q3 Untapped resources, positive changes in external environment?

Answered: 19 Skipped: 15

#	Responses	Date
1	Relationships with NCDOT staff are better and productive	2/23/2016 11:22 PM
2	Believe positive changes are being recognized, however unaware of untapped resources - what they are and how we can work those.	2/22/2016 9:52 AM
3	Bring in a member of the City Council to speak to the group about what they expect to garner from the groups work.	2/22/2016 9:18 AM
4	Greater citizen input with impact on elected reps	2/21/2016 12:45 PM
5	Involvement by marine sector transportation	2/21/2016 5:02 AM
6	Use of social media to inform on a regular basis the important projects on which the WMPO TAC is working.	2/19/2016 5:08 PM
7	We need to get another bridge or widen an existing bridge over the Cape Fear ASAP.	2/19/2016 11:38 AM
8	---	2/19/2016 10:52 AM
9	NCDOT various traffic analysis functions	2/15/2016 2:35 PM
10	None	2/13/2016 3:19 PM
11	Making community aware of what organization does	2/10/2016 12:12 PM
12	Technology is under utilized and the information flow between participating jurisdictions appears minimal. The WMPO needs to build better, more active relationships with the member jurisdictions and take ownership of the data required to perform its duties.	2/9/2016 11:20 AM
13	The construction of the cross city trail is such an asset to our area and neighborhoods	2/5/2016 12:33 PM
14	New member-have observed none at this time.	2/1/2016 12:01 PM
15	NA	2/1/2016 11:52 AM
16	Would suggest tapping congestion management in Raleigh more frequently on projects noted above.	2/1/2016 9:08 AM
17	New energy sources such as "Fracking" and off-shore energy production should add additional dollars to building better roads instead of "lining" private companies pockets	1/30/2016 12:31 PM
18	The Bike / Ped Committee has improved steadily over the past 10 years in which I have been participating	1/30/2016 2:48 AM
19	More ties with local industry - public/privet oppertunities	1/29/2016 2:48 PM

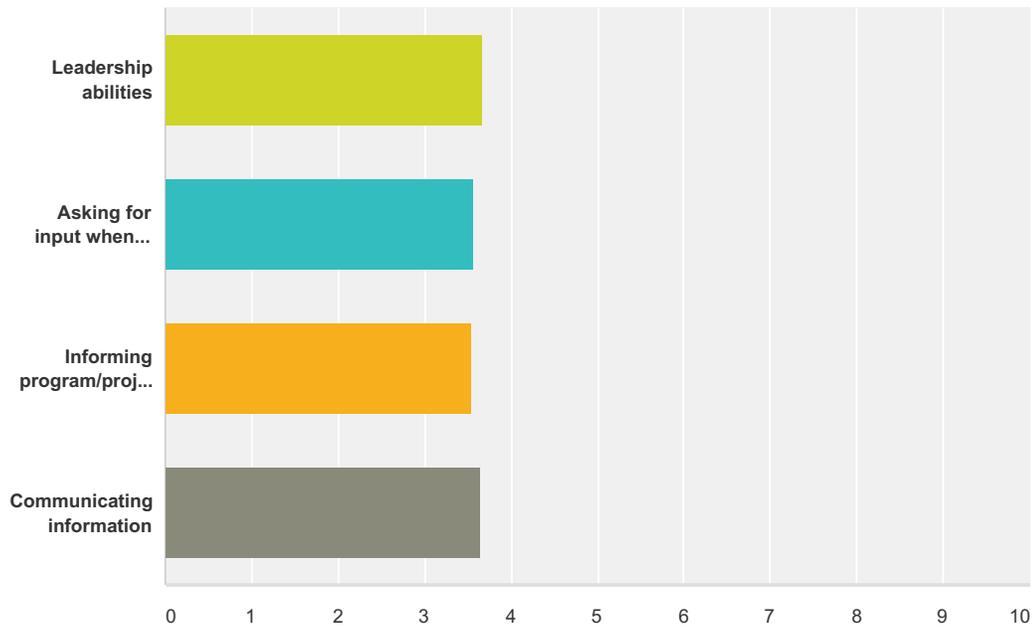
## Q4 Potential changes, threatened resources, unwise practices?

Answered: 20 Skipped: 14

#	Responses	Date
1	Being too Wilmington centric	2/23/2016 11:22 PM
2	not clear on changes currently on table - these may be sent via email but highlighted affects not discussed.	2/22/2016 9:52 AM
3	None that I can note.	2/22/2016 9:18 AM
4	Added resources for infrastructure and improved allocation system	2/21/2016 12:45 PM
5	Political environment, elections, redrawing districts, lack of broader alliances, no apparent involvement by environmental sector	2/21/2016 5:02 AM
6	Attempt to email TAC meeting package at least one day earlier so members have a week to prepare for the meeting.	2/19/2016 5:08 PM
7	The MPO needs to be very careful to equally advocate for all members, not just the City of Wilmington.	2/19/2016 10:52 AM
8	radical change in population growth. Are we correctly recognizing and planing for these changes?	2/15/2016 2:35 PM
9	None.	2/13/2016 3:19 PM
10	Ensure tax dollars are spent wisely	2/10/2016 12:12 PM
11	Maintain a current, working website, build datasets to improve decision making and use technology to share information. Good data management practices enable discovery, sharing and reuse of data, and reduce redundancy. Managing data in personal files and spreadsheets is unwise.	2/9/2016 11:20 AM
12	Lack of monitoring...creates the opportunity for vandalism, misuse, and illegal activity.	2/5/2016 12:33 PM
13	Better coordination with developers to ensure non-motorized infrastructure is to be included in TIA enhancements.	2/1/2016 12:22 PM
14	New member-have observed none at this time.	2/1/2016 12:01 PM
15	NA	2/1/2016 11:52 AM
16	None	2/1/2016 9:08 AM
17	future lifestyles changes likely mean greater density in pocket development, planning should be flexible and anticipate such changes	1/30/2016 2:35 PM
18	(changes) More Toll roads; (threatened resource) Idyllic Country living; (practices) movement to involve counties in Road maintenance..	1/30/2016 12:31 PM
19	None I know of	1/30/2016 2:48 AM
20	Protect loss of rail right-of-way	1/29/2016 2:48 PM

### Q5 How would you grade the WMPO's management on:

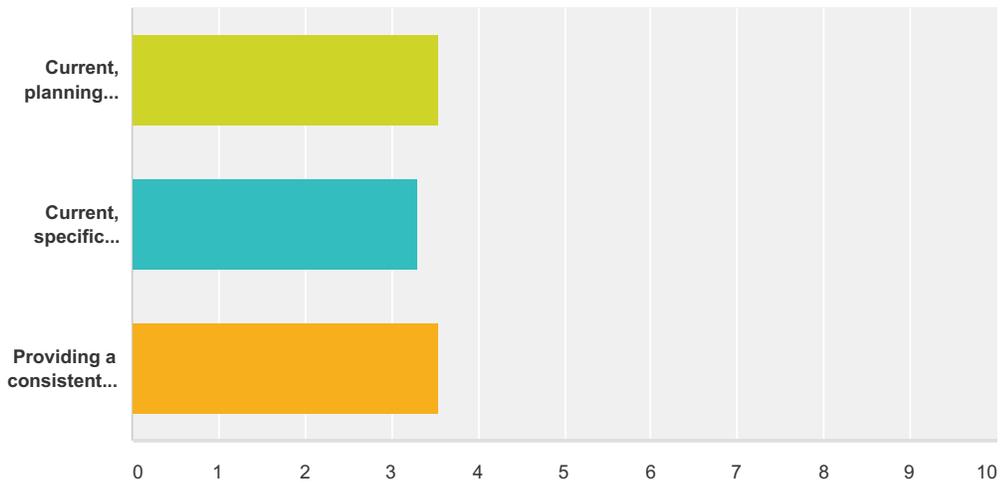
Answered: 31 Skipped: 3



	Has exceeded my expectations (outstanding)	Has consistent performance and is above my minimum expectations/standards	... met my minimum expectations	Is doing some, but did not meet my minimum expectations/standards	Is doing little to nothing in this category	N/A	Total	Weighted Average
Leadership abilities	6.45% 2	67.74% 21	16.13% 5	6.45% 2	3.23% 1	0.00% 0	31	3.68
Asking for input when making impacting decisions	16.13% 5	45.16% 14	25.81% 8	6.45% 2	6.45% 2	0.00% 0	31	3.58
Informing program/project changes	9.68% 3	51.61% 16	25.81% 8	9.68% 3	3.23% 1	0.00% 0	31	3.55
Communicating information	16.13% 5	54.84% 17	12.90% 4	9.68% 3	6.45% 2	0.00% 0	31	3.65

### Q6 How would you grade the WMPO's communication efforts related to:

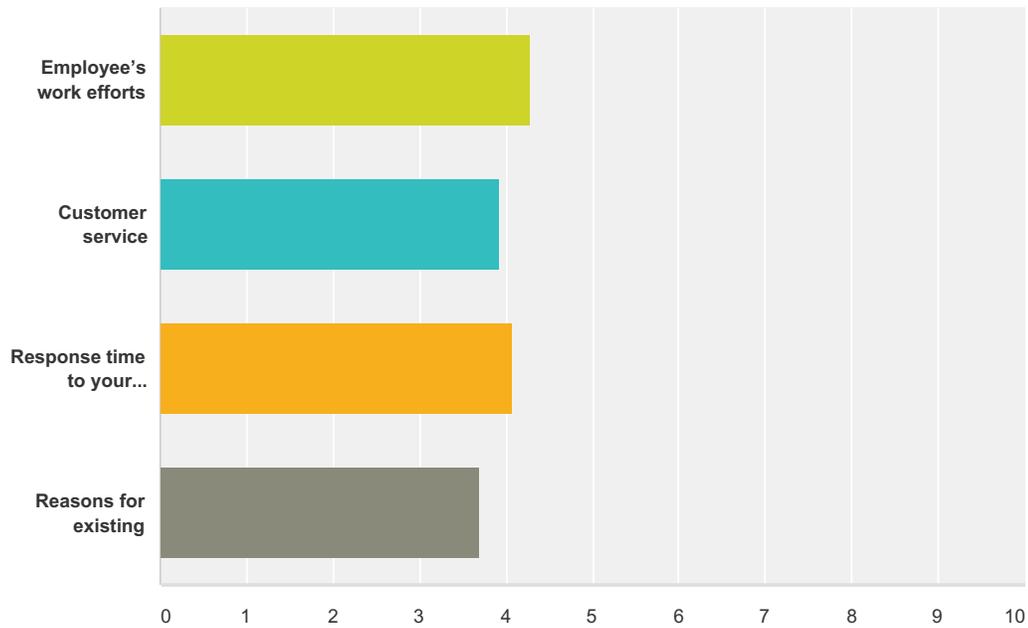
Answered: 31 Skipped: 3



	Has exceeded my expectations (outstanding)	Has consistent performance and is above my minimum expectations/standards	... met my minimum expectations	Is doing some, but did not meet my minimum expectations/standards	Is doing little to nothing in this category	N/A	Total	Weighted Average
Current, planning regional-wide issues	9.68% 3	54.84% 17	19.35% 6	12.90% 4	3.23% 1	0.00% 0	31	3.55
Current, specific jurisdiction issues	6.45% 2	32.26% 10	35.48% 11	12.90% 4	3.23% 1	9.68% 3	31	3.29
Providing a consistent message	16.13% 5	41.94% 13	22.58% 7	19.35% 6	0.00% 0	0.00% 0	31	3.55

### Q7 How would you grade your perception of the WMPO:

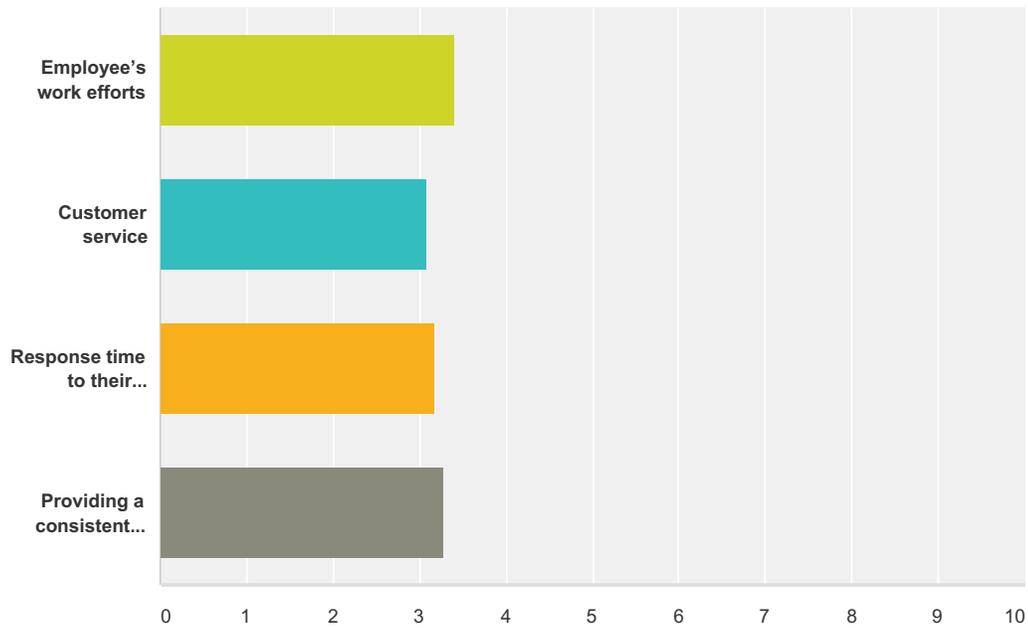
Answered: 30 Skipped: 4



	Has exceeded my expectations (outstanding)	Has consistent performance and is above my minimum expectations/standards	... met my minimum expectations	Is doing some, but did not meet my minimum expectations/standards	Is doing little to nothing in this category	N/A	Total	Weighted Average
Employee's work efforts	40.00% 12	50.00% 15	6.67% 2	3.33% 1	0.00% 0	0.00% 0	30	4.27
Customer service	23.33% 7	43.33% 13	23.33% 7	3.33% 1	0.00% 0	6.67% 2	30	3.93
Response time to your concerns	33.33% 10	30.00% 9	13.33% 4	6.67% 2	0.00% 0	16.67% 5	30	4.08
Reasons for existing	23.33% 7	40.00% 12	20.00% 6	16.67% 5	0.00% 0	0.00% 0	30	3.70

### Q8 How would you grade the publics' perception of the WMPO:

Answered: 31 Skipped: 3



	Has exceeded my expectations (outstanding)	Has consistent performance and is above my minimum expectations/standards	... met my minimum expectations	Is doing some, but did not meet my minimum expectations/standards	Is doing little to nothing in this category	N/A	Total	Weighted Average
Employee's work efforts	12.90% 4	25.81% 8	29.03% 9	6.45% 2	6.45% 2	19.35% 6	31	3.40
Customer service	6.45% 2	25.81% 8	29.03% 9	6.45% 2	12.90% 4	19.35% 6	31	3.08
Response time to their concerns	3.23% 1	29.03% 9	25.81% 8	9.68% 3	6.45% 2	25.81% 8	31	3.17
Providing a consistent message	6.45% 2	35.48% 11	22.58% 7	6.45% 2	9.68% 3	19.35% 6	31	3.28

## Q9 How would you rate the level of “on-the-job” knowledge from WMPO staff?

Answered: 26 Skipped: 8

#	Responses	Date
1	WMPO representative and 2 "trainees" attend WAVE mtgs and very knowledgeable and expanding their participation.	2/26/2016 11:33 AM
2	Excellent and the next hires will also become excellent part of the team.	2/23/2016 11:26 PM
3	Above average	2/22/2016 9:57 AM
4	They seem very knowledgeable.	2/22/2016 9:25 AM
5	They are aware of regulatory specifics	2/21/2016 12:52 PM
6	Excellent	2/21/2016 5:05 AM
7	On a scale of 1-10 with 1 being the highest rate, I would rate the staff's knowledge between an 8 and a 10 depending on the individual.	2/19/2016 5:12 PM
8	The "seasoned" part of the staff have a high level of on-the-job knowledge. The others appear to be learning the ropes and are eager to get the answers.	2/19/2016 10:56 AM
9	Staff (not TAC) is very knowledgeable and passionate about their job. They are engaged and involved. Easy to work with.	2/19/2016 10:53 AM
10	superior	2/15/2016 2:38 PM
11	Excellent, well above expectations.	2/13/2016 3:22 PM
12	Staff members are very knowledgeable.	2/10/2016 12:14 PM
13	Staff I have interacted seem knowledgeable but fiscally constrained almost to the point where their knowledge is useless.	2/9/2016 11:25 AM
14	WMPO staff is knowledgeable.	2/5/2016 12:37 PM
15	The team is knowledgeable.	2/2/2016 1:59 PM
16	Very high.	2/1/2016 12:23 PM
17	Outstanding!	2/1/2016 12:04 PM
18	Generally very good, at least in more senior and seasoned staff.	2/1/2016 11:55 AM
19	Very good.	2/1/2016 9:09 AM
20	Excellent	1/31/2016 10:16 PM
21	High. Everyone seems to know what is going on in every department and if they don't they know where to go to get answers.	1/31/2016 5:02 PM
22	Excellent	1/30/2016 2:36 PM
23	6 on a scale of 10	1/30/2016 12:35 PM
24	Excellent	1/30/2016 2:50 AM
25	Very high. The mpo staff I've dealt with are knowledgeable and helpful. It the processes that concern me.	1/29/2016 3:14 PM
26	High!	1/29/2016 2:50 PM

## Q10 Are WMPO staff members working well with the jurisdictions we serve?

Answered: 25 Skipped: 9

#	Responses	Date
1	Yes	2/23/2016 11:26 PM
2	Yes	2/22/2016 9:57 AM
3	Yes. I am biased as I represent the county in which the WMPO exists but it seems to reach out to all the jurisdictions.	2/22/2016 9:25 AM
4	Much happens that committees are unaware of	2/21/2016 12:52 PM
5	Yes	2/21/2016 5:05 AM
6	I think the Leland staff and council is happy with the efforts of the staff in our needs.	2/19/2016 5:12 PM
7	They appear to be.	2/19/2016 10:56 AM
8	Yes.	2/19/2016 10:53 AM
9	excellent manner	2/15/2016 2:38 PM
10	Yes.	2/13/2016 3:22 PM
11	Yes	2/10/2016 12:14 PM
12	No. Their appears to be a lack of buy-in from jurisdictions.	2/9/2016 11:25 AM
13	I believe WMPO staff tries to bring all jurisdictions to the table and assists in planning efforts when needed.	2/5/2016 12:37 PM
14	The staff is flexible and willing to help partner jurisdictions.	2/2/2016 1:59 PM
15	Yes	2/1/2016 12:23 PM
16	New member-have not observed.	2/1/2016 12:04 PM
17	To my knowledge.	2/1/2016 11:55 AM
18	Yes	2/1/2016 9:09 AM
19	Yes, most	1/31/2016 10:16 PM
20	Yes!	1/31/2016 5:02 PM
21	Yes	1/30/2016 2:36 PM
22	6 on a scale of 10	1/30/2016 12:35 PM
23	Yes	1/30/2016 2:50 AM
24	As far as I can tell.	1/29/2016 3:14 PM
25	Yes	1/29/2016 2:50 PM

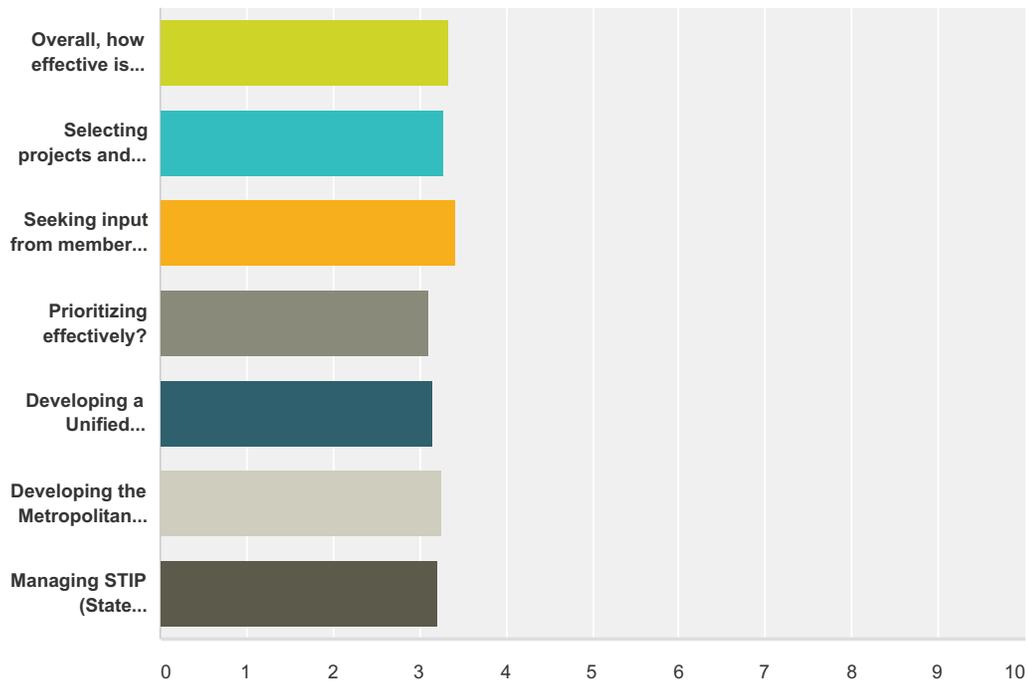
## Q11 Do WMPO staff members understand the community's values?

Answered: 25 Skipped: 9

#	Responses	Date
1	Absolutely	2/23/2016 11:26 PM
2	Yes	2/22/2016 9:57 AM
3	That is a hard question. This is where I feel that a meeting with the commissioners or city council with the WMPO would clarify what they feel are the community's values which then can be focused on by the WMPO.	2/22/2016 9:25 AM
4	Should be reversed, community does not understand WMPO protocols	2/21/2016 12:52 PM
5	Yes	2/21/2016 5:05 AM
6	I think so; especially the WMPO staff who have been in their positions for a number of years.	2/19/2016 5:12 PM
7	Yes.	2/19/2016 10:56 AM
8	I believe they do and represent them well.	2/19/2016 10:53 AM
9	excellent manner	2/15/2016 2:38 PM
10	Yes, much of the time. I think Wilmington community values are understood. I think Leland and north Brunswick County values and expectations are much less well understood.	2/13/2016 3:22 PM
11	Yes	2/10/2016 12:14 PM
12	Not sure.	2/9/2016 11:25 AM
13	Yes, to the best of my knowledge they do.	2/5/2016 12:37 PM
14	The WMPO well-reflects the downtown community values (i.e., bike/ped, transit, passenger rail, community life/work balance) but could be more industry/freight focused.	2/2/2016 1:59 PM
15	I believe so.	2/1/2016 12:23 PM
16	New member-have not observed.	2/1/2016 12:04 PM
17	Not sure.	2/1/2016 11:55 AM
18	Yes	2/1/2016 9:09 AM
19	Yes	1/31/2016 10:16 PM
20	Yes and always seem to be looking for ways to keep current with that through surveys and local community meetings.	1/31/2016 5:02 PM
21	Generally	1/30/2016 2:36 PM
22	5 on a scale of 10	1/30/2016 12:35 PM
23	Yes	1/30/2016 2:50 AM
24	I think they do; however, I think some additional effort/explanation on how to turn those values/goals into functional infrastructure/ projects would be helpful.	1/29/2016 3:14 PM
25	Yes	1/29/2016 2:50 PM

### Q12 Organizational Effectiveness (Please select one of the following)

Answered: 30 Skipped: 4



	Extremely Effective	Somewhat Effective	Somewhat Ineffective	Extremely Ineffective	N/A	Total	Weighted Average
Overall, how effective is the WMPO as an organization?	34.48% 10	65.52% 19	0.00% 0	0.00% 0	0.00% 0	29	3.34
Selecting projects and studies?	33.33% 10	56.67% 17	6.67% 2	0.00% 0	3.33% 1	30	3.28
Seeking input from member organizations and TAC, TCC, CAC, and Bike/Ped members?	51.72% 15	34.48% 10	10.34% 3	0.00% 0	3.45% 1	29	3.43
Prioritizing effectively?	24.14% 7	55.17% 16	13.79% 4	0.00% 0	6.90% 2	29	3.11
Developing a Unified Planning Work Program (UPWP)?	24.14% 7	51.72% 15	10.34% 3	0.00% 0	13.79% 4	29	3.16
Developing the Metropolitan Transportation Plan?	33.33% 10	50.00% 15	10.00% 3	0.00% 0	6.67% 2	30	3.25
Managing STIP (State Transportation Improvement Program)?	33.33% 10	50.00% 15	6.67% 2	3.33% 1	6.67% 2	30	3.21

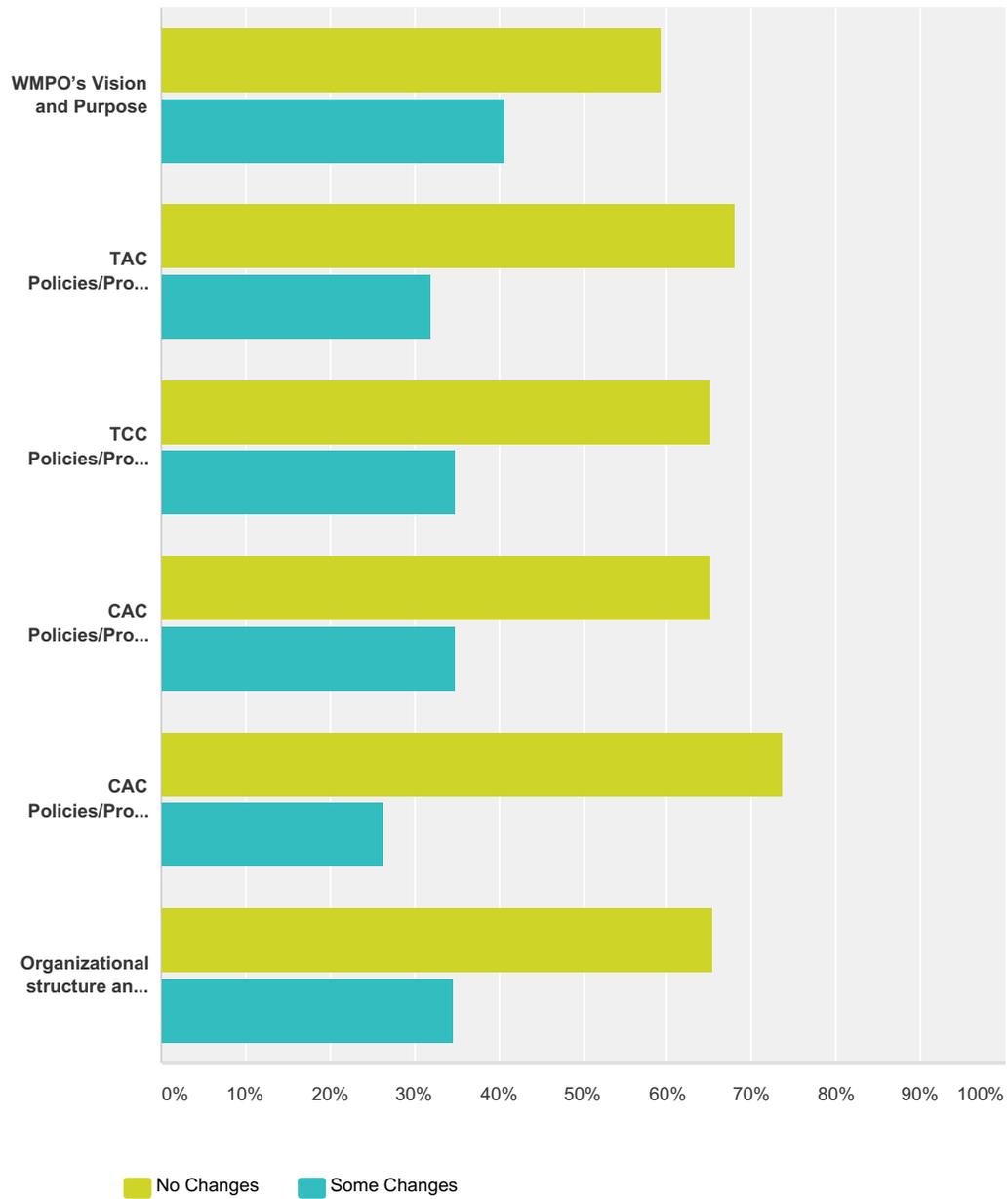
**Q13 Overall, does the WMPO use resources efficiently? If not, what suggestions do you have for the WMPO to operate more efficiently?**

Answered: 20 Skipped: 14

#	Responses	Date
1	Yes, but planning area is somewhat constrained.	2/23/2016 11:28 PM
2	I believe so.	2/22/2016 9:27 AM
3	Improved unification of jurisdictions within the WMPO for funding and planning purposes	2/21/2016 12:56 PM
4	Yes	2/21/2016 5:06 AM
5	Could the WMPO publish a newsletter, perhaps every two months, which can be circulated to the members for circulation to their constituencies? Links could be provided to draw the reader to further information on items of importance or interest.	2/19/2016 5:15 PM
6	Yes.	2/19/2016 10:57 AM
7	no suggestions at this time	2/13/2016 3:23 PM
8	Yes	2/10/2016 12:15 PM
9	Overall I would say resources are used somewhat efficiently. The WMPO appears to need stronger relationships with member jurisdictions. Even after years of existing some jurisdictions still seem unclear on the intent or purpose of the organization. The WMPO could significantly improve it's information management practices and how this information is shared with the member jurisdictions and the general public. There are too many active members of this community that do not even know the WMPO exists.	2/9/2016 11:38 AM
10	Yes	2/5/2016 12:58 PM
11	New member-too soon to know.	2/1/2016 12:05 PM
12	To my knowledge.	2/1/2016 11:56 AM
13	Add another staff member	2/1/2016 9:10 AM
14	Yes	1/31/2016 10:17 PM
15	Yes.	1/31/2016 5:02 PM
16	Yes	1/30/2016 2:37 PM
17	?	1/30/2016 12:36 PM
18	Yes	1/30/2016 2:50 AM
19	I think they do a lot with what they have. Congestion management definitely needs to become a priority. As the region grows the traffic issue we see today won't be solved by widening every road.	1/29/2016 3:15 PM
20	Yes	1/29/2016 2:51 PM

### Q14 Changes in the WMPO (Please select one of the following)

Answered: 27 Skipped: 7



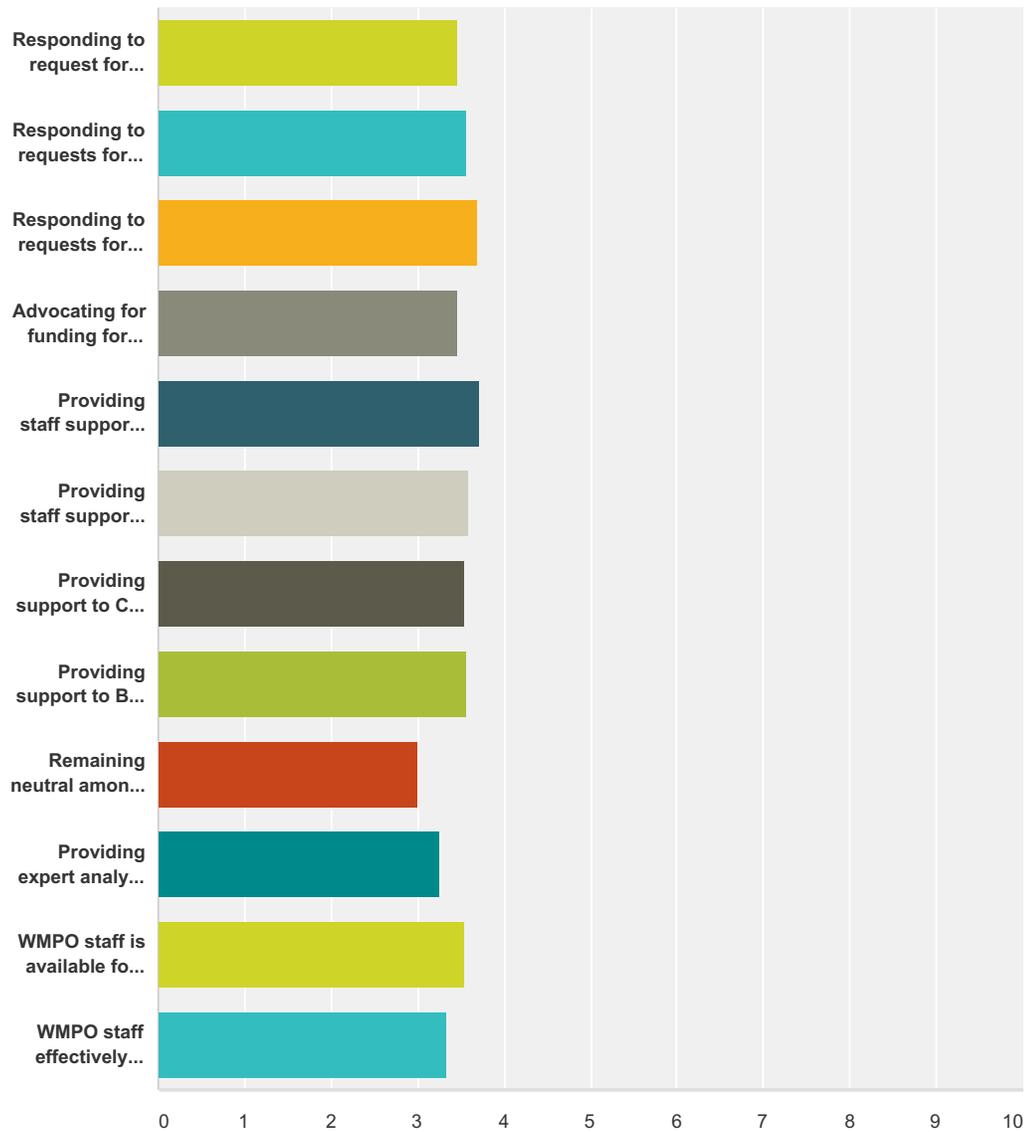
	No Changes	Some Changes	Total
WMPO's Vision and Purpose	59.26% 16	40.74% 11	27
TAC Policies/Processes	68.00% 17	32.00% 8	25
TCC Policies/Processes	65.22% 15	34.78% 8	23
CAC Policies/Processes	65.22% 15	34.78% 8	23

CAC Policies/Processes	<b>73.68%</b> 14	<b>26.32%</b> 5	19
Organizational structure and hosting of the WMPO	<b>65.38%</b> 17	<b>34.62%</b> 9	26

#	Recommendations/Comments	Date
1	Planning area should be expanded and voting adjusted	2/23/2016 11:30 PM
2	WMPO/TAC need stronger unified voice CAC needs periodic joint meetings with TCC /jurisdiction town planning staff	2/21/2016 1:01 PM
3	Adapt to changing environmental influences. Flooding of roads remains a critical problem and is only going to get worse.	2/21/2016 5:10 AM
4	Hopefully, our retreat will bring out some ideas for changes to the Vision and Purpose; TAC policies and processes, and organizational structure and hosting of the WMPO.	2/19/2016 5:17 PM
5	Need to change the name in order to reflect the entire MPO membership.	2/19/2016 10:58 AM
6	better job of communicating WMPO's vision and purpose	2/15/2016 2:41 PM
7	The WMPO needs to get out from under the umbrella of the City of Wilmington.	2/9/2016 11:39 AM
8	New member-non at this time.	2/1/2016 12:06 PM
9	As the region grows and more of the MPO's population is outside of the City of Wilmington, it is important to monitor whether the City is the appropriate host.	2/1/2016 11:58 AM
10	None	2/1/2016 9:11 AM
11	Should include Southport and Oak Island and the ferry connection	1/31/2016 10:20 PM

### Q15 WMPO's Staff Effectiveness (Please select one of the following)

Answered: 26 Skipped: 8



	Extremely Effective	Somewhat Effective	Somewhat Ineffective	Extremely Ineffective	N/A	Total	Weighted Average
Responding to request for information from the public	32.00% 8	24.00% 6	4.00% 1	0.00% 0	40.00% 10	25	3.47
Responding to requests for information from member jurisdiction staff members	50.00% 12	25.00% 6	4.17% 1	0.00% 0	20.83% 5	24	3.58
Responding to requests for information from elected officials and TAC	50.00% 12	12.50% 3	4.17% 1	0.00% 0	33.33% 8	24	3.69
Advocating for funding for WMPO priorities	36.00% 9	40.00% 10	0.00% 0	0.00% 0	24.00% 6	25	3.47
Providing staff support to TCC meetings	43.48% 10	17.39% 4	0.00% 0	0.00% 0	39.13% 9	23	3.71

Providing staff support to TAC meetings	<b>45.83%</b> 11	<b>20.83%</b> 5	<b>4.17%</b> 1	<b>0.00%</b> 0	<b>29.17%</b> 7	24	3.59
Providing support to CAC meetings	<b>26.09%</b> 6	<b>21.74%</b> 5	<b>0.00%</b> 0	<b>0.00%</b> 0	<b>52.17%</b> 12	23	3.55
Providing support to Bike Ped meetings	<b>41.67%</b> 10	<b>33.33%</b> 8	<b>0.00%</b> 0	<b>0.00%</b> 0	<b>25.00%</b> 6	24	3.56
Remaining neutral amongst member jurisdictions	<b>16.00%</b> 4	<b>48.00%</b> 12	<b>8.00%</b> 2	<b>4.00%</b> 1	<b>24.00%</b> 6	25	3.00
Providing expert analysis in a way that is meaningful and understandable	<b>30.77%</b> 8	<b>50.00%</b> 13	<b>7.69%</b> 2	<b>0.00%</b> 0	<b>11.54%</b> 3	26	3.26
WMPO staff is available for assistance	<b>61.54%</b> 16	<b>34.62%</b> 9	<b>0.00%</b> 0	<b>3.85%</b> 1	<b>0.00%</b> 0	26	3.54
WMPO staff effectively communicates each of their roles	<b>40.00%</b> 10	<b>52.00%</b> 13	<b>0.00%</b> 0	<b>4.00%</b> 1	<b>4.00%</b> 1	25	3.33

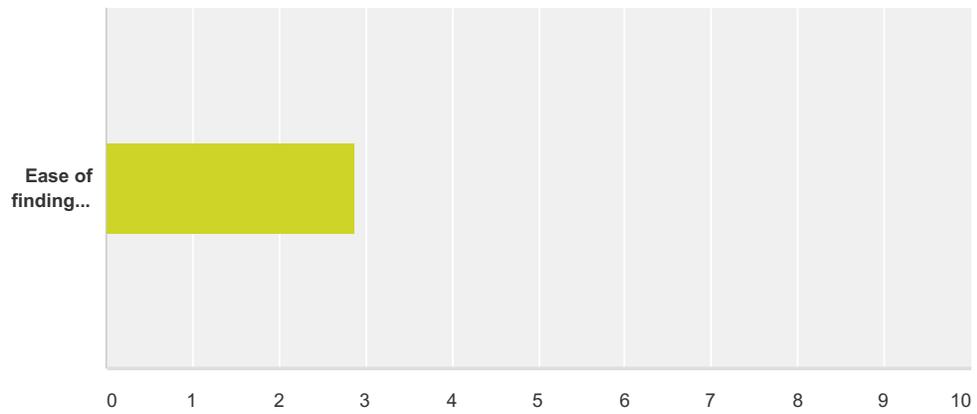
### Q16 Please provide ways to improve staff effectiveness:

Answered: 8 Skipped: 26

#	Responses	Date
1	Maybe a flow chart of who does what and a description of their responsibilities.	2/22/2016 9:29 AM
2	Hire sufficient staff	2/21/2016 1:03 PM
3	Continue to present to civic organizations	2/21/2016 5:11 AM
4	Date all maps used in processes. Number all pages of documents produced. When producing lengthy docs regarding prioritization, etc. extract or somehow highlight those projects of interest to their respective representative to make for quicker identification.	2/19/2016 5:22 PM
5	no suggestions at this time	2/13/2016 3:25 PM
6	Hire additional staff members.	2/10/2016 12:17 PM
7	New member-have not observed, hence reason for N/As.	2/1/2016 12:08 PM
8	No comments at this time	2/1/2016 9:12 AM

### Q17 WMPO's Website (Please select one of the following)

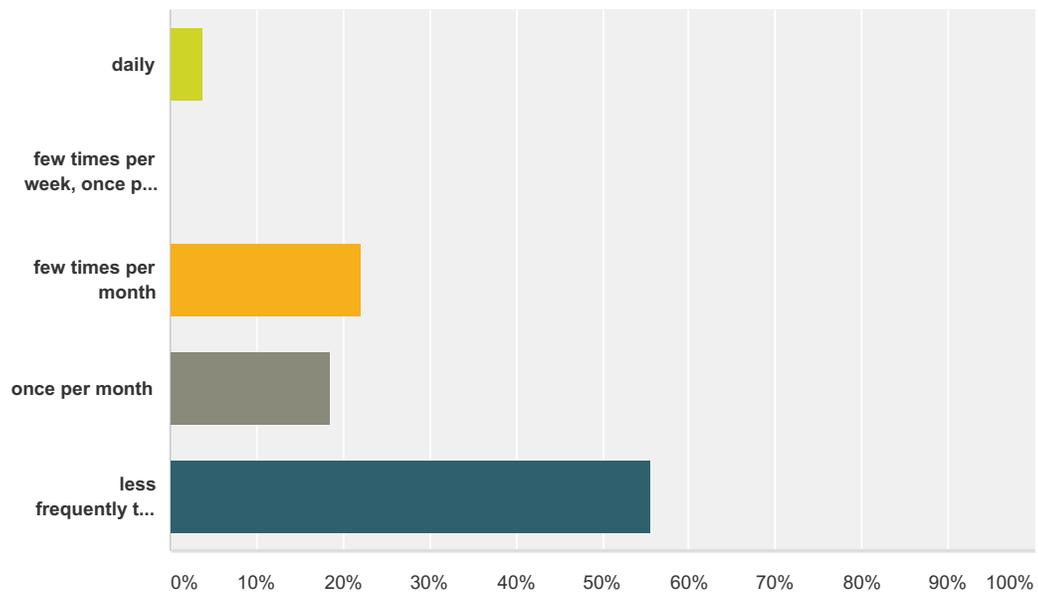
Answered: 21 Skipped: 13



	Extremely Effective	Somewhat Effective	Somewhat Ineffective	Extremely Ineffective	N/A	Total	Weighted Average
Ease of finding information on website	19.05% 4	47.62% 10	9.52% 2	9.52% 2	14.29% 3	21	2.89

### Q18 How Frequently do you visit our website?

Answered: 27 Skipped: 7



Answer Choices	Responses
daily	3.70% 1
few times per week, once per week	0.00% 0
few times per month	22.22% 6
once per month	18.52% 5
less frequently than once per month	55.56% 15
<b>Total</b>	<b>27</b>

## Q19 How can we better design the website? Tell us your ideas and suggestions

Answered: 12 Skipped: 22

#	Responses	Date
1	Improved promotion of the site	2/21/2016 1:05 PM
2	I would consider a redesign to include links to other transportation informational sites. E.g. Anyone interested in the Cape Fear Crossing, aka the Skyway would be able to pull up details, maps, history, Purpose and Need data, etc. simply by following the link. If the WMPO decides to create a newsletter, a link to it would be included. Perhaps highlight the major agenda items of an upcoming TAC meeting. Survey Monkey's like this one could be accessible through the website. Is it possible to create a database of all the local area maps that are used for all the projects on which projects are based? That would be easier than trying to find them on the NCDOT site.	2/19/2016 5:27 PM
3	--	2/19/2016 11:00 AM
4	put a search engine on the website if it doesn't have one to look for documents	2/10/2016 12:21 PM
5	More user friendly and better content management.	2/9/2016 11:41 AM
6	n/a	2/5/2016 1:06 PM
7	Font size could be larger. Get rid of dark blue background and white and light blue font.	2/2/2016 2:06 PM
8	Include alternates. Add more images from jurisdictions to reflect diverse community where we live.	2/1/2016 12:17 PM
9	Keep the site updated as practical.	2/1/2016 9:14 AM
10	Would like to see a "project finder" that uses a map or an address lookup	1/30/2016 2:40 PM
11	Give it more visibility to the public (media coverage)	1/30/2016 2:59 AM
12	Simply bringing it up to the form and function of a modern website would do much to improve usability.	1/29/2016 3:19 PM

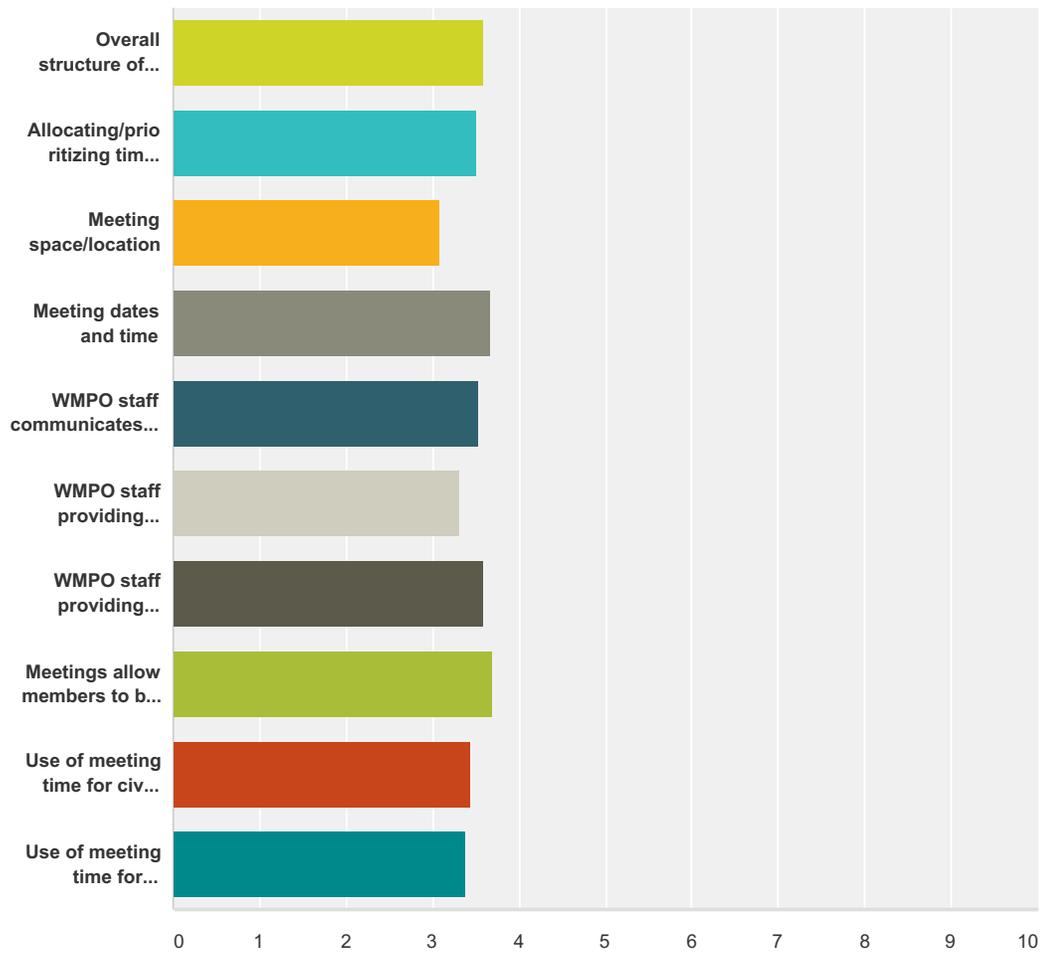
## Q20 What information do you search for and would like to see on the WMPO website?

Answered: 15 Skipped: 19

#	Responses	Date
1	Interactive mapping capacity with key facilities in the community.	2/23/2016 11:33 PM
2	Current /planned projects and status	2/21/2016 1:05 PM
3	See 19.	2/19/2016 5:27 PM
4	--	2/19/2016 11:00 AM
5	agendas, minutes, plan docs, maps	2/10/2016 12:21 PM
6	Calendar, project information, plans/initiatives	2/9/2016 11:41 AM
7	n/a	2/5/2016 1:06 PM
8	I search for contact info and reports/plans. People always ask me for bike maps, I send them to WMPO website.	2/2/2016 2:06 PM
9	Demographics; census data.	2/1/2016 12:17 PM
10	Generally what's there: agendas, minutes, plans, contact info.	2/1/2016 12:00 PM
11	Traffic Level of Service (LOS) stats. Collector street plan.	2/1/2016 9:14 AM
12	transportation Improvement Projects	1/31/2016 10:22 PM
13	Project status	1/30/2016 2:40 PM
14	None that is not already there	1/30/2016 2:59 AM
15	Plans, projects (planned, ongoing, recently completed - time tables for all), meeting schedules, links to other items (reporting road issues, etc), public input method.	1/29/2016 3:19 PM

### Q21 Committee Procedures and Operations (Please select one of the following)

Answered: 23 Skipped: 11



	Extremely Effective	Somewhat Effective	Somewhat Ineffective	Extremely Ineffective	N/A	Total	Weighted Average
Overall structure of meetings	52.17% 12	34.78% 8	0.00% 0	0.00% 0	13.04% 3	23	3.60
Allocating/prioritizing time for discussion based on importance	43.48% 10	43.48% 10	0.00% 0	0.00% 0	13.04% 3	23	3.50
Meeting space/location	34.78% 8	34.78% 8	8.70% 2	8.70% 2	13.04% 3	23	3.10
Meeting dates and time	63.64% 14	18.18% 4	4.55% 1	0.00% 0	13.64% 3	22	3.68
WMPO staff communicates/channels relevant information/concerns among committees	52.17% 12	21.74% 5	8.70% 2	0.00% 0	17.39% 4	23	3.53
WMPO staff providing orientation and on-boarding process for new committee members	34.78% 8	26.09% 6	4.35% 1	4.35% 1	30.43% 7	23	3.31
WMPO staff providing committee members agenda materials in a timely manner	60.87% 14	17.39% 4	8.70% 2	0.00% 0	13.04% 3	23	3.60

Meetings allow members to be engaged/represented equally	<b>60.87%</b> 14	<b>26.09%</b> 6	<b>0.00%</b> 0	<b>0.00%</b> 0	<b>13.04%</b> 3	23	3.70
Use of meeting time for civic organizations, e.g. presentations	<b>47.83%</b> 11	<b>21.74%</b> 5	<b>4.35%</b> 1	<b>4.35%</b> 1	<b>21.74%</b> 5	23	3.44
Use of meeting time for consultants, e.g. presentations, reports	<b>39.13%</b> 9	<b>30.43%</b> 7	<b>8.70%</b> 2	<b>0.00%</b> 0	<b>21.74%</b> 5	23	3.39

## Q22 How can committee procedures and operations be improved?

Answered: 11 Skipped: 23

#	Responses	Date
1	Meeting room for committee is crowded	2/23/2016 11:36 PM
2	believe doing a good job here	2/22/2016 10:07 AM
3	Presentations should be timed if at all possible. The meeting room is overcrowded on occasion and doesn't provide a comfortable atmosphere to the public whom we are encouraging to attend and be heard, if they like. I question whether we should have evening meetings in order to make it more consumer accessible. Also, if that isn't possible, how about video of the meetings so anyone can access them on cable tv.	2/19/2016 5:52 PM
4	--	2/19/2016 11:06 AM
5	recommend no changes to my committee, CAC	2/15/2016 2:46 PM
6	Provide more time for members to give input.	2/10/2016 12:35 PM
7	Better utilize applicable tools when providing information to a large group, especially geographic information.	2/9/2016 11:53 AM
8	n/a	2/5/2016 1:09 PM
9	New member-have not observed.	2/1/2016 12:21 PM
10	Working well now	1/30/2016 3:02 AM
11	Clear focus on what a given committee's responsibilities are, as well as their sphere of influence i.e. what we can do as a committee.	1/29/2016 3:23 PM

**Q23 How can information best be communicated/exchanged among TCC, TAC and WMPO staff?**

Answered: 9 Skipped: 25

#	Responses	Date
1	additional emails	2/22/2016 10:07 AM
2	Joint meetings	2/21/2016 1:12 PM
3	In our case, staff communicates with me and I communicate with my alternate. We make it a point to try to review the TCC meetings held two weeks prior to the TAC meeting.	2/19/2016 5:52 PM
4	Electronically.	2/19/2016 11:06 AM
5	email works well for me	2/13/2016 3:28 PM
6	email	2/10/2016 12:35 PM
7	n/a	2/5/2016 1:09 PM
8	New member-have not observed.	2/1/2016 12:21 PM
9	I am not familiar with those interactions	1/30/2016 3:02 AM

## Q24 How difficult was it to become oriented to your role as a committee member?

Answered: 14 Skipped: 20

#	Responses	Date
1	Staff at that time did an excellent job.	2/23/2016 11:36 PM
2	Still getting oriented.	2/22/2016 9:35 AM
3	A couple of meetings....but much depends on the total committee make up	2/21/2016 1:12 PM
4	I did not have the benefit of going through an orientation with a WMPO member. Mayor Futch was my mentor and otherwise, I had to learn by reading and research.	2/19/2016 5:52 PM
5	Not difficult.	2/19/2016 11:06 AM
6	Not difficult	2/15/2016 2:46 PM
7	fairly easy	2/13/2016 3:28 PM
8	Not difficult at all.	2/10/2016 12:35 PM
9	not difficult.	2/9/2016 11:53 AM
10	There was no training or orientation as a new member	2/5/2016 1:09 PM
11	New alternate committee member-orientation was excellent!	2/1/2016 12:21 PM
12	Not difficult / great staff preparation	1/31/2016 10:25 PM
13	Easy	1/30/2016 2:41 PM
14	Easy	1/30/2016 3:02 AM

**Q25 How can we improve the  
orientation/on-boarding process for new  
TAC/TCC committee member?**

Answered: 8 Skipped: 26

#	Responses	Date
1	not aware of the process to make any comments	2/22/2016 10:07 AM
2	One on one with staff leader	2/21/2016 1:12 PM
3	Can't respond since I have never taken part in that process. If possible, a packet of background info on the major projects on which we are working would be great if not currently provided.	2/19/2016 5:52 PM
4	Members need to understand how they fit into the overall picture.	2/19/2016 11:06 AM
5	Make the process steps available to the board members	2/10/2016 12:35 PM
6	provide an information pamphlet or sheet for new members or new staffers taking over a member position.	2/5/2016 1:09 PM
7	Will let you know, my orientation/on-boarding was excellent. Let me see how it applies over next few meetings.	2/1/2016 12:21 PM
8	I am not familiar with current procedures for the TAC / TCC	1/30/2016 3:02 AM

**Q26 How do your fellow  
alderman/commission/council members  
view the WMPO?**

Answered: 11 Skipped: 23

#	Responses	Date
1	do not know	2/22/2016 10:07 AM
2	Point organization for unified action	2/21/2016 1:12 PM
3	Necessary	2/21/2016 5:13 AM
4	The Mayor attends all the TAC meetings and has been able to witness firsthand the process. I cannot speak for her. Likewise for my alternate. I must provide a report at each monthly Council meeting with regard to any WMPO issues about which every council member needs to be aware. I would suggest this practice for all the members of the TAC.	2/19/2016 5:52 PM
5	Good resource.	2/19/2016 11:06 AM
6	They see it as a valuable organization for the region.	2/10/2016 12:35 PM
7	Not sure	2/9/2016 11:53 AM
8	n/a	2/5/2016 1:09 PM
9	Positively from what I've already observed.	2/1/2016 12:21 PM
10	High regard	1/30/2016 2:41 PM
11	Unknown	1/30/2016 3:02 AM

## Q27 Do you have any final comments about your expectations or experiences with the WMPO?

Answered: 13 Skipped: 21

#	Responses	Date
1	To date, limited interaction with WMPO has been positive, informing, and task orientated.	2/26/2016 11:39 AM
2	WMPO is a vital and effective organization in our region!	2/23/2016 11:36 PM
3	believe we are making a good impact on the regions with which we live	2/22/2016 10:07 AM
4	Excited to see some positive results from my attendance at the meetings.	2/22/2016 9:35 AM
5	....keep on improving!	2/21/2016 1:12 PM
6	Because I have been on the TAC going on 5 years, I have seen a steady swing to the polished and efficient operation I believe we have today. Unfortunately, politics still play a role in some of the decisionmaking, and for Leland, now that our population is far surpassing those of the other member municipalities (which in turn is causing our town to have new transportation challenges the others do not) the voting allocation is losing its equitable weighting. I also think that while it is the goal to reach consensus on all we do, sometimes it is just not possible. And so, that's the way it is.	2/19/2016 5:52 PM
7	Suraiya always exceeds my expectations. She is a very capable and intelligent young lady . . . a good representative for the MPO.	2/19/2016 11:06 AM
8	Staff works very hard.	2/10/2016 12:35 PM
9	I believe the WMPO serves an important mission and too many citizens/member jurisdictions perceive the group as government waste, or as serving the City of Wilmington but not the other jurisdictions. As a regional planning organization does the focus need to be on truly regional issues and not local projects that impact only one small neighborhood in only one part of a participating jurisdiction? Do sidewalks for one small block in the City of Wilmington really serve our regional transportation network or needs.	2/9/2016 11:53 AM
10	n/a	2/5/2016 1:09 PM
11	New alternate - As I learn more I will let you know.	2/1/2016 12:21 PM
12	Keep doing well what you are doing well	1/30/2016 2:41 PM
13	None	1/30/2016 3:02 AM



# Cape Fear Crossing

## STIP U-4738

### Brunswick and New Hanover Counties

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#### PROJECT STATUS REPORT

March 1, 2016

##### Project Description

Roadway extending from the vicinity of US 17 Bypass and I-140 in Brunswick County to US 421 in New Hanover County, including a crossing of the Cape Fear River.

##### Current Status

The following list includes completed and ongoing tasks during the month of February:

- The project team continues to coordinate and correspond with project stakeholders.
- Functional Design Plans for the 12 detailed study alternatives (DSAs) have been reviewed by NCDOT; the project team is currently working on revising the designs.
- Hydraulic analysis of the DSAs is ongoing.
- The Draft Hurricane Evacuation Analysis Technical Memorandum has been submitted to NCDOT for review.
- The Historic Architecture Eligibility Report has been accepted by NCDOT and reviewed by the North Carolina State Historic Preservation Office (SHPO). NCDOT is currently working with SHPO to determine what resources within the project study area are eligible for listing on the National Register of Historic Places.
- Studies for the Traffic Noise Analysis and Air Quality Analysis are ongoing.
- An update to the Draft Natural Resources Technical Report is ongoing.
- Draft utility plans and relocation estimates have been prepared and are under review by NCDOT.
- NCDOT is currently evaluating an additional alternative proposed by the WMPO near the Port of Wilmington. There are currently 12 alternatives being designed and evaluated for inclusion in the draft environmental document. NCDOT is coordinating with the NCSPA regarding this alternative; if it is determined this alternative is reasonable, studies may need to be redone to include this alternative.
- The Cape Fear Crossing project is programmed in the 2016-2025 STIP for planning and environmental studies only using STPDA funding from the Wilmington MPO.
- The project team will plan to present the status of the project to the WMPO TAC before the next NEPA/Section 404 Merger Team Meeting.

##### Contact Information

NCDOT – Charles Cox, [ccox@ndcot.gov](mailto:ccox@ndcot.gov), 919.707.6016

AECOM – Joanna Rocco, [joanna.rocco@aecom.com](mailto:joanna.rocco@aecom.com), 919.239.7179

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Email: [capefear@ncdot.gov](mailto:capefear@ncdot.gov)

Hotline: 1.800.233.6315

**WILMINGTON MPO**  
**TRANSPORTATION PLANNING**  
**MARCH 2016**

**CONGESTION MANAGEMENT PROCESS**

Project Description/Scope: Comply with a Federal mandate to create and adopt a process to evaluate the region's most congested corridors through locally-defined multi-modal performance measures in an effort to suggest improvements that would alleviate traffic congestion in the region. The CMP was adopted by the TAC on December 11, 2013. Data collection procedures have been developed. A schedule for collection logistics has been drafted and data collection will continuously be monitored and updated as needed.

Next Steps:

- Continue data collection and monitoring of congestion
- Document data collection in a Biennial Report

**COLLEGE ROAD UPGRADES (U-5702), (U-5704) and (U-5792)**

**Project Description/Scope:** The Strategic Transportation Investments is a new formula to determine how the North Carolina Department of Transportation (NCDOT), in partnership with local governments, will fund and prioritize transportation projects in the state of North Carolina. The Strategic Transportation Investment Formula allocates funding at the statewide, regional and division tiers. Prioritization 3.0 was the process used to determine the projects that are to be funded in the State's Transportation Improvement Program (STIP). The adopted 2016-2025 State Transportation Improvement Program includes several projects on College Road.

U-5704: Construction of an interchange at College Road and Oleander Drive

U-5702: Construction of Access Management Improvements on College Road between Gordon Road and Carolina Beach Road. The Department has several spot safety and intersection improvements that are anticipated would be completed under this project. This project may also include median modifications, access management strategies, etc. to improve traffic flow and safety on College Road. Another project that may be funded in the Statewide Mobility Category is an Upgrade of College Road between New Centre Drive and Gordon Road to include an additional through lane and an interchange at College Road and the Martin Luther King Jr. Parkway.

U-5792: Convert at-grade intersection to interchange

**Next Steps:**

- Complete Planning, Environmental Review and Design for the projects

**METROPOLITAN TRANSPORTATION PLAN**

Project Description/Scope: Update the Federally-mandated Metropolitan Transportation Plan/Long-Range Transportation Plan for the Wilmington Urban Area Metropolitan Planning Organization. The draft plan was finalized by the Transportation Advisory Committee on July 22, 2015. . The plan has now been adopted by all Wilmington Urban Area Metropolitan Planning Organization member jurisdictions. The TAC adopted the plan on November 18, 2015.

Next Steps:

- Implementation of the plan
- Develop a Strategic Business Plan

#### **MILITARY CUTOFF ROAD/EASTWOOD ROAD (U-5710)**

**Project Descriptions/Scope:** The adopted 2016-2025 State Transportation Improvement Program identified funding to upgrade the intersection of Military Cutoff Road/Eastwood Road to an interchange. HDR has been selected by NCDOT to complete this work. The Department is evaluating several alternatives to include a single point urban interchange, at-grade quadrant, continuous flow intersection, etc.

#### **Next Steps:**

- Complete Planning, Environmental Review and Design for the project

#### **17<sup>TH</sup> STREET STREETScape**

**Project Descriptions/Scope:** The 17<sup>th</sup> Street streetscape project will include upgrades to 17<sup>th</sup> Street between Wrightsville Avenue and Princess Place Drive. The project will provide for a more efficient transportation system by reduced travel speeds, removal of the lateral shift, improved pedestrian crossings, improved safety and enhance the aesthetics of the area. The project may also include aesthetic improvements that will enhance the entryway into Carolina Heights and provide a pocket park. The project had a bid opening planned on September 24<sup>th</sup> however the bid exceeded budget. The project was advertised for re-bid on January 27<sup>th</sup>.

#### **Next Steps:**

- Bid opening on March 10<sup>th</sup>.
- Award and Construct the streetscape enhancements

#### **Pender County Collector Street Plan**

The Wilmington MPO and Pender County have partnered to update the Coastal Pender County Collector Street Plan and to create a collector street plan for the area that was not previously part of the MPO. The project presented updates to the Pender County Board of County Commissioners on February 16th. On March 1st, the Pender County Planning Board adopted the plan's final draft. Final draft is available on project website ([www.pendercollector.com](http://www.pendercollector.com)).

#### **Next Steps:**

- Review and format final draft
- Present final plan for adoption to the Pender County Board of County Commissioners on March 21<sup>st</sup>

#### **SITE DEVELOPMENT REVIEW**

**Project Descriptions/Scope:** The Wilmington MPO assists with site development and transportation impact analysis review for the MPO's member jurisdictions. During the last month, staff has reviewed the following development proposals:

- New Hanover County Development Plan Reviews: 3 reviews
- New Hanover County Informal Plan Reviews: 1 reviews
- New Hanover Concept Reviews: 0 reviews
- Town of Leland Formal Reviews: 3 reviews

- Town of Leland Informal Reviews: 0 reviews
- Town of Carolina Beach Formal Reviews: 0 reviews
- Town of Carolina Beach Informal Reviews: 0 reviews
- Brunswick County Formal Plan Reviews: 0 reviews
- Brunswick County Informal Plan Reviews: 0 reviews
- TIA Reviews: 9 total (New Hanover County 3, City of Wilmington 5, Carolina Beach 0, Leland 0, and Pender County 1) new 4 and ongoing 6
- Pender County Development Plan Reviews: 1 reviews
- Pender County Informal Plan Reviews: 0 reviews
- Pender County Concept Reviews: 0 reviews
- City of Wilmington Formal Reviews: 35 (10 new, 25 on-going)
- City of Wilmington Informal Reviews: 16 ( 4 new, 12 on-going)
- City of Wilmington Concept Reviews: 15 (10 new concept reviews- 5 on-going concept)
- COW Project Releases: 10 Full releases

### **STP-DA/TAP-DA FY 2013, 2014 and 2015 Project Status**

#### **STP-DA**

#### **U-5534A - TOWN OF NAVASSA – MAIN STREET BICYCLE LANES**

**Project Descriptions/Scope:** This project will include planning, design, and construction of an additional 4 feet on either side of Main Street for bike lanes starting at the existing Navassa bike path east of Brooklyn Street to Old Mill Road. The Letter of Interest (LOI) has been advertised.

#### **Next Steps:**

- Revision of man-hour estimate being performed by Ramey Kemp
- NCDOT to review man hour estimate to approve scope change
- FHWA has been contacted to discuss a change in scope from bike lanes to sidewalks and if FHWA will pay for existing design plus new design.
- Ramey Kemp & Associates to verify that the sidewalk will fit in the easement

#### **U-5534B - CITY OF WILMINGTON- HEIDI TRASK DRAWBRIDGE**

**Project Descriptions/Scope:** This project consists of construction of a public walkway/pier underneath the Heidi Trask Drawbridge to provide for a safe crossing for cyclists and pedestrians across US 74 (Wrightsville Avenue) on the mainland side of the drawbridge in Wilmington.

#### **Next Steps:**

- Construction contract awarded to Intercoastal Marine, LLC
- Construction start anticipated March 2016

#### **U-5534C - WRIGHTSVILLE AVENUE/GREENVILLE AVENUE TO HINTON AVENUE**

**Project Descriptions/Scope:** The project is for construction of intersection re-alignment improvements at the intersection of Wrightsville Avenue/Greenville Avenue and bike lanes and sidewalks along Greenville Avenue from Wrightsville Avenue to Hinton Avenue.

**Next Steps:**

- Design plans are complete
- Right of Way underway
- Letting anticipated October 2016

**U-5534D - TOWN OF LELAND - OLD FAYETTEVILLE ROAD MUP**

**Project Descriptions/Scope:** This project is for design and construction of a ten foot (10') wide multi use path, separate but adjacent to Old Fayetteville Road, beginning at or around the corner of the Leland Town Hall Campus and ending at the driveway of the North Brunswick High School.

**Next Steps:**

- Currently working on redesign
- 30% plans submitted to NCDOT for review

**U-5534E - TOWN OF CAROLINA BEACH - ISLAND GREENWAY AND HARPER AVENUE**

**Project Descriptions/Scope:** This project is for the design and construction of an off-road multi-use path that begins at Mike Chappell Park and winds along the existing cleared fire path and terminates at Greenville Avenue and the Harper Avenue bike lanes will consist of a bicycle boulevard on existing pavement on each side of Harper Avenue from Dow Road to Lake Park Boulevard. The Town desires to combine the project with the awarded 2014 STP-DA project.

**Next Steps:**

- NCDOT Approval received
- 95% plans under review
- Awaiting easement approval from MOTSU

**U-5534S (Formerly U-5534M)– Coral Drive Sidewalks**

**Project Descriptions/Scope:** The construction of sidewalks along coral drive will install approximately 954 feet of 5 foot wide sidewalk on Coral Drive adjacent to Wrightsville Beach Elementary.

**Next Steps:**

- Letters of Interest request to NCDOT for review January 30, 2016
- R/W Plans complete: February 2017
- Let Date: April 2017

**U-5534H – HINTON AVE MULTI-USE PATH**

**Project Descriptions/Scope:** This project consists of the construction of a 10' wide multi-use path along Hinton Avenue from Park Avenue to Greenville Avenue.

**Next Steps:**

- 95% Construction Documents review under way
- Anticipated Let Date of April 2016

**U-5534G –HOOKER ROAD MULTI-USE PATH**

**Project Descriptions/Scope:** The project consist of the construction of a 10' wide multi-use path along Hooker Road from Wrightsville Avenue to Mallard Drive/Rose Ave intersection

**Next Steps:**

- 95% Construction Documents review under way
- Anticipated Let Date of April 2016

**U-5534K –LELAND MIDDLE SCHOOL SIDEWALK**

**Project Descriptions/Scope:** The construction of 5 foot wide concrete sidewalk adjacent to Old Fayetteville Road from Ricefield Branch Rd to the Hwy 74/76 overpass after Glendale Drive with connections to Leland Middle School and the surrounding neighborhoods.

**Next Steps:**

- 90% Construction Documents review scheduled for March
- Anticipated Let Date: May 2016

**U-5534J –OLD FAYETTEVILLE LOOP ROAD PEDESTRIAN LOOP**

**Project Descriptions/Scope:** The construction of 5 foot wide sidewalks in three locations: along Village Road from Town Hall Drive going southeast to the existing sidewalk in front of the apartment complex, along Town Hall Drive from Village Road NE to the sidewalk currently under construction by the new Town Hall, and along Old Fayetteville Road from the existing sidewalk in front of the apartment complex to Village Road NE

**Next Steps:**

- 90% Construction Documents review scheduled for March
- Let Date: May 2016

**U-5534I –VILLAGE ROAD MULTI-USE PATH EXTENSION**

**Project Descriptions/Scope:** The construction of a 10 foot wide asphalt multi-use path routed across Perry Ave, behind the library, out to Village Road, down Village Road ending on the western edge of the First Baptist Church property before the Sturgeon Creek Bridge

**Next Steps:**

- 90% design plans complete
- Right of Way Plans complete: September 25, 2016
- Anticipated Let Date: December 26, 2016

**SHIPYARD BOULEVARD SIDEWALK-**

**Project Description/Scope:** The construction of a sidewalk and bus pull-out along Shipyard Boulevard between Vance Street and Rutledge Drive. This will be a partnership between the City of Wilmington, Cape Fear Public Transportation Authority and Wilmington MPO.

**Next Steps:**

- McKim and Creed is providing Surveying
- R/W plans anticipated June 2016

**U-5534O Cape Fear Blvd Multi-Use Path –**

**Project Description/Scope:** The construction of approximately 3200 lf of 10' wide paved off-road Multi-use Path along the south side of Cape Fear Blvd. from 6<sup>th</sup> Street to Dow Road.

**Next Steps:**

- Awaiting agreement execution
- PE Services submitted for review

**U-5534R – Doral Drive Sidewalks –**

**Project Description/Scope:** The construction of a sidewalk along Doral Drive from the intersection of Sloop Point Loop Road to the proposed emergency access path to the approved Wyndwater path.

**Next Steps:**

- Pender Co. discussing with NCDOT for inclusion in current project or split into design phase and construction phase

**U-5534Q –S. College/Holly Tree Crosswalks –**

**Project Description/Scope:** The project will install sidewalk, ADA ramps, Curb and gutter, markings and traffic signal revisions required to install actuated pedestrian crossings of S. College Road and crossings on Holly Tree Road.

**Next Steps:**

- Awaiting final contracts for new on-call consultants

**U-5534P –Westgate Multi-Use Path (Design Phase) –**

**Project Description/Scope:** funding for preliminary engineering and design phase services for this project in the amount of \$96,172

**Next Steps:**

- Town of Leland in process of scoping project
- RFQ for firms is ready to go out

**TAP-DA**

**CITY OF WILMINGTON – MILITARY CUTOFF ROAD MULTI-USE PATH**

**Project Descriptions/Scope:** This project is for the design and construction of a 10-foot wide, asphalt multi-use path on Military Cutoff Road from Gordon Road to Eastwood Road.

**Next Steps:**

- McKim & Creed providing surveying and design'
- R/W plans anticipated December 2016

**U-5527B CITY OF WILMINGTON – 5<sup>th</sup> AVE INTERSECTION UPGRADES**

**Project Descriptions/Scope:** This project is for the construction of high visibility crosswalks, curb ramps, and pedestrian activated signals on 5th Ave at the Dawson Street and Wooster Street intersections.

**Next Steps:**

- City of Wilmington is preparing plans for the project
- Revised plans have been sent to NCDOT
- Quantities and specs are complete
- Anticipated Let Date: September 26, 2016

### **U-5527C NEW HANOVER COUNTY – MIDDLE SOUND GREENWAY – EXTENSION TO MIDDLE SOUND VILLAGE**

**Project Descriptions/Scope:** This project is for the construction of a multi-use path along Middle Sound Loop Road from Oyster Lane to the Middle Sound Village driveway.

#### **Next Steps:**

- NHC Currently acquiring easements for project.
- Anticipated Let Date: July 2016

### **U-5527D HARPER AVE. MULTI-USE PATH**

**Project Descriptions/Scope:** The construction of approximately 2104 lf of 10' wide paved multi-use path along Harper Ave. from Dow Road to 6th Street

#### **Next Steps:**

- Advertised for PE services

### **TRANSPORTATION DEMAND MANAGEMENT PROGRAM**

**Project Description/Scope:** UNCW is taking the role as lead employer for the Cape Fear region. The WMPO will coordinate with UNCW to work with other major employers in the region to identify opportunities for public outreach, marketing, carpooling, vanpooling, alternative/compressed work schedules, Emergency Guaranteed Ride Home, park and ride lots, etc. The MPO established 2 park and ride lots in Brunswick County and a ridesharing program that began on January 5, 2015. The MPO adopted "Work Cape Fear: Expanding Commuter Options in the Cape Fear Region" TDM Short Range Plan on January 28, 2015 and also authorized staff to apply for a TDM grant through NCDOT that if approved would fund a full-time TDM Coordinator position. The Agreement with NCDOT for the full-time TDM Coordinator position was approved on November 4, 2015. The Wilmington MPO has hired a full-time TDM Coordinator.

#### **Next Steps:**

- Continue regularly scheduled TDM Committee meetings
- Release the marketing plan RFP
- Develop program brand (name and logo)
- Organize and promote Bike to Work Week
- Coordinate with employers to implement 2 additional vanpool programs

### **MAYOR'S RAIL RE-ALIGNMENT TASK FORCE**

The City of Wilmington has appointed a Mayor's Task Force to evaluate the feasibility of re-aligning the rail line that currently traverses the City of Wilmington and potentially re-purpose this rail line for another use. This project is jointly funded by the City of Wilmington and Wilmington MPO. It is anticipated that NCDOT will also contribute towards the completion of the study. On January 21<sup>st</sup>, the City released a Request for Proposals for a consultant to complete the feasibility study. The City received 3 proposals. The Task Force will review the proposals and select a consultant.



## Cape Fear Public Transportation Authority

### Project Update

March 2016

- 1. Bus fleet replacement & conversion to CNG** - (no significant change) identifying state and federal funding opportunities to replace 19 thirty-five foot buses. Bid awarded to Gillig, LLC on June 26, 2014. Two buses delivered in June 2015. One CNG shuttle delivered in August 2015. Four buses delivered in February 2016. The most recent four buses will allow additional fuel savings due to volume. The effective new rate will be 0.162¢ per gallon plus delivery fee and electricity to compress the gas. The final rate will be significantly lower than the historically low current rate of 0.96¢ per gallon of diesel. CNG also emits significantly less CO<sub>2</sub> and particulate matter than diesel.
- 2. Wilmington Multimodal Transportation Center** - Interlocal Agreement between Authority, City of Wilmington, WMPO and NCDOT finalized. Demolition of Haul building scheduled for April 2016. The Authority is working to complete NEPA Document, stabilize Neuwirth Brothers and Thomas Grocery buildings, and design and construct transit portion of WMMTC. Preliminary completion date is late 2017.
- 3. Short Range Transportation Plan** - (no significant change) Following adoption of Cape Fear Transportation 2040 by the Wilmington Metropolitan Planning Organization (WMPO), Wave Transit is preparing to begin its latest short range plan. The plan will set a course for public transportation initiatives, route structure and revenue programming for the next five years. The plan will also include a financial element to ensure that transit programs are compliant with FTA rules and regulations. Under the direction of the Authority's Operations and Planning Committee made up of Board members, staff, WMPO planners, passengers, interested citizens, and professional transit planning consultants, the 12-18 month plan is an important tool in meeting the public transportation needs of the community. Marketing, public relations and community support for financing transit in Southeastern North Carolina will also be a focus of the plan. A key component of the plan will be extensive surveying to assess the needs of current and prospective passengers.
- 4. Long Term Funding** - (no significant change) currently, the Authority does not have a dedicated source of local funding. An initiative to analyze long term revenue stability of Wave Transit has also been proposed by the City of Wilmington. This effort is critical to the long term financial health of the Authority. No timetable for the analysis has been developed.
- 5. Shelter Program** - a program to replace and add up to 50 bus shelters and 25 benches at bus stops is nearing construction. Partial funding has been identified. Engineering and design are underway as is permit acquisition. Depending on site requirements, bus shelters can exceed \$15,000 per location.



PAT McCRORY  
Governor

NICHOLAS J. TENNYSON  
Secretary

March 10, 2016

**TIP Projects:**

**R-3601 (US 17/74/76):** Widening across the “CAUSEWAY”, between Leland/Belville and the Cape Fear River. Replacing the bridges over the Brunswick River and one of the bridges over Alligator Creek.

**Estimated Contract Completion Date November 2016**

**R-2633 BA – (Wilmington Bypass)** construct a 4-lane divided highway from US 74/76 (near Malmo) to SR 1430 (Cedar Hill Road).

**Estimated Contract Completion Date April 30, 2018**

**Open to traffic on November 2017**

**R-2633 BB – (Wilmington Bypass: Bridge over Cape Fear River)** construct a 4-lane divided highway from SR 1430 (Cedar Hill Road) to US 421 (where I-140 currently ends in New Hanover County...this includes the large bridge over the Cape Fear River).

**Estimated Contract Completion Date April 30, 2018**

**Open to traffic on November 2017**

**R-3324 – Long Beach Road Extension** construct a 2-lane, 2-way roadway from NC 133 (near Jump & Run Creek) to NC 87. Most of this roadway will be on new location.

**Traffic on new alignment of Long Beach Road**

**Estimated Contract Completion Date Summer 2016**

**R-3432 – SR 1163 (Georgetown Road)** extend from SR 1184 (Ocean Isle Beach Road) to NC 179.

**Open to traffic**

**Estimated Contract Completion Date May 13, 2016**

**B-5103:** replace bridge #35 over the abandoned railroad on SR 1627 (3<sup>rd</sup> Street), in Wilmington.

**Open to traffic April 1, 2016**

**Estimated Contract Completion Date September 28, 2016**



**U-3338 B:** Widening of Kerr Ave. from Randall Parkway to Martin Luther King, Jr. Parkway.

**Estimated Contract Completion Date September 2018**

**B-5236:** replace bridge #19 over Lords Creek on SR 1100 (River Road)

**Let Date September 20, 2017**

**B-4929: Bridge @ Surf City NC 50/210** - replace bridge #16 over the inter-coastal waterway with a fixed span high rise structure.

**Let Date August 2016**

**U-4751: Military Cutoff Road Extension:** extending Military Cutoff Road from Market Street to the Wilmington Bypass, with an interchange at the Bypass.

**Let Date October 2017**

**B-4590:** replace bridge #29 over Smith Creek on NC 133 (Old Castle Hayne Road)

**Let Date December 2018**

**R-5701:** construct a roundabout at the intersection of US 117 Business, Walker Street & Wilmington Street

**Let Date August 2018**

**U-5729: US 421 (Carolina Beach Road)** from Burnett Avenue to US 117 (Shipyard Blvd) upgrade the roadway

**Let Date August 2021**

**U-5790: US 421 (Carolina Beach Road)** widen existing US 421 from Sanders Road to NC 132 (College Road) and construct fly-overs at Monkey Junction intersection

**Design Build Selection Date January 2020**

**U-5732: US 17 (Ocean Highway in Hampstead)**

Convert to superstreet from SR 1582 (Washington Acres Road) to SR 1563 (Sloop Point Loop Road).

**Let Date August 2020**

**U-4902 C&D: US 17 Business (Market Street)** construct a “super-street” (median) from SR 2734 (Marsh Oaks Drive) to Lendire Drive & from Station Road to US 74 (MLK Parkway/Eastwood Road).

**Let Date October 2018**

**Greenfield Lake Culvert:** replace the large culvert under 3<sup>rd</sup> Street and US 421 Truck/Front Street...Utility relocation work will begin late 2013 and finish prior to let date

**Let Date TBD**

**Wrightsville Avenue (EB-4411C WBS#36333.3.FS3 2016CPT.03.02.20651):** widen for bike lanes on SR 1411 (Wrightsville Ave.) from Huntington Ave. to US 76 (Oleander Drive)

**Availability Date October 5, 2015**

**Estimated Contract Completion Date May 6, 2016**

### **Resurfacing Contracts:**

**Resurfacing Contract: C-203480 3CR.10101.150, 3CR.20101.150, 3CR.10651.150, 3CR.20651.150 & 3CR.10711.150 Barnhill Contracting**

#### **Brunswick County primary routes:**

**US 17 Business** – mill & resurface from US 17 (south end of US 17 Bus.) to US 17 (@ nose of concrete island)...Bolivia area

**US 17 Bypass (Southbound lanes)** – patch, mill & resurface from 0.17 miles north of SR 1401 (Galloway Road) to 0.09 miles south of SR 1401

#### **Brunswick County secondary routes:**

**SR 1104 (Beach Drive)** – patching, milling, resurface & leveling from beginning of curb & gutter section to end of SR 1104

**SR 1828 (Kings Lynn Drive)** – patching, mill & resurface from SR 1104 (West Beach Drive) to SR 1828

**SR 1401 (Galloway Road)** – resurface from US 17 to SR 1402 (Randolphville Road)

**SR 1435 (North Navassa Road)** – patching, mill & resurface from SR 1472 (Village Road Northeast) to SR 1432 (Old Mill Road Northeast)

**SR 1430 (Cedar Hill Road)** – patching, mill & resurface from SR 1435 (North Navassa Road) to 0.58 miles south of SR 1431 (Royster Road Northeast)

**SR 1430 (Cedar Hill Road)** – patching, mill & resurface from 0.54 miles north

of

SR 1431 (Royster Road Northeast) to SR 1426 (Mount Misery Road)

**Mill & resurface the following primary routes in New Hanover County:**

**US 421 (Carolina Beach Road)** – from 0.26 miles south of Independence Blvd. (non-system portion) to west of Lake Shore Drive (non-system)

**US 117 Northbound Lanes (Shipyard Blvd)** – from US 421 to 0.05 miles east of US 421 (Carolina Beach Road)

**US 117 Southbound Lanes (Shipyard Blvd)** – from 0.20 miles east of US 421 to US 421 (Carolina Beach Road)

**US 421 Southbound Lanes (South 3<sup>rd</sup> Street)** – from US 76 (Dawson Street) to Greenfield Street (non-system)

**US 421 Northbound Lanes (South 3<sup>rd</sup> Street)** – from Greenfield Street (non-system) to US 76 (Dawson Street)

**US 17 Business (South 3<sup>rd</sup> Street)** – from US 76 eastbound lanes to US 76 westbound lanes

**Mill & resurface the following secondary routes in New Hanover County:**

**SR 1218 (16<sup>th</sup> Street)** – from US 76 westbound lanes (Wooster Street) to US 76 eastbound lanes (Dawson Street)

**SR 1371 (16<sup>th</sup> St.)** - from Grace Street (non-system) to US 17 Business (Market Street)

**SR 2816 (16<sup>th</sup> St.)** - from US 17 Business (Market Street) to US 76 westbound lanes (Wooster Street)

**SR 1301 (17<sup>th</sup> Street)** - from US 17 Business (Market Street) to Grace Street (non-system)

**SR 2817 (17<sup>th</sup> Street)** - from US 76 eastbound lanes (Dawson Street) to US 17 Business (Market Street)

**SR 1411 (Wrightsville Avenue)** - from Dawson Street Extension (non-system) to SR 1209 (Independence Blvd.)

**Resurface the following secondary routes in New Hanover County:**

**SR 2699 (Amsterdam Way)** - from SR 2700 (Old Dairy Rd.) to SR 2048 (Gordon Rd.)

**SR 2701 (Antilles Ct.)** - from SR 2698 (Netherlands Dr.) to end maintenance

**SR 2698 (Netherlands Dr.)** - from SR 2048 (Gordon Rd.) to SR 2700 (Old Dairy Rd.)

**SR 2700 (Old Dairy Rd.)** - from US 17 Bus. (Market St.) to SR 2699 (Amsterdam Way)

**SR 2220 (Windmill Way)** - from SR 2219 (N. Green Meadows Dr.) to SR 2700 (Old Dairy Rd.)

**SR 2183 (Spring Rd)** - from NC 133 (Castle Hayne Rd.) to SR 2184 (Fairfield Rd.)

**SR 2184 (Fairfield Rd.)** - from SR 2183 (Spring Rd) to SR 1318 (Blue Clay Rd)

**Widen & resurface following routes in New Hanover County:**

**SR 1940 (Covil Farm Rd)** - from SR 1409 (Military Cut-Off Rd) to SR 1916 (Red Cedar Rd)

**SR 2717 (Torchwood Blvd.)** - from US 17 Bus. (Market St.) to SR 2718 (Beacon Dr.)

**Mill & resurface a section & just resurface another section of SR 1363 (Bayshore Dr.)** from US 17 Bus. (Market St.) to SR 1393 (Biscayne Dr.)

**Pender County primary routes:**

US 117 - mill & resurface from 0.30 miles north of NC 210 to 0.026 miles north of

US 117 Business

NC 11/53 - mill & resurface from begin curb & gutter @ western city limits of Town of Atkinson to end curb & gutter @ the eastern city limits.

NC 53 - Patch ONLY from I-40 to US 117 (Town of Burgaw).

**Estimated Contract Completion Date Spring 2016**

**Resurfacing Contract: DC-00090 3CR.10101.165**

**Brunswick County:**

NC 211 – mill & resurface from NC 87 to end of system at Fort Fisher Ferry Terminal.

**Estimated Contract Completion Date Spring 2016**

**Resurfacing Contract: C203630 WBS #46176.3.FS1**

**New Hanover & Pender Counties:**

I-40 – milling & resurfacing from Gordon Road interchange to NC 210 interchange

I-40 – milling & resurfacing from US 117 interchange to mile post 393 (approximately 3.5 miles east of US 117 interchange)

**Estimated Contract Completion Date December 2016**

**Resurfacing Contract: 2016CPT.03.04.10711 & 2016CPT.03.04.20711**

**Pender County:**

**US 117 Bypass** milling & resurfacing from southern city limits of Burgaw to SR 1504 (Murphy Road).

**NC 53** milling & resurfacing from US 117 Bypass to US 117 Business

**SR 1104 (Canetuck Road)** resurfacing from bridge #20 over Lyon Creek to Bladen County line

**SR 1301 (Bay Road)** resurfacing from SR 1300 (Englishtown Road) to SR 1001 (Willard Road)

**SR 1411 (Old River Road)** resurfacing from US 117 to SR 1412 (New Road)

**Estimated Contract Completion Date June 2016**

**Resurfacing Contract: 2016CPT.03.07.20651**

**New Hanover County:**

**SR 1335 (Parmele Road)** resurfacing from NC 133 (Castle Hayne Road) to US 117/NC 132 (North College Road)

**SR 1276 (Cathay Road)** resurfacing from US 421 (Carolina Beach Road) to SR 1281 (Ventura Drive)

**SR 1524 (Golden Road)** resurfacing from US 421 (Carolina Beach Road) to SR 1492 (Myrtle Grove Road)

**SR 1544 (Friendly Lane)** resurfacing from SR 1492 (Masonboro Loop Road) to end of system

**SR 1616 (Pelican Point)** resurfacing from SR 1492 (Masonboro Loop Road) to end of system

**SR 1386 (Hall Drive)** resurfacing from SR 1318 (Blue Clay Road) to SR 1312 (Trask Drive)

**SR 1311 (Gardner Drive)** resurfacing from SR 1312 (Trask Drive) to SR 1312 (Trask Drive)

**SR 1312 (Trask Drive)** resurfacing from SR 1311 (Gardner Drive) to SR 1311 (Gardner Drive)

**State Port Roadway resurfacing**

**Estimated Contract Completion Date June 2016**

**Resurfacing Contract: 2016CPT.03.08.10101 & 2016CPT.03.08.20101**

**Brunswick County:**

- NC 87/NC 133 (**River Road**) resurfacing from project limits of R-3324 (Long Beach Road Extension) to SR 1526 (Jabbertown Road)
- SR 1100 (**Caswell Beach Road**) milling & resurfacing from SR 1190 (Oak Island Drive) to end of system
- SR 1101 (**Fish Factory Road**) resurfacing from NC 133 (Long Beach Road) to end of system
- SR 1194 (**West Street**) resurfacing from NC 211 to end of system, in Southport
- SR 1209 (**9<sup>th</sup> Street**) resurfacing from NC 211 to end of system, in Southport
- SR 1210 (**Old Bridge Road**) resurfacing from NC 133 (Long Beach Road) to end of system
- SR 1526 (**Jabbertown Road**) resurfacing from NC 87 to SR 1527 (Leonard Street), in Southport
- SR 1528 (**Moore Street**) resurfacing from NC 211 to end of system, in Southport

**Estimated Contract Completion Date May 2016**

**Resurfacing Contract: 2016 CPT.03.09.10101 & 2013CPT.03.09.20101**

**Brunswick County:**

- US 17 NBL & SBL resurfacing from NC 904 to South Carolina line
- SR 1139 (**Seashore Road**) resurfacing from NC 130 (Holden Beach Road) to SR 1137 (Boones Neck Road)
- SR 1184 (**Ocean Isle Beach Road**) resurfacing from US 17 to NC 904/179
- SR 1241 (**Milliken Avenue**) resurfacing from
- SR 1242 (**Beach Drive**) resurfacing from NC 179 Bus. to end of the system
- SR 1940 (**Claremont Drive**) resurfacing from SR 1941 (Stratford Place) to end of the system
- SR 1941 (**Stratford Place**) resurfacing from SR 1943 (Country Club Drive) to SR 1940 (Claremont Drive)
- SR 1942 (**Bruce Lane**) resurfacing from SR 1941 (Stratford Place) to SR 1944 (Deep Branch Road)
- SR 1944 (**Deep Branch Road**) resurfacing from SR 1942 (Bruce Lane) to SR 1940 (Claremont Drive)
- SR 1813 (**Pinewood Drive**) resurfacing from SR 1950 (Camelia Drive) to end of system
- SR 1943 (**Country Club Drive**) resurfacing from SR 1949 (Brierwood Road) to SR 1941 (Stratford Place)
- SR 1949 (**Brierwood Road**) resurfacing from SR 1943 (Country Club Drive) to

Shallotte City Limits  
**SR 1950 (Camelia Drive)** resurfacing from SR 1141 (Kirby Road) to SR 1813  
(Pinewood Drive)

**SR 1951 (Driftwood Acres Drive)** resurfacing from SR 1950 (Camelia Drive) to  
end of the system

**SR 1952 (Myrtlewood Drive)** resurfacing from SR 1950 (Camelia Drive) to  
end of the system

**Availability Date February 2016**

**Estimated Contract Completion Date November 2016**

**Resurfacing Contract: 2016CPT.03.31.20711 & 2016CPT.03.31.20712**

**Pender County:**

**SR 1113 (Montague Rd.)** resurface from US 421 to SR 1114 (Blueberry Rd.)

**SR 1412 (Newroad Ave., Front St. & S. Dickerson St.)** resurface from US 117  
to Hayes Rd.(NS)

**Estimated Contract Completion Date September 2016**

If you have any questions, please contact Patrick Riddle at the Division 3 Office:

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