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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.

**Wilmington Urban Area Metropolitan Planning Organization
Citizen Advisory Committee
Meeting Agenda**

TO: Wilmington Urban Area MPO Citizen Advisory Committee
FROM: Abby Lorenzo, Senior Transportation Planner
DATE: December 3rd, 2018
SUBJECT: December 12th meeting

A meeting of the Wilmington Urban Area MPO Citizen Advisory Committee will be held on Wednesday, December 12th at 2 pm. The meeting will be held in the 6th Floor Conference Room located at 320 Chestnut Street in downtown Wilmington.

The following is the agenda for the meeting:

- 1) Call to Order
- 2) Approval of Minutes- November 7th, 2018
- 3) Presentation of Cape Fear Moving Forward 2045 Public Input Map Results – Michael Madsen, WMPO
- 4) Presentation of Cape Fear Moving Forward 2045 Milestone Update for Member Jurisdiction Boards – Katie Moore, WMPO
- 5) Cape Fear Moving Forward 2045 Goal ‘Environmentally and Socially Responsible’ Revision Discussion

Recommended Action: CAC adoption of new language for ‘Environmentally and Socially Responsible’ goal
- 6) Cape Fear Moving Forward 2045 Modal Project List Update
- 7) Discussion on 2019 Meeting Days for the Citizen Advisory Committee

Wilmington Urban Area Metropolitan Planning Organization

8) Next Meeting- January 3rd OR January 7th, 2019

9) Adjourn

Attachments:

- Meeting Minutes- November 7th, 2018
- 'Environmentally and Socially Responsible' Definition Revision

Citizens Advisory Committee
6th Floor Conference Room, 320 Chestnut Street
Wednesday, November 7, 2018
Meeting Minutes

Members Present:

Laura Padgett, Chair, City of Wilmington
Web Bostic, New Hanover County
Harold King, Town of Wrightsville Beach
Stuart Smith, Town of Belville
Brayton Willis, Town of Leland
Vanessa Lacer, Cape Fear Public Transportation Authority
Neal Andrew, North Carolina Board of Transportation

Members Absent:

Patrick Boykin, Town of Carolina Beach
John Cawthorne, Vice Chair, Town of Kure Beach
Valorie Hatten, Town of Navassa
Sallie Rochelle, Pender County
Jason Windham, City of Wilmington

Others Present:

Abigail Lorenzo, Senior Transportation Planner, WMPO
Mike Kozlosky, Executive Director, WMPO
Katie Moore, Associate Transportation Planner, WMPO
Zach Manfredi, Associate Transportation Planner, WMPO
Michael Madsen, GIS Analyst, WMPO
Nazia Sarder, NCDOT - Transportation Planning Branch

1. Call to Order

Ms. Padgett called the meeting to order at 2:03 p.m.

2. Approval of Minutes – August 8, 2018

Mr. Andrew made a motion to approve the minutes of August 8, 2018, seconded by Mr. King, and the motion carried unanimously.

3. Presentation of Existing Conditions and Future Needs of the Region's Transportation Network

Ms. Lorenzo introduced new Transportation Planner Zachary Manfredi. She noted that the MPO is now fully staffed.

Ms. Moore stated that a summary of existing conditions and trends for each mode has been distributed to Committee members. She noted that the information was gathered in October from stakeholder representatives on each subcommittee, and staff research. She then gave an overview of the MPO Transportation System and demands.

Mr. Manfredi and Ms. Moore gave an overview of the vision and trends for each of the six modes of transportation: Aviation, Bicycle and Pedestrian, Ferry, Freight and Rail, Public Transportation, and Roadway. See the attached presentation.

In other words, the MPO area has a lot of facilities and heavy demand. Of note, Public Transportation is experiencing the challenge of a gradual decline in community ridership, which is further complicated by increasing operating expenses.

A brief question/answer and discussion period was held regarding existing conditions and trends for the system in general and each of the modes.

4. Presentation of Modal Subcommittee's Goals and Objectives

Ms. Padgett requested that the goals and objectives for each of the modes be approved today in order to advance them to the MPO Board at the end of this month, since the Board will not be meeting in December.

Ms. Lorenzo stated that the subcommittees have worked diligently and thoroughly on these goals and objectives since July.

a. Aviation

Mr. Bostic gave an overview of the Aviation Subcommittee's goals and objectives. He explained that the State advised making them as general as possible. Highlights of the objectives included targeting present and future industries for economic development, and the Wallace to Castle Hayne corridor, which was added to support future air/freight-rail service. He noted that the primary objective is to improve the airport for the airlines and the region. Additionally, the goals seek to integrate the new airport layout plan, currently in progress, and the airport's update to its master plan in 2021.

Mr. King made a motion to approve the Aviation Subcommittee's goals and objectives, seconded by Mr. Smith.

Following a brief question/answer and discussion period, Ms. Padgett called the question and the motion carried unanimously.

b. Bicycle and Pedestrian

Ms. Lacer gave an overview of the Bicycle and Pedestrian goals and objectives, which were split into separate categories.

In response to an inquiry by Ms. Padgett, Ms. Lacer stated that the subcommittee only discussed bike racks, not bike parking. Ms. Padgett pointed out that cities are beginning to designate secure parking lots for bicycles.

A question/answer and discussion period was held regarding biking to school, and alternative funding sources.

In response to an inquiry by Mr. Hollis, Ms. Lorenzo stated that projects would be weighted 50% for bicycle, and 50% for pedestrian, and combined modes would score higher.

A brief question/answer and discussion period was held.

Mr. Smith pointed out the importance of synergy between modes, such as crosswalks with roadway improvements. Mr. Hollis responded that multi-modal consideration is one of the objectives of the Roadway Subcommittee.

Ms. Padgett cautioned that it's important to avoid barriers to development.

Mr. Willis recommended that lighting and emergency call boxes be added.

Mr. Bostic made a motion to approve as amended the Bicycle and Pedestrian Subcommittee's goals and objectives, seconded by Mr. Smith.

Mr. Hollis requested that the two items be added to Pedestrian Goal A: Safety, Education, and Enforcement, Objective 7.

There being no objection, Ms. Padgett called the question and the motion carried unanimously.

Ms. Padgett expressed concerns that all the goals and objectives be approved today.

Mr. King suggested that motions be made, followed by discussion and then a vote.

c. Ferry

Mr. Bostic made a motion to approve the Ferry Subcommittee's goals and objectives, seconded by Mr. Smith, and the motion carried unanimously.

d. Freight/Rail

Mr. Smith made a motion to approve the Freight/Rail Subcommittee's goals and objectives, seconded by Mr. King.

Following a brief clarification, Ms. Padgett called the question and the motion carried unanimously.

e. Public Transportation

Mr. King made a motion to approve the Public Transportation Subcommittee's goals and objectives, seconded by Mr. Bostic, and the motion carried unanimously.

f. Roadway

Following a brief inquiry and discussion regarding accommodating transit on roadway corridors, Mr. King made a motion to approve the Roadway Subcommittee's goals and objectives, seconded by Mr. Bostic, and the motion carried unanimously.

5. Additional Items

Ms. Padgett stated that the next meeting of the CAC will be held on December 12th.

6. Adjournment

With no further business, the meeting was adjourned at 4:20 p.m.

Respectfully submitted,

Abby Lorenzo
Senior Transportation Planner
Wilmington Urban Area Metropolitan Planning Organization

**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.**



CAPE FEAR
Moving Forward 2045
 METROPOLITAN TRANSPORTATION PLAN

Existing Conditions
 System, Vision, and Trends




WMPO Transportation System

- 1590+ mi Local Roads
- 964 mi NCDOT Roads
- 154 mi rail corridor (used)
- 28 mi preserved rail corridor
- 200 mi public transit
- 600+ miles sidewalk
- 30 mi multi-use path
- 29 mi on-road bike lane
- 3.5 mi public ferry route
- 1700 Acres at ILM
- 284 acres of facilities at Port of Wilmington
- Over 130 Bridges
- 56 Segments multi-use path
- 560+ marked crosswalks
- 433 bus stops
- 24 bus routes
- 3 network airlines served at ILM
- 8 direct routes from ILM





System Demand

- 270,000+ Residents
- 30,000+ Students


Traffic Counts 2018

- 64,521 Memorial Bridge
- 45,745 US 17
- 67,522 I-74
- 23,652 I-40
- 59,854 US 421
- 600,000 TEU capacity container terminal at port
- 3 million tons of goods annually at port
- 2 trains per day at Port
- 950,000 Wave Community ridership
- 350,000 Seahawk Shuttle ridership
- 420,000 enplanements at ILM
- 500,000+ ferry passengers
- 200,000+ ferry vehicles

Modes

- Aviation
- Bicycle & Pedestrian
- Ferry
- Freight & Rail
- Public Transportation
- Roadways




Aviation

Vision: continue to grow and further the aviation presence in southeastern North Carolina


- Continue to expand network and number of hubs ILM is connected to
- Prepare runways for trend of increased plane size and goal of 1 million enplanements
- Diversify revenue streams to offset TNC impacts and shifts in grant programs
- Important to protect growth corridors and buffer areas around the airport
- Provide efficient access for non-aeronautical uses such as freight distribution or Industrial
- Increase Business Park Growth



Aviation



- 8 non-stop destinations
- 7 hubs
- 6 international gateways



Aviation

Revenue: Enplanements and Deplanements by Year



Year	Passengers Change (%)	Passengers	Operations Change (%)	Operations
2017	+2.3%	836,589	-.07%	57,814

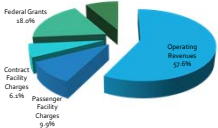



Aviation

Changes in Revenue Streams

- TNC impact on parking revenues
- Business Park growth
- Shift in Grant Programs

FY17 Actual Cash Inflows








Bicycle & Pedestrian

Vision: Active network of routes for walking and biking

- Gaps in routes create significant barriers for users
- Network is too localized without regional connections
- Bikers and walkers experience conflict with cars and roadways
- Navigating between routes and facilities is confusing
- Roadway projects occur without adding new facilities
- Land development and road projects impact existing facilities
- Desire to build support for facilities beyond urban core

2014 Transportation Bond Bike/Ped Improvements





Pedestrian Infrastructure

- Pedestrian
 - 75.1 miles of sidewalks
 - 24.4 miles of multi-use path
 - 560 marked crosswalks
 - 1.75 mile riverwalk
 - Focus on safety and connectivity
- Gary Shell Cross-City Trail
- East Coast Greenway
- Island Greenway






Pedestrian

WalkBikeNC 5 pillars

- Safety
 - 200 bike/ped related fatalities each year in NC
- Health
 - obesity doubled in NC from 1990 to 2011
- Economy
 - improved health, safety, environmental conditions, increased property value
- Mobility
 - NC is ranked 42nd for walking commute rates
- Environment
 - population of NC expected to rise by 12 million in 20 years






Pedestrian

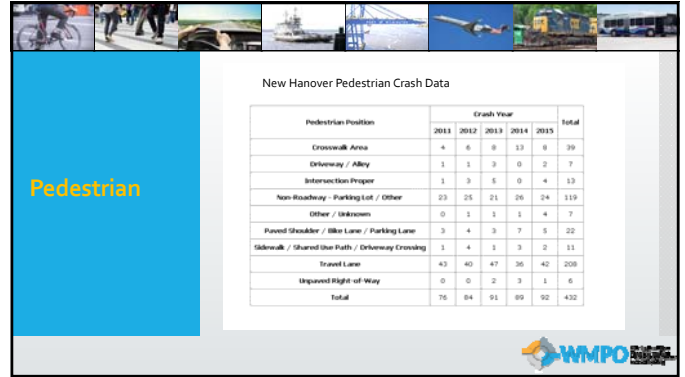
Pedestrian Toolbox

- Sidewalk Buffers
- Multi-use path
- Pedestrian Lighting
- Pedestrian Crossings
- Curb Extensions
- Paved Shoulders
- Intersection Treatments



Image courtesy of North Carolina Department of Transportation


- Vehicle yielding rates at the crosswalk improved from 27% to 46% (regardless of whether the HAWK was activated or not)
- All vehicles yielded 74% of the time the HAWK signal was red. Paved Shoulders
- Enforcement a priority after installation (Carolina beach)

Pedestrian

New Hanover Pedestrian Crash Data

Pedestrian Position	Crash Year				Total
	2011	2012	2013	2014	
Crosswalk Area	4	6	8	13	31
Driveway / Alley	1	1	3	0	5
Intersection Proper	1	3	5	0	9
Non-Roadway - Parking Lot / Other	23	25	21	26	95
Other / Unknown	0	1	1	1	3
Paved Shoulder / Bike Lane / Parking Lane	3	4	3	7	17
Sidewalk / Shared Use Path / Driveway Crossing	1	4	1	3	9
Travel Lane	43	40	47	36	166
Unpaved Right-of-Way	0	0	2	3	5
Total	75	84	91	99	349




Bicycle Infrastructure

- 27.8 miles of bike lanes
- 24.4 miles of multi-use path
- 1.5 miles of sharrow marked roadways
- Bikeshare Spring '19 (Zagster)

- North Carolina Bicycling Highway 3
- North Carolina Bicycling Highway 5
- River to Sea Bikeway
- Focus on safety and comfort

Four Types of Cyclists

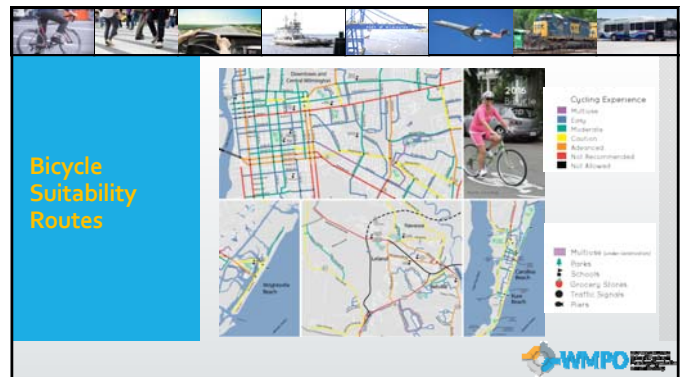
Strong & Fearless (1%)
Experiences all and likes the bike regardless of the weather conditions.

Reluctant & Confused (1%)
I am not sure that this is one of Chicago's strengths. Many walking routes seem to be in the neighborhood.




No desire to ride (98%)
No desire to ride that bike on their own, regardless of the type of weather provided.

Interested but concerned (98%)
The majority of the population is interested in riding their bike, whether for work, fun or exercise, but are concerned about the safety of riding in traffic.

Bicycle Suitability Routes




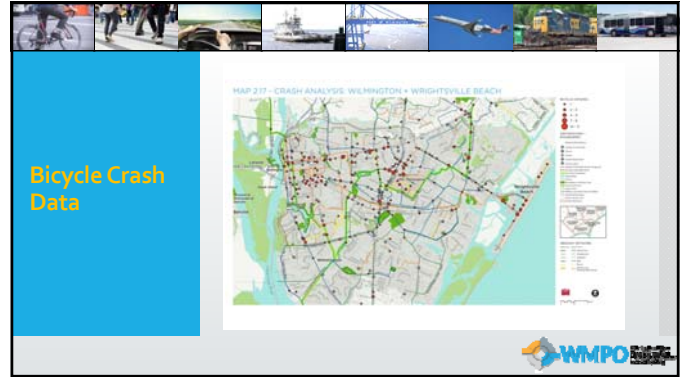
Cycling Experience

- Multi-use
- Caution
- Not Recommended
- Not Allowed

Multi-Use Location

- Parks
- Schools
- Grocery Stores
- Traffic Signals
- Piers



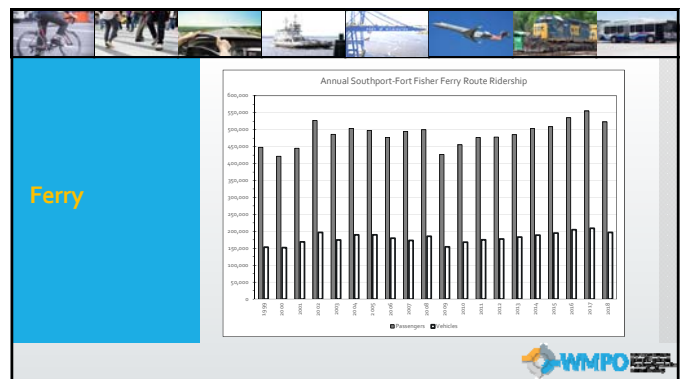


Ferry

Vision: Reliable water transportation options with capacity and flexibility to serve regional demand.


- Trend of increasing ridership approaching 550,000 annually
- Peak season roadway congestion near terminals
- Ongoing issue with passenger bumping and longer wait times
- Upcoming projects in the near term include new ramps, stacking lanes, and programmed funds for a 3rd vessel
- Interest in exploring passenger ferry with tram options for routes from Southport or other locations

WMPO








NC Ferry Facilities at Ft. Fisher
 Stacking Lanes for 32-35 vehicles
 Terminal structure
 Parking lot
 Grass fields with picnic tables


Blueways, Launches, & Connections


Freight & Rail

Vision: Reliable routes for efficient freight movement


- Congested routes due to limited roadway capacity
- Highly interrupted rail corridor with too many conflict points
- Anticipated increase in demand for truck and rail freight
- Competition for freight business in the region
- Interest to expand freight facilities at existing and future sites

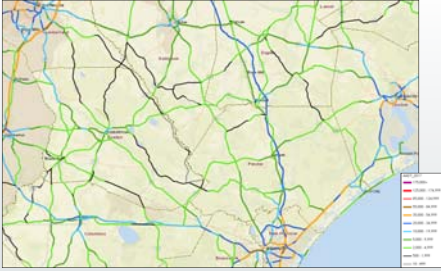

Rail Freight Network

2017 Wilmington Traffic Separation Study: 26 Rail/Roadway Conflicts
 2017 Rail Realignment Feasibility Study




Vehicle Freight Network


Public Transportation



Vision: develop and maintain an effective, efficient, and safe system of public transportation

- Region has struggled with tension between ridership vs. frequency models
- Greater emphasis on promotion could increase ridership
- Prioritize responsible growth of routes
- Operating expenses are projected to outpace revenue over next 5 years, while ridership trend is decreasing
- Bus reliability is well below average compared to peer groups
- Cost efficiency above peer average, Route Productivity below peer average.
- Correlation between ridership and economy

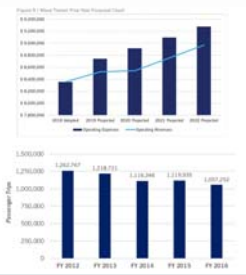



Public Transportation


	Community Routes	Southwest Shuttle	Trolley	MBRT	Metrolink
Service Type	Fixed Route	Fixed Route	Fixed Route	Demand Response	Shared Ride
Service Operation	Fixed Route	Fixed Route	Fixed Route	Fixed Route	Shared Shuttle
Service Hours	Monday-Sunday 5:00 AM - 10:00 PM	Monday-Friday 5:00 AM - 10:00 PM	Monday-Friday 5:00 AM - 10:00 PM	Monday-Friday 5:00 AM - 10:00 PM	Monday-Friday 5:00 AM - 10:00 PM
Service Hours	Monday-Saturday 5:00 AM - 10:00 PM	Monday-Friday 5:00 AM - 10:00 PM	Monday-Friday 5:00 AM - 10:00 PM	Monday-Friday 5:00 AM - 10:00 PM	Monday-Friday 5:00 AM - 10:00 PM
# of Routes	24 Routes	8 Routes	1 Route	No fixed routes, Metrolink only runs based on demand.	No fixed routes, service is determined by demand.
Service Frequency	• 15 minutes from 5:00 AM to 9:00 AM • 15 minutes from 9:00 AM to 4:00 PM • 15 minutes from 4:00 PM to 10:00 PM	• 15 minutes from 5:00 AM to 9:00 AM • 15 minutes from 9:00 AM to 4:00 PM • 15 minutes from 4:00 PM to 10:00 PM	• 15 minutes from 5:00 AM to 9:00 AM • 15 minutes from 9:00 AM to 4:00 PM • 15 minutes from 4:00 PM to 10:00 PM	• 15 minutes from 5:00 AM to 9:00 AM • 15 minutes from 9:00 AM to 4:00 PM • 15 minutes from 4:00 PM to 10:00 PM	• 15 minutes from 5:00 AM to 9:00 AM • 15 minutes from 9:00 AM to 4:00 PM • 15 minutes from 4:00 PM to 10:00 PM
# of Vehicles	23 vehicles distributed between operating vehicles and back-up double-decker	0	0	24	0
FT 2012	\$95,176	\$64,709	\$5,902	\$1,063	\$1,727
FT 2013	\$1,008,000	\$1,088,413	\$95,006	\$,845,408	

Public Transportation




Fiscal Year	Operating Expenses
FY 2012	\$95,176
FY 2013	\$1,008,000
FY 2014	\$1,088,413
FY 2015	\$95,006
FY 2016	\$,845,408



Public Transportation

City/State	Service Provider	Passengers per Revenue Hour	Cost per Passenger Trip	Cost per Revenue Hour	Passenger Recovery %
Wilmington, NC	Coastal Piedmont Transportation Authority	46,999	\$4.402	\$207.51	34.17%
Fayetteville, NC	Fayetteville Area Council of Transit	36,366	\$3.52	\$128.62	22.02%
Greensboro, NC	Greensboro Transit Authority	26,766	\$3.52	\$94.14	21.29%
Winston-Salem, NC	Winston-Salem Transit Authority	28,500	\$3.29	\$93.57	26.89%
Raleigh-Durham, NC	Research Triangle Regional Public Transportation Authority	14,555	\$51.47	\$750.20	11.40%
Peer Average		36,615	\$3.20	\$87.31	26.09%

- Reasonable cost per revenue hour
- Low ridership affects cost per passenger trip
- Raleigh transitioning to frequency model, half cent sales tax



Public Transportation

Route Type	Weekday Trips	Weekday Boardings	Customers per Service Hour	Cost Recovery	Average Trip Score
Community Routes	205	2,823	13.8	21%	8
Seahawk Shuttle Routes	337	2,073	19.3	70%	18


# of Routes	Community Routes	Seahawk Shuttle
	14 Routes	9 Routes

Service Frequency

- 22 routes have 60-minute frequency
- 8 routes have 30-minute peak frequency and 60-minute off-peak frequency
- 1 route has 15-minute frequency

Seahawk Shuttle

- 7 routes have 30-minute frequency
- 1 route has 15-minute peak frequency and 30-minute off-peak frequency
- 1 route has 10-minute frequency



Roadways

Vision: develop and maintain an effective, efficient, and safe Roadway system

- Projects are prioritized at the state level through the STIP, most recent is Prioritization 5.0, 2020-2029 Draft STIP
- Limited connectivity in the area can make some trips more difficult than necessary (geography, independence blvd)
- Optimized signal timing and operations can reduce congestion
- Alternative intersections roundabouts, DDI, CFI can improve flow through intersections
- Seasonal traffic puts stress on the system
- Alternative funding sources could expedite large projects (ppp, ex I-77)




Roadway

- 1590+ miles local roads
- 964 lane miles NCDOT roads
- 137 bridges in WMPO (Funded by NCDOT Bridge Program)

- System Maintenance**
 - Resurfacing/Washouts
 - Environmental/Landscaping
 - Bridge Program Maintenance
- System Improvements**
 - Congestion
 - Safety
 - Travel Time
 - Connectivity








P.g. 9: Criteria & Measures

ncdot.gov STI Prioritization and Programming Process

Highway Scoring – Eligible Criteria with P5.0 Measures

Criteria	Measures	Existing Conditions	Project Benefits (After Construction)
Congestion	Volume/Capacity + Volume	✓	
Benefit / Cost	(Travel Time Savings + Safety Benefits) / Cost to HCDOT		✓
Safety Score	Critical Crash Rate, Density, Severity, Safety Benefits	✓	✓
Economic Competitiveness	% Change in Jobs + % Change in County Economy		✓
Accessibility/Connectivity	County Economic Indicator, Express Mobility	✓	
Freight	Truck Volume, Truck %, Future Interstate Completion	✓	
Multimodal	Multimodal Benefits		✓
Lane Width	Existing Width vs. Standard Width	✓	
Shoulder Width	Existing Width vs. Standard Width	✓	
Pavement Score	Pavement Condition Rating	✓	





STIP Projects

- Wilmington Bypass (I-140) \$400+ Million (const.)
- Kerr Avenue Widening \$22 Million (const.)
- Military Cutoff Road Extension \$173 Million (const.)
- College Road Improvements \$290 Million
- Independence Boulevard Extension* \$159 Million
- South Front Street Widening \$27 Million
- Hampstead Bypass* \$300+ Million
- Cape Fear Crossing* \$1+ Billion

*WMPO Strategic Business Plan 2017-2022 Target





Signal System

Intelligent Systems Manage:

- Traffic Signals and Preemption Systems
- CCTV Camera Systems
- Variable Message Signs
- Transit Systems




Key Advantages

- Increases Safety
- Reduces Congestion
- Prioritizes Incident Response




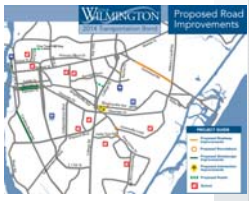





Local Projects: Investments & Bonds

City of Wilmington:

- 2014 Transportation Bond & Infrastructure Investment Program





CAPE FEAR
Moving Forward 2045
METROPOLITAN TRANSPORTATION PLAN

Questions?

- WMPO Transportation System
- System Demand
- Modes
 - Aviation
 - Bicycle & Pedestrian
 - Ferry
 - Freight & Rail
 - Public Transportation
 - Roadway





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MEMORANDUM

To: Citizen Advisory Committee Members
From: Katie Moore, Associate Transportation Planner
Date: December 7, 2018
Subject: 'Environmentally and Socially Responsible' Definition Revision

At the August 8, 2018 meeting the committee discussed the importance of communication to a functional MTP. The CAC directed staff to incorporate communication into the definition of the "Environmentally and Socially Responsible" goal.

Staff recommends adopting the following revised definition:

Accessible, sustainable, and equitable transportation solutions are actively communicated to increase public awareness and collaboration.

Development of the revised goal was guided by ideas brought forward in the August meeting. CAC Members expressed the intent of the revision using the following terms:

- Communication
- Informed community
- Public outreach
- Awareness
- Collaboration
- Knowledgeable

Several definition revisions were developed by staff prior to selecting recommended language. These definitions are provided below as a reference and resource for any continued Committee discussion on the revision.

Goal: Environmentally and Socially Responsible-

A1: Transportation solutions are accessible, sustainable, equitable, and effectively communicated through public outreach.

A2: Transportation solutions are accessible, sustainable, and equitable including the distribution of information to raise awareness and increase community engagement.

A3: Promote accessible, sustainable, and equitable transportation solutions to increase public awareness.

Wilmington Urban Area Metropolitan Planning Organization