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Create and execute continuing, cooperative and comprehensive regional long-range planning efforts that pro-actively drive transportation decisions to improve safety, connectivity, economic development and quality of life in the Wilmington region.

Technical Coordinating Committee Meeting Agenda

TO: Technical Coordinating Committee Members
FROM: Mike Kozlosky, Executive Director
DATE: August 12, 2016
SUBJECT: August 17th meeting

A meeting of the Wilmington Urban Area MPO's Technical Coordinating Committee will be held on Wednesday, August 17th 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 the Agenda
- 3) Approval of Minutes
 - a. 7/13/16
- 4) Presentation
 - a. Joint FHWA/FTA Certification Review, Ron Lucas, FHWA
 - b. Section 5310 Program, Albert Eby and Vanessa Lacer, Cape Fear Public Transportation Authority
- 5) Consent Agenda
 - a. Opening of the 30-day public comment period for STIP/MTIP Amendments (August)
 - b. Resolution approving STIP/MTIP Amendments (June and July)
 - c. Resolution encouraging the North Carolina Department of Transportation to provide notifications and implement restrictions for work on the Cape Fear Memorial Bridge and work toward the long-term replacement of the bridge
 - d. Resolution supporting a modification in project limits for the Cape Fear Boulevard Multi-use path Project
- 6) Regular Agenda
 - a. Resolution adopting the Wilmington Urban Area MPO's 2016 Congestion Management Process Biennial Report
 - b. Resolution adopting the FY 2017 Surface Transportation Block Grant Program (STBGP) Submittal Guide and Competitive Process
 - c. Resolution adopting the FY 2017 Transportation Alternatives Set Aside-Direct Attributable (TASA-DA) Submittal Guide and Competitive Process

Wilmington Urban Area Metropolitan Planning Organization

City of Wilmington • Town of Carolina Beach • Town of Kure Beach • Town of Wrightsville Beach
County of New Hanover • Town of Belville • Town of Leland • Town of Navassa • County of Brunswick
County of Pender • Cape Fear Public Transportation Authority • North Carolina Department of Transportation

-
- d. Resolution requesting the North Carolina Department of Transportation begin right of way acquisition for the Hampstead Bypass
 - e. Resolution encouraging the North Carolina Board of Transportation to support a bicycle/pedestrian crossing on 17th Street at New Hanover Regional Medical Center
 - 7) Discussion
 - a. STIP/MTIP Modifications (August)
 - b. WMPO Bylaw Amendment
 - c. Public Participation Plan Update
 - 8) Updates
 - a. Crossing over the Cape Fear River
 - b. Wilmington MPO
 - c. Cape Fear Public Transportation Authority
 - d. NCDOT Division
 - e. NCDOT Transportation Planning Branch
 - 9) Announcements
 - a. WMPO Bike/Ped Committee Meeting- August 25th
 - 10) Next meeting –September 14, 2016

Attachments:

- Minutes 7/13/16 meeting
- Joint FHWA/FTA Certification Review report
- STIP/MTIP Amendments (August)
- STIP/MTIP Amendments (June)
- STIP/MTIP Amendments July)
- Resolution approving STIP/MTIP Amendments (June and July)
- Resolution encouraging the North Carolina Department of Transportation to provide notifications and restrictions for work on the Cape Fear Memorial Bridge and work toward the long-term replacement of the structure
- Letter from the Town of Carolina Beach
- Resolution supporting a modification in project limits for the Cape Fear Boulevard Multi-use path Project
- 2016 Wilmington Urban Area Congestion Management Process Biennial Report
- Resolution adopting the Wilmington Urban Area MPO's 2016 Congestion Management Process Biennial Report
- FY 2017 Surface Transportation Block Grant Program (STBGP) Submittal Guide and Competitive Process
- Resolution adopting the FY 2017 Surface Transportation Block Grant Program (STBGP) Submittal Guide and Competitive Process
- FY 2017 Transportation Alternatives Program-Direct Attributable (TAP-DA) Submittal Guide and Competitive Process
- Resolution adopting the FY 2017 Transportation Alternatives Set Aside-Direct Attributable (TAP-DA) Submittal Guide and Competitive Process
- House Bill 959 (Session Law 2016-90) (Pages 1, 18-19)
- Resolution requesting the North Carolina Department of Transportation begin right of way acquisition for the Hampstead Bypass
- Letter from Norris & Tunstall Engineers and Building Elevations for New Hanover Regional Medical Center
- Aerial Site Plan and Building Elevations
- House Bill 824 (Session Law 2003-267)
- Resolution encouraging the North Carolina Board of Transportation to support a bicycle/pedestrian crossing on 17th Street at New Hanover Regional Medical Center
- STIP/MTIP Modification (August)
- Cape Fear River Crossing Update (August)
- Wilmington MPO Project Update (August)
- Cape Fear Public Transportation Authority Update (August)
- NCDOT Project Update (August)

**Wilmington Urban Area
Technical Coordinating Committee
Meeting Minutes for July 13, 2016**

Members Present:

Mike Kozlosky, City of Wilmington
Ed Parvin, Town of Carolina Beach
Adrienne Harrington, TDM
Megan O'Hare, Pender County
Robert Waring, Town of Leland
Ken Vafier, New Hanover County
Athina Williams, Town of Belville
Allen Serkin, Cape Fear Council of Government

Nancy Avery, Town of Kure Beach
Stephanie Ayers, NC Ports
Albert Eby, CFPTA
Tray Burke, Town of Navassa
Zach Steffey, Town of Wrightsville Beach
Behshad Norowzi, NCDOT Planning Branch

1. Call to Order

Mr. Kozlosky called the meeting to order at 10:02am.

2. Approval of Agenda

With no changes to the meeting agenda, Mr. Parvin made the motion to approve the agenda. Mr. Waring seconded the motion and it carried unanimously.

3. Approval of Minutes

The minutes for the June 15, 2016 meeting were approved unanimously.

4. Presentations

a. Wilmington Urban Area MPO's New Website, Brittany Strait, WMPO

Ms. Strait gave a presentation on the new WMPO website. She reviewed the final updates made to the website since the last meeting. A brief question and answer period followed.

b. Wilmington Urban Area MPO's Project Database, Josh Lopez, WMPO

Mr. Lopez gave a presentation on the MPO Project Database. He told members that the database will offer comprehensive, concise information for projects within the Wilmington Urban Area planning boundary. He noted that the database will also allow users to generate project reports. A question and answer period followed.

c. Watch for Me, NC Initiative, Adrienne Harrington, WMPO

Ms. Harrington gave a presentation on the Watch for Me, NC campaign. She told members that NCDOT began the program in 2012. New Hanover County was approved to participate safety in the campaign in 2014 and again in 2016. Ms. Harrington noted that this year's campaign focuses on outreach/education and enforcement. A brief question and answer period followed the presentation.

5. Consent Agenda

a. Opening of the 30-day Public Comment Period for STIP/MTIP Amendments (July)

b. Resolution supporting additional funding for the Cape Fear Public Transportation Authority in the amount of \$75,000

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

6. Regular Agenda

a. Resolution supporting an amendment to the FY 2017 UPWP for the Cape Fear Public Transportation Authority Short Range Transit Plan

Mr. Kozlosky told members that FTA requires that the Cape Fear Public Transportation Authority (CFPTA) Short Range Transit Plan must be included in the UPWP. He noted that CFPTA is proposing to fund half of their Short Range Transit Plan in this fiscal year, and the other half in the next fiscal year.

Ms. Harrington made the motion to support the resolution amending the FY 2017 UPWP to include the Cape Fear Public Transportation Authority Short Range Transit Plan and forward to the TAC for consideration. Mr. Riddle seconded the motion and it carried unanimously.

7. Discussion

a. Surface Transportation Block Grant Program (STBGP) modal targets

Mr. Kozlosky told members that NCDOT's "FAST Act" was passed and the STP-DA and the TAP-DA programs were combined into one program at the Federal level. The new program is the Surface Transportation Block Grant Program (STBGP). With the shift from STP-DA and TAP-DA to STBGP, staff is seeking direction on the modal target investment strategies for FY 2017.

Mr. Lowe told members that the Surface Transportation Block Grant Program began in December of 2015. He noted that the transition to the new STBGP from the STP-DA and TAP-DA programs will be a good opportunity to evaluate the modal targets for the upcoming year. Mr. Lowe told members that staff reviewed the historical data from the TAP-DA and STP-DA programs in order to develop modal target funding allocation for the STBGP. Mr. Lowe reviewed staff's recommended changes to the modal targets and asked if members wished to propose changes to staff's recommendations.

Following a question/answer and general discussion period, consensus of the committee was to support staff's recommendations and forward the proposed modal target allocation changes to the TAC for consideration.

b. UNCW Bike Share Program

Ms. Harrington told members that UNCW recently released a Request for Proposals (RFP) for a Bike Share program on their campus. They selected a vendor for the program and are currently in contract negotiations with that vendor. Ms. Harrington explained how UNCW's program will operate and how users can access data to rent and return bikes. She also discussed opportunities available to expand the program out to other jurisdictions or entities that may be interested in starting a bike share program.

A lengthy question/answer period followed. Members express concerns regarding costs that may be associated with the program and how expanding UNCW's Bike Share Program would affect the programs already in place in some of the communities within the WMPO.

Mr. Kozlosky told members that staff is seeking direction from members on conducting a feasibility planning study as the first step in determining if this is a viable option for the area. Following the discussion, consensus was that staff move the item forward to the TAC for discussion/consideration and acknowledge concerns voiced by the TCC.

7. Updates

Updates are included in the agenda packet.

8. Announcements

9. Adjournment

With no further items, the meeting was adjourned at 11:35am.

**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.**



U.S. Department
of Transportation

**Federal Highway
Administration**

Federal Highway
Administration

Federal Transit
Administration

Program Review

Wilmington, NC Metropolitan Planning Organization

REPORT

July 7, 2016



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Executive Summary

Purpose

Pursuant to 23 U.S.C. (i)(5) and 49 U.S.C. 1607, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) must certify jointly the metropolitan transportation planning process in Transportation Management Areas (TMAs) at least once every four years. The Wilmington Urbanized Area Metropolitan Planning Organization (WMPO) became a TMA, an MPO with a population of at least 200,000 as defined by the United States Census Bureau, with the 2010 decennial census.

Methodology

The review consisted of a desk audit, a public comment meeting, and an on-site review that was conducted Tuesday, April 19, 2016. In addition to the formal review, routine oversight, such as attendance at meetings, day-to-day interactions, review of work products, and working with the MPO provide a major source of information upon which to base certification findings. After the on-site review is complete, a report is written to document the findings.

Statement of Finding

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) find that the metropolitan transportation planning process substantially meets Federal requirements and jointly certify the planning process. The review identified commendations and recommendations.

Findings

The Federal Review team identified no corrective actions, and the following commendations and recommendations:

Commendations:

1. The WMPO is commended for considering minority business communities as part of their demographic data collection efforts. Staff stated that they conducted a business district analysis, which fed into the prioritization process.
2. The WMPO is commended for its public involvement efforts with regard to Environmental Justice (EJ), which includes having a staff member that is fluent in Spanish, publishing their Metropolitan Transportation Plan (MTP) website in Spanish, ensuring diversity on its distribution lists, having a racially diverse citizens advisory committee, and maintaining a list of EJ community organizations.



3. The WMPO is commended, for its three-pronged public involvement approach used to solicit public input during development of the MTP.
4. The WMPO is commended for developing performance measures for its MTP and Transportation Improvement Program (TIP) in advance of federal guidance.
5. The MPO's coordination with the transit operators is outstanding. An excellent working relationship has been established. The MPO is very transparent with the transit operators and works with them on a daily basis to include them in the planning process. The transit providers and the MPO both praised each other regarding ongoing communication. They appear to depend on one another to get the job done and achieve their transportation goals.

Recommendations:

1. It is recommended that as a best practice, the WMPO, if possible, use a smaller geography unit such as census block groups or Traffic Analysis Zones (TAZs) as smaller units provide more precise information.
2. It is recommended that the WMPO clarify whether median values or actual values were used to identify minority and low-income populations.
3. It is recommended that the WMPO clarify the use of "low vehicle ownership" versus "no vehicles" as a population identifier. If "low vehicle ownership" data is used, please provide the definition for this term.
4. It is recommended that the WMPO define the basis for identifying "low-income" populations.
5. It is recommended that the WMPO clarify the use of total project costs as a measure of transportation impacts by distinguishing between positive impacts (benefits) versus negative impacts (burdens).
6. It is recommended that the WMPO clarify and/or provide additional information to support the WMPO's conclusion that transportation impacts are generally proportional to the population percentages across the region.
7. It is recommended that the WMPO identify other types of measures (such as accessibility, mobility, congestion, safety, etc.) the WMPO will use to analyze transportation system benefits and burdens to EJ populations as compared to non-EJ populations.
8. It is recommended that the WMPO consider low-income populations by themselves instead of only in combination with African Americans, Hispanics, and other minorities.



9. It is recommended that the WMPO be more deliberate in promoting its commitment to environmental justice by including an EJ specific goal.
10. It is recommended that the WMPO identify why economic development will be enhanced by a proposed transportation project if economic development is identified as the need for the project during the NEPA process.

Certification

The Wilmington Metropolitan Planning Organization's planning process is certified for four years from the date of this Report.

Introduction

Purpose

The purpose of the Review is to assess the extent of compliance with the Federal planning requirements, to recognize noteworthy practices, to identify problem areas, and to provide assistance and guidance, as appropriate. The Review consisted of a series of discussions on a variety of transportation planning topics with state and local transportation officials directly involved in highway and transit planning activities of the Metropolitan Planning Organization (MPO). The Review, which was held at the MPO's offices, included a public involvement meeting between 5:00 and 6:00 pm on April 19, 2016, to provide the public an opportunity to offer comments on the MPO's transportation planning process. This report contains the findings and recommendations of the Review Team.

Scope

Pursuant to 23 U.S.C.(i)(5) and 49 U.S.C. 1607, the FHWA and the FTA must jointly certify the Federal metropolitan transportation planning process in Transportation Management Areas (TMAs) at least once every four years. A TMA is an urbanized area with a population greater than 200,000, as defined by the U.S. Census Bureau. Certification reviews generally consist of three primary activities: 1) an on-site visit; 2) review of planning products, both prior to, and during the Review; and 3) preparation of a certification review report, which summarizes the review and contains Findings, including commendations, recommendations, and corrective actions. Certification reviews address compliance with Federal regulations and challenges, successes, and experiences of the cooperative relationship between the MPO, State Department of Transportation (DOT), and Transit Operators in the conduct of the continuing, cooperative, and comprehensive (3C) metropolitan planning process. Joint FHWA/FTA certification review guidelines afford agency reviewers flexibility in designing the Review to reflect local issues and circumstances. Consequently, the scope of the Certification Review Reports varies



from TMA to TMA.

Methodology

The FHWA North Carolina Division Office and the FTA Region 4 Office conducted a joint Certification Review of the Wilmington MPO's transportation planning process, which included a site visit on April 19, 2016. The Review was conducted in accordance with 23 CFR Part 450 and 49 CFR Part 613, which requires FHWA and FTA to jointly review and assess the transportation planning process for all transportation management areas (TMAs) at least once every four years. According to the 2010 Census, the WMPO contains a population greater than 200,000, which makes it subject to the TMA transportation planning requirements. This is the first Certification Review conducted for this area.

The MPO staff worked with FHWA staff to develop a schedule for the Certification Review. A desk audit of the MPO's planning documents was conducted prior to the on-site review. Responses to pertinent questions were provided and reviewed in advance of the review. A public meeting was held immediately after the review for FHWA staff to receive public comments on the MPO's transportation planning process. No members of the public attended the public meeting.

The topics addressed in this report document the regulatory basis, current status, and findings. These terms are defined below.

Regulatory Basis – Defines where information regarding each planning topic can be found in the Code of Federal Regulations (CFR) and/or the United States Code (USC) – the “Planning Regulations” and background information on the planning topic.

Current Status – Defines what the Transportation Management Area (TMA) is currently doing with regard to each planning topic.

Findings – Statements of fact that define the conditions found during the review which provide the primary basis for determining corrective actions, recommendations, and/or commendations for each planning topic.

Commendation – a process or practice that demonstrates innovative, highly effective procedures for implementing the planning requirements. Elements addressing items that have frequently posed problems nationwide could be cited as commendations.

Recommendation – Addresses technical improvements to processes and procedures that while somewhat less substantial and not regulatory, are still significant enough that FHWA and FTA are hopeful that State and local officials will take action. The expected outcome is change that would improve the process, though there is no Federal mandate, and failure to respond could, but will not necessarily result in a more restrictive certification.



Corrective Action – Indicates a serious situation that fails to meet one or more requirements of the transportation planning statutes and regulations, thus seriously impacting the outcome of the overall planning process. The expected outcome is a change that brings the metropolitan planning process into compliance with a planning statute or regulation; failure to respond will likely result in a more restrictive certification.

Team Members

The Federal Review Team consisted of the following individuals:

- Mr. George Hoops, Planning and Program Development Manager, FHWA, NC Division
- Ms. Tajsha LaShore, Community Planner, FTA, Region 4
- Mr. Ron Lucas, Planning and Environmental Engineer, FHWA, NC Division
- Ms. Lynise DeVance, Civil Rights Program Manager, FHWA, NC Division
- Mr. Bill Marley, Community Planner, FHWA, NC Division

Participants from the Wilmington MPO included:

- Mr. Mike Kozlosky, Executive Director
- Ms. Suraiya Motsinger
- Mr. Josh Lopez
- Ms. Beth Doliboa
- Ms. Britt Strait
- Mr. Gary Doetsch, Chair, Transportation Advisory Committee (TAC)

Other participants included:

- Mr. Beshad Norowzi, North Carolina Department of Transportation (NCDOT) Transportation Planning Branch (TPB)
- Albert Eby, Wave Transit
- Megan Matheny, Wave Transit
- Yvonne Hatcher, Brunswick County Transit
- Valeria Sutton, Pender County Adult Services – Transportation



Wilmington Metropolitan Planning Organization (WMPO) Background

Current Status

The Wilmington area was originally designated and established as an MPO in 1978. In 2012, the MPO was designated as a TMA. The City of Wilmington serves as the Lead Planning Agency (LPA) for the MPO. No changes to the MPO's designation are being considered at this time. All operators of major modes of transportation are represented on the MPO. The MPO's MOU establishes that each member shall have one vote. There is no weighted voting.

The Wilmington MPO TAC consists of thirteen voting members that act as a governing board of the WMPO. Per the Memorandum of Understanding (MOU), signed by all member jurisdictions, the TAC includes:

1. Two members of the Wilmington City Council
2. One member of the Carolina Beach Town Council
3. One member of the Kure Beach Town Council
4. One member of the Wrightsville Beach Board of Aldermen
5. One member of the New Hanover County Board of Commissioners
6. One member of the Belville Board of Commissioners
7. One member of the Leland Town Council
8. One member of the Navassa Town Council
9. One member of the Brunswick County Board of Commissioners
10. One member of the Pender County Board of Commissioners
11. One member of the Cape Fear Public Transit Authority (New Hanover County representative)
12. One member of the North Carolina Board of Transportation (BOT)

The TAC also includes non-voting members and advisory members who represent the agencies with interest in the transportation planning practices for the WMPO region. Representatives from the following bodies serve as non-voting members:

1. Federal Highway Administration (North Carolina Division Administrator)
2. Cape Fear Council of Governments



3. North Carolina State Ports Authority
4. North Carolina Turnpike Authority
5. Other local, State, or Federal agencies impacting transportation in the planning area at the invitation of the TAC

The Wilmington MPO TCC consists of transportation professionals from the member jurisdictions. The TCC is responsible for the review, guidance, and coordination of the transportation planning process. Members of the TCC include technical representatives from local and state agencies including:

1. MPO Coordinator and Senior Transportation Planner, City of Wilmington
2. Transportation Demand Management Coordinator, Cape Fear Breeze
3. Traffic Engineer, City of Wilmington
4. Planner, Town of Carolina Beach
5. Town Clerk, Town of Kure Beach
6. Director of Planning and Parks, Town of Wrightsville Beach
7. Director, New Hanover County Planning Department
8. Deputy Director, Wilmington International Airport
9. Planner, North Carolina State Ports Authority
10. Planner, Town of Belville
11. Town Manager, Town of Leland (alternate: Director of Development Services)
12. Town Council Member – Planning Administrator, Town of Navassa
13. Director, Brunswick County Planning Department
14. Director, Pender County Planning Department
15. Planning Director, Cape Fear Council of Governments
16. Division Engineer, Division of Highways, North Carolina Department of Transportation
17. Wilmington Urban Area Coordinator, Transportation Planning Branch, North Carolina Department of Transportation



Representatives from each of the following bodies serve as non-voting members of the Technical Coordinating Committee:

1. Director of Department of Development Services, City of Wilmington
2. Assistant Manager, New Hanover County
3. Division Operations Engineer, Division of Highways, North Carolina Department of Transportation
4. Division Construction Engineer, Division of Highways, North Carolina Department of Transportation
5. Planning Division Manager, City of Wilmington (alternate: Senior Long Range Planner)
6. Division Traffic Engineer, Division of Highways, North Carolina Department of Transportation
7. Transit Planner, Public Transportation Division, North Carolina Department of Transportation
8. Planning and Environmental Engineer, North Carolina Division, Federal Highway Administration, United States Department of Transportation (advisory, non-voting)
9. Director, Cape Fear Public Transportation Authority
10. General Manager, Brunswick Transit Systems
11. Director, Pender Adult Services

Self-Certification

Regulations:

- **23 CFR 450.334**
- **23 USC 134 and 49 USC 5303**
- **Title VI of the Civil Rights Act of 1964**
- **49 USC 5332**
- **Section 1101(b) of SAFETEA-LU and 49 CFR Part 26**



- **23 CFR Part 230**
- **49 CFR Parts 27, 37, and 38**
- **Older Americans Act as amended**
- **Section 324 of Title 23 USC**
- **Section 504 of the Rehabilitation Act of 1973 and 49 CFR Part 27**
- **23 CFR 630.112**
- **All other applicable provisions of Federal law**

Current Status

The Self-Certification process is documented through resolution certifying the Wilmington Urban Area MPO Transportation Planning Process. The policy board is apprised of all of the major laws that govern transportation planning. They are identified at the very beginning of the self-Certification process. Supporting documentation and information that is provided to the MPO policy board when the self-Certification is approved includes: 1) the Unified Planning Work Program, 2) Resolution adopting the UPWP, and 3) Resolution Certifying the Transportation Planning Process for the Wilmington Urban Area MPO. This information is also available on the WMPO's website. The self-Certification is provided to the Federal agencies and the State as part of the UPWP, which is adopted every year.

The WMPO conducts transportation planning in a continuous, cooperative, and comprehensive manner in accordance with 23 USC 134 and 49 USC 1607, which is accomplished through the development and adoption of the MTP. The UPWP is updated and adopted yearly at TAC board meetings. Each agency is provided an opportunity to review and comment on the draft and final UPWPs during TCC and TAC meetings. There is also a 30-day public comment period prior to adoption of the final UPWP. NCDOT provides a specialized checklist of topics and issues to the MPO to consider for self-certifying the planning process. The transit authority also provides for the expenditure of Section 5303 funding.

There is an open public comment period on all the agendas of the TAC board meeting, which allows the public to voice their opinions or concerns regarding the self-certification and any other topics on transportation. In addition to this, the agenda packets are available on the WMPO's website, which provides contact information for the WMPO staff.

The MTP addresses Title VI and specifically refers to the need to address environmental justice. All of the goals of the MTP address the intent of environmental justice. Policies addressing every mode of transportation in the MTP stress the goal of being responsible with regard to protecting existing investments and limiting environmental and social impacts.



Metropolitan Planning Area Boundary (MPA)/Census

Regulation: 23 CFR 450.312(a):

The boundaries of a metropolitan planning area (MPA) shall be determined by agreement between the MPO and the Governor. At a minimum, the MPO boundaries shall encompass the entire existing urbanized area (as defined by the Bureau of the Census) plus the contiguous area expected to become urbanized within a 20-year forecast period for the metropolitan transportation plan.

Regulation: 23 CFR 450.314(a) and (d):

The MPO, the State, and the public transportation operator(s) shall cooperatively determine their mutual responsibilities in carrying out the metropolitan transportation planning process. The responsibilities shall be clearly identified in a written agreement among the MPO, the State(s) and public transportation operator(s) serving the MPO, and if more than one MPO has been designated to serve an urbanized area, there shall be a written agreement among the MPOs, the State(s) and the public transportation operator(s) describing how the metropolitan transportation planning process will be coordinated to assure the development consistent with metropolitan transportation plans and Transportation Improvement Programs (TIPs) across the MPO boundaries, particularly in cases in which a proposed transportation investment extends across the boundaries of more than one Metropolitan Planning Area (MPA). If any part of the urbanized area is a nonattainment or maintenance area, the agreement also shall include State and local air quality agencies.

Regulation: 23 CFR 450.321 (a):

The boundaries of a metropolitan planning area (MPA) shall be determined by agreement between the MPO and the Governor. At a minimum, the MPO boundaries shall encompass the entire existing urbanized area (as defined by the Bureau of the Census) plus the contiguous area expected to become urbanized within a 20-year forecast period for the metropolitan transportation plan.

Current Status

The current adjusted Urbanized Area Boundary (UAB) is based on the March 26, 2012, U.S. Census Bureau map that was adopted by the Wilmington Urban Area MPO on December 12, 2012. The Wilmington UAB contains a population of 219,957, which in July 2012 resulted in the Wilmington MPO being designated as a TMA. The Metropolitan Area Boundary (MAB) includes at a minimum the approved UAB and the adjacent areas that the MPO anticipates to become urbanized within the 20-year forecast period.

Possible future expansion of the MAB may occur to the northeast and southwest. These proposals, discussed in the past, would expand the planning area northeastward to include the Towns of Surf City and Topsail Beach. There has also been discussion of possible expansion of



the planning area boundary southwestward to include the cities of Southport, Boiling Springs Lake, Oak Island, Caswell Beach, Saint James, and Bald Head Island. Factors in determining future expansions will include population growth, business development, commuting patterns, land use patterns, and arrangements with neighboring MPOs. There are no Federal Lands or Indian Tribal lands within the MAB.

List of Obligated Projects

Regulation: 23 CFR 450.332:

This requires that the State, the MPO, and public transportation operators cooperatively develop a listing of projects for which Federal funds have been obligated in the previous year.

Current Status

NCDOT conveys information on the annual obligations to the MPO through its TIP Programming Unit. This information is transmitted annually, close to the end of the federal fiscal year. The information is posted on the MPO's website. NCDOT produces a report with information on every obligated project for every county in the MPO that includes each project's Division, County, Project Number, Description, Type, Amount, and whether it is funded from federal or state funding sources. A listing is published for all projects for which funds are obligated each year. The listing is not included in the TIP or MTP. It is transmitted as an independent document. No public comments have been received on the listing. The public can request a copy or download both documents from the website to compare the fiscal funding year column in the TIP to the list of obligated projects.

Agreements and Contracts

Regulation: 23 U.S.C. 134:

This requires the MPO to work in cooperation with the State and public transportation agencies in carrying out a continuing, cooperative, and comprehensive (3C) metropolitan planning process. These agencies determine their respective and mutual roles, responsibilities, and procedures governing their cooperative efforts. Federal regulation requires that these relationships be specified in agreements between the MPO and the State and between the MPO and the public transit operator.

Current Status

The WMPO has a Memorandum of Understanding (MOU) that was adopted on August 6, 2007. A new MOU was approved by the TAC on March 30, 2016, and will become effective once



approved by all members. The new MOU changed the name of the Transportation Advisory Committee (TAC) to the Board in order to remove the suggested advisory role and formally acknowledge the TAC as the governing Board. The new MOU also contained the following changes:

1. Added information on the TMA designation
2. Updated the Board's duties
3. Modified the language to reflect the new Federal Legislation, the FAST Act
4. Updated the TCC voting membership
5. Added information on the TIP development
6. Added information on project prioritization
7. Added information on Board subcommittees
8. Added information on transit planning and programming
9. Consolidated the subscribing agencies' responsibilities
10. Created a section on the Board's governing rules
11. Created a section in which other municipalities within the MAB may be invited to participate in the MPO

The MOU outlines the responsibilities of the Board for carrying out the review and approval of the UPWP, MTP, TIP, Federal-aid Functional Classification System, and Wilmington Adjusted Urbanized Area Boundary. The MPO utilizes NCDOT's most current prioritization process (Prioritization 4.0) for coordinating project prioritization and selection for the TIP. The MPO conducts its planning process and develops the required plans and documents as it is required to do and conforms to the agreements and functions in a 3C decision-making process. The MPO's existing agreements conform to the regulatory requirements and accurately represent the 3C process by proactively involving both voting and non-voting members of the TAC and TCC in the decision-making process. Performance measures and targets define the desired outcome of the cooperative agreements and provide a basis for evaluating the MPO's program goals and investments.



Unified Planning Work Program (UPWP) Development/Regional Planning Agreements

Regulations: 23 CFR 450.308 and 23 CFR 420.111:

This sets forth requirements for each MPO, in cooperation with the State and public transportation operators, to develop a Unified Planning Work Program (UPWP) that documents planning activities, products, funding, roles, and responsibilities, and a timeline for the completion of each activity.

Current Status

The MPO's UPWP is a product of a cooperative approach to development of the region's transportation program. The UPWP development process usually begins in late fall or early winter each year. The member jurisdictions of the MPO are encouraged to identify projects, studies, or work tasks that need to be included in the UPWP for the upcoming fiscal year. The NCDOT Transportation Planning Branch and Public Transportation Division calculate and inform the MPO how much Section 104(f) (PL) and Section 5303 transit planning funds are available for programming. Once the draft UPWP has been reviewed by the member jurisdictions in the MPO, it is sent electronically to NCDOT's Transportation Planning Branch and Public Transportation Division for review and comment. Any comments or changes are then incorporated into the draft UPWP, and a final UPWP is developed, reviewed, and approved by the TCC and TAC, usually in March. A final letter of approval is then provided to the MPO by NCDOT by July.

The WMPO involves the NCDOT and Cape Fear Public Transit Authority (CFPTA) in the development of the UPWP through their memberships in the TCC and TAC. During the Call for Projects, member jurisdictions are asked to submit project requests for the UPWP and both the TCC and TAC vote on the program's approval. The WMPO solicits participation from their partners and stakeholders (including freight and non-motorized transportation) in developing the UPWP, by including them in the various committees within the organization. These committees are informed of ongoing activities of the WMPO and hold an essential role for developing the region's Metropolitan Transportation Plan (MTP), which provides guidance in developing the UPWP.

Activities are developed, selected, and prioritized by staff and then submitted for consideration by the TCC and TAC. One step in developing the UPWP is announcing the Call for Projects during which members submit projects to be considered for the upcoming UPWP. Projects are compiled and staff discusses each project submitted, identifying the projects that align best with the region's goals, which are stated in the MTP. Staff then presents the selected projects to both the TCC and TAC, who ultimately vote to approve the UPWP following a public comment period.



The UPWP provides a strategic view of and a strategic direction for metropolitan transportation planning activities by outlining the planning tasks to be performed, anticipating funding needed, and the funding sources associated with each task. The WMPO's UPWP provides a narrative of the tasks, task objectives, tangible products expected to be produced, anticipated completion date, and information on partner agencies associated with the tasks. The WMPO staff adheres to the UPWP in performing planning tasks for the MPA, thereby providing the WMPO a strategic view of and strategic direction. The WMPO evaluates previous programs and budgets when drafting new work programs. The WMPO is also working to develop a 2017–2021 Strategic Business Plan.

The UPWP implements the goals and priorities identified in the MTP. Both the UPWP and the MTP use legislation as their foundation for establishing goals and priorities. Having this common source for establishing goals and priorities ensures that they both align in providing planning services to the MPA. The UPWP implements performance measures set by the FAST Act by task code. The goals and objectives of the MTP were established based on MAP-21.

The UPWP "Management and Operations" provides WMPO staff the opportunity for professional development through attendance at training workshops, courses, meetings, and conferences. Training opportunities emphasize establishing, implementing, and evaluating performance targets; improving public engagement efforts; and sustaining knowledge of relevant rules, procedures, and regulations of the transportation planning process. Developing these skills enables staff to effectively gather and communicate information to the WMPO committees, stakeholders, and partners. The WMPO is very good at providing these opportunities.

In the fiscal year 2016, Section 104(f), FTA Section 5303, Statewide Planning and Research Programs (SPR), and Surface Transportation Program – Direct Attributable (STP-DA) planning funds are appropriated in accordance with the tasks to be completed during the year. These tasks are determined through the projects requested by the WMPO members and approved by the TCC and TAC. Not all fiscal resources have been spent for the last two years. The running average balance of Federal planning funds is \$130,000; however, this amount reflects a carryover balance from several years ago. The MPO has since increased its staffing levels, which has increased expenditures and decreased unused balances. The WMPO is also allocated funds from STP-DA, which provides flexible funding for projects. The WMPO has apportioned \$250,000 from the previous two years and \$300,000 for the current year.

Planning activities are tracked by having staff complete monthly time sheets, which display how resources were used. Quarterly reports are provided to the NCDOT. Amendments reflecting changes in the UPWP are presented to the Board, seeking their approval in distributing funds, when needed. Project updates are provided to both the TCC and TAC committees in their agenda packets, and WMPO staff often provides updates to the TCC and TAC along with the governing boards of their member jurisdictions. Furthermore, WMPO staff creates an Annual Report highlighting current planning efforts the WMPO is performing.



Required planning elements, priorities, and activities are documented in the UPWP through the narrative text, which provides task objectives, tangible products expected to be produced, anticipated completion dates, and information on partner agencies associated with the tasks. The TAC adopts the UPWP and amendments.

Public Transit Planning

Regulation: 49 USC 5303:

It is in the interest of the United States, including its economic interest, to foster the development and revitalization of public transportation systems, in acquiring, constructing, supervising, or inspecting, equipment or a facility for use in public transportation, and to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and between States and urbanized areas, while minimizing transportation-related fuel consumption and air pollution through metropolitan and statewide transportation planning processes.

Current Status

Cape Fear Public Transportation Authority (dba Wave Transit) runs 16 fixed routes seven days a week. The service area for Wave Transit includes most of New Hanover County and the urbanized portion of northern Brunswick County to include Leland and Navassa. Most of their routes have hour-long headways and have a cost of two dollars per ride. Wave transit has three main transfer hubs (Forden Station in north central Wilmington, a transfer station in downtown Wilmington, and a transfer station at Independence Mall). It also funds a paratransit service for those with disabilities and seniors living within $\frac{3}{4}$ of a mile of a Wave Transit fixed route. Fixed-Route service primarily serves portions of the WMPO planning area in New Hanover and Brunswick Counties. Wave Transit's paratransit service provides door-to-door service based on advanced booking. Ridership has remained around 1.5 million passengers annually. Wave Transit provides 16 local fixed-route buses, a downtown trolley, and a series of Seahawk Shuttles that serve the University of North Carolina Wilmington (UNCW) campus. Paratransit and dial-ahead service is available throughout the WMPO planning area.

Brunswick Transit System (BTS) and Pender Adult Services (PAS-TRAN) are non-profit community transportation systems that coordinate general public and human service transportation services for the residents of Brunswick County and Pender County (respectively) based on placing advanced bookings for the service. BTS provides trips throughout Brunswick County Mondays through Fridays as well as trips to New Hanover County on Tuesdays and Thursdays. The cost of BTS's services range from \$1.50 to \$5.00, depending on the distance travelled. BTS consistently provides approximately 50,000 trips annually, but it should be noted that BTS serves all of Brunswick County to include areas outside of the WMPO planning area.



boundary. PAS-TRAN serves approximately 20,000 trips annually; this also includes trips outside of the WMPO planning area boundary.

Ridership in the WMPO planning area primarily consists of transit-dependent populations: low-income, elderly, students, children, disabled, veterans, and bicyclists. Existing service generally has a smaller choice rider population.

Planning/Coordination

WMPO staff meets with transit operators on a regular basis for various recurring meetings. At a minimum, WMPO staff and Cape Fear Public Transportation Authority staff meet four times a month to coordinate activities (WMPO TCC, WMPO TAC, Cape Fear Public Transportation Authority Planning & Operations Committee, and Cape Fear Public Transportation Authority Board Meetings). WMPO staff coordinates with Pender Adult Services Transportation and Brunswick Transit staff a minimum of quarterly at the RPO meetings. WMPO staff also sits on the Pender Transportation Advisory Board which meets quarterly.

Additionally, the excellent working relationship between all four agencies allows for coordination, participation, and assistance on each agency's projects as they arise. The WMPO interacts with the public transportation providers as questions or items of interest arise on a weekly basis through phone calls, emails, and project-specific meetings. All three public transit providers sat on the Cape Fear Transportation 2040 mass transportation subcommittee where they were integral in the creation of the Mass Transportation Element. The WMPO assists all three agencies on an as-needed basis with GIS and mapping needs.

Transit Representation on the MPO Board and Voting Membership

The Cape Fear Public Transportation Authority has membership on the MPO TAC and TCC.

Stressors between MPO roadway planning and transit planning activities

Roadway objectives and policies specifically address and promote the need to incorporate public transportation into the roadway design process. This includes provision of mass transportation amenities along roadways, and design that accommodates the nature of public transportation. Incorporating transit accommodations into the design process of upgrades to transportation corridors is supported through the WMPO's 2009 Complete Streets Policy, adopted shortly after NCDOT adopted its own Complete Streets Policy. The Complete Streets policies allow transit facilities to be incorporated into NCDOT roadway facility improvements. The greatest challenge in accommodation of mass transportation with roadway planning is the mutable nature of public transportation service – because routes and stops are not constant, it is difficult for roadway design to specifically fully accommodate the needs of mass transportation. With such a large area to cover in the region, there are only paratransit and dial-a-ride providers to serve the majority of Brunswick and Pender Counties. Additionally, in the more densely urbanized



portions of New Hanover County where there is fixed-route service, the service has hour-long headways and primarily serves the transit-dependent population.

Commendations

The MPO's coordination with the transit operators is outstanding. There is an excellent working relationship that has been established. The MPO is very transparent with the transit operators and works with them on a daily basis to include them in the planning process. The transit providers and the MPO both praised each other regarding ongoing communication. They appear to depend on one another to get the job done and achieve their transportation goals.

Air Quality

Regulation: 23 CFR 450.322(l):

In nonattainment and maintenance areas for transportation-related pollutants, the MPO, as well as the FHWA and the FTA, must make a conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and the Environmental Protection Agency (EPA) transportation conformity regulations (40 CFR Part 93).

Regulation: 23 CFR 450.322(e):

The MPO, the State(s), and the public transportation operator(s) shall validate data utilized in preparing other existing modal plans for providing input to the transportation plan.

Current Status

Currently the Wilmington Metropolitan Planning Organization (WMPO) is an air quality attainment area; therefore, air quality conformity is not required.

Transportation Planning Process

Regulation: 23 CFR 450.306 and 450.318:

This defines the scope of the metropolitan transportation planning process and the relationship of corridor and other subarea planning studies to the metropolitan planning process and National Environmental Policy Act (NEPA) requirements. In addition, 23 CFR 450.316 (c), (d), and (e) address the need for participation by Federal Lands management agencies and Tribal governments in the development of key products in the planning process.



Current Status

The participatory 3C planning process among the WMPO, NCDOT, and transit operators takes a comprehensive approach by using data-driven analysis in ascertaining the causes of transportation challenges, evaluating potential solutions, and selecting the best option. Using a comprehensive approach allows the WMPO to both inform the public and seek input from interested partners and stakeholders. The process is continuing, meaning that it is performed early on in a project's life and continues throughout the process, ensuring that public values are being considered in the decision-making process. The planning process is cooperative by encouraging those parties involved with the planning tasks to work together, delegate tasks based on expertise, and inform other responsible agencies, partners, and stakeholders on status updates.

Planning factors are considered using MAP-21 and the FAST Act and are incorporated into the consideration for project selection in the MTP, UPWP, TIP, and other long range plans. The WMPO is currently developing the first biennial report evaluating the Congestion Management Program (CMP) network, using performance measures through data collection. Completing the biennial report will provide the WMPO the necessary tools to evaluate congested corridors identified in the CMP.

The WMPO uses guidance from the USDOT in considering Environmental Justice (EJ) deficiencies by using three fundamental principles: 1) avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects on minority populations and low-income populations; 2) ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and 3) prevent the denial of reduction in, or significant delay in the receipt of benefits by minority and low-income populations. The MTP considers EJ deficiencies through a map-based screening analysis of projects overlaid over areas of high concentrations of sensitive populations. This screening analysis compares project spending inside and outside of high-concentration sensitive population areas and analyzes the positive and negative impacts associated with those project types at a system-wide level.

The WMPO and NCDOT coordinate their respective planning processes, and strive to ensure that the regional and statewide transportation systems promote interconnectivity and share common goals. To achieve these goals and objectives, the WMPO and NCDOT directly coordinate when developing the MTP and state long range transportation plan. The UPWP also includes funds directly tasked to coordination of urban area activities with statewide and regional initiatives (Task Code III-D4).

The WMPO coordinates with NCDOT in developing and implementing planning activities to be consistent with other planning activities such as the State Highway Safety Plan (SHSP) in order to ensure that resources are properly expended.

Consistency between the products of the metropolitan planning process and the regional ITS architecture is demonstrated. For example, the Cape Fear Transportation 2040 Plan includes



components of ITS architecture and coordinates among local municipalities and the NCDOT to implement ITS tools and strategies through traffic signalization and the like.

The WMPO is incorporating asset management principles into the planning process by using strategic goals, quantitative data, and performance measures when evaluating and prioritizing projects. In addition, the WMPO is currently creating a relational database for projects, which will be the foundation for future asset management as it may relate projects to potential funding sources, financial planning, and performance capabilities.

The WMPO strives to seek input from stakeholders, such as freight users and transit users who have an interest in a project, and utilizing that information for planning and decision-making. Users are reached out to in accordance to the WMPO's Public Involvement Policy (PIP). Transit providers are represented in the TCC and TAC, however, many private enterprises are stakeholders in the planning process and are encouraged to be engaged in developing plans, projects, programs, and services. The engagement of the freight community in the WMPO transportation planning activities is most heightened with the creation of the MTP, where many of the freight stakeholders sit on a freight/rail subcommittee and guide the overall development of goals, objectives, policies, projects, and project prioritization for freight and rail in the WMPO.

Performance measures are used in evaluating and prioritizing projects in developing the MTP, selecting projects to be submitted in the NCDOT Prioritization Process, and expending funds. Using performance measures for these tasks allows the WMPO to provide reliable and accurate information to the decision-makers. Furthermore, the WMPO is able to effectively communicate to the public why decisions are made in a transparent manner. Performance measures are continuously evaluated to reflect changes in regulations and to promote effectiveness and efficiency. Performance measures are tracked on an annual basis through an adopted strategic business plan. The WMPO adopted a strategic business plan in 2011 and is currently working on a new strategic business plan for 2017-2021.

Metropolitan Transportation Plan (MTP)

Regulation: 23 CFR 450.322 and 306:

This defines the development of a transportation plan addressing no less than a 20-year planning horizon. The transportation plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand. The metropolitan transportation planning process shall be continuing, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the eight (8) planning factors.



Current Status

The MTP is supported by a comprehensive and inclusive public involvement effort. *Cape Fear Transportation 2040* was developed under the guidance of a Citizens Advisory Committee (CAC) appointed by the TAC. The CAC was charged with ensuring that *Cape Fear Transportation 2040* was developed in a manner that reflected the desires of the community. The CAC developed a three-pronged approach for soliciting and integrating public input for the development of the MTP:

1. Instructing staff to reach the broad spectrum of people in the greater Wilmington area to educate them on the development of the plan and to solicit feedback on current and future transportation needs;
2. Instructing staff to reach the broad spectrum of people in the greater Wilmington area to solicit general feedback on the draft plan and to ascertain whether the draft plan represented the desired projects within the fiscal constraint of the document;
3. Facilitating the public's knowledge of and involvement in the development of the plan throughout the process

Cape Fear Transportation 2040 has a horizon year of 2040 which, at the time of adoption on November 18, 2015, was a 25-year horizon and at the time of expiration will maintain a 20-year horizon. The full public involvement strategy is detailed in the Public Involvement element of *Cape Fear Transportation 2040* and includes utilizing methods such as kickoff/open house events, toolkit distribution, advertisements in local news outlets, presentations, comment forms, discussion at regularly scheduled Board meetings, and a dedicated project webpage. Outreach efforts also specifically accommodated the participation of the transit-dependent and Spanish-speaking populations (detailed in the Environmental Analysis element). Through their efforts, the CAC was able to solicit over 4,000 public survey responses for *Cape Fear Transportation 2040*.

The MTP identifies all regionally significant projects, including those from non-Federal funding sources. Federal, state, and existing and proposed local sources were all considered in the development of the *Cape Fear Transportation 2040*. The Financial Analysis of element of the Plan outlines 25 years of realistic proposed investments in the context of reasonably anticipated future revenues. This element details the anticipated funding sources and their projections. Included in the list of anticipated funding sources is a set of alternative funding mechanisms supported by the TAC meant to allow the region to meet a greater number of the identified transportation needs by 2040.

The MTP is linked to land use plans within the region so as to support its goals. The Greater Wilmington Area Profile describes socioeconomic estimates and projections adopted by the TAC and derived from consultation with local land use planners. Consultation with local land use



planners allowed the assumptions for *Cape Fear Transportation 2040* to align with the vision of local planning documents.

Cape Fear Transportation 2040 incorporates projects and policy recommendations for every major mode of transportation in the WMPO planning area, including aviation, bicycle/pedestrian, ferry and water transportation, freight/rail, mass transportation, and roadway. Beyond inclusion of mode specific recommendations, the Travel Demand Management element of *Cape Fear Transportation 2040* outlines both short-range and long-range multimodal strategies to more efficiently utilize the existing transportation network. Short-range strategies include establishment and promotion of alternative work schedules, carpool/vanpool, park and ride lots, transit amenities, bicycle and pedestrian infrastructure, bicycle sharing programs, car sharing programs, etc. Long-range strategies include establishment and promotion of transit-oriented development, trip reduction programs for large mixed-use developments, water taxi service, light rail, high occupancy vehicle (HOV) lanes, etc. The WMPO is currently in the process of developing a strategic plan to track the implementation of *Cape Fear Transportation 2040* and other key short-range strategies.

Cape Fear Transportation 2040 incorporates future revenue forecasts for federal, state, and local funding sources for the operation and maintenance of federally-supported transportation projects over the life of the plan as detailed in the Financial Analysis element and Financial Analysis appendix. Evaluated federal maintenance sources include Interstate Preventive Maintenance, Section 5307 funds, Section 5311 funds, Section 5316 funds, Section 5317 funds, Community Transportation Program (CTP), State Maintenance Assistance Program, and Rural Operating Assistance Program. Evaluated state maintenance sources include Division 3 Maintenance funds, Powell Bill funds, and the Highway Fund. Evaluated local maintenance sources include general obligation funds set aside by member jurisdictions to supplement transportation maintenance and operation needs, transit passenger fares, and other miscellaneous transportation authority revenue sources. All of the identified future transportation network improvements in the MTP are balanced by identified and realistic projected revenue sources.

After the adoption of the *Cape Fear Transportation 2040* in November 2015, and an introduction of the new Board in January 2016, the TAC met on March 14th for a retreat to discuss the implementation priorities for the plan and a strategic business plan for the organization. This strategic business plan is currently under development. *Cape Fear Transportation 2040* was also referenced to establish the list of projects for submittal to the state's Prioritization 4.0 process, which will ultimately program the STIP and TIP. Twenty-four new projects from *Cape Fear Transportation 2040* were successfully programmed in the 2016-2025 STIP.

NCDOT has been involved throughout the development of *Cape Fear Transportation 2040*. NCDOT Division Planning engineers and Transportation Planning Branch engineers assisted with the development of every element of the plan through invited participation in the modal subcommittees that developed the goals, objectives, policies, and projects for each element. All three transit operators within the WMPO boundary participated in the creation of the Mass



Transportation element of the plan. Additional mode-specific experts at NCDOT participated in the development of their respective element of *Cape Fear Transportation 2040*.

Commendations:

The WMPO is commended for its three-pronged public involvement approach used to solicit public input during development of the MTP.

The WMPO is commended for developing performance measures for its MTP and Transportation Improvement Program (TIP) in advance of federal guidance.

Financial Planning

Regulation:

The requirements for financial plan are contained in **23 CFR 450.322(f) (10)** for the MTP and **23 CFR 450.324(e, h-k)**, for the TIP. Separate financial plans demonstrate how the adopted MTP and TIP can be implemented.

Current Status:

In *Cape Fear Transportation 2040*, historical capital funding was evaluated in the 2010-2020 NCDOT STIP. The first five years of programmed funds from the NCDOT STIP were utilized for the projections from 2014-2020. Beyond the year 2020, historical transportation funds were inflated by 3% over the remaining years of the plan. Alternative funding sources were projected from 2018 through 2040 (the horizon year of the plan) to incorporate an assumption that the institution of an identified alternative funding mechanism would not coincide with the adoption of the plan but would likely be delayed for a few years. The alternative funding source revenue generation was then estimated through 2040 based on the existing legislated rules.

The WMPO utilizes NCDOT's SPOT Online to derive planning-level cost estimates for projects. This is consistent among all jurisdictions and it is also consistent with statewide planning-level cost estimation practices. The Financial Analysis element and the Financial Analysis Appendix of *Cape Fear Transportation 2040* document the WMPO's fiscal constraint through a narrative, tables, and charts. The Financial Analysis element (and every other component of the plan) was developed with detailed public scrutiny and review that included initial draft availability for review and comment at seven public open houses, advertisement and comment availability on the project website, and advertisement/press coverage.

Cape Fear Transportation 2040 includes a financial analysis component that compares total estimated cost per mode to total projected revenue per mode. Within each mode, revenue projections were broken into 5-year funding bands and projects were programmed based on their estimates into each of these bands. To account for project cost inflation, project cost estimates



were inflated by a 3% annual rate based on the anticipated funding band into which each project was programmed.

There are three major components of non-federal funding that are utilized in the WMPO planning area. First, state funding sources have steadily matched or partially match federal funding sources, depending on the mode of transportation and the funding source. State matches are stable non-federal sources because they have consistently been used historically and their use is legislated in the State's Strategic Transportation Investments (STI) legislation. The consistency of the state matches allowed for reliable assumptions for the revenue projections in the MTP. Another non-federal revenue source utilized in the WMPO planning area is recurring local contributions to transportation projects. Recurring local contributions can be the result of Powell Bill allocations, general fund allocations, or public works budgets (all of which are detailed in the Financial Appendix of the MTP). The composition of recurring local contributions can be varied but they have all been vetted through consistent historical use. The final types of non-federal funding source utilized in the WMPO planning area include alternative funding mechanisms and capital improvement projects. These types of funding sources are much more difficult to forecast. For the creation of the MTP, the TAC members were asked to identify alternative funding mechanisms that they believed would be supported by their board and constituencies. This information was used as a basis for determining alternative funding mechanisms to include in the fiscal constraint analysis. Alternative funding sources were projected through to the horizon year of the plan, to incorporate an assumption that the institution of any identified alternative funding mechanisms would not coincide with the adoption of the plan but would likely be delayed for a few years' time. The alternative funding source revenue generation was then estimated through 2040 based on the existing legislated rules.

Operations and maintenance costs are linked to asset management systems and the CMP. In order to ensure validity in fiscal projections, entities that manage assets were involved with the development of the maintenance and operations projections in the MTP. The congestion management process involves a biennial report on the MTP and TIP. The WMPO is in the process of completing its first CMP biennial report in the Summer of 2016. This first biennial report will be used in amendments to the MTP. The WMPO is also in the process of designing a project database to better track its project development from the long-range transportation planning process (to include CTPs, MTPs, corridor studies, etc.) through all phases of funding in programming and development in the TIP.

The revenue forecasting approach is cooperative among all WMPO partners, and is documented in the MTP. The NCDOT's STIP Unit, Division 3, Aviation Division, Ferry Division, Rail Division, and Public Transportation Division; Cape Fear Public Transportation Authority; and the Wilmington International Airport Authority were all integral to the development of the fiscal constraint of the MTP. In order to involve these partner agencies in the funding forecasts for the STIP/TIP development process, the Wilmington MPO consults the Cape Fear Public Transportation Authority and the Wilmington International Airport Authority on the submittals



to NCDOT SPOT for prioritization. For their part, the State also incorporates the consultation of the NCDOT Divisions into the administrative prioritization mechanisms.

The draft financial plan was available for public review and comment during the second phase of public outreach for the MTP. The WMPO illustrated the impacts of the draft financial plan and solicited comments through creative graphics indicating which projects would be funded and which ones would not along with the identified funding projections. The finalized financial plan is recorded as an element of the WMPO's adopted MTP and is available on the WMPO webpage, at each of the WMPO's member jurisdictions, and at all of the local libraries.

Appendix H of the MTP, "Potential Comprehensive Transportation Plan Projects," lists projects that were discussed during the plan development process that could not meet the fiscal constraint requirement of the document. The MTP suggests that these projects should be considered part of the WMPO's Comprehensive Transportation Plan (CTP). These projects were all subsequently adopted as part of the WMPO's CTP.

The TIP provides specific information on revenue source by program year and funding source. Partners at NCDOT's STIP Unit prepare the STIP as well as the WMPO TIP in consultation with the MPO based on the results of NCDOT's biennial prioritization process. Included in this document are a table of projects programmed for funding over a ten-year timeframe, how much revenue is programmed in each year from each funding source towards each phase of project development, and details about the project to include the project's county, route/city, identification number, location/description, length, total project cost, and cost from prior years.

Procedures are followed to ensure that TIP financial plans within the State are consistent with the Statewide Transportation Plan (STP). The North Carolina Statewide Transportation Plan was created through the collection and analysis of all projects adopted in Metropolitan Transportation Plans to include the WMPO's MTP. The STIP is programmed using input from MPOs, RPOs, and Division Engineers throughout the State.

Adequacy of Operations and Maintenance (O&M) funding is determined by agencies that own and manage facilities. NCDOT and member jurisdictions each manage different facilities in the WMPO. NCDOT and member jurisdictions were consulted regarding their existing and projected O&M funding levels during the development of the MTP.

Fiscal constraint is communicated to the public through the MTP. During the development process of the MTP, outreach to the public involves interactive displays of projects anticipated to receive funding and an opportunity for the public to "switch" any project anticipated to receive funding with an identified but unfunded project. Comment forms used to inform the MTP development also educate and involve the public of fiscal constraint realities.

Any addition or deletion of a project from the MTP (any action that could impact the MTP's fiscal constraint) requires a resolution amending the MTP to remove and add projects in a manner that maintains fiscal constraint. NCDOT STIP Amendment and Modification Guidelines



dated May 9, 2012, describe a process and define rules for determining which items constitute an amendment, and which items constitute an administrative modification for the STIP/TIP.

Advanced Construction (AC) projects are noted in the TIP through their Work Type Activity code. All revenue projections in the TIP are created by the North Carolina Office of State Budget after a careful analysis of historical state and federal revenue sources, rules, and information available about the future financial climate.

STIP/TIP – Development/Approval/Amendment/Project Selection

Regulation: 23 CFR 450.324:

The MPO shall cooperatively develop a TIP that is consistent with the MTP and is financially constrained. The TIP must cover at least a four-year horizon and be updated at least every four years. Additionally, the TIP must list all projects in sufficient detail outlined in the regulations, reflect public involvement, and identify the criteria for prioritizing projects.

Regulation: 23 CFR 450.332:

No later than 90 calendar days following the end of the program year, the State, public transportation operator(s), and the MPO shall cooperatively develop and publish a listing of projects (including investments in pedestrian walkways and bicycle transportation facilities) for which funds under 23 USC or 49 USC Chapter 53 were obligated in the preceding program year.

Regulation: 23 CFR 450.334:

Self-certifications and Federal certifications are required for all Metropolitan Planning Areas (MPAs), concurrent with the submittal of the entire proposed TIP to the FHWA and the FTA as part of the STIP approval. The State and TMAs shall certify at least every four years that the metropolitan transportation planning process is being carried out in accordance with all applicable Federal requirements.

Current Status

The TIP is the product of a cooperative prioritization process defined by the Strategic Transportation Investments (STI) legislation and managed by NCDOT's Strategic Office of Prioritization (SPOT). This process evaluates all capital transportation projects for funding using one process with multiple formulas. Local MPOs, RPOs, and Division Engineers have an opportunity to submit a set number of projects for review through this process every two years. Each project is evaluated through a set formula published by the state. Projects are then programmed into the TIP based on their resultant scores. Public input is encouraged during two required local input processes. The goal of the STI legislation is to make the transportation funding process data-driven and transparent. Local input is solicited from MPOs, RPOs, and



Division Engineers on the final project scores of any project that is categorized by the legislature as having regional impact or meeting division needs. The MPOs and RPOs are required to develop local input methodologies reviewed by the public and approved by the state to guide the local input that is provided as part of the project score for regional impact and division needs projects. Through the State-legislated STI process, specialized criteria have been created to evaluate each mode of transportation for a total of fourteen formulas with different component criteria. The criteria that are used to evaluate public transportation projects include: 1) access, 2) system safety, 3) impact, 4) cost effectiveness, 5) market share, 6) age, 7) ridership growth, 8) mobility, 9) economic development, and 10) congestion relief. The WMPO groups STP-DA and TAP-DA projects into lump-sum items. This allows for greater flexibility and more immediate local control for projects that are managed by local jurisdictions.

The WMPO adopted TIP Amendment and Modification guidelines created and utilized by NCDOT on June 27, 2012. Administrative modifications are only acceptable when changes are occurring to projects already programmed in the STIP and TIP to: 1) change costs below predetermined thresholds, 2) move project phase dates within the 4-year STIP time window, 3) change the project scope or description in a way that does not significantly diminish the ability to achieve the original project intent, and 4) to change traditional (non-AC) project funding sources. Administrative modifications are streamlined and do not require public review or comment or additional demonstration of fiscal constraint. The NC Board of Transportation and Wilmington MPO adopt administrative modifications without a public comment period. The TIP is updated as a result of NCDOT's SPOT prioritization process, which is planned to occur every two years. The NCDOT may ask the MPO to modify and/or amend the TIP based on project scope or time changes, and the MPO may modify or amend the TIP for time, project scope, and/or funding changes.

The TIP is an important tool utilized to implement the recommendations in the MTP. The TIP programs capital transportation improvements in the WMPO based on initial input of projects from the WMPO. The State utilizes its Strategic Transportation Investments (STI) process for prioritizing projects for programming in the STIP. The STI process was developed with NCDOT, MPO, and RPO input. The STI also establishes the Strategic Mobility Formula, a method of allocating available revenues based on data-driven scoring and local input. The Strategic Mobility Formula funds projects in three categories: 1) statewide mobility, 2) regional impact, and 3) division needs. As part of the STI process, MPOs may submit projects for evaluation under the three funding categories. MPOs may apply additional points for prioritization for funding at the regional and division levels. Because NCDOT utilizes a consistent formula for prioritization of projects throughout the state, the State's prioritization of projects for programming in the TIP may not directly align with the prioritization of projects in the MTP. However, the MPO has the ability to apply local input points to provide flexibility in addressing local transportation needs.

The TIP does not account for the full breadth of policy and programmatic recommendations in the MTP, many of which are funded through the WMPO's management and operations line item



or other portions of PL funding. The TIP contains neither projects that are funded through local revenue sources nor all regionally significant projects. A list of projects is produced as a separate document annually and distributed around the end of the federal fiscal year.

All revenue projections in the TIP are created by the North Carolina Office of State Budget and Management after a careful analysis of historical state and federal revenue sources, rules, and information available about the future financial climate. The State and transit operators provide the MPO with estimates of Federal and State funds available for the metropolitan area upon request. This information is also included in the WMPO's annual report.

Environmental Mitigation

Regulation: 23 CFR 450.322(f)(7); 23 CFR 450.316(a)(1)(2)(3) and (b); 23 CFR 450.322(g)(1)(2), (i), and (j)

These specify requirements for environmental mitigation in connection with the MTP, interested parties, participation, consultation, and development and content of the MTP.

Current Status

The WMPO uses several outreach activities to consult with Federal, State, and local agencies when developing the MTP. These include, but are not limited to, email, telephone communications, public meetings, subcommittee meetings (specifically for MTP purposes), workshops, conferences, and WMPO committee meetings (such as Bicycle and Pedestrian Committee, TCC, and TAC). The WMPO consults with these agencies when conducting other transportation planning duties such as being a Merger Process team member during the NEPA decision-making phases of transportation projects, and meeting the requirements of Section 404 of the Clean Water Act in the National Environmental Policy Act and the State Environmental Policy Act. In addition, the WMPO was a member of a workgroup assembled by the NCDOT that developed an Interagency Coordination Protocol for North Carolina's Transportation Planning Process in 2015. The document produced was used to develop the MTP and will be a valuable resource in other transportation planning processes.

The documents produced from the Interagency Coordination Protocol for North Carolina's Transportation Planning Process provides a comprehensive contact list and data resources for a planning process that includes developing a vision, conducting a needs assessment, analyzing alternatives, developing the final plan, and adopting the plan. Local agencies are a key partner in developing transportation plans. The WMPO collaborates with local agencies when developing plans by encouraging a cooperative decision-making process and seeks input during all phases, including but not limited to, identifying project needs, solutions to avoid or minimize impacts, and alternatives development. The composition of the TCC and Bicycle and Pedestrian Committees include local agencies responsible for these areas. For purposes of the MTP, state



and local agencies responsible for these areas were communicated with via email and telephone in addition to being members of the subcommittee and informed of public meetings. Comments from state and local agencies were incorporated into the MTP. Comments and recommendations received from consulting with agencies are incorporated into their respective topic areas and listed as resources in the MTP.

No formal agreements have been developed with resource agencies and no specific timeframes have been established for performing consultations. Resource agencies are continuously reached out to and their comments received during the entire process of developing the MTP. As part of the consultation process, resource agencies can review the proposed mitigation measures in the MTP and recommend additional mitigation measures that may be needed. Input and comments from resource agencies are used to assess which activities may have the greatest potential to restore, improve, and maintain the environment. A public comment period is provided prior to the plan's adoption.

The MPO uses MAP-21 planning factors which provide guidance to protect the environment, identify the need for integrating the planning and environmental processes, and promote a streamlined process for reviews and permitting. The MTP also incorporates inputs and comments from resource agencies, such as the NCDOT, reflected in the goals, objectives, and strategies. Benefits and burdens are measured through the project development process. For the MTP, a quantitative analysis was developed for the MTP for the system of anticipated transportation improvements for three modes of transportation (bicycle/pedestrian, mass transportation, and roadway) for specific minority and low-income populations.

The Environmental Justice assessment included the estimation of costs for projects located within each of the three identified areas to demonstrate that the MPO is ensuring that no disproportionately high and adverse human health or environmental effects on minority and low income populations related to transportation projects are accruing. Populations were categorized as Low-Income and African-American, Low-Income and Hispanic, and Low-Income and Other Minority.

Environmental Assessment areas include hydrologic features such as bodies of water, wetlands, and floodplains; cultural features such as colleges, universities, schools, and historic buildings and districts; and other environmental features such as hazardous waste sites, conservation tax credit properties, land trust preservation properties, managed areas, and significant natural heritage areas. If projects are anticipated to impact the environmental resources in the region, transportation planners and engineers can consider several mitigation strategies, including realignment of the project; the construction of noise walls, retaining walls, or bridges; and the installation of landscaping or traffic calming devices.

The WMPO works with resource agencies to identify environmental elements that may be impacted from transportation projects and establishes strategies to mitigate impacts as part of the consultation process. For example, the Green Growth Toolbox from the North Carolina Wildlife Resource Commission or the Transportation Systems Management Element in coordination with



NCDOT division traffic systems are referenced. In addition, the workgroup that the WMPO was a part of when creating the Interagency Coordination Protocol for North Carolina's Transportation Planning Process establishes protocols for planning processes.

Public Involvement

Regulation: 23 CFR 450.316(a):

The MPO shall develop and use a documented participation plan that defines a process for providing citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process.

Current Status

The Public Involvement Policy (PIP) is comprised of the public involvement programs for all the major planning activities, including the Metropolitan Transportation Plan (MTP), Transportation Improvement Program (TIP), Unified Planning Work Program (UPWP), and Federal requirements (ISTEA, TEA-21, SAFETEA-LU, Civil Rights Act, Environmental Justice (EJ), Limited English Proficiency (LEP), Americans with Disabilities Act, and State requirements. The PIP was updated in 2009, following the expansion of the Metropolitan Planning Area (MPA). In addition, both the TCC and TAC were involved in developing the PIP. There was a 45-day public comment period prior to adoption.

The WMPO continuously evaluates the effectiveness of its public involvement process, especially after major projects. One of the main goals is to develop a strategy that effectively reaches a target audience, which may be crafted to a particular project, while maintaining the goal of engaging the regional community. In addition, the advancement of technology prompts the WMPO to consider if there are other methods available that will encourage public participation.

The WMPO encourages public participation during meetings of the TAC, TCC, and Bicycle and Pedestrian Committee, by holding consistently scheduled meetings and providing notice of these meetings at the City of Wilmington's Clerks Office, in local newspapers, and on the WMPO's website. For projects, programming, and project development, the WMPO conducts extensive advertising of public meetings using media outlets, a newsletter, periodic transportation summits, distributing written materials to the public, and the Citizen's Advisory Committee (CAC). Public meetings are held at locations and times accessible to the general public. Public input is sought in both written and electronic format. In addition, materials and surveys written in Spanish are also produced. WMPO staff also elicits public involvement by seeking input at



community events and facilities, and civic organizations. The WMPO's objectives include, but are not limited to, maintaining public involvement from the early stages of the planning process, making information readily available, educating citizens and elected officials to increase general understanding of transportation issues, establishing a clear channel for an effective feedback process, and evaluating the process to ensure effectiveness.

The PIP emphasizes the importance of developing a public engagement strategy that stimulates involvement from traditionally non-participating minority and low income (MLI) populations. The PIP directs staff to identify and meet with organizations and community leaders who represent these populations, with the focus of building relationships and developing strategies that will encourage participation in the planning process. The WMPO also seeks assistance from the community leaders and organizations when implementing the strategies. In addition, the WMPO utilizes public notices in newspapers and publications serving minority communities; press releases to media contacts; documents containing maps, photographs, or other visualization tools to effectively communicate information; and special services for non-English speakers. For example, a Spanish translator is present at public meetings, and outreach material is translated for the MTP. A WMPO staff member is able to provide these services.

The TAC responds to public comments either by incorporating a summary of public comments and the WMPO's response as an appendix into the specific planning document, or, depending on the number of comments, the TAC may instruct the planning staff to respond directly by letter. Acknowledging public comments is a way to let the public know that its comments are being addressed and is part of the public involvement feedback process. Public comments received are presented to the TCC and TAC, in summary form or verbatim, prior to voting on adopting a plan or supporting resolution in question.

The WMPO collaborates with their partners when public engagement events are being held within the MPA. The WMPO assists by reaching out to stakeholders and notifying them of the meetings, arranging appropriate venues, attending meetings, and other matters with which the partner may need assistance. In addition, the WMPO and State agencies are actively involved with their respective projects by providing input on projects, being present at WMPO committee meetings, and attending public meetings on the project's adoption. Statewide plans are referenced by the WMPO when applicable.

The WMPO provides opportunities for participation from the Cape Fear Public Transit Authority by having members on both the TCC and TAC. In addition, public meetings are often held at transit stations or locations with reasonable access to public transportation. City and County officials are often present at public meetings as well as a member of a project steering committee. The WMPO often provides project updates to the governing board of the jurisdiction in which the project is located. TAC members, who are comprised of elected officials, are given monthly project status updates. The WMPO staff regularly attend New Hanover County Airport Authority and North Carolina State Ports Authority meetings, and have representatives attend WMPO committee meetings. The WMPO also has a Transportation Demand Management Coordinator who seeks the participation of ridesharing stakeholders. The Work Cape Fear:



Expanding Commuter Options in the Cape Fear Region Plan, was adopted in January of 2015. Private transportation providers are accounted for when developing the MTP.

The WMPO makes key information available in electronic format through the organization's website. Project plans, announcements, committee agendas, contact information, and data are continually updated. Furthermore, major projects have their own website that provides citizens the opportunity to readily find and review project documents. WMPO staff also provides information to citizens in electronic format when requested.

The WMPO uses visualization techniques that include You Tube videos, posters, Power Point presentations, and information handouts. Generally, the results of the visual techniques are very positive. It is the MPO's goal to use visual techniques to communicate information that may be complex or lengthy in an effective format. Project plans and information use displays and mapping created from GIS and adobe software technologies.

The public is encouraged to comment at all TAC meetings. In addition, citizens can make their comments known to WMPO staff, who will communicate the comments to the TAC, TCC, or include them in an appendix of the MTP. The WMPO has a process for receiving public comment on the TIP adoption and amendments.

State and local agencies are key partners in planning efforts, including updating the MTP, long range plans, and project development. Local planning board members, along with representatives from key agencies, are asked to be a part of a project's steering committee, or subcommittee. Their involvement ensures that stakeholder interests are taken into consideration when carrying out planning efforts. State and local agencies are asked to review and comment on project plans. Staff participates in the development review committee and attends various planning commissions and Historic Preservation Commission meetings as needed.

Visualization

Regulation: 23 CFR 450.316:

The participation shall ... describe explicit procedures, strategies, and desired outcomes... Employing visualization techniques to describe metropolitan transportation plans and TIPs; ...

Current Status

The WMPO presents information on planning procedures and products regularly as part of monthly TCC and TAC meetings. In accordance with the WMPO's adopted Public Involvement Policy (PIP), TCC and TAC agenda packets are published to the website the week in advance of every scheduled meeting. In addition to regular updates to the boards and committees, information is made available on plans through the WMPO website and subpages created for specific plans.



The Citizen's Advisory Committee (CAC) encouraged the WMPO to utilize creative means to engage the public in the development of the MTP. The CAC began soliciting feedback on the plan through a kick-off event for the plan. An education effort on plan development and information on the plan development processes was widely advertised through local news media stories and advertisements. Posters and tri-fold pamphlets were distributed throughout the planning area, a speaking tour was conducted to engage community organizations, and planning drafts and documents were distributed at public locations per the WMPO PIP. The WMPO also produced an animated video encouraging citizen participation in the MTP.

The WMPO is endeavoring to employ more than just traditional tables and listings to visually display information. They utilize maps, graphics, surveys, and presentations to engage the public and stakeholder groups in planning efforts. The Financial Analysis element of the MTP displays financial information using both tables and pie charts. Financial information is conveyed at public workshops using maps of projects with and without anticipated fiscal constraint. Videos, Prezi, and Power Point are used to present information in group settings. Online interactive maps are also utilized to geographically display information such as traffic counts.

The WMPO has a website that is updated about once a week. All of the committee information, dates, and agenda packets are published on the website so the public can stay informed about opportunities to get involved. Additionally, the website contains general and background information about the WMPO, information about the boards and committees, staff contact information, an interactive traffic count map, a listing of key transportation projects, and other news and events. All WMPO plans, documents, and maps, including the MTP, are posted on the website as PDF documents for download.

The PIP outlines several outreach strategies utilized by the WMPO to present information that include:

- Stakeholder Interviews
- Develop and Implement a Plan to Reach Non-participating Minority and Low Income Populations
- Outreach and Education Programs
- Publicize WMPO Activities
- Establish of a Speakers Bureau
- Maintain a WMPO Website
- Develop and Distribute Brochures
- Conduct Public Information Workshops, Charrettes, and Public Open Houses



- Conduct Surveys
- Create Newsletters
- Periodic Transportation Summits
- Citizens Advisory Committee (CAC)

The WMPO strives to be creative, engaging, and most of all effective in its outreach efforts and is always looking for new effective outreach strategies to include utilization of social media and expanding use of online interactive mapping applications. Past efforts of the WMPO have produced very successful public engagement that includes over 4,000 survey responses for the development of the MTP. The goal of the MPO visualization policy is to help the public and decision makers visualize and interact more effectively with transportation plans and projects, alternatives, large data sets, and land use information.

Land Use and Livability

Regulation: 23 CFR 450.306(a)(5): Planning factors

Regulation: 23 CFR 450.316(d): Interested parties, partnerships, consultation

Regulation: 23 CFR 450.320: Congestion management process (consideration of demand management strategies, including growth management)

Regulation: 23 CFR 450.322: Metropolitan Transportation Plan/Environmental Mitigation/Consultation

Current Status

Non-motorized modes of travel such as bicycle and pedestrian are analyzed and addressed in the WMPO MTP and throughout the transportation planning process. The MTP includes a Bicycle and Pedestrian element produced by a subcommittee of subject matter experts. The Bicycle and Pedestrian element includes goals, objectives, policies, projects, and project prioritization recommendations that guide how facilities and the environment for these modes develop through the region.

The inclusion of consideration for non-motorized modes of transportation goes beyond federal requirements. These modes are highly valued by WMPO communities and member jurisdictions. The WMPO adopted a Complete Streets Policy in 2009. All transportation projects in the WMPO boundary are evaluated using complete streets concepts.



Issues outside of the “traditional” transportation planning process related to “smart growth,” context-sensitive solutions (CSS), “green” infrastructure, complete streets, transit-oriented development (TOD), etc. are considered, advanced, and supported through the WMPO, State DOT, transit operators, local jurisdictions, and other organizations in the planning region. These issues and ideas are discussed and incorporated into specific planning documents, projects, and plans when they are supported by the community and stakeholders. In addition to the WMPO’s Complete Streets policy adopted in 2009, the WMPO and member jurisdictions have incorporated context-sensitive solutions, green infrastructure, and transit-oriented development policies. Two examples follow:

- Streetscape projects on 17th Street and Ann Street in Wilmington incorporated green infrastructure with bio-retention designed into the right of way. Ann Street was also designed as North Carolina’s first Bicycle Boulevard. 17th Street incorporated landscaping and pedestrian elements complemented by bio-retention that contributes to the quality of the local Burnt Mill Creek watershed.
- The redesign of the Third Street Bridge in downtown Wilmington incorporates context-sensitive design solutions and complete street concepts that enable it to more positively contribute to its historical context. The bridge incorporates decorative lighting, Texas church rail railing, and decorative wall treatments.

General ongoing discussion about climate changes mitigation and greenhouse gas (GHG) emissions reduction goals and plans does not dominate WMPO meetings. However, several planning documents do include policies and objectives that promote transportation solutions that reduce negative impacts to the environment. Specifically:

- The Mass Transportation element of the MTP includes an objective to “Highlight the opportunity to reduce carbon emissions through public transit.”
- The “Benefits of Greenways” section of the Wilmington/New Hanover County Comprehensive Greenway Plan states that “Greenways support clear skies, clean rivers and wildlife” and that “Greenways protect people and property from flood damage.”

Freight

Regulation: 23 CFR 450.306: calls for the need to addresses freight movement as part of the transportation planning process

Regulation: 23 CFR 450. 316(a): Interested parties, participation, and consultation



Current Status

The MPO considers and evaluates land use and freight-oriented developments within its metropolitan planning boundary. The involvement of the freight community is an ongoing and collaborative process. The WMPO Public Involvement Plan (PIP) lists the use of stakeholder interviews as one of the targeted outreach efforts. The PIP goes on to list potential stakeholders and includes representatives of transportation agency employees, freight shippers, and providers of freight services. The NC Ports Authority also sits on the WMPO's TCC and TAC (as a non-voting/advisory member) and comments monthly on WMPO activities. The MTP contains a Freight/Rail element, which was produced under the guidance of a freight/rail subcommittee comprised of the following stakeholders:

- NC State Ports Authority
- NCDOT Rail Unit
- CSX
- Wilmington Terminal Railroad
- MCO Transportation
- Military Terminal at Sunny Point
- Brunswick County Economic Development Corporation
- City of Wilmington Traffic Engineering
- WMPO Citizens Advisory Committee

This subcommittee guided the development of goals, objectives, policies, projects, and project ranking within the MTP.

The WMPO considers and evaluates land use and freight-oriented developments within the MPA. The MTP discusses the difficulty of balancing freight issues with land use and other transportation issues in an urbanized environment. Specifically, the MTP notes the importance of planning for freight improvements within the last mile of travel to a freight node to include increasing the efficiency of travel for trucks/rail in the last mile while balancing the mitigation of conflicts with other modes of transportation. The WMPO has pursued extensive training for its staff on freight and rail initiatives to include participation on an NHS freight planning course, obtaining a certificate from the I-95 Corridor Coalition Freight Academy, and attendance at NCDOT Rail summits and events.

NCDOT's project prioritization (STIP-creation) process and the subcommittee are invited to comment throughout the WMPO's participation. The WMPO is also key staff to the City of Wilmington's Mayor's Task Force on rail realignment. This task force includes representatives



from the MPO, CSX, MCO, rail consultants, NCDOT, the City of Wilmington, Town of Leland, and other public and private stakeholders.

The freight community is engaged in the planning process, particularly in the development of the transportation plan and TIP. The involvement of the freight community in the planning process is a sustained, ongoing collaborative effort. The relationships built through the MTP freight/rail subcommittee meetings and ongoing interactions with the NC Ports of Wilmington, CSX, and the local short line (Wilmington Terminal Railroad/Genesee and Wyoming) allow for easy consultation and communication as specific freight/rail issues arise.

The WMPO has defined the term “freight corridor” for transportation planning purposes in their CMP. A “Freight Corridor” is defined by a large volume of truck/freight traffic looking to travel along the corridor. The MTP also includes a map of Port of Wilmington Truck Movements and discusses particular freight corridors within the WMPO boundary.

Freight-related corridors are given extra weight as part of the WMPO TIP and MTP prioritization and project selection process. In the project prioritization for roadway projects, 2.5% of the project score is based on how it is able to “address future anticipated freight/industrial growth areas.” Additionally, the CMP process requires periodic evaluation of the MTP priorities after the adoption of a biennial report. The CMP specifically evaluates and provides recommendations for regional freight corridors.

The WMPO has processes in place to collect traffic data and monitor the system performance reliability of the regional transportation system with regard to major freight movements such as travel time, speed, delay time, etc. On a biennial basis, the CMP evaluates each freight corridor’s travel time hot-spots (locations of delay), volume, peak hours, and truck counts. The WMPO also has an annual traffic count program that allows for an expansion of special counts to include data collection for other specific freight-related needs.

Freight-related data is collected on a biennial basis through the CMP. WMPO staff work with City of Wilmington Traffic Engineering staff to collect and analyze floating car studies for hot-spot identification, travel times along corridors, and peak hours. WMPO staff also use tube counters to collect vehicular counts, high-star counters to collect truck counts, and NCDOT’s Traffic Engineering Accident Analysis System (TEAAS) for crash information. NCDOT also produces GIS files for the WMPO with crash data and statistics for the region, which are analyzed for freight implications. The WMPO has investigated the use of FHWA Freight Analysis Framework (FAF) data; however, it is not made available for the region. The WMPO has requested information on making FAF data available for the WMPO region for future database updates.



Safety

Regulation: 23 CFR 450.306:

The metropolitan transportation planning process provides for consideration and implementation of projects, strategies, and services that will increase the safety of the transportation system for motorized and non-motorized users.

23 CFR 450.306(h):

The metropolitan transportation planning process should be consistent with the Statewide Highway Safety Plan (SHSP), and other transit safety and security planning and review processes, plans, and programs, as appropriate.

23 CFR 450.322(h):

This encourages the inclusion of a safety element in the MTP.

23 U.S.C. 148:

This introduced a mandate for Strategic Highway Safety Plans.

Current Status

The safety planning factor is considered routinely with all 3-C planning processes. It is explicitly considered in the WMPO's guiding document, *Cape Fear Transportation 2040*. The safety planning factor addresses the following three *Cape Fear Transportation 2040* goals, as is detailed in Appendix A:

- Safe: Reduces injuries and improves the sense of safety for all users
- Appropriate: contributes to the quality of life and character of the region through proper design
- Multi-modal: provides a choice of modes for most trips

Additional examples from each modal element of *Cape Fear Transportation 2040* relay how safety has been considered in the WMPO.

- In an effort to improve safety between bicyclists, pedestrians, and drivers, the WMPO has supported NCDOT's Watch for Me NC bicycle/pedestrian/driver safety campaign. Safety materials have been distributed, and law enforcement has participated in safety training to improve safety conditions by enforcing safe biking, walking, and driving habits. Bicycle and pedestrian projects were prioritized using a data measure to allot more points toward a project that would satisfy a demonstrated need for a safer facility along a typically unsafe roadway for cyclists and pedestrians.



Projects were awarded up to ten points, depending on the functional classification of the parallel road. This prioritizes projects along busy and congested thoroughfares over low-volume neighborhood streets. Additionally, member jurisdictions have adopted plans and policies that will increase the extent of fit-for-purpose bicycle and pedestrian facilities. This will improve safety by reducing the potential conflict between bicyclists, pedestrians, and motor vehicles.

- In the Aviation chapter, the recommendations from the Wilmington International Airport Master Plan include safety improvements for all users.
- The recommendations in the Ferry and Water Transportation chapter include safety improvements for all users.
- In the Freight/Rail chapter, as part of the analysis of improving the “last mile” of travel to freight nodes, the Freight/Rail Subcommittee looked at locations where conflicts occur between freight and other modes of transportation along major freight routes. Project recommendations were developed to address these conflict areas and mitigate safety issues.
- A major goal of the Mass Transportation element is to complement mass transportation routes/services with physical infrastructure, which will increase the safety of pedestrians who are waiting for mass transportation service by providing facilities for them to wait in a highly visible location outside of the vehicular travel lane. An objective of the Mass Transportation element is to ensure paratransit options are available and that robust ADA-accessible pedestrian networks exist between public transit stops and adjacent destinations.
- Finally, highway crash data was specifically used to identify and evaluate roadway projects that could improve safety on the overall transportation network.

Safety goals and objectives were developed to correlate to the central vision of the MTP, which explicitly lists safety: “Plan for a safe, efficient, appropriate, responsible, integrated, multi-modal transportation system throughout the Wilmington Urban Area over the next 25 years.” This vision statement was developed by the WMPO Citizens Advisory Committee in consultation with and approval from the WMPO’s TCC and TAC. All goals and objectives within the MTP correlate to this vision statement and the MAP-21 safety planning factor.

The safety goals and objectives for the metropolitan planning area are consistent with the State Highway Safety Plan (SHSP). The SHSP outlines specific actions that can be taken towards reducing the highway fatality rate in the state. The WMPO’s planning documents more broadly address safety goals and objectives. The goal of the SHSP is to “Cut the fatalities and serious injuries in North Carolina in half based on the 2013 figures, reducing the total annual fatalities by 630 fatalities and the total serious injuries by 1,055 serious injuries before 2030.” While this total is outlined in a more specific manner than in the MTP, several emphasis areas outlined in



the SHSP overlap with the types of projects prioritized by safety goals and objectives in the WMPO to include: Intersection Safety, Pedestrians and Bicyclists, and Speed. Objectives listed in the Roadway element of the MTP include:

- Prioritize roadway projects that reduce the rate of crashes on existing facilities
- Prioritize roadway projects that reduce the severity of crashes on existing facilities
- Prioritize roadway projects that reduce the number of conflict points on existing facilities
- Prioritize roadway projects that reduce the vulnerability of bicyclists and pedestrians on existing facilities

The MPO collects safety data from other sources including Bicycle and Pedestrian crash data from the NCDOT Department of Bicycle and Pedestrian Transportation; Traffic Engineering Accident Analysis System (TEAAS) data on crashes, crash types, crash locations, and seriousness of injury; bicycle and pedestrian counts; vehicular counts; travel time data from floating car studies; hot-spot analysis from floating car studies; and ridership data from fixed-route public transit.

Safety impacts of potential transportation projects are evaluated. Impacts of particular transportation project alignment and design are analyzed through the design, environmental, and project development processes.

Safety is considered in determining which projects will be included in the MTP. Several of the performance metrics used to prioritize projects address safety and impact which projects will ultimately be included in the fiscal constraint of the MTP. Because safety is one of the six goals of the MTP, performance metrics evaluating bicycle and pedestrian, ferry, mass transportation, and roadway projects address how they fare regarding safety metrics to include:

- Bicycle facility prioritization should consider the nature of adjacent traffic
- Prioritize crosswalks at existing signals
- Prioritize projects that develop new facilities at locations along ferry routes that are not prone to shoaling
- Prioritize public transit service to medical centers
- Enhance health and livability with access to healthy foods and recreation centers through public transportation
- Ensure robust and ADA-accessible pedestrian networks exist from public transit stops to adjacent destinations



- Ensure paratransit transportation needs are met for travelers
- Prioritize the installation of bus shelters, benches, and trash bins at bus stop locations where ridership and potential ridership is highest
- Prioritize the installation of crosswalks at bus stop locations where ridership and potential ridership is highest and/or where safety concerns exist
- Prioritize roadway projects that reduce the rate of crashes on existing facilities
- Prioritize roadway projects that reduce the severity of crashes on existing facilities
- Prioritize roadway projects that reduce the number of conflict points on existing facilities
- Prioritize roadway projects that reduce the vulnerability of bicyclists and pedestrians on existing facilities

Security

23 CFR 450.306(a)(3):

This states that the metropolitan transportation planning process shall increase the security of the transportation system for motorized and non-motorized users.

23 CFR 450.322(h):

The MTP should include emergency relief and disaster preparedness plans and strategies and policies that support homeland security and safeguard the personal security of all motorized and non-motorized users.

Current Status

The WMPO works with security professionals from the NC Port of Wilmington, the representatives from the US Military to represent the Military Operations Terminal at Sunny Point, and the local police departments on mode-specific subcommittees to develop the MTP. Input from security professionals is used to help define the goals, objectives, policies, projects, and project prioritization within the different mode-specific elements of the MTP. The WMPO also enjoys an excellent collaborative relationship with police departments from member jurisdictions, various sheriff's departments, and local crossing guards to coordinate support and input on bicycle and pedestrian infrastructure and events. Development review conducted by the WMPO also requires frequent collaboration with local law enforcement and public safety professionals to ensure developments are addressing safety and security needs.



The WMPO prepares for hurricane evacuation events. All WMPO staff is NIMS certified and participate in damage assessment on an annual basis. WMPO staff attended FHWA hurricane evacuation training to enhance existing efforts.

Plans have been developed for evacuation of transportation-disadvantaged populations through an assessment of projects, and reference to the NCDOT hurricane evacuation routes publicized on May 8, 2013. Also, WMPO staff attended FHWA hurricane evacuation training to enhance existing efforts.

Title VI and Environmental Justice

Regulation: 23 CFR 450.316(a)(1)(vii):

Seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services.

Title VI of the Civil Rights Act of 1964:

No person in the United State shall, on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

Environmental Justice Executive Order 12898:

Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Current Status

The Wilmington MPO's Environmental Justice (EJ) efforts are documented as part of its Cape Fear Transportation 2040 plan. More specifically, it is contained within the "Environmental Analysis" section of the document. Using census tracts as the unit of geography, the MPO's demographic profile identifies/maps low-income, no vehicle, African American, Hispanic, and other minority populations.

Comments on the demographic profile are as follows:

- With regard to the use of census tracts as the unit of geography, we appreciate the MPO's reasoning for this choice which is to ensure "apples to apples" comparisons based on



varying data sources. However, as a best practice, we encourage the MPO, if possible, to use of a smaller geography unit such as census block groups or TAZs as smaller units understandably provide more precise information.

- It was unclear as to whether the median value or actual percentages for each demographic group were used to identify a census tract as having an EJ population of significance. Staff indicated that the values shown in the chart on page 155 are actual percentages for each EJ group, although, the text indicates that the values represent the median for each group. If the values in the chart are in fact medians, WMPO should provide the total number of census tracts used to determine the median as well as provide the range of values represented by the census tracts. Additionally, WMPO should also provide the actual percentages for comparative purposes. If the values are actual percentages for each group, WMPO must make corrections throughout its EJ section accordingly.
- Clarification is needed regarding “no vehicles” versus “low vehicles”. The chart on page 156 indicates “Low Vehicle Ownership” while the map on page 158 is titled “No Vehicle”. If “low vehicle ownership” is the intended demographic, then a definition of this term should be provided.
- Similarly, we also suggest including language defining the basis for identifying “low-income” populations (i.e., use of Health and Human Services Poverty Guidelines).
- Although not mapped, staff indicated that they also considered minority business communities as part of their demographic data collection efforts. Staff stated that they conducted a business district analysis which fed into the prioritization process. We commend the WMPO for ensuring that this important demographic was considered.

For EJ assessment purposes, the MPO used three base maps that showed low-income combined with African Americans, low-income combined with Hispanics, and low-income combined with other minorities. WMPO then conducted an investment analysis by overlaying planned projects by mode (roadway, bike/ped, and mass transit) onto each of these three base maps and calculating the dollar value of projects falling within and outside of the three combined groups. This is useful information and a very good analysis to consider when comparing transportation impacts on EJ versus non-EJ populations.

Although a bit unclear, this analysis (as described on page 162) appears to use project costs as a measure of negative impacts. While this could be the case, one could also easily argue that total dollars invested in an area is a measure of positive impacts. WMPO needs to distinguish between the positive impacts (benefits) and negative impacts (burdens) of its transportation system. Additionally, based on the chart on page 162, it is not clear that there is in fact a proportional relationship between total project costs and the three identified groups (low-income/African American, low-income/Hispanic, and low-income/other minorities). The chart



does not show what the total project cost percentages (25.9%, 31.5%, and 14.2%) were compared to in order to conclude that there is generally a proportional relationship as stated. Therefore, it is difficult to conclude that transportation system benefits and burdens are equitably distributed between EJ and non-EJ populations.

We recommend that the WMPO clarify their analysis and also identify other types of measures (such as accessibility, mobility, congestion, safety, etc.) to analyze transportation system benefits and burdens to EJ populations as compared to non-EJ populations. Examples of the types of questions the measures and analyses should address include:

- Where does congestion exist with respect to EJ populations versus non-EJ populations? Based on the LRP, who will benefit from improvements in congestion when comparing EJ populations to non-EJ populations?
- How do EJ areas and non-EJ areas compare with regard to the best and worst levels of service?
- Where are the safety issues (vehicle crashes, pedestrian injuries/fatalities, bicycle crashes, etc.) with regard to EJ populations versus non-EJ populations? Does the plan provide for equitably distributed improvements?
- Re improved accessibility to jobs, shopping, etc., how do EJ populations compare to non-EJ populations?
- How do commute times compare re EJ populations versus non-EJ populations?

Again the above questions are just a few examples. The MPO will need to decide on the types of analyses to conduct based on things such as the availability of data and the measures it feels are most suitable for comparison purposes within the WMPO region.

One other note regarding WMPO's EJ assessment is that it is important to consider low-income by itself. Using low-income in combination with African Americans, Hispanics, and other minorities misses those populations that are low-income, but not minority or of Hispanic ethnicity.

As an enhancement, we also suggest that the MPO be cognizant of past projects so as to ensure that cumulative impacts are considered. WMPO can use its discretion to determine how far back it should look when identifying and/or mapping past projects.

In looking at the MPO's vision and goals, there is not an obvious goal or objective specifically referencing environmental justice. While there is evidence of the MPO's commitment to EJ sprinkled throughout its planning processes and operations, as a best practice, we recommend that the MPO be more deliberate and promote its commitment by including an EJ specific goal.



WMPO's public involvement efforts appear to be yielding results. The MPO conducted a survey as part of the development of its 2040 plan for which it had an excellent response rate over overall and a respectable response rate from minorities. With regard to reaching the Hispanic population, the MPO has a staff member that is fluent in Spanish and provided its MTP website in Spanish. The MPO also ensures diversity on its distribution lists, has a racially diverse citizen's advisory committee, and maintains a list of EJ community organizations.

Commendations:

- 1) We commend the WMPO for considering minority business communities as part of their demographic data collection efforts. Staff stated that they conducted a business district analysis which fed into the prioritization process.
- 2) We commend the MPO for its public involvement efforts with regard to EJ which include having a staff member that is fluent in Spanish, publishing its MTP website in Spanish, ensuring diversity on its distribution lists, having a racially diverse citizens advisory committee, and maintaining a list of EJ community organizations.

Recommendations:

- 1) Demographic profile
 - a. As a best practice, we encourage the MPO, if possible, to use of a smaller geography unit such as census block groups or TAZs as smaller units understandably provide more precise information.
 - b. Clarify whether median values or actual values were used to identify minority and low-income populations.
 - c. Clarify the use of "low vehicle ownership" versus "no vehicles" as a population identifier. If "low vehicle ownership" data is used, please provide the definition for this term.
 - d. Define the basis for identifying "low-income" populations.
- 2) EJ Assessment/analysis
 - a. Per the above discussion, clarify the use of total projects costs as a measure of transportation impacts by distinguishing distinguish between positive impacts (benefits) versus negative impacts (burdens).
 - b. Per the chart on page 162, clarify and/or provide additional information to support the MPO's conclusion that transportation impacts are generally proportional to the population percentages across the region.



- c. Identify other types of measures (such as accessibility, mobility, congestion, safety, etc.) the MPO will use to analyze transportation system benefits and burdens to EJ populations as compared to non-EJ populations.
 - d. Consider low-income populations by themselves instead of only in combination with African Americans, Hispanics, and other minorities.
- 3) We recommend that the MPO be more deliberate in promoting its commitment to environmental justice by including an EJ specific goal.

Congestion Management Process (CMP)/Management and Operations (M&O)

Regulation: 23 CFR 320:

TMAAs shall develop a CMP to address congestion through a process that provides for safe and effective integrated management and operation of the multimodal transportation system, based on a cooperatively developed and implemented metropolitan-wide strategy of new and existing transportation facilities.

Current Status

The Wilmington MPO's Congestion Management Process (CMP) follows the 8-Step approach. The effectiveness of the CMP is evaluated as the progress toward goals is measured, deficient segment data is updated with the latest information, the effectiveness of proposed projects and congestion management strategies is reviewed, and future initiatives are pursued. The CMP is also reevaluated during the MTP update process. Consideration is given to examining traffic congestion conditions and problems on a regional basis.

Management and Operation

The MTP includes management and operations strategies proposed for funding that are supported by specific goals and measured objectives contained the MTP. The Transportation Systems Management (TSM) element focus on enhancing the existing infrastructure to increase capacities, integrate transportation and land use planning, and reduce congestion in the Wilmington Urban Area. To involve the operations community, the WMPO developed a Congestion Management Process (CMP) Steering Committee composed of land use, transportation, and traffic operations professionals from local government organizations, NCDOT, and FHWA. The committee sought to align goals of the CMP with the Cape Fear Transportation plan 2035 and will be used for Cape Fear Transportation plan 2040.

Mechanisms are in place for measuring performance of management and operations goals and objectives. The CMP network was broken up into 29 segments and performance measures are being used to identity, assess, and communicate information on each individual segment as to



where it ranks in travel time, safety, volume, and transit performance. These rankings will be assessed on a continual basis and will be reported in the biennial report every two years.

Data collection and analysis processes are in place to assess the existing transportation system for management and operational deficiencies. As of now, traffic counts, travel time data, hot spot identification, truck counts, bicycle and pedestrian counts, crash data, and transit boarding data has been and is currently being collected by the WMPO, NCDOT, City of Wilmington Traffic Engineering, and WAVE transit. Since this is the WMPO's first biennial report, it will represent the existing transportation system and will be used as a baseline to assess future systems.

Transit performance is one of the four main performance measures being used to rank and evaluate the CMP segments. The WMPO is measuring the transit performance by evaluating transit ridership, which will allow them to monitor the locations where transit operations are being utilized and where transit operations possibly need to make future improvements. The MTP outlines goals and objectives to guide action on the mass transportation issues in the Wilmington Urban Area. These goals include building community support for public transit, enhancing economic development opportunities through public transit, broadening the base of public transit ridership, and complementing mass transportation routes and services with physical infrastructure.

A process is in place to track and inform elected officials and the public on progress of the MTP and TIP toward the inclusion and implementation of management and operations goals and objectives. The CMP biennial report includes a section of snapshots that previews the performance of the segments and will be used as a tool to monitor the progress by identifying what strategies will need to be used to improve each individual segment. The snapshots will also identify improvement projects that will potentially have an impact on the CMP segments. The system monitoring section will identify projects in the TIP and how they will improve the system. The snapshots will reflect the progress of the MTP since the CMP goals align with the WMPO's Cape Fear Transportation 2040 Plan and the strategies used to improve the segments were based off those goals. The WMPO is also developing the 2017-2021 Strategic Business Plan, that will report and measure the goals and objectives. Operational strategies in the MTP and TIP are identified to allow stakeholders to clearly see the corresponding levels of investment through the snapshots of each segment that will reflect the level of investment by showing what strategies and projects will affect each specific segment.

CMP performance measures are tracked and evaluated to ensure strategies are implemented effectively and are accounted for throughout the planning process. The CMP will be an ongoing data collection and analysis process. Every biennial report will review the CMP's effectiveness. Areas where the CMP strategies have been applied will be analyzed for changes and correlated to the effectiveness of the applied strategies. Where strategies are not working or are not having a positive impact on the segment, other strategies will have to be sought and prioritized accordingly.



The Intelligent Transportation Systems (ITS) Regional Architecture contains projects that are consistent with the MTP and are included in the overall planning process.

Consultation and Coordination

Regulation: CFR 450.316(b)(c)(d)(e):

The MPO should develop and document consultation procedures that outline how and when during the development of MTPs and TIPs, the MPO will consult with agencies and officials responsible for other planning activities within the MPA that are affected by transportation (including state and local planned growth, economic development, environmental protection, airport operations, or freight movements) or coordinate its planning process (to the maximum extent practicable) with such planning activities, as well the MPO should also include Indian Tribal Governments, and Federal Public Lands, if applicable.

Current Status

In developing the MTP, the WMPO utilized the expertise of subject matter experts by creating subcommittees for Transportation Demand Management, Congestion Management Plan, Roadway, Mass Transportation, Bicycle, Pedestrian, Aviation, Ferry, and Freight. The subcommittees were comprised of individuals who are experts, citizens, and public servants representing the community and state and local agencies. During subcommittee meetings, the WMPO staff initiated group discussion by presenting pertinent information, such as public surveys and data. The process is documented in the appendix of the MTP and comments were incorporated in the MTP.

The WMPO provides opportunities for agency consultation in the planning phase, through the development of the MTP and Prioritization, project development, and through the permitting and merger process. The WMPO informs agencies of consultation activities and provides opportunities to review at key decision points through email, personal phone calls, TAC and TCC agenda packets, advertising using media outlets and websites, and through discussion at committee meetings. The NCDOT manages prioritization, permitting, and project delivery. The WMPO demonstrates responsiveness and consideration to input by keeping up with issues and incorporating them into the document. The MTP utilizes input from stakeholders and partners for developing goals, strategies, and identifying community values. The WMPO responds to questions or proposals either directly, via phone or email, or in a summary.

Statewide consultation is coordinated by maintaining a strong relationship with the NCDOT. The NCDOT's Transportation Planning Branch representative is a member of the TCC and the North Carolina Board of Transportation has a representative on the TAC.

The MTP contains overlay maps showing the locations of projects listed within the plan. A consistent design was used throughout the plan and provided insets for clarification when



necessary. Each project on the map has an associated identification number for individuals to reference in the plan for specific project detail. The project maps were created using GIS technology. In addition, visual graphs and charts were also utilized to communicate the financial portion of the MTP. The WMPO created a YouTube video that explains the purpose of the MTP, and seeks public input.

The WMPO maintains a list of agencies contacted, including names and addresses, of agencies responsible for natural resources, land use, economic development, environmental protection, para-transit, etc. The documents produced from the Interagency Coordination Protocol for North Carolina's Transportation Planning Process provides a comprehensive contact list and data resources for a planning process that includes developing a vision, conducting a needs assessment, analyzing alternatives, developing the final plan, and adopting the plan. In addition, WMPO staff has contact information for local organizations and other key stakeholders in the transportation planning process within the region.

Plans, maps, and data are obtained from agencies contacted and records of comparison to the MTP and TIP are evident. The MTP provides visual maps of employment density, and population density using the Travel Demand Model created by the NCDOT. The Environmental Justice section provides visuals using data from the Census Tract level from the 2013 American Community Survey 5-Year Estimates. In addition, the Natural Environmental Section displays data obtained from the North Carolina Wildlife Resources Commission, North Carolina Geographic Information Coordinating Council, NC Division of Coastal Management, and NC Floodplain Mapping Program.

Agency consultation is obtained at key decision points in the planning and programming phases of transportation decision-making. The Historic Resources Commission, the Division of Air Quality of the North Carolina Department of Environment and Natural Resources, EPA, and all agencies that are consulted during Environmental Assessments (EAs) and NEPA projects are involved during the planning and development of MPO projects.

The response and coordination between the planning and design phase is iterative in the development of projects. The MTP relies on the input of the environmental agencies to update the document with current data, policies, rulemaking, and other issues that may affect or conflict with the content and meaning of the plan.

The MTP coordination on other natural and cultural resources is accomplished during the preliminary and draft reviews of the document.

The MTP is compared with State conservation plans and maps, and with inventories of natural and historic resources.



Action Plan

The Federal Highway Administration (FHWA) North Carolina Division Office will work with the Wilmington Metropolitan Planning Organization (WMPO) and the North Carolina Department of Transportation (NCDOT) to address recommendations identified in this Report.



Appendix A

Certification Review Agenda

Tuesday, April 19, 2016

9:00 - 9:05	Introduction and Purpose of Certification Review
9:05 – 9:20	General Comments and Feedback Regarding the Planning Process
9:20 – 9:40	Study Organization
	Agreements and Contracts
	Metropolitan Area Boundary
9:40 – 9:45	Air Quality
9:45 – 11:00	Public Involvement and Outreach <ul style="list-style-type: none">• Title VI and Related Requirements• Visualization
11:00 – 11:15	Break
11:15 – 12:00	Metropolitan Transportation Plan (MTP) <ul style="list-style-type: none">• Environmental Mitigation• Financial Planning• Bicycle and Pedestrian• Freight
12:00 – 1:00	Lunch
1:00 – 1:40	Transportation Improvement Program (TIP) <ul style="list-style-type: none">• Approval• Amendments• Project Selection• Financial Planning



1:40 – 2:10	Planning Factors
2:40 – 2:50	Break
2:50 – 3:45	Public Transit
3:45 – 4:00	Travel Demand Models
4:00 – 4:15	Self-Certification
4:15 – 4:45	FHWA/FTA Review Team Meeting
4:45 – 5:00	Presentation of Preliminary Findings
5:00 – 6:00	Public Meeting



Appendix B

Review Findings

Commendations:

1. The WMPO is commended for considering minority business communities as part of their demographic data collection efforts. Staff stated that they conducted a business district analysis, which fed into the prioritization process.
2. The WMPO is commended for its public involvement efforts with regard to EJ, which includes having a staff member that is fluent in Spanish, publishing its MTP website in Spanish, ensuring diversity on its distribution lists, having a racially diverse citizens advisory committee, and maintaining a list of EJ community organizations.
3. The WMPO is commended for its three-pronged public involvement approach used to solicit public input during development of the MTP.
4. The WMPO is commended for developing performance measures for its MTP and TIP in advance of federal guidance.
5. The MPO's coordination with the transit operators is outstanding. There is an excellent working relationship that has been established. The MPO is very transparent with the transit operators and works with them on a daily basis to include them in the planning process. The transit providers and the MPO both praised each other regarding ongoing communication. They appear to depend on one another to get the job done and achieve their transportation goals.

Recommendations:

1. It is recommended that as a best practice, the WMPO, if possible, use a smaller geography unit such as census block groups or TASZs as smaller units understandably provide more precise information.
2. It is recommended that the MWPO clarify whether median values or actual values were used to identify minority and low-income populations.
3. It is recommended that the WMPO clarify the use of "low vehicle ownership" versus "no vehicles" as a population identifier. If "low vehicle ownership" data is used, please provide the definition for this term.



4. It is recommended that the WMPO define the basis for identifying “low-income” populations.
5. It is recommended that the WMPO clarify the use of total project costs as a measure of transportation impacts by distinguishing between positive impacts (benefits) versus negative impacts (burdens).
6. It is recommended that the WMPO clarify and/or provide additional information to support the WMPO’s conclusion that transportation impacts are generally proportional to the population percentages across the region.
7. It is recommended that the WMPO identify other types of measures (such as accessibility, mobility, congestion, safety, etc.) the WMPO will use to analyze transportation system benefits and burdens to EJ populations as compared to non-EJ populations.
8. It is recommended that the WMPO consider low-income populations by themselves instead of only in combination with African Americans, Hispanics, and other minorities.
9. It is recommended that the WMPO be more deliberate in promoting its commitment to environmental justice by including an EJ specific goal.
10. It is recommended that the WMPO identify why economic development will be enhanced by a proposed transportation project if economic development is identified as the need for the project during the NEPA process.



U.S. Department
of Transportation
**Federal Highway
Administration**

Appendix C

Public Notices



AFFIDAVIT OF PUBLICATION

STATE OF NORTH CAROLINA COUNTY OF NEW HANOVER

PUBLIC MEETING NOTICE
The Wilmington Urban Area Metropolitan Planning Organization will conduct a Public Meeting on Tuesday, April 19, 2016 to discuss the MPO's Certification Review. The public meeting will be held from 5:00pm to 6:00pm at the New Hanover County Public Library, Main Branch at 201 Chestnut Street in the Marshall Room on the 3rd Floor.
Mike Kovalesky, Executive Director
Wilmington Urban Area Metropolitan Planning Organization
ph: 910.394.9748

Before the undersigned, a Notary Public of Said County and State,

Jeremy Springer

Who, being duly sworn or affirmed according to the law, says that he/she is

Accounting Specialist

of THE STAR-NEWS, a corporation organized and doing business under the laws of the State of North Carolina, and publishing a newspaper known as STAR-NEWS in the City of Wilmington

PUBLIC MEETING NOTICE The Wilmington Urban Area Metropolitan Planning Organization will conduct a Public Meeting on Tuesday, April 19, 2016 to discuss the MPO's Certification Review. The public meeting will be held from 5:00pm to 6:00pm at the New Hanover

was inserted in the aforesaid newspaper in space, and on dates as follows:

4/15 1x

And at the time of such publication Star-News was a newspaper meeting all the requirements and qualifications prescribed by Sec. No. 1-597 G.S. of N.C.

Jeremy Springer

Title: Accounting Specialist

Sworn or affirmed to, and subscribed before me this 19th day of April, A.D. 2016

In Testimony Whereof, I have hereunto set my hand and affixed my official seal, the day and year aforesaid.

Lanya V. Wright



My commission expires 12 day of Jan, 2021

Upon reading the foregoing affidavit with the advertisement therein annexed it is adjudged by the Court that the said publication was duly and properly made and that the summons has been duly and legally served on the defendant(s)

This _____ day of _____, 20____

MAILED TO:

Clerk of Superior Court



U.S. Department
of Transportation
**Federal Highway
Administration**

STATE OF NORTH CAROLINA,
COUNTY OF NEW HANOVER

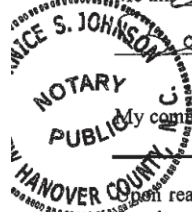
AFFIDAVIT OF PUBLICATION

Before me, a Notary Public in and for aforesaid State and County, came this 28th day of April of 2016
Shawn Hatch, who being duly sworn, deposes and says that he/she is Advertising Manager
of THE WILMINGTON JOURNAL, INC. and that the advertising of Meeting MPO's Certification Review
appeared in said publication on the date (or dates) and in the space as specified below in accordance with
North Carolina General Statute 1-597:

DATE	CAPTION OF AD	SIZE
<u>4-11-16</u>	<u>Public Meeting Notice</u>	<u>1</u> Cols. X <u>21</u> Lines
_____	_____	_____ Cols. X _____ Lines
_____	_____	_____ Cols. X _____ Lines
_____	_____	_____ Cols. X _____ Lines

**PUBLIC MEETING
NOTICE**

Subscribed and sworn to before
Me this 28th day of April 2016



Notary Public

My commission expires: September 25, 2016

Upon reading the foregoing affidavit with t
that the said publication was duly and properl
the defendants(s).

This _____ day of _____ 20____

The Wilmington Urban Area
Metropolitan Planning
Organization will conduct a WILMINGTON JOURNAL, INC.
Public Meeting on Tuesday,
April 19, 2016 to discuss the
MPO's Certification Review.

The public meeting will be held
from 5:00pm to 6:00pm at the
New Hanover County Public
Library's Main Branch at 201
Chestnut Street in the Harnett
Room on the 3rd Floor.

Mike Kozlosky
Executive Director
Wilmington Urban Area
Metropolitan Planning
Organization
Ph: 910-341-3258

April 14, 2016 Clerk of Superior Court

it is adjudged by the Court
n duly and legally served on

Proposed Revisions to 2016-2025 STIP/MTIP Program

STIP/MTIP Amendments (August)			
* R-5783 BRUNSWICK DUPLIN NEW HANOVER ONslow PENDER SAMPSON PROJ.CATEGORY DIVISION	VARIOUS, DIVISION 3 TRANSPORTATION ALTERNATIVES PROGRAM. <u>ADD CONSTRUCTION IN FY 16 NOT PREVIOUSLY PROGRAMMED.</u>	CONSTRUCTION	FY 2016 - <u>\$340,000</u> (TAP) \$340,000
* B-9000DIV STATEWIDE PROJ.CATEGORY DIVISION	BRIDGE INSPECTION PROGRAM. <u>THIS PROJECT WILL REPLACE B-9999DIV.</u>	IMPLEMENTATION	FY 2017 - \$3,300,000 (STBG) FY 2018 - \$3,300,000 (STBG) FY 2019 - \$3,300,000 (STBG) FY 2020 - <u>\$3,300,000</u> (STBG) \$13,200,000
* B-9000REG STATEWIDE PROJ.CATEGORY REGIONAL	BRIDGE INSPECTION PROGRAM <u>THIS PROJECT WILL REPLACE B-9999REG.</u>	IMPLEMENTATION	FY 2017 - \$3,300,000 (STBG) FY 2018 - \$3,300,000 (STBG) FY 2019 - \$3,300,000 (STBG) FY 2020 - <u>\$3,300,000</u> (STBG) \$13,200,000

* B-9000SW
STATEWIDE
PROJ.CATEGORY
STATEWIDE

BRIDGE INSPECTION PROGRAM
THIS PROJECT WILL REPLACE B-9999SW.

IMPLEMENTATION

FY 2017 - \$4,400,000 (STBG)
FY 2018 - \$4,400,000 (STBG)
FY 2019 - \$4,400,000 (STBG)
FY 2020 - \$4,400,000 (STBG)
\$17,600,000

ADDITIONS to the Transit 2016-2025 STIP (August)

STIP #	Transit Partner	DESCRIPTION	match	FUND	FY16 (000)	FY17 (000)	FY18 (000)	FY19 (000)	FY20 (000)	FY21 (000)	FY22 (000)
TBD	Cape Fear Transportation Authority	Operating assistance for fixed route serving Carolina/Kure Beaches	FUZ	STPDA	75						
			Local	L	75						
				L							

Proposed Revisions to 2016-2025 STIP/MTIP Program

STIP/MTIP Amendments (June)

* W-5703DIV BRUNSWICK DUPLIN NEW HANOVER ONSLow PENDER SAMPSON PROJ.CATEGORY DIVISION	VARIOUS, SAFETY IMPROVEMENTS AT VARIOUS LOCATIONS IN DIVISION 3. <u>ADD RIGHT-OF-WAY AND CONSTRUCTION NOT PREVIOUSLY PROGRAMMED.</u>	RIGHT OF WAY	FY 2016 - \$30,000 (HSIP)
			FY 2017 - \$30,000 (HSIP)
			FY 2018 - \$30,000 (HSIP)
		CONSTRUCTION	FY 2016 - \$180,000 (HSIP)
			FY 2017 - \$180,000 (HSIP)
			FY 2018 - <u>\$180,000</u> (HSIP) \$630,000
* W-5703REG BRUNSWICK DUPLIN NEW HANOVER ONSLow PENDER SAMPSON PROJ.CATEGORY REGIONAL	VARIOUS, SAFETY IMPROVEMENTS AT VARIOUS LOCATIONS IN DIVISION 3. <u>ADD RIGHT-OF-WAY AND CONSTRUCTION NOT PREVIOUSLY PROGRAMMED.</u>	RIGHT OF WAY	FY 2016 - \$30,000 (HSIP)
			FY 2017 - \$30,000 (HSIP)
			FY 2018 - \$30,000 (HSIP)
		CONSTRUCTION	FY 2016 - \$180,000 (HSIP)
			FY 2017 - \$180,000 (HSIP)
			FY 2018 - <u>\$180,000</u> (HSIP) \$630,000
* W-5703SW BRUNSWICK DUPLIN NEW HANOVER ONSLow PENDER SAMPSON PROJ.CATEGORY STATEWIDE	VARIOUS, SAFETY IMPROVEMENTS AT VARIOUS LOCATIONS IN DIVISION 3. <u>ADD RIGHT-OF-WAY AND CONSTRUCTION NOT PREVIOUSLY PROGRAMMED.</u>	RIGHT OF WAY	FY 2016 - \$40,000 (HSIP)
			FY 2017 - \$40,000 (HSIP)
			FY 2018 - \$40,000 (HSIP)
		CONSTRUCTION	FY 2016 - \$240,000 (HSIP)
			FY 2017 - \$240,000 (HSIP)
			FY 2018 - <u>\$240,000</u> (HSIP) \$840,000

Proposed Revisions to 2016-2025 STIP/MTIP Program

STIP/MTIP Amendments
(July)

* C-5702 STATEWIDE EXEMPT PROJ.CATEGORY	NORTH CAROLINA CLEAN ENERGY TECHNOLOGY CENTER. CONDUCT A CLEAN FUEL ADVANCED TECHNOLOGY OUTREACH AND AWARENESS PROGRAM, INCLUDING EMISSIONS-REDUCING SUBAWARDS, IN ALL CMAQ-ELIGIBLE COUNTIES. <u>PROJECT ADDED AT REQUEST OF</u> <u>TRANSPORTATION PLANNING BRANCH - SEE</u> <u>PROJECT BREAK BELOW</u> <u>FOR FUNDING.</u>	OTHER	2017 \$747,210 (CMAQ) 2017 \$186,802 (L) 2018 \$747,210 (CMAQ) 2018 \$186,802 (L) \$1,868,024
* C-5702A STATEWIDE EXEMPT PROJ.CATEGORY	NORTH CAROLINA CLEAN ENERGY TECHNOLOGY CENTER. CONDUCT A CLEAN FUEL-ADVANCED TECHNOLOGY OUTREACH AND AWARENESS PROGRAM IN ALL CMAQ-ELIGIBLE COUNTIES. <u>PROJECT ADDED AT REQUEST OF</u> <u>TRANSPORTATION</u> <u>PLANNING BRANCH.</u>		

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION
BOARD**

**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 Urban Area Metropolitan Planning Organization desires to amend the State/Metropolitan Transportation Improvement Programs for projects C-5702, C-5702A, W-5703DIV, W-5703REG and W-5703SW; and

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

NOW THEREFORE, be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby approves amending 2016-2025 State/Metropolitan Transportation Improvement Programs for projects C-5702, C-5702A, W-5703DIV, W-5703REG and W-5703SW.

ADOPTED at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization's Board on August 31, 2016.

Gary Doetsch, Chair

Mike Kozlosky, Secretary

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION
BOARD**

**RESOLUTION ENCOURAGING THE NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION TO PROVIDE ADVANCED NOTIFICATIONS, IMPLEMENT
RESTRICTIONS AND BEGIN PLANNING AND PREPARATIONS FOR THE REPLACEMENT
OF THE CAPE FEAR MEMORIAL BRIDGE**

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 Cape Fear Memorial Bridge was completed in 1969 and provides a critical link between New Hanover and Brunswick Counties; and

WHEREAS, the North Carolina Department of Transportation is responsible for the operation of traffic flow and maintenance on state maintained roadways and bridges; and

WHEREAS, the Cape Fear Memorial Bridge is maintained by the North Carolina Department of Transportation and the bridge requires on-going up-keep, inspections, and maintenance which impacts traffic flow between New Hanover and Brunswick Counties; and

WHEREAS, advanced notifications, timing of work (day vs. night) and the time of year in which the work is being completed all could minimize the impacts to traffic flow on the bridge and between New Hanover and Brunswick Counties.

NOW THEREFORE, be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby encourages the North Carolina Department of Transportation to provide advanced notifications prior to the initiation any work to be completed, work during off-peak travel periods, work during the night and also do not complete any work between Memorial Day and Labor Day unless there is an emergency issue.

NOW THEREFORE, also be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby encourages the North Carolina Department of Transportation to begin preparations and planning for the replacement of the Cape Fear Memorial Bridge.

ADOPTED at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization's Board on August 31, 2016.

Gary Doetsch, Chair

Mike Kozlosky, Secretary

Dan Wilcox
Mayor

Tom Bridges
Council Member

Steve Shuttleworth
Council Member



LeAnn Pierce
Mayor Pro Tem

Gary Doetsch
Council Member

Michael Cramer
Town Manager

TOWN OF CAROLINA BEACH
1121 N. Lake Park Boulevard
Carolina Beach, North Carolina 28428
910 458 2996
FAX 910 458 2997

July 28, 2016

Tim Lowe, P.E., STP
Senior Project Engineer
Wilmington MPO
PO Box 1810
Wilmington, NC 28402

Re: Cape Fear Blvd. MUP – Project No. U-5535 O
Supplemental Agreement – Change in Project Scope

Dear Tim,

Attached is our Supplemental Agreement for the Cape Fear Project approved by the NCDOT Board of Transportation on May 5, 2016. The agreement revises the original scope of work from 3rd Street to Dow Rd. to 6th Street to Dow Rd. As discussed with MPO and NCDOT staff prior to execution of the agreement the Town constructed the MUP section from 3rd to 6th as part of a separate local project.

It is my understanding this change now requires MPO Board approval. Thank you for your assistance in completing this process. Please call with questions, or if you would like to discuss further.

Sincerely,

Jerry Haire
Project Manager

Cc: Michael Cramer, Town Manager

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION
BOARD**

**RESOLUTION SUPPORTING A MODIFICATION IN THE PROJECT LIMITS FOR
THE CAPE FEAR BOULEVARD MULTI-USE PATH**

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, on January 28, 2015 the Town of Carolina Beach was awarded Surface Transportation Program-Direct Attributable (STP-DA) funding in the amount of \$425,639 for the Cape Fear Boulevard Multi-use Path; and

WHEREAS, the Cape Fear Boulevard Multi-use Path is the construction of a multi-use path from 3rd Street to Dow Road; and

WHEREAS, the State/Metropolitan Transportation Improvement Program was amended to include the Cape Fear Boulevard Multi-use path as TIP Project U-5534O; and

WHEREAS, the Town of Carolina Beach has constructed the portion of the multi-use path from 3rd Street to 6th Street using local funds and requests to modify the project limits to remove this area.

NOW THEREFORE, be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby approves the amendment to project limits for the Cape Fear Boulevard Multi-use Path.

ADOPTED at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization's Board on August 31, 2016.

Gary Doetsch, Chair

Mike Kozlosky, Secretary

2016 BIENNIAL DATA REPORT



WILMINGTON URBAN AREA
METROPOLITAN PLANNING ORGANIZATION

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INTRODUCTION

In 2012, the Federal Highway Administration (FHWA) designated the Wilmington Urban Area Metropolitan Planning Organization (WMPO) as a Transportation Management Area (TMA). As a TMA, the WMPO is required to prepare and adopt a Congestion Management Process (CMP) to evaluate and manage congestion in a regionally-agreed upon manner. The CMP, adopted in December of 2013, establish performance measures for evaluating and monitoring system performance using data collected from the WMPO and partner agencies.

The WMPO publishes the Biennial Data Report to demonstrate how the WMPO's regional network is performing according to the performance measures established in the CMP. This being the first Biennial Report prepared by the WMPO there could be need for a reassessment of how the Congestion Management Process defines the criteria and evaluation of the roadway segments. The report provides snapshots for each of the 29 roadway segments within the system that analyze the datasets and congestion mitigation techniques. The analysis will demonstrate the effectiveness of the current strategies in place and where there are opportunities for improvement in the future.

COLLECTING DATA AND EVALUATING CMP SEGMENTS

The CMP outlines the criteria for evaluating and ranking each corridor segment. Currently, congestion is one of the highest concerns on the region's roadway network within the Metropolitan Planning Area. This indicates a need for strategies to be prioritized in order to focus efforts on projects that will be most beneficial to the region.

The criteria and data used to evaluate each segment for this biennial report was collected between 2014 and 2016 and includes:

1.) Travel Time Performance Measures

- Average Travel Time AM/PM: Data was collected by WMPO and City of Wilmington Traffic Engineering staffs over the course of two years. The data was collected through a traffic monitoring method called floating car studies which used GPS devices to collect data on speed and travel time.
- Average Delay AM/PM: Data was collected by WMPO and City of Wilmington Traffic Engineering staffs over the course of two years. The data was collected through a traffic monitoring method called floating car studies which used GPS devices to collect data on location and duration of delays.
- Hotspot identification: Data was collected by WMPO and City of Wilmington Traffic Engineering staffs over the course of two years. The data was collected through a traffic monitoring method called floating car studies which used GPS devices to identify specific points of congestion along the segments.

2.) Safety Performance Measures

- Rear End Collisions: This data was collected by the NCDOT Traffic Safety Unit through their TEAAS Program which aggregates and geo-locates traffic incidents from law enforcement officials throughout the state of North Carolina.
- Bicycle Crashes: This data was collected by the NCDOT Traffic Safety Unit through their TEAAS Program which aggregates and geo-locates traffic incidents from law enforcement officials throughout the state of North Carolina. The NCDOT Bicycle and Pedestrian Division has created a sub-set of the TEAAS data to further analyze bicycle crashes. Note that, due to the additional analysis needed to create this data sub-set, there is a lag time in the data availability and the most current data available for this report represents crashes that occurred in 2012 and 2013.

- **Pedestrian Crashes:** This data was collected by the NCDOT Traffic Safety Unit through their TEAAS Program which aggregates and geo-locates traffic incidents from law enforcement officials throughout the state of North Carolina. The NCDOT Bicycle and Pedestrian Division has created a sub-set of the TEAAS data to further analyze pedestrian crashes. Note that, due to the additional analysis needed to create this data sub-set, there is a lag time in the data availability and the most current data available for this report represents crashes that occurred in 2012 and 2013.

3.) Volume Performance Measures

- **Average Vehicle Count:** This data was collected by the WMPO through pneumatic tube counters at various locations along CMP segments. The data represents raw traffic counts collected at point locations averaged along each segment.
- **Truck percentage:** This data was collected along CMP freight corridors by the WMPO through the use of Hi-Star portable traffic analyzers by utilizing vehicle magnetic imaging technology. It represents truck volume as a percentage of the overall vehicular volume over a 24 hour period at a specific location along the corridor.
- **Bicycle Counts AM/PM:** This data was collected along CMP commercial and destination corridors by the WMPO through manual counts and review of VHS recordings of select intersections for one day during peak hours.
- **Pedestrian Counts AM/PM:** This data was collected along CMP commercial and destination corridors by the WMPO through manual counts and review of VHS recordings of select intersections for one day during peak hours.

4.) Transit Performance Measure

- **Transit Boarding - Cape Fear Public Transportation Authority** provided fixed route passenger totals for FY 2015. This data was aggregated for each CMP roadway segment.

SEGMENT SCORING

The WMPO staff developed a systematic process to equally disperse performance measure points to represent the collected data in order to compare data performance across segments. This was done by allocating the most points to the roadway segment that ended up with the highest combined data. For example a roadway segment with 200 rear end collisions will be given more points than a roadway segment with 100 rear end collisions and a roadway segment with an average vehicle volume of 20,000 will be given more points than a roadway segment with an average vehicle volume of 10,000.

Each data-set was broken up by performance measure to give a clear picture of where to focus roadway segment strategies and improvements in the future.

The number of points available for each performance measure is listed in the table below:

Performance Measures	Points Possible
Travel Time	2 points per minute of delay
Safety	30
Volume	50
Transit Performance	10

SEGMENT CONGESTION MANAGEMENT RESULTS

Using the collected data and Congestion Management Process's scoring criteria, this is how each roadway segment ranked in terms of congestion management needs:

Most Congested Corridors in the WMPO Region		
Segment	Roadway	Total Score
1	College Road - Gordon Rd to Wilshire Blvd	65
2	Market Street - 3rd St to College Rd	61
3	Carolina Beach Road - Alabama Ave to College Rd	61
4	College Road - Wilshire Blvd - Pinecliff Dr	52
5	Oleander Drive - 5th Ave to Treadwell St	48
6	Oleander Drive/Military Cutoff Road - Treadwell St to Gordon Rd	46
7	New Center Drive - Market St to Racine Dr	45
8	Kerr Avenue - MLK Jr. Pkwy to Randall Pkwy	43
9	Gordon Road - Kerr Ave to Military Cutoff Rd	41
10	Randall Parkway - Independence Blvd to Racine Dr	41
11	Market Street - College Road to Torchwood Dr/Bayshore Dr	40
12	Eastwood Road/US 76/Causeway Dr - Military Cutoff Rd to Lumina Ave	39
13	US 421/Carolina Beach Road - Halyburton Pkwy to Atlanta Ave	38
14	17th Street - Savannah Ct to Shipyard Blvd	36
15	US 17 - Washington Acres Rd to Sloop Point Loop Rd	35
16	Shipyard Boulevard - River Rd to College Rd	33
17	Racine Drive - Randall Pkwy to Eastwood Rd	29
18	US117/College Road - Holly Shelter Rd to Gordon Rd	28
19	US 17/74/76 - River Road to 5th Ave	28
20	College Road/Carolina Beach Road - Pinecliff Dr to Halyburton Pkwy	27
21	US 17/US 421/NC 133 - USS North Carolina Rd to 3rd St	26
22	US 17/Market Street - Marsh Oaks Dr/Mendenhall Dr to Sidbury Rd	24
23	Ocean Highway - Lanvalle Rd -to US 74/76 Andrew Jackson Hwy	24
24	Village Road/NC 133 - Navassa Rd to Jackey's Creek Ln	23
25	US 74/76 - Maco Rd to NC 133	23
26	MLK Jr. Parkway/Eastwood Road - College Rd to Racine Dr	22
27	Front Street - Lake Shore Dr to Cape Fear Memorial Bridge	21
28	3rd Street - Kentucky Ave to Wooster St	13
29	US421/Lake Park Blvd - Atlanta Ave to Buzzards Bay	11

To get a more thorough understanding of the individual roadway segments and to get a detailed analysis of the components that factored into the congestion ranking results please refer to the snapshots following this section.

Segment snapshots provide the WMPO and member jurisdictions a quick understanding of a specific corridor by concisely illustrating the corridor's performance and showing the data that has been collected over a two-year period.

The top of the snapshots include the name of the segment analyzed and identify the intersecting road that begins and ends the segment. The following section includes the segment's rank and a map showing the entire segment with each hotspot circled in red. Adjacent to the map, there is additional information about the segment including; its functional type, the mileage along the corridor, the hotspot intersections, the peak hours of the segment, and alternate routes that could potentially relieve demand and congestion along that corridor.

As explained in the segment scoring, each segment's overall score correlates with the performance measure data and is ranked accordingly. The corridors with the highest ranking are in need of the most attention per the congestion management process.

The WMPO Congestion Mitigation Techniques represent the strategies previously listed in the adopted Congestion Management Process. These Congestion Mitigation Techniques need to be applied to manage congestion along the segment. Below the techniques are the Current Implementation Projects and Plans; these are existing funded projects or existing plans that are already set in place to improve or implement one or many of the needed strategies in the future.

SEGMENT 1 COLLEGE ROAD

GORDON ROAD TO WILSHIRE BOULEVARD

CONGESTION RANK: 1 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Commuting Corridor
Destination Corridor Tourist Route

MILEAGE ALONG CORRIDOR: 4.3 Miles

NUMBER OF HOTSPOTS: 2

1. Martin Luther King Jr. Parkway
2. Randall Parkway

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

Kerr Avenue and Independence Boulevard

SEGMENT OVERALL SCORE: 65

Data	
Average Travel Time AM/PM	6:44 / 7:56
Average Delay AM./PM	1:52 / 3:09
Rear End Collisions	462
Bicycle Crashes	6
Pedestrian Crashes	4
Average Vehicle Volume	52,822
Truck Percentage	N/A
Bicycle Counts AM/PM	62 / 14
Pedestrian Counts AM/PM	63 / 36
Transit Boarding	97,819

Performance Measure Points	
Travel Time	10
Safety	14
Volume	32
Transit Performance	9

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

SHIFT MODE OF TRIP STRATEGIES:

- Expand pedestrian and bicycle network
- Improve multimodal access at intersections
- Implement Bicycle Sharing Program

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limits access to land uses through limiting turning movements and conflict points

INCREASE CAPACITY STRATEGIES:

- Convert intersections to interchange: Improves capacity with at-grade or grade separated alternative

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-4434 - Independence Blvd Ext: Multi-lanes on new location
- U-3338 - Kerr Ave: Widen to multi-lanes
- COW Transportation Bond 2014 - Kerr Area Improvements: Multi-use paths and crosswalks at Wilshire Blvd & College Rd and Wilshire Blvd & Kerr Ave
- UNCW Bike Share Program
- U-5702 - College Rd: Access management and travel time improvements
- U-5792 - MLK Jr. Pkwy and College Rd: Convert at-grade intersection to interchange

SEGMENT 2 MARKET STREET

3RD STREET TO COLLEGE ROAD

CONGESTION RANK: 2 OF 29

CORRIDOR FUNCTIONAL TYPES:

Destination Corridor

MILEAGE ALONG CORRIDOR: 4.4 Miles

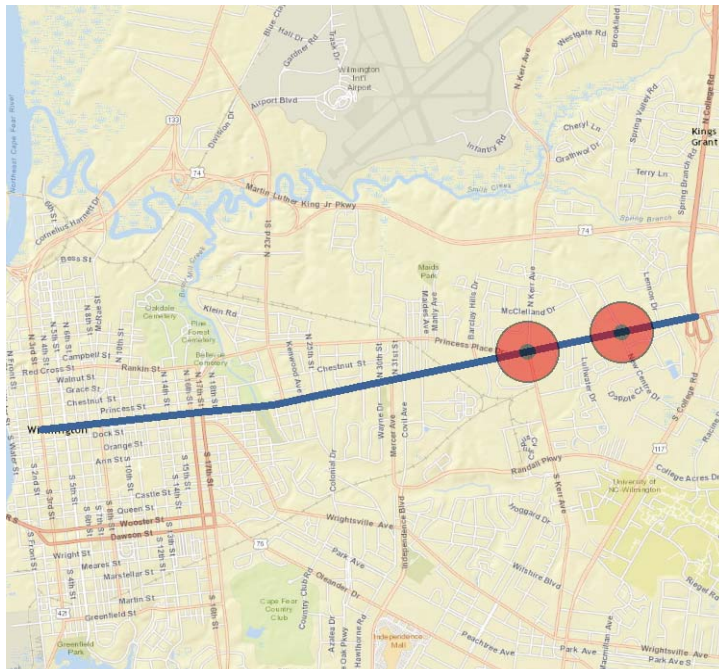
NUMBER OF HOTSPOTS: 2

1. Kerr Avenue
2. New Center Drive

PEAK HOURS: 7:00-9:00AM / 4:30-6:30PM

ALTERNATE ROUTE:

Martin Luther King Jr. Parkway



SEGMENT OVERALL SCORE: 61

Data

Average Travel Time AM/PM	8:08 / 9:24	
Average Delay AM,/PM	1:12 / 2:28	
Rear End Collisions	269	
Bicycle Crashes	8	20
Pedestrian Crashes	12	
Average Vehicle Volume	36,837	
Truck Percentage	N/A	
Bicycle Counts AM/PM	77 / 87	
Pedestrian Counts AM/PM	134 / 117	
Transit Boarding	71,702	

Performance Measure Points

Travel Time	7
Safety	17
Volume	30
Transit Performance	7

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Land Use - Manage Growth: Encourage growth in appropriate areas
- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Expand pedestrian and bicycle network
- Improve multimodal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limit access to land uses through limiting turning movements and conflict points
- Geometric Intersection Improvements: Change intersection use by changing the physical layout

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-5792 - MLK Jr. Pkwy and College Rd: Convert at grade intersection to interchange
- U-4902B - Colonial Dr to MLK Jr. Pkwy: Improve access management
- U-5869 - S.17th St to Covil Ave: Construct a road diet
- U-3338B - Kerr Ave - Randall Pkwy to MLK Jr. Pkwy: Widen to multi-lanes
- U-3338C - Kerr Ave at MLK Jr. Pkwy: Convert intersection to interchange

SEGMENT 3 CAROLINA BEACH ROAD

ALABAMA AVENUE TO COLLEGE ROAD

CONGESTION RANK: 3 OF 29

CORRIDOR FUNCTIONAL TYPES:

Freight Corridor Commercial Corridor
Tourist Route

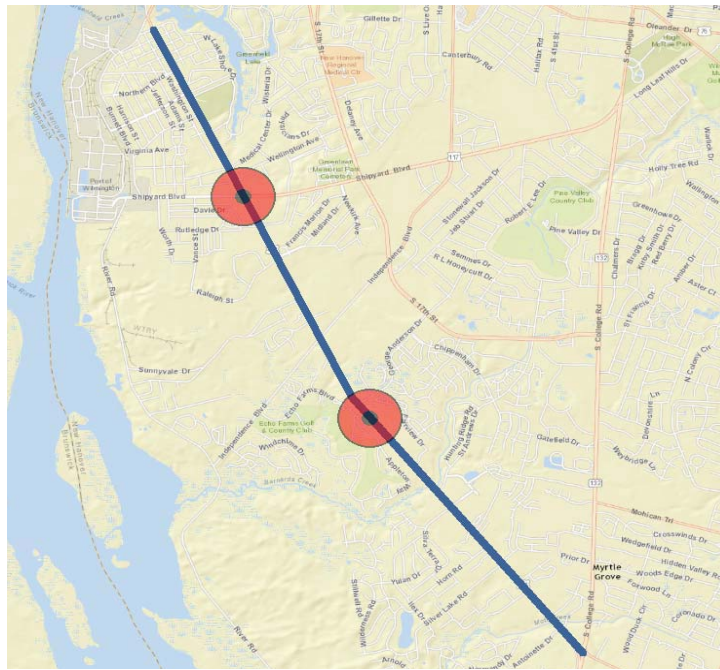
MILEAGE ALONG CORRIDOR: 5.7 Miles

NUMBER OF HOTSPOTS: 2

1. Shipyard Boulevard
2. Codington Elementary School Vicinity (AM)

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE: None



SEGMENT OVERALL SCORE: 61

Data	
Average Travel Time AM/PM	8:48 / 9:46
Average Delay AM./PM	1:16 / 2:13
Rear End Collisions	106
Bicycle Crashes	6
Pedestrian Crashes	5
Average Vehicle Volume	31,783
Truck Percentage	4.35%
Bicycle Counts AM/PM	42 / 38
Pedestrian Counts AM/PM	71 / 56
Transit Boarding	118,850

Performance Measure Points	
Travel Time	6
Safety	12
Volume	33
Transit Performance	10

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Land Use - Accommodate all modes in new development
- Land Use - Construct supportive collector street network with new development

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Expand pedestrian and bicycle network
- Improve multimodal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limit access to land uses through limiting turning movements and conflict points
- Geometric Intersection Improvements: Change intersection use by changing the physical layout

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- Carolina Beach Corridor Plan: Provides strategies for making Carolina Beach Road less congested
- U-5729 - Carolina Beach Rd: Access management and travel time improvements
- COW Transportation Bond 2014 - Carolina Beach Rd Streetscape: Landscaped median, pedestrian upgrades, etc.
- Carolina Beach Rd and Shipyard Blvd Improvements: Anticipated in 2017 STIP

SEGMENT 4 COLLEGE ROAD

WILSHIRE BOULEVARD TO PINECLIFF DRIVE

CONGESTION RANK: 4 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Tourist Route

MILEAGE ALONG CORRIDOR: 3.4 Miles

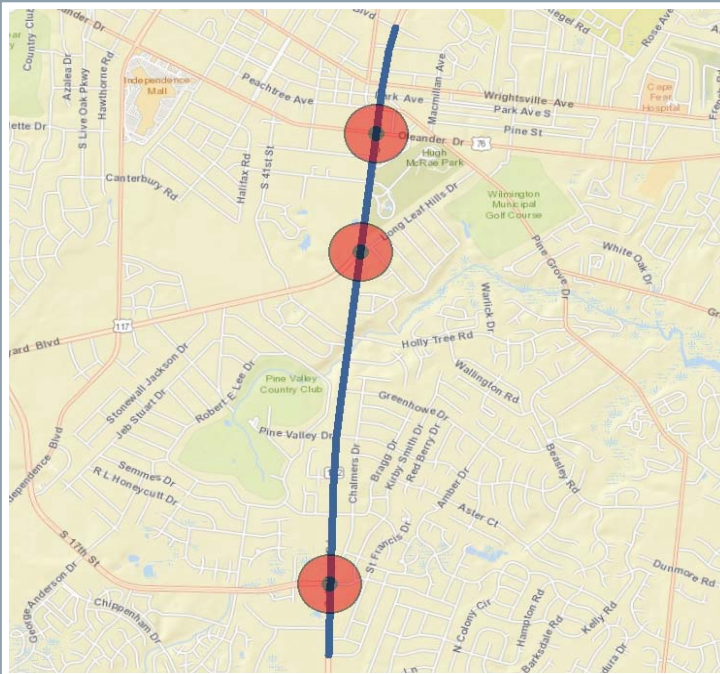
NUMBER OF HOTSPOTS: 3

1. Oleander Drive
2. Shipyard Blvd
3. 17th Street

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

Independence Boulevard



SEGMENT OVERALL SCORE: 52

Data	
Average Travel Time AM/PM	7:34 / 8:06
Average Delay AM,/PM	3:00 / 3:36
Rear End Collisions	251
Bicycle Crashes	4
Pedestrian Crashes	3
Average Vehicle Volume	47,535
Truck Percentage	N/A
Bicycle Counts AM/PM	35 / 14
Pedestrian Counts AM/PM	25 / 30
Transit Boarding	29,247

Performance Measure Points	
Travel Time	13
Safety	11
Volume	26
Transit Performance	2

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

SHIFT MODE OF TRIP STRATEGIES:

- Expand pedestrian and bicycle network
- Improve multimodal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limits access to land uses through limiting turning movements and conflict points

INCREASE CAPACITY STRATEGIES:

- Convert intersection to interchange: Improves capacity with at-grade or grade separated alternative

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-4434 - Independence Blvd Ext: Multi-lanes on new location
- COW Transportation Bond 2014 - South College Rd Trail: 1.3 mile multi-use path along South College Rd
- U-5702 - College Rd: Access management and travel time improvements
- U-5704 - College Rd: Access management and travel time improvements including interchange with US 76

SEGMENT 5 OLEANDER DRIVE

5TH AVENUE TO TREADWELL STREET

CONGESTION RANK: 5 OF 29

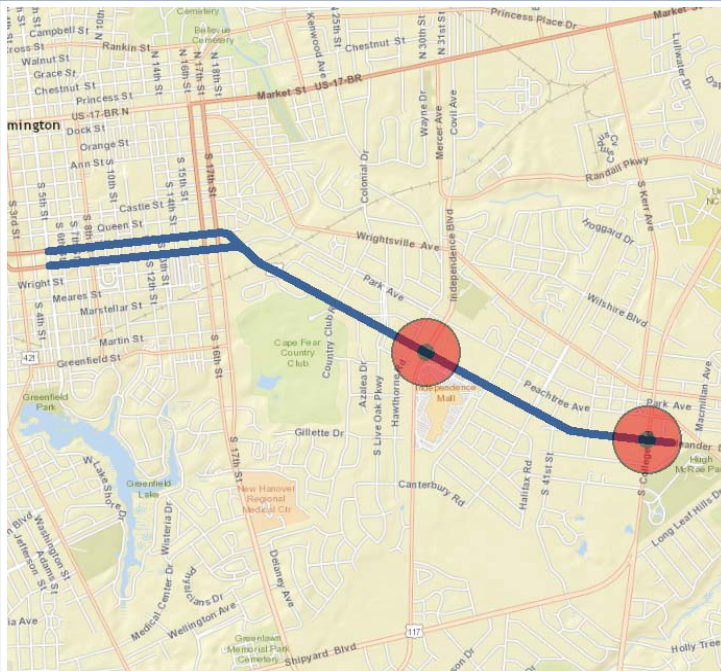
CORRIDOR FUNCTIONAL TYPES:
Commercial Corridor

MILEAGE ALONG CORRIDOR: 4.7

NUMBER OF HOTSPOTS: 2
1. Independence Boulevard
2. College Road

PEAK HOURS: 7:00-9:00AM / 4:30-6:30PM

ALTERNATE ROUTE:
Wrightsville Avenue



SEGMENT OVERALL SCORE: 48

Data		
Average Travel Time AM/PM	8:33 / 8:32	
Average Delay AM,/PM	2:52 / 2:52	
Rear End Collisions	10	
Bicycle Crashes	7	16
Pedestrian Crashes	9	
Average Vehicle Volume	25,021	
Truck Percentage	N/A	
Bicycle Counts AM/PM	18 / 20	
Pedestrian Counts AM/PM	28 / 37	
Transit Boarding	82,525	

Performance Measure Points	
Travel Time	11
Safety	10
Volume	19
Transit Performance	8

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- TDM - Encourage carpools & vanpools
- TDM - Encourage employer shuttles: A shuttle to provide transportation connections for employees

SHIFT MODE OF TRIP STRATEGIES:

- Transit Express Routes - Encourage new transit express routes along corridor
- Expand pedestrian network
 - Improve multi-modal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limit access to land uses through limiting turning movements and conflict points

INCREASE CAPACITY STRATEGIES:

- Convert intersection to interchange: Improves capacity with at-grade or grade separated alternative

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- COW Transportation Bond 2014 - Dawson/Wooster/17th St Area Improvements: Streetscapes along Dawson & Wooster Streets with sidewalks and crosswalks at various intersections
- U-5704 - College Rd: Travel time improvements including interchange with Oleander Dr

SEGMENT 6 OLEANDER DR/MILITARY CUTOFF RD

TREADWELL STREET TO GORDON ROAD

CONGESTION RANK: 6 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commuting Corridor Commercial Corridor

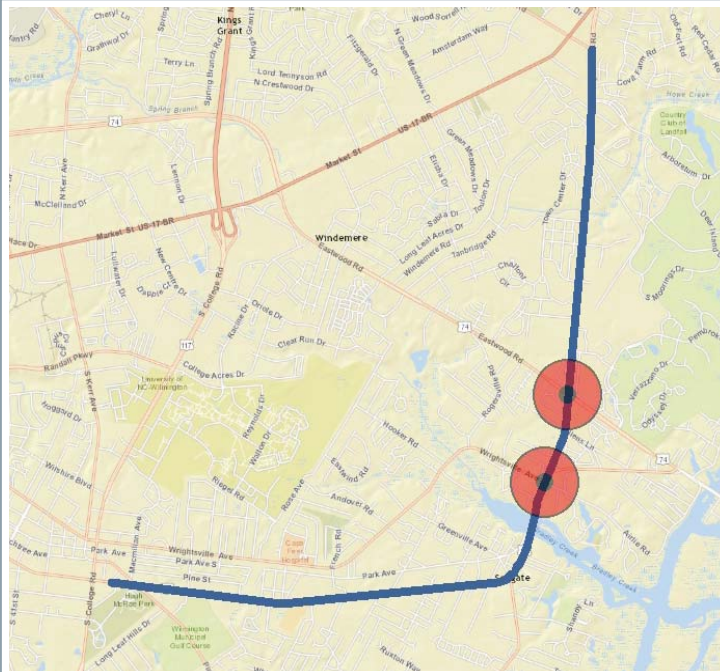
MILEAGE ALONG CORRIDOR: 6.3 Miles

NUMBER OF HOTSPOTS: 2

1. Eastwood Road
2. Wrightsville Avenue/Airlie Road

PEAK HOURS: 7:00-9:00AM / 4:30-6:30PM

ALTERNATE ROUTE: None



SEGMENT OVERALL SCORE: 46

Data	
Average Travel Time AM/PM	10:55 / 13:42
Average Delay AM/PM	2:16 / 5:03
Rear End Collisions	6
Bicycle Crashes	2
Pedestrian Crashes	2
Average Vehicle Volume	37,937
Truck Percentage	N/A
Bicycle Counts AM/PM	19 / 29
Pedestrian Counts AM/PM	16 / 24
Transit Boarding	76,584

Performance Measure Points	
Travel Time	14
Safety	3
Volume	22
Transit Performance	7

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Land Use - Accommodate all modes in new development

SHIFT MODE OF TRIP STRATEGIES:

- Transit Express Routes - Encourage new transit express routes along corridor
- Improve multimodal access at intersection

IMPROVE OPERATIONS STRATEGIES:

- Geometric intersection improvements: Change intersection use by changing the physical layout

INCREASE CAPACITY STRATEGIES:

- Add turning lanes
- Convert intersection to interchange: Improves capacity with at-grade or grade separated alternative

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- Greenville Loop Rd & Oleander Rd: Safety and mobility improvements planned with future development, widening Greenville Loop Rd and adding additional turn lanes throughout the development
- Cape Fear Transportation 2040: Pilot express bus routes on major corridors
- COW Transportation Bond 2014 - Pine Grove Dr Improvements: Realignment of Pine Grove Dr/Oleander Dr intersection

SEGMENT 7 NEW CENTER DRIVE

MARKET STREET TO RACINE DRIVE

CONGESTION RANK: 7 OF 29

CORRIDOR FUNCTIONAL TYPES:
Commercial Corridor

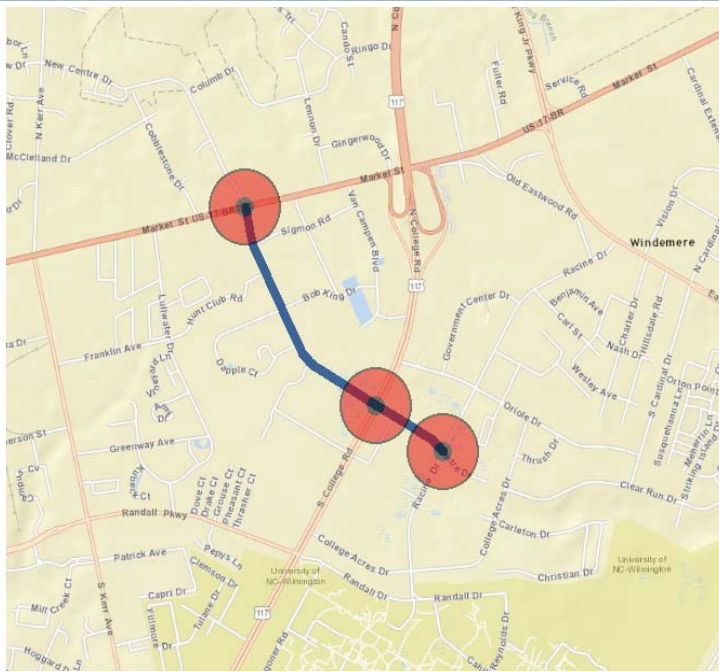
MILEAGE ALONG CORRIDOR: 0.9 Miles

NUMBER OF HOTSPOTS: 3

1. Market Street
2. College Road
3. Racine Drive

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE: None



SEGMENT OVERALL SCORE: 45

Data	
Average Travel Time AM/PM	4:16 / 5:13
Average Delay AM./PM	2:31 / 3:28
Rear End Collisions	28
Bicycle Crashes	5
Pedestrian Crashes	4
Average Vehicle Volume	16,608
Truck Percentage	N/A
Bicycle Counts AM/PM	13 / 13
Pedestrian Counts AM/PM	34 / 25
Transit Boarding	95,582

Performance Measure Points	
Travel Time	12
Safety	7
Volume	17
Transit Performance	9

WMPO CONGESTION MITIGATION TECHNIQUES

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Expand pedestrian and bicycle network
- Improve multimodal access at intersections
- Improve bicycle storage

IMPROVE OPERATIONS STRATEGIES:

- Geometric Intersection Improvements: Change intersection use by changing the physical layout

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- H150357 - New Center Dr & Market St Intersection - Anticipated in 2017 STIP
- U-5702 - College Rd: Access management and travel time improvements

SEGMENT 8 KERR AVENUE

MARTIN LUTHER KING JR. PARKWAY TO RANDALL PARKWAY

CONGESTION RANK: 8 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor

MILEAGE ALONG CORRIDOR: 1.5 Miles

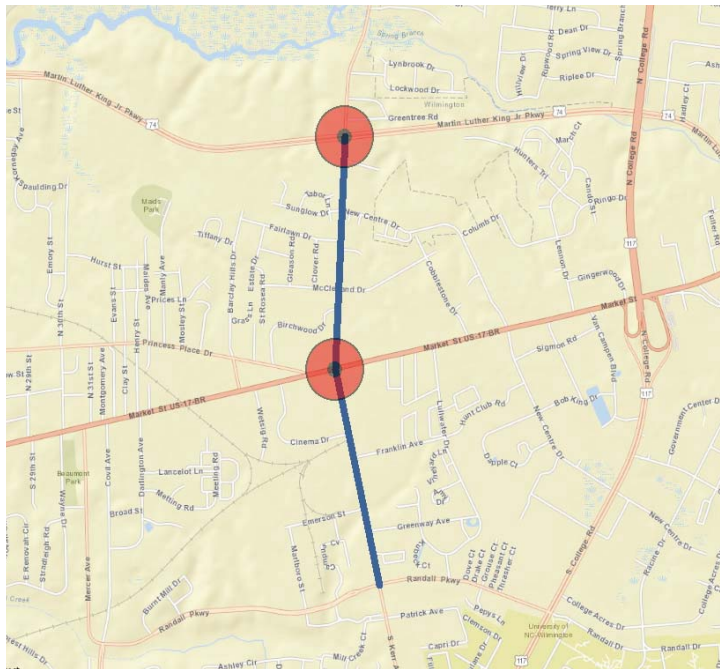
NUMBER OF HOTSPOTS: 2

1. Martin Luther King Jr. Parkway
2. Market Street

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

College Road



SEGMENT OVERALL SCORE: 43

Data	
Average Travel Time AM/PM	5:33 / 9:20
Average Delay AM./PM	2:46 / 6:33
Rear End Collisions	88
Bicycle Crashes	2
Pedestrian Crashes	0
Average Vehicle Volume	19,804
Truck Percentage	N/A
Bicycle Counts AM/PM	4 / 7
Pedestrian Counts AM/PM	5 / 11
Transit Boarding	84,216

Performance Measure Points	
Travel Time	18
Safety	6
Volume	11
Transit Performance	8

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Land Use - TOD: Utilize mixed-use areas designed to maximize access to public transit
- Expand pedestrian and bicycle network
- Improve multimodal access at intersections
- Implement bicycle sharing program

IMPROVE OPERATIONS STRATEGIES:

- Geometric Intersection Improvements: Change intersection use by changing the physical layout

INCREASE CAPACITY STRATEGIES:

- Convert intersections to interchange: Improves capacity with at-grade or grade separated alternative

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-5702 - College Rd: Access management and travel time improvements
- U-3338B - Kerr Ave - Randall Pkwy to MLK Jr. Pkwy: Widen to multi-lanes
- U-3338C - Kerr Ave at MLK Jr. Pkwy: Intersection to interchange

SEGMENT 9 GORDON ROAD

KERR AVENUE TO MILITARY CUTOFF ROAD

CONGESTION RANK: 9 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commuting Corridor

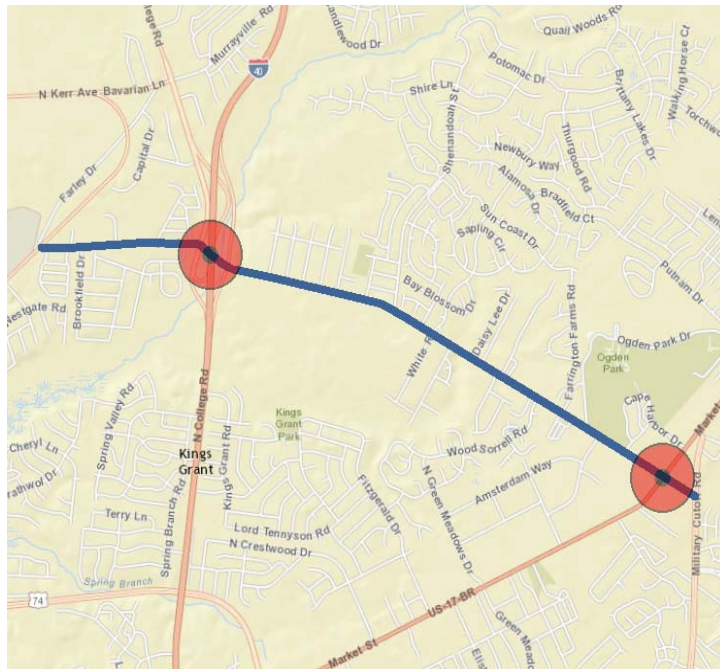
MILEAGE ALONG CORRIDOR: 3.5 Miles

NUMBER OF HOTSPOTS: 2

1. Market Street
2. North College Road

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE: None



SEGMENT OVERALL SCORE: 41

Data	
Average Travel Time AM/PM	8:23 / 10:35
Average Delay AM./PM	3:28 / 5:46
Rear End Collisions	115
Bicycle Crashes	0
Pedestrian Crashes	0
Average Vehicle Volume	15,952
Truck Percentage	N/A
Bicycle Counts AM/PM	11 / 5
Pedestrian Counts AM/PM	10 / 7
Transit Boarding	63,757

Performance Measure Points	
Travel Time	18
Safety	6
Volume	11
Transit Performance	6

WMPO CONGESTION MITIGATION TECHNIQUES

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Land Use - TOD: Utilize mixed-use areas designed to maximize access to public transit
- Expand pedestrian and bicycle network
- Improve multimodal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limit access to land uses through limiting turning movements and conflict points

INCREASE CAPACITY STRATEGIES:

- Add general purpose lane

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-3831 - Gordon Rd: Widen to multi-lanes
- U-4751 - Military Cutoff Rd Ext: Multi-lanes on new location

SEGMENT 10 RANDALL PARKWAY

INDEPENDENCE BOULEVARD TO RACINE DRIVE

CONGESTION RANK: 10 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commuting Corridor

MILEAGE ALONG CORRIDOR: 2.0 Miles

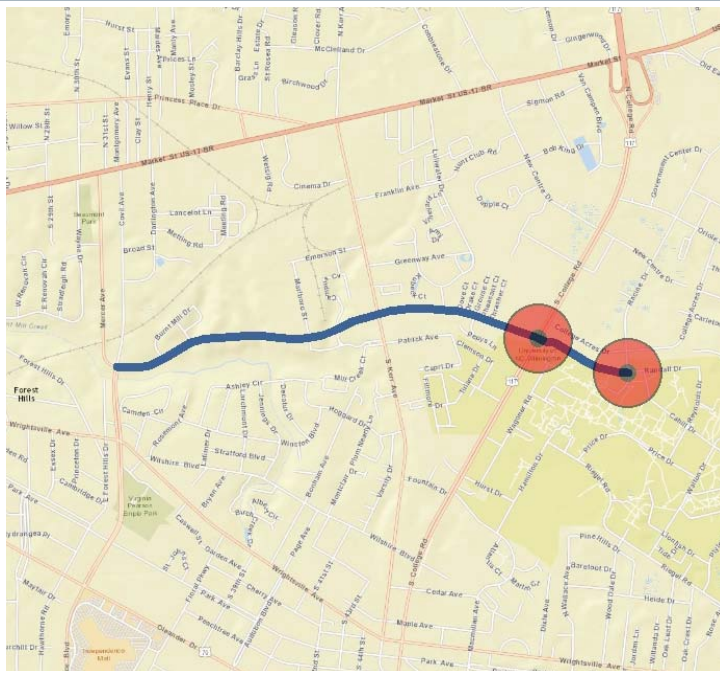
NUMBER OF HOTSPOTS: 2

1. College Road
2. UNCW Campus

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

Wrightsville Avenue



SEGMENT OVERALL SCORE: 41

Data		
Average Travel Time AM/PM	5:52 / 6:57	
Average Delay AM,/PM	2:05 / 3:11	
Rear End Collisions	9	
Bicycle Crashes	10	10
Pedestrian Crashes	0	
Average Vehicle Volume	18,391	
Truck Percentage	N/A	
Bicycle Counts AM/PM	31 / 3	
Pedestrian Counts AM/PM	21 / 7	
Transit Boarding	127,871	

Performance Measure Points	
Travel Time	10
Safety	6
Volume	15
Transit Performance	10

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Land Use - Construct supportive collector street network with new development

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Improve multimodal access at intersections
- Improve bicycle storage
- Implement bicycle sharing program

IMPROVE OPERATIONS STRATEGIES:

- Geometric Intersection Improvements: Change intersection use by changing the physical layout

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-3338B - Kerr Ave - Randall Pkwy to MLK Jr. Pkwy: Widen to multi-lanes
- U-5702 - College Rd: Access management and travel time improvements
- UNCW Bike Share Program

SEGMENT 11 MARKET STREET

COLLEGE ROAD TO TORCHWOOD DRIVE/BAYSHORE DRIVE

CONGESTION RANK: 11 OF 29

CORRIDOR FUNCTIONAL TYPES:
Commercial Corridor

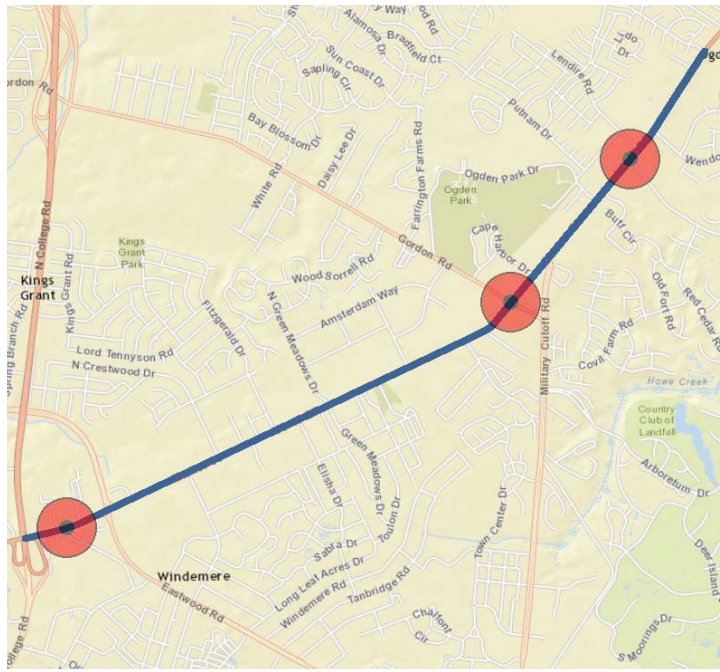
MILEAGE ALONG CORRIDOR: 4.2 Miles

NUMBER OF HOTSPOTS: 3

1. Eastwood Road
2. Gordon Road
3. Middlesound Loop Road

PEAK HOURS: 7:00-9:00AM / 4:30-6:30PM

ALTERNATE ROUTE:
Military Cutoff Road Extension (future)



SEGMENT OVERALL SCORE: 40

Data	
Average Travel Time AM/PM	7:51 / 7:21
Average Delay AM/PM	1:51 / 1:21
Rear End Collisions	59
Bicycle Crashes	5
Pedestrian Crashes	2
Average Vehicle Volume	45,267
Truck Percentage	N/A
Bicycle Counts AM/PM	11 / 9
Pedestrian Counts AM/PM	11 / 10
Transit Boarding	N/A

Performance Measure Points	
Travel Time	6
Safety	7
Volume	27
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network
- Land Use - Construct supportive collector street network with new development

SHIFT MODE OF TRIP STRATEGIES:

- Expand pedestrian and bicycle network
- Improve multimodal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limit access to land uses through limiting turning movements and conflict points
- Geometric Intersection Improvements: Change intersection use by changing the physical layout

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-4751 - Military Cutoff Rd Ext: Multi-lanes on new location
- Market Street Corridor Study: Provides collector street map to show critical connection points throughout the corridor
- U-4902C - Market St - MLK Jr. Pkwy to Station Rd: Improve access management
- U-4902D - Market St - Lendire Rd to Marsh Oaks Dr: Improve access management
- FS-1503A - US 74 and Market St: Convert at-grade intersection to an interchange

SEGMENT 12 EASTWOOD RD/US 76/CAUSEWAY DR

MILITARY CUTOFF ROAD TO LUMINA AVENUE

CONGESTION RANK: 12 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Destination Corridor
Tourist Route

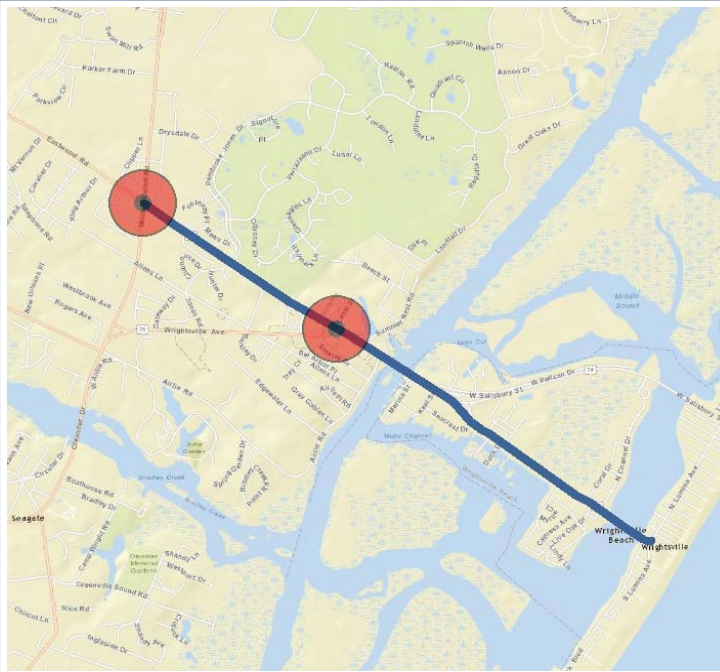
MILEAGE ALONG CORRIDOR: 2.4 Miles

NUMBER OF HOTSPOTS: 2

1. Military Cutoff Road
2. Wrightsville Avenue

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE: NONE



SEGMENT OVERALL SCORE: 39

Data

Average Travel Time AM/PM	5:43 / 5:53	
Average Delay AM,/PM	1:47 / 1:57	
Rear End Collisions	58	
Bicycle Crashes	3	6
Pedestrian Crashes	3	
Average Vehicle Volume	20,045	
Truck Percentage	N/A	
Bicycle Counts AM/PM	69 / 33	
Pedestrian Counts AM/PM	59 / 51	
Transit Boarding	N/A	

Performance Measure Points

Travel Time	7
Safety	7
Volume	25
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

SHIFT MODE OF TRIP STRATEGIES:

- Improve multimodal access at intersections
- Improve bicycle storage
- Implement bicycle sharing program

INCREASE CAPACITY STRATEGIES:

- Convert intersection to interchange: Improves capacity with at-grade or grade separated alternative

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- STP-DA - Heide Trask Drawbridge Walkway: Construction of walkway/pier underneath drawbridge
- U-5710 - Eastwood Rd and Military Cutoff Rd: Convert at grade intersection to a interchange

SEGMENT 13 US 421 / CAROLINA BEACH ROAD

HALYBURTON PARKWAY TO ATLANTA AVENUE

CONGESTION RANK: 13 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Destination Corridor
Tourist Route

MILEAGE ALONG CORRIDOR: 5.2 Miles

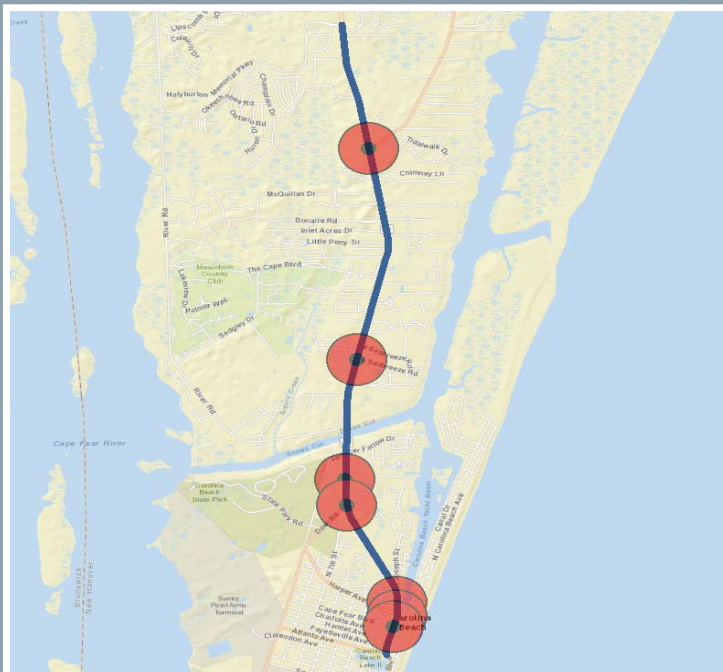
NUMBER OF HOTSPOTS: 7

1. Myrtle Grove Road
2. Seabreeze Road
3. Access Road
4. Risley Road/Dow Road
5. Carl Winner Avenue
6. Cape Fear Boulevard
7. Harper Avenue

PEAK HOURS: 6:30-8:30AM / 5:00-7:00PM

ALTERNATE ROUTE:

River Road and Dow Road



SEGMENT OVERALL SCORE: 38

Data

Data		
Average Travel Time AM/PM	7:49 / 7:57	
Average Delay AM,/PM	0:44 / 0:53	
Rear End Collisions	59	
Bicycle Crashes	1	4
Pedestrian Crashes	3	
Average Vehicle Volume	22,977	
Truck Percentage	N/A	
Bicycle Counts AM/PM	42 / 33	
Pedestrian Counts AM/PM	66 / 67	
Transit Boarding	12,549	

Performance Measure Points

Travel Time	3
Safety	6
Volume	27
Transit Performance	2

WMPO CONGESTION MITIGATION TECHNIQUES

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Establish Park & Ride
- Expand pedestrian and bicycle network

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- Cape Fear Transportation 2040 - River Road Widening: Independence Blvd to Carolina Beach Rd

SEGMENT 14 17TH STREET

SAVANNAH COURT TO SHIPYARD BOULEVARD

CONGESTION RANK: 14 OF 29

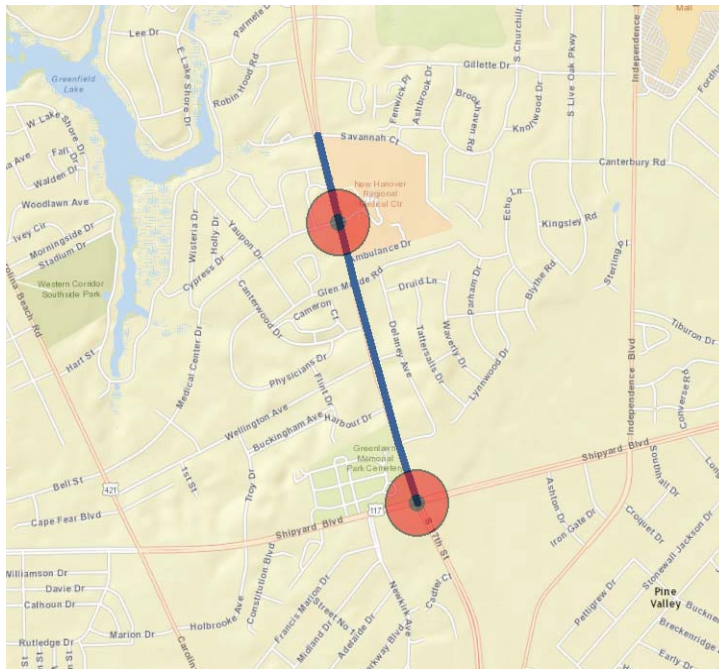
CORRIDOR FUNCTIONAL TYPES:
Destination Corridor

MILEAGE ALONG CORRIDOR: 1.1 Miles

NUMBER OF HOTSPOTS: 2
1. Shipyards Boulevard
2. Medical Center Drive

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:
Independence Boulevard
Carolina Beach Road



SEGMENT OVERALL SCORE: 36

Data	
Average Travel Time AM/PM	3:19/3:51
Average Delay AM./PM	1:34/2:05
Rear End Collisions	37
Bicycle Crashes	0
Pedestrian Crashes	1
Average Vehicle Volume	28,982
Truck Percentage	N/A
Bicycle Counts AM/PM	5 / 3
Pedestrian Counts AM/PM	29 / 36
Transit Boarding	91,609

Performance Measure Points	
Travel Time	7
Safety	3
Volume	16
Transit Performance	9

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- TDM - Encourage alternate work schedules
- TDM - Encourage carpools & vanpools
- TDM - Encourage employer shuttles: A shuttle to provide transportation connections for employees

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Expand pedestrian and bicycle network
- Improve multimodal access at intersections
- Improve bicycle storage

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- EB-5600 - South 17th Street Multi-use Path: Construct multi-use path

SEGMENT 15 US 17

WASHINGTON ACRES ROAD TO SLOOP POINT LOOP ROAD

CONGESTION RANK: 15 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Commuting Corridor
Freight Corridor Tourist Route

MILEAGE ALONG CORRIDOR: 7.4 Miles

NUMBER OF HOTSPOTS: 2

1. NC 210
2. Topsail High School Vicinity (AM)

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

Hampstead Bypass (future)

SEGMENT OVERALL SCORE: 35

Data

Data		
Average Travel Time AM/PM	13:00 / 10:35	
Average Delay AM,/PM	4:30 / 1:49	
Rear End Collisions	149	
Bicycle Crashes	0	4
Pedestrian Crashes	4	
Average Vehicle Volume	35,896	
Truck Percentage	1.39%	
Bicycle Counts AM/PM	5 / 8	
Pedestrian Counts AM/PM	6 / 6	
Transit Boarding	N/A	

Performance Measure Points

Travel Time	12
Safety	8
Volume	15
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

SHIFT MODE OF TRIP STRATEGIES:

- Expand pedestrian and bicycle network
- Improve multimodal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limit access to land uses through limiting turning movements and conflict points

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- H090215 A/B - Hampstead Bypass: Anticipated in 2017 STIP
- U-5732 - US 17 Washington Acres Rd to Sloop Point Loop Rd: Convert to superstreet

SEGMENT 16 SHIPYARD BOULEVARD

RIVER ROAD TO COLLEGE ROAD

CONGESTION RANK: 16 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor

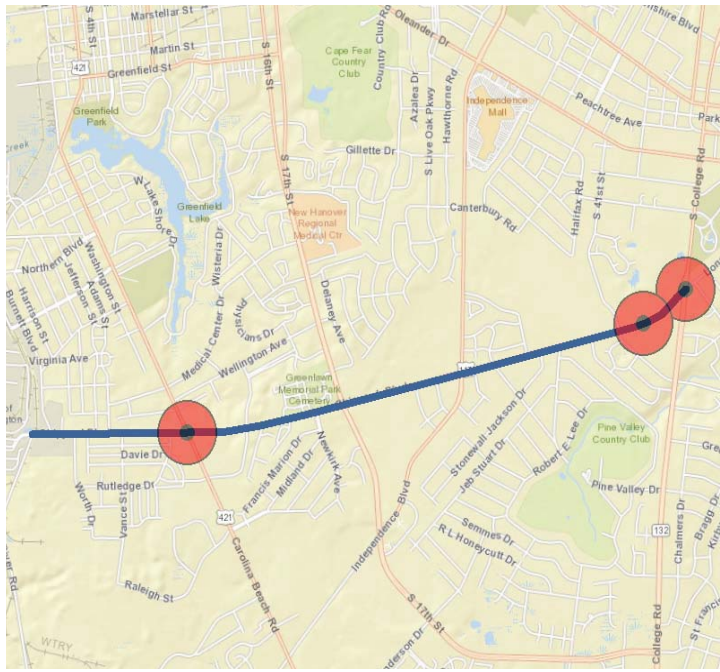
MILEAGE ALONG CORRIDOR: 3.6 Miles

NUMBER OF HOTSPOTS: 3

1. Carolina Beach Road
2. College Road
3. Hoggard High School Vicinity (AM)

PEAK HOURS: 7:00-9:00AM / 4:30-6:30PM

ALTERNATE ROUTE: None



SEGMENT OVERALL SCORE: 33

Data	
Average Travel Time AM/PM	6:18 / 7:49
Average Delay AM./PM	1:43 / 3:26
Rear End Collisions	4
Bicycle Crashes	2
Pedestrian Crashes	2
Average Vehicle Volume	22,524
Truck Percentage	11.72%
Bicycle Counts AM/PM	N/A
Pedestrian Counts AM/PM	N/A
Transit Boarding	68,672

Performance Measure Points	
Travel Time	10
Safety	3
Volume	14
Transit Performance	6

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Land Use - Accommodate all modes in new development
- Land Use - Construct supportive collector street network with new development

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Land Use - TOD: Utilize mixed-use areas designed to maximize access to public transit

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limits access to land uses through limiting turning movements and conflict points

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- STP-DA - Shipyard Blvd Bus Pull-out and Sidewalks: Bus pull-out and loading area along Shipyard Blvd with sidewalk from Rutledge Dr to Vance St
- Carolina Beach Rd and Shipyard Blvd Improvements: Anticipated in 2017 STIP

SEGMENT 17 RACINE DRIVE

RANDALL PARKWAY TO EASTWOOD ROAD

CONGESTION RANK: 17 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Commuting Corridor

MILEAGE ALONG CORRIDOR: 2.3 Miles

NUMBER OF HOTSPOTS: 3

1. Randall Drive
2. Eastwood Road
3. New Centre Drive

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

College Road

SEGMENT OVERALL SCORE: 29

Data	
Average Travel Time AM/PM	3:43 / 4:20
Average Delay AM./PM	1:32 / 2:09
Rear End Collisions	1
Bicycle Crashes	5
Pedestrian Crashes	4
Average Vehicle Volume	15,087
Truck Percentage	N/A
Bicycle Counts AM/PM	N/A
Pedestrian Counts AM/PM	N/A
Transit Boarding	110,646

Performance Measure Points	
Travel Time	7
Safety	6
Volume	6
Transit Performance	10

WMPO CONGESTION MITIGATION TECHNIQUES

SHIFT MODE OF TRIP STRATEGIES:

- Transit Express Routes
- Transit - Increase frequency: Increase existing public transit fixed routes
- Expand pedestrian and bicycle network
- Improve multimodal access at intersections
- Improve bicycle storage

SEGMENT 18 US 117/COLLEGE ROAD

HOLLY SHELTER ROAD TO GORDON ROAD

CONGESTION RANK: 18 OF 29

CORRIDOR FUNCTIONAL TYPES:

Community Corridor

MILEAGE ALONG CORRIDOR: 5.8 Miles

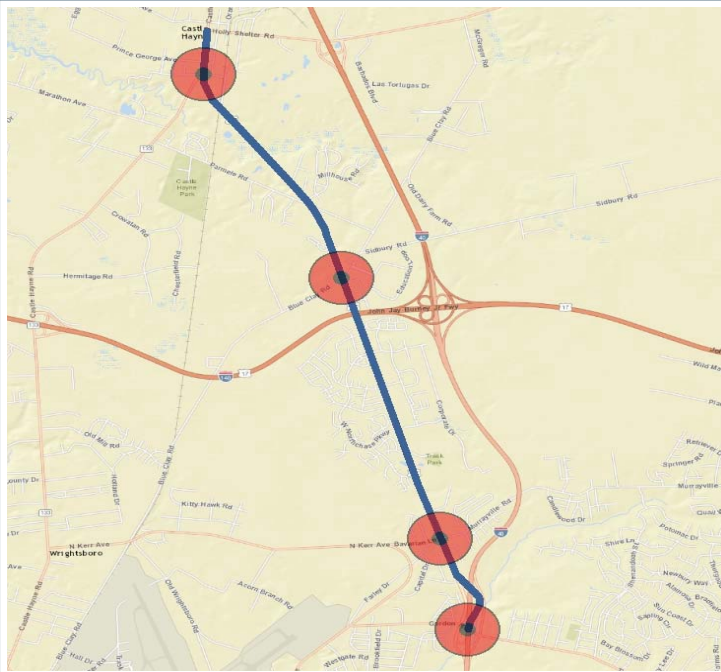
NUMBER OF HOTSPOTS: 4

1. E.A. Laney School Vicinity
2. Bavarian Lane/Murrayville Road
3. Castle Hayne Road
4. Blue Clay Road

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

Castle Hayne Road and I-40



SEGMENT OVERALL SCORE: 28

Data

Average Travel Time AM/PM	12:23/11:33	
Average Delay AM,/PM	3:10/2:33	
Rear End Collisions	138	
Bicycle Crashes	0	2
Pedestrian Crashes	2	
Average Vehicle Volume	17,584	
Truck Percentage	N/A	
Bicycle Counts AM/PM	N/A	
Pedestrian Counts AM/PM	N/A	
Transit Boarding	44,064	

Performance Measure Points

Travel Time	11
Safety	7
Volume	6
Transit Performance	4

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Land Use - Accommodate all modes in new development

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Expand pedestrian and bicycle network
- Improve multimodal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limit access to land uses through limiting turning movements and conflict points

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- Laney High School Multi-Use Trail: Coordination between developer, Laney High School and NCDOT

SEGMENT 19 US 17/74/76

RIVER ROAD TO 5TH AVENUE

CONGESTION RANK: 19 OF 29

CORRIDOR FUNCTIONAL TYPE:

Commuting Corridor Freight Corridor
Tourist Route

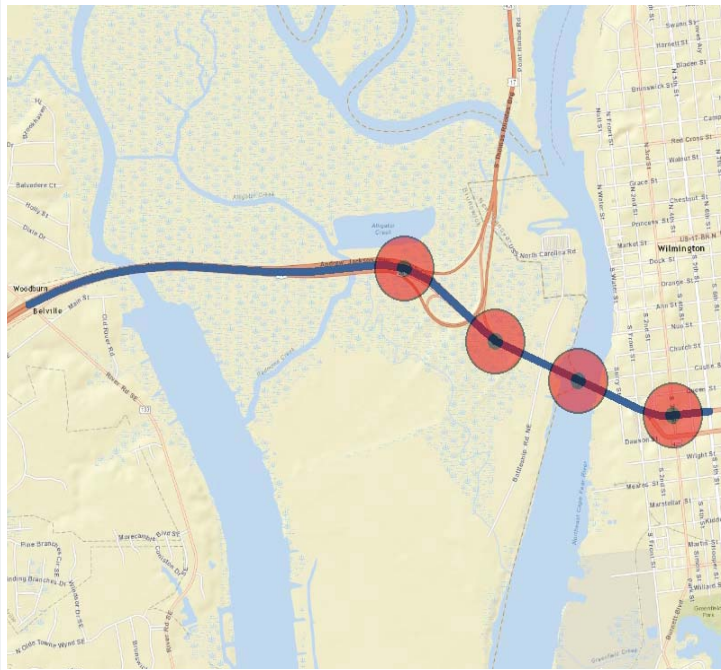
MILEAGE ALONG CORRIDOR: 3.2 Miles

NUMBER OF HOTSPOTS: 4

1. Cape Fear Memorial Bridge
2. 3rd Street
3. US 421 Interchange
4. US 74/76 Causeway Widening Construction Zone

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE: None



SEGMENT OVERALL SCORE: 28

Data		
Average Travel Time AM/PM	4:17 / 4:31	
Average Delay AM,/PM	0:41 / 0:58	
Rear End Collisions	60	
Bicycle Crashes	0	1
Pedestrian Crashes	1	
Average Vehicle Volume	56,367	
Truck Percentage	9.70%	
Bicycle Counts AM/PM	N/A	
Pedestrian Counts AM/PM	N/A	
Transit Boarding	14,359	

Performance Measure Points	
Travel Time	3
Safety	4
Volume	19
Transit Performance	2

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network
- TDM - Encourage alternate work schedules
- TDM - Encourage carpools & vanpools
- TDM - Encourage employer shuttles: A shuttle to provide transportation connections for employees

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Establish Park and Ride lots

INCREASE CAPACITY STRATEGIES:

- Add general purpose lane

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-4738 - Cape Fear Crossing: Construct new facility with structure over Cape Fear River
- R-3601 - US 17/US 74/US 76: Add additional lanes on north and southbound lanes and widen bridges

SEGMENT 20 COLLEGE RD/CAROLINA BEACH RD

PINECLIFF DRIVE TO HALYBURTON PARKWAY

CONGESTION RANK: 20 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Tourist Route
Commuting Corridor

MILEAGE ALONG CORRIDOR: 4.7 Miles

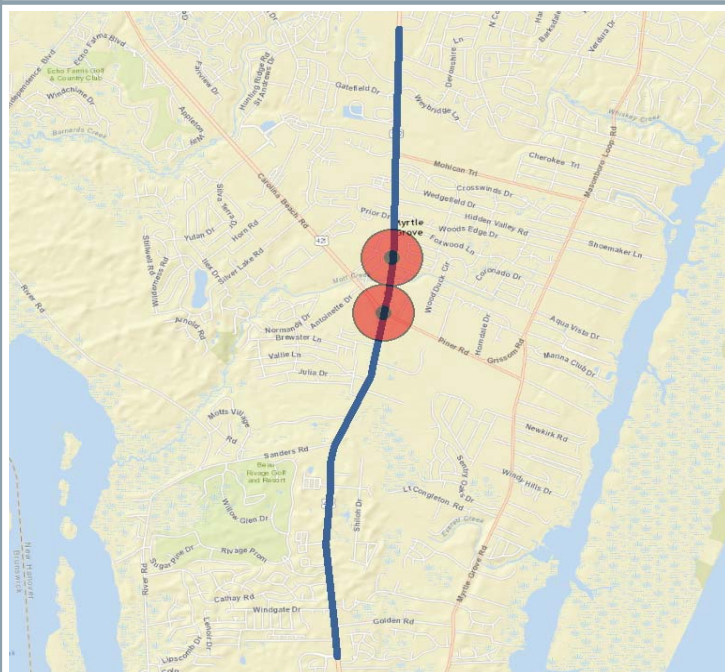
NUMBER OF HOTSPOTS: 2

1. Carolina Beach Road/Piner Road
2. Lowes/Myrtle Grove Library

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

River Road



SEGMENT OVERALL SCORE: 27

Data

Data		
Average Travel Time AM/PM	7:33 / 7:05	
Average Delay AM,/PM	1:45 / 1:20	
Rear End Collisions	268	
Bicycle Crashes	1	3
Pedestrian Crashes	2	
Average Vehicle Volume	36,959	
Truck Percentage	N/A	
Bicycle Counts AM/PM	N/A	
Pedestrian Counts AM/PM	N/A	
Transit Boarding	29,247	

Performance Measure Points

Travel Time	6
Safety	9
Volume	10
Transit Performance	2

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Land Use - Manage Growth: Encourage growth in appropriate areas
- TDM - Encourage Carpools & Vanpools
- Land Use - Construct supportive collector street network with new development

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency
- Land Use - TOD: Utilize mixed-use areas designed to maximize access to public transit
- Improve multimodal access at intersections
- Establish Park & Ride lots

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limit access to land uses through limiting turning movements and conflict points
- Improve Signage: Better inform traffic of route options and better channelize traffic to improve patterns

INCREASE CAPACITY STRATEGIES:

- Add general purpose lanes
- Convert intersection to interchange

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-5790 - Carolina Beach Rd: Widen existing roadway and construct flyover at College Rd

SEGMENT 21 US 17/US 421/NC 133

USS NORTH CAROLINA ROAD TO 3RD STREET

CONGESTION RANK: 21 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commuting Corridor Freight Corridor
Tourist Route

MILEAGE ALONG CORRIDOR: 1.6 Miles

NUMBER OF HOTSPOTS: 2

1. Thomas Rhodes Bridge
2. Isabel Holmes Bridge

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

I-140 Wilmington Bypass (Future)



SEGMENT OVERALL SCORE: 26

Data

Average Travel Time AM/PM	3:01/2:41	
Average Delay AM,/PM	1:08/0:48	
Rear End Collisions	22	
Bicycle Crashes	0	2
Pedestrian Crashes	2	
Average Vehicle Volume	55,044	
Truck Percentage	8.86%	
Bicycle Counts AM/PM	N/A	
Pedestrian Counts AM/PM	N/A	
Transit Boarding	N/A	

Performance Measure Points

Travel Time	4
Safety	3
Volume	19
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network
- TDM - Encourage alternate work schedules
- TDM - Encourage carpools & vanpools
- TDM - Encourage employer shuttles: A shuttle to provide transportation connections for employees

INCREASE CAPACITY STRATEGIES:

- Convert intersection to interchange: Improves capacity with at-grade or grade separated alternative

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- R-2633 - I-140: Four lane divided freeway on new location
- U-5731 - US 17/US 421: A fly-over and free flow ramp at interchange

SEGMENT 22 US 17/MARKET STREET

MARSH OAKS DRIVE/MENDENHALL DRIVE TO SIDBURY ROAD

CONGESTION RANK: 22 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Commuting Corridor

MILEAGE ALONG CORRIDOR: 3.0 Miles

NUMBER OF HOTSPOTS: 2

1. US 17 Interchange
2. Porters Neck Road

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

Military Cutoff Road Extension (future)

SEGMENT OVERALL SCORE: 24

Data

Data		
Average Travel Time AM/PM	8:23 / 10:35	
Average Delay AM,/PM	3:28 / 5:46	
Rear End Collisions	17	
Bicycle Crashes	0	0
Pedestrian Crashes	0	
Average Vehicle Volume	37,094	
Truck Percentage	N/A	
Bicycle Counts AM/PM	0 / 2	
Pedestrian Counts AM/PM	6 / 2	
Transit Boarding	N/A	

Performance Measure Points

Travel Time	10
Safety	1
Volume	13
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Expand pedestrian and bicycle network
- Improve multimodal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Geometric Intersection Improvements: Change intersection use by changing the physical layout

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-4751 - Military Cutoff Rd Ext: Multi-lanes on new location
- U-4902 - US 17 Business: Access management improvements
- H092015-A/B - US 17 Hampstead Bypass: Construct freeway on new location

SEGMENT 23 OCEAN HIGHWAY

LANVALLE ROAD TO US 74/76 ANDREW JACKSON HIGHWAY

CONGESTION RANK: 23 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Commuting Corridor
Tourist Route

MILEAGE ALONG CORRIDOR: 3.0 Miles

NUMBER OF HOTSPOTS: N/A

PEAK HOURS: 6:30-8:30AM / 5:00-7:00PM

ALTERNATE ROUTE:

I-140 Wilmington Bypass (Future)

SEGMENT OVERALL SCORE: 24

Data

Average Travel Time AM/PM	4:26/4:45	
Average Delay AM,/PM	0:21/0:37	
Rear End Collisions	87	
Bicycle Crashes	0	0
Pedestrian Crashes	0	
Average Vehicle Volume	41,034	
Truck Percentage	N/A	
Bicycle Counts AM/PM	0 / 1	
Pedestrian Counts AM/PM	3 / 3	
Transit Boarding	28,718	

Performance Measure Points

Travel Time	2
Safety	5
Volume	15
Transit Performance	2

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

REDUCE DEMAND STRATEGIES:

- Land Use - Construct supportive collector street network with new development

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Improve multimodal access at intersections
- Establish park and ride

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- R-2633 - I-140 Wilmington Bypass: Four way divided freeway on new location
- Connecting Northern Brunswick County Collector Street Plan: Determines collector street spacing based on anticipated land uses and the environmental constraints inherent to the region

SEGMENT 24 VILLAGE ROAD/NC 133

NAVASSA ROAD TO JACKEY'S CREEK LANE

CONGESTION RANK: 24 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commercial Corridor Commuting Corridor
Freight Corridor Tourist Route

MILEAGE ALONG CORRIDOR: 2.7 Miles

NUMBER OF HOTSPOTS: 2

1. Andrew Jackson Highway
2. Fairview Road

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

Ocean Highway

SEGMENT OVERALL SCORE: 23

Data	
Average Travel Time AM/PM	5:07 / 4:43
Average Delay AM./PM	1:00 / 0:36
Rear End Collisions	40
Bicycle Crashes	0
Pedestrian Crashes	0
Average Vehicle Volume	22,353
Truck Percentage	4.16%
Bicycle Counts AM/PM	15 / 20
Pedestrian Counts AM/PM	29 / 27
Transit Boarding	N/A

Performance Measure Points	
Travel Time	3
Safety	2
Volume	18
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

SHIFT MODE OF TRIP STRATEGIES:

- Expand pedestrian and bicycle network

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- H090713 - NC 133 Widening: Add additional lanes from south of Rabon Way to the interchange at US 17/74/76
- STP-DA - Westgate Drive Multi-use Path: Construction of a multi-use path along West Gate Dr that runs south and ties into Ricegate Way

SEGMENT 25 US 74/76

MACO ROAD TO NC 133

CONGESTION RANK: 25 OF 29

CORRIDOR FUNCTIONAL TYPES:

Freight Corridor Tourist Route

MILEAGE ALONG CORRIDOR: 9.7 Miles

NUMBER OF HOTSPOTS: 2

1. Maco Road
2. US 17 Junction

PEAK HOURS: 6:30-8:30AM / 5:00-7:00PM

ALTERNATE ROUTE:

I-140 Wilmington Bypass (Future)

SEGMENT OVERALL SCORE: 23

Data	
Average Travel Time AM/PM	10:08/9:35
Average Delay AM,/PM	0:09/0:25
Rear End Collisions	71
Bicycle Crashes	0
Pedestrian Crashes	0
Average Vehicle Volume	46,636
Truck Percentage	9.73%
Bicycle Counts AM/PM	N/A
Pedestrian Counts AM/PM	N/A
Transit Boarding	N/A

Performance Measure Points	
Travel Time	1
Safety	4
Volume	18
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

IMPROVE OPERATIONS STRATEGIES:

- Access Management: Limit access to land uses through limiting turning movements and conflict points

INCREASE CAPACITY STRATEGIES:

- Convert intersection to interchange: Improves capacity with at-grade or grade separated alternative

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- R-2633 - I-140 Wilmington Bypass: Four way divided freeway on new location
- CTP Projects - R-64 Village Rd Widening: Old Fayetteville Rd and Lanvale Rd Interchange

SEGMENT 26 MLK JR. PARKWAY/EASTWOOD ROAD

COLLEGE ROAD TO RACINE DRIVE

CONGESTION RANK: 26 OF 29

CORRIDOR FUNCTIONAL TYPES:

Commuting Corridor Tourist Routes

MILEAGE ALONG CORRIDOR: 1.1 Miles

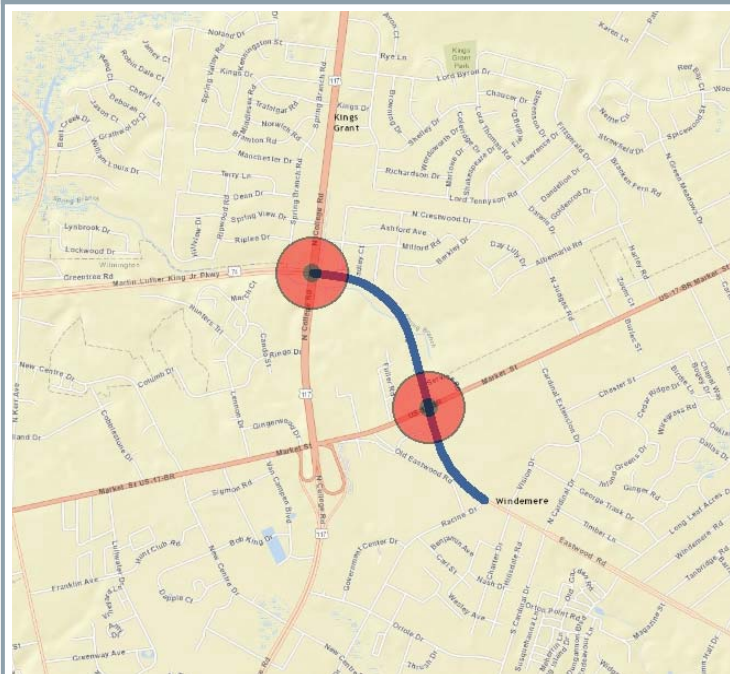
NUMBER OF HOTSPOTS: 2

1. College Road
2. Market Street

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

Market Street



SEGMENT OVERALL SCORE: 22

Data	
Average Travel Time AM/PM	4:08 / 4:35
Average Delay AM./PM	2:33 / 3:00
Rear End Collisions	39
Bicycle Crashes	0
Pedestrian Crashes	1
Average Vehicle Volume	25,021
Truck Percentage	N/A
Bicycle Counts AM/PM	N/A
Pedestrian Counts AM/PM	N/A
Transit Boarding	N/A

Performance Measure Points	
Travel Time	11
Safety	3
Volume	8
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Express Routes: Encourage new transit express routes along corridor
- Transit - Increase frequency: Increase existing public transit fixed routes
- Improve multimodal access at intersections

IMPROVE OPERATIONS STRATEGIES:

- Geometric Intersection Improvements: Change intersection use by changing the physical layout

INCREASE CAPACITY STRATEGIES:

- Convert intersection to interchange: Improves capacity with at-grade or grade separated alternative

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-4902C - MLK Jr. Pkwy to Station Rd: Improve access management
- U-5792 - MLK Jr. Pkwy and College Rd: Convert at-grade intersection to interchange
- U-5880 - MLK Jr. Pkwy: Upgrade interchange

SEGMENT 27 FRONT STREET

LAKE SHORE DRIVE TO CAPE FEAR MEMORIAL BRIDGE

CONGESTION RANK: 27 OF 29

CORRIDOR FUNCTIONAL TYPE:

Freight Corridor

MILEAGE ALONG CORRIDOR: 1.1 Miles

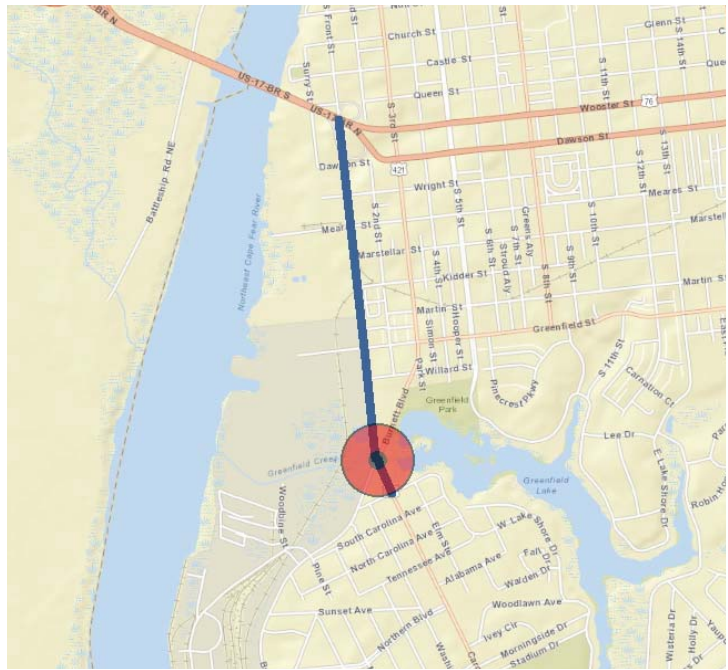
NUMBER OF HOTSPOTS: 1

1. 3rd Street/Burnett Boulevard

PEAK HOURS: 7:00-9:00AM / 4:30-6:30PM

ALTERNATE ROUTE:

3rd Street



SEGMENT OVERALL SCORE: 21

Data	
Average Travel Time AM/PM	2:22 / 2:48
Average Delay AM./PM	0:26 / 0:51
Rear End Collisions	15
Bicycle Crashes	1
Pedestrian Crashes	0
Average Vehicle Volume	26,048
Truck Percentage	6.35%
Bicycle Counts AM/PM	N/A
Pedestrian Counts AM/PM	N/A
Transit Boarding	51,514

Performance Measure Points	
Travel Time	2
Safety	2
Volume	12
Transit Performance	5

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES::

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

IMPROVE OPERATIONS STRATEGIES:

- Improve signage: Better inform traffic of route options and better channelize traffic to improve patterns

INCREASE CAPACITY STRATEGIES:

- Add general purpose lanes

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-5734 - Front St - Cape Fear Memorial Bridge to Burnett Blvd: Widen to multi-lanes

SEGMENT 28 3RD STREET

KENTUCKY AVENUE TO WOOSTER STREET

CONGESTION RANK: 28 OF 29

CORRIDOR FUNCTIONAL TYPES:

Tourist Route

MILEAGE ALONG CORRIDOR: 1.1 Miles

NUMBER OF HOTSPOTS: 2

1. Dawson St./Wooster St.
2. Front St./Carolina Beach Rd.

PEAK HOURS: 7:00-9:00AM / 4:45-6:45PM

ALTERNATE ROUTE:

Front Street

SEGMENT OVERALL SCORE: 13

Data	
Average Travel Time AM/PM	3:32 / 3:34
Average Delay AM./PM	1:32 / 1:34
Rear End Collisions	33
Bicycle Crashes	0
Pedestrian Crashes	1
Average Vehicle Volume	12,869
Truck Percentage	N/A
Bicycle Counts AM/PM	N/A
Pedestrian Counts AM/PM	N/A
Transit Boarding	N/A

Performance Measure Points	
Travel Time	6
Safety	3
Volume	4
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

REDUCE DEMAND STRATEGIES:

- Alternative Roadways: Improve usage of non-CMP roadways to remove demand on CMP network

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes

IMPROVE OPERATIONS STRATEGIES:

- Improve signage: Better inform traffic of route options and better channelize traffic to improve patterns

CURRENT IMPLEMENTATION PROJECTS AND PLANS

- U-5734 - Front St - Cape Fear Memorial Bridge to Burnett Blvd: Widen to multi-lanes

SEGMENT 29 US 421 / LAKE PARK BLVD

ATLANTA AVENUE TO BUZZARDS BAY

CONGESTION RANK: 29 OF 29

CORRIDOR FUNCTIONAL TYPES:

Tourist Route

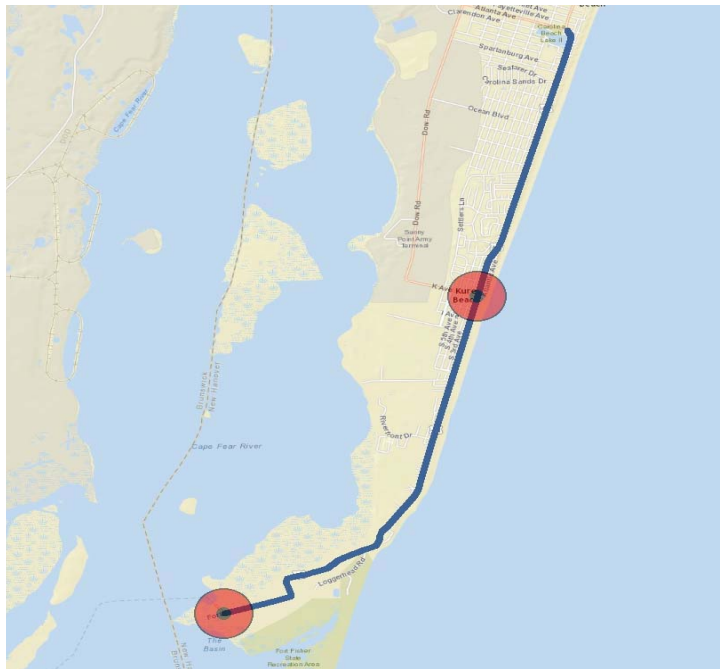
MILEAGE ALONG CORRIDOR: 5.9 Miles

NUMBER OF HOTSPOTS: 2

1. K Ave (Kure Pier)
2. Fort Fisher Boulevard

PEAK HOURS: 6:30-8:30AM / 5:00-7:00PM

ALTERNATE ROUTE: None



SEGMENT OVERALL SCORE: 11

Data

Average Travel Time AM/PM	11:21 / 12:03	
Average Delay AM,/PM	1:04 / 1:46	
Rear End Collisions	8	
Bicycle Crashes	2	2
Pedestrian Crashes	0	
Average Vehicle Volume	8,867	
Truck Percentage	N/A	
Bicycle Counts AM/PM	N/A	
Pedestrian Counts AM/PM	N/A	
Transit Boarding	N/A	

Performance Measure Points

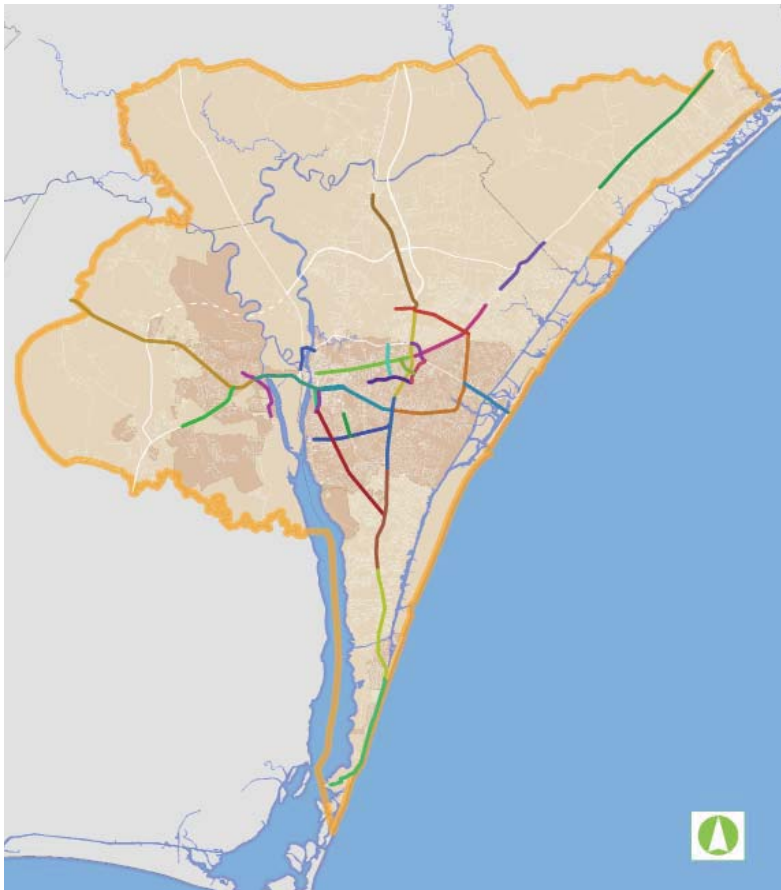
Travel Time	5
Safety	2
Volume	4
Transit Performance	N/A

WMPO CONGESTION MITIGATION TECHNIQUES

SHIFT MODE OF TRIP STRATEGIES:

- Transit - Increase frequency: Increase existing public transit fixed routes
- Establish Park & Ride
- Improve multimodal access at intersection

SYSTEM MONITORING



In addition to analyzing specific segments of the CMP system, this report also evaluates how our region is performing as a whole. The system monitoring performance measures are set in place to identify, assess, and quickly communicate information about the overall network.

The preliminary system-wide performance measures are the following:

- Safe
- Efficient
- Appropriate
- Responsible
- Integrated
- Multi-Modal

Following the criteria listed in the CMP, the data below represents the existing conditions of our current system as a whole. Over the next two years these performance measures will again be collected to compare how the system has improved after the strategies have been identified in the segment snapshots.

PERFORMANCE MEASURE ANALYSIS

Safe	
Number of bicycle and pedestrian crashes in the WMPO area within 2-year timeframe	329
Number of rear-end collisions in the WMPO area within a 2-year timeframe	3,845
Efficient	
Bicycle and pedestrian corridor counts per capita in the WMPO area	2,648
Number of CMP corridor intersection legs with pedestrian indication at intersections	93
Average travel time of the WMPO CMP network	7:05
Average duration of delay at intersections within the WMPO CMP network	2:06
Number of participants in the WMPO's TDM program	402
Appropriate	
Percentage of CMP corridor facility improvements that have low difficulty	40%
Percentage of CMP corridor facility improvements that have medium difficulty	12%
Percentage of CMP corridor facility improvements that have high difficulty	48%
Percentage of miles of CMP improvements that incorporated consideration of 2040 projected volumes	59%
Responsible	
Percentage of miles of CMP routes that have parallel facilities that alleviate congestion on CMP routes	43%
Integrated	
Percentage of WMPO adopted plans is the CMP referenced in over a two year period	50%
Percentage of the WMPO 13 member jurisdictions land use plans referencing the CMP	0%
Multi-Modal	
Bicycle and pedestrian CMP corridor counts per capita	2,648

NEXT STEPS

One of the critical parts of the Congestion Management Process Biennial Report is determining which strategies can be used to improve congestion experienced along the identified roadway segments. The segment snapshots have identified which corridors are in the most need of attention. It is up to the WMPO staff and partnering agencies to facilitate the implementation of strategies to improve the CMP network.

This report will also be an essential tool when selecting projects for the WMPO's Metropolitan Transportation Plan (MTP). Congestion is one of an array of factors considered when selecting projects for the WMPO's MTP and subsequently programming projects in the Metropolitan/State Transportation Improvement Program (MTIP/STIP). The biennial report's congestion scores will be a critical tool when identifying and prioritizing projects for the future MTP. The ranking process in this report quantifies a congestion value associated with each CMP corridor. This will allow any project identified in the WMPO's MTP to easily incorporate a CMP score as one of the evaluating components in the MTP's final project score.

Since the CMP is an ongoing data collection and analysis process, following the biennial report there will be a review for the CMP's effectiveness. WMPO staff will assess whether there is a need for the CMP Steering Committee to reconvene to evaluate the existing performance measures and mitigation techniques. We will also evaluate the existing criteria used to score and rank congestion within the region. If an improved process has potential to be more effective than the existing process this will be taken into account for the next biennial report which will be completed in 2018.

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION
BOARD**

**RESOLUTION ADOPTING THE CONGESTION MANAGEMENT PROCESS 2016 BIENNIAL
REPORT**

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, on July 18, 2012 the Wilmington Urban Area Metropolitan Planning Organization was designated as a Transportation Management Area (TMA); and

WHEREAS, on December 4, 2015 President Obama signed the Fixing America's Surface Transportation (FAST) Act; and

WHEREAS, the development and adoption of a Congestion Management Process is required of all designated TMAs; and

WHEREAS, the Federal Highway Administration defines a Congestion Management Process as a regionally-accepted approach for managing congestion that provides up-to-date information on transportation system performance and assesses alternative strategies for congestion management that meet state and local needs; and

WHEREAS, a Congestion Management Process subcommittee was convened on March 26, 2013 to develop a Congestion Management Process for the Wilmington Urban Area; and

WHEREAS, the Transportation Advisory Committee adopted the Wilmington Urban Area MPO's Congestion Management Process on December 11, 2013 established performance measures for evaluating and monitoring system performance and serves as a baseline for congestion in the region; and

WHEREAS, following the adoption of the Congestion Management Process, the Wilmington Urban Area MPO has collected the necessary data over the course of the past 2 years to evaluate and monitor system performance and evaluate the effectiveness of current to address the congestion needs for the Wilmington Urban Area.

NOW THEREFORE, be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby adopts the Congestion Management Process 2016 Biennial Report.

ADOPTED at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization's Board on August 31, 2016.

Gary Doetsch, Chair

Mike Kozlosky, Secretary



Wilmington Urban Area Metropolitan Planning Organization
Surface Transportation Block Grant Program
Project Submittal Guide
Fiscal Year 2017

Date of Release: September 7, 2016

Pre-application Review: October 19, 2016

Electronic Application Submittal Deadline: 5 pm November 30, 2016

Submit one CD to:
WMPO
305 Chestnut Street, Fourth Floor
Wilmington, NC 28401

CD should be labeled with the following:
Project Name
Name of Government Agency
Requested Funding Source
Date

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Introduction

On December 4, 2015, the President signed the Fixing America's Surface Transportation (FAST) Act into law. The FAST Act changed the Surface Transportation Program (STP) name to the Surface Transportation Block Grant Program (STBG) and amended the provisions contained in 23 U.S.C. 133. From the STBG funds apportioned to each state for the state's entire Federal-aid system, a portion the FAST Act allocates STBG funds directly to any Metropolitan Planning Organization (MPO) that is designated as a Transportation Management Area (TMA). STBG funds have broad latitude for use on metropolitan transportation planning and projects along and in support of the Federal-aid system per 23 U.S. C. 133. Specific eligibility criteria and guidance can be found through the Federal Highways Administration (FHWA www.fhwa.dot.gov).

As a Transportation Management Area (TMA), the Wilmington Urban Area Metropolitan Planning Organization (WMPO) will receive a direct allocation of STBGP funding annually. This direct allocation is referred to by the WMPO as Surface Transportation Block Grant Program Direct Attributable (STBGP-DA). The WMPO Transportation Advisory Committee (the Board) supported transferring an initial 15% annually from this direct allocation to supplement the Unified Planning Work Program (UPWP). The Board provided consensus on July 27, 2016 to continue with the modal investment targets as follows for the remaining STBGP-DA funds: 20% to Public Transportation, 15% to Intersection improvements, 15% to Roadway Improvements, and 50% to Bicycle and Pedestrian Improvements. All projects, including Public Transportation projects, requesting STBGP-DA funds must submit a formal funding request. A competitive process has been adopted to determine which projects are funded. Each jurisdiction is able to submit one project of not less than \$125,000 for possible award.

If jurisdictions are interested in submitting an application, the WMPO **mandates** attendance at the interest meeting by the jurisdiction's designated appointee. The meeting will take place prior to the beginning of the federal fiscal year's award announcement. For Fiscal Year 2017, the meeting will be held on **September 13, 2016** at the **Planning Conference Room on the 4th Floor of 305 Chestnut St. Bldg. (WMPO Offices)**. If no designated representative from the jurisdiction is in attendance at the interest meeting, said jurisdiction will be considered ineligible for funding during FY2017.

Eligibility Criteria

In order to be eligible for Surface Transportation Block Grant Program (STBGP) funding, a project must meet the minimum criteria outlined in this section. Also, a completed application must be submitted by the applicant(s). Co-applications can be submitted by a combination of municipalities in a primary applicant and secondary applicant format. Incomplete applications will not be considered. These criteria meet federal and state funding requirements, as well as the goals of the WMPO for STBGP dollars as adopted by the Board. Projects that do not meet these criteria will not be considered for funding.

1) Federal Aid Eligible Projects

The federal eligibility requirements associated with Surface Transportation Block Grant Program funding can be found in 23 USC §133 (<https://www.fhwa.dot.gov/fastact/>)

2) Locally Administered

By submitting a project for STBGP funding, the municipality(ies) or local government entity(ies) are committing funds to sponsor said project. The applicants (if awarded) shall be responsible for all federal and state reporting requirements associated with STBGP-DA funding. The local government entities are also expected to make progress reports to the Board upon request. An inter-local agreement between the North Carolina Department of Transportation (NCDOT) and the designated recipients will outline a reimbursement schedule; local sponsors will be required to front all project costs, invoice NCDOT, and then get reimbursed for the federal percentage dedicated to the project. The WMPO may assist in coordination between NCDOT and the local government entities, however, the ultimate responsibility and the signatories on the NCDOT agreements will be the local government entities.

3) Compliant with the adopted MTP/LRTP

Projects must be identified in the WMPO's current and adopted Metropolitan Transportation Plan (MTP) /Long Range Transportation Plan (LRTP (Cape Fear Transportation 2040 Plan). If desired projects are not identified in the adopted MTP/LRTP at the submittal stage, the MTP/LRTP must be revised before projects are prioritized. In accordance with federal guidelines, the MTP/LRTP must remain fiscally constrained. The Board must approve any modifications. A copy of the current CFTP can be found here: <http://wmpo.org/plans/regionwide-plans>.

4) Locally funded with funding commitment

All funds programmed with STBGP-DA dollars require a minimum 20% local match. The funding application must include a resolution supporting this financial commitment. If an application is a primary/secondary applicant format, a resolution by all parties involved must be submitted with the application.

In addition to the provision of the match commitment submitted as part of the

STBGP application, local government entities are responsible for funding cost overruns on projects in excess of the final programmed cost estimate. This provision may only be waived through the approval for additional funding from Board and through additional Surface Transportation Improvement Program (STIP) amendments by the Board of Transportation if needed.

5) Transportation Improvement Program (TIP)

Projects not in compliance with an existing TIP category will require a TIP amendment. Applicants should consider that the TIP amendment process could delay the funding obligation timeline.

6) Project Design Intent

Project design intent must meet Federal and State guidelines.

7) Project Cost

Minimum amount requested will be \$125,000.

Total Cost of Project = Total STBGP-DA funding requested from the Board + Total Local Match

For example, if \$125,000 is requested, the minimum local match will be \$31,250 for a minimum total project cost of \$156,250.

Program Administrative Details

1) Project Scope

The target modal mix that has been adopted for fiscal year 2017 is as follows:

Transit=20%

Bicycle and Pedestrian=50%

Intersections=15%

Roadways=15%

The modal mix may be revisited on an annual basis at the discretion of the Board. Due to the high administrative burden associated with projects funded with STBGP-DA dollars, the minimum estimated project cost shall be \$125,000.

2) Project Submittal Limits

For FY 2017, the maximum number of project submittals allowed per jurisdiction is four. Each jurisdiction may submit 0, 1, 2, 3, or 4 projects under any one category as long as the total number of projects submitted by any jurisdiction is no more than four.

3) No Unfunded Project Carry-Over

Projects submitted in FY 2017 that are not prioritized for STBGP funding are not

automatically considered for funding in subsequent years. Any unfunded project may be resubmitted in subsequent years for funding.

Application Materials

Applicants are required to submit the following materials with their application(s):

- 1) Map of proposed project (See Exhibit A for an example)
- 2) GIS file of project
- 3) Funding Request Submittal Form – Background Information
- 4) Funding Request Submittal Detail Form (i.e. Bicycle and Pedestrian Improvements, Intersection Improvements, Road Improvements)
- 5) Resolutions of support from local government agency to apply for STBGP funding AND committing a minimum 20% local match. Signature must be provided. (See Exhibit B for an example)
- 6) Detailed Opinion of Probable Construction Costs (Prepared by a Licensed Professional Engineer)
- 7) Project Schedule highlighting key milestone dates (i.e. deadlines for plan submittals at applicable stages, dates for requesting funding authorizations, etc.)
- 8) Supporting documents – Pictures with labels, additional maps, resolutions adopting plans that specify a need for the project, etc. (Resolutions supporting plan must have been adopted prior to call for projects)

Details and descriptions of these required materials are supplied in the sections to follow.

1) Map of Proposed Project – See Exhibit A

This map is required with all applications. On an 8.5 x 11 or 11 x 17 sheet of paper include the following:

- a. Full extent of proposed project
- b. Inset vicinity map – use your jurisdictions boundary
- c. ½ mile buffer around proposed project drawn in **BLACK**
- d. Existing roadways drawn in **GREY**
- e. Proposed project drawn in **RED DOTTED LINE** (linear projects) or **RED CIRCLE** (intersection or point projects)
- f. Existing sidewalk drawn in **BLUE**
- g. Existing bike lanes drawn in **YELLOW**
- h. Existing greenway/multi-use path drawn in **GREEN**
- i. Existing bus stop drawn as **PURPLE STAR**
- j. Existing crosswalks (improved intersections) drawn as **ORANGE CIRCLE**
- k. Major obstacle drawn in **BROWN** (refer to #2 in bike/ped application)
- l. Title
- m. Legend
- n. North Arrow
- o. Scale
- p. Length of project (if applicable)

Note: if you are suggesting the proposed project should receive points for providing a new connection over a major obstacle (#2 in bike/ped application) or connecting to transit (#10 in bike/ped application), be sure to illustrate this on this map.

2) GIS File of Project

Submit a GIS file geodatabase for your project that meets the following specifications:

- Projection= NAD_198_StatePlane_North_Carolina_FIPS_3200_Feet
- File Geodatabase for submittal of multiple files for a single project to include .mxd files and associated data
- Reasonable and concise metadata must be documented for all files submitted to include:
 - Date of data creation
 - Entity that created data
 - Length of data validity (expiration date)
 - Process for deriving data

Metadata should be documented in the file's metadata tab

3) **Funding Request Submittal Form – Background Information**

The following descriptions of items are to help describe how you should complete this form:

Type of Project – Indicate here what type of project you are submitting. Keep in mind that all projects must comply with eligibility criteria as defined on page 4.

Project Phase – Choose the phases of the project that you are applying to complete.

Project Name – A descriptive name of your project.

Project Location – The physical location of the proposed project (typically the jurisdiction or area name).

TIP ID# - In the case that your project is for work on a project that is already in the TIP, the TIP number here.

Total Project Cost – An estimate of the total cost of the project for all phases needing completion (Design/NEPA, Right-of-Way, Construction). Note that local jurisdictions are responsible for 100% of actual project costs exceeding the estimations programmed through this process into the STIP (unless otherwise approved by the Board). Local match and requested funding should be broken out.

Total STBGP funding requested from the Board = Total Cost of Project – Total Local Match

Primary Applicant/Secondary Applicant – The name of your agency.

Managing Agency – The managing agency will typically be the Primary/Secondary Applicant; in some cases, however, local governments may partner with NCDOT or the WMPO to have the Division office or the WMPO staff administer a project. Coordination would be required in advance of project submittal in cases where the local jurisdiction requests assistance from NCDOT or the WMPO. The Resolution (discussed in Item 5) must commit a staff member from the local municipality/county or otherwise identify who will be administering the project on behalf of the local municipality/county.

Contact Person – This is the person WMPO staff will contact with questions regarding the application.

Project Description – A specific description of your project, including beginning and end points of the project and specific facility type.

Problem Statement – This can be thought of as a preliminary Purpose & Need Statement used to justify expenditure of funds to address a problem in a WMPO member jurisdiction. The problem statement should state the transportation problem

to be solved as well as a minimal amount of data needed to support the problem statement.

MTP/LRTP Status – Insert the applicable appendix and page number where the project is referenced in the current MTP/LRTP. If the project is not in the current MTP/LRTP, check the corresponding box.

4) **Funding Request Submittal Form – Mode-Specific Information**

The form submitted for your project will be specific to the type of project for which you are submitting. Local government entities may submit for a project in any of the following categories (no more than 4 projects):

- A) Bicycle and Pedestrian Improvements
- B) Intersection Improvements
- C) Roadway Improvements

Local government entities should coordinate directly with the Cape Fear Public Transit Authority if they intend to submit a transit project.

A. Bicycle and Pedestrian Improvements

The following descriptions of items are to help describe how you should complete this form.

Who will maintain this project after completion? – Identify the entity that will be responsible for maintenance of a project after construction is completed. The responsible party is most likely the Primary/Secondary Applicant and could be, in a few cases, be the managing agency.

Project Readiness – Is the project in following stage of completion:

Environmental Investigation/Permitting – Project is in the stages of Environmental documentation and/or permitting stage.

Design/Survey/Construction Documents – Project has or is in the process of surveying or construction document preparations.

ROW acquisition – Project is in the stages of Right-Of-Way acquisition.

Bid Phase – Project has been/or is in the process of obtaining construction bids.

Partial Construction – Project has started construction or has been awarded and initial contract has been executed.

Closing a gap – Choose one of the following choices on the sheet:

Closing an internal gap in total facility length > 2 miles - Select if project “fills in a gap” between two net-works or parts of the same network that, should the project be completed, would form a network of over 2 miles in continuous length.

Closing an internal gap in total facility length > 0.5 miles - Select if project “fills in a gap” between two networks or parts of the same network that, should the project be completed, would form a network of over 1/2 mile in continuous length.

Providing an extension making total facility length > 2 miles - Select if project is an addition to an endpoint of an existing facility to create, upon completion of the project, a total continuous facility length of over 2 miles.

No gap and proposed total facility length < 2 miles - Select if project will not share an endpoint with an existing bicycle or pedestrian facility.

Link Explanation – If the project is considered a missing link, as described above, use this space to detail the beginning and end points of the total facility created by the project. (Include this on the map).

MAP: If you are suggesting the proposed project should receive points for closing a gap, a separate map is required. On an 8.5 x 11 or 11 x 17 sheet of paper include the following:

- a. Full extent of proposed project
- b. Inset vicinity map – use your jurisdictions boundary
- c. ½ mile – 2 mile buffer around proposed project drawn in **BLACK**
- d. Existing roadways drawn in **GREY**
- e. Proposed project drawn in **RED DOTTED LINE** (linear projects) or **RED CIRCLE** (intersection or point projects)
- f. Only include the existing facility that your project will be closing a gap:
 - a. Existing sidewalk drawn in **BLUE**
 - b. Existing bike lanes drawn in **YELLOW**
 - c. Existing greenway/multi-use path drawn in **GREEN**
 - d. Existing crosswalks (improved intersections) drawn as **ORANGE CIRCLE**
- g. Title
- h. Legend
- i. North Arrow
- j. Scale
- k. Length of project (if applicable)

See Exhibit C for an example of a 'Closing a Gap' Map.

Major Obstacle – Choose one of the following choices on the sheet:

High – Select if the project creates a new connection across a river, railroad or limited-access multi-lane freeway.

Medium - Select if the project creates a new connection across a roadway containing four or more lanes.

None - Select if neither of the above applies to this project.

NOTE: If a major obstacle is present it should be shown on the Map of Proposed Project – see Exhibit A for an example.

Safety Concern – If there are any, report the number of documented bicycle and pedestrian crashes within the past 5 years. This must be a TEAAS report requested from the WMPO. Please email WMPO staff with a specific project description and location. This data must be requested one month before application due date.

Goat Path – Choose “Yes” where existing use can be demonstrated in the absence of a facility through documented evidence such as a clearly worn path.

Adopted in Plan – Choose “Yes” where the specific project has been adopted in a plan by resolution. If yes, list the name of the plan in the space provided and attach a copy of the resolution signed by your jurisdiction.

Local Match – The minimum local match required on all STBGP-DA projects is 20%. Projects will receive additional points during prioritization for having 30% or more of total project cost provided in local match. Note that, while cost estimates may change throughout the life of a project, the percentage of the local match determined for the purposes of these criteria is based on the cost estimated at the time prioritization is complete for the fiscal year. Provide the amount of local match as well as the requested amount of funds. A signed resolution on letterhead must be included for your application to be complete. Resolution must specifically include the financial commitment. See Exhibit C for an example of a resolution. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of NEPA/Design Phase – Provide an estimate of the total cost of the NEPA/Design Phase. This estimate should include the cost for environmental documentation, permitting, and preliminary engineering. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Estimated Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of Right-of-Way Phase – Provide an estimate of the total cost of the Right-of-Way Phase. This estimate should include the cost for acquisition of right-of-way and utility relocation. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Estimated Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of Construction Phase – Provide an estimate of the total cost of the Construction Phase. This estimate should include the cost for materials, construction and inspections of the project. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Total Cost of Project – Provide the estimate that was provided on the Background Information form. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Total Cost of Project = Total STBGP-DA funding requested from the Board + Total Local Match

Proximity of a School – Indicate if a project is within ½ mile, 1 mile or 1.5 miles of each school type. If you are suggesting the proposed project should receive points for proximity of a school, a separate map is required. On an 8.5 x 11 or 11 x 17 sheet of paper include the following:

- a. Full extent of proposed project
- b. Inset vicinity map – use your jurisdictions boundary
- c. ½ mile – 1.5 mile buffer around proposed project drawn in **BLACK**
- d. Existing roadways drawn in **GREY**
- e. Proposed project drawn in **RED DOTTED LINE** (linear projects) or **RED CIRCLE** (intersection or point projects)
- f. Schools located within the ½ mile, 1 mile and 1.5 mile buffer in **PURPLE**.
- g. Title
- h. Legend
- i. North Arrow
- j. Scale
- k. Length of project (if applicable)

See Exhibit D for an example of a 'Proximity of a School' Map.

Bicycle/Pedestrian Generators – Indicate if projects are within ½ mile of each of the following facility types as determined by their current tax assessment-based land use code: residential, public park/playground/recreation center, shopping/retail & services, public library, or business park/office/hospital.

If you are suggesting the proposed project should receive points for closing a gap, a separate map is required. On an 8.5 x 11 or 11 x 17 sheet of paper include the following:

- a. Full extent of proposed project
- b. Inset vicinity map – use your jurisdictions boundary
- c. ½ mile buffer around proposed project drawn in **BLACK**
- d. Existing roadways drawn in **GREY**
- e. Proposed project drawn in **RED DOTTED LINE** (linear projects) or **RED CIRCLE** (intersection or point projects)
- f. Only include the bicycle/pedestrian generators within ½ mile of the proposed facility:
 - a. Public Park/Public Playground/Recreational Area drawn in **GREEN**
 - b. Residential Areas drawn in **BLUE**
 - c. Shopping/Retail Areas drawn in **YELLOW**
 - d. Library drawn in **PINK**
 - e. Business Park/Office/Hospital drawn in **ORANGE**
- g. Title
- h. Legend
- i. North Arrow

- j. Scale
- k. Length of project (if applicable)

See Exhibit E for an example of a 'Bicycle and Pedestrian Generator' Map

Connection to Transit – Indicate if the project provides a direct bicycle or pedestrian connection to an adopted Cape Fear Public Transit Authority bus stop or a park & ride lot. This should be shown on the Map of Proposed Project (see Exhibit A).

Note: To receive points, the proposed project must directly connect to a bus stop or a park and ride lot. This should be indicated on the map. A project will not receive points for being within a ½ mile of a bus stop or a park and ride lot.

WMPO Parallel Functional Classification – Indicate the associated functional classification of the parallel roadway as adopted by the WMPO.
(<http://www.ncdot.gov/doh/preconstruct/tpb/FCS/>)

Right-of-Way/Easement Dedication and Utility Relocation - Choose one of the following choices on the sheet:

No additional right-of-way and no major utility relocations needed – Select if no additional right-of-way or major utility relocations are required.

Minimal additional right-of-way and no major utility relocations needed – Select if right-of-way is required from 2 or fewer property owners and major utility relocations are not required.

Significant additional right-of-way needed – Select if right-of way is required from 3 or more property owners.

Major utility relocations needed – Select if major utility relocations will be needed for project.

Bicycle/Pedestrian Competitive Process:

Project Readiness	/5
Missing Link	/5
Major Obstacle	/5
Safety Concerns	/10
Goat Path	/5
Adopted in Plan/Policy	/5
Local Match	/15
Proximity of a School	/23
Bicycle and Pedestrian Generators	/25
Connection to Transit	/10
WMPO Parallel Functional Classification	/7
Right-of-Way/Easement Dedication	/5
TOTAL	/120

B) Intersection Improvements

Who will maintain this project after completion? – Identify the entity that will be responsible for maintenance of a project after construction is completed. The responsible party is most likely the Primary/Secondary Applicant and may, in a few cases, be the managing agency

Project Readiness – Is the project in following stage of completion:

Environmental Investigation/Permitting – Project is in the stages of Environmental documentation and/or permitting stage.

Design/Survey/Construction Documents – Project has or is in the process of surveying or construction document preparations.

ROW acquisition – Project is in the stages of Right-Of-Way acquisition.

Bid Phase – Project has been/or is in the process of obtaining construction bids.

Partial Construction – Project has started construction or has been awarded and initial contract has been executed.

Safety – Choose one of the following choices on the sheet based on the 5-year TEAAS traffic data: No accidents, less than 5 accidents, 5-14 accidents, more than 14 accidents, or 1 or more fatalities. This number will be verified by WMPO staff through a TEAAS report during project evaluation

Right-of-way/Easement Dedication – Choose one of the following choices on the sheet:

No additional right-of-way needed – Select if no additional right-of-way is needed

Minimal additional right-of-way needed – Select if right-of-way is required from 2 or fewer property owners

Significant additional right-of-way needed – Select if right-of way is required from 3 or more property owners

Constructability – Choose one of the following choices on the sheet:

No significant impacts – Select if no additional permitting is required, if there are no historical properties involved, if all work can be completed without significant utility relocation, and if all geometric/traffic engineering changes can be accomplished within existing extent of pavement

Widening of pavement/minimal utility relocation – Select if widening of the pavement is required, no historical properties are involved, and if all work can be completed without significant utility relocation

Total rebuild of existing conditions/substantial utility relocation – Select if substantial utility relocation is required and/or if significant realignment of the pavement/intersection is required, and no historical properties are involved

Significant impacts involved – Select if additional permitting is required, if historical properties are involved, and if there is a significant need to relocate utilities

Supplemental Funding Sources – Select “Yes” where the project can be tied-in with an existing project or an entity other than the Primary/Secondary Applicant has committed funds toward the project

Local Match – The minimal local match required on all STBGP-DA projects is 20%. Projects will receive additional points during prioritization for having 30% or more of total project cost provided in local match. Note that, while cost estimates may change throughout the life of a project, the percentage of the local match determined for the purposes of this criteria is based on the cost estimate at the time prioritization is complete for that fiscal year. A signed resolution must be included for your application to be complete. Resolution must specifically include the financial commitment. See Exhibit C for an example of a resolution. It must be signed and on letterhead. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of NEPA/Design Phase – Provide an estimate of the total cost of the NEPA/Design Phase. This estimate should include the cost for environmental documentation, permitting, and preliminary engineering. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of Right-of-Way Phase – Provide an estimate of the total cost of the Right-of-Way Phase. This estimate should include the cost for acquisition of right-of-way and utility relocation. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of Construction Phase – Provide an estimate of the total cost of the Construction Phase. This estimate should include the cost for materials, construction and inspections of the project. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Total Cost of Project – Provide the estimate that was provided on the Background Information form. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Total Cost of Project = Total STBGP-DA funding requested from the Board + Total Local Match

Volume to Capacity Ratio (VCR) – This is evaluated based on volumes and capacities estimated every other year by NCDOT or the WMPO Traffic Count Program. The most recent years’ volumes will be used to calculate this ratio. This number will be verified by WMPO staff during project evaluation. In the event that there is no existing applicable data for a VCR, a request can be made for assistance from the WMPO Traffic Count Program for a special count. If assistance is needed

from the WMPO Traffic Count Program, an agreement must be secured in advance of project submittal and a copy of the agreement shall be submitted as an attachment to the application

Intersection Competitive Process:

Project Readiness	/5
Safety	/10
Right-of-Way/Easement Dedication	/5
Constructability	/5
Supplemental Funding Source	/3
Local Match	/15
Volume to Capacity Ratio	/10
TOTAL	/53

C) Roadway Improvements

Who will maintain this project after completion? – Identify the entity that will be responsible for maintenance of a project after construction is completed. The responsible party is most likely the Primary/Secondary Applicant but could be, in a few cases, the managing agency.

Project Readiness – Is the project in following stage of completion:

Environmental Investigation/Permitting – Project is in the stages of Environmental documentation and/or permitting stage.

Design/Survey/Construction Documents – Project has or is in the process of surveying or construction document preparations.

ROW acquisition – Project is in the stages of Right-Of-Way acquisition.

Bid Phase – Project has been/or is in the process of obtaining construction bids.

Partial Construction – Project has started construction or has been awarded and initial contract has been executed.

Volume to Capacity Ratio (VCR) – This is evaluated based on volumes and capacities estimated every other year by NCDOT or the WMPO Traffic Count Program. The most recent years' volumes will be used to calculate this ratio. This number will be verified by WMPO staff during project evaluation. In the event that there is no existing applicable data for a VCR, a request can be made for assistance from the WMPO Traffic Count Program for a special count. If assistance is needed from the WMPO Traffic Count Program, an agreement must be secured in advance of project submittal and a copy of the agreement shall be submitted as an attachment to the application

Crash Reduction Factors – A crash reduction factor (CRF) is the percentage crash reduction that might be expected after implementing a given countermeasure at a specific site. A guide to Federal Highway's CRFs which can be used as part of your project score can be found here : <http://safety.fhwa.dot.gov/tools/crf/resources/fhwasa08011/> This guide should be used to determine the highest CRF associated with your project. Select the appropriate highest CRF associated with your project

LRTP Horizon Year – Note the year the project is listed for construction in the WMPO's adopted and current long-range transportation plan.

Local Match – The minimum local match required on all STBGP-DA projects is 20%. Projects will receive additional points during prioritization for having 30% or more of total project cost provided in local match. Note that, while cost estimates may change throughout the life of a project, the percentage of the local match determined for the purposes of this criteria is based on the cost estimate at the time prioritization is complete for that fiscal year. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Right-of-Way/Easement Dedication – Choose one of the following choices on the sheet

No additional right-of-way and no major utility relocations needed – Select if no additional right-of-way or major utility relocations are required

Minimal additional right-of-way and no major utility relocations needed – Select if right-of-way is required from 2 or fewer property owners and major utility relocations are not required

Significant additional right-of-way needed – Select if right-of way is required from 3 or more property owners

Major utility relocations needed – Select if major utility relocations will be needed for project

Cost of NEPA/Design Phase – Provide an estimate of the total cost of the NEPA/Design Phase. This estimate should include the cost for environmental documentation, permitting, and preliminary engineering. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of Right-of-Way Phase – Provide an estimate of the total cost of the Right-of-Way Phase. This estimate should include the cost for acquisition of right-of-way and utility relocation. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of Construction Phase – Provide an estimate of the total cost of the Construction Phase. This estimate should include the cost for materials, construction and inspections of the project. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Total Cost of Project – Provide the estimate that was provided on the Background Information form. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Total Cost of Project = Total STBGP-DA funding requested from the Board + Total Local Match

Cost Effectiveness – WMPO staff will use the following formula to calculate the cost-effectiveness score. These points will be scaled based on all candidate projects’ cost effectiveness scores, with the highest project earning 13 points and the lowest project scoring 0 points

(Total Points – Local Match Points)

WMPO STBGP-DA Local Prioritization Process Cost Share

Roadway Competitive Process:

Project Readiness	/5
Volume to Capacity Ratio	/5
Crash Reduction Factors	/5
LRTP Horizon Year	/5
Local Match	/15
Right-of-Way/Easement Dedication	/5
Cost Effectiveness	/13
TOTAL	/53

5) Resolution of Support

Resolution must be signed and on letterhead. See Exhibit C for an example resolution.

6) Detailed Opinion of Probable Construction Costs

Detailed Anticipated Construction Costs prepared by a licensed professional engineer along with all costs associated with producing design documents (if required) and all associated costs that may be incurred with the completion of the project including engineering, right-of-way, utility relocations, construction contingencies, NCDOT inspection / materials testing and construction administration (approx. 15% of project cost), and NCDOT project administration (i.e. 3% of project cost) in a line-item cost form.

7) Project Schedule

Project Schedule highlighting key milestone dates (i.e. deadlines for plan submittals at applicable stages, dates for requesting funding authorizations, etc.). An example schedule is provided on the following page.

8) Supporting Documents

Ensure all documents are signed and on letterhead. Examples include: pictures with labels, additional maps, resolutions adopting plans that specify a need for the project, etc. (Resolutions supporting plan must have been adopted prior to call for projects)

EXAMPLE SCHEDULE:

Description	Start Date	Finish Date	Duration
WMPO Award Letter		6/2/17	
LGA Request NCDOT Agreement	6/5/17	6/23/17	18
LGA Process for Signature of Agreement (i.e. Town Council signatures, etc.)	6/26/17	7/21/17	26
Agreement submitted to NCDOT for Signature by Board of Transportation	8/1/17	10/2/17	60
LGA PE Funding Authorization Request	10/6/17	12/6/17	60
Project Oversight Meeting with NCDOT and WMPO	11/3/17	11/3/17	1
Project Scoping and LOI/Rfq for PE services (LGA responsible; must be compliant with Federal selection process)	10/6/17	12/6/17	60
Select/Choose Consultant	12/11/17	12/28/17	18
Scope and Fee requested from Consultant	1/8/18	1/22/18	14
Man-day Estimate review/ Contract Negotiations	1/24/18	2/14/18	21
LGA Consultant Contract Award process	2/15/18	3/8/18	21
Scoping Meeting with Consultant	3/15/18	3/15/18	1
Project Survey	3/19/18	4/9/18	21
30% Design	4/16/18	5/21/18	35
30% Design Review/Comment/Revision	5/22/18	6/22/18	30
Environmental Document	4/30/18	6/29/18	60
Environmental Document Review/Comment/ Revision	7/2/18	7/30/18	28
60% Design	6/25/18	8/24/18	60
60% Design Review/Comment/Revision	8/27/18	9/26/18	30
Right-of-Way Plans/Maps (75%+/- Design)	10/1/18	10/15/18	14
Right-of-Way and Utility Estimate	10/17/18	11/16/18	30
LGA Right-of-Way Funding Authorization Request	12/3/18	2/1/19	60
90% Design Plans and Specs	10/17/18	12/3/18	45
90% Design Review/Comment/Revision	12/4/18	1/3/19	30
Right-of-Way Acquisition and Utility Coordination	2/4/19	8/5/19	180
100% Design Plans and Specs	7/22/19	8/5/19	14
Right-of-Way Final Certification	8/6/19	8/13/19	7
Contract Review	8/6/19	8/27/19	21
LGA Construction Funding Authorization Request	9/4/19	11/4/19	60
Project Let	11/6/19	12/6/19	30

Exhibit A

STP-DA FUNDING APPLICATION
TOWN OF ANYWHERE, NC

Map of Proposed Project -

Sidewalk along 9th Street
from Oak Street to Lake Avenue
and Intersection Improvements at
Oak Street and Lake Avenue



LEGEND

- Proposed Sidewalk Project (1,330 feet)
- Proposed Crosswalks and Push Button Pedestrian Heads
- Existing Sidewalk
- Existing Bike Lanes
- Existing Greenway/Multi-Use Path
- ★ Existing Bus Stop
- Existing Crosswalks
- Major Obstacle (Rail Road)

1,000 feet

NOTE: This map is not intended to represent a specific project or location in the WMPO. Street names and projects are fictional. Its purpose is to provide an example for STP-DA applicants. This map is required for application to be complete. Not all components in legend are applicable to every proposed project.

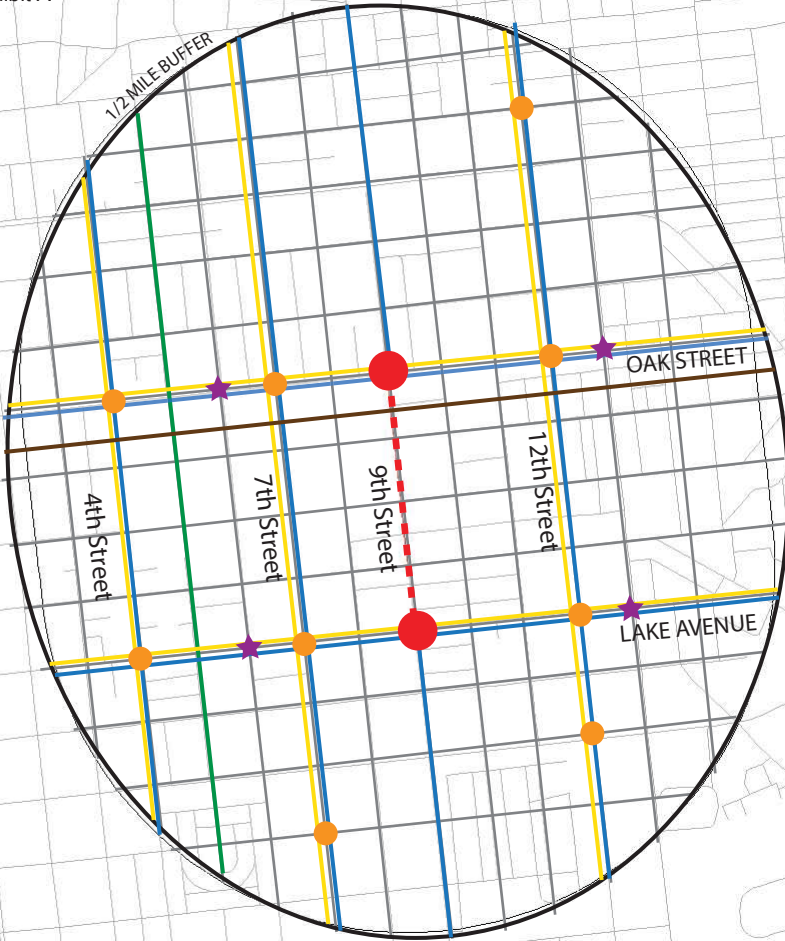


Exhibit B

STP-DA FUNDING APPLICATION
TOWN OF ANYWHERE, NC

Closing a Gap Map -

Sidewalk along 9th Street
from Oak Street to Lake Avenue
and Intersection Improvements at
Oak Street and Lake Avenue



LEGEND

- Proposed Sidewalk Project (1,330 feet)
- Proposed Crosswalk and Push Button Pedestrian Heads
- Existing Sidewalk

2,000 Feet

NOTE: This map is not intended to represent a specific project or location in the WMPO. Street names and projects are fictional. Its purpose is to provide an example for STP-DA applicants applying for 'Closing a Gap' points. As an example, this project would receive 3 points - the proposed sidewalk project fills a gap where the total facility length is greater than 1/2 mile.

Exhibit C

(sample)

Resolution authorizing (a local government) to submit an application to the Wilmington Metropolitan Planning Organization in the Amount of \$_____ for Surface Transportation Program
- Direct Appointment Funds for Name of Project

LEGISLATIVE INTENT/PURPOSE:

On (date) the Wilmington Metropolitan Planning Organization (WMPO) issued a call for projects to agencies in its jurisdiction for Surface Transportation Program- Direct Appointment Funding (STP-DA). A total of \$_____ is available to award among four transportation modal buckets: bicycle and pedestrian, intersections, roadway, and transit. STP-DA is comprised of a collection of discretionary programs including (short description of what you are applying for – for example: planning, design and construction of on- and off- road bicycle and pedestrian facilities). Each agency may submit no more than four projects of not less than \$125,000 each for possible reward. The funding requires a minimum 20% local cash match.

<Insert description of proposed project, including (if applicable): length, connections to other facilities, and connections to schools, shopping, etc. Include other adopted plans that recommend this project. Include estimated cost, amount of STP-DA funds requesting, and proposed match (percentage and amount).

THEREFORE, BE IT RESOLVED:

That, the (appropriate person) is hereby authorized to submit a STP-DA application in the amount of \$_____ and will commit \$_____ as a cash match for the (name of project)

SIGNATURES REQUIRED

Exhibit D




STP-DA FUNDING APPLICATION TOWN OF ANYWHERE, NC

Proximity of a School Map -

Sidewalk along 9th Street
from Oak Street to Lake Avenue and
Intersection Improvements at
Oak Street and Lake Avenue



LEGEND

-  Proposed Sidewalk Project (1,330 feet)
-  Proposed Intersection Improvement
-  School(s)

2,000 Feet

NOTE: This map is not intended to represent a specific project or location in the WMPO. Street names and projects are fictional. Its purpose is to provide an example for STP-DA applicants applying for 'Proximity of a School' points. As an example, this project would receive 9.75 points - 5.75 points for Central Elementary, 3 points for Southern Middle, and 1 point for Northern University.

Exhibit E

1/2 MILE BUFFER

STP-DA FUNDING APPLICATION TOWN OF ANYWHERE, NC

Bicycle and Pedestrian Generator Map -

Sidewalk along 9th Street
from Oak Street to Lake Avenue
and Intersection Improvements at
Oak Street and Lake Avenue



LEGEND

- Proposed Sidewalk Project (1,330 feet)
- Proposed Crosswalks and Push Button Pedestrian Heads
- Public Park/Playground/Recreational Areas
- Residential Areas
- Shopping/Retail Areas
- Library
- Business Park/Office/Hospital

1,000 feet

NOTE: This map is not intended to represent a specific project or location in the WMPO. Street names and projects are fictional. Its purpose is to provide an example for STP-DA applicants applying for 'Bicycle and Pedestrian Generator' points. As an example, this project would receive 25 points - 5 points for each of the generators listed in the legend.

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION
BOARD**

**RESOLUTION ADOPTING THE 2017 SURFACE TRANSPORTATION BLOCK GRANT
PROGRAM (STBGP) FUNDING PROJECT SUBMITTAL GUIDE AND COMPETITIVE
PROCESS**

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, on July 18, 2012 the Wilmington Urban Area Metropolitan Planning Organization was designated as a Transportation Management Area (TMA); and

WHEREAS, on December 4, 2015 President Obama signed the Fixing America's Surface Transportation (FAST) Act and this law provides Surface Transportation Block Grant Program (STBGP) funds for all designated TMAs; and

WHEREAS, the Wilmington Urban Area Metropolitan Planning Organization's Board has the ability to directly program STBGP funds on eligible projects submitted by eligible entities through a competitive process; and

WHEREAS, the Wilmington Urban Area Metropolitan Planning Organization has developed the STBGP Funding Project Submittal Guide and Competitive Process for the distribution of STBGP funds.

NOW THEREFORE, be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby approves the 2017 Surface Transportation Block Grant Program Submittal Guide and Competitive Process.

ADOPTED at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization's Board on August 31, 2016.

Gary Doetsch, Chair

Mike Kozlosky, Secretary



Wilmington Urban Area Metropolitan Planning Organization
Transportation Alternatives Set Aside-Direct Attributable
Project Submittal Guide
Fiscal Year 2017

Date of Release: September 7, 2016

Pre-application Review: October 19, 2016

Electronic Application Submittal Deadline: 5 pm November 30, 2016

Submit one CD to:
WMPO
305 Chestnut Street, Fourth Floor
Wilmington, NC 28401

CD should be labeled with the following:

Project Name
Name of Government Agency
Requested Funding Source
Date

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Introduction

On December 4, 2015, the President signed the Fixing America's Surface Transportation (FAST) Act into law. The FAST Act changed the Surface Transportation Program (STP) name to the Surface Transportation Block Grant Program (STBG), combined the former STP and former TAP programs at the federal level, and amended the provisions contained in 23 U.S.C. 133. Prior to apportioning the STBG funds to each state or MPO, a portion the FAST Act sets aside STBG funds specifically for Transportation Alternatives which is now referred to as the Transportation Alternative Set Aside (TASA). From the TASA funds apportioned to each state, a portion of the FAST Act allocates TASA funds directly to any Metropolitan Planning Organization (MPO) that is designated as a Transportation Management Area (TMA). Specific eligibility criteria and guidance can be found through the Federal Highways Administration (FHWA www.fhwa.dot.gov). Eligible uses for TASA funds include:

- Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclist, and other nonmotorized forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety related infrastructure, and transportation projects to achieve compliance with the Americans with Disability Act of 1990 (42 U.S.C. 12101 et seq.).
- Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.
- Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other nonmotorized transportation users.
- Community improvement activities, including
 - Inventory, control, or removal of outdoor advertising;
 - Historic preservation and rehabilitation of historic transportation facilities;
 - Vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, and provide erosion control;
 - Archaeological activities relating to impacts from implementation of transportation project eligible under 23 USC.
- Any environmental mitigation activity, including pollution prevention and pollution abatement activities and mitigation to
 - Address stormwater management, control, and water pollution prevention or abatement related to highway construction or due to highway runoff;
 - Reduce vehicle-caused wildlife mortality or to restore and maintain connectivity among terrestrial or aquatic habitats.
- Recreations trails program under 23 USC 206.
- Safe Routes to School program under § 1404 of SAFETEA-LU.
- Planning, designing, or constructing boulevards and other roadways largely in right-of-way of former Interstate System routes or other divided highways.

As a Transportation Management Area (TMA), the Wilmington Urban Area Metropolitan Planning Organization (WMPO) will receive a direct allocation of \$255,447 in TA Set Aside funding annually. This direct allocation is referred to by the WMPO as Transportation Alternative Set Aside Direct Attributable (TASA-DA). A competitive process has been adopted to determine which projects are funded. Due to the variety of projects and the small amount of money, the Board gave direction to use the funding for bike/ped projects using the Surface Transportation Block Grant Program – Direct Attributable (STBGP-DA) bike/ped process for determining fiscal year 2017 (FY 2017) projects. Each jurisdiction is able to submit one project of not less than \$50,000 for possible award.

If jurisdictions are interested in submitting an application, the WMPO **mandates** attendance at the interest meeting by the jurisdiction's designated appointee. The meeting will take place prior to the beginning of the federal fiscal year's award announcement. For Fiscal Year 2017, the meeting will be held on **September 13, 2016** at the **Planning Conference Room on the 4th Floor of 305 Chestnut St. Bldg. (WMPO Offices)**. If no designated representative from the jurisdiction is in attendance at the interest meeting, said jurisdiction will be considered ineligible for funding during FY2017.

Eligibility Criteria

In order to be eligible for Transportation Alternatives Set Aside – Direct Attributable (TASA-DA) funding, a project must meet the minimum criteria outlined in this section. Also, a completed application must be submitted by the applicant(s). Co-applications can be submitted by a combination of municipalities in a primary applicant and secondary applicant format. Incomplete applications will not be considered. These criteria meet federal and state funding requirements, as well as the goals of the WMPO for TASA-DA dollars as adopted by the Board. Projects that do not meet these criteria will not be considered for funding.

1) Federal Aid Eligible Projects

The federal eligibility requirements associated with Transportation Alternative Set-Aside funding can be found in 23 USC §133(h)
(http://www.fhwa.dot.gov/environment/transportation_alternatives/)

2) Locally Administered

By submitting a project for TASA-DA funding, the municipality(ies) or local government entity(ies) are committing funds to sponsor said project. The applicants (if awarded) shall be responsible for all federal and state reporting requirements associated with TASA-DA funding. The local government entities are also expected to make progress reports to the TAC upon request. An inter-local agreement between the North Carolina Department of Transportation (NCDOT) and the designated recipients will outline a reimbursement schedule; local sponsors will be required to front all project costs, invoice NCDOT, and then get reimbursed for the federal percentage dedicated to the project. The WMPO may assist in coordination between NCDOT and the local government entities, however, the ultimate responsibility and the signatories on the NCDOT agreements will be the local government entities.

3) Compliant with the adopted MTP/LRTP

Projects must be identified in the WMPO's current and adopted Metropolitan Transportation Plan (MTP)/Long-Range Transportation Plan (LRTP) (Cape Fear Transportation 2040 Plan). If desired projects are not identified in the adopted MTP/LRTP at the submittal stage, the MTP/LRTP must be revised before projects are prioritized. In accordance with federal guidelines, the MTP/LRTP must remain fiscally constrained. The TAC must approve any modifications.

4) Locally funded with funding commitment

All funds programmed with TASA-DA dollars require a minimum 20% local cash match. This must be demonstrated by attaching a signed copy of the resolution of support authorizing the local government to apply and provide financial support for the project. If an application is a primary/secondary applicant format, a resolution by all parties involved must be submitted with the application. Applications will be considered incomplete without a signed resolution committing financial support.

In addition to the provision of the match commitment submitted as part of the TASA-DA application, local government entities are responsible for funding cost overruns on projects in excess of the final programmed cost estimate. This provision may only be waived through the approval for additional funding from the Board and through additional Surface Transportation Improvement Program (STIP) amendments by the Board of Transportation if needed.

5) Transportation Improvement Program (TIP)

Projects not in compliance with an existing TIP category will require a TIP amendment. Applicants should consider that the TIP amendment process could delay the funding obligation timeline.

6) Project Design Intent

Project design intent must meet Federal and State guidelines.

7) Project Cost

Minimum amount requested will be \$50,000.

Total Cost of Project = Total TASA-DA funding requested from TAC + Total Local Match

For example, if \$50,000 is requested, the minimum local match will be \$10,000 for a minimum total project cost of \$60,000.

Program Administrative Details

1) Project Submittal Limits

For FY 2017, the maximum number of project submittals allowed per jurisdiction is one.

2) No Unfunded Project Carry-Over

Projects submitted in FY 2017 that are not prioritized for TASA-DA funding are not automatically considered for funding in subsequent years. Any unfunded project may be resubmitted in subsequent years for funding.

3) Construction Requirement within 10 years

As a federal funding source, the use of TASA-DA funds must result in achieving Construction Authorization of the project within 10 years of the fiscal year when Preliminary Engineering was authorized. As a result, projects that have cost overruns must be accounted for through a commitment of local funds through the construction phase. This provision may only be waived by the approval for additional funding from the Board and through additional STIP amendments by the Board of Transportation if needed.

Application Materials

Applicants are required to submit the following materials with their application:

- 1) Map of project (See Exhibit A for an example)
- 2) GIS file of project
- 3) Funding Request Submittal Form – Background Information
- 4) Funding Request Submittal Form – Bicycle and Pedestrian Improvements
- 5) Signed resolutions of support from local government to apply and provide financial commitment (See Exhibit B for an example)
- 6) Detailed Opinion of Probable Construction Costs (prepared by a Licensed Professional Engineer)
- 7) Project Schedule highlighting key milestone dates (i.e. deadlines for plan submittals at applicable stages, dates for requesting funding authorizations, etc.)
- 8) Supporting documents – Pictures with labels, additional maps, resolutions adopting plans that specify a need for the project, etc. (Resolutions supporting plan must have been adopted prior to call for projects)

Details and descriptions of these required materials are supplied in the sections to follow.

1) Map of Proposed Project – See Exhibit A

This map is required with all applications. On an 8.5 x 11 or 11 x 17 sheet of paper include the following:

- a. Full extent of proposed project
- b. Inset vicinity map – use your jurisdictions boundary
- c. ½ mile buffer around proposed project drawn in **BLACK**
- d. Existing roadways drawn in **GREY**
- e. Proposed project drawn in **RED DOTTED LINE** (linear projects) or **RED CIRCLE** (intersection or point projects)
- f. Existing sidewalk drawn in **BLUE**
- g. Existing bike lanes drawn in **YELLOW**
- h. Existing greenway/multi-use path drawn in **GREEN**
- i. Existing bus stop drawn as **PURPLE STAR**
- j. Existing crosswalks (improved intersections) drawn as **ORANGE CIRCLE**
- k. Major obstacle drawn in **BROWN** (refer to #2 in application)
- l. Title
- m. Legend
- n. North Arrow
- o. Scale
- p. Length of project (if applicable)

Note: if you are suggesting the proposed project should receive points for providing a new connection over a major obstacle (#2 in application) or connecting to transit (#10 in application), be sure to illustrate this on this map.

2) GIS File of Project

Submit a GIS file geodatabase for your project that meets the following specifications:

- Projection= NAD_198_StatePlane_North_Carolina_FIPS_3200_Feet
- File Geodatabase for submittal of multiple files for a single project to include .mxd files and associated data
- Reasonable and concise metadata must be documented for all files submitted to include:
 - Date of data creation
 - Entity that created data
 - Length of data validity (expiration date)
 - Process for deriving data

Metadata should be documented in the file's metadata tab

3) Funding Request Submittal Form – Background Information

The following descriptions of items are to help describe how you should complete this form:

Project Phase – Choose the phase of the project that is to be completed next.

Project Name – A descriptive name of your project.

Project Location – The physical location of the proposed project (typically the jurisdiction or area name).

TIP ID# - In the case that your project is for work on a project that is already in the TIP, include the TIP number here.

Total Project Cost – An estimate of the total cost of the project for all phases needing completion (Design/NEPA, Right-of-Way, Construction). Note that local jurisdictions are responsible for 100% of actual project costs exceeding the estimations programmed through this process into the STIP (unless otherwise approved by the Board). Local match and requested funding should be broken out. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Total TASA-DA funding requested from the Board = Total Cost of Project – Total Local Match

Sponsoring Agency – The name of your agency.

Managing Agency – The managing agency will typically be the sponsoring agency; in some cases, however, local governments could partner with NCDOT or the WMPO to have the Division office or the WMPO staff administer a project. Coordination would be required in advance of project submittal in cases where the local jurisdiction requests assistance from NCDOT or the WMPO.

Contact Person – This is the person WMPO staff will contact with questions regarding the application.

Project Description – A specific description of your project, including beginning and end points of the project and specific facility type.

Problem Statement – This can be thought of as a preliminary Purpose and Need Statement used to justify expenditure of funds to address a problem in a WMPO member jurisdiction. The problem statement should state the transportation problem to be solved as well as a minimal amount of data needed to support the problem statement.

MTP/ LRTP Status – Insert the page number where the project is referenced in the current MTP/LRTP. If the project is not in the current MTP/LRTP, check the corresponding box.

4) Funding Request Submittal Form – Bicycle and Pedestrian Improvements

The following descriptions of items are to help describe how you should complete this form.

Who will maintain this project after completion? – Identify the entity that will be responsible for maintenance of a project after construction is completed. The responsible party is most likely the sponsoring agency and may, in a few cases, be the managing agency.

Project Readiness – Is the project in following stage of completion:

Environmental Investigation/Permitting – Project is in the stages of Environmental documentation and/or permitting stage.

Design/Survey/Construction Documents – Project has or is in the process of surveying or construction document preparations.

ROW acquisition – Project is in the stages of Right-Of-Way acquisition.

Bid Phase – Project has been/or is in the process of obtaining construction bids.

Partial Construction – Project has started construction or has been awarded and initial contract has been executed.

Closing a gap – Choose one of the following choices on the sheet:

Closing a gap in total facility length > 2 miles - Select if project “fills in a gap” between two net-works or parts of the same network that, should the project be completed, would form a network of over 2 miles in continuous length.

Closing a gap in total facility length > 0.5 miles - Select if project “fills in a gap” between two networks or parts of the same network that, should the project be completed, would form a network of over 1/2 mile in continuous length.

Providing an extension making total facility length > 2 miles - Select if project is an addition to an endpoint of an existing facility to create, upon completion of the project, a total continuous facility length of over 2 miles.

No gap and proposed total facility length < 2 miles - Select if project will not share an endpoint with an existing bicycle or pedestrian facility.

Link Explanation – If the project is considered a missing link, as described above, use this space to detail the beginning and end points of the total facility created

by the project

MAP: If you are suggesting the proposed project should receive points for closing a gap, a separate map is required. On an 8.5 x 11 or 11 x 17 sheet of paper include the following:

- a. Full extent of proposed project
- b. Inset vicinity map – use your jurisdictions boundary
- c. ½ mile – 2 mile buffer around proposed project drawn in **BLACK**
- d. Existing roadways drawn in **GREY**
- e. Proposed project drawn in **RED DOTTED LINE** (linear projects) or **RED CIRCLE** (intersection or point projects)
- f. Only include the existing facility that your project will be closing a gap:
 - a. Existing sidewalk drawn in **BLUE**
 - b. Existing bike lanes drawn in **YELLOW**
 - c. Existing greenway/multi-use path drawn in **GREEN**
 - d. Existing crosswalks (improved intersections) drawn as **ORANGE CIRCLE**
- g. Title
- h. Legend
- i. North Arrow
- j. Scale
- k. Length of project (if applicable)

See Exhibit C for an example of a 'Closing a Gap' Map.

Major Obstacle – Choose one of the following choices on the sheet:

High – Select if the project creates a new connection across a river, railroad or limited-access multi-lane freeway.

Medium - Select if the project creates a new connection across a roadway containing four or more lanes.

None - Select if neither of the above apply to this project.

NOTE: If a major obstacle is present it should be shown on the Map of Proposed Project – see Exhibit A for an example.

Safety Concern – If there are any, report the number of documented bicycle and pedestrian crashes within the past 5 years. This must be a TEAAS report and within approximately ½ mile of the proposed facility.

Goat Path – Choose “Yes” where existing use can be demonstrated in the absence of a facility through documented evidence such as a clearly worn path.

Adopted in Plan – Choose “Yes” where the specific project has been adopted in a plan by resolution. If yes, list the name of the plan in the space provided and attach a copy of the signed resolution. Plan must have been adopted prior to September 16, 2013.

Local Match – The minimum local match required on all TASA-DA projects is 20%. Projects will receive additional points during prioritization for having 30% or more of total project cost provided in local match. Note that, while cost estimates may change throughout the life of a project, the percentage of the local match determined for the purposes of this criteria is based on the cost estimated at the time prioritization is complete for the fiscal year. Provide the amount of local match as well as the requested amount of funds. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina. A signed resolution on letterhead including a commitment of funds is required for the application to be complete. Resolution must specifically include the financial commitment. See Exhibit C for an example of a resolution. Said resolution must also commit a staff member from the local municipality/county or otherwise identify who will be administering the project on behalf of the local municipality/county.

Cost of NEPA/Design Phase – Provide an estimate of the total cost of the NEPA/Design Phase. This estimate should include the cost for environmental documentation, permitting, and preliminary engineering. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of Right-of-Way Phase – Provide an estimate of the total cost of the Right-of-Way Phase. This estimate should include the cost for acquisition of right-of-way and utility relocation. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Cost of Construction Phase – Provide an estimate of the total cost of the Construction Phase. This estimate should include the cost for materials, construction and inspections of the project. Note that the sum of the three phase-specific cost estimates (NEPA/Design, Right-of-Way, and Construction) should equal the “Total Cost of Project”. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Total Cost of Project – Provide the estimate that was provided on the Background Information form. Estimated project costs must be prepared by a Licensed Professional Engineer in the State of North Carolina.

Total Cost of Project = Total TASA-DA funding requested from the Board + Total Local Match

Proximity of a School – Indicate if a project is within ½ mile, 1 mile or 1.5 miles of each school type. If you are suggesting the proposed project should receive points for proximity of a school, a separate map is required. On an 8.5 x 11 or 11 x 17 sheet of paper include the following:

- a. Full extent of proposed project
- b. Inset vicinity map – use your jurisdictions boundary
- c. ½ mile – 1.5 mile buffer around proposed project drawn in **BLACK**
- d. Existing roadways drawn in **GREY**
- e. Proposed project drawn in **RED DOTTED LINE** (linear projects) or **RED CIRCLE** (intersection or point projects)
- f. Schools located within the ½ mile, 1 mile and 1.5 mile buffer in **PURPLE**.
- g. Title
- h. Legend
- i. North Arrow
- j. Scale
- k. Length of project (if applicable)

See Exhibit D for an example of a ‘Proximity of a School’ Map.

Bicycle/Pedestrian Generators – Indicate if projects are within ½ mile of each of the following facility types as determined by their current tax assessment-based land use code: residential, public park/playground/recreation center, shopping/retail & services, public library, or business park/office/hospital.

If you are suggesting the proposed project should receive points for closing a gap, a separate map is required. On an 8.5 x 11 or 11 x 17 sheet of paper include the following:

- a. Full extent of proposed project
- b. Inset vicinity map – use your jurisdictions boundary
- c. ½ mile buffer around proposed project drawn in **BLACK**
- d. Existing roadways drawn in **GREY**
- e. Proposed project drawn in **RED DOTTED LINE** (linear projects) or **RED CIRCLE** (intersection or point projects)
- f. Only include the bicycle/pedestrian generators within ½ mile of the proposed facility:
 - a. Public Park/Public Playground/Recreational Area drawn in **GREEN**
 - b. Residential Areas drawn in **BLUE**
 - c. Shopping/Retail Areas drawn in **YELLOW**
 - d. Library drawn in **PINK**
 - e. Business Park/Office/Hospital drawn in **ORANGE**
- g. Title
- h. Legend
- i. North Arrow

- j. Scale
- k. Length of project (if applicable)

See Exhibit E for an example of a 'Bicycle and Pedestrian Generator' Map

Connection to Transit – Indicate if the project provides a direct bicycle or pedestrian connection to an adopted Cape Fear Public Transit Authority bus stop or a park & ride lot. This should be shown on the Map of Proposed Project (see Exhibit A).

Note: To receive points, the proposed project must directly connect to a bus stop or a park and ride lot. A project will not receive points for being within a ½ mile of a bus stop or a park and ride lot.

WMPO Parallel Functional Classification – Indicate the associated functional classification of the parallel roadway as adopted by the WMPO.
(<http://www.ncdot.gov/doh/preconstruct/tpb/FCS/>)

Right-of-Way/Easement Dedication and Utility Relocation - Choose one of the following choices on the sheet:

No additional right-of-way and no major utility relocations needed – Select if no additional right-of-way or major utility relocations are required.

Minimal additional right-of-way and no major utility relocations needed – Select if right-of-way is required from 2 or fewer property owners and major utility relocations are not required.

Significant additional right-of-way needed – Select if right-of way is required from 3 or more property owners.

Major utility relocations needed – Select if major utility relocations will be needed for project.

Competitive Process

Project Readiness	/5
Closing A Gap	/5
Major Obstacle	/5
Safety Concern	/10
Goat Path	/5
Adopted in Plan	/15
Local Match	/15
Proximity of a School	/23
Bicycle/Pedestrian Generators	/25
Connection to Transit	/10
WMPO Parallel Function Class	/7
Right-of-Way/Easement Dedication and Utility Relocation	/10
TOTAL	/135

5) Resolution of Support

Resolution must be on letterhead and signed for application to be considered to be complete. Resolution must include a specific amount of committed matching funds. See Exhibit C for an example resolution.

6) Detailed Opinion of Probable Construction Costs

Detailed Anticipated Construction Costs prepared by a licensed professional engineer along with all costs associated with producing design documents (if required) and all associated costs that may be incurred with the completion of the project including engineering, right-of-way, utility relocations, construction contingencies, NCDOT inspection / materials testing and construction administration (approx. 15% of project cost), and NCDOT project administration (i.e. 3% of project cost) in a line-item cost form.

7) Project Schedule

Project Schedule highlighting key milestone dates (i.e. deadlines for plan submittals at applicable stages, dates for requesting funding authorizations, etc.). An example schedule is provided on the following page.

8) Supporting Documents

Pictures with labels, additional maps, resolutions adopting plans that specify a need for the project, etc. (Resolutions supporting plan must have been adopted prior to call for projects)

EXAMPLE SCHEDULE:

Description	Start Date	Finish Date	Duration
WMPO Award Letter		6/2/17	
LGA Request NCDOT Agreement	6/5/17	6/23/17	18
LGA Process for Signature of Agreement (i.e. Town Council signatures, etc.)	6/26/17	7/21/17	26
Agreement submitted to NCDOT for Signature by Board of Transportation	8/1/17	10/2/17	60
LGA PE Funding Authorization Request	10/6/17	12/6/17	60
Project Oversight Meeting with NCDOT and WMPO	11/3/17	11/3/17	1
Project Scoping and LOI/RFQ for PE services (LGA responsible; must be compliant with Federal selection process)	10/6/17	12/6/17	60
Select/Choose Consultant	12/11/17	12/28/17	18
Scope and Fee requested from Consultant	1/8/18	1/22/18	14
Man-day Estimate review/ Contract Negotiations	1/24/18	2/14/18	21
LGA Consultant Contract Award process	2/15/18	3/8/18	21
Scoping Meeting with Consultant	3/15/18	3/15/18	1
Project Survey	3/19/18	4/9/18	21
30% Design	4/16/18	5/21/18	35
30% Design Review/Comment/Revision	5/22/18	6/22/18	30
Environmental Document	4/30/18	6/29/18	60
Environmental Document Review/Comment/ Revision	7/2/18	7/30/18	28
60% Design	6/25/18	8/24/18	60
60% Design Review/Comment/Revision	8/27/18	9/26/18	30
Right-of-Way Plans/Maps (75% +/- Design)	10/1/18	10/15/18	14
Right-of-Way and Utility Estimate	10/17/18	11/16/18	30
LGA Right-of-Way Funding Authorization Request	12/3/18	2/1/19	60
90% Design Plans and Specs	10/17/18	12/3/18	45
90% Design Review/Comment/Revision	12/4/18	1/3/19	30
Right-of-Way Acquisition and Utility Coordination	2/4/19	8/5/19	180
100% Design Plans and Specs	7/22/19	8/5/19	14
Right-of-Way Final Certification	8/6/19	8/13/19	7
Contract Review	8/6/19	8/27/19	21
LGA Construction Funding Authorization Request	9/4/19	11/4/19	60
Project Let	11/6/19	12/6/19	30

STP-DA FUNDING APPLICATION
TOWN OF ANYWHERE, NC

Map of Proposed Project -

Sidewalk along 9th Street
from Oak Street to Lake Avenue
and Intersection Improvements at
Oak Street and Lake Avenue



LEGEND

- Proposed Sidewalk Project (1,330 feet)
- Proposed Crosswalks and Push Button Pedestrian Heads
- Existing Sidewalk
- Existing Bike Lanes
- Existing Greenway/Multi-Use Path
- Existing Bus Stop
- Existing Crosswalks
- Major Obstacle (Rail Road)



NOTE: This map is not intended to represent a specific project or location in the WMPO. Street names and projects are fictional. Its purpose is to provide an example for STP-DA applicants. This map is required for application to be complete. Not all components in legend are applicable to every proposed project.

STP-DA FUNDING APPLICATION
TOWN OF ANYWHERE, NC

Closing a Gap Map -

Sidewalk along 9th Street
from Oak Street to Lake Avenue
and Intersection Improvements at
Oak Street and Lake Avenue



LEGEND

--- Proposed Sidewalk Project (1,330 feet)

● Proposed Crosswalk and Push Button
Pedestrian Heads

— Existing Sidewalk

2,000 Feet



NOTE: This map is not intended to represent a specific project or location in the WMPO. Street names and projects are fictional. Its purpose is to provide an example for STP-DA applicants applying for 'Closing a Gap' points. As an example, this project would receive 3 points - the proposed sidewalk project fills a gap where the total facility length is greater than 1/2 mile.

Exhibit C

(sample)

Resolution authorizing (a local government) to submit an application to the Wilmington Metropolitan Planning Organization in the Amount of \$_____ for Surface Transportation Program
- Direct Appointment Funds for Name of Project

LEGISLATIVE INTENT/PURPOSE:

On (date) the Wilmington Metropolitan Planning Organization (WMPO) issued a call for projects to agencies in its jurisdiction for Surface Transportation Program- Direct Appointment Funding (STP-DA). A total of \$_____ is available to award among four transportation modal buckets: bicycle and pedestrian, intersections, roadway, and transit. STP-DA is comprised of a collection of discretionary programs including (short description of what you are applying for – for example: planning, design and construction of on- and off- road bicycle and pedestrian facilities). Each agency may submit no more than four projects of not less than \$125,000 each for possible reward. The funding requires a minimum 20% local cash match.

<Insert description of proposed project, including (if applicable): length, connections to other facilities, and connections to schools, shopping, etc. Include other adopted plans that recommend this project. Include estimated cost, amount of STP-DA funds requesting, and proposed match (percentage and amount).

THEREFORE, BE IT RESOLVED:

That, the (appropriate person) is hereby authorized to submit a STP-DA application in the amount of \$_____ and will commit \$_____ as a cash match for the (name of project)

SIGNATURES REQUIRED

STP-DA FUNDING APPLICATION
TOWN OF ANYWHERE, NC

Proximity of a School Map -

Sidewalk along 9th Street
from Oak Street to Lake Avenue and
Intersection Improvements at
Oak Street and Lake Avenue



LEGEND

--- Proposed Sidewalk Project (1,330 feet)

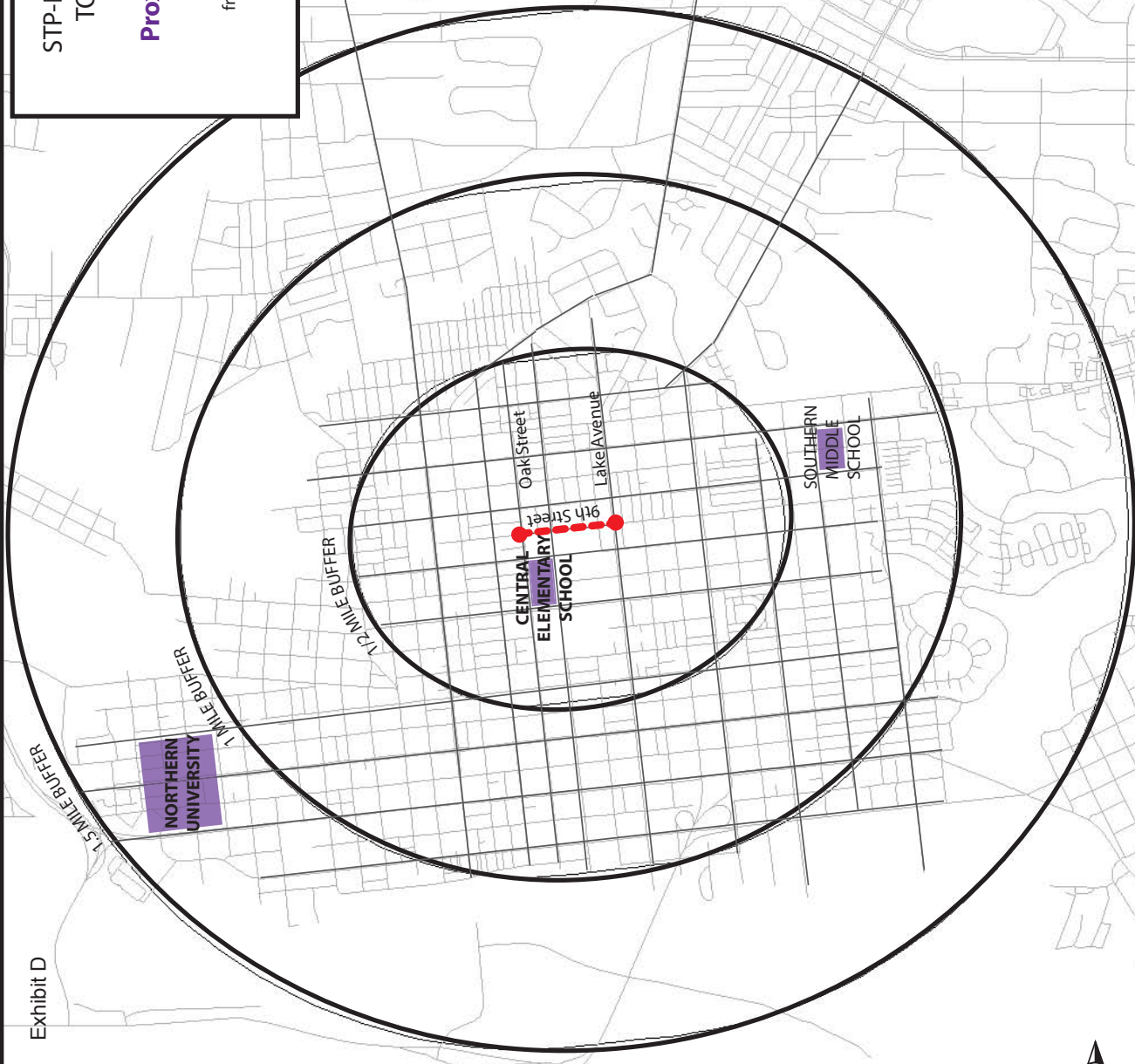
● Proposed Intersection Improvement

■ School(s)

2,000 Feet



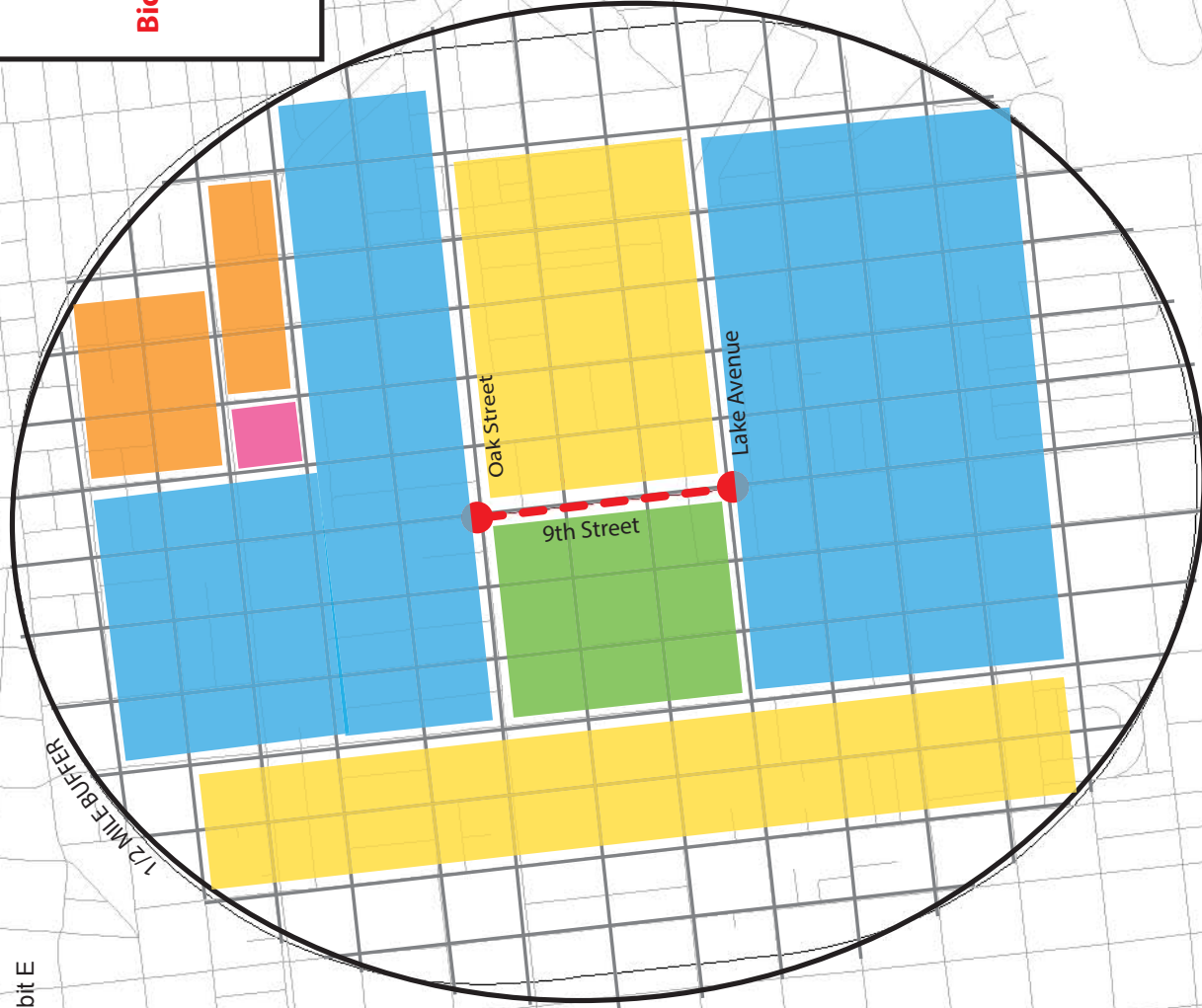
NOTE: This map is not intended to represent a specific project or location in the WMPO. Street names and projects are fictional. Its purpose is to provide an example for STP-DA applicants applying for 'Proximity of a School' points. As an example, this project would receive 9.75 points - 5.75 points for Central Elementary, 3 points for Southern Middle, and 1 point for Northern University.



STP-DA FUNDING APPLICATION
TOWN OF ANYWHERE, NC

Bicycle and Pedestrian Generator Map -

Sidewalk along 9th Street
from Oak Street to Lake Avenue
and Intersection Improvements at
Oak Street and Lake Avenue



LEGEND

- Proposed Sidewalk Project (1,330 feet)
- Proposed Crosswalks and Push Button Pedestrian Heads
- Public Park/Playground/Recreational Areas
- Residential Areas
- Shopping/Retail Areas
- Library
- Business Park/Office/Hospital



NOTE: This map is not intended to represent a specific project or location in the WMPO. Street names and projects are fictional. Its purpose is to provide an example for STP-DA applicants applying for Bicycle and Pedestrian Generator points. As an example, this project would receive 25 points - 5 points for each of the generators listed in the legend.

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION
BOARD**

**RESOLUTION ADOPTING THE 2017 TRANSPORTATION ALTERNATIVES SET ASIDE-
DIRECT ATTRIBUTABLE FUNDING PROJECT SUBMITTAL GUIDE AND COMPETITIVE
PROCESS**

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, on July 18, 2012 the Wilmington Urban Area Metropolitan Planning Organization was designated as a Transportation Management Area (TMA); and

WHEREAS, on December 4, 2015 President Obama signed the Fixing America's Surface Transportation (FAST) Act and this law provides Transportation Alternatives Set Aside- Direct Attributable (TASA-DA) funds for all designated TMAs; and

WHEREAS, TASA-DA funds are available for all designated TMAs; and

WHEREAS, the Wilmington Urban Area Metropolitan Planning Organization's Board has the ability to directly program TASA-DA funds on eligible projects submitted by eligible entities through a competitive process; and

WHEREAS, the Wilmington Urban Area Metropolitan Planning Organization has developed the TASA-DA Funding Project Submittal Guide and Competitive Process for the distribution of the TASA-DA funds.

NOW THEREFORE, be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby approves the 2017 Transportation Alternatives Set Aside- Direct Attributable Submittal Guide and Competitive Process.

ADOPTED at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization's Board on August 31, 2016.

Gary Doetsch, Chair

Mike Kozlosky, Secretary

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2015

SESSION LAW 2016-90
HOUSE BILL 959

AN ACT TO MAKE VARIOUS CHANGES TO THE TRANSPORTATION LAWS OF THE
STATE, AS RECOMMENDED BY THE JOINT LEGISLATIVE TRANSPORTATION
OVERSIGHT COMMITTEE.

The General Assembly of North Carolina enacts:

PART I. DIVISION OF HIGHWAYS

SMALL TRANSPORTATION PROJECTS/LOCAL CONSULTATION

SECTION 1. G.S. 136-11.1 reads as rewritten:

"§ 136-11.1. Local consultation on transportation projects.

Prior to any action of the Board on a transportation project, the Department shall inform all municipalities and counties affected by a planned transportation project and request each affected municipality or county to submit within 45 days a written resolution expressing their views on the project. A municipality or county may designate a Transportation Advisory Committee to submit its response to the Department's request for a resolution. Upon receipt of a written resolution from all affected municipalities and counties or their designees, or the expiration of the 45-day period, whichever occurs first, the Board may take action. The Department and the Board shall consider, but shall not be bound by, the views of the affected municipalities and counties on each transportation project. The failure of a county or municipality to express its views within the time provided shall not prevent the Department or the Board from taking action. The Department shall not be required to send notice under this section if it has already received a written resolution from the affected county or municipality on the planned transportation project. "Action of the Board", as used in this section, means approval by the Board of: the Transportation Improvement Program and amendments to the Transportation Improvement Program; the Secondary Roads Paving Program and amendments to the Secondary Roads Paving Program; and individual applications for access and public service road projects, contingency projects, small urban projects, and spot safety projects that exceed ~~one-two~~ hundred fifty thousand dollars ~~(\$150,000).~~ ~~(\$250,000).~~ The 45-day notification provision may be waived upon a finding by the Secretary of Transportation that emergency action is required. Such findings must be reported to the Joint Legislative Transportation Oversight Committee."

BROADBAND AND FIBER OPTIC IN DOT RIGHT-OF-WAY/STUDY FEES

SECTION 2.(a) G.S. 136-18(2) reads as rewritten:

"§ 136-18. Powers of Department of Transportation.

The said Department of Transportation is vested with the following powers:

- ...
- (2) Related to right-of-way:
- a. To take over and assume exclusive control for the benefit of the State of any existing county or township ~~roads, and to roads.~~
 - b. To locate and acquire rights-of-way for any new roads that may be necessary for a State highway system, and subject system.
 - c. Subject to the provisions of G.S. 136-19.5(a) and (b) also (b), to use existing rights-of-way, or locate and acquire such additional rights-of-way rights-of-way, as may be necessary for the present or future relocation or initial location, above or below ground, of telephone, of:



- (2) The person possesses a valid drivers license issued by any state or territory of the United States or the District of Columbia.
- (3) The person has passed the knowledge test for operating an unmanned aircraft system as prescribed in G.S. 63-95(b).
- (4) The person has satisfied all other applicable requirements of this Article or federal regulation.

...."

PART VI. MAP ACT CHANGES

MODIFY USE OF STI FUNDS

SECTION 15. Notwithstanding any provision of law to the contrary, damages, right-of-way costs, and planning and design costs related to litigation concerning the adoption of a transportation corridor official map under Article 2E of Chapter 136 of the General Statutes shall be paid from the tier under Article 14B of Chapter 136 of the General Statutes in which the project covered by the transportation corridor official map was funded under or is programmed to be funded under. For projects covered by a transportation corridor official map that were not funded, or are not programmed to be funded, under Article 14B of Chapter 136 of the General Statutes, damages, right-of-way costs, and planning and design costs related to litigation concerning the adoption of the transportation corridor official map shall be paid from the regional allocation of funds under Article 14B of Chapter 136 of the General Statutes for the region covered by the transportation corridor official map.

ONE YEAR MORATORIUM ON NEW MAPS UNDER MAP ACT

SECTION 16. G.S. 136-44.50 is amended by adding a new subsection to read:

"(h) No new transportation corridor official map may be adopted pursuant to this section from July 1, 2016, to July 1, 2017."

ALL MAP ACT CORRIDOR MAPS RESCINDED

SECTION 17.(a) All transportation corridor official maps adopted pursuant to Article 2E of Chapter 136 of the General Statutes, and any amendments thereto, are hereby rescinded, and all restrictions under Article 2E of Chapter 136 of the General Statutes shall no longer apply to properties or portions of properties within the affected transportation corridors.

SECTION 17.(b) The Department shall post information concerning each map rescinded pursuant to subsection (a) of this section on its Web site, and provide notice of each map rescinded pursuant to subsection (a) of this section to all of the following for the affected jurisdictions:

- (1) The office of the city clerk.
- (2) The county tax supervisor and city tax collector.
- (3) The register of deeds.
- (4) The city and county planning agency.

SECTION 17.(c) Nothing in subsection (a) of this section shall be construed as tolling, delaying, or otherwise modifying the time in which a complaint must be filed under G.S. 136-111.

MODIFY DOT CONDEMNATION INTEREST RATE

SECTION 18.(a) G.S. 24-1 reads as rewritten:

"§ 24-1. **Legal rate is eight percent.**

~~The Except as otherwise provided in G.S. 136-113, the legal rate of interest shall be eight percent (8%) per annum for such time as interest may accrue, and no more."~~

SECTION 18.(b) G.S. 136-113 reads as rewritten:

"§ 136-113. **Interest as a part of just compensation.**

To said amount awarded as damages by the commissioners or a jury or judge, the judge shall, as a part of just compensation, add interest at the legal rate as ~~provided in G.S. 24-1~~ on said amount from the date of taking to the date of judgment; but interest shall not be allowed from the date of deposit on so much thereof as shall have been paid into court as provided in this Article. For purposes of this section, the term "legal rate" means the prime lending rate, as published by the Board of Governors of the Federal Reserve System on the first business day of

the calendar month immediately preceding the date of taking. The legal rate established under this section shall not exceed the legal rate set in G.S. 24-1."

SECTION 18.(c) This section is effective when it becomes law and applies to causes of action filed on or after that date.

DOT/STUDY PROCESS FOR PROTECTING PROPOSED TRANSPORTATION CORRIDORS

SECTION 19. The Department of Transportation shall study the development of a process that equitably balances the interest of the State in protecting proposed transportation corridors from development, the property rights of affected landowners, and the taxpayers of the State. Beginning October 1, 2016, the Department shall report quarterly to the General Assembly and to the Joint Legislative Transportation Oversight Committee on its progress in completing the study required under this section. By July 1, 2017, the Department shall submit a final report to the General Assembly and to the Joint Legislative Transportation Oversight Committee detailing its findings and recommendations, including any legislative proposals.

PART VII. EFFECTIVE DATE

SECTION 20. Except as otherwise provided, this act is effective when it becomes law.

In the General Assembly read three times and ratified this the 1st day of July, 2016.

s/ Philip E. Berger
President Pro Tempore of the Senate

s/ Tim Moore
Speaker of the House of Representatives

s/ Pat McCrory
Governor

Approved 3:53 p.m. this 11th day of July, 2016

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION
BOARD**

**RESOLUTION REQUESTING THE NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION BEGIN RIGHT OF WAY ACQUISITION FOR THE HAMPSTEAD
BYPASS PROJECT (R-3300)**

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 US 17 Corridor Study includes North Carolina Transportation Improvement Program (TIP) projects U-4751 (Military Cutoff Road Extension) and R-3300 (Hampstead Bypass); and

WHEREAS, Project U-4751 is an extension of Military Cutoff Road on new location from Market Street (US 17 Business) to the US 17 Wilmington Bypass (John Jay Burney Jr. Freeway); and

WHEREAS, the proposed Hampstead Bypass (R-3300) extends from the US 17 Wilmington Bypass in New Hanover County to US 17 in Pender County; and

WHEREAS, the purpose of the projects are to improve the traffic carrying capacity and safety of the US 17 and Market Street corridor in the study area; and

WHEREAS, the Military Cutoff Extension and Hampstead Bypass have been in development for several decades; and

WHEREAS, the North Carolina Department of Transportation signed the State Record of Decision on September 30, 2014; and

WHEREAS, the Military Cutoff Road extension is funded for construction in the adopted 2016-2025 STIP/MTIP in FY 2018-2021 and the Hampstead Bypass is currently unfunded; and

WHEREAS, North Carolina General Statutes 136.44-50 provided authority for local governments, North Carolina Department of Transportation, North Carolina Turnpike Authority, regional transportation agencies and the Wilmington MPO to preserve and protect transportation corridors; and

WHEREAS, on November 16, 2011 the Wilmington Urban Area MPO's Transportation Advisory Committee adopted the Transportation Corridor Official Maps for Alternative E-H of the Hampstead Bypass (R-3300) and directed staff to file these maps with the New Hanover County and Pender County Register of Deeds; and

WHEREAS, the Transportation Corridor Official maps were filed with the New Hanover County and Pender County Register of Deeds on November 22, 2011; and

WHEREAS, the North Carolina General Assembly passed House Bill 959 (SESSION LAW 2016-90) that modifies the Map Act to include the following:

- modifies the use of STI funds,

- places a one year moratorium on the filing of new maps,
- rescinds all Map Act corridor maps,
- modifies the MAP Act interest rate from legal rate to prime, and
- calls for study of process for protecting proposed transportation corridor

WHEREAS, House Bill 959 includes language “For projects covered by a transportation corridor official map that were not funded, or are not programmed to be funded, under Article 14B of Chapter 136 of the General Statutes, damages, right-of-way costs, and planning and design costs related to litigation concerning the adoption of the transportation corridor official map shall be paid from the regional allocation of funds under Article 14B of Chapter 136 of the General Statutes for the region covered by the transportation corridor official map.”

NOW THEREFORE, be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby requests the North Carolina Department of Transportation begin right of way acquisition for the Hampstead Bypass (R-3300).

ADOPTED at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization’s Board on August 31, 2016.

Gary Doetsch, Chair

Mike Kozlosky, Secretary

NORRIS & TUNSTALL
— CONSULTING ENGINEERS P.C. —

902 Market Street
Wilmington, NC 28401
(910) 343-9653
(910) 343-9604 Fax

John S. Tunstall, P.E.
T. Jason Clark, P.E.

1429 Ash-Little River Road
Ash, NC 28420
(910) 287-5900
(910) 287-5902 Fax

J. Phillip Norris, P.E.
Joseph K. Bland, P.E.

August 9, 2016

Mr. Ben Hughes, Resident Engineer
NC Department of Transportation – District Office
300 Division Drive
Wilmington, NC 28401

Re: NHRMC Pedestrian Bridge Over NC DOT SR #1219 (17th Street)
Wilmington, NC

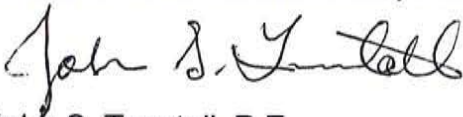
Dear Mr. Hughes:

Pursuant to our meeting last week with the City of Wilmington (C.O.W.) Traffic Engineer & MPO, regarding the proposed elevated pedestrian bridge over NC DOT SR #1219 (17th Street) in Wilmington, please find the following information. The proposed pedestrian bridge over NC DOT SR #1219 (17th Street) will be used by New Hanover Regional Medical Center (NHRMC), who is working on a lease agreement on a 720 car parking deck, located on the West side of NC DOT SR #1219 (17th Street). The proposed parking deck is directly across the street from the NHRMC Campus, which is located on the East side of NC DOT SR #1219 (17th Street). The proposed parking deck will be used as a NHRMC employee parking facility. For the safety of the employees and traveling public, we request a pedestrian bridge be constructed across NC DOT SR #1219 (17th Street). Therefore, in accordance with House Bill 824, we respectfully request that the NC DOT Board of Transportation consider the pedestrian bridge across SR #1219 (17th Street) in Wilmington, NC. Please see the attached aerial site plan with proposed parking deck elevations indicating the proposed pedestrian bridge.

Please feel free to contact us if you have any questions or comments. Thank you for your assistance on this project.

Sincerely,

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.



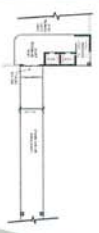
John S. Tunstall, P.E.

JST/asn

JST Pedestrian Bridge Over 17th St.-08-09-16-dot-ltr

Mr. Ben Hughes, Resident Engineer / NC DOT – District Office
August 9, 2016
Page 2

cc: Matthew Carlisle, P.E., Deputy District Engineer / NC DOT
Thomas Walsh / NHRMC (by E-Mail Only)
Brian Turner / NHRMC (by E-Mail Only)
Taylor Sims / NHRMC (by E-Mail Only)
Hill Rogers / Cameron Company, LLC (by E-Mail Only)
Bill Cameron / Cameron Company, LLC (by E-Mail Only)
Don Bennett, P.E., Traffic Engineer / C.O.W. (by E-Mail Only)
Mike Kozlosky, Executive Director / C.O.W. MPO (by E-Mail Only)



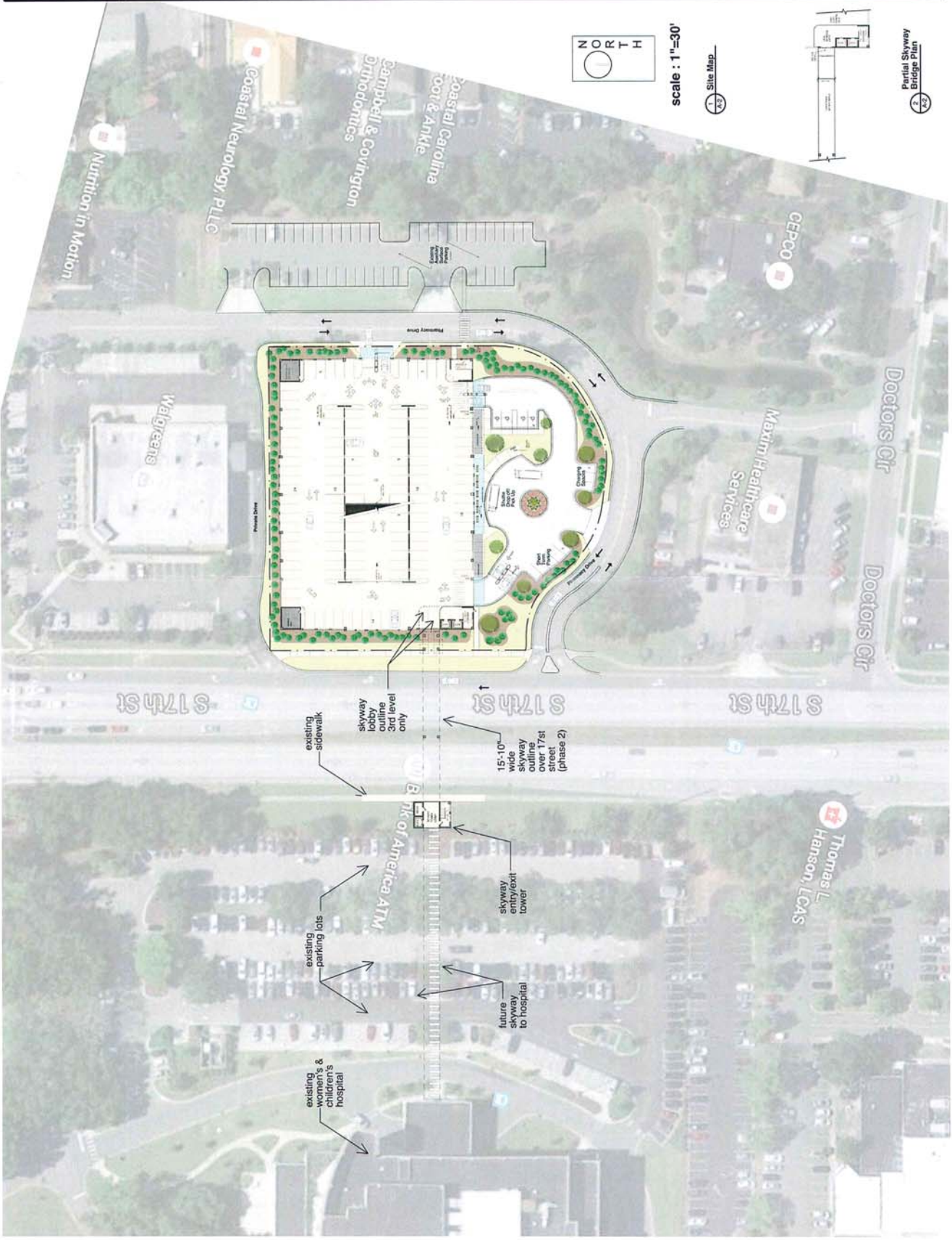
DATE	10/1/2018
BY	J. HANSEN
CHECKED BY	J. HANSEN
DESIGNED BY	J. HANSEN
PROJECT NO.	18-0018
PROJECT NAME	NEW HANOVER REGIONAL MEDICAL CENTER

PRELIMINARY
GROUND PLAN

scale : 1"=30'

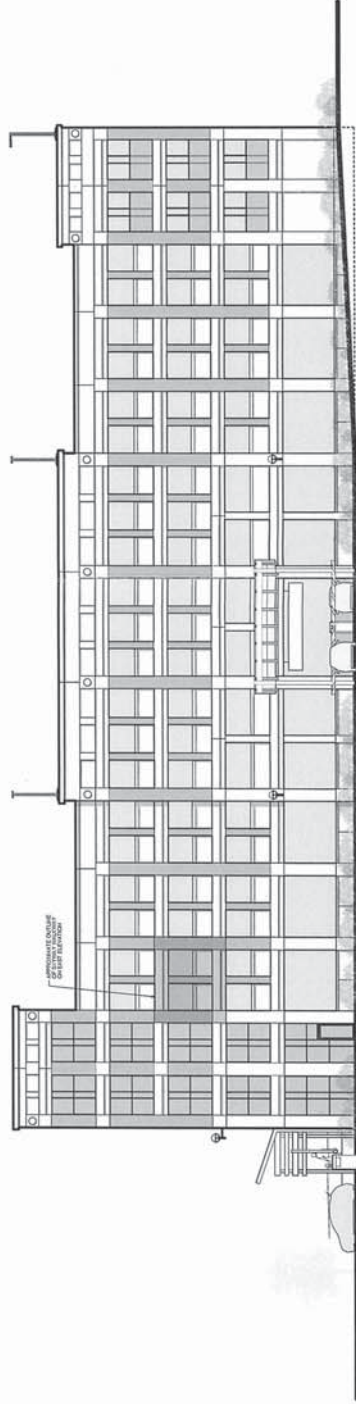


**New Hanover Regional Medical Center
Five Level Parking Structure**
Wilmington, North Carolina 28403

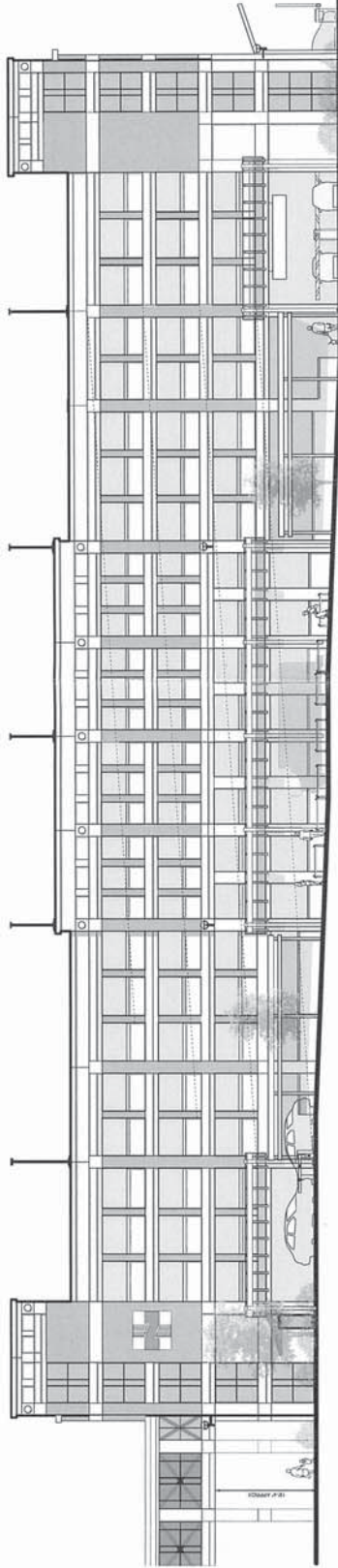


BOWMAN
MURRAY
HARRIS
ARCHITECTS
PLLC
1000 WILMINGTON ROAD
WILMINGTON, NC 28403
TEL: 910.343.1234
WWW.BMHARCHITECTS.COM

WEST ELEVATION
SCALE: 1/8" = 1'-0"



NORTH ELEVATION

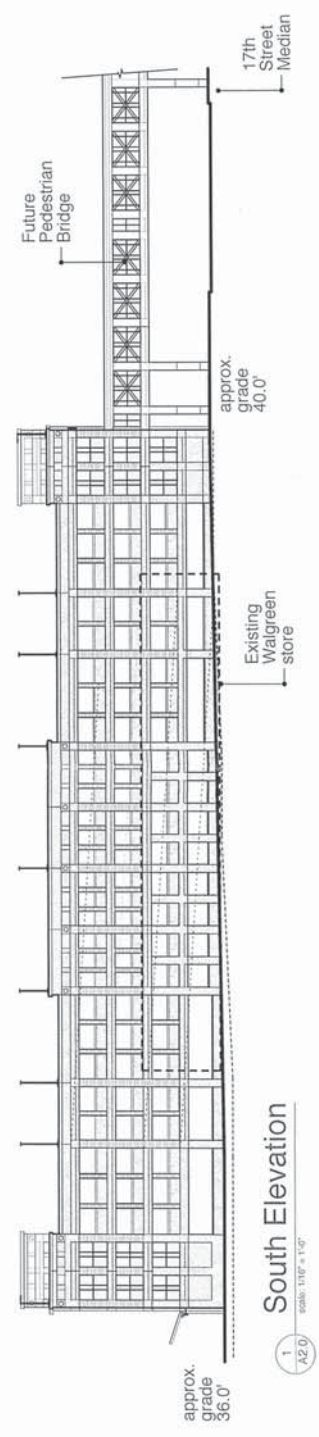
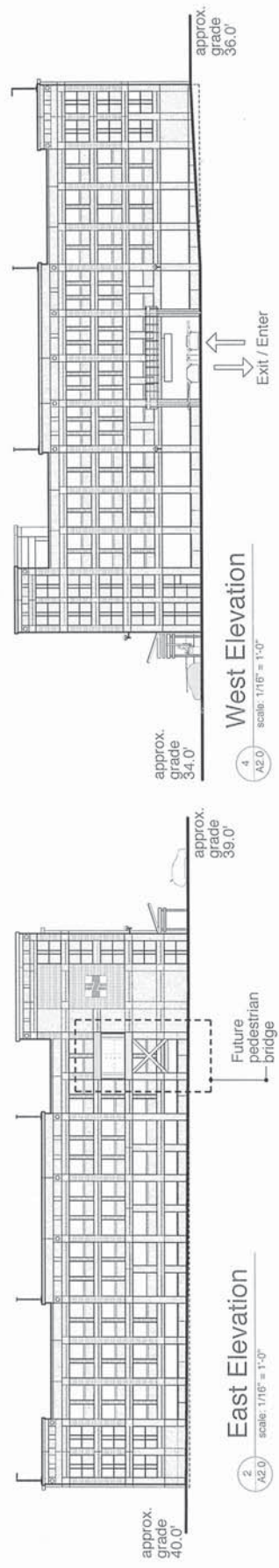
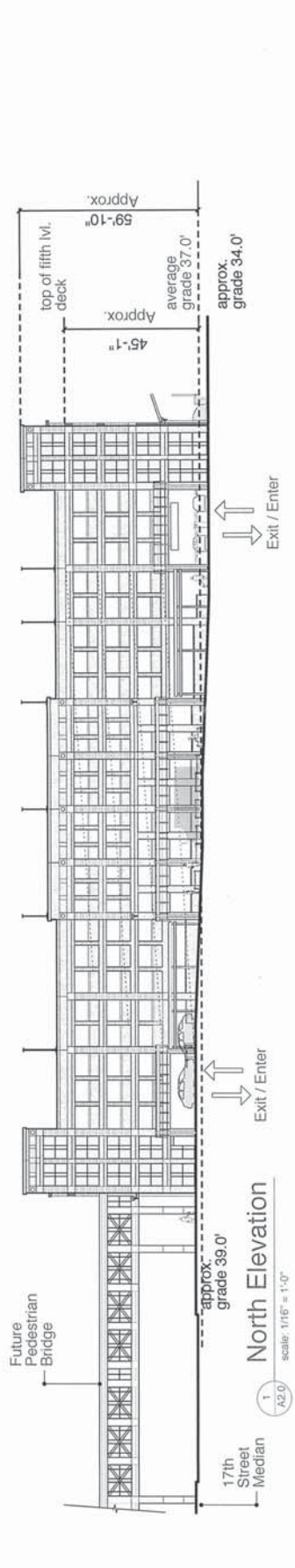


PRELIMINARY
ELEVATIONS

DATE: 04/14/2014
DRAWN BY: [illegible]
CHECKED BY: [illegible]
DESIGNED BY: [illegible]
PROJECT NO.: 14-0001
SHEET NO.: 14-0001-01

New Hanover Regional Medical Center
Five Level Parking Structure
Wilmington, North Carolina 28403





GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2003

SESSION LAW 2003-267
HOUSE BILL 824

AN ACT TO AUTHORIZE THE DEPARTMENT OF TRANSPORTATION TO
PERMIT ENCROACHMENT ON ITS RIGHTS-OF-WAY FOR THE CONSTRUCTION
OF PRIVATE BRIDGES.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 136-18 is amended by adding a new
subdivision to read:

"(37) To permit private use of and
encroachment upon the right-of-way of a State
highway or road for the purpose of construction and
maintenance of a privately owned bridge for
pedestrians or motor vehicles, if the bridge shall
not unreasonably interfere with or obstruct the
public use of the right-of-way. Any agreement for
an encroachment authorized by this subdivision
shall be approved by the Board of Transportation,
upon a finding that the encroachment is necessary
and appropriate, in the sole discretion of the
Board. Locations, plans, and specifications for any
pedestrian or vehicular bridge authorized by the
Board for construction pursuant to this subdivision
shall be approved by the Department of
Transportation. For any bridge subject to this
subdivision, the Department shall retain the right
to reject any plans, specifications, or materials
used or proposed to be used, inspect and approve
all materials to be used, inspect the construction,
maintenance, or repair, and require the
replacement, reconstruction, repair, or demolition
of any partially or wholly completed bridge that,
in the sole discretion of the Department, is unsafe
or substandard in design or construction. An
encroachment agreement authorized by this
subdivision may include a requirement to purchase
and maintain liability insurance in an amount
determined by the Department of Transportation. The
Department shall ensure that any bridge constructed
pursuant to this subdivision is regularly inspected
for safety. The owner shall have the bridge
inspected every two years by a qualified private
engineering firm based on National Bridge
Inspection Standards and shall provide the
Department copies of the Bridge Inspection Reports
where they shall be kept on file. Any bridge
authorized and constructed pursuant to this
subdivision shall be subject to all other rules and
conditions of the Department of Transportation for

encroachments."

SECTION 2. This act is effective when it becomes law.

In the General Assembly read three times and ratified this the 18th day of June, 2003.

s/ Beverly E. Perdue
President of the Senate

s/ Richard T. Morgan
Speaker of the House of

Representatives

s/ Michael F. Easley
Governor

Approved 12:56 p.m. this 26th day of June, 2003

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION
BOARD**

**RESOLUTION ENCOURAGING THE NORTH CAROLINA BOARD OF TRANSPORTATION
TO SUPPORT AN ELEVATED BICYCLE/PEDESTRIAN CROSSING ON 17TH STREET AT
NEW HANOVER REGIONAL MEDICAL CENTER**

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, 17th Street (SR#1219) is a North Carolina Department of Transportation maintained facility from Grace Street to Shipyard Boulevard in Wilmington, North Carolina; and

WHEREAS, the adopted 2016-2025 State/Metropolitan Transportation Improvement Program includes funding for the construction of a multi-use trail from Hospital Plaza Drive to Independence Boulevard; and

WHEREAS, New Hanover Regional Medical Center is in the process of consolidating their operations to their campus on 17th Street; and

WHEREAS, New Hanover Regional Medical Center is working on a lease agreement with a private developer to construct a 720 space parking deck on the west side of 17th Street; and

WHEREAS, the consolidation of operations and construction of the parking deck will significantly increase pedestrian activity on 17th Street; and

WHEREAS, New Hanover Regional Medical Center desires to construct an elevated walkway over 17th Street; and

WHEREAS, House Bill 824 (SESSION LAW 2003-267) is an act to authorize the Department of Transportation to permit encroachment on its right of way for the construction of private bridges; and

WHEREAS, this law requires any encroachment authorized under this law to be approved by the Board of Transportation.

NOW THEREFORE, be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby encourages the North Board of Transportation to support an elevated bicycle/pedestrian crossing on 17th Street (SR#1219) at New Hanover Regional Medical Center.

ADOPTED at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization's Board on August 31, 2016.

Gary Doetsch, Chair

Mike Kozlosky, Secretary

Proposed Revisions to 2016-2025 STIP/MTIP Program

STIP/MTIP Modifications (August)

EB-5543 NEW HANOVER PROJ.CATEGORY TRANSITION	SR 1403 (MIDDLE SOUND LOOP ROAD), OGDEN ELEMENTARY SCHOOL TO SR 1986 (OYSTER DRIVE). CONSTRUCT MULTI-USE PATH. <u>TO ALLOW ADDITIONAL TIME FOR RIGHT OF WAY ACQUISITION, DELAY CONSTRUCTION FROM FY 16 TO FY 17.</u>	CONSTRUCTION	FY 2017 - \$165,000 (DP) FY 2017 - <u>\$41,000 (L)</u> \$206,000
U-4751A NEW HANOVER PROJ.CATEGORY STATEWIDE	LENDIRE ROAD, LENDIRE ROAD, WEST OF US 17 BUSINESS (MARKET STREET) TO US 17 BUSINESS (MARKET STREET)/SR 1403 (MIDDLE SOUND LOOP ROAD). REALIGN ROADWAY. <u>TO ALLOW ADDITIONAL TIME FOR UTILITY RELOCATIONS, DELAY CONSTRUCTION FROM FY 16 TO FY 17.</u>	CONSTRUCTION	FY 2017 - <u>\$1,000,000 (T)</u> \$1,000,000
C-5702B STATEWIDE PROJ.CATEGORY EXEMPT	NORTH CAROLINA CLEAN ENERGY TECHNOLOGY CENTER. EMISSIONS-REDUCING SUB-AWARDS IN ALL CMAQ-ELIGIBLE COUNTIES. <u>PROJECT BREAK ADDED AT REQUEST OF TRANSPORTATION PLANNING BRANCH.</u>	OTHER	FY 2017 - \$1,500,000 (CMAQ) FY 2017 - <u>\$375,000 (L)</u> \$1,875,000
* C-5702C STATEWIDE PROJ.CATEGORY EXEMPT	NORTH CAROLINA CLEAN ENERGY TECHNOLOGY CENTER. EMISSIONS-REDUCING SUB-AWARDS IN ALL CMAQ-ELIGIBLE COUNTIES. <u>PROJECT BREAK ADDED AT REQUEST OF TRANSPORTATION PLANNING BRANCH.</u>	OTHER	FY 2018 - \$1,500,000 (CMAQ) FY 2018 - <u>\$375,000 (L)</u> \$1,875,000



Cape Fear Crossing

STIP U-4738

Brunswick and New Hanover Counties

PROJECT STATUS REPORT

August 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 July:

- The project team continues to coordinate and correspond with project stakeholders.
- Hydraulic analysis of the Detailed Study Alternatives (DSAs) has been finalized.
- The Draft Hurricane Evacuation Analysis Technical Memorandum has been reviewed by the New Hanover and Brunswick County emergency management departments, and is currently under review by NCDOT.
- The Historic Architecture Eligibility Report has been accepted by NCDOT and reviewed by the North Carolina State Historic Preservation Office (SHPO). An updated eligibility report has been sent to SHPO for review. The project team will meet with SHPO in the next few months to determine potential effects to these resources from the 12 DSAs.
- Updates to the project website are ongoing.
- Studies for the Traffic Noise Analysis and Air Quality Analysis are ongoing.
- An update to the Draft Natural Resources Technical Report is ongoing.
- The Draft Sea Level Rise Assessment is currently under review by NCDOT.
- An update to the Archaeological Predictive Model is ongoing.
- Right-of-Way cost estimates and relocation reports have been initiated.
- 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, 919.707.6016

AECOM – Joanna Rocco, joanna.rocco@aecom.com, 919.239.7179

Website: <http://www.ncdot.gov/projects/capefear/>

Email: capefear@ncdot.gov

Hotline: 1.800.233.6315

WILMINGTON MPO
TRANSPORTATION PLANNING
AUGUST 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:

- Adopt 2016 Biennial Data Report
- Establish data collection schedule for 2016-2018

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

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, North Carolina Department of Transportation and Wilmington MPO. All three entities have agreed to participate financially in the study. The City contracted with Moffatt & Nichol to complete the study. A steering committee project kick-off meeting was held on July 15th. The consultant's first deliverable is the review of physical conditions which is due in September.

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. The MPO is developing the 2017-2021 Strategic Business Plan in an effort to implement the MTP.

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

17TH STREET STREETScape

Project Descriptions/Scope: The 17th Street streetscape project will include upgrades to 17th 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 on March 3rd. The City awarded the construction contract to Lanier Construction on June 21st.

Next Steps:

- Begin construction of the improvements

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: 4 reviews
- New Hanover County Informal Plan Reviews: 1 reviews
- New Hanover Concept Reviews: 0 reviews
- Town of Leland Formal Reviews: 10 reviews
- Town of Leland Informal Reviews: 1 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: 17 total (New Hanover County 6, City of Wilmington 7, Carolina Beach 0, Leland 1, and Pender County 3) new 4 and ongoing 13
- Pender County Development Plan Reviews: 10 reviews
- Pender County Informal Plan Reviews: 2 reviews
- Pender County Concept Reviews: 0 reviews
- City of Wilmington Formal Reviews: 34 (8 new, 26 on-going)
- City of Wilmington Informal Reviews: 12 (4 new, 8 on-going)
- City of Wilmington Concept Reviews: 12 (8 new concept reviews- 4 on-going concept)
- COW Project Releases: 7 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.

Next Steps:

- The Town has indicated an interest in requesting the Board remove this project from the STIP. Staff is awaiting a letter from the Town.

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 to begin on August 15th

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 Spring 2017

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 and updating the PCE
- 90% plans submitted to NCDOT for review
- A meeting was held with Town, NCDOT, and WMPO on July 26th to discuss project. Significant design issues may exist. The Town is gauging property owner feelings towards right-of-way acquisition on the project.

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 Alabama 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
- Town is awaiting finalized plans and specifications
- Awaiting easement approval from MOTSU
- MOTSU completion date anticipated around September 30, 2016

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. • Letters of Interest has closed and the Town has received proposals.

Next Steps:

- Man-day estimate has been received from SEPI. The Town is negotiating fee with consultant.
- 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:

- Plan comments have been addressed and plans and specs will be resubmitted by 8/15/2016.
- Utility coordination underway
- Anticipated Right-of-way Authorization October 2016
- Anticipated completion of right-of-way acquisition March 2017
- Anticipated Let Date of July 2017

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:

- Plan comments have been addressed and plans and specs will be resubmitted by 8/15/2016.
- Utility coordination underway
- Anticipated Right-of-way Authorization October 2016
- Anticipated completion of right-of-way acquisition March 2017
- Anticipated Let Date of July 2017

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:

- 100% Construction Plans completed
- The bid documents are being completed
- Awaiting the release of right of way funds
- The project is currently under review
- Anticipated Let Date: Spring 2017

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:

- 100% Construction Plans completed
- The bid documents are being completed
- Awaiting the release of right of way funds
- The project is currently under review
- Anticipated Let Date: Spring 2017

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:

- 100% Construction Plans completed
- The bid documents are being completed
- Awaiting the release of right of way funds
- The project is currently under review
- Anticipated Let Date: Spring 2017

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:

- Routing LJB's proposal for preparation of Contract with the City
- NCDOT review of the man-day estimates is complete
- Design anticipated to begin September 2016
- R/W plans anticipated December 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 6th Street to Dow Road.

Next Steps:

- NCDOT approval received
- PE Services consultant services approved by NCDOT
- Design consultant agreement executed
- Complete design of the project

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:

- AECOM has been selected to complete this design.
- Man-day estimates under review by NCDOT
- A scoping meeting has been held with NCDOT, City of Wilmington, WMPO and AECOM
- City to provide the survey for the project

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 was distributed in June

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 Eastwood Road to Drysdale Drive.

Next Steps:

- McKim & Creed provided surveying

- Man-day estimate from Stewart has been reviewed by NCDOT
- City is negotiating contract with Stewart
- R/W plans anticipated December 2016

U-5527B CITY OF WILMINGTON – 5th 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
- Signal plans to be sent to NCDOT for review
- Quantities and specs are complete
- Right-of-way certification has been obtained
- PCE under review with NCDOT
- Anticipated Let Date: December 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 working on a Letter of Interest

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:

- Agreement is in place
- PE funds have not been authorized, however Town has submitted the request
- 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

- Review responses from the marketing plan RFP and make a recommendation to hire a marketing firm
- Develop program brand (name and logo)
- Partner with schools in WMPO jurisdiction to provide carpool opportunities to parents
- Coordinate with employers to implement 2 additional vanpool programs



Cape Fear Public Transportation Authority

Project Update

August 2016

1. **Bus fleet replacement & conversion to CNG** - identifying state and federal funding opportunities to replace 19 thirty-five foot buses. Bid awarded to Gillig, LLC on June 26, 2014. The Authority continues to seek federal funding for replacement buses.
2. **Wilmington Multimodal Transportation Center** - Interlocal Agreement between Authority, City of Wilmington, WMPO and NCDOT finalized. Demolition of Haul building has been completed. The Authority is working to complete NEPA Document, stabilize Neuwirth Brothers and Thomas Grocery buildings, and design and construct transit portion of WMMTC. A contract with John Davenport Engineering for the NEPA document was approved on June 23, 2016. The environmental document is nearing completion. Transfer of the property is currently underway. Construction is expected to be complete in December 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 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. A contract to install five shelters was awarded to Paragon Building Corp. on May 26, 2016. Construction of the first five shelters is underway and expected to be complete in August.

August 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.

Estimated Contract Completion Date Summer 2016, small “punch list” of items to be completed

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

Estimated Contract Completion Date September 28, 2016, small “punch list” of items to be completed

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

Estimated Contract Completion Date September 2018



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)

Estimated Contract Completion Date September 2016

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

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

Let Date September 20, 2017

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

R-5021: widening of NC 211 from NC 87 to SR 1500 (Midway Road) to a 4-lane
divided facility.

Let Date June 2018

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

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

Let Date December 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-5710: US 74 (Eastwood Road) construct an interchange at the at-grade intersection of SR 1409 (Military Cutoff Road) & US 74 (Eastwood Road)

Let Date January 2022

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

Let Date Winter 2016

FS-1503A: Feasibility Study US 17 Bus. (Market Street) study the at-grade intersection of US 17 Business (Market Street), US 74 (MLK Parkway) & US 74 (Eastwood Road) for installment of an interchange.

Resurfacing Contract: WBS #52038 I-5760

New Hanover County:

I-140 (Wilmington Bypass) resurface from I-40 to US 421 & reconstruction of bridge approaches, joint repair & signals.

Letting Date August 2016

Resurfacing Contract: 2017CPT.03.01.10651 (includes W-5203AA & W-5601BB)

New Hanover County:

US 117/NC 132 (College Road) resurface from Wilshire Blvd. to Market Street (US 17 Business).

Letting Date August 2016

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 3rd Street) – from US 76 (Dawson Street) to Greenfield Street (non-system)

US 421 Northbound Lanes (South 3rd Street) – from Greenfield Street (non-system) to US 76 (Dawson Street)

US 17 Business (South 3rd Street) – from US 76 eastbound lanes to US 76 westbound lanes

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

SR 1218 (16th Street) – from US 76 westbound lanes (Wooster Street) to US 76 eastbound lanes (Dawson Street)

SR 1371 (16th St.) - from Grace Street (non-system) to US 17 Business (Market Street)

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

SR 1301 (17th Street) - from US 17 Business (Market Street) to Grace Street (non-system)

SR 2817 (17th 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/Summer 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 Summer 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 Summer 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 (**9th 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 Summer 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

Estimated Contract Completion Date November 2016

Resurfacing Contract: 2017CPT.03.31.20711 DC00136

Pender County:

SR 1113 (Montague Road) resurface from SR 1114 (Blueberry Road) to US 421

SR 1412 (Newroad Ave., Front St. & Dickerson St.) resurface from US 117 to Hayes Road.

Estimated Contract Completion Date September 2016

Resurfacing Contract: 2017CPT.03.37.20651 DC00155

New Hanover County:

SR 1310 (Division Drive) from NC 133 (Castle Hayne Road) to SR 1302 (23rd Street)

SR 2270 (Wood Sorrell Road) from SR 2048 (Gordon Road) to SR 2219 (N. Green Meadows Road)

SR 2281 (Spicewood Street) from Wood Sorrell Road to N. Green Meadows

SR 2054 (Diamond Drive) from SR 2154 (Little Creek Road) to SR 2053 (Apple Road)

SR 2219 (N. Green Meadows Road) from Wood Sorrell Road to Spicewood Street

SR 2266 (Twin Leaf Road) from SR 2286 (Strawfield Drive) to SR 2018 (Fitzgerald Drive)

SR 2267 (Bracken Fern Road) from Twin Leaf Road to cul-de-sac

SR 2268 (Butterfly Court) from Bracken Fern Road to cul-de-sac

SR 2271 (Rushwood Court) from Wood Sorrell Road to cul-de-sac

SR 2272 (Sunwood Circle) from Wood Sorrell Road to Wood Sorrell Road

SR 2273 (Cainslash Court) from Sunwood Circle to cul-de-sac

SR 2274 (Emberwood Road) from Wood Sorrell Road to cul-de-sac

SR 2275 (Vinewood Court) from Emberwood Road to cul-de-sac

SR 2276 (Pearwood Court) from Vinewood Court to cul-de-sac

SR 2277 (Mintwood Court) from Wood Sorrell Road to cul-de-sac

SR 2278 (Wood Sorrell Loop) from Wood Sorrell Road to Wood Sorrell Road

SR 2279 (Red Bay Court) from Wood Sorrell Road to cul-de-sac

SR 2280 (Red Bay Loop Road) from Red Bay Court to Red Bay Court

SR 2282 (Low Bush Court) from Spicewood Street to cul-de-sac

SR 2283 (Spicewood Loop Road) from Spicewood Street to cul-de-sac

SR 2284 (Lupine Court) from Spicewood Street to cul-de-sac

SR 2285 (Golden Astor Court) from Spicewood Street to cul-de-sac
SR 2286 (Strawfield Drive) from N. Green Meadows Road to
N. Green Meadows Road
SR 2287 (Sweetbay Court) from Strawfield Drive to cul-de-sac
SR 2294 (Silver Grass Court) from Wood Sorrell Road to cul-de-sac
SR 2295 (Cherry Laurel Court) from Wood Sorrell Road to cul-de-sac
SR 2297 (Nettle Circle) from Strawfield Drive to Strawfield Drive
SR 2298 (Fern Court) from Nettle Circle to cul-de-sac
SR 2299 (Batsonwood Court) from Wood Sorrell Road to cul-de-sac
SR 2618 (High Bush Court) from Strawfield Drive to cul-de-sac
SR 2687 (Legend Drive) from SR 2683 (Enterprise Drive) to cul-de-sac
SR 2688 (Promenade Court) from Legend Drive to cul-de-sac
SR 1327 (Farley Road) from SR 1175 (Kerr Ave.) to Kerr Ave.
SR 2686 (Justus Court) from Enterprise Drive to cul-de-sac
SR 2685 (Drewman Court) from Enterprise Drive to cul-de-sac

Estimated Contract Completion Date November 2016

Resurfacing Contract: 2017CPT.03.01.10651 C203888

New Hanover County:

US 117/NC 132 (College Road) from US 17 Business (Market Street) to
SR 2313 (Wilshire Blvd.)

Includes safety projects:

W-5203AA construct offset left turn lanes on College Road & Hurst/Hoggard Drive upgrade pedestrian facilities to high visibility crosswalks w/ countdown pedestrian heads. Extend sidewalk to connect with existing sidewalk.

W-5601BB install high visibility crosswalks & push button pedestrian signals at the intersection of College Road & New Center Drive.

WBS #36249.3622 City of Wilmington signal plan modifications & work to install pedestrian upgrades at the intersection of US 117/NC 132 (College Road) and SR 2313 (Wilshire Blvd).

Letting Date August 16, 2016

Availability Date September 26, 2016

Estimated Contract Completion Date February 2018