



305 Chestnut Street
PO Box 1810
Wilmington, NC 28402
Ph: (910) 341-3258
Fax: (910) 341-7801
www.wmpo.org

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: February 27th, 2019
SUBJECT: March 6th, 2019 meeting

A meeting of the Wilmington Urban Area MPO Citizen Advisory Committee will be held on Wednesday, March 6th, 2019 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 the Agenda
- 3) Approval of Minutes- February 6th, 2019
- 4) Cape Fear Moving Forward 2045 Financial Forecast and Potential Funding Presentation - WSP
Recommended Action: CAC discusses and recommends alternative funding sources to be supported by the WMPO Board
- 5) Cape Fear Moving Forward 2045 Draft Aviation Ranked Projects and Policies
Recommended Action: CAC approval of the Aviation ranked project list and policies
- 6) Next Meeting- Discussion to move to April 10th, 2019
- 7) Adjourn

Attachments:

- Meeting Minutes- February 6th, 2019
- 2045 Financial Forecast Memo
- 2045 Potential Alternative Funding Sources Memo
- Draft Aviation Ranked Projects and Policies

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

Citizens Advisory Committee
6th Floor Conference Room, 320 Chestnut Street
Wednesday, February 6, 2019
Meeting Minutes

Members Present:

Laura Padgett, City of Wilmington
Neal Andrew, North Carolina Board of
Transportation
Web Bostic, New Hanover County
Patrick Boykin, Town of Carolina Beach
David Hollis, Brunswick County
Harold King, Town of Wrightsville Beach
Vanessa Lacer, Cape Fear Public
Transportation Authority
Sallie Rochelle, Pender County
Stuart Smith, Town of Belville
Brayton Willis, Town of Leland

Members Absent:

John Cawthorne, Town of Kure Beach
Valorie Hatten, Town of Navassa
Jason Windham, City of Wilmington

Staff Present:

Katie Moore, Associate Transportation Planner
Zach Manfredi, Associate Transportation Planner
Michael Madsen, GIS Analyst
Mike Kozlosky, Executive Director

Others Present:

Carol Stein, Chair, Bicycle and Pedestrian
Advisory Committee

1. Call to Order

Chairman Padgett called the meeting to order at 2:06 p.m.

2. Approval of Agenda

Mr. Smith made a motion to approve the agenda as presented, seconded by Mr. King, and the motion carried 10-0, unanimously.

3. Approval of Minutes – January 7, 2019

Mr. King made a motion to approve the minutes of January 7, 2019 as amended to correct a typographical error. Mr. Smith seconded the motion, and it carried 10-0, unanimously.

4. Wilmington Urban Area MPO 2045 Travel Demand Model Presentation

Mr. Behshad Norowzi, Coastal Plains Group Supervisor, NCDOT Transportation Planning Unit, gave an overview of the socio economic data forecast for the Wilmington Urban Area Travel Demand Model (TDM). He noted that the goal is to have the model ready for MPO members to use for various project scenarios. He explained that the base year was used to calibrate the model to simulate known traffic volumes. He added that the next major update including Census data from 2020 would be in 2025 and have a 20-year horizon.

Mr. Norowzi stated that the model calculates trips throughout all of New Hanover County, and portions of Pender and Brunswick Counties. The model is comprised of 601 Transportation Analysis Zones (TAZ) of various sizes, inversely related to population density. For the 2045 model, control totals from the Office of the State Budget and Planning were combined with assessments of high, medium and low growth rates for the TAZs confirmed by member jurisdictions. He displayed maps with growth densities and percentages of population and employment data. He noted that an electronic version of this document is available.

Chairman Padgett pointed out that the TDM models vehicular traffic only. Mr. Norowzi responded that the model has a transit component and other advanced modeling has some bicycle and pedestrian traffic. He noted that technology is changing rapidly, and the data is not yet available to quantify it.

A question/answer and discussion period was held. Committee members expressed concerns regarding the accuracy of the population projections.

Mr. Norowzi responded that the projections are dependent on the Census and are consistent with state and have been verified by staff from MPO member jurisdictions using property tax data. He pointed out that the relative changes outweigh the absolute value of the numbers. He requested that members provide feedback to staff to improve the projections.

Mr. Kozlosky stated that MPO staff would work with Citizens Advisory Committee (CAC) and Technical Coordinating Committee (CAC) members and NCDOT, and bring revisions back to the Committee.

5. Cape Fear Moving Forward 2045 Bicycle and Pedestrian Modal Project List Discussion

Chairman Padgett stated that in response to concerns regarding on-road bicycle lanes the Bicycle and Pedestrian Advisory Committee stands by the proposed project list and requests that the Committee approve it.

Ms. Moore acknowledged the presence of Carol Stein, Chair of the Bicycle and Pedestrian Advisory Committee.

Mr. Smith expressed concerns regarding the safety of bicyclists.

Ms. Stein stated that avid cyclists in the metropolitan area have biked on roads with automobiles for many years and are comfortable with that interaction; although, bike lanes would be a significant safety improvement and a benefit to the entire community.

Following a question/answer and discussion period, Mr. King made a motion to approve the Cape Fear Moving Forward 2045 Bicycle and Pedestrian Modal Project List. Mr. Andrew seconded the motion, and it carried 10-0, unanimously.

6. Cape Fear Moving Forward 2045 Draft Ferry and Water Transportation Ranked Projects and Policies

Mr. King made a motion to approve the Cape Fear Moving Forward 2045 Draft Ferry and Water Transportation Ranked Projects and Policies.

In response to inquiries by Committee members, Ms. Moore stated that the Ferry Subcommittee drafted criteria and ranked projects in priority of their benefit. She noted that the list would evolve based on cost estimate and relevance to transportation modes.

Chairman Padgett stated that some public-private projects might be added to the list.

Ms. Moore pointed out that multimodal connectivity was a primary objective and received the most points.

Following further consideration, Mr. Andrew seconded the motion to approve the list, and it carried 10-0, unanimously.

7. Alternative Funding Sources from the 2040 MTP

Ms. Moore stated that alternative funding sources for the last plan, which were presented to the CAC in February of last year, have been included in the agenda packet for informational purposes in preparation for the next meeting. She noted that WSP, the consultant providing the financial analysis of the projects, is scheduled to present an update regarding alternative funding sources for the new plan in March.

Mr. Kozlosky pointed out that this information is intended as homework for members. He noted that WSP will present these and additional funding sources for consideration of what the jurisdictions might support.

Chairman Padgett encouraged members propose additional sources.

A question/answer and discussion period was held. Mr. Kozlosky stated that \$1.3 billion is programmed in the State Transportation Improvement Program (STIP) during the next 10

years in this region, which includes state and federal funds, and about \$60 million from the city. He added that the state provides the matches for the federal projects.

Discussion continued. Ms. Moore reminded the Committee that some of the funding sources are not immediate. For example, referendums require a ballot and public approval.

8. Adjournment

With no further business, the meeting was adjourned at 3:16 p.m.

Respectfully submitted,

Katie Moore
Associate Transportation Planner
Wilmington Urban Area Metropolitan Planning Organization

PLEASE NOTE: THE NEXT MEETING OF THE CAC WILL BE HELD ON MARCH 6TH.

**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.**



MEMO

TO: Mike Kozlosky, WMPO Executive Director
FROM: Leta Huntsinger, PhD, PE, Transportation Planning Lead for the Carolinas
SUBJECT: Moving Forward 2045 – Financial Forecast
DATE: September 6, 2018 (revised February 28, 2019)

PURPOSE

The purpose of this memorandum is to provide an overview of the financial forecast supporting the Wilmington Metropolitan Planning Organization (WMPO) Metropolitan Transportation Plan (MTP): Moving Forward 2045. The financial forecast evaluates current and future fiscal conditions and will serve to guide policy and programmatic decisions.

The Fixing America's Surface Transportation (FAST) Act, signed into law on December 4, 2015, provides ongoing financial certainty for ground-level transportation infrastructure planning and investment. This Act requires a Metropolitan Planning Organization to prepare a long-range plan, such as an MTP, and short-term transportation improvement program (TIP). The Act also requires a financial plan as a part of the MTP. The financial plan shows proposed investments that are realistic in the context of reasonably anticipated future revenues over the life of the MTP. Meeting this test is referred to as "financial constraint" in the MTP.

WMPO's previous financial forecast had a base year of 2015 and projected funding through 2040. This forecast (2015-06-05_CFT2040_Financial_Plan_v25.xlsx) was updated to reflect the latest funding assumptions in support of the 2045 MTP. The sections below detail the process, data and results of this effort.

PROCESS

The base year of the new financial forecast is 2020, and it spans through 2045. The six separate transportation modes – Highway, Bike/Ped, Transit, Ferry, Aviation and Rail – have one worksheet each within the financial forecast spreadsheet. Each mode has two main funding categories – 1. Capital and 2. Operations & Maintenance. Within both categories, separate relevant funding sources are itemized. Category totals and annual totals are provided for each mode. These modes and categories were taken from the initial financial forecast; as they still represent the complete picture of transportation in the Wilmington area, no changes were made. The financial forecasting model (spreadsheet) was updated to reflect new data input years, as well as the new horizon year of 2045.

Efforts were then taken to collect all relevant data – historic and projected. Funding information was gathered from the MPO, other local transportation experts, and numerous online sources.

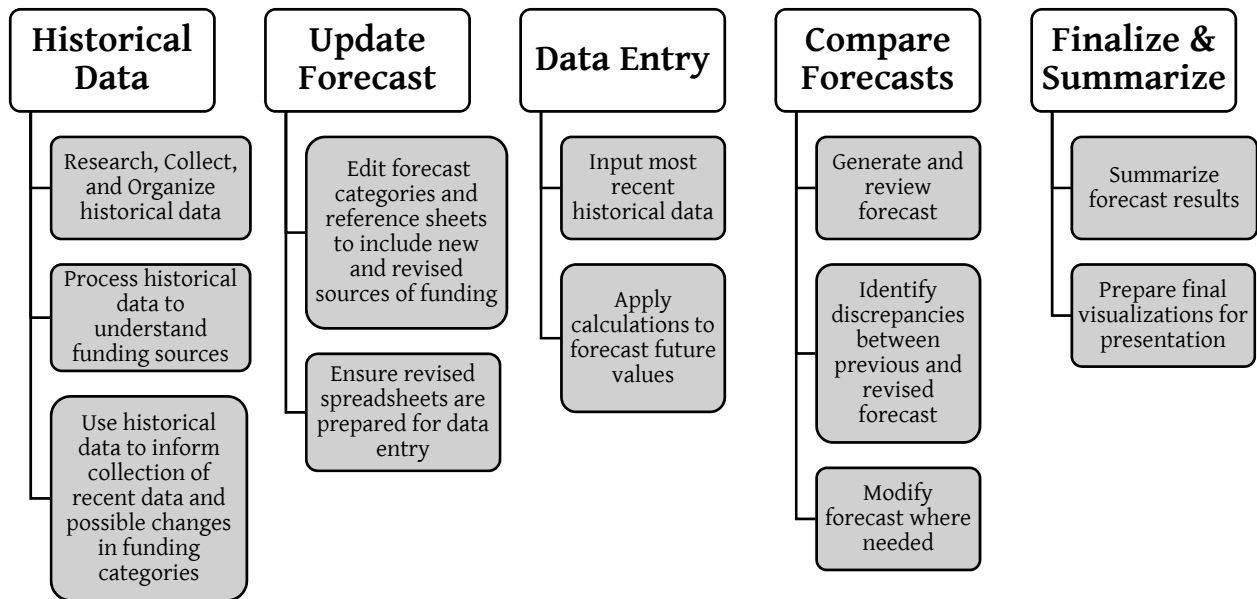
The next step involved synthesizing the data and appropriately categorizing it into the financial forecast. When historical data was available and consistent, an arithmetic average was taken to calculate up the base year, 2020, and an inflation rate was applied to subsequent years. When



historical data was unavailable or inconsistent, the inflation rate was applied to the most recent or reasonably accurate values. The inflation rate was assumed as 3% annually. However, this inflation rate can be adjusted for the entire forecast simply by editing the number in Cell D16 on the first worksheet tab titled, Introduction.

The nature of any forecast includes numerous assumptions and this financial forecast is no exception. All assumptions made for each mode are clarified towards the both of each mode's spreadsheet. These notes include details of where funds originate from, percentages of funding sources allocated to a transportation mode, past expenditures by the City of Wilmington on a particular type of transportation mode, allocations for specific projects within a given mode, and numerous notes on the sources of data.

The following is a visual representation of the process used to complete the forecast.





DATA

The table below lists the funding sources which informed the financial forecast. Additional data was gathered from local experts and websites. This data can be found in the twelve (12) blue worksheet tabs within the financial forecast spreadsheet (**2018_DRAFT_CFT2045_Financial_Plan_v11.xlsx**). And the ABBREVIATIONS worksheet contains useful and explanatory details.

Mode	Funding Source(s)
Highway	State Transportation Improvement Program (STIP) Surface Transportation Program – Direct Allocation (STP-DA) Local Match City of Wilmington GO Bond Operations and Maintenance (DOT Division and Powell Bill)
Bike/Ped	Transportation Alternative Program (TAP), WMPO Share of State Direct Allocation (TAP, STP) Local Match City of Wilmington GO Bond Municipal Operations and Maintenance (Trails, Sidewalks, Bike Lanes)
Transit	Federal Transit Administration Funds (Capital and O&M) State and Local Matches Operations and Maintenance (NDCOT and Local) Passenger Fares
Ferry	Federal Ferry Boat Program Toll Revenues Regional State Transportation Investments State Operations and Maintenance
Aviation	FAA Grant History State Match Wilmington International Airport (ILM) Capital Improvement Plan (CIP) Customer Facility Charge, Passenger Facility Charge Airport Operations and Maintenance Revenues
Rail	Rail Industry Access Program (RAIP) Short Line Infrastructure Assistance Program (SIAP)



RESULTS

This financial forecast can be a robust tool to inform future capital expenditures on transportation in the Wilmington region. Looking at each mode specifically, conclusions can be drawn about funding allocations and how they have changed over time. Comparing the 2040 and the 2045 financial forecasts, we can see that:

- There is a significant increase in Highway Capital funding (66%).
- Bike & Ped Capital funding slightly grew (11%).
- Transit funding will experience the opposite as compared to Highway, as Transit Capital funds declined (-17%).
- Ferry funding slightly grew (10%).
- Aviation Capital funding will remain approximately the same (-1%).
- Lastly, Rail Capital funding is expected to have a substantial decline (-21%).

The table below shows the totals by mode. In total, the Wilmington MPO's financial forecast for Capital funding in 2040, \$2.4 billion, is anticipated to grow by 53%. The 2045 financial forecast for Capital funding is \$3.6 billion. As is the nature of any forecast, one should proceed with a bit of judgement and caution, and figures should be updated when additional data become available. However, this can be a valuable tool for prioritizing MTP projects in the Wilmington region.

Mode	Forecast Capital Funding
Highway	\$3,161,558,000
Bicycle and Pedestrian	\$127,046,000
Mass Transit	\$70,120,000
Ferry	\$41,618,000
Aviation	\$205,726,000
Rail	\$31,736,000
Total	\$3,637,804,000

WILMINGTON TSS STUDY FUNDS

WMPO was awarded \$41.4 million dollars to improve train operation and safety, and to increase train speed. These dollars are a result of the Wilmington TSS study that identified specific at-grade crossing improvements. These dollars are a one-time grant available for rehab on the CSX SE Line to bring the rail from Class 1 to Class 2 FRA track safety designation.



MEMO

TO: Abby Lorenzo, Senior Transportation Planner
FROM: Leta Huntsinger, PhD, PE, Transportation Planning Lead for the Carolinas
CC: Mike Kozlosky, WMPO Executive Director; Sarah Parkins, WSP Transportation Planner
SUBJECT: Moving Forward 2045 – Alternative Funding Plan
DATE: February 28, 2019

PURPOSE

The purpose of this memorandum is to provide an overview of the alternative funding sources available for consideration by the Wilmington Metropolitan Planning Organization (WMPO) in support of their Metropolitan Transportation Plan (MTP) update: Moving Forward 2045. A key requirement of the MTP is that it be fiscally constrained, meaning that the cost to implement the plan cannot exceed the level of funding considered to be reasonably available for the region. The process for determining fiscal constraint typically starts with the development of a financial forecast from existing sources. This process is documented for Moving Forward 2045 in a technical memorandum titled “Moving Forward 2045 – Financial Forecast”. This financial forecast is then compared against the cost to meet the transportation needs of the MPO as identified through a systems analysis, and associated cost estimates for the region. It is nearly always the case that the cost for meeting those needs exceeds the funding available in the financial forecast, creating a gap between the needs of the region and available resources. In this case, an alternative funding plan can be developed to help close that gap. For the final MTP, the MPO must select and prioritize projects within the available funding as identified by the financial forecast combined with the alternative funding plan. If forecast funds are still not sufficient to fund all the key projects identified for the region, the MTP can include illustrative projects, or projects that could be included in the fiscally constrained plan if new funding sources are identified. These illustrative projects do contribute to the MPO’s longer-term transportation plan, and give local governments the ability to conduct planning studies, while at the same time exploring opportunities for new funding. A good example of this is the application of grant monies that may have not previously been a part of the MPO’s funding plan.

APPROACH

The first step in the development of the alternative funding plan was a review of funding sources recommended in the previous MTP, including an assessment of which recommendations had been implemented. The WMPO 2040 MTP “Cape Fear Transportation 2040” which was adopted on November 18, 2015 included six sources of alternative funding, for a total of \$505 million dollars to help close the gap between project needs and funds available through traditional funding sources. The alternative funding sources included in the 2040 MTP include: Quarter-Cent Local Option Sales Tax, Quarter-Cent Local Option Sales Tax for Transit, Vehicle Registration Fee, Motor Vehicle License Tax, Vehicle Rental Tax, and Statewide Auto Part Tax.



The next step in the development of the alternative funding plan was a review and evaluation of potential funding sources, including consideration of those outside the standard toolbox, but implemented (or being considered) for other North Carolina communities. This review and evaluation included a review of the literature, research into what other North Carolina MPOs are doing, and conversations with Subject Matter Experts, including an expert in finance law from the University of North Carolina School of Government. This process was used to narrow the universe of funding options to those identified as likely sources for the WMPO. The final selected sources were further evaluated based primarily on legal feasibility, the types of projects that can be funded, and a general expectation of funding generated. This section provides a summary of each potential funding source considered, categorized by funding type. Table 1 summarizes each of the sources by the criteria listed above.

TAX

Quarter-Cent Local Option Sales Tax - The local option sales tax is implemented at the county level and typically requires a voter referendum. On May 4th, 2010, New Hanover County voters approved the quarter-cent sales tax referendum, and the tax took effect on October 1st, 2010. In 2014, Brunswick county voters rejected the quarter-cent sales tax referendum. Pender county has not attempted a voter referendum for the quarter-cent sales tax. This tax does not apply to groceries, prescriptions drugs, gasoline, automobile purchases, and utilities. Sales tax revenues can be used to fund any county-maintained service.

Quarter-Cent Local Option Sales Tax for Transit - Like the quarter-cent local option sales tax, the quarter-cent local option sales tax for transit is implemented at the county level and requires a voter referendum and county approval. Only counties that operate public transportation systems can consider this tax, and the revenues must be used to finance, construct, operate, and maintain the transit system. Improvements eligible for funding through this revenue source can also include projects supportive of the transit system, such as supporting bicycle and pedestrian infrastructure and signal system improvements. None of the counties within the WMPO region have adopted a quarter-cent local option sales tax for transit.

Vehicle Registration Fees - N.C. G.S. 105-570 enables county vehicle registration taxes. These taxes can be used to fund the financing, construction, operation, and maintenance of transit. Following a successful vote by the board of county of commissioners, a county that operates a transit system can charge a maximum of \$7 for every registered vehicle with some exceptions.

Motor Vehicle License Tax - Municipalities can levy an annual general motor vehicle tax up to \$30 based on N.C. G.S. 20-97. No more than \$5 of this tax can be used for general purpose, and additionally no more than \$5 of the tax may be used for the financing, constructing, operating, and maintaining of local transportation systems. The remainder of the tax may be used for maintaining, repairing, construction, reconstructing, widening, or improving public streets in the city or town that do not form part of the State highway system.



Vehicle Rental Tax - Counties in North Carolina can levy taxes on the gross receipts of passenger vehicle rentals at the rate of 1.5%, per N.C. G.S. 153A-156. Rented passenger vehicles to be taxed include traditional passenger vehicles, cargo vehicles, and trailers and semitrailers. Rentals of heavy equipment, defined as earthmoving, construction, or industrial equipment that is mobile and weighs at least 1,500 pounds, can be taxed at 1.2% per N.C. G.S. 153A-156.1.

Tolling (new construction) - Toll fees are direct charges to road users who have chosen to use the toll facility. The Turnpike Authority was created via N.C. G.S. 136-89, and is authorized to study, plan, develop, construct, operate, and maintain up to nine projects, which currently include the Triangle Expressway (complete), I 540 Triangle Expressway Southeast Extension (in-development), Monroe Bypass (complete), Mid-Currituck Bridge (in-development), and Cape Fear Crossing (in-development). The Cape Fear Crossing project is an approximately 9.5-mile proposed toll road from the US 17 Bypass in Brunswick County to US 421 near Wilmington.

GRANT AND LOAN PROGRAMS

GARVEE - Grant Anticipation Revenue Vehicles include any bond, note, certificate, mortgage, lease or other debt financing instrument issued by a state or local government whose principal and interest are repaid primarily with Federal-aid funds. The principal and interest are paid back with future federal highways or transit funds. This method can be used for most highway projects, transit projects, purchasing of transit vehicles or connections to intermodal ports and stations.

Private Activity Bonds (PABs) - PABs are tax-exempt bonds issued by or on behalf of a local or state government to provide special financing benefits to qualified projects. They work as municipal bonds that attract private investment to projects with public benefits. They attract businesses and labor to a region to drive public benefit, which would qualify the bond for tax-exempt status.

Transportation Infrastructure Finance and Innovation Act (TIFIA) loan program - TIFIA's provide Federal credit assistance for projects meeting certain criteria for regionally or nationally signification projects. The program is intended to expedite projects by giving sponsors access to assistance through direct loans, loan guarantees or lines of credit. Up to 33% of project costs can be assisted through TIFIA and projects must be supported partially with user charges or other non-federal funding sources. For a small project, the grant must be at least \$5 million. An INFRA grant may not exceed 60% of the total eligible project costs. An additional 20% of project costs may be funded with other Federal assistance, bringing total Federal participation in the project to a maximum of 80%.

State Infrastructure Banks (SIBs) - This program provides a revolving fund mechanism that finances highway and transit projects through direct loans with attractive interest rates. The revenues from repayment and interest are used to fund additional loans. They are capitalized initially from a variety of funding sources, using up to 1% of state-federal highway and transit capital funds and matching funds equal to 25% of all federal funds used for SIBs. These funds allow large transportation projects to be funded up front and for accelerated construction schedules. North Carolina does not currently have an active SIB, but South Carolina has been very successful and has provided the highest level of financing of any SIB in the nation.

Railroad Rehabilitation and Improvement Financing (RRIF) - Under this program, the Department of Transportation is authorized to provide direct loans and loan guarantees up to \$35.0 billion to



finance development of railroad infrastructure. Not less than \$7.0 billion is reserved for projects benefiting freight railroads other than Class I carriers. This project supports acquiring, improving, or rehabilitating intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings, and shops, and including the installation of positive train control systems; developing or establishing new intermodal or railroad facilities; reimbursing planning and design expenses relating to activities listed above; refinancing outstanding debt incurred for the purposes listed above; and financing transit-oriented development (credit assistance only available until December 4, 2019).

Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grant program – Previously known as TIGER Discretionary Grants, BUILD allows project sponsors at the State and local levels to obtain funding for multi-modal, multi-jurisdictional projects that are more difficult to support through traditional DOT programs. BUILD can fund road, rail, transit and port projects that promise to achieve national objectives. USDOT uses a rigorous merit-based process to select projects with exceptional benefits, explore ways to deliver projects faster and save on construction costs, and make needed investments in infrastructure.

Consolidated Rail Infrastructure and Safety Improvement Grants Program (CRISI) – This program assists with financing passenger and freight rail system improvements to achieve safety, efficiency, and reliability benefits. The Federal Railroad Administration considers CRISI funding for intercity passenger rail service, to reduce rail congestion and to improve short-line and regional rail infrastructure; projects to enhance passenger or freight multimodal connections; and other safety improvements, including the deployment of non-PTC safety technology.

Capital Investment Grants (CIG) – This is FTA’s primary grant program to fund major transit capital investments including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. There is no annual call for applications and projects seeking CIG funding must complete a series of steps over several years to be eligible. For New Starts projects the total project cost is equal to or greater than \$300 million or total New Starts funding sought equals or exceeds \$100 million.

Passenger Ferry Grant program – This program provides competitive funding for projects that support passenger ferry systems through the Federal Transit Administration. Funds are awarded based on factors such as the age and condition of existing ferry boats, terminals and related infrastructure; benefits to riders, such as increased reliability; project readiness; and connectivity to other modes of transportation.

FINANCING

Transportation Bonds – Transportation bonds require voter approval and allow municipalities to sell bonds to investors, generating funds for transportation projects sooner. Authorized under N.C. G.S. 159-43, the investors are typically paid back via a property tax increase. Transportation bonding is a common funding mechanism that has been successful in North Carolina.

Revenue bonds – These are bonds which are paid back by user-generated revenues. N.C. G.S. 159-81 (1)(e) allows revenue bonds to be utilized for public transportation systems, facilities, or equipment including but not limited to bus, truck, ferry, and railroad terminals, depots, trackage, vehicles, and ferries, and mass transit systems.



General Obligation bonds – These bonds are backed by the full faith and credit of the borrower, and therefore is paid back by any revenue source. All capital projects can be financed with general obligation bonds, but voter approval is typically needed.

Special Assessment Districts – Special assessment districts are districts that are established within a municipality for the purposes of funding infrastructure projects that directly benefit the properties located within the assessment district. Charges are levied on properties located within the assessment district to cover the costs of those projects. Funds generated can be used to fund the capital costs of streets and sidewalks which may include the acquisition of property, construction, expansion, and improvement of real property. A vote of the affected landowners is required by the North Carolina General Statutes.

Transportation Impact Fees - Contributions made to a local government by the developer to fund off-site capital improvements needed to accommodate future growth. Local government must have authority to impose the fees as a condition of development approval, and the design and implementation of impact fee requirements must not be unfair, arbitrary, unreasonable or without rational basis. A local bill passed by the state’s General Assembly is needed to grant permission for impact fees to municipalities.

Tax Increment Financing (TIF) – TIF utilizes the value generated in developments surrounding new infrastructure to repay bonds issued for the project. The local government chooses an area as a TIF district, creates a development plan to be approved by the statewide commission, and if approved the value of all property in the district is measured to create a base valuation. As the property tax increases, due to increased land value, the base valuation captures the amount of property tax directed to the general fund and any additional tax revenue is used to pay off the bond. Under North Carolina law, local government units—both counties and municipalities—may designate TIF districts and issue debt instruments to fund improvements within them. TIF funds may be used only for projects that enable, facilitate, or benefit private development within the development financing district, the revenue increment of which is pledged as security for the debt instruments.

Maintenance of effort funds (MOE) – These funds establish financial mandates on local revenues or monies in the expenditure budget for the local government that establish a minimum contribution of funds for specific projects, regardless of whether state (or federal) funds are received in support of the project. In this way, MOE requirements prevent local governments from substituting state (or federal) funds for local revenues as state (or federal) funding increases. The rationale behind establishing and MOE is to ensure the additional funds provided by state (or federal) funding sources are not used to offset spending levels previously supported by local revenue.



Table 1 - Description of Funding Sources

Funding Source		Legal Feasibility	Types of Projects Funded	N.C. Examples	Funding Expectations
Tax	Quarter-Cent Local Option Sales Tax	N.C. G.S. 105-44 allows implementation at county level, requires a voter referendum	Any county-maintained service	New Hanover County (approved 2010); Rejected in Brunswick County (2014); Untested in Pender County	\$225.4 M*
	Quarter-Cent Local Option Sales Tax for Transit	N.C. G.S. 105-44 allows implementation at county level, requires a voter referendum and county approval	Financing for construction, operation, and maintenance of transit	Mecklenburg County; Orange County; Durham County; Wake County	\$207 M*
	Vehicle Registration Fees	N.C. G.S. 105-570 enables county vehicle registration taxes up to \$7	Financing for construction, operation, and maintenance of transit	Durham, Orange, Randolph and Wake Counties	\$23 M*
	Motor Vehicle License Tax	N.C. G.S. 20-97 allows annual general motor vehicle tax up to \$30	\$5 for general purpose, \$5 for the financing, constructing, operating, and maintaining of local transportation systems. \$20 for public streets	None identified	\$10.6 M*
	Vehicle Rental Tax	N.C. G.S. 153A-156 enables county tax on passenger vehicle rentals	N/A	None identified	\$43.7 M*
	Tolling	N.C. G.S. 136-89 created Turnpike Authority and allows tolling on new construction	New construction toll facility	Triangle Expressway; I 540 Triangle Expressway Southeast Extension; Monroe Bypass; Mid-Currituck Bridge; Cape Fear Crossing	Project specific (estimated revenue available at end of March for Cape Fear Crossing)



Funding Source		Legal Feasibility	Types of Projects Funded	N.C. Examples	Funding Expectations
Grant and Loan Programs	Grant Anticipation Revenue Vehicles (GARVEE)	Federal grant	Most highway projects, transit projects, purchasing of transit vehicles or connections to intermodal ports and stations	Portions of 38 Construction Projects (\$287 m.); Group 44 Projects (\$242 m); Monroe Connector (\$145 m); 49 Projects (\$179 m); 60 Projects (\$264 m); Advance Refunded Series (\$224 m)	Project specific
	Private Activity Bonds (PABs)	Federal tax-exempt bond	Qualified highway or surface freight transfer facilities	I-77 Managed lane (\$100 million)	Project specific
	Transportation Infrastructure Finance and Innovation Act (TIFIA) loan program	Federal credit assistance	Highway projects and transit capital projects	Triangle Expressway (\$387 M); I-77 HOT Lanes (189 M); CATS LYNC Blue Line Extension (180 M); Monroe Expressway (166.5 M)	Major requirements include a capital cost of at least \$50 million (or 33.3% of a state's annual apportionment of Federal-aid funds, whichever is less)
	State Infrastructure Banks (SIBs)	N.C. G.S.136-277	Used to cover transit local match requirements	None identified	Repayment varies based on size of loan: Less than \$2 mil – 3 yrs; \$2-\$5 mil – 5 yrs; \$5-\$10 mil – 10 yrs; Over \$10 mil – 30 yrs
	Railroad Rehabilitation and Improvement Financing (RRIF)	Federal loan program	Intermodal or rail equipment or facilities; and Finance transit-oriented development	None identified	Recent executed loan agreements: Dallas Area Rapid Transit, \$908m; Port of Everett, \$6m; Massachusetts Bay Transportation Authority, \$220m
	Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grant program	Federal grant program	Road, rail, transit, and port projects	NC Rural Bridge Improvement Project (\$23 M); Hickory Reconnected Through Transportation Infrastructure Investment (\$17 M); Raleigh Union Station Phase II: RUS Bus (\$20 M)	\$5 million minimum award urban projects, \$1 million minimum for rural projects



	Funding Source	Legal Feasibility	Types of Projects Funded	N.C. Examples	Funding Expectations
Grant and Loan Programs	Consolidated Rail Infrastructure and Safety Improvement Grants Program (CRISI)	Federal grant program	Passenger and freight rail system improvements	None identified	The Federal share of total costs for projects funded under this notice will not exceed 80%
	Capital Investment Grants (CIG)	Federal grant program	Light rail, heavy rail, commuter rail, streetcar, and bus rapid transit projects	Chapel Hill North-South BRT (\$77-84 M); LYNX Blue Line Extension – North Carolina Corridor (\$580 M); Durham-Orange Light Rail Transit (\$1,238 M)	Total project cost is equal to or greater than \$300 million or total New Starts funding sought equals or exceeds \$100 million
	Passenger Ferry Grant	Federal grant program	Passenger ferry systems	None identified	The federal share is not to exceed 80% of the net project cost for capital expenditures.
Financing	Transportation Bonds	N.C. G.S. 159-43 authorizes transportation bonds, requires voter approval	Public transportation systems, including but not limited to bus lines, ferries, and mass transit systems	None identified	Project specific
	Special Assessment Districts	N.C. G.S.160A-216 authorizes special assessment districts, requires vote by affected landowners	Capital costs of streets and sidewalks	Hillsborough (Waterstone development); Mooresville (commercial development)	Project specific
	Transportation Impact Fees	N.C. G.S. 160A-372 (municipalities) and N.C. G.S. 153A-331 (counties)	Rights-of-way or easements for street and utility purposes	None identified	Project specific
	Tax Increment Financing	N.C. G.S. 159-101	Public transportation systems, including but not limited to bus lines, ferries, and mass transit systems	None identified	Project specific
	Maintenance of Effort Funds (MOE)			City of Charlotte, Mecklenburg County, and the Town of Huntersville (\$18.6 M)	Funded by Pay-As-You-Go revenues.

* Funding expectation from the 2040 plan projections



RECOMMENDATIONS

This section summarizes the alternative funding sources recommended for the 2045 MTP alternative funding plan. The selection of sources for inclusion in the plan was driven in large part by the criteria that fiscal constraint be based on funding considered to be reasonably available for the region. A secondary consideration was the selection of sources where the future funding was thought to be more predictable. When funding is more predictable, the community is in a better position to deal with planned growth, address congestion, improve safety, and budget wisely. The recommendations presented here do not include potential grants or project specific revenue sources. This does not imply that these sources are not desirable, and should not be pursued by the WMPO, but more so that they are too project specific and uncertain to be considered as part of the alternative funding plan.

The following alternative funding sources are recommended to help close any potential funding gap for Moving Forward 2045:

- Quarter-Cent Local Option Sales Tax (\$225.4 million forecast for 2040 MTP)
- Quarter-Cent Local Option Sales Tax for Transit (\$207 million forecast for 2040 MTP)
- Vehicle Registration Fees (\$23 million forecast for 2040 MTP)
- Motor Vehicle License Tax (\$10.6 million forecast for 2040 MTP)
- Vehicle Rental Tax (\$43.7 million forecast for 2040 MTP)



305 Chestnut Street
PO Box 1810
Wilmington, NC 28402
Ph: (910) 341-3258
Fax: (910) 341-7801
www.wmpo.org

MEMORANDUM

To: Citizen Advisory Committee Members
From: Zachary Manfredi, Associate Transportation Planner
Subject: Aviation Ranked Projects and Policies

Preliminary Ranking of Proposed Aviation Projects

1.	Expand Air Carrier Auto Parking	Parking	A-21
2.	Rehabilitate Runway 6-24 and Taxiway B	Runway/Taxiway	A-22
3.	Perimeter Road Development (Phase II)	Safety	A-23
4.	Overlay Airport Boulevard, Building Circulation, and Surrounding Roadways	Overlay/Repair	A-25
5.	Perimeter Road Improvements	Safety	A-33
6.	2nd GA Hangar Aircraft Taxi Lane (North GA #2)	Hangar	A-36
7.	Airline and Customs Apron- Clean/Seal Joints and Repair Pavements	Overlay/Repair	A-24
8.	Runway 17/35 Extension and Safety Area Improvements	Safety	A-29
9.	Roadway 17/35 Taxiway System Maintenance, Overlay, and Widening	Overlay/Repair	A-31
10.	1st Paved Aircraft Taxi Lane (East Ramp Lane #1)	Runway/Taxiway	A-39
11.	GA Apron Development Phase II	Runway/Taxiway	A-7
12.	Extend Runway 24- Phase II of IV	Runway/Taxiway	A-14
13.	Northside FBO #2 GA Apron and Hangar Development (Phase I)	Hangar	A-26
14.	Apron Maintenance	Runway/Taxiway	A-19
15.	Upgrade Visual Approach Aids and Runway Lighting	Safety	A-30
16.	Runway 35 Wind Cone/PAPI Replacement	Instrument	A-37

Wilmington Urban Area Metropolitan Planning Organization

17.	Land Acquisition for ASR Site Relocation	Land Acquisition	A-18
18.	Emergency Boat Ramp Access Launch Rwy 6	Runway/Taxiway	A-38
19.	Map Utilities and Provide Geographic Information System (GIS) Airport Interface	GIS	A-27

Subcommittee Recommendation for 2045 Aviation Policies

- A. Support ILM operations and equitable infrastructure improvements identified in ILM master plan.
- B. Identify and assist ILM in expansion of services and direct routes that benefit the region's target industries and public users.
- C. Improve access to and from ILM for all modes of transportation in coordination with local, state, and federal agencies.
- D. Identify, promote, and market the aviation related business opportunities of ILM.
- E. Support the incorporation of new and innovative transportation technologies to and within ILM.

Scoring Methodology for Ranking Aviation Projects

Scale	Goal	Criteria:	Attribute:	Score
15	Economic Development	Business park improvements	Improvements that have a positive impact on the business park	10
		improve international/domestic trade and commerce facilities	Project increases efficiency or infrastructure of commerce facilities	5
		General Aviation Improvements	Projects that improve general aviation operations	10
25	Regional Accessibility	runway and taxiway/ taxi lane improvements and expansion	Expansion or improvement of runway or taxiway at ILM	10
		roadway improvements leading and within airport	Improvements to parking, roads, and intersections around ILM	10
		general aviation apron, hangar, and facility improvements	Projects that specifically make improvements to general aviation apron hangar and facilities	5
50	Physical Infrastructure	apron and taxiway expansion or maintenance	Project expands or maintains aprons or taxiways at the airport	10
		parking expansion and maintenance	Project expands or improves parking at ILM	10
		improvements to commercial runway	Project improves runways specifically	10

		commercial aviation improvements	Project Makes improvements specifically to commercial aviation	10
		General aviation improvements	Project Makes improvements specifically to general aviation	10
		Safety Improvements	Project improves safety through technology, visibility, or security of ILM property	10
5	Modal Integration	improve access to cargo facilities or capacity	Project improves efficiency or facilities related to cargo	5
5	Coordination with ILM's long range planning and prioritization	real estate purchase to maintain access and expand facilities	Expansion of ILM property through real estate purchase for future facilities	5
		Support GIS Integration	Projects uses GIS to map utilities and facilities at ILM	5

To create a ranked list of the proposed Aviation projects, the subcommittee developed criteria by assigning a value to objective attributes with identifiable and measurable metrics. To maintain transparency of the process, it was important that metrics were data driven. This process should allow for replication of point assignments using available quantitative and qualitative datasets.

Aviation projects were awarded the score value based on a “yes/no” or “presence/absence” judgement after reviewing the project scope and description developed by the subcommittee. Projects meeting the metric of any single attribute or combination of multiple attributes listed for a given criteria qualify for the points assigned.

Point totals were used to sort projects into a ranked list. 125 points were potentially available for all projects, the total score of each project was normalized to create a ranked list. The ranked list will need to be further evaluated and revised based on funding eligibility and regional needs.

The subcommittee recognized the importance of future analysis through the NCDOT Prioritization process and potential for project refinement by WMPO jurisdictions, partners, and community stakeholders.